

Contract No.: HHS-100-01-0002
MPR Reference No.: 8782-130



**The Experiences of SCHIP
Enrollees and Disenrollees in
10 States: Findings from the
Congressionally Mandated
SCHIP Evaluation**

October 31, 2005

*Genevieve Kenney
Christopher Trenholm*

*The Urban Institute
Mathematica Policy Research, Inc.*

with

*Lisa Dubay
Myoung Kim
Lorenzo Moreno
Jamie Rubenstein
Anna Sommers
Stephen Zuckerman
William Black
Fredric Blavin
Grace Ko*

*The Urban Institute
Mathematica Policy Research, Inc.
Mathematica Policy Research, Inc.
The Urban Institute
The Urban Institute
The Urban Institute
Mathematica Policy Research, Inc.
The Urban Institute
The Urban Institute*

Submitted to:

Rob Stewart
U.S. Department of Health and Human Services
Office of the Secretary
Assistant Secretary for Planning and Evaluation
Room 442E, HHH Building
200 Independence Avenue, SW
Washington, DC 20201

Submitted by:

Mathematica Policy Research, Inc.
P.O. Box 2393
Princeton, NJ 08543-2393
(609) 799-3535
and
The Urban Institute
2100 M Street, NW
Washington, DC 20037
(202) 833-7200

Project Officer:
Rob Stewart

Project Director:
Judith Wooldridge

ACKNOWLEDGMENTS

In preparing this report, we received support and assistance from many people. We would first like to thank the individuals involved with the collection and processing of the survey data on which this report is based: Welmoet van Kammen, who directed the survey, her assistant Barbara Schiff, and the many other staff who assisted in developing the survey instrument and conducting the survey interviews; Brenda Cox, who developed the sampling design; Frank Potter, who led the sampling and weight development, and his assistant Mourad Touzani; Amy Zambrowski, who tirelessly processed all of the administrative files from the states on which the sampling and elements of the analysis are based; and Tim Novak, who conducted a thoughtful cleaning and reconciliation of the initial survey data files. We also wish to thank the skilled programmers and research assistants who assisted us with the analysis of the survey and administrative data files: Ece Kalay, Stephanie Chin, and Carol Razafindrakoto at Mathematica Policy Research and Matthew Fragale, John Graves, Justin Yee, and Alexandra Tebay at the Urban Institute. We also are grateful to the production staff: Cindy McClure, who adeptly produced the report with assistance from Jennifer Chiamonti, Jill Miller, and William Garrett; and Patricia Ciaccio, who provided skilled editorial support, with assistance from Roy Grisham. Any errors or omissions in this report are the sole responsibility of its authors.

Many people provided critical review and comments on the report, for which we are also grateful. Judith Wooldridge, the study director, provided thorough and thoughtful reviews of the report throughout; Margo Rosenbach provided an independent review of the full report and a number of valuable insights and comments that are reflected in this final version; Ian Hill provided insights and comments on elements of the report and on individual state policies; and John Holahan and Embry Howell provided very helpful advice and guidance at many stages of the process.

Many current and former staff from the office of the Assistant Secretary for Planning and Evaluation also provided critical comments on the report and other support to this evaluation, for which we are grateful. We especially wish to thank Rob Stewart, our project officer, Barbara Richards, and Jennifer Babcock, for extremely valuable reviews of earlier drafts. We also thank their colleagues, Stephen Finan, Tanya Alteras, Julia Paradise, Adelle Simmons, and Caroline Taplin for their support. In addition, we thank the members of the Technical Advisory Panel for their evaluation, which provided early input on the design of the survey and proposed analysis.

Finally, we gratefully acknowledge the assistance from state and contractor staff in acquiring and processing state enrollment data, which was crucial not only to this report but to the evaluation as a whole. The names of these individuals are presented below:

California	Colorado	Florida	Illinois	Louisiana
Sandra Shewry Gurmeet Hajrah Gene Hiehle Michael K. Fitzwater	Barbara Ladon Jonathan Harner Al Hawker Al Moore Nathan Nelson Ha Hoang	Nancy Ross Betsy Shenkman Rose Naff	Jane Longo Vicki Mote Kelly Carter Marsha Eiter Roderick R. Spurbeck	Ben Bearden Ruth Kennedy Joan Carmouche Robynn Schifano Rosie Shreve Regina Francise
Missouri	North Carolina	New Jersey	New York	Texas
Greg Vadner Pamela Victor Richard Koon Melanie Berhost Shelley Farris Julie Creach Jan Johnson William Gibson	June Milby Patricia Slaughter Frances Ochart	Heidi Smith Nancy Scarlata Pat Stolpe Michael Chiofolo Michelle D. Walsky Patrick J. Gallagher	Judith Arnold Ralph Bielefeldt Susan Kahler	Jason Cooke Gary Young Randy Fritz

CONTENTS

Chapter	Page
EXECUTIVE SUMMARY	xix
I INTRODUCTION	1
A. REPORT OVERVIEW.....	2
B. DESCRIPTION OF SCHIP ENROLLEES AND DISENROLLEES	5
1. SCHIP Serves a Diverse Group of Children	6
2. SCHIP Enrollee Populations Vary Across the 10 States.....	10
3. Most SCHIP Enrollees Were Uninsured at Least Briefly Before Enrolling.....	11
4. Access and Use Before Enrolling in SCHIP Vary with Insurance Status	13
5. Families Had Positive Experiences with the SCHIP Enrollment Process.....	16
6. SCHIP Meets the Primary Health Care Needs of Most Children Who Enroll	21
7. More than Half of SCHIP Disenrollees Were Subsequently Insured Through Public Programs	33
APPENDIX: CHAPTER I SUPPLEMENTAL TABLES	39
II ANALYSIS OF RECENT ENROLLEES: VARIATIONS IN THE EXPERIENCE OF FAMILIES ENROLLING IN SCHIP	45
A. ENROLLMENT EXPERIENCES ACROSS KEY DEMOGRAPHIC SUBGROUPS.....	49
1. Differences by Race/Ethnicity and Language	49
2. Differences by Parents' Education.....	50
3. Differences by Family Structure and Employment.....	51
4. Differences by Household Income.....	52
B. ENROLLMENT EXPERIENCES BY PRIOR COVERAGE	53
C. ENROLLMENT EXPERIENCE ACROSS STATES	56
D. DISCUSSION.....	59
APPENDIX: CHAPTER II SUPPLEMENTAL TABLES.....	61

CONTENTS *(continued)*

Chapter	Page
III	ANALYSIS OF ESTABLISHED ENROLLEES: VARIATION IN ACCESS AND USE ACROSS SUBGROUPS AND STATES.....69
	A. VARIATION BY RACE/ETHNICITY AND LANGUAGE74
	B. VARIATION BY AGE OF THE CHILD81
	C. VARIATION BY EDUCATIONAL ATTAINMENT OF PARENT81
	D. VARIATION BY HEALTH STATUS OF THE CHILD88
	E. VARIATION BY URBAN/RURAL LOCATION91
	F. VARIATION BETWEEN ESTABLISHED ENROLLEES AND DISENROLLEES91
	G. IMPACTS OF CO-PAYMENTS92
	H. VARIATION BY STATE99
	I. SUMMARY105
	APPENDIX: CHAPTER III SUPPLEMENTAL TABLES107
IV.	ANALYSIS OF LENGTH OF SCHIP ENROLLMENT AND TIME TO REENROLLMENT119
	A. ANALYTIC APPROACH120
	B. ANALYSIS OF THE LENGTH OF SCHIP ENROLLMENT121
	1. Differences in Lengths of Stay, by Demographic Groups123
	2. Differences in Lengths of Stay, by State.....125
	C. ANALYSIS OF THE TIME TO REENROLLMENT130
	1. Time to Reenrollment, by Demographic Groups131
	2. Time to Reenrollment, by State.....133
	D. SUMMARY AND DISCUSSION133
V.	ANALYSIS OF DISENROLLEES: VARIATION IN COVERAGE AMONG CHILDREN WHO LEAVE SCHIP137
	A. COVERAGE DIFFERENCES ACROSS KEY DEMOGRAPHIC GROUPS141
	1. Variation, by Race/Ethnicity and Language141

CONTENTS (continued)

Chapter	Page
V (continued)	
2. Variation, by Age	143
3. Variation, by Urban/Rural Location.....	144
4. Variation, by Education.....	145
5. Variation, by Household Structure and Employment	145
6. Variation, by Household Income	146
B. VARIATION IN COVERAGE ACROSS STATES.....	147
C. SUMMARY.....	154
APPENDIX: CHAPTER V SUPPLEMENTAL TABLES.....	157
VI. THE RELATIONSHIP BETWEEN SCHIP AND PRIVATE COVERAGE AMONG SCHIP ENROLLEES	167
A. PREVIOUS RESEARCH ON SUBSTITUTION OF SCHIP	172
B. METHODS.....	177
C. HEALTH INSURANCE COVERAGE BEFORE ENROLLMENT	182
D. ESTIMATES OF POTENTIAL SUBSTITUTION AMONG ESTABLISHED ENROLLEES	186
E. STATE VARIATION IN SUBSTITUTION.....	192
F. SUMMARY.....	193
VII THE IMPACTS OF SCHIP ON ACCESS TO, AND USE OF, CARE.....	195
A. INTRODUCTION	195
B. METHODS.....	197
C. RESULTS.....	207
1. Impact of SCHIP Enrollment on Access and Use.....	210
2. Sensitivity Analyses on Impact Estimates	215
3. Impacts Relative to Being Uninsured Before Enrolling, by Subgroup	216
D. SUMMARY.....	229
APPENDIX: CHAPTER VII SUPPLEMENTAL TABLES.....	233

CONTENTS *(continued)*

Chapter	Page
VIII EXPERIENCES OF MEDICAID AND SCHIP ENROLLEES IN TWO STATES.....	239
A. COMPARISON OF MEDICAID AND SCHIP ENROLLEES.....	242
B. EXPERIENCE WITH SCHIP AND MEDICAID ENROLLMENT PROCESSES.....	245
C. THE RELATIONSHIP BETWEEN MEDICAID/SCHIP AND PRIVATE COVERAGE.....	251
D. ACCESS AND USE EXPERIENCES UNDER MEDICAID AND SCHIP.....	255
1. Access and Use Experiences Under Medicaid.....	256
2. Impacts of Medicaid on Access to, and Use of, Care.....	258
E. COMPARISON OF ACCESS AND USE BETWEEN MEDICAID AND SCHIP ENROLLEES.....	262
F. SUMMARY.....	266
APPENDIX: CHAPTER VIII SUPPLEMENTAL TABLES.....	269
REFERENCES.....	279

TECHNICAL APPENDIXES ARE BOUND SEPARATELY

APPENDIX A: SURVEY INSTRUMENT

APPENDIX B: METHODS FOR CONDUCTING THE 2002 CONGRESSIONALLY MANDATED SURVEY OF SCHIP ENROLLEES AND DISENROLLEES IN 10 STATES AND MEDICAID ENROLLEES AND DISENROLLEES IN 2 STATES

APPENDIX C: METHODS USED TO CONDUCT THE ANALYSIS OF SCHIP ENROLLEES AND DISENROLLEES IN 10 STATES

TABLES

Table	Page
I.1	CHARACTERISTICS OF STATE SCHIP PROGRAMS, 20023
I.2	SURVEY DATA: CONTENT COVERED BY SURVEY GROUP.....5
I.3	CHARACTERISTICS OF SCHIP ENROLLEES' HOUSEHOLDS7
I.4	HEALTH STATUS OF ENROLLEES.....8
I.5	CHARACTERISTICS OF SCHIP ENROLLEES AND THEIR PARENTS9
I.6	ACCESS AND USE OF RECENT ENROLLEES IN THE 6 MONTHS BEFORE SCHIP ENROLLMENT14
I.7	INSURANCE COVERAGE OF SCHIP DISENROLLEES, BY TIME SINCE PROGRAM EXIT34
II.1	CHARACTERISTICS OF STATE SCHIP PROGRAMS, 200246
II.2	SCHIP ENROLLMENT EXPERIENCE, BY RACE/ETHNICITY AND LANGUAGE.....50
II.3	SCHIP ENROLLMENT EXPERIENCE, BY PARENTS' EDUCATION.....51
II.4	SCHIP ENROLLMENT EXPERIENCE, BY HOUSEHOLD STRUCTURE AND EMPLOYMENT52
II.5	SCHIP ENROLLMENT EXPERIENCE, BY FAMILY INCOME53
II.6	SCHIP ENROLLMENT EXPERIENCE, BY STATE.....57
III.I	CHARACTERISTICS OF STATE SCHIP PROGRAMS WITH REGARD TO CO-PAYMENTS, BENEFITS, AND RELIANCE ON MANAGED CARE, 200271
III.2	SAMPLE DEFINITIONS AND SIZES FOR ACCESS AND SERVICE USE MEASURES.....73
III.3	ACCESS TO CARE AND USE OF SERVICES AMONG ESTABLISHED SCHIP ENROLLEES, BY RACE/ETHNICITY AND LANGUAGE.....76
III.4	ACCESS TO CARE AND USE OF SERVICES AMONG ESTABLISHED SCHIP ENROLLEES, BY AGE OF CHILD83

TABLES (continued)

Table	Page
III.5 ACCESS TO CARE AND USE OF SERVICES AMONG ESTABLISHED SCHIP ENROLLEES, BY HIGHEST EDUCATION LEVEL OF PARENT(S)	86
III.6 ACCESS AND USE OF SERVICES AMONG ESTABLISHED SCHIP ENROLLEES, BY HEALTH STATUS OF CHILD	89
III.7 ACCESS AND USE OF SERVICES AMONG SCHIP ENROLLEES, BY ENROLLMENT STATUS	93
III.8 CO-PAYMENTS FOR FOUR TYPES OF SERVICES, BY STATE.....	95
III.9 EXPLORATORY ANALYSIS ON IMPACTS OF CO-PAYMENTS ON EMERGENCY ROOM USE AND UNMET NEED FOR PRESCRIPTION DRUGS FOR ESTABLISHED ENROLLEES.....	98
IV.1 SELECTED POLICIES RELATED TO LENGTH OF SCHIP ENROLLMENT AND TIME TO REENROLLMENT.....	122
IV.2 DISTRIBUTION OF LENGTH OF ENROLLMENT SPELL IN 2002, BY DEMOGRAPHIC AND HEALTH CHARACTERISTICS.....	124
IV.3 REGRESSION-ADJUSTED DIFFERENCE IN THE PROBABILITY OF EXITING SCHIP IN 2002 AMONG RECENT ENROLLEES, BY TYPE OF INSURANCE COVERAGE BEFORE ENTERING SCHIP	126
IV.4 PERCENT OF RECENT ENROLLEES WHO LEFT SCHIP BY FIRST RENEWAL, BY STATE	129
IV.5 DISTRIBUTION OF THE LENGTH OF TIME TO REENROLLMENT IN 2002, BY DEMOGRAPHIC AND HEALTH CHARACTERISTICS	132
IV.6 REGRESSION-ADJUSTED DIFFERENCE IN THE PROBABILITY OF REENROLLING IN SCHIP IN 2002 AMONG RECENT DISENROLLEES, BY TYPE OF INSURANCE COVERAGE AT EXIT FROM SCHIP	134
IV.7 DISTRIBUTION OF THE LENGTH OF TIME TO REENROLLMENT IN 2002, BY PROGRAM TYPE AND STATE	135
V.1 SELECTED POLICIES RELATED TO THE DISTRIBUTION OF INSURANCE COVERAGE AMONG SCHIP DISENROLLEES	139
V.2 COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY RACE/ETHNICITY AND LANGUAGE	142
V.3 COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY AGE OF CHILD	143

TABLES (continued)

Table	Page
V.4 COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY URBAN/RURAL COUNTY	144
V.5 COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY HIGHEST EDUCATION OF PARENT(S)	145
V.6 COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY HOUSEHOLD STRUCTURE AND EMPLOYMENT	146
V.7 COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY HOUSEHOLD INCOME	147
V.8 COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY STATE.....	148
V.9 COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT FOR TWO COMBINATION PROGRAMS	150
VI.1 STATE SCHIP POLICIES AFFECTING SUBSTITUTION.....	170
VI.2 MAIN REASON COVERAGE ENDED AMONG RECENT ENROLLEES WITH PRIOR PRIVATE COVERAGE.....	185
VI.3 PARENTS' INSURANCE COVERAGE AT THE TIME OF INTERVIEW AMONG ESTABLISHED ENROLLEES.....	187
VI.4 POTENTIAL SUBSTITUTION ESTIMATES FOR ESTABLISHED SCHIP ENROLLEES	190
VII.1 HEALTH CARE ACCESS AND USE OUTCOMES.....	199
VII.2 CHARACTERISTICS OF SCHIP ENROLLEES AND THEIR PARENTS.....	201
VII.3 BIVARIATE ESTIMATES OF ACCESS AND USE MEASURES FOR RECENT AND ESTABLISHED SCHIP ENROLLEES	209
VII.4 ACCESS AND USE IMPACTS OF SCHIP ENROLLMENT, BY PREVIOUS INSURANCE STATUS OF RECENT ENROLLEES.....	211
VII.5 SENSITIVITY ANALYSES ON ACCESS AND USE IMPACTS OF SCHIP ENROLLMENT FOR ALL RECENT ENROLLEES	217
VII.6 SENSITIVITY ANALYSES ON ACCESS AND USE IMPACTS OF SCHIP ENROLLMENT FOR RECENT ENROLLEES UNINSURED FOR THE 6 MONTHS BEFORE ENROLLING	219

TABLES (continued)

Table	Page
VII.7 SENSITIVITY ANALYSES ON ACCESS AND USE IMPACTS OF SCHIP ENROLLMENT FOR RECENT ENROLLEES INSURED FOR SOME OR PART OF THE PREVIOUS 6 MONTHS BEFORE ENROLLING.....	221
VII.8 ACCESS AND USE IMPACTS ON SCHIP ENROLLMENT FOR ESTABLISHED AND RECENT ENROLLEES UNINSURED FOR THE 6 MONTHS BEFORE ENROLLING, BY SUBGROUP.....	223
VII.9 DIFFERENTIAL IMPACTS OF SCHIP ENROLLMENT RELATIVE TO BEING UNINSURED ALL 6 MONTHS BEFORE ENROLLING, BY SUBGROUP.....	226
VIII.1 CHARACTERISTICS OF MEDICAID AND SCHIP PROGRAMS IN CALIFORNIA AND NORTH CAROLINA, 2002	241
VIII.2 CHARACTERISTICS OF ESTABLISHED MEDICAID AND SCHIP ENROLLEES AND THEIR PARENTS.....	243
VIII.3 MOST IMPORTANT SOURCE OF MEDICAID AND SCHIP INFORMATION IN CALIFORNIA AND NORTH CAROLINA, 2002	247
VIII.4 MOST RECENT ENROLLMENT EXPERIENCE WITH MEDICAID AND SCHIP IN CALIFORNIA AND NORTH CAROLINA, 2002	249
VIII.5 PARENTAL COVERAGE AMONG ESTABLISHED ENROLLEES: COMPARISON ACROSS MEDICAID AND SCHIP SAMPLES.....	252
VIII.6 POTENTIAL SUBSTITUTION AMONG ESTABLISHED ENROLLEES: COMPARISON ACROSS MEDICAID AND SCHIP SAMPLES.....	253
VIII.7 ACCESS AND USE AMONG ESTABLISHED MEDICAID ENROLLEES IN CALIFORNIA AND NORTH CAROLINA	257
VIII.8 ACCESS AND USE IMPACTS OF MEDICAID ENROLLMENT, BY PREVIOUS INSURANCE STATUS OF RECENT ENROLLEES	260
VIII.9 REGRESSION-ADJUSTED MEANS OF ACCESS TO CARE AND USE OF SERVICES, SCHIP AND MEDICAID ENROLLEES	264

APPENDIX TABLES

Table	Page
I.1	CHARACTERISTICS OF SCHIP ENROLLEES AND THEIR PARENTS41
I.2	CHARACTERISTICS OF SCHIP ENROLLEES, BY STATE42
I.3	ACCESS AND USE BEFORE AND AFTER SCHIP ENROLLMENT43
II.1	SCHIP ENROLLMENT EXPERIENCE, BY RACE/ETHNICITY AND LANGUAGE.....63
II.2	SCHIP ENROLLMENT EXPERIENCE, BY PARENTS' EDUCATION.....64
II.3	SCHIP ENROLLMENT EXPERIENCE, BY HOUSEHOLD STRUCTURE AND EMPLOYMENT65
II.4	SCHIP ENROLLMENT EXPERIENCE, BY FAMILY INCOME66
II.5	SCHIP ENROLLMENT EXPERIENCE, BY STATE.....67
III.1	BIVARIATE ESTIMATES OF ACCESS TO CARE AND USE OF SERVICES AMONG ESTABLISHED SCHIP ENROLLEES, BY RACE, ETHNICITY, LANGUAGE, AND AGE109
III.2	BIVARIATE ESTIMATES OF ACCESS TO CARE AND USE OF SERVICES AMONG ESTABLISHED SCHIP ENROLLEES, BY PARENTAL EDUCATION, CHILD HEALTH STATUS, AND METROPOLITAN STATUS111
III.3	BIVARIATE ESTIMATES OF ACCESS TO CARE AND USE OF SERVICES AMONG ESTABLISHED SCHIP ENROLLEES, BY STATE.....113
III.4	REGRESSION-ADJUSTED ESTIMATES OF ACCESS TO CARE AND USE OF SERVICES AMONG ESTABLISHED SCHIP ENROLLEES, BY METROPOLITAN STATUS115
III.5	REGRESSION-ADJUSTED ESTIMATES OF ACCESS TO CARE AND USE OF SERVICES AMONG ESTABLISHED SCHIP ENROLLEES, BY STATE.....116
V.1	COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY RACE/ETHNICITY AND LANGUAGE (REGRESSION-ADJUSTED)159
V.2	COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY AGE OF CHILD (REGRESSION-ADJUSTED).....160

APPENDIX TABLES *(continued)*

Table	Page
V.3 COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY URBAN/RURAL COUNTY (REGRESSION-ADJUSTED).....	161
V.4 COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY HIGHEST EDUCATION OF PARENT(S) (REGRESSION-ADJUSTED).....	162
V.5 COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY HOUSEHOLD STRUCTURE AND EMPLOYMENT (REGRESSION-ADJUSTED).....	163
V.6 COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY HOUSEHOLD INCOME (REGRESSION-ADJUSTED).....	164
V.7 COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY STATE (NOT REGRESSION-ADJUSTED)	165
V.8 COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT FOR TWO COMBINATION PROGRAMS (NOT REGRESSION-ADJUSTED)	166
VII.1 ACCESS AND USE IMPACTS OF SCHIP ENROLLMENT, BY STATE (ALL RECENT ENROLLEES).....	235
VII.2 ACCESS AND USE IMPACTS OF SCHIP ENROLLMENT, BY STATE (RECENT ENROLLEES UNINSURED FOR THE 6 MONTHS BEFORE ENROLLING)	236
VII.3 ACCESS AND USE IMPACTS OF SCHIP ENROLLMENT, BY STATE (RECENT ENROLLEES INSURED FOR SOME OR ALL OF THE PREVIOUS 6 MONTHS BEFORE ENROLLING).....	237
VIII.1 ACCESS AND USE IMPACTS OF MEDICAID ENROLLMENT FOR ALL RECENT ENROLLEES.....	271
VIII.2 ACCESS AND USE IMPACTS OF MEDICAID ENROLLMENT FOR ALL RECENT ENROLLEES INSURED FOR THE 6 MONTHS BEFORE ENROLLING	273
VIII.3 ACCESS AND USE IMPACTS OF MEDICAID ENROLLMENT FOR RECENT ENROLLEES INSURED SOME OR ALL OF THE 6 MONTHS BEFORE ENROLLING.....	275
VIII.4 BIVARIATE ESTIMATES OF ACCESS AND USE AMONG ESTABLISHED MEDICAID AND SCHIP ENROLLEES IN CALIFORNIA AND NORTH CAROLINA	277

FIGURES

Figure	Page
I.1 CHILDREN’S HEALTH INSURANCE COVERAGE BEFORE ENROLLMENT IN SCHIP	12
I.2 SOURCES OF SCHIP INFORMATION	17
I.3 EASE OF APPLICATION AMONG RECENT ENROLLEES IN 2002.....	19
I.4 NUMBER OF WEEKS BETWEEN SCHIP APPLICATION AND NOTIFICATION OF ENROLLMENT	20
I.5 KNOWLEDGE ABOUT FREQUENCY OF REDETERMINATION FOR SCHIP	22
I.6 PERCENTAGE OF CHILDREN ENROLLED IN SCHIP, BY TIME SINCE ENROLLMENT	23
I.7 PARENTS’ ASSESSMENT OF ABILITY TO MEET CHILD’S HEALTH CARE NEEDS BEFORE AND AFTER SCHIP ENROLLMENT	25
I.8 USUAL SOURCE OF CARE TYPE AND PROVIDER COMMUNICATION BEFORE AND AFTER ENROLLMENT	26
I.9 PARENTAL PERCEPTIONS OF SCHIP BEFORE AND AFTER SCHIP ENROLLMENT	28
I.10 USUAL SOURCE OF CARE BEFORE AND AFTER SCHIP ENROLLMENT.....	30
I.11 SERVICE USE BEFORE AND AFTER SCHIP ENROLLMENT	31
I.12 UNMET NEED BEFORE AND AFTER SCHIP ENROLLMENT.....	32
I.13 REASON FOR DISENROLLING AMONG CHILDREN UNINSURED 6 MONTHS AFTER LEAVING SCHIP	36
II.1 ENROLLMENT EXPERIENCE, BY PRIOR INSURANCE COVERAGE.....	55
III.1 PARENTAL PERCEPTIONS OF MEETING CHILDS’ HEALTH CARE NEEDS, BY RACE/ETHNICITY AND LANGUAGE.....	78
III.2 PARENTS’ REPORTS OF UNMET NEED FOR SCHIP ENROLLEES, BY AGE GROUP	82

FIGURES (continued)

Figure	Page
III.3 ACCESS AND SERVICE USE FOR SCHIP ENROLLEES, BY HIGHEST EDUCATION LEVEL OF PARENT(S)	85
III.4 PARENTAL PERCEPTIONS OF MEETING THEIR CHILD’S HEALTH CARE NEEDS, BY HIGHEST EDUCATION LEVEL OF PARENT(S)	87
III.5 SERVICE USE AND UNMET NEED FOR SCHIP ENROLLEES WITH AND WITHOUT ELEVATED HEALTH CARE NEEDS	90
III.6 ACCESS, SERVICE USE, AND PARENTAL CONFIDENCE FOR ESTABLISHED ENROLLEES AND DISENROLLEES	94
III.7 PARENTS’ REPORTS OF DOCTORS AND NURSES LOOKING DOWN ON SCHIP ENROLLEES, BY STATE	100
III.8 ANY PREVENTIVE DENTAL VISIT FOR SCHIP ENROLLEES, BY STATE	103
III.9 USUAL SOURCE OF CARE FOR SCHIP ENROLLEES IS A PRIVATE DOCTOR’S OFFICE OR GROUP PRACTICE, BY STATE	104
IV.1 PERCENTAGE OF RECENT ENROLLEES STILL ENROLLED IN SCHIP, BY TIME SINCE ENROLLMENT, BY STATE	127
V.1 DISTRIBUTION OF COVERAGE AMONG SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY WHETHER COVERAGE WAS EVER TERMINATED DUE TO PREMIUM NONPAYMENT	153
VI.1 COVERAGE OF RECENT ENROLLEES DURING 6 MONTHS BEFORE ENROLLMENT	183
VI.2 PATTERNS OF EMPLOYER COVERAGE FOR PARENTS OF ESTABLISHED ENROLLEES AND THE SHARE OF PREMIUMS PAID BY EMPLOYERS	189

APPENDIX FIGURES

Figure	Page
II.1 ENROLLMENT EXPERIENCE, BY PRIOR INSURANCE COVERAGE.....	68

EXECUTIVE SUMMARY

In 1997, Congress passed legislation creating the State Children's Health Insurance Program (SCHIP), the first major federally funded health program to be established since Medicare and Medicaid were enacted in 1965. SCHIP, authorized by the new Title XXI in the Social Security Act, was designed to expand coverage among uninsured children whose family incomes were too high to qualify for Medicaid under the existing Title XIX. Under Title XXI, states share in the program's financing and have considerable flexibility in designing their programs. They can expand Medicaid, create a separate program, or undertake a combination of both, and they have latitude over their eligibility thresholds, cost sharing, benefit packages, and enrollment and outreach strategies.

In the Balanced Budget Refinement Act of 1999, Congress mandated that the U.S. Department of Health and Human Services (DHHS) conduct an evaluation of 10 states' SCHIP programs and further directed that a wide range of issues be addressed. These issues included SCHIP enrollment and disenrollment dynamics, the impact of SCHIP and Medicaid enrollment practices on enrollment of children, and coordination between SCHIP and Medicaid. The mandate also required surveys of the target population—enrollees, disenrollees, and children who are eligible for SCHIP but not enrolled in the program.

This report draws on surveys of enrollees and disenrollees in 10 states. The 10 states were selected in accordance with the legislative requirements to include (1) a high proportion of low-income uninsured children in the United States, (2) wide geographic representation (including rural and urban), and (3) diverse approaches to program design. The 10 states—California, Colorado, Florida, Illinois, Louisiana, Missouri, New Jersey, New York, North Carolina, and Texas—represent all four Census regions and account for more than 62 percent of the children who were enrolled in SCHIP at any time during the last quarter of fiscal 2003. The 10 SCHIP program states vary in their eligibility policies, the presence of waiting periods, covered benefits, cost-sharing requirements, and other features.

The findings in this report draw primarily on data from a survey of parents fielded in these 10 states in 2002 and early 2003. The surveys were conducted by telephone, with in-person followup of parents who could not be reached by telephone. Information was collected on approximately 16,700 children who had enrolled in SCHIP in one of the 10 states. In addition, in 2 of the 10 states (California and North Carolina), information was collected on approximately 2,600 children who had enrolled in Medicaid.

The survey targeted three distinct groups of children: (1) those who had enrolled in SCHIP (or Medicaid) recently (recent enrollees), (2) those who had been enrolled for 5 or more months (established enrollees), and (3) those who had disenrolled recently (disenrollees). The survey instrument covered (1) insurance status before enrollment, (2) insurance status since disenrollment, (3) experiences enrolling, (4) access to care and service use before and after enrollment, (5) socioeconomic and demographic characteristics of the family, and (6) health status of the child. The survey gathered salient data for each group—for example, the parents of recent enrollees, for whom the experience of enrollment was fresh, were asked how easy it was

to enroll in SCHIP. Thus, in this report, we use each sample to address specific policy topics. The survey data are supplemented with administrative data to examine retention and reenrollment of children in SCHIP.

KEY FINDINGS

Diverse Children Enrolled in SCHIP

Children who enrolled in SCHIP in the 10 study states came from diverse racial and ethnic backgrounds and had wide-ranging health needs and parental characteristics. Most SCHIP enrollees were of school age. Almost one-half of the enrollees were Hispanic; one-third were white, English-speaking; and 12 percent were black. One-third lived in households in which English is not the primary language. One-quarter had elevated health care needs. Almost all enrollees came from a family with at least one working parent, but more than 90 percent of them lived in households with incomes under 200 percent of the federal poverty level.

SCHIP Serves Low-Income Children Who Would Otherwise Have Been Uninsured

SCHIP is predominantly serving the target population of low-income children who otherwise would have been uninsured. Many recent enrollees in the 10 study states (43 percent) had been uninsured for 6 months before they enrolled, and another 29 percent moved to SCHIP from Medicaid. (See Figure 1.) Roughly 28 percent of recent enrollees had private coverage (mostly employer) during the 6-month period before enrollment. However, one-half of these (14 percent of the total) lost coverage involuntarily during that period, and therefore did not substitute public coverage for private insurance. In addition, one-quarter of recent enrollees who were previously enrolled in private coverage (7 percent of the total) were enrolled in coverage their families found unaffordable. State-to-state variation among the 10 study states was fairly small, and in no state was the share of recent enrollees who could have had employer coverage at the time they enrolled above 20 percent.

The evaluation also found that parents of some SCHIP enrollees may be able to purchase dependent coverage during their child's SCHIP enrollment period. Between 28 and 36 percent of established enrollees (children enrolled for 5 or more months) have insured parents whose employers pay for at least a part of the cost of dependent coverage. However, it is not known what proportion of the premium the employers paid, and parents whose employers made small contributions may still have been unable to afford the coverage available.

Substitution estimates of 7 to 14 percent for recent enrollees and 28 to 36 percent for established enrollees cannot be added together to provide an estimate of the percent of enrollees who might have at some time substituted SCHIP for private group coverage because there is overlap between the two groups of enrollees. Some families with the option to take up dependent coverage after 5 months of SCHIP enrollment may have had that option prior to the child's SCHIP enrollment, and therefore already be counted in the recent enrollee estimate. Summing the two estimates would overestimate the incidence of substitution.

SCHIP Meets the Primary Health Care Needs of Most Children Who Enroll

SCHIP programs are meeting the primary health care needs of most children who enroll. SCHIP enrollees experienced high levels of access to care, as measured by their receipt of preventive care, the presence of a usual source of care for medical and dental care, and parents' perceptions about their children's health care coverage. For example, 91 percent of SCHIP enrollees had a usual source of medical care, and the parents of 81 percent of enrollees were very or somewhat confident that they could meet their children's health care needs. Emergency room use may be sensitive to co-payments on both emergency room use and prescription drugs, although more research is needed on the impacts of cost sharing. Little cross-state variation existed in the access and service use measures considered in this study, but families in states with Medicaid expansions or combination programs were more likely than families in states with separate programs to believe that providers "looked down on" SCHIP enrollees.

While, overall, SCHIP programs provide high levels of access to care, some groups of enrollees had better access than others. In particular, SCHIP enrollees whose parents had more education tended to receive more care, and their parents had fewer concerns about meeting their child's health needs and reported better accessibility to, and communication with, providers than did enrollees whose parents had not completed high school. In addition, SCHIP enrollees who did not have elevated health care needs had fewer reported unmet needs than did enrollees with elevated health care needs, and their parents reported lower levels of worry and financial difficulty associated with meeting their child's health care needs. Enrollees in households where the primary language is English also appeared to have better access to care than did enrollees in households where the primary language is not English. Many of the access differentials identified for SCHIP enrollees have been found in other studies and are not unique to SCHIP. However, addressing these differentials would allow more SCHIP enrollees to take full advantage of the health care offered through SCHIP.

SCHIP and Medicaid Coverage Appear to Improve Access to Care

SCHIP had a positive effect on access to care among the children who enrolled compared with children's experience before enrolling. SCHIP enrollees received more preventive care, had fewer unmet needs, and had better access to, and communication with, providers. SCHIP enrollees' parents also had greater peace of mind about their ability to meet their child's health care needs. These positive impacts were found in all 10 study states. Likewise, SCHIP had positive impacts on all subgroups of children examined, including those defined by age, race, ethnicity, health status, and socioeconomic status. The largest positive impacts were found for children with elevated health care needs, for adolescents, and for those whose parents had some college education. Thus, benefits of SCHIP enrollment are not limited to one type of program or state, or to particular subgroups of children. Instead, SCHIP is leading to access improvements across the board for the children who enroll.

Medicaid programs also have positive impacts on children who enroll. A parallel study of Medicaid impacts in California and North Carolina finds results for the Medicaid programs similar to those for the SCHIP programs in the two states. In addition, SCHIP and Medicaid programs in California and North Carolina provided fairly comparable levels of access to care,

although Medicaid enrollees appeared to have worse access to dental care than SCHIP enrollees, and their parents had less positive views about their health insurance program.

Most Families Found Enrolling Their Children in SCHIP Was Easy

States focused on developing simple application processes for SCHIP. Across the 10 study states, almost all low-income parents who enrolled their children in SCHIP found the application process easy (over 90 percent said it was very or somewhat easy); this was consistent across the 10 study states. States put many resources into outreach and application assistance in the early SCHIP implementation years, and one-third of low-income families got help enrolling their children—especially Spanish-speaking families and those with the least education. The percentage reporting that they received help varied widely across states (from a high of 63 percent in California to a low of 11 percent in Louisiana). Families' decisions to enroll their children were influenced most by health care providers, public agencies, and families and friends. Although many saw television ads or heard radio announcements about SCHIP, these were rarely the factors that most influenced parents' decisions to enroll their children.

At the same time that states developed simple approaches to SCHIP application and enrollment, they also simplified Medicaid processes, though to a lesser extent than in SCHIP. In California and North Carolina, the two study states where Medicaid surveys were conducted, Medicaid enrollees found application easy, but less so than SCHIP enrollees.

Therefore, findings show that state efforts to ease the application process were largely successful. Still, taken alone, these findings may overlook potential barriers to SCHIP enrollment because they do not include eligible children who did not enroll. Some of these barriers can include a lack of awareness of the program among some potentially eligible families and perceptions among eligible families about whether SCHIP is targeted at working families like their own.

Many Children Are Enrolled in SCHIP for 12 Months, but States Varied

As the SCHIP programs matured, program administrators started to pay more attention to retaining eligible children in the program. Among recent SCHIP enrollees in the 10 study states, 60 percent stayed enrolled for a full 12 months. While longer stays were found in states that offered 12 months of continuous eligibility, we cannot say with certainty that this program policy was the cause of the longer stays.

Six Months After Leaving SCHIP, One-Third of Children Are Still Uninsured, but About Half of Them May No Longer Be SCHIP-Eligible

When they left SCHIP, almost one-half (48 percent) of children were uninsured, one-third transferred to Medicaid, and 14 percent had private insurance coverage. Of the children who were uninsured, nearly half (23 percent of all disenrolled children) appear no longer to be eligible for SCHIP, primarily due to changes in household income or the child turning age 19. This leaves 25 percent of disenrolled children who were uninsured and might still have been eligible for SCHIP. Six months later, only one-third were still uninsured, the rate of transfer to Medicaid increased slightly (to 35 percent), and the rate of private coverage increased slightly (to 16

percent). The reduction in the percent uninsured over the 6-month period was largely due to children reenrolling in SCHIP (14 percent did so). At least some of these children presumably could have been retained in SCHIP without a gap in coverage. In fact, 75 percent of the parents of children who left SCHIP and then returned within 6 months did not realize their child had been disenrolled.

Children Who Lost SCHIP Coverage in Medicaid Expansion Programs Are Likely to Obtain Medicaid or Other Coverage

There is significant state-to-state variation in the coverage of children after they leave SCHIP, and type of program appears to play a key role in this variation. The six states in our study with separate programs demonstrated lower rates of children enrolling in Medicaid when losing SCHIP coverage than Medicaid expansion states. Children served in separate programs were also more likely to be uninsured after losing SCHIP eligibility.

The two study states with Medicaid expansion programs demonstrated high rates of children being covered by Medicaid when they lost SCHIP coverage. Similarly, in the two study states with combination programs, children who were enrolled in the Medicaid expansion component were also more likely to be covered subsequently by Medicaid. Children served in Medicaid expansion programs also demonstrated low rates of uninsurance following loss of SCHIP coverage. However, these results are to be expected given the natural coordination between SCHIP and Medicaid afforded by the Medicaid expansion model. A Medicaid expansion SCHIP program is an extension of a state's Medicaid program to children at a higher income eligibility level, so Medicaid-eligible and SCHIP children in states with Medicaid expansions are served by one seamless program.

Conclusion

This evaluation found that SCHIP is predominantly serving its target population of low-income children who otherwise would have been uninsured. The program did not lead to widespread substitution of SCHIP for employer coverage, even though almost all families enrolling their child had at least one working parent. Families reported that it was fairly easy to enroll their child in SCHIP (though barriers to SCHIP enrollment still exist for some families who lack awareness of the program or its eligibility criteria, or who perceive that the enrollment process is difficult). Sixty percent of children have SCHIP coverage for at least 12 months, though this varies across states. During their coverage by SCHIP, children's access to primary health care is good—and this is true across states and across children with different characteristics. SCHIP also improves access relative to the coverage children had in the period before they enrolled in SCHIP. After leaving SCHIP, a substantial minority of children become, and remain, uninsured, and state-to-state variation suggests that effective coordination between SCHIP and Medicaid may help increase coverage among these children. In short, SCHIP plays an important role in insuring low-income children and improving their access to health care.

I. INTRODUCTION

Genevieve Kenney
Christopher Trenholm
Lisa Dubay
Myoung Kim
Lorenzo Moreno
Jamie Rubenstein
Anna Sommers
Stephen Zuckerman

In 1997, Congress passed legislation creating the State Children’s Health Insurance Program (SCHIP), the first major federally funded health program to be established since Medicare and Medicaid were enacted in 1965. SCHIP, authorized by the new Title XXI in the Social Security Act, was designed to expand coverage among uninsured children whose family incomes were too high to qualify for Medicaid. Under Title XXI, states share in the program’s financing and have considerable flexibility in designing their programs. They can expand Medicaid, create a separate program, or do both. State SCHIP programs vary in their eligibility thresholds, cost-sharing and benefit packages, and enrollment and outreach strategies (Hill et al. 2003; Wyses et al. 2003; Perry 2003; and Cohen-Ross and Hill 2003).

In the Balanced Budget Refinement Act of 1999, Congress mandated that the U.S. Department of Health and Human Services (DHHS) conduct an evaluation of 10 states’ SCHIP programs. Congress further directed that the evaluation address a wide range of issues, including (1) SCHIP enrollment and disenrollment dynamics, (2) the impact of SCHIP and Medicaid enrollment practices on enrollment of children, and (3) coordination between SCHIP and Medicaid. The mandate also required surveys of the target population—enrollees, disenrollees, and children who are eligible for but not enrolled in SCHIP.

This report draws on surveys of enrollees and disenrollees in 10 states. The 10 states were selected in accordance with the legislative requirements to include (1) a high proportion of low-income uninsured children in the United States, (2) wide geographic (including both rural and urban) representation, and (3) diverse approaches to program design. The 10 states—California, Colorado, Florida, Illinois, Louisiana, Missouri, New Jersey, New York, North Carolina, and Texas—represent all four Census regions and account for 56 percent of the nation’s uninsured children living in families with incomes below 200 percent of the federal poverty level.¹ Moreover, 62 percent of the children who were enrolled in SCHIP in the last quarter of fiscal 2003 lived in these states (CMS 2005). Census data also show that low-income children in these 10 states are more likely than low-income children in the nation as a whole to be Hispanic and to live in Metropolitan Statistical Areas. For example, 42 percent of low-income children in these 10 states are Hispanic, and 89 percent live in metropolitan areas, compared, respectively, to 29 and 78 percent of low-income children nationally.

The 10 states vary in the design of their SCHIP programs (Table I.1). Six states rely on a separate SCHIP program, two rely on a Medicaid expansion, and two use a combination of both Medicaid and a separate program. Of the 10 states, 4 have an eligibility income threshold at or above 250 percent of the federal poverty level. The SCHIP programs in these 10 states also vary in their eligibility policies, the presence of waiting periods, covered benefits, and cost-sharing requirements.

A. REPORT OVERVIEW

The data presented in this report draw primarily on telephone surveys of parents that were fielded in these 10 states in 2002 and early 2003 (see Appendix A, bound separately for more

¹Urban Institute tabulations of the 2001 and 2002 Current Population Survey (CPS).

TABLE I.1

CHARACTERISTICS OF STATE SCHIP PROGRAMS, 2002

State	Program Name	Program Type ^a	Ever Enrolled in Fiscal 2002 ^b	Maximum Income Eligibility (as % FPL) ^c	Waiting Period Required ^c	12-Month Continuous Eligibility ^c	Presumptive (P) or Retroactive (R) Eligibility ^c	Any Service Co-Pay Required (All, Some, No Enrollees) ^c
California	<i>Healthy Families</i>	Separate ^e	856,994	250	Yes	Yes	R	All
Colorado	<i>Child Health Plan Plus</i>	Separate	51,826	185	Yes	Yes	R	Some
Florida	<i>KidCare</i>	Separate ^e	368,180	200	No	No	Neither	Some
Illinois	<i>KidCare</i>	Combination	68,032	185	Yes	Yes	R	Some
Louisiana	<i>LaCHIP</i>	Medicaid	87,675	200	No	Yes	R	None
Missouri	<i>MC+ for Kids</i>	Medicaid	112,004	300	Yes	No	Neither	Some
New Jersey	<i>FamilyCare</i>	Combination	117,053	350	Yes	No	P ^d	Some
New York	<i>Child Health Plus</i>	Separate ^e	807,145	250	No	No	P	None
North Carolina	<i>Health Choice</i>	Separate	120,090	200	Before February 2002	Yes	Neither	Some
Texas	<i>TexCare</i>	Separate	727,452	200	Yes	Yes	Neither	Some

FPL = Federal Poverty Level.

^aProgram types reflect states' options to either expand Medicaid (Medicaid), create or expand a separate state program (separate), or combine the two approaches (combination).

^b2002 enrollment data: Centers for Medicare & Medicaid Services 2005. Accessed May 23, 2005 (<http://www.cms.hhs.gov/schip/enrollment>). Number of children ever enrolled in SCHIP in fiscal 2002.

^cHill, Ian, et al. "Congressionally Mandated Evaluation of the State Children's Health Insurance Program: Cross-Cutting Report on Findings from 10 State Site Visits." Report submitted to the Department of Health and Human Services. Mathematica Policy Research, Inc., and the Urban Institute, 2003.

^dExcept for children in Plan D.

^eThese states actually had combination programs with small Medicaid components, that were expected to end by the time the surveys of SCHIP enrollees and disenrollees began. These children were expected to become Medicaid eligible at that time. Small Medicaid components continued, but the survey only sampled children enrolled in the separate program in these three states.

details on the survey). Information was collected on approximately 19,300 children who were enrolled in SCHIP and Medicaid.^{2,3} The surveys targeted three distinct groups of children: (1) those who enrolled in SCHIP recently (recent enrollees), (2) those who had been enrolled in SCHIP for 5 or more months (established enrollees), and (3) those who recently disenrolled (disenrollees).⁴ The data are weighted to represent the population of enrollees and disenrollees in each of these 10 states as of spring 2002. Given that the 10 states vary in size, the statistics presented in this report give more weight to the states with larger enrollee and disenrollee populations.

The survey instrument covers (1) insurance status before enrollment, (2) insurance status since disenrollment, (3) experiences enrolling, (4) access to care and service use before and after enrollment, (5) socioeconomic and demographic characteristics of the family, and (6) health status of the child. The survey gathered salient data for each group. For example, the parents of recent enrollees, for whom the experience of enrollment was fresh, were asked how easy it was to enroll in SCHIP. Thus, each sample is used to address specific policy topics in this report

²Of the 19,300 interviews, approximately 16,700 were conducted on behalf of children enrolled in Title XXI in these 10 states, and approximately 2,600 were conducted on behalf of children enrolled in Title XIX (Medicaid) in 2 states—California and North Carolina. Chapter VIII presents analyses of the Title XIX (Medicaid) data.

³The sample design for the study, detailed in separately bound Appendix B, allowed children to be selected for the study in either a clustered or unclustered sample. In rare instances, children were selected for both samples, leading these children to have two records in our analysis sample rather than one. (We used appropriate sample weights to avoid over-representing such cases, and all standard errors are calculated with SUDAAN to reflect the actual sample size, design effects, and weighting.) The total number of records analyzed for this report (about 19,400) is therefore slightly larger than the number of interviews completed and, throughout the report, we base our sample size numbers on this slightly larger record count in order to make the numbers easier to replicate by users of the forthcoming public use file. For additional details on the sample size breakdown for the analysis, see separately bound Appendix C.

⁴These are the definitions of the three groups: (1) “recent enrollees” are children enrolled in the month of sample construction but not enrolled during the previous 2 months; (2) “established enrollees” are children enrolled continuously for 5 (or more) months through the month of sample construction; and (3) “disenrollees” are children not enrolled in the month of, and month before, sample construction, and enrolled in the prior month. Operational definitions varied modestly across states due to limitations in the administrative data for purposes of sampling. All sampling was conducted during spring 2002. See Appendix B for further details.

(Table I.2). The survey data are supplemented with administrative data to examine retention and reenrollment of children in SCHIP.

This report has two parts. The first part has five chapters, which together present a detailed description of the characteristics and experiences of SCHIP enrollees and disenrollees. Chapter I presents a descriptive summary across the 10 study states; Chapters II through V then present findings on whether and how the descriptive results vary across key individual subgroups (such as state, age, and race/ethnicity). The second part of this report consists of three targeted studies of SCHIP and Medicaid. The first (Chapter VI) analyzes the extent to which SCHIP substitutes for private insurance coverage; the second (Chapter VII) analyzes the impact of SCHIP on access, use, and unmet needs of the children who participate; and the third (Chapter VIII) contains analyses of Medicaid enrollees in two states. Separately bound technical appendixes provide detailed explanations of the survey and analytic methods used.

B. DESCRIPTION OF SCHIP ENROLLEES AND DISENROLLEES

This chapter presents findings on the characteristics and experiences of SCHIP enrollees and disenrollees in 10 states. The chapter begins with a profile of SCHIP enrollees, including their demographic characteristics and highlights of their variability across the states. This is followed

TABLE I.2

SURVEY DATA: CONTENT COVERED BY SURVEY GROUP

Survey Content	Survey Group		
	Recent Enrollees	Established Enrollees	Disenrollees
Insurance Coverage	Child's coverage before enrollment	Parents' coverage at time of interview	Child's coverage after leaving SCHIP
Access to Care	Access, use, and satisfaction before enrolling in SCHIP	Access, use, and satisfaction while on SCHIP	Access, use, and satisfaction before leaving SCHIP
Enrollment and Disenrollment	Enrollment process and reasons for enrolling	^a	Reasons for disenrolling

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

^aQuestions relating to enrollment were asked of established enrollees but not analyzed in this report because the responses from new enrollees were believed to be more reliable.

by a description of enrollees' experiences before entering SCHIP, including their prior insurance coverage, prior access to care and use of health care services, and experience with the application and enrollment processes. Next, the chapter examines enrollees' experiences while covered by SCHIP, including how long they remain enrolled in SCHIP, their parent's perceptions of their ability to meet their child's health care needs, their access to care and use of services while enrolled, their experiences with providers, and the extent of any unmet needs. Finally, the chapter examines the experiences of SCHIP disenrollees, focusing on their insurance coverage after leaving the program.

1. SCHIP Serves a Diverse Group of Children

SCHIP serves children with diverse family backgrounds and medical needs.⁵ Nearly all SCHIP enrollees (92 percent) come from working families, and the majority live in two-parent families (Table I.3). Three-quarters of all children have at least one parent with a high school degree or general equivalency diploma (GED) (35 percent), or who attended college or other postsecondary school (40 percent). The majority (68 percent) live in families with incomes below 150 percent of the federal poverty level.

Overall, children covered under SCHIP appear to be relatively healthy, but an important subgroup was identified as having health problems or an especially high need for medical care. Nine percent of SCHIP enrollees were characterized by their parents as being in fair or poor

⁵Findings on enrollee characteristics are based on data from the established enrollee sample. The characteristics of the children in the recent enrollee and disenrollee samples are similar; however, there are some differences that bear noting. First, not surprisingly, the established enrollees tended to be older than the recent enrollees but younger than the disenrollees. Second, compared to recent enrollees, the established enrollees were less likely to be black and more likely to have foreign-born parents and be from two-parent households. Third, compared to disenrollees, established enrollees were more likely to live in a Metropolitan Statistical Area and in a household that had an employed parent in the prior year; they were less likely to live in a household that received Temporary Assistance for Needy Families (TANF) or food stamps in the past 2 years. For further information, see Appendix Table I.1 at the end of this chapter.

TABLE I.3
CHARACTERISTICS OF SCHIP ENROLLEES' HOUSEHOLDS

Variable	Percent
At Least One Parent Employed in Past Year	92.4
Household Structure	
Two parents	57.7
One parent	34.9
One parent and step/other guardian	6.0
Other	1.4
Highest Education Level of Parent(s)	
No GED or HS diploma	24.9
GED or HS diploma	34.9
Some college or college degree ^a	40.2
Household Income by FPL Range ^b	
Less than 150% FPL	67.8
150 to 199% FPL	23.1
More than 200% FPL	9.1
Sample Size	5,841

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on established enrollee sample. Sample size varies across estimates due to item nonresponse.

^aIncludes 2-year associate's degree and trade school.

^bHousehold income has a missing rate of 11 percent, which is considerably higher than other variables cited.

FPL = federal poverty level; GED = general equivalency diploma; HS = high school.

health (on a scale of excellent to poor), and nearly one in four were identified as having elevated health care needs (Table I.4).⁶ Overall, 16 percent were reported to have asthma, and 7 percent were reported to have a mental health condition (Table I.4). As a group, SCHIP enrollees in these 10 states are in worse health than other low-income children in these states. This is consistent with prior research that suggests that children with greater health needs enroll in public health insurance programs at higher rates than other children (Dubay et al. 2000; and Davidoff et al. 2003).

SCHIP enrollees in these 10 states are predominantly of school age (Table I.5). Nearly half (48 percent) of the children are in the 6-to-12 age group, and a third (33 percent) are age 13 or older. The concentration of SCHIP enrollees in the school-age group is partly because Medicaid eligibility levels are higher for younger children than for older children, leaving relatively more older children eligible for SCHIP (Ullman et al. 1999).

TABLE I.4
HEALTH STATUS OF ENROLLEES

Variable	Percent
Child Has an Elevated Health Care Need	24.1
Child's Overall Health Is Fair or Poor	8.5
Child Has Asthma	15.5
Child Has Mental Health Condition	7.4
Sample Size	4,841

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on established enrollee sample. Sample size varies across estimates due to item nonresponse.

³Child is classified as having Elevated Health Care Needs if the child is in fair or poor health or if the child meets one or more of the following criteria: (1) had an impairment or health problem lasting at least 12 months that limits his/her ability to crawl, walk, run, or play; (2) a health care professional said that the child had asthma or has taken medication or required injections prescribed by a doctor for his/her asthma; (3) has taken medication or required injections for at least 3 months, excluding asthma; (4) a health professional said that the child had a mental health condition or behavioral problem or that the condition or behavioral problem limited his/her ability to do regular school work or to participate in the usual kind of activities done by most children his/her age.

⁶The proportion of low-income children in these 10 states reported to be in fair or poor health is four percent according to the March 2002 CPS (Urban Institute tabulations of the 2002 CPS). See Appendix C for the definition of children with elevated health care needs.

TABLE I.5
CHARACTERISTICS OF SCHIP ENROLLEES AND THEIR PARENTS

Variable	Percent
Age of Child (Years)	
0 to 5	19.3
6 to 12	47.8
13 and older	32.9
Child's Race	
Hispanic/Latino	49.2
White	32.1
Black	11.5
Asian	5.6
All other races	1.7
Birthplace of Parents	
At least one parent foreign-born	46.4
Main Language Spoken in Household	
Spanish	28.1
Other	4.5
Metropolitan Statistical Area	86.3
Sample Size	5,841

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on established enrollee sample. Sample size varies across estimates due to item nonresponse.

In these 10 states, Hispanic children make up the single largest racial/ethnic group, accounting for 49 percent of all enrollees, followed by non-Hispanic white children (32 percent), non-Hispanic black children (12 percent), and Asian children (6 percent). Just under half (46 percent) of the SCHIP enrollees in these 10 states have at least one foreign-born parent, and more than a quarter live in households in which the main language spoken in the household is Spanish (28 percent), while 5 percent speak a language other than English or Spanish.

Most (86 percent) of SCHIP enrollees in these 10 states live in metropolitan areas. About 1 in 10 (nine percent) live in nonmetropolitan areas adjacent to a metropolitan area, and another four percent live in nonmetropolitan areas not adjacent to a metropolitan area (data not shown).

2. SCHIP Enrollee Populations Vary Across the 10 States

Not surprisingly, given the underlying differences in the populations and programs in these 10 states, the characteristics of SCHIP enrollees vary substantially from state to state (see Appendix Table I.2 at the end of this chapter). For example, the share of enrollees who are Hispanic varies from less than 10 percent in Louisiana, Missouri, and North Carolina to more than 69 percent in California and Texas, and the share who are black varies from 3 and 4 percent in California and Colorado to 32 and 48 percent in North Carolina and Louisiana, respectively. Similarly, the share of SCHIP enrollees living in metropolitan areas varies substantially across these states—with more than 90 percent living in metropolitan areas in California, Florida, and New Jersey, compared to 59 percent in Missouri and 62 percent in North Carolina. The health needs of enrolled children also varied across the states studied. In California, only 20 percent of children were identified as having elevated health care needs, while in Illinois, Louisiana, Missouri, and North Carolina more than 30 percent of the children enrolled in SCHIP fell into this category.

3. Most SCHIP Enrollees Were Uninsured at Least Briefly Before Enrolling

The SCHIP program was designed to provide coverage for low-income children who might otherwise be uninsured. These uninsured children might have been uninsured for a long time, have become ineligible for Medicaid, or have lost or dropped private coverage. We examine insurance coverage that children had just before enrollment and in the 6 months before enrollment.⁷ Data are from both administrative and survey sources. We rely on both sources because parents with children transferring from Medicaid to SCHIP tended to combine their child's current enrollment in SCHIP with their previous enrollment on Medicaid.⁸

A majority of newly enrolled children (60 percent) lacked any coverage just before the time of enrollment (Figure I.1, left side).⁹ The remaining 40 percent were split evenly between public and private coverage, with nearly all of those with private coverage having been covered by employer-sponsored insurance.

As seen on the right-hand side of Figure I.1, two-thirds of the children who were uninsured just before enrolling in SCHIP (or about 40 percent of all enrollees) were uninsured for at least 6 months. The remainder of those uninsured just prior to enrollment had some form of coverage in the 6 months before enrolling. About one-third (6 percent overall) had private coverage, while about two-thirds (14 percent overall) had Medicaid or a previous period on SCHIP. This

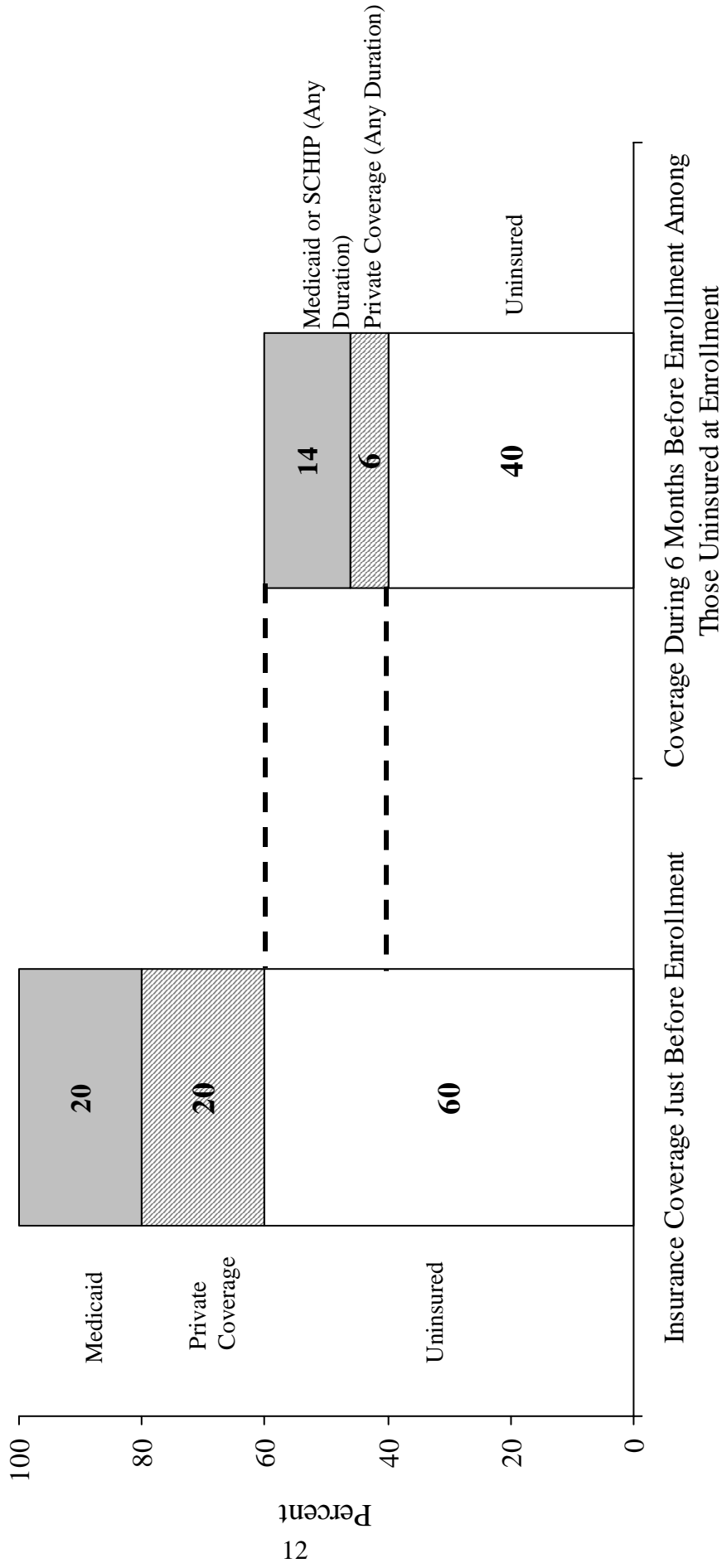
⁷Findings on prior coverage are based on data from the recent enrollee sample, excluding 160 cases reported to be disenrolled at the time of interview (N = 5,009).

⁸In the recent enrollee sample, 21 percent were reported to be enrolled in SCHIP at least 6 months earlier than the SCHIP administrative records indicated. Of this group, 55 percent had an administrative record of Medicaid enrollment at some point in the 6 months before SCHIP enrollment. Thus, if we relied solely on survey data, we would grossly underestimate the share of these children entering SCHIP from Medicaid. To address this issue, we edited the prior insurance status for these recent enrollees based on a combination of Medicaid administrative records and the survey. In three states where Medicaid records were not available (Colorado, New York, and Texas), we imputed Medicaid enrollment before SCHIP enrollment. See Appendix C for a full description of how we derived enrollees' prior coverage.

⁹About one percent of recent enrollees reported some other type of prior coverage, while three percent had missing prior coverage data. All estimates of prior coverage were calculated omitting missing cases.

FIGURE I.1

CHILDREN'S HEALTH INSURANCE COVERAGE BEFORE ENROLLMENT IN SCHIP



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states, and SCHIP and Medicaid administrative data.

Note: Estimates based on recent enrollee sample, excluding those reported disenrolled at time of interview (N = 5,009).

suggests that some children who were covered through a public program during the prior 6 months had a gap in coverage before enrolling in SCHIP. Chapter VI examines the extent to which these data indicate substitution of SCHIP for private coverage.

4. Access and Use Before Enrolling in SCHIP Vary with Insurance Status

As shown above, children enrolling in SCHIP come from a variety of different insurance coverage situations. Prior research has documented a strong association between insurance coverage and a child's receipt of health care (Institute of Medicine 2001; Dubay and Kenney 2001; Short and Lefkowitz 1992; and Newacheck et al. 1998). Therefore, we present estimates on service use and access to care separately for two distinct groups: (1) those who were uninsured for the full 6 months before enrolling in SCHIP, and (2) those who had some type of insurance coverage during that 6-month period.¹⁰

Confidence was low and stress high among parents with uninsured children. As Table I.6 shows, children who had been insured were more likely than uninsured children to have parents who reported that they had been very confident that their child could get needed health care before enrolling them in SCHIP (59 versus 38 percent). For example, 63 percent of insured children had parents who reported never or not very often feeling stress about meeting their children's health care needs in the period before enrolling them in SCHIP, compared to 37 percent for the children who had been uninsured before enrolling. Likewise, parents with insured children reported that meeting their children's health care needs caused less financial difficulty and stress relative to parents with uninsured children.

¹⁰Findings on access and use before enrolling in SCHIP are based on data from the recent enrollee sample, excluding 2,266 cases (201 cases who were born on SCHIP, 144 cases with missing data, and 1,921 cases whose reported access and service use experiences reflect their time on the SCHIP program).

TABLE I.6

ACCESS AND USE OF RECENT ENROLLEES IN THE 6 MONTHS
BEFORE SCHIP ENROLLMENT

	Recent Enrollees	
	Uninsured All 6 Months	Insured at Any Time ^a
Service Use		
Any Doctor/Other Health Professional Visit	58.4	76.7 **
Any Preventive Care or Checkup Visit	32.6	58.2 **
Any Dental Visit for Checkup/Cleaning ^b	31.3	58.4 **
Any Specialist Visit	12.4	17.0 *
Any Mental Health Visit	3.7	4.8
Any Specialist or Mental Health Visit	15.3	21.0 *
Any Emergency Room Visit	24.0	31.2 **
Any Hospital Stay	3.4	6.3 **
Unmet Need		
Doctor/Health Professional Care	9.1	4.3 **
Prescription Drugs	10.6	5.8 **
Dental Care ^b	22.8	15.2 **
Specialist	9.3	4.9 **
Hospital Care	7.6	3.6 **
Hospital, Specialist, Doctor, Drug	21.4	14.5 **
Hospital, Specialist, Doctor, Drug, Dentist ^b	33.0	22.6 **
More than One Unmet Need	13.7	6.2 **
Parental Perceptions of Meeting Child's Health Care Needs		
Very Confident	37.6	58.7 **
Never or Not Very Often Stressed	36.5	63.1 **
Never or Rarely Worried	17.9	39.7 **
Never or Rarely Cause Financial Difficulties	42.4	61.1 **
Children on SCHIP Get Better Health Care	80.7	80.8
Doctors and Nurses Look Down on SCHIP Enrollees	20.4	18.6
Usual Source of Care (USC)		
Had USC in Past 6 Months	70.4	90.6 **
USC Type: Private Doctor's Office/Group Practice	45.2	65.9 **
Usually Saw Same Provider at USC	47.8	74.8 **
Had USC for Dental Care in Past 6 Months ^b	49.1	70.2 **
Provider Communication and Accessibility		
Would Recommend USC	89.2	92.6
Could Reach Doctor After Hours	57.5	76.3 **
Providers Explain in Understandable Ways	81.7	90.4 **
Provider Treats with Courtesy/Respect	91.3	94.6
Provider Talks About How Child Feeling	79.5	86.1 *
Rated Ease of Getting Care Excellent or Very Good	49.6	67.1 **
Wait Time for Care Less than 30 Minutes	40.0	54.6 **
Travel Time to USC Less than 30 Minutes	75.9	82.3 **
Sample Size	1,492	1,583

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

^aIncludes those insured some or all of past 6 months before enrolling.

^bApplies to children age 3 and older.

** Difference between recent enrollee groups significant from zero at the .01 level.

Uninsured children are less likely to have a usual source of care. Ninety-one percent of insured children had a usual source of health care, and 70 percent had a usual source of dental care, compared to 70 and 49 percent, respectively, for uninsured children. More children who were insured before enrolling in SCHIP had a usual source of care that was not an emergency room and usually saw the same provider at the usual source of care—75 percent for insured children, compared to 48 percent for uninsured children.

Insured children are more likely to have a private usual source of care. The majority of previously insured children relied on a private doctor’s office or group practice as their usual source of care. Parents of insured children were significantly more likely than parents of uninsured children to report a private usual source of care. Sixty-six percent of insured children had a private usual source of care, compared to 45 percent of uninsured children (Table I.6).

More parents of insured children reported that providers communicated effectively. As Table I.6 shows, parents of insured children were more likely than parents of uninsured children to report effective doctor-patient communication. Nine of 10 parents of insured children reported that their health care provider explained things in an understandable way, compared to 8 of 10 parents of uninsured children. Similarly, 86 percent of insured children had health care providers who asked about how the child was thinking, feeling, or growing, compared to 80 percent of uninsured children.

Insured children are more likely than uninsured children to receive care. In the 6 months before enrolling in SCHIP, insured children were more likely than uninsured children to have visited a doctor or other health professional (77 percent, compared to 58 percent) or to have received a dental checkup (58 percent, compared to 31 percent). Interestingly, insured children were also more likely than their uninsured counterparts to have visited the emergency room in the period before enrolling in SCHIP (31 versus 24 percent).

Dental care is the greatest source of unmet need. Overall, 33 percent of uninsured children had some type of unmet need before enrolling, compared to 23 percent of insured children. For both insured and uninsured children, the greatest amount of unmet need occurring in the period before enrolling in SCHIP was reported for dental care (see Table I.6). Not only were the uninsured children more likely to experience some unmet need, they also were more than twice as likely to experience multiple unmet needs (14 versus 6 percent).

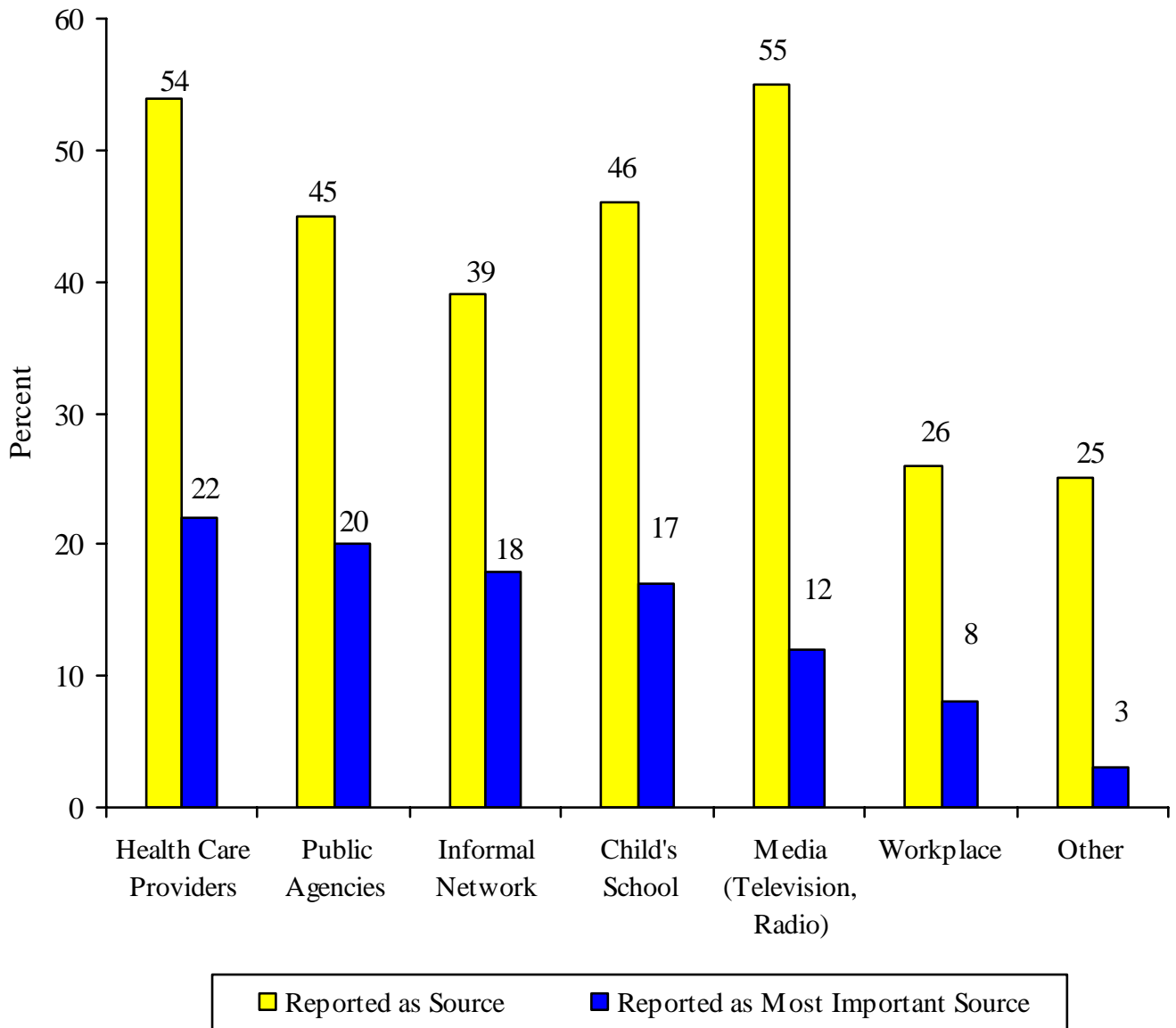
5. Families Had Positive Experiences with the SCHIP Enrollment Process

Knowledge gaps and administrative burdens are two widely cited barriers in enrolling and retaining families in public health insurance programs (Andrulis et al. 1999; Kenney et al. 2004; Cohen-Ross and Cox 2000; and Perry et al. 2000). However, nearly all families that had recently enrolled in SCHIP reported positive experiences with the application and enrollment processes. Below, we present findings on the application process, beginning with results on families' source of information.¹¹ We also summarize the lengths of time that our recent enrollee sample remained in SCHIP, based on a review of state enrollment records.

SCHIP enrollees most frequently cited health care providers or public agencies as the most important source of program information in deciding to enroll. Families reported learning about SCHIP from many sources, but only a few of these sources were mentioned frequently as the most important in their enrollment decision (Figure I.2). Families most frequently mentioned health care providers (22 percent) and public agencies (20 percent) as the most important source in deciding to enroll. These are followed by informal networks, such as friends or relatives (18 percent), and by schools (17 percent). While families often had heard

¹¹Findings on the application process are based on the 5,663 observations from the recent enrollee sample. Sample sizes for selected outcomes may be smaller due to missing data or because they are relevant for only a subsample of recent enrollees.

FIGURE I.2
SOURCES OF SCHIP INFORMATION



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on recent enrollee sample (N = 4,974).

about the program through radio and television (55 percent), relatively few reported that these sources were the most important in deciding to enroll (12 percent).

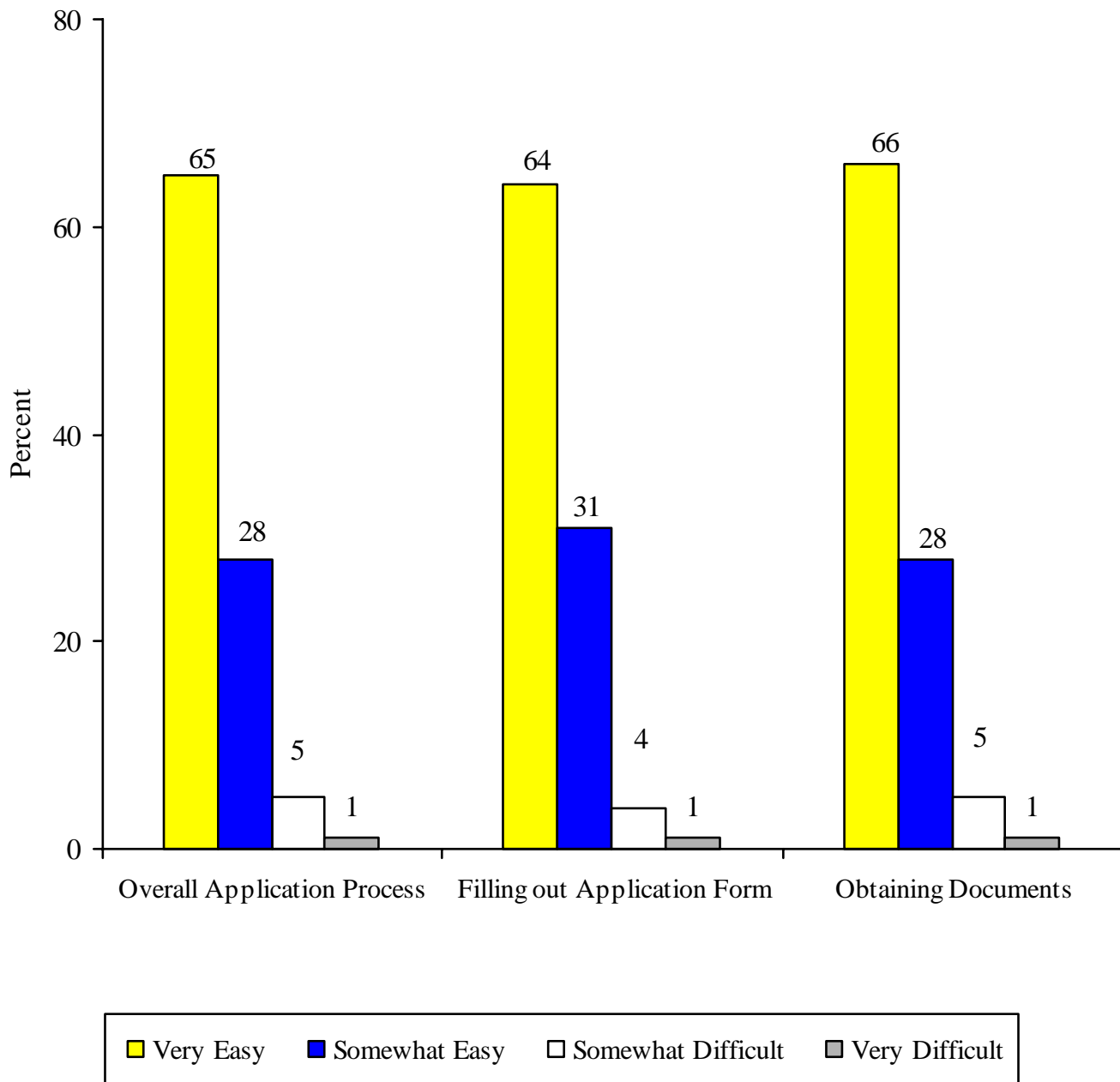
Nearly all families found the application process easy, and many enrolled quickly. Nearly all families with a child who recently enrolled in SCHIP reported that the overall enrollment process was easy. Sixty-five percent reported that the overall enrollment process was “very easy,” and another 28 percent said it was “somewhat easy” (Figure I.3). When asked specifically about the difficulty filling out the application form or with gathering required documents, results were similar.

Many families reported that they had to wait only a short time to enroll after submitting the application (Figure I.4). Eighty percent of recent enrollee families were notified of their child’s enrollment within 4 weeks of application, which is well within the 45-day period required by federal law. (Specifically, 35 percent waited 2 weeks or less, and 45 percent waited for 3 to 4 weeks.) Another eight percent of families waited for 5 to 8 weeks. The remaining share, accounting for 12 percent of recent enrollee families, reported that they waited for 9 weeks or longer.

One-third of the families received help applying for SCHIP. About one-third (32 percent) of the families with a recently enrolled child reported that they received some type of assistance with their application (data not shown). The sources of assistance most commonly reported were staff at a public agency (49 percent), SCHIP outreach workers or social workers (31 percent), and health care professionals such as staff at a health care clinic (26 percent). Nearly all these families reported positive experiences with the assistance they received. For example, 95 percent reported that it was very or somewhat easy to get the assistance they needed, and 98 percent reported that the person(s) who assisted them were courteous and respectful.

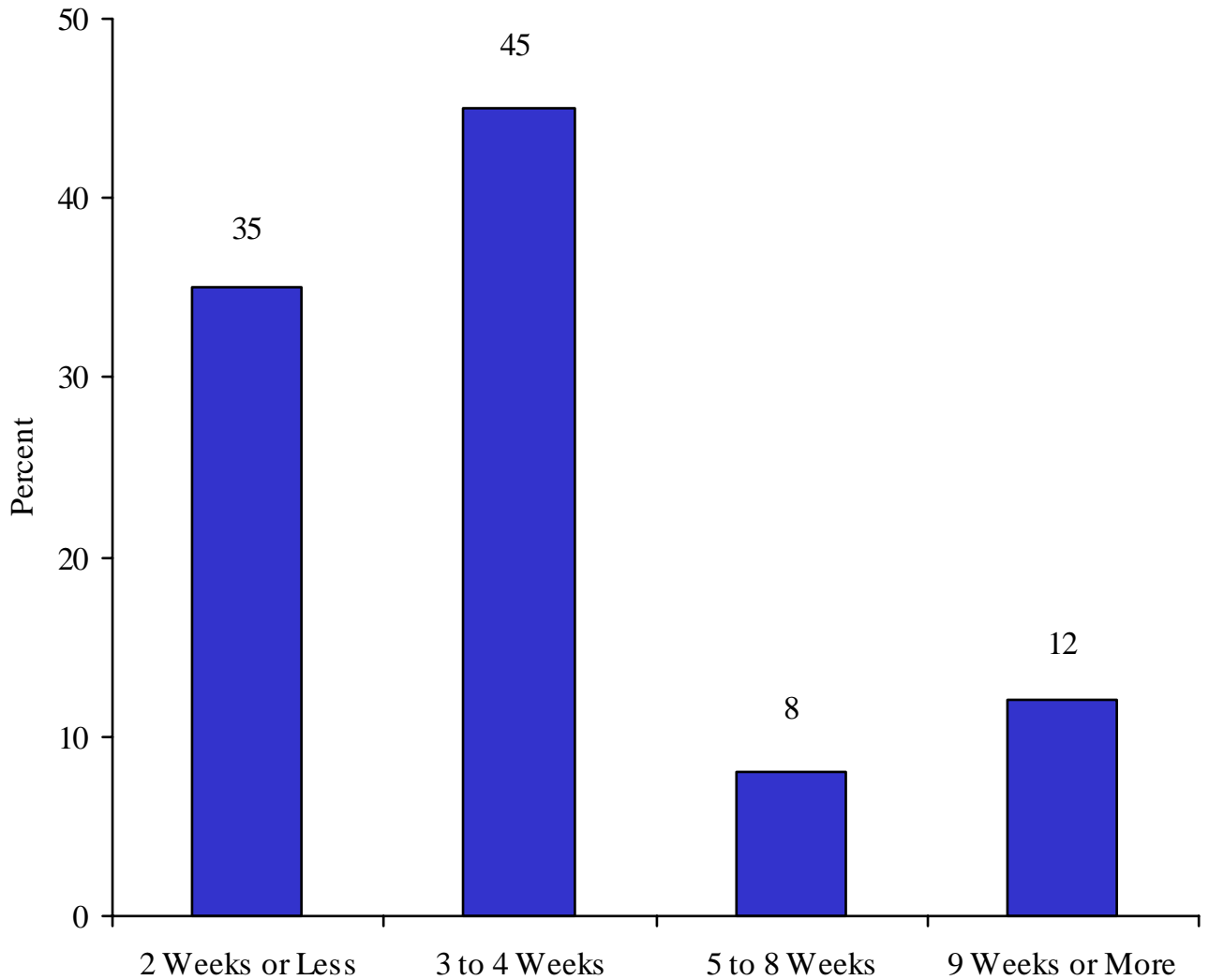
FIGURE I.3

EASE OF APPLICATION AMONG RECENT ENROLLEES IN 2002



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

FIGURE I.4
NUMBER OF WEEKS BETWEEN SCHIP APPLICATION AND
NOTIFICATION OF ENROLLMENT



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on recent enrollee sample (N = 4,894).

Only half of recent enrollees could correctly identify the timing of SCHIP renewal.

Families' understanding of when to renew their child's coverage for SCHIP may be essential to keep eligible children enrolled in the program (Riley et al. 2002). When asked how often they need to reapply for SCHIP, about half of the families (52 percent) provided a frequency (for example, "every year" or "every 6 months") that agreed with their state's SCHIP renewal policy at the time (Figure I.5). However, the remaining families, accounting for nearly a half of all families surveyed (48 percent), provided either an incorrect frequency (30 percent) or indicated that they did not know how often they were required to reapply for coverage (18 percent).

Most enrollees stayed in SCHIP at least a year. After they were enrolled in SCHIP, about 80 percent of children in the recent enrollee sample remained in the program for at least 6 months, and nearly 60 percent remained enrolled for at least 1 year (Figure I.6). The steepest decline in enrollment occurred around the 12-month mark. This is not surprising, since 6 of the 10 states in the study sample had policies that guaranteed coverage for 12 months (subject to premium requirements in selected states).

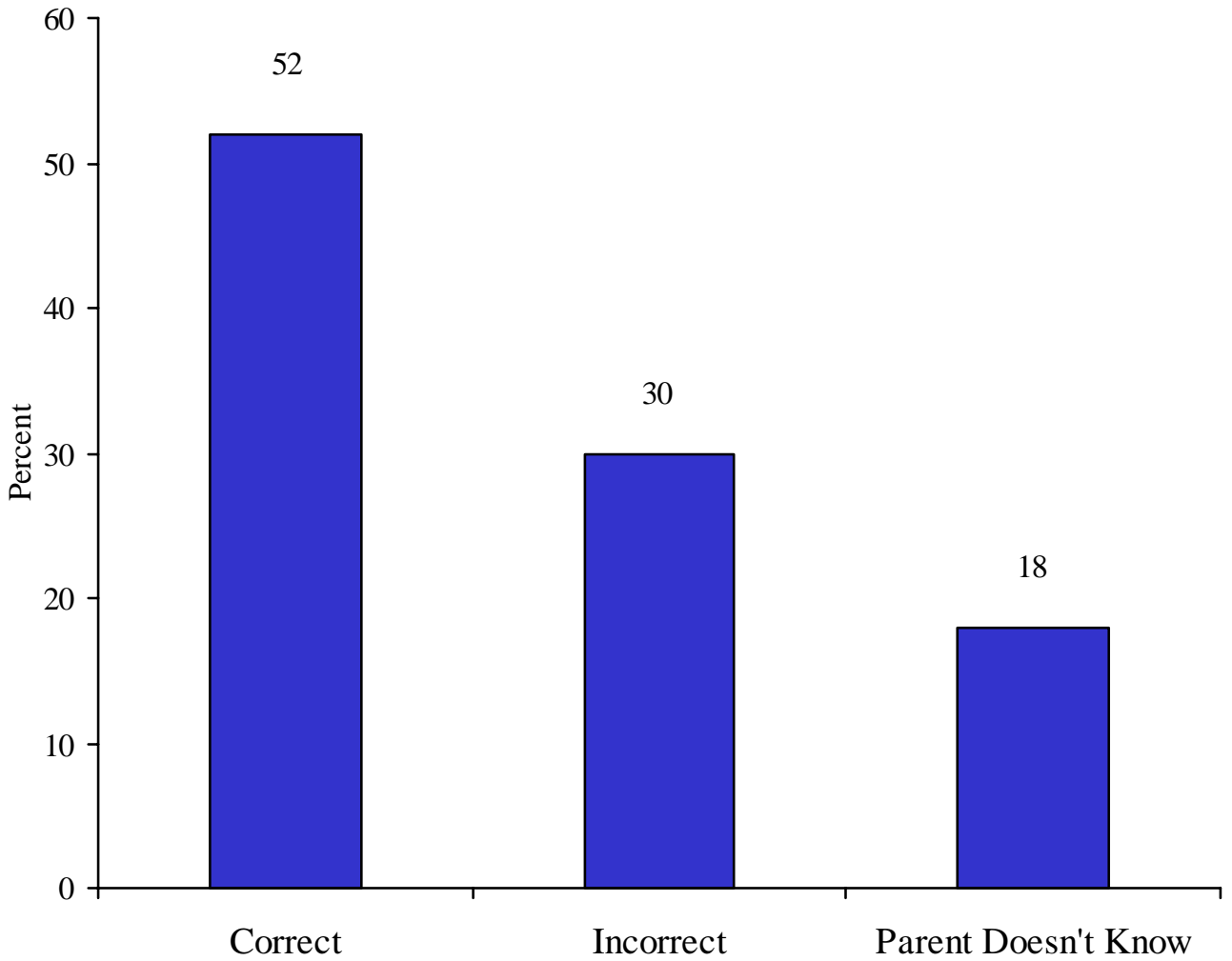
6. SCHIP Meets the Primary Health Care Needs of Most Children Who Enroll

To address children's health care needs, states chose comprehensive benefit packages, imposed modest co-payments for services, and established broad service delivery networks (Hill et al. 2003; and Wyses et al. 2003).¹² The survey data suggest that SCHIP programs are successfully meeting the primary health care needs of most of the children who enroll, but that there may be pockets of problems within the program for some children. Chapter III analyzes

¹²Findings on SCHIP enrollees' access and use are based on data from the established enrollee sample, excluding 75 cases with missing data.

FIGURE I.5

KNOWLEDGE ABOUT FREQUENCY OF REDETERMINATION FOR SCHIP

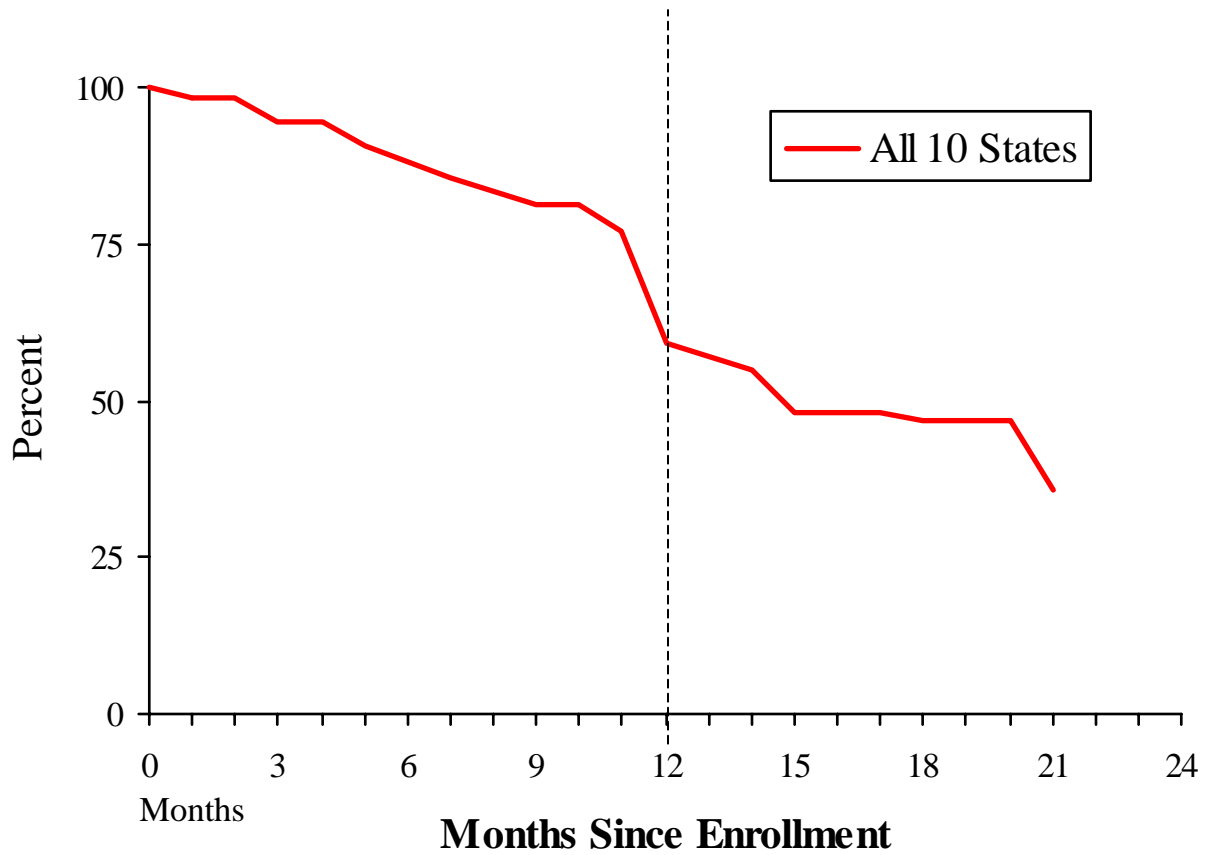


Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on recent enrollee sample (N = 4,894).

FIGURE I.6

PERCENTAGE OF CHILDREN ENROLLED IN SCHIP, BY TIME SINCE ENROLLMENT



Source: SCHIP enrollment files and 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

variation in access and use across different subgroups of SCHIP enrollees, and Chapter VII analyses the impacts of SCHIP on the access and use of the children who enroll.

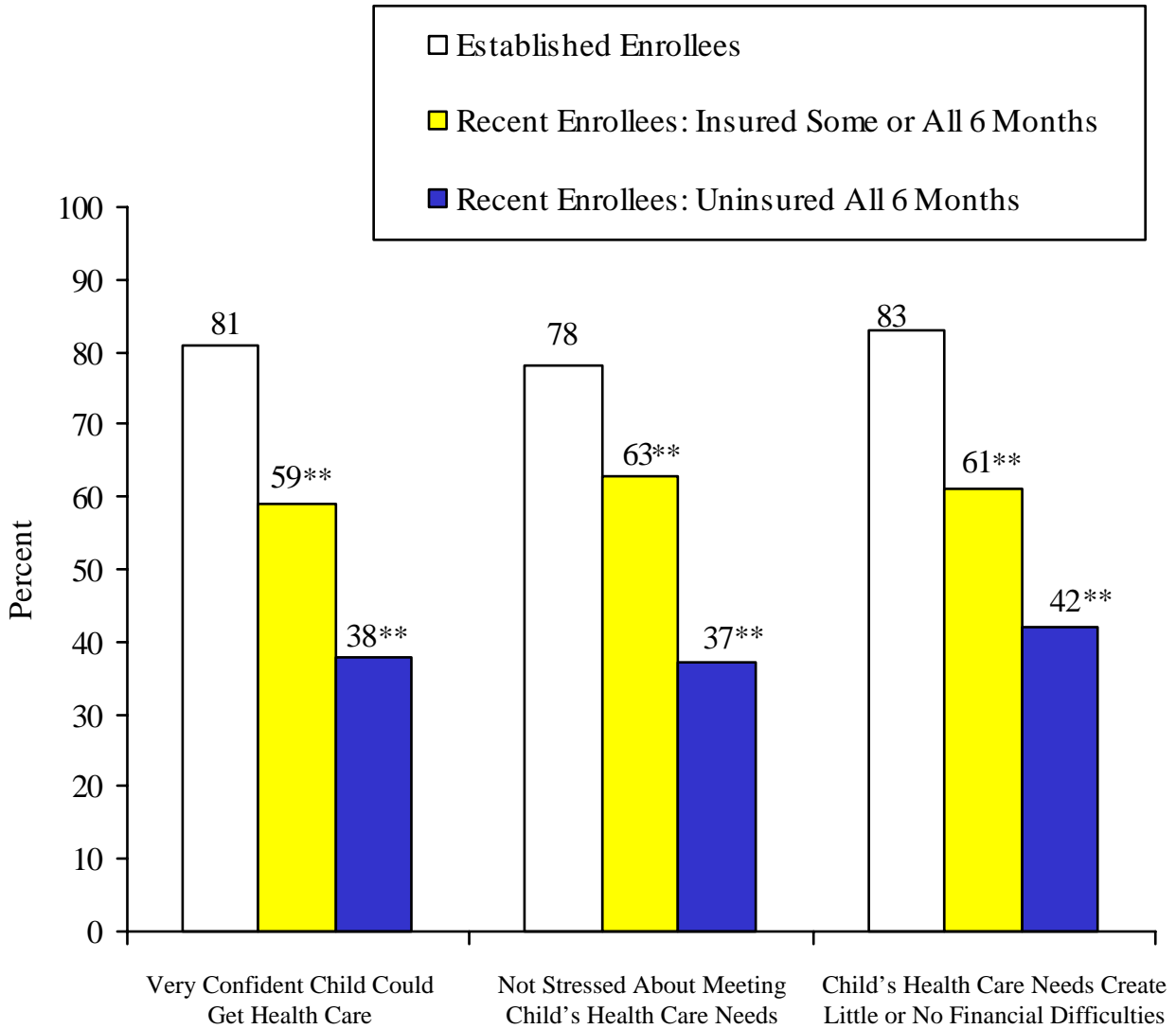
Confidence is high and stress low among parents of SCHIP enrollees. Parents of SCHIP enrollees expressed confidence in their ability to meet their children's health care needs under SCHIP (Figure I.7). More than four of five (81 percent) SCHIP enrollees have parents who say they are very confident that they could get needed health care for their child. Moreover, more than three-quarters (78 percent) have parents who say that they rarely or never feel stress about meeting their children's health care needs, and 83 percent have parents who say that meeting their child's health care needs caused little or no financial difficulty. For each of these different measures, confidence was higher and stress and financial difficulties lower for SCHIP enrollees than for children before enrolling in SCHIP, whether or not they had been uninsured or insured.¹³ For example, compared to the 81 percent of SCHIP enrollees who had parents who said they were very confident that their child could get needed health care, just under three of five (59 percent) children who had been insured before enrolling in SCHIP and less than two of five (38 percent) children who had been uninsured expressed a similarly high degree of confidence.

Private usual sources of care and strong doctor-patient relationships predominate. Of the 9 of 10 SCHIP enrollees who had a usual source of care for health services, nearly two-thirds (64 percent) used a private doctor's office or group practice (Figure I.8). Most of the remaining third of enrollees (32 percent) used a clinic or health center as their usual source of care. By and large, parents of SCHIP enrollees cited various types of usual source of care at the same rates as parents of previously insured children. However, previously uninsured children were less likely

¹³Appendix Table I.2 indicates where the sample means differ between the established enrollees and the recent enrollees, overall and by their prior insurance coverage status. Only differences that are statistically significant at the .05 level are noted.

FIGURE I.7

PARENTS' ASSESSMENT OF ABILITY TO MEET CHILD'S HEALTH CARE NEEDS BEFORE AND AFTER SCHIP ENROLLMENT



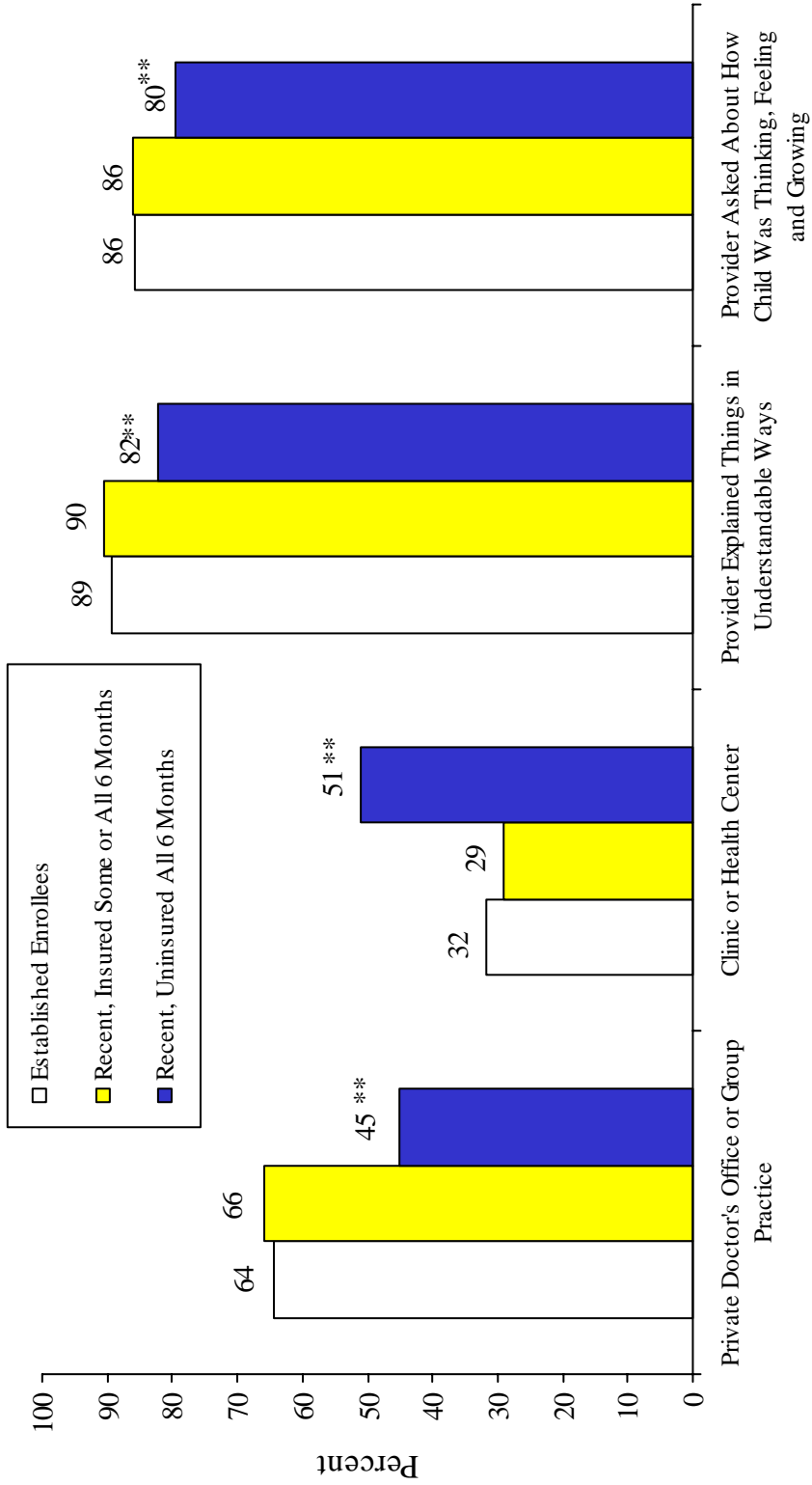
Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on samples of recent and established enrollees (N = 8,500).

**Difference between each of the recent enrollee samples (insured and uninsured) and established enrollees statistically significant ($p < .01$).

FIGURE I.8

USUAL SOURCE OF CARE TYPE AND PROVIDER COMMUNICATION BEFORE AND AFTER ENROLLMENT



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on samples of recent and established enrollees (N = 8,500).

**Difference between each of the recent enrollee samples (insured and uninsured) and established enrollees statistically significant (p < .01).

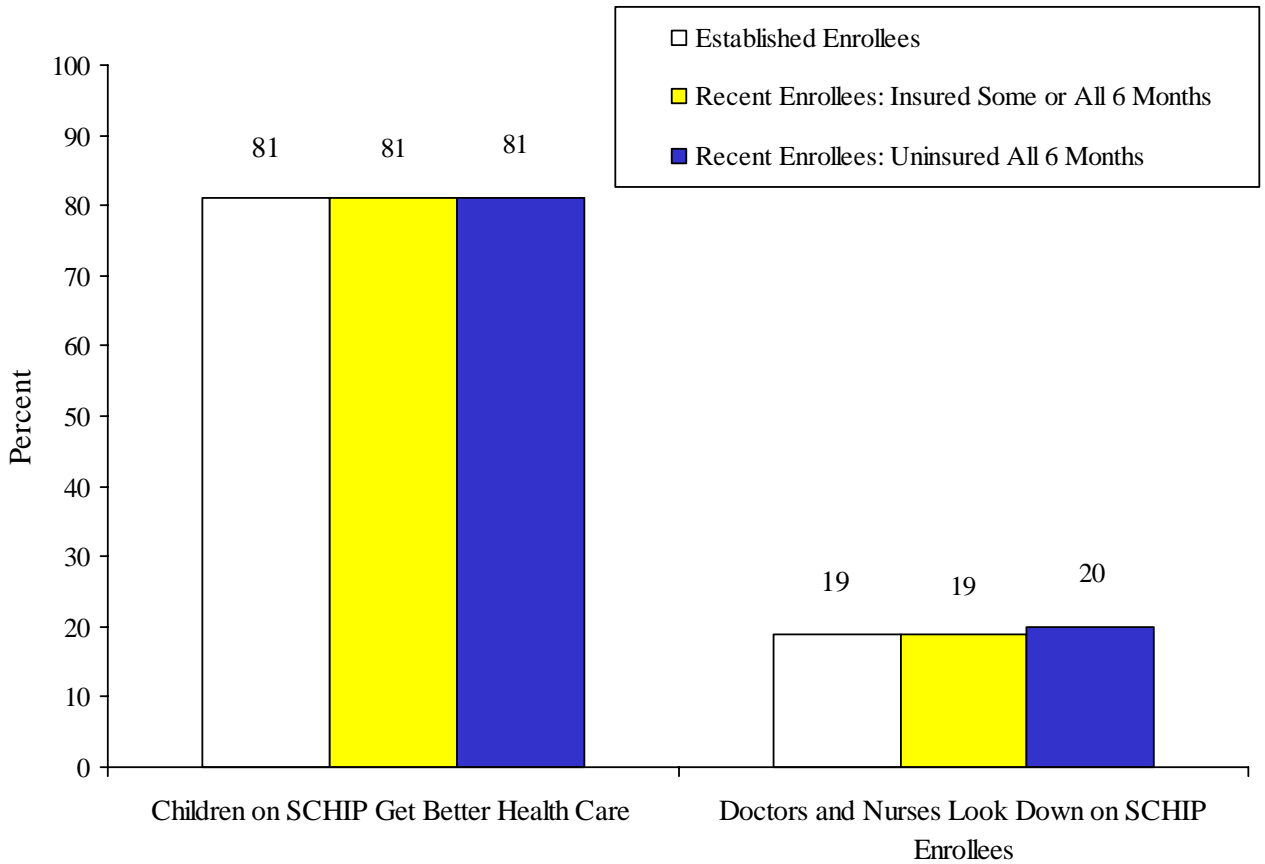
to use a private doctor's office or group practice and more likely to cite a clinic health center than SCHIP enrollees. Nearly half (45 percent) of uninsured children used a private doctor's office or group practice, and half (51 percent) used a clinic or health center.

Overall, parents of SCHIP enrollees had positive experiences communicating with health care providers. Nine of 10 (89 percent) parents of enrollees reported that their provider explained things in understandable ways, and nearly as many parents (86 percent) reported that their doctor talked about how the child was thinking, feeling, and growing. Fully 94 percent of parents of enrollees reported that their children's doctor treated them with courtesy and respect (see Appendix Table I.3). While the experiences of parents of SCHIP enrollees were similar to those of children who were insured before enrolling in SCHIP, fewer parents of uninsured children reported that their doctor communicated effectively. Eighty-two percent of parents of uninsured children reported that their provider explained things in understandable ways, and 91 percent reported that their doctor treated them with courtesy and respect (see Appendix Table I.3).

Perceptions of SCHIP Program Are Positive. Families were asked two questions about their general perceptions of the SCHIP program: (1) whether they thought that children got better health care under SCHIP than children without insurance, and (2) whether they thought that doctors and nurses look down on people with SCHIP coverage. Responses to these two questions indicate that most families have positive perceptions of the SCHIP program (Figure I.9). Four in five parents said they thought it was definitely or mostly true that children on SCHIP got better health care than children without insurance and that it was definitely or mostly false that doctors and nurses look down on people with SCHIP. (Parents of children who disenrolled had similar perceptions of the SCHIP program.)

FIGURE I.9

PARENTAL PERCEPTIONS OF SCHIP BEFORE AND AFTER SCHIP ENROLLMENT



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on samples of recent and established enrollees (N = 8,500).

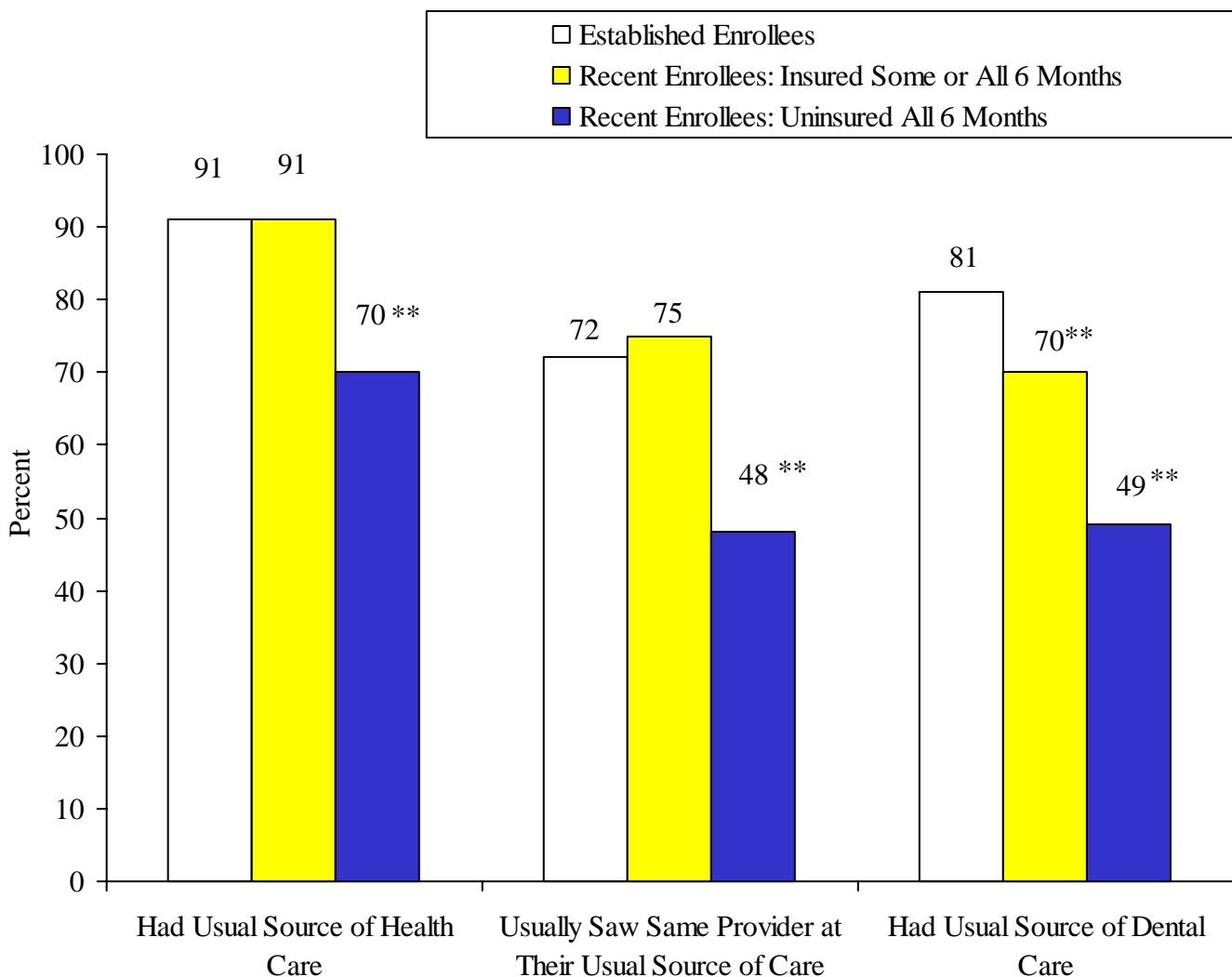
Many SCHIP enrollees have a usual source of care and receive preventive care. The high level of confidence parents reported about meeting their children's health care needs under SCHIP is consistent with the fact that their children are likely to have a usual source of care and to have received preventive care in the past 6 months (Figures I.10 and I.11). More than 9 of 10 (91 percent) SCHIP enrollees had a usual source of care for health services, 72 percent usually saw the same provider at their usual source of care, and 81 percent had a usual source of care for dental services. Moreover, in the 6 months before the interview, 45 percent received a well-child visit, and 57 percent received a dental checkup, under the SCHIP program.

The health care access experiences of enrollees while on SCHIP are similar to the experiences insured children had before enrolling, with two exceptions. In contrast, SCHIP enrollees are much more likely than previously uninsured children to have usual sources of care for both health and dental care and to have received any well-child care or a dental checkup. Less than one in five (18 percent) of SCHIP enrollees had an emergency room visit in the 6 months before the interview, compared to 24 percent of the uninsured children and 31 percent of the insured children in the 6 months before they enrolled in SCHIP. The fact that SCHIP enrollees were less likely to have had an emergency room visit relative to both insured and uninsured children suggests that access to primary or specialty care may increase after enrolling in SCHIP.

One of Five SCHIP Enrollees Has an Unmet Need for Care. Despite the relatively high levels of service use and access to care, one in five SCHIP enrollees has some type of unmet need (Figure I.12). The proportion of children with any unmet need is lower for children covered under SCHIP (18 percent) than for children who had coverage before enrolling in SCHIP (23 percent) and for those who had no coverage for the 6 months before enrolling in SCHIP (33 percent). Likewise, only 3 percent of enrollees reported more than one unmet need

FIGURE I.10

USUAL SOURCE OF CARE BEFORE AND AFTER SCHIP ENROLLMENT

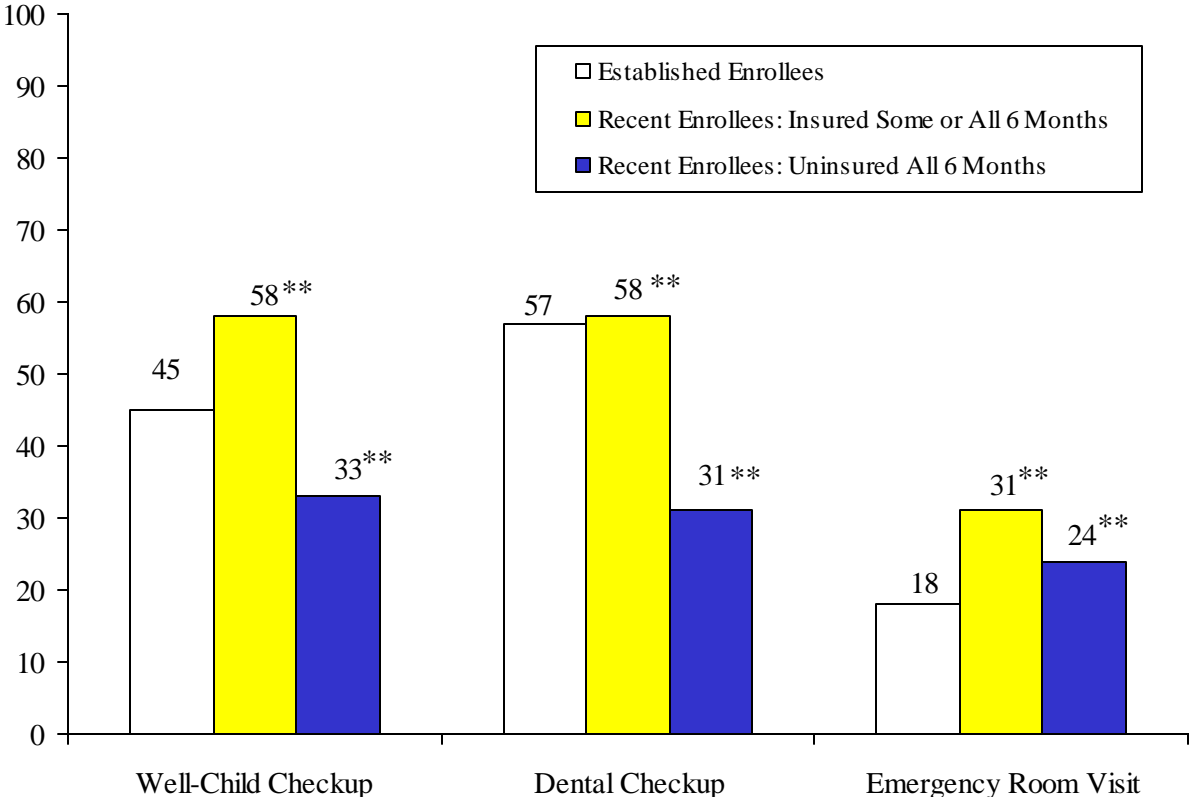


Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on samples of recent and established enrollees (N = 8,500).

** Difference between each of the recent enrollee samples (insured and uninsured) and established enrollees statistically significant ($p < .01$).

FIGURE I.11
SERVICE USE BEFORE AND AFTER SCHIP ENROLLMENT



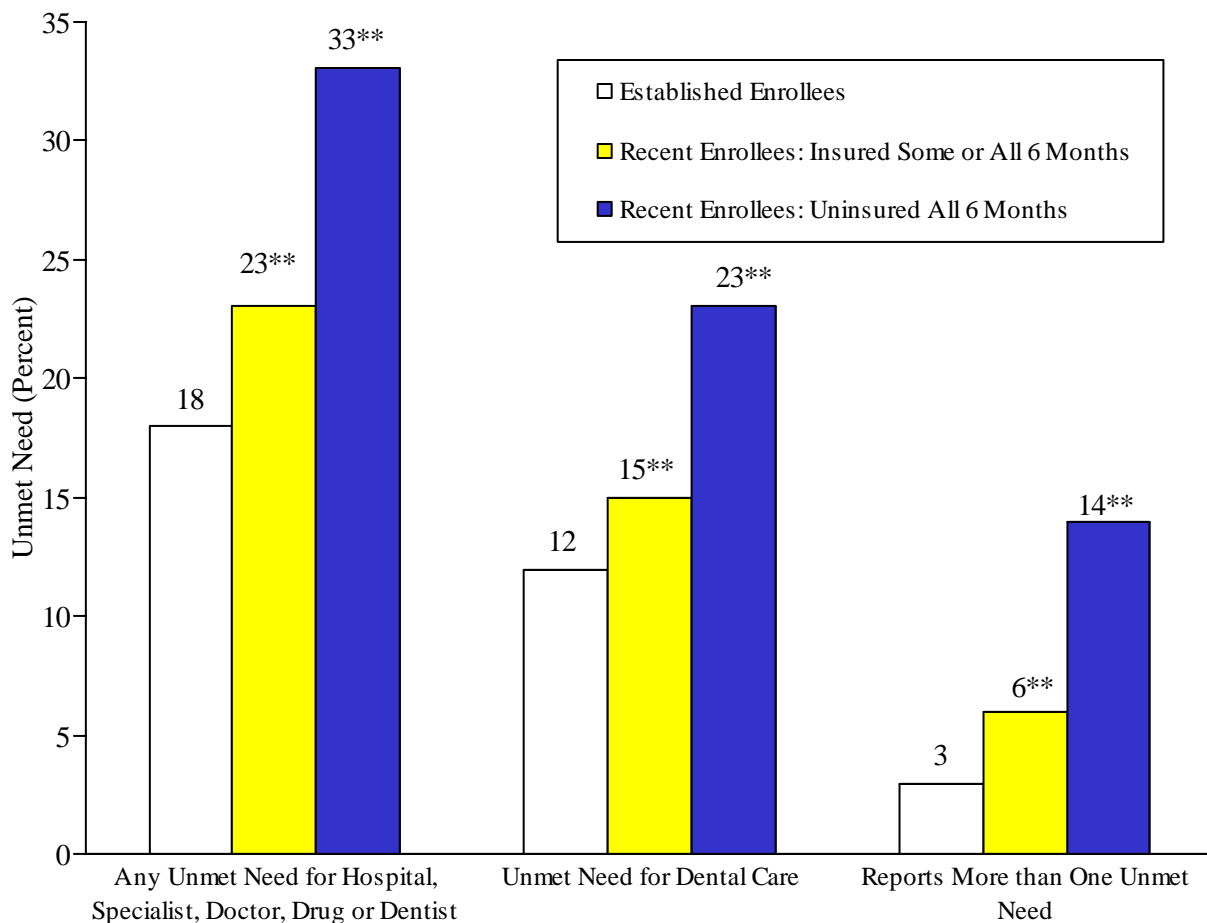
Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on samples of recent and established enrollees (N = 8,500).

**Difference between each of the recent enrollee samples (insured and uninsured) and established enrollees statistically significant ($p < .01$).

FIGURE I.12

UNMET NEED BEFORE AND AFTER SCHIP ENROLLMENT



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on samples of recent and established enrollees (N = 8,500).

** Difference between each of the recent enrollee samples (insured and uninsured) and established enrollees statistically significant (p < .01).

while on the program, compared to 14 percent for those without any insurance coverage and 6 percent for those who had coverage in the 6 months prior.

Consistent with the experiences children had before enrolling in SCHIP and with past research (Edelstein et al. 2000; and Dubay and Kenney 2001), the greatest unmet need was identified for dental care, where 12 percent of SCHIP enrollees were reported to have an unmet need. However, SCHIP enrollees fared better than children before entering SCHIP on all three measures of dental access: they were less likely to report an unmet dental need and more likely to have received a dental checkup and have a usual source of dental care (see Appendix Table I.3). Unmet needs were quite low in the other service areas: 4 percent had unmet need for prescription drugs; 3 percent had unmet need for specialty care; 2 percent had unmet need for care from a doctor or other health professional; and only 1 percent had unmet need for hospital care (see Appendix Table I.3).

7. More than Half of SCHIP Disenrollees Were Subsequently Insured Through Public Programs

Increasingly, as SCHIP has become more established and most states have taken steps to make the application process easier, attention has shifted away from enrollment toward continuation of coverage and disenrollment.¹⁴ Two questions are of particular interest: (1) How often do disenrollees obtain coverage after leaving SCHIP? and (2) Among those who fail to obtain coverage, what share might still be eligible for coverage through SCHIP?

About half of SCHIP disenrollees had some type of coverage when they left the program.

Upon leaving SCHIP, 48 percent of disenrollees were reported to be without insurance

¹⁴Findings on SCHIP disenrollees are based on 4,321 observations from the disenrollee sample. Sample sizes for selected outcomes may be smaller due to missing data and/or because they are relevant for only a subsample of disenrollees.

(Table I.7, column 1).¹⁵ Among the other half who obtained coverage, the large majority (34 percent overall) transitioned immediately to the Medicaid program, while a smaller share (14 percent) obtained private coverage. The remaining disenrollees (4 percent) were covered by other types of public programs, such as Medicare or TRICARE, or were unable to specify their coverage.

Within a few months after leaving SCHIP, the share of uninsured disenrollees fell notably, to 43 percent at 3 months and 33 percent at 6 months (Table I.7, columns 2 and 3). Nearly all of this decline can be traced to reentries into SCHIP, which totaled 7 percent by 3 months after disenrolling and 14 percent by 6 months after disenrolling. The result is that, by 6 months from exit, about half of all disenrollees (49 percent) had reentered SCHIP or entered Medicaid, making public programs the dominant insurer of SCHIP disenrollees. In Chapter III, we examine the issue of reentry into public coverage based on an analysis of SCHIP and Medicaid program data for our disenrollee sample.

TABLE I.7
INSURANCE COVERAGE OF SCHIP DISENROLLEES, BY TIME
SINCE PROGRAM EXIT
(Percent)

Status	At Exit	3 Months from Exit	6 Months from Exit
Uninsured	48	43	33
Medicaid	34	35	35
SCHIP	--	7	14
Private	14	14	16
Other	4	2	2
Sample Size	4,085	3,895	3,335

¹⁵Estimates of post-SCHIP insurance coverage are based on a combination of survey data and administrative records from the SCHIP and Medicaid programs. The latter data were used for a sizable fraction (32 percent) of disenrollees who were reported to have never exited the program. In nearly all instances, these disenrollees transferred to Medicaid or reentered SCHIP after a short period. Ignoring these disenrollees would have grossly understated the fraction of children obtaining public coverage after exiting and overstated the fraction without coverage. In three states where Medicaid records were not available (Colorado, New York, and Texas), Medicaid enrollment after SCHIP was imputed. See Appendix C for a further description of how disenrollees' post-SCHIP coverage was derived.

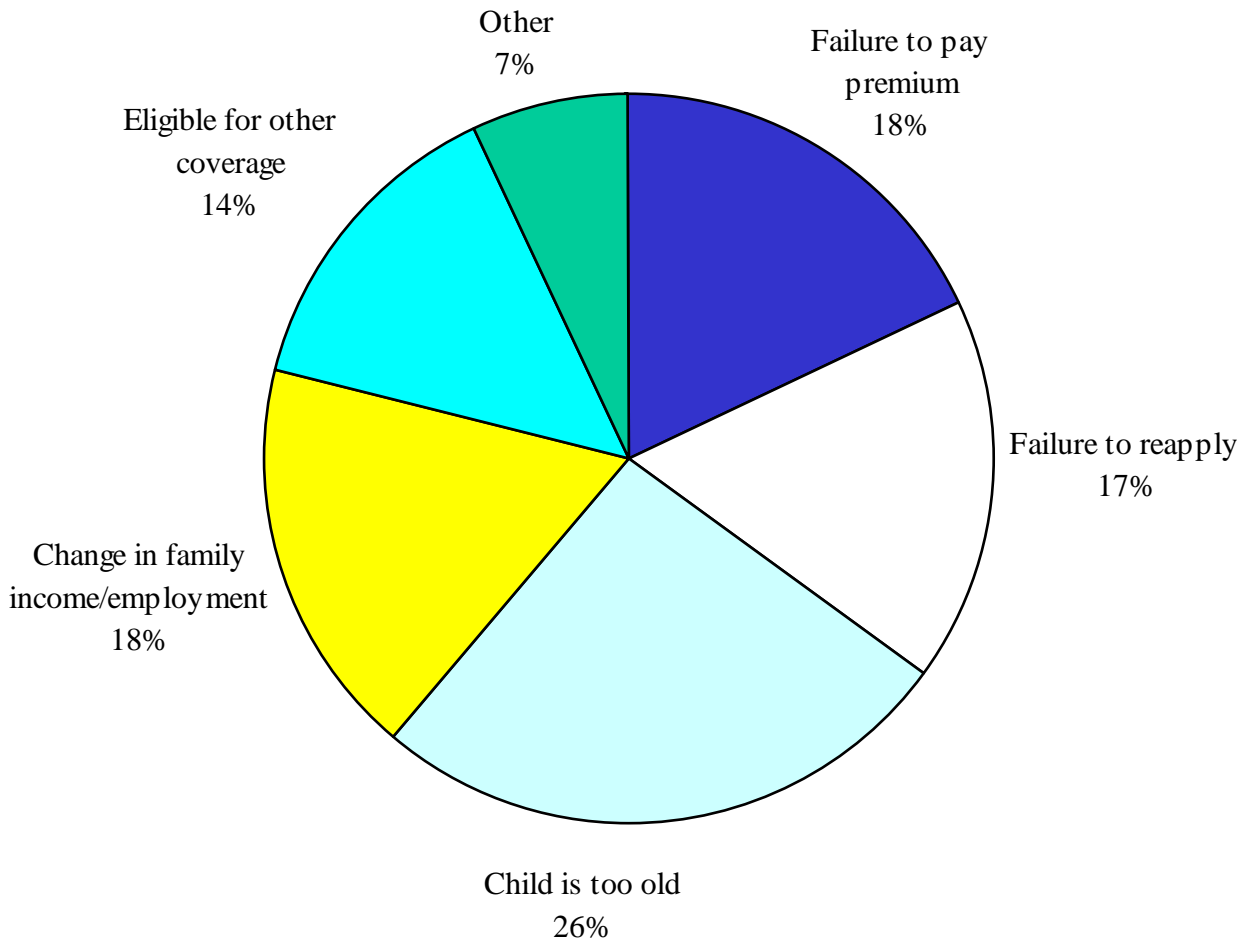
Lack of awareness about disenrollment may contribute to cycling. Of those disenrollees who returned or “cycled” back to SCHIP within 6 months, three of four (75 percent) had parents who believed that they had never left the program (data not shown). Indeed, when asked how long they had been covered by SCHIP, more than half (55 percent) believed that their children had been on the program continuously for more than 2 years despite having had a recent gap in coverage. While the length of this gap was usually 4 months or less, it is likely that most, if not all of these children, were uninsured during this gap while they might have been eligible for SCHIP.

This lack of awareness may be related to a more general lack of understanding about the program and the requirements associated with renewal. Indeed, of the disenrollees who returned to SCHIP within 6 months, only 58 percent could identify the correct renewal date for coverage. Had parents been better aware of when their child left the program or when they should renew their coverage, these families might have been able to shorten or even close some of these gaps.

Many uninsured might still be eligible for SCHIP. Among the one-third of disenrollees who were uninsured 6 months after leaving SCHIP, about one-third (35 percent) cited either failure to pay the required premium (18 percent) or failure to reapply (17 percent), most often due to “paperwork problems” (Figure I.13). While it is not certain how many of these disenrollees would have remained eligible for SCHIP, available evidence suggests that this number could be large. Namely, when asked why their children were uninsured after leaving SCHIP, only 10 percent of these disenrollees cited reasons suggestive of ineligibility (such as “waiting for other coverage” or “became eligible for Medicaid”). Nearly all of the rest cited a lack of access to affordable employer-sponsored coverage or reiterated their reason for leaving SCHIP—failure to renew or to pay the premium (not shown).

FIGURE I.13

REASON FOR DISENROLLING AMONG CHILDREN UNINSURED
6 MONTHS AFTER LEAVING SCHIP



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states; SCHIP and Medicaid administrative data.

Note: Estimates based on disenrollee sample (N = 4,001).

Most of the remaining two-thirds (65 percent) of disenrollees who were uninsured 6 months later cited leaving SCHIP because of the child's age (26 percent) or a change in family income or employment (18 percent). While the former reason is likely to signal ineligibility for SCHIP, the latter is less certain, because families might still remain eligible for SCHIP despite a change in income or employment. Indeed, when asked why their children were uninsured after leaving SCHIP, only 23 percent of these parents cited reasons that further suggested program ineligibility, such as "waiting for other coverage" (data not shown). Nearly all the rest cited a lack of access to affordable employer-sponsored coverage. Given the major role that public coverage plays in insuring SCHIP disenrollees, aggressive policies to retain eligible families in SCHIP or Medicaid and to close short gaps in coverage might further reduce the share of children who are uninsured.

APPENDIX

CHAPTER I SUPPLEMENTAL TABLES

APPENDIX TABLE I.1

CHARACTERISTICS OF SCHIP ENROLLEES AND THEIR PARENTS

Variable	Recent Enrollees	Established Enrollees	Disenrollees
Employment in Past Year			
No Parent Employed	7.9	7.6	11.2 **
Household Structure			
Two Parents	54.9 *	57.7	50.7 **
One Parent	34.9 *	34.9	40.1
One Parent + Step/Other Guardian	5.8	6.0	7.1
Other	1.5	1.4	2.2
Highest Education Level of Parent(s)			
No GED or HS Diploma	21.2 **	24.9	22.4
GED or HS Diploma	34.6	34.9	35.9
Some College or College Degree ^a	44.2 **	40.2	41.8
Household Income by FPL Range ^b			
<150% FPL	71.6 **	67.8	70.7 **
150-199% FPL	18.0 **	23.1	16.9 **
>200% FPL	10.4	9.1	12.3
Child Has Elevated Health Care Need	23.8	24.1	25.7
Child's Overall Health Is Fair or Poor	8.3	8.5	10.2 *
Child Has Asthma	14.9	15.5	15.5
Child Has Mental Health Condition	8.1	7.4	10.2 **
Age of Child			
Age 0-5	27.4 **	19.3	20.3 **
Age 6-12	46.2	47.8	44.2
Age 13-20	26.5 **	32.9	35.5 **
Child's Race			
Hispanic/Latino	48.7	49.2	43.9 **
White	30.0	32.1	15.4
Black	13.9 **	11.5	34.0 **
Asian	4.9	5.6	4.7
All Other Races	2.5	1.7	2.0
Birthplace of Parents			
At Least One Parent Foreign Born	44.2	46.4	35.9 **
Main Language Spoken in Household			
Spanish	28.7	28.1	23.9 **
Other	4.3	4.5	3.0 *
Metropolitan Status			
Metropolitan Statistical Area	86.1	86.3	83.1 **
Nonmetro, Adjacent (to Metro)	9.2	9.3	10.4
Nonmetro, Nonadjacent (to Metro)	4.7	4.4	6.5 **

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Notes: Size of samples varies across estimates due to item nonresponse.

^aIncludes 2-year associate's degree and trade school.

^bHousehold income has a missing rate of 11 percent, which is considerably higher than other variables cited.

**p-value of difference (between recent enrollees/disenrollees and established enrollees) <0.01; * p-value < 0.05.

APPENDIX TABLE I.2

CHARACTERISTICS OF SCHIP ENROLLEES, BY STATE

	CA	CO	FL	NY	NC	TX	IL	NJ	LA	MO	Total
Employment in Past Year											
No Parent Employed	4.1	10.9	7.0	9.2	9.7	8.7	10.1	11.3	12.7	8.4	7.6
Household Structure											
Two Parents	74.0	53.6	47.7	49.6	42.2	59.4	46.7	44.0	33.8	47.5	57.7
One Parent	23.3	40.7	42.0	42.1	49.0	31.0	45.5	49.1	55.7	41.5	34.9
One Parent + Step/Other Guardian	2.7	4.5	8.1	6.1	8.0	7.4	6.9	5.8	8.9	10.0	6.0
Other	0.0	1.2	2.2	2.3	0.9	2.1	0.9	1.2	1.7	1.1	1.4
Highest Education Level of Parent(s)											
No GED or HS Diploma	39.9	18.1	9.0	10.1	11.4	32.5	22.2	11.9	14.3	9.6	24.9
GED or HS Diploma	27.0	36.2	39.5	36.1	45.4	35.3	34.8	39.1	48.0	46.9	34.9
Some College or College Degree ^a	33.2	45.8	51.5	53.8	43.3	32.3	43.0	49.0	37.7	43.5	40.2
Household Income by FPL Range ^b											
<150% FPL	66.9	70.7	60.8	57.9	71.9	75.7	76.6	61.7	81.2	66.3	67.8
150-199% FPL	25.4	22.7	25.7	28.8	22.5	17.7	17.6	23.5	15.3	22.8	23.1
>200% FPL	7.7	6.5	13.5	13.4	5.7	6.7	5.8	14.8	3.5	10.9	9.1
Child Has Elevated Health Care Needs	20.2	23.6	22.2	24.9	30.3	24.9	31.6	23.1	37.0	30.2	24.1
Child's Overall Health Is Fair or Poor	9.0	7.5	4.8	5.5	6.9	11.0	12.0	7.5	14.4	7.9	8.5
Child Has Asthma	14.0	11.2	14.1	20.0	17.4	14.2	17.4	15.8	19.5	18.1	15.5
Child Has Mental Health Condition	5.5	8.9	8.5	6.8	10.2	6.2	11.9	7.8	15.0	15.1	7.4
Age of Child											
Age 0-5	24.1	28.1	12.9	20.3	18.3	19.7	9.6	13.4	15.4	15.2	19.3
Age 6-12	49.6	41.2	46.4	48.2	45.6	47.1	50.4	46.5	45.7	49.8	47.8
Age 13-20	26.3	30.7	40.8	31.5	36.1	33.2	40.0	40.2	38.9	35.0	32.9
Child's Race											
Hispanic/Latino	69.2	38.0	32.4	25.9	8.3	69.7	34.8	35.9	5.2	4.8	49.2
White	16.4	51.4	48.7	48.2	51.8	19.5	37.6	38.1	42.9	74.1	32.1
Black	3.0	4.3	13.9	14.9	32.3	7.9	22.1	18.5	48.3	16.6	11.5
Asian	10.4	3.8	2.7	8.7	4.9	1.8	3.0	5.1	1.9	0.8	5.6
All Other Races	1.0	2.5	2.3	2.3	2.7	1.1	2.6	2.4	1.8	3.7	1.7
Birthplace of Parents											
At Least One Parent Foreign Born	73.1	26.3	37.1	44.6	10.1	43.1	33.5	39.1	4.3	4.4	46.4
Main Language Spoken in Household											
Spanish	50.9	15.7	18.3	12.3	4.9	30.0	20.3	17.6	2.2	2.0	28.1
Other	7.4	1.7	3.6	8.0	1.8	1.5	2.2	6.4	0.7	0.9	4.5
Metropolitan Status											
Metropolitan Statistical Area	95.8	70.7	93.0	89.4	61.7	79.2	79.2	100.0	68.3	59.1	86.3
Nonmetro, Adjacent (to Metro)	3.8	5.8	5.9	6.5	26.5	15.7	13.3	0.0	26.5	11.6	9.3
Nonmetro, Nonadjacent (to Metro)	0.3	23.6	1.1	4.1	11.8	5.1	7.5	0.0	5.2	29.3	4.4
Sample Size	562	603	601	588	602	604	574	569	576	562	5,841

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Notes: Size of samples varies across estimates due to item nonresponse.

^aIncludes 2-year associate's degree and trade school.

^bHousehold income has a missing rate of 11 percent, which is considerably higher than other variables cited.

APPENDIX TABLE I.3

ACCESS AND USE BEFORE AND AFTER SCHIP ENROLLMENT

	Established ^a	Recent Enrollees		
		All	Uninsured All 6 Months	Insured at Any Time ^b
Service Use				
Any Doctor/Other Health Professional Visit	66.7	67.6	58.4 **	76.7 ** ##
Any Preventive Care or Checkup Visit	45.4	45.5	32.6 **	58.2 ** ##
Any Dental Visit for Checkup/Cleaning ^c	57.3	44.0 **	31.3 **	58.4 ** ##
Any Specialist Visit	16.7	14.7	12.4 **	17.0 #
Any Mental Health Visit	5.4	4.2	3.7 *	4.8
Any Specialist or Mental Health Visit	20.3	18.1	15.3 **	21.0 #
Any Emergency Room Visit	18.0	27.6 **	24.0 **	31.2 ** ##
Any Hospital Stay	3.7	4.8	3.4	6.3 * ##
Unmet Need				
Doctor/Health Professional Care	2.1	6.6 **	9.1 **	4.3 ** ##
Prescription Drugs	4.1	8.1 **	10.6 **	5.8 ** ##
Dental Care ^c	11.9	19.1 **	22.8 **	15.2 * ##
Specialist	3.4	7.0 **	9.3 **	4.9 ** ##
Hospital Care	1.4	5.5 **	7.6 **	3.6 ** ##
Hospital, Specialist, Doctor, Drug	9.2	17.8 **	21.4 **	14.5 ** ##
Hospital, Specialist, Doctor, Drug, Dentist ^c	18.3	27.6 **	33.0 **	22.6 * ##
More than One Unmet Need	3.3	9.8 **	13.7 **	6.2 ** ##
Parental Perceptions of Meeting Child's Health Care Needs				
Very Confident	81.2	48.6 **	37.6 **	58.7 ** ##
Never or Not Very Often Stressed	78.4	50.1 **	36.5 **	63.1 ** ##
Never or Rarely Worried	55.2	29.0 **	17.9 **	39.7 ** ##
Never or Rarely Cause Financial Difficulties	83.4	52.1 **	42.4 **	61.1 ** ##
Children on SCHIP Get Better Health Care	80.6	80.4	80.7	80.8
Doctors and Nurses Look Down on SCHIP Enrollees	19.2	18.1	20.4	18.6
Usual Source of Care (USC)				
Had USC in Past 6 Months	91.4	80.4 **	70.4 **	90.6 ** ##
USC Type: Private Doctor's Office/Group Practice	64.4	59.3 **	45.2 **	65.9 ** ##
Usually Saw Same Provider at USC	72.3	61.4 **	47.8 **	74.8 ** ##
Had USC for Dental Care in Past 6 Months ^c	81.3	59.1 **	49.1 **	70.2 ** ##
Provider Communication and Accessibility				
Would Recommend USC	91.7	91.2	89.2	92.6
Could Reach Doctor After Hours	75.6	68.3 **	57.5 **	76.3 ** ##
Providers Explain in Understandable Ways	89.4	86.9	81.7 **	90.4 ** ##
Provider Treats with Courtesy/Respect	93.8	93.3	91.3	94.6
Provider Talks About How Child Feeling	85.5	83.4	79.5 **	86.1 #
Rated Ease of Getting Care Excellent or Very Good	70.8	59.9 **	49.6 **	67.1 ** ##
Wait Time for Care Less than 30 Minutes	51.8	48.1 *	40.0 **	54.6 ** ##
Travel Time to USC Less than 30 Minutes	84.1	79.5 **	75.9 **	82.3 ** ##
Sample Size	5,394	3,106	1,492	1,583

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Notes: Estimates based on a sample of recent and SCHIP established enrollees.

^a“Established” is the reference category for tests of significance.

^bIncludes those insured some or all of the past 6 months before enrolling.

^cApplies to children age 3 and older.

Difference between recent enrollee group and established enrollees significant from zero at the .05 level (*) and at the .01 level (**).

Difference between recent enrollee groups significant from zero at the .05 level (#) and at the .01 level (##).

II. ANALYSIS OF RECENT ENROLLEES: VARIATIONS IN THE EXPERIENCE OF FAMILIES ENROLLING IN SCHIP

Myoung Kim

To improve the experience of families enrolling in SCHIP, many states, including our 10 study states, used several strategies to ease the application process. For example, they streamlined the application forms, adopted a joint application for SCHIP and Medicaid, accepted applications by mail, and relaxed requirements for documentation. In addition, states provided funding to community-based organizations to support outreach efforts and application assistance, including translation services (Rosenbach et al. 2003; Hill et al. 2003; and Cohen et al. 2003). Results presented in Chapter I suggest that these measures have been beneficial. The parents of more than 90 percent of recent enrollees in our study sample reported that the enrollment process had been somewhat or very easy. One of three had used assistance while applying, three of four had enrolled in the program within 4 weeks of applying, and about half knew how often to renew their child's coverage to remain enrolled.

In this chapter, we investigate the enrollment experience in more detail by examining whether and how this experience varied across different groups of recent enrollees and across states. As discussed earlier, the characteristics of SCHIP enrollees vary significantly both within and across the study states, which might easily lead to some important variation in their experience applying for coverage. For example, we might expect families with language barriers or low education to have more difficulty with the enrollment process and to seek assistance more frequently. Indeed, other research indicates that low-income parents interviewed in Spanish and those who have not completed high school are more likely to believe that the application processes for public programs are difficult (Kenney et al. 2004). Moreover, as Table II.1 shows, each of the 10 study states has adopted policies related to enrollment that might lead to

TABLE II.1
CHARACTERISTICS OF STATE SCHIP PROGRAMS, 2002

State	Program Name	Program Type ^a	Maximum Income Eligibility (as % FPL) ^b	Waiting Period Required (Months) ^{c,e}	Presumptive (P) or Retroactive (R) Eligibility ^b	Length of Continuous Eligibility (Months) ^{b,d}	Renewal Frequency (Months)	Verification Requirements
California	<i>Healthy Families</i>	Separate	250	3	R	12	12	Net income, Age, Deductions, State residency, Immigration)
Colorado	<i>Child Health Plan Plus</i>	Separate	185	3	R	12	12	Net income
Florida	<i>KidCare</i>	Separate	200	None	Neither	6	6 ^e	Gross income
Illinois	<i>KidCare Assist</i>	Combination – Medicaid Expansion	133	3	R	12	12	Gross income, Deductions, Immigration, SSN
	<i>KidCare Share, KidCare Premium</i>	Combination – Separate	185	3	R	12	12	Gross income, Deductions, Immigration, SSN
Louisiana	<i>LaCHIP</i>	Medicaid	200	None	R	12	12	Net income, Deductions, Immigration
Missouri	<i>MC+ for Kids</i>	Medicaid	300	6	Neither	No	12	Gross income, Immigration
New Jersey	<i>FamilyCare Plan A</i>	Combination – Medicaid Expansion	133	6	R, P	No	6	Gross income, Age, Deductions, Immigration
	<i>FamilyCare Plan B, C, D</i>	Combination – Separate	200 (B, C) 350 (D)	6	P ^f	No	12	Gross income, Age, Deductions, Immigration
New York	<i>Child Health Plus</i>	Separate	250	None	P	No	12	Gross income, Age, State residency
North Carolina	<i>Health Choice</i>	Separate	200	None ^g	Neither	12	12	Net income, Assets, SSN
Texas	<i>TexCare</i>	Separate	200	3	Neither	12	12	Net income, Deductions

^aProgram types reflect states' options to either expand Medicaid (Medicaid), create or expand a separate state program (separate), or combine the two approaches (combination).

^bHill et al. 2003.

^cStates may require families to wait to enroll their child, if the child has been disenrolled from private coverage.

^dContinuous eligibility time frames have changed in some states. The lengths of times shown were in place at the time of the 2002 congressionally mandated survey of SCHIP enrollees and disenrollees (conducted in spring 2002).

^eAt the time of the survey, Florida used a passive redetermination process in which the program assumes that a family's status has not changed unless the family reports changes that make it ineligible.

^fExcept for children in Plan D.

^gBefore February 2002, there was a 2-month waiting period.

SSN = social security number.

differences in the enrollment experiences of families. Examples include (1) differences in the income eligibility thresholds, (2) the length of waiting periods for families that had private insurance before applying for SCHIP, (3) the adoption of presumptive or retroactive eligibility policies, and (4) policies related to continuous eligibility and renewal.

Findings from our analysis identify some important sources of variation enrollee groups and across states. Among these are:

- More than half (55 percent) of Spanish-speaking Hispanic families received application assistance, which is more than triple the share among English-speaking white families (17 percent).
- Parents with no high school diploma were nearly twice as likely to use application assistance as those with college education (46 versus 25 percent).
- One-parent families were less likely than families with two parents to know the correct renewal frequency (differences ranged from 9 to 13 percentage points).
- Nearly all families (97 percent) who transferred from Medicaid found enrollment in SCHIP to be somewhat or very easy. Families with other types of prior coverage, including those whose children were uninsured before SCHIP, also generally had positive enrollment experiences.
- Across each of the 10 states, most families found enrollment in SCHIP somewhat or very easy, and a majority waited only a short time to be notified (less than 4 weeks). California had a notably high share of families receive application assistance (54 percent), a result that may be linked to its aggressive policies to reach eligible Hispanic families and enroll them in SCHIP.

Before describing these findings in more detail, we summarize the methods used to conduct the analysis. To conduct the analysis, we used the sample of recent enrollees from our 10-state survey and investigated four separate measures based on the survey data:¹

¹About one in five children in the recent enrollee sample entered the program seamlessly from Title XIX Medicaid and, at the time of the interview, were reported by the parent as enrolling in SCHIP several months (or sometimes years) earlier than the state files indicated. In most or all instances, this reporting likely indicates that families did not observe the enrollment in SCHIP because it was truly seamless to them. When constructing our outcome variables, we therefore imputed values for their enrollment experience that reflected a “very easy” enrollment that did not require assistance. For additional details on this imputation and other methodological issues, see Appendix C.

1. The share of families that reported that the SCHIP enrollment process was very or somewhat easy.
2. The share of families that received assistance while applying for SCHIP. This includes any type of help that a family might have received completing the SCHIP application form, including translation services and assistance from hotlines.
3. The share of families notified of their enrollment within 4 weeks of applying.²
4. The share of families that correctly identified the renewal frequency in their state.

For each of these measures, we examined the extent of variation within three sets of subgroups. The first is defined by demographic characteristics of the recent enrollee and his or her family, including their race, ethnicity, and primary language; parents' education; family structure and employment; and income.³ Each of these demographic measures is based on self-reported data from the survey. The second is defined by the enrollee's coverage before enrolling in SCHIP, which includes Title XIX Medicaid, private coverage, or no insurance. For both sets of subgroups, findings are based on simple bivariate tabulations that compare the outcome of interest across each group (for example, ease of application by child's race/ethnicity).⁴ The third subgroup is defined by the child's state of residence. To account for variation in key demographic differences across the states, these findings are based on multivariate models. Findings based on bivariate tabulations, shown in Appendix Table II.5, are similar.

²Measures based on alternative wait times displayed results similar to those discussed below.

³We combined race/ethnicity and language into a single subgroup to better examine the role of language barriers within different racial/ethnic groups, particularly Hispanics. Subgroup categories are (1) English-speaking Hispanic, (2) Spanish-speaking Hispanic, (3) English-speaking white, (4) English-speaking black, (5) all other English-speaking racial/ethnic groups, and (6) all other non-English-speaking racial/ethnic groups. Likewise, we combined household employment and household structure into a single subgroup because they are likely to have important interactions. Subgroup categories are (1) two parents, both employed; (2) two parents, one employed; (3) two parents, neither employed; (4) single parent, employed; and (5) single parent, not employed. For additional details on these and other subgroup variables, see Appendix C.

⁴There was little difference in these findings when we used multivariate regression to control for the state of residence and various demographic characteristics that might also affect the outcome of interest (see Appendix Tables II.1 to Table II.4).

A. ENROLLMENT EXPERIENCES ACROSS KEY DEMOGRAPHIC SUBGROUPS

Findings from a companion study of the SLAITS data (Kenney et al. 2004) and from focus groups conducted with SCHIP families as part of the overall congressionally mandated SCHIP evaluation (Bellamy et al. 2002) both suggest that families' enrollment experience can vary across many important demographic characteristics. Next, we focus on four of these characteristics that are of particular policy interest: (1) race/ethnicity and language, (2) parents' education, (3) family structure and employment, and (4) family income.

1. Differences by Race/Ethnicity and Language

Fifty-five percent of recent enrollees from Spanish-speaking Hispanic families received application assistance, which is more than three times higher than those from white English-speaking families (Table II.2). Likewise, recent enrollees from English-speaking Hispanic families received more application assistance than those from white English-speaking families, although the difference was less dramatic (29 versus 17 percent). These differences persist when we ignore translation assistance (not shown), suggesting that they are not simply a product of language difficulties.⁵ Instead, they may be due to efforts by some states, most notably California, to help immigrant families who are eligible for SCHIP, many of whom may have concerns over "public charge" or face other unique barriers that could prevent enrollment (see Holcomb et al. 2003).⁶

⁵The share of families that received application assistance for services other than translation ranged from 19 to 47 percent, where Spanish-speaking Hispanic families and white English-speaking families are at the highest and lowest, respectively.

⁶A public charge is an alien who has become or is likely to become primarily dependent on the government for subsistence, as demonstrated by either the receipt of public cash assistance for income maintenance, or institutionalization for long-term care at government expense. If an alien is found to be a public charge, he or she may be (1) denied admission into the United States; (2) be ineligible to adjust his or her status to permanent resident; or (3) in rare cases, be deported. SCHIP is among several public programs that are largely excluded from the determination of public charge (CMS 1999). However, confusion over whether SCHIP is or is not part of the public charge determination may serve as a barrier to enrollment for some eligible children.

TABLE II.2
 SCHIP ENROLLMENT EXPERIENCE,
 BY RACE/ETHNICITY AND LANGUAGE
 (Percent)

	Hispanic		Non-Hispanic			
	English-Speaking	Spanish-Speaking	English-Speaking			Non-English-Speaking (All)
			White ^a	Black	Other	
Reported Easy Enrollment	94	94	94	96	92	91
Received Assistance	29 **	55 **	17	18	26	45**
Waited 4 Weeks or Less	82 **	82 **	76	83 **	76	70
Knew Renewal Frequency	55	53	51	48	46	56
Sample Size	647	925	2,008	783	220	148

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

^a“White” (English-speaking non-Hispanic) is the reference category for tests of significance.

**p-value (of difference between focal group and reference group) <0.01; *p-value <0.05.

2. Differences by Parents’ Education

Less-educated parents tend to use application assistance more frequently (Table II.3).

Parents without a high school diploma received twice as much application assistance as those with any college education (46 versus 25 percent). A similar difference is evident between parents without a high school diploma and those with one (46 versus 32 percent). These findings are not surprising, since families with lower education would be expected to have more frequent need for assistance with the application process. Nevertheless, they suggest that states have had success meeting this increased need.

TABLE II.3
 SCHIP ENROLLMENT EXPERIENCE,
 BY PARENTS' EDUCATION
 (Percent)

	Less than High School ^a	High School	Some College
Reported Easy Enrollment	94	94	94
Received Assistance	46	32	25 *
Waited 4 Weeks or Less	83	81	77
Knew Renewal Frequency	58	52	50
Sample Size	794	1,738	2,227

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

^a“Less than High School” is the reference category for tests of significance.

**p-value (of difference between focal group and reference group) <0.01; *p-value <0.05.

3. Differences by Family Structure and Employment

One-parent families were far less likely to correctly identify the frequency of enrollment renewal required by their state than families with two working parents (Table II.4). One-parent families without a working parent were less likely than families with two working parents to correctly identify the renewal frequency of their state’s SCHIP program (43 versus 56 percent). Previous research has found that some families do not renew SCHIP coverage because they are confused about the rules and procedures for doing so and thus fail to reapply (Hill and Westpfal-Lutzky 2003). These results suggest that such confusion may be most pronounced among families with a single unemployed parent—the families with the most frequent need for public coverage.

TABLE II.4

SCHIP ENROLLMENT EXPERIENCE,
BY HOUSEHOLD STRUCTURE
AND EMPLOYMENT
(Percent)

	Two Parents			One Parent	
	Both Working ^a	One Working	None Working	Working	Nonworking
Reported Easy Enrollment	93	95	94	94	94
Received Assistance	37	36	30	25 **	31
Waited 4 Weeks or Less	80	79	78	80	76
Knew Renewal Frequency	56	56	58	47 **	43*
Sample Size	1,293	1,337	116	1,632	286

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

^a“Two Parents/Both Working” is the reference category for tests of significance.

**p-value (of difference between focal group and reference group) <0.01; *p-value <0.05.

4. Differences by Household Income

Families’ enrollment experience varied little by household income (Table II.5). Families with higher incomes enrolling in SCHIP are less likely than other income groups to report that SCHIP enrollment was easy (very or somewhat), but the difference is modest. For example, families with reported incomes above 200 percent of the federal poverty level were six percentage points less likely to report the process is easy than families with incomes below 150 percent of the federal poverty level. States with high income eligibility thresholds, such as Florida and New Jersey, have relatively complex benefit features and premium and/or co-pay requirements for higher-income families, all of which may make their application process more difficult. In addition, many more children in the lower-income groups transition to SCHIP from Medicaid, an experience that (as discussed below) is often seamless to them.

TABLE II.5
SCHIP ENROLLMENT EXPERIENCE,
BY FAMILY INCOME
(Percent)

	Below 150% FPL ^a	150 to 200% FPL	Above 200% FPL
Reported Easy Enrollment	95	93	89 *
Received Assistance	33	31	29
Waited 4 Weeks or Less	80	76	80
Knew Renewal Frequency	52	54	54
Sample Size	3,212	850	456

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

^a“Below 150% FPL” is the reference category for tests of significance.

**p-value (of difference between focal group and reference group) <0.01; *p-value <0.05.

FPL = Federal Poverty Level.

B. ENROLLMENT EXPERIENCES BY PRIOR COVERAGE

In the months before enrolling in SCHIP, families were either covered by Medicaid or private coverage, or they were uninsured. To examine how the enrollment experiences of these families might have differed, we sorted the recent enrollee sample into four groups defined by their prior coverage: (1) enrollees who were uninsured throughout the 6 months before SCHIP, (2) those who had private insurance at any point during the 6 months, (3) those who had Medicaid at any point during the 6 months, and (4) those who had been covered by SCHIP but left during the 6-month period.

Enrollees from Medicaid to SCHIP had the smoothest experience enrolling, suggesting significant program coordination in the study states. A relatively small share of the enrollees previously in Medicaid had help applying (19 percent). This is not surprising since, as mentioned in Chapter I, about 70 percent of the children in the sample who had Medicaid coverage before they enrolled in SCHIP transitioned seamlessly between the two programs (with no gap in coverage). For the same reason, it is not surprising that nearly all of the enrollees who

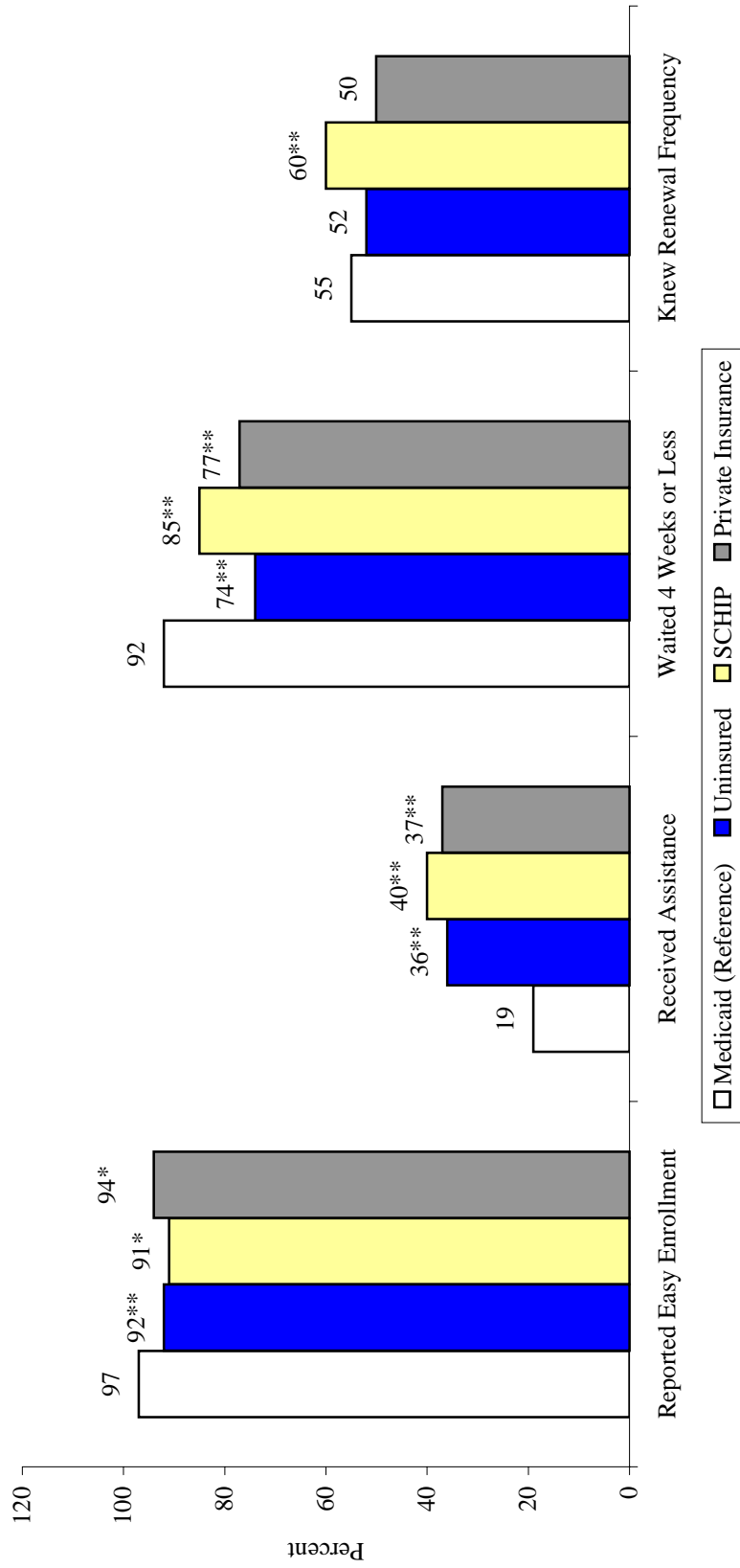
previously had Medicaid coverage reported an easy enrollment process (97 percent). Enrollees with prior Medicaid coverage were also the most likely to wait 4 weeks or less before enrolling (92 percent), allowing them to benefit quickly from SCHIP coverage.

The enrollment experience of families whose children were uninsured for 6 months before SCHIP was similar to that of children with private coverage (Figure II.1). Given the potential importance of SCHIP for previously uninsured children, their experiences enrolling in SCHIP is of special concern. Fortunately, their experiences appear to be quite positive. For example, 92 percent of recent enrollees in this group reported their enrollment was easy, which is close to recent enrollees with prior private coverage (94 percent), and they received assistance no more often (36 versus 37 percent). Thus, despite any difficulty uninsured children might have had accessing coverage, they have generally not had difficulty enrolling in SCHIP.

Children with recent SCHIP coverage were the most likely to have parents who know the correct renewal frequency, but many remained uninformed. Recent enrollees with prior SCHIP coverage were about 10 percentage points more likely than the enrollees with other types of prior coverage to identify the correct timing of renewal. This suggests that repeated exposure to the SCHIP program is associated with better knowledge of renewal requirements. However, it is perhaps more notable that, even among children with recent SCHIP exposure, 40 percent were still unable to identify the correct renewal date.

FIGURE II.1

ENROLLMENT EXPERIENCE, BY PRIOR INSURANCE COVERAGE



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Sample Sizes: Medicaid = 1,588; SCHIP = 135; Private = 1,236; Uninsured = 1,776.

**p-value (of difference between focal group and reference group) <0.01, p-value <0.05.

C. ENROLLMENT EXPERIENCE ACROSS STATES

*Across all 10 states, most families with recently enrolled children found the SCHIP enrollment process easy (Table II.6).*⁷ Among the 10 study states, only New Jersey had fewer than 90 percent of recent enrollees report the enrollment process was somewhat or very easy, and its rate (81 percent) remained high. New Jersey has by far the highest income threshold for eligibility among the 10 states in the study sample and operates a relatively complex combination program with three different income eligibility bands within its separate program.⁸ This complexity may create more of a challenge for higher-income families as the state tries to establish in which, if any, income eligibility group they belong. At the time of the survey, the state had also recently extended coverage to adults, which contributed to delays in application processing and possibly created further burden on some families as they applied for coverage (Fasciano and Bajaj 2002). Both factors may have contributed to the pattern of results in New Jersey, which showed much more frequent problems for children enrolling in the state's separate SCHIP program. For example, while 89 percent of children enrolling in the state's Medicaid expansion program reported that the process was easy, the rate in the separate program was just 75 percent. These results underscore the potential benefits of maintaining a straightforward eligibility policy, particularly for families that may have had little or no experience accessing public programs.

⁷To draw more effective comparisons across the states, findings presented in this section are based on regression models that control for cross-state differences in the demographic characteristics of recent SCHIP enrollees. For unadjusted estimates of the enrollment experience in each of the 10 study states, see Appendix Table II.5.

⁸New Jersey's Medicaid-expansion program covers children ages 6 to 18 in families with income up to 133 percent of the federal poverty level (FamilyCare A). Its three separate programs (FamilyCare B, C, and D) cover families with incomes up to 350 percent of the federal poverty level and, among other differences, have differing premium and co-payment requirements.

TABLE II.6
 SCHIP ENROLLMENT EXPERIENCE,
 BY STATE
 (Percent, Regression-Adjusted)

	Separate Programs										Combination				Medicaid	
	CA	CO	FL	NY	NC	TX	IL	NJ	LA	MO	IL	NJ	LA	MO		
Reported Easy Enrollment	94	92 *	95	93	92	96 *	93	81 **	97	97 **	93	81 **	97	97 **		
Received Assistance	54 **	32	16 **	49 **	38	19 **	29	29	25 **	27 *	29	29	25 **	27 *		
Waited 4 Weeks or Less	87	76	66 **	66 **	90 **	83	78	51 **	85 **	92 **	78	51 **	85 **	92 **		
Knew Renewal Frequency	56	69	n.a.	67 **	90 **	63	43 **	38 **	72 **	31 **	43 **	38 **	72 **	31 **		
Sample Size	598	632	601	525	542	592	507	507	591	541	507	507	591	541		

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Regression models used to account for differences in demographic characteristics of disenrollees across states. Demographic characteristics include child's race/ethnicity, age, health status, and gender; household income, education level, and employment; and number of children. Tests of significance based on comparing each individual state to the mean for all other states.

n.a. = not applicable (Florida had a passive renewal process at this time).

**p-value (of difference between focal state and all other states) <0.01; *p-value <0.05.

The share of enrollees that used application assistance varied considerably across the states. This variation is most likely due to a combination of differences in demand for assistance and the extent to which such assistance was made available. California, which had the highest rate of assistance (54 percent), illustrates these sources of variation. Its enrollee population includes a large fraction of Hispanics, and the state aggressively sought to extend assistance to this group (Hill and Hawkes 2002). In contrast, Louisiana and Missouri, the two Medicaid expansion states, likely had low demand for assistance due to large shares of children transitioning seamlessly from Medicaid. Thus, these two states' recent enrollees reported relatively low rates of assistance (25 and 27 percent, respectively).

*States also varied substantially in the share of recent enrollees that had a short wait before enrolling and in the share that correctly identified the renewal frequency.*⁹ On both these measures, North Carolina fared favorably, while New Jersey fared the least favorably. The relative success of North Carolina in enrolling children quickly may stem in part from its focused efforts on administrative efficiency, particularly in coordinating its SCHIP and Medicaid programs (Hawkes and Howell 2002). As discussed in Chapter V, these efforts appear to have contributed to relatively low rates of uninsurance among children after they leave SCHIP, and they may have also contributed to generally short waits to enroll in the program and a high level of knowledge about the state's renewal policy. Results for New Jersey, meanwhile, echo those on ease of application (discussed earlier) and may again signal some difficulty with the enrollment process due to the program's complexity. For example, New Jersey is the only study state with two renewal frequencies in its SCHIP program (6 months for the Medicaid expansion component and 12 months for the separate component), which might cause confusion. These

⁹We excluded Florida for the analysis of knowledge of renewal frequency because Florida's passive renewal procedure does not require knowledge of the renewal process to retain coverage.

results further suggest the potential benefits to families of having easily understandable SCHIP application and renewal policies.

D. DISCUSSION

While most families appear to have had a favorable experience applying for SCHIP, results from this chapter indicate many important sources of variation in elements of this experience. Among these are (1) a much larger share of Spanish-speaking Hispanic families received help applying; (2) less-educated parents tend to use application assistance more often than more-educated ones; (3) nonworking, one-parent families tend to be less knowledgeable about SCHIP renewal; (4) families transferred from Medicaid are most likely to have had positive enrollment experiences; (5) families with previously uninsured children generally had positive enrollment experiences; and (6) enrollment experiences varied across states, which appears due to a combination of differences in population and program features across them.

Two important caveats should be noted. First, a recent study based on the SLAITS data (Kenney et al. 2004) found that the perceptions of the SCHIP enrollment process were more positive among families with uninsured children that had successfully enrolled them in SCHIP than among the families that had never enrolled their children in SCHIP. Thus, our findings may not generalize to all eligible families who have applied for SCHIP coverage. Second, since the time of our survey in spring 2002, some states have had to reduce funding for application assistance and outreach (Hill et al. 2003). This suggests that caution is needed when generalizing the enrollment outcomes reported in this chapter to the present.

APPENDIX

CHAPTER II SUPPLEMENTAL TABLES

APPENDIX TABLE II.1

SCHIP ENROLLMENT EXPERIENCE,
 BY RACE/ETHNICITY AND LANGUAGE
 (Percent, Regression-Adjusted)

	Hispanic		Non-Hispanic			
	English-Speaking	Spanish-Speaking	English-Speaking			Non-English-Speaking (All)
			White ^a	Black	Other	
Reported Easy Enrollment	94	95	94	96	91	93
Received Assistance	30 *	45 **	22	26	24	35
Waited 4 Weeks or Less	82	80	80	84 **	76	70
Knew Renewal Frequency	55	49	56	51	50	60
Sample Size	647	925	2,008	783	220	148

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Regression models used to account for differences in demographic characteristics of disenrollees across states. Demographic characteristics include child's race/ethnicity, age, health status, and gender; household income, education level, and employment; and number of children.

^a“White” (English-speaking non-Hispanic) is the reference category for tests of significance.

**p-value (of difference between focal group and reference group) <0.01; *p-value <0.05.

APPENDIX TABLE II.2

SCHIP ENROLLMENT EXPERIENCE,
BY PARENTS' EDUCATION
(Percent, Regression-Adjusted)

	Less than High School ^a	High School	Some College
Reported Easy Enrollment	93	94	95
Received Assistance	31	35	28
Waited 4 Weeks or Less	81	81	79
Knew Renewal Frequency	56	52	51
Sample Size	794	1,738	2,227

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Regression models used to account for differences in demographic characteristics of disenrollees across states. Demographic characteristics include child's race/ethnicity, age, health status, and gender; household income, education level, and employment; and number of children.

^a“Less than High School” is the reference category for tests of significance.

**p-value (of difference between focal group and reference group) <0.01; *p-value <0.05.

APPENDIX TABLE II.3

SCHIP ENROLLMENT EXPERIENCE,
BY HOUSEHOLD STRUCTURE
AND EMPLOYMENT
(Percent, Regression-Adjusted)

	Two Parents			One Parent	
	Both Working ^a	One Working	None Working	Working	Nonworking
Reported Easy Enrollment	93	95	94	95	93
Received Assistance	38	31	31	31	30
Waited 4 Weeks or Less	81	80	78	81	76
Knew Renewal Frequency	54	54	59	51	47
Sample Size	1,293	1,337	116	1,632	286

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Regression models used to account for differences in demographic characteristics of disenrollees across states. Demographic characteristics include child's race/ethnicity, age, health status, and gender; household income, education level, and employment; and number of children.

^a“Two Parents/Both Working” is the reference category for tests of significance.

**p-value (of difference between focal group and reference group) <0.01; *p-value <0.05.

APPENDIX TABLE II.4

SCHIP ENROLLMENT EXPERIENCE,
BY FAMILY INCOME
(Percent, Regression-Adjusted)

	Below 150% FPL ^a	150 to 200% FPL	Above 200% FPL
Reported Easy Enrollment	95	94	92
Received Assistance	32	31	30
Waited 4 Weeks or Less	80	79	82
Knew Renewal Frequency	52	54	57
Sample Size	3,212	850	456

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Regression models used to account for differences in demographic characteristics of disenrollees across states. Demographic characteristics include child's race/ethnicity, age, health status, and gender; household income, education level, and employment; and number of children.

^a“Below 150% FPL” is the reference category for tests of significance.

**p-value (of difference between focal group and reference group) <0.01; *p-value <0.05.

FPL = Federal Poverty Level.

APPENDIX TABLE II.5
 SCHIP ENROLLMENT EXPERIENCE,
 BY STATE
 (Percent)

	Separate Programs										Combination				Medicaid	
	CA	CO	FL	NY	NC	TX	IL	NJ	LA	MO	IL	NJ	LA	MO		
Reported Easy Enrollment	93	92 *	94	93	93	97 **	95	81 *	98 **	97 **						
Received Assistance	63 **	31	12 **	47	24 **	22 **	22 **	25 **	11 **	12 **						
Waited 4 Weeks or Less	85 **	76	65 **	84	93 **	83 **	82	51 **	87 **	90 **						
Knew Renewal Frequency	56 *	71 **	n.a.	63	87 **	63 **	46	33 **	70 **	44 **						
Sample Size	598	632	601	525	542	592	507	507	591	591	507	507	591	591		

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

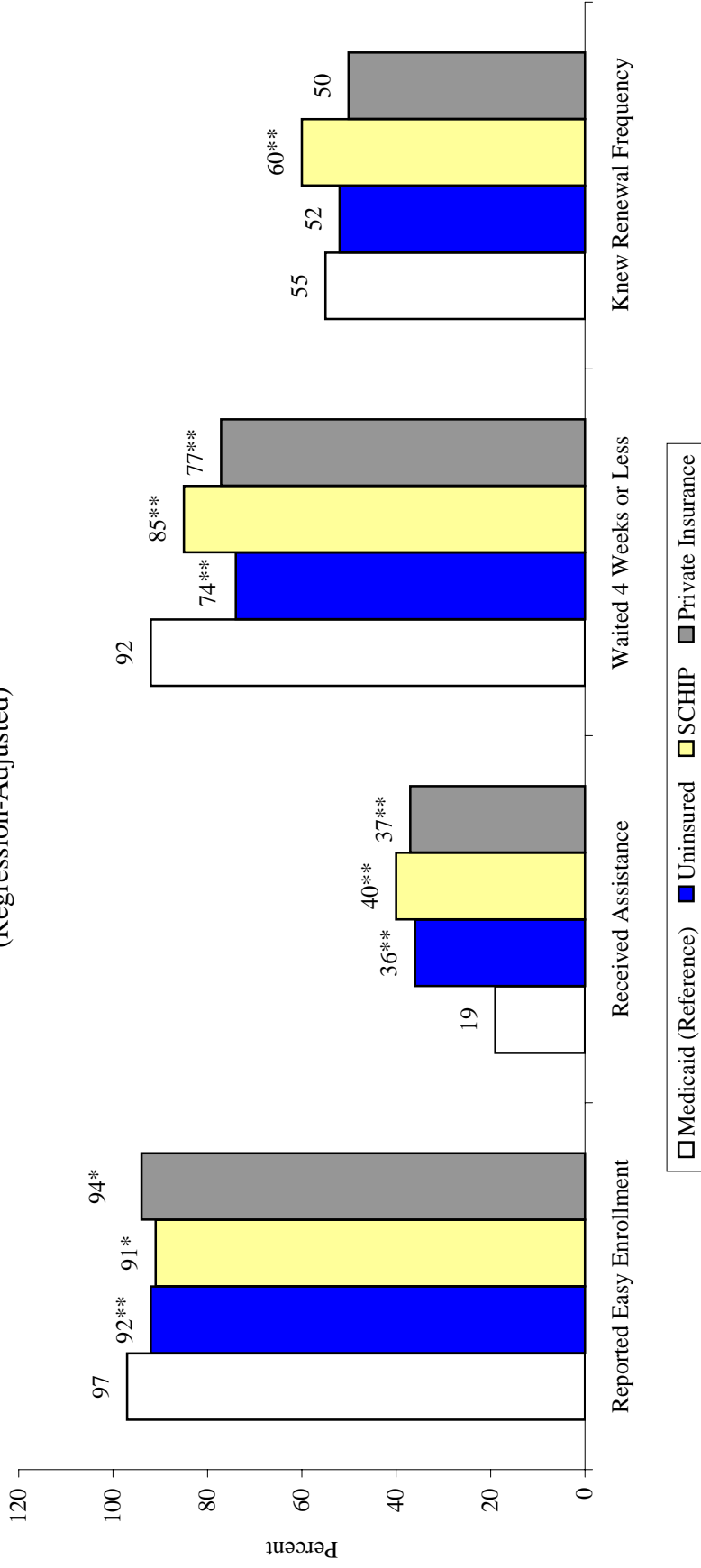
Note: Tests of significance based on comparing each individual state to the mean for all other states.

n.a. = not applicable (Florida had a passive renewal process at this period).

**p-value (of difference between focal state and all other states) <0.01; *p-value <0.05.

APPENDIX FIGURE II.1

ENROLLMENT EXPERIENCE, BY PRIOR INSURANCE COVERAGE
(Regression-Adjusted)



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Regression models used to account for differences in demographic characteristics of disenrollees across states. Demographic characteristics include child's race/ethnicity, age, health status, and gender; household income, education level, and employment; and number of children.

Sample Sizes: Medicaid Group = 1,588; Uninsured Group = 1,776; SCHIP Group = 135; Private Insurance Group = 1,236.

**p-value (of difference between focal group and reference group) <0.01, p-value <0.05.

III. ANALYSIS OF ESTABLISHED ENROLLEES: VARIATION IN ACCESS AND USE ACROSS SUBGROUPS AND STATES

Genevieve Kenney
Jamie Rubenstein
Anna Sommers
Grace Ko

A major objective of SCHIP is to provide timely access to the health care services that children need. As discussed in Chapter I, overall, these 10 SCHIP programs seem to be successfully achieving that objective, although pockets of problems may exist within the program. In general, under SCHIP, parents have low financial burdens and high levels of confidence in their ability to meet their children's health care needs. Most parents gave high marks to providers in SCHIP—nearly all SCHIP enrollees have a usual source for both health and dental care, and many received preventive care in the 6 months before the survey. In this chapter, we explore variation in health care access and patterns of care across different subgroups of SCHIP enrollees and across the 10 states.

Previous research has demonstrated that a child's demographic and socioeconomic background, age, and health status affect both access to, and use of, health services (Rosenbach 1989; Silver and Stein 2001; Long and Coughlin 2002; Davidoff 2003; Newacheck et al. 2000; Currie and Thomas 1995; Dubay and Kenney 2001; and Kenney et al. 2004). A substantial amount of research has explored the individual- and family-level factors that affect these measures, but less research has been conducted on the extent to which these measures vary by state and even less on why such differences exist (Long and Coughlin 2002; and Kenney et al. 2000). Practice patterns, service delivery systems, and health care preferences in the state, as well as state policy choices about provider payment, cost sharing, and benefits under SCHIP, are likely to affect SCHIP enrollees' access to health care. Therefore, we expect that the experiences

of SCHIP enrollees will vary according to the characteristics of the child and his or her family and the state in which they live.

States have many policy choices under SCHIP that could shape enrollees' access to care in the program. However, most states chose benefit packages that were fairly comprehensive, with low levels of out-of-pocket costs, such as deductibles, co-payments, and coinsurance (Fox et al. 2003; Hill et al. 2003; and Rosenbach et al. 2003). As Table III.1 shows, all 10 of these SCHIP programs cover dental services, even though dental coverage is optional for separate SCHIP programs.¹ Co-payment policies vary across and within the 10 states: Louisiana and New York charge no co-payments for any service, and the remaining 8 states charge co-payments on services for some or all of their SCHIP enrollees. Even in states with the largest out-of-pocket cost-sharing requirements in 2002, however, the total cost burden on the family is much lower than for most private plans (Fox et al. 2003; and Trude 2003). Finally, use of managed care also varies across states—three of the states (Illinois, Louisiana, and North Carolina) rely on no capitated managed care arrangements, while California, New Jersey, and New York rely almost exclusively on capitated managed care.²

In the following sections, we present findings on how access to care and use of services vary across subgroups of children who enrolled in SCHIP and across states. We examine variation in five domains of access and use indicators: (1) service use, (2) unmet need, (3) attitudes and

¹ The information contained in this table pertains to 2002, when the survey was fielded and some of these states have made changes to their SCHIP programs since that time (Hill et al. 2004; Fox et al. 2004). Colorado added a limited dental benefit in 2001 and followed with a broader dental benefit in early 2002, and Florida phased in a pilot project that added a dental benefit between July 2000 and July 2002.

² While these states did choose different policies (for example, with respect to cost sharing and managed care), we do not have enough states in our sample to analyze the separate impacts of these specific policy choices.

TABLE III.I

CHARACTERISTICS OF STATE SCHIP PROGRAMS WITH REGARD TO CO-PAYMENTS, BENEFITS, AND RELIANCE ON MANAGED CARE, 2002

	Emergency Room Visits Co-Pay Amount	Medical Office Visits Co-Pay Amount	Prescription Drugs Co-Pay Amount	Proportion of Program in Mandatory Risk-Based Managed Care Arrangements	Preventive Dental	Orthodontia
California	All incomes: \$5 ^a	All incomes: \$5 ^a	All incomes: \$5 ^a	Nearly 100%	c	nc
Colorado	<100% FPL: None 101-150% FPL: \$5 151-185% FPL: \$15	<100% FPL: None 101-150% FPL: \$2 151-185% FPL: \$5	<100% FPL: None 101-150% FPL: \$1 151-185% FPL: \$3-5	Roughly 66%	c ^b	c
Florida	MediKids: None Florida Healthy Kids Inappropriate Use Fee: \$10	MediKids: None Florida Healthy Kids: \$3	MediKids: None Florida Healthy Kids: \$3	100% (Healthy Kids) ~25% (MediKids)	c	nc
Illinois	<150% FPL: None 151-185% FPL Inappropriate Use Fee: \$25	<133% FPL: None 134-150% FPL: \$2 151-185% FPL: \$5	<133% FPL: None 134-150% FPL: \$2 151-185% FPL: \$5 (\$3 generics)	None	c	c
Louisiana	None	None	None	None (6-7% in PCCM)	c	c
Missouri	None	<185% FPL: None 186-225% FPL: \$5 226-300% FPL: \$10	<225% FPL: None 226-300% FPL: \$9	58%	c	c
New Jersey	134-150% FPL: None 151-200% FPL: \$10 201-350% FPL: \$35	134-150% FPL: None 151-200% FPL: \$5 201-350% FPL: \$5	134-150% FPL: None 151-200% FPL: \$5 (\$1 generics) 201-350% FPL: \$5	100%	c ^c	c ^c
New York	None	None	None	Nearly 100%	c	nc
North Carolina	<150% FPL: None 150-200% FPL: \$20	<150% FPL: None 150-200% FPL: \$5	<150% FPL: None 150-200% FPL: \$6	None	c	c
Texas	<150% FPL: \$5 151-185% FPL: \$25 186-200% FPL: \$35 (\$100 annual family cap)	<150% FPL: \$2 151-185% FPL: \$5 186-200% FPL: \$10	<150% FPL: \$1-2 >150% FPL: \$10 (\$5 generic)	58%	c	c

Source: Wooldridge et al. 2003.

^a Up to \$250 annual limit (excluding vision and dental).^b Full dental coverage was phased in by February 2003.^c Children over age 12 are excluded from New Jersey's KidCare Program.

c = already covered in benchmark package; nc = not covered.

stress, (4) usual source of care, and (5) provider communication and accessibility. We focus on the experiences of established enrollees—children who were enrolled in SCHIP for 5 months or longer. However, we also present SCHIP experiences for children who had been enrolled in SCHIP for 5 months or more but had subsequently disenrolled. Table III.2 describes each of the 34 outcomes examined across the five domains. These outcomes were chosen to portray a broad range of different aspects of access and use, including the health care services the child received, the confidence and burdens parents feel about meeting their child’s health care needs, and the extent to which the parents feel the child’s health care needs are being met. The access and use measures pertain to the 6 months before the interview and are derived from parental reports. As such, they are subject to measurement and reporting error.

The differences highlighted in the text are based on regression-adjusted means, which derive from multivariate models that control for the child’s state of residence and a number of characteristics of the child and their family.³ Appendix Tables III.1 through III.3 present unadjusted means on each of the access and use outcomes for key subgroups and the 10 states. Generally, the bivariate and the multivariate results are consistent with one another.

Key Findings. Consistent with other studies on children’s health care, we find variation in access to, and use of, health care with respect to the child’s socioeconomic and demographic characteristics and health status. We identified greater access problems for some subgroups of SCHIP enrollees. Even within those subgroups, however, most enrollees had access to high-quality care as captured by the measures included in the survey. We find few large differences across states. Other things equal, we find that:

- SCHIP enrollees with less-educated parents are receiving fewer services—including well-child care, dental checkups, and mental health care—than those with more-educated parents.

³ The multivariate models control for the child’s gender, age, race, and ethnicity, the primary language spoken in the household, the child’s health status, whether the child meets the definition of having elevated health care needs, the reported income level in the household, presence of one or two parents and their work status, the number of children in the family, the highest education level of either parent, whether the child lives in a Metropolitan Statistical Area, and the state in which the child lives.

TABLE III.2

SAMPLE DEFINITIONS AND SIZES FOR ACCESS AND SERVICE USE MEASURES

Domain	Variable	Sample Restriction	Number
Service Use	Any Doctor/Other Health Professional Visit	All	5,336
	Any Preventive Care or Checkup Visit	All	5,312
	Dental Visit for Checkup/Cleaning ^a	Children Age 3 and Older	5,059
	Any Specialist Visit	All	5,337
	Any Mental Health Visit	All	5,319
	Any Specialist or Mental Health Visit	All	5,317
	Any Emergency Room Visit	All	5,348
	Any Hospital Stay	All	5,351
Unmet Need	Doctor/Health Professional Care	All	5,324
	Prescription Drugs	Children Age 3 and Older	5,315
	Dental Care ^a	All	5,053
	Specialist	All	5,321
	Hospital Care	All	5,318
	Hospital, Specialist, Doctor, Drug	All	5,310
	Hospital, Specialist, Doctor, Drug, Dentist ^a	All	5,289
	More Than One Unmet Need	All	5,307
Parental Perceptions of Meeting Child's Health Care Needs	Very Confident	All	5,307
	Never or Not Very Often Stressed	All	5,289
	Never or Rarely Worried	All	5,299
	Never or Rarely Cause Financial Difficulties	All	5,303
	Children on SCHIP Get Better Health Care	All	5,052
	Doctors and Nurses Look Down on SCHIP Enrollees	All	5,124
Usual Source of Care (USC)	Had USC in Past 6 Months	All	5,370
	USC Type: Private Doctor's Office	Child Has USC	4,926
	USC Type: Clinic or Health Center	Child Has USC	4,926
	Usually Saw Same Provider at USC	Child Has USC	4,899
	Had USC for Dental Care in Past 6 Months ^a	Children Age 3 and Older	5,046
Provider Communication and Accessibility	Would Recommend USC	Child Has USC	4,899
	Could Reach Doctor After Hours	Child Has USC	4,619
	Providers Explain in Understandable Ways	Child Had USC and Received Care	3,827
	Provider Treats with Courtesy/Respect	Child Had USC and Received Care	3,826
	Provider Talks About How Child Feeling	Child Had USC and Received Care	3,825
	Rated Ease of Getting Care Excellent or Very Good	Child Had USC and Received Care	3,795
	Wait Time for Care Less than 30 Minutes	Child Had USC or Received Care	4,995
	Travel Time to USC Less than 30 Minutes	Child Has USC	5,011

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: The reference period is the 6 months before the interview. Sample sizes vary due to sample restrictions and missing data.

^aApplies to children age 3 and older.

- Children with elevated health care needs and adolescents have greater unmet needs than children without elevated health care needs and younger children, respectively.
- Few differences in service receipt and unmet need exist across the different race/ethnicity and language groups.
- Hispanic children in both English- and Spanish-speaking households and non-Hispanic enrollees in households where the primary language is not English are more likely to have parents who feel stress and worry and lack confidence in their ability to meet their child’s health care needs and who are more likely to report communication and accessibility problems.
- Few consistent differences in access and use exist across states. The most striking differences across states are in parents’ opinions about how providers view SCHIP enrollees and whether SCHIP enrollees get better care than the uninsured, dental care access, the type of usual source of care, and travel times to the usual source of care.
- Higher co-payments on emergency room visits and lower co-payments for prescription drugs were associated with less emergency room use among established enrollees. This suggests that out-of-pocket cost sharing may affect service use patterns but more research is needed on this topic.

A. VARIATION BY RACE/ETHNICITY AND LANGUAGE

We report on the access and use experiences of white children (defined as non-Hispanic white children in households where the primary language spoken is English) compared to four groups of SCHIP enrollees, defined by their race/ethnicity and the primary language spoken in their household.^{4,5} The following describes the variation we found with respect to access and use

⁴The four groups are (1) Hispanic children whose primary language is English (that is, those in households in which English is the primary language); (2) Hispanic children whose primary language is Spanish (the 10 Hispanic enrollees whose primary language in the household is neither Spanish nor English are included in this category); (3) black children (that is, non-Hispanic black children in households in which English is the primary language); (4) and non-Hispanic children whose primary language is not English (nearly all children in this category have foreign-born parents—62 percent of these children are reported to be Asian, 29 percent white, 6 percent black, and the rest in the “other race” category). A small fraction (five percent) in this category reported that Spanish was the primary language spoken in the household.

⁵ Two additional groups were used in the regressions: (1) children who speak English as their primary language who are not Hispanic, black, or white; and (2) children missing data on race, ethnicity, or language. There were 227 enrollee children of other races, including 47 American Indians or Alaskan Natives, 164 Asians, and 116 of mixed race. In addition, 160 enrollee children were in the missing category. The “other race/ethnicity” and “missing” categories made up four and three percent of the enrollee sample, respectively.

across children in the different race/ethnicity and language groups. Table III.3 shows these findings.

Hispanic enrollees whose primary language is Spanish are more likely than white enrollees to have a clinic or health center as their usual source of care. They also have parents who are more concerned about their ability to meet their child's health care needs and who report more communication and accessibility problems. Major differences between white enrollees and Hispanic enrollees whose primary language is Spanish show up in parents' attitudes about being able to meet the child's health care needs, the type of usual source of care, and their experiences with providers, particularly related to communication (Table III.3). Similar findings have been documented in other studies that are not limited to children enrolled in SCHIP (Ku and Waidman 2003; and Lessard and Ku 2003).

Hispanic enrollees whose primary language is Spanish are less likely than white enrollees to have parents who are confident they can meet their child's health care needs, who rarely or never feel worry or stress about meeting their child's needs, or who indicate that meeting their child's health needs does not cause financial difficulties. Hispanic enrollees whose primary language is Spanish are also 5 percentage points more likely than white enrollees to have an unmet need for dental care; overall, 17 percent of these Hispanic enrollees reportedly have an unmet need for dental care.

Hispanic children whose primary language is Spanish are as likely as white children to have a usual source for both health and dental care. However, Spanish-speaking Hispanic children are about 29 percentage points more likely than white children to rely on a clinic or health center as their usual source for health care, whereas white children are more likely to rely on a private doctor's office or private group practice. Nearly half (49 percent) of Hispanic children whose primary language is Spanish had a health clinic or center as their usual source of care.

TABLE III.3

ACCESS TO CARE AND USE OF SERVICES AMONG ESTABLISHED SCHIP ENROLLEES,
BY RACE/ETHNICITY AND LANGUAGE

	Hispanic		Non-Hispanic		
	English Language (Percent)	Spanish Language (Percent)	White ^a (Percent)	Black (Percent)	Non-English Speaking (All) (Percent)
Service Use					
Any Doctor/Other Health Professional Visit	67.4	64.9	69.9	64.0 *	56.9
Any Preventive Care or Checkup Visit	45.9	46.1	43.5	52.0 **	40.6
Dental Visit for Checkup/Cleaning ^b	56.6	58.7	58.3	57.5	54.9
Any Specialist Visit	17.5	19.7	15.5	14.8	7.7 **
Any Mental Health Visit	4.7	5.5	7.1	3.4 *	-1.5
Any Specialist or Mental Health Visit	20.9	23.3	20.1	15.9	9.5
Any Emergency Room Visit	21.6	16.2	17.4	23.3 *	3.2 **
Any Hospital Stay	3.9	4.5	2.8	3.7	6.1
Unmet Need					
Doctor/Health Professional Care	1.3	2.1	2.2	2.5	4.2
Prescription Drugs	3.4	4.7	4.6	2.6	2.1
Dental Care ^b	10.9	16.5 *	11.5	8.9	4.5
Specialist	3.3	3.7	3.1	3.9	3.5
Hospital Care	1.0	2.3	1.1	0.9	1.1
Hospital, Specialist, Doctor, Drug	8.0	10.1	9.5	8.7	10.4
Hospital, Specialist, Doctor, Drug, Dentist ^b	17.0	23.0 *	17.7	15.0	13.3
More than One Unmet Need	2.2	3.9	3.6	3.4	2.3
Parental Perceptions of Meeting Child's Health Care Needs					
Very Confident	79.9 **	75.1 **	88.7	84.8	61.8 **
Never or Not Very Often Stressed	76.8 **	69.6 **	86.4	83.7	64.4 **
Never or Rarely Worried	49.2 **	38.3 **	69.9	67.0	40.4 **
Never or Rarely Cause Financial Difficulties	82.4 *	76.5 **	87.5	91.5 *	81.2
Children on SCHIP Get Better Health Care	79.2	79.9	81.5	79.6	89.5
Doctors and Nurses Look Down on SCHIP Enrollees	19.9 *	14.0	15.2	18.1	65.4 **
Usual Source of Care (USC)					
Had USC in Past 6 Months	91.5	92.2	94.0	89.9 *	75.0 **
USC Type: Private Doctor's Office	66.2 **	48.5 **	76.2	63.8 **	69.1
USC Type: Clinic or Health Center	28.6 **	49.3 **	20.3	28.9 **	25.2
Usually Saw Same Provider at USC	72.5	71.9	76.3	68.7 **	61.3 *
Had USC for Dental Care in Past 6 Months ^b	82.8	83.0	81.6	81.8	64.5 *
Provider Communication and Accessibility					
Would Recommend USC	93.2	91.1	92.1	91.1	91.6
Could Reach Doctor After Hours	77.5	64.2 **	83.1	75.1 **	80.5
Providers Explain in Understandable Ways	90.1	81.9 **	93.7	94.1	76.7 *
Provider Treats with Courtesy/Respect	93.3	92.0 *	95.8	96.6	82.8
Provider Talks About How Child Feeling	87.5	79.3 **	87.1	90.7	82.6
Rated Ease of Getting Care Excellent or Very Good	72.3 *	61.6 **	79.6	73.2 *	42.7 **
Wait Time for Care Less than 30 Minutes	51.9 **	39.7 **	63.2	57.7	25.7 **
Travel Time to USC Less than 30 Minutes	84.6	82.3	86.9	83.5	72.2
Number	771	924	2,287	847	165

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Established enrollees defined as those who have been enrolled in SCHIP for 5 months or longer. The reference period for these measures is the 6 months before to the interview. Estimates based on regression adjusted means for established SCHIP enrollees (N = 5,394) and do not include case missing race/ethnicity or language (N = 160) or cases in the other race category (N = 227).

^a "White" (English-speaking non-Hispanic) is the reference category for tests of significance; **p-value<0.01; *p-value<0.05.

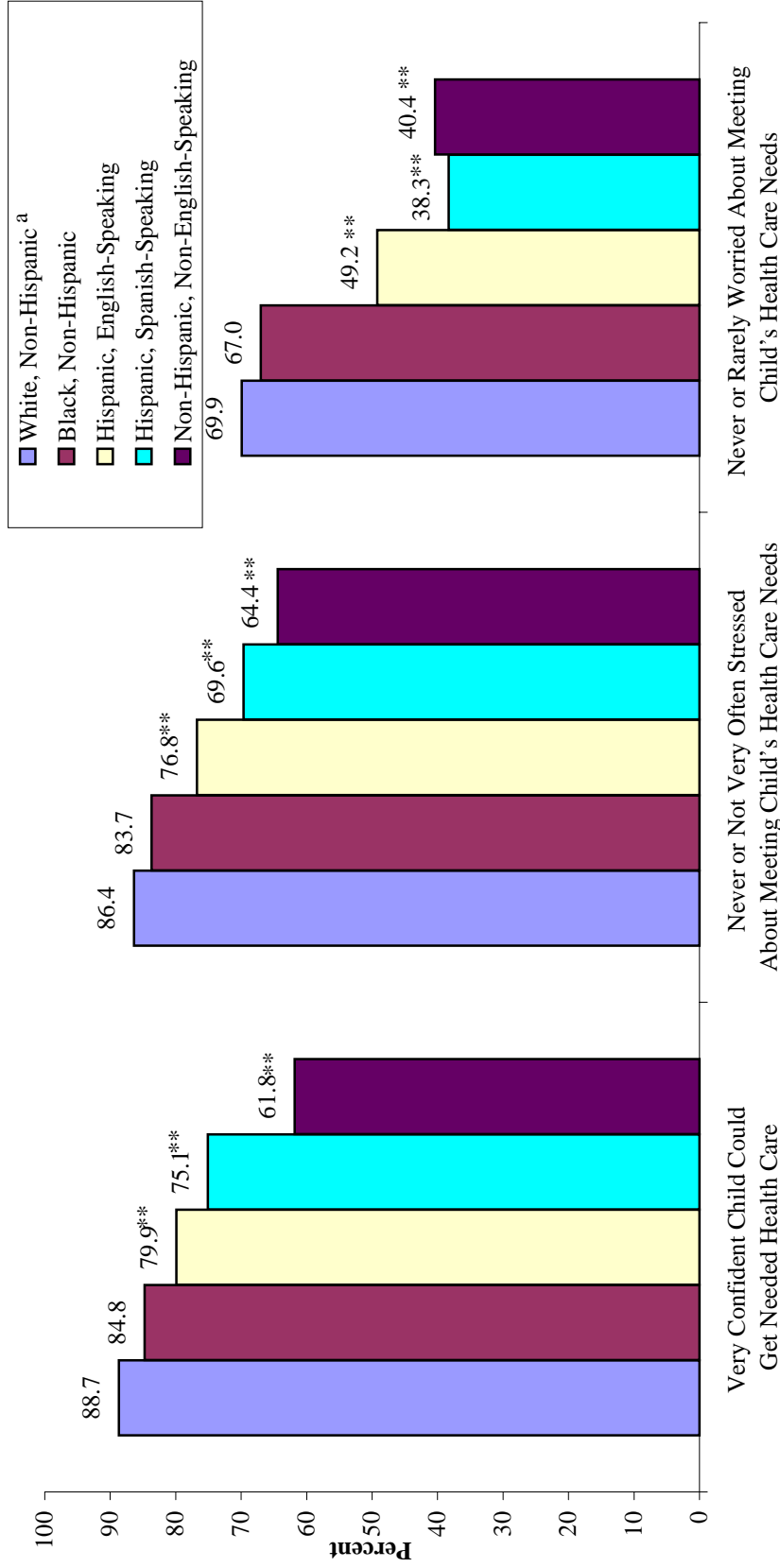
^b Applies to children age 3 and older.

Spanish-speaking parents report greater problems in provider communication and accessibility. They are 12 percentage points less likely to say that providers explained things in a way that they could understand, 4 percentage points less likely to say that their provider treated them with courtesy and respect, 8 percentage points less likely to say that the provider talked to them about how their child was feeling, 17 percentage points less likely to have a provider that can be reached after hours, and 24 percentage points less likely to say that they had to wait less than 30 minutes on average when they arrived for an appointment. These differences in provider accessibility and communication persist even when we take into account whether the child uses a private doctor's office or a health center as their usual source of care (data not shown).

Hispanic enrollees whose primary language is English have fewer and less acute access problems than Hispanic enrollees whose primary language is Spanish. Some of the differences found between white children and Hispanic children whose primary language is Spanish are also found when we compare white children with Hispanic children whose primary language is English. Where differences exist, however, they tend to be smaller (Table III.3). For example, other things equal, Hispanic children with English as their primary language and those with Spanish as their primary language are 9 and 14 percentage points less likely, respectively, than white children to have parents who feel confident that they can meet their child's health needs (Figure III.1). Likewise, Hispanic children in English-speaking households are less likely than white children to report short waits for appointments, but the difference was 11 percentage points, compared with 24 percentage points for Spanish-speaking Hispanic children. Similarly, both groups of Hispanic children are more likely than white children to rely on a clinic for their usual source of care, but Hispanic children in Spanish-speaking households are 29 percentage points more likely to rely on a clinic, while those in English-speaking households are just 8 percentage points more likely to do so.

FIGURE III.1

PARENTAL PERCEPTIONS OF MEETING CHILD'S HEALTH CARE NEEDS,
BY RACE/ETHNICITY AND LANGUAGE



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on regression-adjusted means for established SCHIP enrollees (N = 5,394).

^a“White” (English-speaking non-Hispanic) is the reference category for tests of significance; **p-value<0.01; *p-value<0.05.

In addition, communication problems are not apparent for Hispanic children in English-speaking families, but they were found for those in Spanish-speaking families. For example, among Hispanic children in English-speaking households, 90 percent reportedly had providers who explained things in understandable ways, compared with 82 percent for Hispanic children in Spanish-speaking households (Table III.3). It appears that there is comparability between Hispanic children in English-speaking families and white children in the extent to which providers are reported to explain things in understandable ways, treat them with courtesy or respect, and talk about how the child is feeling.

Black SCHIP enrollees had experiences similar to those of white enrollees in many areas. The main differences found were in measures of service use and presence of a usual source of care. When we compare white and black SCHIP enrollees, we see that black children have different service use patterns in three areas. On the one hand, black SCHIP enrollees were eight percentage points more likely than white enrollees to receive a preventive visit, which is consistent with previous research (Fairbrother et al., forthcoming). On the other hand, black children were six percentage points less likely to have had any physician visits and six percentage points more likely to have had an emergency room visit in the 6 months before the interview.⁶

These data also indicate that, compared with white children, black children are four percentage points less likely to have a usual source of care and nine percentage points more likely to rely on a clinic for their usual source of care, all other things equal. Black children are also less likely to see the same provider at their usual source of care and to have a provider who

⁶ We find that black enrollees are less likely than white enrollees to receive mental health visits, other things equal, even when we only examine enrollees who are reported to have a mental health condition (data not shown).

can be reached after hours. Overall, 90 percent of black children had a usual source for health care (Table III.3).

Parents of non-Hispanic children with a primary language other than English appear more concerned than other parents about being able to meet their child's health care needs. Their children are less likely to have a usual source for both medical and dental care, and they report more accessibility and communication problems. We find that non-Hispanic children whose primary language is not English have parents who express lower levels of confidence and greater levels of stress and worry about meeting their child's health care needs than parents of white children (Figure III.1). Likewise, compared with white children, non-Hispanic children whose primary language is not English are 19 percentage points less likely to have a usual source for health care, 17 percentage points less likely to have a usual source for dental care, and 50 percentage points more likely to have parents who feel that doctors and nurses look down on SCHIP enrollees. Even with these differences, 75 percent of non-Hispanic children whose primary language is not English had a usual source for health care and 65 percent had a usual source for dental care (Table III.3).

This diverse set of non-English-speaking households is also less likely than white children to have had specialist and emergency room visits, to see the same provider when they visit their usual source of care, and to wait a short time when they have appointments. They also seem to experience more communication problems—non-Hispanic children whose primary language is not English are 17 percentage points less likely to have providers who explain things in understandable ways, and they are also less likely to believe that providers treat them with courtesy and respect. The difference did not attain statistical significance at conventional levels, however.

B. VARIATION BY AGE OF THE CHILD

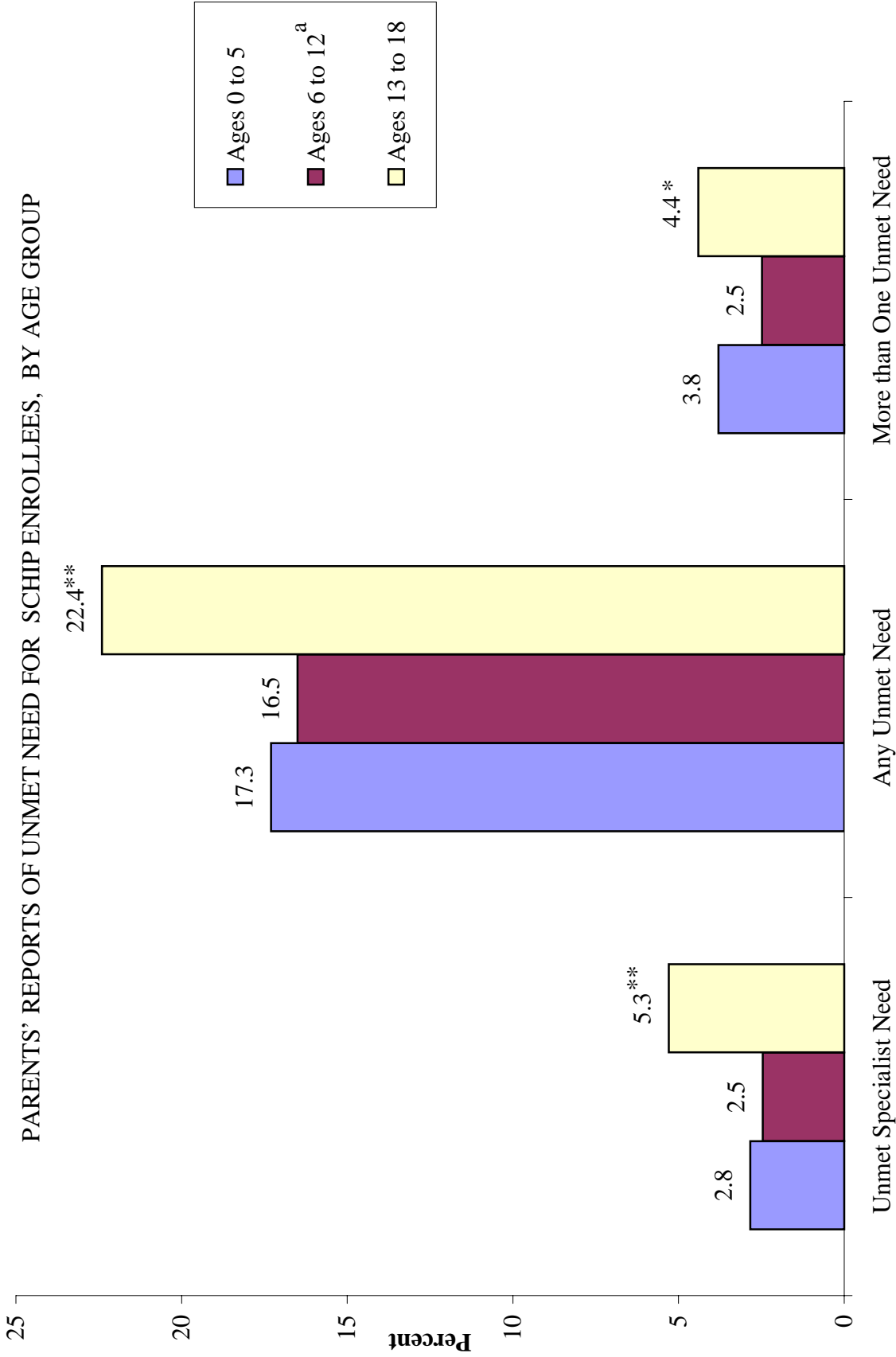
Children in different age groups have different service use patterns, but unmet health needs are highest among adolescents. Many of the patterns that we observe with respect to age (Table III.4) are consistent with previous research (Fairbrother 2003; and Rosenbach 1989). These patterns reflect the changing types of care children need as they grow and develop. For example, preschool-age children are more likely than children ages 6 to 12 to have received a well-child checkup and to have had an emergency room visit but are less likely to have received a dental checkup or a mental health visit.

Adolescents seem to have greater difficulty than children ages 6 to 12 having their service needs met. Adolescents are six percentage points more likely than children ages 6 to 12 to have at least one unmet need and two percentage points (or 1.9 times) more likely to have more than one unmet need (Figure III.2). Adolescents also are more likely than younger school-age children to have an unmet need for dental care and less likely to have received a dental checkup. Just over half (55 percent) of enrollees ages 13 to 18 had received a dental checkup in the 6 months before the survey, and 15 percent reportedly had an unmet need for dental care (Table III.4). Moreover, while adolescents were more likely to have seen a specialist in the 6 months before the interview, they also were more likely to have an unmet need for specialty care.

C. VARIATION BY EDUCATIONAL ATTAINMENT OF PARENT

SCHIP enrollees whose parents have more education tend to receive more care. In addition, their parents have fewer concerns about meeting their child's health needs, and they give providers higher marks for communication and accessibility. SCHIP enrollees whose parents had not completed high school were less likely than those whose parents had more education to have received a doctor visit, specialty or mental health care, and a well-child

FIGURE III.2



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on regression-adjusted means for established SCHIP enrollees (N = 5,394).

^a“Ages 6 to 12” is the reference category for tests of significance; ^{**}p-value<0.01; ^{*}p-value<0.05.

TABLE III.4

ACCESS TO CARE AND USE OF SERVICES AMONG ESTABLISHED SCHIP ENROLLEES, BY AGE OF CHILD

	Ages 0 to 5 (Percent)	Ages 6 to 12 ^a (Percent)	Ages 13 to 18 (Percent)
Service Use			
Any Doctor/Other Health Professional Visit	75.2 **	64.5	64.9
Any Preventive Care or Checkup Visit	57.1 **	43.0	42.2
Dental Visit for Checkup/Cleaning ^b	49.1 **	61.9	55.3 **
Any Specialist Visit	17.2	14.1	20.6 **
Any Mental Health Visit	2.7 **	5.3	7.1
Any Specialist or Mental Health Visit	18.9	18.0	25.0 **
Any Emergency Room Visit	24.3 **	17.3	15.1
Any Hospital Stay	5.1	3.6	3.2
Unmet Need			
Doctor/Health Professional Care	3.6	1.7	1.9
Prescription Drugs	5.5	3.5	4.2
Dental Care ^b	11.2	10.8	14.5 *
Specialist	2.8	2.5	5.3 **
Hospital Care	1.8	0.9	1.9
Hospital, Specialist, Doctor, Drug	11.0	7.4	11.1 **
Hospital, Specialist, Doctor, Drug, Dentist ^b	17.3	16.5	22.4 **
More than One Unmet Need	3.8	2.5	4.4 *
Parental Perceptions of Meeting Child's Health Care Needs			
Very Confident	82.2	81.3	80.8
Never or Not Very Often Stressed	81.3	78.6	76.1
Never or Rarely Worried	57.9	54.6	53.7
Never or Rarely Cause Financial Difficulties	84.8	83.1	83.0
Children on SCHIP Get Better Health Care	80.1	79.0	84.0 **
Doctors and Nurses Look Down on SCHIP Enrollees	16.0	17.6	21.2 *
Usual Source of Care (USC)			
Had USC in Past 6 Months	94.0	90.9	91.3
USC Type: Private Doctor's Office	66.0	64.3	64.1
USC Type: Clinic or Health Center	30.2	31.1	32.9
Usually Saw Same Provider at USC	74.8	70.7	74.9 *
Had USC for Dental Care in Past 6 Months ^b	71.1 **	83.9	82.9
Provider Communication and Accessibility			
Would Recommend USC	92.7	91.5	92.1
Could Reach Doctor After Hours	72.9	77.3	74.9
Providers Explain in Understandable Ways	89.0	89.1	89.8
Provider Treats with Courtesy/Respect	96.7 *	93.1	92.8
Provider Talks About How Child Feeling	88.3 *	83.8	85.8
Rated Ease of Getting Care Excellent or Very Good	76.0 *	68.9	70.7
Wait Time for Care Less than 30 Minutes	55.1	50.5	51.8
Travel Time to USC Less than 30 Minutes	83.1	84.7	83.7
Number	961	2,564	1,869

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Established enrollees defined as those who have been enrolled in SCHIP for 5 months or longer. The reference period for these measures is the 6 months before to the interview. Estimates based on regression-adjusted means for established SCHIP enrollees (N = 5,394).

^a“Ages 6 to 12” is the reference category for tests of significance; **p-value<0.01; *p-value<0.05.

^bApplies to children age 3 and older.

checkup in the 6 months before the interview (Figure III.3). The relationship found between service use and educational attainment of the parent is consistent with research on the determinants of access and use among low-income children (Fairbrother et al., forthcoming). We also find that enrollees whose parents have not completed high school are less likely than enrollees whose parents have at least some college education to have received a dental checkup, to receive specialty care, and to receive mental health care (Table III.5).⁷

More-educated parents also report higher levels of confidence and lower levels of stress, worry, and financial difficulty associated with meeting their child's health care needs (Figure III.4). For example, other things equal, parents who had a high school degree and those who had some college are 8 and 11 percentage points less likely, respectively, to report feeling stress about meeting their child's health care needs than those whose parents do not have a high school degree or GED.

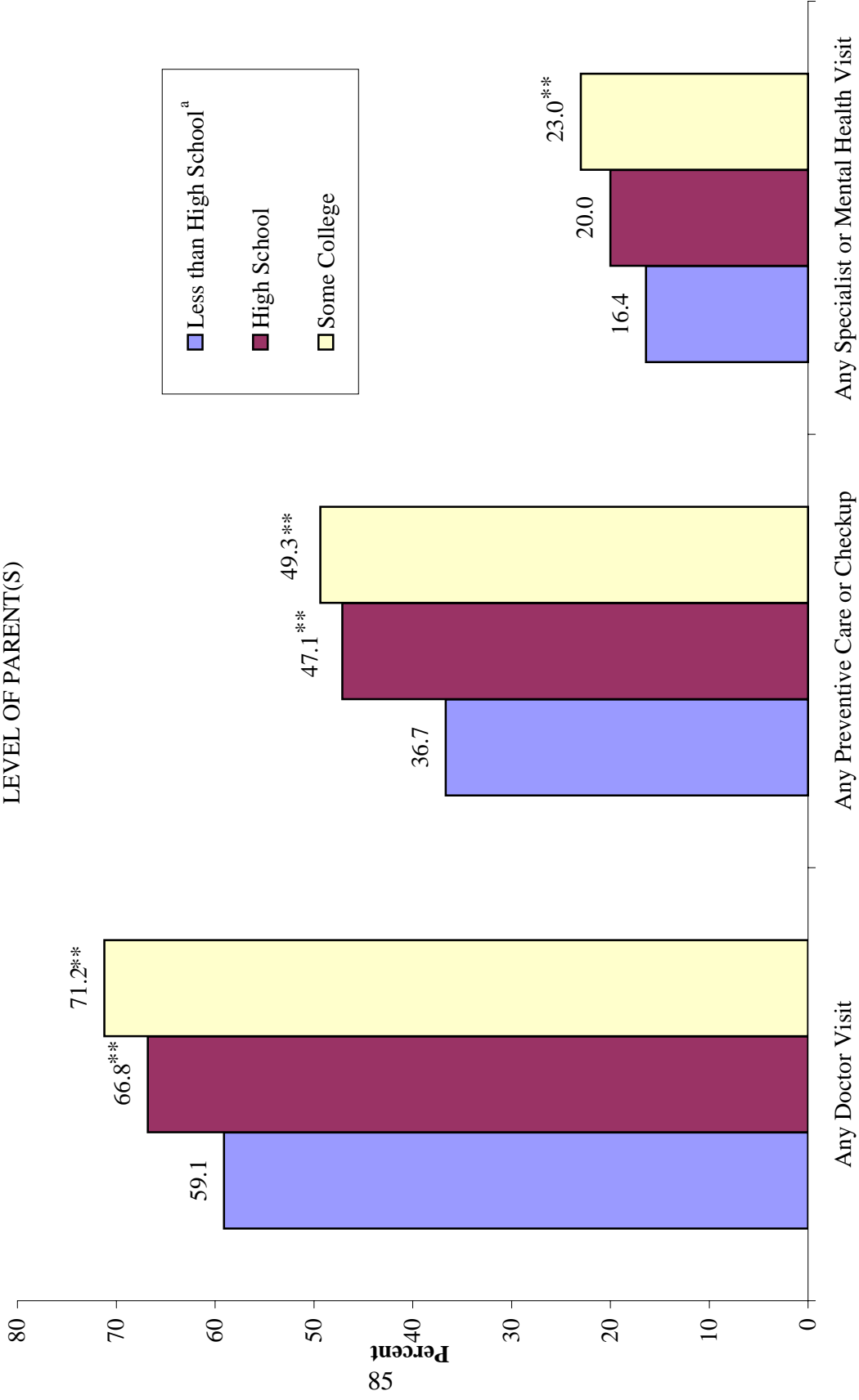
Except for dental care, unmet needs do not appear to vary with the educational attainment of the parent. For dental care, children whose parents do not have a high school degree are reported to have more unmet needs than those whose parents have completed high school but have no college education. Other research has found the lack of a strong association between unmet needs and the educational attainment of the parent (Fairbrother et al., forthcoming).

Children whose parents have a high school degree or some college are about 14 percentage points less likely than those who do not have a high school degree to use a health center or a clinic as a usual source of care. There appear to be more issues concerning providers for children whose parents have not completed high school than for those whose parents have more than a high school education. These children are 9 percentage points less likely to see the same

⁷ This category includes parents who completed high school and had some college education, whether or not they attained a college degree.

FIGURE III.3

ACCESS AND SERVICE USE FOR SCHIP ENROLLEES, BY HIGHEST EDUCATION LEVEL OF PARENT(S)



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on regression-adjusted means for established SCHIP enrollees (N = 5,394).

^a“Less than High School” is the reference category for tests of significance; **p-value<0.01; *p-value<0.05.

TABLE III.5

ACCESS TO CARE AND USE OF SERVICES AMONG ESTABLISHED SCHIP ENROLLEES,
BY HIGHEST EDUCATION LEVEL OF PARENT(S)

	Less than High School ^a (Percent)	High School (Percent)	More than High School (Percent)
Service Use			
Any Doctor/Other Health Professional Visit	59.1	66.8 **	71.2 **
Any Preventive Care or Checkup Visit	36.7	47.1 **	49.3 **
Dental Visit for Checkup/Cleaning ^b	52.3	58.6	60.3 **
Any Specialist Visit	13.4	17.3	18.3 *
Any Mental Health Visit	3.3	4.0	7.7 **
Any Specialist or Mental Health Visit	16.4	20.0	23.0 **
Any Emergency Room Visit	20.5	17.3	17.1
Any Hospital Stay	3.8	4.6	3.0
Unmet Need			
Doctor/Health Professional Care	1.4	2.4	2.2
Prescription Drugs	2.4	5.1	4.3
Dental Care ^b	14.2	9.5 *	13.1
Specialist	4.0	2.5	3.9
Hospital Care	1.0	0.9	2.0
Hospital, Specialist, Doctor, Drug	8.1	8.9	10.4
Hospital, Specialist, Doctor, Drug, Dentist ^b	20.0	15.9	19.9
More than One Unmet Need	2.5	2.9	4.2
Parental Perceptions of Meeting Child's Health Care Needs			
Very Confident	76.6	82.9 *	82.9 *
Never or Not Very Often Stressed	70.9	79.3 **	81.9 **
Never or Rarely Worried	50.2	54.2	58.4 **
Never or Rarely Cause Financial Difficulties	77.0	85.0 **	85.8 **
Children on SCHIP Get Better Health Care	84.6	78.0 **	81.1
Doctors and Nurses Look Down on SCHIP Enrollees	17.6	20.4	17.3
Usual Source of Care (USC)			
Had USC in Past 6 Months	90.4	90.5	93.5
USC Type: Private Doctor's Office	57.1	67.1 **	66.9 **
USC Type: Clinic or Health Center	41.8	29.3 **	27.3 **
Usually Saw Same Provider at USC	67.1	73.7 *	75.6 **
Had USC for Dental Care in Past 6 Months ^b	81.6	82.8	80.6
Provider Communication and Accessibility			
Would Recommend USC	90.3	93.2	91.8
Could Reach Doctor After Hours	63.9	78.8 **	79.6 **
Providers Explain in Understandable Ways	85.2	89.3	91.2 *
Provider Treats with Courtesy/Respect	88.5	94.8 **	95.5 **
Provider Talks About How Child Feeling	81.3	86.5	86.5
Rated Ease of Getting Care as Excellent or Very Good	59.6	74.1 **	74.1 **
Wait Time for Care Less than 30 Minutes	47.0	55.1 *	51.9
Travel Time to USC Less than 30 Minutes	84.1	83.5	84.6
Number	952	1,996	2,333

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

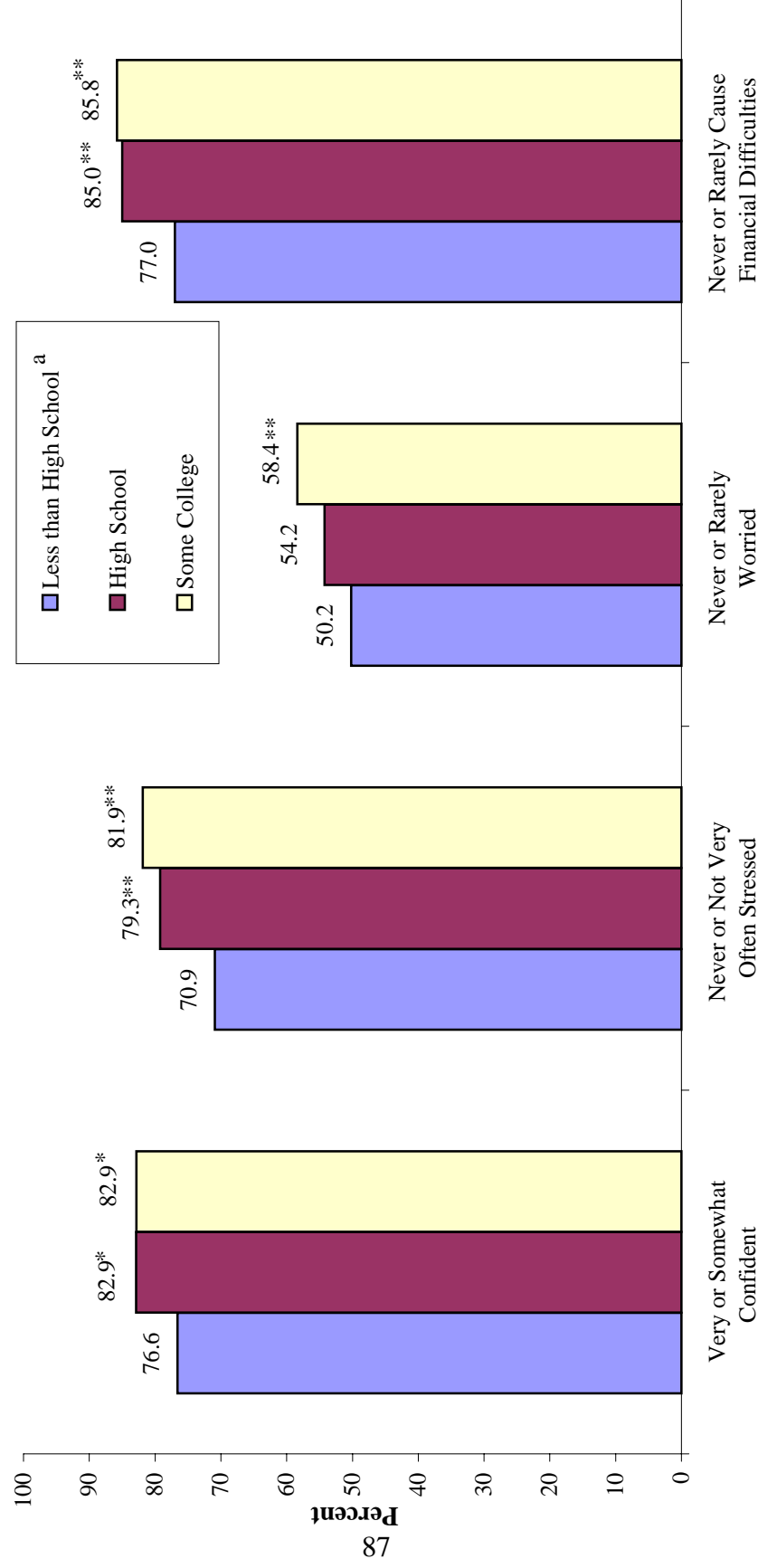
Note: Established enrollees defined as those who have been enrolled in SCHIP for 5 months or longer. The reference period for these measures is the 6 months before to the interview. Estimates based on regression-adjusted means for established SCHIP enrollees (N = 5,394).

^a“Less than High School” is the reference category for tests of significance; **p-value<0.01; *p-value<0.05.

^bApplies to children age 3 and older.

FIGURE III.4

PARENTAL PERCEPTIONS OF MEETING THEIR CHILD'S HEALTH CARE NEEDS,
BY HIGHEST EDUCATION LEVEL OF PARENT(S)



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on regression-adjusted means for established SCHIP enrollees (N = 5,394).

*"Less than High School" is the reference category for tests of significance; **p-value<0.01; *p-value<0.05.

provider at their usual source of care, 16 percentage points less likely to have a provider that can be reached after hours, and 7 percentage points less likely to have providers reported to treat them with respect (Table III.5). While only 64 percent of the children whose parents have not completed high school have providers who can be reached after hours, 89 percent reportedly have providers that treat them with courtesy and respect (Table III.5).

D. VARIATION BY HEALTH STATUS OF THE CHILD⁸

SCHIP enrollees with elevated health care needs receive more care than other enrollees but are reported to have more unmet needs. In addition, their parents report greater levels of worry and financial difficulty associated with meeting their children's needs. Consistent with the broader research on children with special health care needs (Silver and Stein 2001; Davidoff et al. 2003; and Kenney et al. 2003), we find that SCHIP enrollees with elevated health care needs are more likely than other enrollees to receive a range of different type of services but are also more likely to have unmet needs and to have multiple unmet needs (Table III.6). For example, they are more likely than other children to have received specialty care and to have had a hospital stay, but they are also more likely to have unmet needs for both specialty and hospital care (Figure III.5). In addition, they are more likely to have had emergency room and mental health visits and to have greater unmet needs for prescription drugs. Other things equal, children with elevated health care needs are 10 percentage points more likely than children in better health who do not have an elevated health care need to have some type of unmet need and 4 percentage points more likely to have multiple needs. However, as discussed in Chapter VII, enrollment in SCHIP reduced unmet needs for children with and without elevated health care needs, with the largest reductions experienced by children with elevated health care needs.

⁸ Elevated health care needs are defined as being in fair or poor health or having a special health care need. About one in five of the children with a special health care need is in fair or poor health, and about one-half of the children in fair or poor health have a special health care need.

TABLE III.6

ACCESS AND USE OF SERVICES AMONG ESTABLISHED SCHIP ENROLLEES,
BY HEALTH STATUS OF CHILD

	Without Elevated Health Care Needs ^a (Percent)	With Elevated Health Care Needs (Percent)
Service Use		
Any Doctor/Other Health Professional Visit	64.0	75.4 **
Any Preventive Care or Checkup Visit	43.9	50.5 **
Any Dental Visit for Checkup/Cleaning ^b	58.4	55.8
Any Specialist Visit	14.1	25.2 **
Any Mental Health Visit	3.0	12.7 **
Any Specialist or Mental Health Visit	16.2	33.7 **
Any Emergency Room Visit	15.9	24.7 **
Any Hospital Stay	3.1	5.9 **
Unmet Need		
Doctor/Health Professional Care	1.8	2.9
Prescription Drugs	2.9	7.8 **
Dental Care ^b	11.4	14.2
Specialist	2.5	6.3 **
Hospital Care	0.9	2.9 **
Hospital, Specialist, Doctor, Drug	7.1	16.3 **
Hospital, Specialist, Doctor, Drug, Dentist ^b	16.2	26.0 **
More than One Unmet Need	2.4	6.5 **
Parental Perceptions of Meeting Child's Health Care Needs		
Very Confident	82.3	78.4 *
Never or Not Very Often Stressed	80.8	70.6 **
Never or Rarely Worried	57.5	46.8 **
Never or Rarely Cause Financial Difficulties	85.8	75.9 **
Children on SCHIP Get Better Health Care	80.3	82.7
Doctors and Nurses Look Down on SCHIP Enrollees	18.2	19.2
Usual Source of Care (USC)		
Had USC in Past 6 Months	90.9	94.1 **
USC Type: Private Doctor's Office	65.1	63.2
USC Type: Clinic or Health Center	31.6	31.0
Usually Saw Same Provider at USC	70.6	79.9 **
Had USC for Dental Care in Past 6 Months ^b	82.2	79.8
Provider Communication and Accessibility		
Would Recommend USC	91.5	93.1
Could Reach Doctor After Hours	76.4	73.4
Providers Explain in Understandable Ways	90.0	87.4
Provider Treats with Courtesy/Respect	94.0	93.1
Provider Talks About How Child Feeling	85.8	84.3
Rated Ease of Getting Care as Excellent or Very Good	72.3	67.5 *
Wait Time for Care Less than 30 Minutes	52.2	50.7
Travel Time to USC Less than 30 Minutes	85.5	79.8 **
Number	3,941	1,453

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

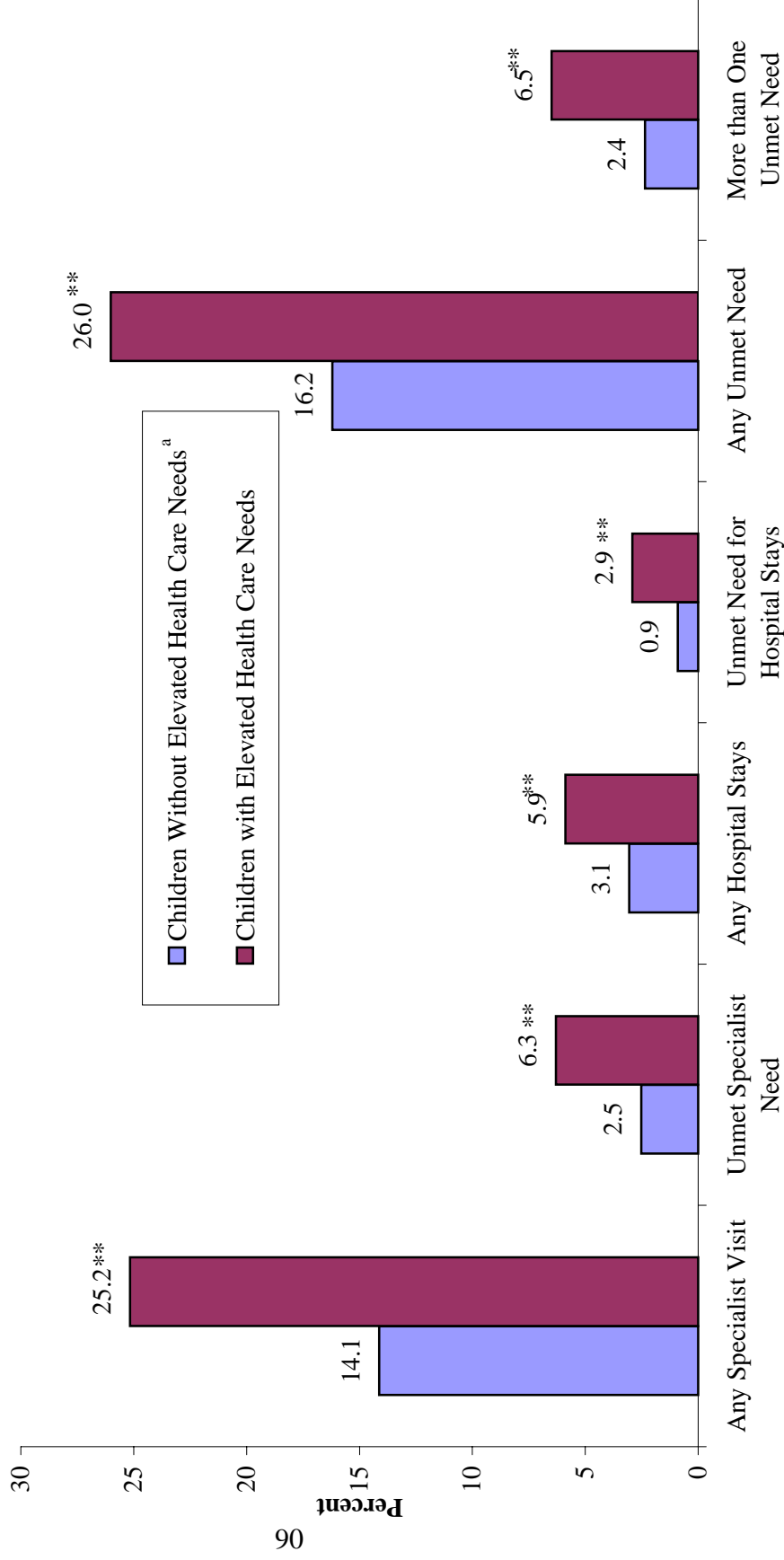
Note: Established enrollees defined as those who have been enrolled in SCHIP for 5 months or longer. The reference period for these measures is the 6 months before to the interview. Estimates based on regression-adjusted means for established SCHIP enrollees (N = 5,394).

^a "Without Elevated Health Care Needs" is the reference category for tests of significance; **p-value<0.01;*p-value<0.05. Child classified as with "Elevated Health Care Needs" if in fair or poor health or has a special health care need.

^bApplies to children age 3 and older.

FIGURE III.5

SERVICE USE AND UNMET NEED FOR SCHIP ENROLLEES WITH AND WITHOUT ELEVATED HEALTH CARE NEEDS



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on regression-adjusted means for established SCHIP enrollees (N = 5,394).

^a“Children Without Elevated Health Care Needs” is the reference category for tests of significance; **p-value<0.01; *p-value<0.05.

Parents whose children have elevated health care needs are more likely to report feeling stress, worry, and financial difficulties associated with meeting their child's health care needs (Table III.6). For example, SCHIP enrollees with elevated health care needs are 10 percentage points less likely than healthier SCHIP enrollees to have parents who indicate that meeting their child's health care needs never or rarely causes financial difficulties. Despite this difference, however, even among the parents whose children have elevated health care needs, 76 percent indicate that meeting their child's health care needs rarely or never causes financial difficulties.

E. VARIATION BY URBAN/RURAL LOCATION

SCHIP enrollees who live in urban areas are less likely than enrollees who live in more rural areas to use a clinic or health center as their usual source of care and, not surprisingly, less likely to travel long distances to get to their usual source of care (Appendix Table III.4). For example, other things equal, SCHIP enrollees who live in metropolitan areas are 8 and 13 percentage points less likely to use a clinic or health center as their usual source of care, compared with enrollees in nonmetropolitan areas adjacent and not adjacent to a city, respectively (Appendix Table III.4). Instead, enrollees from urban areas are more likely to rely on private doctors' offices or group practices and to use other types of usual sources of care.

F. VARIATION BETWEEN ESTABLISHED ENROLLEES AND DISENROLLEES

The SCHIP experiences of children who recently disenrolled from SCHIP are generally positive, though less so than those of established enrollees. We compared access and use measures for established enrollees and disenrollees, controlling for the characteristics of children

in the two groups (Table III.7).⁹ Overall, the findings suggest that disenrollees might have had somewhat worse access and use experiences than the established enrollees. While the differences are not large, the pattern is robust and spans a number of different types of outcomes. In particular, (1) the parents of disenrollees were seven percentage points less likely than the parents of established enrollees to feel very confident about their ability to have their child's health needs met (Figure III.6), (2) disenrollees were three percentage points less likely than established enrollees to have a usual source of care and four percentage points less likely to rely on a physician's office or private practice as their usual source of care, and (3) disenrollees were four percentage points less likely than established enrollees to have a preventive dental visit and six percentage points less likely to have a usual source for dental care.

G. IMPACTS OF CO-PAYMENTS

Emergency room use appears higher for enrollees facing higher prescription drug co-payments and lower emergency room co-payments. Under SCHIP, states can impose co-payments for services (excluding well-child visits). For families below 150 percent of the federal poverty level, total cost sharing cannot exceed five percent of the family's income; for families below this income level, the co-payment is capped at five dollars per individual service. Among these 10 states, 2 did not impose co-payments for services, while the remaining 8 states imposed co-payments on some enrollees. Table III.8 shows the co-payments charged in each state in 2002 for emergency room visits, office visits, prescription drugs, and mental health visits.

⁹We estimated models that included and excluded the enrollees who were 18 years old at the time of the survey and that included and excluded disenrollees who had been enrolled in SCHIP for less than 6 months. While the magnitude and statistical significance of the differences in access and use between established enrollees and disenrollees varied across the specifications, the overall pattern was the same across all model specifications. The results presented here are based on models that include the 18-year-olds and exclude the disenrollees who had been enrolled in SCHIP for less than 6 months.

TABLE III.7

ACCESS AND USE OF SERVICES AMONG SCHIP ENROLLEES, BY ENROLLMENT STATUS

	Established Enrollees ^a (Percent)	Disenrollees (Percent)
Service Use		
Any Doctor/Other Health Professional Visit	66.8	66.6
Any Preventive Care or Checkup Visit	45.5	50.9 **
Any Dental Visit for Checkup/Cleaning ^b	57.4	53.8 *
Any Specialist Visit	16.8	15.1
Any Mental Health Visit	5.4	6.6
Any Specialist or Mental Health Visit	20.4	20.3
Any Emergency Room Visit	18.0	21.0 *
Any Hospital Stay	3.8	3.7
Unmet Need		
Doctor/Health Professional Care	2.1	2.0
Prescription Drugs	4.1	4.8
Dental Care ^b	12.0	13.7
Specialist	3.4	4.2
Hospital Care	1.4	1.9
Hospital, Specialist, Doctor, Drug	9.3	10.5
Hospital, Specialist, Doctor, Drug, Dentist ^b	18.5	20.5
More than One Unmet Need	3.4	4.5 *
Parental Perceptions of Meeting Child's Health Care Needs		
Very Confident	81.3	74.5 **
Never or Not Very Often Stressed	78.3	74.0 **
Never or Rarely Worried	55.0	50.4 **
Never or Rarely Cause Financial Difficulties	83.4	79.8 **
Children on SCHIP Get Better Health Care	80.8	78.5
Doctors and Nurses Look Down on SCHIP Enrollees	18.5	19.0
Usual Source of Care (USC)		
Had USC in Past 6 Months	91.7	89.1 **
USC Type: Private Doctor's Office	64.6	60.6 **
USC Type: Clinic or Health Center	31.4	35.4 **
Usually Saw Same Provider at USC	72.9	69.6 *
Had USC for Dental Care in Past 6 Months ^b	81.1	75.3 **
Provider Communication and Accessibility		
Would Recommend USC	91.9	91.9
Could Reach Doctor After Hours	75.4	75.3
Providers Explain in Understandable Ways	88.7	88.6
Provider Treats with Courtesy/Respect	93.3	94.5
Provider Talks About How Child Feeling	85.0	84.1
Rated Ease of Getting Care as Excellent or Very Good	69.7	67.4
Wait Time for Care Less than 30 Minutes	51.7	52.4
Travel Time to USC Less than 30 Minutes	84.0	82.2
Number	5,394	4,968

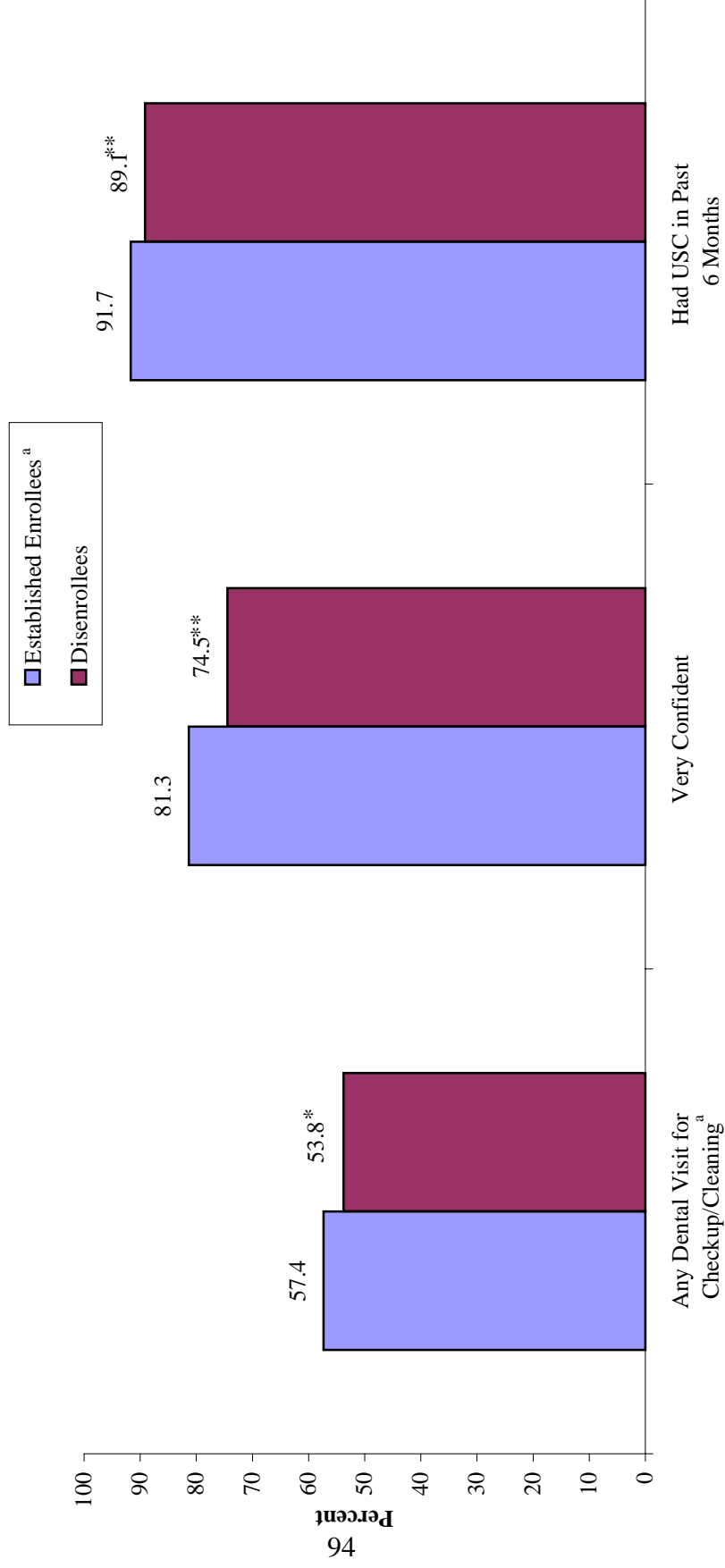
Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Established enrollees defined as those who have been enrolled in SCHIP for 5 months or longer. The reference period for these measures is the 6 months before to the interview. Estimates based on regression-adjusted means for established SCHIP enrollees (N = 5,394).

^a "Established Enrollees" is the reference category for tests of significance; **p-value<0.01; *p-value<0.05.

^b Applies to children age 3 and older.

FIGURE III.6
 ACCESS, SERVICE USE, AND PARENTAL CONFIDENCE FOR ESTABLISHED
 ENROLLEES AND DISENROLLEES



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on regression-adjusted means for established SCHIP enrollees (N = 5,394) and disenrollees (N = 4,968).

^a“Established enrollees” is the reference category for tests of significance; **p-value<0.01; *p-value<0.05.

TABLE III.8

CO-PAYMENTS FOR FOUR TYPES OF SERVICES, BY STATE

	Emergency Room Visits Co-Pay Amount	Office Visits Co-Pay Amount	Prescription Drugs Co-Pay Amount	Mental Health Visits Co-Pay Amount
California	All incomes: \$5	All incomes: \$5	All incomes: \$5	All incomes: \$5
Colorado	<100% FPL: None 101-150% FPL: \$5 151-185% FPL: \$15	<100% FPL: None 101-150% FPL: \$2 151-185% FPL: \$5	<100% FPL: None 101-150% FPL: \$1 151-185% FPL: \$3-5	<100% FPL: None 101-150% FPL: \$2 151-185% FPL: \$5
Florida	MediKids: None Florida Healthy Kids Inappropriate Use Fee: \$10	MediKids: None Florida Healthy Kids: \$3	MediKids: None Florida Healthy Kids: \$3	MediKids: None Florida Healthy Kids: \$3
Illinois	<150% FPL: None 151-185% FPL Inappropriate Use Fee: \$25	<133% FPL: None 134-150% FPL: \$2 151-185% FPL: \$5	<133% FPL: None 134-150% FPL: \$2 151-185% FPL: \$3-5	<133% FPL: None 134-185% FPL: \$5
Louisiana	None	None	None	None
Missouri	None	<185% FPL: None 186-225% FPL: \$5 226-300% FPL: \$10	<225% FPL: None 226-300% FPL: \$9	None
New Jersey	134-150% FPL: None 151-200% FPL: \$10 201-350% FPL: \$35	134-150% FPL: None 151-200% FPL: \$5 201-350% FPL: \$5	134-150% FPL: None 151-200% FPL: \$5 201-350% FPL: \$5 (\$1 generics)	134-150% FPL: None 151-200% FPL: None 201-350% FPL: \$25
New York	None	None	None	None
North Carolina	<150% FPL: None 150-200% FPL: \$20	<150% FPL: None 150-200% FPL: \$5	<150% FPL: None 150-200% FPL: \$6	<150% FPL: None 150-200% FPL: \$5
Texas	<150% FPL: \$5 151-185% FPL: \$25 186-200% FPL: \$35 (\$100 annual family cap)	<150% FPL: \$2 151-185% FPL: \$5 186-200% FPL: \$10	<150% FPL: \$1-2 >150% FPL: \$10 (\$5 generics)	<150% FPL: \$2 151-185% FPL: \$5 186-200% FPL: \$35

Source: Wooldridge et al. 2003.

Previous research has suggested that low-income families reduce service use when faced with higher out-of-pocket costs (Lohr et al. 1986; Newhouse 1993; and Stewart and Zacker 1999), but no research has examined the effects of this type of cost sharing in the SCHIP program. In this section, we assess the relationship of co-payments charged for four services—emergency room visits, office visits, mental health visits, and prescription drugs—on measures of service use and unmet needs reported for established enrollees. We assigned zero co-payments to children in states with no co-payments and to children in eligibility categories that had no co-payments. For children in the states that charged co-payments, we assigned them the amount for children in that eligibility category. We estimated the effects of co-payments in regression models that included all the explanatory variables used in the other regression models reported in this chapter.¹⁰

Of the four types of co-payments we focused on, we identified only two relationships that appeared to be robust with respect to alternative specifications: (1) the effect of emergency room co-payments on emergency room use, and (2) the effect of prescription drug co-payments on emergency room use. We were unable to derive consistent estimates for the effects of co-payments for the other two service areas we examined—office visits and mental health visits. Interestingly, we did not find emergency room and prescription drug co-payments to have the same effect when we reestimated these models for disenrollees who reported their access and service use experiences on SCHIP before disenrolling. This result suggests that disenrollees may respond differently to prices than established enrollees do.

¹⁰See footnote 3 in this chapter for a description of the explanatory variables included in these models. The four co-payment variables were added to the models, and specifications were estimated that treated the co-payment variables alternatively as continuous and discrete variables and that included and excluded a variable indicating how much a state charged for inappropriate emergency room visits. The results presented in Table III.9 reflect the specification with brand-name prescription drug co-payments in place of the generic drug co-payments and exclude the variable indicating how much a state charged for inappropriate emergency room visits. However, the alternative models produced findings consistent with those in Table III.9.

In all the models we estimated with established enrollees, we found that co-payments on emergency room visits lowered both the likelihood that a child would have had an emergency visit and the number of emergency room visits in the 6 months before the survey (Table III.9). We found no compensating increase in any other services. We also found that higher co-payments on prescription drugs (whether brand name or generic) raised both the likelihood of an emergency room visit and the number of emergency room visits. Although the relationship between co-payments for prescription drugs and unmet need for prescription drugs due to cost or coverage was positive in each of the models we estimated, it was not statistically significant.

It appears that SCHIP enrollees may cut back on emergency room use when they face higher co-payments for emergency room visits and increase their use of emergency rooms when they face higher out-of-pocket costs for prescription drugs. However, this analysis is only exploratory given the limitations of the methodological approach. Methodological limitations include the small number of states included in the analysis and the absence of controls for other potentially important policy and supply variables. In addition, data limitations related to the small amount of variation in co-payments across the sample, and the fact that co-payments for different services tend to be highly correlated for a given enrollee, make it impossible to definitively assess these patterns based on this analysis. Moreover, these data do not provide any evidence on the impacts of co-payments on health outcomes or program costs. While further study would be required to formulate a comprehensive assessment of the direction of effects, let alone to assess the magnitude of the relationships between co-payments on different types of service use and unmet needs, these data suggest that out-of-pocket cost sharing may influence patterns of service among SCHIP enrollees.

TABLE III.9

EXPLORATORY ANALYSIS ON IMPACTS OF CO-PAYMENTS ON EMERGENCY ROOM USE AND UNMET NEED FOR PRESCRIPTION DRUGS FOR ESTABLISHED ENROLLEES

	Emergency Room Co-Pay	Drug Co-Pay
Any Emergency Room Visit	-0.009 ***	0.022 **
Number of Emergency Room Visits	-0.019 **	0.042 **
Any Unmet Need for Prescription Drugs Due to Cost or Coverage	-0.002	0.001

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: "Established Enrollees" defined as those who have been enrolled in SCHIP for 5 months or longer. The reference period for these measures is the 6 months before the interview. Estimates based on regression-adjusted means for established SCHIP enrollees (N = 5,394).

***p-value<.01; **p-value<0.05; * p-value<.10.

H. VARIATION BY STATE

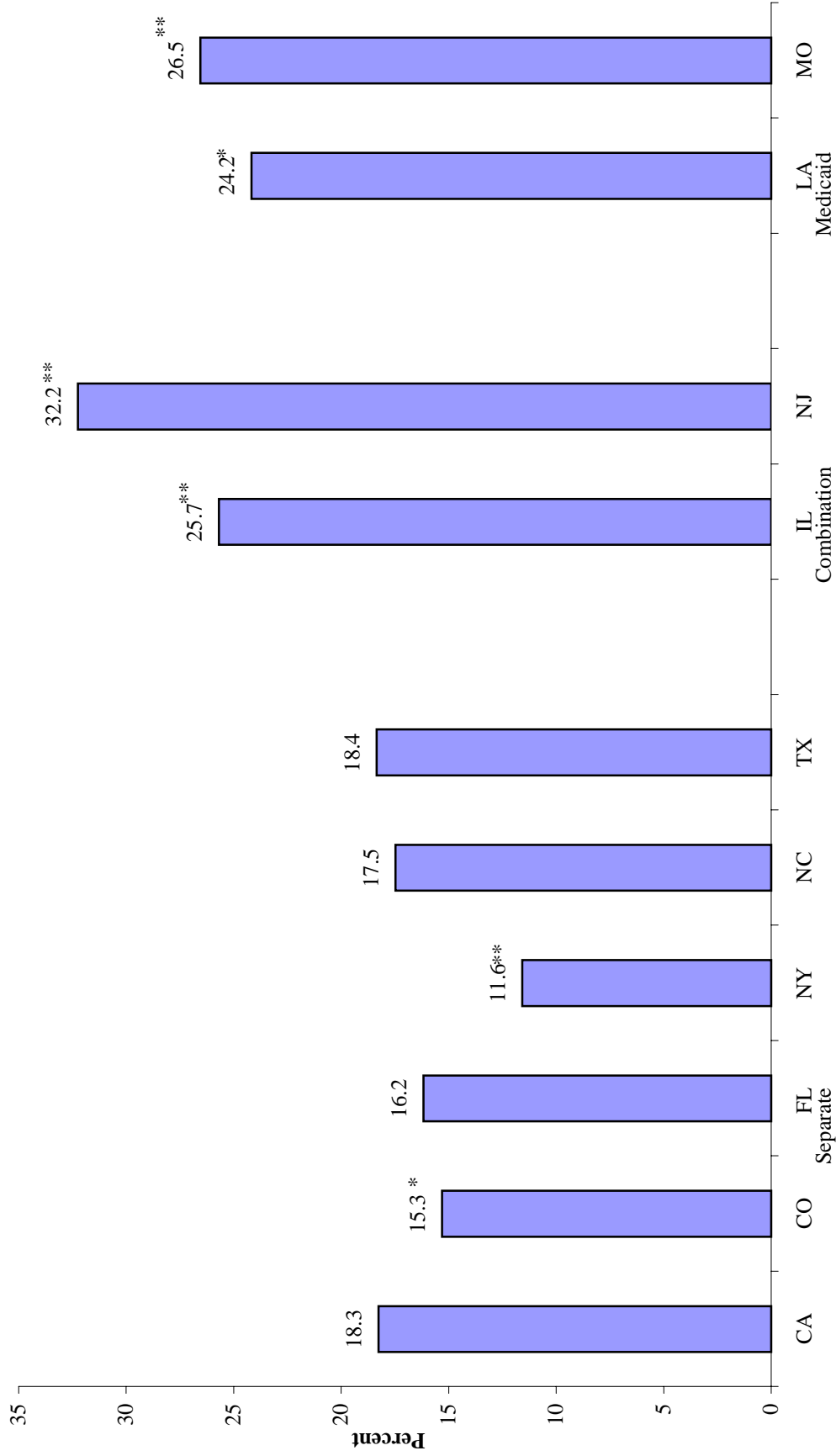
Variation across states was limited to a few access and use measures. Overall, there is considerable consistency across the 10 states in the access and use measures examined here. For most of the outcomes studied, only a handful of states had outcomes that differed from the other states, particularly when we control for the cross-state variation in the enrollee population (Appendix Table III.5).¹¹ For example, three or fewer states had statistically significant differences from the other states in (1) well-child, mental health, specialty, and emergency room visits; (2) unmet needs for doctor care, dental care, prescription drugs, and hospital care; (3) confidence, stress, and financial difficulties associated with meeting the child's health care needs; (4) presence of a usual source for health care and the extent to which the child sees the same provider at the usual source of care and can reach the provider after hours; and (5) whether the provider explains things in understandable ways, treats the family with courtesy and respect, and asks about how the child is feeling and growing. However, there were four areas in which six or more states differed from the others, all else equal: (1) opinions about how providers view SCHIP enrollees and whether SCHIP coverage is better than being uninsured, (2) dental care, (3) usual source of care, and (4) travel times.

The extent to which families believe that nurses and doctors look down on children enrolled in SCHIP varies considerably across states (Figure III.7). For example, other things equal, families in New York are 21 percentage points less likely than those in New Jersey to believe that providers look down on children enrolled in SCHIP (Figure III.7). Despite this variation, in each state, less than 34 percent of all families believed that nurses and doctors looked down on SCHIP enrollees (Appendix Table III.5). Interestingly, families in the four states with either

¹¹ For each measure, we tested whether a given state had an outcome that was statistically significantly different from the nine other states collectively, controlling for other differences across states.

FIGURE III.7

PARENTS' REPORTS OF DOCTORS AND NURSES LOOKING DOWN ON SCHIP ENROLLEES, BY STATE



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Notes: Significance tests indicate whether a given state had an outcome that was statistically significant from the nine other states collectively. Estimates based on regression-adjusted means for established SCHIP enrollees (N = 5,394).

**p-value<0.01; *p-value<0.05.

Medicaid expansions or combination programs (Illinois, Louisiana, Missouri, and New Jersey) are more likely than families in states with separate SCHIP programs to believe that providers look down on SCHIP enrollees. Findings presented in Chapter VIII indicate that, in the two states where interviews with Medicaid (Title XIX) enrollees are available—California and North Carolina—families with children enrolled in the separate SCHIP program are less likely than families with children enrolled in Medicaid to believe that providers look down on SCHIP enrollees and Medicaid enrollees, respectively.

Other things equal, the share of families who believe that children enrolled in SCHIP get better health care than children who are uninsured also varies across states (Appendix Table III.5). In four states, the cross-state variation is consistent with the patterns we observe in terms of the share who believe that providers look down on SCHIP enrollees. For example, compared with families in other states, families in Colorado are both more likely to think that SCHIP enrollees receive better health care than the uninsured and less likely to think that providers look down on SCHIP enrollees, while the reverse pattern was evident in Illinois, Louisiana, and Missouri, other things equal. There are a number of other cases (such as in California, Florida, New York, and Texas), where there is a statistically significant difference for one of the two outcomes but not for the other.

We also find variation across states in the extent to which SCHIP enrollees receive dental checkups, in the extent to which enrollees have a usual source for dental care, and to a lesser extent, in the prevalence of unmet need for dental care (Appendix Table III.5). States are characterized as having lower/higher than average dental care access if their SCHIP enrollees are more/less likely than those in other states to receive a dental checkup and to have a usual source for dental care and less/more likely to have an unmet need for dental care. Although, as noted earlier, dental benefits are optional for separate SCHIP programs, all the separate programs in

these states offered dental benefits to enrollees, although two of the programs (Colorado and Florida) were just completing the phase-in of their dental benefits when the survey was fielded. Compared with the other states examined here, enrollees in Missouri had lower than average dental access for all three measures, and enrollees in Colorado, Florida, and New Jersey had lower than average dental access on two of the three dental access measures. In California and North Carolina, enrollees had higher than average dental access, compared with the other states for two of the three measures.

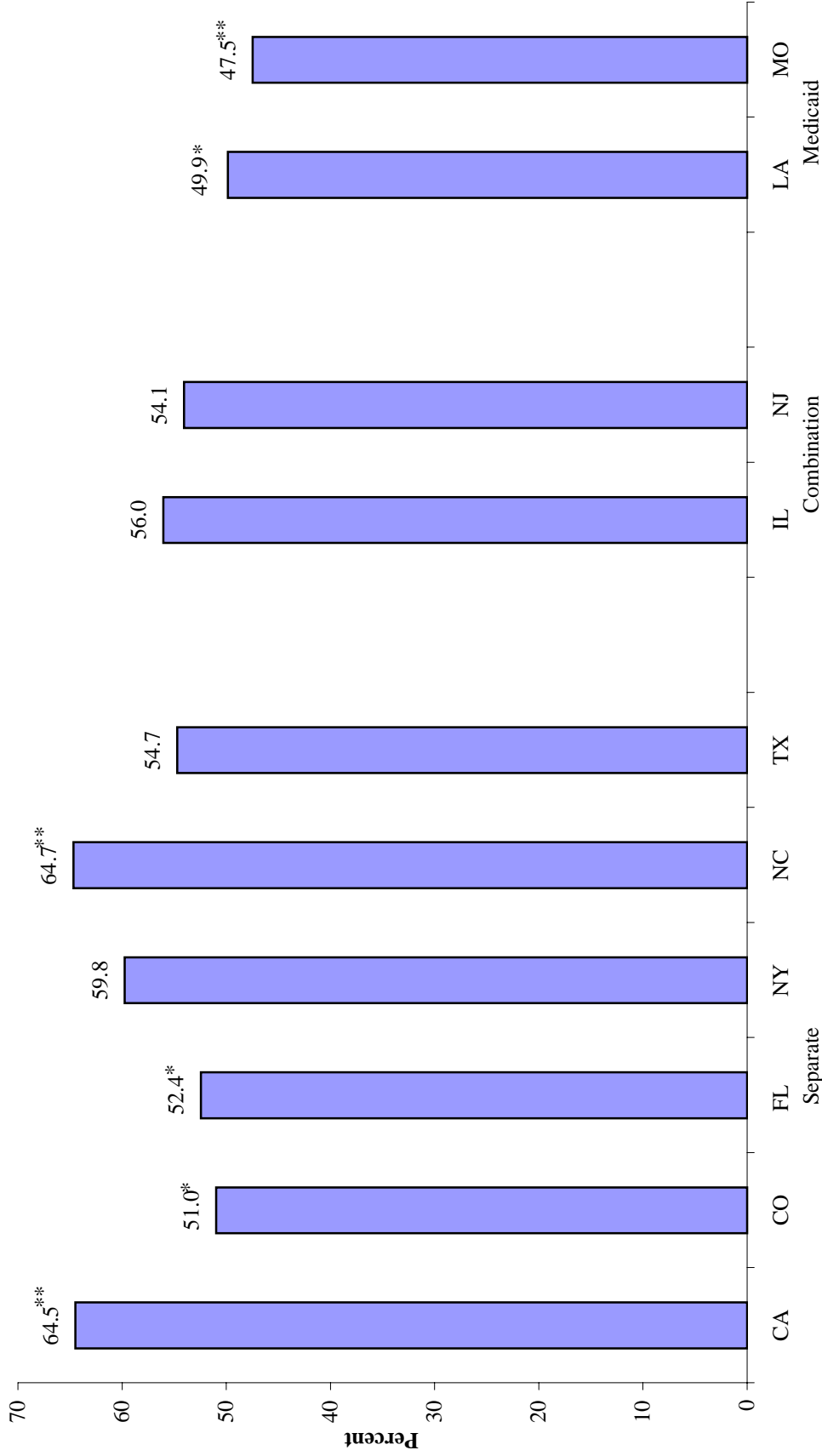
While there is no apparent pattern regarding presence of preventive dental care with respect to program type (separate, combination, or Medicaid expansion), it does appear that the separate programs that introduced dental benefits sooner had higher dental access than Colorado and Florida, which added dental benefits several years later. In addition, none of the four states with a Medicaid expansion or combination program performed better than the rest of the states, and two of the four performed worse on two or three of the three dental measures. More research is needed to understand the cause of these patterns.

Enrollees in California and North Carolina are more likely than enrollees in the other states to have received a preventive dental visit in the 6 months before the survey, while those in Colorado, Florida, Louisiana, and Missouri were less likely to have received a preventive dental visit over the same period, other things equal (Figure III.8). Unmet need for dental care was higher in Missouri and New Jersey and lower in Texas, other things equal, than in the other states. Enrollees are more likely to have a usual source for dental care in California, Louisiana, New York, and North Carolina and are less likely to have one in Colorado, Florida, Missouri, and New Jersey.

Considerable variability exists across states in the type of provider on which enrollees rely for their usual source care, other things equal (Figure III.9). For example, SCHIP enrollees in

FIGURE III.8

ANY PREVENTIVE DENTAL VISIT FOR SCHIP ENROLLEES, BY STATE



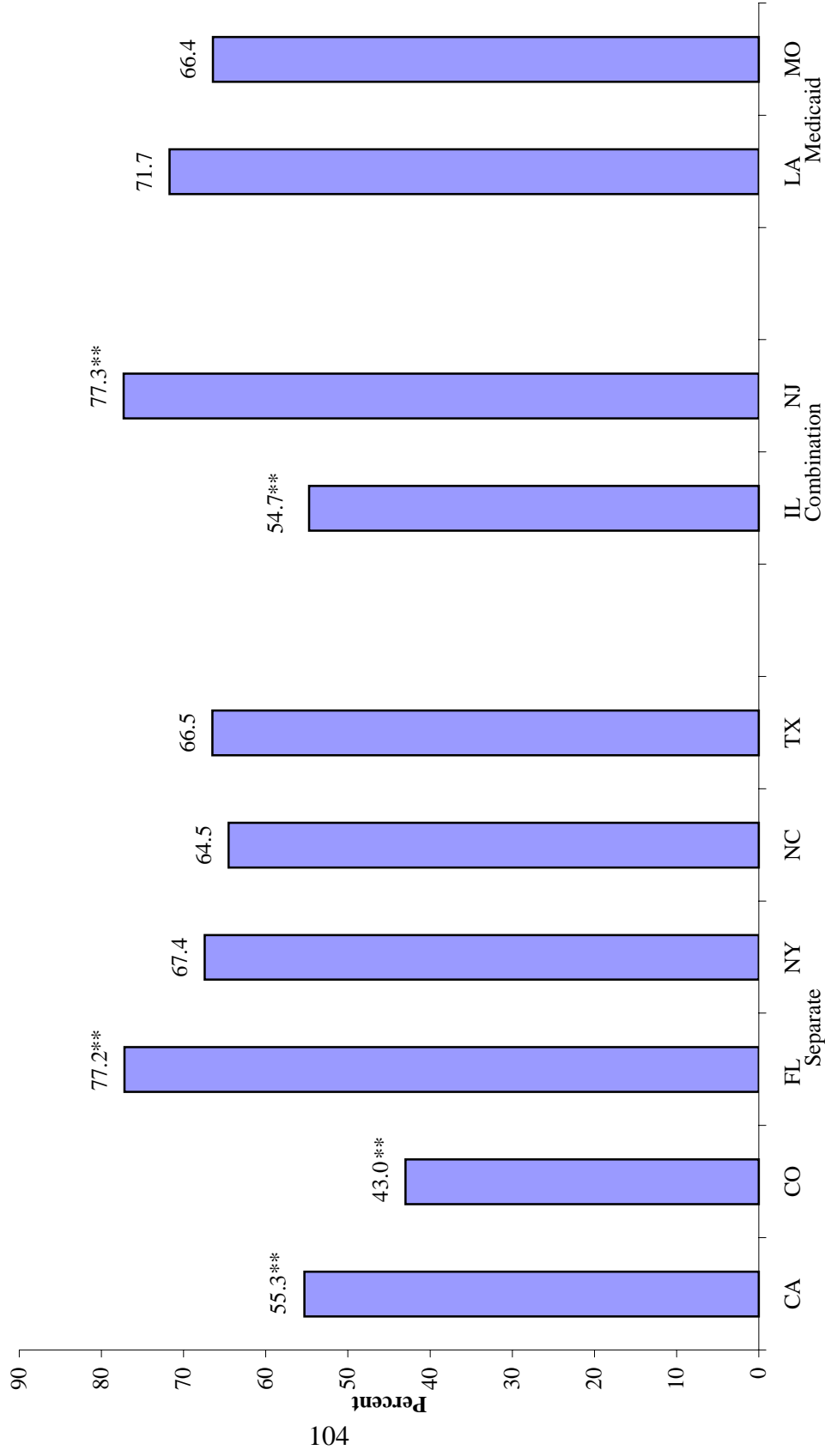
Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Notes: Significance tests indicate whether a given state had an outcome that was statistically significant from the nine other states collectively. Estimates based on regression-adjusted means for established SCHIP enrollees (N = 5,394).

**p-value<0.01; *p-value<0.05.

FIGURE III.9

USUAL SOURCE OF CARE FOR SCHIP ENROLLEES IS A PRIVATE DOCTOR'S OFFICE OR GROUP PRACTICE, BY STATE



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Significance tests indicate whether a given state had an outcome that was statistically significant from the nine other states collectively. Estimates based on regression-adjusted means for established SCHIP enrollees (N = 5,394).

**p-value<0.01; *p-value<0.05.

Florida and New Jersey are about 34 percentage points more likely to rely on a private doctor's office or group practice as their usual source of care, other things equal, than enrollees in Colorado, other things being equal. Enrollees in California, Colorado, and Illinois are substantially less likely, and those in Florida, Louisiana, and New Jersey are more likely, to have a private doctor's office or a group practice as their usual source of care, other things equal.¹²

I. SUMMARY

This chapter has documented the substantial variation in access and use among SCHIP enrollees with respect to the child's race/ethnicity and primary language, age, and health status; and parents' educational attainment. While there was little consistency to the variation in access and use that was observed across states, families in the four states with Medicaid expansions or combination programs are more likely than families in the six states with separate programs to believe that providers look down on SCHIP enrollees. This could reflect either greater actual or perceived provider resistance to serving Medicaid versus SCHIP clients (Hill et al. 2003). Moreover, some states appeared to be more successful than others in providing dental access, and it appears that separate programs that implemented their dental benefits earlier tended to have higher dental access. More research is needed to assess the extent to which these cross-state patterns are due to differences in state policies and the extent to which they are due to other factors, such as the supply of dentists.

SCHIP enrollees who appeared to experience more access problems are those with elevated health care needs, those in households where the primary language is not English, those who are

¹² There was variation across states in the amount of time enrollees spent traveling to their usual source of care. Enrollees in California, Florida, and New Jersey were more likely to have short travel times (less than 30 minutes), whereas those in Illinois, Louisiana, and Missouri had longer travel times (30 minutes or more) than enrollees in the other states. These cross-state patterns for travel times may reflect the greater urbanization of the states with the shorter travel times relative to the states with the longer travel times.

adolescents, and those whose parents do not have a high school diploma. As indicated above, many of these differences have been found in other studies and are not unique to SCHIP. However, if SCHIP programs are to effectively meet the needs of the diverse populations they are serving, they will need to explore ways to close these gaps. Addressing these differences would allow more SCHIP enrollees to take full advantage of the health care offered through SCHIP.

APPENDIX

CHAPTER III SUPPLEMENTAL TABLES

APPENDIX TABLE III.1

BIVARIATE ESTIMATES OF ACCESS TO CARE AND USE OF SERVICES AMONG ESTABLISHED SCHIP ENROLLEES,
BY RACE, ETHNICITY, LANGUAGE, AND AGE
(Percent)

	Hispanic			Non-Hispanic				Ages				
	English- Language	Spanish- Language		English-Speaking			Non-English- Speaking (All)	Missing	0 to 5	6 to 12 ^a	13 to 18	
		White ^a	Black	Other								
Service Use												
Any Doctor/Other Health Professional Visit	67.7	60.4 **	72.7	66.9 *	63.1	61.5	73.3	74.3 **	64.6	65.1		
Any Preventive Care or Checkup Visit	45.3	41.9	45.8	54.2 **	42.5	43.9	52.3	57.1 **	42.9	42.1		
Dental Visit for Checkup/Cleaning ^b	55.6	59.7	57.6	54.6	61.8	57.9	41.5	50.1 **	62.1	53.4 **		
Any Specialist Visit	17.0	16.6	18.3	16.9 *	14.5	6.1 **	17.6 *	16.6	14.3	20.3 **		
Any Mental Health Visit	4.3 **	3.8 **	8.0	4.9 *	3.1 **	3.8	7.0	1.9 **	5.3	7.6 *		
Any Specialist or Mental Health Visit	20.2	18.9 *	23.4	19.8	17.2	9.9 **	23.3	17.8	18.0	25.2 **		
Any Emergency Room Visit	20.7	15.1	18.3	25.5 **	12.3 *	4.7 **	25.4	23.0 *	17.2	16.3		
Any Hospital Stay	3.8	3.7	3.4	4.3	4.3	2.8	3.4	4.6	3.5	3.4		
Unmet Need												
Doctor/Health Professional Care	1.7	2.3	1.7	2.5	3.9	2.7	0.6	3.6	1.6	1.8		
Prescription Drugs	3.5	4.2	4.7	3.1	1.4 **	4.7	7.8	5.2	3.5	4.3		
Dental Care ^b	9.6	16.1	12.1	9.4	7.3 *	8.2	5.7 *	10.9	10.9	14.0 *		
Specialist	3.3	3.8	3.0	3.7	3.5	2.5	6.6	2.8	2.4	5.3 **		
Hospital Care	0.9	1.9	1.3	1.3	0.2 **	2.4	0.2 *	1.6	1.0	1.8		
Hospital, Specialist, Doctor, Drug	8.2	9.7	9.3	8.7	9.0	10.3	12.1	10.4	7.4	11.2 **		
Hospital, Specialist, Doctor, Drug, Dentist ^b	15.9	22.4	18.3	15.5	14.1	16.0	16.7	16.6	16.5	22.1 **		
More than One Unmet Need	2.4	3.7	3.4	3.8	2.1	3.7	3.9	3.6	2.5	4.3 *		
Parental Perceptions of Meeting Child's Health Care Needs												
Very Confident	80.0 **	74.7 **	89.3	83.1 **	85.1	64.9 **	78.6	81.6	81.3	80.7		
Never or Not Very Often Stressed	75.4 **	67.1 **	88.2	85.4	84.3	72.8 **	80.6	80.8	78.7	76.6		
Never or Rarely Worried	48.1 **	36.6 **	71.6	66.7	64.8	50.4 **	67.9	56.8	54.3	55.4		
Never or Rarely Cause Financial Difficulties	81.8 **	75.1 **	88.8	90.7	88.2	83.9	82.0	85.5	82.9	83.0		
Children on SCHIP Get Better Health Care	78.0	82.8	80.0	75.7	89.7 **	85.8	92.1 **	80.8	79.3	83.0 *		
Doctors and Nurses Look Down on SCHIP Enrollees	19.9 *	13.4	15.4	20.2 *	25.4 *	54.4 **	33.4 *	16.2	17.7	21.4		
Usual Source of Care (USC)												
Had USC in Past 6 Months	90.1 **	92.2	94.6	88.8 **	91.7	79.0 **	90.4	93.8	91.1	90.4		
USC Type: Private Doctor's Office	65.4 **	42.0 **	79.9	68.8 **	79.5	66.9 *	69.5	63.7	63.4	66.4		
USC Type: Clinic or Health Center	30.2 **	55.1 **	17.0	24.3 **	15.2	26.7	27.9	32.3	32.1	30.6		
Usually Saw Same Provider at USC	72.2 *	69.5 **	77.3	68.5 **	74.1	64.5 *	69.6	74.1	70.9	73.3		
Had USC for Dental Care in Past 6 Months ^b	82.4	85.0 *	79.5	80.7	77.8	73.5	78.2	72.5 **	84.1	81.1		

APPENDIX TABLE III.1 (continued)

	Hispanic		Non-Hispanic				Ages			
	English-Language	Spanish-Language	English-Speaking			Non-English-Speaking (All)	Missing	0 to 5	6 to 12 ^a	13 to 18
			White ^a	Black	Other					
Provider Communication and Accessibility	93.4	89.6 *	93.2	92.7	94.6	86.0	85.8	91.6	91.4	92.2
Would Recommend USC	76.4 **	58.8 **	85.7	78.9 **	82.2	87.3	78.0	73.2	76.8	75.2
Providers Explain in Understandable Ways	89.9 **	79.1 **	95.3	96.0	89.1	81.3 **	95.0	88.0	88.8	91.3
Provider Treats with Courtesy/Respect	92.8 *	90.1 **	97.2	97.1	95.3	83.5 *	95.0	96.1 *	93.0	93.4
Provider Talks About How Child Feeling	87.1	77.8 **	88.6	90.9	85.3	84.0	87.7	87.5	83.8	86.8
Rated Ease of Getting Care Excellent or Very Good	71.8 **	54.5 **	83.9	75.6 **	63.4 **	58.7 **	53.5 **	74.6 *	68.0	72.4
Wait Time for Care Less than 30 Minutes	49.2 **	38.5 **	65.1	57.4 *	46.4 **	46.9 **	51.9	53.8	49.8	53.6
Travel Time to USC Less than 30 Minutes	84.3	84.5	85.5	82.2	84.6	76.8	77.8	83.7	84.9	83.1

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: “Established Enrollees” defined as those who have been enrolled in SCHIP for 5 months or longer. The reference period for these measures is the 6 months before the interview. Sample of established SCHIP enrollees (N = 5,394).

^a“White, Non-Hispanic” and “Ages 6 to 12” are the reference categories for significance tests;

^bApplies to children age 3 and older.

APPENDIX TABLE III.2

BIVARIATE ESTIMATES OF ACCESS TO CARE AND USE OF SERVICES AMONG ESTABLISHED SCHIP ENROLLEES,
BY PARENTAL EDUCATION, CHILD HEALTH STATUS, AND METROPOLITAN STATUS
(Percent)

	Highest Education of Parent			Health Status of Child		Metropolitan Status		
	Less than High School ^a	High School	More than High School	Without Elevated Health Care Needs ^a	With Elevated Health Care Needs	Metropolitan ^a	Nonmetro, Adjacent	Nonmetro, Nonadjacent
Service Use								
Any Doctor/Other Health Professional Visit	56.8	67.5 **	71.8 **	64.0	75.1 **	65.5	76.2 **	68.2
Any Preventive Care or Checkup Visit	36.0	46.8 **	49.8 **	43.9	50.1 **	45.4	46.0	42.9
Dental Visit for Checkup/Cleaning ^b	54.1	57.4	59.5 *	58.2	54.7	57.6	55.5	57.4
Any Specialist Visit	14.2	17.5	17.7	14.0	25.1 **	15.9	21.3 *	21.5
Any Mental Health Visit	3.4	4.2	7.4 **	2.9	13.2 **	5.4	4.6	7.2
Any Specialist or Mental Health Visit	16.8	20.4	22.4 **	16.0	34.0 **	19.4	25.4 *	25.4
Any Emergency Room Visit	18.6	18.3	17.4	15.7	25.5 **	17.5	20.6	23.3
Any Hospital Stay	3.5	4.5	3.1	3.0	5.8 **	3.5	5.0	4.5
Unmet Need								
Doctor/Health Professional Care	1.8	2.2	2.1	1.8	2.7	2.2	1.2	0.6 **
Prescription Drugs	2.8	5.1	3.9	3.0	7.5 **	4.1	4.4	2.4
Dental Care ^b	15.3	9.3 **	12.3	11.2	14.1	12.1	10.7	11.2
Specialist	4.2	2.4	3.8	2.5	6.4 **	3.6	1.6 *	4.3
Hospital Care	1.6	0.9	1.7	0.9	2.9 **	1.4	1.1	0.9
Hospital, Specialist, Doctor, Drug	8.9	8.7	9.8	7.1	15.9 **	9.5	7.8	7.0
Hospital, Specialist, Doctor, Drug, Dentist ^b	21.5	15.6 *	18.8	15.9	25.9 **	18.6	16.7	15.5
More than One Unmet Need	3.2	2.8	3.8	2.4	6.2 **	3.5	1.6 *	2.6
Parental Perceptions of Meeting Child's Health Care Needs								
Very Confident	73.2	83.4 **	84.4 **	81.9	78.8	80.5	86.0 *	83.8
Never or Not Very Often Stressed	65.3	80.1 **	84.8 **	80.8	70.8 **	78.0	79.7	84.1 *
Never or Rarely Worried	39.8	56.1 **	63.2 **	57.4	48.1 **	54.0	58.6	70.3 **
Never or Rarely Cause Financial Difficulties	73.1	85.3 **	88.0 **	85.9	75.5 **	82.9	85.9	88.5 *
Children on SCHIP Get Better Health Care	84.4	77.1 **	81.9	80.3	82.2	82.1	74.0 **	71.1 **
Doctors and Nurses Look Down on SCHIP Enrollees	16.7	20.5	18.1	18.5	18.9	18.9	17.7	15.3
Usual Source of Care (USC)								
Had USC in Past 6 Months	90.7	90.2	93.1	90.6	93.9 **	91.0	93.7	94.4
USC Type: Private Doctor's Office	44.0	69.6 **	72.1 **	64.6	64.0	64.3	65.7	63.4
USC Type: Clinic or Health Center	54.2	27.1 **	22.2 **	32.0	30.6	31.3	33.3	36.1
Usually Saw Same Provider at USC	67.3	73.5 *	75.2 **	70.0	79.6 **	71.8	75.3	75.8
Had USC for Dental Care in Past 6 Months ^b	83.8	82.0	79.3 *	81.7	80.1	81.6	79.7	80.1

APPENDIX TABLE III.2 (continued)

	Highest Education of Parent			Health Status of Child		Metropolitan Status		
	Less than High School ^a	High School	More than High School	Without Elevated Health Care Needs ^a	With Elevated Health Care Needs	Metropolitan ^a	Nonmetro, Adjacent	Nonmetro, Nonadjacent
Provider Communication and Accessibility								
Would Recommend USC	89.5	93.6 *	91.9	91.3	92.8	91.2	94.9 **	95.2 *
Could Reach Doctor After Hours	56.3	79.6 **	83.2 **	76.2	73.5	75.9	73.0	74.0
Providers Explain in Understandable Ways	80.1	90.5 **	93.0 **	89.9	88.1	89.0	91.2	91.3
Provider Treats with Courtesy/Respect	86.8	94.9 **	96.2 **	94.1	92.8	93.5	94.1	97.6 **
Provider Talks About How Child Feeling	77.9	87.3 **	87.8 **	86.0	84.1	85.1	88.4	85.7
Rated Ease of Getting Care Excellent or Very Good	51.6	76.4 **	76.1 **	72.0	67.5	69.3	76.4 *	84.1 **
Wait Time for Care Less than 30 Minutes	39.0	56.5 **	55.3 **	51.8	52.0	51.1	56.0	56.4
Travel Time to USC Less than 30 Minutes	84.4	83.1	84.8	85.6	79.4 **	85.0	77.9 *	80.1

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: “Established Enrollees” defined as those who have been enrolled in SCHIP for 5 months or longer. The reference period for these measures is the 6 months before the interview. Sample of established SCHIP enrollees (N = 5,394).

^a “Less than High School,” “Without Elevated Health Care Needs,” and “Metropolitan” are the reference categories for significance tests; **p-value<0.01; *p-value<0.05.

^b Applies to children age 3 and older.

APPENDIX TABLE III.3

BIVARIATE ESTIMATES OF ACCESS TO CARE AND USE OF SERVICES
AMONG ESTABLISHED SCHIP ENROLLEES, BY STATE
(Percent)

	Separate											Combination				Total						
	CA	CO	FL	NY	NC	TX	IL	NJ	LA	MO												
Service Use																						
Any Doctor/Other Health Professional Visit	59.6 **	69.3	64.0	73.5 **	73.7 **	70.4 *	67.3	68.4	71.3	66.5	66.7	68.4	71.3	66.5	66.7							
Any Preventive Care or Checkup Visit	42.3	45.4	40.5 *	54.7 **	48.3	45.4	44.6	48.7	48.6	43.7	45.4	48.7	48.6	43.7	45.4							
Dental Visit for Checkup/Cleaning ^b	63.6 **	51.0 *	53.2	59.8	65.4 **	53.9	55.0	53.9	48.4 **	49.6 **	57.3	53.9	48.4 **	49.6 **	57.3							
Any Specialist Visit	13.2 *	15.4	16.4	18.3	23.0 *	18.6	18.4	14.6	22.2 **	17.7	16.7	14.6	22.2 **	17.7	16.7							
Any Mental Health Visit	5.6	7.6	3.8	7.0	5.8	3.7 *	7.3	8.1 *	6.7	7.3	5.4	8.1 *	6.7	7.3	5.4							
Any Specialist or Mental Health Visit	16.8 *	21.8	19.1	21.8	28.1 **	21.2	23.5	21.4	27.9 **	22.6	20.3	21.4	27.9 **	22.6	20.3							
Any Emergency Room Visit	14.0 **	20.6	17.0	18.7	23.0	18.7	22.1	20.7	28.8 **	24.8 **	18.0	20.7	28.8 **	24.8 **	18.0							
Any Hospital Stay	2.3 *	5.1	3.5	3.1	5.9	4.1	5.3	5.2	7.4 **	4.6	3.7	5.2	7.4 **	4.6	3.7							
Unmet Need																						
Doctor/Health Professional Care	2.9	2.7	0.3 **	1.9	1.3	2.4	2.1	2.4	1.6	0.1 **	2.1	2.4	1.6	0.1 **	2.1							
Prescription Drugs	3.7	5.1	3.5	3.6	4.2	4.7	2.6	5.6	4.6	3.4	4.1	5.6	4.6	3.4	4.1							
Dental Care ^a	12.6	15.5	13.4	11.8	8.4 *	9.2 *	9.6	17.2 **	9.6	19.3 **	11.9	17.2 **	9.6	19.3 **	11.9							
Specialist	3.3	5.5	3.2	3.3	1.8 *	3.9	2.1	5.8 *	2.2	2.3	3.4	5.8 *	2.2	2.3	3.4							
Hospital Care	1.7	2.0	0.8	1.2	1.6	1.3	1.1	1.0	2.0	1.8	1.4	1.0	2.0	1.8	1.4							
Hospital, Specialist, Doctor, Drug	9.6	11.6	7.3	8.4	7.0	10.1	7.2	13.3 *	8.7	6.3 *	9.2	13.3 *	8.7	6.3 *	9.2							
Hospital, Specialist, Doctor, Drug, Dentist ^a	19.3	22.4	18.3	17.1	13.4 *	16.5	15.4	26.6 **	15.5	23.6 *	18.3	26.6 **	15.5	23.6 *	18.3							
More than One Unmet Need	3.4	4.8	2.3	3.6	2.2	3.7	1.5 *	4.8	3.3	1.8 *	3.3	4.8	3.3	1.8 *	3.3							
Parental Perceptions of Meeting Child's Health Care Needs																						
Very Confident	79.4	79.2	85.5 *	83.5	83.4	79.4	80.9	74.6 **	85.1 *	87.6 **	81.2	74.6 **	85.1 *	87.6 **	81.2							
Never or Not Very Often Stressed	75.0 *	83.2 *	85.8 **	86.2 **	83.1 *	71.8 **	78.4	79.3	81.0	86.7 **	78.4	79.3	81.0	86.7 **	78.4							
Never or Rarely Worried	48.0 **	62.4 **	65.9 **	67.1 **	62.8 **	49.3 **	53.5	52.7	56.1	63.8 **	55.2	52.7	56.1	63.8 **	55.2							
Never or Rarely Cause Financial Difficulties	82.0	82.1	87.1 **	88.3 **	87.1 *	80.3 *	81.3	80.2	83.6	88.0 *	83.4	80.2	83.6	88.0 *	83.4							
Children on SCHIP Get Better Health Care	85.9 **	84.6 *	85.6 **	79.9	77.8	76.2 **	73.6 **	84.7 *	65.2 **	74.4 **	80.8	84.7 *	65.2 **	74.4 **	80.8							
Doctors and Nurses Look Down on SCHIP Enrollees	18.5	14.1 *	16.1	13.7 **	17.5	17.9	25.4 **	33.5 **	23.6 *	25.4 **	18.6	33.5 **	23.6 *	25.4 **	18.6							
Usual Source of Care (USC)																						
Had USC in Past 6 Months	92.6	94.3 *	90.6	93.3	93.0	89.2	92.2	91.3	87.7	94.3 *	91.4	91.3	87.7	94.3 *	91.4							
USC Type: Private Doctor's Office	48.4 **	46.3 **	83.2 **	74.5 **	70.4	62.9	55.5 **	82.3 **	76.2 **	74.1 **	64.4	82.3 **	76.2 **	74.1 **	64.4							
USC Type: Clinic or Health Center	44.7 **	48.0 **	13.6 **	21.2 **	26.1 *	36.2 *	40.5 **	13.3 **	21.1 **	24.3 **	31.7	13.3 **	21.1 **	24.3 **	31.7							
Usually Saw Same Provider at USC	70.7	71.6	70.0	77.3 **	64.8 **	74.0	73.5	65.7 **	71.3	77.8 *	72.3	65.7 **	71.3	77.8 *	72.3							
Had USC for Dental Care in Past 6 Months ^a	87.9 **	71.6 **	71.3 **	84.6	86.8 **	79.9	77.7	75.5 **	85.0	71.1 **	81.3	75.5 **	85.0	71.1 **	81.3							

APPENDIX TABLE III.3 (continued)

	Separate										Combination				Medicaid		
	CA	CO	FL	NY	NC	TX	IL	NJ	LA	MO	Total	LA	MO	Total			
Provider Communication and Accessibility																	
Would Recommend USC	87.7 **	92.5	90.5	93.1	94.7 *	94.5 **	94.1	91.2	94.5 *	96.2 **	91.7						
Could Reach Doctor After Hours	69.3 **	80.4 *	85.3 **	84.3 **	82.4 **	70.2 *	75.0	82.7 **	75.8	77.7	75.6						
Providers Explain in Understandable Ways	83.3 **	94.5 **	93.9 **	93.4 **	94.6 **	87.7	89.2	92.5	93.3 **	96.5 **	89.4						
Provider Treats with Courtesy/Respect	90.9 *	94.3	95.4	98.1 **	96.8 **	92.1	95.3	94.5	95.7	96.8 **	93.8						
Provider Talks About How Child Feeling	82.5	85.6	87.1	89.4 *	90.5 **	83.7	86.2	86.6	88.4	88.9	85.5						
Rated Ease of Getting Care Excellent or Very Good	61.5 **	70.2	77.3 **	80.3 **	80.5 **	67.1	71.5	71.2	76.9 *	84.9 **	70.8						
Wait Time for Care Less than 30 Minutes	49.4	69.7 **	58.9 **	57.3 *	65.0 **	42.1 **	58.9 *	55.1	48.0	65.9 **	51.8						
Travel Time to USC Less than 30 Minutes	87.0 *	84.1	88.6 **	82.6	83.3	81.2	76.7 **	88.4 *	77.5 **	77.0 **	84.1						

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: "Established Enrollees" defined as those who have been enrolled in SCHIP for 5 months or longer. The reference period for these measures is the 6 months before the interview. Sample of established SCHIP enrollees (N = 5,394). Significance tests indicate whether a given state had an outcome that was statistically significant from the nine other states collectively; **p-value<0.01; *p-value<0.05.

^aApplies to children age 3 and older.

APPENDIX TABLE III.4

REGRESSION-ADJUSTED ESTIMATES OF ACCESS TO CARE AND USE OF SERVICES
 AMONG ESTABLISHED SCHIP ENROLLEES,
 BY METROPOLITAN STATUS
 (Percent)

	Metropolitan Status		
	Metropolitan ^a	Nonmetro, Adjacent	Nonmetro, Nonadjacent
Service Use			
Any Doctor/Other Health Professional Visit	66.1	73.8 **	63.4
Any Preventive Care or Checkup Visit	45.6	46.5	41.1
Dental Visit for Checkup/Cleaning ^b	57.6	57.4	61.5
Any Specialist Visit	16.3	19.9	19.5
Any Mental Health Visit	5.5	4.4	5.4
Any Specialist or Mental Health Visit	19.9	23.8	22.1
Any Emergency Room Visit	17.6	19.4	21.5
Any Hospital Stay	3.6	4.5	4.3
Unmet Need			
Doctor/Health Professional Care	2.2	1.4	1.1 *
Prescription Drugs	4.2	4.3	2.2
Dental Care ^b	12.2	12.5	10.4
Specialist	3.6	1.8	4.3
Hospital Care	1.4	1.4	1.0
Hospital, Specialist, Doctor, Drug	9.5	8.4	7.7
Hospital, Specialist, Doctor, Drug, Dentist ^b	18.7	18.7	15.0
More than One Unmet Need	3.6	1.6 *	2.7
Parental Perceptions of Meeting Child's Health Care Needs			
Very Confident	81.3	82.7	78.4
Never or Not Very Often Stressed	78.3	77.7	79.1
Never or Rarely Worried	54.5	55.4	62.5 *
Never or Rarely Cause Financial Difficulties	83.1	84.9	86.0
Children on SCHIP Get Better Health Care	81.6	77.8	72.8 *
Doctors and Nurses Look Down on SCHIP Enrollees	18.6	18.3	16.2
Usual Source of Care (USC)			
Had USC in Past 6 Months	91.4	94.1	92.7
USC Type: Private Doctor's Office	65.6	59.9 *	55.0 *
USC Type: Clinic or Health Center	30.1	38.0 **	43.1 **
Usually Saw Same Provider at USC	72.7	73.9	73.8
Had USC for Dental Care in Past 6 Months ^b	81.8	79.2	82.6
Provider Communication and Accessibility			
Would Recommend USC	91.7	92.8	93.2
Could Reach Doctor After Hours	76.8	69.3 *	67.7 *
Providers Explain in Understandable Ways	89.5	88.9	86.7
Provider Treats with Courtesy/Respect	93.7	93.1	95.7
Provider Talks About How Child Feeling	85.2	87.4	83.4
Rated Ease of Getting Care Excellent or Very Good	70.4	72.2	77.8 *
Wait Time for Care Less than 30 Minutes	52.0	53.1	46.9
Travel Time to USC Less than 30 Minutes	84.8	78.7 *	81.7

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: "Established Enrollees" defined as those who have been enrolled in SCHIP for 5 months or longer. The reference period for these measures is the 6 months before the interview. Sample of established SCHIP enrollees (N = 5,394).

^a"Metropolitan" is the reference category for significance tests; **p-value<0.01;*p-value<0.05.

^bApplies to children age 3 and older.

APPENDIX TABLE III.5

REGRESSION-ADJUSTED ESTIMATES OF ACCESS TO CARE AND USE OF SERVICES AMONG ESTABLISHED SCHIP ENROLLEES,
BY STATE
(Percent)

	Separate										Combination					Medicaid			Total
	CA	CO	FL	NY	NC	TX	IL	NJ	LA	MO	LA	MO	LA	MO	LA	MO	LA	MO	
Service Use																			
Any Doctor/Other Health Professional Visit	61.9 **	67.6	61.5 *	71.2 *	70.7 *	71.8 **	66.7	68.3	69.3	63.9	66.7								
Any Preventive Care or Checkup Visit	42.9	45.8	40.5 *	53.2 **	46.7	46.6	45.2	48.0	46.6	44.3	45.5								
Dental Visit for Checkup/Cleaning ^b	64.5 **	51.0 *	52.4 *	59.8	64.7 **	54.7	56.0	54.1	49.9 *	47.5 **	57.7								
Any Specialist Visit	13.9	14.4	16.7	18.5	22.7 *	18.1	18.1	15.2	22.1 *	17.5	16.8								
Any Mental Health Visit	6.9	7.0	2.8 **	6.0	4.8	4.3	6.0	6.7	4.9	5.2	5.4								
Any Specialist or Mental Health Visit	18.2	20.5	18.8	21.5	27.2 **	21.1	22.4	20.9	26.6 *	21.1	20.4								
Any Emergency Room Visit	14.8 *	19.0	18.5	19.3	21.4	17.4	21.5	21.3	25.5 **	23.8 *	18.0								
Any Hospital Stay	2.2 *	4.9	4.1	3.2	6.1	4.1	5.5	5.3	7.4 **	4.9	3.7								
Unmet Need																			
Doctor/Health Professional Care	3.0	2.8	0.2 **	1.6	1.1	2.8	2.1	2.1	1.1	0.1 **	2.1								
Prescription Drugs	4.1	5.1	3.4	3.4	3.8	4.9	2.3 *	5.5	3.9	3.3	4.1								
Dental Care ^a	10.9	16.1	14.6	14.2	10.4	8.8 **	9.6	18.1 **	11.7	21.6 **	12.1								
Specialist	3.0	5.7 *	3.2	3.2	2.0 *	4.2	1.8 *	5.5 *	2.4	2.3	3.4								
Hospital Care	1.7	1.8	0.8	1.2	1.8	1.3	0.9	0.8	2.0	2.1	1.4								
Hospital, Specialist, Doctor, Drug	10.0	11.4	7.3	7.9	6.4	10.7	6.6	12.5 *	7.8	6.3 *	9.3								
Hospital, Specialist, Doctor, Drug, Dentist ^a	18.1	23.5 *	19.3	18.8	14.9 **	16.4	14.9 *	27.0 **	16.8	25.9 **	18.5								
More than One Unmet Need	3.5	4.5	2.2	3.4	1.9 *	4.2	1.1 **	4.2	2.8	1.6 *	3.4								
Parental Perceptions of Meeting Child's Health Care Needs																			
Very Confident	83.0	76.7 *	82.2	81.2	79.3	81.3	80.3	73.2 **	80.1	82.0	81.3								
Never or Not Very Often Stressed	79.4	80.1	82.1	82.0 *	78.1	73.7 **	77.6	77.3	76.1	79.2	78.3								
Never or Rarely Worried	55.4	56.1	61.5 **	60.2 *	51.6	52.1	51.1	49.4 *	45.2 **	49.8	54.9								
Never or Rarely Cause Financial Difficulties	85.5	80.4	83.9	85.2	82.5	81.8	81.3	78.8 *	79.2	82.5	83.4								
Children on SCHIP Get Better Health Care	84.5 **	85.9 *	85.4 **	79.8	79.5	76.9 **	74.5 **	84.4 *	67.7 **	77.5 *	80.9								
Doctors and Nurses Look Down on SCHIP Enrollees	18.3	15.3 *	16.2	11.6 **	17.5	18.4	25.7 **	32.2 **	24.2 *	26.5 **	18.4								
Usual Source of Care (USC)																			
Had USC in Past 6 Months	93.5	93.1	90.6	93.6	92.5	89.1	92.2	92.4	88.3	92.5	91.7								
USC Type: Private Doctor's Office	55.3 **	43.0 **	77.2 **	67.4	64.5	66.5	54.7 **	77.3 **	71.7	66.4	64.6								
USC Type: Clinic or Health Center	36.6 *	51.4 **	20.1 **	29.1	32.9	32.4	42.1 **	19.5 **	27.7	32.2 *	31.5								
Usually Saw Same Provider at USC	73.2	69.7	69.2	77.0 *	62.8 **	75.1	72.8	65.3 **	70.7	74.3	72.9								
Had USC for Dental Care in Past 6 Months ^a	88.6 **	72.5 **	71.0 **	85.2 *	87.3 **	79.5	77.7	75.3 **	86.7 **	71.0 **	81.6								

APPENDIX TABLE III.5 (continued)

	Separate										Combination				Medicaid		Total
	CA	CO	FL	NY	NC	TX	IL	NJ	LA	MO							
Provider Communication and Accessibility																	
Would Recommend USC	89.2 *	91.3	90.5	92.7	93.6	94.7 **	93.7	90.8	93.7	95.0 *	91.9						
Could Reach Doctor After Hours	74.9	78.5	79.5 **	77.2	78.4	74.0	73.7	77.8	72.6	71.6 *	75.6						
Providers Explain in Understandable Ways	86.5	92.6	91.5	91.7	90.9	88.5	87.9	89.9	90.2	93.3 *	89.3						
Provider Treats with Courtesy/Respect	92.4	92.4	94.0	96.9 **	94.6	93.1	95.0	94.0	94.2	93.9	93.7						
Provider Talks About How Child Feeling	84.9	84.3	85.8	88.2	87.5	83.7	86.0	85.5	85.6	87.1	85.4						
Rated Ease of Getting Care Excellent or Very Good	67.1	63.4 *	74.1	77.4 **	74.6	69.5	70.0	69.2	72.3	75.3 *	71.0						
Wait Time for Care Less than 30 Minutes	56.1 *	66.1 **	54.5	52.0	57.1	44.3 **	57.6 *	51.1	39.5 **	56.2	51.8						
Travel Time to USC Less than 30 Minutes	87.4 **	82.9	87.7 **	82.9	84.1	81.0 *	77.0 **	87.6 **	78.5 *	76.9 **	84.1						

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: “Established Enrollees” defined as those who have been enrolled in SCHIP for 5 months or longer. The reference period for these measures is the 6 months before the interview. Sample of established SCHIP enrollees (N = 5,394). Significance tests indicate whether a given state had an outcome that was statistically significant from the nine other states collectively; **p-value<0.01; *p-value<0.05.

*Applies to children age 3 and older.

IV. ANALYSIS OF LENGTH OF SCHIP ENROLLMENT AND TIME TO REENROLLMENT

Lorenzo Moreno
William Black

Enrollment in SCHIP continues to increase, although the rate of growth is leveling off (Smith and Rousseau 2003). As states have enrolled more children in their programs, their focus has shifted to ensuring that eligible children remain enrolled (Hill and Westpfahl Lutzky 2003; National Governors Association 1999 and 2000; and Pettibone et al. 2005). States also have concentrated their resources on making it easier for eligible children who leave SCHIP to reenroll. These newer emphases respond to SCHIP's evolution into a mature program and to the growing perception among program administrators that many eligible children leave SCHIP, particularly at the time of eligibility renewal (Cohen-Ross and Cox 2003; and Riley et al. 2002).

Despite its policy relevance, a comprehensive understanding of the factors associated with SCHIP enrollment length and reenrollment is not yet available. Recent studies have used program data for large groups of the population of enrollees in a few states to examine the effectiveness of continuation-of-coverage and reenrollment policies (Agency for Healthcare Research and Quality 2002; Allison et al. 2001a and 2001b; Allison and LaClair 2002; Dick et al. 2002; Haber and Mitchell 2001; Phillips et al. 2004; and Shenkman et al. 2002a). To date, however, there is a knowledge gap both about how long children are enrolled and about how long children who leave SCHIP (disenroll) remain out of SCHIP (hereafter referred to as "time to reenrollment") for a representative sample of children in the nation. Likewise, few studies have looked at whether differences across individual characteristics, including insurance status

before or after enrolling in SCHIP, are associated with the length of enrollment and time to reenrollment, respectively.

This chapter addresses four key policy questions: (1) How long do SCHIP enrollees stay in the program? (2) What factors are related to how long children are enrolled? (3) How long do children who leave SCHIP stay out of the program? and (4) What factors are related to the time to reenrollment? To address these questions, we rely on state program data (that is, enrollment histories) for a subset of children selected for the survey of SCHIP enrollees and recent disenrollees, as well as on data from this survey. Our analysis finds that:

- The median length of SCHIP enrollment for recent enrollees was 15 months—longer than the guaranteed period offered by most states in this evaluation—although more than one-fifth of children left SCHIP at first eligibility renewal in five of the states (four states and the separate program component of Illinois’s combination program).
- Being uninsured or having private coverage immediately before SCHIP enrollment is strongly associated with longer enrollment spells. This association suggests that previous Medicaid enrollment is associated with cycling on and off of SCHIP.
- One in four children who left SCHIP reenrolled in SCHIP within 12 months or less of leaving.
- Children who were uninsured when they left SCHIP were more likely to reenroll in SCHIP than other children who left SCHIP.
- Length of enrollment and time to reenrollment both varied little across demographic characteristics, but they did vary across states.

A. ANALYTIC APPROACH

To examine the length of enrollment and time to reenrollment, we use SCHIP enrollment history data for children who were surveyed as recent enrollees and recent disenrollees, respectively. Enrollment history data provide information on the enrollment of these two samples between the beginning of the program (about five years ago) in each of the 10 states in this evaluation and December 2002. In seven states, we also have Medicaid enrollment histories for the SCHIP samples for about the same period. We use Medicaid data to supplement the

SCHIP enrollment histories by examining transitions from and to Medicaid. For reasons that we explain below, however, the analysis presented focuses on 2002—the period in which we selected the samples and fielded the survey.¹ In addition, we analyze combined enrollment history data and survey data to examine what factors are related to the length of SCHIP enrollment and time to reenrollment. Central to this analysis is the examination of the association between insurance status before and after SCHIP and the length of enrollment and time to reenrollment, respectively.

B. ANALYSIS OF THE LENGTH OF SCHIP ENROLLMENT

Continuation of coverage in SCHIP for as long as children remain eligible is central to ensuring that they have access to health care services when they need them and that this care is delivered by the same provider (U.S. General Accounting Office 2001; and Irvin et al. 2002). In 2002, 7 of the 10 states had policies guaranteeing that children not lose eligibility for a predetermined period (that is, *continuous eligibility*) because of changes in their family circumstances, including income and family size (see Table IV.1).² Several other policies may also be related to the length of coverage, including the use and cost of premiums for families enrolled in SCHIP, the timing of renewal frequency, and the requirements for renewal. While it is not possible to tease out the role of these policies given a sample of only 10 states, it is nevertheless valuable to look across states and across key demographic groups to see whether and how enrollment lengths vary.

¹Some families may effectively leave SCHIP before the state's determination because they obtain other coverage or experience other changes in family circumstances. As a result, the length of time that some children are covered by SCHIP may effectively be shorter than reported by the state enrollment files, and the time until reenrollment may differ as well. Available evidence suggests that this outcome is not frequent (only seven percent of established enrollees reported being disenrolled when the state files indicate that they had coverage). Nevertheless, the distributions presented in this chapter may differ at least slightly from what families would have reported had the survey been conducted at multiple points in time.

²Beginning in September 2003, Texas switched from 12 to 6 months of continuous eligibility (CMS 2003).

TABLE IV.1

SELECTED POLICIES RELATED TO LENGTH OF SCHIP ENROLLMENT
AND TIME TO REENROLLMENT

	Program Type	Maximum Income Threshold (%FPL)	12-Month Continuous Eligibility	Renewal Frequency (Months)	Premium Required Based on Income Eligibility Category	Grace Period if Missed Paying Premium	Blackout Period for Nonpayment of Premium
California	Separate ^a	250%	Yes	12	All	60 days	6 months
Colorado	Separate	185%	Yes	12	None	--	--
Florida	Separate ^a	200%	No	6 ^c	All	No	2 months
Illinois	Combination	133%/185% ^b	Yes	12/12 ^b	>150% FPL	No	None
Louisiana	Medicaid	200%	Yes	12	None	--	--
Missouri	Medicaid	300%	No	12	> 225% FPL	90 days	6 months
New Jersey	Combination	133%/350% ^b	No	6/12 ^b	> 150% FPL	No	None
New York	Separate ^a	250%	No	12	> 160% FPL	30 days	None
North Carolina	Separate	200%	Yes	12	None	--	--
Texas	Separate	200%	Yes	12	> 150% FPL	60-90 days	3 months

Source: Hill et al. 2003.

^aState also has a small Medicaid expansion component that is not part of this study. This component was expected to be phased out at the time of the 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states. The study sample for the survey was therefore drawn only for the separate component.

^bFigures shown reflect Medicaid expansion component/separate component.

^cAt the time of the survey, Florida had a passive renewal policy that required families to renew only if they have a change in circumstances that might affect their eligibility.

FPL = federal poverty level.

To describe the length of SCHIP enrollment, we examine *enrollment spells* in 2002 for a sample of recent enrollees—that is, the interval between the month a child enrolled in SCHIP and the month in which he or she left the program or was last observed enrolled in it (December 2002)—for all states combined and for each of the 10 states separately.³ We also examine differences in spell length by demographic and health characteristics, insurance coverage before SCHIP enrollment, and program type. The analysis includes only the enrollment spells from which we sampled recent enrollees who completed the interview (5,653 children).⁴ The spells of

³Appendix C describes in detail the enrollment history data that the 10 states provided to us, the method for constructing enrollment spells, and the statistical methods that we used in their analysis, including a discussion of how we handled the censoring of the enrollment experience of children in the sample.

⁴We exclude the spells of established enrollees because these spells are *overrepresented*. That is, a random sample of children enrolled at a given point in time includes a disproportionate number of long-term enrollees (Sheps and Menken 1973). Thus, any estimate of the length of enrollment for this sample would be biased upward.

these recent enrollees represent the cohort of all enrollees who entered SCHIP 2 months before sampling.⁵

1. Differences in Lengths of Stay, by Demographic Groups

As shown in Chapter I, the median duration of enrollment was 15 months across the 10 states (see Figure I.6). Although nearly one in nine children were continuously enrolled for 5 or fewer months, fully 59 percent of recent enrollees were enrolled for at least 12 months. This finding is consistent with the 12 months of guaranteed enrollment in six of the states. One-fifth of children left the program at 12 months, which is when first eligibility renewal was due in eight states, or in the following month (data not shown).⁶ Next, we explore how these patterns vary among key demographic groups.

Length of enrollment varied little by the characteristics of recent enrollees or their families. Among the few differences observed, non-Hispanic black and white children (who live in households where the primary language is English) had significantly shorter enrollment spells than Hispanic children. For example, the percentages of black and white children with enrollment spells of at least 12 months were 50 and 57 percent, respectively (Table IV.2). In contrast, between 67 and 70 percent of Hispanic children, regardless of the primary household language, remained enrolled in the program for at least one year. Children with elevated health care needs have similar distributions of length of enrollment as those without such needs, as do children across health status groups. Differences across remaining subgroups

⁵ We focus on the spells of recent enrollees because, when properly weighted, our study sample of recent enrollees represents a well-defined cohort of children entering the SCHIP program. Specifically, they represent the population of SCHIP children who enrolled in the 10 study states in early 2002 (the period that we drew the study sample). This is not the case with our study sample of established enrollees, who represent a much less well-defined cohort—children who enrolled in the 10 study states at many different points in time and had not yet disenrolled.

⁶The percentage of exits at first renewal includes exits in the month when the first renewal was due and exits *in the following month*, to account for potential delays in this process.

TABLE IV.2

DISTRIBUTION OF LENGTH OF ENROLLMENT SPELL IN 2002, BY DEMOGRAPHIC AND HEALTH CHARACTERISTICS

Characteristics ^a	Sample Size	Distribution of Length of Spell (Percentages)		
		5 or Fewer Months	6 to 11 Months	At Least 12 Months
Child's Race and Main Language				
Hispanic, speaks Spanish	1,085	8**	22**	70**
Hispanic, speaks English	733	13	20	67
Non-Hispanic White, speaks English	2,257	12	30	57
Non-Hispanic Black, speaks English	913	17	32	50
Non-Hispanic Other, speaks English	250	10	27	63
Non-Hispanic, Non-English-Speaking	175	6	41	52
Missing race, ethnicity, or language	237	18	35	46
Age of Child (in Years)				
< 1 years	158	10	25	64
1 to 5 years	1,455	10	34	57
6 to 12 years	2,342	12	27	61
≥ 13 years	1,695	13	28	58
Child Has an Elevated Health Care Need				
Yes	1,614	12	28	60
No	3,938	11	29	59
Child's Overall Health Status				
Excellent/very good	3,936	12	29	59
Good	1,206	11	28	61
Fair/poor	427	13	31	55
Household Income by FPL Range				
< 150% FPL	3,600	11**	30**	58**
150% to 200% FPL	932	7	25	68
≥ 200% FPL	506	10	25	65
Highest Education Level of Parent(s)				
No GED or HS diploma	941	11	28	61
GED or HS diploma	2,171	12	30	58
Some college or college degree ^b	2,339	11	28	61
Residential Location				
Metro	4,472	11**	27**	62**
Nonmetro, adjacent	668	13	41	46
Nonmetro, nonadjacent	510	18	32	51

Source: State enrollment history data files for the sample of recent enrollees from the 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states linked to data from this survey.

Notes: Total sample sizes for some subgroups do not equal that of the full sample because some children were not asked certain questions or data are missing for fewer than 10 children. Estimates for missing categories in selected variables are reported in the tables for the chapter. All estimates are weighted. The distribution of the length of the enrollment spell may not add up to 100 because of rounding.

^a All characteristics, except age, are based on survey data.

^b Includes 2-year associate's degree and trade school.

FPL = federal poverty level; GED = general equivalency diploma; HS = high school.

*Distribution of length of enrollment is statistically different across categories at the 5 percent level, two-tailed test.

**Distribution of length of enrollment is statistically different across categories at the 1 percent level, two-tailed test.

show that children whose parents have higher incomes or live in metropolitan areas have, on average, marginally longer enrollment spells (and, thus, higher frequency of longer spells) than children whose parents have lower incomes or live in nonmetropolitan areas, respectively.

The type of insurance coverage just before enrolling in SCHIP is strongly associated with the likelihood of remaining in the program. Children who were uninsured or had private coverage immediately before enrolling in SCHIP had longer enrollment spells than children who had Medicaid coverage before enrolling in SCHIP. They were 22 and 27 percent, respectively, less likely than children with prior Medicaid coverage to leave SCHIP within 11 months of enrolling (Table IV.3).⁷ These findings are consistent with the hypothesis that previous Medicaid enrollment is associated with cycling on and off of SCHIP due to changes in eligibility of children. If these children are returning to Medicaid after leaving SCHIP (because of a reduction in family income), these shorter SCHIP stays are appropriate and no cause for concern.

2. Differences in Lengths of Stay, by State

Length of enrollment of recent enrollees varied substantially across states. Two patterns of program departures (and, thus, lengths of stay) emerged across the 10 study states. In four states, few children left SCHIP until about 12 months after enrollment, at which time continued enrollment dropped sharply (upper panel of Figure IV.1). In the other six states, children left SCHIP at a fairly constant rate during the first 12 months, with a gradual falloff after this point

⁷In this analysis, we present the *average* percentage change in the probability of exiting SCHIP (see Appendix C for a detailed discussion of how this estimate was derived). To illustrate this concept, assume that the average probability of exiting during the first 11 months for children who were reported as being in Medicaid immediately before enrolling in SCHIP is 53 percent. As Table IV.3 shows, children who were uninsured immediately before enrolling in SCHIP were 22 percent less likely to leave within 11 months than children who were in Medicaid before SCHIP enrollment. Therefore, children who were uninsured before SCHIP enrollment would have a probability of exiting during their first 11 months in SCHIP of 41 (= $[0.53] \cdot [1 - 0.22]$), compared to 53 percent for their counterparts with Medicaid coverage immediately before SCHIP enrollment.

TABLE IV.3

REGRESSION-ADJUSTED DIFFERENCE IN THE PROBABILITY OF EXITING
SCHIP IN 2002 AMONG RECENT ENROLLEES, BY TYPE OF
INSURANCE COVERAGE BEFORE ENTERING SCHIP

	Sample Size	Percentage Difference in Probability of Exiting SCHIP
Reported Type of Insurance Coverage Immediately Before Child Enrolled in SCHIP	5,264 ^a	
Medicaid		—
Uninsured		-22**
Private insurance		-27**
Other		27

Source: State enrollment history data files for the sample of recent enrollees from the 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states linked to data from this survey.

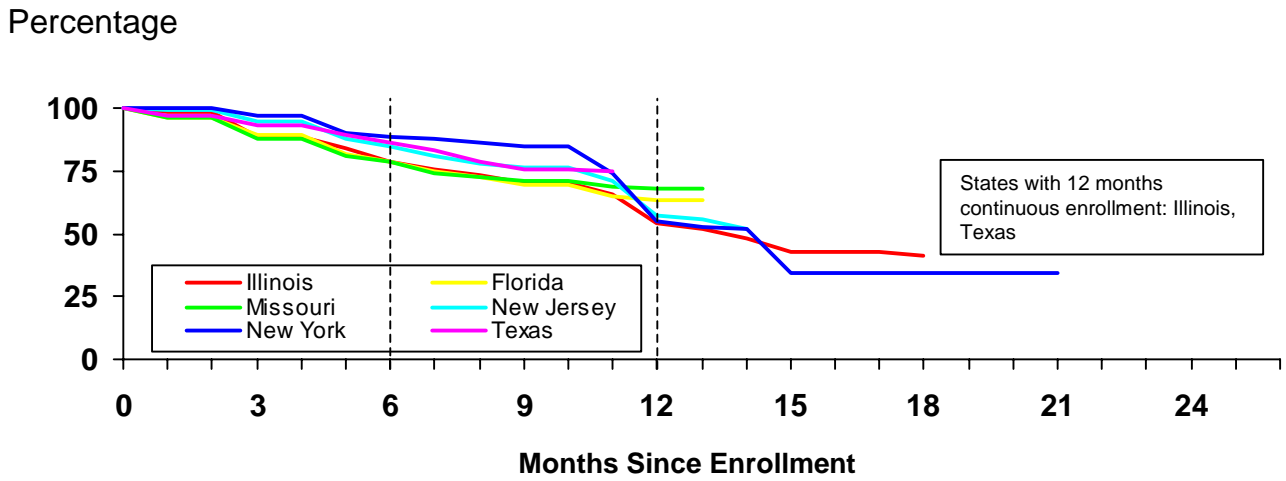
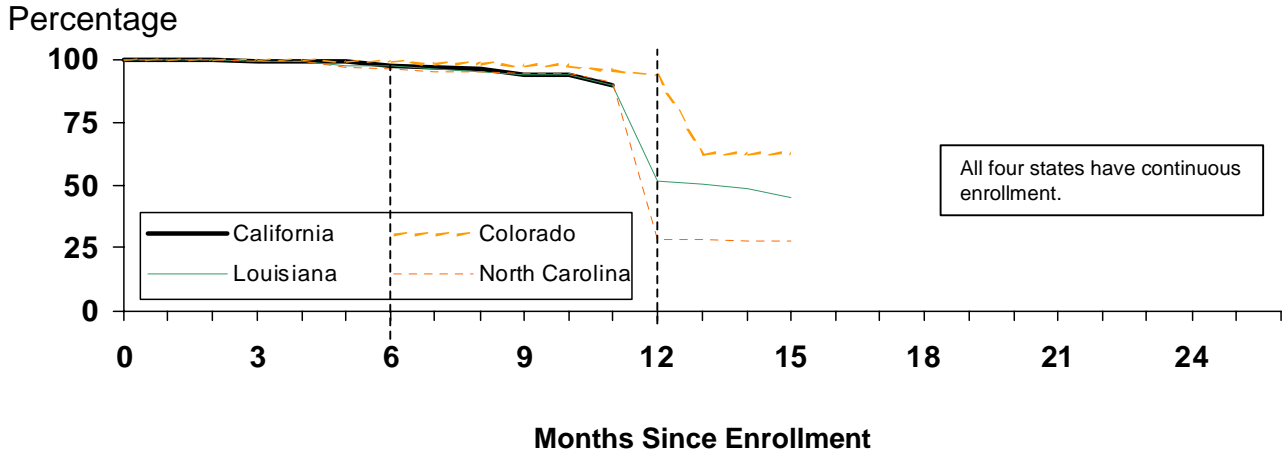
Notes: Regressions included controls for the effect of child characteristics (that is, age, race/ethnicity, gender, enrollment spell order, whether he or she has special health care needs, and health status); household characteristics (that is, state of residence, income, language spoken in the household, and number of children in the household); and parental characteristics (that is, parents' highest education level, residential location's urbanization level, family structure/parental employment, and whether parent(s) have health insurance). For children interviewed after December 2002, the enrollment spell was truncated as of the end of that month.

**Significantly different from zero at the .01 level, two-tailed test.

^aThe weighted percentage distribution across the four categories of type of insurance is: Medicaid, 19 percent; Uninsured, 60 percent; Private insurance, 20 percent; and Other, 1 percent.

FIGURE IV.1

PERCENTAGE OF RECENT ENROLLEES STILL ENROLLED IN SCHIP, BY TIME SINCE ENROLLMENT, BY STATE



Sources: SCHIP Enrollment Files and 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

(lower panel of Figure IV.1). For example, 6 months after entering the SCHIP program, more than 95 percent of children remained in the program in the four states shown in the upper panel, while, in the six states shown in the lower panel, only between 74 and 89 percent of children remained enrolled.

We do not know whether SCHIP enrollee characteristics or unmeasurable differences in program features across the states explain these different patterns. Notably, all four states in the upper panel of Figure IV.1 offer 12 months of continuous coverage, consistent with the pattern of steady enrollment until the twelfth month, followed by a rapid decline. In contrast, of the six states in the lower panel, only two (Illinois and Texas) offer 12 months of continuous coverage.⁸ This association must be interpreted cautiously, however, since it does not account for other differences between states in program features and policies.

States also differed in the percentage of children who left SCHIP at first eligibility renewal. Finally, the proportion of children who left SCHIP at first renewal (either 6 or 12 months, depending on the state) varied substantially across states, ranging from 6 percent (in Florida and in the Medicaid expansion program in Illinois) to 62 percent (in North Carolina).⁹ (See Table IV.4.) The low rates of exit in Florida and in Illinois's Medicaid expansion program at renewal are consistent with Florida's passive renewal process and Illinois's flexible renewal

⁸A correlation also exists between the statewide pattern of enrollment length and whether the state has a premium requirement for some or all of its enrollees (only one state in the upper panel—California—requires families to pay premiums, whereas all six states in the lower panel require at least some families to pay premiums). In the states that require premiums for only some enrollees, however, we do not find any notable pattern of variation between families who do and do not pay premiums. Hence, it is difficult to attribute the cross-state differential in stay patterns to the premium policy.

⁹In 2001, North Carolina implemented an enrollment freeze capping enrollment at 68,000 children. During the enrollment freeze, however, the renewal process continued as normal. Moreover, state administrators decided that all those children already enrolled should be allowed to reenroll. The state lifted the enrollment freeze on October 8, 2001—about four months before our survey began (Hawkes and Howell 2002). It is unclear what effect, if any, the earlier enrollment freeze had on the proportion of children that exited the program at first renewal during 2002.

TABLE IV.4

PERCENT OF RECENT ENROLLEES WHO LEFT SCHIP BY FIRST RENEWAL, BY STATE

Program Type/State	Sample Size	Percent That Exited at First Renewal ^a
States with Separate Programs		
California	b	b
Colorado	631	34
Florida	601	6
New York	525	21
North Carolina	542	62
Texas	c	c
States with Medicaid Expansion Programs		
Louisiana	591	40
Missouri	c	c
States with Combination Programs		
Illinois	496	14
Separate program	116	42
Medicaid expansion program	380	6
New Jersey	d	d
Separate program	345	18
Medicaid expansion program	189	12

Source: State enrollment history data files for the sample of recent enrollees from the 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states linked to data from this survey.

Notes: Total sample sizes for some subgroups do not equal that of the full sample because some children were not asked certain questions or data are missing for less than 10 children. Estimates for missing categories in selected variables are reported in the tables for the chapter. All estimates are weighted. The distribution of the length of the enrollment spell may not add up to 100 because of rounding.

^aEvery 6 months in Florida and in New Jersey's Medicaid expansion program, and every 12 months for all other programs. The percentage of exits at first renewal corresponds to those exits in the month when the first renewal was due or in the following month, to account for potential delays in this process.

^bNot calculated, because data are available for only 11 months (and first renewal takes place at 12 months).

^cNot calculated, because the maximum length of enrollment spells available for analysis in the state is 13 months or less, and all spells of this length are censored, thus making it impossible to accurately calculate the percentage of children that exited at first renewal.

^dNot calculated, because the renewal frequency for the Medicaid expansion program is different from that for the separate program (6 and 12 months, respectively).

process (in which, for example, families can submit renewal information after their case has been closed and be reinstated without having to submit a full new application) (Westpfahl Lutzky and Kaputka 2002).

C. ANALYSIS OF THE TIME TO REENROLLMENT

If children become uninsured when they leave SCHIP, rather than transferring to Medicaid or getting private insurance coverage, they may lose access to health care services (Weissman et al. 1999). Whether a child reenrolls in SCHIP and the length of time until that child does so hinges on two factors: (1) whether the child gets other insurance coverage after leaving SCHIP, and (2) whether the child's family meets SCHIP's eligibility and cost-sharing requirements, including any waiting period following a private insurance coverage spell to prevent substitution (or "crowdout") of private coverage with SCHIP. In 2002, 6 of the 10 states had a waiting period before enrollment for children with private coverage (3 months in 4 states and 6 months in 2 states) (Hill et al. 2003). Moreover, two states charged an enrollment fee, and four states had a blackout period, during which a family could not reenroll their child if they had missed a premium payment (see Table IV.1).

To describe the time to reenrollment in SCHIP, we examine *exit spells* in 2002 for the sample of recent disenrollees—that is, the interval between the month a child left SCHIP and the month in which he or she either reenrolled in the program or was last observed not enrolled in it. Throughout this analysis, we use the term "exit" to denote a departure from SCHIP, regardless of the child's insurance destination (transfer to Medicaid, private insurance, or uninsurance). As with the analysis of enrollment spells among recent enrollees, we also analyze the data for all states combined and for each of the 10 states separately, and we examine differences in spell length by demographic and health characteristics, insurance coverage at exit, and program type. The time to reenrollment analysis includes only the exit spells from which we sampled recent

disenrollees who completed the interview (5,310 children), who represent the cohort of all enrollees who exited the program two months before sampling.

1. Time to Reenrollment, by Demographic Groups

Among recent disenrollees, only about one of four children reenrolled within 12 months (not shown). This is perhaps not surprising, as many children who leave SCHIP transition into other types of coverage, notably Medicaid or private insurance (see Chapter V). As described below, the timing and frequency of reenrollment varied little by disenrollee characteristics; however, it did vary by whether the child obtained insurance coverage after leaving SCHIP.

Differences in the time to reenrollment were small across demographic and health characteristics, with no evident patterns across subgroups. Between 70 and 78 percent of Hispanic, non-Hispanic black, and non-Hispanic white children stayed out of SCHIP at least 12 months—a difference that was statistically significant (Table IV.5). Moreover, teenagers who recently left the program are about as likely as younger children (except infants) to remain off SCHIP for at least 12 months, although all of them become ineligible for SCHIP when they reach age 19.¹⁰ Nearly 71 percent of children with elevated health care needs stayed off SCHIP at least 12 months, as did 72 percent of those who reported being in fair or poor health. Likewise, differences across subgroups defined by parents' income, highest education level, and residential location were small, although statistically significant, for parents' income and education level.

¹⁰The reenrollment analysis excludes children age 18 or older at the time of sampling, since they cannot reenroll in SCHIP. Children under 1 year of age when they left SCHIP are less likely to stay off the program more than 12 months, but the difference is not statistically significant.

TABLE IV.5

DISTRIBUTION OF THE LENGTH OF TIME TO REENROLLMENT IN 2002,
BY DEMOGRAPHIC AND HEALTH CHARACTERISTICS

Characteristics ^a	Sample Size	Distribution of Length of Spell (Percentages)		
		5 or Fewer Months	6 to 11 Months	At Least 12 Months
Child's Race and Main Language				
Hispanic, speaks Spanish	794	16**	10	73
Hispanic, speaks English	675	15	8	78
Non-Hispanic White, speaks English	1,841	21	9	70
Non-Hispanic Black, speaks English	751	18	10	71
Non-Hispanic Other, speaks English	205	13	4	83
Non-Hispanic, Non-English-Speaking	106	12	6	82
Missing race, ethnicity, or language	249	12	10	77
Age of Child (in Years)				
< 1 years	24	12	1	87
1 to 5 years	1,144	14	11	76
6 to 12 years	1,970	19	9	72
≥ 13 years	1,478	17	8	75
Child Has an Elevated Health Care Need				
Yes	1,397	18	11	71
No	3,082	17	8	75
Child's Overall Health Status				
Excellent/very good	3,033	19	9	73
Good	1,041	14	10	76
Fair/poor	418	18	10	72
Household Income by FPL Range				
< 150% FPL	2,476	21**	10	70
150% to 200% FPL	613	28	11	61
≥ 200% FPL	457	14	7	79
Highest Education Level of Parent(s)				
No GED or HS diploma	833	14**	9	77
GED or HS diploma	1,786	17	9	73
Some college or college degree ^b	1,773	20	9	71
Residential Location				
Metro	3,571	17	9	74
Nonmetro, adjacent	546	18	10	72
Nonmetro, nonadjacent	504	18	8	74

Source: State enrollment history data files for the sample of recent disenrollees from the 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states linked to data from this survey.

Notes: Disenrollees age 18 or older are excluded from the analysis. Total sample sizes for some subgroups do not equal that of the full sample because some children were not asked certain questions or data are missing for fewer than 10 children. Estimates for missing categories in selected variables are reported in the tables for the report. All estimates are weighted. The distribution of the length of the enrollment spell may not add up to 100 because of rounding.

^a All characteristics, except age, are constructed based on survey data.

^b Includes 2-year associate's degree and trade school.

FPL = federal poverty level; GED = general equivalency diploma; HS = high school.

*Distribution of length of time to reenrollment is statistically different across categories at the 5 percent level, two-tailed test.

**Distribution of length of time to reenrollment is statistically different across categories at the 1 percent level, two-tailed test.

Children who become uninsured after leaving SCHIP are substantially more likely to reenroll in SCHIP than children who get Medicaid or private coverage after leaving SCHIP. Children who become uninsured are much more likely than children who enrolled in Medicaid after leaving SCHIP to reenroll in SCHIP within 11 months (144 percent greater likelihood) (Table IV.6). In contrast, children who become privately insured after leaving SCHIP are 71 percent less likely than children on Medicaid to reenroll in SCHIP during the 11 months after leaving. These results imply that uninsured children are 215 percent (that is, $144 + 71 = 215$) more likely than children with private coverage to reenroll in SCHIP within 11 months of exiting SCHIP. These results are not surprising, but they emphasize that the experience of uninsured children after leaving SCHIP is very different from that of children who immediately transition into Medicaid or private insurance.

2. Time to Reenrollment, by State

Length of time to reenrollment varied across states but was not associated with type of program. Of recent disenrollees from separate programs, 18 percent stayed out of SCHIP 5 or fewer months, compared to 19 percent in Medicaid expansion programs and 14 percent in combination programs (Table IV.7). In contrast, the variability across states was considerable. For example, in three states (California, Louisiana, and North Carolina), 10 percent or fewer children reenrolled in SCHIP within 5 months of leaving. In contrast, this proportion was 35 percent in Florida and 27 percent in Missouri.

D. SUMMARY AND DISCUSSION

This chapter presented estimates of the length of SCHIP enrollment and the time to reenrollment, as well as their association with individual characteristics, most notably insurance status, for samples of recent enrollees and recent disenrollees, respectively.

TABLE IV.6

REGRESSION-ADJUSTED DIFFERENCE IN THE PROBABILITY OF REENROLLING
IN SCHIP IN 2002 AMONG RECENT DISENROLLEES, BY TYPE
OF INSURANCE COVERAGE AT EXIT FROM SCHIP

	Sample Size	Percentage Difference in Probability of Reenrolling in SCHIP
Type of Insurance Coverage Immediately After Exiting SCHIP	3,661 ^a	
Medicaid		—
Uninsured		144**
Private insurance		-71**
Other		98**
Missing		20

Source: State enrollment history data files for the sample of recent disenrollees from the 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states linked to data from this survey.

Notes: Regression included controls for the effect of child characteristics (that is, age, race/ethnicity, gender, enrollment spell order, whether he or she has special health care needs, and health status); household characteristics (that is, state of residence, income, language spoken in the household, and number of children in the household); and parental characteristics (that is, parents' highest education level, residential location's urbanization level, and family structure/parental employment). For children interviewed after December 2002, the exit spell was truncated as of the end of that month.

^aThe weighted percentage distribution across the five categories of type of insurance is: Medicaid, 36 percent; Uninsured, 40 percent; Private insurance, 13 percent; Other, 5 percent; and Missing, 6 percent.

**Significantly different from zero at the .01 level, two-tailed test.

TABLE IV.7
DISTRIBUTION OF THE LENGTH OF TIME TO REENROLLMENT IN 2002,
BY PROGRAM TYPE AND STATE

Program Type/State	Sample Size	Distribution of Length of Spell (Percentages)		
		5 or Fewer Months	6 to 11 Months	At Least 12 Months
States with Separate Programs	2,897	18	10	72
California	458	10	n.a.	n.a.
Colorado	480	14	4	82
Florida	525	35	11	54
New York	418	18	6	76
North Carolina	497	7	17	76
Texas	519	15	n.a.	n.a.
States with Medicaid Expansion Programs	896	19	8	73
Louisiana	401	5	21	74
Missouri	495	27	5	68
States with Combination Programs	828	14	6	80
Illinois	447	15	6	79
Separate program	107	17	8	75
Medicaid expansion program	340	14	6	80
New Jersey	381	13	5	83
Separate program	240	11	6	83
Medicaid expansion program	141	16	3	81

Source: State enrollment history data files for the sample of recent disenrollees from the 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states linked to data from this survey.

Notes: Disenrollees age 18 or older are excluded from the analysis. Total sample sizes for some subgroups do not equal that of the full sample because some children were not asked certain questions or data are missing for fewer than 10 children. Estimates for missing categories in selected variables are reported in the tables for the chapter. All estimates are weighted. The distribution of the length of the enrollment spell may not add up to 100 because of rounding.

n.a = not applicable, because there are no exit spells of 12 months or longer available for analysis, thus making it impossible to calculate the percentage of children with exit spell lengths of 6 to 11 months or at least 12 months.

SCHIP plays a key role in low-income, uninsured children's health insurance coverage. A majority of recent enrollees had SCHIP coverage for at least one year, and recent SCHIP enrollees typically were enrolled longer (median of 15 months) than the guaranteed period offered by most states in this evaluation. Stays varied widely across states, but, since we have only 10 states in the study, we cannot make strong connections between program characteristics and varying lengths of stay, although enrollees in states with continuous eligibility tended to remain on the program longer than enrollees in other states. In five of the states, however, more than one in five children reportedly left SCHIP at first eligibility renewal. Moreover, children who switch from Medicaid to SCHIP are more likely to leave SCHIP after short stays in the program, although whether they are returning to Medicaid is not clear. (In contrast, children who were previously uninsured or who had private coverage were less likely to leave SCHIP.) These findings suggest that program administrators' recent focus on streamlining the SCHIP renewal process is warranted.

When children leave SCHIP, three-quarters stay out of the program for at least 12 months. Among the one in four who return to SCHIP within 12 months, children who become uninsured are the most likely to return. Children who get other coverage—Medicaid or private insurance—are much less likely to return to SCHIP after leaving. This finding is not surprising. Given the greater health and financial risks associated with being uninsured, there is a strong incentive both to remain in SCHIP and to reenroll as soon as possible after leaving. Nevertheless, the finding underscores the value to families of having a program like SCHIP to fill the gaps in insurance coverage.

V. ANALYSIS OF DISENROLLEES: VARIATION IN COVERAGE AMONG CHILDREN WHO LEAVE SCHIP

Christopher Trenholm

For children who disenroll from SCHIP, the central policy concern is whether they obtain health insurance coverage after leaving the program and, if they do, what the sources of this coverage are. As discussed in Chapter I, about half the disenrolled children across our 10-state sample were without insurance coverage when they left SCHIP, and one-third were still without coverage 6 months after leaving the program. For those disenrollees who did obtain health insurance, public coverage was the dominant insurer, covering about three of four of these children. To understand which groups of disenrollees are most likely to stay uninsured, in this chapter, we examine how insurance coverage varies across key subgroups.

A modest literature has explored the coverage of SCHIP disenrollees after they leave the program, although little is known about how this coverage varies across states or other key groups. Studies have clearly established, for example, that SCHIP disenrollees often cycle back onto the program after a short period, or they transition into the Medicaid program with little or no gap in coverage (Dick et al. 2002; Shenkman et al. 2002a; and Moreno and Black 2001). In addition, a handful of studies have examined the experiences of SCHIP disenrollees more broadly and found that a sizable share are uninsured after leaving SCHIP, including some who might remain eligible (Shenkman et al. 2002b; Ziller and Loux 2003; and Riley et al. 2003). Findings presented in Chapter I are consistent with this literature. Based on a sample of more than 4,000 disenrollees across 10 states, we find that nearly half are uninsured shortly after leaving SCHIP, and about one in three are uninsured after 6 months. Moreover, we find that

many of these uninsured disenrollees, perhaps as many as half, might have been eligible for SCHIP when they left the program.

Coverage of SCHIP disenrollees may be closely linked with both their demographic characteristics and their reasons for leaving the program. Among the general population, children's insurance coverage is known to vary along many demographic characteristics, such as the child's age and race/ethnicity and the family's income (Bhandari and Gifford 2003). Similar variation is likely to exist among SCHIP disenrollees. For example, we would expect disenrollees from higher-income families to obtain private coverage more often than those from lower-income families, which might in turn lead to lower rates of uninsurance among this group. In contrast, Hispanic children and other groups with traditionally poor access to private coverage might be expected to have relatively low rates of private coverage and high rates of uninsurance after they leave SCHIP.

Variations in state policies may also contribute to differences in disenrollees' coverage across states. As Table V.1 shows, states have adopted several different renewal policies and other program choices that might affect the likelihood that children leave SCHIP and the type of coverage they obtain after leaving. Such policies, however, are not the only differences across states that may contribute to variation in disenrollee coverage. Other differences, such as economic conditions or access to employer-based coverage, may also contribute to variations in coverage, making it difficult to identify the role that particular state policies might play, particularly in a 10-state sample.

The possible role of certain policies can be anticipated, however, which offers an opportunity to examine how they contribute to state variation. Perhaps the best example is the adoption of the Medicaid expansion program model by some states. Unlike states that adopted separate program models, Medicaid expansion states do not have the challenge of coordinating

TABLE V.1

SELECTED POLICIES RELATED TO THE DISTRIBUTION OF INSURANCE COVERAGE
AMONG SCHIP DISENROLLEES

	Program Type	Maximum Income Threshold (FPL)	12-Month Continuous Eligibility	Renewal Frequency (Months)	Premium Required Based on Income Eligibility Category	Grace Period if Missed Paying Premium	Blackout Period for Nonpayment of Premium
California	Separate ^a	250	Yes	12	All	60 days	6 months
Colorado	Separate	185	Yes	12	None	n.a.	n.a.
Florida	Separate ^a	200	No	6 ^c	All	No	2 months
Illinois	Combination	133/185 ^b	Yes	12/12 ^b	>150% FPL	No	None
Louisiana	Medicaid	200	Yes	12	None	n.a.	n.a.
Missouri	Medicaid	300	No	12	> 225% FPL	90 days	6 months
New Jersey	Combination	133/350 ^b	No	6/12 ^b	> 150% FPL	No	None
New York	Separate ^a	250	No	12	> 160% FPL	30 days	None
North Carolina	Separate	200	Yes	12	None	n.a.	n.a.
Texas	Separate	200	Yes	12	> 150% FPL	60-90 days	3 months

Source: Hill et al. (2003).

^aState also has a small Medicaid expansion component that is not part of this study. This component was expected to be phased out at the time of the 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states. Therefore, the study sample for the survey was drawn only for the separate component.

^bFigures shown reflect Medicaid expansion component/separate component.

^cAt the time of the survey, Florida had a passive renewal policy that requires families to renew only if they have a change in circumstances that might affect their eligibility.

FPL = federal poverty level.

n.a. = not applicable (no premium required).

coverage between their SCHIP and (Title XIX) Medicaid programs, since it is one program. The Medicaid expansion model might therefore be associated with higher rates of Medicaid coverage among SCHIP disenrollees, which in turn might lead to lower rates of uninsurance for this group. Considerable caution must be used when drawing such conclusions, however, since it is simply not possible to disentangle all the potential sources of variation with a sample of 10 states.

In the following sections, we examine how the insurance coverage of SCHIP disenrollees varies across key demographic groups, across selected reasons for leaving, and across states. Our main outcome of interest is the rate of uninsurance 6 months after disenrollment from

SCHIP.¹ For disenrollees who report being insured, however, we also examine the distribution of coverage between Medicaid, SCHIP, and private insurance, to understand how patterns of public and private coverage might differ between groups.

Findings by demographic group are based on simple cross-tabulations between insurance coverage and the characteristic of interest (for example, child's age, race/ethnicity). For groups with notably high or low rates of coverage, however, we also discuss findings from multivariate models, to provide a sense of how other factors (such as other demographic characteristics or the state of residence) may contribute to the differences observed. Findings by state are based, in contrast, on multivariate models. These models control for differences in demographic characteristics across the sample, helping to identify whether differences in state policies might have contributed to variations in disenrollee coverage. Appendix Tables V.1 through V.8 at the end of the chapter present subgroup findings based on bivariate (cross-tabulations) and multivariate methods.

Key Findings. The percentage of SCHIP disenrollees without insurance is fairly consistent across most, though not all, demographic groups. However, there are notable differences in coverage among families who left SCHIP due to premium nonpayment and also notable differences across states. Specific findings include:

- Two-thirds (66 percent) of the disenrollees who are 18 or older had no insurance 6 months after leaving SCHIP, a result likely due to a combination of reduced eligibility for public coverage and limited access to private insurance.²

¹ We focus on this point in time, rather than a point closer to exit, to examine variation in SCHIP reentry, as well as transitions to other types of coverage. Analysis of insurance coverage at exit reveals much the same sources of variation in overall coverage as presented below at 6 months. Our estimates of insurance coverage are based on data from the congressionally mandated survey of SCHIP enrollees and disenrollees across 10 states and are supplemented by data from state enrollment files for SCHIP and Medicaid. For further information, see Appendix C.

² SCHIP only covers children to age 18; however, in selected states, Medicaid covers children to age 21.

- Children from rural areas are less likely to be uninsured after leaving SCHIP (15 percent, compared to 34 percent from urban areas). Most rural disenrollees in our sample live in states with generally high levels of insurance coverage, which explains some of this difference. However, even after controlling for their state and other demographic characteristics, rural disenrollees continue to display relatively high rates of coverage.
- Findings across states suggest that the Medicaid expansion program model is associated with lower rates of uninsurance among SCHIP disenrollees. For the two states with Medicaid expansion programs in the sample—Louisiana and Missouri—rates of uninsurance are among the lowest of any of the 10 states examined (25 and 16 percent, respectively).
- Among the six separate programs in our sample, uninsurance rates range widely, from 23 percent in Florida to 47 percent in California. There is some evidence that this variation is linked to differences in program coordination across the separate states; however, many other factors might have contributed to this variation as well.
- Nearly half (48 percent) of the disenrollees who reported leaving due to nonpayment of premium were uninsured 6 months later. This group reflects only a small fraction of those disenrolled across the 10 states, however, and is not a significant source of the variation seen in cross-state coverage.

A. COVERAGE DIFFERENCES ACROSS KEY DEMOGRAPHIC GROUPS

This section explores the coverage of disenrollees across six key demographic groups: (1) race/ethnicity and language, (2) age, (3) location (urban/rural), (4) parents' education, (5) household structure and employment, and (6) income. (See Appendix C for a discussion of how these groups are formed.)

1. Variation, by Race/Ethnicity and Language

Hispanics are more likely to be uninsured after disenrolling, although location appears to play a key role. Among Hispanic children, the share without coverage across the 10 study states is 37 percent in English-speaking households and 41 percent in Spanish-speaking households (see Table V.2). Both rates are significantly higher than the rate for white children (24 percent).³

³The full reference category used for these comparisons is “non-Hispanic white children from English-speaking households.” The term “white” is used for simplicity.

TABLE V.2
 COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT,
 BY RACE/ETHNICITY AND LANGUAGE
 (Percent)

	Hispanic		Non-Hispanic			
	English- Language	Spanish- Language	English-Speaking			
			White ^a	Black	Other	Non-English- Speaking (All)
Uninsured	37 **	41 **	24	30	41 *	47 *
Medicaid	39	32	34	41 *	33	36
SCHIP	12 *	13	17	15	11	9
Private	12 **	10 **	24	13 **	14 *	8 **
Other	1	3 *	1	2	0 *	1 *
Sample Size	452	558	1,384	617	150	86

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (disenrollee sample).

^a“White” (English speaking non-Hispanic) is the reference category for tests of significance.

**p-value (of difference) <0.01; *p-value<0.05.

However, when accounting for state of residence and other demographic characteristics through multivariate models (see Appendix Table V.1), these differences decline to only a few points and become insignificant. Relative to other racial/ethnic groups, Hispanics live disproportionately in two study states with relatively low rates of disenrollee coverage—California and Texas—a factor closely tied to the relative lack of coverage among Hispanic disenrollees.

Hispanic and black disenrollees are much less likely than white disenrollees to have private coverage, and these differences persist when controlling for other factors. For Hispanic children from Spanish-speaking households, the share with private coverage is only 10 percent, compared to 24 percent for white children—a significant difference. Among black disenrollees, the share

with private coverage is also relatively low (13 percent). Unlike Hispanic disenrollees, however, a large share of black disenrollees (41 percent) have Medicaid coverage, leading their overall rate of coverage to be similar to that of white disenrollees.

2. Variation, by Age

Disenrollees who are age 18 or older are more than twice as likely as other age groups to be uninsured. Comparing disenrollees by age, only small differences are evident between children ages 0 to 5, 6 to 12, and 13 to 17 (Table V.3). For each of these groups, rates of uninsurance are around 30 percent, and Medicaid is consistently the largest insurer.

For disenrollees who are 18 or older, findings are quite different and point to SCHIP as a critical source of health insurance for teenagers. Two-thirds (66 percent) of these disenrollees are without insurance, a rate more than twice as high as that of any other age group. Nearly all this difference can be traced to much lower rates of public coverage for these disenrollees after they leave SCHIP. However, the extent of private coverage among this group is also low (14 percent). This is consistent with national data, which show that rates of private coverage among

TABLE V.3
COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT,
BY AGE OF CHILD
(Percent)

	Age			
	0 to 5	6 to 12 ^a	13 to 17	18 and Older
Uninsured	27	28	31	66 **
Medicaid	38	39	38	13 **
SCHIP	12	16	18	5 **
Private	21 *	15	11	14
Other	2	2	1	2
Sample Size	660	1,446	801	428

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (disenrollee sample).

^a“Age 6 to 12” is the reference category for tests of significance.

**p-value (of difference) <0.01; *p-value<0.05.

young adults are below those of any other age group (Mills and Bhandari 2003). Findings are unchanged when accounting for state and other demographic factors (see Appendix Table V.2), which suggests that families of children who “age off” SCHIP are at a unique disadvantage in trying to obtain new coverage for them.

3. Variation, by Urban/Rural Location

Children from rural counties are less likely to be uninsured 6 months after leaving SCHIP. Disenrollees from rural counties, which are defined as neither metropolitan nor adjacent to a metropolitan area, are less likely to be uninsured than those from metropolitan counties (15 versus 34 percent; see Table V.4). All this difference is explained by very high rates of Medicaid among rural disenrollees (53 percent, compared to 34 percent for children from urban/metro locations). After accounting for state and other demographics, these differences decline in magnitude but remain significant (see Appendix Table V.3).

TABLE V.4
 COVERAGE OF SCHIP DISENROLLEES 6 MONTHS
 AFTER EXIT, BY URBAN/RURAL COUNTY
 (Percent)

	Metro County ^a	Adjacent to Metro	Rural County
Uninsured	34	36	15 **
Medicaid	34	39	53 **
SCHIP	14	12	18
Private	16	12	15
Other	2	1	0 **
Sample Size	2,551	418	366

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (disenrollee sample).

^a “Metro” is the reference category for tests of significance.

**p-value (of difference) <0.01; *p-value<0.05.

4. Variation, by Education

Disenrollees' coverage varied modestly by the education level of their parents. Among disenrollees whose parents have less than a high school education, 41 percent are uninsured 6 months after leaving SCHIP, compared to 30 percent of children whose parents have more than a high school degree (Table V.5). The main source of this variation is a significantly lower rate of private coverage for children with low-education parents—just 6 percent—compared to 14 percent for children with high school-educated parents and 22 percent for children with higher-educated parents. These differences change only modestly when accounting for state and other demographic characteristics (See Appendix Table V.4).

5. Variation, by Household Structure and Employment

Disenrollees from single-parent, nonworking households are less frequently uninsured. Only 22 percent of disenrollees with single, nonworking parents are without insurance 6 months after leaving SCHIP, which is 10 to 14 points below the rate for any household with a

TABLE V.5
COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT,
BY HIGHEST EDUCATION OF PARENT(S)
(Percent)

	Less than High School	High School ^a	More than High School
Uninsured	41	33	30
Medicaid	38	36	33
SCHIP	12	16	15
Private	6**	14	22**
Other	3*	1	1
Sample Size	617	1,210	1,427

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (disenrollee sample).

^a“High School” is the reference category for tests of significance.

**p-value (of difference) <0.01; *p-value<0.05.

working parent (Table V.6). This difference is associated closely with higher rates of Medicaid coverage for disenrollees from these households (60 percent, compared to 30 percent for disenrollees with two working parents). Only a very small fraction of these disenrollees (5 percent) had private coverage, compared to 13 percent of disenrollees with two working parents. Differences in private coverage largely disappeared when accounting for state and other demographic factors, most notably income (see Appendix Table V.5). However, differences in the shares without coverage and with Medicaid coverage remained largely unchanged.

6. Variation, by Household Income

Little variation in insurance rates exists between disenrollees from lower- and higher-income households. For disenrollees from lower- and higher-income households, rates of uninsurance vary between 32 and 35 percent (Table V.7). This similarity is the result of major differences in the sources of coverage that essentially offset one another. Namely, while most lower-income disenrollees obtain coverage through Medicaid (44 percent for those below 150

TABLE V.6
COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT,
BY HOUSEHOLD STRUCTURE AND EMPLOYMENT
(Percent)

	Two Parents			One Parent	
	Both Working ^a	One Working	Neither Working	Working	Nonworking
Uninsured	36	33	21*	32	22*
Medicaid	30	37**	52**	42**	60**
SCHIP	19	23	24	20	12
Private	13	7**	2**	6**	5**
Other	1	0	0	15*	1
Sample Size^b	682	708	77	895	217

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (disenrollee sample).

^a“Two Parents/Both Working” is the reference category for tests of significance.

^bStatistics were imputed for disenrollees with missing data; sample sizes reflect nonimputed sample only. See Appendix C for more information.

**p-value (of difference) <0.01; *p-value<0.05.

TABLE V.7
 COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT,
 BY HOUSEHOLD INCOME
 (Percent)

	Below 150% FPL ^a	150 to 200% FPL	Above 200% FPL
Uninsured	32	37	35
Medicaid	44	20 **	10 **
SCHIP	14	20	10
Private	8	22 **	43 **
Other	1	2	1
Sample Size	2,211	503	375

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (disenrollee sample).

^a“Below 150%” is the reference category for tests of significance.

**p-value (of difference) <0.01; *p-value<0.05.

FPL = federal poverty level.

percent of the federal poverty level), higher-income disenrollees obtain their coverage mostly through private insurance (43 percent for those above 200 percent of the federal poverty level). Differences remained when controlling for other factors (see Appendix Table V.6).

B. VARIATION IN COVERAGE ACROSS STATES

Wide variation is evident in uninsurance rates across states 6 months after disenrollment, well more than was seen across most demographic groups (Table V.8).⁴ Of the 10 states in the sample, 4 have uninsurance rates below 30 percent. They include both Medicaid expansion states—Louisiana (25 percent) and Missouri (16 percent); one of the two combination programs—Illinois (16 percent); and one of the six separate programs—Florida (23 percent). In each of these states, the rate of Medicaid coverage (which ranges from 32 to 67 percent) is

⁴ To better explore differences across the states, all results presented in this section are regression adjusted to account for variation in the demographic characteristics of the disenrollees. The distribution of coverage shown for each state in Table V.8 is thus normalized to reflect the experiences of the average disenrollee across the 10 states. Findings based on the actual rates of reported coverage in these states are similar (see Appendix Table V.7).

TABLE V.8

COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY STATE
(Percent)

	Separate Programs										Combination				Medicaid	
	CA	CO	FL	NY	NC	TX	IL	NJ	LA	MO	LA	MO				
Uninsured	47 **	44 **	23 **	32	43	41 *	16 **	38	25	16 **	25	16 **				
Medicaid	18 **	24 **	32	35	48 *	31	62 **	27 *	67 **	50 **	67 **	50 **				
SCHIP	12 *	12	26 **	14	9	14	9 **	12	3 **	22 **	3 **	22 **				
Private	20	19	18	19	11	12	12	23 *	5 **	11	5 **	11				
Other	4 **	0 **	1	0 *	0 *	1	1	0 **	1	1	1	1				
Sample Size	320	290	335	322	321	290	358	299	398	402	398	402				

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (disenrollee sample).

Note: Regression models used to account for differences in demographic characteristics of disenrollees across states. Demographic characteristics include child's race/ethnicity, age, health status, and gender; household's location (urban/rural) income, structure, education level, employment, and number of children. Tests of significance based on comparing each individual state to the mean for all other states.

**p-value (of difference) <0.01; *p-value<0.05.

relatively high. In addition, Florida and Missouri have significantly high rates of SCHIP reentry: 26 and 22 percent, respectively.

The highest uninsurance rates, at or above 40 percent, are found for three of the six separate programs: California (47 percent), Colorado (44 percent), and Texas (41 percent). In all three of these states, the share of disenrollees with Medicaid coverage is relatively low. In California, for example, only 18 percent of disenrollees experienced a transition to Medicaid, about one-fourth the rate for Louisiana.

Medicaid expansion appears linked to lower rates of uninsurance. The findings in Table V.8 clearly show that the states in our sample with Medicaid expansion programs had lower rates of uninsurance than those with separate programs. Whether the choice of program model is really the source of these differences is uncertain, particularly given the small number of states in our sample. However, as discussed below, it appears to be at least a contributing factor.

Since Medicaid expansion SCHIP programs are fully integrated with the Title XIX Medicaid programs, they do not have the challenge that the separate SCHIP programs face of coordinating their eligibility and renewal systems with Medicaid (Rosenbach et al. 2003). This challenge can be quite significant. For example, the SCHIP and Medicaid enrollment data systems may differ in structure and be separately maintained, different forms may be used for redetermining eligibility, and different requirements may be imposed on families for submitting documentation (Wooldridge et al. 2003). As a result, the separate programs can be expected to have at least some difficulty ensuring that all children exiting SCHIP who are eligible for Medicaid actually find their way onto the program. This could lead to higher rates of uninsurance in these states.

Evidence from case studies conducted as part of this evaluation support this conclusion. In each of the separate states found to have high rates of uninsurance among disenrollees 6 months after leaving SCHIP (California, Colorado, and Texas), coordination with Medicaid was found to be a significant challenge to SCHIP and one that might easily reduce transition rates into Medicaid (Wooldridge et al. 2003). Quoting the report: “If a child enrolled in one program was found at redetermination [to be] eligible for the other program, it often meant that parents had to face additional steps, submit additional information, and sometimes appear for a face-to-face interview. If a family failed to abide by any of these additional requirements, their child/children might be disenrolled from coverage.”

Coverage differences in the two combination programs in the sample—Illinois and New Jersey—also support this conclusion (Table V.9). In both states, the rate of uninsurance 6

TABLE V.9
 COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER
 EXIT FOR TWO COMBINATION PROGRAMS
 (Percent)

	Illinois		New Jersey	
	Medicaid	Separate	Medicaid	Separate
Uninsured	9	36 **	32	42
Medicaid	71	35 **	38	20 **
SCHIP	8	12 **	12	11
Private	11	16 *	19	27 *
Other	1	1	0	0
Sample Size	274	84	144	155

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (disenrollee sample).

Notes: Regression models used to account for differences in demographic characteristics of disenrollees across states. Demographic characteristics include child’s race/ethnicity, age, health status, and gender; household’s location (urban/rural) income, structure, education level, employment, and number of children. Tests of significance compare the two program types within each state.

**p-value (of difference) <0.01; *p-value<0.05.

months after disenrollment from the Medicaid expansion component is lower than the rate for those in the separate component. In Illinois, this difference is very large and significant: only 9 percent of disenrollees from the Medicaid expansion component report being uninsured, compared to 36 percent of disenrollees from the separate component. Furthermore, as with the broader variation across states, differences in the rate of Medicaid transition play a key role. In Illinois, for example, rates of Medicaid entry are 71 percent for disenrollees from the Medicaid expansion component, compared to only 35 percent from the separate program. While much of this difference may be due to higher rates of Medicaid eligibility among those leaving the Medicaid expansion program, the pattern of coverage is nevertheless strikingly similar to what is seen more broadly between states adopting the two program models.

Significant coverage variation also is evident within separate programs, and this variation may be related to coordination between Medicaid and SCHIP. Considerable variation also is evident within the group of separate programs in the sample, which suggests that the program model is not the only factor that might contribute to coverage differences across states. In Florida, New York, and North Carolina, rates of uninsurance range from 23 to 32 percent, which are significantly below those of the three other separate states (Table V.8). As with the variation between different demographic groups, most of the variation between the separate program states can be linked to differences in rates of public coverage among the disenrollees. In North Carolina, for example, 48 percent of disenrollees reported transitioning to Medicaid within 6 months after exit, a rate comparable to that of Missouri. In Florida and New York, the rates of transfer to Medicaid are also high, at 32 and 35 percent. All these rates are above those found for the other three separate programs.

Many factors could contribute to the coverage variability among disenrollees from the separate programs and, given the limited number of states in the sample, it is not possible to

know which matter most. Nevertheless, evidence exists that program coordination might again be playing an important role. In North Carolina, for example, the SCHIP and Medicaid programs share the same data system, and the organization that reviews SCHIP applications and renewals is also responsible for Medicaid determination. This has allowed for good coordination between the state's Medicaid and SCHIP programs (Hawkes and Howell 2002), which in turn has likely benefited entry into the Medicaid program and possibly improved the overall rate of coverage in the state.⁵ In contrast, California's adoption of a checkbox for families to opt out of eligibility review for Medicaid has likely reduced the number of Medicaid referrals and possibly lowered the number of SCHIP disenrollees who transition into this program.⁶

Premium nonpayment is associated with higher rates of uninsurance but is not a major source of state variation in disenrollee coverage. In states with premium requirements, disenrollees whose families have been terminated because of failure to pay their premium have significantly higher rates of uninsurance than other disenrollees (48 versus 31 percent; see Figure V.1).⁷ There are at least two possible reasons for this finding. First, since relatively few of these children might be referred to Medicaid for an eligibility review, it may be more difficult for them to obtain Medicaid coverage when they are eligible. This is consistent with the relatively low rate of Medicaid coverage among these disenrollees (18 percent compared with 38

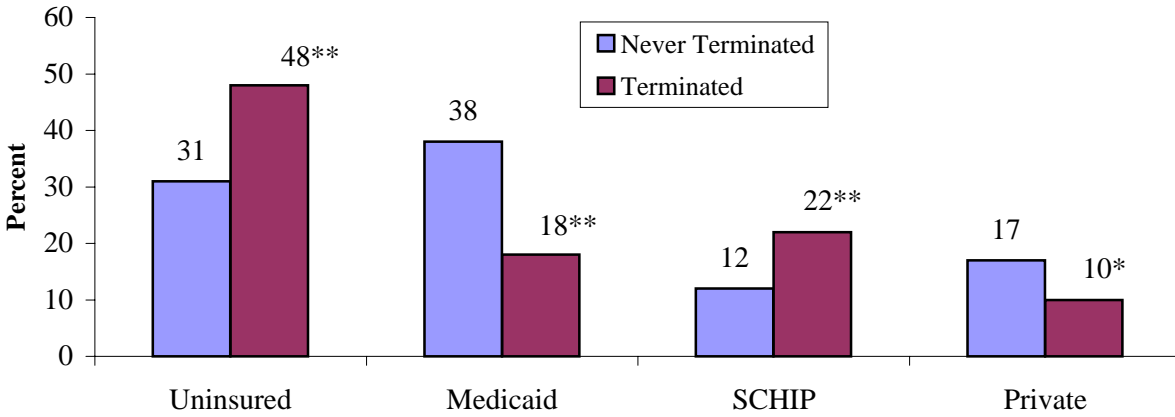
⁵ North Carolina was unique in that it froze enrollment from January to October 2001. This freeze might have altered the types of families that exited the program during our sample period (spring 2002) and possibly affected their transition rates into Medicaid. This highlights the many factors that might contribute to coverage differences across the states and the need for interpreting them cautiously.

⁶ This potential liability of the "checkbox policy" must be considered in light of the potential benefit the policy has on enrollment into SCHIP (by reducing the stigma some families might feel when applying for public coverage).

⁷ This measure is based on a survey question that asks: "Has the child's coverage ever been terminated because a premium was not paid on time?" While the question is not specific to the child's most recent disenrollment period, only a small fraction of disenrollees in the study sample (14 percent) experienced a prior disenrollment as well. Findings shown in Figure V.1 reflect all seven states with premiums. A sensitivity analysis based on administrative data in five states with reliable data on disenrollment reasons (California, Illinois, Missouri, New Jersey, and Texas) finds a similarly significant, positive relationship between nonpayment of premium and uninsurance (not shown).

FIGURE V.1

DISTRIBUTION OF COVERAGE AMONG SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY WHETHER COVERAGE WAS EVER TERMINATED DUE TO PREMIUM NONPAYMENT



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (disenrollee sample).

Notes: Sample limited to seven states with premium policies: California, Florida, Illinois, Missouri, New Jersey, New York, and Texas (N = 2,904). Regression models used to account for differences in demographic characteristics of disenrollees across states. Demographic characteristics include child's race/ethnicity, age, health status, and gender; household's location (urban/rural), income, structure, education level, employment, and number of children.

**p-value<0.01; *p-value<0.05.

percent among other disenrollees) and again illustrates the potential importance of coordination between Medicaid and SCHIP. Second, most children leaving SCHIP for this reason may remain SCHIP eligible, and a sizable fraction do return to the program. (This may explain why SCHIP coverage is relatively high among this group, 22 versus 12 percent, at the same time that their uninsurance rate is also high.) If true, it suggests that the cost of the premium, the adoption of blackout periods, or other factors might be keeping some otherwise eligible disenrollees from returning to SCHIP.

Despite these findings, premium nonpayment is not a major source for the cross-state variation seen in coverage, in part because it accounts for only a small share of all disenrollees in most states.⁸ Interestingly, Florida had easily the largest share of families who reported ever having left SCHIP due to premium nonpayment (49 percent), a rate that is nearly twice as high as any of other state.⁹ However, among the six separate states, Florida also had the lowest rate of uninsurance among SCHIP disenrollees (24 percent; see Table V.8), a result that underscores the lack of association between premium nonpayment and cross-state variation in disenrollee coverage.

C. SUMMARY

This chapter identifies several important sources of variation in the coverage of SCHIP disenrollees 6 months after they have left the program. Among demographic groups, Hispanic

⁸Of the seven states with a premium policy, only three had more than 10 percent of families report that their child(ren) had ever been disenrolled due to premium nonpayment—Florida (46 percent), California (27 percent), and Texas (15 percent). The remaining four states had frequencies of less than 10 percent, which is consistent with their use of premiums for only higher-income households (see Table V.1).

⁹Florida was unique among the 10 states in the use of a “passive renewal” policy at the time that the survey was conducted. Under this policy, families could continue to remain eligible for SCHIP at renewal unless they notified the state of a change in income or other determining factor that might make them ineligible. As a result of this policy, relatively few children left SCHIP due to a failure to renew and instead left for other reasons, including nonpayment of premium.

children and children age 18 or older are the most likely to be uninsured after they leave. Rates are particularly high for disenrollees in the 18-and-older group; about 65 percent are without coverage 6 months after leaving SCHIP, more than twice the rate of any other age group.

Differences across states suggest a link between SCHIP and Medicaid coordination and disenrollees' coverage. In the two states with a Medicaid expansion program—Louisiana and Missouri—SCHIP disenrollees are significantly less likely than those in the six separate programs to be without insurance 6 months after leaving SCHIP. Moreover, within the two combination programs, disenrollees from the Medicaid expansion component are less likely to be uninsured than those from the separate component (after controlling for demographic differences). In both instances, significantly higher Medicaid coverage is the main source of coverage differences, a result that underscores the potential value of coordination between programs.

Children who have been disenrolled from SCHIP because of premium nonpayment are more likely to be uninsured. Except for Florida, this group makes up only a small fraction of the disenrollees in the study states, and it does not appear to be a source for the substantial variation seen in cross-state coverage among disenrollees.

Findings, particularly at the state level, must be viewed with caution because of the modest number of states examined for this study and the wide range of factors that can contribute to potential differences across groups. Nevertheless, when taken together, they suggest that effective coordination can help reduce the number of children who are uninsured after they leave SCHIP.

APPENDIX

CHAPTER V SUPPLEMENTAL TABLES

APPENDIX TABLE V.1

COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT,
BY RACE/ETHNICITY AND LANGUAGE (REGRESSION-ADJUSTED)
(Percent)

	Hispanic		Non-Hispanic			
	English- Language	Spanish- Language	White ^a	Black	Other	Non-English- Speaking (All)
Uninsured	35	34	30	33	43	42
Medicaid	40 **	39 *	30	33	32	40
SCHIP	12	14	16	15	13	14
Private	13 **	12 **	22	18	12 *	4 **
Other	1	2	2	3	0 *	-1 **
Sample Size	452	558	1,384	617	150	86

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (disenrollee sample).

Note: Estimates have been regression-adjusted to account for state of residence and other differences in demographic characteristics, including child's age, health status, and gender; and household's location (urban/rural), income, structure, education level, employment, and number of children.

^a“White” (English speaking non-Hispanic) is the reference category for tests of significance.

**p-value (of difference) <0.01; *p-value<0.05.

APPENDIX TABLE V.2

COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT,
 BY AGE OF CHILD (REGRESSION-ADJUSTED)
 (Percent)

	Age			
	0 to 5	6 to 12 ^a	13 to 17	18 and Older
Uninsured	24	29	34 *	65 **
Medicaid	42	38	35	11 **
SCHIP	13	16	18	6 **
Private	20	16	11 *	15
Other	2	1	1	2
Sample Size	660	1,446	801	428

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (disenrollee sample).

Note: Estimates have been regression-adjusted to account for state of residence and other differences in demographic characteristics, including child's race/ethnicity, health status, and gender; and household's location (urban/rural), income, structure, education level, employment, and number of children.

^a“Age 6 to 12” is the reference category for tests of significance.

**p-value (of difference) <0.01; *p-value<0.05.

APPENDIX TABLE V.3

COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT,
 BY URBAN/RURAL COUNTY (REGRESSION-ADJUSTED)
 (Percent)

	Metro County ^a	Adjacent to Metro	Rural County
Uninsured	34	35	25 **
Medicaid	34	36	45 **
SCHIP	14	13	16
Private	16	13 *	14
Other	2	2	1
Sample Size	2,551	418	366

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (disenrollee sample).

Note: Estimates have been regression-adjusted to account for state of residence and other differences in demographic characteristics, including child's race/ethnicity, age, health status, and gender; and household's income, structure, education level, employment, and number of children.

^a“Metro” is the reference category for tests of significance.

**p-value (of difference) <0.01; *p-value<0.05.

APPENDIX TABLE V.4

COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT,
BY HIGHEST EDUCATION OF PARENT(S) (REGRESSION-ADJUSTED)
(Percent)

	Less than High School	High School ^a	More than High School
Uninsured	36	36	30*
Medicaid	36	33	36
SCHIP	13	16	14
Private	13	14	19
Other	2	1	1
Sample Size	617	1,210	1,427

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (disenrollee sample).

Note: Estimates have been regression-adjusted to account for state of residence and other differences in demographic characteristics, including child's race/ethnicity, age, health status, and gender; and household's location (urban/rural), income, structure, employment, and number of children.

^a“High School” is the reference category for tests of significance.

**p-value (of difference) <0.01; *p-value<0.05.

APPENDIX TABLE V.5

COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY HOUSEHOLD
STRUCTURE AND EMPLOYMENT (REGRESSION-ADJUSTED)
(Percent)

	Two Parents			One Parent	
	Both Working ^a	One Working	Neither Working	Working	Nonworking
Uninsured	37	34	21 **	33	25 *
Medicaid	30	32	47 *	37 **	50 **
SCHIP	13	17	18	15	9
Private	19	15 *	13 *	14 **	14
Other	2	1	1 *	1 *	2
Sample Size	682	708	77	895	217

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (disenrollee sample).

Note: Estimates have been regression-adjusted to account for state of residence and other differences in demographic characteristics, including child's race/ethnicity, age, health status, and gender; and household's location (urban/rural), income, education level, and number of children.

^a“Two Parents/Both Working” is the reference category for tests of significance.

**p-value (of difference) <0.01; *p-value<0.05.

APPENDIX TABLE V.6

COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT,
 BY HOUSEHOLD INCOME (REGRESSION-ADJUSTED)
 (Percent)

	Below 150% FPL ^a	150 to 200% FPL	Above 200% FPL
Uninsured	33	36	35
Medicaid	41	22 **	15 **
SCHIP	14	19	10
Private	11	20 **	38 **
Other	1	2	2
Sample Size	2,211	503	375

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (disenrollee sample).

Note: Estimates have been regression-adjusted to account for state of residence and other differences in demographic characteristics, including child's race/ethnicity, age, health status, and gender; and household's location (urban/rural), income, structure, employment, and number of children.

^a“Below 150%” is the reference category for tests of significance.

**p-value (of difference) <0.01; *p-value<0.05.

FPL = federal poverty level.

APPENDIX TABLE V.7

COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT, BY STATE (NOT REGRESSION-ADJUSTED)
(Percent)

	Separate Programs										Combination				Medicaid	
	CA	CO	FL	NY	NC	TX	IL	NJ	LA	MO	IL	NJ	LA	MO		
Uninsured	49 **	43 **	23 **	32	31	41 *	14 **	42 *	25 *	9 **						
Medicaid	17 **	25 **	33	30	48 **	36	64 **	21 **	67 **	51 **						
SCHIP	10 **	13	26 **	14	10	13	10 *	10 *	3 **	25 **						
Private	19	19	18	24 **	12	9 **	10 *	27 **	3 **	15						
Other	5 **	0 **	1	0 **	0 **	1	1	0 *	0	0 **						
Sample Size	320	290	335	322	321	290	358	299	398	402						

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (disenrollee sample).

Note: Tests of significance based on comparing each individual state to the mean for all other states.

**p-value (of difference) <0.01; *p-value<0.05.

APPENDIX TABLE V.8

COVERAGE OF SCHIP DISENROLLEES 6 MONTHS AFTER EXIT FOR TWO
COMBINATION PROGRAMS (NOT REGRESSION-ADJUSTED)
(Percent)

	Illinois		New Jersey	
	Medicaid	Separate	Medicaid	Separate
Uninsured	9 **	33	41	38
Medicaid	74 **	31	31	14 **
SCHIP	9 **	14	9	10
Private	7 **	21	18	37 **
Other	91	1	0 **	1
Sample Size	274	84	144	155

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (disenrollee sample).

Notes: Tests of significance compare the two program types within each state.

**p-value (of difference) <0.01; *p-value<0.05.

VI. THE RELATIONSHIP BETWEEN SCHIP AND PRIVATE COVERAGE AMONG SCHIP ENROLLEES

Anna Sommers
Stephen Zuckerman
Lisa Dubay

The primary goal of SCHIP is to provide health insurance to uninsured low-income children who are not eligible for Medicaid. As discussed in Chapter I, analysis of enrollees in the 10 study states shows that 60 percent of newly enrolled children lacked any coverage just before enrolling in SCHIP. However, enactment of SCHIP was accompanied by policymakers' concerns that the coverage, instead of only providing coverage to children who are uninsured, might become a substitute for private coverage, especially for employer-based coverage. Some parents who insure their children through employer coverage may drop this coverage to enroll their children in SCHIP. Such "crowding out," or "substitution," of private coverage for public coverage would raise the cost of the SCHIP program but have no effect on the rate of uninsurance for eligible children.¹ In this chapter, we explore the extent of substitution of SCHIP for private coverage.

Trends in coverage during the past 5 years suggest that SCHIP and Medicaid have made significant inroads covering uninsured children. Since SCHIP was implemented, the rate of uninsurance for near-poor children (those in families with incomes between 100 and 200 percent of the federal poverty level) has fallen substantially, from 23.3 percent in 1996 to 17.5 percent in 2000, while the share of near-poor children covered by Medicaid or SCHIP has risen from 16.2 to 23.8 percent (Dubay et al. 2002b). More recent trends reveal a similar story, with the proportion of near-poor uninsured children decreasing from 17.0 in 2001 to 14.7 percent by 2003

¹ Throughout this chapter, we refer to "crowdout" as "substitution."

(Cohen and Coriaty-Nelson 2004). The general downward trend in uninsurance suggests that SCHIP is reaching its target population.

Nonetheless, given the increasing cost of dependent coverage in employer plans, concern about substitution is warranted. In 2002 (the year the survey used in this study was fielded), the average total monthly premium for family coverage was \$663—an increase of 13 percent from 2001—and the average employee cost share for this family coverage was \$174 per month (Gabel et al. 2002). In addition, many employers have reported, and continue to report, increased cost sharing through higher co-payments and deductibles (Gabel et al. 2002; Gabel et al. 2003; and Strunk and Ginsburg 2003), making the cost particularly difficult for low-income families with children who have ongoing health care needs.² Given the low overall costs families face under SCHIP, some may have an incentive to forgo employer-based coverage and enroll their children in SCHIP.³

Previous literature shows that some families substitute Medicaid or SCHIP for employer-based coverage. The challenge for policymakers is to find a balance between promoting continuity of care and improved access for all low-income children and constraining substitution. Substitution reduces the cost-effectiveness of the programs, because some of the dollars go to those who were already insured or are forgoing private coverage rather than to the uninsured. However, there may be benefits to insuring these children under SCHIP or Medicaid instead of employer-based insurance. Low-income families with substantial costs in employer plans have lower overall costs under SCHIP and—due to reduced costs at the time of service—could have

² Davidoff (2004) estimates that the premiums for private coverage among families of children with special health care needs are \$40 higher, on average, than for families with healthier children. In addition, of all low-income families with a child with special health care needs who was insured by a public or private program for the full year, 14 percent reported out-of-pocket spending for the family of more than \$2,000, and 20 percent reported some type of unmet need for their child.

³ Title XXI legislation mandates that premiums or co-payments that states impose on families who enroll their children in SCHIP are not allowed to exceed five percent of a family's income.

more continuous and comprehensive coverage for their children on SCHIP (Dubay and Kenney 2001). This research also has shown that low-income children on Medicaid have greater access to medical care than low-income children covered by private plans. Moreover, benefits may be greatest for families of children with chronic health care needs, who incur high out-of-pocket costs through employer plans (Davidoff 2004).

Unlike previous expansions of Medicaid, the SCHIP legislation explicitly required states to try to prevent substitution of SCHIP for group health insurance plan coverage. States have taken different approaches, including (1) asking on applications if children had employer-based coverage and monitoring reports of coverage, (2) adopting waiting periods for children with private coverage, and (3) imposing cost sharing (Hill et al. 2003). States that implemented SCHIP through Medicaid expansions could not use waiting periods or other tools to limit substitution without a waiver. Table VI.1 presents an overview of state strategies for the 10 study states.

Policies affecting substitution inevitably involve trade-offs. For example, waiting periods may discourage voluntary transitions from employer-based coverage, but they also may produce uninsured periods for children satisfying waiting periods. Some states have allowed enrollment of children with access to employer plans because of expected or reported costs that are treated as unaffordable. For example, of the eight states in our study with waiting periods at some time, New Jersey exempts families at or below 200 percent of the federal poverty level, North Carolina exempts children with special health care needs, and Texas exempts children whose premium costs exceed 10 percent of total family income (Hill et al. 2003). In addition, Illinois and New Jersey established premium assistance programs to encourage families to keep employer-based coverage while reducing overall costs to these families.

TABLE VI.1
STATE SCHIP POLICIES AFFECTING SUBSTITUTION

State	Waiting Period (in Months)	Monitoring	Application Questions	Imposing Obligations on Employers and/or Insurers	Other
California	3	x	X	x	
Colorado	3	x	X		Limitation of benefits package
Florida	0	x	X		“Open enrollment” period
Illinois	3	x	X		Premium assistance program
Louisiana	^b	x	X		
Missouri ^a	6	x	X		Verifying insurance status against a database of private coverage/price quotes
New Jersey	^c	x	X		Limitation of benefits package Premium assistance program
New York	0	x	X		
North Carolina	^d	x	X		
Texas	3	x	X		
Number States with Policy	6	10	10	1	6

Source: Case studies of 10 study states, 2001, documented in Hill et al. (2003).

^aMissouri received a waiver to allow it to apply a waiting period.

^bLouisiana had a 3-month waiting period until January 2001.

^cNew Jersey had a 12-month waiting period until January 1999.

^dNorth Carolina had a 2-month waiting period until January 2002 (during the first 6 months of the program, the waiting period was 6 months).

For the most part, states have been concerned about substitution of SCHIP coverage at the time of application, when families who could have kept their employer-based coverage drop it because SCHIP is available (Hill et al. 2003). However, substitution can also potentially occur after the child enrolls in SCHIP. Substitution could happen if a parent receives an offer of employer-based coverage after enrollment, then chooses to take up the insurance for themselves but keeps the child enrolled in SCHIP.⁴ Because a child's potential to be covered under an employer plan may change after enrollment, it is important to begin to study this aspect of substitution to better understand its implications for state policy.

In this chapter, we briefly review the previous literature on substitution of public for private health insurance coverage. We then explore two types of substitution. First, we estimate substitution at the time of enrollment using the experience recent enrollees had with private coverage in the 6 months before enrolling in SCHIP. Second, we estimate the potential for substitution after enrollment using data on established SCHIP enrollees who have been enrolled for at least 5 months. We present results for all 10 states pooled together and show that most SCHIP enrollees do not have access to affordable employer-based coverage. We conclude with a discussion of our findings, which are summarized here:

- During the 6 months before enrolling in SCHIP, 43 percent of recent enrollees were uninsured for all 6 months, 29 percent had Medicaid, and 28 percent had private coverage for some period. Thus, 72 percent of new enrollees could not have substituted SCHIP for private coverage at the time of enrollment.
- About 14 percent of recent SCHIP enrollees had private coverage before enrollment that could have been retained, but half the parents in this group dropped this private coverage because they reported it was too expensive.

⁴ As noted previously, SCHIP legislation requires states to try to prevent substitution of group health insurance coverage, not private coverage more generally. Substitution also can occur at the firm level when employers, to reduce their costs, either drop coverage or increase employee contributions, thus encouraging low-income employees to enroll in SCHIP. In addition, new low-wage firms entering the market may choose not to contribute to family coverage.

- Among established SCHIP enrollees who had been on the program for at least 6 months, 39 percent had parents who were covered by an employer plan at the time of the survey.
- Between 28 and 36 percent of established enrollees had a parent in an employer plan and may be forgoing coverage for their child based on the employer contribution to the premium and the child's health status.

A. PREVIOUS RESEARCH ON SUBSTITUTION OF SCHIP

Concern about substitution under SCHIP stems in part from studies of the Medicaid expansions of the late 1980s and early 1990s. These studies suggest that some of the Medicaid enrollment increases during this period were attributable to substitution (Cutler and Gruber 1996; Dubay and Kenney 1996; Blumberg et al. 2000; Thorpe and Florence 1998; and Yazici and Kaestner 2000). There was also concern that substitution would be higher under SCHIP, because families of SCHIP-eligible children have higher income and greater access to employer-based coverage (Dubay 1999). A recent study showed that about half of near-poor children had private coverage when SCHIP was being implemented, whereas only about 20 percent of poor children had private coverage (Holahan et al. 2003). Therefore, the potential for substitution in SCHIP should be higher than it is for Medicaid.

Previous research examining substitution of SCHIP for private coverage has used two basic approaches. The first, which is population-based, generally does not observe individual-level transitions in coverage. Instead, it estimates substitution based primarily on differences in insurance trends between SCHIP-eligible children and a comparison group. This comparison group provides a counterfactual to measure what coverage children might have had if SCHIP were not available. Usually, cross-sectional data for several points in time are used to estimate insurance trends for both groups. The second approach draws on surveys of enrollees and their parents. These studies derive estimates of substitution from reports of each enrollee's coverage

experience during a period before enrollment or of the family's access to employer-based coverage after enrollment.

Using the population-based approach, researchers derive estimates of the extent of substitution of public for private coverage by comparing increases in public coverage and decreases in private coverage among children eligible for the public program to those in a comparison group. Comparison groups might be children with family incomes just over SCHIP income eligibility thresholds, parents of eligible children, or children from otherwise comparable states. By netting out the trends for a comparison group, this methodology attempts to control for changes in other factors occurring at the same time that were unrelated to the expansions in coverage, such as economic downturns, benefit cutbacks, or increases in premiums.

An advantage of the population-based approach is that it reflects substitution from all sources. One disadvantage is that it usually relies on the experience of higher-income families or residents of other states to predict what would have happened to SCHIP-eligible children if the program were not available. If the comparison group fundamentally differs from the SCHIP-eligible group in unmeasured ways that are correlated with insurance coverage, the estimates would be biased. For example, higher-income families may have greater job stability or may work in occupations that offer better benefits, leading to higher rates of coverage. A more fundamental limitation of such studies is that individual-level insurance transitions cannot be observed. Therefore, researchers must estimate the net effects of aggregate shifts across types of insurance and infer what is being suggested about substitution. Finally, it has been difficult to compare estimates of substitution across population-based studies, since they often estimate different effects (Dubay 1999; and Davidson et al. 2004).

Using the enrollee-based approach, the study population is SCHIP enrollees, not the full SCHIP-eligible population. In these studies, parents report on the coverage of enrollees for a

specific period before enrollment. Substitution is calculated as the proportion of enrollees who voluntarily disenrolled from an employer plan to join SCHIP. Estimates can be affected by the length of the period before enrollment (a longer period yields higher estimates) and how voluntary disenrollment is defined.

The main advantage of enrollee-based studies is that transitions between private coverage, uninsurance, and public programs among children enrolled in SCHIP, reasons for enrollment, and reasons for losing or dropping private coverage can be observed. All these factors can be used to develop and refine estimates of substitution. The use of survey data also provides the opportunity to look at employer-based coverage for parents of enrollees. A disadvantage is that estimates derived from such studies have no counterfactual that suggests how parents would have behaved if SCHIP were not available. By focusing only on the experience of children who enroll in the program, these studies cannot determine how secular trends related to changes in unemployment or growth in health care costs would affect substitution.

Population-based studies of SCHIP estimate that substitution of SCHIP for employer-based coverage is responsible for between 20 and 60 percent of the increase in SCHIP enrollment.⁵ For example, LoSasso and Buchmueller (2004) report that from 0 to 50 percent of children whose family incomes are between 100 and 200 percent of the federal poverty level would have had private coverage if SCHIP were not available. Dubay and Kenney (2004) report between 30 and 44 percent for the same group, and Cunningham et al. (2002) put the estimate at 39 percent. However, the last estimate did not account for changes in Medicaid/SCHIP coverage over time attributable to secular trends observed in the comparison group and, thus, probably understates

⁵ This wide range in estimates is primarily attributed to variation in comparison groups or the use of implicit comparison groups, although LoSasso and Buchmueller (2004) make additional assumptions about the misreporting of nongroup private coverage that leads to a lower range of substitution estimates.

substitution. Estimates from these population-based studies are wide-ranging but suggest that some amount of substitution is occurring.

Four enrollee-based studies have examined substitution in SCHIP. Shenkman et al. (2002) first analyzed trends over time in Florida's state insurance program for children, KidCare, including the SCHIP component. They report rates of private coverage among children in the 12 months before enrollment of under 25 percent. Data on why parents dropped employer-based coverage were not collected. Rates of prior private coverage are not viewed as estimates of substitution, because they do not indicate if the child could have kept that coverage if SCHIP were not available. However, they can be used as an upper bound for substitution taking place at the time of enrollment, by assuming that only those children who actually had private coverage before SCHIP would continue to have it if the program were not available.

Shenkman et al. (2002) then measured substitution after enrollment as the proportion of SCHIP enrollees with a parent reporting eligibility for employer-based family coverage at the time of the survey. Their estimates ranged from 23 to 35 percent in 2001, depending on the KidCare eligibility category (Shenkman et al. 2002). Including all children eligible for family coverage in an estimate of substitution after enrollment results in an overestimate, however, because some families might not be willing or able to take up the family option even if SCHIP were not available. In fact, the authors reported that, on average, 53 percent of these families had not covered their children with this option in the year before enrollment, even though it was available. Two-thirds of this group reported the coverage was "too expensive." Thus, substitution was likely considerably lower than the range of 23 to 35 percent reported in this study.

A 2003 Florida KidCare evaluation found that 18 percent of new enrollees had a parent with current access to family coverage (Nogle and Shenkman 2004). However, only 37 percent of

these children had been covered by the plan sometime in the 12 months before enrollment. Among established enrollees with incomes between 150 and 200 percent of poverty, between 20 and 29 percent had access to employer-based family coverage at the time of the survey. However, the proportion of these children with a parent actually enrolled in the employer plan was not reported.

In a study of the Kansas SCHIP program, authors report that 51 percent of newly enrolled SCHIP children were eligible for employer-based insurance at the time of the survey (Allison et al. 2003). This estimate includes families where the parent did not participate in the plan. If parents do not participate in the plan, this is evidence that they would not have covered the children if SCHIP were not available and are not substituting SCHIP for private coverage. The cost to cover dependents is usually higher than the cost of covering the worker alone, and it seems unlikely that these families would cover their child if they do not currently cover themselves. Only 36 percent of these enrollees had a parent currently enrolled in the plan (Allison et al. 2003).

In a study of California's SCHIP program, Healthy Families, Hughes et al. (2002) estimated that eight percent of families with newly enrolled children reportedly had employer-based insurance within 3 months before enrollment and dropped it voluntarily or for unknown reasons. Many parents of these children kept employer-based insurance for themselves (Hughes et al. 2002). Since this estimate excludes families that lost employer coverage for reasons outside their control, it is a reasonable estimate of substitution at the time of enrollment for this state.

Our analysis is an extension of the approaches taken in the evaluations of California's and Florida's state SCHIP programs (Hughes et al. 2002; Shenkman et al. 2002; and Nogle and Shenkman 2004). As in these studies, we use an enrollee-based approach. We draw on data from this study's 10-state survey, which represents more than 60 percent of SCHIP enrollment

nationwide. Our study relies on two separate enrollee samples to provide (1) an estimate of substitution at the time of enrollment among recent SCHIP enrollees, and (2) the potential for substitution after enrollment among established enrollees. Our first analysis is similar to the Hughes et al. (2002) approach in that we observe enrollee coverage 6 months before enrollment and restrict substitution to the proportion whose parents dropped coverage voluntarily.⁶ In our second analysis, we estimate the share of established SCHIP enrollees who are potentially substituting SCHIP for dependent coverage available through a parent's employer plan.⁷ This approach is similar to the approach taken in the Florida KidCare evaluation, but our measure of access to employer-based coverage is the proportion of enrollees with parents actually enrolled in an employer plan at the time of the survey. Given that so many parents reported by Shenkman et al. (2002) to have access to employer-based coverage also reported that the coverage was too expensive and that they had not covered their children, we expect this second approach to provide an upper bound of the number of enrollees whose families would have enrolled the child in their employer plan if SCHIP were not available. Next, we describe methods for both analyses in further detail.

B. METHODS

Substitution at the Time of Enrollment. We first present data on all possible types of prior insurance coverage—private insurance (employer or nongroup insurance), Medicaid, and no coverage (children who came from a 6-month period without any coverage). We could not distinguish between private coverage purchased through an employer and nongroup coverage for

⁶ This component of the analysis is based on a sample of 5,267 recent SCHIP enrollees, excluding 160 cases reported to be disenrolled at the time of the interview, for whom prior coverage is not known.

⁷ This component of the analysis is based on a sample of 4,705 established enrollees on the program for 5 months or longer and still enrolled in the program at the time of the interview. All enrollees sampled as established but who had disenrolled by the time of the interview (N = 838) were excluded.

all cases.⁸ However, based on the federal SCHIP statute, moving from nongroup private coverage to SCHIP is not considered substitution. By focusing on all private coverage, our methods may slightly overstate substitution for employer-based coverage, but not by much. Based on all enrollees who report a specific type of coverage, only about five percent report nongroup coverage. This represents only two percent of all recent enrollees in our sample, so our estimates predominantly reflect changes in access to employer-based coverage.

Not all children who had private coverage during the 6 months before enrolling in SCHIP could keep that coverage. For example, some parents reported loss of employer-based coverage because they lost a job, the employer stopped offering coverage, or the family composition changed (for example, due to divorce or a death in the family). These children are not considered to contribute to substitution, because all states waive the requirement of a waiting period for families that can demonstrate that a child's coverage was lost because of a job loss or related change (Hill et al. 2003). The survey included questions about why the children reported to have coverage in the 6 months before enrollment in SCHIP were no longer covered. In our estimates of substitution, we exclude children whose private coverage ended for reasons beyond their control.

There are also many children whose parents report that their private coverage was unaffordable or too expensive. The family's perspective on affordability of private coverage is an important factor, because it may play a key role in determining their behavior if SCHIP were not available. However, since some portion of these families may simply be reporting that SCHIP was cheaper than their previous coverage and that they have made a voluntary choice available to them under program rules, excluding all these children may understate substitution.

⁸ In Colorado, New York, and Texas, where Medicaid enrollment files were not available, we imputed public and private coverage for a portion of the cases. Appendix C describes methods used to obtain prior insurance status estimates.

Therefore, to achieve a lower-bound estimate of substitution, we exclude children whose parents viewed their prior coverage as unaffordable.

Potential Substitution Among Established Enrollees. The second way in which we evaluate the relationship between SCHIP and private coverage is based on a broad definition of substitution that represents the forgone alternatives of those who remain on SCHIP. The estimates we produce measure the share of established enrollees who could be covered by employer-based coverage through their parents if SCHIP were not available. This estimate cannot be measured directly, so we present alternative estimates based on several assumptions. We focus only on employer-based insurance, because the marginal cost of covering children through a nongroup policy is prohibitive for many low-income families, and SCHIP legislation does not consider it a source of substitution.⁹

We begin by documenting the coverage options established enrollees might be forgoing by examining the proportion of enrollees who have parents with employer-based insurance at the time of the survey. The analysis assumes that, if parents were offered employer-based coverage but did not enroll, they would not have enrolled their children in employer coverage if SCHIP were not available. Parents were not asked about the availability of family or dependent coverage. However, previous research indicates that only about six percent of employers offer insurance to their employees but do not provide dependent coverage (Employee Benefit Research Institute 2002). Therefore, we assume that families with a parent covered by employer-based coverage can also enroll their children. Nonetheless, not all parents with employer-based coverage would have enrolled their child in their employer plan if SCHIP were not available, because some parents would choose to leave their child uninsured rather than pay the price of

⁹ We determined insurance status of parents from self-report by the parent responding. Unlike prior coverage of recent enrollees, no cases were imputed, and the survey included separate categories for insurance through employer and nongroup policies.

buying dependent coverage. As noted earlier, these costs can be considerable. Therefore, an estimate of substitution based solely on the proportion of enrollees with parents who have employer-based coverage would overstate substitution after enrollment.

To account for this, we develop alternative substitution estimates that take into account the costs to the family of covering the child. To assess affordability, we collected data about the share of the premium paid by the employer, as well as the child's health status. For premiums, parents report whether the employer pays all, some, or none of the premium.¹⁰ We use data on employer contributions as proxy measures of the cost of covering the child under their parent's plan. We assume that the costs of employer-based coverage for a child would be highest when the employer pays none of the premium, and, because of the difficulty of affording the full cost of dependent coverage at this income level, parents in this situation would be unlikely to cover their child.

As the employer's share increases from some of the premium to all of it, we expect the probability of the parent potentially covering the child if SCHIP were not available to increase. Even if the employer pays the entire premium or a large share of it, however, some parents still would not cover their children if SCHIP were not available because they could still have out-of-pocket costs associated with meeting their children's health care needs. It is impossible to know what share of these parents would not cover their children. Because the share is certainly greater than zero, assuming none of these parents would have covered their children if SCHIP were not available would underestimate substitution.

¹⁰ These responses should be interpreted cautiously. Some workers may not know the nature of employer contributions to premiums. In addition, some employers may pay the full premium for coverage of the worker but contribute nothing to dependent premiums. Based on the survey question, we cannot be certain whether parents were referring to individual or dependent coverage. As such, we could be overstating the degree to which employers contribute to the cost of covering children.

Some of the parents whose employer pays all or some of the premium will have out-of-pocket costs. Out-of-pocket costs will be higher for children who use more health care services because they have greater health care needs. Within any level of employer premium contribution, greater health care needs will make the option of having employer-based coverage more expensive than it is for parents of healthier children. We present two alternative estimates of substitution dependent on the expectation of high costs in the employer market.

To do this, we define two levels of health care needs: (1) children with *elevated health care needs*;¹¹ and (2) children with *severe needs*, who have elevated health care needs and are in fair or poor health. Within either of the groups defined according to whether the employer pays some or all of the premium, children with greater health care needs will probably require higher out-of-pocket expenses. Therefore, in addition to children whose parents' employer pays none of the premium, we calculate alternative substitution estimates that exclude the children with elevated or severe health care needs whose parents receive a partial or complete contribution to the premium. These adjustments produce a range of estimates of the degree of substitution among established enrollees that better reflects the full range of expenses families would be expected to have if they choose employer-based insurance. These estimates are intended to distinguish groups of enrollees whose substitution for employer-based coverage is potentially less problematic from a policy standpoint. In summary, our estimates of substitution after enrollment apply increasingly strict criteria to the definition of substitution:

- Children with parents covered by employer-based insurance and where the employer pays some or all of the premium
- Children with parents covered by employer-based insurance, where the employer pays some or all of the premium and where the child does not have severe need for medical care

¹¹ See Appendix C for our definition of children with elevated health care needs.

- Children with parents covered by employer-based insurance, where the employer pays some or all of the premium and where the child does not have *severe or elevated* need for medical care

Interpreting Estimates Based on Recent and Established Enrollees. Because we provide two estimates of substitution, readers might assume there is a means to combine them to achieve an overall estimate of substitution. However, we do not have enough information to combine them.¹² Adding them together would overstate substitution, because we can be confident there is overlap between these two estimates. That is, some portion of the recent enrollees who voluntarily left private coverage probably retained or gained access to a parent’s employer coverage after enrollment, but we do not know how large the overlap is. Taking a weighted average of the two estimates would result in an estimate somewhere between the two, but we do not have enough information to determine the weights. Due to these limitations, the two estimates we produce must be viewed simply as two cross-sectional perspectives on substitution.

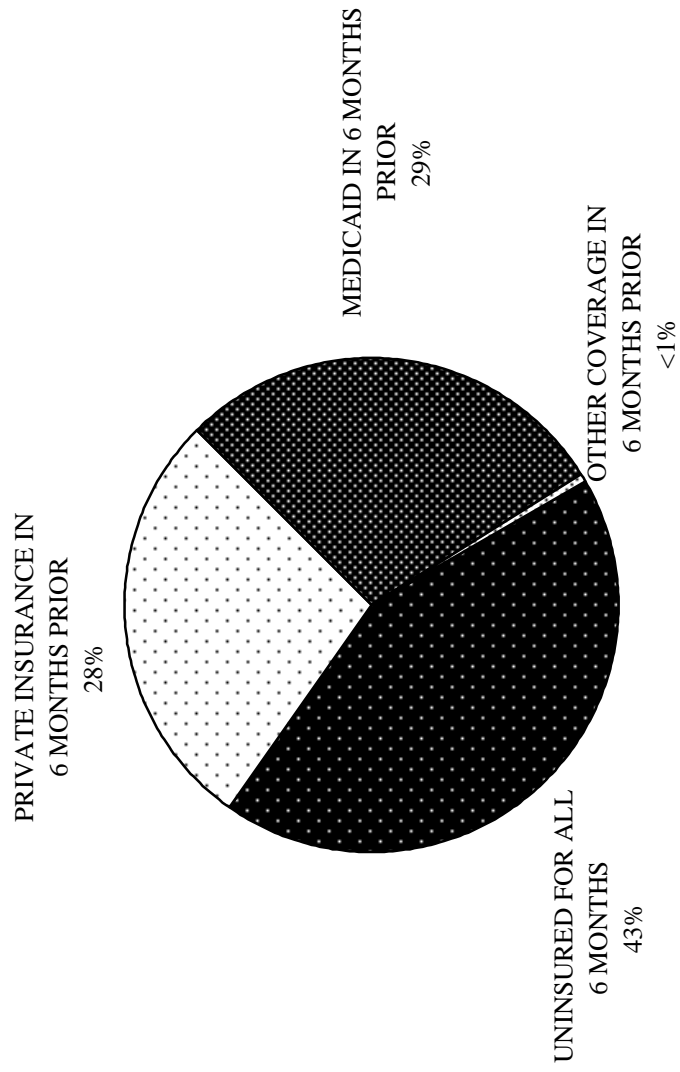
C. HEALTH INSURANCE COVERAGE BEFORE ENROLLMENT

This section examines the types of coverage children had before enrolling in SCHIP and, for private coverage, the reasons that coverage ended. Figure VI.1 shows the distribution of insurance coverage that recent SCHIP enrollees had in the 6 months before joining the program. Across all 10 states, 43 percent of new enrollees were uninsured for the entire 6 months before enrolling in SCHIP, while Medicaid covered 29 percent.¹³ This means that 72 percent of new

¹² A longitudinal survey would be required to create an overall estimate of substitution. Such a survey could track information on the child’s coverage before enrollment and parental coverage from the time a child enrolls until the child leaves SCHIP. With this approach, one could estimate the number of months each sampled enrollee substituted coverage relative to the total number of months each child was enrolled.

¹³ These estimates omit from the denominator children with prior SCHIP. About six percent of enrollees reported coverage from SCHIP in that 6-month period, but this estimate varies substantially across states. Including the children reenrolling in SCHIP in the denominator, 26 percent of recent enrollees moved from private insurance to SCHIP.

FIGURE VI.1
COVERAGE OF RECENT ENROLLEES DURING 6 MONTHS BEFORE ENROLLMENT



Source: State enrollment data files and 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (recent enrollees, N = 5,009).

enrollees could not have been substituting SCHIP for private coverage. Only 28 percent of recent enrollees had private coverage (mostly through employers) at some point in the 6 months before they enrolled in SCHIP.

The percentage of enrollees who had private coverage during the 6 months before enrolling in SCHIP (28 percent) could serve as an upper-bound estimate of the extent of substitution. That assumes, however, that all these children could have kept private coverage, and this is not the case. To estimate the extent of substitution among new enrollees, we need to distinguish between those with private coverage whose parents dropped it voluntarily and those whose parents dropped it involuntarily. We do this by examining the reasons parents report a child's private insurance coverage ended before enrolling in SCHIP. Table VI.2 lists these reasons. Reasons classified as involuntary (column 2) imply that the child would not have been able to keep his or her private coverage. About half of these new enrollees whose private coverage ended during the 6 months before joining SCHIP lost their coverage involuntarily because their parent lost or changed jobs, their employer dropped coverage, or because of a change in family structure, such as death or a divorce (Table VI.2). This implies that about 14 percent of all new enrollees (half of the 28 percent who had prior private coverage) voluntarily moved directly onto SCHIP from private coverage.

The next largest set of reasons given for ending private coverage before enrolling in SCHIP is related to the affordability of the private coverage. Of recent enrollees whose private coverage ended, 28 percent (8 percent of all recent enrollees) cited affordability. Some of the families of these enrollees might have dropped the coverage even if SCHIP were not available and thus should not contribute to substitution. Omitting these children from the substitution estimate produces a lower bound of only seven percent of recent enrollees who voluntarily moved onto SCHIP from private coverage.

TABLE VI.2

MAIN REASON COVERAGE ENDED AMONG RECENT ENROLLEES
WITH PRIOR PRIVATE COVERAGE

Reason Coverage Ended	Classification	Percent of Enrollees with Prior Private Coverage	Percent of All Recent Enrollees
Employment or Benefit Loss/Change	Involuntary	46.8	13.0
Lost job/changed employers		41.5	
No one in family employed		1.2	
No employer offering		0.9	
Employer stopped offer		1.9	
Former employer benefit ran out		0.6	
Noncustodial parent stopped coverage or support		0.1	
Disabled/injured parent		0.6	
Family Structure Change/Loss of Parent	Involuntary	2.2	0.6
Divorce/separation/death of spouse/retired/single parent		1.5	
Other family structure/custody change		0.1	
Child too old to be eligible (for Medicaid)		0.7	
Affordability	Depends on state policy	27.7	7.7
Cost too high/can't afford premium/SCHIP more affordable		27.2	
Enrolled in SCHIP to help pay bills		0.1	
Self-employed		0.4	
Preference for SCHIP/Dislike of Other Insurance	Voluntary	6.3	1.8
Ended previous coverage to get SCHIP		1.7	
Prefer SCHIP/other family member already enrolled		1.7	
Enrolled in SCHIP because better coverage/extra coverage		0.5	
Did not like insurance employer offers		0.9	
Services not available/specific benefit or need mentioned		1.2	
Job coverage changed (no mention of benefit loss)		0.2	
Miscellaneous	Voluntary	16.9	4.7
Moved/relocated		0.9	
Refused due to preexisting condition		0.3	
Did not know how to get (any insurance)		0.2	
Coverage ended—no other reason given		0.4	
Enrolled in SCHIP based on provider/agency recommendation		0.4	
Enrolled in SCHIP because wanted child to be insured		9.6	
No longer eligible for Medicaid/SCHIP		3.3	
Failed to reapply		0.1	
Forgot to pay premium		0.1	
Other		1.7	

Source: State enrollment data files and 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (recent enrollees, N = 1,350).

Note: All estimates rounded to the nearest tenth of a percentage point.

Two types of recent enrollees make up those in the seven percent we estimate substituted SCHIP for private coverage. One type (two percent of all recent enrollees) includes enrollees whose parents reported that they dropped private coverage for their child because they preferred SCHIP (unequivocally, substitution). In some cases, this was to get benefits not available under their child's private option; in others, it was to keep all their children enrolled in the same program. The other type (five percent of all recent enrollees) includes those with other reasons that are harder to classify or reasons with insufficient information to evaluate.

In summary, our estimate of the proportion of enrollees voluntarily moving onto SCHIP from private coverage is 14 percent. Our lower-bound estimate, which accounts for problems with affordability that would have led some families to drop private coverage even if SCHIP were not available, is seven percent.

D. ESTIMATES OF POTENTIAL SUBSTITUTION AMONG ESTABLISHED ENROLLEES

The preceding discussion suggests that only a small share of enrollees actually left employer-based coverage to enroll in SCHIP. However, some children may be eligible for employer-based coverage after they have enrolled in SCHIP, and their parents may forgo that employer coverage for their children. This second type of potential substitution has not been a focus of state policy. Only recently have a few states begun to examine parental offers of coverage at the time of redetermination. In this section, we present estimates of substitution among established enrollees. Since we cannot observe the choices families would have made if SCHIP were not available, we present alternative estimates by making different assumptions about the likelihood that a child would have been covered by their parent's current employer-based coverage, using information we have about the costs of this coverage to the family.

Parental Coverage Through an Employer. Table VI.3 presents data on the type of coverage held by parents at the time of the interview. These data form the basis from which we developed alternative estimates of substitution. We combine data on each parent to obtain the proportion of children with any parent insured by each type of coverage.¹⁴ Overall, 47 percent of established enrollees live in families where no parent is insured, while the other 53 percent of children live with at least one insured parent. Seventeen percent of children live in a family with one parent who is insured and one who is uninsured (not shown). A substantial minority of enrollees (39 percent) have at least one parent with employer-based coverage. Therefore, no more than 39 percent of established enrollees could be substituting SCHIP for employer coverage. A few children (eight percent) live with a parent insured through Medicaid or SCHIP, and only five percent have a parent with private nongroup insurance.

TABLE VI.3
PARENTS' INSURANCE COVERAGE AT THE TIME OF INTERVIEW
AMONG ESTABLISHED ENROLLEES

	Percentage Distribution
<i>No Parent Insured</i>	46.7
<i>Any Parent Insured</i>	53.2
Employer-Based Insurance	39.0
Private Nongroup	5.1
Medicaid	6.5
SCHIP	1.5
Other (Mostly Other Public)	0.5

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (established enrollees, N = 4,705).

¹⁴ Estimates of insurance types do not sum to 100 percent because a small proportion of two-parent families report more than one type of coverage.

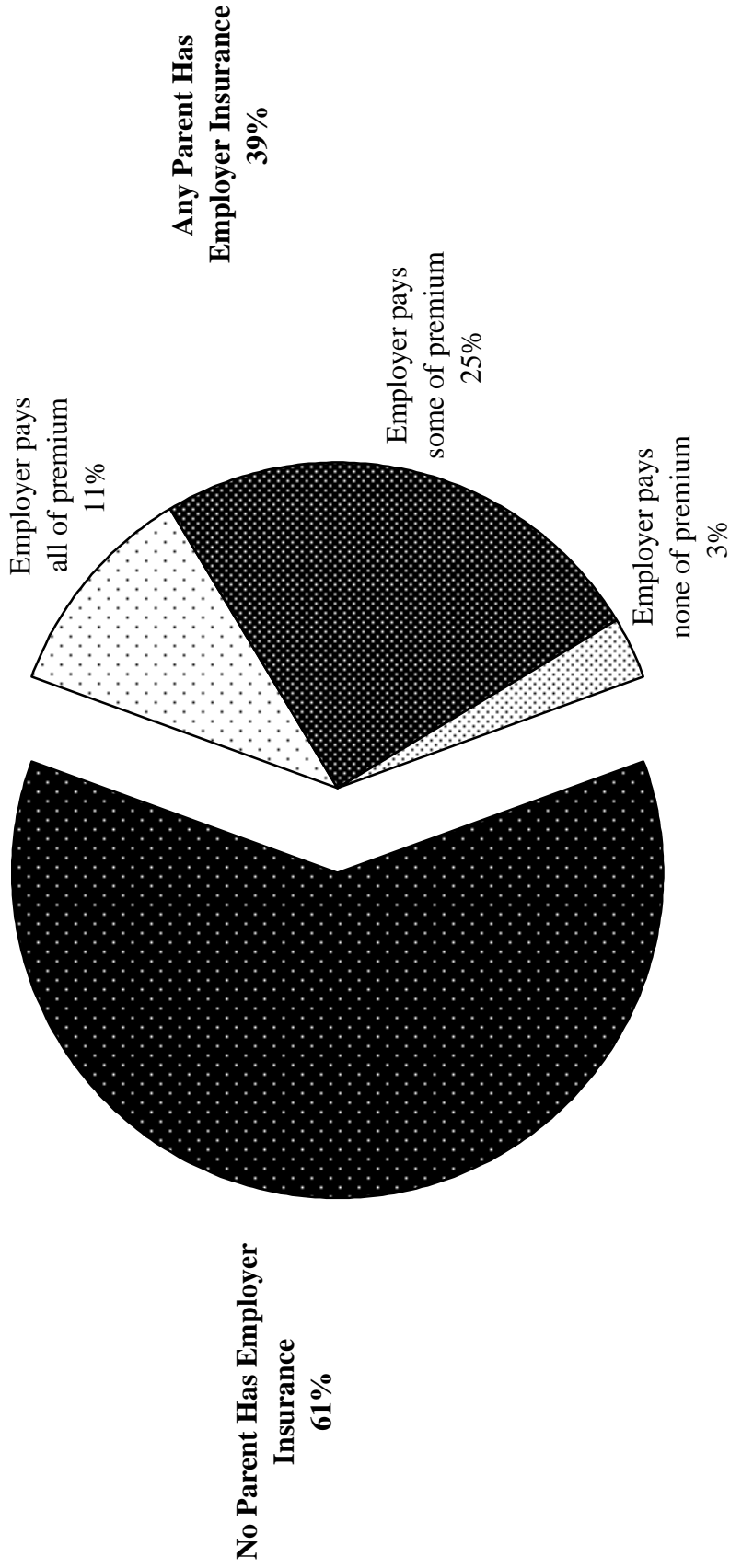
Employer Contributions to the Premium. Among families with a parent who has employer-based insurance, 28 percent report the employer covers all of the premium, 63 percent say some of it, and 9 percent say none of it. Of all established enrollees, this represents 11, 25, and 3 percent, respectively (Figure VI.2). These estimates are consistent with the distribution of employer contributions among low-income families from the National Survey of American Families based on similar survey questions (Holahan 2003).

Substitution Based on Employer Contributions to the Premium. To arrive at estimates of substitution among established enrollees, we apply alternative assumptions about affordability (Table VI.4). We first derive an estimate based solely on a measure of insurance cost using the share of premium the employer contributes. Given the high cost of the average premium for employer-based coverage, it seems unlikely that low-income parents whose employer pays none of the premiums would choose to cover their child if SCHIP were not available. Thus, the 3.3 percent of enrollees whose employer paid none of the premium (Row B) are not treated as substituting SCHIP for employer coverage. Omitting these enrollees produces an upper-bound estimate of potential substitution of 36 percent ($39.0 - 3.3 = 35.7$ percent; Row C).

Substitution Based on Employer Contributions to the Premium and Child's Health Care Needs. This upper-bound estimate implicitly assumes that all parents whose employers paid some or all of the premium would enroll their child in their employer plan if SCHIP were not available, and this too seems unlikely. Among families where the employer pays all of the premium, 5 percent have children with severe health care needs, and 28 percent have children with elevated health care needs. Among families where the employer pays some of the premium, 3 percent have children with severe health care needs, and 19 percent have children with elevated health care needs. Independent of the share of premium that the employer pays, these children can be expected to have the highest out-of-pocket costs if their parents enrolled

FIGURE VI.2

PATTERNS OF EMPLOYER COVERAGE FOR PARENTS OF ESTABLISHED ENROLLEES AND THE SHARE OF PREMIUMS PAID BY EMPLOYERS



Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (established enrollees, N = 4,705).

TABLE VI.4

POTENTIAL SUBSTITUTION ESTIMATES FOR ESTABLISHED SCHIP ENROLLEES

Aspects of Parent's Employer Coverage and Children's Needs		Percent with Characteristic	Substitution Estimate (Percent)
A	Any Parent Has Employer Coverage.	39.0	
B	Employer Pays None of the Premium.	3.3	
C	Substitution Estimate 1 (A-B) <i>Employer Pays Some or All of the Premium.</i>		35.7
D	Employer Pays Some or All of the Premium and Child Has Severe Health Care Needs.	1.2	
E	Substitution Estimate 2 (C-D) <i>Employer Pays Some or All of the Premium and the Child Does Not Have Severe Health Care Needs.</i>		34.5
F	Employer Pays Some or All of the Premium and Child Has Elevated Health Care Needs.	7.7	
G	Substitution Estimate 3 (C-F) <i>Employer Pays Some or All of the Premium and the Child Does Not Have Severe or Elevated Health Care Needs.</i>		28.0

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states (established enrollees).

them in an employer plan. If these parents opted to enroll their children in SCHIP, they could be viewed as substituting SCHIP for employer-based coverage. However, policymakers in some states (for example, North Carolina among the 10 study states) allow exceptions for children with significant health care needs.

Next, we derive an alternative set of estimates based on measures of health care costs that account for both the share of the premium the employer contributes and expected out-of-pocket expenses faced by families with employer-based coverage. We build on the 36 percent estimate of substitution (Row C) that excludes all children from families where the employer pays none of the premium. Using the strictest definition of health care needs and excluding only those with severe needs (1.2 percent) whose parents' employers pay "some" or "all" of the premium (Row D), we obtain an estimate of 34.5 percent ($39.0 - 3.3 - 1.2$ percent; Row E). Alternatively, by excluding from substitution a broader band of children with elevated health care needs (Row F), we produce a lower-bound estimate of 28 percent ($35.7 - 7.7$ percent; Row G). In sum, we estimate substitution among established enrollees after enrollment to be between 28 and 36 percent.

These findings should be interpreted with caution. First, it is unclear how to interpret survey questions on the employer contribution to a parent's premium. Since parents respond in relation to their own premium, we do not know whether the employer would pay the same portion for family coverage. Thus, parents could have higher costs for coverage than reported on the survey. There is further evidence that employers contribute less toward dependent coverage than toward employee coverage, because only 26 percent of two-parent families with any employer-based insurance covered both parents with the same policy. As such, we could be overstating the degree to which employers contribute to the cost of covering dependents and, thus, overstating substitution.

Second, the estimate of substitution that we derive is at a point in time for established enrollees. This estimate is based on parents' coverage at the time of the interview, but some parents' coverage may change during their child's period of enrollment in SCHIP. Third, this estimate is based on a sample of enrollees at a particular point in time (2002), and changes in the economy or secular trends in employer coverage may lead the extent of substitution to differ over time. Finally, our estimate does not directly consider any employer behavior that could contribute to the substitution of public coverage for private coverage. This behavior is closely intertwined with larger economic trends influencing industry mix, unionization, the price of health care, and the choices workers make to take up employer offers of insurance.

E. STATE VARIATION IN SUBSTITUTION

Across the 10 states, the extent to which recent enrollees appeared to substitute SCHIP for private coverage when they enrolled varied. This was due to differences in rates of private coverage, and the reasons that private coverage ended. The share of recent SCHIP enrollees who voluntarily dropped their private coverage (including those reporting that private coverage was not affordable) ranged from 7 percent in Illinois and Missouri to 19 percent in California (not shown). When affordability is not categorized as substitution, the share of SCHIP enrollees who might have kept private coverage is 10 percent or lower in all 10 states.

Potential substitution among established enrollees also varies across the 10 study states. The range around the higher estimate of potential substitution (36 percent) shown in Table VI.4 (Row C) is 18 percent in New Jersey to 47 percent in North Carolina (not shown). The range around the lower estimate of potential substitution (28 percent) shown in Table VI.4 (Row G) is 12 percent (in New Jersey) to 34 percent (in California). One reason that New Jersey is consistently at the low end of the range of potential substitution estimates is that more parents in this state are covered by SCHIP (under a waiver program), and fewer have employer-based coverage.

F. SUMMARY

Our findings suggest that SCHIP is serving the target population of low-income children who would otherwise have been uninsured and that a relatively small share is substituting SCHIP for employer coverage. More than 70 percent of children enrolling in the program were either uninsured during the 6 months before joining SCHIP or were enrolled in Medicaid. Most families who enrolled their children did not have the option of employer coverage for their children. Further analysis indicated that a minority of established enrollees had affordable employer coverage available to them when they were on the program. Although the extent of substitution varied across states, the share that would have had employer coverage if SCHIP were not available did not rise above about one-third in any of the 10 states.

The data presented above suggests that few SCHIP enrollees moved directly onto the program from private coverage. About 14 percent of children enrolling in SCHIP had private coverage that they could have kept as an alternative to SCHIP, and about half of this group reported that the private coverage was unaffordable compared to SCHIP. Given that previous research suggests that about half of non-poor children have private coverage (Holohan et al. 2003), states appear to be meeting their goal of targeting enrollment to children who would not have had private health insurance coverage. This estimate is consistent with the eight percent estimate reported by Hughes et al. (2002) using a similar approach and definition of substitution on a California sample.

Among established enrollees who had been in SCHIP for at least 6 months, our analysis suggests that between 28 and 36 percent of children did not have an elevated health care need and had a parent enrolled in an employer plan for which the employer paid all or some of the premium. We do not know how many were offered dependent coverage and could afford to pay the premium or other cost-sharing. Our estimates are also consistent with enrollee-based studies by Shenkman et al. (2002) and Allison et al. (2003), as well as several population-based studies

(Dubay and Kenney 2004; Cunningham et al. 2002; and LoSasso and Buchmueller 2004). Our estimate based on recent enrollees relies solely on coverage children held before enrollment; therefore, it is lower than these population-based estimates, which define substitution in broader terms.

The two estimates that we provide—one based on recent enrollees and one based on established enrollees—should not be combined to achieve an overall substitution estimate. Our data lack sufficient information about how substitution changes while children are enrolled and to how many children these estimates may apply. It is better to view the two types of estimates we present as two perspectives on the question of substitution.

Based on these results, it appears that most SCHIP enrollees do not have access to affordable employer-based coverage. At the same time, some SCHIP enrollees do have parents enrolled in employer plans. In such cases, states may want to monitor such coverage and coordinate between SCHIP and employer coverage. This could be done through premium assistance programs that help parents afford dependent coverage through their employer plan. Such subsidies would enable states to share the cost of covering some enrollees with employers (although this could be complicated if there are frequent job changes among low-income parents). To date, however, premium assistance programs have not taken off in the few states that have them (Lutzky and Hill 2001). Moreover, given the large number of children covered by employer plans who are eligible for SCHIP and are not enrolled, greater coordination with employer coverage could lead to greater public outlays on behalf of these children.

From the enrollee data analyzed in this chapter, it is not possible to estimate the size of the reduction in uninsurance among low-income children that SCHIP produced. To address this issue, we would need data that includes both SCHIP-eligible children and SCHIP enrollees, and that analysis is beyond the scope of this project. However, the results in this chapter suggest that most children covered by SCHIP would have been uninsured if the program were not available.

VII. THE IMPACTS OF SCHIP ON ACCESS TO, AND USE OF, CARE

Genevieve Kenney

A. INTRODUCTION

One yardstick by which SCHIP will be measured is the extent to which the program improves children's access to, and receipt of, care beyond what they would have experienced otherwise. For children who enroll, SCHIP is expected to lower costs and other barriers associated with obtaining care, particularly compared to being uninsured. In this chapter, building on the descriptive analyses presented in Chapters I and III, we assess the effects that enrollment in SCHIP has on children and their families.

Prior research has demonstrated that uninsured children have more access problems and receive fewer services than children with public health insurance coverage (Newacheck et al. 1996 and 1997; Monheit and Cunningham 1992; Stoddard et al. 1994; Moreno and Hoag 2000; Dubay and Kenney 2001; Currie and Thomas 1995; and Rosenbach 1989). However, the access and use gaps found between the uninsured and the insured may derive not only from different access to health care—they may also reflect unmeasured differences between the two groups in health-seeking behavior and attitudes toward health care.

Several studies have tried to address the potential bias introduced when comparing the uninsured and insured, by instead examining changes in access and use following enrollment in a public health insurance program (Lave et al. 1998; Szilagyi et al. 2000; Damiano et al. 2003; and Dick et al. 2004). These studies found improvements in access and use for children who enrolled in the program based on a longitudinal analysis of their experiences before and after they enrolled in it. Two of these studies examined the impacts of two non-Medicaid programs that began before the SCHIP program: Szilagyi et al. (2000) reported on Child Health Plus in New

York, and Lave et al. (1998) reported on the Children's Health Insurance Program in Pennsylvania. Damiano and Willard (2002) examined the Hawk-I Program, a separate SCHIP program created in 1998, and Dick et al. (2004) reported on findings from three separate SCHIP programs (in Florida, Kansas, and New York). All these studies found improvements in many measures of health care access and use for children who enrolled in these programs. These findings suggest that differences found between the uninsured and the insured are not all driven by unmeasured differences in characteristics of the two groups, but instead reflect greater access to care for children with health insurance coverage.

In this chapter, we use a variation of the approach used by Lave et al. (1998), Szilagyi et al. (2000), Damiano and Willard (2003), and Dick et al. (2004) to examine the impacts of SCHIP on children in 10 states who are served by the program. We contrast the experiences of established enrollees who have been in the program for at least 5 months with the pre-SCHIP experiences of a separate sample of recent enrollees.¹ This is the most comprehensive study of SCHIP impacts to date, since, as indicated in Chapter I, we examine impacts on children in 10 different states that together account for more than 60 percent of all SCHIP enrollees nationwide. Our key findings are:

- Compared to the pre-SCHIP experience of recent enrollees, established enrollees have fewer unmet needs; their parents have less stress and worry about meeting their children's health care needs; and they are more likely to have a usual source of both medical and dental care, other things equal.
- As expected, we find the greatest improvements for recent enrollees who were uninsured for all 6 months before enrolling. We find improvements in service use, unmet needs, stress, financial burden, and provider communication and accessibility.

¹ For a discussion of the alternative design options considered for measuring impacts, see Wooldridge et al. (2001).

- Established enrollees are also doing better than new enrollees who had been privately insured for the 6 months before enrolling in terms of unmet needs, confidence, stress, and having a usual source of dental care.
- The impact findings are robust with respect to alternative specifications of the model that combine enrollees across states. Moreover, the general pattern of findings holds up in each of the 10 individual state-specific models, indicating that positive impacts are found for both Medicaid expansions and separate programs.
- These impact findings also hold up in separate models estimated for a broad number of different subgroups, defined by the child's race/ethnicity/language, age, and health care needs and the parent's education.
- The magnitude of the estimated impacts varied with the child's age, the child's health status, and the parents' educational attainment. We find larger improvements for children with elevated health care needs and for adolescents, while we find smaller improvements for children whose parents had not completed high school.

B. METHODS

The conceptual model for assessing the impacts of SCHIP on access to, and use of, services builds on an economic model in which the price of health inputs and services, family income and preferences, and health endowments are hypothesized to affect health services use and access to care among children (Grossman 1972; Kaestner et al. 1999; and Phelps 1997). The key variable in this model is the presence and nature of health insurance coverage, which affects the price of health care services. As Chapter III indicates, SCHIP programs have broad benefit packages that are tailored to meet the needs of children and require low out-of-pocket payments for services. Thus, compared to being uninsured, SCHIP should lower the out-of-pocket costs associated with obtaining health services. This, in turn, should increase the receipt of services and reduce both unmet needs and financial burdens. SCHIP may also lead to improvements in access and use among children who would have been privately insured without SCHIP. This is because benefit packages tend to be richer and cost-sharing tends to be lower under SCHIP than for many types of private coverage (Hill et al. 2003; Trude 2004; and Fox et al. 2003).

To estimate the impacts of SCHIP on children who enroll in the program, we use two cross-sections of recent and established enrollees. This quasi-experimental approach uses a separate sample pre-test and post-test design (Singleton et al. 1993; and Campbell and Stanley 1963). We compare the experiences of established enrollees (children who have been enrolled in the program for at least 5 months)—the treatment group—with the pre-SCHIP experiences of newly enrolling children—the comparison group. Thus, the pre-SCHIP experiences of our recent enrollee sample serve as a counterfactual for the SCHIP experiences of our established enrollee sample. As described below, we try to minimize the differences between the comparison and the treatment groups by controlling for other potentially confounding factors related to the characteristics of the child and their parents. In addition, we estimate numerous alternative model specifications to assess the robustness of our impact estimates.

We begin by estimating the following model:

$$(1) U = \alpha + (X_{(i)}) B + \delta SCHIP + v + \varepsilon,$$

where:

U is a set of outcomes measures (described in Table VII.1)

α is the constant term, specified as a column of ones

$X_{(i)}$ is a set of individual explanatory variables (defined below)

B is a column vector of regression coefficients, one for each explanatory variable

δ is the regression coefficient that measures the average impact of SCHIP on the outcome relative to pre-SCHIP experiences

$SCHIP$ is an indicator variable for whether a child is an established SCHIP enrollee ($SCHIP = 1$) or a recent SCHIP enrollee ($SCHIP = 0$)

v is a set of county-specific fixed effects

ε is an error term, which, in the linear regression model, is distributed normally.

TABLE VII.1

HEALTH CARE ACCESS AND USE OUTCOMES

Type of Variable	Variable
Service Use	Any Physician Visit Any Well-Child Visit Dental Visit Any Mental Health Visit Any Specialist Visit Any Specialist or Mental Health Visit Any Hospital Visit Any Emergency Room Visit
Unmet Need	Doctor/Other Health Professional Services Prescription Drugs Dental Care Specialist Care Hospital Care Any of the Above Services (Excluding Dental) Any of the Above Services (Including Dental) More than One Unmet Need
Parental Perceptions of Meeting Child's Health Care Needs	Very Confident About Being Able to Meet Child's Health Care Needs Not Stressed About Being Able to Meet Child's Health Care Needs Not Worried About Being Able to Meet Child's Health Care Needs Child's Health Care Needs Do Not Cause Financial Hardship
Presence and Type of Usual Source of Care	Has a Usual Source for Health Care That Is Not an Emergency Room Usual Source Is a Private Doctor's Office or Group Practice Usually Sees Same Provider at Usual Source of Care Has a Usual Source for Dental Care
Provider Communication and Accessibility	Would Recommend Usual Source to Others Could Reach Provider After Hours Provider Explained Things in Understandable Ways Provider Treated Family with Courtesy and Respect Provider Asked About How Child Was Feeling and Growing Rated Ease of Getting Care as Very Good or Excellent Waiting Time Was Less than 30 Minutes for Appointments Travel Time Was Less than 30 Minutes

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Notes: All variables refer to the 6 months before the interview.

We examine the impacts of SCHIP on five types of access and use indicators (*U*): (1) service use, (2) unmet need, (3) parental perceptions, (4) presence and type of usual source of care, and (5) provider communication and accessibility. Table VII.1 describes each of the 32 outcomes examined. These outcomes were chosen to portray a broad range of aspects of access and use that enrollment in SCHIP coverage could affect. These aspects include the health care services the child received, the confidence and burdens parents feel about meeting their child's health care needs, and the extent to which parents feel the child's health care needs are being met.

The control variables (*X*) in the models include (1) the demographic characteristics of the child (age, race/ethnicity, language, and sex); (2) the child's health status (general health status and presence of a special health care need); (3) household income and size (the number of children in the household); (4) parents' educational attainment and work status; and (5) parent's attitudes toward the efficacy of medical care. Table VII.2 shows the mean levels of these variables for established and recent enrollees. We discuss this table later in the chapter.

The key parameter of interest is δ , which reflects the average difference between the experiences of established enrollees covered by SCHIP and the pre-SCHIP experiences of recent enrollees. We expect that children covered by SCHIP will (1) receive preventive services at higher rates, (2) have fewer unmet needs, and (3) be more likely to have a usual source of care and to have improved provider accessibility and communication. We also expect that their parents will have fewer concerns and financial burdens associated with meeting their child's needs. In addition, we expect that enrollment in SCHIP, particularly compared to being uninsured, could shift the setting of care away from clinics and health centers and toward private physician's offices. The effects of SCHIP enrollment on visits to emergency rooms and hospital stays are not clear a priori.

TABLE VII.2

CHARACTERISTICS OF SCHIP ENROLLEES AND THEIR PARENTS

	Recent Enrollees (Percent)	Established Enrollees (Percent)
State		
California	28.9	28.6
Colorado	3.7 **	1.8
Florida	12.3	13.3
Illinois	3.9 **	2.4
Louisiana	3.1	3.4
Missouri	1.8 **	3.7
New Jersey	4.4	4.8
New York	4.4 **	13.3
North Carolina	4.5 **	3.0
Texas	32.9 **	25.9
Age		
Birth to 5 years	31.1 **	19.3
6 to 12 years	44.5 *	48.3
13 and older	24.4 **	32.4
Race, Ethnicity, Language		
White, Non-Hispanic, Primary Language Is English	28.1	30.2
Hispanic, Primary Language Is English	20.6	20.1
Hispanic, Primary Language Is Spanish	29.7	27.7
Black, Non-Hispanic, Primary Language Is English	10.8	10.6
Other, Non-Hispanic, Primary Language Is English	4.2	4.0
Non-Hispanic, Primary Language Is Not English	4.2	4.4
Missing Race, Ethnicity, or Language	2.3	2.9
Female	47.9	46.8
Child with Elevated Health Care Needs	22.5	24.1
Income		
Less than 150% of the FPL	65.2	63.3
150 to 200% of the FPL	19.5	21.3
More than 200% of the FPL	9.3	8.5
Missing	6.0	7.0
Parents' Employment Status		
Has One Parent and the Parent Worked	30.2	30.7
Has One Parent and the Parent Did Not Work	5.4	4.3
Two Parents and Neither Worked	2.1	2.9
Two Parents and One Worked	32.9	33.3
Two Parents and Both Worked	29.4	28.8
Number of Children in Household		
1	19.9	18.3
2	37.6	38.8
More than 2	42.5	42.9

TABLE VII.2 (continued)

	Recent Enrollees (Percent)	Established Enrollees (Percent)
Highest Education Level of a Parent		
Less than High School	21.3 *	24.5
High School Diploma or GED	32.7	34.9
Some College or Higher	46.0 **	40.6
Parent Reports That He or She Can Overcome Most Illness Without Help from a Doctor	55.0	56.7
Parent Believes Home Remedies Are Often Better than Prescribed Drugs	33.2	32.9
Sample Size	3,106	5,394

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Notes: All variables refer to the 6 months before the interview.

FPL = federal poverty level.

*p-value difference between recent and established enrollees <.05.

**p-value difference between recent and established enrollees <.01.

The model specified in equation (1) above produces an average estimate of the differences in access and use between established and recent enrollees, controlling for observed differences between the two groups. The magnitude of the estimated difference is likely to depend on the insurance coverage the children in the comparison group had before enrolling in SCHIP. To account for this, we separate recent enrollees into groups, depending on the presence of insurance coverage in the prior period. We first subdivide recent enrollees into two groups: (1) recent enrollees who were uninsured for all 6 months before their enrollment in SCHIP, and (2) recent enrollees who were covered for some or all of the 6 months preceding their enrollment in SCHIP.² We then estimate separate impacts for the two groups. We expect to see larger differentials between the experiences of established SCHIP enrollees and those of recent enrollees who had been uninsured for all 6 months before enrolling in SCHIP than between established SCHIP enrollees and recent enrollees who had been insured for some or all of the 6 months before enrolling in SCHIP. This is because uninsured children face much greater out-of-pocket costs when they try to obtain health services. The overall impact of SCHIP will be a weighted average of these estimates, with the relative weights depending on the extent to which children would have been uninsured without the program or would have had employer-sponsored coverage (examined in Chapter VI). Therefore, we also present estimates for recent enrollees who had private coverage in the prior period, most of whom were covered through employer-sponsored plans.

Analytic Challenges. There are several threats to the validity of the impact estimates generated by these models. The most fundamental one is that the sample of recent enrollees may not be a reliable counterfactual for the experiences of established enrollees because of

² Of the group with some coverage in the 6 months before SCHIP enrollment, 65 percent had some type of insurance coverage for all 6 months before enrolling, and 35 percent were uninsured for part of the 6-month period.

differences between the two samples. We address this issue in several ways. First, as indicated above, we use multivariate models that control for possible differences in a broad range of observed characteristics that could affect the outcomes in question and that include county fixed effects. In particular, we control for the health status of the child and the parents' attitudes toward the efficacy of health care. By estimating models with county fixed effects and a broad range of covariates, we reduce the probability of there being confounding differences between the recent and the established enrollee samples. In one of our sensitivity analyses, we estimate impacts in models that replaced the county fixed effects with dummy variables for each state and for the metropolitan status of the county. Second, we compare the characteristics of the two samples to assess whether any large differences in measured characteristics exist, which could indicate that differences in unmeasured characteristics also exist.

Third, to address possible unobserved differences between recent and established enrollees, we estimated models on different subsets of recent and established enrollees. In particular, the sample of new enrollees includes some who do not remain on the program long enough to become established enrollees. Recent enrollees who remain on SCHIP only a short time may be different from the established enrollees who have stayed on the program for 5 months or more and, thus, may not be a valid comparison group. To address this, we use the administrative data on SCHIP enrollment to identify the recent enrollees who remain on SCHIP for 5 months or more. We then reestimate the impacts, using this subset of recent enrollees to test the robustness of the impacts estimated on the full sample.

Fourth, by definition, the sample of recent enrollees is entering SCHIP later than the established enrollee sample. This temporal difference could introduce bias if there are systematic differences in the unobserved characteristics of those who entered SCHIP earlier. This could occur, for example, if (1) the economy had changed in such a way as to affect the mix

of children enrolling in SCHIP, (2) outreach campaigns occurring at different times brought in different geographic mixes of children, (3) the children enrolled earlier had greater health care needs, or (4) parents had different attitudes toward medical care. To address the potential temporal threats to the validity of the impact analyses, we limited the established enrollee sample to children who were enrolled in SCHIP closer to the time period during which children in the recent enrollee sample were entering SCHIP. In addition, to make the recent and established samples more similar to one another, we exclude the very youngest and the very oldest children from the analysis, recognizing that we do not have pre-SCHIP experiences for newborns or SCHIP experiences for many children approaching age 19. A final step we take to make the recent and established enrollee samples as homogeneous as possible is to use the information we have for both recent and established enrollees on the presence of insurance coverage just before enrolling in SCHIP. We estimate one set of impacts for recent and established enrollees who were uninsured just before enrolling in SCHIP and another set of impacts for recent and established enrollees who were insured just before enrolling.

A fifth concern is that the access and use experiences children have just before enrolling may not reflect what these children typically face in their access to, and use of, health care services. They may be at a low point with respect to their access to needed services, which triggers their enrollment in SCHIP. For example, a child may have unprecedented unmet health care needs, which causes the parents to seek out SCHIP coverage. Alternatively, a child may have had a health event that led to a hospital stay or an emergency room visit, which prompted the child's enrollment in SCHIP. To address this possibility, we remove from the recent enrollee sample children who had an emergency room visit or a hospital stay and assess the extent to which the impact estimates for the other outcomes are sensitive to those exclusions. Likewise, we also estimate models that exclude children who were reported to have some type of unmet

need and examine whether the impact estimates for the other outcomes change. However, because estimates for the privately insured derive from a time when they may have experienced disruptions leading to the child's SCHIP enrollment (for example, loss of employment), impacts on measures of stress and attitudes might be overstated even under these alternative models.

A sixth concern is that the experiences of established enrollees may overstate the access to care that children typically have under SCHIP. Findings presented in Chapter III suggest that disenrollees might have had slightly worse access and use experiences with SCHIP coverage than the established enrollees. While the differences are not large, the pattern is robust and spans many types of outcomes. Therefore, we estimate one set of SCHIP impacts using disenrollees as the treatment group.

In summary, we present nine alternative impact estimates to the core estimates. The first replaces the county fixed effects with dummy variables for state of residence and whether the county is in a Metropolitan Statistical Area (MSA), is not in an MSA but is adjacent to an MSA, or is not in an MSA and is not adjacent to an MSA. The second includes only recent enrollees who remain on SCHIP for 5 months or more. The third excludes established enrollees who have been enrolled for more than 18 months. The fourth excludes established enrollees who have been enrolled for 4 years or more. The fifth excludes those younger than age 1 or age 18 or older. The sixth excludes children with any emergency room visits or hospital stays. The seventh excludes children with any reported unmet needs. The eighth uses the disenrollee sample to estimate impacts in place of the established enrollee sample. Finally, the ninth subsets the sample on the basis of coverage prior to enrollment in SCHIP. The analysis of the impacts of SCHIP relative to being uninsured is estimated on recent and established enrollees who had been uninsured just before enrolling in SCHIP, while the analysis of the impacts of SCHIP relative to

being insured is estimated on the recent and established enrollees who had coverage just before enrolling in SCHIP. Finally, we estimated separate impact models for each of the 10 states.

C. RESULTS

Characteristics of Recent and Established Enrollees. With few exceptions (notably age and state of residence), children in the established enrollee sample closely resemble those in the recent enrollee sample. Table VII.2 shows sample distributions of the recent and established enrollees in a number of characteristics. The characteristics of the recent enrollee sample are similar to those of the established enrollee sample in the race and ethnic background of the child, the characteristics of the parents, and the structure of the household. For example, 43 percent of both the recent and the established enrollee samples live in households with more than two children. Likewise, 36 percent of the recent enrollee sample came from a one-parent household, compared with 35 percent of the established enrollee sample.

On average, the children in the established enrollee sample are older than the children in the recent enrollee sample. This is likely due in part to the fact that many established SCHIP enrollees have been enrolled in the program for several years (for example, more than half of all children in the established enrollee sample had been enrolled in SCHIP for 2 or more years). For example, 31 percent of the children in the recent enrollee sample are under 6, compared with 19 percent of the children in the established enrollee sample. Proportionately more children in the established enrollee sample are in the 6- to 12 and the over-13 age groups: 48 and 32 percent of the established enrollee sample, respectively, compared with 45 and 24 percent of the recent enrollee sample. The distribution of children in the recent and established enrollee samples also

varies across states,³ with proportionately more children in the recent enrollee sample from Texas (33 percent), compared with 26 percent in the established enrollee sample, and fewer in the recent enrollee sample from New York (4 percent), compared with 13 percent in the established enrollee sample. The different state-specific distributions of the recent and the established enrollee samples may be due in part to the different levels of maturity of the 10 SCHIP programs. For example, New York's program predates Title XXI and therefore accounts for a much larger share of established enrollee sample than the recent enrollee sample, whereas Texas's program did not implement its main separate program until 2000 (three years after Title XXI) and therefore accounts for a much smaller share of the established enrollee sample than the recent enrollee sample. Finally, the children in the recent enrollee sample have more-educated parents than the children in the established enrollee sample.

Differences in Outcomes Between Recent and Established Enrollees. Table VII.3 shows the mean values of the different access and use outcomes for both established enrollees and recent enrollees, according to their prior insurance coverage.⁴ As discussed in Chapter I, established enrollees have greater access to care, and their parents have fewer concerns about addressing their children's health care needs relative to the experiences parents and their children had before enrolling, particularly compared to recent enrollees who had been uninsured in the 6 months before enrolling. The differences are most pronounced in unmet needs, parents' perceptions about their ability to meet the child's health care needs, and the presence of a usual source for dental care. However, differences between the established and recent enrollee

³ Recall that the samples have been weighted to reflect the population of recent and established enrollees in the 10 states during early 2002. As a result, large states like California and Texas account for a large fraction of both samples.

⁴ For established enrollees, the reference period is the 6 months before the survey. For recent enrollees, it is the 6 months before the child's enrollment in SCHIP.

TABLE VII.3

BIVARIATE ESTIMATES OF ACCESS AND USE MEASURES FOR RECENT
AND ESTABLISHED SCHIP ENROLLEES

	Established ^a	Recent Enrollees		
		All	Uninsured All 6 Months	Insured ^b
Service Use				
Any Doctor/Other Health Professional Visit	66.7	67.6	58.4 **	76.7 **
Any Preventive Care or Checkup Visit	45.4	45.5	32.6 **	58.2 **
Dental Visit for Checkup/Cleaning ^c	57.3	44.0 **	31.3 **	58.4
Any Specialist Visit	16.7	14.7	12.4 *	17.0
Any Mental Health Visit	5.4	4.2	3.7 *	4.8
Any Specialist or Mental Health Visit	20.3	18.1	15.3 **	21.0
Any Emergency Room Visit	18.0	27.6 **	24.0 *	31.2 **
Any Hospital Stay	3.7	4.8	3.4	6.3 *
Unmet Need				
Doctor/Health Professional Care	2.1	6.6 **	9.1 **	4.3 **
Prescription Drugs	4.1	8.1 **	10.6 **	5.8
Dental Care ^c	11.9	19.1 **	22.8 **	15.2 *
Specialist	3.4	7.0 **	9.3 **	4.9
Hospital Care	1.4	5.5 **	7.6 **	3.6 **
Hospital, Specialist, Doctor, Drug	9.2	17.8 **	21.4 **	14.5 **
Hospital, Specialist, Doctor, Drug, Dentist ^c	18.3	27.6 **	33.0 **	22.6 *
More than One Unmet Need	3.3	9.8 **	13.7 **	6.2 **
Parental Perceptions of Meeting Child's Health Care Needs				
Very Confident	81.2	48.6 **	37.6 **	58.7 **
Never or Not Very Often Stressed	78.4	50.1 **	36.5 **	63.1 **
Never or Rarely Worried	55.2	29.0 **	17.9 **	39.7 **
Never or Rarely Cause Financial Difficulties	83.4	52.1 **	42.4 **	61.1 **
Usual Source of Care (USC)				
Had USC in Past 6 Months	91.4	80.4 **	70.4 **	90.6
USC Type: Private Doctor's Office/Group Practice	64.4	59.3 **	45.2 **	65.9
Usually Saw Same Provider at USC	72.3	61.4 **	47.8 **	74.8
Had USC for Dental Care in Past 6 Months ^c	81.3	59.1 **	49.1 **	70.2 **
Provider Communication and Accessibility				
Would Recommend USC	91.7	91.2	89.2	92.6
Could Reach Doctor After Hours	75.6	68.3 **	57.5 **	76.3
Providers Explain in Understandable Ways	89.4	86.9	81.7 **	90.4
Provider Treats with Courtesy/Respect	93.8	93.3	91.3	94.6
Provider Talks About How Child Feeling	85.5	83.4	79.5 **	86.1
Rated Ease of Getting Care Excellent or Very Good	43.3	34.5 **	24.8 **	41.1
Wait Time for Care Less than 30 Minutes	51.8	48.1 *	40.0 **	54.6
Travel Time to USC Less than 30 Minutes	84.1	79.5 **	75.9 **	82.3
Sample Size	5,394	3,106	1,492	1,583

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Notes: Estimates based on samples of recent and established SCHIP enrollees.

^a "Established" is the reference category for tests of significance.

^b Includes those insured some or all of the past 6 months before enrolling.

^c Applies to children age 3 and older.

*p-value<0.05.

**p-value<0.01.

samples with respect to access and use could reflect differences in the underlying characteristics of the two samples. As Table VII.2 previously showed, the two samples differ, particularly in their composition with respect to age and state. To address this issue, the following section presents differences between the established and recent enrollee samples based on multivariate models that control for a number of different characteristics of the children and their families.

1. Impact of SCHIP Enrollment on Access and Use

Changes in Access and Use for the Average Recent SCHIP Enrollee. On average, established SCHIP enrollees had better access and use experiences in SCHIP than recent enrollees did before enrolling in the program. Table VII.4 shows the impact estimates derived from the multivariate model described above in equation (1). The estimates presented in column 1 reflect the average change in access and use for all recent enrollees, other things equal.⁵ Overall, established enrollees fared better than recent enrollees on about two-thirds of the outcomes examined. For service use, preventive dental and emergency room visits were the only two areas where differences were found. Differences were found in unmet need, parents' attitudes about being able to meet the child's health care needs, presence of a usual source of care, and provider accessibility.

Other things equal, compared to experiences children had before enrolling in SCHIP, established enrollees are:

- More likely to receive preventive dental care and less likely to have emergency room visits
- Less likely to have unmet needs for physician services, prescription drugs, dental care, specialty care, and hospital care and less likely to have one or more unmet need

⁵ All the estimates presented are based on linear probability models. Logistic models were also estimated to take into account the discrete nature of the outcomes. These models produced results that are almost identical to the linear probability models in the direction and significance of the impact estimates.

TABLE VII.4

ACCESS AND USE IMPACTS OF SCHIP ENROLLMENT, BY PREVIOUS
INSURANCE STATUS OF RECENT ENROLLEES

	Differences Between Established Enrollees Compared to:			
	All Recent Enrollees (1)	Recent Enrollees Uninsured All 6 Months (2)	Insured Recent Enrollees ^a (3)	Privately Insured Recent Enrollees ^a (4)
Service Use				
Any Doctor/Other Health Professional Visit	0.00	0.07 **	-0.08 **	-0.09 **
Any Preventive Care or Checkup Visit	0.00	0.11 **	-0.10 **	-0.11 **
Dental Visit for Checkup/Cleaning ^b	0.12 **	0.25 **	-0.02	-0.01
Any Specialist Visit	0.02	0.04 *	-0.01	-0.01
Any Mental Health Visit	0.00	0.01	0.00	0.01
Any Specialist or Mental Health Visit	0.01	0.04 *	-0.01	0.00
Any Emergency Room Visit	-0.09 **	-0.07 **	-0.12 **	-0.07 *
Any Hospital Stay	0.00	0.01	-0.01	0.01
Unmet Needs				
Doctor/Health Professional Care	-0.04 **	-0.06 **	-0.01	0.00
Prescription Drugs	-0.04 **	-0.06 **	-0.01	0.00
Dental Care ^b	-0.07 **	-0.11 **	-0.04 *	-0.02
Specialist	-0.04 **	-0.06 **	-0.01	-0.02
Hospital Care	-0.04 **	-0.06 **	-0.02 *	-0.02
Hospital, Specialist, Doctor, Drug	-0.08 **	-0.12 **	-0.04 *	-0.03
Hospital, Specialist, Doctor, Drug, Dentist ^b	-0.09 **	-0.13 **	-0.04 *	-0.01
More than One Unmet Need	-0.06 **	-0.10 **	-0.02 *	-0.03
Parental Perceptions of Meeting Child's Health Care Needs				
Very Confident	0.33 **	0.43 **	0.24 **	0.20 **
Never or Not Very Often Stressed	0.28 **	0.40 **	0.16 **	0.13 **
Never or Rarely Worried	0.25 **	0.33 **	0.16 **	0.15 **
Never or Rarely Cause Financial Difficulties	0.31 **	0.39 **	0.23 **	0.26 **
Usual Source of Care (USC)				
Had USC in Past 6 Months	0.11 **	0.21 **	0.01	0.02
USC Type: Private Doctor's Office/Group Practice	0.05 **	0.12 **	0.00	-0.04
Usually Saw Same Provider at USC	0.11 **	0.23 **	-0.02	0.00
Had USC for Dental Care in Past 6 Months ^b	0.20 **	0.31 **	0.08 **	0.14 **
Provider Communication and Accessibility				
Would Recommend USC	0.01	0.03	-0.01	-0.01
Could Reach Doctor After Hours	0.07 **	0.16 **	0.00	0.01
Providers Explain in Understandable Ways	0.02	0.06 *	-0.01	-0.02
Provider Treats with Courtesy/Respect	0.00	0.02	-0.01	0.00
Provider Talks About How Child Feeling	0.01	0.03	-0.01	0.00
Rated Ease of Getting Care Excellent or Very Good	0.08 **	0.17 **	0.01	0.00
Wait Time for Care Less than 30 Minutes	0.04 *	0.09 **	0.00	-0.01
Travel Time to USC Less than 30 Minutes	0.04 **	0.07 **	0.02	0.00
Sample Size	8,500	6,886	6,977	6,020

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on samples of recent and established SCHIP enrollees. Unless otherwise noted, the estimates are based on a linear probability model with fixed county effects that controls for characteristics of SCHIP enrollees and their parents.

^aIncludes those insured some or all of the past 6 months before enrolling.

^bApplies to children age 3 and older.

*p-value<0.05.

**p-value<0.01.

- More likely to have parents who have confidence in their ability to meet their child's health care needs
- Less likely to have parents who say that meeting their child's needs causes stress, financial burden, or worry
- More likely to have a usual source of medical care, to see the same provider when they go for care, and to have a usual source of dental care
- More likely to rely on a private physician or group practice than on a clinic or health center
- More likely to rate the care they receive as excellent, have providers they can reach after hours, have short waits (of 30 minutes or less) when they go for appointments, and have short travel times (of 30 minutes or less)

Overall, the pattern of findings is consistent across states (Appendix Table VII.1). When we estimate separate models for each of the 10 states, we find statistically significant impact estimates in a large number of the state models for unmet needs, confidence, stress, and having a usual source of care. For each individual type of unmet need, 5 or more states had a statistically significant impact estimate, and all 10 states had statistically significant impact estimates on the proportion with more than one unmet need; all 10 states had them on all four of the outcomes that reflect confidence, stress, worry, and financial burden; and 7 of the 10 states had them in the models for usual source for health and dental care.

Changes in Access and Use Relative to Being Uninsured Before Enrolling. As expected, we find much stronger differences when we contrast the experiences of established SCHIP enrollees with the pre-SCHIP experiences of children who had been uninsured for at least 6 months before enrolling in SCHIP (Table VII.4, column 2). Not only do we find more statistically significant differences than in the general model, but the magnitude of the differences is also substantially larger. For example, other things equal, relative to the pre-SCHIP experiences of recent enrollees who had been uninsured before enrolling in SCHIP, established enrollees are 12 percentage points more likely to have received a dental checkup than

all recent enrollees before enrolling. In contrast, established enrollees were 25 percentage points more likely to have received a dental checkup than recent enrollees who had been uninsured before enrolling. Overall, about 90 percent of the outcomes have estimated impacts in the expected direction that are significantly different from zero.

Established enrollees are more likely than those who had been uninsured during the 6 months before enrolling to receive any office visits, any preventive/well-child visits, any preventive dental care, and care from a specialist. They are also less likely to have emergency room visits. Established enrollees are 13 percentage points less likely than the uninsured to have any type of unmet health need and 10 percentage points less likely to have multiple unmet needs. They are also less likely to have unmet needs for physician services, prescription drugs, dental care, specialty care, and hospital care.

Established enrollees are 43 percentage points more likely than the uninsured to have parents who feel very confident about their ability to address their child's health care needs and are less likely to have parents who feel stress, worry, or financial burden associated with meeting their child's needs. Established enrollees are 21 and 31 percentage points more likely than the uninsured to have a usual source of care for medical and dental care, respectively. They are also more likely to see the same provider at their usual source of care, to rely on private physician's office as a usual source of care, to rate the ease of getting care as excellent, to say that providers explained things in a way that could be understood, to be able to reach the provider after hours, and to have shorter waits when they go for appointments.

When we estimated separate models for each state, we found patterns similar to those reported in the pooled model (Appendix Table VII.2). In all 10 states, the children who were uninsured all 6 months before enrolling were doing worse than the established enrollees in terms of any unmet need (defined for physician care, prescription drug, dental care, and hospital care)

and in terms of having more than one unmet need. Their parents more frequently expressed negative views in terms of confidence, stress, worry, and financial burden, and they were less likely to have a usual source of dental care. In addition, 8 or more of the 10 states had statistically significant impacts for preventive dental checkups, unmet needs for prescription drugs, usual source of health care, and usually seeing the same provider at the usual source of care.

Changes Relative to Being Insured in the Prior 6-Month Period. Established enrollees appear to be doing better relative to the experiences of recent enrollees who had coverage for some or all of the 6 months before enrolling in SCHIP with respect to the measures related to unmet need, their parents' attitudes about being able to meet the child's health care needs, and having a usual source of dental care (Table VII.4, column 3). The results regarding service use are more mixed: established enrollees are less likely than those who had coverage in the period before enrolling to have received a checkup and any type of office visit, but they are also less likely to have had an emergency room visit.

The magnitude of the impacts is smaller than for those estimated relative to the children who were uninsured for the full 6-month period before enrolling. For example, children who were uninsured for the 6 months leading up to their SCHIP enrollment are 31 percentage points less likely than the established enrollees to have a usual source of dental care, while those who had had coverage for some or all of the 6 months prior are just 8 percentage points less likely to have a usual source of dental care. Likewise, established enrollees are 25 percentage points more likely to have received a preventive dental visit than children who had been uninsured all 6 months, whereas there is no statistically significant difference in receipt of preventive dental visits between established enrollees and recent enrollees who were insured for some or all of the 6 months before enrolling.

Not surprisingly, when we subset the recent enrollees to those who had private coverage for all 6 months before enrolling, we see fewer differences (Table VII.4, column 4). We find that established enrollees are more likely than recent enrollees who had private coverage to have a usual source of dental care. We also find that they are more likely to have parents who feel confident that their children's health care needs will be met and less likely to have parents who feel stress, worry, and financial burden associated with meeting their child's health care needs. For example, the parents of established SCHIP enrollees are 20 percentage points more likely to say that they have confidence in their ability to meet their child's health care needs than the parents of recent enrollees who had private coverage during the 6 months before enrolling. As indicated earlier, however, it is possible that estimated impacts on confidence, worry, and stress are overstated for this particular population, since they may have experienced disruptions such as job loss that led them to enroll their child in SCHIP.

The findings for service use are mixed: established enrollees are less likely than the children who had private coverage before enrolling to have had a checkup and a physician visit but are also less likely to have an emergency room visit. It is not clear how to interpret these findings. On the one hand, they suggest that SCHIP enrollees may have less access than the privately insured recent enrollees to some types of outpatient care, as their having fewer preventive and other visits to physicians shows. On the other hand, however, the greater reliance on the emergency room among children with private coverage than among established SCHIP enrollees suggests that SCHIP enrollees may have greater access to primary and specialty care.

2. Sensitivity Analyses on Impact Estimates

As indicated above, we examined a number of alternative specifications to assess the robustness of our impact estimates. Tables VII.5, VII.6, and VII.7 show the estimated impacts under eight formulations that subset the established and recent enrollee samples. While these

tables show results for just some of the alternative models that were estimated, they are illustrative of the findings that emerge under all the alternative models that were estimated. Table VII.5 shows the average impacts, Table VII.6 the impacts relative to being uninsured all 6 months before enrolling, and Table VII.7 the impacts relative to having insurance coverage for some or all of the 6 months prior.

The impact estimates are strikingly similar across the alternative specifications. While the specific point estimates differ from equation to equation, the overall pattern of the findings is remarkably robust across the different models. In all specifications, we find statistically significant average impacts on unmet needs, confidence, stress, and having a usual source of dental care. For example, even when we use the disenrollee sample in place of the established enrollee sample to estimate SCHIP impacts relative to being uninsured (Table VII.6, column 8), we find that children covered by SCHIP receive more preventive dental and well-child care, have fewer unmet needs, are more likely to have a usual source of both health and dental care, and have greater accessibility to providers. In addition, their families have fewer worries and financial difficulties associated with meeting their child's health care needs.

3. Impacts Relative to Being Uninsured Before Enrolling, by Subgroup

Separate impact estimates were derived for children in different subgroups defined by their race/ethnicity, age, health status, and parents' educational attainment (Table VII.8). We also re-estimated our core models, including additional interaction terms to test whether SCHIP impacts appeared to vary with the characteristics of the child and his or her family (Table VII.9).

The key results presented in this chapter persisted across all the subgroups considered here, although, due to the variation in the sample size of each subgroup, the precision of individual impact estimates varies across subgroups, as does the extent to which the estimates achieve significance at conventional levels. Improvements in access due to SCHIP enrollment are found

TABLE VII.5

SENSITIVITY ANALYSES ON ACCESS AND USE IMPACTS OF SCHIP ENROLLMENT
FOR ALL RECENT ENROLLEES

	Regressions with State and Metropolitan Status Dummy Variables (1)	Excluding Recent Enrollees Enrolled Less than 6 Months (2)	Excluding Children Established More than 18 Months (3)	Excluding Children Established More than 4 Years (4)
Service Use				
Any Doctor/Other Health Professional Visit	0.00	-0.01	0.02	0.00
Any Preventive Care or Checkup Visit	0.01	-0.01	0.01	0.00
Dental Visit for Checkup/Cleaning ^a	0.13 **	0.12 **	0.12 **	0.12 **
Any Specialist Visit	0.01	0.01	0.02	0.02
Any Mental Health Visit	0.00	0.01 *	0.01	0.00
Any Specialist or Mental Health Visit	0.01	0.01	0.03	0.01
Any Emergency Room Visit	-0.10 **	-0.09 **	-0.09 **	-0.09 **
Any Hospital Stay	-0.01	-0.01	-0.01	-0.01
Unmet Need				
Doctor/Health Professional Care	-0.05 **	-0.03 **	-0.04 **	-0.04 **
Prescription Drugs	-0.05 **	-0.03 **	-0.03 **	-0.03 **
Dental Care ^a	-0.08 **	-0.08 **	-0.07 **	-0.07 **
Specialist	-0.05 **	-0.04 **	-0.03 *	-0.04 **
Hospital Care	-0.05 **	-0.04 **	-0.04 **	-0.04 **
Hospital, Specialist, Doctor, Drug	-0.09 **	-0.08 **	-0.07 **	-0.08 **
Hospital, Specialist, Doctor, Drug, Dentist ^a	-0.11 **	-0.10 **	-0.08 **	-0.09 **
More than One Unmet Need	-0.07 **	-0.06 **	-0.06 **	-0.06 **
Parental Perceptions of Meeting Child's Health Care Needs				
Very Confident	0.32 **	0.36 **	0.33 **	0.33 **
Never or Not Very Often Stressed	0.27 **	0.27 **	0.24 **	0.28 **
Never or Rarely Worried	0.25 **	0.24 **	0.20 **	0.24 **
Never or Rarely Cause Financial Difficulties	0.31 **	0.32 **	0.30 **	0.31 **
Usual Source of Care (USC)				
Had USC in Past 6 Months	0.10 **	0.13 **	0.11 **	0.11 **
USC Type: Private Doctor's Office/Group Practice	0.04 **	0.06 **	0.06 *	0.05 **
Usually Saw Same Provider at USC	0.10 **	0.13 **	0.11 **	0.10 **
Had USC for Dental Care in Past 6 Months ^a	0.21 **	0.21 **	0.20 **	0.20 **
Provider Communication and Accessibility				
Would Recommend USC	0.00	0.00	0.01	0.01
Could Reach Doctor After Hours	0.07 **	0.08 **	0.08 **	0.07 **
Providers Explain in Understandable Ways	0.01	0.02	0.05 **	0.02
Provider Treats with Courtesy/Respect	0.00	0.00	0.01	0.00
Provider Talks About How Child Feeling	0.01	0.00	0.00	0.01
Rated Ease of Getting Care Excellent or Very Good	0.08 **	0.09 **	0.06 *	0.07 **
Wait Time for Care Less than 30 Minutes	0.03 *	0.06 **	0.07 **	0.04 *
Travel Time to USC Less than 30 Minutes	0.04 **	0.04 *	0.06 **	0.04 **
Sample Size	8,500	7,267	5,078	7,770

TABLE VII.5 (continued)

	Excluding Those Younger than 1 or 18 or Older (5)	Excluding Those with Emergency Room or Hospital Use (6)	Excluding Those with Any Unmet Need (Including Dental) (7)	Regressions Comparing Recent Enrollees with Disenrollees (8)
Service Use				
Any Doctor/Other Health Professional	-0.01	0.00	-0.02	0.01
Any Preventive Care or Checkup Visit	0.00	0.02	-0.01	0.07 **
Any Dental for Checkup/Cleaning ^a	0.12 **	0.14 **	0.10 **	0.07 **
Any Specialist	0.01	0.02	0.02	0.00
Any Mental Health	0.01	0.01	0.00	0.01
Any Specialist or Mental Health	0.01	0.03 *	0.02	0.01
Any Emergency Room	-0.09 **	n.a.	-0.09 **	-0.07 **
Any Hospital Stay	0.00	n.a.	0.00	0.00
Unmet Need				
Doctor/Health Professional Care	-0.04 **	-0.04 **	na	-0.04 **
Prescription Drugs	-0.04 **	-0.02	na	-0.03 **
Dental Care ^a	-0.08 **	-0.07 **	na	-0.04 **
Specialist	-0.04 **	-0.03 **	na	-0.03 **
Hospital Care	-0.04 **	-0.03 **	na	-0.04 **
Hospital, Specialist, Doctor, Drug	-0.08 **	-0.07 **	na	-0.07 **
Hospital, Specialist, Doctor, Drug, Dentist ^a	-0.10 **	-0.08 **	na	-0.06 **
More than One Unmet Need	-0.06 **	-0.06 **	na	-0.06 **
Parental Perceptions of Meeting Child's Health Care Needs				
Very Confident	0.33 **	0.32 **	0.29 **	0.24 **
Never or Not Very Often Stressed	0.28 **	0.27 **	0.23 **	0.22 **
Never or Rarely Worried	0.25 **	0.25 **	0.22 **	0.19 **
Never or Rarely Cause Financial Difficulties	0.31 **	0.27 **	0.28 **	0.26 **
Usual Source of Care (USC)				
Had USC in Past 6 Months	0.11 **	0.12 **	0.11 **	0.07 **
USC Type: Private Doctor's Office/Group Practice	0.05 **	0.05 *	0.04 *	0.01
Usually Saw Same Provider at USC	0.10 **	0.11 **	0.11 **	0.07 **
Had USC for Dental Care in Past 6 Months ^a	0.20 **	0.22 **	0.19 **	0.12 **
Provider Communication and Accessibility				
Would Recommend USC	0.01	0.00	0.01	0.01
Could Reach Doctor After Hours	0.08 **	0.07 **	0.07 **	0.04 *
Providers Explain in Understandable Ways	0.02	0.02	0.02	0.03
Provider Treats with Courtesy/Respect	0.01	0.00	0.01	0.01
Provider Talks About How Child Feeling	0.01	0.01	0.02	0.03
Rated Ease of Getting Care Excellent or Very Good	0.08 **	0.06 *	0.06 *	0.07 **
Wait Time for Care Less than 30 Minutes	0.04 *	0.05 *	0.04	0.04 *
Travel Time to USC Less than 30 Minutes	0.04 *	0.03 *	0.05 **	0.03 *
Sample Size	8,345	6,369	6,661	10,362

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on samples of recent and established SCHIP enrollees. Unless otherwise noted, the estimates are based on a linear probability model with fixed county effects that controls for characteristics of SCHIP enrollees and their parents.

^aApplies to children age 3 and older.

n.a. = not applicable.

*p-value<0.05.

**p-value<0.01.

TABLE VII.6

SENSITIVITY ANALYSES ON ACCESS AND USE IMPACTS OF SCHIP ENROLLMENT
FOR RECENT ENROLLEES UNINSURED FOR THE
6 MONTHS BEFORE ENROLLING

	Regressions with State and Metropolitan Status Dummy Variables (1)	Excluding Recent Enrollees Enrolled Less than 6 Months (2)	Excluding Children Established More than 18 Months (3)	Excluding Children Established More than 4 Years (4)
Service Use				
Any Doctor/Other Health Professional Visit	0.08 **	0.05	0.10 **	0.07 **
Any Preventive Care or Checkup Visit	0.12 **	0.11 **	0.12 **	0.11 **
Dental Visit for Checkup/Cleaning ^a	0.26 **	0.26 **	0.25 **	0.25 **
Any Specialist Visit	0.04 *	0.04 *	0.04 *	0.04 *
Any Mental Health Visit	0.01	0.02 *	0.01	0.01
Any Specialist or Mental Health Visit	0.04 *	0.05 *	0.05 *	0.04 *
Any Emergency Room Visit	-0.06 **	-0.05 *	-0.06 *	-0.07 **
Any Hospital Stay	0.01	0.00	0.00	0.00
Unmet Need				
Doctor/Health Professional Care	-0.07 **	-0.05 **	-0.06 **	-0.06 **
Prescription Drugs	-0.06 **	-0.05 **	-0.06 **	-0.06 **
Dental Care ^a	-0.11 **	-0.11 **	-0.10 **	-0.10 **
Specialist	-0.06 **	-0.07 **	-0.05 **	-0.06 **
Hospital Care	-0.06 **	-0.05 **	-0.06 **	-0.06 **
Hospital, Specialist, Doctor, Drug	-0.12 **	-0.11 **	-0.11 **	-0.12 **
Hospital, Specialist, Doctor, Drug, Dentist ^a	-0.15 **	-0.13 **	-0.13 **	-0.13 **
More than One Unmet Need	-0.10 **	-0.10 **	-0.10 **	-0.10 **
Parental Perceptions of Meeting Child's Health Care Needs				
Very Confident	0.43 **	0.47 **	0.43 **	0.43 **
Never or Not Very Often Stressed	0.40 **	0.40 **	0.37 **	0.40 **
Never or Rarely Worried	0.34 **	0.32 **	0.28 **	0.33 **
Never or Rarely Cause Financial Difficulties	0.40 **	0.40 **	0.39 **	0.40 **
Usual Source of Care (USC)				
Had USC in Past 6 Months	0.21 **	0.23 **	0.21 **	0.21 **
USC Type: Private Doctor's Office/Group Practice	0.11 **	0.11 **	0.13 **	0.12 **
Usually Saw Same Provider at USC	0.24 **	0.26 **	0.22 **	0.23 **
Had USC for Dental Care in Past 6 Months ^a	0.32 **	0.31 **	0.31 **	0.31 **
Provider Communication and Accessibility				
Would Recommend USC	0.03	0.01	0.03	0.03
Could Reach Doctor After Hours	0.16 **	0.15 **	0.16 **	0.16 **
Providers Explain in Understandable Ways	0.06 *	0.06 *	0.10 **	0.06 *
Provider Treats with Courtesy/Respect	0.02	0.02	0.03	0.02
Provider Talks About How Child Feeling	0.05 *	0.03	0.03	0.03
Rated Ease of Getting Care Excellent or Very Good	0.17 **	0.17 **	0.15 **	0.17 **
Wait Time for Care Less than 30 Minutes	0.10 **	0.10 **	0.12 **	0.09 **
Travel Time to USC Less than 30 Minutes	0.08 **	0.09 **	0.09 **	0.07 **
Sample Size	8,500	7,267	3,467	7,770

TABLE VII.6 (continued)

	Excluding Those Younger than 1 or 18 or Older (5)	Excluding Those with Emergency Room or Hospital Use (6)	Excluding Those with Any Unmet Need (Including Dental) (7)	Regressions Comparing Recent Enrollees with Disenrollees (8)	Excluding All Recent and Established Enrollees Insured Before Enrolling (9)
Service Use					
Any Doctor/Other Health Professional Visit	0.07 **	0.08 **	0.07 *	0.08 **	0.06 **
Any Preventive Care or Checkup Visit	0.11 **	0.12 **	0.11 **	0.17 **	0.10 **
Dental Visit for Checkup/Cleaning ^a	0.24 **	0.24 **	0.24 **	0.19 **	0.24 **
Any Specialist Visit	0.03 *	0.04 *	0.05 *	0.02	0.04 *
Any Mental Health Visit	0.01	0.02	0.00	0.01	0.01
Any Specialist or Mental Health Visit	0.03	0.04 *	0.05 *	0.03	0.04 *
Any Emergency Room Visit	-0.07 **	n.a.	-0.08 **	-0.04 *	-0.06 **
Any Hospital Stay	0.01	n.a.	0.01	0.00	0.01
Unmet Need					
Doctor/Health Professional Care	-0.07 **	-0.06 **	n.a.	-0.06 **	-0.06 **
Prescription Drugs	-0.06 **	-0.04 **	n.a.	-0.06 **	-0.06 **
Dental Care ^a	-0.11 **	-0.10 **	n.a.	-0.08 **	-0.11 **
Specialist	-0.06 **	-0.05 **	n.a.	-0.06 **	-0.06 **
Hospital Care	-0.06 **	-0.04 **	n.a.	-0.06 **	-0.06 **
Hospital, Specialist, Doctor, Drug	-0.12 **	-0.11 **	n.a.	-0.11 **	-0.12 **
Hospital, Specialist, Doctor, Drug, Dentist ^a	-0.14 **	-0.13 **	n.a.	-0.11 **	-0.14 **
More than One Unmet Need	-0.11 **	-0.09 **	n.a.	-0.10 **	-0.11 **
Parental Perceptions of Meeting Child's Health Care Needs					
Very Confident	0.43 **	0.41 **	0.41 **	0.34 **	0.43 **
Never or Not Very Often Stressed	0.40 **	0.39 **	0.37 **	0.35 **	0.40 **
Never or Rarely Worried	0.33 **	0.34 **	0.31 **	0.28 **	0.32 **
Never or Rarely Cause Financial Difficulties	0.39 **	0.35 **	0.36 **	0.35 **	0.39 **
Usual Source of Care (USC)					
Had USC in Past 6 Months	0.21 **	0.20 **	0.21 **	0.17 **	0.20 **
USC Type: Private Doctor's Office/Group Practice	0.13 **	0.14 **	0.12 **	0.08 **	0.12 **
Usually Saw Same Provider at USC	0.23 **	0.22 **	0.24 **	0.19 **	0.22 **
Had USC for Dental Care in Past 6 Months ^a	0.31 **	0.32 **	0.31 **	0.23 **	0.32 **
Provider Communication and Accessibility					
Would Recommend USC	0.03	0.02	0.04	0.02	0.03
Could Reach Doctor After Hours	0.16 **	0.17 **	0.15 **	0.12 **	0.16 **
Providers Explain in Understandable Ways	0.06 *	0.05 *	0.04	0.06 **	0.06 *
Provider Treats with Courtesy/Respect	0.03	-0.01	0.02	0.04 *	0.02
Provider Talks About How Child Feeling	0.03	0.02	0.01	0.06 *	0.04
Rated Ease of Getting Care Excellent or Very Good	0.18 **	0.16 **	0.14 **	0.14 **	0.18 **
Wait Time for Care Less than 30 Minutes	0.09 **	0.09 **	0.09 **	0.09 **	0.10 **
Travel Time to USC Less than 30 Minutes	0.07 **	0.05 *	0.09 **	0.06 **	0.08 **
Sample Size	8,345	6,369	6,661	10,362	3,100

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on samples of recent and established SCHIP enrollees. Unless otherwise noted, the estimates are based on a linear probability model with fixed county effects that controls for characteristics of SCHIP enrollees and their parents.

^aApplies to children age 3 and older.

n.a. = not applicable.

*p-value<0.05.

**p-value<0.01.

TABLE VII.7

SENSITIVITY ANALYSES ON ACCESS AND USE IMPACTS OF SCHIP ENROLLMENT
FOR RECENT ENROLLEES INSURED FOR SOME OR PART
OF THE PREVIOUS 6 MONTHS BEFORE ENROLLING

	Regressions with State and Metropolitan Status Dummy Variables (1)	Excluding Recent Enrollees Enrolled Less than 6 Months (2)	Excluding Children Established More than 18 Months (3)	Excluding Children Established More than 4 Years (4)
Service Use				
Any Doctor/Other Health Professional Visit	-0.06 **	-0.08 **	-0.06 **	-0.08 **
Any Preventive Care or Checkup Visit	-0.10 **	-0.11 **	-0.10 **	-0.10 **
Dental Visit for Checkup/Cleaning ^a	-0.01	-0.03	-0.04	-0.02
Any Specialist Visit	0.00	-0.02	-0.01	-0.01
Any Mental Health Visit	0.00	0.01	0.00	0.00
Any Specialist or Mental Health Visit	0.00	-0.02	0.00	-0.01
Any Emergency Room Visit	-0.12 **	-0.13 **	-0.12 **	-0.12 **
Any Hospital Stay	-0.02	-0.02	-0.02	-0.02
Unmet Need				
Doctor/Health Professional Care	-0.02	0.00	-0.01	-0.01
Prescription Drugs	-0.01	-0.01	-0.01	-0.01
Dental Care ^a	-0.04 *	-0.05 *	-0.03	-0.04 *
Specialist	-0.02	-0.02	0.00	-0.02
Hospital Care	-0.02 **	-0.02	-0.02 *	-0.02 *
Hospital, Specialist, Doctor, Drug	-0.05 **	-0.05 *	-0.04	-0.05 *
Hospital, Specialist, Doctor, Drug, Dentist ^a	-0.06 **	-0.06 *	-0.04	-0.04 *
More than One Unmet Need	-0.03 **	-0.02	-0.02	-0.03 *
Parental Perceptions of Meeting Child's Health Care Needs				
Very Confident	0.24 **	0.26 **	0.24 **	0.23 **
Never or Not Very Often Stressed	0.16 **	0.15 **	0.12 **	0.16 **
Never or Rarely Worried	0.17 **	0.15 **	0.12 **	0.16 **
Never or Rarely Cause Financial Difficulties	0.24 **	0.24 **	0.22 **	0.23 **
Usual Source of Care (USC)				
Had USC in Past 6 Months	0.01	0.02	0.01	0.01
USC Type: Private Doctor's Office/Group Practice	0.00	0.02	0.00	0.00
Usually Saw Same Provider at USC	-0.02	0.00	-0.02	-0.02
Had USC for Dental Care in Past 6 Months ^a	0.10 **	0.11 **	0.07 *	0.08 **
Provider Communication and Accessibility				
Would Recommend USC	0.00	0.00	0.00	-0.01
Could Reach Doctor After Hours	0.01	-0.01	0.02	-0.01
Providers Explain in Understandable Ways	0.00	0.03	0.02	0.01
Provider Treats with Courtesy/Respect	0.00	-0.01	-0.01	-0.01
Provider Talks About How Child Feeling	0.00	-0.02	-0.02	-0.01
Rated Ease of Getting Care Excellent or Very Good	0.03	0.04	0.00	0.01
Wait Time for Care Less than 30 Minutes	0.00	0.02	0.02	0.00
Travel Time to USC Less than 30 Minutes	0.02	0.00	0.04 *	0.02
Sample Size	8,500	7,267	3,556	7,770

TABLE VII.7 (continued)

	Excluding Those Younger than 1 or Older than 18	Excluding Those with Emergency Room or Hospital Use	Excluding Those with Any Unmet Need (Including Dental)	Regressions Comparing Recent Enrollees with Disenrollees	Excluding All Recent and Established Enrollees Uninsured Before Enrolling
	(5)	(6)	(7)	(8)	(9)
Service Use					
Any Doctor/Other Health Professional Visit	-0.08 **	-0.08	-0.09	-0.07 **	-0.10
Any Preventive Care or Checkup Visit	-0.11 **	-0.09	-0.11	-0.04	-0.10
Dental Visit for Checkup/Cleaning ^a	-0.02	0.01	-0.05	-0.08 **	-0.03
Any Specialist Visit	-0.01	0.01	0.00	-0.03	-0.03
Any Mental Health Visit	0.00	0.01	-0.01	0.00	-0.01
Any Specialist or Mental Health Visit	-0.02	0.02	-0.01	-0.02	-0.04
Any Emergency Room Visit	-0.12 **	n.a.	-0.10	-0.09 **	-0.11
Any Hospital Stay	-0.01	n.a.	-0.01	-0.01	-0.01
Unmet Need					
Doctor/Health Professional Care	-0.01	-0.02	n.a.	-0.02 **	0.01
Prescription Drugs	-0.01	0.00	n.a.	-0.01	0.02
Dental Care ^a	-0.04 *	-0.03	n.a.	0.00	0.01
Specialist	-0.01	-0.01	n.a.	-0.01	-0.01
Hospital Care	-0.02 *	-0.02	n.a.	-0.02 *	-0.03
Hospital, Specialist, Doctor, Drug	-0.05 *	-0.03	n.a.	-0.05 **	-0.01
Hospital, Specialist, Doctor, Drug, Dentist ^a	-0.05 *	-0.03	n.a.	-0.02	0.00
More than One Unmet Need	-0.02 *	-0.02	n.a.	-0.03 **	-0.01
Parental Perceptions of Meeting Child's Health Care Needs					
Very Confident	0.23 **	0.24	0.19	0.14 **	0.20
Never or Not Very Often Stressed	0.16 **	0.15	0.12	0.08 **	0.13
Never or Rarely Worried	0.17 **	0.14	0.13	0.09 **	0.15
Never or Rarely Cause Financial Difficulties	0.23 **	0.18	0.21	0.18 **	0.23
Usual Source of Care (USC)					
Had USC in Past 6 Months	0.00	0.03	0.02	-0.03 *	0.02
USC Type: Private Doctor's Office/Group Practice	0.00	-0.03	-0.01	-0.05 *	0.02
Usually Saw Same Provider at USC	-0.03	0.00	-0.01	-0.07 **	0.02
Had USC for Dental Care in Past 6 Months ^a	0.08 **	0.10	0.07	0.01	0.12
Provider Communication and Accessibility					
Would Recommend USC	-0.01	-0.02	-0.01	-0.01	0.00
Could Reach Doctor After Hours	0.00	-0.01	0.02	-0.02	0.01
Providers Explain in Understandable Ways	0.01	-0.02	0.00	0.00	-0.02
Provider Treats with Courtesy/Respect	0.00	0.00	0.00	0.00	0.00
Provider Talks About How Child Feeling	0.00	-0.01	0.02	0.01	-0.02
Rated Ease of Getting Care Excellent or Very Good	0.01	0.00	0.02	0.03	0.04
Wait Time for Care Less than 30 Minutes	0.00	0.00	0.00	0.00	0.00
Travel Time to USC Less than 30 Minutes	0.02	0.02	0.03	0.01	0.02
Sample Size	8,345	6,369	6,661	10,362	3,100

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on samples of recent and established SCHIP enrollees. Unless otherwise noted, the estimates are based on a linear probability model with fixed county effects that controls for characteristics of SCHIP enrollees and their parents.

^aApplies to children age 3 and older.

n.a. = not applicable.

*p-value<0.05.

**p-value<0.01.

TABLE VII.8

ACCESS AND USE IMPACTS ON SCHIP ENROLLMENT FOR ESTABLISHED AND RECENT ENROLLEES UNINSURED FOR THE 6 MONTHS BEFORE ENROLLING, BY SUBGROUP

	Hispanic, English- Speaking	Hispanic, Spanish- Speaking	White	Black	Non-English- Speaking
Service Use					
Any Doctor/Other Health Professional Visit	0.10	0.05	0.13 *	0.18	0.40
Any Preventive Care or Checkup Visit	0.07	0.20 **	0.18 **	0.17	0.22
Dental Visit for Checkup/Cleaning ^a	0.29 **	0.30 **	0.32 **	0.21 *	0.38
Any Specialist Visit	-0.07	0.06	0.02	-0.04	-0.03
Any Mental Health Visit	-0.02	0.07 *	0.04	-0.01	-0.08
Any Specialist or Mental Health Visit	-0.07	0.13 *	0.02	-0.07	-0.10
Any Emergency Room Visit	0.03	0.00	-0.05	-0.09	0.12
Any Hospital Stay	0.08	0.00	0.02	0.01	-0.13
Unmet Needs					
Doctor/Health Professional Care	-0.07 *	-0.05	-0.03	-0.09	0.05
Prescription Drugs	-0.14 **	-0.06 **	-0.06 *	-0.20 **	0.01
Dental Care ^a	-0.07	-0.14 *	-0.09 *	-0.13	0.06
Specialist	-0.08 **	-0.07 *	-0.04	-0.12 **	-0.01
Hospital Care	-0.05 *	-0.05 *	-0.07 **	-0.16 **	-0.07
Hospital, Specialist, Doctor, Drug	-0.20 **	-0.14 **	-0.09 *	-0.23 **	0.05
Hospital, Specialist, Doctor, Drug, Dentist ^a	-0.18 **	-0.14 *	-0.11 *	-0.21 *	0.17
More than One Unmet Need	-0.12 **	-0.13 **	-0.09 **	-0.23 **	-0.03
Parental Perceptions of Meeting Child's Health Care Needs					
Very Confident	0.25 **	0.41 **	0.48 **	0.39 **	0.09
Never or Not Very Often Stressed	0.37 **	0.31 **	0.41 **	0.49 **	0.37
Never or Rarely Worried	0.15	0.23 **	0.51 **	0.57 **	0.23
Never or Rarely Cause Financial Difficulties	0.32 **	0.44 **	0.34 **	0.38 **	0.24
Usual Source of Care (USC)					
Had USC in Past 6 Months	0.23 **	0.19 **	0.21 **	0.17	0.51 *
USC Type: Private Doctor's Office/Group Practice	0.15	0.02	0.09	0.17	0.42
Usually Saw Same Provider at USC	0.38 **	0.23 **	0.27 **	0.11	0.63 *
Had USC for Dental Care in Past 6 Months ^a	0.37 **	0.36 **	0.27 **	0.21 *	0.01
Provider Communication and Accessibility					
Would Recommend USC	0.14 *	0.04	-0.01	0.14	-0.03
Could Reach Doctor After Hours	0.11	0.21 **	0.10 *	0.22 *	0.27
Providers Explain in Understandable Ways	0.20 **	0.09	0.02	0.06	-0.01
Provider Treats with Courtesy/Respect	0.05	0.05	0.00	0.03	0.00
Provider Talks About How Child Feeling	0.21 **	0.02	0.04	-0.01	0.17
Rated Ease of Getting Care Excellent or Very Good	0.29 **	0.23 *	0.16 *	0.11	-0.31
Wait Time for Care Less than 30 Minutes	0.19	0.07	0.01	0.09	0.39
Travel Time to USC Less than 30 Minutes	0.07	-0.01	0.10	0.18	-0.02
Sample Size	1,057	807	2,093	681	115

TABLE VII.8 (continued)

	Age		
	0 to 5	6 to 12	13 to 18
Service Use			
Any Doctor/Other Health Professional Visit	0.03	0.13 *	0.18 **
Any Preventive Care or Checkup Visit	0.11	0.19 **	0.19 **
Dental Visit for Checkup/Cleaning ^a	0.56 **	0.25 **	0.18 *
Any Specialist Visit	-0.05	-0.02	0.11 *
Any Mental Health Visit	0.01	0.03	0.02
Any Specialist or Mental Health Visit	-0.04	0.01	0.10
Any Emergency Room Visit	-0.09	-0.01	0.10
Any Hospital Stay	-0.04	0.02	0.03
Unmet Needs			
Doctor/Health Professional Care	0.02	-0.05 *	-0.08 *
Prescription Drugs	-0.10 **	-0.08 **	-0.05
Dental Care ^a	-0.10	-0.15 **	-0.12 *
Specialist	-0.05	-0.09 **	-0.08 *
Hospital Care	-0.09 **	-0.05 **	-0.07 **
Hospital, Specialist, Doctor, Drug	-0.14 *	-0.13 **	-0.13 *
Hospital, Specialist, Doctor, Drug, Dentist ^a	-0.16 *	-0.19 **	-0.09
More than One Unmet Need	-0.07 *	-0.13 **	-0.17 **
Parental Perceptions of Meeting Child's Health Care Needs			
Very Confident	0.38 **	0.34 **	0.45 **
Never or Not Very Often Stressed	0.45 **	0.32 **	0.49 **
Never or Rarely Worried	0.33 **	0.31 **	0.43 **
Never or Rarely Cause Financial Difficulties	0.40 **	0.30 **	0.45 **
Usual Source of Care (USC)			
Had USC in Past 6 Months	0.16 **	0.17 **	0.32 **
USC Type: Private Doctor's Office/Group Practice	0.07	0.15 **	-0.01
Usually Saw Same Provider at USC	0.26 **	0.20 **	0.31 **
Had USC for Dental Care in Past 6 Months ^a	0.49 **	0.25 **	0.29 **
Provider Communication and Accessibility			
Would Recommend USC	0.09 *	0.01	0.04
Could Reach Doctor After Hours	0.16	0.13 *	0.16 *
Providers Explain in Understandable Ways	0.18 **	0.02	0.09
Provider Treats with Courtesy/Respect	0.08	0.00	-0.05
Provider Talks About How Child Feeling	0.13	0.02	0.13
Rated Ease of Getting Care Excellent or Very Good	0.34 **	0.15 *	0.16
Wait Time for Care Less than 30 Minutes	0.08	0.11	0.17 *
Travel Time to USC Less than 30 Minutes	0.04	0.09 *	0.10
Sample Size	957	2,412	1,769

TABLE VII.8 (continued)

	Parent's Education			No Elevated Health Care Needs	Elevated Health Care Needs
	Less than High School	High School	Some College		
Service Use					
Any Doctor/Other Health Professional Visit	0.09	0.11	0.17 **	0.12 **	0.10
Any Preventive Care or Checkup Visit	0.11	0.24 **	0.20 **	0.15 **	0.19 *
Dental Visit for Checkup/Cleaning ^a	0.36 **	0.22 **	0.25 **	0.29 **	0.32 **
Any Specialist Visit	0.02	-0.03	0.03	0.01	0.02
Any Mental Health Visit	0.05	-0.03	0.05	0.02	0.04
Any Specialist or Mental Health Visit	0.06	-0.05	0.05	0.03	0.03
Any Emergency Room Visit	0.05	-0.13 *	0.02	-0.03	0.05
Any Hospital Stay	0.01	0.00	-0.01	0.01	0.02
Unmet Needs					
Doctor/Health Professional Care	-0.06	-0.01	-0.09 **	-0.03	-0.10 *
Prescription Drugs	-0.06 *	-0.09 **	-0.10 **	-0.06 **	-0.16 **
Dental Care ^a	-0.12	-0.17 **	-0.15 **	-0.12 **	-0.17 **
Specialist	-0.10 **	-0.09 **	-0.08 **	-0.05 **	-0.14 **
Hospital Care	-0.08 **	-0.07 **	-0.07 **	-0.05 **	-0.10 **
Hospital, Specialist, Doctor, Drug	-0.19 **	-0.12 **	-0.17 **	-0.10 **	-0.23 **
Hospital, Specialist, Doctor, Drug, Dentist ^a	-0.17 *	-0.19 **	-0.19 **	-0.14 **	-0.22 **
More than One Unmet Need	-0.14 **	-0.11 **	-0.15 **	-0.09 **	-0.21 **
Parental Perceptions of Meeting Child's Health Care Needs					
Very Confident	0.26 **	0.43 **	0.39 **	0.35 **	0.45 **
Never or Not Very Often Stressed	0.37 **	0.35 **	0.47 **	0.39 **	0.39 **
Never or Rarely Worried	0.16	0.35 **	0.40 **	0.32 **	0.32 **
Never or Rarely Cause Financial Difficulties	0.31 **	0.41 **	0.46 **	0.37 **	0.42 **
Usual Source of Care (USC)					
Had USC in Past 6 Months	0.27 **	0.26 **	0.14 **	0.20 **	0.23 **
USC Type: Private Doctor's Office/Group Practice	0.10	0.11	0.12 *	0.11 *	0.17 *
Usually Saw Same Provider at USC	0.29 **	0.34 **	0.21 **	0.22 **	0.31 **
Had USC for Dental Care in Past 6 Months ^a	0.34 **	0.29 **	0.27 **	0.28 **	0.39 **
Provider Communication and Accessibility					
Would Recommend USC	0.08	0.06	0.02	0.03	0.09 *
Could Reach Doctor After Hours	0.21 *	0.07	0.17 **	0.16 **	0.16 *
Providers Explain in Understandable Ways	0.23 **	0.02	0.06	0.10 **	0.14 *
Provider Treats with Courtesy/Respect	-0.02	0.10 *	0.04	0.05	0.00
Provider Talks About How Child Feeling	0.07	0.11	0.06	0.08 *	0.09
Rated Ease of Getting Care Excellent or Very Good	0.29 *	0.16 *	0.17 *	0.26 **	0.07
Wait Time for Care Less than 30 Minutes	0.18	0.16 *	0.05	0.15 **	0.14
Travel Time to USC Less than 30 Minutes	0.03	0.10	0.10 *	0.07 *	0.09
Sample Size	1,008	1,795	2,241	3,847	1,291

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on samples of recent and established SCHIP enrollees. Separate models were estimated for each subgroup shown here. Unless otherwise noted, the estimates are based on a linear probability model with fixed county effects that controls for characteristics of SCHIP enrollees and their parents.

^aApplies to children age 3 and older.

**p-value<0.01.

*p-value<0.05.

TABLE VII.9

DIFFERENTIAL IMPACTS OF SCHIP ENROLLMENT RELATIVE TO BEING UNINSURED
ALL 6 MONTHS BEFORE ENROLLING, BY SUBGROUP

	Uninsured All Six Months	Interaction Terms		
		Elevated Health Care Needs	No High School Diploma or GED (Parent)	Age 13 to 18
Service Use				
Any Doctor/Other Health Professional Visit	-0.02	0.04	-0.09	0.09
Any Preventive Care or Checkup Visit	0.08	0.02	-0.07	0.06
Dental Visit for Checkup/Cleaning ^a	0.15**	-0.02	0.00	0.14
Any Specialist Visit	0.02	-0.02	-0.10*	0.02
Any Mental Health Visit	0.01	0.00	-0.02	0.01
Any Specialist or Mental Health Visit	0.02	-0.03	-0.11*	0.02
Any Emergency Room Visit	-0.10**	0.02	0.03	0.10*
Any Hospital Stay	-0.01	-0.01	0.00	0.02
Unmet Needs				
Doctor/Health Professional Care	-0.05**	-0.07**	-0.03	0.05
Prescription Drugs	-0.05**	-0.06*	-0.04	0.04
Dental Care ^a	-0.12**	-0.02	0.02	0.00
Specialist	-0.04*	-0.07*	0.00	0.01
Hospital Care	-0.06**	-0.05	-0.02	0.02
Hospital, Specialist, Doctor, Drug	-0.11**	-0.07	-0.06	0.08
Hospital, Specialist, Doctor, Drug, Dentist ^a	-0.17**	-0.02	-0.03	0.05
More than One Unmet Need	-0.09**	-0.07*	-0.04	0.05
Parental Perceptions of Meeting Child's Health Care Needs				
Very Confident	0.28**	0.04	-0.07	0.23**
Never or Not Very Often Stressed	0.32**	0.05	-0.12*	0.15*
Never or Rarely Worried	0.25**	-0.01	-0.09	0.23**
Never or Rarely Cause Financial Difficulties	0.28**	0.03	-0.14**	0.12*
Usual Source of Care (USC)				
Had USC in Past 6 Months	0.14**	0.06	0.00	0.12*
USC Type: Private Doctor's Office/Group Practice	0.06	0.01	0.04	0.15*
Usually Saw Same Provider at USC	0.13**	0.08	-0.11*	0.22**
Had USC for Dental Care in Past 6 Months ^a	0.18**	0.04	0.00	0.08
Provider Communication and Accessibility				
Would Recommend USC	0.03	0.01	0.04	-0.03
Could Reach Doctor After Hours	0.11*	0.07	0.02	0.06
Providers Explain in Understandable Ways	0.08*	-0.02	0.03	-0.08
Provider Treats with Courtesy/Respect	0.01	-0.05	-0.09*	0.02
Provider Talks About How Child Feeling	0.01	-0.02	-0.05	0.05
Rated Ease of Getting Care Excellent or Very Good	0.17**	-0.11*	-0.03	0.08
Wait Time for Care Less than 30 Minutes	0.06	0.00	0.02	0.08
Travel Time to USC Less than 30 Minutes	0.07*	0.02	-0.03	0.05

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Note: Estimates based on samples of recent and established SCHIP enrollees. Models include all the demographic and socioeconomic control variables from the core model, a dummy variable for whether the child was a recent or an established enrollee, and a set of variables interacting the child's subgroup with the child's enrollment status. The interaction terms reflect differences in the estimated impacts by subgroup, e.g., between children with elevated health care needs and children without elevated health care needs. These results indicate that SCHIP enrollment led to an overall reduction in unmet need for doctor/other professional care of five percentage points and that the reduction in unmet need was seven percentage points greater for children with elevated health care needs compared to children without elevated health care needs.

^aApplies to children age 3 and older.

**p-value<0.01.

*p-value<0.05.

for Hispanic children (both for those with English-speaking parents and non-English-speaking parents), white children, and black children; for preschoolers, school-age children, and adolescents; for children with elevated health care needs and for those who do not have elevated health care needs; for children who have at least one parent who has completed high school and for those who do not have a parent who has completed high school (Table VII.8).

In particular, SCHIP enrollees in each of these subgroups had fewer unmet health needs, their parents had higher confidence and lower worry about their ability to meet their child's health care needs, and the children are reported to have greater accessibility to, and better communication with, providers relative to the pre-SCHIP experiences of children who had been uninsured before enrolling. These results also indicate that all these groups of established SCHIP enrollees were more likely than recent enrollees who had been uninsured to receive dental checkups and, for most subgroups examined, to receive well-child care. These findings indicate that SCHIP improves access and use for children from many types of backgrounds and with varying health care needs.

While positive impacts were found for each subgroup examined, the magnitude of the estimated impact does appear to vary for some subgroups (Table VII.9).⁶ While few differences were found with respect to race/ethnicity/language, differential impacts emerged with respect to the child's health status, the child's age, and the parents' educational attainment. We find that the estimated impact of SCHIP on unmet needs is more pronounced for children with elevated health care needs than for other children. It appears that children with elevated health care needs

⁶ To test whether the impact estimates differed across subgroups, models were estimated on recent and established enrollees who had been uninsured just before enrolling in SCHIP that included all the demographic and socioeconomic control variables from the core model, a dummy variable for whether the child was a recent or established enrollee, and a set of terms that interacted that dummy variable with the child's health status, age, and race/ethnicity/primary language, the parents' educational attainment, and the child's state of residence. The coefficients estimated on the interaction terms were tested to assess whether the impacts varied across the different subgroups examined.

have larger reductions in unmet need following SCHIP enrollment than do children in better health. While both groups of children are less likely to have unmet needs after they enroll in SCHIP, the reductions in unmet need (for physician care, prescription drugs, specialty care, hospital care, and the presence of more than one unmet need) are even greater for children with elevated health care needs. However, parents whose children have elevated health care needs do not report as large an increase in the ease of getting care as the parents whose children do not have elevated health care needs.

These data also suggest somewhat more positive impacts for adolescents than for younger children in parental perceptions of their ability to meet their children's health care needs and the presence of a usual source of health care. SCHIP appears to raise parental confidence in being able to meet a child's health care needs for children in all three age groups, but the increases appear even greater for adolescents than for younger children—their parents are even more likely to have increased confidence, lower stress and worry, and fewer financial difficulties associated with meeting their child's health care needs. In addition, adolescents appear to experience greater increases in the extent to which they have a usual source of health care, the share who use a private doctor's office or group practice as their usual source of care, and the extent to which they usually saw the same provider at their usual source of care.

It appears that children whose parents have less than a high school education have somewhat smaller improvements following enrollment in SCHIP than children whose parents are more highly educated. In particular, children whose parents have not completed high school have smaller increases in the receipt of specialty care, their parents have smaller improvements in parental stress and financial difficulty associated with meeting their child's health care needs, they have smaller increases in the extent to which they see the same provider at their usual

source of care, and their parents are less likely to report increases in the extent to which their providers reportedly treat them with courtesy and respect.

D. SUMMARY

These findings indicate that SCHIP programs are having positive impacts on the lives of the children who enroll and on their parents. SCHIP appears to be affording children greater access to the primary health care services they need. This, in turn, is causing parents to have greater peace of mind about meeting their children's health care needs. Moreover, positive impacts are found under a range of alternative model specifications that address potential concerns about the validity of the impact estimates.

The fact that improvements are found, not only in the model that combines children in the 10 states, but also in the individual state-specific models, suggests that the positive impacts are not limited to one state or to one type of SCHIP program. As described in Chapter III, these 10 states differ along a number of different types of program characteristics (for example, reliance on managed care and cost sharing) that could affect access to, and use of, services. Despite these differences, positive impacts are found on many of the different outcomes measures in each of the individual state-specific models.

In addition, not only do we find positive SCHIP impacts relative to being uninsured overall, but we also find uniformly positive impacts in separate subgroup models, which suggests that a broad range of enrollees enjoy benefits from enrolling in SCHIP. We found positive impacts for children of different races and ethnicities, for children in different age groups, for children with different health care needs, and for children whose parents have different levels of educational attainment. Somewhat larger positive impacts were found for children with elevated health care needs, for adolescents, and for those whose parents are better educated.

However, the findings presented in Chapter III suggest that SCHIP programs have the potential to achieve even greater positive impacts on the children who enroll. More access problems were found for children with elevated health care needs and for those with either low-educated parents or whose primary language is not English. These particular groups of children are realizing positive benefits from SCHIP coverage, and, in some cases, such as children with elevated health care needs, they are experiencing even greater reductions in unmet need following SCHIP enrollment relative to other children. However, they do have more access problems than other SCHIP enrollees.

As hypothesized, we found the largest impacts when we contrasted the experiences of established enrollees with those who were uninsured for the 6-month period before enrolling. More positive impacts were observed, and the magnitude of the impacts was larger, when the comparison group was defined as children who had been uninsured for the entire 6-month period before enrolling. Thus, SCHIP will have larger positive effects on children's access to care, other things equal, the greater the share of SCHIP enrollees who would have been uninsured otherwise.

While there were fewer statistically significant differences, and the differences were weaker, SCHIP enrollees seemed to have better experiences in some areas than the children who had had private coverage during the 6-month period before enrolling. In particular, they were more likely to have a usual source of dental care, and their parents expressed more confidence and fewer financial difficulties associated with meeting their children's health care needs. These positive effects may reflect higher out-of-pocket spending under private plans relative to SCHIP or disruptions in coverage experienced by these families before enrolling. The fact that children who were enrolled in private coverage were more likely than established enrollees to receive

well-child and physician visits but also more likely to have emergency room visits bears further study.

This analysis demonstrates that SCHIP coverage is producing the positive results for children and their families that policymakers and program administrators are seeking. Additional analysis is needed to assess the quality of the care that children are receiving and the impacts that such care may be having on the health and functioning of children. However, from this analysis, we conclude that a diverse set of SCHIP programs, serving different types of enrollees, in different health care environments, is improving access to care for the children who enroll and that children with varying socioeconomic backgrounds and health care needs are experiencing improvements.

APPENDIX

CHAPTER VII SUPPLEMENTAL TABLES

APPENDIX TABLE VII.1

ACCESS AND USE IMPACTS OF SCHIP ENROLLMENT, BY STATE (ALL RECENT ENROLLEES)

	CA	CO	FL	NY	NC	TX	IL	NJ	LA	MO	Total
Service Use											
Any Doctor/Other Health Professional Visit	-0.05	0.07 *	-0.03	0.02	0.09 *	0.00	-0.01	0.01	0.09 *	-0.01	0.00
Any Preventive Care or Checkup Visit	-0.02	0.02	-0.05	-0.02	0.02	0.02	-0.10	0.00	0.19 **	0.01	0.00
Dental Visit for Checkup/Cleaning ^a	0.18 **	0.10 **	0.08	0.10	0.13 **	0.12 **	0.07	0.06	0.08	0.09	0.12 **
Any Specialist Visit	0.01	0.03	-0.01	0.02	0.07 *	0.02	0.01	0.00	0.05	0.06	0.02
Any Mental Health Visit	0.03 *	0.01	-0.04 *	0.02	-0.02	-0.01	0.03	0.04 *	0.01	-0.01	0.00
Any Specialist or Mental Health Visit	0.02	0.03	-0.04	0.01	0.05	0.00	0.04	0.03	0.06	0.03	0.01
Any Emergency Room Visit	-0.04	-0.01	-0.10 **	-0.13	-0.02	-0.16 **	-0.05	-0.09 **	-0.10 *	-0.03	-0.09 **
Any Hospital Stay	0.00	-0.01	-0.01	-0.04	0.01	-0.01	0.00	0.00	0.02	-0.04	0.00
Unmet Needs											
Doctor/Health Professional Care	-0.01	-0.05 **	-0.05 **	-0.03	-0.04 **	-0.05 **	-0.01	-0.06 **	-0.09 **	-0.04 *	-0.04 **
Prescription Drugs	-0.03	-0.03 *	-0.05 *	-0.04 **	-0.04	-0.03	-0.09 **	-0.07 **	-0.08 **	-0.06 *	-0.04 **
Dental Care ^b	-0.11 **	-0.05	0.02	-0.03 **	-0.11 **	-0.09 **	-0.10 **	-0.02	-0.14 **	-0.01	-0.07 **
Specialist	-0.05 **	-0.02	-0.02	-0.02 **	-0.04 *	-0.03 **	-0.07 **	-0.05 *	-0.06 **	-0.01	-0.04 **
Hospital Care	-0.02	-0.05 **	-0.01	-0.02	-0.04 **	-0.07 **	-0.02	-0.07 **	-0.10 **	-0.02	-0.04 **
Hospital, Specialist, Doctor, Drug	-0.07 *	-0.08 **	-0.07 **	-0.06 **	-0.08 **	-0.09 **	-0.11 **	-0.11 **	-0.15 **	-0.10 **	-0.08 **
Hospital, Specialist, Doctor, Drug, Dentist ^b	-0.09 **	-0.07 *	-0.02	-0.04 **	-0.13 **	-0.10 **	-0.13 **	-0.06	-0.18 **	-0.05	-0.09 **
More than One Unmet Need	-0.05 *	-0.08 **	-0.05 *	-0.07 **	-0.07 **	-0.06 **	-0.11 **	-0.10 **	-0.14 **	-0.07 *	-0.06 **
Parental Perceptions of Meeting Child's Health Care Needs											
Very Confident	0.33 **	0.29 **	0.33 **	0.28 **	0.25 **	0.35 **	0.30 **	0.33 **	0.36 **	0.38 **	0.33 **
Never or Not Very Often Stressed	0.26 **	0.29 **	0.32 **	0.28 **	0.24 **	0.26 **	0.18 **	0.33 **	0.30 **	0.32 **	0.28 **
Never or Rarely Worried	0.22 **	0.33 **	0.34 **	0.28 **	0.22 **	0.21 **	0.16 **	0.24 **	0.26 **	0.27 **	0.25 **
Never or Rarely Cause Financial Difficulties	0.30 **	0.26 **	0.33 **	0.28 **	0.24 **	0.34 **	0.31 **	0.32 **	0.31 **	0.33 **	0.31 **
Usual Source of Care (USC)											
Had USC in Past 6 Months	0.16 **	0.11 **	0.08 **	0.06	0.05 *	0.11 **	0.06	0.09 **	0.15 **	0.03	0.11 **
USC Type: Private Doctor's Office/Group Practice	0.08	-0.08 *	0.05	0.04	0.05	0.05	0.06	0.00	0.05	0.03	0.05 **
Usually Saw Same Provider at USC	0.17 **	0.12 **	0.05	0.09	0.02	0.10 **	0.05	0.07	0.13 **	-0.01	0.11 **
Had USC for Dental Care in Past 6 Months ^b	0.31 **	0.06	0.10 *	0.19	0.14 **	0.22 **	0.06	0.08 *	0.19 **	0.04	0.20 **
Provider Communication and Accessibility											
Would Recommend USC	0.02	0.01	0.01	-0.01	0.02	0.01	0.02	0.03	0.01	0.01	0.01
Could Reach Doctor After Hours	0.12 **	0.03	0.10 *	-0.02	0.04	0.06	-0.01	0.02	0.02	0.06	0.07 **
Providers Explain in Understandable Ways	0.01	0.04	0.04	-0.01	0.02	0.03	0.01	0.03	0.03	0.00	0.02
Provider Treats with Courtesy/Respect	0.00	0.02	-0.01	0.03	0.03	0.01	0.05	0.02	0.00	0.02	0.00
Provider Talks About How Child Feeling	0.00	0.04	-0.02	0.01	0.00	0.00	0.06	-0.01	-0.01	0.04	0.01
Rated Ease of Getting Care Excellent or Very Good	0.08	-0.01	-0.01	0.12	0.20 **	0.08	0.07	0.11 *	0.00	0.20 **	0.08 **
Wait Time for Care Less than 30 Minutes	0.09 *	-0.04	0.04	-0.02	0.08	0.02	-0.04	0.02	-0.03	0.07	0.04 **
Travel Time to USC Less than 30 Minutes	0.01	0.01	0.06	0.04	0.06	0.06	-0.05	0.06	0.09 *	0.07	0.04 **
Sample Size	940	1,117	862	763	882	994	642	815	804	681	8,500

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Notes: Estimates based on samples of recent and established SCHIP enrollees. Unless otherwise noted, the estimates are based on a linear probability model with fixed county effects that controls for characteristics of SCHIP enrols and their parents. Separate models were estimated for each state.

^aIncludes those insured some or all of the past 6 months before enrolling.

^bApplies to children age 3 and older.

*p-value<0.05.

**p-value<0.01.

APPENDIX TABLE VII.2

ACCESS AND USE IMPACTS OF SCHIP ENROLLMENT, BY STATE (RECENT ENROLLEES UNINSURED FOR THE 6 MONTHS BEFORE ENROLLING)

Service Use	CA	CO	FL	NY	NC	TX	IL	NJ	LA	MO	Total
Any Doctor/Other Health Professional Visit	0.04	0.13 **	0.06	0.08	0.22 **	0.06	0.13	0.04	0.16 **	0.08	0.07 **
Any Preventive Care or Checkup Visit	0.08	0.12 **	0.07	0.10	0.17 **	0.13 **	0.06	0.02	0.24 **	0.19 *	0.11 **
Dental Visit for Checkup/Cleaning ^a	0.26 **	0.20 **	0.22 **	0.24 **	0.34 **	0.28 **	0.15	0.14 **	0.19 **	0.38 **	0.25 **
Any Specialist Visit	0.04	0.06 *	-0.04	0.08	0.12 *	0.05	0.04	0.01	0.05	0.11 *	0.04 *
Any Mental Health Visit	0.04 *	0.01	-0.03	0.01	0.01	-0.01	0.05 *	0.05 **	0.02	0.00	0.01
Any Specialist or Mental Health Visit	0.06	0.06	-0.06	0.07	0.13 **	0.03	0.08	0.06	0.06	0.10	0.04 *
Any Emergency Room Visit	0.03	0.01	-0.14 *	-0.10	0.00	-0.15 **	-0.01	-0.09 *	-0.11 *	-0.01	-0.07 **
Any Hospital Stay	0.00	0.01	0.00	-0.04	0.02	0.01	-0.01	0.01	0.03	-0.03	0.01
Unmet Needs											
Doctor/Health Professional Care	-0.02	-0.07 **	-0.08 **	-0.06	-0.12 **	-0.09 **	-0.05	-0.09 **	-0.08 *	-0.09 *	-0.06 **
Prescription Drugs	-0.03	-0.05 *	-0.06 *	-0.06	-0.08 *	-0.08 **	-0.13 **	-0.13 **	-0.11 **	-0.08 *	-0.06 **
Dental Care ^b	-0.15 **	-0.10 *	0.01	-0.07	-0.15 **	-0.11 **	-0.15 *	-0.07	-0.20 **	-0.08	-0.11 **
Specialist	-0.07 **	-0.04	-0.05	-0.06	-0.07 *	-0.05	-0.14 **	-0.08 **	-0.08 **	-0.07	-0.06 **
Hospital Care	-0.04 *	-0.06 **	0.00	-0.05	-0.11 **	-0.10 **	-0.07	-0.09 **	-0.12 **	-0.06	-0.06 **
Hospital, Specialist, Doctor, Drug	-0.07 *	-0.12 **	-0.09 *	-0.12 *	-0.21 **	-0.13 **	-0.21 **	-0.17 **	-0.19 **	-0.20 **	-0.12 **
Hospital, Specialist, Doctor, Drug, Dentist ^b	-0.13 **	-0.12 **	-0.05	-0.11 *	-0.24 **	-0.14 **	-0.23 **	-0.12 *	-0.25 **	-0.15 *	-0.13 **
More than One Unmet Need	-0.07 **	-0.10 **	-0.08 **	-0.10 **	-0.17 **	-0.11 **	-0.20 **	-0.17 **	-0.17 **	-0.16 **	-0.10 **
Parental Perceptions of Meeting Child's Health Care Needs											
Very Confident	0.43 **	0.39 **	0.44 **	0.38 **	0.48 **	0.43 **	0.47 **	0.43 **	0.45 **	0.53 **	0.43 **
Never or Not Very Often Stressed	0.38 **	0.46 **	0.46 **	0.39 **	0.43 **	0.34 **	0.44 **	0.43 **	0.41 **	0.56 **	0.40 **
Never or Rarely Worried	0.28 **	0.43 **	0.50 **	0.38 **	0.40 **	0.28 **	0.27 **	0.31 **	0.31 **	0.45 **	0.33 **
Never or Rarely Cause Financial Difficulties	0.37 **	0.33 **	0.47 **	0.42 **	0.44 **	0.39 **	0.45 **	0.42 **	0.37 **	0.38 **	0.39 **
Usual Source of Care (USC)											
Had USC in Past 6 Months	0.26 **	0.18 **	0.17 **	0.16 **	0.11 *	0.18 **	0.21 **	0.18 **	0.23 **	0.11 *	0.21 **
USC Type: Private Doctor's Office/Group Practice	0.16 **	-0.01	0.10	0.00	0.10	0.13 *	0.07	0.00	0.11	0.13	0.12 **
Usually Saw Same Provider at USC	0.31 **	0.23 **	0.16 **	0.23 **	-0.02	0.20 **	0.28 **	0.13 **	0.22 **	0.06	0.23 **
Had USC for Dental Care in Past 6 Months ^b	0.35 **	0.13 **	0.27 **	0.33 **	0.28 **	0.36 **	0.17 *	0.11 *	0.25 **	0.23 *	0.31 **
Provider Communication and Accessibility											
Would Recommend USC	0.01	0.01	0.06	0.00	-0.03	0.05	0.02	0.04	0.02	0.02	0.03
Could Reach Doctor After Hours	0.23 **	0.03	0.21 **	0.01	0.14 *	0.14 *	0.02	0.09	0.08	0.12	0.16 **
Providers Explain in Understandable Ways	0.07	0.05	0.08	-0.05	0.01	0.05	0.04	0.05	0.04	0.03	0.06 *
Provider Treats with Courtesy/Respect	0.02	0.03	0.03	0.02	0.04	0.03	0.07	0.02	0.01	-0.01	0.02
Provider Talks About How Child Feeling	0.04	-0.01	0.00	0.01	0.05	0.06	0.00	-0.04	0.01	0.01	0.03
Rated Ease of Getting Care Excellent or Very Good	0.19 **	0.04	0.13	0.13	0.18 *	0.21 **	0.06	0.09	0.06	0.30 **	0.17 **
Wait Time for Care Less than 30 Minutes	0.14 **	0.00	0.10	0.02	0.14	0.08	0.15	0.05	-0.02	0.09	0.09 **
Travel Time to USC Less than 30 Minutes	0.04	0.03	0.09	0.08	0.21 **	0.07	0.07	0.09 *	0.16 **	0.08	0.07 **
Sample Size	755	821	698	639	663	790	542	697	697	584	6,886

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Notes: Estimates based on samples of recent and established SCHIP enrollees. Unless otherwise noted, the estimates are based on a linear probability model with fixed county effects that controls for characteristics of SCHIP enrols and their parents. Separate models were estimated for each state.

^aIncludes those insured some or all of the past 6 months before enrolling.

^bApplies to children age 3 and older.

*p-value<0.05.

**p-value<0.01.

APPENDIX TABLE VII.3

ACCESS AND USE IMPACTS OF SCHIP ENROLLMENT, BY STATE (RECENT ENROLLEES INSURED FOR SOME OR ALL OF THE PREVIOUS 6 MONTHS BEFORE ENROLLING)

	CA	CO	FL	NY	NC	TX	IL	NJ	LA	MO	Total
Service Use											
Any Doctor/Other Health Professional Visit	-0.15 **	0.00	-0.10 *	-0.05	0.02	-0.06	-0.10	-0.02	-0.01	-0.07	-0.08 **
Any Preventive Care or Checkup Visit	-0.14 **	-0.06	-0.16 **	-0.13 *	-0.06	-0.09	-0.19 **	-0.03	0.11	-0.14 *	-0.10 **
Dental Visit for Checkup/Cleaning ^a	0.08	0.00	-0.06	0.00	0.00	-0.09	0.02	-0.05	-0.11	-0.15	-0.02
Any Specialist Visit	-0.03	0.00	0.01	-0.04	0.04	-0.02	-0.01	-0.03	0.05	0.02	-0.01
Any Mental Health Visit	0.02	0.00	-0.05	0.03	-0.03	-0.01	0.02	0.04	0.01	-0.02	0.00
Any Specialist or Mental Health Visit	-0.01	0.01	-0.02	-0.04	0.00	-0.03	0.02	-0.01	0.05	-0.02	-0.01
Any Emergency Room Visit	-0.13 **	-0.03	-0.08	-0.17 **	-0.02	-0.19 **	-0.08	-0.10	-0.08	-0.04	-0.12 **
Any Hospital Stay	0.00	-0.02	-0.02	-0.04	0.00	-0.02	0.00	-0.01	0.01	-0.06	-0.01
Unmet Needs											
Doctor/Health Professional Care	0.00	-0.04 *	-0.03 *	-0.01	0.00	-0.01	0.01	0.00	-0.10 **	-0.01	-0.01
Prescription Drugs	-0.03	-0.03	-0.04	-0.03	-0.02	0.02	-0.07 *	0.02	-0.04	-0.05	-0.01
Dental Care ^b	-0.05	-0.01	0.03	0.00	-0.09 **	-0.06	-0.08	0.05	-0.02	0.04	-0.04 *
Specialist	-0.03	0.00	0.00	0.00	-0.02	-0.02	-0.03	0.00	-0.01	0.03	-0.01
Hospital Care	-0.01	-0.04 *	-0.01	0.00	-0.01	-0.04 *	0.01	-0.04 *	-0.06 *	0.00	-0.02 *
Hospital, Specialist, Doctor, Drug	-0.06	-0.05	-0.05	-0.02	-0.02	-0.05	-0.05	-0.02	-0.09 *	-0.01	-0.04 *
Hospital, Specialist, Doctor, Drug, Dentist ^b	-0.05	-0.02	0.00	0.01	-0.08 *	-0.07	-0.07	0.03	-0.07	0.02	-0.04 *
More than One Unmet Need	-0.03	-0.05 *	-0.02	-0.04	-0.02	-0.01	-0.06 *	0.01	-0.08 *	0.00	-0.02 *
Parental Perceptions of Meeting Child's Health Care Needs											
Very Confident	0.22 **	0.20 **	0.23 **	0.21 **	0.14 **	0.28 **	0.20 **	0.19 **	0.22 **	0.26 **	0.24 **
Never or Not Very Often Stressed	0.13 **	0.14 **	0.19 **	0.18 **	0.14 **	0.19 **	0.04	0.16 **	0.14 *	0.13 *	0.16 **
Never or Rarely Worried	0.15 **	0.25 **	0.20 **	0.20 **	0.12 *	0.14 **	0.09	0.13 *	0.19 **	0.12	0.16 **
Never or Rarely Cause Financial Difficulties	0.22 **	0.21 **	0.20 **	0.19 **	0.13 **	0.30 **	0.22 **	0.17 **	0.23 **	0.29 **	0.23 **
Usual Source of Care (USC)											
Had USC in Past 6 Months	0.03	0.03	-0.01	-0.02	0.02	0.01	-0.02	-0.04	0.03	-0.03	0.01
USC Type: Private Doctor's Office/Group Practice	0.00	-0.13 **	0.01	0.08	0.04	-0.02	0.06	-0.01	-0.01	-0.04	0.00
Usually Saw Same Provider at USC	0.01	0.03	-0.05	-0.01	0.04	-0.01	-0.08	-0.03	-0.03	-0.07	-0.02
Had USC for Dental Care in Past 6 Months ^b	0.25 **	-0.02	-0.05	0.07	0.06	0.05	0.00	0.02	0.08	-0.10	0.08 **
Provider Communication and Accessibility											
Would Recommend USC	0.02	0.02	-0.04	-0.01	0.05	-0.02	0.02	0.02	0.01	0.01	-0.01
Could Reach Doctor After Hours	0.03	0.02	0.02	-0.05	-0.01	0.00	-0.03	-0.06	-0.05	0.02	0.00
Providers Explain in Understandable Ways	-0.04	0.04	0.02	0.01	0.02	0.01	-0.01	0.00	0.01	-0.02	-0.01
Provider Treats with Courtesy/Respect	-0.02	0.02	-0.03	0.05	0.03	0.00	0.03	0.01	-0.02	0.05	-0.01
Provider Talks About How Child Feeling	-0.03	0.09 *	-0.03	0.02	-0.02	-0.05	0.09	0.03	-0.03	0.06	-0.01
Rated Ease of Getting Care Excellent or Very Good	-0.02	-0.03	-0.10	0.11	0.21 **	-0.02	0.08	0.13 *	-0.06	0.14	0.01
Wait Time for Care Less than 30 Minutes	0.04	-0.06	0.00	-0.04	0.05	-0.03	-0.14 *	0.00	-0.05	0.06	0.00
Travel Time to USC Less than 30 Minutes	-0.01	0.00	0.04	0.01	-0.01	0.06	-0.11 *	0.02	0.00	0.06	0.02
Sample Size	719	855	723	653	777	778	583	642	644	603	6,977

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Notes: Estimates based on samples of recent and established SCHIP enrollees. Unless otherwise noted, the estimates are based on a linear probability model with fixed county effects that controls for characteristics of SCHIP enrols and their parents. Separate models were estimated for each state.

^aIncludes those insured some or all of the past 6 months before enrolling.

^bApplies to children age 3 and older.

*p-value<0.05.

**p-value<0.01.

VIII. EXPERIENCES OF MEDICAID AND SCHIP ENROLLEES IN TWO STATES

Genevieve Kenney
Jamie Rubenstein
Anna Sommers
Stephen Zuckerman
Myoung Kim
Fredric Blavin

As mentioned in Chapter I, we conducted surveys of Medicaid enrollees in two states: California and North Carolina.¹ This chapter examines the experiences of Medicaid enrollees in these two states and contrasts their experiences with those of SCHIP enrollees in the same state. We begin the chapter by describing the characteristics of Medicaid and SCHIP enrollees in California and North Carolina; in subsequent sections, we present information on the enrollment experiences of families, the relationship between private coverage and Medicaid coverage, and the access and use experiences of children under the programs.² As indicated in the survey methodology appendix, the response rates on the Medicaid component of the survey were lower than those achieved on the SCHIP component. While lower Medicaid response rates also have been found in previous studies (Ciemnecki et al. 2002; and Edwards et al. 2002), the relatively

¹We chose these two states, first because they have major separate SCHIP components, creating a contrast between the Medicaid and SCHIP programs that is interesting to explore. We also chose California because its Medicaid program is the largest; we chose North Carolina because of the relative quality of its data systems. To create samples that were comparable between the SCHIP and Medicaid programs, several exclusions were made to the Medicaid sample, based on children's reason for eligibility. Major exclusions included the blind/disabled (SSI), medically needy, and adult-specific categories. The resulting Medicaid samples that were analyzed primarily include children enrolled through the poverty-related expansions and the TANF/AFDC provisions. See Appendix B for the specific sample exclusions made in the two states.

²This chapter analyzes a set of outcomes for Medicaid enrollees similar to those analyzed for SCHIP enrollees in Chapter I. However, it does not include an analysis of outcomes for Medicaid disenrollees. Survey data on these outcomes, particularly for Medicaid disenrollees in California, were often missing and could not be reliably imputed because of limitations in the program enrollment data. In addition, because of small sample sizes, this chapter does not report the distribution of prior coverage and access and use among recent enrollees.

low rates on this survey still raise the possibility that estimates made for the Medicaid populations and comparisons with the SCHIP population are biased.

Table VIII.1 shows how the SCHIP program differs from Medicaid along several dimensions in these two states. In 2002, both states had separate non-Medicaid SCHIP programs under Title XXI: Healthy Families in California and Healthy Choice in North Carolina.³ Children's enrollment in Medicaid far exceeds enrollment in SCHIP: in California, children's enrollment in Medicaid is about seven times higher than under SCHIP, and in North Carolina, the Medicaid program is more than 11 times as large. In both states, Medicaid has more-generous income eligibility thresholds for infants and children under age 6 than for school-age children. For example, Medicaid income eligibility thresholds for infants are 200 percent of the federal poverty level in California and 185 percent in North Carolina, 133 percent for ages 1 to 5, and 100 percent for ages 6 to 18 (under Medicaid, states must cover ages 1 to 18 at these levels). In contrast, SCHIP income eligibility thresholds are 250 and 200 percent for children of all ages in California and North Carolina, respectively. In each of the two states, Medicaid and SCHIP service delivery systems are different from one another (Hawkes and Howell 2002; and Hill and Hawkes 2002). Moreover, reliance on capitated managed care arrangements is widespread in California, whereas capitated managed care is nonexistent in the Medicaid and SCHIP programs in North Carolina.

The key findings from this analysis are:

- In both California and North Carolina, Medicaid enrollees are much younger than SCHIP enrollees, and they come from families that are more economically disadvantaged.

³ While California has a small Medicaid component as part of its Title XXI program, this analysis includes only the Title XXI children who were enrolled in the separate program.

TABLE VIII.1
CHARACTERISTICS OF MEDICAID AND SCHIP PROGRAMS
IN CALIFORNIA AND NORTH CAROLINA, 2002

Program Characteristics	California		North Carolina	
	Medicaid	SCHIP	Medicaid	SCHIP
Program name	MediCal	Healthy Families	Medicaid	Healthy Choice
Income eligibility (by age) ^a				
Up to age 1	Up to 200%	200 to 250%	Up to 185%	185 to 200%
Ages 1 to 5	Up to 133%	133 to 250%	Up to 133%	133 to 200%
Ages 6 to 18	Up to 100%	100 to 250%	Up to 100%	100 to 200%
Total enrollment	3,243,667 ^b	475,795 ^c	701,500 ^d	60,211 ^c
Proportion in risk-based managed care	100%	100%	None	None
Key Outreach Strategies ^d	Extensive mass media advertisements, combined with community- and school-based outreach		Predominantly community-based outreach through county-level local coalitions	
Application and Renewal Features ^e				
Enrollment form	Joint form in 11 languages		Joint form in 2 languages	
Enrollment procedures	Mail-in or online application, hotline, and community-based enrollment; outstationing for Medicaid only		Mail-in or online application, hotline, outstationing, and community-based enrollment	
Verification requirements	Age, income, state residency, and immigration status		Income, deductions, assets, and social security number	
Renewal frequency	12 months	12 months	12 months	12 months

^aHill et al (2003).

^bKaiser Family Foundation. State Health Facts Online: "Children's Programs Under Title XIX. Children Ever Enrolled During Fiscal 2000."

^cState administrative data; point-in-time data for most recent month available, which is September 2001.

^dCenters for Medicare & Medicaid Services (CMS), MSIS Statistical Reports for Federal Fiscal Years 1999, 2000, and 2001. CMS website [<http://cms.hhs.gov/medicaid/msis/01nc.pdf>].

^eHill and Hawkes (2002); Hawkes and Howell (2002).

- More than 80 percent of recent Medicaid enrollees in California and North Carolina reported that the application process was very or somewhat easy. This share, though high, was somewhat lower than among recent SCHIP enrollees.
- More than 80 percent of recent Medicaid enrollees in the two states waited less than a month to enroll, a figure comparable to SCHIP enrollees in these two states.
- More than 40 percent of the recent Medicaid enrollees in California and North Carolina reported that they had received application assistance. This share is lower than among SCHIP enrollees in California, but it is higher than among SCHIP enrollees in North Carolina.
- One in 10 Medicaid enrollees in California, and almost 1 in 5 Medicaid enrollees in North Carolina, live in families with parents who were covered by an employer plan. An even lower percentage (between 8 and 10 percent in California and between 11 and 15 percent in North Carolina) appear to be forgoing enrollment in an employer plan that covers one of their parents.
- Established Medicaid enrollees in these two states have much lower access than do SCHIP enrollees to employer-sponsored coverage. The potential substitution among Medicaid enrollees was 8 to 10 percent in California and 11 to 15 percent in North Carolina, compared with ranges for current SCHIP enrollees of 34 to 40 percent in California and 35 to 46 percent in North Carolina.
- Compared to the pre-Medicaid experiences of recent enrollees, established Medicaid enrollees have fewer unmet needs; their parents have less stress and worry about meeting their children's health care needs; and they are more likely to have a usual source of both medical and dental care, other things equal.
- Established Medicaid enrollees in these two states appear to be much better off than recent enrollees who were uninsured for all 6 months before enrolling in terms of service use, unmet needs, confidence and stress, and presence of a usual source of dental and health care.
- Overall, in these states, access to care is similar between Medicaid and SCHIP. The notable exceptions are in dental care and in beliefs that doctors and nurses look down on enrollees and that enrollees get better health care than the uninsured, where SCHIP programs were given higher marks.

A. COMPARISON OF MEDICAID AND SCHIP ENROLLEES

Medicaid enrollees are younger than SCHIP enrollees. Not surprisingly, given the age structure of the income eligibility thresholds under Medicaid and SCHIP in these two states, children covered under Medicaid are relatively younger than children covered under SCHIP (Table VIII.2). More than one-third (37 percent) of Medicaid enrollees in California and 43

TABLE VIII.2
CHARACTERISTICS OF ESTABLISHED MEDICAID AND
SCHIP ENROLLEES AND THEIR PARENTS

	California		North Carolina	
	Medicaid	SCHIP	Medicaid	SCHIP
Age of Child				
Age 0 to 5	36.9	24.1 **	42.5	17.3 **
Age 6 to 12	39.5	50.1 **	33.7	47.2 **
Age 13 to 20	23.6	25.8	23.8	35.5 **
Child Has Elevated Health Care Need	13.5	11.1	23.0	23.6
Child's Overall Health Is Fair or Poor	10.4	8.9	10.0	6.9
Child Has Asthma	15.6	12.7	17.9	16.4
Child Has Mental Health Condition	7.7	5.4	13.1	10.1
Household Income, by FPL Range ^a				
<150% FPL	92.5	65.8 **	89.2	71.2 **
150 to 199% FPL	3.8	25.9 **	5.6	23.3 **
>200% FPL	3.7	8.3 **	5.2	5.5
Household Structure				
Two parents	45.0	73.3 **	23.3	43.4 **
One parent	43.5	23.9 **	58.8	47.1 **
One parent and step/other guardian	8.0	2.8 **	7.8	8.4
Other	3.5	0.0 **	10.1	1.0 **
		**		**
At Least One Parent Employed in Past Year	76.3	96.1	72.0	90.1
Highest Education Level of Parents				
No GED or HS Diploma	36.8	39.0	26.4	11.9 **
GED or HS Diploma	34.3	27.2 *	44.6	44.7
Some college or college degree ^b	28.9	33.7	29.1	43.4 **
Child's Race				
Hispanic/Latino	64.0	70.2	12.1	8.3
White	13.3	15.4	37.6	52.5 **
Black	10.2	3.1 **	41.9	31.6 **
All Other Races	12.5	11.3	8.5	7.6
Birthplace of Parents				
At least one parent foreign-born	63.3	73.3 *	11.8	10.1
Main Language Spoken in Household				
Spanish	44.4	50.8	7.5	5.0
Other	6.4	7.3	1.8	1.9
Metropolitan Statistical Area	96.0	95.9	64.6	62.8
Sample Size	394	574	528	614

Source: 2002 congressionally mandated survey of SCHIP enrollees in 10 states and Medicaid enrollees in 2 states.

Note: Size of enrollee sample varies across estimates due to item nonresponse.

^aHousehold income has a missing rate of 11 percent, which is considerably higher than other variables cited.

^bIncludes 2-year associate's degree and trade school.

* p<.05 ** p<.01 (based on two-tailed t-tests of Medicaid versus SCHIP within each state).

percent of Medicaid enrollees in North Carolina are under age 6, compared to 24 and 17 percent in the California and North Carolina SCHIP programs, respectively. In contrast, SCHIP enrollees in both states are predominantly in the school-age group. About half the children in California and North Carolina (50 and 47 percent, respectively) are in the 6-to-12 age group, and about a quarter of the children in California and 36 percent of the children in North Carolina are age 13 or older. Moreover, 16 percent of Medicaid enrollees in California and 26 percent of Medicaid enrollees in North Carolina are age 2 or younger, whereas only 6 percent of SCHIP enrollees in California and 5 percent of SCHIP enrollees in North Carolina are in this age group (data not shown). Measures of health status are not statistically different between Medicaid and SCHIP enrollees, although the health status of Medicaid enrollees is slightly lower on each of the four measures.⁴

Medicaid enrollees are more economically disadvantaged than SCHIP enrollees.

Medicaid enrollees are more likely than SCHIP enrollees to come from families with incomes below 150 percent of the federal poverty level, they are more likely to live in single-parent households, and they are less likely to have working parents, which is to be expected, since families must have lower incomes to qualify for Medicaid than for SCHIP. For example, nearly all Medicaid enrollees (93 percent in California and 89 percent in North Carolina) live in families with incomes below 150 percent of the federal poverty level. In contrast, 66 percent of SCHIP enrollees in California and 71 percent of SCHIP enrollees in North Carolina live in families with reported income levels that are below 150 percent of the federal poverty level. Moreover, while most enrollees in both programs come from working families, relatively more SCHIP enrollees do so. Nearly all SCHIP enrollees in California (96 percent) and North

⁴ One reason that the health status indicators are similar between the Medicaid and SCHIP samples is that we have excluded all children who qualify for Medicaid under SSI and most children who qualify as medically needy.

Carolina (90 percent) come from working families, whereas three-quarters of Medicaid enrollees in California (76 percent) and North Carolina (72 percent) come from working families.

Medicaid and SCHIP enrollees have different educational and race/ethnic backgrounds, but not consistently across these two states. In North Carolina, there are substantial differences in the educational attainment of parents and race distributions between Medicaid and SCHIP enrollees. In California, the differences between the Medicaid and SCHIP samples along these dimensions are much smaller. In North Carolina, 43 percent of SCHIP enrollees have parents with some college or a college degree, compared to 29 percent of the Medicaid children. In addition, in North Carolina, the majority (53 percent) of SCHIP enrollees are white, compared to 38 percent of Medicaid enrollees, and there is a larger share of black children in Medicaid than in SCHIP (42 versus 32 percent, respectively). In California, too, there is a larger share of black children in Medicaid than in SCHIP (10 versus 3 percent). A lower proportion appear to be Hispanic (64 versus 70 percent), although the latter difference is not statistically significant at conventional levels. Interestingly, in California, a higher proportion of SCHIP enrollees than Medicaid enrollees had at least one parent who was foreign-born (73 versus 63 percent).

B. EXPERIENCE WITH SCHIP AND MEDICAID ENROLLMENT PROCESSES

While some differences exist in their outreach and enrollment strategies, both California and North Carolina emphasize coordination of these strategies between SCHIP and Medicaid. For example, both states adopted a joint application form and simplified the enrollment process and requirements for both programs (see Table VIII.1). As a result, application requirements and procedures of the SCHIP and Medicaid programs were similar in the two states.

Even with these strong similarities, the enrollment experience of families in either state may differ between SCHIP and Medicaid because of differences in the enrollee populations, the public perception of the programs, and any residual differences in the enrollment procedures.

For example, unlike SCHIP, Medicaid has a large share of enrollees who entered the program at birth or as TANF recipients, which may lead to potential differences in how Medicaid and SCHIP families learn about the program or how they perceive their enrollment experience.

In this section, we examine the enrollment experiences reported by the recent Medicaid and SCHIP enrollees in our California and North Carolina samples. We use the same application experience measures defined in Chapter II, along with the information sources presented in Chapter I, to examine the enrollment experiences of recent Medicaid enrollees in the two states and compare them with the experiences of recent SCHIP enrollees.

About three-quarters of recent Medicaid enrollees cited health care providers or public agencies as the most important source of program information in deciding to enroll. Medicaid enrollees most often identified health care providers as the key source of information in deciding to enroll—48 percent in California and 39 percent in North Carolina (Table VIII.3). These rates were significantly higher than among SCHIP enrollees, a difference driven only marginally by the large proportion of Medicaid enrollees entering the program as newborns.⁵ Public agencies were the second-most frequent source of information mentioned by Medicaid enrollees. In California, this rate was higher than for SCHIP enrollees (29 versus 10 percent), while in North Carolina, it was lower than for SCHIP enrollees (33 versus 55 percent). The reasons for this variation are unclear. In particular, while North Carolina’s enrollment system is especially well integrated, and transfer between the two programs is common, there is no obvious explanation for why the share of SCHIP families who heard about the program through a public agency is so much larger than that of Medicaid families.

⁵The share of recent Medicaid enrollees who enrolled in the program at birth is roughly 35 percent in the two states, while the share among SCHIP enrollees is less than 4 percent. When we exclude these enrollees, the share of Medicaid enrollees citing health care providers as the most important source fell marginally, to 46 percent in California and 32 percent in North Carolina. There was no change in the share of SCHIP families citing this source.

TABLE VIII.3

MOST IMPORTANT SOURCE OF MEDICAID AND SCHIP INFORMATION IN
CALIFORNIA AND NORTH CAROLINA, 2002

Percent Reporting as Most Important Source:	California		North Carolina	
	Medicaid	SCHIP	Medicaid	SCHIP
Health Care Providers	48.2	25.2 **	39.4	19.1 **
Public Agencies	29.2	9.7 **	32.7	54.6 **
Informal Network	11.4	23.4 **	15.2	7.4 **
Mass Media	4.9	16.2 **	2.6	5.0 **
School	4.2	14.2 **	5.5	6.8 **
Other	2.1	11.5 **	4.6	7.0
Sample Size	408	606	503	554

Source: 2002 congressionally mandated survey of SCHIP enrollees in 10 states and Medicaid enrollees in 2 states.

* p<.05 ** p<.01 (based on two-tailed t-tests of Medicaid versus SCHIP within each state).

Only a small share of Medicaid families in either state reported any other sources of information as most important in their decision to enroll.⁶ This is similar to the experience of SCHIP enrollees in North Carolina. It contrasts sharply, however, with the experience of SCHIP enrollees in California, who are far more likely than Medicaid enrollees to report sources other than health care providers and public agencies as important. Among these are informal networks (23 versus 11 percent), mass media (16 versus 5 percent), and schools (14 versus 4 percent). These findings could suggest that California's outreach, which included substantial use of television media, has been relatively successful at enrolling SCHIP families, many of whom may be unfamiliar with, or reluctant to enroll in, public insurance programs. Alternatively, SCHIP

⁶In results not shown, 49 percent of Medicaid enrollees in California and 25 percent in North Carolina reported that they heard about the program from media sources, such as television or radio ads. However, the share that reported this as the most important source was trivial in both states (only five percent in California and three percent in North Carolina).

families in California might have been enrolled less frequently through “in-reach” efforts—that is, applications made through clinics or other health care providers or through certain public agencies—leaving a relatively large share of families to be reached through other sources.

Taken as a whole, these results indicate that no single source was key to enrolling a majority of children in either state. For example, while health care providers were an important source in both states, even this source did not account for even half of the children enrolling in either state or program. This finding underscores the potential value of adopting a variety of methods for reaching and enrolling eligible families, instead of focusing resources on a single approach or small number of approaches.

*Most recent Medicaid enrollees found the application process easy, although not at as high a rate as SCHIP enrollees, and few Medicaid enrollees had to wait longer than 4 weeks before enrolling.*⁷ Among recent enrollees, 83 percent in California and 89 percent in North Carolina reported that the enrollment process was very or somewhat easy (Table VIII.4). These figures, although very high, are somewhat lower than those of SCHIP enrollees in the two states (93 percent). The differences between Medicaid and SCHIP enrollees were larger when we compared enrollees who reported that the enrollment process was very easy. In California, the share of SCHIP enrollees reporting that the process was very easy was about 20 percentage points higher than among Medicaid enrollees (59 versus 38 percent); in North Carolina, the share was 12 percentage points higher (64 versus 52 percent). These differences do not appear to be due to observed differences in the socioeconomic and demographic characteristics of the two

⁷Data presented in Table VIII.4 were based on the subsample of recent enrollees who identified the time of their most recent enrollment within at least 6 months of the actual date (reflecting a reasonable degree of accuracy). This subsample includes about 70 percent of all recent enrollees surveyed.

TABLE VIII.4
 MOST RECENT ENROLLMENT EXPERIENCE WITH MEDICAID AND SCHIP
 IN CALIFORNIA AND NORTH CAROLINA, 2002

Percentage Reporting the Following Enrollment Experiences:	California		North Carolina	
	Medicaid	SCHIP	Medicaid	SCHIP
Enrollment in the program is “easy”	83.1	93.4 **	89.4	92.9 *
Very easy	38.3	58.5 **	52.0	63.9 *
Somewhat easy	44.9	34.9 **	37.4	29.0 *
Received help applying	43.5	62.2 **	45.5	24.9 **
Waited 4 weeks or less to enroll after applying	83.9	84.0	93.4	91.5
The time until program renewal is reported:				
Correctly	55.9	56.0	58.1	86.1 **
Incorrectly	23.5	25.8	29.6	7.2
Doesn’t know	20.6	18.2	12.3	6.7
Sample Size	295	531	419	504

Source: 2002 congressionally mandated survey of SCHIP enrollees in 10 states and Medicaid enrollees in 2 states.

* p<.05 ** p<.01 (based on two tailed t-tests of Medicaid versus SCHIP within each state).

populations. For example, somewhat surprisingly, the reported experience among TANF recipients was similar to that of other Medicaid enrollees (data not shown).

Few Medicaid families reported that they had to wait longer than 4 weeks to enroll after submitting their application. Eighty-four percent of recent Medicaid enrollees in California and 93 percent in North Carolina were enrolled in Medicaid within 4 weeks of application (Table VIII.4). In both states, these shares were similar to those of SCHIP enrollees.

More than 40 percent of the recent Medicaid enrollees reported that they had received help applying. Forty-four percent of families in California and 46 percent of families in North Carolina reported that they received help applying for Medicaid (Table VIII.4). Compared to SCHIP, this share was much lower in California (by 19 percentage points) but much higher in North Carolina (by 20 percentage points). In California, this difference is explained in part by

the large proportion of TANF recipients in the Medicaid sample, who represent a large share of the recent enrollee population and who are less likely to report receiving help than those in poverty-related eligibility groups (39 versus 52 percent; not shown).⁸ This could imply that TANF recipients were not helped as frequently as other eligibility groups, a result that seems counterintuitive, since many of these enrollees apply for Medicaid at the same time they apply for TANF. Alternatively, TANF recipients might not associate the help they received with their TANF application with help applying for Medicaid. If so, the estimates of assistance received by Medicaid enrollees are understated.

More than half of the recent Medicaid enrollees knew when they had to renew their enrollment, which is comparable to SCHIP enrollees in California but much lower than SCHIP enrollees in North Carolina. Correct knowledge of the renewal frequency may facilitate families' renewal process and reduce spells of interrupted coverage in either Medicaid or SCHIP. When asked how often they need to reapply for Medicaid, more than half of recent enrollee families in the two states (56 percent in California and 58 percent in North Carolina) provided a frequency that corresponded to their state's Medicaid eligibility redetermination policy at the time. In North Carolina, where the percentage was much lower than among SCHIP enrollees (58 versus 86 percent), the difference can be traced to an exceptionally high rate of knowledge among the SCHIP population. This rate is, in fact, far higher than that of any of the other nine states in our SCHIP sample, which might be linked to heightened sensitivity caused by an enrollment freeze in North Carolina's SCHIP program that had been lifted less than a year before the survey. The share of Medicaid enrollees who correctly identified the timing of renewal in

⁸ TANF recipients account for about two-thirds of recent Medicaid enrollees in our California sample; they account for less than one-third in our North Carolina sample.

North Carolina is comparable to Medicaid enrollees in California, as well as to SCHIP enrollees in any of the other nine states in our study (see Chapter II).

C. THE RELATIONSHIP BETWEEN MEDICAID/SCHIP AND PRIVATE COVERAGE

Substitution is of far less concern to the Medicaid program than to SCHIP, because families eligible for Medicaid are in the lowest income groups and are less likely to have private insurance. Although legislation mandated that states implement policies under SCHIP to discourage substitution at enrollment, no such mandate exists for Medicaid. For example, children eligible for Medicaid and covered by employer insurance are not required to fulfill waiting periods before enrollment. In fact, children with employer coverage may enroll in Medicaid without giving up their employer coverage. In these cases, Medicaid pays the families' co-payments and deductibles, as well as services not covered by the private plan. However, parents still have an incentive to drop employer coverage to cover their children under Medicaid because they could still be required to pay premiums for dependent coverage.

Previous research has found some evidence of substitution for private coverage by Medicaid (so-called "crowd-out"). An analysis of low-income children under 185 percent of the federal poverty level in 1990, who were affected by Medicaid expansions, estimated that 23 percent of the movement from private insurance to Medicaid programs was attributable to the expansions (Blumberg et al. 2000). Dubay and Kenney (1996) found substitution effects from Medicaid expansions of 15 percent for children below poverty.⁹ Cutler and Gruber (1996) estimated that 31 to 41 percent of the increase in Medicaid coverage of children was due to substitution resulting from Medicaid expansions.

⁹ For children under age 11.

In this section, we estimate a range of substitution levels using data on established Medicaid enrollees who have been enrolled for at least 5 months. These estimates are derived with the same methods as those used in Chapter VI to derive substitution estimates for established SCHIP enrollees. Chapter VI includes a description of these methods. Results of the Medicaid substitution analysis are presented for California and North Carolina samples separately, and tables include results from these states' SCHIP samples for comparison.

Medicaid enrollees reported lower rates of parental coverage through an employer.

Parental coverage among Medicaid enrollees differs markedly from that of SCHIP enrollees (Table VIII.5). Many parents of Medicaid-covered children also are enrolled in Medicaid. Fifty-one percent of Medicaid enrollees in California and 43 percent in North Carolina live with a parent who is enrolled in Medicaid. Many fewer Medicaid enrollees had parents with employer-sponsored coverage. Only 10 percent of Medicaid children in California and 18 percent in North

TABLE VIII.5
PARENTAL COVERAGE AMONG ESTABLISHED ENROLLEES: COMPARISON
ACROSS MEDICAID AND SCHIP SAMPLES

	California		North Carolina	
	Medicaid (Percent)	SCHIP (Percent)	Medicaid (Percent)	SCHIP (Percent)
Any Parent Has Public Coverage	51.8	6.6 **	45.6	9.3 **
Any parent has Medicaid	50.7	5.4 **	43.1	4.8 **
Any parent has SCHIP	0.0	0.0	0.0	0.0
Any parent has other public coverage	1.7	1.5	2.9	5.0
Any Parent Has Private Coverage	10.7	48.9 **	19.0	57.8 **
Any parent has ESI	10.4	42.5 **	17.8	51.1 **
Any parent has individual coverage	2.5	7.0 **	1.7	7.2 **
No Parent Insured	36.9	46.3 *	35.7	34.4
Sample Size	317	489	443	474

Source: 2002 congressionally mandated survey of SCHIP enrollees in 10 states and Medicaid enrollees in 2 states.

* p<.05 ** p<.01 (based on two tailed t-tests of Medicaid versus SCHIP within each state).

ESI = Employer Sponsored Insurance.

Carolina had parents with employer-sponsored coverage. In contrast, 43 percent of SCHIP children in California and 51 percent in North Carolina had parents with employer-sponsored coverage. In both states, few Medicaid enrollees live with a parent who has private nongroup coverage, and a little more than one-third live in families where no parent is insured. In California, parents of SCHIP enrollees are more likely than parents of Medicaid enrollees to be uninsured.

Potential substitution is lower for Medicaid enrollees. As in Chapter VI, we use information on employer premium contributions and children’s health care needs to estimate the proportion of established Medicaid enrollees who are potentially substituting Medicaid for employer coverage. Table VIII.6 presents the distribution among families with parents whose employers pay “none” (Row B), and “some” or “all” of the premium (Row D). It seems unlikely that low-income parents whose employer makes no contribution toward the premium

TABLE VIII.6

POTENTIAL SUBSTITUTION AMONG ESTABLISHED ENROLLEES: COMPARISON
ACROSS MEDICAID AND SCHIP SAMPLES

Aspects of Parent's Employer Coverage and Children's Needs	California		North Carolina	
	Medicaid (Percent)	SCHIP (Percent)	Medicaid (Percent)	SCHIP (Percent)
A. Any parent has employer coverage.	10.4	42.5	17.8	51.1
B. Employer pays none of premium.	0.0	2.9	2.8	5.3
C. Substitution Estimate 1 (A - B) <i>Employer Pays Some or All of Premium.</i>	10.4	39.6	15.0	45.8
D. Employer pays some or all of premium and child has elevated health care needs.	2.5	5.7	4.2	11.3
E. Substitution Estimate 2 (C - D) <i>Employer Pays Some or All of Premium and Child Does Not Have Elevated Health Care Needs.</i>	7.9	33.9	10.8	34.5

Source: 2002 congressionally mandated survey of SCHIP enrollees in 10 states and Medicaid enrollees in 2 states.

would choose to cover their child in the absence of Medicaid, so enrollees of these parents are not treated as substituting Medicaid for employer coverage. Thus, the upper-bound estimate of potential substitution among Medicaid enrollees is 10 percent in California and 15 percent in North Carolina (Row C).

Among low-income parents, those whose children have the greatest health care needs would experience out-of-pocket costs if they enrolled the child in their employer plan. Policymakers in some states, including North Carolina, make exceptions for children with significant health care needs. An alternative estimate of substitution that excludes children with elevated health care needs leads to lower-bound estimates of 8 and 11 percent in California and North Carolina, respectively (Row E).¹⁰

Lower substitution in Medicaid is driven by lower employer coverage among parents.

This analysis suggests that few Medicaid enrollees in California and North Carolina (between 8 and 10 percent in California and 11 and 15 percent in North Carolina) may have had the option of enrolling in an employer plan covering their parent but remained in Medicaid instead. These proportions are much lower than the estimates for each state's SCHIP enrollees, where between 34 and 40 percent in California and 35 and 46 percent in North Carolina may have substituted SCHIP for private coverage. A higher rate of employer coverage among parents of SCHIP enrollees, compared to Medicaid enrollees, is the primary reason that patterns of substitution are so different between these two groups. As a result, substitution of Medicaid for employer-based coverage is much lower.

¹⁰ Because so few children in the “some” and “all” premium categories have severe health care needs, presenting estimates that exclude only children with severe health care needs (as we did in Chapter VI) yields no change in the substitution estimate. Thus, we only present a single estimate that excludes both children with severe and elevated health care needs.

These findings are not surprising, since families eligible for Medicaid are expected to have lower rates of insurance offers and coverage through employer plans than families eligible for SCHIP. For example, nationwide, the proportion of adults age 18 to 64 with an offer of employer coverage grows substantially as income rises; this proportion is estimated to be about 22 percent for families with incomes less than 100 percent of the federal poverty level, but 71 percent at 150 to 250 percent of the federal poverty level.¹¹ Furthermore, families in Medicaid are expected to take up employer offers at a lower rate than families eligible for SCHIP, because any cost-sharing that employers require to access coverage will be more burdensome for Medicaid-eligible families, given their lower incomes. While this analysis is limited by the two-state sample for the Medicaid analysis, it is likely that the pattern of findings documented here would generalize to other states, given the low levels of access to employer coverage among the lowest-income families enrolled in Medicaid nationally.

D. ACCESS AND USE EXPERIENCES UNDER MEDICAID AND SCHIP

Historically, there have been concerns about access to care under Medicaid (Sloan et al. 1978; Fossett et al. 1992; and Dubay and Kenney 2001) related to low payment to providers and other factors. In this section, we present three analyses of access to care for Medicaid enrollees in our California and North Carolina samples. In the first analysis, we examine the access and use experiences of children who had been covered by Medicaid for 5 months or longer in these two states. In the second, we contrast the experiences children had while enrolled in Medicaid with the experiences children had in the 6 months before enrolling. In the third analysis, we

¹¹ Tabulations for all adults ages 18 to 64 are from the 2002 National Survey of American Families. Individuals are defined as having an employer offer of insurance if (1) the individual or spouse self-reported their employer offers health insurance to people in the same position who have worked for that employer more than one year, (2) the individual or spouse is a policyholder for the plan and has worked more than two years, or (3) the individual is a policyholder and the policy is from the current employer.

compare the access and use experiences of established Medicaid enrollees with those of established SCHIP enrollees.

1. Access and Use Experiences Under Medicaid

High receipt of preventive care was reported for Medicaid enrollees. Many of the children enrolled in Medicaid were reported to have received preventive health care services in the 6 months before the survey (Table VIII.7). For example, 42 and 52 percent of the established Medicaid enrollees, respectively, in California and North Carolina had received a checkup or well-child visit in the previous 6 months. Likewise, in both states, just over half of Medicaid enrollees had received a dental checkup during that period.

One in five Medicaid enrollees had an unmet need. Overall, about one in five Medicaid enrollees in the two states were reported to have some type of unmet need (for hospital, specialist, doctor, drug, or dental care), which suggests the existence of access issues for some Medicaid enrollees. In each state, four percent of Medicaid enrollees were reported to have more than one unmet need.

The majority of Medicaid enrollees have a usual source of health and dental care. In both states, more than 9 of 10 children in our Medicaid sample have a usual source of medical care, and more than three-quarters have a usual source of dental care. (As shown below, however, in both states, children enrolled in SCHIP were more likely than children enrolled in Medicaid to have a usual source of dental care.) Moreover, in California and North Carolina alike, more than 80 percent of parents reported that their child's doctor explained things in understandable ways, that the doctor treated them with courtesy and respect, and that their doctor asked about how their child was feeling. Under Medicaid, as with SCHIP, there appears to be considerable variability in the type of provider enrollees rely on for their usual source of care. In California, 49 percent of established enrollees relied on a private doctor's office or group practice, compared

TABLE VIII.7

ACCESS AND USE AMONG ESTABLISHED MEDICAID ENROLLEES
IN CALIFORNIA AND NORTH CAROLINA

	California (Percent)	North Carolina (Percent)
Service Use		
Any Doctor/Other Health Professional Visit	57.9	67.1
Any Preventive Care or Checkup Visit	42.4	52.4
Dental Visit for Checkup/Cleaning ^a	56.4	52.7
Any Specialist Visit	11.2	18.2
Any Mental Health Visit	4.6	8.5
Any Specialist or Mental Health Visit	15.0	24.5
Any Emergency Room Visit	20.5	30.6
Any Hospital Stay	3.3	5.7
Unmet Needs		
Doctor/Health Professional Care	2.0	2.9
Prescription Drugs	6.1	5.0
Dental Care ^a	7.4	12.0
Specialist	5.3	2.8
Hospital Care	1.8	2.2
Hospital, Specialist, Doctor, Drug	12.0	9.4
Hospital, Specialist, Doctor, Drug, Dentist ^a	19.8	21.7
More than One Unmet Need	3.5	3.5
Parental Perceptions of Meeting Child's Health Care Needs		
Very Confident	75.2	82.7
Never or Not Very Often Stressed	74.4	81.5
Never or Rarely Worried	49.3	59.8
Never or Rarely Cause Financial Difficulties	77.9	87.8
Children on Medicaid/SCHIP Get Better Health Care	71.8	69.4
Doctors and Nurses Look Down on Medicaid/SCHIP	33.5	34.6
Usual Source of Care (USC)		
Had USC in Past 6 Months	92.5	94.5
USC Type: Private Doctor's Office/Group Practice	48.7	65.7
Usually Saw Same Provider at USC	71.9	66.0
Had USC for Dental Care in Past 6 Months ^a	80.6	76.9
Provider Communication and Accessibility		
Would Recommend USC	89.0	95.0
Could Reach Doctor After Hours	62.8	80.2
Providers Explain in Understandable Ways	85.5	93.1
Provider Treats with Courtesy/Respect	90.2	95.2
Provider Talks About How Child Feeling	80.2	92.1
Rated Ease of Getting Care Excellent or Very Good	35.8	54.3
Wait Time for Care Less than 30 Minutes	39.9	66.3
Travel Time to USC Less than 30 Minutes	83.2	82.4
Sample Size	343	487

Source: 2002 congressionally mandated survey of Medicaid enrollees in 2 states.

Notes: Estimates are based on samples of recent and established Medicaid enrollees.

^aApplies to children age 3 and older.

to 66 percent in North Carolina. There were also apparent differences between the two states in waiting times, being able to reach the provider after hours, and the degree to which the ease of getting care was rated as excellent or very good. Medicaid enrollees in California were less likely to report that they can reach their provider after hours, that they experience wait times of under 30 minutes, and that the ease of getting care is excellent or very good compared to Medicaid enrollees in North Carolina.

Among parents of Medicaid enrollees, confidence is high and stress is low. In California and North Carolina, respectively, 75 and 83 percent of parents reported that they were very confident that they could meet their child's health care needs. In addition, 78 percent of parents in California and 88 percent in North Carolina indicated that meeting their children's health care needs never or rarely caused financial difficulties.

Overall, parents of enrollees have positive perceptions of the Medicaid program. The majority of parents with Medicaid-covered children in the two states (72 percent in California and 69 percent in North Carolina) report that children on Medicaid get better health care than children who have no insurance. However, about one-third (34 percent in California and 35 percent in North Carolina) report that providers look down on children enrolled in Medicaid.

2. Impacts of Medicaid on Access to, and Use of, Care

In this section, we explore the extent to which Medicaid improves children's access to, and receipt of, care beyond what they would otherwise have experienced. We expect that Medicaid will lead to higher levels of service use and access to care, especially relative to being uninsured. We use the approach set forth in Chapter VII to assess the impacts of Medicaid coverage for children who enroll in the program. We contrast the experiences of established Medicaid enrollees who have been on the program for at least 5 months with the pre-Medicaid experiences of a separate sample of recent enrollees. As was the case when we derived SCHIP impacts, we

reduce the likelihood that potentially confounding factors affect the impact estimates by controlling for a number of characteristics of the children and their families.¹² In addition, we estimate several alternative model specifications to assess the robustness of the estimated impacts.¹³

We have 1,162 cases that can be used to estimate impacts—830 established Medicaid enrollees and 332 recent Medicaid enrollees. Because of the small samples of recent enrollees who provided information on their access and use experiences before enrolling in SCHIP, we estimate impacts based on a model that combines information for California and North Carolina.

Medicaid enrollment improves several measures of access to care. On average, established Medicaid enrollees had better access experiences while they were covered by Medicaid than recent enrollees did before enrolling in Medicaid (Column 1 of Table VIII.8). Moreover, the impact estimates are very robust: they vary little under the alternative specifications that were estimated (Appendix Tables VIII.1, 2, and 3).

Established Medicaid enrollees were less likely than recent Medicaid enrollees to have unmet needs for doctor care and dental care and less likely to have more than one unmet need. For example, established Medicaid enrollees were 10 percentage points less likely than recent Medicaid enrollees to have an unmet dental need and 4 percentage points less likely to have more than one unmet need for care. They also were more likely to receive dental checkups and to have a usual source of dental care; and they were more likely to have a usual source of health

¹² The regression models include controls for county of residence, age, race, ethnicity, and language, gender, income, child's health status, parents' employment status, the number of children in the household, educational attainment of parents, and health beliefs of the parents.

¹³ The alternative models: (1) excluded children under age 1 or 18 and older, (2) included state dummy variables in place of county of residence, (3) included state dummy variables and excluded children under age 1 or age 18 and over, (4) excluded established enrollees who had been enrolled 2 years or longer, (5) excluded established enrollees who had been enrolled 4 years or longer, and (6) did not use survey weights.

TABLE VIII.8

ACCESS AND USE IMPACTS OF MEDICAID ENROLLMENT, BY PREVIOUS
INSURANCE STATUS OF RECENT ENROLLEES

	Established Enrollees Compared to:		
	All Recent Enrollees	Recent Enrollees Uninsured All 6 Months	Insured Recent Enrollees ^a
Service Use			
Any Doctor/Other Health Professional Visit	0.00	0.08	-0.10 *
Any Preventive Care or Checkup Visit	-0.01	0.07	-0.12 *
Dental Visit for Checkup/Cleaning ^b	0.13 **	0.17 **	0.06
Any Specialist Visit	0.02	0.03	0.00
Any Mental Health Visit	0.01	0.02	0.01
Any Specialist or Mental Health Visit	0.02	0.04	0.01
Any Emergency Room Visit	0.06 *	0.05	0.08
Any Hospital Stay	-0.02	-0.02	-0.02
Unmet Needs			
Doctor/Health Professional Care	-0.03 *	-0.06 **	0.01
Prescription Drugs	0.00	-0.02	0.03
Dental Care ^b	-0.10 ***	-0.12 **	-0.07
Specialist	0.00	0.02	-0.02
Hospital Care	-0.02	-0.03	-0.01
Hospital, Specialist, Doctor, Drug	-0.02	-0.06	0.03
Hospital, Specialist, Doctor, Drug, Dentist ^b	-0.07	-0.13 **	0.01
More than One Unmet Need	-0.04 *	-0.06 *	-0.02
Parental Perceptions of Meeting Child's Health Care Needs			
Very Confident	0.22 ***	0.32 ***	0.09
Never or Not Very Often Stressed	0.19 ***	0.27 ***	0.09
Never or Rarely Worried	0.16 ***	0.23 ***	0.07
Never or Rarely Cause Financial Difficulties	0.25 ***	0.26 ***	0.23 ***
Usual Source of Care (USC)			
Had USC in Past 6 Months	0.17 ***	0.28 ***	0.04
USC Type: Private Doctor's Office/Group Practice	0.10 **	0.19 ***	0.02
Usually Saw Same Provider at USC	0.17 ***	0.24 ***	0.08
Had USC for Dental Care in Past 6 Months ^a	0.17 ***	0.30 ***	0.02
Provider Communication and Accessibility			
Would Recommend USC	0.04	0.07	0.02
Could Reach Doctor After Hours	0.01	0.08	-0.06
Providers Explain in Understandable Ways	0.01	0.04	-0.01
Provider Treats with Courtesy/Respect	-0.05	-0.07	-0.02
Provider Talks About How Child Feeling	0.07	0.09	0.05
Rated Ease of Getting Care Excellent or Very Good	0.08	0.11 *	0.05
Wait Time for Care Less than 30 Minutes	0.03	0.09	-0.03
Travel Time to USC Less than 30 Minutes	0.06	0.09	0.02
Sample Size	1,162	963	1,029

Source: 2002 congressionally mandated survey of Medicaid enrollees in 2 states.

Notes: Estimates based on samples of recent and established enrollees. Estimates are based on a linear probability model with fixed county effects, which controls for characteristics of Medicaid enrollees and their parents.

^aIncludes those insured some or all of the past 6 months before enrolling.

^bApplies to children age 3 and older.

***p-value < .01; **p-value < .05; *p-value < .10.

care, more likely to rely on a private doctor's office or group practice as their usual source of care, and more likely to see the same provider at that usual source of care. Established Medicaid enrollees also are more likely than recent enrollees to have had an emergency room visit. This finding bears further study, since it may indicate that Medicaid enrollees are experiencing difficulties obtaining care outside the emergency room.

The parents of established Medicaid enrollees reported higher levels of confidence, less stress and worry, and less financial difficulty associated with meeting their child's health care needs than did parents of recent Medicaid enrollees before enrolling in Medicaid. For example, parents of established Medicaid enrollees were more than 20 percentage points more likely than the parents of recent Medicaid enrollees to say they were very confident about being able to meet their child's health care needs and that meeting their child's health care needs never or rarely caused financial difficulties.

When we look separately at the impact estimates relative to children who had been uninsured for all 6 months before enrolling, we find more statistically significant differences and larger differences than for the insured group. This pattern is consistent with the SCHIP impacts reported in Chapter VII.

Established Medicaid enrollees are more likely than recent enrollees who had been uninsured before enrolling to receive dental checkups, to have a usual source of both health and dental care, and to see the same provider at their usual source of care. They are less likely to have an unmet need for physician's services or for dental care, and they also are less likely to have at least one unmet need or to have more than one unmet need. For example, Medicaid-covered children were 28 percentage points more likely than uninsured children to have a usual source of health care and 30 percentage points more likely to have a usual source of dental care. Compared to the parents whose children had been uninsured, parents of established Medicaid

enrollees have greater confidence and less worry, stress, and financial difficulties associated with meeting their child's needs and are more likely to rate the ease of getting care as excellent.

In addition, the direction of the Medicaid impact estimates is positive but not statistically significant for many other outcomes (including receipt of checkups and other physician visits, reductions in other unmet needs, and many indicators of provider accessibility and communication), owing in part to the small sample size available for this analysis. (Only 168 recent enrollees had been uninsured for the 6 months before enrolling in Medicaid.) The pattern of these findings suggests that, relative to being uninsured, Medicaid may improve access along several additional dimensions.

There were only three outcomes for which there was a statistically significant difference between the established Medicaid enrollees and the recent enrollees who had been insured for some or all of the 6 months before enrolling in Medicaid. Established Medicaid enrollees were less likely than recent enrollees who had been insured before enrolling to have received any doctor or preventive visits, which suggests that Medicaid-covered children may face more access barriers for some services than children with other insurance. In contrast, the parents of established Medicaid enrollees were 23 percentage points less likely to say that meeting their child's health care needs caused financial difficulties, which indicates that the lower cost-sharing provisions in Medicaid, relative to private coverage, may be relieving financial burdens on families.

E. COMPARISON OF ACCESS AND USE BETWEEN MEDICAID AND SCHIP ENROLLEES

An important issue that has not received much attention is the extent to which systematic differences exist in the access and use experiences of Medicaid and SCHIP enrollees in the same state. To examine this issue, we compare the reported levels of access and use for Medicaid

enrollees with those for SCHIP enrollees in California and North Carolina to assess whether there are any systematic differences between the children enrolled in Medicaid compared to SCHIP that are not accounted for by the observed differences in the characteristics of the children (related to the child's age and health status and the parent's socioeconomic background) served by the two programs. Table VIII.9 presents the regression-adjusted means for Medicaid and SCHIP enrollees in these two states (the unadjusted means are presented in Appendix Table VIII.4).

Access and use are fairly similar under Medicaid and SCHIP. The access and use experiences of SCHIP and Medicaid enrollees in each state are similar, whether or not we control for observed differences in their characteristics. For example, in both states, there was no difference between the two programs in receipt of doctor visits, checkups, and specialist visits; stress and worry levels; and presence and type of a usual source of medical care. However, the two areas where SCHIP and Medicaid established enrollees consistently fare differently across the two states are dental care and parental attitudes toward SCHIP/Medicaid. In addition, in California, there were differences between Medicaid and SCHIP enrollees in emergency room visits and in several provider accessibility measures.¹⁴

Medicaid enrollees are less likely than SCHIP enrollees to receive dental checkups and to have a usual source for dental care. In both states, children enrolled in Medicaid are less likely than SCHIP enrollees to receive a dental checkup and less likely to have a usual source for dental care. Controlling for observed differences in the characteristics of the children and their families, SCHIP enrollees in California were 7 percentage points more likely than Medicaid enrollees to have received a preventive dental visit and 12 percentage points more likely to have a usual source of dental care. In North Carolina, SCHIP enrollees were 13 percentage points

¹⁴ Some other differences were apparent between the two programs in one state and not the other. These are not noted in the text, however, since they are less likely to generalize more broadly.

TABLE VIII.9

REGRESSION-ADJUSTED MEANS OF ACCESS TO CARE AND USE OF SERVICES,
SCHIP AND MEDICAID ENROLLEES

	California		North Carolina	
	Medicaid (Percent)	SCHIP (Percent)	Medicaid (Percent)	SCHIP (Percent)
Service Use				
Any Doctor/Other Health Professional Visit	57.8	59.7	68.4	70.6
Any Preventive Care or Checkup Visit	42.0	43.8	52.9	48.2
Dental Visit for Checkup/Cleaning ^a	55.5	62.9 *	50.2	63.6 ***
Any Specialist Visit	12.0	12.8	18.4	19.3
Any Mental Health Visit	4.7	5.0	8.4	3.7 **
Any Specialist or Mental Health Visit	15.8	16.3	24.5	22.7
Any Emergency Room Visit	20.8	13.3 **	30.7	28.8
Any Hospital Stay	3.3	3.0	5.8	7.0
Unmet Needs				
Doctor/Health Professional Care	1.4	3.6 **	2.6	2.9
Prescription Drugs	5.4	4.1	4.9	4.2
Dental Care ^a	7.8	12.7 *	12.2	5.8 *
Specialist	5.7	2.3 *	2.6	2.6
Hospital Care	1.6	2.8	2.3	1.5
Hospital, Specialist, Doctor, Drug	11.6	10.7	9.2	8.9
Hospital, Specialist, Doctor, Drug, Dentist ^a	17.1	19.5	17.2	13.1
More than One Unmet Need	2.9	4.1	3.1	1.0
Parental Perceptions of Meeting Child's Health Care Needs				
Very Confident	74.0	80.4 *	82.0	85.3
Never or Not Very Often Stressed	73.6	76.0	80.8	83.7
Never or Rarely Worried	48.4	48.4	58.9	56.5
Never or Rarely Cause Financial Difficulties	76.7	83.0 *	88.4	83.9 *
Children on Medicaid/SCHIP Get Better Health Care	71.7	82.9 ***	69.2	77.5 *
Doctors and Nurses Look Down Medicaid/SCHIP	32.4	19.2 ***	34.1	18.8 ***
Usual Source of Care (USC)				
Had USC in Past 6 Months	92.4	94.1	94.7	93.2
USC Type: Private Doctor's Office/Group Practice	47.4	46.6	66.7	65.7
Usually Saw Same Provider at USC	70.8	73.2	66.5	59.8 *
Had USC for Dental Care in Past 6 Months ^a	78.9	90.8 ***	75.9	82.1 *
Provider Communication and Accessibility				
Would Recommend USC	88.7	89.2	94.8	94.1
Could Reach Doctor After Hours	62.6	71.4 *	79.1	81.0
Providers Explain in Understandable Ways	84.7	82.7	93.0	94.9
Provider Treats with Courtesy/Respect	89.4	92.3	94.6	96.8
Provider Talks About How Child Feeling	80.3	83.7	90.4	95.8 *
Rated Ease of Getting Care Excellent or Very Good	36.2	38.9	54.7	56.1
Wait Time for Care Less than 30 Minutes	39.0	49.6 **	67.8	63.2
Travel Time to USC Less than 30 Minutes	82.1	88.8 *	81.9	82.1
Sample Size	343	548	487	570

Source: 2002 congressionally mandated survey of SCHIP enrollees in 10 states and Medicaid enrollees in 2 states.

Notes: Estimates based on samples of recent and established enrollees. Established enrollees defined as those who have been enrolled in SCHIP or Medicaid for 5 months or longer. The reference period for these measures is the 6 months prior to the interview. Estimates based on regression adjusted means for established SCHIP and Medicaid enrollees.

^aApplies to children age 3 and older.

***p-value < .01; **p-value < .05; *p-value < .10.

more likely to have received a preventive dental visit and 6 percentage points more likely to have a usual source of dental care (Table VIII.9). The picture with respect to unmet dental needs is mixed. In California, unmet needs for dental care were five percentage points lower for Medicaid enrollees than for SCHIP enrollees. In North Carolina, however, we observe the reverse pattern: unmet needs for dental care were six percentage points higher among Medicaid enrollees than among SCHIP enrollees.

Medicaid parents have less positive perceptions than do SCHIP parents of their children's health insurance program. In both states, the parents of children covered by Medicaid are less likely than parents of SCHIP enrollees to believe that children enrolled in the Medicaid or SCHIP program get better health care than the uninsured. For example, other things equal, in both California and North Carolina, parents of SCHIP enrollees were 11 and 8 percentage points more likely than parents of Medicaid enrollees to believe that children on their program get better health care (Table VIII.9). Likewise, in California and North Carolina, respectively, parents of SCHIP enrollees were 13 and 15 percentage points less likely than the parents of Medicaid children to believe that providers look down on the people who participate in their health insurance program.

Medicaid enrollees in California rely more on the emergency room for care than do SCHIP enrollees. Other things equal, Medicaid enrollees in California are seven percentage points more likely than SCHIP enrollees to have visited the emergency room in the 6 months before the survey (Table VIII.9). It also appears that Medicaid enrollees in California are less likely than SCHIP enrollees to have a usual source of care where doctors can be reached after hours and where wait and travel times are short. This suggests that the greater use of the emergency room among Medicaid enrollees may be driven by experiencing more access problems than SCHIP enrollees with their usual source of care.

F. SUMMARY

Overall, the access and enrollment experiences of Medicaid and SCHIP enrollees were similar in both California and North Carolina, despite the differences in the characteristics of Medicaid and SCHIP enrollees in these two states. For both Medicaid and SCHIP enrollees, views of the application process were positive, although somewhat more positive views were expressed on behalf of SCHIP enrollees. In both states, Medicaid appears to be substituting for private coverage at lower rates, compared to SCHIP, which we discuss in more detail below. Medicaid enrollees appeared to have better access to care relative to being uninsured in several different areas. In general, Medicaid enrollees and their families were reported to have positive access experiences under Medicaid, most of which were comparable to those reported under SCHIP, but there were a few areas where SCHIP enrollees seemed to fare better than Medicaid enrollees.

These findings must be interpreted cautiously due to two limitations inherent in the analysis. First, this analysis covers only two states, both of which implemented SCHIP programs that were separate from Medicaid. These states likely differ from other states in the characteristics of their Medicaid programs and of their Medicaid enrollees. Moreover, the findings on how Medicaid and SCHIP experiences compare may not generalize to other states because of differences in how SCHIP was implemented across the country. For example, states that established SCHIP programs as Medicaid expansions may find smaller differences between program experiences for Medicaid and SCHIP enrollees than those reported here.

Second, survey response rates for the Medicaid sample were substantially lower than for the SCHIP sample, especially in California, and the direction and magnitude of any bias in the Medicaid estimates and comparisons with SCHIP are unknown. Nonetheless, the findings

presented appear reasonable, given that they are consistent with the information available from other sources, as described below.

The fact that most Medicaid enrollees had little difficulty with the application process suggests that states' efforts to simplify the enrollment process for Medicaid, as well as for SCHIP, may have eased the burden that some families face applying for public coverage. Note, however, that this perspective comes from families who have successfully enrolled in Medicaid. To the extent that families eligible for Medicaid in California or North Carolina have faced difficulty with the application process that ultimately led them not to enroll, our findings overstate the ease of the application process in these states. In fact, analysis from a national survey indicates that there are more negative perceptions of Medicaid application processes among low-income families with uninsured children (Kenney et al. 2004) than found here among those who successfully enroll.

Our analysis suggests that substitution is much less in Medicaid than in SCHIP. This finding has strong external validity, given that Medicaid enrollees have much lower incomes. As indicated earlier, other data sources indicate that access to employer-sponsored coverage increases sharply with income. Moreover, research on the Medicaid expansions for pregnant women and children suggested that the degree of substitution increases with income (Dubay and Kenney 1996; and Dubay and Kenney 1997).

Likewise, the findings that Medicaid improves access to care for the children who enroll and that it reduces stress and worry for their parents are also credible, given the known barriers that low-income families face seeking care for uninsured children. More analysis is needed, however, to understand the source and potential consequences of some of the apparent access problems that were found in Medicaid related to unmet needs and reliance on emergency rooms.

Finally, in these two states, it appears that the separate SCHIP programs are providing better access to dental checkups and to usual sources of dental care, and that they seem to be rated higher in the value of the coverage and how providers view the families that participate. This is consistent with reports in some states of greater provider resistance to participating in Medicaid than in SCHIP (Hill et al. 2003). It is also consistent with past research comparing access to dental care between Medicaid and SCHIP (Almeida et al. 2001). Moreover, in the only published study comparing Medicaid and SCHIP enrollees (Edwards et al. 2002)—which was done in Georgia, a state that used the same service delivery system for both Medicaid and SCHIP—access differences were found between Medicaid and SCHIP enrollees as well. This suggests that it may also be important to gain a better understanding of the care-seeking behaviors of Medicaid and SCHIP enrollees and the barriers they may face seeking care, since gaps seem to exist even in settings where the service delivery systems are the same for the two programs. In addition, states with separate programs that use different delivery systems under SCHIP than under Medicaid may want to examine provider payment policies (including reimbursement levels and reliance on managed care) under the two programs to assess whether policies used in SCHIP could be carried over successfully to Medicaid to close these gaps.

APPENDIX

CHAPTER VIII SUPPLEMENTAL TABLES

APPENDIX TABLE VIII.1

ACCESS AND USE IMPACTS OF MEDICAID ENROLLMENT FOR ALL RECENT ENROLLEES

	Excluding Those with Age <1 or ≥18 (1)	Regressions with State Dummy Variables (2)	Regressions with State Dummy Variables and Excluding Those with Age <1 or ≥18 (3)
Service Use			
Any Doctor/Other Health Professional Visit	-0.02	0.02	0.00
Any Preventive Care or Checkup Visit	-0.05	0.00	-0.03
Dental Visit for Checkup/Cleaning ^a	0.14 **	0.12 **	0.13 **
Any Specialist Visit	0.04	0.02	0.02
Any Mental Health Visit	0.02	0.02	0.03
Any Specialist or Mental Health Visit	0.05	0.03	0.04
Any Emergency Room Visit	0.05	0.05 *	0.02
Any Hospital Stay	0.00	-0.03 *	-0.02
Unmet Need			
Doctor/Health Professional Care	-0.05 **	-0.03 **	-0.05 ***
Prescription Drugs	-0.01	-0.01	-0.02
Dental Care ^a	-0.10 ***	-0.09 ***	-0.09 ***
Specialist	-0.01	-0.02	-0.02
Hospital Care	-0.02	-0.02 *	-0.02
Hospital, Specialist, Doctor, Drug	-0.04	-0.04	-0.06 *
Hospital, Specialist, Doctor, Drug, Dentist ^a	-0.07	-0.08 **	-0.08 **
More Than One Unmet Need	-0.06 *	-0.05 **	-0.07 ***
Parental Perceptions of Meeting Child's Health Care Needs			
Very Confident	0.24 ***	0.23 ***	0.24 ***
Never or Not Very Often Stressed	0.25 ***	0.18 ***	0.23 ***
Never or Rarely Worried	0.18 ***	0.15 ***	0.19 ***
Never or Rarely Cause Financial Difficulties	0.26 ***	0.25 ***	0.26 ***
Usual Source of Care (USC)			
Had USC in Past 6 Months	0.12 ***	0.18 ***	0.14 ***
USC Type: Private Doctor's Office/Group Practice	0.06	0.11 ***	0.05
Usually Saw Same Provider at USC	0.15 ***	0.16 ***	0.14 ***
Had USC for Dental Care in Past 6 Months ^a	0.18 ***	0.16 ***	0.16 ***
Provider Communication and Accessibility			
Would Recommend USC	0.05	0.04	0.04
Could Reach Doctor After Hours	-0.03	-0.02	-0.07
Providers Explain in Understandable Ways	0.04	0.03	0.03
Provider Treats with Courtesy/Respect	-0.03	-0.04 *	-0.04
Provider Talks About How Child Feeling	0.10	0.08 *	0.09 *
Rated Ease of Getting Care Excellent or Very Good	0.10	0.08 *	0.09
Wait Time for Care Less than 30 Minutes	0.01	0.03	0.02
Travel Time to USC Less than 30 Minutes	0.09	0.06 *	0.08 *
Sample Size	940	1,162	940

APPENDIX TABLE VIII.1 (continued)

	Excluding Children Enrolled >2 Years (4)	Excluding Children Enrolled >4 Years (5)	Unweighted Regressions (6)
Service Use			
Any Doctor/Other Health Professional Visit	-0.02	-0.02	0.00
Any Preventive Care or Checkup Visit	0.00	-0.02	-0.01
Dental Visit for Checkup/Cleaning ^b	0.06	0.05	0.12 ***
Any Specialist Visit	-0.02	0.01	0.01
Any Mental Health Visit	-0.01	0.00	0.01
Any Specialist or Mental Health Visit	-0.04	0.01	0.01
Any Emergency Room Visit	0.06	0.10 **	0.05
Any Hospital Stay	-0.02	-0.01	-0.03
Unmet Need			
Doctor/Health Professional Care	-0.02	-0.02	-0.03 **
Prescription Drugs	-0.01	0.00	-0.01
Dental Care ^a	-0.12 **	-0.13 ***	-0.10 ***
Specialist	0.00	0.02	0.00
Hospital Care	0.00	-0.01	-0.02 *
Hospital, Specialist, Doctor, Drug	-0.01	0.01	-0.03
Hospital, Specialist, Doctor, Drug, Dentist ^a	-0.04	-0.04	-0.08 **
More than One Unmet Need	-0.05 *	-0.04	-0.05 ***
Parental Perceptions of Meeting Child's Health Care Needs			
Very Confident	0.29 ***	0.26 ***	0.25 ***
Never or Not Very Often Stressed	0.19 ***	0.17 ***	0.21 ***
Never or Rarely Worried	0.15 **	0.13 **	0.21 ***
Never or Rarely Cause Financial Difficulties	0.28 ***	0.23 ***	0.27 ***
Usual Source of Care (USC)			
Had USC in Past 6 Months	0.19 ***	0.18 ***	0.18 ***
USC Type: Private Doctor's Office/Group Practice	0.06	0.06	0.08 **
Usually Saw Same Provider at USC	0.17 ***	0.12 **	0.19 ***
Had USC for Dental Care in Past 6 Months ^a	0.12 *	0.09	0.15 ***
Provider Communication and Accessibility			
Would Recommend USC	0.07	0.04	0.03
Could Reach Doctor After Hours	-0.04	-0.04	-0.03
Providers Explain in Understandable Ways	-0.02	0.01	0.01
Provider Treats with Courtesy/Respect	-0.01	-0.02	-0.01
Provider Talks About How Child Feeling	0.17 ***	0.10 *	0.06 *
Rated Ease of Getting Care Excellent or Very Good	0.03	0.01	0.10 **
Wait Time for Care Less than 30 Minutes	0.03	0.04	0.07 *
Travel Time to USC Less than 30 Minutes	0.05	0.03	0.06 **
Sample Size	711	562	1,162

Source: 2002 congressionally mandated survey of Medicaid enrollees in 2 states.

Notes: Estimates based on samples of established enrollees. Unless otherwise noted, estimates are based on a linear probability model with fixed county effects that controls for characteristics of Medicaid enrollees and their parents.

^aApplies to children age 3 and older.

***p-value < .01; **p-value < .05; *p-value < .10.

APPENDIX TABLE VIII.2

ACCESS AND USE IMPACTS OF MEDICAID ENROLLMENT FOR ALL RECENT ENROLLEES
INSURED FOR THE 6 MONTHS BEFORE ENROLLING

	Excluding Those with Age <1 or ≥18 (1)	Regressions with State Dummy Variables (2)	Regressions with State Dummy Variables and Excluding Those with Age <1 or ≥18 (3)
Service Use			
Any Doctor/Other Health Professional Visit	0.10	0.08	0.10
Any Preventive Care or Checkup Visit	0.07	0.08 *	0.08
Dental Visit for Checkup/Cleaning ^a	0.19 **	0.16 **	0.18 ***
Any Specialist Visit	0.06	0.03	0.05
Any Mental Health Visit	0.04	0.02	0.04
Any Specialist or Mental Health Visit	0.09 *	0.05	0.08 *
Any Emergency Room Visit	0.04	0.04	0.01
Any Hospital Stay	0.01	-0.03	0.00
Unmet Need			
Doctor/Health Professional Care	-0.09 **	-0.06 **	-0.08 **
Prescription Drugs	-0.02	-0.03	-0.05
Dental Care ^a	-0.12 **	-0.11 **	-0.11 **
Specialist	-0.01	-0.03	-0.03
Hospital Care	-0.02	-0.04 *	-0.03
Hospital, Specialist, Doctor, Drug	-0.06	-0.07 *	-0.09 *
Hospital, Specialist, Doctor, Drug, Dentist ^a	-0.11 *	-0.13 **	-0.13 **
More than One Unmet Need	-0.07	-0.07 **	-0.08 **
Parental Perceptions of Meeting Child's Health Care Needs			
Very Confident	0.35 ***	0.32 ***	0.34
Never or Not Very Often Stressed	0.31 ***	0.25 ***	0.30 ***
Never or Rarely Worried	0.23 ***	0.23 ***	0.24 ***
Never or Rarely Cause Financial Difficulties	0.26 ***	0.27 ***	0.26 ***
Usual Source of Care (USC)			
Had USC in Past 6 Months	0.20 ***	0.29 ***	0.22 ***
USC Type: Private Doctor's Office/Group Practice	0.12	0.19 ***	0.09
Usually Saw Same Provider at USC	0.27 ***	0.31 ***	0.25 ***
Had USC for Dental Care in Past 6 Months ^a	0.25 ***	0.22 ***	0.23 ***
Provider Communication and Accessibility			
Would Recommend USC	0.07	0.07	0.06
Could Reach Doctor After Hours	0.10	0.05	0.02
Providers Explain in Understandable Ways	0.03	0.07	0.03
Provider Treats with Courtesy/Respect	-0.06	-0.07	-0.08
Provider Talks About How Child Feeling	0.12	0.11 *	0.12
Rated Ease of Getting Care Excellent or Very Good	0.14 *	0.11 *	0.12 *
Wait Time for Care Less than 30 Minutes	0.07	0.12 **	0.10
Travel Time to USC Less than 30 Minutes	0.10	0.12 **	0.12 *
Sample Size	940	1,162	940

APPENDIX TABLE VIII.2 (continued)

	Excluding Children Enrolled >2 Years	Excluding Children Enrolled >4 Years	Unweighted Regressions
	(4)	(5)	(6)
Service Use			
Any Doctor/Other Health Professional Visit	0.06	0.07	0.08 *
Any Preventive Care or Checkup Visit	0.06	0.06	0.08
Dental Visit for Checkup/Cleaning ^a	0.10	0.10	0.18 ***
Any Specialist Visit	0.00	0.03	0.03
Any Mental Health Visit	-0.01	0.01	0.01
Any Specialist or Mental Health Visit	-0.02	0.03	0.04
Any Emergency Room Visit	0.04	0.09	0.04
Any Hospital Stay	-0.03	-0.01	-0.03
Unmet Need			
Doctor/Health Professional Care	-0.05	-0.05	-0.05 ***
Prescription Drugs	-0.02	-0.02	-0.03
Dental Care ^a	-0.16 **	-0.16 ***	-0.13 ***
Specialist	-0.01	0.01	-0.01
Hospital Care	0.00	-0.02	-0.03 *
Hospital, Specialist, Doctor, Drug	-0.03	-0.03	-0.05 *
Hospital, Specialist, Doctor, Drug, Dentist ^a	-0.10	-0.11	-0.15 ***
More than One Unmet Need	-0.05	-0.05	-0.05 ***
Parental Perceptions of Meeting Child's Health Care Needs			
Very Confident	0.38 ***	0.37 ***	0.34 ***
Never or Not Very Often Stressed	0.27 ***	0.25 ***	0.28 ***
Never or Rarely Worried	0.23 ***	0.20 ***	0.27 ***
Never or Rarely Cause Financial Difficulties	0.28 ***	0.24 ***	0.28 ***
Usual Source of Care (USC)			
Had USC in Past 6 Months	0.29 ***	0.29 ***	0.30 ***
USC Type: Private Doctor's Office/Group Practice	0.13	0.15 **	0.17 ***
Usually Saw Same Provider at USC	0.30 ***	0.26 ***	0.32 ***
Had USC for Dental Care in Past 6 Months ^a	0.17 *	0.16 *	0.22 ***
Provider Communication and Accessibility			
Would Recommend USC	0.10	0.06	0.05
Could Reach Doctor After Hours	0.05	0.04	0.05
Providers Explain in Understandable Ways	0.01	0.05	0.05
Provider Treats with Courtesy/Respect	0.01	-0.03	-0.03
Provider Talks About How Child Feeling	0.21 **	0.14	0.08 *
Rated Ease of Getting Care Excellent or Very Good	0.05	0.02	0.15 **
Wait Time for Care Less than 30 Minutes	0.15 *	0.13 *	0.13 **
Travel Time to USC Less than 30 Minutes	0.14 *	0.10	0.12 ***
Sample Size	711	562	1,162

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Notes: Estimates based on samples of established enrollees. Unless otherwise noted, estimates are based on a linear probability model with fixed county effects that controls for characteristics of Medicaid enrollees and their parents.

^aApplies to children age 3 and older.

***p-value < .01; **p-value < .05; *p-value < .10.

APPENDIX TABLE VIII.3

ACCESS AND USE IMPACTS OF MEDICAID ENROLLMENT FOR RECENT ENROLLEES
INSURED SOME OR ALL OF THE 6 MONTHS BEFORE ENROLLING

	Excluding Those with Age <1 or ≥18 (1)	Regressions with State Dummy Variables (2)	Regressions with State Dummy Variables and Excluding Those with Age <1 or ≥18 (3)
Service Use			
Any Doctor/Other Health Professional Visit	-0.17 ***	-0.06	-0.13 **
Any Preventive Care or Checkup Visit	-0.20 ***	-0.09 *	-0.16 ***
Dental Visit for Checkup/Cleaning ^a	0.07	0.05	0.06
Any Specialist Visit	0.01	-0.01	-0.01
Any Mental Health Visit	0.00	0.01	0.01
Any Specialist or Mental Health Visit	0.01	0.00	0.00
Any Emergency Room Visit	0.06	0.07	0.02
Any Hospital Stay	-0.02	-0.03	-0.04
Unmet Need			
Doctor/Health Professional Care	0.00	0.01	0.00
Prescription Drugs	0.02	0.03	0.02
Dental Care ^a	-0.08	-0.06	-0.07
Specialist	0.00	0.00	-0.01
Hospital Care	-0.02	-0.01	-0.02
Hospital, Specialist, Doctor, Drug	-0.01	0.01	-0.02
Hospital, Specialist, Doctor, Drug, Dentist ^a	-0.01	-0.01	-0.02
More than One Unmet Need	-0.04	-0.02	-0.04
Parental Perceptions of Meeting Child's Health Care Needs			
Very Confident	0.09	0.12 **	0.11 **
Never or Not Very Often Stressed	0.16 **	0.09 **	0.16 ***
Never or Rarely Worried	0.13 *	0.06	0.13 **
Never or Rarely Cause Financial Difficulties	0.25 ***	0.23 ***	0.25 ***
Usual Source of Care (USC)			
Had USC in Past 6 Months	0.03	0.05	0.05
USC Type: Private Doctor's Office/Group Practice	0.00	0.05	0.00
Usually Saw Same Provider at USC	0.02	-0.01	0.00
Had USC for Dental Care in Past 6 Months ^a	0.09	0.08	0.08
Provider Communication and Accessibility			
Would Recommend USC	0.03	0.02	0.03
Could Reach Doctor After Hours	-0.14 **	-0.08 *	-0.14 ***
Providers Explain in Understandable Ways	0.05	0.00	0.03
Provider Treats with Courtesy/Respect	0.00	-0.02	-0.01
Provider Talks About How Child Feeling	0.07	0.05	0.06
Rated Ease of Getting Care Excellent or Very Good	0.06	0.05	0.06
Wait Time for Care Less than 30 Minutes	-0.05	-0.06	-0.06
Travel Time to USC Less than 30 Minutes	0.07	0.01	0.04
Sample Size	940	1,162	940

APPENDIX TABLE VIII.3 (continued)

	Excluding Children Enrolled >2 Years (4)	Excluding Children Enrolled >4 Years (5)	Unweighted Regressions (6)
Service Use			
Any Doctor/Other Health Professional Visit	-0.13 *	-0.14 **	-0.09 *
Any Preventive Care or Checkup Visit	-0.08	-0.12 *	-0.11 **
Dental Visit for Checkup/Cleaning ^a	-0.01	-0.04	0.04
Any Specialist Visit	-0.04	-0.02	-0.02
Any Mental Health Visit	-0.01	0.00	0.02
Any Specialist or Mental Health Visit	-0.05	-0.02	-0.01
Any Emergency Room Visit	0.07	0.11 **	0.05
Any Hospital Stay	-0.01	-0.01	-0.03
Unmet Need			
Doctor/Health Professional Care	0.02	0.02	0.00
Prescription Drugs	0.02	0.03	0.01
Dental Care ^a	-0.05	-0.08	-0.06
Specialist	0.01	0.03	0.02
Hospital Care	-0.01	0.00	-0.01
Hospital, Specialist, Doctor, Drug	0.02	0.06	0.01
Hospital, Specialist, Doctor, Drug, Dentist ^a	0.07	0.05	0.00
More than One Unmet Need	-0.04	-0.02	-0.03
Parental Perceptions of Meeting Child's Health Care Needs			
Very Confident	0.18 ***	0.12 **	0.14 ***
Never or Not Very Often Stressed	0.09	0.06	0.13 ***
Never or Rarely Worried	0.06	0.05	0.15 ***
Never or Rarely Cause Financial Difficulties	0.27 ***	0.21 ***	0.26 ***
Usual Source of Care (USC)			
Had USC in Past 6 Months	0.07 *	0.05	0.06 **
USC Type: Private Doctor's Office/Group Practice	0.00	-0.02	0.02
Usually Saw Same Provider at USC	0.01	-0.04	0.05
Had USC for Dental Care in Past 6 Months ^a	0.04	-0.02	0.07
Provider Communication and Accessibility			
Would Recommend USC	0.05	0.02	0.02
Could Reach Doctor After Hours	-0.10	-0.10	-0.08 *
Providers Explain in Understandable Ways	-0.06	-0.04	-0.02
Provider Treats with Courtesy/Respect	-0.01	-0.02	0.01
Provider Talks About How Child Feeling	0.14 **	0.08	0.04
Rated Ease of Getting Care Excellent or Very Good	0.01	-0.01	0.04
Wait Time for Care Less than 30 Minutes	-0.09	-0.06	0.03
Travel Time to USC Less than 30 Minutes	-0.03	-0.03	0.02
Sample Size	711	562	1,162

Source: 2002 congressionally mandated survey of Medicaid enrollees in 2 states.

Notes: Estimates based on samples of established enrollees. Unless otherwise noted, estimates are based on a linear probability model with fixed county effects that controls for characteristics of Medicaid enrollees and their parents.

^aApplies to children age 3 and older.

***p-value < .01; **p-value < .05; *p-value < .10.

APPENDIX TABLE VIII.4

BIVARIATE ESTIMATES OF ACCESS AND USE AMONG ESTABLISHED MEDICAID AND SCHIP ENROLLEES IN CALIFORNIA AND NORTH CAROLINA

	California		North Carolina	
	Medicaid (Percent)	SCHIP (Percent)	Medicaid (Percent)	SCHIP (Percent)
Service Use				
Any Doctor/Other Health Professional Visit	57.9	60.6	67.1	73.0 **
Any Preventive Care or Checkup Visit	42.4	42.9	52.4	46.6 *
Dental Visit for Checkup/Cleaning ^a	56.4	64.0 *	52.7	64.9 ***
Any Specialist Visit	11.2	12.7	18.2	20.8
Any Mental Health Visit	4.6	5.4	8.5	6.0
Any Specialist or Mental Health Visit	15.0	16.3	24.5	26.0
Any Emergency Room Visit	20.5	13.3 ***	30.6	22.4 **
Any Hospital Stay	3.3	2.3	5.7	5.0
Unmet Needs				
Doctor/Health Professional Care	2.0	2.3	2.9	1.3 *
Prescription Drugs	6.1	3.4	5.0	3.5
Dental Care ^a	7.4	11.9 *	12.0	8.5
Specialist	5.3	3.7	2.8	2.0
Hospital Care	1.8	1.8	2.2	1.7
Hospital, Specialist, Doctor, Drug	12.0	9.6	9.4	6.6
Hospital, Specialist, Doctor, Drug, Dentist ^a	19.8	19.7	21.7	14.1
More than One Unmet Need	3.5	3.2	3.5	2.2
Parental Perceptions of Meeting Child's Health Care Needs				
Very Confident	75.2	78.7	82.7	84.2
Never or Not Very Often Stressed	74.4	74.9	81.5	83.7
Never or Rarely Worried	49.3	47.5	59.8	63.2
Never or Rarely Cause Financial Difficulties	77.9	81.2	87.8	86.7
Children on Medicaid/SCHIP Get Better Health Care	71.8	85.6 ***	69.4	77.6 ***
Doctors and Nurses Look Down Medicaid/SCHIP	33.5	19.1 ***	34.6	17.2 ***
Usual Source of Care (USC)				
Had USC in Past 6 Months	92.5	92.7	94.5	93.3
USC Type: Private Doctor's Office/Group Practice	48.7	47.7	65.7	71.8
Had USC for Dental Care in Past 6 Months ^a	80.6	88.4 ***	76.9	86.5 ***
Usually Saw Same Provider at USC	71.9	70.8	66.0	65.8
Provider Communication and Accessibility				
Would Recommend USC	89.0	88.0	95.0	95.3
Could Reach Doctor After Hours	62.8	70.1 *	80.2	81.7
Providers Explain in Understandable Ways	85.5	83.04	93.07	94.32
Provider Treats with Courtesy/Respect	90.2	90.5	95.2	96.6
Provider Talks About How Child Feeling	80.2	80.9	92.1	90.5
Rated Ease of Getting Care Excellent or Very Good	35.8	37.0	54.3	54.4
Wait Time for Care Less than 30 Minutes	39.9	49.1 **	66.3	65.5
Travel Time to USC Less than 30 Minutes	83.2	87.0	82.4	83.6
Sample Size	343	548	487	570

Source: 2002 congressionally mandated survey of SCHIP enrollees in 10 states and Medicaid enrollees in 2 states.

Note: Estimates based on samples of established enrollees.

^aApplies to children age 3 and older.

***p-value < .01; **p-value < .05; *p-value < .10.

REFERENCES

- Agency for Healthcare Research and Quality. "SCHIP Disenrollment and State Policies." *Child Health Insurance Research Initiative, Issue Brief no. 1*. Publication no. 02-0017. June 2002. Available online at [www.ahrq.gov/about/cods/chiribrf1/chiribrf1.pdf]. Accessed June 20, 2003.
- Allison, Andrew R., and Barbara J. LaClair. "Understanding Disenrollment of Children from Public Health Insurance Programs in Kansas." Kansas City: Kansas Health Institute, September 2002. Available online at [www.khi.org/transfers/KCSL_Report_Web.pdf]. Accessed August 6, 2003.
- Allison, Andrew R., Barbara J. LaClair, and Robert F. St. Peter. "Dynamics of HealthWave and Medicaid Enrollment: Into, Out of, and Between Two State Programs." *Issue Brief no. 11*. Kansas City: Kansas Health Institute, March 2001a. Available online at [www.khi.org/transfers/brief.pdf]. Accessed November 7, 2001.
- Allison, Andrew R., Barbara J. LaClair, and Robert F. St. Peter. "Children Enrollment in Kansas Public Health Insurance Programs Since the Introduction of HealthWave." *Issue Brief no. 10*. Kansas City: Kansas Health Institute, March 2001b. Available online at [www.khi.org/transfers/Issuebrief2001.pdf]. Accessed November 7, 2001.
- Allison, Andrew R., Robert F. St. Peter, Cheng-Chung Huang, and Barbara J. LaClair. "Do Children Enrolling in Public Health Insurance Have Other Options?" Research brief 03-2. Kansas City: Kansas Health Institute, September 2003.
- Almeida, Ruth, Ian Hill, and Genevieve Kenney. "Does SCHIP Spell Better Dental Access for Children? An Early Look at New Initiatives." *Assessing the New Federalism, Occasional Paper no. 50*. Washington, DC: The Urban Institute: 2001.
- Andrulis, Dennis, Tamar Bauer, and Sarah Hopkins. "Strategies to Increase Enrollment in Children's Health Insurance Programs: A Guide to Outreach, Marketing and Enrollment in New York and Other States." New York, NY: New York Forum for Child Health, 1999. Bellamy, Hillary, Renee Schwalberg, Dorothy Borzsak, Jennifer Dunbar, Christopher Botsko, Jamie Hart, Michael Perry, and Adrienne Dulio. "Findings from the State Children's Health Insurance Program Focus Group Study." Washington, DC: Health Systems Research, January 2002.
- Blumberg, Linda, Lisa Dubay, and Steve Norton. "Did the Medicaid Expansions for Children Displace Private Insurance? Lessons from State Reform Efforts." *Journal of Health Economics*, vol. 19, no. 1, 2000, pp. 36–60.
- Campbell, D.T., and J.C. Stanley. *Experimental and Quasi-Experimental Designs for Research*. Boston: Houghton Mifflin Company, 1963.

- Centers for Medicare & Medicaid Services. "Letter to State Officials Clarifying Definition of Public Charge." Available online at [www.cms.hhs.gov/schip/sho-letters/ch052699.asp]. Accessed June 15, 2004.
- Centers for Medicare & Medicaid Services. "Status of Report and Contact Information. Texas." Available online at [www.cms.hhs.gov/schip/statepln.asp]. Accessed August 27, 2003.
- Ciemnecki, Anne B., Karen A. CyBulski, Judith Wooldridge, and Sheila Hoag. "Opportunity Costs of Bad Administrative Data: Lessons for the Field. Trends in Data Collection." *Issue Brief no. 1*. Princeton, NJ: Mathematica Policy Research, Inc., 2002.
- Cohen, Robin A., and Z. Coriaty-Nelson. "Health Insurance Coverage: Estimates from the National Health Interview Survey, 2003." June 2004. Available online at [<http://www.cdc.gov/nchs/nhis.htm>]. Accessed November 10, 2004.
- Cohen-Ross, Donna, and Laura Cox. "Preserving Recent Progress on Health Coverage for Children and Families: New Tensions Emerge." Washington, DC: Kaiser Commission on Medicaid and the Uninsured, July 2003. Available online at [www.kff.org/content/2003/20030729/4125exec.pdf]. Accessed August 1, 2003.
- Cohen-Ross, Donna, and Laura Cox. "Making It Simple: Medicaid for Children and CHIP Income Eligibility Guidelines and Enrollment Procedures." Washington, DC: Center on Budget and Policy Priorities for the Kaiser Commission on Medicaid and the Uninsured, 2000.
- Cohen-Ross, Donna, and Ian T. Hill. "Enrolling Eligible Children and Keeping Them Enrolled." *Future of Children*, vol. 13, no. 1, spring 2003, pp. 81–97.
- Cunningham, Peter J., Jack Hadley, and James D. Reshovsky. "The Effects of SCHIP on Children's Health Insurance Coverage: An Update Based on Three Rounds of the Community Tracking Study, 1996-97 to 2000-2001." Research report no. 7. Washington, DC: Center for Studying Health System Change, 2002.
- Currie, J., and D. Thomas. "Medical Care for Children: Public Insurance, Private Insurance and Racial Differences in Utilization." *Journal of Human Resources*, vol. 30, no. 1, 1995, pp.135–163.
- Cutler, D., and J. Gruber. "Does Public Insurance Crowd Out Private Insurance?" *Quarterly Journal of Economics*, vol. 11, no. 2, May 1996, pp. 391–430.
- Damiano P., J. Willard, E. Momany, and M. Tyler. "Hawk-i Impact on Access and Health Status. Second Evaluation Report." University of Iowa: Health Policy Research Program, Public Policy Center, 2002.
- Davidoff, A., A. Yemane, and I. Hill. "Public Insurance Eligibility and Enrollment for Special Healthcare Needs Children." *Health Care Financing Review*, forthcoming.

- Davidoff, Amy. "Insurance for Children with Special Health Care Needs: Patterns of Coverage and Burden on Families to Provide Adequate Insurance." *Pediatrics*, vol. 114, no. 2, 2004, pp. 394–403.
- Davidoff, Amy, Lisa Dubay, Genevieve Kenney, and Alshadye Yemane. "The Effect of Parent's Insurance Coverage on Access to Care for Low-Income Children." *Inquiry*, vol. 40, no. 3, 2003, pp. 254–269.
- Davidson, Gestur, Lynn A. Blewett, and Kathleen Thiede Call. "Public Program Crowd-Out of Private Coverage: What Are the Issues?" Research synthesis report no. 5. Princeton, NJ: Robert Wood Johnson Foundation, June 2004.
- Dick, Andrew R., Andrew Allison, Susan G. Haber, Cindy Brach, and Elizabeth Shenkman. "Consequences of States' Policies for SCHIP Disenrollment." *Health Care Financing Review*, vol. 23, no. 3, 2002, pp. 65–88. Available online at [www.cms.hhs.gov/review/02spring/dick.pdf]. Accessed August 7, 2003.
- Dick, Andrew R., Cindy Brach, Andrew Allison, Elizabeth Shenkman, Laura P. Shone, Peter G. Szilagyi, Jonathan D. Klein, and Eugene M. Lewit. "SCHIP's Impact in Three States: How Do the Most Vulnerable Children Fare?" *Health Affairs*, vol. 23, no. 5, September/October 2004.
- Dubay, Lisa. "Expanding Public Insurance Coverage and Crowd-Out: A Review of the Evidence." In *Options for Expanding Health Insurance Coverage: What Difference Do Different Approaches Make?*, edited by Judith Feder and Sheila Burke. Washington, DC: Henry J. Kaiser Family Foundation, 1999.
- Dubay, Lisa, and Genevieve Kenney. "The Impacts of SCHIP on Insurance Coverage for Low-Income Children." Presentation at the Academy Health Meetings, San Diego, CA: June 2004.
- Dubay, Lisa, and Genevieve Kenney. "Health Care Access and Use Among Low-Income Children: Who Fares Best?" *Health Affairs*, vol. 16, no. 1, 2001, pp. 112–121.
- Dubay, Lisa, and Genevieve Kenney. "Peer Review: Did Medicaid Expansions for Pregnant Women Crowd Out Private Coverage?" *Health Affairs*, vol. 16, no. 1, January/February 1997, pp. 185–193.
- Dubay, Lisa, and Genevieve Kenney. "The Effects of Medicaid Expansions on Insurance Coverage of Children." *Future of Children*, vol. 6, no. 1, 1996, pp. 152–161.
- Dubay, Lisa, Genevieve Kenney, and Jennifer M. Haley. "Children's Participation in Medicaid and SCHIP: Early in the SCHIP Era." *New Federalism: National Survey of America's Families*, no. B-40. Washington, DC: The Urban Institute, March 2002a.
- Dubay, Lisa, Ian Hill, and Genevieve Kenney. "Five Things Everyone Should Know About SCHIP." *New Federalism Issues and Options for States*, series A, no. A-55. Washington, DC: The Urban Institute, October 2002b.

- Edelstein, Burton L., Richard J. Manski, and John F. Moeller. "Pediatric Dental Visits During 1996: An Analysis of the Federal Medical Expenditure Panel Survey." *Pediatric Dentistry*, vol. 22, 2000, pp. 17–20.
- Edwards, Jennifer, Janet Bronstein, and David B. Rein. "Do Enrollees in 'Look-Alike' Medicaid and SCHIP Programs Really Look Alike?" *Health Affairs*, vol. 21, no. 3, May/June 2002.
- Employee Benefit Research Institute. "2002 Small Employee Health Benefits Survey: Methodology and Posted Questionnaire." Washington, DC: EBRI, Consumer Health Education Council, and the Blue Cross Blue Shield Association. Available online at [www.ebri.org/sehbs/2002sehbsqst.pdf]. Accessed December 1, 2003.
- Fairbrother, Gerry, Genevieve Kenney, Karla Hanson, and Lisa Dubay. "How Do Stressful Environments Relate to Access and Use of Health Care by Low-Income Children?" *Medical Care Research and Review*, forthcoming.
- Fairbrother, Gerry, Michael K. Gusmano, Heidi L. Park, and Roberta Scheinmann. "Care for the Uninsured in General Internists' Private Offices." *Health Affairs*, vol. 22, no. 6, November/December 2003, pp. 217–224.
- Fasciano Nancy, and Ruchika Bajaj. "Congressionally Mandated Evaluation of the State Children's Health Insurance Program. Site Visit Report: The State of New Jersey's FamilyCare Program." Princeton, NJ: Mathematica Policy Research, Inc., November 2002.
- Fossett, J.W., J.D. Perloff, P.R. Kletke, and J.A. Peterson. "Medicaid and Access to Child Health Care in Chicago." *Journal of Health Politics, Policy and Law*, vol. 17, no. 2, 1992, pp. 111–141.
- Fox, Harriet B., and Stephanie J. Limb. "SCHIP Programs More Likely to Increase Cost Sharing than Reduce Their Eligibility or Benefits to Control Costs." *Child Health Program Impact Series*, no. 4. Washington, DC: Maternal and Child Health Policy and Research Center, 2004.
- Fox, Harriet B., Ruti G. Levitov, and Margaret A. McManus. "Eligibility, Benefits, and Cost-Sharing in Separate SCHIP Programs." Washington, DC: Maternal and Child Health Policy Research Center, 2003.
- Gabel, J., G. Claxton, E. Holve, J. Pickreign, H. Whitmore, K. Dhont, S. Hawkins, and D. Rowland. "Health Benefits in 2003: Premiums Reach Thirteen-Year High as Employers Adopt New Forms of Cost Sharing." *Health Affairs*, vol. 22, no. 5, 2003, pp. 117–126.
- Gabel, J., L. Levitt, E. Holve, J. Pickreign, H. Whitmore, K. Dhont, S. Hawkins, and D. Rowland. "Job-Based Health Benefits in 2002: Some Important Trends." *Health Affairs*, vol. 21, no. 5, 2002, pp. 143–151.
- Grossman, Michael. "On the Concept of Health Capital and the Demand for Health." *Journal of Political Economy*, vol. 80, no. 2, 1972, pp. 223–255.

- Haber, Susan, and Janet Mitchell. "Does SCHIP Provide Continuity of Coverage to Low-Income Children? Lessons from Oregon." Abstract presented at the Third Annual Meeting of Child Health Services Researchers, Atlanta, GA, June 2001. Available online at [ahrq.gov/chiri/chirihaber.htm]. Accessed August 11, 2003.
- Harrington, Mary, and William Black. "Congressionally Mandated Evaluation of the State Children's Health Insurance Program. Site Visit Report: The State of Florida's KidCare Program." Princeton, NJ: Mathematica Policy Research, Inc., May 2003.
- Hawkes, Corinna, and Embry Howell. "Congressionally Mandated Evaluation of the State Children's Health Insurance Program. Site Visit Report: The State of North Carolina's Health Choice Program." Princeton, NJ: Mathematica Policy Research, Inc., November 2002.
- Hill, Ian, and Corinna Hawkes. "Congressionally Mandated Evaluation of the State Children's Health Insurance Program. Site Visit Report: The State of California's Healthy Families Program." Princeton, NJ: Mathematica Policy Research, Inc., November 2002.
- Hill, Ian, and Amy Westpfahl Lutzky. "Is There a Hole in the Bucket? Understanding SCHIP Retention." *Assessing the New Federalism, Occasional Paper no. 67*. Washington, DC: The Urban Institute, May 2003. Available online at [www.urban.org/UploadedPDF/310792_OP-67.pdf]. Accessed August 8, 2003.
- Hill, Ian, Corinna Hawkes, and Mary Harrington. "Congressionally Mandated Evaluation of the State Children's Health Insurance Program: Final Cross-Cutting Report on the Findings from Ten State Site Visits." Report submitted to the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. Princeton, NJ: Mathematica Policy Research, Inc., December 2003.
- Holahan, John, Lisa Dubay, and Genevieve Kenney. "Which Children Are Uninsured and Why?" *Future of Children*, vol. 13, no. 1, spring 2003.
- Holcomb, Pamela, Karen Tumlin, Robin Koralek, Randy Capps, and Anita Zuberi. "The Application Process for TANF, Food Stamps, Medicaid and SCHIP: Issues for Agencies and Applicants, Including Immigrants and Limited English Speakers." Washington, DC: The Urban Institute, January 2003.
- Hughes, D., J. Angeles, and E. Stilling. "Crowd-Out in the Health Families Program: Does It Exist?" San Francisco, CA: Institute for Health Policy Studies, University of California, August 2002.
- Institute of Medicine. *Coverage Matters: Insurance and Healthcare*. Washington, DC: IOM, 2001.
- Irvin, Carol, Deborah Peikes, Christopher Trenholm, and Nazmul Khan. "Continuous Coverage: Removing Barriers to Children's Health Care." *Issue Brief no. 8*. Princeton, NJ: Mathematica Policy Research, Inc., May 2002. Available online at [www.mathematica-mpr.com/PDFs/ContCov.pdf].

- Kaestner, Robert, Theodore Joyce, and Andrew Racine. "Does Publicly Provided Health Insurance Improve the Health of Low-Income Children in the United States?" NBER Working Paper 6887. Cambridge, MA: National Bureau of Economic Research, Inc., 1999.
- Kenney, Genevieve, Jennifer Haley, and Alexandra Tebay. "Awareness and Perceptions of Medicaid and SCHIP Among Low-Income Families with Uninsured Children: Findings from 2001." Washington, DC: The Urban Institute and Mathematica Policy Research Inc., April 2004.
- Kenney, Genevieve, Jennifer Haley, and Alexandra Tebay. "Children's Insurance Coverage and Service Use Improve." In *Snapshots of America's Families III, no. 1*. Washington, DC: The Urban Institute, 2003.
- Kenney, Genevieve, Grace Ko, and Barbara A. Ormond. *Gaps in Prevention and Treatment: Dental Care for Low-Income Children*. Series B, no. B-15. Washington, DC: The Urban Institute, 2000.
- Ku, Leighton, and Timothy Waidmann. "How Race/Ethnicity, Immigration Status and Language Affect Health Insurance Coverage, Access to Care and Quality of Care Among the Low-Income Population." Washington, DC: Kaiser Commission on Medicaid and the Uninsured, August 2003.
- Lave, Judith, Christopher Keane, Chyongchiou Lin, Edmund Ricci, Gabriele Amersbach, and Charles LaVallee. "Impact of a Children's Health Insurance Program on Newly Enrolled Children." *Journal of the American Medical Association*, vol. 279, no. 22, 1998, pp. 1820–1825.
- Lessard, Gabrielle, and Leighton Ku. "Gaps in Coverage for Children in Immigrant Families." *Future of Children*, vol. 13, no. 1, 2003, pp. 101–115.
- Lohr, Kathleen, Robert Brook, Caren Kamberg, George Goldberg, Arleen Leibowitz, Joan Keese, David Reboussin, and Joseph Newhouse. "Use of Medical Care in the RAND Health Insurance Experiment: Diagnosis- and Service-Specific Analyses." *Medical Care*, vol. 24, no. 9, supplement, 1986, pp. S1–S80.
- Long, Sharon K., and Teressa A. Coughlin. "Access and Use by Children on Medicaid." *Inquiry*, vol. 28, no. 4, 2001/2002, pp. 409–422.
- LoSasso, Anthony, and Thomas Buchmueller. "The Effect of the State Children's Health Insurance Program on Health Insurance Coverage." *Journal of Health Economics*, vol. 23, no. 5, 2004, pp. 1059–1082.
- Lutzky, Amy, and Ian Hill. "Has the Jury Reached a Verdict? States' Early Experiences with Crowd Out Under SCHIP." Occasional paper no. 47. Washington, DC: The Urban Institute, 2001.
- Mills, Robert, and Shailesh Bhandari. "Health Insurance Coverage in the United States: 2002." Washington, DC: U.S. Census Bureau, 2003.

- Monheit, A.C., and P.J. Cunningham. "Children Without Health Insurance." *Future of Children*, vol. 2, no. 2, 1992, pp. 154–170.
- Moreno, Lorenzo, and William Black. "Congressionally Mandated Evaluation of the State Children's Health Insurance Program: Retention and Reenrollment in Three States. Draft Report." Princeton, NJ: Mathematica Policy Research, Inc., December 2001.
- Moreno, Lorenzo, and Sheila Hoag. "Covering the Uninsured Through TennCare: Does It Make a Difference?" *Health Affairs*, vol. 20, no. 1, 2001, pp.231–239.
- Namoodiri, Krishnan, and C.M. Suchindran. *Life Table Techniques and Their Applications*. Orlando, FL: Academic Press, 1987.
- National Governors Association. "Strategies for Retention and Reenrollment in SCHIP and Medicaid." Health Policy Studies Division, October 12, 2000. Available online at [www.nga.org/cda/files/001012SCHIPRETENT.PDF]. Accessed June 19, 2003.
- National Governors Association. "Retention and Reenrollment of Children in SCHIP and Medicaid." Health Policy Studies Division, September 16, 1999. Available online at [www.nga.org/cda/files/990916SCHIP.PDF]. Accessed June 19, 2003.
- Nelson K., K. Larsen, N. Lurie, T. Zink, A. Pheley, and K. Murphy. "Barriers to Medicaid Enrollment in Minnesota: Some Implications for Health System Reform." *Journal of the American Medical Association*, vol. 272, no. 9, September 7, 1994, p. 746.
- Newacheck, P.W., D.C. Hughes, and J.J. Stoddard. "Children's Access to Care: Differences by Race, Income, and Insurance Status." *Pediatrics*, vol. 97, no. 1, 1996, pp. 26–32.
- Newacheck, Paul, Margaret McManus, Harriette Fox, Yun-Yi Hung, and Neal Halfon. "Access to Health Care for Children with Special Health Care Needs." *Pediatrics*, vol. 105, 2000, pp.760–766.
- Newacheck, Paul, Michelle Pearl, Dana C. Hughes, and Neal Halfon. "The Role of Medicaid in Ensuring Children's Access to Care." *Journal of the American Medical Association*, vol. 280, no. 20, 1998, pp. 1789–1793.
- Newacheck, P.W., J.J. Stoddard, D.C. Hughes, and M. Pearl. "Children's Access to Health Care: The Role of Social and Economic Factors." In *Health Care for Children: What's Right, What's Wrong, What's Next*, edited by R.E. Stein. New York: United Hospital Fund, 1997.
- Newhouse, J.P. *Free for All? Lessons from the RAND Health Insurance Experiment*. Cambridge, MA: Harvard University Press, 1993.
- Nogle, June, and Elizabeth Shenkman. "Florida KidCare Program Evaluation Report, 2003." Gainesville, FL: Institute for Child Health Policy, January 2004. Available online at [http://www.ichp.ufl.edu]. Accessed November 10, 2004.
- Perry, Michael J. "Promoting Public Health Insurance for Children." *Future of Children*, vol. 13, no. 1, 2003, pp. 193–203.

- Perry, Michael, Susan Kannel, R. Burciaga Valdez, and Christina Chang. "Medicaid and Children: Overcoming Barriers to Enrollment: Findings from a National Survey." Washington, DC: Kaiser Commission on Medicaid and the Uninsured, 2000.
- Pettibone, Kristianna, Joanna Shoffner, Jamie Chriqui, Raedell Wallace, Mathew Dunn, and Carissa Baker. "Report on the National Survey of SCHIP Administrators for the Congressionally Mandated Evaluation of the Children's Health Insurance Program." Princeton, NJ: Mathematica Policy Research, Inc., June 2004.
- Phelps, Charles E. *Health Economics*. Reading, MA: Addison-Wesley, 1997.
- Phillips, Julie, Jane E. Miller, Joel C. Cantor, and Dorothy Gaboda. "Context or Composition: What Explains Variation in SCHIP Disenrollment?" *Health Services Research*, vol. 39, no. 4, August 2004, pp. 865–885.
- Riley, Trish, Cynthia Pernice, Michael Perry, and Susan Kannel. "Why Eligible Children Lose or Leave SCHIP: Findings from a Comprehensive Study of Retention and Disenrollment." Portland, ME: National Academy for State Health Policy, February 2002.
- Rosenbach, M.L. "The Impact of Medicaid on Physician Use by Low-Income Children." *American Journal of Public Health*, vol. 79, no. 9, 1989, pp. 1220–1226.
- Rosenbach, Margo, Marilyn Elwood, Carol Irvin, Cheryl Young, Wendy Conroy, Brian Quinn, and Megan Kell. "Implementation of the State Children's Health Insurance Program: Synthesis of State Evaluations." Background report for Congress. Princeton, NJ: Mathematica Policy Research, Inc., March 2003.
- Shenkman, Elizabeth, Virginia Schaffer, and Delfino Vargas. "An Analysis of Disenrollment Patterns in the Children's Health Insurance Program in Texas." Gainesville, FL: Institute for Child Health Policy, April 2002a. Available online at [www.ichp.edu/ResearchPDF/DisenrolleeReport-4-02.pdf]. Accessed August 25, 2003.
- Shenkman, Elizabeth, H. Steingraber, and C. Bono. "Florida Kid Care Program Evaluation Year 3 Report." Gainesville, FL: Institute for Child Health Policy, 2002b.
- Sheps, Mindel C., and Jane A. Menken. *Mathematical Models of Conception and Birth*. Chicago: University of Chicago Press, 1973.
- Short, P.F., and D.C. Lefkowitz. "Encouraging Preventive Services for Low-Income Children: The Effect of Expanding Medicaid." *Medical Care*, vol. 30, no. 9, 1992, pp. 766–780.
- Silver, E.J., and R.E.K. Stein. "Access to Care, Unmet Health Needs, and Poverty Status Among Children with and Without Chronic Conditions." *Ambulatory Pediatrics*, vol. 1, no. 6, 2001, pp. 314–320.
- Singleton, Royce A., Bruce C. Straits, and Margaret Miller Straits. *Approaches to Social Research*. New York: Oxford University Press, 1993.

- Sloan, F., R. Mitchell, and J. Cromwell. "Physician Participation in State Medicaid Programs." *Journal of Human Resources*, supplement 1978, pp. 211–245.
- Smith, Vernon, and David Rousseau. "SCHIP Program Enrollment: June 2003 Update." Washington, DC: Kaiser Commission on Medicaid and the Uninsured, 2003.
- Smith, Vernon, and David Rousseau. "SCHIP Enrollment: December 2002 Update." Washington, DC: Kaiser Commission on Medicaid and the Uninsured, July 2003. Available online at [www.kff.org/content/2003/4123/4123.pdf]. Accessed August 1, 2003.
- Stata Corporation. "Survival Analysis and Epidemiological Tables." *Stata Statistical Software: Release 8.0*. College Station, TX: Stata Corporation, 2003.
- Stewart, Bruce, and Christopher Zacker. "Who Bears the Burden of Medicaid Drug Copayment Policies?" *Health Affairs*, vol. 18, no. 2, March/April 1999, pp. 201–212.
- Stoddard, J.J., R.F. St. Peter, and P.W. Newacheck. "Health Insurance Status and Ambulatory Care for Children." *New England Journal of Medicine*, vol. 330, no. 20, 1994, pp. 1421–1425.
- Strunk, Bradley C., and Paul B. Ginsburg. "Tracking Health Care Costs: Trends Stabilize but Remain High in 2002." *Health Affairs*, June 11, 2003, pp. 266–274. Web exclusive. Available online at [www.healthaffairs.org] Accessed December 7, 2003.
- Szilagyi, Peter, Jack Zwanziger, Lance Rodewald, Jane Holl, Dana Mukamel, Sarah Trafton, Laura Pollard Shone, Andrew Dick, Lynne Jarrell, and Richard Raubertas. "Evaluation of a State Health Insurance Program for Low-Income Children: Implications for State Child Health Insurance Programs." *Pediatrics*, vol. 105, 2000, pp. 363–371.
- Testa, Kristen, Larissa Mohamadi, Dawn Horner, Wendy Lazarus, Jayleen Richards, and Len Finocchio. "Children Falling Through the Insurance Cracks: Early Observations and Promising Strategies for Keeping Low-Income Children Covered by Medi-Cal and Healthy Families." 100% Campaign. January 2003. Available online at [<http://www.100percentcampaign.org/assets/pdf/CNReport/CNReport-complete.pdf>].
- Thorpe, K.E., and C.S. Florence. "Health Insurance Among Children: The Role of Expanded Coverage." *Inquiry*, vol. 35, 1998, no. 4, pp. 369–379.
- Trude, Sally. "Patient Cost-Sharing: How Much Is Too Much?" Washington, DC: Center for Studying Health System Change, 2004.
- Tukey, John. *Exploratory Data Analysis*. New York: Addison-Wesley, 1977.
- Ullman, Frank, Ian Hill, and Ruth Almeida. "CHIP: A Look at Emerging State Programs." *Assessing the New Federalism*. Policy brief no. A-35. Washington, DC: The Urban Institute, September 1999.

- U.S. General Accounting Office. *Medicaid and SCHIP, States' Enrollment and Payment Policies Can Affect Children's Access to Care*. Publication no. GAO/HEHS-01-883. Washington, DC: GAO, September 2001. Available online at [www.gao.gov/new.items/d01883.pdf]. Accessed August 11, 2003.
- Weissman, Joel S., Robert Witzburg, Pamela Linove, and Eric G. Campbell. "Termination from Medicaid: How Does It Affect Access, Continuity of Care, and Willingness to Purchase Insurance?" *Journal of Health Care for the Poor and Underserved*, vol. 10, no.1, 1999, pp. 122–137.
- Wooldridge, Judith, Brenda Cox, Mary Harrington, Lorenzo Moreno, Christopher Trenholm, Welmoet van Kammen, Will Black, Nancy Fasciano, Amy Zambrowski, Lisa Dubay, Genevieve Kenney, Ian Hill, Ruth Almeida, Jennifer Haley, Amy Westpfahl-Lutsky, and Jamie Chriqui. "Design Report: Congressionally Mandated Evaluation of the State Children's Health Insurance Program: Final Report." Report prepared by Mathematica Policy Research, Inc., The Urban Institute, and The MayaTech Corporation, Princeton, NJ: Mathematica Policy Research, Inc., November 30, 2001.
- Wooldridge, Judith, Ian Hill, Mary Harrington, Genevieve Kenney, Corinna Hawkes, and Jennifer Haley. "Interim Evaluation Report: Congressionally Mandated Evaluations of the State Children's Health Insurance Program." Princeton, NJ: Mathematica Policy Research, Inc., February 26, 2003.
- Wysen, Kirsten, Cynthia Pernice, and Trish Riley. "How Public Health Insurance Programs for Children Work." *Future of Children*, vol. 13, no. 1, 2003, pp.171–191.
- Yazici, E.Y., and Kaestner, R. "Medicaid Expansions and the Crowding Out of Private Health Insurance Among Children." *Inquiry*, 2000, vol. 37, pp. 23–32.
- Zambrowski, Amy, William Black, and Lorenzo Moreno. "Obtaining Program Data for SCHIP Evaluation Sampling and Analysis: Availability and Reliability. Draft Report." Princeton, NJ: Mathematica Policy Research, Inc., February 2003.
- Ziller, Erika, and Stephanie Loux. "Children's Disenrollment from MaineCare: A Survey of Disenrolled Families." University of Southern Maine: The Institute for Health Policy, May 2003. Available online at [<http://muskie.usm.maine.edu/Publications/ihp/SCHIPDisenrollees03.pdf>]. Accessed September 12, 2003.

Contract No.: HHS-100-01-0002
MPR Reference No.: 8782-130



**The Experiences of SCHIP
Enrollees and Disenrollees in
10 States: Findings from the
Congressionally Mandated
SCHIP Evaluation:
Appendixes**

October 31, 2005

Mathematica Policy Research, Inc. The Urban Institute

*Christopher Trenholm
Welmoet van Kammen
Frank Potter
Myoung Kim
Lorenzo Moreno
Barbara Schiff
William Black*

*Genevieve Kenney
Lisa Dubay
Jamie Rubenstein
Anna Sommers
Stephen Zuckerman
Fredric Blavin
Grace Ko*

Submitted to:

Rob Stewart
U.S. Department of Health and Human Services
Office of the Secretary
Assistant Secretary for Planning and Evaluation
Room 442E, HHH Building
200 Independence Avenue, SW
Washington, DC 20201

Project Officer:
Rob Stewart

Submitted by:

Mathematica Policy Research, Inc.
P.O. Box 2393
Princeton, NJ 08543-2393
(609) 799-3535
and
The Urban Institute
2100 M Street, NW
Washington, DC 20037
(202) 833-7200

Project Director:
Judith Wooldridge

CONTENTS

	Page
APPENDIX A: SURVEY INSTRUMENT	
1. INTRODUCTION	A.3
2. APPLICATION, ENROLLMENT, REDETERMINATION, AND DISENROLLMENT.....	A.11
3. HEALTH CARE COVERAGE.....	A.23
4. CHILD’S HEALTH	A.51
5. ACCESS AND BARRIERS TO AND SATISFACTION WITH USUAL PLACE OF CARE	A.55
6. CHILD’S USE OF HEALTH CARE SERVICES	A.63
7. PARENTS’ CHARACTERISTICS, AND ATTITUDE TOWARDS HEALTH	A.73
8. QUESTIONS ABOUT TELEPHONE COVERAGE	A.95
9. GLOSSARY OF TERMS USED IN SURVEY INSTRUMENT	A.97
 APPENDIX B: METHODS FOR CONDUCTING THE 2002 CONGRESSIONALLY MANDATED SURVEY OF SCHIP ENROLLEES AND DISENROLLEES IN 10 STATES AND MEDICAID ENROLLEES AND DISENROLLEES IN 2 STATES	
A. SAMPLE DESIGN AND SELECTION	B.3
1. State Selection	B.4
2. Target Population Within States	B.5
3. Sampling Frame	B.7
4. Sample Design.....	B.9
B. SURVEY QUESTIONNAIRE.....	B.18
C. SURVEY MANAGEMENT	B.24
1. Training	B.24
2. Monitoring.....	B.27
3. Performance	B.28

CONTENTS (continued)

	Page
D. DATA COLLECTION METHODS.....	B.28
1. Initial Locating and Advance Mailings.....	B.29
2. Sample Release Strategies.....	B.31
3. The CATI System.....	B.31
4. Call Scheduler	B.31
5. Telephone Locating.....	B.33
6. Closeout.....	B.34
7. In-Person Locating	B.36
8. Refusal Conversions.....	B.36
9. Follow-Up Interview for Children Disenrolled for More than 12 Months.....	B.36
E. SAMPLING WEIGHTS.....	B.37
1. Initial (Round-Specific, Design-Specific) Weights	B.38
2. Base (Combined-Round, Design-Specific) Weights.....	B.40
3. Nonresponse Adjustments.....	B.42
4. Final Analysis Weights	B.44
5. Sampling Variances.....	B.46
F. RESPONSE RATES.....	B.48
REFERENCES.....	B.59

**APPENDIX C: METHODS USED TO CONDUCT THE ANALYSIS OF SCHIP
ENROLLEES AND DISENROLLEES IN 10 STATES**

A. CROSS-CUTTING METHODS	C.3
1. Sample Design.....	C.3
2. Demographic and Other Cross-Cutting Variables	C.15
B. ANALYSIS OF ENROLLMENT EXPERIENCES.....	C.19
1. SCHIP Sample.....	C.19
2. Medicaid Sample.....	C.21
3. Outcome Measures.....	C.22
C. ANALYSIS OF SCHIP PROGRAM EXPERIENCES (ACCESS AND USE).....	C.24
1. Established-Enrollee Samples	C.24
2. Recent-Enrollee Samples	C.26
3. Disenrollee Sample	C.30

CONTENTS *(continued)*

	Page
4. Outcome Measures.....	C.30
D. ANALYSIS OF DISENROLLEE EXPERIENCES.....	C.36
1. Disenrollee Sample	C.36
2. Outcome Measures.....	C.38
3. Insurance Coverage.....	C.40
4. Reasons for Exit and Uninsurance	C.45
E. ANALYSIS OF COVERAGE PRIOR TO ENROLLMENT, PARENTAL INSURANCE STATUS, AND SUBSTITUTION	C.47
1. Analytic Sample of Recent SCHIP Enrollees	C.47
2. Prior Coverage Among Recent Enrollees	C.49
3. Reasons for Ending Private Coverage and Enrolling in SCHIP	C.54
4. Measures of Parental Coverage Among Established SCHIP Enrollees.....	C.55
F. ANALYSIS OF THE DETERMINANTS OF LENGTH OF SCHIP ENROLLMENT AND REENROLLMENT	C.57
1. SCHIP and Medicaid Enrollment History Data	C.57
2. Life-Table Methods: Descriptive Analysis	C.80
3. Life-Table Methods: Analysis of the Determinants of SCHIP Enrollment and Reenrollment	C.82
REFERENCES	C.85

APPENDIX A
SURVEY INSTRUMENT

**SECTION 1: INTRODUCTION
(NOT IN PUBLIC ACCESS FILE)**

**FOR CALL BACKS OF AN IDENTIFIED PERSON,
START WITH 1.9**

Hello, my name is (INTERVIEWER NAME), and I'm calling from Mathematica Policy Research in Princeton, NJ.

We are doing a study for the U.S. Department of Health and Human Services about (SCHIP/MEDICAID), the health insurance program (CHILD) has been enrolled in.

The study is about what works well for children in (SCHIP/MEDICAID), and what does not work so well, and to hear about people's experiences with the program.

PROBE (IF RESPONDENT DOES NOT KNOW PROGRAM):
(SCHIP/MEDICAID) is the health insurance program that covers medical and dental care expenses for children. You may also know this program as (NAME OF PLAN).

PROBE (IF RESPONDENT SAYS (CHILD) NO LONGER IN PROGRAM)
That is ok. We are very interested in people's experiences with the program for children no longer in (SCHIP/MEDICAID).

PROBE IF NECESSARY: Mathematica Policy Research in Princeton, NJ is conducting this study for the U.S. Department of Health and Human Services to determine if children are getting the health care they need throughout the United States.

1.1 Is (CHILD) living in your household right now?

01	YES	GO TO 1.5
02	NO	GOT TO 1.2
D	DK	Thank you very much. Good-bye.
R	REF	Thank you very much. Good-bye.

1.2 Can you tell me how to get in touch with someone where the child is living now?

PROBE: Your information is confidential. We will only use this information to contact an adult living with (CHILD) about (SCHIP/MEDICAID).

01	YES	GO TO 1.4
02	NO	Thank you very much. Good-bye.
D	DK	
R	REF	

1.4 PLEASE ASK AND RECORD NAME OF CONTACT PERSON, ADDRESS AND/OR TELEPHONE NUMBER.

IF PERSON CAN ONLY PROVIDE TELEPHONE NUMBER, ASK IF CHILD IS STILL LIVING IN (STATE SAMPLE WAS SELECTED FROM).

NAME OF PERSON TO CONTACT	
STREET ADDRESS	
CITY	
STATE AND ZIP CODE	
TELEPHONE NUMBERS	
BEST DATES TO CALL	
BEST TIMES TO CONTACT	

Thank you very much for your help. I will contact the person you mentioned. Good-bye.

1.5 Are you the person who is most familiar with (CHILD)'s health and health care?

01	YES	
02	NO	GO TO 1.6
d	DK	
r	REF	

1.5.1 Are you 18 years of age or older?

01	YES	GO TO 1.10
02	NO	GO TO 1.5.2
d	DK	
r	REF	

1.5.2 Are you (CHILD)'s biological parent?

01	YES	GO TO 1.10
02	NO	GO TO 1.6
d	DK	
r	REF	

1.6 I need to speak with someone who is 18 or older or who is the biological parent of (CHILD) and who is the person familiar with (CHILD)'s healthcare. May I please speak with that person?

01	YES	GO TO 1.9
02	NOT AVAILABLE	GO TO 1.7
d	DK	
r	REF	Thank you very much. Good-bye.

1.7 GET NAME OF PERSON AND TIME TO CALL.

NAME OF PERSON	
BEST DATES TO CALL	
BEST TIMES TO CALL	
REFUSED	Thank you very much. Good-bye.

Thank you very much. I will call this person back later.

IF THIS IS A CALLBACK TO PERSON ESTABLISHED BY OTHER PERSON AS PERSON MOST FAMILIAR WITH CHILD HEALTH CARE START HERE

1.9.1 Hello, my name is (INTERVIEWER NAME), and I'm calling from Mathematica Policy Research in Princeton, NJ.

We are doing a study for the U.S. Department of Health and Human Services about (SCHIP/MEDICAID), the health insurance program (CHILD) has been enrolled in.

The study is about what works well for children in (SCHIP/MEDICAID), and what does not work so well, and to hear about people's experiences with the program.

PROBE (IF RESPONDENT DOES NOT KNOW PROGRAM):
(SCHIP/MEDICAID) is the health insurance program that covers medical (and dental care) expenses for children (IF SCHIP/MEDICAID SAMPLE ADD: and families). You may also know this program as (NAME OF PLAN).

PROBE (IF RESPONDENT SAYS (CHILD) NO LONGER IN PROGRAM)
That is ok. We are very interested in people's experiences with the program for children no longer in (SCHIP/MEDICAID).

ADDITIONAL INFORMATION IF NECESSARY: Mathematica Policy Research in Princeton, NJ is conducting this study for the U.S. Department of Health and Human Services to determine if children are getting the health care they need throughout the United States.

Are you the person who is most familiar with (CHILD)'s health and health care?

01	YES	
02	NO	GO TO 1.9.4
d	DK	
r	REF	
CHILD NOT IN HOUSEHOLD		GO TO 1.9.7

1.9.2 Are you 18 years of age or older?

01	YES	GO TO 1.10
02	NO	GO TO 1.9.3
d	DK	
r	REF	

1.9.3 Are you (CHILD)'s biological parent?

01	YES	GO TO 1.10
02	NO	GO TO 1.9.4
d	DK	
r	REF	

1.9.4 I need to speak with someone who is 18 or older or who is the biological parent of (CHILD) and who is the person familiar with (CHILD)'s healthcare. May I please speak with that person?

01	YES	GO TO 1.9.1
02	NOT AVAILABLE	GO TO 1.9.6
d	DK	
r	REF	Thank you very much. Good-bye.

1.9.6 GET NAME OF PERSON AND TIME TO CALL.

NAME OF PERSON	
BEST DATES TO CALL	
BEST TIMES TO CALL	
REFUSED	Thank you very much. Good-bye

Thank you very much. I will call this person back later.

1.9.7 Can you tell me how to get in touch with someone where the child is living now?

PROBE: Your information is confidential. We will only use this information to contact an adult living with (CHILD) about (SCHIP/MEDICAID).

01	YES	GO TO 1.9.9
02	NO	Thank you very much. Good-bye.

1.9.9 PLEASE ASK AND RECORD NAME OF CONTACT PERSON, ADDRESS AND/OR TELEPHONE NUMBER.

IF PERSON CAN ONLY PROVIDE TELEPHONE NUMBER, ASK IF CHILD IS STILL LIVING IN (STATE SAMPLE WAS SELECTED FROM).

FOR CHILD STILL IN STATE: Thank you very much for your help. I will contact the person you mentioned. Good-bye.

FOR CHILD MOVED OUT OF STATE: Thank you very much for your help. We will probably not contact this person because (CHILD) is now living in another State. Good-bye.

1.10 Can I please have your first and last name?

NOTE: DO NOT ASK IF ALREADY KNOWN

	FIRST NAME
	LAST NAME
d	DK
r	REF

1.10.1 So, why don't we get started with the interview?

It will only take about 30-35 minutes.

01	YES	GO TO 1.10.3
02	NO	GO TO 1.10.2

1.10.2 GET TIME TO CALL.

BEST DATES TO CALL	
BEST TIMES AND DATES TO CALL	
REFUSED	Thank you very much. Good-bye.

Thank you very much. I will call you back later.

IF THIS IS A CALLBACK TO PERSON WHO IDENTIFIED HIM/HERSELF AS THE PERSON TO BE INTERVIEWED, START HERE

1.10.3 First, I want to assure you that all information from this interview will be completely confidential and will not in any way affect (CHILD)'s health insurance or medical care.

Information you such as names and addresses will not be stored with information that you give us during the interview and will always be kept in a secure place. Only the researchers directly working on the study will have access to this information.

We will not report on your individual answers but the results of this study will always be presented by combining your answers with the answers of other respondents.

Before we begin, I need to tell you that for purposes of quality control my supervisor may monitor this call.

First, I need to ask you a few basic questions.

1.12 (DO NOT ASK IF ALREADY KNOWN) What is your relationship to (CHILD)?

01	MOTHER
02	FATHER
03	GRANDFATHER
04	GRANDMOTHER
05	AUNT
06	UNCLE
07	BROTHER (FULL, HALF, ADOPTED)
08	SISTER (FULL, HALF, ADOPTED)
09	OTHER RELATIVE (SPECIFY)
10	OTHER NON-RELATIVE IF FOSTER PARENT, TERMINATE INTERVIEW FOR (SCHIP/MEDICAID) SAMPLE
d	DK
r	REF

1.15 Just to verify my information, my records indicated that (CHILD) is a (BOY/GIRL). Is that correct?

01	YES
02	NO, GIRL
03	NO, BOY

1.16 I have (CHILD)'s birthday as (DATE OF BIRTH). Is that correct?

01	YES	GO TO NEXT SECTION
02	NO	GO TO 1.17
d	DK	
r	REF	

1.17 What is (CHILD)'s correct birthday?

	MONTH
	DAY
	YEAR

**SECTION 2: APPLICATION, ENROLLMENT, REDETERMINATION, AND
DISENROLLMENT**

My first questions will be about how you learned about (SCHIP/MEDICAID) and what you had to do to enroll and keep (CHILD) enrolled in the program.

First, I will read you a list of ways you may have heard or received information about (SCHIP/MEDICAID).

For each item, please tell me if you ever heard or received information about the program this way.

- 2.1.2.1 Have you ever heard or received information about (SCHIP/MEDICAID) on TV, the radio, or in the newspaper?

01	YES
02	NO
d	DK
r	REF

- 2.1.4 Have you ever heard or received information about (SCHIP/MEDICAID) when applying for another program, such as (MEDICAID/SCHIP), TANF/AFDC, WIC, or food stamps?

01	YES
02	NO
d	DK
r	REF

- 2.1.5 Have you ever heard or received information about (SCHIP/MEDICAID) at (CHILD)'s school or school related event?

01	YES
02	NO
d	DK
r	REF

2.1.8 Have you ever heard or received information about (SCHIP/MEDICAID) from a telephone hot line, help line, or referral service?

01	YES
02	NO
d	DK
r	REF

2.1.9 Have you ever heard or received information about (SCHIP/MEDICAID) in a hospital, emergency room, clinic, doctor's office, or pharmacy?

01	YES
02	NO
d	DK
r	REF

2.1.12 Have you ever heard or received information about (SCHIP/MEDICAID) at work or at a school you attend or attended?

01	YES
02	NO
d	DK
r	REF

2.1.13 Have you ever heard or received information about (SCHIP/MEDICAID) at a store, shopping center, or restaurant?

01	YES
02	NO
d	DK
r	REF

2.1.15 Have you ever heard or received information about (SCHIP/MEDICAID) at any other place or from any other person?

01	YES
02	NO
d	DK
r	REF

2.2 Was any of this information/Was this information important in making a decision to enroll (CHILD) in (SCHIP/MEDICAID)?

01	YES
02	NO
d	DK
r	REF

IF 2.1.2.1-2.1.15 MORE THAN ONE ANSWERED YES and 2.2=YES GO TO 2.2.1
ELSE GO TO 2.9

2.2.1 Which information was the most important in making the decision to enroll (CHILD) in (SCHIP/MEDICAID)?

Was it...

01-14	1=TV	8=Telephone
	2=Radio	9=Hospital
	3=Newspaper	10=Pharmacy
	4=Outreach	11=Work
	5=Welfare	12=Store
	6=School	13=Friend
	7=Church	14=Other
d	DK	
r	REF	

2.9 The next questions are about your experiences enrolling (CHILD) in (SCHIP/MEDICAID).

Has (SCHIP/MEDICAID) ever rejected (CHILD)'s application so he/she could not be enrolled in the program?

01	YES	GO TO 2.10
02	NO	GO TO 2.11
d	DK	GO TO 2.11
r	REF	GO TO 2.11

2.10.1-2.10.7

What were the reasons (SCHIP/MEDICAID) rejected (CHILD)'s application?

1	DIDN'T PROVIDE ALL PAPER WORK/DOCUMENTS NEEDED
2	EARNED TOO MUCH MONEY
3	QUALIFIED FOR (MEDICAID/SCHIP)
4	TOO OLD
5	WAS INSURED BY OTHER INSURANCE
6	CHILD NEEDED TO BE UNINSURED LONGER TO QUALIFY
7	OTHER REASON
d	DK
r	REF

2.11 Now, think about the times (CHILD) (IF 2.9=1 READ: successfully) was enrolled in (SCHIP/MEDICAID). How many times did that happen?

PROBE: Please do not include times you were required to renew or reapply for (CHILD) to stay in the program.

	TIMES
d	DK
r	REF

2.12 How old was (CHILD) when he/she was (IF 2.11>1 READ: first) enrolled in (SCHIP/MEDICAID)?

1	0 to 4
2	5 to 12
3	13 or older
d	DK
r	REF

2.13 Was that the first time a child in your household was enrolled in (SCHIP/MEDICAID)?

01	YES
02	NO
D	DK
R	REF

2.14 (MULTIPLE TIMES ENROLLED/2.11 > 1) Now think about the most recent time he/she was enrolled in (SCHIP/MEDICAID).

What was the main reason (CHILD) was enrolled in the program?

01	WANTED CHILD TO BE INSURED
02	PARENT LOST INSURANCE BECAUSE OF LOSS OF JOB OR CHANGE IN HOURS ON JOB
03	(SCHIP/MEDICAID) IS LESS EXPENSIVE THAN INSURANCE CHILD WAS COVERED UNDER
04	(SCHIP/MEDICAID) COVERAGE BETTER THAN INSURANCE CHILD WAS COVERED UNDER
05	NOT ELIGIBLE ANY LONGER FOR MEDICAID/SCHIP
06	OTHER REASON
d	DK
r	REF

2.17 How did you get the application form to enroll in (SCHIP/MEDICAID)?

Did you get the form...

01	In the mail	GO TO 2.17.1
02	Was it given to you or did you pick it up somewhere	GO TO 2.18
03	Did you get it from a website on the Internet?	GO TO 2.19
d	DK	
r	REF	

2.17.1 Did you get the form in the mail because...

01	You requested the form from someone or someplace	GO TO 2.18
02	Did the form just show up in the mail?	GO TO 2.19
d	DK	
r	REF	

2.18 (IF 2.17=02) Who gave the form to you or where did you pick it up?

(IF 2.17.1=01) Where or from whom did you request the form?

01	HOT/HELP TELEPHONE LINE
02	WELFARE OFFICE OR OTHER AGENCY OFFICE (OR SOCIAL WORKER OR OTHER STAFF THERE)
03	HOSPITAL, HOSPITAL EMERGENCY ROOM OR CLINIC (OR DOCTOR, NURSE OR OTHER STAFF THERE)
04	DOCTOR'S OFFICE (OR DOCTOR OR OTHER STAFF THERE)
05	PHARMACY (OR PHARMACIST OR OTHER STAFF THERE)
06	SCHOOL OF CHILD (OR STAFF AT THE SCHOOL)
07	CHURCH (OR CHURCH STAFF)
08	COMMUNITY CENTER (OR STAFF THERE)
09	STORE OR SHOPPING CENTER (OR STAFF THERE)
10	WORK PLACE/YOUR SCHOOL (OR COWORKERS, TEACHERS, SUPERVISORS, ETC.)
11	FRIEND OR RELATIVE (OR AT THEIR HOUSE)
12	OTHER PLACE OR PERSON
d	DK
r	REF

2.19 Was the application form written in a language other than English?

01	YES, LANGUAGE OTHER THAN ENGLISH	GO TO 2.21
02	NO, ENGLISH	
d	DK	
r	REF	

2.20 Did a translator or some other professional help translate the application form into a language you could understand?

01	YES
02	NO
d	DK
r	REF

2.21 (IF 2.20=1) Besides help with translating, did you get other assistance in completing the application?

(ELSE) Did you get assistance in completing the application?

01	YES	
02	NO	GO TO 2.25
d	DK	
r	REF	

2.22 Did you get assistance in completing the application from...

	01=YES 02=NO d=DK r=REF	
A		An outreach worker, social worker, or someone else coming to your home
B		A person at an agency
C		A person at a hospital, a clinic, or a doctor's office
D		A person at a hot or help line
E		Any other professional

2.22.1 How easy or difficult was it for you to get assistance in completing the application?

Would you say it was...

01	Very easy
02	Somewhat easy
03	Somewhat difficult
04	Very difficult
d	DK
r	REF

2.24.1 How courteous and respectful were the people who assisted you in completing the application?

Would you say they were...

01	Very courteous and respectful
02	Somewhat courteous and respectful
03	Not very courteous and respectful
04	Not at all courteous and respectful
d	DK
r	REF

2.25.1 Were you or someone else required to go to an office to complete the application?

01	YES	GO TO 2.26
02	NO	GO TO 2.28
d	DK	
r	REF	

2.26 Was the location of the office...

01	Very convenient
02	Somewhat convenient
03	Not very convenient
04	Not at all convenient
d	DK
r	REF

2.28 For (CHILD)'s (IF 2.11>1 READ: most recent) application for (SCHIP/MEDICAID), how easy or difficult was it to fill out the application form?

Was it...

01	Very easy
02	Somewhat easy
03	Somewhat difficult
04	Very difficult
d	DK
r	REF

2.29 And, how easy or difficult was it to get the required documents together? Was it...

01	Very easy
02	Somewhat easy
03	Somewhat difficult
04	Very difficult
05	WAS NOT REQUIRED TO GET ANY DOCUMENTS
d	DK
r	REF

2.29.1 So overall, based on your experiences and what you know about (SCHIP/MEDICAID), how easy or difficult is it to enroll (CHILD) in (SCHIP/MEDICAID)?

Is it...

01	Very easy
02	Somewhat easy
03	Somewhat difficult
04	Very difficult
d	DK
r	REF

2.30 Again, think about the most recent time (CHILD) was enrolled in (SCHIP/MEDICAID).

After the entire application was completed and submitted, about how many weeks and or months did it take until you were notified that (CHILD) was enrolled in the program?

00	WAS ENROLLED RIGHT AWAY	GO TO 2.34
	WEEKS	
999	NEVER NOTIFIED	GO TO 2.34
d	DK	GO TO 2.30.1
r	REF	GO TO 2.34

2.30.1 Would you say...

01	Less than 1 week
02	1 but less than 2 weeks
03	2 but less than 3 weeks
04	3 but less than 4 weeks
05	4 but less than 5 weeks
06	6 but less than 8 weeks
07	More than 2 months
08	More than 3 months
d	DK
r	REF

2.34 While (CHILD) is on (SCHIP/MEDICAID), you may have to fill out a form or provide information in some other way that will determine if (CHILD) remains eligible for the program. Based on your experiences and what you know about (SCHIP/MEDICAID), how often do you have to reapply to (SCHIP/MEDICAID) for (CHILD) to stay in the program?

Would you have to reapply...

00	Never	GO TO 2.45
01	Every month	GO TO 2.34.1
02	Every 3 months	
03	Every 6 months	
04	Once a year	
05	Once every 2 years	
06	OTHER TIME PERIOD	
d	DK	
r	REF	

ALL NEW ENROLLEES, GO TO 2.45

2.34.1 While (CHILD) was enrolled in (SCHIP/MEDICAID), were you ever notified that you had to reapply for him/her to stay in the program?

01	YES	
02	NO	GO TO 2.38
d	DK	
r	REF	

2.38 Has (SCHIP/MEDICAID) ever rejected a reapplication for (CHILD) so he/she could not stay in the program?

01	YES	
02	NO	GO TO 2.42
d	DK	
r	REF	

2.39.1-2.39.7

What were the reasons (CHILD)'s reapplication was rejected?

ENTER ALL THAT APPLY

1	DIDN'T PROVIDE ALL PAPER WORK/DOCUMENTS NEEDED
2	EARNED TOO MUCH MONEY
3	QUALIFIED FOR (MEDICAID/SCHIP)
4	TOO OLD
5	WAS INSURED BY OTHER INSURANCE
6	CHILD NEEDED TO BE LONGER UNINSURED TO QUALIFY
7	OTHER REASON
d	DK
r	REF

2.42 Have you ever received a warning that (CHILD) would be terminated from (SCHIP/MEDICAID) if you did not reapply to the program on time?

01	YES
02	NO
d	DK
r	REF

2.43 Have you ever successfully completed a reapplication so (CHILD) could stay in the program?

01	YES	
02	NO	GO TO 2.45
d	DK	
r	REF	

2.44 From your experiences and what you know about (SCHIP/MEDICAID), how easy or difficult is it to complete the reapplication?

Was it...

01	Very easy
02	Somewhat easy
03	Somewhat difficult
04	Very difficult
d	DK
r	REF

MEDICAID SAMPLE GO TO NEXT SECTION

2.45 Did you ever receive a warning that (CHILD)'s coverage in (SCHIP/MEDICAID) would be terminated if the premium was not paid on time?

01	YES	
02	NO	
03	DOES NOT PAY PREMIUM	GO TO NEXT SECTION
d	DK	
r	REF	

2.47 Has (CHILD)'s coverage in (SCHIP/MEDICAID) ever been terminated because a premium was not paid on time?

01	YES
02	NO
d	DK
r	REF

SECTION 3: HEALTH CARE COVERAGE

Now, I am going to ask you some questions about (CHILD)'s (SCHIP/MEDICAID) coverage and any other health insurance he/she may have had in the past.

3.2 First, is (CHILD) covered by (SCHIP/MEDICAID) right now?

01	YES	GO TO 3.7b
02	NO	GO TO 3.3
d	DK	SWITCH TO SHORTENED SURVEY
r	REF	GO TO 3.2.1

3.2.1 Thank you very much. I have no more questions at this point. Good-bye.

ESTABLISH LAST ENDDATE

3.3 About how many months has it been since (CHILD)'s (SCHIP/MEDICAID) coverage ended?

	MONTHS (IF LESS THAN 1 MONTH, CODE 0	GO TO 3.5
999	UNSURE, BUT MORE THAN 6 MONTHS AGO	GO TO 3.5.1
d	DK	GO TO 3.4
r	REF	

3.4 Would you say it has been about...

01	Less than 1 month	GO TO 3.5
02	1 month but less than 2 months	
03	2 months but less than 3 months	
04	3 months but less than 4 months	
05	4 months but less than 5 months	
06	5 months but less than 6 months	
07	6 months	
08	Longer than 6 months	GO TO 3.5.1
d	DK	
r	REF	

3.5 So, (CHILD) has not been covered by (SCHIP/MEDICAID) since (CURRENT MONTH MINUS MONTHS SINCE COVERAGE ENDED). Is that correct?

01	YES	GO TO 3.7
02	NO	GO TO 3.5.1
d	DK	
r	REF	

3.5.1A AND 3.5.1B

In about what month and year did (CHILD)'s (SCHIP/MEDICAID) coverage end? Your best estimate is fine.

		YEAR
01	JANUARY	
02	FEBRUARY	
03	MARCH	
04	APRIL	
05	MAY	
06	JUNE	
07	JULY	
08	AUGUST	
09	SEPTEMBER	
10	OCTOBER	
11	NOVEMBER	
12	DECEMBER	
d	DK	SWITCH TO SHORTENED SURVEY
r	REF	GO TO 3.2.1

BASED ON ANSWERS TO 3.3-3.5.1:

NEW/ESTABLISHED ENROLLEES: IF REPORTED DISENROLLED 6 TO 12 MONTHS THEN INTERVIEW AS DISENROLLEE

DISENROLLEES: IF REPORTED DISENROLLED 12+ MONTHS THEN SWITCH TO SHORTENED SURVEY

ESTABLISH LAST/CURRENT STARTDATE

3.7 (CHILD) IS NOT CURRENTLY COVERED (3.2=02) Before (CHILD)'s (SCHIP/MEDICAID) coverage ended in (LAST ENDDATE), how many months and/or years was he/she covered by (SCHIP/MEDICAID) without any interruption in coverage?

(CHILD) IS CURRENTLY COVERED (3.2=01) How many months and/or years has (CHILD) been covered by (SCHIP/MEDICAID) without any interruption in coverage?

	MONTHS	GO TO 3.9
999	UNSURE, BUT MORE THAN 6 MONTHS	GO TO 3.9.1
d	DK	GO TO 3.8
r	REF	

3.8 Would you say...

01	Less than 1 month	GO TO 3.9
02	1 month but less than 2 months	
03	2 months but less than 3 months	
04	3 months but less than 4 months	
05	4 months but less than 5 months	
06	5 months but less than 6 months	
07	6 months	
08	Longer than 6 months	
d	DK	GO TO 3.9.1
r	REF	

3.9 So, (CHILD)'s (SCHIP/MEDICAID) coverage started in (LAST ENDDATE MINUS MONTHS OF COVERAGE) or (CURRENT MONTH MINUS MONTHS OF COVERAGE). Is that correct?

01	YES	GO TO 3.11
02	NO	GO TO 3.9.1
d	DK	
r	REF	

3.9.1A AND 3.9.1B

In about what month and year did (CHILD)'s (SCHIP/MEDICAID) coverage start? Your best estimate is fine.

		YEAR
01	JANUARY	
02	FEBRUARY	
03	MARCH	
04	APRIL	
05	MAY	
06	JUNE	
07	JULY	
08	AUGUST	
09	SEPTEMBER	
10	OCTOBER	
11	NOVEMBER	
12	DECEMBER	
d	DK	GO TO 3.2.1
r	REF	

BASED ON ANSWERS TO 3.7-3.9.1

NEW ENROLLEES: IF REPORTED ENROLLED 12+ MONTHS THEN INTERVIEW AS ESTABLISHED ENROLLEE

NEW ENROLLEES: IF REPORTED BORN IN 6 MONTHS BEFORE ENROLLING IN SCHIP/MEDICAID THEN CHANGE (TIMEFRAME1) TO READ: Before (child) was on SCHIP/Medicaid

ESTABLISHED ENROLLEES: IF REPORTED ENROLLED LESS THAN 6 MONTHS THEN CHANGE (TIMEFRAME 1) TO READ: During the time while child has been on SCHIP/Medicaid

DISENROLLEES: IF REPORTED ENROLLED 6+ MONTHS THEN INTERVIEW AS ESTABLISHED ENROLLEE

**ESTABLISH PREVIOUS ENDDATE
FOR
DISENROLLEES WHO DID RE-ENROLL**

DISENROLLEES WHO REENROLLED: GO TO 3.11

ALL OTHERS: GO TO 3.24.1

3.11 Now, I am going to ask about the time that (CHILD)'s current (SCHIP/MEDICAID) coverage started in (START DATE) and his/her previous (SCHIP/MEDICAID) coverage ended. How many months were there between these two periods of (SCHIP/MEDICAID) coverage?

	MONTHS (IF LESS THAN A MONTH), CODE 0	GO TO 3.13
999	UNSURE, BUT MORE THAN 6 MONTHS AGO	GO TO 3.13.1
d	DK	GO TO 3.12
r	REF	

3.12 Would you say...

01	Less than 1 month	GO TO 3.13
02	1 month but less than 2 months	
03	2 months but less than 3 months	
04	3 months but less than 4 months	
05	4 months but less than 5 months	
06	5 months but less than 6 months	
07	6 months	
08	Longer than 6 months	GO TO 3.13.1
d	DK	
r	REF	

3.13 So, (CHILD)'s previous (SCHIP/MEDICAID) coverage ended in (STARTDATE MINUS MONTHS BETWEEN COVERAGE). Is that correct?

01	YES	GO TO 3.14
02	NO	GO TO 3.13.1
d	DK	
r	REF	

3.13.1A AND 3.13.1B

In about what month and year did (CHILD)'s previous (SCHIP/MEDICAID) coverage end? Your best estimate is fine.

		YEAR
01	JANUARY	
02	FEBRUARY	
03	MARCH	
04	APRIL	
05	MAY	
06	JUNE	
07	JULY	
08	AUGUST	
09	SEPTEMBER	
10	OCTOBER	
11	NOVEMBER	
12	DECEMBER	
d	DK	GO TO 3.2.1
r	REF	

ANSWERS IN 3.13 AND 3.13.1 WILL PROVIDE **PREVIOUS ENDDATE** IN MONTHS AND YEARS FOR DISENROLLEES WHO HAVE ENROLLED AGAIN IN THE PROGRAM.

**ESTABLISH PREVIOUS STARTDATE
FOR
DISENROLLEES WHO DID RE-ENROLL**

3.14 Before (CHILD)'s previous (SCHIP/MEDICAID) coverage ended in (PREVIOUS ENDDATE), how many months or years was he/she covered by (SCHIP/MEDICAID) without any interruption in coverage?

	MONTHS (IF LESS THAN 1 MONTH, CODE 0)	GO TO 3.16
999	UNSURE, BUT MORE THAN 6 MONTHS AGO	GO TO 3.16.1
d	DK	GO TO 3.15
r	REF	

3.15 Would you say...

01	Less than 1 month	GO TO 3.16
02	1 month but less than 2 months	
03	2 months but less than 3 months	
04	3 months but less than 4 months	
05	4 months but less than 5 months	
06	5 months but less than 6 months	
07	6 months	
08	Longer than 6 months	GO TO 3.16.1
d	DK	
r	REF	

3.16 So, (CHILD)'s previous (SCHIP/MEDICAID) coverage started in (PREVIOUS ENDDATE MINUS MONTHS OF PREVIOUS COVERAGE). Is that correct?

01	YES	GO TO 3.24.1
02	NO	GO TO 3.16.1
d	DK	
r	REF	

3.16.1A AND 3.16.1B

In about what month and year did (CHILD)'s previous (SCHIP/MEDICAID) coverage start? Your best estimate is fine.

		YEAR
01	JANUARY	
02	FEBRUARY	
03	MARCH	
04	APRIL	
05	MAY	
06	JUNE	
07	JULY	
08	AUGUST	
09	SEPTEMBER	
10	OCTOBER	
11	NOVEMBER	
12	DECEMBER	
d	DK	GO TO 3.2.1
r	REF	

ANSWERS IN 3.15 AND 3.16.1 WILL PROVIDE **PREVIOUS STARTDATE** IN MONTHS AND YEARS FOR DISENROLLEES WHO HAVE ENROLLED AGAIN IN THE PROGRAM.

COVERAGE QUESTIONS RELATED TO TIMEFRAME 1

REFERENCE ADJECTIVE FOR QUESTIONS RELATED TO PAST COVERAGE. FOR THE REMAINDER OF THE QUESTIONS IN SECTION 2
PLEASE USE:
Current FOR NEW AND ESTABLISHED ENROLLEES STILL ENROLLED
Last FOR NEW AND ESTABLISHED ENROLLEES DISENROLLED
Last FOR DISENROLLEES NOT ENROLLED
Previous FOR DISENROLLEES RE-ENROLLED

FOR MEDICAID SAMPLE GO TO 3.24.1

3.24.1 Does/did the current/last/previous (SCHIP/MEDICAID) coverage include the following services for (CHILD):

	1=YES 2=NO d=DK r=REF	
A		Doctors' visits for illness or injuries
B		Well-child visits, routine check-ups, and immunizations
C		Emergency room visits
D		Hospital stays
E		Prescription drugs
F		Dental care
G		Vision care or eye exams

FOR MEDICAID SAMPLE GO TO 3.25

3.25

NEW ENROLLEES AND ESTABLISHED ENROLLEES WHO ARE CURRENTLY ENROLLED (3.2=1) SKIP TO 3.31

3.26 What was the main reason this (SCHIP) coverage ended?

01	CHILD TOO OLD TO BE ELIGIBLE
02	CHILD OBTAINED MEDICAID/SCHIP COVERAGE
03	CHILD OBTAINED OTHER INSURANCE
04	FINANCIAL SITUATION CHANGED/ NOT QUALIFIED FOR (SCHIP/MEDICAID)
05	(<i>NOT FOR MEDICAID SAMPLE</i>) COULD NOT AFFORD PREMIUM/ CO-PAYMENT
06	(<i>NOT FOR MEDICAID SAMPLE</i>) FORGOT TO PAY THE PREMIUM
07	DID NOT LIKE THE DOCTOR(S)/ MEDICAL STAFF/ CLINIC WHERE CHILD RECEIVED SERVICES
08	DID NOT LIKE THE QUALITY OF THE CARE
09	SERVICES PROVIDED NOT CONVENIENTLY LOCATED OR NOT AVAILABLE WHEN NEEDED
10	CHILD DOES NOT GET SICK/DO NOT NEED IT
11	TOO MUCH PAPER WORK
12	DID NOT REAPPLY WHEN COVERAGE ENDED
13	OTHER
d	DK
r	REF

3.27.1

ALL DISENROLLEES SKIP TO 3.60

COVERAGE QUESTIONS RELATED TO TIMEFRAME 2

3.31 Now, I am going to ask you some questions about the time before (CHILD)'s current/last (SCHIP/MEDICAID) coverage started, that is before (CURRENT/LAST STARTDATE).

Just before his/her current/last period of (SCHIP/MEDICAID) coverage started, was (CHILD) without health insurance coverage or did he/she have health insurance, such as Medicaid or private insurance?

01	WITHOUT HEALTH INSURANCE	GO TO 3.32
02	HAD HEALTH INSURANCE	GO TO 3.36.1
03	CHILD BORN WHEN COVERAGE STARTED	NEW ENROLLEE: SWITCH TO SHORTENED SURVEY ESTABLISHED ENROLLEE: GO TO 3.60
d	DK	GO TO 3.35.1
r	REF	

3.32 How many months or years was (CHILD) without health insurance just before his/her current/last (SCHIP/MEDICAID) coverage started?

	MONTHS IF LESS THAN 1 MONTH, CODE 1 IF ALWAYS, CODE 999
d	DK
r	REF

3.34 What was the main reason (CHILD) was without any health insurance during this period?

01	PARENT LOST JOB OR CHANGED EMPLOYERS
02	PARENT GOT DIVORCED/ SEPARATED/ DEATH OF SPOUSE
03	EMPLOYER STOPPED OFFERING INSURANCE
04	CHILD TOO OLD TO BE ELIGIBLE
05	BENEFITS FROM FORMER EMPLOYER RAN OUT
06	NO ONE IN FAMILY EMPLOYED
07	EMPLOYER DID NOT OFFER HEALTH INSURANCE/NOT ELIGIBLE FOR COVERAGE THROUGH EMPLOYER
08	INSURANCE TOO EXPENSIVE/ CAN NOT AFFORD THE PREMIUM
09	DID NOT LIKE THE HEALTH INSURANCE EMPLOYER OFFERS
10	INSURANCE COST TOO HIGH
11	INSURANCE COMPANY REFUSED COVERAGE DUE TO PREEXISTING CONDITION OR (CHILD'S) HEALTH STATUS
12	MEDICAID/SCHIP COVERAGE STOPPED/ NO LONGER ELIGIBLE
13	FAILED TO REAPPLY/REDETERMINE
14	FORGOT TO PAY THE PREMIUM
15	PLACE WHERE SERVICES WERE OFFERED NOT CONVENIENTLY LOCATED OR SERVICES NOT AVAILABLE WHEN NEEDED
16	DID NOT KNOW HOW TO GET COVERAGE
17	NEEDED TO BE UNINSURED TO BE ELIGIBLE FOR (SCHIP/MEDICAID)
18	OTHER
d	DK
r	REF

NEW ENROLLEES: IF WITHOUT INSURANCE FOR 6 MONTHS OR MORE (IF 3.32 GE 6), GO TO 3.60 OTHERWISE CONTINUE WITH 3.35.1

ESTABLISHED ENROLLEES: GO TO 3.60

3.35.1 Was (CHILD) covered by health insurance such as Medicaid or private insurance at any time during the six months before his/her current/last (SCHIP/MEDICAID) coverage started, that is before (STARTDATE)?

01	YES	GO TO 3.36.1A
02	NO	GO TO 3.60
d	DK	
r	REF	

3.36.1 IF 3.31=2 AND NEW ENROLLEE: Now think about the six months before (CHILD)'s last (SCHIP) coverage started.
IF 3.31=2 AND ESTABLISHED ENROLLEE: Go to 3.60.

3.36.1A

Was (CHILD) covered by insurance from a current or past employer or union?

01	YES	
02	NO	GO TO 3.36.1B
d	DK	
r	REF	

3.36.1AM

How long was (CHILD) covered by this insurance?

	MONTHS
d	DK
r	REF

3.36.1B Was (CHILD) covered by insurance from private insurance purchased directly from an insurance company?

Do not include plans that only provide extra cash while in the hospital or plans for only one type of service, such as dental care, vision care, nursing home care, or accidents?

01	YES	
02	NO	GO TO 3.36.1C
d	DK	
r	REF	

3.36.1BM

How long was (CHILD) covered by this insurance?

	MONTHS
d	DK
r	REF

3.36.1C

Was (CHILD) covered by Medicare, the health insurance plan for people 65 years old and older or persons with certain disabilities?

01	YES	
02	NO	GO TO 3.36.1D
d	DK	
r	REF	

3.36.1CM

How long was (CHILD) covered by this insurance?

	MONTHS
d	DK
r	REF

3.36.1D Was (CHILD) covered by Medicaid or a Medicaid HMO, the government assistance program for people in need?

01	YES	
02	NO	GO TO 3.36.1E
d	DK	
r	REF	

3.36.1DM

How long was (CHILD) covered by this insurance?

	MONTHS
d	DK
r	REF

3.36.1E Was (CHILD) covered by TRICARE, CHAMPUS, CHAMP-VA, VA, or any other military health insurance, service?

01	YES	
02	NO	GO TO 3.36.1F
d	DK	
r	REF	

3.36.1EM

How long was (CHILD) covered by this insurance?

	MONTHS
d	DK
r	REF

3.36.1F Was (CHILD) covered by the Indian Health Service?

01	YES	
02	NO	GO TO 3.36.1G
d	DK	
r	REF	

3.36.1FM

How long was (CHILD) covered by this insurance?

	MONTHS
d	DK
r	REF

3.36.1G Was (CHILD) covered by (SCHIP)?

01	YES	
02	NO	GO TO 3.36.1H
d	DK	
r	REF	

3.36.1GM

How long was (CHILD) covered by this insurance?

	MONTHS
d	DK
r	REF

3.36.1H Was (CHILD) covered by some other type of coverage, I have not yet mentioned?

01	YES	
02	NO	GO TO NEXT SECTION
d	DK	
r	REF	

3.36.1HM

How long was (CHILD) covered by this insurance?

	MONTHS
d	DK
r	REF

ESTABLISHED ENROLLEES:

READ: just before the current/last/previous period of (SCHIP/MEDICAID) coverage started?

NEW ENROLLEES:

IF 3.31=1 (HAD INSURANCE JUST BEFORE SCHIP/MEDICAID) THEN READ: just before the current/last/previous period of (SCHIP/MEDICAID) coverage started?)

IF 3.31=2 (WITHOUT INSURANCE JUST BEFORE SCHIP/MEDICAID) THEN READ: just before (CHILD) became uninsured?

IF ONLY ONE PLAN IN 3.36.1, GO TO 3.38

3.37.1-3.37.8

Of the health insurance plan(s) you just mentioned, which plan(s) did (CHILD) have

- A) just before the current/last/previous period of (SCHIP/MEDICAID) coverage started?
- B) just before (CHILD) became uninsured?

1	INSURANCE THROUGH AN EMPLOYER
2	PRIVATE INSURANCE
3	MEDICARE
4	MEDICAID
5	TRICARE, CHAMPUS, CHAMP-VA, VA OR OTHER MILITARY HEALTH INSURANCE
6	INDIAN HEALTH SERVICE
7	(SCHIP)
8	ANY OTHER TYPE OF INSURANCE

3.38

ALL ESTABLISHED ENROLLEES SKIP TO 3.44

3.38.2 (IF 3.37 A=2 (NO HEALTH INSURANCE FROM EMPLOYER) GO TO 3.39.1)

(IF ONLY HEALTH INSURANCE FROM EMPLOYER/ NONE OF B THRU H IN 3.37 =YES) Did the employer pay all, some, or none of the premium for this health insurance?

(IF OTHER HEALTH INSURANCE BESIDES FROM EMPLOYER/ANY OF B THRU H IN 3.37 =YES) For the health insurance from an employer, did the employer pay all, some, or none of the premium for this health insurance?

01	ALL
02	SOME
03	NONE
d	DK
r	REF

IF MORE THAN ONE INSURANCE IN 3.37 READ “any of the insurance plans” instead of “insurance coverage” in 3.39.1 to 3.43

3.39.1 Did the insurance coverage that (CHILD) had

A) just before his/her current/last/previous period of (SCHIP/MEDICAID) coverage started

B) just before he/she became uninsured

require (CHILD) to be signed up with a certain primary care doctor or clinic (CHILD) would have to go to for all routine care?

01	YES
02	NO
d	DK
r	REF

3.43 Did this health insurance coverage that (CHILD) had:

A) just before his/her current/last/previous period of (SCHIP/MEDICAID) coverage started

B) just before he/she became uninsured

include the following services?

	1=YES 2=NO d=DK r=REF	
A		Doctors' visits for illness or injuries
B		Well-child visits, routine check-up, and immunizations
C		Emergency room visits
D		Hospital stays
E		Prescription drugs
F		Dental care
G		Vision care or eye exams

IF MEDICAID COVERAGE ONLY GO TO 3.44

3.43.1 (ASK IF 3.43B=YES) Did you have to pay a co-payment for the well-child visits, routine check-ups, and immunizations?

01	YES	
02	NO	GO TO 3.43.3
d	DK	
r	REF	

3.43.3 (ASK IF 3.43E=YES, ELSE GO TO 3.44) Did you have to pay a co-payment to get a prescription drug filled?

01	YES	
02	NO	GO TO 3.44
d	DK	
r	REF	

3.44 What was the main reason (CHILD)'s coverage ended

- A) just before the current/last/previous period of (SCHIP/MEDICAID) coverage started? (ASKED OF THOSE UNINSURED)
- B) just before (CHILD) became uninsured? (ASKED OF THOSE UNINSURED)

01	PARENT LOST JOB OR CHANGED EMPLOYERS
02	PARENT GOT DIVORCED/SEPARATED/DEATH OF SPOUSE
03	EMPLOYER STOPPED OFFERING INSURANCE
04	CHILD TOO OLD TO BE ELIGIBLE
05	BENEFITS FROM FORMER EMPLOYER RAN OUT
06	NO ONE IN FAMILY EMPLOYED
07	EMPLOYER DID NOT OFFER HEALTH INSURANCE/NOT ELIGIBLE FOR COVERAGE THROUGH EMPLOYER
08	INSURANCE TOO EXPENSIVE/CAN NOT AFFORD THE PREMIUM
09	DID NOT LIKE THE HEALTH INSURANCE EMPLOYER OFFERS
10	INSURANCE COST TOO HIGH
11	INSURANCE COMPANY REFUSED COVERAGE DUE TO PREEXISTING CONDITION OR CHILD'S HEALTH STATUS
12	MEDICAID/SCHIP COVERAGE STOPPED/NO LONGER ELIGIBLE
13	FAILED TO REAPPLY/REDETERMINE
14	FORGOT TO PAY THE PREMIUM
15	PLACE WHERE SERVICES WERE OFFERED NOT CONVENIENTLY LOCATED OR SERVICES NOT AVAILABLE WHEN NEEDED
16	DID NOT KNOW HOW TO GET COVERAGE
17	NEEDED TO BE UNINSURED TO BE ELIGIBLE FOR (SCHIP/MEDICAID)
18	OTHER
d	DK
r	REF

COVERAGE QUESTIONS RELATED TO TIMEFRAME 3

ALL NEW ENROLLEES: SKIP TO NEXT SECTION

ESTABLISHED ENROLLEE ENROLLED (3.2=1): SKIP TO NEXT SECTION

3.60 **(DISENROLLEES DISENROLLED OR ESTABLISHED ENROLLEES DISENROLLED (3.2=2)** Now, I would like to ask you some questions about the time since (CHILD)'s last (SCHIP/MEDICAID) coverage ended, that is since (LAST ENDDATE). Just after his/her last/previous (SCHIP/MEDICAID) coverage ended, was (CHILD) without health insurance, or did he/she have health insurance coverage, such as Medicaid or private insurance?

(DISENROLLEES RE-ENROLLED (3.2=1) Now, I would like to ask you some questions about the time since (CHILD)'s previous (SCHIP/MEDICAID) coverage ended, that is since (PREVIOUS ENDDATE) and before (CHILD) was enrolled again in (CURRENT STARTDATE). Just after his/her last/previous (SCHIP/MEDICAID) coverage ended, was (CHILD) without health insurance coverage or did he/she have health insurance, such as Medicaid or private insurance?

01	WITHOUT HEALTH INSURANCE	GO TO 3.63
02	HAD HEALTH INSURANCE	GO TO 3.64.1
d	DK	GO TO 3.64
r	REF	

3.63 How many months was (CHILD) without any health insurance coverage just after his/her last/previous (SCHIP/MEDICAID) coverage ended?

	MONTHS (IF LESS THAN 1 MONTH, CODE 1)	GO TO 3.63.1
999	WHOLE PERIOD	GO TO 3.63.1
d	DK	GO TO 3.64
r	REF	

3.63.1 What was the main reason (CHILD) was/has been without any health insurance during this period?

01	PARENT LOST JOB OR CHANGED EMPLOYERS
02	PARENT GOT DIVORCED/SEPARATED/ DEATH OF SPOUSE
03	EMPLOYER STOPPED OFFERING INSURANCE
04	CHILD TOO OLD TO BE ELIGIBLE
05	BENEFITS FROM FORMER EMPLOYER RAN OUT
06	NO ONE IN FAMILY EMPLOYED
07	EMPLOYER DID NOT OFFER HEALTH INSURANCE/NOT ELIGIBLE FOR COVERAGE THROUGH EMPLOYER
08	INSURANCE TOO EXPENSIVE/CANNOT AFFORD THE PREMIUM
09	DID NOT LIKE THE HEALTH INSURANCE EMPLOYER OFFERS
10	INSURANCE COST TOO HIGH
11	INSURANCE COMPANY REFUSED COVERAGE DUE TO PREEXISTING CONDITION OR (CHILD'S) HEALTH STATUS
12	MEDICAID/SCHIP COVERAGE STOPPED/ NO LONGER ELIGIBLE
13	FAILED TO REAPPLY/REDETERMINE
14	(<i>NOT FOR MEDICAID SAMPLE</i>) FORGOT TO PAY THE PREMIUM
15	PLACE WHERE SERVICES WERE OFFERED NOT CONVENIENTLY LOCATED OR SERVICES NOT AVAILABLE WHEN NEEDED
16	DID NOT KNOW HOW TO GET COVERAGE
17	NEEDED TO BE UNINSURED TO BE ELIGIBLE FOR (SCHIP/MEDICAID)
18	OTHER
d	DK
r	REF

IF UNINSURED WHOLE PERIOD (3.63=WHOLE PERIOD (999) OR MONTH CHILD DISENROLLED PLUS THE NUMBER OF MONTHS ANSWERED IN 3.63 = CURRENT MONTH) OR RE-ENROLLED, GO TO NEXT SECTION, ELSE GO TO 3.64

3.64 **(DISENROLLEES DISENROLLED AND ESTABLISHED ENROLLEES DISENROLLED** (3.2=2) Since (CHILD)'s last (SCHIP/MEDICAID) coverage ended, that is since (LAST ENDDATE), has he/she been covered by any health insurance, such as Medicaid or private insurance?

DISENROLLEES RE-ENROLLED (3.2=1) Since (CHILD)'s previous (SCHIP/MEDICAID) coverage ended in (PREVIOUS ENDDATE) and before (CHILD) was enrolled again in (CURRENT STARTDATE), was he/she covered by any health insurance, such as Medicaid or private insurance?

01	YES	GO TO 3.64.1
02	NO	GO TO NEXT SECTION
d		
r		

3.64.1 How many months was (CHILD) covered by health insurance such as Medicaid or private insurance just after his/her last/previous (SCHIP/MEDICAID) coverage ended?

How many months was (CHILD) covered by health insurance such as Medicaid or private insurance?

	MONTHS (IF LESS THAN 1 MONTH, CODE 1)
999	WHOLE PERIOD
d	
r	

3.65.A During that time, was (CHILD) covered by insurance from a current or past employer or union?

01	YES
02	NO
d	DK
r	REF

3.65.B Was (CHILD) covered by insurance from private insurance purchased directly from an insurance company?

Do not include plans that only provide extra cash while in the hospital or plans for only one type of service, such as dental care, vision care, nursing home care, or accidents?

01	YES
02	NO
d	DK
r	REF

3.65.C Was (CHILD) covered by insurance from Medicare, the health insurance plan for people 65 years old and older or persons with certain disabilities?

01	YES
02	NO
d	DK
r	REF

3.65.D (DO NOT ASK IF STATUS=MEDICAID) Was (CHILD) covered by Medicaid or a Medicaid HMO, the government assistance program for people in need?

01	YES
02	NO
d	DK
r	REF

3.65.E Was (CHILD) covered by TRICARE, CHAMPUS, CHAMP-VA, VA, or any other military health insurance, service?

01	YES	
02	NO	GO TO 3.65F
d	DK	
r	REF	

3.65.F Was (CHILD) covered by the Indian Health Service?

01	YES
02	NO
d	DK
r	REF

3.65.G (DO NOT ASK THIS QUESTION IF STATUS = SCHIP)

Was (CHILD) covered by (SCHIP)?

01	YES
02	NO
d	DK
r	REF

3.65.H Was (CHILD) covered by some other type of coverage I have not yet mentioned?

01	YES	
02	NO	GO TO 3.66
d	DK	
r	REF	

3.66.1-3.66.7

IF MORE THAN ONE PLAN IN 3.65: Of the health insurance plan(s) you just mentioned, which plan(s) did (CHILD) have

A) just after the last/previous period of (SCHIP) coverage ended (ASKED OF DISENROLLEES DISENROLLED AND ESTABLISHED ENROLLEES DISENROLLED)

B) just after (CHILD) became uninsured? (ASKED OF DISENROLLEES REENROLLED)

1	INSURANCE THROUGH AN EMPLOYER
2	PRIVATE INSURANCE
3	MEDICARE
4	MEDICAID
5	TRICARE, CHAMPUS, CHAMP-VA, OTHER MILITARY HEALTH INSURANCE
6	INDIAN HEALTH SERVICE
8	ANY OTHER TYPE OF INSURANCE

3.66.2

(IF 3.65=YES b THRU h =NO - ONLY HEALTH INSURANCE FROM EMPLOYER) Did the employer pay all, some, or none of the premium for this health insurance?

(IF 3.65=YES AND ANY b THRU h =YES - OTHER HEALTH INSURANCE BESIDES FROM EMPLOYER) For the health insurance from an employer, did the employer pay all, some, or none of the premium for this health insurance?

01	ALL
02	SOME
03	NONE
d	DK
r	REF

IF MORE THAN ONE INSURANCE IN 3.66 READ “any of the insurance plans” instead of “insurance coverage” in 3.66.3 to 3.71
--

IF NO HEALTH PLANS FROM 3.65, GO TO NEXT SECTION

SKIP TO 3.66.4 IF COVERED BY (SCHIP/MEDICAID) NOW
(3.2=1) OR IF NO HEALTH PLANS IN 3.65.A TO 3.65.H

3.66.3 Is (CHILD) covered by this insurance coverage right now?

01	YES
02	NO
d	DK
r	REF

3.66.4 Does/Did this health insurance coverage require (CHILD) to be signed up with a certain primary care doctor or clinic (CHILD) would have to go to for all routine care?

01	YES
02	NO
d	DK
r	REF

3.71 Does/Did the health insurance include the following services?

	1=YES 2=NO d=DK r=REF	
A		Doctors' visits for illness or injuries
B		Well-child visits, routine check-ups, and immunizations
C		Emergency room visits
D		Hospital stays
E		Prescription drugs
F		Dental care
G		Vision care or eye exams

IF MEDICAID COVERAGE ONLY, GO TO NEXT SECTION

3.71.1 (ASK IF 3.71B=YES) Do/Did you have to pay a co-payment for the well-child visits, routine check-ups, and immunizations?

01	YES
02	NO
d	DK
r	REF

3.71.3 (ASK, IF 3.71E=YES ELSE GO TO NEXT SECTION) Do/Did you have to pay a co-payment to get a prescription drug filled?

01	YES	GO TO NEXT SECTION
02	NO	
d	DK	
r	REF	

SECTION 4: CHILD'S HEALTH

The next questions are about (CHILD)'s health.

4.1 In general, would you say (CHILD)'s health is...

01	Excellent
02	Very good
03	Good
04	Fair or poor
d	DK
r	REF

4.2 Compared to 12 months ago, would you say (CHILD)'s health is now... (NOT IN PUBLIC ACCESS FILE)

01	Better
02	Worse
03	Or about the same
D	DK
R	REF

4.3 Does (CHILD) have any impairment or health problem that requires him/her to use special equipment such as a brace, a wheelchair, or a hearing aid? Do not include ordinary eye glasses or corrective shoes. (NOT IN PUBLIC ACCESS FILE)

01	YES
02	NO
d	DK
r	REF

4.4 Does (CHILD) have an impairment or health problem that limits his/her ability to crawl, walk, run, or play? (NOT IN PUBLIC ACCESS FILE)

01	YES	GO TO 4.5
02	NO	GO TO 4.9
d	DK	
r	REF	

4.5 Is this an impairment or health problem that has lasted or is expected to last 12 months or longer? (NOT IN PUBLIC ACCESS FILE)

01	YES
02	NO
d	DK
r	REF

4.6 Because of this impairment or health problem, does (CHILD) need other people to help him/her with personal care needs, such as bathing, dressing, eating, or getting around? (NOT IN PUBLIC ACCESS FILE)

01	YES
02	NO
d	DK
r	REF

4.9 Has a doctor or other health care professional ever said that (CHILD) had asthma?

01	YES	GO TO 4.11
02	NO	
d	DK	
r	REF	

4.10 How old was (CHILD) when he/she had his/her first episode of asthma or first asthma attack? (NOT IN PUBLIC ACCESS FILE)

	AGE IN YEARS (IF LESS THAN 1, CODE 0)
d	DK
r	REF

4.10.1 Does (CHILD) take medication or require injections prescribed by a doctor for his/her asthma?

01	YES
02	NO
d	DK
r	REF

4.11 Does (CHILD) take medication or require injections prescribed by a doctor for any other physical condition?

01	YES	
02	NO	GO TO 4.13
d	DK	
r	REF	

4.12 Has she/he taken this medication or required these injections for at least 3 months? (NOT IN PUBLIC ACCESS FILE)

01	YES
02	NO
d	DK
r	REF

4.13 Has a doctor or other health professional ever said that (CHILD) had a mental health condition or behavioral problem?

01	YES	GO TO 4.14
02	NO	GO TO 4.16
d	DK	
r	REF	

4.14 How old was (CHILD) when a doctor or other health professional first said that he/she had a mental health condition or behavioral problem? (NOT IN PUBLIC ACCESS FILE)

	AGE IN YEAR (IF LESS THAN 1, CODE 0)
D	DK
R	REF

4.15 Does (CHILD) take medication or require injections for a mental health condition or behavioral problem? (NOT IN PUBLIC ACCESS FILE)

01	YES
02	NO
d	DK
r	REF

4.16 Has a mental health condition or behavioral problem limited (CHILD) in his/her ability to do regular school work or to participate in the usual kind of activities done by most children his/her age?

01	YES
02	NO
d	DK
r	REF

SECTION 5: ACCESS AND BARRIERS TO AND SATISFACTION WITH USUAL PLACE OF CARE
--

- 5.1 The next questions are about people and places that children usually go to or would go to for medical care.

During (TIMEFRAME 1), was there a particular doctor’s office, clinic, health care center, hospital, or other place that (CHILD) usually did go to or would have gone to if he/she were sick or needed advice about his/her health?

01	YES	GO TO 5.3
02	NO, THERE IS NO PARTICULAR PLACE	GO TO 5.2
d	DK	GO TO 5.80
r	REF	

- 5.2 What was the main reason (CHILD) did not have a usual place of health care during that time?

01	CHILD SELDOM OR NEVER GETS SICK
02	RECENTLY MOVED TO THE AREA
03	DON’T KNOW WHERE TO GO FOR CARE
04	PLACE CLOSED OR MOVED
05	NO LONGER AVAILABLE IN THIS AREA
06	CAN’T FIND A PROVIDER OR PLACE WHERE MY LANGUAGE IS SPOKEN
07	LIKES TO GO TO DIFFERENT PLACES FOR HEALTH CARE
08	HOURS ARE NOT CONVENIENT
09	NO WAY TO GET THERE (TRANSPORTATION PROBLEMS)
10	JUST CHANGED INSURANCE
11	PLACE USED TO GO TO NOT IN PLAN
12	HAVE NOT BEEN ABLE TO FIND PLACE I LIKE
13	COST TOO HIGH
14	OTHER REASON
d	DK
r	REF

SKIP TO 5.7

5.3 What type of place did (CHILD) go to or would have gone to during that time?

Was it a...

01	Private doctor's office or group practice
02	An HMO-run office or facility
03	A clinic or health center
04	A hospital emergency room
05	A hospital outpatient department
06	Another type of clinic or health center
d	DK
r	REF

5.6 During that time, did (CHILD) actually go to the (USUAL PLACE OF CARE) because he/she was sick or needed advice about his/her health?

01	YES	GO TO 5.21
02	NO	
d	DK	
r	REF	

5.7 During that time did (CHILD) go to a doctor, clinic, health center, hospital, or any other place because he/she was sick or needed advice about his/her health?

01	YES	GO TO 5.27B
02	NO	GO TO 5.51
d	DK	
r	REF	

5.21 How long would it usually take to get to the (USUAL PLACE OF CARE)?

	MINUTES	GO TO 5.22.2
d	DK	GOT TO 5.22
r	REF	GO TO 5.22.2

5.22 Would it take...

01	Less than 15 minutes
02	15 minutes but less than 30 minutes
03	30 minutes but less than 45 minutes
04	45 minutes but less than one hour
05	One hour but less than 2 hours
06	Two hours or more
d	DK
r	REF

If 5.3 =4 (EMERGENCY ROOM) SKIP TO 5.51

5.22.2 Would there be a particular doctor or other health provider (CHILD) usually would see at the (USUAL PLACE OF CARE)?

01	YES
02	NO
d	DK
r	REF

5.23.2 If the (USUAL PLACE OF CARE) were closed and (CHILD) got sick would you be able to reach and talk to a doctor or other health care professional from the (USUAL PLACE OF CARE) about (CHILD)'s condition?

01	YES
02	NO
d	DK
r	REF

5.27A Still thinking about the (USUAL PLACE OF CARE) (CHILD) usually would go to for medical care, when he/she arrived on time for an appointment about how long would (CHILD) usually have to wait before getting medical care?

	MINUTES	GO TO 5.32
d	DK	GO TO 5.27.1
r	REF	GO TO 5.32

5.27B Thinking about the places (CHILD) would go to for medical care, when he/she arrived on time for an appointment about how long would (CHILD) usually have to wait before getting medical care?

	MINUTES	GO TO 5.32
d	DK	GO TO 5.27.1
r	REF	GO TO 5.32.1

5.27.1 Would he/she have to wait...

01	Less than 15 minutes
02	15 minutes but less than 30 minutes
03	30 minutes but less than 45 minutes
04	45 minutes but less than one hour
05	One hour but less than two hours
06	Two hours or more
d	DK
r	REF

5.32 How often did the doctors or other health care providers explain things in a way that you could understand?

Would you say...

01	Always
02	Usually
03	Sometimes
04	Never
d	DK
r	REF

5.35.1 How often did the doctors or other health care providers treat you and (CHILD) with courtesy and respect?

Would you say...

01	Always
02	Usually
03	Sometimes
04	Never
d	DK
r	REF

5.36 How often did the doctors or other health care providers talk with you about how (CHILD) was feeling, growing, and behaving?

Would you say...

01	Always
02	Usually
03	Sometimes
04	Never
d	DK
r	REF

IF NO USUAL PLACE OF CARE (5.1=NO) GO TO 5.41B

ELSE CONTINUE

5.39 Would you have recommended the (USUALLY PLACE OF CARE) to family or friends?

01	YES	GO TO 5.41A
02	NO	
d	DK	
r	REF	

5.41A (DO NOT ASK IF 5.6=NO) Now, I would like you to rate the features of the health care (CHILD) got in the (USUAL PLACE OF CARE) during (TIMEFRAME1).

How would you rate the ease of getting medical care when (CHILD) was sick or had an accident? Would you rate it as...

01	Excellent	GO TO 5.51
02	Very Good	
03	Good	
04	Fair	
05	Poor	
d	DK	
r	REF	

5.41B Now, I would like you to rate the features of the health care (CHILD) got) in the places (CHILD) went to for medical care during (TIMEFRAME1).

How would you rate the ease of getting medical care when (CHILD) was sick or had an accident? Would you rate it as...

01	Excellent
02	Very Good
03	Good
04	Fair
05	Poor
d	DK
r	REF

5.51

IF 5.1 =NO OR ESTABLISHED ENROLLEES WHO ARE ENROLLED (3.2=YES) GO TO 5.80 ELSE CONTINUE
--

Now, I am going to ask you about the places of care (CHILD) did go to or would have gone to since (TIMEFRAME2).

Since that time, was there a particular doctor's office, clinic, health care center, hospital, or other place that (CHILD) usually did go to or would have gone to if he/she were sick or needed advice about his/her health?

01	YES	GO TO 5.52
02	NO	GO TO 5.80
d	DK	
r	REF	

5.52 Was this the same (USUAL PLACE OF CARE) as he/she did go to or would have gone to during (TIMEFRAME1)?

01	YES	GO TO 5.80
02	NO	GO TO 5.52A
d	DK	GO TO 5.80
r	REF	

5.52A What type of place did (CHILD) go to or would have gone to during (TIMEFRAME2)?

Was it a...

01	Private doctor's office or group practice
02	An HMO-run office or facility
03	A clinic or health center
04	A hospital emergency room
05	A hospital outpatient department
06	Another type of clinic or health center
d	DK
r	REF

5.52.1.1

What was/has been the main reason (CHILD) does/did not have the same usual place of health care?

01	OLD PLACE NO LONGER AVAILABLE/NOT IN NEW PLAN
02	COST OF OLD PLACE TOO HIGH
03	NEW PLACE BETTER/MORE CONVENIENT
04	OTHER REASON
d	DK
r	REF

CHILDREN LESS THAN 3 YEARS GO TO NEXT SECTION
ELSE CONTINUE

5.80 Now, I would like to ask about the places (CHILD) would receive dental care.

During (TIMEFRAME1), was there a particular dentist's office or clinic that (CHILD) usually did go to or would have gone to if he/she needed to see a dentist or a dental hygienist for a check-up, to get his/her teeth cleaned, or for another dental procedure?

01	YES	GO TO 6.2
02	NO	GO TO 5.81
d	DK	Go to 6.2
r	REF	

5.81 What is the main reason (CHILD) did not have a usual place of dental care?

01	CHILD DOES NOT NEED TO SEE DENTIST
02	CHILD SELDOM OR NEVER HAS PROBLEM WITH TEETH
03	RECENTLY MOVED TO THE AREA
04	DON'T KNOW WHERE TO GO FOR CARE
05	PLACE CLOSED OR MOVED
06	NO DENTIST ACCEPTS PLAN
07	CAN'T FIND A DENTIST OR PLACE WHERE MY LANGUAGE IS SPOKEN
08	LIKES TO GO TO DIFFERENT PLACES FOR HEALTH CARE
09	HOURS ARE NOT CONVENIENT
11	NO WAY TO GET THERE/ TRANSPORTATION PROBLEMS
12	JUST CHANGED INSURANCE
13	COST TOO HIGH
14	OTHER
d	DK
r	REF

SECTION 6: CHILD'S USE OF HEALTH CARE SERVICES

The next questions are about different kinds of medical care (CHILD) may have received during (TIMEFRAME1).

6.2 During that time, how many different times did (CHILD) stay in the hospital?

READ IF CHILD BORN DURING TIMEFRAME1: Do not include hospital stays if (CHILD) was born during that time period.

00	NEVER	GO TO 6.6
	TIMES	GO TO 6.2.1
d	DK	GO TO 6.6
r	REF	

6.2.1 During the time(s) (CHILD) stayed in the hospital, how many nights was she/he in the hospital altogether?

	NIGHTS
d	DK
r	REF

6.6 During (TIMEFRAME1), how many times did (CHILD) go to a hospital emergency room?

READ IF 6.2>0: Please, do not include the times when the child was admitted to the hospital through the emergency room.

00	NEVER	GO TO 6.9
	TIMES	
d	DK	GO TO 6.7
r	REF	GO TO 6.9

6.7 Would you say...

01	1 time
02	2 or 3 times
03	4 to 9 times
04	10 to 12 times
05	13 or more times
d	DK
r	REF

6.9 Now, I would like to talk about visits to different types of health care professionals.

During (TIMEFRAME1), how many times did (CHILD) see a doctor or any other health care professionals such as a physician assistant, nurse or midwife altogether?

Please do not include doctors or health care professionals he/she saw for a mental health condition or behavioral problem.

Also, do not include doctors or other health professional (CHILD) saw during a hospital stay or in the emergency room.

00	NEVER	GO TO 6.11
	TIMES	IF 1 GO TO 6.10A IF >1 GO TO 6.10C
d	DK	GO TO 6.9.1
r	REF	GO TO 6.11

6.9.1 Would you say...

01	1 time	IF 1 GO TO 6.10A IF >1 GO TO 6.10C
02	2 or 3 times	
03	4 to 9 times	
04	10 to 12 times	
05	13 or more times	
d	DK	GO TO 6.10C
r	REF	GO TO 6.11

6.10A The one time (CHILD) saw a doctor or other health care professional, did he/she see a specialist such as an allergy specialist, ear nose and throat specialist, or other doctor who takes care of special parts of the body?

01	YES
02	NO
d	DK
r	REF

6.10B Did he/she see a doctor or health care professional for preventive care, such as a check-up or well-child visit?

01	YES	GO TO 6.14
02	NO	
d	DK	
r	REF	

6.10C Of the times (CHILD) saw a doctor or other health care professional, how many times did he/she see a specialist such as an allergy specialist, ear nose and throat specialist, or other doctor who takes care of special parts of the body?

00	NEVER
	TIMES
d	DK
r	REF

6.10D And, how many times did he/she see a doctor or health care professional for preventive care, such as a check-up or well-child visit?

00	NEVER	GO TO 6.14
	TIMES	
d	DK	
r	REF	

6.14 During (TIMEFRAME1), did (CHILD) see or talk to a mental health professional, such as a psychiatrist, psychologist, psychiatric nurse, or clinical social worker? (NOT IN PUBLIC ACCESS FILE)

01	YES	GO TO 6.14.1
02	NO	GO TO 6.20
d	DK	
r	REF	

6.14.1 How many times did (CHILD) see or talk to a mental health professional, such as a psychiatrist, psychologist, psychiatric nurse, or clinical social worker? (NOT IN PUBLIC ACCESS FILE)

	TIMES
d	DK
r	REF

DO NOT ASK 6.20 OR 6.20.1 FOR CHILDREN LESS THAN 3 YEARS OLD

6.20 During (TIMEFRAME1), did (CHILD) go to a dentist or dental hygienist for a check-up or to get his/her teeth cleaned?

01	YES
02	NO
d	DK
r	REF

6.20.1 During (TIMEFRAME1), did (CHILD) go to a dentist for a dental procedure, such as having a cavity filled or a tooth pulled?

01	YES
02	NO
d	DK
r	REF

6.23 Now I am going to ask you some questions about experiences (CHILD) may have had in getting care.

During (TIMEFRAME1), was there a time (CHILD) did not get or postponed getting hospital care when you thought he/she needed it?

01	YES	GO TO 6.24
02	NO	GO TO 6.31
d	DK	
r	REF	

6.24 What was the main reason (CHILD) did not get or postponed getting the hospital care when you thought he/she needed it?

01	COULDN'T SCHEDULE APPOINTMENT SOON ENOUGH/COULD NOT GET THROUGH ON THE PHONE
02	TAKES TOO LONG TO GET THERE/ TRANSPORTATION PROBLEM
03	DID NOT GET APPROVAL FROM PLAN
04	PLACE DID NOT ACCEPT THE INSURANCE COVERAGE
05	DID NOT THINK (CHILD) WAS SICK ENOUGH
06	CONDITION CLEARED UP
07	COST TOO MUCH
08	(CHILD) DID NOT WANT TO GO
09	OTHER
d	DK
r	REF

6.31 During (TIMEFRAME1), was there a time (CHILD) did not get or postponed getting care from a specialist when you thought he/she needed it?

01	YES	GO TO 6.32
02	NO	GO TO 6.36
d	DK	
r	REF	

6.32 What was the main reason (CHILD) did not get or postponed getting care from a specialist when you thought he/she needed it?

01	COULDN'T SCHEDULE APPOINTMENT SOON ENOUGH/COULD NOT GET THROUGH ON THE PHONE
02	TAKES TOO LONG TO GET THERE/ TRANSPORTATION PROBLEM
03	DID NOT GET APPROVAL FROM PLAN
04	PLACE DID NOT ACCEPT THE INSURANCE COVERAGE
05	DID NOT THINK (CHILD) WAS SICK ENOUGH
06	CONDITION CLEARED UP
07	COST TOO MUCH
08	(CHILD) DID NOT WANT TO GO
09	OTHER
d	DK
r	REF

6.36 During (TIMEFRAME1), was there a time (CHILD) did not get or postponed getting care from a regular doctor or other health care professional for an illness, accident, or injury when you thought she/he needed it?

01	YES	GO TO 6.37
02	NO	GO TO 6.49
d	DK	
r	REF	

6.37 What was the main reason (CHILD) did not get or postponed getting care from a regular doctor or other health care professional for an illness, accident or injury when you thought he/she needed it?

01	COULDN'T SCHEDULE APPOINTMENT SOON ENOUGH/COULD NOT GET THROUGH ON THE PHONE
02	TAKES TOO LONG TO GET THERE/ TRANSPORTATION PROBLEM
03	DID NOT GET APPROVAL FROM PLAN
04	PLACE DID NOT ACCEPT THE INSURANCE COVERAGE
05	DID NOT THINK (CHILD) WAS SICK ENOUGH
06	CONDITION CLEARED UP
07	COST TOO MUCH
08	(CHILD) DID NOT WANT TO GO
09	OTHER
d	DK
r	REF

DO NOT ASK 6.49 TO 6.52 FOR CHILDREN LESS THAN 3 YEARS OLD

6.49 During (TIMEFRAME1), was there a time (CHILD) did not get or postponed getting dental care when you thought he/she needed it?

01	YES	GO TO 6.50
02	NO	GO TO 6.54
d	DK	
r	REF	

6.50 What was the main reason (CHILD) did not get or postponed getting dental care when you thought he/she needed it?

01	COULDN'T SCHEDULE APPOINTMENT SOON ENOUGH/COULD NOT GET THROUGH ON THE PHONE
02	TAKES TOO LONG TO GET THERE/ TRANSPORTATION PROBLEM
03	DID NOT GET APPROVAL FROM PLAN
04	PLACE DID NOT ACCEPT THE INSURANCE COVERAGE
05	DID NOT THINK (CHILD) WAS SICK ENOUGH
06	CONDITION CLEARED UP
07	COST TOO MUCH
08	(CHILD) DID NOT WANT TO GO
09	OTHER
d	DK
r	REF

6.54 During (TIMEFRAME1), was there a time (CHILD) did not get or postponed getting a prescription drug when you thought she needed it?

01	YES	GO TO 6.55
02	NO	GO TO 6.58
d	DK	
r	REF	

6.55 What was the main reason (CHILD) did not get the prescription drug?

01	COULDN'T SCHEDULE APPOINTMENT SOON ENOUGH/COULD NOT GET THROUGH ON THE PHONE
02	TAKES TOO LONG TO GET THERE/ TRANSPORTATION PROBLEM
03	DID NOT GET APPROVAL FROM PLAN
04	PLACE DID NOT ACCEPT THE INSURANCE COVERAGE
05	DID NOT THINK (CHILD) WAS SICK ENOUGH
06	CONDITION CLEARED UP
07	COST TOO MUCH
08	(CHILD) DID NOT WANT TO GO
09	OTHER
d	DK
r	REF

6.58 During (TIMEFRAME1), was there a time (CHILD) took less than the recommended dosage of a prescription drug or took the drug less frequently so that it would last longer?

01	YES
02	NO
d	DK
r	REF

6.59 During (TIMEFRAME1), how confident were you that (CHILD) could get health care if he/she needed it?

Would you say...

01	Very confident
02	Somewhat confident
03	Not very confident
04	Not at all confident
d	DK
r	REF

6.60 And during (TIMEFRAME1), how satisfied were you with the quality of the health care (CHILD) received?

Would you say...

01	Very satisfied
02	Somewhat satisfied
03	Not very satisfied
04	Not at all satisfied
d	DK
r	REF

6.61 And, how worried were you about meeting (CHILD)'s health care needs...

01	Very worried
02	Somewhat worried
03	Not very worried
04	Not at all worried
d	DK
r	REF

6.62 And during (TIMEFRAME1), how often did you feel stress about meeting (CHILD) health care needs...

01	All the time
02	Very often
03	Not very often
04	Never
d	DK
r	REF

6.63 And during (TIMEFRAME1), how much did (CHILD)'s health care needs create financial difficulties...

01	A lot
02	Somewhat
03	A little
04	Not at all
d	DK
r	REF

SECTION 7: PARENTS' CHARACTERISTICS AND ATTITUDE TOWARDS HEALTH
--

QUESTIONS ABOUT RESPONDENT

Next, I have a few questions about your health and health related issues.

QUESTIONS ABOUT HEALTH AND ATTITUDES TOWARDS HEALTH

7.3.21 In general, would you say that your health is...

01	Excellent
02	Very good
03	Good
04	Fair or poor
d	DK
r	REF

7.3.30 Now, I am going to read you some statements about health and health care. For each statement, please tell me if in your opinion the statement is definitely true, mostly true, mostly false, or definitely false.

First, you worry about your health more than other people your age. Is that...

01	Definitely true
02	Mostly true
03	Mostly false
04	Definitely false
d	DK
r	REF

7.3.32 You can overcome most illnesses without help from a medically trained professional. Is that...

01	Definitely true
02	Mostly true
03	Mostly false
04	Definitely false
d	DK
r	REF

7.3.34 Home remedies are often better than drugs prescribed by a doctor. Is that...

01	Definitely true
02	Mostly true
03	Mostly false
04	Definitely false
d	DK
r	REF

7.3.38 Doctors and nurses look down on people who are in (SCHIP/MEDICAID). Is that...

01	Definitely true
02	Mostly true
03	Mostly false
04	Definitely false
d	DK
r	REF

7.3.40 Getting a child enrolled in (SCHIP/MEDICAID) whenever you want is easy if the child is eligible. Is that...

01	Definitely true
02	Mostly true
03	Mostly false
04	Definitely false
d	DK
r	REF

7.3.41 Children on (SCHIP/MEDICAID) get better health care than children with no insurance. Is that...

01	Definitely true
02	Mostly true
03	Mostly false
04	Definitely false
d	DK
r	REF

7.3.42 You are more likely to take risks than the average person. Is that...

01	Definitely true
02	Mostly true
03	Mostly false
04	Definitely false
d	DK
r	REF

7.3.43 Do you think it's better to plan your life far ahead or would you say that life is too much a matter of luck to plan ahead very far?

01	PLAN AHEAD
02	TOO MUCH LUCK
03	BOTH PLAN AHEAD AND LUCK
D	DK
R	REF

QUESTIONS ABOUT YOU AND OTHERS IN HOUSEHOLD

The next questions are about you and other people living in the household with (CHILD).

7.4.A How many people are living in the household right now? Please include yourself and (CHILD).

	NUMBER OF PEOPLE IN HOUSEHOLD
d	DK
r	REF

7.4.1.1 Including yourself, how many people in the household are 18 years or older?

	NUMBER OF PEOPLE
d	DK
r	REF

7.4.1.2 Are you (CHILD)'s biological, step, adoptive parent or legal guardian?

1	BIOLOGICAL PARENT	GO TO 7.4.1.5
2	OTHER RELATIONSHIP	GO TO 7.4.1.3
D	DK	GO TO 7.4.1.3
R	REF	

7.4.1.3 Are you (CHILD)'s legal parent or guardian?

01	YES
02	NO
d	DK
r	REF

7.4.1.5 What is your gender?

01	MALE
02	FEMALE
r	REF

7.4.1.6 What was your age at your last birthday?

1	30 OR YOUNGER
2	31 TO 40
3	OLDER THAN 40
d	DK
r	REF

7.4.1.7 What is the highest grade or year of schooling you have completed?

1	HIGH SCHOOL NO DIPLOMA
2	HIGH SCHOOL DIPLOMA OR GED
3	ANY POST-SECONDARY EDUCATION
d	DK
r	REF

7.4.1.8 In what country were you born? (NOT IN PUBLIC ACCESS FILE)

01	USA	SKIP TO 7.4.1.12
02	ANY OTHER COUNTRY	
d	DK	
r	REF	

7.4.1.9 Are you a citizen of the United States?

01	YES
02	NO
d	DK
r	REF

IF 7.4.1.1=1 GO TO 7.60

7.4.5.1 Does (CHILD) have a/another biological, step, adoptive parent or legal guardian living in the household?

01	YES	GO TO 7.60
02	NO	
d	DK	
r	REF	

7.4.5.2 What is his/her relationship to (CHILD)?

1	BIOLOGICAL PARENT	GO TO 7.4.5.6
2	OTHER RELATIONSHIP	GO TO 7.4.5.3
D	DK	GO TO 7.4.5.3
R	REF	

7.4.5.3 Is he/she (CHILD)'s legal parent or guardian?

01	YES
02	NO
d	DK
r	REF

7.4.5.5 (DO NOT ASK IF ALREADY KNOWN) What is this person's gender?

01	MALE
02	FEMALE
r	REF

7.4.5.6 What was his/her age at his/her last birthday?

1	30 OR YOUNGER
2	31 TO 40
3	OLDER THAN 40
d	DK
r	REF

7.4.5.7 What is the highest grade or years of schooling he/she has completed?

1	HIGH SCHOOL NO DIPLOMA
2	HIGH SCHOOL DIPLOMA OR GED
3	ANY POST-SECONDARY EDUCATION
d	DK
r	REF

7.4.5.8 In what country was he/she born? (NOT IN PUBLIC ACCESS FILE)

01	USA	GO TO 7.4.6.0
02	ANY OTHER COUNTRY	
d	DK	
r	REF	

7.4.5.9 Is he/she a citizen of the United States?

01	YES
02	NO
d	DK
r	REF

7.4.6.0

<p>IF TWO LEGAL PARENTS IN HOUSEHOLD (7.4.1.2=1 OR 3 OR 7.4.1.3=1) AND (7.4.5.2=1 OR 3 OR 7.4.5.3=1 YES) OR ONLY TWO ADULTS IN HOUSEHOLD (7.4.1.1=2) GO TO 7.60</p>

7.4.6.1 Does (CHILD) have another biological, step, adoptive parent or legal guardian living in the household?

01	YES	
02	NO	GO TO 7.60
d	DK	
r	REF	

7.4.6.2 What is his/her relationship to (CHILD)? (NOT IN PUBLIC ACCESS FILE)

01	BIOLOGICAL PARENT	GO TO 7.4.6.5
02	STEP PARENT	GO TO 7.4.6.3
03	ADOPTIVE PARENT	GO TO 7.4.6.5
04	OTHER	GO TO 7.4.6.3
d	DK	
r	REF	

7.4.6.3 Is he/she (CHILD)'s legal parent or guardian? (NOT IN PUBLIC ACCESS FILE)

01	YES
02	NO
d	DK
r	REF

7.4.6.5 (DO NOT ASK IF ALREADY KNOWN) What is this person's gender? (NOT IN PUBLIC ACCESS FILE)

01	MALE
02	FEMALE
r	REF

7.4.6.6 What was this person's age at his/her last birthday? (NOT IN PUBLIC ACCESS FILE)

	AGE
D	DK
R	REF

7.4.6.7 What is the highest grade or year of schooling he/she has completed? (NOT IN PUBLIC ACCESS FILE)

1	HIGH SCHOOL NO DIPLOMA How many grades did he/she complete? 7.4.6.7A
2	HIGH SCHOOL DIPLOMA
3	ANY POST SECONDARY EDUCATION
d	DK
r	REF

7.5 In what country was he/she born? (NOT IN PUBLIC ACCESS FILE)

01	USA	GO TO 7.7
02	ANY OTHER COUNTRY	
d	DK	
r	REF	

7.6 Is he/she a citizen of the United States? (NOT IN PUBLIC ACCESS FILE)

01	YES
02	NO
d	DK
r	REF

7.7

LEGAL PARENT DETERMINATION
IF (7.4.1.2=1 OR 3) OR 7.4.1.3=1) THEN LPER1=TRUE IF LPER1=TRUE AND IF (7.4.5.2=1 OR 3) OR 7.4.5.3=1) THEN LPER2=TRUE. IF LPER1=FALSE AND IF (7.4.5.2=1 OR 3) OR 7.4.5.3=1) THEN LPER1=TRUE. IF LPER1=TRUE AND IF LPER=TRUE AND (7.4.6.2=1 OR 3) OR 7.4.6.3=1) THEN LPER2=TRUE.
IF LPER1=FALSE AND IF (7.4.6.2=1 OR 3) AND 7.4.6.3=1 THEN LPER1=TRUE

**HEALTH INSURANCE STATUS OF LEGAL PARENT/GUARDIAN OF
CHILDREN CURRENTLY ENROLLED SCHIP/MEDICAID**

7.60

IF CHILD NOT CURRENTLY ENROLLED BY (SCHIP/MEDICAID) (2.2=02)
OR **NOT** AN ESTABLISHED ENROLLEE
GO TO 7.90
ELSE CONTINUE

REPEAT 7.63-7.79.1 FOR EACH LEGAL GUARDIAN (LPER1-2)
LIVING IN HOUSEHOLD

IF RESPONDENT IS LEGAL GUARDIAN OF CHILD CALL THIS
PERSON "YOU" ELSE USE THE RELATIONSHIP FROM 7.4.5.2
(FOR LPER1 OR LPER2), OR 7.4.6.2 FOR (LPER2) TO THE CHILD
TO IDENTIFY THE PERSON

7.63 (LPER1) AND 7.65 (LPER2)

The next questions are about insurance coverage of the legal parents of (CHILD).
Are/Is (LPER1-2) covered by any health insurance, such as Medicaid or SCHIP,
right now?

LPER1	LPER2		
01	01	YES	
02	02	NO	GO BACK TO 7.63 OR TO 7.81 IF NO OTHER LEGAL PARENT
d	d	DK	
r	r	REF	

7.66 Is (CHILD)'s (LPER2) covered by the same health insurance as (LPER1)?

01	YES	SKIP REMAINDER OF (LPER2) QUESTIONS
02	NO	
d	DK	
r	REF	

7.70.1-7.70.5 (LPER1) AND 7.70.6-7.70.10 (LPER2)

Are/Is the (LPER1-2) covered by health insurance from an employer, a private insurance purchased directly from an insurance company, Medicaid, SCHIP, or any other health insurance coverage. If (LPER1-2) have/has more than one coverage, please mention all health insurance coverage (LPER1-2) currently have/has?

1	INSURANCE FROM A CURRENT OR PAST EMPLOYER OR UNION
2	PRIVATE INSURANCE PURCHASED DIRECTLY FROM AN INSURANCE COMPANY
3	MEDICAID
4	SCHIP
5	SOME OTHER TYPE OF COVERAGE I HAVE NOT YET MENTIONED
D	DK
R	REF

IF MORE THAN ONE INSURANCE IN 7.70 READ “any of the insurance plans” instead of “insurance coverage” in 7.71 to 7.76

IF COVERAGE FROM EMPLOYER IN 7.70 (A=YES)
GO TO 7.71. ELSE GO TO 7.72

7.71 (LPER1) AND 7.73 (LPER2) (IF ONLY HEALTH INSURANCE FROM EMPLOYER) Does the employer pay all, some or none of the premium for this health insurance?

(IF OTHER HEALTH INSURANCE BESIDES FROM EMPLOYER) For the health insurance from an employer, does the employer pay all, some or none of the premium for this health insurance?

LPER1	LPER2	
01	01	ALL
02	02	SOME
03	03	NONE
d	d	DK
r	r	REF

7.72 (LPER1) AND 7.74 (LPER2) Does the health insurance coverage require (LPER1-2) to be signed up with a certain primary care doctor or clinic, which (LPER1-2) has to go to for all routine care?

LPER1	LPER2	
01	01	YES
02	02	NO
d	d	DK
r	r	REF

7.76 Does this health insurance include coverage for the following services...

	01=YES 02=NO d=DK r=REF	01=YES 02=NO d=DK r=REF	
	LPER1	LPER2	
A AND A2			Doctors' visits for illness or injuries
B AND B2			Physical exams or routine check-ups
C AND C2			Emergency room visits
D AND D2			Hospital stays

IF 7.70 =SCHIP THEN GO TO 7.79.1.1 ELSE GO TO 7.79

7.79 (LPER1) AND 7.80 (LPER2)
 Could (CHILD) be covered by this health insurance?

LPER1	LPER2		
01	01	YES	GO TO 7.79.1.1
02	02	NO	GO TO 7.90
d	d	DK	
r	r	REF	

7.79.1.1 (LPER1) AND 7.79.1.2 (LPER2)

For the health insurance from an employer, would the employer pay all, some or none of the premium to cover (CHILD)?

LPER1	LPER2	
01	01	ALL
02	02	SOME
03	03	NONE
d	d	DK
r	r	REF

IF 7.70=SCHIP THEN GO TO 7.81 ELSE GO TO 7.79.1
--

7.79.1 (LPER1) AND 7.79.2 (LPER2)

What is the main reason (CHILD) is not covered by this health insurance?

LPER1	LPER2		
01	01	ALREADY COVERED BY OTHER INSURANCE	IF OTHER LEGAL PARENT GO BACK TO 7.63 ELSE GO TO 7.81
02	02	TOO EXPENSIVE	
03	03	NOT NEEDED/ NOT WANTED	
04	04	SERVICES OFFERED NOT LIKED	
05	05	DOCTORS IN PLAN NOT LIKED	
06	06	DO/DOES NOT BELIEVE IN HEALTH INSURANCE FOR CHILD	
07	07	OTHER	
d	d	DK	
r	r	REF	

OTHER SPOUSE DETERMINATION
<p>CONDITION 1: (MORE THAN 1 ADULT IN HOUSEHOLD AND LPER1="YOU" AND LEGAL PARENT (respondent) AND NO OTHER LEGAL PARENT (no LPER2))</p> <p>IF 7.4.1.1>1 AND IF 7.4.1.2=1 OR 3 OR 7.4.1.3=YES) AND LPER2=0</p> <p>CONDITION 2: (MORE THAN 2 PEOPLE IN HOUSEHOLD AND LPER1="HE/SHE" AND LEGAL PARENT (other adult in household) AND NO OTHER LEGAL PARENT - NO LPER2)</p> <p>IF 7.4.1.1>2 AND IF 7.4.1.3=NO OR SKIPPED AND (IF 7.4.5.2=1 OR 3 OR 7.4.5.3=YES) AND LPER2=0</p> <p style="text-align: center;">IF CONDITION 1=TRUE OR CONDITION 2=TRUE GO TO 7.81 ELSE GO TO 7.90</p>

7.81 Are/Is (LPER1) married to someone else living in the household who is not a legal parent or guardian of (CHILD)?

01	YES	
02	NO	GO TO 7.90
d	DK	
r	REF	

7.82 Is (NONGUARDIAN) covered by any health insurance, such as Medicaid or SCHIP, right now?

01	YES	
02	NO	GO TO 7.90
d	DK	
r	REF	

7.83 (ONLY ASK IF 7.63=1) Is (NONGUARDIAN) covered by the same health insurance as (LPER1)?

01	YES	GO TO 7.90
02	NO	
d	DK	
r	REF	

7.84.1 - 7.84.5

Is this person covered by health insurance from an employer, a private insurance purchased directly from an insurance company, Medicaid, SCHIP or any other health insurance coverage? If this person has more than one coverage, please mention all health insurance coverage this person currently has.

1	INSURANCE FROM A CURRENT OR PAST EMPLOYER OR UNION
2	PRIVATE INSURANCE PURCHASED DIRECTLY FROM AN INSURANCE COMPANY
3	MEDICAID
4	SCHIP
5	SOME OTHER TYPE OF COVERAGE I HAVE NOT YET MENTIONED
d	DK
r	REF

IF MORE THAN ONE INSURANCE IN 7.84 READ “any of the insurance plans” instead of “insurance coverage” in 7.85 to 7.89.1

IF COVERAGE FROM EMPLOYER IN 7.84 (A=YES)
GO TO 7.85. ELSE GO TO 7.90

7.85 Does the employer pay all, some or none of the premium for this health insurance?

(IF OTHER HEALTH INSURANCE BESIDES FROM EMPLOYER) For the health insurance from an employer, does the employer pay all, some, or none of the premium for this health insurance?

01	ALL
02	SOME
03	NONE
d	DK
r	REF

7.86 Does the health insurance coverage require this person to be signed up with a certain primary care doctor or clinic, which he/she has to go to for all routine care?

01	YES
02	NO
d	DK
r	REF

7.87 Does this health insurance include coverage to pay or help pay for the following services...

	01=YES 02=NO d=DK r=REF	
A		Doctors' visits for illness or injuries
B		Physical exams or routine check-ups
C		Emergency room visits
D		Hospital stays

GO TO 7.89.1

7.89.1 Could (CHILD) be covered by this health insurance?

01	YES	GO TO 7.90
02	NO	
d	DK	
r	REF	

7.89.1.1

For the health insurance from an employer, would the employer pay all, some, or none of the premium to cover (CHILD)?

01	ALL
02	SOME
03	NONE
d	DK
r	REF

7.89.2 What is the main reason (CHILD) is not covered by this health insurance?

01	ALREADY COVERED BY OTHER INSURANCE
02	TOO EXPENSIVE
03	NOT NEEDED/NOT WANTED
04	SERVICES OFFERED NOT LIKED
05	DOCTORS IN PLAN NOT LIKED
06	DO/DOES NOT BELIEVE IN HEALTH INSURANCE FOR CHILD
07	OTHER
d	DK
r	REF

HOUSEHOLD EARNINGS AND HEALTH CARE SPENDING

7.90 The next questions are about money people living in the household with (CHILD) have earned at a job or through self-employment. Remember this information is completely confidential and will not be reported to any agency or program.

REPEAT FOR EACH LEGAL GUARDIAN LIVING IN HOUSEHOLD (7.4.1.5=1 OR 7.4.5.5=1 OR 7.4.6.5=1)

START WITH RESPONDENT IF (LEGAL GUARDIAN OF CHILD), AND CALL THIS PERSON YOU ELSE USE RELATIONSHIP TO THE CHILD TO IDENTIFY THE PERSON

7.91 (LPER1) AND 7.92 (LPER2)

First/Next, in the past 12 months, did (LPER1-2) work at a job or business, either full-time or part-time, for pay or profit?

LPER1	LPER2	
01	01	YES
02	02	NO
d	d	DK
r	r	REF

HOUSEHOLD INCOME & HEALTH CARE SPENDING

7.93 In addition to earnings from jobs, household members often have other sources of income from the government, from private institutions or from their own savings. Examples are money received from welfare payments, food stamps, SSI, child support payments, unemployment compensation, cash value of vouchers, any money that is directly deposited to your bank account, or dividend or interest from stocks or bonds.

In the past 12 months, what was the total household income from jobs and all other sources of income?

1	LESS THAN \$20,000	GO TO 7.102.1
2	\$20,000 BUT LESS THAN \$30,000	GO TO 7.102.1
3	\$30,000 OR MORE	GO TO 7.102.1
d	DK	GO TO 7.99
r	REF	GO TO 7.103

7.99 Would you say your total household income from all sources was less than \$25,000 or more than \$25,000? (NOT IN PUBLIC ACCESS FILE)

01	Less than \$25,000	GO TO 7.100
02	More than \$25,000	GO TO 7.101
d	DK	GO TO 7.103
r	REF	

7.100 Would you say it was... (NOT IN PUBLIC ACCESS FILE)

01	Less than \$5,000	GO TO 7.102
02	\$5,000 but less than \$10,000	
03	\$10,000 but less than \$15,000	
04	\$15,000 but less than \$20,000	
05	\$20,000 but less than \$25,000	
d	DK	
r	REF	

7.101 Would you say it was... (NOT IN PUBLIC ACCESS FILE)

01	\$25,000 but less than \$30,000
02	\$30,000 but less than \$40,000
03	\$40,000 but less than \$50,000
04	\$50,000 but less than \$60,000
05	\$60,000 but less than \$70,000
06	\$70,000 but less than \$80,000
07	\$80,000 but less than \$90,000
08	\$90,000 but less than \$100,000
09	More than \$100,000
d	DK
r	REF

7.102.1 In the past two years, has anybody in the household received any benefits from TANF which used to be called AFDC? This includes yourself or any children in your household. (NOT IN PUBLIC ACCESS FILE—SEE “TANFORFS”)

01	YES	
02	NO	
d	DK	
r	REF	

7.102.2 Including yourself, how many people in the household received food stamps in the past 2 years? (NOT IN PUBLIC ACCESS FILE—SEE “TANFORFS IN ELECTRONIC CODEBOOK”)

	NUMBER OF PEOPLE
d	DK
r	REF

7.103 During the past 12 months, about how much did your household spend on health care, that is money you or someone else in the household paid for doctors’ visits, hospital stays, or prescription drugs? Please include all out-of-pocket expenses that health insurance does not or will not pay for. Do not include any cost for health insurance premiums or dental care.

0	DID NOT PAY ANYTHING	GO TO 7.109
1	LESS THAN \$500	GO TO 7.109
2	\$500 BUT LESS THAN \$1,000	GO TO 7.109
3	\$1,000 OR MORE	GO TO 7.109
D	DK	GO TO 7.104
r	REF	GO TO 7.109

7.105 Would you say your household spending on health care was... (NOT IN PUBLIC ACCESS FILE)

01	Less than \$500
02	\$500 but less than \$1,000
03	\$1000 but less than \$2,000
04	\$2,000 but less than \$3,000
05	\$3,000 but less than \$4,000
05	\$4,000 but less than \$5,000
06	\$5,000 or more
d	DK
r	REF

DEMOGRAPHICS OF (CHILD)

I would like to find out a little more about (CHILD)'s background.

7.109 Do you consider him/her to be of Hispanic or Latino origin? (NOT IN PUBLIC ACCESS FILE—SEE “ETH_RACE IN ELECTRONIC CODEBOOK”)

01	YES	GO TO 7.110
02	NO	GO TO 7.111
D	DK	
R	REF	

7.110 What Hispanic or Latino group do you consider him/her to belong to? Is it... (NOT IN PUBLIC ACCESS FILE)

01	Mexican
02	Puerto Rican
03	Cuban
04	Some other Hispanic or Latino group
d	DK
r	REF

7.111 - 7.116

Which of the following best describes his/her racial background? Is it... (NOT IN PUBLIC ACCESS FILE—SEE “ETH_RACE IN ELECTRONIC CODEBOOK”)

1	White
2	American Indian
3	Alaska Native
4	Black or African American
5	Asian/ Pacific Islander
6	Other
d	DK
r	REF

7.120 What is the main language spoken in this household?

01	ENGLISH
02	OTHER LANGUAGE
d	DK
r	REF

SECTION: 8 QUESTIONS ABOUT TELEPHONE COVERAGE (NOT IN PUBLIC ACCESS FILE)
--

The last questions are about the telephones in your households. We need this information so that households are correctly represented in our sample.

- 8.5 During the past 3 months, was there any time when you did not have a working telephone in your household for 2 weeks or more?

01	YES	GO TO 8.6
02	NO	GO TO 8.15.2
d	DK	
r	REF	

- 8.6 For how many of the past 3 months did your household not have a working telephone?

	NUMBER OF MONTHS
d	DK
r	REF

I have your zip code as (CURRENT ZIP CODE). Is that correct?

01	YES	GO 8.ADDRESS
02	NO	GO TO 8.16.1
d	DK	GO TO 8.ADDRESS
r	REF	

- 8.15.2 Can I please have your correct zip code?

	ZIP CODE
	REF

8.16.1 Can I please verify your address so we can send you a thank you letter?

STREET ADDRESS (q8_address)	GO TO 8.17
CITY (q8city)	
STATE (q8_state)	
REF	GO TO 8.16.1

8.17 These are all the questions we have. Your opinion is very important to us. Thank you very much for all your time.

SECTION: 9 GLOSSARY OF TERMS USED IN SURVEY INSTRUMENT

CHILD: The child in the household who has been sampled for the survey and is the focus of the interview.

CURRENT MONTH: The month (and year) of the interview.

CURRENT STARTDATE: See STARTDATE.

DISENROLLEE: One of three possible classifications of CHILD for purposes of assigning the timelines of interest (see TIMELINE) during the interview. This classification includes CHILD sampled as a recent disenrollee for the survey and not switched to an established enrollee survey because they report being on the SCHIP/MEDICAID for 6 months or more. (Note that a CHILD reported disenrolled 12+ months is assigned to an abbreviated questionnaire; see SWITCH TO SHORTENED SURVEY). See Appendix B for additional information on the survey questions that disenrollees received.

ENDDATE: The date (month and year) that CHILD most recently disenrolled from SCHIP/MEDICAID. For a DISENROLLEE who reports being reenrolled, this is the PREVIOUS ENDDATE; for all other children this is the LAST ENDDATE.

ESTABLISHED ENROLLEE: One of three possible classifications of CHILD for purposes of assigning the timelines of interest (see TIMELINE) during the interview. This classification includes: CHILD sampled as an established enrollee for the survey; and CHILD sampled as a recent enrollee or disenrollee but switched to this classification because they were reported to have been enrolled, respectively, for 12 or 6 months or more. (Note that if CHILD is reported disenrolled 12+ months, an abbreviated questionnaire is completed; see SWITCH TO SHORTENED SURVEY). See Appendix B for additional information on the survey questions that established enrollees received.

NEW ENROLLEE: One of three possible classifications of CHILD for purposes of assigning the timelines of interest (see TIMELINE) during the interview. This classification includes CHILD sampled as a new (recent) enrollee for the survey and not switched to an established enrollee survey because they report being on the SCHIP/MEDICAID for 12 months or more. (Note that if CHILD is reported disenrolled 12+ months, an abbreviated questionnaire is completed; see SWITCH TO SHORTENED SURVEY). See Appendix B for additional information on the survey questions that new enrollees received.

LAST ENDDATE: See ENDDATE.

LPER1: The first legal parent or guardian of CHILD that is identified during the interview. LPER1 is generally the survey respondent. The only exception is if the survey respondent does not meet the definition of legal parent or guardian. See Question 7.7 of the survey for additional details.

LPER2: The second legal parent or guardian of CHILD, if any, that is identified during the interview. See Question 7.7 of the survey for additional details.

MEDICAID/SCHIP: The program that the sampled child DID NOT currently participate in (if sampled as an enrollee), or recently disenroll from (if sampled as a disenrollee), at the time of sampling. If this program is Medicaid, the name of the state's Medicaid program (for example, Medi-Cal) is used in the interview; if this program is SCHIP, the name of the state's SCHIP (for example, Healthy Families) is used in the interview.

MONTHS SINCE COVERAGE ENDED: Length of time since SCHIP/MEDICAID coverage ended. It is calculated as the number of months between the CURRENT MONTH and ENDDATE. Applies only to CHILD reported to be disenrolled. For DISENROLLEE who re-enrolled, see MONTHS BETWEEN COVERAGE.

MONTHS OF COVERAGE: Length of SCHIP/MEDICAID coverage. For NEW ENROLLEE and ESTABLISHED ENROLLEE reported still enrolled, it is calculated as the number of months between CURRENT MONTH and STARTDATE. For CHILD reported to have disenrolled, it is calculated as the number of months between STARTDATE and ENDDATE. For DISENROLLEE who re-enrolled, see MONTHS OF PREVIOUS COVERAGE.

MONTHS OF PREVIOUS COVERAGE: Similar to MONTHS OF COVERAGE but applies to DISENROLLEE who re-enrolled. It is calculated as number of months between PREVIOUS STARTDATE and PREVIOUS ENDDATE.

MONTHS BETWEEN COVERAGE: Similar to MONTHS SINCE COVERAGE ENDED but applies to DISENROLLEE who re-enrolled. It is calculated as number of months between CURRENT STARTDATE and PREVIOUS ENDDATE.

PREVIOUS ENDDATE: See ENDDATE.

PREVIOUS STARTDATE: See STARTDATE.

SCHIP/MEDICAID: The program, either SCHIP or Medicaid, that the sampled child currently participated in (if sampled as an enrollee) or recently disenrolled from (if sampled as a disenrollee) at the time of sampling. If this program is SCHIP, the name of the state's SCHIP (for example, Healthy Families) is used in the interview this program; if this program is Medicaid, the name of state's Medicaid program (for example, Medi-Cal) is used in the interview.

STARTDATE: The month and year that the CHILD enrolled in SCHIP/MEDICAID. For DISENROLLEES who are reported to have reenrolled, there are two start dates of interest—the one pertaining to their current enrollment (called CURRENT STARTDATE) and the one pertaining to their prior enrollment (called PRIOR STARTDATE). For all others, the start date of interest is the most recent. This is either referred to as CURRENT STARTDATE if they are reported to still be enrolled or PRIOR STARTDATE if they are reported to be disenrolled.

SWITCH TO SHORTENED SURVEY: Finish the survey with an abbreviated set of questions related to the demographic characteristics of the CHILD and LPER1. This may result, for example, because CHILD is reported to be disenrolled for 12 or months (placing them well outside the three sample domains—new enrollee, established enrollee, and disenrollee—for the survey).

TERMINATE: Indicates that the survey interview is ended (before completing the questionnaire in full). This may result, for example, because the respondent refuses to provide information on whether CHILD is covered by SCHIP/MEDICAID at the time of interview.

TIMEFRAME: This term refers to the period of interest for a particular question. The timeframe varies by section and by a combination of the classification of the child for purposes of completing the survey (see NEW ENROLLEE, ESTABLISHED ENROLLEE, or DISENROLLEE) and whether or not they are on SCHIP/Medicaid at the time of the interview. There are five timelines specified in the survey questionnaire; they include:

(1) TIMEFRAME1, Section 3 (Coverage): Pertains to the period of SCHIP/MEDICAID coverage. (The length of the timeframe is specified in each question). Specifically, the timeframe applies to the different sample classifications as follows:

NEW/ESTABLISHED ENROLLEES WHO ARE STILL ENROLLED: Timeframe is the current period with SCHIP/Medicaid coverage.

NEW/ESTABLISHED ENROLLEES WHO ARE DISENROLLED: Timeframe is the last period with SCHIP/Medicaid coverage.

DISENROLLEES WHO ARE STILL DISENROLLED: Timeframe is the last period with SCHIP/Medicaid coverage.

DISENROLLEES WHO REENROLLED: Timeframe is the prior period with SCHIP/Medicaid coverage.

(2) TIMEFRAME2, Section 3 (Coverage): Pertains to the period *before* the start of the SCHIP/MEDICAID coverage. (The length of the timeframe is specified in each question). DISENROLLEES are not asked questions related to this timeframe. Specifically, the timeframe applies to the different sample classifications as follows:

NEW/ESTABLISHED ENROLLEES WHO ARE STILL ENROLLED: Timeframe is the period before current SCHIP/Medicaid coverage.

NEW/ESTABLISHED ENROLLEES WHO ARE DISENROLLED: Timeframe is the period before last Medicaid/SCHIP coverage.

(3) TIMEFRAME3, Section 3 (Coverage): Pertains to the period *after* the end of SCHIP/MEDICAID coverage. (The length of the timeframe of is specified in each question). Only DISENROLLEES, and ESTABLISHED ENROLLEES who report being disenrolled, are asked questions related to this timeframe. Specifically, the timeframe applies to the different sample classifications as follows:

ESTABLISHED ENROLLEES WHO DISENROLLED: Timeframe is the period after last SCHIP/Medicaid coverage.

DISENROLLEES WHO ARE STILL DISENROLLED: Timeframe is the period after last SCHIP/Medicaid coverage.

DISENROLLLEES WHO ARE REENROLLED: Timeframe is the period after prior SCHIP/Medicaid coverage.

(4) TIMEFRAME1, Sections 5 & 6 (Health Care): Pertains to the focal period of interest for measuring the health care experiences of children in the sample. For NEW ENROLLEES, this is the period *before* the SCHIP/MEDICAID coverage. For ESTABLISHED ENROLLEES and DISENROLLEES, this is the period *after* the start of SCHIP/MEDICAID coverage. The exact timeframe of interest in both these periods is the most recent six months unless it is shorter than six months in length for some reason (in which case it is the full length of the period). For example, for a NEW ENROLLEE born three months before enrolling, Timeframe1 is this three month period before enrolling. Specifically, the timeframe applies to the different sample classifications as follows:

NEW ENROLLEES WHO ARE STILL ENROLLED: Timeframe is before the current period with SCHIP/Medicaid coverage.

NEW ENROLLEES WHO ARE DISENROLLED: Timeframe is before the last period with SCHIP/Medicaid coverage.

ESTABLISHED ENROLLEES WHO ARE STILL ENROLLED: Timeframe is the current period with SCHIP/Medicaid coverage.

ESTABLISHED ENROLLEES WHO ARE DISENROLLED: Timeframe is the last period with SCHIP/Medicaid coverage.

DISENROLLEES WHO ARE STILL DISENROLLED: Timeframe is the last period with SCHIP/Medicaid coverage.

DISENROLLEES WHO REENROLLED: Timeframe is the prior period with SCHIP/Medicaid coverage.

(5) TIMEFRAME2, Sections 5 & 6 (Health Care): Pertains to the secondary period of interest for measuring the health care experiences of selected children in the sample. For NEW ENROLLEES, this is the period *after* the start of the start of the SCHIP/Medicaid coverage on which the child was sampled for the survey. For DISENROLLEES, AND ESTABLISHED ENROLLEES who have disenrolled, this is the period *after* the end of their SCHIP/MEDICAID coverage. ESTABLISHED ENROLLEES who are still enrolled are not asked about this timeframe. The exact timeframe of interest in both these periods is the most recent six months or the full length of the period if it is less than 6 months. The timeframe applies to the different sample domains as follows:

NEW ENROLLEES WHO ARE STILL ENROLLED: Timeframe is the current period with SCHIP/Medicaid coverage.

NEW ENROLLEES WHO ARE DISENROLLED: Timeframe is after the last period with SCHIP/Medicaid coverage.

ESTABLISHED ENROLLEES WHO ARE STILL ENROLLED: Not applicable.

ESTABLISHED ENROLLEES WHO ARE DISENROLLED: Timeframe is after the last period with SCHIP/Medicaid coverage.

DISENROLLEES WHO ARE STILL DISENROLLED: Timeframe is the after the last period with SCHIP/Medicaid coverage.

DISENROLLEES WHO REENROLLED: Timeframe is after the prior period with SCHIP/Medicaid coverage.

USUAL PLACE OF CARE. The location that CHILD usually would go to seek medical care as defined by Question 5.1.

APPENDIX B

METHODS FOR CONDUCTING THE 2002 CONGRESSIONALLY MANDATED SURVEY OF SCHIP ENROLLEES AND DISENROLLEES IN 10 STATES AND MEDICAID ENROLLEES AND DISENROLLEES IN 2 STATES

The surveys of State Children’s Health Insurance Program (SCHIP) and Medicaid enrollees and disenrollees took place in 2002. They were conducted by telephone but included an in-person follow-up component. Interviews were completed with the parents or guardians of 17,296 SCHIP enrollees and recent disenrollees in 10 states, and with 2,666 Medicaid enrollees and recent disenrollees in 2 of the 10 states. This appendix describes sample design, instrument design, survey management, data collection methods, and the development of sampling weights for these surveys.

A. SAMPLE DESIGN AND SELECTION

For this evaluation, we sampled two distinct groups. The first and most central group consisted of samples of recent and established SCHIP enrollees and recent SCHIP disenrollees in 10 states. As detailed below, this sample was designed to make inferences about SCHIP enrollees and disenrollees in each of the 10 states, and to make comparisons across the states. The second group included samples of recent and established Medicaid enrollees and recent Medicaid disenrollees in 2 of the 10 states in which we drew our SCHIP samples. The sample of recent Medicaid disenrollees was designed similarly to the first sample, to make inferences about Medicaid enrollees and disenrollees in the two states. It was also designed to draw comparisons between Medicaid SCHIP enrollees and disenrollees in those states.

The high costs of face-to-face interviews led to our adoption of a dual-frame sample design. The dual-frame design combined an unclustered sample that was interviewed by telephone only (when a telephone number could be found, using centralized locating efforts) with a clustered sample that was interviewed by telephone but had in-person field followup for locating of nontelephone households. With this approach, we could achieve the greater precision associated with the unclustered design, while retaining the enhanced response and coverage rates of the face-to-face approach. For all sample members, the interview was conducted with the person

most knowledgeable about the health care needs and services received for the sampled child. Typically, that person was either a parent or a legal guardian of the child. For in-person interviewing, the field locator provided the individual with a cell phone for completing the interview, thus ensuring a consistent mode of interview (phone) for all sample members.

Here, we provide additional detail on the sample design, focusing on (1) the state selection process, (2) the target population to be surveyed in the states, (3) the sample frame from which this target population was sampled for interview, and (4) the dual-frame sample design.

1. State Selection

The state selection process flowed from three criteria specified in the legislation for the evaluation—that the 10 states were to (1) include a significant portion of uninsured low-income children, (2) use diverse programmatic approaches to providing child health assistance, and (3) represent various geographic areas. In addition, consistent with guidelines of the Assistant Secretary for Planning and Evaluation (ASPE), we selected the 10 states from a list of 25 states provided by ASPE and gave priority to states that were participating in a separate focus group study funded by ASPE.

Guided by these selection criteria, we chose the following states to participate in the SCHIP evaluation:

- California
- Colorado
- Florida
- Illinois
- Louisiana
- Missouri
- New Jersey
- New York
- North Carolina
- Texas

For the survey of Medicaid enrollees and recent disenrollees, we chose California and North Carolina. We chose those states based on three criteria: (1) the size of the low-income

population covered by Medicaid and SCHIP, (2) the integration of the Medicaid and SCHIP enrollment systems, and (3) the interest of ASPE in conducting the Medicaid survey in states that had adopted a separate SCHIP program.

2. Target Population Within States

For each state, the SCHIP and Medicaid samples were drawn from a particular target population. To identify these populations, we used the following operational definitions of SCHIP and Medicaid enrollees and disenrollees:

- **Recent Enrollees:** Individuals enrolled in the given program (SCHIP or Medicaid) for at least 1 month but less than 3 months at the time of sample frame construction.¹ The enrollment spell was preceded by at least 2 months of no coverage in the program.
- **Intermediate Enrollees:** Individuals enrolled in the program for more than 2 months but less than 5 months at the time of sample frame construction
- **Established Enrollees:** Individuals enrolled for 5 or more months in the program at the time of sample frame construction
- **Recent Disenrollees:** Individuals disenrolled from the program at the time of sample frame construction but enrolled in the preceding 2 months

As noted, the target population for both the SCHIP and Medicaid samples was limited to the following three of those four domains: (1) recent enrollees, (2) established enrollees, and (3) recent disenrollees. Intermediate enrollees were not included in the evaluation, because they would be too far from their enrollment date to recall their preenrollment experience with a high degree of reliability but would not have been enrolled for sufficient time to acquire experience with the program. In order to focus on children, the target population in both samples was

¹The sampling frame for the study was developed from SCHIP and Medicaid enrollment data provided by the states. The frame was used to identify the target population members for sample selection. The “time of sample frame construction” refers to the most recent month for which a state provided its enrollment data.

further limited to individuals age 18 or younger in the two enrollee domains, and to individuals 19 or younger in the recent disenrollee domain. (The age limit of 19 years was set for disenrollees in order to capture any children who had lost eligibility due to age restrictions.) Sampled children who were found to have died or moved out of state were not of interest for the evaluation and were ineligible for data collection. We recorded the event leading to the ineligibility of these children in order to allow for complete reporting of the events leading to disenrollment.

For the Medicaid samples in California and North Carolina, several additional groups of children were excluded from the target population in order to create samples that, aside from differences in income eligibility, were equivalent (and therefore comparable) to the SCHIP samples in the two states. Examples of these exclusions include children who resided in foster care or institutions; received Social Security Income payments; qualified as Medically Needy (California only); or received partial benefits because of dual eligibility for Medicare, immigrant status, or other reasons. In total, these exclusions led to the removal of about 56 percent and 10 percent of children from the eligibility files in California and North Carolina, respectively.

In several states, the domain definitions were refined further, based on two guiding factors: (1) the enrollment process used by the state, and (2) the logistical constraints of the SCHIP enrollee databases used to select the sample (discussed in the sample frame section below). The goal of these refinements was to classify the child's enrollment status based on when the parent believed the child's health care services would be covered—a date that might differ from the date on which the state actually began paying for services. For example, some states retrospectively enroll children as of the first day of the month in which the parent applied for SCHIP, but they might not determine the children to be eligible until 1 or more months after the application was received. As a result, the date that services began to be covered by the state

might be month(s) earlier than the date on which the parent is notified of the child's enrollment. To address this discrepancy, when defining the enrollment status, we used the child's determination/authorization date (the date on which eligibility is granted) as the start date for coverage; we did so because the determination/authorization date was likely to be the date that the parent would perceive as the start of coverage. Other states (such as New York) enroll children at the time of application; thus the database may contain "presumptive eligibles" that may later have been determined to be ineligible. In those states, the target population included only children for whom the determination process was completed and eligibility was confirmed. Furthermore, as in the states with retroactive enrollment, we assumed that enrollment began at the determination date.

3. Sampling Frame

The *sampling frame* for a survey is the list, or mechanism, used to identify population members for sample selection purposes. For this study, we used data from the state SCHIP and Medicaid eligibility and enrollment files to construct the frames for each state and program.

Acquisition and use of these data required frequent and detailed interactions with state program staff. The process began when staff from Mathematica Policy Research, Inc. (MPR) contacted senior state staff to introduce themselves, and to explain the purpose of the study, why and how the state was selected for the study, and the need for a memorandum of understanding (MOU) detailing the data needs and confidentiality requirements and documents. Subsequent discussions with program staff focused on data elements that would support sampling criteria and analytic criteria, the source of program data, the format of the data available for our use, the timeliness of the data, and periodic data extracts and delivery.

Data elements needed to support the survey sampling and analytic effort included:

1. Application date(s) and their associated status codes
2. Eligibility determination dates and their associated reason codes
3. Retroactive or presumptive eligibility status codes
4. Enrollment start and end dates
5. Disenrollment dates and their associated reason codes
6. Individual and household identifiers
7. Parent/guardian names
8. Street addresses
9. City, state, and zip code
10. Telephone numbers
11. Parent/guardian social security numbers
12. Children's demographic characteristics, including age, race, and sex

Timeliness of the data was an important issue to capture the populations of recent enrollees and disenrollees. Time-related issues included the time required by state and local agencies for processing initial applications and redeterminations and the use of retroactive or prospective enrollment (that is, enrollment dates set to the application date or a date prior to the application date). Our concern was that delays in updating the eligibility histories could affect the timely construction of sampling frames and sampling selection. In our discussions with state program staff, we requested delivery of data by the state within 2 weeks of the specified data extract cutoff date. With few exceptions, the states were timely in their delivery of data.

To support survey sampling and analysis, a uniform data structure was designed. The uniform structure reduced the need for unique, state-specific programming of sample selection. It also provided a consistent format for analytic programming. The uniform file contained only one record per client based on the state-level client recipient number. In the single uniform

record, a client's participation in SCHIP (or Medicaid) was indicated for each month up to the file extract date. In the two states with combination programs (Illinois and New Jersey), the uniform record described client participation in both the separate SCHIP component and the Medicaid-expansion SCHIP component; in the two states with Medicaid-expansion programs (Louisiana and Missouri) and in the two states included in the Medicaid study (California and North Carolina), the uniform record included information on the clients' participation in both SCHIP and Medicaid. The same data element naming convention and data definitions were used in all files.

Three notable problems occurred during the development of the sample frame, which were addressed to the greatest extent possible:

1. Client contact information needed to facilitate high survey response rates, such as telephone numbers and addresses, was limited and of poor quality in three states. We requested supplemental data but were successful in acquiring those data in only one of the three states.
2. In three states, data elements used to determine application and/or determination dates were not available. As noted, this limitation, along with variation in the process of enrollment across states, led to refinements in the sample definitions used for the study. In all instances, however, the operational definitions used for purposes of sampling remained quite close to the general or targeted definitions defined previously.
3. In one state, there were no recipient identifiers that could be used to link across different files. In three other states, case identifiers used to relate children with one another were either not present or not reliable. In all cases, best efforts were made to proxy for these identifiers, using additional information on the file.

4. Sample Design

The sample for the survey was separated into two types of households, based on the availability of telephone information:

- *Telephone households* were defined as households with telephone service for which telephone numbers could be located.
- *Nontelephone households* were defined as (1) households without telephone service, and (2) households for which a telephone number could not be located.²

To interview the households as efficiently as possible, we used a variation of the classic subsampling-for-nonresponse-follow-up design. In each state (except New Jersey), two independent samples were selected for the SCHIP survey and for the Medicaid survey—one clustered and one unclustered.³ (We also drew two independent samples for the Medicaid survey in two states.) Telephone households were interviewed in both samples. Nontelephone households were interviewed only in the clustered sample. Across both samples, telephone households were interviewed by telephone only. This restriction was necessary for the integration of the two samples; it also reduced mode effects across samples, because telephone households were always interviewed by telephone, regardless of the sample design (clustered or nonclustered) from which they were drawn.

Each sample design was replicated with up to three different sample rounds and was fielded in each state. Each sample round was composed of sampled children from each SCHIP enrollment domain and, when applicable, from each Medicaid enrollment domain. The staged fielding of the sample was particularly important in reducing the time between sample frame construction and data collection. In addition, for states with the smallest populations of enrollees, the multiple rounds were needed to ensure that sufficient sample sizes of recent enrollees and recent disenrollees were obtained from each program. The sample for the last

² The latter group included households with unlisted numbers whose current numbers were not recorded in the SCHIP or Medicaid enrollment files.

³ For New Jersey, we used only an unclustered design because the state is sufficiently geographically small that the use of a clustered sample was deemed unnecessary.

round for each state included a reserve sample from which additional sample cases were released for data collection if response or eligibility rates were unexpectedly low.

Because of the large population of enrollees in California and Texas, the full sample was selected from the March 2002 enrollment files. For six states (Florida, Illinois, Missouri, New Jersey, New York, and North Carolina), two sample rounds, which were based on the January and March 2002 enrollment files, were used. The samples for Colorado and Louisiana, which had the smallest enrollment populations, were selected using three sample rounds (using January, March, and May 2002 enrollment files). We avoided sampling multiple children from the same household or sampling households in more than one sample round. Each sample draw was derived from the universe existing at the time of sampling but took into account whether a household was in the sampling frame or the sample of the prior round(s).

In each sample round, we classified children into the three domains (recent enrollees, established enrollees, and recent disenrollees), using the databases provided by the states. In states with multiple sample rounds, the populations of established enrollees overlapped extensively; however, by definition, recent enrollees and recent disenrollees were unique to a specific sample round. Enrollment status for a given child could vary from one sampling round to another. (For example established enrollees at one time could become recent disenrollees at the next time.)

In each round, the sample consisted of a clustered sample and an unclustered sample of children in the SCHIP domain (except for New Jersey) and the Medicaid domain (in California and North Carolina). We used sampling procedures that prevented the selection of the same child or household at subsequent rounds while preserving the probability structure of the two independent samples in each round. The resulting sample design included 38 separate samples across the 10 states (see Table B.1).

TABLE B.1

SAMPLE DESIGN CHARACTERISTICS, BY STATE AND STUDY POPULATION

State	Extract File Date(s)	Samples ^a	Field Sample Used for Nontelephone Households
SCHIP Samples			
California	March	2	Subsample in each domain
Colorado	January, March, May	6	All cases
Florida	January, March	4	All recent disenrollees; Subsample of other domains
Illinois	January, March	4	All cases
Louisiana	January, March, May	6	All cases
Missouri	January, March	4	All cases
New Jersey	January, March	2	All recent disenrollees; Subsample of other domains
New York	January, March	4	Subsample in each domain
North Carolina	January, March	4	Subsample in each domain
Texas	March	2	Subsample in each domain
Medicaid Samples			
California	March	2	Subsample in each domain
North Carolina	January, March	4	Subsample in each domain

Note: For New Jersey, only an unclustered sample was used; all other states had both a clustered sample and an unclustered sample.

^aThe samples represent the count of state-level samples selected for the survey. Each sample contained three domains: (1) recent enrollees, (2) established enrollees, and (3) recent disenrollees.

a. Selecting the Clustered Sample

For the clustered design, which included in-person tracking and locating, the first step in sample selection for each program was to define primary sampling units (PSUs) for each state. These PSUs were geographic areas that met a specified minimum number of total enrollees and recent disenrollees. The areas were defined based on one or more counties and, in some highly populated areas, such as Miami, Florida, and Denver, Colorado, zip code areas. The same set of PSUs was used for all sample rounds for both the Medicaid and SCHIP samples.

A composite size measure strategy was used to select sample PSUs, as well as households and children for interview.⁴ As the first step, we defined a composite size measure, $S(h, i, j)$, for each household j from PSU i in state h ($h = 1, 2, \dots, 10$) containing one or more eligible children from the three SCHIP domains and (where appropriate) the three Medicaid enrollment domains.

Let $C_d(h, i, j)$ be the total number of domain d children in household j from PSU i of state h . Let $f_d(h)$ be the desired sampling rate for domain d members in state h , or:

$$(1) \quad f_d(h) = \frac{m_d(h)}{C_d(h, +, +)} ,$$

where $m_d(h)$ is the desired sample from domain d ($d = 1, 2, \dots, D$)⁵ in state h and $C_d(h, +, +)$ is the total number of domain d members in state h .⁶ The composite size measure $S(h, i, j)$ for household j from PSU i of state h is then defined as:

⁴ See Folsom et al. (1987) for a discussion of composite size measures.

⁵ The domains are composed of the three SCHIP enrollment groups and, for the subset of two states, the three Medicaid enrollee groups. Thus, $D = 3$ for eight states and $D = 6$ for two states.

⁶ The “+” sign denotes summation over all households and PSUs in state h .

$$(2) \quad S(h, i, j) = \sum_{d=1}^D f_d(h) C_d(h, i, j).$$

This composite size measure was summed over all households in PSU i and state h to produce the size measure $S(h, i, +)$ for PSU i in state h , which was used in selecting the first-stage sample of PSUs.⁷

In most states, 30 PSUs were selected, with probability proportional to this composite size measure and with minimal replacement, using Chromy's (1979) procedure.⁸ In selecting the sample PSUs from the frame of $N_1(h)$ PSUs in state h , Chromy's procedure partitioned each state's $N_1(h)$ total PSUs into sampling zones of approximately equal size, based on the composite size measure $S(h, i, +)$. Exactly one PSU was selected from each zone. The zones were defined so that all pairs of PSUs had a chance of appearing together in the sample (a requirement for unbiased estimation of sampling variances).⁹ Using a controlled ordering of the PSUs, this "zoned sequential selection" made possible an implicit stratification of PSUs that ensured that sample PSUs were representative of selected variables of interest. Two of these variables were the urbanicity and the geographic location of the PSU, which ensured selection of both urban and rural PSUs and the distribution of the sample across the state.

For each domain within a state, we used a composite size measure to ensure that the desired sample sizes were achieved. The composite size measure for PSU i in state h was defined as:

⁷ The "+" sign in $S(h, i, +)$ denotes summation over all households j within PSU i .

⁸ In California, 60 PSUs were selected; in New Jersey, no PSUs were selected.

⁹ This requirement was accomplished by selecting a random starting point and treating the frame as a circular list.

$$(3) \quad S(h, i, +) = \sum_j S(h, i, j) = \sum_{d=1}^D \sum_j f_d(h) C_d(h, i, j),$$

where $C_d(h, i, j)$ is the number of children in domain d of household j of PSU i in state h , and $f_d(h)$ is the desired overall sampling rate for domain d in state h . Prior to selection, we again used a controlled ordering procedure, this time for the households within each PSU. Some of the variables for ordering were the sampling domains and, when available, the race of the children in the household.

For each selection of the i th PSU from the h th state, $n_2(h)$ households were selected, with probability proportional to the households' composite size.¹⁰ When multiple enrollee types were present within a household, we randomly determined the enrollee type to interview, using differential probabilities based on the desired state h sampling rates $f_d(h)$ for domain d . If multiple children were present in the sampled household for the enrollee domain selected, we randomly selected one child from the selected enrollee domain to be interviewed. Using the composite size measure for each household enabled us to oversample households with multiple eligible children while ensuring that the selection probabilities were equal within enrollment domains, regardless of household size.

In states for which we included a second (or third) sampling round, we followed procedures designed to avoid selection of households already chosen in a previous sample round, and to account for enrollees who were in the sampling frame for a prior round. By definition, recent enrollees and recent disenrollees were unique populations in each sample round. However,

¹⁰ For some sample rounds for some states, a household was selected with certainty if the number of enrollees of a specific type (most often, recent disenrollees) was large enough to produce a composite size measure above a threshold.

established enrollees could have had their status across multiple survey rounds (for example, in both January 2002 and March 2002). In order to maintain nearly equal sampling rates across the rounds, the established enrollees in round two and (as needed) in round three were divided into separate sampling strata depending on the number of rounds for which they had that status. The sample for the later rounds was then allocated to each stratum accounting for the sampling rate in the prior round(s) of established enrollees who appeared in both the later round and an earlier round.

The composite size measure was also adjusted to ensure that households were not selected multiple times across sample rounds. We made the adjustment by creating a household-level weight for each sample round after the first round that reflected the probability of *not* being selected in the previous round. The probability was constructed as follows:

- Households that were sampled for a prior round received a score of zero.
- Households that were on the frame(s) in prior round(s) were assigned a probability equal to the likelihood of not being selected in those prior round(s).
- Households not on the frames for the prior round(s) received a probability score of 1.

The modified composite size measure defined for each household was then the product of the probability score and the round-specific composite size measure for the household. Households were then selected according to the procedures outlined above, but with this modified composite size measure. This approach prevented the multiple selection of the same household while ensuring nearly equal selection probabilities across sample rounds.

b. Selecting the Unclustered Sample

For the unclustered, telephone-only design, we first sampled households; if the household included children in two or more domains, we then selected the domain for which a child would

be selected and, finally, selected the child within the domain. Among households with multiple children eligible for interview, one child was randomly selected for interview. Prior to sample selection, the households were sorted by the various combinations of enrollment domain(s) to which their eligible children belonged (recent enrollee only, recent enrollee and established enrollee, recent enrollee and recent disenrollee, established enrollee only, and so forth). Then, within each combination, the households were further sorted by their race/ethnicity, metropolitan status, and geographic area. Through this process, we created an implicit stratification of the households from which to draw the sample for each domain and state.

A composite size measure was defined for each household that reflected the number of eligible children in the household (including Medicaid enrollees for the two states where they were to be sampled for the Medicaid analysis), as well as their desired, overall selection probabilities for the unclustered design. Households were selected with probability proportional to their composite size measures. For sampled households with multiple children eligible for survey, we used the desired subsampling rates for the enrollee domains in randomly sampling one child for interview. This composite size measure approach ensured that we achieved nearly equal selection probabilities within each state for each enrollee domain, regardless of the household's size. Similar to the approach used for the clustered sample, the selection process for the unclustered sample prevented selection of the same household in multiple rounds.

To account for individuals and households already selected for the clustered sample, we divided the sampling frame for the unclustered sample into two strata: (1) individuals in the geographic areas included in the sampled PSUs for the clustered sample, and (2) individuals in the rest of the state. We allocated the unclustered sample across these two strata. In the stratum of individuals in the PSUs of the clustered sample, we had to account both for households and individuals selected in any prior rounds and for the households and individuals selected in the

clustered sample (for the current round and for any prior rounds). In the stratum of individuals not in the PSUs of the clustered sample, we had to account only for households and individuals selected in any prior rounds. In most states and most rounds of data collection, adequate numbers of households and individuals were available to enable us to select separate unclustered and clustered samples. In North Carolina, the number of recent disenrollees in the March extract was very small. All recent disenrollees in the North Carolina PSUs were selected for the sample. Respondents among those recent disenrollees were included as part of both the clustered sample and the unclustered sample.

B. SURVEY QUESTIONNAIRE

The survey questionnaire addressed a broad range of topics related to the ease of application and enrollment in SCHIP/Medicaid—redetermination in and disenrollment from the program, health care coverage for the child, the child’s health, experiences with and use of care for the child, the respondent’s attitude toward health, and the parents’ demographic characteristics. Whenever possible, we used survey questions that had been validated from existing surveys, including the Evaluation of Five Section 1115 Medicaid Reform Demonstrations Survey, the National Survey of America’s Families, Consumer Assessment of Health Plans Survey, and Kaiser Family Foundation National Medicaid Survey Barriers to Medicaid for Children. Table B.2 summarizes, by section, the topics included in the questionnaire. (For a complete version of the questionnaire, see Appendix A of the main report.) On average, the questionnaire took about 40 minutes to administer.

As shown in Table B.3, survey respondents were asked different questions, depending on the enrollment domain in which they were sampled (recent enrollee, established enrollee, recent

TABLE B.2

SURVEY QUESTIONNAIRE CONTENT

Section 1: Introduction

Confirm child lives in household
 Confirm child lives in target state
 Confirm respondent is the person most familiar
 with the child's health care
 Read confidentiality statement

Section 3: Application, Enrollment, Redetermination, and Disenrollment^a

How respondent heard about program
 Was how heard about program an important part
 of the decision to enroll child in
 SCHIP/Medicaid?
 Experiences with enrollment process
 Experience with rejection of application
 Number of times successfully enrolled
 Age of child when first enrolled
 Reason for enrollment
 Was assistance with application process
 necessary?
 Application and enrollment processes and
 comparisons between SCHIP and Medicaid
 Coverage available prior to notification
 Renewal process and experience with rejection
 of renewal

Section 2: Health Care Coverage^a

Current enrollment status
 Establish end date(s) of coverage
 Establish last or current start date
 Establish previous end date and start date for
 disenrollees who enrolled again
 Features of current, last, or previous
 SCHIP/Medicaid coverage
 Premiums
 Types of service provided
 Co-payments
 Prescription drug coverage
 Period before SCHIP/Medicaid began coverage
 If insured, features of plan
 If uninsured, how long and why
 Period after SCHIP/Medicaid coverage ended
 If uninsured, how long and why
 If insured, features of plan

Type of service provided
 Co-payments
 Prescription drug coverage

Section 4: Child's Health

Child's health status
 Child's health status versus 12 months ago
 Any impairment(s) requiring special equipment
 or limiting mobility
 Existing health conditions that have been
 diagnosed
 Diabetes
 Asthma
 Any need for doctor-prescribed medications or
 injections
 Mental health or behavioral problems
 Any need for prescription medications or
 injections
 Do mental health or behavioral problems limit
 child's abilities at school?

Section 5: Access to, Barriers to, and Satisfaction with Usual Place of Care

Usual place for care child actually went to or
 would have gone to if sick or needed advice
 If no usual place, why not, what type of place
 child would have gone to, what type of place
 visited
 If usual place for care, rate features of place
 Distance
 Waiting time
 Transportation
 Particular doctor
 How child was treated
 Ease of care
 Where to get advice if usual place closed
 How long a wait for care
 If place of care changed, main reason for change
 Type of new place
 Reason for visit
 Features of this place of care
 How well treated
 Usual place for dental care child actually went to
 or would have gone to
 If no usual place, why not

Premiums

TABLE B.2 (continued)

Section 6: Child’s Use of Health Care Services

Health care services child used
 Number of hospital visits
 Number of nights in hospital
 Number of emergency room visits
 Number of times child saw a doctor, PA, nurse, or midwife
 Use of specialists
 Number of visits for preventive care
 Use of mental health professionals
 Number of times used mental health professionals
 Use of dentists
 Was needed care delayed?
 Did child take less than prescribed dose of medication?
 Confidence that child could get needed health care
 Satisfaction with health care received
 How worried was respondent about meeting child’s health care needs?
 Stress about meeting child’s health care needs
 Financial problems in meeting health care needs

Food stamp recipient for past 2 years
 Health care spending in past 12 months
 Child’s racial or ethnic background and language spoken in home

Section 8: Telephones in Household

Number of other telephone numbers used in household
 Number working in past 3 months
 Verify address

Section 7: Parents’ Characteristics and Attitudes About Health

How respondent perceived own health
 Attitude about health and health care
 Establish household composition
 Establish who is legal guardian of child
 Respondent’s age
 Respondent’s education level
 Respondent’s place of birth
 Other legal guardian of child in household
 Other legal guardian’s education level
 Other legal guardian’s place of birth
 Health insurance status of legal parents or guardians in household
 If insured, why is child not insured by same?
 Features of legal guardian’s health insurance
 Is legal parent/guardian married to another person who is not the legal guardian of child?
 Can child be covered by this person’s insurance?
 Household earnings for past 12 months
 TANF recipient for past 2 years

^aOrder of these sections was reversed during survey administration.

PA = physician’s assistant.

TABLE B.3

SURVEY QUESTIONS ANSWERED BY RESPONDENT, BY THE SAMPLE MEMBER'S ENROLLMENT DOMAIN

Definition	Introduction (Section 1)	Application, Enrollment, Predetermination, Disenrollment (Section 2)	Child's Health Care Coverage (Section 3)	Child's Health (Section 4)	Time Frame for Sections 5-6	Access and Barriers to Care (Section 5)	Child's Use of Health Care Services (Section 6)	Parent Characteristics (Section 7)	Telephone Coverage (Section 8)
Statuses Within the Recent Enrollee Domain									
Recent Enrollee Who Has Been Enrolled for Fewer than 12 Months	Yes	Yes	2.1-2.9.1B, 2.20-2.44	Yes	The 6 months before (child)'s current SCHIP coverage started	Yes	Yes	Yes	Yes
Recent Enrollee Who Was Born in the 6 Months Before SCHIP Started	Yes	Yes	2.1-2.9.1B, 2.20-2.44	Yes	Before (child) was on SCHIP	Yes	Yes	Yes	Yes
Recent Enrollee Who Obtained Coverage at Birth and Has Been Enrolled for 12 Months or More	Yes	Yes	2.1-2.9.1B, 2.20-2.31	Yes	Past 6 months	Yes	Yes	Yes	Yes
Recent Enrollee Who Obtained Coverage at Birth and Has Been Enrolled for Fewer than 12 Months	Yes	Yes	2.1-2.9.1B, 2.20-2.31	Yes		No	No	7.4.a-7.4.1.9, 7.109-7.120	8.15 to end
Recent Enrollee Who Has Been Enrolled for 12 Months or Longer	Yes	Yes	2.1-2.9.1B, 2.20-2.44	Yes	Past 6 months	Yes	Yes	Yes	Yes
Recent Enrollee Who Has Been Disenrolled for 6 Months but Fewer than 12 Months	Yes	Yes	2.1-2.9.1B, 2.20-2.44	Yes	The 6 months before (child)'s last SCHIP coverage ended	Yes	Yes	Yes	Yes
Recent Enrollee Who Has Been Disenrolled for 12 Months or Longer	Yes	Yes	2.1-2.51	Yes		No	No	7.4.a-7.4.1.9, 7.109-7.120	8.15 to end

TABLE B.3 (continued)

Definition	Introduction (Section 1)	Application, Enrollment Predetermination, Disenrollment (Section 2)	Child's Health Care Coverage (Section 3)	Child's Health (Section 4)	Time Frame for Sections 5-6	Access and Barriers to Care (Section 5)	Child's Use of Health Care Services (Section 6)	Parent Characteristics (Section 7)	Telephone Coverage (Section 8)
Statuses Within the Established Enrollee Domain									
Established Enrollee Who Has Been Enrolled 6 Months or More	Yes	Yes	2.1-2.9.1B, 2.20-2.44	Yes	Past 6 months	Yes	Yes	Yes	Yes
Established Enrollee Who Obtained Coverage at Birth	Yes	Yes	2.1-2.9.1B, 2.20-2.31	Yes	Past 6 months	Yes	Yes	Yes	Yes
Established Enrollee Enrolled for Fewer than 6 Months	Yes	Yes	2.1-2.9.1B, 2.20-2.44	Yes	While the (child) was on SCHIP	Yes	Yes	Yes	Yes
Established Enrollee Who Has Been Disenrolled 6 Months but Fewer than 12 Months	Yes	Yes	2.1-2.9.1B, 2.20-2.25, 2.60 to end	Yes	The 6 months before (child)'s last SCHIP coverage ended	Yes	Yes	Yes	Yes
Established Enrollee Who Has Been Disenrolled for 12 Months or More	Yes	Yes	2.1-2.51	Yes		No	No	7.4.a-7.4.1.9, 7.109-7.120	8.15 to end
Statuses Within the Recent Disenrollee Domain									
Disenrollee Who Has Been Disenrolled for Fewer than 12 Months	Yes	Yes	2.1-2.9.1B, 2.20-2.25, 2.60 to end	Yes	The 6 months before (child)'s last SCHIP coverage ended	Yes	Yes	Yes	Yes
Disenrollee Who Has Been Currently Enrolled for 6 Months or More	Yes	Yes	2.1-2.9.1B, 2.20-2.25, 2.60 to end	Yes	Past 6 months	Yes	Yes	Yes	Yes
Disenrollee Who Has Been Disenrolled for 12 Months or More	Yes	Yes	2.1-2.51	Yes		No	No	7.4.a-7.4.1.9, 7.109-7.120	8.15 to end
Disenrollee Who Has Been Disenrolled for 12 Months or More—Recontacted and Completed Interview	Yes	Yes	2.1-2.5, 2.26, 2.60-2.65	Yes		No	No	7.4.a-7.4.1.9, 7.109-7.120, 7.4.5.1-7.4.5.6, 7.90-7.101	8.15 to end

TABLE B.3 (continued)

Definition	Introduction (Section 1)	Application, Enrollment Predetermination, Disenrollment (Section 2)	Child's Health Care Coverage (Section 3)	Child's Health (Section 4)	Time Frame for Sections 5-6	Access and Barriers to Care (Section 5)	Child's Use of Health Care Services (Section 6)	Parent Characteristics (Section 7)	Telephone Coverage (Section 8)
Statuses That Apply to All Domains									
No Information on Whether Sample Child Is Enrolled	Yes	Yes	2.1	Yes		No	No	7.4.a-7.4.1.9, 7.109-7.120	8.15 to end
Missing Date(s) to Determine Duration of Enrollment	Yes	Yes	2.1-2.51	Yes		No	No	7.4.a-7.4.1.9, 7.109-7.120	8.15 to end

disenrollee) and on the information provided during the interview about the child's start and end dates for coverage. In addition, the wording of questions varied, depending on responses to prior questions, most notably, the dates of coverage. For example, several questions about children's service use and other topics were anchored to a specific time frame that varied both by the children's enrollment domain and the self-reported dates of enrollment. For instance, in the case of a recent enrollee who reported a start date consistent with the sample frame drawn from state administrative data, the specified time frame was the 6 months prior to entry in SCHIP (or Medicaid, in the case of the Medicaid sample); whereas, in the case of an established enrollee who confirmed having been covered for at least 6 months, the specified time frame was the most recent 6 months during which the child had been covered by the program.

C. SURVEY MANAGEMENT

1. Training

MPR conducted all the telephone interviewing from its Columbia, Maryland, telephone center. One hundred and seventy-nine interviewers worked on and completed interviews on the project. Thirty-one percent of the interviewers conducted interviews in both Spanish and English.

Newly hired interviewers first received a 12-hour general training to acquire the knowledge and skills necessary to collect accurate and complete data using computer-assisted telephone interviewing (CATI). MPR telephone center staff conducted general training that covered the concept of samples, the importance of reaching the correct respondent, confidentiality, listening, understanding bias and neutral probing, persuasion, recording responses carefully and completely, and learning standardized recording of calls or call attempts.

After general training, all interviewers participated in a 16-hour, two-part, project-specific training session. The session was conducted by MPR project staff and telephone center staff. To

ensure that all interviewers received the same training, a series of overheads and a training protocol were developed and used for all training sessions. The objective of the first part of the project-specific training was to ensure that the interviewers had a general understanding of the project. In this part of the training, interviewers were first introduced to the purpose of the study, the study's funding source, various data collection components, data collection methods, and planned use of the data. Interviewers then learned about the characteristics of SCHIP and Medicaid, the people who were covered by the programs, and the different strategies that states used to implement the programs. In addition, interviewers were informed about the state selection process for the survey, criteria for selecting enrollees and disenrollees, and how the sample would be released to the study.

The objective of the second part of the project-specific training was to ensure that interviewers became familiar with the survey instrument, and that they became confident about their ability to contact respondents and to administer the questionnaire. First, the trainers discussed the various sections of the survey and the topics covered in each section. Next, the discussion covered respondent characteristics and the contact information that would be available. Because the sample included three types of respondents (recent enrollees, established enrollees, and recent disenrollees) who would be responding to different sets of questions, depending on how long their children had been covered or not covered by SCHIP or Medicaid, the training covered three question-by-question reviews of the survey instrument. The first review involved a practice session of the questions asked of a respondent with a child who had been in the program for more than 6 months at the time of the interview (an established enrollee). This review was followed by two additional reviews: (1) a practice session interviewing a respondent with a recently enrolled child, and (2) a practice session interviewing a respondent with a recently disenrolled child. Role-playing was used to enable interviewers to practice

contact procedures (including locating the correct respondent), as well as methods of persuasion and refusal avoidance. Interviewers practiced using the CATI instrument until the system and its navigation between screens became so familiar that they could spend all their time and attention listening, recording, and responding to respondents' concerns, without "technical" distractions.

In training, particular attention was paid to techniques designed to help respondents focus on their experiences with the program (SCHIP or Medicaid), and to help all sample members recall as accurately as possible the time period or periods during which their child had been covered by health insurance. Although the state-specific name of SCHIP (and Medicaid) was programmed into the instrument for each sample member, not all respondents were expected to recognize the program by that name. In the event that respondents did not recognize the state-specific program name, interviewers were trained to use the generic name of the program or any other possible name for the program used in the state. If the name of the health plan in which the child was enrolled was available, that name was used to help the respondent recognize the program. Since accurate recollection of the time period(s) during which the child was or was not covered by SCHIP, Medicaid, or other health insurance programs was so important for the survey, an additional set of confirmatory questions was administered. These questions, based on previous responses, were designed to ensure that the respondents remembered and reported time frames correctly. If the respondents could not confirm their responses, the program allowed the interviewer to record changes in the time frames reported by the respondents. The training emphasized how to deal with respondents who were hesitant about time frames and how the questions in the instrument could help respondents resolve those ambiguities.

After data collection started, each interviewer received an additional 5 hours of training that included debriefings on survey questions and responses that interviewers identified as being particularly challenging, as well as reviews of answer categories. There were also sessions

devoted to refusal-conversion training and to morale boosting. Interviewers who conducted interviews in Spanish received an additional 4-hour training and practice to become familiar with the Spanish version of the interview.

Field locators participated in a 2-hour telephone training session. This training was an abbreviated version of the telephone interviewer training that did not include training on the survey instrument. In addition, field locators received special training in methods of locating sample members in the field, how to introduce the study after they had contacted sample members in person, and how to connect sample members with a telephone interviewer in MPR's call center to complete the interview. Since every case selected for in-person locating had to have an equal chance of being completed, field locators were trained to attempt contacting a household at least two times on two different days (one of which had to be a weekend) at two different times of the day.

2. Monitoring

To ensure the highest possible quality of data collection, approximately five percent of the interviews were monitored by telephone supervisory staff. Special monitoring sessions were scheduled for interviewers who were new to the project and for interviewers with high refusal or low productivity rates. The monitoring system enabled supervisors to listen to interviews without either the interviewers or the respondents being aware that monitoring was occurring. (Both interviewers and respondents were informed that interviews might be monitored.) The monitoring system also enabled supervisors to view the interviewers' input screens to monitor the accuracy of recording of responses.

Monitoring concentrated on identifying such problems as inaccurate presentation of information about the study, errors in reading questions, biased probes, inappropriate use of feedback in responding to questions, inappropriately interrupting the respondent, and offering

opinions about specific questions or about the survey as a whole. After each monitored interview, a supervisor reviewed the observations with the interviewer. Results of the monitoring were maintained electronically to evaluate interviewers' progress over time. If necessary, additional training was provided; if performance problems persisted, interviewers were removed from the project. Supervisors with Spanish-language capabilities monitored interviews conducted in Spanish.

3. Performance

Interviewers completed an average of 108 interviews. The number of completed interviews by interviewer varied considerably, with 19 percent of the interviewers completing more than 200 interviews, 20 percent of the interviewers completing between 100 and 200 interviews, and over 40 percent completing fewer than 50 interviews. Interviewers worked an average of 6.5 months on the project, with about 11 percent working fewer than 2 months and about 9 percent of the interviewers working on the survey for the duration of the study. Interviewers who conducted interviews in both Spanish and English completed about the same number of interviews in English as did interviewers who conducted interviews in English only. However, in addition to the English interviews, Spanish interviewers completed an average of 67 interviews in Spanish. The higher number of completed interviews among the dual-language interviewers can be partially attributed to the fact that those interviewers generally remained longer on the project (an average of 7.7 months, compared with an average of 6.5 months for interviewers who interviewed in English only).

D. DATA COLLECTION METHODS

All interviews were completed using CATI. Because of the complexity of the survey instrument, we did not consider any other method of interviewing respondents. However, a

variety of methods were used to optimize our ability to contact sample members as quickly as possible, including prelocating of the sample, optimal scheduling of call attempts, using a sophisticated locating database, and field locating with cell phone interviewing.

1. Initial Locating and Advance Mailings

Information to be used to contact the families came from the state SCHIP and Medicaid management information systems (MISs). For most states, we were able to obtain the first and last name of the child in the program, the first and last name of a parent, and an address. In most instances, we also obtained telephone numbers and, for some states, the social security number of at least one parent. (Table B.4 provides an overview, by state, of the contact information obtained from the MISs.)

To ensure that the contact information was as current as possible, we sent contact information to a commercial search firm to match the contact information obtained from the states with address, telephone, and name information in the firm's databases. This initial locating procedure resulted in additional telephone numbers and revised telephone numbers, as well as confirmation that the telephone numbers we had obtained from the states matched the telephone numbers in the commercial databases. The initial locating also yielded updated addresses of sample members. In states such as Texas, we initially obtained at least one telephone number for each sample member from the state's MIS, and the percentage of confirmed, new, or changed telephone numbers as a result of prelocating was also quite high (54 percent). In New Jersey, where no telephone numbers were available from the state, the initial locating resulted in obtaining telephone numbers for 37 percent of the sample. However, in the California Medicaid sample, where no telephone numbers were provided by the state, only 21 percent of the sample's telephone numbers were obtained as a result of initial locating.

TABLE B.4

CHARACTERISTICS OF CONTACT INFORMATION AND INITIAL LOCATING RESULTS
(Percentages)

	Cases with Recent Social Security Numbers Available	Cases with Any Telephone Number in State Files	Cases with Telephone Numbers Verified Through Initial Locating Efforts
SCHIP			
California	60	98	29
Colorado	50	97	38
Florida	100	56	25
Illinois	70	85	39
Louisiana	100	77	50
Missouri	0	38	35
New York	0	85	29
New Jersey	0	0	37
North Carolina	0	30	36
Texas	0	100	54
Medicaid			
California	0	0	21
North Carolina	0	28	29

In addition to initial locating, we sent all sample members an advance letter about 1 week before interviewing started. The letter introduced the study, encouraged participation, and included a toll-free number that people could use to call the telephone interviewing center. The letters were mailed with “Address Service Requested” so that undelivered letters would be returned with forwarding addresses, when available. A sample letter is attached as Exhibit 1.

2. Sample Release Strategies

As described in Section A.4, we released sample in one round in two states, in two rounds in six states, and in three rounds in two states. Table B.5 summarizes, for each state, the releases, by the month of the sample round, as well as the month that the release was made available for interviewing.

3. The CATI System

Blaise software, developed by Statistics Netherlands, was used to collect the interview data. Blaise is a powerful survey processing tool that has been used in a variety of household surveys with cross-sectional as well as longitudinal designs. Blaise is designed for the Windows operating system, has a powerful but simple questionnaire definition language, and uses clear screen layouts that can be customized if necessary. The system allows interviewers to move backward to previously answered questions with little effort, add a note to a response, and switch between the English and Spanish versions of the questionnaire.

4. Call Scheduler

The scheduling of telephone calls was controlled by the Blaise CATI scheduler. The scheduling program randomly assigned telephone numbers to interviewers who were signed in to the system, based on a calling algorithm. The algorithm tracked the number and types of calls in time slots that covered different parts of the day and different days of the week. After a time slot

TABLE B.5

SAMPLE RELEASE DATES, BY FILE EXTRACT DATA AND STATE

	January 2002 Extract	March 2002 Extract	May 2002 Extract
SCHIP			
California		September	
Colorado	March	July	September
Florida	May	June	
Illinois	April	July	
Louisiana	March	August	September
Missouri	April	September	
New York	June	July	
New Jersey	May	July	
North Carolina	April	October	
Texas	May		
Medicaid			
California		September	
North Carolina	April	October	

for a particular case had reached the maximum number of calls, that time slot was no longer available for the case. If the maximum number of calls was reached for all time slots, and if the sample member had not been reached by phone, the case was flagged for additional actions. Calls contacting an answering machine were coded separately; case interviewers would leave a scripted message after a maximum number of these calls was reached. Firm appointments were scheduled within a 20-minute window of the appointment, while other, more tentative appointments were scheduled within a 60-minute time window. The system was also capable of overruling the scheduling program to prioritize cases based on other criteria, such as cases belonging to a specific state or specific sampling group. In addition, cases could be flagged so that they could be accessed only by interviewers specially trained to handle the circumstances of the case. For example, some cases were assigned to Spanish-speaking interviewers or to interviewers specially trained to handle reluctant participants. Interviewers used a standard set of disposition codes to code all call attempts. Information from the call attempts was included in daily reports that tracked the status of cases, completion rates, and interviewer productivity.

5. Telephone Locating

If a case did not have a telephone number or, as a result of call attempts, was determined to have a wrong or nonworking telephone number, it was coded as eligible for additional centralized locating effort and was automatically removed from the call scheduler. In total, about 46 percent of all cases became eligible for centralized locating, with a substantially larger share in the Medicaid sample (63 percent) than in the SCHIP sample (42 percent). The centralized locating was assisted by a computerized tracking system that, for each case, stored and tracked the dates and types of locating attempts and all newly acquired contact information. Information about mailings to sample members and whether the mailing had been returned with or without forwarding addresses was stored and tracked in the same system. The system was

able to prioritize the locating of cases by state, date of entry into the system, and type of locating effort completed on the case. A series of daily reports was produced from this system that recorded the number of outstanding and completed cases in locating.

6. Closeout

The design of the study required that a case that could not be reached by centralized locating efforts be classified as a “closeout” case and made potentially eligible for in-person locating. Closeout cases included those for which we were unable to obtain working telephone numbers and those for which we were unable to get a person in the household to respond to our call attempts. We developed a computer algorithm to identify those cases based on the disposition codes of the call attempts, whether a case had been in locating, and the elapsed time since the case had been released. Before finalizing closeout, we reviewed the interviewers’ comments on all call and locating attempts of the cases identified by the algorithm to ensure that records had been coded correctly, and that the appropriate locating efforts had been completed. Overall, 22 percent of the released SCHIP cases and 42 percent of the Medicaid cases were classified as closeout cases. Rates of closeout were similar across the 10 states in the SCHIP sample; in the Medicaid sample, they were somewhat higher for California than for North Carolina.

In the unclustered sample, all cases identified for closeout were terminated from the study. In the clustered sample, however, some or all of these cases were classified for in-person locating, depending on the state (Table B.6).¹¹

¹¹ In states in which only some of the closeout cases had to be released, we chose a random sample. In New Jersey, where we adopted only an unclustered sample design, we randomly selected from the closeout cases 50 percent of the recent and established enrollees for in-person contacting, as well as all of the disenrollees.

TABLE B.6

CLOSEOUT CASES SELECTED FOR IN-PERSON CONTACTING IN THE CLUSTERED SAMPLE
(Approximate Percentages)

	Recent Enrollees	Established Enrollees	Recent Disenrollees
SCHIP			
California	50	50	50
Colorado	100	100	100
Florida	50	50	100
Illinois	100	100	100
Louisiana	100	100	100
Missouri	100	100	100
New York	50	50	50
North Carolina	50	50	75 ^a
Texas	50	50	50
Medicaid			
California	50	50	50
North Carolina	50	50	75

Note: In New Jersey, 50 percent of the closed out enrollee samples and 100 percent of the disenrollee sample were selected for in-person contacting.

^a50 percent January file and 100 percent March file.

7. In-Person Locating

We hired and trained 43 field locators to locate and contact sample members who had been classified for in-person locating. The number of locators used in a given state depended on the state's size and on the distribution and number of sample members released for in-person locating. Once contacted, sample members had the option of completing the interview with a telephone interviewer at MPR's call center by dialing a toll-free number using their own telephone (if they had one) or by using the field locator's cell phone. In total, about 30 percent of the cases released for locating were successfully interviewed, which constituted about 5 percent of all completed cases in the study. For the vast majority of the cases not interviewed, the field locators were not able to locate the sample members.

8. Refusal Conversions

Roughly 10 percent of the sample refused to participate in the survey when initially contacted for interview. (Over 80 percent of these households were English-speaking.) Specially trained interviewers were assigned to attempt to "convert" these cases, and to complete the interview. The interviewers were successful about half the time. Interestingly, they experienced somewhat greater success with households that spoke Spanish (61 percent) than spoke English (46 percent).

9. Follow-Up Interview for Children Disenrolled for More than 12 Months

At the start of the survey, we chose to conduct an abbreviated version of the questionnaire with respondents who reported that their children were disenrolled from SCHIP or Medicaid for more than 12 months. However, because this group proved to be far larger than expected (roughly one-third of the total disenrollee sample), we decided to re-contact these respondents, and to ask them a series of new, additional questions. (The additional questions asked about the

reasons that the respondent's child was disenrolled from SCHIP, the child's insurance coverage just after leaving the program, household composition, and income.) During a 2-week period in March 2003, we were able to contact and interview 615 of the 1,334 cases in this group.

E. SAMPLING WEIGHTS

As described previously, the samples were selected using complex multistage and multiphase procedures. For unbiased survey estimates, the sampling weights have to reflect the various stages of sampling. Our basic approach to calculating the sampling weights was to first compute design-specific sampling weights for each design (clustered and unclustered) for each sample round and state. These within-sample round, within-design sampling weights were calculated using the product of the sampling weight of the household multiplied by the conditional sampling weight of the child, given that his or her household was selected.¹² We then combined the design-specific sample weights across rounds to create a single base sampling weight for each sampled child for each design for each state.¹³ The two sets of weights (one for the unclustered sample and one for the clustered sample) were poststratified to the same average monthly enrollment population (computed from enrollment counts for data collection round enrollment files) for each domain in each state.

We then conducted a nonresponse analysis to assess the response patterns for the samples. We used data available from the sampling frame, such as the age and race of the sampled child, and county-level information from the Area Resource File (ARF), such as the percentage of children living in households with family incomes under the poverty level, the percentage of

¹² The sampling weight of the household is the inverse of the probability of selection of the household. The conditional sampling weight of the child is the inverse of the probability of selection of the child, given that his or her household was selected.

¹³ Recall that, for California and for Texas, only one round was used, and that, for New Jersey, only the unclustered design was used.

households with female head of the household, and a 10-level scale denoting urbanicity (Bureau of Health Professions 2003). Using the results of the nonresponse analysis, we developed logistic regression models to compute response propensity scores to compensate for nonresponse. The nonresponse-adjusted weight was the product of the combined-round base weight and the inverse of the response propensity score. We developed response propensity models separately for each sample (clustered and unclustered), for each domain (recent enrollees, established enrollees, and recent disenrollees), for each state, and for each study population (SCHIP and Medicaid). Finally, we used the estimated population counts in each state and each domain to poststratify within each state based on enrollment status at the time of sampling of the child. The poststratification adjustment ensured that the nonresponse-adjusted base weights summed to the estimated enrollment population for that domain in each state.

The following sections describe more fully the computations of the sampling weights. The initial weights were computed in two stages: (1) the round-specific, design-specific weights; and (2) the combined-round, design-specific weights (the base weights). We then used the base weights to compute nonresponse adjustments for each design and each domain for each state. Finally, the nonresponse-adjusted base weights for each design were combined and poststratified to form the final analysis weights.

1. Initial (Round-Specific, Design-Specific) Weights

For California and Texas (which were sampled in a single round) and for the first sample round for the other states, initial weights for the clustered samples were computed from the inverse of the product of the selection probability for the:

- Cluster
- Household within the cluster

- Domain type
- Child

If the household included two or more children, the children could have been either in the same domain (for example, two children in a household both might have been recent enrollees) or in two or more domains (for example, one child might have been a recent enrollee and a second child might have been an established enrollee).¹⁴ For the unclustered samples, the initial weights were computed from the inverse of the product of the selection probability for the:

- Household
- Domain type
- Child

For the second and third sample rounds, the initial weights also included a factor representing the probability that a household had not been selected in the prior round(s).

Because we expected variation in the eligibility and response rates in each state, we selected a reserve sample for use in ensuring an adequate number of complete interviews. The initial weights also included a subsampling rate to reflect the proportion of the full sample (the primary and reserve samples) that was used in the survey. In some states, subsamples of nontelephone households in clustered samples were assigned to field staff for in-person locating. The initial weights accounted for this subsampling. Basically, the initial weight for each round was the inverse of the product of three to six sampling probabilities and subsampling rates. These initial

¹⁴ In California and North Carolina, some children were eligible for the samples as new enrollees in SCHIP and recent disenrollees in Medicaid. Children with this type of concurrent valid classification were accounted for in the sampling design.

weights were then poststratified by sample domain (recent enrollee, established enrollee, and recent disenrollee) to the enrollment population size in the file extract.

2. Base (Combined-Round, Design-Specific) Weights

For the eight states with two or three sample rounds, the initial weights summed to the enrollment population at the time of the extract. For the recent enrollees and recent disenrollees, the enrollment populations for extracts were mutually exclusive (that is, the children could not be classified as recent enrollees in both the January and March file extracts); similarly, the same children could not be recent disenrollees in both the January and March file extracts. To compute design-specific weights for these domains that spanned all sample rounds, we combined the sample weights from the two (or three) sample rounds by multiplying the initial weight by a compositing factor based on the proportion of the sample from all sampling rounds that was used in a specific sample round. That is, if the January sample round included 180 recent enrollees and the March sample round contained 120 recent enrollees, then the weights for recent enrollees from the January sample round were multiplied by 0.60 ($180/300$), and the weights for recent enrollees from the March sample round were multiplied by 0.40 ($120/300$). After the combined-round weight was computed, we poststratified the weight to the average enrollment in that domain across the sample rounds to form the base weight.

For the established enrollees, a child in the January extract file might or might not still be an established enrollee in the March extract file. Therefore, for the six states with two sample rounds, we had to account for the enrollment populations, which depended on the extract file in which the child was classified as an established enrollee. In particular, a child could be classified as an established enrollee:

- In January but not in March

- In both January and March
- In March but not in January

The round-specific weights based on the January extract provided unbiased estimates of the established enrollees who were in the January extract file but not in the March one, and of established enrollees who were in both months' extract files. The round-specific weights based on the March extract provided unbiased estimates of the established enrollees who were in both the January and March extract files, and of those who were in the March extract file but not in the January extract file.

To combine these round-specific weights, we tabulated the counts in each extract to determine the exact enrollment counts for each of the three populations (established enrollees in January only, in both January and in March, and in March only). We then poststratified the weighted counts for each sample component to the exact enrollment counts. We scaled the initial weights for the cases in both the January extract and the March extract, using the proportion of the sample in the respective January or March samples. (The initial weights for cases in only the January extract and for those in only the March extract were not changed.) These combined-round initial weights summed to the number of children who were established enrollees in either or both the January and March extract files. In order to compute the base weights for the established enrollees, these weights were then rescaled to the average of the enrollment in the two extracts to achieve comparability with the other states.

The base weights were computed for each design (the clustered and unclustered sample designs) for the eight states with two or three sample rounds. For Colorado and Louisiana, three sample rounds (and, therefore, three extract files) were used. A child could be an established enrollee (1) in January, March, and May; (2) in January only; (3) in January and March but not in

May; (4) in March only; (5) in March and May but not in January; and (6) in May only.¹⁵ We used procedures analogous to those used for the states with only two sample rounds.

3. Nonresponse Adjustments

Nonresponse occurs in all surveys. The standard procedure to account for nonresponse is to adjust the sampling weights, thereby minimizing the potential for nonresponse bias. Weights for respondents who are similar to sample members who do not respond are adjusted to reduce the potential for nonresponse bias. We initially conducted an analysis to identify the factors that might have been related to nonresponse. Because the extract files from the states contained limited data (age and, sometimes, race) for identifying similarities between respondents and nonrespondents, we accessed county-level data from the ARF to supplement the state-provided data. The ARF contains county-level counts and other data compiled from the Census Bureau, the Bureau of Economic Analysis, the U.S. Department of Agriculture, the National Center for Health Statistics, and other sources. The data obtained from the ARF included:

- Rural/urban continuum code (10 level code)
- Population percentage for white, black/African American, Asian, American Indian/Alaskan Native, and other
- Percentage Hispanic or Latino population
- Percentage of people 25 or older with less than 9 years of school
- Percentage of people 25 or older with a high school diploma or more
- Percentage of people 25 or older with 4 or more years of college
- Median family income
- Median household income

¹⁵ Children had to be enrolled for 5 consecutive months. Thus, by definition, a child could not be an established enrollee in January and in May but not in March.

- Percentage of families below the poverty level
- Percentage of people below the poverty level
- Percentage of families with a female head
- Percentage of people in poverty
- Percentage of people ages 0 to 17 in poverty
- Percentage of related children ages 5 to 17 in poverty

These variables were selected as measures of racial and ethnic composition and as measures related to the extent of poverty in the counties in which the sample members resided. We viewed these variables as proxy measures for unobservable factors associated with response, although the variables themselves did not imply any direct relationship with response patterns.

For the response models, we formed categories based on the characteristics of each sample to ensure that there were adequate sample counts in each category, and that the categories were somewhat logical breaks in the distribution of continuous variables. We used stepwise logistic modeling to identify the variables (including both the categorized variables and the state-provided data on the child's age and race) that best explained the response pattern for each sample. Since the states and the enrollment population differed substantially, no single set of variables was consistently the best one to explain a response pattern. In general, however, response was associated with the degree of urbanicity, with lower response in some urban areas and higher response in rural areas. Other community factors that helped explain the response pattern were ethnicity and race and the percentage of children in poverty.

These response propensity models were developed separately for each domain, for each sample type (clustered and unclustered), and for each state. Separate models were also developed for the Medicaid samples, again for each domain, sample type (clustered and

unclustered), and state. More than 80 response propensity models were developed, with 69 developed for the SCHIP samples and 12 developed for the Medicaid samples.

4. Final Analysis Weights

The clustered and unclustered samples were designed so that children from telephone households would have nearly equal probabilities of selection for either design. Because of the possible similarity of responses among sample members in the same cluster (that is, the possibility of a positive intracluster correlation), the sampling variance of estimates computed using the clustered sample was expected to be somewhat larger than the sampling variance of the same estimates computed using the unclustered sample. To develop the combined-design, nonresponse-adjusted sample weight, we used the ratio of the sampling variances computed for selected outcome-related variables as a factor for computing a composite weight factor for the children in telephone households.

Specifically, to compute a survey estimate, $Est(Y)$, combined across the two samples, separate estimates can be computed for each sample and combined using the equation:

$$(4) \ Est(Y) = \lambda Y(Clustered) + (1 - \lambda) Y(Unclustered),$$

where $Y(Clustered)$ is the survey estimate from the clustered sample, $Y(Unclustered)$ is the survey estimate from the unclustered sample, and λ (lambda) is an arbitrary constant between 0 and 1. For the sampling variance, $V(Y)$, the estimate is computed using the equation:

$$(5) \ V(Y) = \lambda^2 V(Y(Clustered)) + (1 - \lambda)^2 V(Y(Unclustered)),$$

where $V(Y(Clustered))$ is the sampling variance for the estimate from the clustered sample and $V(Y(Unclustered))$ is the sampling variance for the estimate from the unclustered sample. Any value of lambda between 0 and 1 will result in an unbiased estimate of the survey estimate, but

not necessarily in an estimate with the minimum sampling variance. A lambda value producing a sampling variance at its minimum value results in the shortest confidence interval and, by implication, the most accurate point estimate.

A value of lambda can be computed in an optimal (minimum variance) sense as:

$$(6) \lambda = V(Y(\text{Unclustered})) / [V(Y(\text{Clustered})) + V(Y(\text{Unclustered}))].$$

In this case, the minimum variance is:

$$(7) V(Y) = [V(Y(\text{Clustered})) * V(Y(\text{Unclustered}))] / [V(Y(\text{Clustered})) + V(Y(\text{Unclustered}))].$$

To compute a combined-sample estimate with minimum variance, survey estimates are derived by first computing the estimates for each sample component, computing a value of lambda for each pair of estimates, and then combining the point and variance estimates. Although producing the minimum variance estimates, the process is computer-intensive and results in some inconsistencies among estimates for percentages and proportions because of differing values among levels of a categorical variable.

For this study, we identified a pool of variables of interest for each domain and computed variance estimates for the clustered and unclustered samples. We used these sampling variances to compute values of lambda and used the median values of the lambdas to develop a single value for computing the combined-sample weights. The lambda values differed for each domain and state but were generally around 0.45, which indicated slightly larger sampling variances in the clustered sample (as expected). The combined weight for each sample member in the clustered sample was computed as:

$$(8) WT(\text{Combined}) = \lambda WT(\text{Clustered Nonresponse-Adjusted Weight}),$$

and for sample members in the unclustered sample, by:

$$(9) \quad WT(Combined) = (1 - \lambda) WT(Unclustered \text{ Nonresponse-Adjusted Weight}).$$

Children from nontelephone households were eligible for interview only when sampled for the clustered design, so their nonresponse-adjusted weight was used as their combined sample weight. This combined weight was then poststratified again to the domain-specific monthly enrollment count for each state.

5. Sampling Variances

The sampling variance of an estimate derived from survey data for a statistic (such as a total, a mean or proportion, or a regression coefficient) is a measure of the random variation among estimates of the same statistic computed over repeated implementation of the same sample design with the same sample size on the same population. The sampling variance is a function of the constituent variables, the form of the statistic, and the nature of the sampling design. The two general forms of statistics are linear combinations of the survey data (for example, a total) and nonlinear combinations of the survey data. Nonlinear combinations include the ratio of two estimates (for example, a mean or a proportion in which both the numerator and the denominator are estimated) and more complex combinations, such as regression coefficients. For linear estimates with simple sample designs (such as stratified or unstratified simple random samples) or with complex designs (such as stratified multistage designs), explicit equations are available to compute the sampling variance. For the more common nonlinear estimates with simple or complex sample designs, explicit equations are not generally available, and various approximations or computational algorithms are used to provide an essentially unbiased estimate of the sampling variance. A Web site that reviews software for variance estimation from complex surveys, created with the encouragement of the Section on Survey Research Methods of

the American Statistical Association, is now available at <http://www.fas.harvard.edu/~stats/survey-soft/survey-soft.html>.

For this study, we used procedures based on the Taylor series linearization of the nonlinear estimator, using explicit sampling variance equations. This procedure is based on classic statistical methods in which a nonlinear statistic can be approximated by a linear combination of the components within the statistic. The accuracy of the approximation is dependent on the sample size and the complexity of the statistic. For most commonly used nonlinear statistics (such as ratios, means, proportions, and regression coefficients), the linearized form has been developed and has good statistical properties under large sample approximations. Once a linearized form of an estimate is developed, the explicit equations for linear estimates can be used to estimate the sampling variance. Because the explicit equations can be used, the sampling variance can be estimated using many of the features of the sampling design (for example, finite population corrections, stratification, multiple stages of selection, and unequal selection rates within strata). This is the basic variance estimation procedure used in SUDAAN, SAS, and Stata to accommodate many simple and complex sampling designs. (For more details on variance estimation using the Taylor series linearization procedure, see Wolter 1985, and, more recently, LaVange et al. 1996.)

To estimate the sampling variance, we defined a stratification variable and a variable to denote the first-stage sampling unit. The stratification variable basically identified for the survey data analysis software the sampled state and whether the sample was from the clustered or unclustered sample. The first-stage sampling unit variable identified the sample cluster in the clustered sample and the individual sampled child in the unclustered sample.

F. RESPONSE RATES

The response rate is a measure of potential for bias in the survey results due to nonresponse. For designs like ours, weighted response rates are preferred. Weighted response rates integrated the differential sampling rates and subsampling that we used in the survey.¹⁶ Our data collection approach was designed to achieve good response rates for each state by each of the three domains. The sample design incorporated a clustered sample with in-person field locating for children in nontelephone households and an unclustered sample with children in nontelephone households classified as ineligible. The response rates had to take these design features into account in order to validly represent the response.

We developed two response rates for assessing response in our study. The first response rate incorporated an average of the response rates for the clustered and unclustered surveys. This response rate is:

$$(10) \quad RR = 0.50 RR(\textit{Clustered Sample}) + 0.50 RR(\textit{Unclustered Sample}),$$

where $RR(\textit{Clustered Sample})$ is the weighted response rate for the clustered sample and $RR(\textit{Unclustered Sample})$ is the weighted response rate for the unclustered sample. The response rate for each sample design is computed using weighted totals as follows:

$$(11) \quad RR = (\textit{Completes} + \textit{Ineligible}) / (\textit{Completes} + \textit{Ineligible} + \textit{Nonrespondents}).$$

These response rates are shown in Table B.7.

¹⁶ Unweighted response rates are designed for simple list frame surveys or telephone surveys. They are discussed in reports by the Council of American Survey Research Organizations (1982) and the American Association for Public Opinion Research (2000). The reports provide useful guidelines for computing response rates.

TABLE B.7

DESIGN-SPECIFIC SAMPLE COUNTS AND RESPONSE RATES: SCHIP SAMPLE

State	Sample/Domain	Full Sample (Count)	Eligible Sample (Count)	Response (Count)	Complete (Count)	Nontelephone Households ^a (Count)	Design-Specific, Weighted Rate (Percent)	State Rate, Average Weighted Rate (Percent)
CA	Unclustered							
	Recent Enrollee	402	343	305	303	59	88.9	
	Established Enrollee	400	342	283	279	58	82.7	
	Recent Disenrollee	586	491	362	346	95	73.4	
	Clustered							
	Recent Enrollee	407	379	303	296	28	75.9	82.4
	Established Enrollee	393	364	286	282	29	75.6	79.2
	Recent Disenrollee	425	384	267	260	41	64.8	69.1
CO	Unclustered							
	Recent Enrollee	455	394	334	328	61	84.7	
	Established Enrollee	461	384	324	318	77	84.1	
	Recent Disenrollee	445	344	285	265	101	82.9	
	Clustered							
	Recent Enrollee	452	452	324	316	0	71.3	78.0
	Established Enrollee	466	466	309	300	0	66.9	75.5
	Recent Disenrollee	466	466	353	319	0	76.6	79.7
FL	Unclustered							
	Recent Enrollee	457	374	321	317	83	86.0	
	Established Enrollee	440	357	305	303	83	85.2	
	Recent Disenrollee	551	442	320	301	109	72.3	
	Clustered							
	Recent Enrollee	405	363	291	284	42	77.0	81.5
	Established Enrollee	418	374	296	292	44	74.7	80.0
	Recent Disenrollee	458	458	306	269	0	63.9	68.1
IL	Unclustered							
	Recent Enrollee	524	413	295	291	111	72.6	
	Established Enrollee	527	432	319	305	95	75.1	
	Recent Disenrollee	505	389	272	251	116	70.4	
	Clustered							
	Recent Enrollee	447	447	292	283	0	65.3	69.0
	Established Enrollee	418	418	282	267	0	67.5	71.3
	Recent Disenrollee	504	504	301	280	0	60.1	65.3

TABLE B.7 (continued)

State	Sample/Domain	Full Sample (Count)	Eligible Sample (Count)	Response (Count)	Complete (Count)	Nontelephone Households ^a (Count)	Design-Specific, Weighted Rate (Percent)	State Rate, Average Weighted Rate (Percent)
LA	Unclustered							
	Recent Enrollee	432	345	289	282	87	83.7	
	Established Enrollee	429	343	291	278	86	83.9	
	Recent Disenrollee	501	400	308	279	101	76.8	
	Clustered							
	Recent Enrollee	403	403	317	309	0	78.7	81.2
	Established Enrollee	399	399	311	298	0	77.7	80.8
Recent Disenrollee	453	453	330	286	0	72.3	74.6	
MO	Unclustered							
	Recent Enrollee	507	390	273	267	117	69.9	
	Established Enrollee	508	373	271	267	135	73.8	
	Recent Disenrollee	551	415	265	251	136	64.2	
	Clustered							
	Recent Enrollee	433	433	292	283	0	67.6	68.8
	Established Enrollee	407	407	301	295	0	74.4	74.1
Recent Disenrollee	483	483	307	282	0	63.7	64.0	
NJ	Unclustered							
	Recent Enrollee	911	795	597	583	116	71.3	71.3
	Established Enrollee	881	782	581	569	99	70.7	70.7
	Recent Disenrollee	998	998	592	536	0	58.3	58.3
NY	Unclustered							
	Recent Enrollee	542	458	327	321	84	72.1	
	Established Enrollee	532	446	322	317	86	71.7	
	Recent Disenrollee	533	417	318	295	116	76.3	
	Clustered							
	Recent Enrollee	409	373	266	260	36	68.9	70.5
	Established Enrollee	416	372	271	259	44	69.5	70.6
Recent Disenrollee	432	388	264	253	44	64.9	70.6	
NC	Unclustered							
	Recent Enrollee	518	377	284	280	141	75.4	
	Established Enrollee	522	403	322	317	119	82.5	
	Recent Disenrollee	631	430	349	332	201	80.6	

TABLE B.7 (continued)

State	Sample/Domain	Full Sample (Count)	Eligible Sample (Count)	Response (Count)	Complete (Count)	Nontelephone Households ^a (Count)	Design-Specific, Weighted Rate (Percent)	State Rate, Average Weighted Rate (Percent)
	Clustered							
	Recent Enrollee	398	348	265	262	50	68.9	72.2
	Established Enrollee	400	349	288	286	51	76.3	79.4
	Recent Disenrollee	416	372	241	230	44	58.3	69.5
TX	Unclustered							
	Recent Enrollee	410	317	259	256	93	81.7	
	Established Enrollee	386	300	266	263	86	88.5	
	Recent Disenrollee	565	448	306	293	117	68.5	
	Clustered							
	Recent Enrollee	454	402	339	336	52	79.9	80.8
	Established Enrollee	447	401	333	332	46	79.0	83.8
	Recent Disenrollee	451	385	296	284	66	72.3	70.4

^aThe count of nontelephone households includes the nontelephone households in the clustered samples that were not released for in-person field locating.

The second response rate is derived by combining the response rates achieved for children in telephone and nontelephone households weighted by the estimated incidence of telephone and nontelephone households in the population. Under this approach, the weighted response rate, *WRR*, is:

$$(12) \quad WRR = P(\textit{Telephone Households}) * RR(\textit{Telephone Households}) + [1 - P(\textit{Telephone Households})] * RR(\textit{Nontelephone Households}),$$

where *P(Telephone Households)* is the survey-based weighted estimate of the proportion of telephone households among all households in the sample, *RR(Telephone Households)* is the response rate for telephone households, and *RR(Nontelephone Households)* is the response rate for nontelephone households. Again, the response rate for telephone and nontelephone households is computed using weighted totals as follows:

$$(13) \quad RR = (\textit{Completes} + \textit{Ineligible}) / (\textit{Completes} + \textit{Ineligible} + \textit{Nonrespondents}).$$

These response rates are shown in Table B.8.

The average weighted response rates ranged in size from 83.8 percent for established enrollees in Texas to 58.3 percent for recent disenrollees in New Jersey. The majority of the response rates were in the range of 75 to 80 percent. For the algorithm for the weighted response rate, *WRR*, rates were generally slightly lower and ranged from 78.6 percent for established enrollees in Texas to 58.3 percent for recent disenrollees in New Jersey. These response rates were generally in the range of 65 to 75 percent. The response rates were higher for the recent and established enrollees and were lower for recent disenrollees.

For comparative analysis between the Medicaid and SCHIP samples in California and North Carolina, the sample counts and response rates are summarized in Tables B.9 and B.10. We

TABLE B.8

STATE-LEVEL SCHIP COUNTS AND RESPONSE RATES

State	Domain	Full Sample (Count)	Eligible Sample (Count)	Complete Interviews (Count)	Average Weighted Rate (Percent)	Response in Telephone Households (Percent)	Proportion of Nontelephone Households (Percent)	Response in Nontelephone Households (Percent)	Weighted Rate (Percent)
CA	Recent Enrollee	809	722	599	82.4	86.5	14.0	22.3	77.5
	Established Enrollee	793	706	561	79.2	82.3	13.9	34.6	75.7
	Recent Disenrollee	1,011	875	606	69.1	74.4	20.0	31.3	65.7
CO	Recent Enrollee	907	846	644	78.0	83.4	15.3	19.7	73.6
	Established Enrollee	927	850	618	75.5	83.9	20.8	13.5	69.2
	Recent Disenrollee	911	810	584	79.7	86.0	22.3	33.3	74.3
FL	Recent Enrollee	862	737	601	81.5	85.9	19.8	45.5	77.9
	Established Enrollee	858	731	595	80.0	85.1	19.1	33.0	75.2
	Recent Disenrollee	1,009	900	570	68.1	75.3	24.2	27.5	63.7
IL	Recent Enrollee	971	860	574	69.0	73.4	22.0	35.0	64.9
	Established Enrollee	945	850	572	71.3	76.7	19.4	22.8	66.2
	Recent Disenrollee	1,009	893	531	65.3	68.7	22.7	35.3	61.1
LA	Recent Enrollee	835	748	591	81.2	86.9	20.8	36.7	76.5
	Established Enrollee	828	742	576	80.8	84.9	21.4	50.0	77.5
	Recent Disenrollee	954	853	565	74.6	79.8	22.9	40.8	70.8
MO	Recent Enrollee	940	823	550	68.8	73.7	44.0	59.7	67.6
	Established Enrollee	915	780	562	74.1	78.8	27.7	49.8	70.8
	Recent Disenrollee	1,034	898	533	64.0	71.5	30.0	33.4	60.1
NJ	Recent Enrollee	911	795	583	71.3	80.4	22.9	40.5	71.3
	Established Enrollee	881	782	569	70.7	80.6	24.2	39.8	70.7
	Recent Disenrollee	998	998	536	58.3	69.8	24.8	23.1	58.3
NY	Recent Enrollee	951	831	581	70.5	75.6	19.5	34.5	67.6
	Established Enrollee	948	818	576	70.6	75.4	17.5	23.1	66.2

TABLE B.8 (continued)

State	Domain	Full Sample (Count)	Eligible Sample (Count)	Complete Interviews (Count)	Average Weighted Rate (Percent)	Response in Telephone Households (Percent)	Proportion of Nontelephone Households (Percent)	Response in Nontelephone Households (Percent)	Weighted Rate (Percent)
	Recent Disenrollee	965	805	548	70.6	76.0	22.6	29.3	65.4
NC	Recent Enrollee	916	725	542	72.2	81.1	29.0	28.7	65.9
	Established Enrollee	922	752	603	79.4	87.2	26.1	36.8	74.0
	Recent Disenrollee	1,047	802	562	69.5	80.8	34.7	22.4	60.6
TX	Recent Enrollee	864	719	592	80.8	85.9	24.6	50.8	77.3
	Established Enrollee	833	701	595	83.8	88.6	21.7	42.6	78.6
	Recent Disenrollee	1,016	833	577	70.4	75.9	24.7	43.2	67.8

TABLE B.9

DESIGN-SPECIFIC SAMPLE COUNTER AND REFERENCE RATE FOR
THE SCHIP—MEDICAID CONFIRMATION ANALYSIS

State/ Program	Sample Design/ Domain	Full Sample (Count)	Eligible Sample (Count)	Response (Count)	Complete (Count)	Nontelephone Households ^a (Count)	Design- Specific, Weighted Rate (Percent)	State Rate, Average Weighted Rate (Percent)
CA	Unclustered							
SCHIP	Recent Enrollee	402	358	313	311	44	87.4	
	Established Enrollee	400	359	292	288	41	81.3	
	Recent Disenrollee	586	515	369	353	71	71.6	
	Clustered							
	Recent Enrollee	407	407	304	297	0	74.7	81.0
	Established Enrollee	393	393	293	287	0	74.6	77.9
	Recent Disenrollee	425	425	271	264	0	63.4	67.5
CA	Unclustered							
Medicaid	Recent Enrollee	599	401	191	183	198	47.4	
	Established Enrollee	600	418	209	202	182	50.0	
	Recent Disenrollee	600	385	198	196	215	51.2	
	Clustered							
	Recent Enrollee	602	602	237	231	0	39.4	43.4
	Established Enrollee	599	599	197	191	0	32.9	41.4
	Recent Disenrollee	600	600	213	208	0	35.5	43.4
NC	Unclustered							
SCHIP	Recent Enrollee	518	408	294	289	110	72.1	
	Established Enrollee	522	424	330	324	98	79.9	
	Recent Disenrollee	631	509	376	356	122	77.3	
	Clustered							
	Recent Enrollee	398	398	268	265	0	67.4	69.8
	Established Enrollee	400	400	293	291	0	73.3	76.6
	Recent Disenrollee	416	416	246	235	0	59.2	68.2

TABLE B.9 (continued)

State/ Program	Sample Design/ Domain	Full Sample (Count)	Eligible Sample (Count)	Response (Count)	Complete (Count)	Nontelephone Households ^a (Count)	Design- Specific, Weighted Rate (Percent)	State Rate, Average Weighted Rate (Percent)
NC	Unclustered							
Medicaid	Recent Enrollee	522	382	256	243	140	67.6	
	Established Enrollee	530	394	271	261	136	70.9	
	Recent Disenrollee	531	389	230	199	142	59.5	
	Clustered							
	Recent Enrollee	553	553	281	274	0	50.7	
	Established Enrollee	548	548	274	267	0	49.1	
	Recent Disenrollee	553	553	235	211	0	42.7	

^aThe count of nontelephone households includes the nontelephone households in the clustered samples that were not released for in-person field locating.

TABLE B.10

STATE-LEVEL SAMPLE COUNTS AND REFERENCE RATES

State/Program	Domain	Full Sample (Count)	Eligible Sample (Count)	Complete Interviews (Count)	Average Weighted Rate (Percent)	Response in Telephone Households (Percent)	Proportion of Nontelephone Households (Percent)	Response in Nontelephone Households (Percent)	Weighted Rate (Percent)
CA									
SCHIP	New Enrollee	809	765	608	81.0	82.9	9.0	21.4	77.4
	Established Enrollee	793	752	575	77.9	79.3	8.4	34.6	75.5
	Recent Disenrollee	1,011	940	617	67.5	69.8	12.1	31.3	65.1
CA									
Medicaid	New Enrollee	1,201	1,003	414	43.4	44.1	29.6	34.4	41.2
	Established Enrollee	1,199	1,017	393	41.4	41.7	27.2	29.2	38.3
	Recent Disenrollee	1,200	985	404	43.4	44.6	31.0	27.3	39.2
NC									
SCHIP	New Enrollee	916	806	554	69.8	73.5	18.5	28.7	65.2
	Established Enrollee	922	824	615	76.6	79.7	16.9	36.8	72.5
	Recent Disenrollee	1,047	925	591	68.2	73.1	20.7	22.3	62.6
NC									
Medicaid	New Enrollee	1,075	935	517	59.2	62.8	24.5	23.6	53.2
	Established Enrollee	1,078	942	528	60.0	63.4	23.7	20.6	53.3
	Recent Disenrollee	1,084	942	410	51.1	57.1	28.7	15.4	45.1

made a special effort to increase response for these SCHIP and Medicaid samples (particularly for the latter). The response rates for the SCHIP samples in California and in North Carolina were similar to those for the main sample, shown in Tables B.7 and B.8. However, the response rates for the Medicaid samples for those states were considerably lower than were the response rates for the main sample. The Medicaid response rates were similar to those found for other major surveys of the Medicaid population and largely reflect poor or inadequate contact information in administrative records (Ghosh et al. 2001; Ciemnecki et al. 2000).

REFERENCES

- American Association for Public Opinion Research. "Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys." Ann Arbor, MI: AAPOR, 2000.
- Bureau of Health Professions, Health Resources and Services Administration. "Area Resource File." Rockville, MD: U.S. Department of Health and Human Services, 2003.
- Chromy, James R. "Sequential Sample Selection Methods." *1979 American Statistical Association Proceedings of the Section on Survey Research Methods*. Washington, DC: American Statistical Association, 1979, pp. 401-406.
- Ciemnecki, A., K. CyBulski, and J. Wooldridge. "Consequences of Inadequate Medicaid Administrative Data on Survey Response Rates and Medicaid Health Policy Issues." Paper presented at the 128th American Public Health Association Annual Meeting, Boston, MA, November 12-16, 2000.
- Council of American Survey Research Organizations. "On the Definition of Response Rates." A Special Report of the CASRO Task Force on Completion Rates, New York, NY: CASRO, 1982.
- Folsom, R.E., F. Potter, and S.R. Williams. "Notes on a Composite Measure for Self-Weighting Samples in Multiple Domains." American Statistical Association, *Proceedings of the American Statistical Association, Section on Survey Research Methods*, 1987. Washington, DC: American Statistical Association, pp. 792-796.
- Ghosh, B., A. Ciemnecki, M. Sinclair, and K. CyBulski. "Adjusting for Nonresponse Among Medicaid Households That Could Not Be Located or Were Located but Did Not Participate in the Minnesota Managed Care Survey." *2001 Proceedings of the American Statistical Association, Survey Research Methods Section [CD-ROM]*. Alexandria, VA: American Statistical Association, 2001.
- LaVange L., S.C. Stearns, J.E. Lafata, G.G. Koch, and B.V. Shah. "Innovative Strategies Using SUDAAN for Analysis of Health Surveys with Complex Survey Samples." *Statistical Methods in Medical Research*, vol. 5, 1996, pp. 311-329.
- Wolter, K.M. "Introduction to Variance Estimation." New York: Springer-Verlag, 1985.

APPENDIX C

**METHODS USED TO CONDUCT THE ANALYSIS
OF SCHIP ENROLLEES AND DISENROLLEES
IN 10 STATES**

This appendix describes the methods used in the report by Kenney, Trenholm, et al. (2005), “The Experiences of SCHIP Enrollees and Disenrollees in 10 States: Findings from the Congressionally Mandated SCHIP Evaluation.” The report is based on data from the 2002 Congressionally Mandated Survey of State Children’s Insurance Program (SCHIP) Enrollees and Disenrollees in 10 States and on several related sources.¹ The first section of this six-section appendix summarizes methodological issues that are relevant to most or all of the different analyses presented in the report. The remaining sections describe the analytic methods used in specific chapters of the report (see Table C.1).

A. CROSS-CUTTING METHODS

This section discusses two cross-cutting methodological issues. The first is the sample design on which the overall analysis is based, as well as the rationale for the design. The second is the set of descriptive variables that were used in the report to characterize the SCHIP (or Medicaid) population, define key subgroups, and investigate sources of variation in key outcomes.

1. Sample Design

The 2002 survey of SCHIP enrollees and disenrollees focused on three domains of interest, as defined from the state enrollment files: (1) recent SCHIP enrollees, who, according to the state files, had been enrolled in SCHIP within a month or two prior to sampling; (2) established SCHIP enrollees, who were enrolled in SCHIP for 6 months or more prior to sampling; and (3) recent disenrollees, who had exited SCHIP a month or two prior to sampling. In addition, in

¹The report also draws on data from a companion survey of Medicaid enrollees and disenrollees in two states, as well as on data from various state administrative and enrollment files. See Appendix A for a layout of the full survey instrument. For details on the sample design and administration of the survey, see Appendix B.

TABLE C.1

SECTION(S) OF APPENDIX ADDRESSING METHODS FOR EACH REPORT CHAPTER

Appendix Section	Chapter I: Key Survey Findings	Chapter II: Enrollment Experiences	Chapter III: Program Experiences (Access/Use)	Chapter IV: Length of Enrollment	Chapter V: Disenrollee Experiences	Chapter VI: Substitution	Chapter VII: Impacts	Chapter VIII: Medicaid
A. Cross-Cutting Methods	X	X	X		X		X	X
B. Analysis of Recent Enrollees	X	X						X
C. Analysis of Established Enrollees	X		X				X	X
D. Analysis of Disenrollees	X				X			
E. Analysis of Substitution and Prior Coverage	X					X		
F. Analysis of Determinants of Enrollment Lengths	X			X				

two states, we conducted a parallel survey of Medicaid enrollees and disenrollees across the three domains.

A central goal in conducting the survey was to reflect the experiences of *all* children and families in the domains so that we could present research findings that were as accurate and as generalizable to the overall SCHIP population as possible. In order to achieve this goal, we developed a highly flexible survey instrument that tailored the interview to the perceptions of the families regardless of the consistency between these perceptions and the state enrollment files. As discussed below, this approach enabled us to retain families in the sample who might otherwise have been dropped because they provided dates of enrollment or disenrollment that were inconsistent with their sample domains. Research demonstrates that many survey respondents have difficulty reporting their insurance histories accurately (Nelson and Miller 2001; Rajan et al. 2000). In light of this research, our approach was essential to retaining as much sample as possible, and to yielding the most credible set of estimates possible about families' experiences with SCHIP.

a. Addressing Sample Domain Inconsistencies

To illustrate the importance of addressing potential inconsistencies between the respondents' perceptions and the assigned sample domains, consider the children whom we selected for our recent enrollee sample. The state program files showed that almost 35 percent of the children across our 10-state sample either had spells of SCHIP coverage prior to enrolling (their short gaps in coverage perhaps resulting from late premium payments or renewals) or had recent spells of Medicaid coverage prior to enrolling (often with no gaps between the two programs). In some instances, the families would not be expected to recognize their recent enrollment in SCHIP, believing instead that they had never left the program (in the case of a short gap in SCHIP

coverage) or had never switched programs (in the case of a transition from Medicaid). Many of these families would therefore have reported having been covered by SCHIP for longer than indicated by the state files, often significantly so. As a result, when these families reported on key outcomes, such as prior insurance coverage or pre-SCHIP utilization of health care, they were not reporting those data for the period immediately before their current (state-determined) period of enrollment.

To address this problem and others like it, we had two options. The first was to simply drop from the survey sample any cases whose self-reported dates of entry (or exit) were inconsistent with the domains in which they had been sampled. (So, for example, a recent enrollee who reported having been enrolled for, say, a year or more at the time of interview might be classified as ineligible for the survey and dropped from the recent enrollee sample.) This approach was attractive because it was simple and would have yielded an analytic file containing reliable data for all outcomes across all sample members. However, because the approach would remove a large fraction of the children and families originally sampled for survey, it could have led to substantial biases in our estimates of several key outcomes.

For example, suppose we had dropped from the study sample any recent enrollee who had reported being enrolled in SCHIP for an extended period, say, a year or more. This step would have eliminated the problem of interviewing recent enrollees who believed themselves enrolled for a long period of time. However, it probably also would have resulted in the removal of a disproportionate share of recent enrollees who had either transitioned from Medicaid seamlessly, or who had experienced only short gaps in SCHIP coverage. In turn, any estimates of prior coverage among recent enrollees would have been biased, leading to underestimates of the share of recent enrollees with public coverage, and to overestimates of the share with private coverage or no insurance.

The second option, which we adopted, was to retain sample that displayed inconsistency between the state enrollment data and the self-reported data and interview families based on the self-reported information, rather than on the information from the state enrollment files. (So, for example, if a recent enrollee had informed us that he or she had been enrolled for more than a year, we interviewed that person as if he or she were an established enrollee, and not a recent enrollee.) As described below, this option required us to use imputation and/or nonresponse adjustment for some outcomes to account for survey data on selected sample members that were either incomplete or incorrect. Nevertheless, because we retained a sample that was fully representative of each study domain, this option was much more likely than the first option to yield unbiased estimates of the experiences of SCHIP enrollees and disenrollees.

As shown in Table C.2, the adoption of this approach led to a complex sample design. In total, the sample included 18 types of sample members across the three domains. For some sample members, survey questions were either skipped because they could not be addressed properly or were replaced by a different series of questions. For example, within the recent-enrollee domain, children reported to have been enrolled at birth were not asked any questions about their pre-SCHIP access, service use, or other experiences for obvious reasons; however, if the newborns were reported to have been enrolled for 12 months or longer at interview, we collected information about their experiences while in the program. Furthermore, we used Medicaid and SCHIP enrollment files to validate reports that children were enrolled in SCHIP at birth. We were thus able to identify children who had actually been enrolled in Medicaid at birth, and had then transferred seamlessly to SCHIP. By adopting these strategies, we were able to collect as much usable information as possible on each member of the sample. In subsequent chapters of the appendix, we describe the methods used to combine interview and

TABLE C.2

SUMMARY OF THE TYPES OF SAMPLE MEMBERS AND THE SURVEY QUESTIONS THEY ANSWERED

Definition (Self-Reported)	Introduction (Section 1)	Application and Enrollment (Section 2)	Child's Insurance Coverage (Section 3)	Child's Health (Section 4)	Time Frame for Sections 5-6	Access to Care (Section 5)	Service Utilization/ Unmet Need (Section 6)	Parent Characteristics (Section 7)	Telephone Coverage (Section 8)
Statuses Within the Recent Enrollee Domain									
Recent Enrollee Who Has Been Enrolled for Fewer than 12 Months	Yes	Yes	2.1-2.9.1B, 2.20-2.44	Yes	The 6 months before child's coverage began	Yes	Yes	Yes	Yes
Recent Enrollee Who Was Born in the 6 Months Before SCHIP Started	Yes	Yes	2.1-2.9.1B, 2.20-2.44	Yes	Before child's coverage began	Yes	Yes	Yes	Yes
Recent Enrollee Who Obtained Coverage at Birth and Has Been Enrolled for 12 Months or More	Yes	Yes	2.1-2.9.1B, 2.20-2.31	Yes	Past 6 months	Yes	Yes	Yes	Yes
Recent Enrollee Who Obtained Coverage at Birth and Has Been Enrolled for Fewer than 12 Months	Yes	Yes	2.1-2.9.1B, 2.20-2.31	Yes		No	No	7.4.a-7.4.1.9, 7.109-7.120	8.15 to end
Recent Enrollee Who Has Been Enrolled for 12 Months or Longer	Yes	Yes	2.1-2.9.1B, 2.20-2.44	Yes	Past 6 months	Yes	Yes	Yes	Yes
Recent Enrollee Who Has Been Disenrolled for 6 Months but Fewer than 12 Months	Yes	Yes	2.1-2.9.1B, 2.20-2.44	Yes	The 6 months before child's last SCHIP coverage ended	Yes	Yes	Yes	Yes
Recent Enrollee Who Has Been Disenrolled for 12 Months or Longer	Yes	Yes	2.1-2.51	Yes		No	No	7.4.a-7.4.1.9, 7.109-7.120	8.15 to end
Statuses Within the Established Enrollee Domain									
Established Enrollee Who Has Been Enrolled 6 Months or More	Yes	Yes	2.1-2.9.1B, 2.20-2.44	Yes	Past 6 months	Yes	Yes	Yes	Yes
Established Enrollee Who Obtained Coverage at Birth	Yes	Yes	2.1-2.9.1B, 2.20-2.31	Yes	Past 6 months	Yes	Yes	Yes	Yes

TABLE C.2 (continued)

Definition (Self-Reported)	Introduction (Section 1)	Application and Enrollment (Section 2)	Child's Insurance Coverage (Section 3)	Child's Health (Section 4)	Time Frame for Sections 5-6	Access to Care (Section 5)	Service Utilization/Unmet Need (Section 6)	Parent Characteristics (Section 7)	Telephone Coverage (Section 8)
Established Enrollee Enrolled for Fewer than 6 Months	Yes	Yes	2.1-2.9.1B, 2.20-2.44	Yes	While the child was on SCHIP	Yes	Yes	Yes	Yes
Established Enrollee Who Has Been Disenrolled 6 Months but Fewer than 12 Months	Yes	Yes	2.1-2.9.1B, 2.20-2.25, 2.60 to end	Yes	The 6 months before child's last SCHIP coverage ended	Yes	Yes	Yes	Yes
Established Enrollee Who Has Been Disenrolled for 12 Months or More	Yes	Yes	2.1-2.51	Yes		No	No	7.4.a-7.4.1.9, 7.109-7.120	8.15 to end
Statuses Within the Recent Disenrollee Domain									
Disenrollee Who Has Been Disenrolled for Fewer than 12 Months	Yes	Yes	2.1-2.9.1B, 2.20-2.25, 2.60 to end	Yes	The 6 months before child's last SCHIP coverage ended	Yes	Yes	Yes	Yes
Disenrollee Who Has Been Currently Enrolled for 6 Months or More	Yes	Yes	2.1-2.9.1B, 2.20-2.25, 2.60 to end	Yes	Past 6 months	Yes	Yes	Yes	Yes
Disenrollee Who Has Been Disenrolled for 12 Months or More	Yes	Yes	2.1-2.51	Yes	—	No	No	7.4.a-7.4.1.9, 7.109-7.120	8.15 to end
Disenrollee Who Has Been Disenrolled for 12 Months or More—Recontacted and Completed Interview	Yes	Yes	2.1-2.5, 2.26, 2.60-2.65	Yes	—	No	No	7.4.a-7.4.1.9, 7.109-7.120, 7.4.5.1-7.4.5.6, 7.90-7.101	8.15 to end
Statuses That Apply to Yes Domains									
No Info on Whether Sample Child Is Enrolled	Yes	Yes	2.1	Yes	—	No	No	7.4.a-7.4.1.9, 7.109-7.120	8.15 to end
Missing Date(s) to Determine Duration of Enrollment	Yes	Yes	2.1-2.51	Yes	—	No	No	7.4.a-7.4.1.9, 7.109-7.120	8.15 to end

administrative data to construct key outcome variables, and any steps taken to impute or otherwise account for data that were missing or potentially misreported.

b. Sample Sizes

As described in Appendix B, the sample design for the study allowed children to be selected for the study in either a clustered or unclustered sample. In rare instances, SCHIP children were selected for both samples, leading these children to have two records in the analysis sample rather than one. (Throughout the analysis, we used appropriate sample weights to avoid over-representing such cases, and all standard errors are calculated with SUDAAN to reflect the actual sample size, design effects, and weighting.)

The resulting analysis sample for the SCHIP study, summarized in Table C.3, included a total of 16,680 records drawn from a total of 16,580 interviews with the parents of SCHIP enrollees and disenrollees.² The Medicaid analysis sample, summarized in Table C.4, had no instances of this dual sample selection, so that the total sample size reported (2,613) reflects both the number of sample records and the number of completed interviews (conducted with the parents of Medicaid enrollees and disenrollees). For both the SCHIP and Medicaid samples, the size of the unweighted sample was roughly equal across the three sample domains. However, the weighted sample was much larger for the established enrollees, reflecting their larger population in relation to recent enrollees or disenrollees.

Within each domain, the largest subsample was the one that a respondent would generally be expected to self-report. For example, within the domain of recent SCHIP enrollees, the largest subsample consisted of children reported to have been enrolled for fewer than 12 months (3,330

² Throughout this appendix, as well as the main report, we base our sample size numbers on the slightly larger record count in order to make the numbers easier to replicate by users of the forthcoming public use file.

TABLE C.3

SCHIP SURVEY: SAMPLE SIZE AND DISTRIBUTION

Definition	Unweighted				Weighted		
	Sample Size		% of Sample Domain	% of Total Sample	Sample Size	% of Sample Domain	% of Total Sample
Records	Interviews						
Recent Enrollees							
Recent Enrollee Who Has Been Enrolled for Fewer than 12 Months	3,330	3,326	59	20	111,658	61	6
Recent Enrollee Who Was Born in the 6 Months Before SCHIP Started	67	67	1	<1	2,176	1	<1
Recent Enrollee Who Obtained Coverage at Birth and Is Enrolled for 12 Months or More	164	164	3	1	2,806	2	<1
Recent Enrollee Who Obtained Coverage at Birth and Is Enrolled for Fewer than 12 Months	37	37	1	<1	1,462	1	<1
Recent Enrollee Who Has Been Enrolled for 12 Months or Longer	1,761	1,756	31	10	55,317	30	3
Recent Enrollee Who Has Been Disenrolled for 6 Months but Fewer than 12 Months	84	82	1	1	3,160	2	0
Recent Enrollee Who Has Been Disenrolled for 12 Months or Longer	76	75	1	<1	2,294	1	0
No Information on Whether Sample Child is Enrolled	62	62	1	<1	1,870	1	0
Missing Date(s) to Determine Duration of Enrollment	82	82	1	<1	2,361	1	0
Subtotal (Recent Enrollees)	5,663	5,651	100	34	183,105	100	10
Established Enrollees							
Established Enrollee Who Has Been Enrolled 6 Months or More	5,010	5,007	86	30	1,373,010	89	77
Established Enrollee Who Obtained Coverage at Birth	179	178	3	1	30,542	2	2
Established Enrollee Enrolled for Fewer than 6 Months	109	109	2	1	27,681	2	2
Established Enrollee Who Has Been Disenrolled 6 Months but Less than 12 Months	167	167	3	1	44,873	3	3
Established Enrollee Who Has Been Disenrolled for 12 Months or More	112	112	2	1	25,735	2	1
No Information on Whether Sample Child Is Enrolled	83	83	1	<1	18,398	1	1
Missing Date(s) to Determine Duration of Enrollment	177	137	2	1	26,863	2	2
Subtotal (Established Enrollees)	5,797	5,793	100	35	1,547,102	100	86

TABLE C.3 (continued)

Definition	Unweighted				Weighted		
	Sample Size		% of Sample Domain	% of Total Sample	Sample Size	% of Sample Domain	% of Total Sample
	Records	Interviews					
Disenrollees							
Disenrollee Who Has Been Disenrolled for Less than 12 Months	2,051	2,011	39	12	23,265	40	1
Disenrollee Who Has Been Currently Enrolled for 6 Months or More	1,762	1,747	33	11	16,980	29	1
Disenrollee Who Has Been Disenrolled for 12 Months or More	563	550	11	3	6,507	11	<1
Disenrollee Who Has Been Disenrolled for 12 Months or More—Recontacted and Successfully Reached	630	618	12	4	8,352	14	<1
No Information on Whether Sample Child Is Enrolled	113	112	2	1	1,122	2	<1
Missing Date(s) to Determine Duration of Enrollment	201	198	4	1	2,177	4	<1
Subtotal (Disenrollees)	5,320	5,236	100	32	58,403	100	3
Total (Full Sample)	16,780	16,680	—	100	1,788,610	—	100

TABLE C.4

THE MEDICAID SURVEY: SAMPLE SIZE AND DISTRIBUTION

Definition	Unweighted			Weighted		
	Sample Size	% of Sample Domain	% of Total Sample	Sample Size	% of Sample Domain	% of Total Sample
Recent Enrollees						
Recent Enrollee Who Has Been Enrolled for Fewer than 12 Months	311	34	12	21,972	33	1
Recent Enrollee Who Was Born in the 6 Months Before SCHIP Started	56	6	2	3,873	6	<1
Recent Enrollee Who Obtained Coverage at Birth and Is Enrolled for 12 Months or More	87	10	3	7,543	11	<1
Recent Enrollee Who Obtained Coverage at Birth and Is Enrolled for Fewer than 12 Months	225	25	9	15,581	23	1
Recent Enrollee Who Has Been Enrolled for 12 Months or Longer	186	20	7	13,997	21	1
Recent Enrollee Who Has Been Disenrolled for 6 Months but Fewer than 12 Months	17	2	1	1,581	2	<1
Recent Enrollee Who Has Been Disenrolled for 12 Months or Longer	14	2	1	1,225	2	<1
No Information on Whether Sample Child is Enrolled	9	1	0	1,109	2	<1
Missing Date(s) to Determine Duration of Enrollment	6	1	0	497	1	<1
Subtotal (Recent Enrollees)	911	100	35	67,378	100	3
Established Enrollees						
Established Enrollee Who Has Been Enrolled 6 Months or More	461	50	18	863,121	46	44
Established Enrollee Who Obtained Coverage at Birth	345	37	13	755,159	40	38
Established Enrollee Enrolled for Fewer than 6 Months	31	3	1	65,570	3	3
Established Enrollee Who Has Been Disenrolled 6 Months but Less than 12 Months	25	3	1	55,641	3	3
Established Enrollee Who Has Been Disenrolled for 12 Months or More	28	3	1	69,444	4	4
No Information on Whether Sample Child Is Enrolled	16	2	1	38,338	2	2
Missing Date(s) to Determine Duration of Enrollment	16	2	1	37,777	2	2
Subtotal (Established Enrollees)	922	100	35	1,885,048	100	95

TABLE C.4 (continued)

Definition	Unweighted			Weighted		
	Sample Size	% of Sample Domain	% of Total Sample	Sample Size	% of Sample Domain	% of Total Sample
Disenrollees						
Disenrollee Who Has Been Disenrolled for Less than 12 Months	190	24	7	5,970	26	<1
Disenrollee Who Has Been Currently Enrolled for 6 Months or More	456	58	17	13,223	57	1
Disenrollee Who Has Been Disenrolled for 12 Months or More	45	6	2	1,286	6	<1
Disenrollee Who Has Been Disenrolled for 12 Months or More—Recontacted and Successfully Reached	73	9	3	2,386	10	<1
No Information on Whether Sample Child Is Enrolled	5	1	0%	96	0	<1
Missing Date(s) to Determine Duration of Enrollment	11	1	0	351	2	<1
Subtotal (Disenrollees)	780	100	30	23,313	100	1
Total (Full Sample)	2,613	—	100	1,975,738	100	1

of the 5,663 records in that domain). Likewise, within the domain of established SCHIP enrollees, the largest subsample consisted of children reported to have been enrolled for 6 months or more (5,010 of the 5,797 records in that domain). The same pattern also was true for the SCHIP-disenrollee domain, although to a lesser extent. Although the largest subsample reported being disenrolled for fewer than 12 months (2,051 of the 5,320 records in that domain), a nearly equal number reported being enrolled for 6 or more months (1,762).

2. Demographic and Other Cross-Cutting Variables

We constructed a base set of demographic and other variables that were used across all the analyses. These variables were used for three main purposes: (1) to describe the characteristics of the SCHIP population across states and enrollment domains, (2) to form key subgroups for analysis, and (3) to serve as covariates in several types of regression analysis.

Table C.5 displays the source data used to construct the variables and notes important issues with their development or use. All of the variables were constructed as simple indicators that took on a value of 1 if the characteristic was true, or a value of 0 if the characteristic was false. For example, the variable “age 0 to 5” takes on a value of 1 if a given sample member was in that age range, and 0 otherwise. In many instances, these indicator variables reflected one of several related categories. For example, we had four indicator variables for children’s ages, reflecting categories of 0 to 5, 6 to 12, 13 to 17, and 18 years and older. (In some analyses, the two older age groups were collapsed into one category that included all children age 13 and older.) In regression analysis, one of the indicator variables is always omitted to serve as the reference category.

TABLE C.5

SUMMARY OF DEMOGRAPHIC VARIABLES USED THROUGHOUT ANALYSIS

	Indicator Variables	Source Data ^a	Notes
Child-Level Variables			
Age	Age 0-5 Age 6-12 Age 13-17 Age 18-20	Q1.16-1.17	
Gender	Female	Q1.15	
Race/Ethnicity ^b	Hispanic White, non-Hispanic Black, non-Hispanic Asian, non-Hispanic Other, non-Hispanic	Q7.109-7.111	If respondent considered child to be of Hispanic or Latino origin, child was categorized as "Hispanic/Spanish origin." For each other child, respondent was also asked to describe the child's racial background. Categories were white, American Indian, Alaskan Native, black or African American, and Asian/Pacific Islander, or respondent could write in an answer. Children with written answers categorized into one of the previous categories if possible. American Indian, Alaskan Native, and children with more than one race listed were added to the "Other" category. Any child who could not be classified was not included in the variable.
Health Status	Health is fair or poor Child has asthma Child has mental health condition Has special health care need	Q4.1 Q4.9 Q4.13 Q4.3-4.10, Q4.11-4.16	Respondent reported that child met at least one of the following four criteria: (1) child had an impairment or health problem limiting ability to (crawl), walk, run, or play and lasting at least 12 months; (2) a doctor or other health care professional said that child had asthma or child has taken medication or required injections prescribed by a doctor for his/her asthma; (3) child has taken medication or required injections for at least 3 months (excluding asthma); (4) a doctor or other health professional said that child had mental health condition or behavioral problem or child had mental health condition or behavioral problem limiting ability to do regular schoolwork or participate in usual kind of activities done by most children his/her age.
	Has elevated health care need	Q4.1;Q4.3- Q4.10; Q4.11- Q4.16	Child's health fair or poor or child has special health care need (see above)

TABLE C.5 (continued)

	Indicator Variables	Source Data ^a	Notes
Household-Level Variables			
Main Household Language ^b	English Spanish Other	Q7.120	
Household Structure	Two-parent household Two parents/one working Two parents/none working One parent/working One parent/not working	Q7.4.1.2-7.4.1.3, Q7.4.5.2- 7.4.5.3, Q7.4.6.2-7.4.6.3, Q7.9.1-7.9.2	Two constructed variables are combined to determine household structure: 1. Respondent reported relation to child and those of other adults living in the same household to determine number of parents/legal guardians in the household 2. Respondent reported employment status of one/both parent/legal guardians during past 12 months. If worked at any time during past 12 months, full-time or part-time, for pay or profit, then defined as working
Highest Education Level	No GED or HS diploma GED or HS diploma Some college or college degree	Q7.4.1.7, Q7.4.6.7	The highest education level reported by any parent/legal guardian
Household Income	<150% FPL 150 to 199%FPL >200%FPL	Q7.90-7.101	Household income from jobs and all other sources of income reported by respondent and size of household used to compute income as percentage of FPL
Parent(s) Foreign Born		Q7.4.1.8, Q7.4.5.8	
Urbanicity	MSA Adjacent to MSA	Based on the variable "r_ucc" from 2001 ARF Based on the variable "r_ucc" from 2001 ARF	Metro counties include "central counties of metro areas of 1 million population or more," "fringe counties of metro areas of 1 million population or more," "counties in metro areas of 250,000-1,000,000 population," and "counties in metro areas of 250,000-1,000,000 population." Adjacent counties include "urban population of 20,000 or more, adjacent to a metro area," "urban population of 2,500-19,999, adjacent to a metro area," and "completely rural (no population of 2,500 or more) adjacent to a metro area."

TABLE C.5 (continued)

Indicator Variables	Source Data ^a	Notes
Non-MSA/non-adjacent	Based on the variable "r_ucc" from 2001 ARF	Non-metro/non-adjacent counties include "urban population of 20,000 or more, not adjacent to a metro area," "urban population of 2,500-19,999, not adjacent to a metro area," and "completely rural (no population of 2,500 or more) not adjacent to a metro area."
Home remedies better than drugs	Q7.3.34	Includes response of either "definitely true" or "mostly true"
Can overcome most problems without a doctor	Q7.3.32	Includes response of either "definitely true" or "mostly true"

^aExcept as noted, source data reflect the question number on the survey instrument (see Appendix A).

^bRace/ethnicity and language variables were often combined in the report to form six indicator variables: (1) Hispanic, Spanish-speaking; (2) Hispanic, English-speaking; (3) non-Hispanic, English-speaking white; (4) non-Hispanic, English-speaking black; (5) non-Hispanic, English-speaking other; and (6) non-Hispanic, non-English-speaking (all).

ARF = Area Resource File; FPL = Federal Poverty Level; GED = General Educational Development; HS = High School; MSA = Metropolitan Statistical Area.

B. ANALYSIS OF ENROLLMENT EXPERIENCES

This section discusses the samples and study methods used to analyze enrollment experiences of recent SCHIP and Medicaid enrollees (reported in Chapters I, II, and VIII of the main report). We begin by describing the samples used for the analyses, first for SCHIP enrollment experience and then for Medicaid enrollment experience. We then describe the construction of the key measures that we investigated.

1. SCHIP Sample

The analysis of the experiences of recent SCHIP enrollees focused on two different samples:

1. *To examine enrollees' sources of information* about the program and the importance of that information, we analyzed the entire sample of 5,663 recent SCHIP enrollees across the 10 states.
2. *To examine experience with the application and enrollment process*, we focused on a subsample of recent enrollees. The subsample included all recent enrollees whose self-reported enrollment months coincided closely with the months shown on the state files for sampling.

Our reason for limiting the latter sample was to ensure that we measured the application and enrollment experiences of recent enrollees at the time they were sampled for the survey—not the application experience at some other time. However, we also recognized that excluding a large number of cases from the analysis might bias our measurement. Most notably, many families whose children transitioned from Medicaid appeared not to have been aware of their entry into SCHIP, resulting in self-reported enrollment dates in SCHIP that more closely corresponded to the children's dates of Medicaid entry months or years earlier. Since the information provided by these families on the surveys did not pertain to the target time frame (or even to the target program), it would not have been appropriate to include it in the analysis. However, we did not want to simply exclude those observations from the analysis, as that step would have led us to

understate the extent of such “seamless transitions” into the SCHIP program. As described below, we conducted an imputation for a fraction of the recent enrollees sample in order to retain them in the analysis.

We separated the recent-enrollee sample into four categories based on the survey respondents’ perceptions of when their children had enrolled in SCHIP. These categories include:³

1. ***Families whose children’s reported enrollment dates were similar to the enrollment dates found in the program data (N = 3,952).*** This group included a majority of recent enrollees (70 percent) whose families provided enrollment dates that were within 6 months of the enrollment dates indicated in the program enrollment files. Reported experiences among these families were likely to reflect the families’ most recent SCHIP enrollment.
2. ***Families whose children were “seamlessly” transferred from Medicaid (N = 942).*** This group, which included 17 percent of the recent-enrollee sample, included families who reported that their children had enrolled 6 or more months earlier than indicated by the program data, and who transferred to SCHIP directly from Medicaid with no intervening uninsured spells. In all likelihood, most of these families did not report their most recent enrollment in SCHIP because that enrollment required little or no effort and was thus unobserved.
3. ***Families who reported enrollment dates that were far removed from the actual enrollment (N = 625).*** This group included the families who reported enrollment dates 6 or more months beyond the ones indicated on the enrollment files, but for whom there was no evidence from the state files of seamless Medicaid enrollment.
4. ***Families who were unable to provide enrollment dates because they either could not recall them or refused to answer (N = 144).*** This group included families who were unable to provide the dates of the sampled children’s most recent enrollment.

Our analysis of the application and enrollment experience included the first group, who reported dates of enrollment similar to the ones contained in the state files. In addition, it

³The four categories corresponded loosely to the subsamples shown in Table C.3 for the recent-enrollee domain. Thus, most of the families who fell into the first category had self-reported program tenures of less than a year, most sample members in the second and third categories had self-reported tenures of more than a year (leading them to be interviewed as established enrollees), and sample members in the final category included those who could not answer the survey questions because they did not provide enrollment dates.

included the second group, which transitioned from Medicaid. (Below, we describe our data imputation for this latter sample.) Together, these two groups accounted for about 85 percent of the full sample of recent SCHIP enrollees. The third group, which included children who did not transfer from Medicaid but still had reported program tenures that were far longer than those contained in the state files, were excluded from the sample for the application and enrollment analysis (along with the small, fourth group). However, in order to reflect the enrollment experiences of the excluded groups in our estimates, we used a nonresponse adjustment whereby the weights in the analysis sample were adjusted based on the excluded groups' observed characteristics.⁴ Estimates of recent enrollee experiences differed little with or without this adjustment, suggesting that our reported outcomes were robust to the loss of this sample.

2. Medicaid Sample

We defined our sample of recent Medicaid enrollees for the analysis of enrollment experiences using an approach parallel to the one we used for recent SCHIP enrollees. Thus, to investigate where families learned about SCHIP, we used the full sample of recent Medicaid enrollees, along with the original sample weights. However, to study the application and enrollment experiences of these families, we limited the analytic sample to recent enrollees with self-reported enrollment dates within 6 months of the state files' dates (the first category in the list above), and to those entering Medicaid "seamlessly" from SCHIP (the second category in the list). Together, these two categories accounted for roughly 80 percent of all children in the Medicaid recent enrollee sample.

⁴The adjustment was based on each enrollee's self-reported health care coverage in the 6 months before enrolling, which may have had a strong influence on reported enrollment experiences. Specifically, within each prior coverage type (uninsured, private, Medicaid, SCHIP), we created a ratio equal to the sum of sampling weights for the dropped sample and the retained sample relative to the sum of the sampling weights for the retained sample only. This ratio was then multiplied by the weight for each retained sample member, by prior coverage type, in order to create a revised weight that accounted for the dropped sample members.

3. Outcome Measures

The analysis of information sources focused on two measures: (1) respondents' source(s) of information on SCHIP/Medicaid, and (2) the importance of this information in the decision of the respondents to enroll their children. These measures were based on responses to 10 survey questions in Section B of the survey instrument (Table C.6, top panel). Open-ended responses were coded to appropriate response categories.

The analysis of enrollment experience focused on five measures (Table C.6, lower panel). For families who experienced seamless transfers of their children from Medicaid (the second group in the list), the reported application experiences most likely pertained to their original Medicaid enrollment, rather than to their more recent enrollment in SCHIP (through transfer from Medicaid). To retain this sample, we assumed that the sample members' program applications and entry involved little or no effort (since they were not even observed by the survey respondents). Based on this assumption, we imputed the following values for this group of recent enrollees:

- ***Ease of Enrollment.*** Assigned a value of “very easy”
- ***Received Application Assistance.*** Assigned a value that the enrollee “did not receive assistance” applying for SCHIP
- ***Waited 4 Weeks or Less to Enroll.*** Assigned a value of “yes,” indicating that the wait time was less than 4 weeks after submitting an application

These imputations should lead to a more accurate description of the experiences of recent enrollees than would either simply dropping the sample or using the information provided (which appeared to pertain to the wrong period). Nevertheless, the substantive policy findings are robust to whether we perform the imputation or simply drop the sample from the analysis. For example, even in the absence of an imputation, most enrollees found their application

TABLE C.6

SUMMARY OF MEASURES USED IN THE ANALYSIS OF ENROLLMENT EXPERIENCE

Analysis of Information Sources		
“Have You Ever Heard or Received Information About SCHIP from/at ...?”	Q3.1.2.1:	Television or radio
	Q3.1.4:	Public agencies
	Q3.1.5:	Child’s school
	Q3.1.8:	Telephone hotline, helpline
	Q3.1.9:	Healthcare providers
	Q3.1.12:	Employer
	Q3.1.13:	Stores, restaurants, malls, etc.
Q3.1.15:	Other places	
Most Importance Source	Q3.2:	“Was any of this information important in making a decision to enroll your child in SCHIP?” (If YES to Q3.2) Q3.2.1: “Which information was most important in making the decision to enroll your child in SCHIP?”
Analysis of Application and Enrollment Process		
Easy Enrollment	Q3.29.1:	“So overall, based on your experience and what you know about SCHIP, how easy or difficult is it to enroll your child in SCHIP?”— Affirmative if one of the first two response categories, “Very easy” and “Somewhat easy,” was provided.
Received Application Assistance	Q3.20:	“Did a translator or some other professional help translate the application form in a language you could understand?” and Q3.21: “Did you get any (other) assistance in completing the application?”— Affirmative if the response to either question is affirmative.
Waited 4 Weeks or Less to Enroll	Q3.30:	“After the entire application was completed and submitted, about how many weeks or months did it take until you were notified that your child was enrolled in the program?”— Affirmative if the response is 4 weeks or less.
Knowledge of Renewal Frequency	Q3.34:	“Based on your experiences and what you know about SCHIP, how often do you have to reapply to SCHIP for your child to stay in the program?” — Respondent has correct knowledge if the response is consistent with state’s SCHIP eligibility redetermination frequency at the time.

process to be at least somewhat easy, and most received notification of their eligibility within 4 weeks.

C. ANALYSIS OF SCHIP PROGRAM EXPERIENCES (ACCESS AND USE)

This section discusses the study methodology used for the analysis of SCHIP and Medicaid program experiences related to access and use, unmet needs, and satisfaction with care (presented in Chapters I, III, VII, and VIII of the report). Although the analysis focused mainly on the outcomes of established enrollees, it also examined the preenrollment outcomes of recent enrollees (for comparison) and the outcomes of disenrollees while in the program (for sensitivity testing). Thus, the overall analysis drew on all three domains for the study—established enrollees, recent enrollees, and disenrollees—in both SCHIP and Medicaid.

We begin by describing the analytic samples used, focusing on cases that were excluded and on the reasons for the exclusions. We then provide additional information on the characteristics of the recent- and established-enrollee samples, focusing on any differences between the full sample and the access and use analytic samples. Finally, we describe the construction of measures of access and use used to analyze the experiences SCHIP and Medicaid recent and established enrollees.

1. Established-Enrollee Samples

The sample of established SCHIP (or Medicaid) enrollees formed the basis for assessing children's access, use, and other experiences while in the program. As described here, the analysis samples for SCHIP and Medicaid excluded only a very small fraction of children in the established-enrollee sample. Moreover, the characteristics of excluded sample members differed little from the characteristics of the ones who were retained.

a. SCHIP Sample

The sample eligible for the analysis of access and use experiences of established SCHIP enrollees included 5,797 observations. As summarized in Table C.3, the sample fell into four categories defined by the survey respondents' perception of when their children had enrolled in SCHIP, and on whether the children had subsequently disenrolled. Here, we summarize the four categories and the action taken with respect to each of them in order to construct our measures:

1. ***Enrolled for 6 Months or More (N = 5,189).*** These sample members provided enrollment dates similar to the ones indicated on the enrollment file, suggesting that their reported enrollment information was reliable. We therefore asked them a full series of questions about their access and use experience “in the past 6 months.”
2. ***Enrolled for Fewer than 6 Months (N = 109).*** Because asking about these children's experiences “in the past 6 months” would have covered days in which the children were not enrolled in SCHIP, we asked these respondents about the time “that the child was on SCHIP.” We collected a full range of information about these respondents' demographic characteristics and their program experience for the time that their children were in SCHIP. However, we did not include the children in our access and use analysis because the period over which experiences were measured was not comparable to the period for which information was provided by enrollees in the first category. For example, unmet need for doctor care in the past 4 months is not comparable to unmet need for doctor care in the previous 6 months.
3. ***Disenrolled for 6 Months or More (N = 279).*** Either these children had disenrolled between sampling and the fielding of the survey or their parents erroneously believed that they children had disenrolled. In the case of children whose parents reported that they had been disenrolled for more than 6 but fewer than 12 months (167 observations), we interviewed respondents as parents of “disenrollees” and collected a full range of information about their demographic characteristics and their access and use experience “in the 6 months prior to disenrolling.” We included these observations in our analyses of the access and use experiences of SCHIP enrollees prior to disenrolling from the program. For established enrollees whose parents reported that the children had been disenrolled more than 12 months (112 cases), we collected only health and demographic information for these recent enrollees and excluded them from the analytic sample. Because the period being referenced was so distant, it is likely that many of the responses would have been inaccurate.
4. ***Unable to Provide Enrollment Information (N = 220).*** These sample members included established enrollees whose parents were unable to report when or whether their children had enrolled in SCHIP. As a result, they could not respond to further questions about insurance coverage, and interview questions were limited to basic

information on the children’s health and demographic characteristics, and on the characteristics of the household.

The resulting analysis sample included 5,356 records, or about 92 percent of the overall sample of established enrollees, suggesting that any bias introduced by the sample exclusions would be modest. Moreover, the demographic features of the analytic sample and full sample proved to be very similar (see Table C.7).

b. Medicaid Sample

The full sample of established Medicaid enrollees included 922 records—394 in California and 528 in North Carolina. (Like the sample of SCHIP enrollees, this sample fell into four distinct categories, which were defined by the survey respondents’ perception of their children’s enrollment and disenrollment in Medicaid.) The analysis sample included 830 records, or about 90 percent of the full sample. As with the SCHIP sample, the characteristics of the full sample and analytic sample were very similar.

2. Recent-Enrollee Samples

We used the sample of SCHIP (and Medicaid) recent enrollees to obtain estimates of the access and use experiences of children prior to enrolling in SCHIP (or Medicaid). We expected that, for some cases within this sample, the enrollment and disenrollment dates reported in the survey would differ from those shown in the state files. As we described previously, we refined the survey instrument so that children sampled as recent enrollees whose parents reported different sample statuses than those indicated in the state files could be interviewed in the status perceived by the parent.

TABLE C.7

CHARACTERISTICS OF ALL ESTABLISHED ENROLLEES AND ESTABLISHED ENROLLEES USED IN ACCESS AND USE ANALYSIS

Variable	All Established Enrollees	Established Enrollees Used in Access and Use Analysis
Age of Child		
Age 0-5	19.3	19.3
Age 6-12	47.9	48.3
Age 13 and older	32.8	32.4
Child's Race		
Hispanic/Latino	49.2	49.3
White	32.0	32.1
Black	11.6	11.2
Asian	5.6	5.7
All other	1.7	1.7
Child Has Elevated Health Care Needs	23.9	23.9
Child's Overall Health Is Fair or Poor	8.5	8.2
Child Has Asthma	15.4	15.2
Child Has Mental Health Condition	7.4	7.3
Household Structure		
Two parents/both working	28.4	28.7
Two parents/one working	33.4	33.4
Two parents/not working	2.8	2.8
One parent/working	30.8	30.7
One parent/not working	4.5	4.3
Highest Education Level of Parent(s)		
No GED or HS diploma	24.7	24.4
GED or HS diploma	35.0	35.0
Some college or college degree ^a	40.3	40.7
Household Income by FPL Range ^b		
<150% FPL	67.9	68.1
150-199% FPL	23.1	22.9
>200% FPL	9.1	9.1
At Least One Parent Foreign Born	9.1	9.1
Main Language Spoken in Household		
Spanish	28.1	28.6
Other	4.6	4.7
Metropolitan Status		
(MSA)	86.3	86.3
Adjacent to MSA	9.4	9.4
Non-MSA/Non-adjacent	4.3	4.4
Sample Size (Weighted)	1,547,147	1,461,558
Sample Size (Unweighted)	5,797	5,394

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

^aIncludes 2-year associate's degree and trade school.

^bHousehold income has a missing rate of 11 percent, which is considerably higher than missing rate for other variables cited.

FPL = Federal Poverty Level; GED = General Educational Development; MSA = Metropolitan Statistical Area.

a. SCHIP Sample

The full sample of recent SCHIP enrollees included 5,663 records, regardless of the reported enrollment and disenrollment dates. As shown in Table C.3, the sample fell into nine distinct categories, which were defined by the survey respondents' perception of when, and whether, their children had enrolled in SCHIP, and whether they had since disenrolled. Only the first category, consisting of those who had been enrolled in SCHIP for fewer than 12 months and had not since disenrolled, was included in the access and use analysis. Respondents in the remaining categories could not be included in the analysis because they did not report on the time frame of interest (the 6 months prior to enrolling).⁵

The resulting analytic sample included 3,095 records, or about 55 percent of the overall sample of recent SCHIP enrollees. Not surprisingly, differences between the full sample and the analytic sample of recent enrollees were a bit larger than were those for the sample of established enrollees. However, none of the *differences* was substantial, despite the relatively significant sample loss (see Table C.8). The most notable difference was the age of the recent enrollees, who were more likely to be under age 5 and less likely to be over age 13 in the analytic sample than in the full sample. A child in the analytic sample was also somewhat more likely to be Hispanic or Latino, and less likely to be black.

b. Medicaid Sample

The full sample for the Medicaid analysis of recent enrollees includes 911 records—408 in California and 503 in North Carolina. However, the analytic sample was considerably smaller,

⁵ For example, in the case of children enrolled in SCHIP since birth, parents could not report on the children's experiences prior to SCHIP because the children did not have any. Similarly, children reported to be covered for more than a year (despite being sampled as recent enrollees) were interviewed as established enrollees, and thus information was obtained on those children's most recent 6 months in the program.

TABLE C.8
CHARACTERISTICS OF ALL RECENT ENROLLEES AND RECENT
ENROLLEES USED IN THE ACCESS AND USE ANALYSIS

Variable	All Recent Enrollees	Recent Enrollees Used in Access and Use Analysis
Age of Child		
Age 0-5	27.5	31.2
Age 6-12	46.1	44.3
Age 13 and older	26.4	24.5
Child's Race		
Hispanic/Latino	48.6	51.5
White	29.9	29.5
Black	13.7	11.2
Asian	5.8	5.9
All other	2.0	1.9
Child Has Elevated Health Care Need	23.7	22.5
Child's Overall Health Is Fair or Poor	8.3	8.1
Child Has Asthma	14.8	13.0
Child Has Mental Health Condition	8.0	6.7
Household Structure		
Two parents/both working	28.7	29.4
Two parents/one working	31.0	33.1
Two parents/not working	2.2	2.1
One parent/working	32.7	30.0
One parent/not working	5.4	5.4
Highest Education Level of Parent(s)		
No GED or HS diploma	21.2	21.2
GED or HS diploma	34.6	32.7
Some college or college degree ^a	44.2	46.1
Household Income by FPL Range^b		
<150% FPL	71.4	69.1
150-199%FPL	18.1	20.9
>200%FPL	10.4	10.0
At Least One Parent Foreign Born	44.3	46.3
Main Language Spoken in Household		
Spanish	28.8	30.3
Other	4.3	4.5
Metropolitan Status		
(MSA)	86.1	86.0
Adjacent to MSA	9.2	9.7
Non-MSA/Non-Adjacent	4.7	4.4
Sample Size (Weighted)	183,156	103,060
Sample Size (Unweighted)	5,663	3,095

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

^aIncludes 2-year associate's degree and trade school.

^bHousehold income has a missing rate of 11 percent, which is considerably higher than other variables cited.

FPL = Federal Poverty Level; GED = General Educational Development; MSA = Metropolitan Statistical Area.

with 144 records in California and 188 in North Carolina. These large differences were driven mainly by the sizable share of recent Medicaid enrollees who obtained coverage at birth (roughly one-third of the total sample).⁶ These children could not be used in the analysis because they did not have access experiences prior to enrolling in the program. Differences between the analytic sample and the full sample were larger than the differences seen for the SCHIP samples, which was not surprising, given the small fraction of cases that could be used (Table C.9).

3. Disenrollee Sample

The disenrollee sample was used in a limited way in the access and use analyses to conduct sensitivity analyses. The analytic sample included 3,813 records, or about 72 percent of the full sample of recent disenrollees. The largest excluded group had parents who reported in the survey that their children were disenrolled for more than 12 months. (These respondents were not asked about their children's access and utilization experiences.) Differences between the analytic sample and the full sample were generally modest.

4. Outcome Measures

To analyze the access and use experiences of SCHIP established enrollees, we constructed a set of outcome measures from the survey items. These variables included measures of service use, unmet needs, parental stress and attitudes, the presence of and type of usual source of care, and characteristics of health care provider communication and accessibility. Table C.10 provides a summary of these variables, including any sample restrictions, sample sizes, and notes on the variables' creation. Each of these variables is based on related questions from the sections of the survey on access, use, satisfaction, and unmet need (see Table C.2).

⁶ As described in Appendix B, the Medicaid sample was limited to children in the poverty-expansion and TANF-related eligibility groups in order to make it as comparable as possible to the SCHIP sample.

TABLE C.9

CHARACTERISTICS OF RECENT ENROLLEES IN THE MEDICAID SAMPLE AND RECENT ENROLLEES USED IN THE ACCESS AND USE ANALYSIS OF MEDICAID SAMPLE

Variable	California		North Carolina	
	All Recent Medicaid Enrollees	Recent Medicaid Enrollees Used in Access and Use Analysis	All Recent Medicaid Enrollees	Recent Medicaid Enrollees Used in Access and Use Analysis
Age of Child				
Age 0-5	56.5	45.8	58.6	40.3
Age 6-12	27.9	35.5	23.8	35.3
Age 13 and older	15.6	18.6	17.6	24.3
Child's Race				
Hispanic/Latino	75.7	70.4	14.9	10.0
White	10.2	14.0	45.7	51.0
Black	5.0	6.1	30.8	31.9
Asian	5.5	6.3	1.7	1.2
All other	3.7	3.3	6.9	5.9
Child Has Elevated Health Care Needs				
Child's Overall Health Is Fair or Poor	20.2	17.1	20.0	20.6
Child Has Asthma	12.0	7.5	7.4	6.6
Child Has Mental Health Condition	8.8	12.0	10.4	14.3
	4.5	5.5	7.4	8.4
Household Structure				
Two parents/both working	19.0	18.0	17.2	16.3
Two parents/one working	34.6	31.8	25.2	21.8
Two parents/not working	19.0	18.0	2.6	3.9
One parent/working	25.3	28.8	39.9	44.6
One parent/not working	15.6	17.1	15.1	13.5
Highest Education Level of Parent(s)				
No GED or HS diploma	43.5	32.3	24.6	20.3
GED or HS diploma	30.6	35.7	37.8	39.8
Some college or college degree ^a	25.9	32.0	37.6	39.9
Household Income by FPL Range^b				
<150% FPL	92.6	92.4	77.9	73.7
150-199% FPL	5.0	4.5	11.6	15.0
>200% FPL	2.4	3.1	10.6	11.3
At Least One Parent Foreign Born				
	66.6	60.3	17.9	15.7
Main Language Spoken in Household				
Spanish	55.0	37.2	11.6	8.1
Other	5.2	8.2	1.0	0.6
Metropolitan Status				
(MSA)	96.1	96.1	69.7	69.7
Adjacent to MSA	3.8	3.5	21.8	23.6
Non-MSA/Non-Adjacent	0.1	0.4	8.5	6.7
Sample Size (Weighted)	40,516	13,677	28,862	9,814
Sample Size (Unweighted)	408	144	503	188

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

^aIncludes 2-year associate's degree and trade school.

^bHousehold income has a missing rate of 11 percent, which is considerably higher than other variables cited.

FPL = Federal Poverty Level; GED = General Educational Development; MSA = Metropolitan Statistical Area.

TABLE C.10

SAMPLE DEFINITIONS AND SIZES FOR THE ACCESS AND SERVICE USE MEASURES

Outcome	Variable	Sample Restriction	Notes on Variable Creation	Sample Size ^a
Service Use	Any physician visit	All children	Any visit to a doctor or other health care professional such as a PA, nurse, or midwife. Excludes visits to doctors or health care professionals seen for mental health condition or behavioral problems ^b	5,336
	Any well-child visit	All children	Saw a doctor or health care professional for preventive care, such as a checkup or well-child visit	5,312
	Dental care	Children 3 years and older	Went to a dentist or dental hygienist for a checkup or cleaning	5,059
	Any mental health visit	All children	Saw or talked to a mental health professional, such as a psychiatrist, psychologist, psychiatric nurse, or clinical social worker	5,337
	Any specialist visit	All children	Saw a specialist such as an allergy specialist, ear/nose/throat specialist, or other doctor who takes care of special parts of the body	5,319
	Any specialist or mental health visit	All children	Received a specialist visit, a mental health visit, or both	5,317
	Any hospital visit	All children	Stayed in hospital. Excludes hospital stays related to birth	5,351
	Any ER visit	All children	Visited a hospital ER. Excludes times for hospital admission through ER	5,348
Unmet Need	Doctor/other health professional services	All children	At least one time child did not get, or postponed getting, care from a regular doctor or other health care professional for illness, accident, or injury when respondent thought child needed it	5,324
	Dental care	Children 3 years and older	At least one time child did not get, or postponed getting, dental care when respondent thought child needed it	5,053
	Specialist care	All children	At least one time child did not get, or postponed getting, specialist care when respondent thought child needed it	5,321
	Hospital care	All children	At least one time child did not get, or postponed getting, hospital care when respondent thought child needed it.	5,318

TABLE C.10 (continued)

Outcome	Variable	Sample Restriction	Notes on Variable Creation	Sample Size ^a
	Prescription drugs	All children	At least one time child did not get, or postponed getting, a prescription drug when respondent thought child needed it or at least one time that child took less than recommended dosage of prescription drug or took the drug less frequently so that it would last longer	5,315
	Any of the above services (excluding dental)	All children	Had unmet need for doctor services, specialist care, hospital care, or prescription drugs	5,310
	Any of the above services (including dental)	All children	Had unmet need for doctor services, specialist care, hospital care, prescription drugs, or dental care	5,289
	More than one unmet need	All children	Had unmet need for at least two of the following categories: doctor services, specialist care, hospital care, prescription drugs, or dental care	5,307
Attitudes and Stress	Very confident about ability to meet child's health care needs	All children	Respondent "very confident" child could get health care if child needed it ^c	5,307
	Not stressed about ability to meet child's health care needs	All children	Respondent "a lot" or "somewhat" stressed about meeting child's health care needs ^d	5,289
	Not worried about ability to meet child's health care needs	All children	Respondent "a lot" or "somewhat" worried about meeting child's health care needs ^d	5,299
	Child's health care needs do not cause financial hardship	All children	Respondent reports "a lot" or "somewhat" of the time child's health care needs created financial difficulties ^d	5,303
	Children on SCHIP/Medicaid get better health care than the uninsured	All children	Respondent said statement "Children on SCHIP/Medicaid get better health care than children with no insurance" is either "definitely true or "mostly true." ^e	5,052
	Doctors and nurses look down on SCHIP enrollees	All children	Respondent said statement "Doctors and nurses look down on people who are in (SCHIP/MEDICAID)" is either "definitely true or "mostly true." ^e	5,124

TABLE C.10 (continued)

Outcome	Variable	Sample Restriction	Notes on Variable Creation	Sample Size ^a
Presence and Type of Usual Source of Care	Has a usual source for health care that is not an ER	All children	Usually went to, or would have gone to, a particular doctor's office, clinic, health care center, hospital, or other place if child were sick or needed advice about child's health. Respondents who cited ER as a usual source of care coded as not having a USC	5,370
	Usual source is a private doctor's office or group practice	Child has USC ^f	USC a private doctor's office or group practice	4,926
	Usual source is a clinic or health center	Child has USC ^f	USC a clinic or health center	4,926
	Usually sees same provider at usual source of care	Child has USC ^f	Child usually saw a particular doctor or other health provider at USC	4,899
	Has a usual source for dental care	Children 3 years and older	Usually went to, or would have gone to, a particular dentist's office or clinic if child needed to see a dentist or dental hygienist for checkup, cleaning, or other dental procedure	5,046
Provider Communication and Accessibility	Would recommend usual source to others	Child has USC ^f	Respondent reported "yes."	
	Could reach provider after hours	Child has USC ^f	If USC (above) closed and child got sick, respondent could reach and talk to a doctor or other health care professional from USC about the child's condition	4,619
	Provider explained things in understandable ways	Child has USC and received care ^g	Respondent reported that doctors or other health care providers "always" or "usually" explained things in understandable way ^h	3,827
	Provider treated with courtesy and respect	Child has USC and received care ^g	Respondent reported that doctors or other health care providers "always" or "usually" treated respondent and child with courtesy and respect. ^h	3,826
	Provider asked about how child was feeling and growing	Child has USC and received care ^g	Respondent reported doctors or other health care providers "always" or "usually" talked about how child was feeling, growing, and behaving. ^h	3,825

TABLE C.10 (continued)

Outcome	Variable	Sample Restriction	Notes on Variable Creation	Sample Size ^a
	Rated ease of getting care as very good or excellent	Child has USC and received care ^g	Respondent rated ease of getting medical care when child was sick or had an accident as “excellent or “very good.” ⁱ	3,795
	Waiting time was less than 30 minutes for appointments	Child has USC and received care ^g	If arrived on time for appointment, usually had to wait less than 30 minutes for medical care	4,995
	Travel time was less than 30 minutes	Child has USC ^j	Usually took less than 30 minutes to travel to usual source of care	5,011

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

Notes: The reference period is the 6 months prior to the interview. Sample sizes vary due to sample restrictions and missing data.

^aSample sizes reflect the records for established enrollees only. They varied both because of listed restrictions on the sample and valid responses to individual survey questions.

^bAll variables refer to the prior 6 months.

^cOther choices were “somewhat confident,” “not very confident,” and “not at all confident.”

^dOther choices were “a little” and “not at all.”

^eOther choices were “definitely false” and “mostly false.”

^fIncludes those who reported ER as their USC.

^gExcludes those who reported ER on their use, regardless of whether they received care.

^hOther choices were “sometimes” and “never.”

ⁱOther choices were “good,” “fair,” and “poor.”

^jExcludes those who reported ER as their USC.

ER = emergency room; PA = physician’s assistant; USC = usual source of care.

D. ANALYSIS OF DISENROLLEE EXPERIENCES

This section discusses the study methodology used for the analysis of SCHIP disenrollees, which is presented in Chapters I and V of the report. We begin by describing the samples used to conduct the analysis. We then discuss the methods used to analyze the experiences of SCHIP disenrollees, focusing in particular on how we measured disenrollees' insurance coverage after leaving the program.

1. Disenrollee Sample

Similar to the other sample domains for the study, the disenrollee sample was designed so that it could be generalized to all children identified on the 10 state files as having recently disenrolled from SCHIP at the time of sampling (spring 2002).⁷ For some disenrollees in this sample, we expected the disenrollment experiences reported in the survey to differ markedly from what was shown on the state files, and that, as a result, we would have to be flexible in conducting the interview. For example, we anticipated that some disenrollees might report still remaining in SCHIP (for a long period) because they had transitioned “seamlessly” to Medicaid and had not observed the transfer, or because they had experienced only a short gap in SCHIP coverage that went unnoticed (during which we had sampled them as recent disenrollees). In order to collect useful information for these cases, the sampled children (if reporting enrollments of 6 months or more) were interviewed as established enrollees, rather than as disenrollees. As discussed below, this approach added complexity to the construction of key outcomes; however,

⁷ A sample of Medicaid disenrollees in two states, California and North Carolina, was also surveyed for this study. However, due to a combination of low response rates for the sampled disenrollees and the sampled disenrollees' very low rates of recognition that they had actually been disenrolled (particularly in California), we did not present analyses of the Medicaid disenrollee sample in the survey report.

it also yielded the most credible estimates possible, given the confusion of some families about whether they had left the program.

The overall sample for the disenrollee analysis included 5,320 records. These observations fell into five groups that were defined by the survey respondents' perception of when, and whether, their children had disenrolled from SCHIP. These groups are important because they determined the type of survey information that we collected on a given disenrollee. The following list summarizes the five groups and the specific outcomes that were analyzed for each one:

1. ***Disenrolled for Fewer than 12 Months (N = 2,051).*** These sample members provided disenrollment dates that were similar to the ones indicated on the state enrollment files, thus increasing the reliability of their reported disenrollment information. We therefore asked these sample members a full series of questions about their disenrollment experiences, including their reasons for exit, the type of coverage that they obtained after leaving SCHIP, and their reasons for being uninsured after exit (if applicable).
2. ***Enrolled for 6 or More Months (N = 1,762).*** Since the respondents in this group did not perceive their children as having recently disenrolled (in fact, many reported never having disenrolled), we interviewed them as if the children were established enrollees. We therefore collected a full range of information on their demographic characteristics and their program experiences, but we did not collect information about their recent disenrollment experiences.
3. ***Disenrolled for More than 12 Months, Recontacted (N = 563).*** We initially considered data from these respondents to be unreliable because the states' reported disenrollment dates significantly preceded the ones on the enrollment files. As a result, we limited the data collection to basic information on the children's health and demographic characteristics, and on the characteristics of the household. Given the sheer number of disenrollees of this type, we decided to recontact them, and to ask a series of additional questions. Key additional questions asked about reasons for leaving SCHIP, the type of coverage that the respondents obtained after exit, and their household income.
4. ***Disenrolled for 12 Months or More, not Recontacted (N = 630).*** This group included disenrollees similar to ones in the third group, except that we were unable to reach them for a follow-up interview. The available data for this group were therefore limited to basic information on the children's health and demographic characteristics, and on the characteristics of the household.

5. *Unable to Provide Disenrollment Information (N = 314)*. This group included disenrollees who failed to indicate when, or whether, they exited SCHIP. As a result, interview questions were limited to basic information on the children's health and demographic characteristics, and on the characteristics of the household.

Our analysis sample included the first three groups, resulting in a sample size of 4,321 records, or about 80 percent of the overall disenrollee sample.⁸ The last two groups were excluded from the analysis of disenrollee experiences because we lacked sufficient information to construct measures of their experiences either from the survey data or through imputation. Observed differences between the full sample and the analytic sample were generally modest (see Table C.11). Nevertheless, a nonresponse adjustment was applied to the analytic sample in order to reflect the experiences of *all* sample members reported to be disenrolled for more than 12 months (including those in the fourth category), rather than the experiences of only those who could be recontacted.⁹

2. Outcome Measures

The most important measure in the analysis of disenrollees' experiences was the type of insurance coverage after leaving SCHIP. The two other key measures we examined were the reported reason for leaving SCHIP and the reason for being uninsured after leaving (if

⁸A total of 55 sample members who were successfully recontacted were also dropped from the analysis because their self-reported exit dates were very different from the dates in the state files (by 24 months or more). As a result, the analytic samples were slightly smaller than the combined samples in the first three categories shown.

⁹ Based on data from the families who could be recontacted, many children reported to be disenrolled more than 12 months had switched to other coverage, and it appears that the families reported the exit dates of these children from SCHIP as the date of this switch, rather than the date that the state terminated the children's SCHIP coverage. Simply dropping from the analysis families who could not be recontacted would have therefore biased downward estimates of coverage after families left SCHIP (particularly private coverage) and would have biased upward estimates of uninsurance among SCHIP disenrollees. To address this potential source of bias, we applied a nonresponse adjustment that scaled up the sample weight for the disenrollees who could be recontacted to reflect the full population of disenrollees who reported exits more than 12 months prior to the dates recorded by the states. The adjustment was further refined to account for differences in demographic characteristics between families who could and who could not be recontacted.

TABLE C.11

CHARACTERISTICS OF THE FULL SAMPLE OF SCHIP DISENROLLEES AND THE SAMPLE USED
IN THE ANALYSIS OF SCHIP DISENROLLEE EXPERIENCES

Variable	Full Sample	Sample Used in Analysis of SCHIP Disenrollee Experiences
Age of Child		
0-5	20.4	18.1
6-12	44.1	41.6
13 and older	35.6	40.3
Child's Race		
Hispanic/Latino	44.1	47.9
White	15.4	13.6
Black	33.7	30.9
Asian	2.0	2.1
All other	4.8	5.5
Child's Overall Health Is Fair or Poor	10.2	10.3
Child Has Asthma	15.4	15.0
Child Has Mental Health Condition	6.8	5.7
Household Structure		
Two parents/both working	27.0	27.0
Two parents/one working	28.3	28.2
Two parents/not working	3.1	3.1
One parent/working	33.8	33.8
One parent/not working	7.9	8.0
Highest Education Level of Parent(s)		
No GED or HS diploma	22.6	25.3
GED or HS diploma	35.7	37.3
Some college or college degree ^a	41.7	37.4
Household income by FPL range ^b		
<150% FPL	63.3	64.2
150-199% FPL	15.3	15.6
>200% FPL	12.7	11.7
At Least One Parent Foreign Born	35.9	37.4
Main Language Spoken in Household		
Spanish	24.0	24.0
Other	3.1	3.9
Metropolitan Status		
(MSA)	83.2	84.2
Adjacent to MSA	10.4	9.2
Non-MSA/Non-Adjacent	6.5	6.6
Sample (weighted)	58,403	51,543
Sample (unweighted)	5,320	4,321

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

^aIncludes 2-year associate's degree and trade school.

^bHousehold income has a missing rate of 11 percent, which is considerably higher than other variables cited.

MSA = Metropolitan Service Area; NA = not available.

applicable). Development of these measures, particularly the measure of insurance coverage, was complex and required several steps.

3. Insurance Coverage

Our measure of insurance coverage for two groups of disenrollees—those who had exited within the past 12 months (N = 2,051) and those who had exited more than 12 months ago and were recontacted (N = 563)—was obtained directly from questions on the survey. The specific steps we took were as follows:

Based on responses to Questions 2.60 and 2.63, we determined how many months the disenrollee had been uninsured after leaving SCHIP. Each of these months was coded as uninsured. If the disenrollee reported being uninsured for the “whole period” since leaving SCHIP, all months between disenrollment and the interview date (up to month 6) were coded as uninsured.¹⁰

1. Based on responses to Questions 2.64 and 2.64.1, we then determined how many months the disenrollee had been insured after exit (or after the spell of uninsurance, if reported above). Each of these months was then coded as insured. If the disenrollee reported being insured for the whole period, all months between disenrollment (or the end of uninsurance spell) and the interview were coded as insured.¹¹

¹⁰For disenrollees interviewed within 6 months after leaving SCHIP, all months after the interview month (through month 6) were coded as missing. To understand how the loss of these cases might have biased our coverage estimates in later months, we compared the coverage of these disenrollees in the first month after leaving SCHIP with the coverage of those who reported on the full 6-month period (because they were interviewed 6 or more months after leaving the program). The distributions were very similar, suggesting that our estimates of insurance coverage among disenrollees 6 months after leaving SCHIP were biased little by the loss of sample.

¹¹As noted above, all remaining months for disenrollees interviewed less than 6 months after they had left SCHIP were coded as missing, as the disenrollees’ insurance statuses for the remaining months were unknown. For the rare case interviewed after 6 months but providing less than 6 months of coverage information (the combination of the uninsured period and insured period), we coded the remaining months as other/unknown coverage. For the similarly rare case that reported SCHIP coverage without reporting any uninsurance spell in between, we coded the first month after exit as other/unknown coverage.

2. For the months coded as insured, the type of insurance was coded based on responses to Questions 2.65a through 2.65hw. For disenrollees reported to have more than one type of coverage, we chose the first reported type of coverage as given by Question 2.66.

After completing these three steps, the types of coverages were then collapsed into four categories: (1) SCHIP coverage;¹² (2) Medicaid coverage, including Medicaid health maintenance organizations (HMOs); (3) private coverage, which included coverage from a current or past employer/union and coverage from direct purchase of insurance; and (4) other/unknown coverage, which included Medicare, military coverage of any kind, coverage through the Indian Health Service, and any other type of coverage that could not be coded. Fewer than five percent of disenrollees in each state fell into the latter category.¹³

Because those who reported being covered by SCHIP for 6 or more months (N = 1,762) did not appear to recognize that they had been disenrolled from the program, the survey did not collect information about their coverage after exit. For most of these cases, the state files indicated either new spells of SCHIP coverage or Medicaid coverage in the first few months after disenrollment.¹⁴ This information suggests that most of the respondents did not recognize their exit either (1) because they experienced a short gap in SCHIP coverage that apparently

¹²SCHIP coverage was indicated most often by a response that the child was currently enrolled in SCHIP (Question 2.2). For these cases, the insurance questions—and the steps taken above to determine coverage—applied only to the intervening period between the reported SCHIP exit and the reported reentry. All months after the reentry were coded as SCHIP coverage. For disenrollees who were not reported to be in SCHIP, SCHIP coverage could also have been indicated by a “yes” response to Question 2.65.g (“Was [child] covered by SCHIP [during the time s/he had coverage]?”).

¹³Only about three percent of disenrollees were reported to have more than one of the four types of coverage. The decision to assign coverage based on the first type reported thus had little effect on overall coverage estimates.

¹⁴Specifically, in the seven states in which both Medicaid and SCHIP enrollment data were available, 59 percent of these disenrollees transitioned to Medicaid with no break in coverage, and an additional 29 percent reentered SCHIP or transitioned to Medicaid within 6 months of leaving SCHIP. Both percentages were several times the rate found for other categories of disenrollees. This finding suggests that simply dropping these cases from the analysis would have led to very substantial underestimates of the extent of public coverage among SCHIP disenrollees, and to very substantial overestimates of the extent of uninsurance.

went unnoticed, or (2) because they experienced a “seamless” transition to the Medicaid program that likewise appears to have been unrecognized. To retain these cases in the analysis, we drew on the state SCHIP and Medicaid files and followed a four-step coverage imputation procedure:

1. Using the state SCHIP files, we looked at the 6 months after a child’s exit and identified each month that the child was shown to be covered. These months were then coded as SCHIP coverage as if the respondent had self-reported them.
2. For the seven states for which we had Medicaid enrollment data (California, Florida, Illinois, Louisiana, Missouri, New Jersey, and North Carolina), we looked at the 6 months after the child’s exit and identified each month that the child was shown to be covered by Medicaid. If these months had not been previously imputed as SCHIP in Step 1, they were coded as Medicaid as if the respondent had self-reported them.¹⁵
3. For the three states for which we did not have Medicaid enrollment data (Colorado, New York, and Texas), we imputed Medicaid coverage after disenrollment, using the sample of disenrollees from three “donor states” that also had separate SCHIP programs (California, Florida, and North Carolina). The imputation was carried out as follows:
 - We separated the disenrollees in the three donor states into groups based on their observed SCHIP coverage during the 6 months after exit.
 - Within each of these groups, we identified all of the possible scenarios of Medicaid coverage and calculated the frequency of each in the donor states.¹⁶ Each scenario was given a probability, p_s , equal to this frequency.
 - For each case subject to imputation, we determined the group to which it belonged based on the observed SCHIP coverage during the 6 months after exit. We then imputed the string of Medicaid coverage by selecting one of the possible scenarios identified in the previous step. The particular scenario chosen was based on the probability, p_s , assigned to it in relation to a random number between 0 and 1.

¹⁵ Overlap between SCHIP and Medicaid coverage during these months was trivial, and the decision to give SCHIP priority over Medicaid (rather than the reverse) had only a miniscule effect on the overall distribution of coverage.

¹⁶ For example, consider the group of disenrollees who showed no SCHIP coverage in the first 2 months after exit and then continual coverage from months 3 through 6. Within this group, four possible scenarios of Medicaid coverage were possible: (1) Medicaid coverage in both of the first 2 months, (2) Medicaid coverage in the first month but not the second, (3) Medicaid coverage in the second month but not the first, and (4) Medicaid coverage in neither month. Not surprisingly, the latter scenario was by far the most common for this group.

4. Any months that were not assigned SCHIP or Medicaid coverage based on the state files were imputed a value of either uninsured or private coverage. The imputation was performed as follows:¹⁷
 - If the disenrollee showed any SCHIP or Medicaid coverage during the 6-month period, the undetermined months between exit and coverage (if any) were coded as uninsured. This coding was based on the assumption that very few disenrollees who cycled off and back on public coverage in a short period would have obtained coverage in the intervening months.
 - All other undetermined months were imputed through regression. Using the subsample with valid self-reported data (category 1), we first constructed a dummy variable that equaled 1 if the disenrollee was privately insured in a given month t , and 0 if uninsured in month t . This dummy variable was then regressed on a series of covariates measuring key child and family demographics. Based on the coefficients from this model, we then generated the predicted probability of having private insurance in each undetermined month. This predicted value was then compared with a random digit generated between zero and one. If the predicted value was above the random digit, we coded the month as privately insured; it was below the random digit, we coded the month as uninsured.

For some cases, this imputation procedure was likely to assign a coverage type that was different from what would have been reported by the respondent in the survey (had it been possible to collect this information). However, in the aggregate, we expected this procedure to yield a distribution that would be consistent with self-reported data from the survey. To investigate the degree of consistency, we studied the sample of disenrollees in the first group (those who left SCHIP within the last 12 months), whom we expected to report reliably on coverage type after exit. We compared the coverage reported in the survey for this group with the coverage derived from imputation.

Results, shown in Table C.12, indicate similar distributions of coverage for this group of disenrollees whether based on the reported coverage or on the imputation procedure. For example, the percentage of disenrollees who were uninsured 6 months after exit was 56 percent

¹⁷ Fewer than four percent of the disenrollee sample was subject to this imputation, so that it had only a small effect on the reported distribution of coverage after program exit.

TABLE C.12

SENSITIVITY TO DATA SOURCE OF COVERAGE ESTIMATES
AMONG RECENT DISENROLLEES

Type of Estimate		Total		Uninsured		Medicaid		SCHIP		Private	
Survey Self-Report		12,894	(100)	6,715	(52)	3,584	(28)	451	(3)	2,144	(17)
Imputation Procedure	Uninsured	6,982	(54)	4,175		1,478		200		1,129	
	Medicaid	3,080	(24)	1271		1,478		83		248	
	SCHIP	6,77	(5)	296		94		168		119	
	Private	2,155	(17)	973		534		0		648	

Source: 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states linked with state SCHIP and Medicaid enrollment files.

Note: Numbers in parentheses are percentages. Estimates are based on the weighted sample of disenrollees who reported being disenrolled for 12 months or less from SCHIP. (The unweighted sample size is 2,011 disenrollees.) See text for details on how these estimates were calculated with the survey data and with the imputation.

based on the survey self-reports, and 58 percent based on the imputation. This consistency provided confidence that the imputation produced accurate overall estimates for the second group of disenrollees (who did not report their coverage because they believed they remained enrolled), leading to far more credible estimates than if we had simply dropped these cases.¹⁸

4. Reasons for Exit and Uninsurance

Our measures of reasons for disenrolling and for being uninsured after disenrolling are based on Questions 2.26 and 2.63, respectively. Responses to these questions were open-ended; they were coded into a long list of categories by the interviewers. If response did not fit any of the categories, the interviewers placed them in an “other specify” category and recorded them verbatim. Responses in this category were reviewed by the study team; most were then “backcoded” into existing categories. Subsequently, the response categories were reduced to a smaller number.

“Reasons for leaving SCHIP” were grouped into six categories.¹⁹ Disenrollees were considered more likely to remain eligible for SCHIP if their reasons fell into one of the following three categories:

1. ***Failure to pay premium***, which included the original categories of “could not afford premium” and “forgot to pay premium”
2. ***Failure to reapply***, which included the original categories “did not reapply” and “too much paperwork”

¹⁸As noted above, in the seven states for which we had both Medicaid and SCHIP data, 59 percent of these disenrollees transitioned to Medicaid with no break in coverage, and an additional 29 percent had reentered SCHIP or had transitioned to Medicaid within 6 months. Both percentages were several times the rate found for other categories of disenrollees. This finding suggests that simply dropping these cases from the analysis would have severely underestimated the extent of public health insurance among SCHIP disenrollees, and would have overestimated the share without insurance.

¹⁹Families who reported being enrolled for more than 6 months were assigned an additional classification of “family did not know they had exited.”

3. ***Other reasons***, which included such responses as “did not like doctors/clinic/staff where care provided,” “did not like the quality of care,” and “child does not get sick.” Also included a small number of miscellaneous reasons

Disenrollees whose reasons fell into one of the following three groups were not likely to be eligible for SCHIP:

1. ***Child is too old***, which reflected a single category
2. ***Eligible for other coverage***, which included the original categories of “child obtained Medicaid coverage” and “child obtained other insurance”
3. ***Change in income or employment***, which reflected a single category (“financial situation changed/not qualified”)

The categories for “reasons for being uninsured” were also collapsed into six groups. Those who reasons fell into any of the following three groups were again considered possibly eligible for SCHIP:

1. ***Failure to pay premium***, which included the original categories of “forgot to pay premium” and “cannot afford premium”
2. ***Lack of access to affordable private coverage***, which included the original categories of “parent(s) lost/changed job,” “employer did not offer insurance,” “employer stopped offering insurance,” “parents got divorced/death of spouse,” “benefits from former employer ran out,” “no one in family employed,” and “insurance costs too high”
3. ***Failure to reapply***, which reflected a single category

The following three groups were considered not likely to be eligible for SCHIP:

1. ***Child is too old***, which reflected a single category
2. ***Eligible for other coverage***, which reflected a single category
3. ***Other reasons***, which included “did not like health insurance employer offers” and “needed to be uninsured to be eligible.” Also included a few miscellaneous responses

E. ANALYSIS OF COVERAGE PRIOR TO ENROLLMENT, PARENTAL INSURANCE STATUS, AND SUBSTITUTION

This section discusses the methodology used for the analyses of the relationships among SCHIP, private coverage, and uninsured periods among recent and established enrollees, which are presented in Chapters I and VI of the main report. Methods were identical for estimates of substitution among established Medicaid enrollees presented in Chapter VIII, except where noted. Sample sizes given in the text were based on the analyses of SCHIP enrollees. We begin this section by describing the analytic samples and the cases excluded from the analysis of prior insurance coverage among recent enrollees. We then describe the methodology used to assign prior coverage to the recent-enrollee analytic sample. In the third section, we describe the methodology used to classify reasons reported by parents for ending private coverage, and for enrolling their children in SCHIP. Finally, we describe the sample used for the analysis of substitution among established enrollees, and the methods used to classify children based on their parents' coverage.

1. Analytic Sample of Recent SCHIP Enrollees

Our analysis focused on the entire sample of recent enrollees so that we could generalize estimates to all children in the 10 states who had recently enrolled in SCHIP at the time of sampling (spring 2002). As with the other analyses, we expected that this focus would present some challenges for the analysis because the enrollment dates for some children reported in the survey would differ from the dates in the state files. For example, some parents of enrollees might not have accurately reported their dates of SCHIP enrollment because they had failed to recognize that their children had transitioned “seamlessly” into SCHIP from Medicaid. Asking these parents about their children’s experiences “prior to enrollment” would have yielded questionable information. As discussed below, to retain these and other cases in our analysis of

substitution, we used a series of logical edits and imputations that enabled us to arrive at credible estimates of prior coverage for our sample of recent enrollees.

The overall sample for the recent-enrollee analysis included 5,663 records. Based on the nine categories in Table C.3, we grouped the sample into five distinct categories that were defined by the survey respondents' perceptions of when, and whether, their children had enrolled in SCHIP. The following list summarizes these categories and the information obtained related to prior coverage:

1. ***Enrolled for Fewer than 12 Months (N = 3,397)***. These sample members provided enrollment dates similar to the ones indicated on the enrollment files, thus increasing the reliability of their reported enrollment information. We therefore asked them a full series of questions about their enrollment experiences, including the type of coverage held “in the 6 months prior to enrolling,” the length of time coverage was held, the main reason for ending this coverage (if insured), and the main reason for being uninsured (if uninsured), as well as questions about their access to care and use of services during the same 6-month time frame.
2. ***Enrolled for More than 12 Months (N = 1,761)***. Since the respondents in this group did not perceive their children as having recently enrolled, we interviewed them as if each one's child were an established enrollee in the program. We therefore collected a full range of information on their demographic characteristics and their program experiences “in the past 6 months” (prior to interview). We asked about their coverage experience prior to enrolling only if the children were uninsured just prior to enrollment. If they were uninsured, we also asked about the duration of their uninsurance and the main reason for the uninsured. As described in more detail below, we used data from state files to determine public coverage patterns experienced by these children and then used imputation to fill in any gaps.
3. ***Disenrolled for 6 or More Months (N = 157)***. Either these sample members had disenrolled between sampling and fielding of the survey or their parents believed that they had disenrolled. We did not ask any questions about their coverage prior to enrolling, because the period referenced would have been too distant, and the reports would not be sufficiently salient from the respondents' perspective to be reliable.
4. ***Born on SCHIP (N = 201)***. When asked about coverage prior to enrollment, parents were provided the option to report that SCHIP had covered their children since birth. In this case, respondents were skipped out of further questions about prior coverage. The validity of these self-reports was checked against state files, and children deemed to have been born on Medicaid were edited to reflect that determination (see Section 2.d below). After our validity check, only 38 of the 201 cases were deemed born on SCHIP.

5. ***Unable to Provide Enrollment Information (N = 144).*** These sample members included recent enrollees whose parents were unable to report when, or whether, the children had been enrolled in SCHIP. As a result, the parents could not respond to further questions about insurance coverage, and interview questions were limited to basic information on the children’s health and demographic characteristics, and on the characteristics of the household.

The main analytic sample consisted of all sample members in the first two categories (N = 3,397 + 1,761 = 5,158), as well as those who had been born on SCHIP (N = 201). It includes 5,359 records, or about 95 percent of the full recent-enrollee sample.

2. Prior Coverage Among Recent Enrollees

a. Recent Enrollees Reported in SCHIP Fewer than 12 Months

For sample members who reported being enrolled in SCHIP for fewer than 12 months (the first category in the list), estimates of prior coverage were taken directly from the survey data. We constructed variables characterizing children’s coverage in the month just prior to enrolling, and another set characterizing their coverage during the 6 months prior to enrolling.

Only 6.1 percent of the unweighted sample reported two or three types of coverage “just before enrolling.” We imposed a hierarchy on types of coverage to assign cases to a single type, for reporting purposes. Because our primary concern was children’s access to employer coverage, we assigned a child to employer coverage if any employer coverage was reported; otherwise, we assigned the child to non-group private, Medicaid, SCHIP, and other public coverage, in that order. We collapsed types of coverage into four categories: (1) SCHIP coverage; (2) Medicaid coverage, including Medicaid HMOs; (3) private coverage, which included coverage from a current or past employer/union and coverage from direct purchase of insurance; and (4) other public, which included Medicare, military coverage, and coverage through the Indian Health Service. Combining information, we characterized children’s

coverage in the month just prior to enrolling as (1) uninsured, (2) private, (3) Medicaid, (4) other public, and (5) born on SCHIP.

We also characterized children's coverage during the 6 months prior to enrolling as (1) uninsured all 6 months, (2) private with no gap just before enrolling in SCHIP, (3) public with no gap, (4) private with gap, (5) public with gap, and (6) born on SCHIP. We did not seek to characterize the length of uninsured "gaps" but reported them as such only if the gap was less than 6 months and had occurred just prior to enrolling. In characterizing prior coverage, we incorporated only gaps in coverage that occurred immediately before joining SCHIP, even if coverage for all 6 months was not reported. In other words, if a parent reported his or her child as having Medicaid just prior to enrolling in SCHIP, with no intervening gap, but reported being covered by Medicaid for only 3 months, we categorized the coverage as "Medicaid with no gap." We used information on short gaps in coverage in Chapter I to characterize prior coverage, as well as in the impacts analysis to construct control variables.

b. Recent Enrollees Reported on SCHIP for 12 or More Months

For the sizable fraction of recent enrollees who reported coverage of more than 12 months (the second category), we did not ask any questions about the type of coverage prior to enrollment, as those data were expected to be unreliable. In order to retain this sample in the analysis, we determined the sample members' insurance status based on data in the state enrollment files for SCHIP and Medicaid.

To assign coverage during the 6 months prior to SCHIP enrollment, we first compared the SCHIP enrollment month reported by the respondent with the enrollment month from the SCHIP enrollment file. Some respondents with long stays who were interviewed late in the survey fielding period reported lengths of coverage on SCHIP that were consistent. However, we

expected some inconsistency between sources due to recall error. In the analytic phase, we therefore divided this group into two categories based on how much earlier the reported enrollment month was from the enrollment month in the state file:

1. ***Reported Enrollment Month Less than 6 Months Earlier than the Enrollment Month in State Files.*** Almost one-third (32 percent) of recent enrollees reporting enrollment in SCHIP for 12 or more months fell into this category. We assumed that a discrepancy in dates of enrollment up to and including 6 months was due to recall error. We did not consider these discrepancies to be problematic because respondents still were referring to a time period prior to enrollment that overlapped with the time period about which we were asking in the survey.
2. ***Reported Enrollment Month More than 6 Months Earlier than the Enrollment Month in State Files.*** Slightly more than two-thirds (68 percent) of recent enrollees reporting enrollment in SCHIP for 12 or more months fell into this category. This group presented an analytic challenge, because respondents were referring to a time period predating the 6-month period prior to their current SCHIP enrollment spells, and they may have been reporting a coverage experience from a prior coverage spell, possibly in Medicaid.

To estimate prior coverage for these two groups, we adopted two separate imputation procedures. For the first group, which had self-reported data with few discrepancies, we relied on survey data to estimate prior coverage. For the second group, whose self-reported data were less likely to be credible, we relied on information from the administrative data files.

For the first group, we used the following procedure:

1. We used the 6-month period prior to the self-reported enrollment date as the reference period to search the state administrative files.
2. From the state administrative file, we determined the number of months the child was enrolled in Medicaid during the self-reported reference period. However, we used survey data to determine whether the transition from Medicaid to SCHIP was accompanied by a gap with no coverage at all.²⁰

²⁰Because our sampling frame required a recent enrollee to show no enrollment in SCHIP for 1 month followed by up to 2 months of enrollment, evidence of enrollment in SCHIP prior to the current episode included at least a short period of noncoverage.

3. If the respondent reported being insured immediately before enrollment, we coded the child as being covered by Medicaid if we found administrative evidence of enrollment in Medicaid in the state files during the self-reported period. Otherwise, we coded children who were covered immediately before enrollment as having been covered by private insurance for all 6 months.
4. If the respondent reported an uninsured period of less than 6 months immediately before enrollment, we coded the child as moving from Medicaid to that uninsured period and then to SCHIP if we found evidence of enrollment in Medicaid. Otherwise, we coded the child as moving from private coverage to uninsured before enrolling in SCHIP.
5. If the respondent reported an uninsured period of 6 months or more immediately before enrollment, we coded the child as uninsured for all 6 months prior to enrollment unless we found evidence of Medicaid enrollment. In that case, we coded the child as moving uninsured to Medicaid and then directly to SCHIP. Our reasoning was that the parent may not have recognized a short spell on Medicaid prior to having been moved to SCHIP, but was otherwise uninsured prior to public coverage.

For the second group, which reported enrollment dates occurring more than 6 months earlier than the dates in the state files, we used the following procedure:

1. We used the 6-month period prior to the administrative enrollment date as the period of reference to search the state file.
2. Self-reported information on insurance status was overridden entirely if Medicaid or SCHIP data were found in this period, under the assumption that respondents were referring to reference periods outside our 6-month period, so that their self-reports were less credible.
3. We examined the number of months the child was enrolled in Medicaid during the 6-month period prior to the month of enrollment, and whether there was a gap in enrollment in the month prior to SCHIP enrollment. This information was used to code the child as either being covered by Medicaid all 6 months or having a period of being uninsured between Medicaid and SCHIP. If we found enrollment data in either both the Medicaid and SCHIP files or the Medicaid file alone, we coded the child as transitioning from Medicaid to SCHIP. If only SCHIP data were found, we coded the child as having a prior SCHIP episode.
4. If we found no evidence of Medicaid enrollment in the 6-month period prior to the administrative month of enrollment, we relied on reports of uninsured periods to assign enrollees to private coverage or uninsured status. If the respondent reported some coverage, but no evidence of public coverage was found in the state files, we coded the child as having private coverage for the 6 months before enrollment. If the respondent reported an uninsured spell of 6 months or more prior to enrollment, and

there was no evidence of Medicaid enrollment, we coded the child as being uninsured for all 6 months.

c. Recent Enrollees Reported on SCHIP at Birth

We examined the enrollment records for the 201 recent enrollees who were born on SCHIP and found evidence of Medicaid coverage prior to their SCHIP enrollment dates for 148 of the 201. We therefore assigned insurance coverage for these children as a seamless transition from Medicaid. Children over the age of 5 and therefore born prior to implementation of SCHIP in January 1998, with no evidence of Medicaid or SCHIP enrollment at birth, were coded as missing prior coverage data (N = 15). The remaining 38 cases were coded as “born on SCHIP.”

d. States Not Providing Medicaid Data

Colorado, New York, and Texas provided no Medicaid enrollment data from their administrative files. We could therefore use only state SCHIP files to determine the types of coverage for children in those states. In the case of children reported as being insured prior to enrolling in SCHIP but who, according to the state files, did not have SCHIP, we could not turn to Medicaid files to determine whether the coverage was public or private. Instead, we imputed coverage status, using a regression model based on the coverage experience of two other types of recent enrollees: (1) those with complete information covered by SCHIP for more than 12 months in states with Medicaid data, and (2) recent enrollees with complete insurance information in the three states with no Medicaid data. We refer to those cases as “donor cases.”

We used regression imputation to predict private or public coverage among those with coverage prior to SCHIP enrollment. The dependent variable was set to 1 if the donor case held any form of private coverage during the 6 months prior to SCHIP enrollment, and to 0 if the donor held only public coverage (Medicaid, SCHIP, or other public). We estimated a logistic regression because of the binary nature of the dependent variable. The model explained

insurance status based on parents' work status, family structure, family income, the respondent's age and health status, the child's race/ethnicity, state of residence, and reported length of time on SCHIP. The specification for the regression achieved a high percentage of correctly predicted donor cases. We used this model for children whose prior insurance status was "insured" to assign the children a predicted probability of private coverage. Cases with a high predicted probability of private coverage were assigned private coverage.

Based on the protocol to determine prior insurance coverage within the universe of 5,359 recent enrollees, we could not assign prior coverage to 350 cases and therefore had to drop the cases from the analytic sample. This group included 38 cases coded as born on SCHIP, 258 covered by SCHIP during the 6 months before the current enrollment, and 54 missing sufficient insurance status information to classify. The analytic sample used to estimate substitution at the time of enrollment included 5,009 observations. The sample used to describe prior coverage status in Chapter I excluded those born on SCHIP ($N = 38$) and those with missing insurance data ($N = 54$) but included those with prior SCHIP spells ($N = 258$), for an analytic sample of 5,267.

3. Reasons for Ending Private Coverage and Enrolling in SCHIP

We analyzed reasons for ending prior coverage and enrolling in SCHIP for those with private coverage during the 6 months prior to enrollment ($N = 1,349$). The reasons were used to determine whether private coverage ended voluntarily or involuntarily, and to produce estimates of substitution at the time of enrollment. The estimates are presented in Chapter VI of the report. This section describes how we assigned reasons for transitions from private insurance in the 6 months prior to enrollment in SCHIP among recent enrollees.

Parents of recent enrollees provided information through one of three survey questions on why private coverage ended. Parents who reported their children as being privately insured just

before enrolling were asked a question about why that private coverage had ended. Alternatively, parents who reported their children were uninsured at some point in the 6 months prior to enrolling were asked why their children were uninsured during that time. Many of the responses to that question related to private coverage that had ended. Finally, all respondents were asked why they had enrolled their children in SCHIP. All three questions used similar response categories, and we applied the same coding protocols to any open-ended verbatim responses that parents provided. This technique enabled us to combine responses from all three questions about why private coverage had ended.

For parents who were asked more than one of the questions, we used the responses about why private coverage had ended to assess the parents' ability to have retained private coverage for their children. For those who were asked the question but did not provide a reason, we substituted the reason why the children were uninsured (N = 28). About 18 percent of cases with prior private coverage were not asked why the coverage ended or did not respond to the question about why their children were uninsured (N = 246). This set of cases included primarily recent enrollees who were interviewed as established enrollees. We determined that the children had prior private coverage through our examination of administrative data, logical editing, and imputation. For these cases, we used the response to the survey question on why the parent had enrolled his or her child in SCHIP to assess why private coverage had ended. Only one case was missing responses to all the questions about reasons. Table VI.2, in Chapter VI, displays the full set of response categories, and how they were subsequently classified to determine substitution at the time of enrollment.

4. Measures of Parental Coverage Among Established SCHIP Enrollees

Information on parents' coverage and potential substitution estimates presented in Chapter VI are based on the established SCHIP enrollee sample. Of the 5,797 records, we excluded from

our analytic sample any enrollees who did not provide this information. Among the excluded sample were enrollees who were reported as disenrolled by the time of interview (N = 838), enrollees who could not report enrollment dates for SCHIP (N = 174), and those missing parents' insurance data (N = 80). The analytic sample included 4,705 records, or about 81 percent of the established enrollee sample. Observed characteristics of the analytic sample (for example, income, race, and health status) and those of the full sample were similar.²¹

Parents' coverage information (presented in Table VI.3 of the report) was constructed to reflect the proportion of children living with parents who had certain types of coverage (for example, any parent with employer insurance, any parent who was uninsured). All adults in the household identified by the respondent as parents, legal guardians, or spouses of parents of the enrolled child were asked about the type of coverage they held at the time of interview. Each adult reporting more than one type of coverage was assigned only one form of coverage, using a hierarchical protocol that first classified all adults with any employer-sponsored insurance in this category. Thus, adults reporting both employer insurance and an individually purchased plan and those reporting employer insurance and some form of public coverage were classified as having employer insurance.

In two-parent families, each parent was classified into a category based on the preceding protocol. If the two parents held different forms of coverage, the children were, for example, coded as having both "any parent with employer insurance" and "any parent with public insurance." This coding should not be interpreted to mean that one parent might have had both

²¹ For the Medicaid analysis in two states, the full sample consisted of 922 records. We excluded 162 of the 922 from the analysis sample for reasons similar to the reasons for the exclusions from the SCHIP sample. Of the resulting 760 records in the analytic sample, 317 were from California and 443 were from North Carolina. The analytic sample for the SCHIP comparison included 963 records, 489 of which were from California and 474 of which were from North Carolina. All variables were derived using the same methods explained in the previous section.

employer insurance and public insurance. It means only that one parent had employer insurance, and the other had public insurance. Fifty-five of the children in this analytic sample lived with two parents, each of whom held two different types of insurance, and 595 lived in households with one insured and one uninsured parent (16 percent of weighted sample).

F. ANALYSIS OF THE DETERMINANTS OF LENGTH OF SCHIP ENROLLMENT AND REENROLLMENT

This section discusses the methodology used to analyze the determinants of the length of SCHIP enrollment and reenrollment, presented in Chapter V of the report. In contrast to the other analyses, this analysis drew mainly on data from state SCHIP enrollment files, rather than from the survey. We begin by describing the enrollment history data we obtained from the 10 states in the evaluation. We also summarize the process we followed to construct enrollment and exit spells and other measures using enrollment history data. We then describe the crosswalk between the SCHIP and Medicaid eligibility codes provided by the states and the grouping we used. We end this section by discussing the life table methods we used for the descriptive and multivariate analyses.

1. SCHIP and Medicaid Enrollment History Data

The analysis of the determinants of the length of SCHIP enrollment and time to reenrollment after leaving SCHIP used person-level data provided by the 10 study states. In summer 2002, we requested SCHIP enrollment histories for all children included in our survey samples of recent and established SCHIP enrollees and recent disenrollees from SCHIP. We also requested Medicaid enrollment history data for the 10 SCHIP samples and for the samples in the two states in which we conducted a survey of Medicaid enrollees and recent disenrollees (California and North Carolina). As we describe below, Medicaid data were used to supplement the analysis of SCHIP enrollment and reenrollment.

Between summer 2001 and summer 2002, we requested four types of data from the states' management information systems: (1) contact data, (2) application data, (3) enrollment data, and (4) redetermination (or renewal) and disenrollment data. A separate report identifies the availability and reliability of the required data elements for all 10 study states (Zambrowski et al. 2003).

a. Data Availability

The period for which we obtained enrollment records varied across states. For all 10 states, we obtained SCHIP enrollment history data from the month in which the program began in each state through December 2002. (We selected this cutoff date to coincide with the expected end of the survey field period for all states.) SCHIP enrollment histories were available for a period of 50 to 60 months for nine states, and for 32 months for Texas (see Table C.13).²²

In contrast, Medicaid enrollment history data were available for only seven states (Table C.13).²³ For the SCHIP samples, Medicaid data were available from the beginning of the SCHIP program in five states. The exceptions were California and Florida, for which enrollment history data began in November 2000 and in January 2001, respectively. In addition, Medicaid enrollment histories for the samples of enrollees in Medicaid and of recent disenrollees from Medicaid were available beginning in November 2000 in California, and beginning in October 1998 in North Carolina.²⁴ For all states that provided Medicaid data, these histories were

²²In Texas, the separate SCHIP program began on April 30, 2000, and enrollment began the following month.

²³We did not obtain Medicaid enrollment history data for the SCHIP samples in Colorado, New York, or Texas.

²⁴We obtained SCHIP enrollment history data for the Medicaid sample in North Carolina, but not for the Medicaid sample in California.

TABLE C.13

AVAILABILITY OF DATA ELEMENTS FROM THE SCHIP ENROLLMENT HISTORY DATA FILES

Survey	Data Elements												
	SCHIP Start Date	Enrollment History Start Date	Medicaid Enrollment History ^a	Child's Demographic Characteristics ^b	Whether Child Is U.S. Citizen	Zip Code and County Code ^c	Health Plan History	Eligibility Code	Redetermination Date ^d	Disenrollment Date ^e	Disenrollment Reasons	Premium History	Enrollment Fee History
CA—SCHIP (SEP)	3/1/98 - Exp 7/1/98 - Sep	Jul-98	Yes ^f	Yes	Yes	Yes	Yes	Yes ^g	No	Yes	Yes	No	n.a.
CA—Medicaid	n.a.	Nov-00	Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	n.a.	n.a.
CO (SEP)	4/22/98	Apr-98	No	Yes	No	Yes	n.a. ^h	Yes ^g	Yes	Yes	No	n.a.	Yes
FL (SEP)	4/1/98	Apr-98	Yes	Yes ⁱ	No	Yes	Yes	Yes	No	No	No	No	n.a.
IL (COMB)	1/1/98 - Exp 8/12/98 - Sep	Jan-98	Yes	Yes	Yes	Yes	n.a. ^h	Yes	Yes ^j	Yes	Yes	Yes	n.a.
LA (EXP)	11/1/98	Nov-98	Yes	Yes	Yes	Yes	n.a.	Yes	Yes	Yes	Yes	n.a.	n.a.
MO (EXP)	7/1/98	Feb-98	Yes	Yes	Yes	Yes	Yes ^h	Yes	Yes	Yes	Yes	Yes	n.a.
NJ (COMB)	2/1/98 - Exp 3/1/98 - Sep	Mar-98	Yes	Yes	No	Yes	n.a.	Yes	No	Yes	Yes	Yes	n.a.
NY (SEP)	4/15/98	Apr-98	No	Yes ⁱ	No	Yes	Yes	Yes ^g	No	No	No	Yes	n.a.
NC—SCHIP (SEP)	10/1/98	Oct-98	Yes	Yes	No ^k	Yes	n.a.	Yes	No	Yes	Yes	n.a.	No
NC—Medicaid	n.a.	Oct-98	Yes	Yes	No ^h	Yes	n.a.	Yes	No	Yes	Yes	n.a.	n.a.
TX (SEP)	4/30/00	May-00	No	Yes	No	Yes	Yes ^h	Yes ^g	Yes	Yes	Yes ^l	No	No
Number with Data	n.a.	n.a.	7 of 10	12 of 12	4 of 12	12 of 12	5 of 6	12 of 12	5 of 12	10 of 12	9 of 12	3 of 7	1 of 3

Source: State enrollment history data files for the period January 1998 through December 2002.

^aRefers to the availability of a Medicaid enrollment history for children in the SCHIP sample.

^bThe child's demographic characteristics are date of birth, sex, race, and whether of Hispanic origin.

^cFIPS county codes are available.

TABLE C.13 (continued)

^dIn Missouri and Texas, the redetermination date of an ongoing segment is the anticipated date when the child will be redetermined; in Florida, redetermination is passive, but no date is available.

^eOnly a binary indicator of whether a child disenrolled in a given month is included in the analysis file.

^fMedicaid enrollment history data are available only for 67 children in the survey sample.

^gReported as groups defined in terms of the percentage of the Federal Poverty Level.

^hIn Colorado, all children are enrolled in either an HMO or the state's Children's Basic Health Plan network. In Illinois, health plan information is reported voluntarily, but we received a history of managed care enrollment in Cook and St. Clair counties. In Missouri, we identified the managed care counties from the county codes in the monthly records. In New Jersey, all children are enrolled in managed care.

ⁱIn Florida, the demographic variables were extracted from the survey data, and race codes are missing. In New York, the race of the child is not available.

^jIn Illinois, the redetermination date provided by the state is not reliable.

^kIn North Carolina, only refugee status is available.

^lIn Texas, the disenrollment reason may be available only for the last enrollment segment in the history.

COMB = SCHIP combination program; EXP = SCHIP Medicaid expansion program; FIPS = Federal Information Processing Standards; HMO = health maintenance organization; n.a. = not applicable; SEP = SCHIP separate program.

available through December 2002. Medicaid enrollment histories were therefore available for a period of 26 to 60 months for seven states.

b. Construction of the Analysis File

Because enrollment files vary in their structure and content across states, we developed uniform files for the analysis of the determinants of length of SCHIP enrollment and reenrollment, as well as for other analyses. The process of creating these files included data quality and consistency checks. In several instances, we contacted the states to clarify anomalies observed in specific data elements.

We used the state enrollment files to create one record for each child included in the SCHIP and Medicaid survey samples and periods noted above for the 10 states. The file contained information on the month-by-month eligibility status of each child, including whether the child was enrolled in Medicaid SCHIP or separate SCHIP programs, or in the Medicaid program (for the seven states that provided these data for the SCHIP and Medicaid samples), and the eligibility group. The file also included one or more of several dates: application, eligibility determination, and eligibility renewal. In addition, the file contained demographic information (age, sex, race/ethnicity, whether the child was a U.S. citizen, and the zip code and county of residence). Finally, in selected states, the file included the reasons for exiting the program, a health plan history, and a premium-payment history.

c. Defining Enrollment and Exit Spells

Figure C.1 illustrates the steps we followed to construct the enrollment and exit spells for the analysis.²⁵ This process applies to all 10 SCHIP samples and to the 2 Medicaid samples in California and North Carolina, unless otherwise noted.

An enrollment spell begins on either the first day of the month when enrollment is first recorded or the first day of the month immediately following a period of disenrollment (for example, $B_{1(Enr)}$ and $B_{2(Enr)}$).²⁶ An enrollment spell ends on the last day of the month immediately before the next disenrollment period (for example, $E_{1(Enr)}$). We took the eligibility category for an enrollment spell from the first month of a spell (for example, $Elig_{1(Enr)}$ and $Elig_{2(Enr)}$).^{27,28} Finally, if an enrollment spell had not ended by December 31, 2002, and an exit reason was not available for that month, we defined the spell as censored (for example, $C_{2(Enr)}$).

An exit spell begins on the first day of the month immediately following a period of enrollment (for example, $B_{1(Ex)}$ and $B_{2(Ex)}$) and ends on the last day of the month immediately before the next enrollment period (for example, $E_{1(Ex)}$).²⁹ We took the eligibility category for an

²⁵Throughout this discussion, we use the term *exit* to denote an exit from the program, regardless of whether a child transferred to Medicaid on private insurance or had been uninsured.

²⁶For the Medicaid enrollment spells in California and North Carolina, because we use a change in the binary indicator of enrollment from 0 to 1, rather than the exact date of enrollment, we cannot identify enrollment spells that began on the first month of the study period.

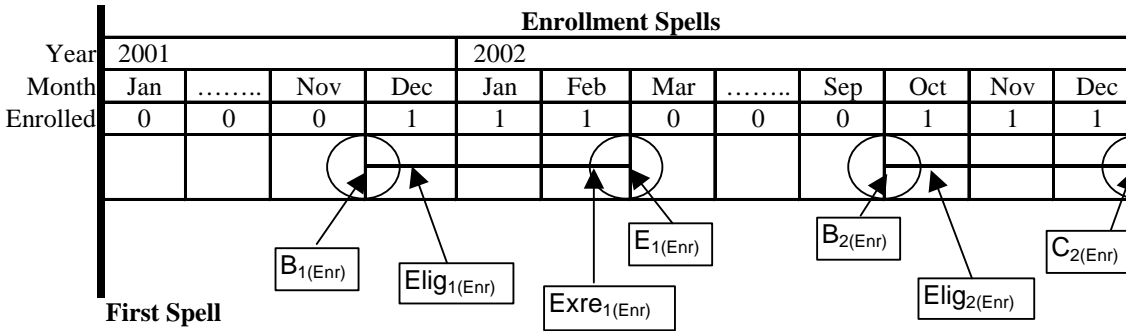
²⁷The eligibility category sometimes changed within an enrollment spell. The percentage of enrollment spells in which the category changed at least once averaged 15 percent across the nine states that use SCHIP eligibility categories. (California does not use eligibility categories for Healthy Families.) Attributing the eligibility category of the first month in which a category appeared to the entire spell greatly simplified the analysis of enrollment by eligibility group because it made the determination of the eligibility group in which a child was enrolled *independent* of the length of the enrollment spell.

²⁸In New York, we extracted the eligibility code from the month after which the period of presumptive eligibility ended. That period ranged from 1 to 4 months, although the statutory period of presumptive eligibility is 60 days. Finally, we found spells of eight children who exited SCHIP while being presumptively eligible. We used the presumptive eligibility code to classify the spell for those children.

²⁹The same issue regarding the identification of Medicaid enrollment spells that began on the first month of the study period applies in the case of Medicaid exit spells.

FIGURE C.1

DEFINITION OF ENROLLMENT AND EXIT SPELLS



First Spell

B_{1(Enr)} = Begin date

E_{1(Enr)} = End date

Elig_{1(Enr)} = Eligibility category (from first month of enrollment spell)

Exre_{1(Enr)} = Exit Reason (from last month of enrollment spell)

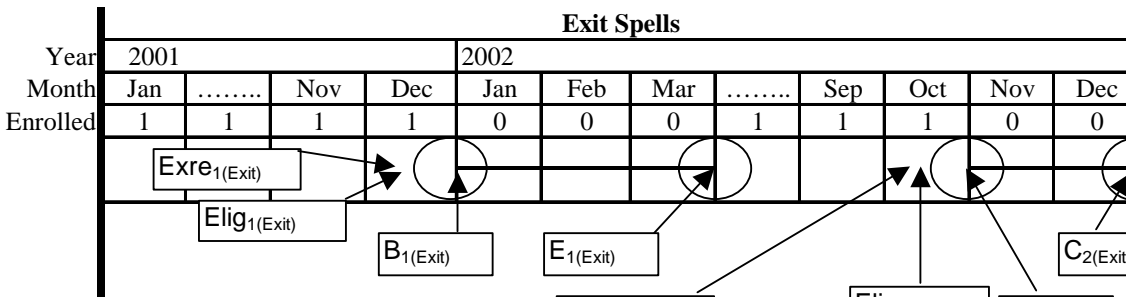
Second Spell

B_{2(Enr)} = Begin date

E_{2(Enr)} = End date

Elig_{2(Enr)} = Eligibility category (from first month of enrollment spell)

C_{2(Enr)} = Censor indicator



First Spell

B_{1(Exit)} = Begin date

E_{1(Exit)} = End date

Elig_{1(Exit)} = Eligibility category (from last month of previous enrollment spell)

Exre_{1(Exit)} = Disenrollment Reason (from last month of previous enrollment spell)

Second Spell

B_{2(Exit)} = Begin date

E_{2(Exit)} = End date

Elig_{2(Exit)} = Eligibility category (from last month of previous enrollment spell)

Exre_{2(Exit)} = Exit reason (from last month of previous enrollment spell)

C_{2(Exit)} = Censor indicator

exit spell from the last month of the previous enrollment spell (for example, $Elig_{1(Ex)}$ and $Elig_{2(Ex)}$). If an exit spell had not ended by December 31, 2002, we defined the spell as censored (for example, $C_{2(Ex)}$).

Table C.14 summarizes the number of spells included in the analysis; the number of transitions from a specific status (for example, reenrollment into SCHIP, in the case of the reenrollment analysis); the number of spells censored as of December 31, 2002; the exit rate (for the enrollment analysis); and the reentry rate (for the reenrollment analysis), for each state.³⁰ Although some children had multiple spells, we analyzed the spell from which a child was sampled only for recent enrollees (in the enrollment analysis) and for recent disenrollees (in the reenrollment analysis); including all spells would have oversampled children with long spells, resulting in biased estimates.

d. Defining Subgroup Variables

We constructed a number of person-level variables to explore variation in durations of exit and reentry, by subgroup. The distribution of these variables is shown, by state, in Table C.15 for recent enrollees and in Table C.16 for recent disenrollees. The categorical variable for the age of the child was defined at the beginning of each spell. The categories of this variable correspond to those used in the analysis of survey data reported in Chapter I. Because states differ in their approaches to collecting data on race and ethnicity in the enrollment records, we used the data on this variable that we had collected in the survey. This convention should enable us to make comparisons of our measures of the length of SCHIP enrollment and reenrollment, by

³⁰Because the analysis uses only the spells from which the recent enrollees and recent disenrollees were sampled, the number of children is the same as the number of spells.

TABLE C.14

ANALYSIS FILE SUMMARY STATISTICS:
SCHIP SAMPLES

	CA	CO	FL	IL	LA	MO	NJ	NY	NC	TX	Total
Data Period	7/98 – 12/02	4/98 – 12/02	4/98 – 12/02	1/98 – 12/02	11/98 – 12/02	2/98 – 12/02	3/98 – 12/02	4/98 – 12/02	10/98 – 12/02	5/00 – 12/02	—
Enrollment Analysis											
Number of Spells	598	631	601	496	591	541	534	525	542	591	5,650
Number of Exits	54	93	216	233	174	180	191	227	287	149	1,804
Number of Censored Spells	544	538	385	263	417	361	343	298	255	442	3,846
Total Time at Risk (in Person-Years)	510	588	479	402	535	419	458	494	520	456	4,861
Exit Rate (Weighted, per 100 Person-Years)	10.5	14.6	44.6	59.9	32.1	40.5	43.3	49.1	56.4	32.6	33.5
Reenrollment Analysis											
Number of Spells	458	480	525	447	401	495	381	418	497	519	4,621
Number of Reentries	91	85	231	86	55	153	57	102	89	111	1,060
Number of Censored Spells	367	395	294	361	346	342	324	316	408	408	3,561
Total Time at Risk (in Person-Years)	378	394	375	400	340	392	343	344	464	420	3,851
Reentry Rate (Weighted, per 100 Person-Years)	21.8	21.8	61.5	23.1	13.5	39.5	18.5	29.0	22.7	25.1	29.4

Source: State enrollment history data files for samples of recent enrollees and recent disenrollees from the 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states linked to data from this survey.

Note: All estimates, with the exception of the exit and reentry rates, are unweighted.

TABLE C.15

DISTRIBUTION OF CHARACTERISTICS OF SPELLS FOR THE ANALYSIS
OF THE LENGTH OF SCHIP ENROLLMENT

Characteristic ^a	CA	CO	FL	IL	LA	MO	NJ	NY	NC	TX	Total
Total Number of Enrollment Spells	44,677	4,472	26,682	13,381	7,055	6,515	8,956	11,752	8,671	50,562	182,723
Total Number of Enrollment Spells (Unweighted)	598	631	601	496	591	541	534	525	542	591	5,650
Total Number of Exits (Unweighted)	54	93	216	233	174	180	191	227	287	149	1,804
Child's Race and Main Language											
Hispanic, speaks Spanish	47.9	22.2	20.1	22.4	2.3	0.6	19.4	12.0	7.4	31.5	27.7
Hispanic, speaks English	19.2	20.9	14.8	8.3	3.0	3.6	14.5	10.8	5.3	32.4	18.8
Non-Hispanic white, speaks English	11.7	43.4	38.1	36.5	43.4	70.4	29.3	39.1	50.1	20.1	28.2
Non-Hispanic black, speaks English	3.5	3.2	14.7	20.8	41.6	14.9	21.4	18.3	28.7	9.1	12.8
Non-Hispanic other, speaks English	6.6	5.5	4.1	2.9	3.9	3.8	4.9	6.0	5.4	2.4	4.4
Non-Hispanic, non-English speaking	7.9	1.1	2.1	3.9	0.7	1.0	7.6	7.2	0.6	2.2	4.1
Missing race, ethnicity, or language	3.2	3.7	6.1	5.2	5.2	5.6	2.9	6.5	2.4	2.4	3.9
Sex											
Female	49.2	48.8	49.2	53.2	50.8	47.4	48.1	47.1	47.4	48.2	48.9
Male	50.8	51.2	50.8	46.8	49.2	52.6	51.9	52.9	52.6	51.8	51.1
Age (in Years)											
<1	3.7	6.5	0.0	1.0	2.8	2.1	1.9	4.4	0.4	4.6	3.0
1 to 5	35.8	33.6	22.8	11.1	23.2	25.7	20.7	25.6	24.9	30.0	27.7
6 to 12	38.1	34.3	43.2	54.9	41.7	41.7	39.5	40.6	44.3	37.1	40.5
≥13	22.5	25.7	33.9	32.9	32.3	30.6	37.9	29.4	30.5	28.3	28.8
Child Has a Special Health Care Need											
Yes	17.9	20.6	29.9	31.4	37.2	34.3	27.6	31.5	36.9	29.2	27.4
No	82.1	79.4	70.1	68.6	62.8	65.7	72.4	68.5	63.1	70.8	72.6

TABLE C.15 (continued)

Characteristic ^a	CA	CO	FL	IL	LA	MO	NJ	NY	NC	TX	Total
Child's Overall Health Status											
Excellent/very good	66.1	77.0	75.6	65.3	69.0	72.1	67.6	76.1	70.0	64.1	68.3
Good	27.1	17.3	19.4	24.4	23.1	19.1	25.0	18.2	20.3	24.5	23.4
Fair/poor	6.9	5.7	5.0	10.3	7.9	8.8	7.4	5.8	9.7	11.3	8.3
Household Income, by FPL Range											
< 150% FPL	67.5	73.7	69.0	82.1	77.5	72.5	69.0	62.0	72.2	74.7	71.4
150 to 200% FPL	19.3	19.1	19.4	13.8	16.8	16.9	17.0	22.8	18.7	17.0	18.2
≥ 200% FPL	13.2	7.2	11.6	4.1	5.7	10.7	14.0	15.3	9.1	8.3	10.4
Highest Education Level of Parent(s)											
No GED or HS diploma	31.4	19.9	11.9	21.9	12.7	7.8	14.7	11.3	12.5	24.5	21.2
GED or HS diploma	31.4	32.3	35.0	39.6	52.8	46.5	41.9	33.8	43.2	40.9	37.8
Some college or college degree ^b	37.2	47.7	53.1	38.5	34.4	45.7	43.4	54.9	44.3	34.6	41.1
Residential Location											
Metropolitan	96.1	76.1	94.4	77.9	67.7	55.9	100.0	89.7	67.2	82.2	86.1
Nonmetropolitan, adjacent	3.6	5.7	5.3	11.9	26.5	14.4	0.0	6.9	21.6	12.8	9.2
Nonmetropolitan, nonadjacent	0.3	18.2	0.3	10.1	5.8	29.7	0.0	3.4	11.2	5.1	4.7
Program Type											
Separate	100	100	100	23.0	0	0	60.9	100	100	100	85.0
Medicaid-expansion	0	0	0	77.0	100	100	39.1	0	0	0	15.0
Eligibility Group (at Enrollment)											
California											
< 250% FPL	100.0										
Colorado											
≤ 100% FPL		34.6									
101 to 150% FPL		42.7									
151 to 185% FPL		22.7									
Florida											
MediKids			17.9								
HealthyKids			80.7								
CMS			1.4								

C.67

TABLE C.15 (continued)

Characteristic ^a	CA	CO	FL	IL	LA	MO	NJ	NY	NC	TX	Total
Illinois											
KidCare Assist Medicaid expansion SCHIP (< 133% FPL)				77.0							
KidCare Assist Medicaid expansion SCHIP (134 to 150% FPL)				12.8							
KidCare Premium SCHIP (151 to 185% FPL)				10.1							
Louisiana											
LACHIP I (< 133% FPL)					43.6						
LACHIP II (133 to 150% FPL)					17.6						
LACHIP III (151 to 200% FPL)					38.8						
Missouri											
≤ 185% FPL						73.0					
186 to 225% FPL						21.6					
226 to 300% FPL						5.4					
New Jersey											
Plan A (> 133% FPL)							39.1				
Plan B (133 to 150% FPL)							10.7				
Plan C (151 to 200% FPL)							30.3				
Plan D (201 to 350% FPL)							19.9				
New York											
< 151% FPL								49.5			
151 to 222% FPL								41.3			
> 222% FPL								8.2			
Full premium								0.9			
North Carolina											
≤ 150% FPL									67.0		
151 to 200% FPL									33.0		

TABLE C.15 (continued)

Characteristic ^a	CA	CO	FL	IL	LA	MO	NJ	NY	NC	TX	Total
Texas											
< 100% FPL										16.8	
100 to 150% FPL										48.6	
151 to 185% FPL										29.1	
186 to 200% FPL										5.6	

Source: State enrollment history data files for the sample of recent enrollees from the 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states linked to data from this survey.

Note: All estimates are weighted unless otherwise noted.

^aExcept age, eligibility group, and program type, all characteristics are based on survey data.

^bIncludes 2-year associate's degree and trade school.

FPL = federal poverty level; GED = General Educational Development; HS = high school.

TABLE C.16

DISTRIBUTION OF CHARACTERISTICS OF SPELLS FOR THE ANALYSIS OF TIME TO REENROLLMENT

Characteristic ^a	CA	CO	FL	IL	LA	MO	NJ	NY	NC	TX	Total
Total Number of Exit Spells	10,289	1,339	7,999	4,598	1,724	2,857	1,939	5,757	2,185	13,581	52,268
Total Number of Exit Spells (Unweighted)	458	480	525	447	401	495	381	418	497	519	4,621
Total Number of Exits (Unweighted)	91	85	231	86	55	153	57	102	89	111	1,060
Child's Race and Main Language											
Hispanic, speaks Spanish	47.1	24.7	15.3	17.4	1.8	0.7	21.5	8.9	5.8	26.7	22.8
Hispanic, speaks English	18.4	26.9	14.1	11.6	3.4	2.9	12.0	8.3	2.9	37.3	18.9
Non-Hispanic white, speaks English	16.3	33.5	39.1	36.7	43.3	74.1	31.1	54.0	44.0	17.5	32.2
Non-Hispanic black, speaks English	4.8	4.7	17.3	24.5	40.4	9.8	20.3	13.1	29.4	10.5	13.9
Non-Hispanic other, speaks English	4.0	5.5	5.9	4.0	5.1	5.1	4.5	4.5	7.8	2.1	4.2
Non-Hispanic, non-English- speaking	6.2	1.4	2.4	2.2	0.0	1.1	4.4	6.0	3.7	0.0	2.9
Missing race, ethnicity, or language	3.2	3.2	5.9	3.6	6.0	6.2	6.1	5.2	6.4	6.0	5.1
Sex											
Female	51.5	46.0	47.4	50.8	47.2	51.1	46.7	43.2	50.8	46.1	48.0
Male	48.5	54.0	52.6	49.2	52.8	48.9	53.3	56.8	49.2	53.9	52.0
Age (in Years)											
<1	0.4	1.0	0.0	0.0	0.8	0.2	0.3	1.4	0.0	1.6	0.7
1 to 5	32.4	33.3	16.7	9.0	24.4	27.3	21.5	24.8	23.2	29.1	24.9
6 to 12	41.6	37.4	50.5	51.5	41.1	42.6	46.7	43.3	46.4	38.3	43.5
≥13	25.5	28.3	32.8	39.5	33.7	29.8	31.5	30.5	30.4	31.0	30.8
Child Has a Special Health Care Need											
Yes	20.6	24.6	31.0	31.3	38.4	35.6	29.3	30.0	39.8	29.9	29.2
No	79.4	75.4	69.0	68.7	61.6	64.4	70.7	70.0	60.2	70.1	70.8
Child's Overall Health Status											
Excellent/very good	63.1	70.3	71.8	66.6	67.2	75.2	65.4	73.7	66.3	59.7	66.2
Good	26.2	22.4	19.2	23.0	20.4	19.5	25.9	21.4	26.0	28.3	24.2
Fair/poor	10.7	7.3	9.0	10.4	12.5	5.3	8.7	4.9	7.7	11.9	9.6
Household Income, by FPL Range											
< 150% FPL	62.9	62.5	71.3	79.4	83.3	70.4	59.1	63.9	72.9	74.7	70.4
150 to 200% FPL	20.1	24.8	16.4	13.7	11.6	19.7	18.3	15.2	15.6	16.4	17.0
≥ 200% FPL	16.9	12.7	12.3	6.9	5.1	9.9	22.7	20.8	11.5	8.9	12.6

TABLE C.16 (continued)

Characteristic ^a	CA	CO	FL	IL	LA	MO	NJ	NY	NC	TX	Total
Highest Education Level of Parent(s)											
No GED or HS diploma	27.4	25.5	12.3	18.1	17.2	10.7	17.4	12.3	16.6	33.0	21.9
GED or HS diploma	36.9	40.1	39.0	40.8	47.3	45.9	41.7	37.9	42.4	38.9	39.5
Some college or college degree ^b	35.6	34.5	48.7	41.2	35.4	43.4	40.9	49.8	41.0	28.1	38.6
Residential Location											
Metropolitan	96.7	75.6	94.7	78.1	67.0	52.3	100.0	83.7	65.6	78.0	83.3
Nonmetropolitan, adjacent	3.1	5.5	4.5	10.2	25.1	10.6	0.0	9.3	25.0	15.8	9.9
Nonmetropolitan, nonadjacent	0.2	18.9	0.8	11.7	8.0	37.1	0.0	7.0	9.4	6.3	6.7
Program Type											
Separate	100	100	100	23.2	0	0	66.8	100	100	100	83.2
Medicaid-expansion	0	0	0	76.8	100	100	33.2	0	0	0	16.8
States with Separate Programs											
With Medicaid-expansion programs	0	0	0	0	100	100	0	0	0	0	8.8
With combination programs	0	0	0	100	0	0	100	0	0	0	12.5
Eligibility Group (at Enrollment)											
California											
< 250% FPL	100.0										
Colorado											
≤ 100% FPL		30.5									
101 to 150% FPL		38.6									
151 to 185% FPL		30.9									
Florida											
MediKids			12.8								
HealthyKids			83.9								
CMS			3.3								
Illinois											
KidCare Assist Medicaid expansion SCHIP (< 133% FPL)				76.8							
KidCare Assist Medicaid expansion SCHIP (134 to 150% FPL)				8.9							
KidCare Premium SCHIP (151 to 185% FPL)				14.3							
Louisiana											
LACHIP I (< 133% FPL)					44.4						
LACHIP II (133 to 150% FPL)					23.2						
LACHIP III (151 to 200% FPL)					32.3						

TABLE C.16 (continued)

Characteristic ^a	CA	CO	FL	IL	LA	MO	NJ	NY	NC	TX	Total
Missouri											
≤ 185% FPL						74.5					
186 to 225% FPL						16.1					
226 to 300% FPL						9.4					
New Jersey											
Plan A (< 133% FPL)							33.2				
Plan B (133 to 150% FPL)							8.4				
Plan C (151 to 200% FPL)							34.2				
Plan D (201 to 350% FPL)							24.2				
New York											
< 151% FPL								53.4			
151 to 222% FPL								37.5			
> 222% FPL								8.1			
Full premium								1.0			
North Carolina											
≤ 150% FPL									62.6		
151 to 200% FPL									37.4		
Texas											
< 100% FPL										20.4	
100 to 150% FPL										44.1	
151 to 185% FPL										28.3	
186 to 200% FPL										7.2	

C.72

Source: State enrollment history data files for the sample of recent disenrollees from the 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states linked to data from this survey.

Note: All estimates are weighted unless otherwise noted.

^aExcept age, eligibility group, and program type, all characteristics are based on survey data.

^bIncludes 2-year associate's degree and trade school.

FPL = federal poverty level; GED = General Educational Development; HS = high school.

race/ethnicity, across states and with other analyses in this report.³¹ The other groups we defined from the survey data included (1) whether the child has special health care needs, (2) the child's health status, (3) the main language spoken in the household, (4) the parents' highest education level, (5) household income, and (6) the residential location of the child's household.³²

e. Classification of SCHIP and Medicaid Eligibility Codes

We classified SCHIP state eligibility codes into broad categories defined by family income and, in one instance, by the age of the child (Florida).

For the Medicaid codes, we classified the state eligibility codes into the four broad eligibility groups of (1) cash assistance, (2) medically needy, (3) poverty related, and (4) other. These codes correspond to the Maintenance Assistance Status (MAS) codes used by the Centers for Medicare & Medicaid Services to report eligibility in the Medicaid Statistical Information Systems. To keep the classification manageable, we did not create subgroups defined by the Basis of Eligibility (BOE) codes. To crosswalk the Medicaid state eligibility codes into the groups used in our analysis, we used the specifications provided by the two states.^{33,34}

The definitions of the SCHIP and Medicaid eligibility codes we used in the analysis are summarized in Table C.17 and Table C.18, respectively.

³¹Florida did not provide data on race/ethnicity in the enrollment history file.

³²We combined the race/ethnicity of the child with the language spoken in the household.

³³For California, the crosswalks are described in "California's MSIS Recipient Crosswalk Beginning FFY 1999 (Revised June 2000)." For North Carolina, the crosswalk is described in "Crosswalk North Carolina 5-Character Schematic to MAS Grouping (Version of August 8, 2001)" and "Descriptions of North Carolina 5 Character Eligibility Code Schematic."

³⁴In North Carolina, children with state aid code of M1CLN were coded into a separate category (MAS equal to 0), as they are not eligible for Medicaid. (Children with aid code of M1CLN are eligible for the SCHIP program [NC Health Choice for Children] and live in households with incomes of more than 200 percent of the federal poverty level).

TABLE C.17

CROSSWALK OF STATE ELIGIBILITY CODES INTO UNIFORM CODES, BY STATE AND PROGRAM (SCHIP)

State Eligibility Code Description							
	State Eligibility Code	Program Name	Age Requirement	Income Requirement	MPR Eligibility Code	Unique MPR Eligibility Code	MPR Eligibility Code Description
CA ^a		Healthy Families	0 to 18 years	< 150% FPL	1	101	< 250% FPL
		Healthy Families	0 to 18 years	151 to 250% FPL	1	101	< 250% FPL
CO ^b 01/01 to present	N	CHP+	0 to 18 years ^c	≤ 40% FPL	1	201	≤ 100% FPL
	A	CHP+	0 to 18 years ^c	40 to 62% FPL	1	201	≤ 100% FPL
	B	CHP+	0 to 18 years ^c	63 to 81% FPL	1	201	≤ 100% FPL
	C	CHP+	0 to 18 years ^c	82 to 100% FPL	1	201	≤ 100% FPL
	D	CHP+	6 to 18 years	101 to 117% FPL	2	202	101 to 150% FPL
	E	CHP+	6 to 18 years	118 to 133% FPL	2	202	101 to 150% FPL
	F-	CHP+	0 to 18 years	134 to 150% FPL	2	202	101 to 150% FPL
	F+	CHP+	0 to 18 years	151 to 159% FPL	3	203	151 to 185% FPL
	G-	CHP+	0 to 18 years	160 to 170% FPL	3	203	151 to 185% FPL
	G+	CHP+	0 to 18 years	171 to 185% FPL	3	203	151 to 185% FPL
04/98 – 12/00	N	CHP+	15 to 18 years	40 to 62% FPL	1	201	≤ 100% FPL
	A	CHP+	15 to 18 years	63 to 81% FPL	1	201	≤ 100% FPL
	B	CHP+	15 to 18 years	82 to 100% FPL	1	201	≤ 100% FPL
	C	CHP+	15 to 18 years	101 to 117% FPL	1	201	≤ 100% FPL
	D	CHP+	6 to 18 years	118 to 133% FPL	2	202	101 to 150% FPL
	E	CHP+	6 to 18 years	134 to 150% FPL	2	202	101 to 150% FPL
	F-	CHP+	0 to 18 years	151 to 159% FPL	2	202	101 to 150% FPL
	F+	CHP+	0 to 18 years	160 to 170% FPL	3	203	151 to 185% FPL
	G-	CHP+	0 to 18 years	171 to 185% FPL	3	203	151 to 185% FPL
	G+	CHP+	0 to 18 years	40 to 62% FPL	3	203	151 to 185% FPL
FL	MK	MediKids	0 to 5 years	≤ 200% FPL	1	301	MediKids
	HK	Healthy Kids	5 to 18 years	≤ 200% FPL	2	302	HealthyKids
	CMS	CMS	0 to 18 years	≤ 200% FPL	3	303	CMS

TABLE C.17 (continued)

State Eligibility Code Description							
	State Eligibility Code	Program Name	Age Requirement	Income Requirement	MPR Eligibility Code	Unique MPR Eligibility Code	MPR Eligibility Code Description
IL	K	Kidcare Assist (MSCHIP)	0 to 18 years ^d	47 to 100% FPL	1	401	KidCare Assist MSCHIP (< 133% FPL)
	L	Kidcare Assist (MSCHIP)	0 to 18 years ^d	47 to 100% FPL	1	401	KidCare Assist MSCHIP (< 133% FPL)
	H	Kidcare Assist (MSCHIP)	5 to 18 years ^e	101 to 133% FPL	1	401	KidCare Assist MSCHIP (< 133% FPL)
	I	Kidcare Assist (MSCHIP)	5 to 18 years ^e	101 to 133% FPL	1	401	KidCare Assist MSCHIP (< 133% FPL)
	N	Kidcare Assist (MSCHIP)	0 to 18 years ^d	101 to 133% FPL	1	401	KidCare Assist MSCHIP (< 133% FPL)
	O	Kidcare Assist (MSCHIP)	0 to 18 years ^d	101 to 133% FPL	1	401	KidCare Assist MSCHIP (< 133% FPL)
	4	Kidcare Share (SCHIP)	1 to 18 years old	134 to 150% FPL	2	402	KidCare Share MSCHIP (< 134 to 150% FPL)
	S	Kidcare Share (SCHIP)	1 to 18 years old	134 to 150% FPL	2	402	KidCare Share MSCHIP (< 134 to 150% FPL)
	Z	KidCare Premium (SCHIP)	1 to 18 years old	151 to 185% FPL	3	403	KidCare Premium MSCHIP (< 151 to 185% FPL)
LA	007	LACHIP	6 to 18 years	≤ 133% FPL	1	501	LACHIP I (< 133% FPL)
	015	LACHIP Phase II	Birth to 18 years	133 to 150% FPL	2	502	LACHIP II (133 to 150% FPL)
	055	LACHIP Phase III	Birth to 18 years	151 to 200% FPL	3	503	LACHIP III (151 to 200% FPL)
MO	C071	MC+ for Kids	1 to 18 years old	≤ 185% FPL	1	601	≤ 185% FPL
	C072	MC+ for Kids	0 to 18 years old	186 to 225% FPL	2	602	186 to 225% FPL
	C073	MC+ for Kids	0 to 18 years old	126 to 300% FPL	3	603	226 to 300% FPL
NJ	484	NJC	0 to 18 years ^d	≤ 100% FPL	1	701	Plan A (< 133% FPL)
	485	NJC	6 to 18 years	101 to 133% FPL	1	701	Plan A (< 133% FPL)
	486	KidCare	1 to 18 years	134 to 150% FPL	2	702	Plan B (133 to 150% FPL)
	487	KidCare	1 to 18 years	151 to 185% FPL	3	703	Plan C (151 to 200% FPL)
	488	KidCare	Birth to 18 years	186 to 200% FPL	3	703	Plan C (151 to 200% FPL)
	489	KidCare Fee For Service	Birth to 3 months	186 to 200% FPL	3	703	Plan C (151 to 200% FPL)
	493	KidCare	0 to 18 years	201 to 250% FPL	4	704	Plan D (201 to 350% FPL)
	494	KidCare	0 to 18 years	251 to 300% FPL	4	704	Plan D (201 to 350% FPL)
	495	KidCare	0 to 18 years	301 to 350% FPL	4	704	Plan D (201 to 350% FPL)
	496	KidCare	Birth to 3 months	201 to 350% FPL	4	704	Plan D (201 to 350% FPL)
NY ^f Current	A	Child Health Plus	6 to 18 years old	< 120% FPL	1	801	< 151% FPL
	B	Child Health Plus	1 to 18 years old	120 to 150% FPL	1	801	<151% FPL
	C	Child Health Plus	1 to 18 years old	151 to 159% FPL	2	802	151 to 222% FPL
	H	Child Health Plus	0 to 18 years old	160 to 222% FPL	2	802	151 to 222% FPL
	I	Child Health Plus	0 to 18 years old	160 to 222% FPL	2	802	151 to 222% FPL
	L	Child Health Plus	0 to 18 years old	223 to 250% FPL	3	803	> 222%
	M	Child Health Plus	0 to 18 years old	223 to 250% FPL	3	803	> 222%
	S	Child Health Plus	0 to 18 years old	> 250% FPL	4	804	Full premium
	^g	Child Health Plus			5	805	Non-missing, unclassified
	P	Child Health Plus			6	806	Presumptive eligibility

C.75

TABLE C.17 (continued)

State Eligibility Code Description							
	State Eligibility Code	Program Name	Age Requirement	Income Requirement	MPR Eligibility Code	Unique MPR Eligibility Code	MPR Eligibility Code Description
Oct-98	A	Child Health Plus	6 to 18 years old	< 120% FPL	1	801	< 151% FPL
	B	Child Health Plus	1 to 18 years old	120 to 150% FPL	1	801	<151% FPL
	C	Child Health Plus	1 to 18 years old	151 to 159% FPL	2	802	151 to 222% FPL
	H	Child Health Plus	0 to 18 years old	160 to 222% FPL	2	802	151 to 222% FPL
	I	Child Health Plus	0 to 18 years old	160 to 222% FPL	2	802	151 to 222% FPL
	L	Child Health Plus	0 to 18 years old	223 to 230% FPL	3	803	> 222% FPL
	M	Child Health Plus	0 to 18 years old	223 to 230% FPL	3	803	> 222% FPL
	S	Child Health Plus	0 to 18 years old	> 230% FPL	4	804	Full premium
	§	Child Health Plus			5	805	Non-missing, unclassified
P	Child Health Plus			6	806	Presumptive eligibility	
May-98	F	Child Health Plus	1 to 18 years old	< 151% FPL	1	801	< 151% FPL
	C	Child Health Plus	1 to 18 years old	151 to 159% FPL	2	802	151 to 222% FPL
	E	Child Health Plus	1 to 18 years old	151 to 159% FPL	2	802	151 to 222% FPL
	K	Child Health Plus	1 to 18 years old	151 to 159% FPL	2	802	151 to 222% FPL
	G	Child Health Plus	0 to 18 years old	160 to 200% FPL	2	802	151 to 222% FPL
	I	Child Health Plus	0 to 18 years old	160 to 200% FPL	2	802	151 to 222% FPL
	L	Child Health Plus	0 to 18 years old	160 to 200% FPL	2	802	151 to 222% FPL
	H	Child Health Plus	0 to 18 years old	201 to 222% FPL	2	802	151 to 222% FPL
	J	Child Health Plus	0 to 18 years old	201 to 222% FPL	2	802	151 to 222% FPL
	M	Child Health Plus	0 to 18 years old	201 to 222% FPL	2	802	151 to 222% FPL
	S	Child Health Plus	0 to 18 years old	> 222% FPL	4	804	Full premium
	§	Child Health Plus			5	805	Non-missing, unclassified
	P	Child Health Plus			6	806	Presumptive Eligibility
Oct-97	F	Child Health Plus	6 to 18 years old	< 120% FPL	1	801	< 151% FPL
	B	Child Health Plus	1 to 18 years old	120 to 150% FPL	1	801	< 151% FPL
	D	Child Health Plus	1 to 18 years old	120 to 150% FPL	1	801	< 151% FPL
	C	Child Health Plus	1 to 18 years old	151 to 159% FPL	2	802	151 to 222% FPL
	E	Child Health Plus	1 to 18 years old	151 to 159% FPL	2	802	151 to 222% FPL
	G	Child Health Plus	0 to 18 years old	160 to 200% FPL	2	802	151 to 222% FPL
	I	Child Health Plus	0 to 18 years old	160 to 200% FPL	2	802	151 to 222% FPL
	H	Child Health Plus	0 to 18 years old	201 to 222% FPL	2	802	151 to 222% FPL
	J	Child Health Plus	0 to 18 years old	201 to 222% FPL	2	802	151 to 222% FPL
	S	Child Health Plus	0 to 18 years old	> 222% FPL	4	804	Full premium
	§	Child Health Plus			5	805	Non-missing, unclassified
	P	Child Health Plus			6	806	Presumptive eligibility
	NC	MICJN	NC Health Choice for Children	1 to 18 years old	≤ 150% FPL	1	901
MICKN		NC Health Choice for Children	0 to 18 years old	151 to 200% FPL	2	902	151 to 200% FPL
MICSN		NC Health Choice for Children	0 to 18 years old	151 to 200% FPL	2	902	151 to 200% FPL

TABLE C.17 (continued)

	State Eligibility Code Description						MPR Eligibility Code Description
	State Eligibility Code	Program Name	Age Requirement	Income Requirement	MPR Eligibility Code	Unique MPR Eligibility Code	
TX ^h	0	TexCare	< 19 years old	< 100% FPL	1	991	< 100% FPL/no co-pay
	1	TexCare	1 to 18 years old	100 to 150% FPL	2	992	100 to 150% FPL
	2	TexCare	1 to 18 years old	151 to 185% FPL	3	993	151 to 185% FPL
	3	TexCare	0 to 18 years old	186 to 200% FPL	4	994	186 to 200% FPL

Source: Documentation provided by the states for the enrollment history files for the samples of recent enrollees and disenrollees from the 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states, supplemented with site visit report data summarized in Hill et al. (2003).

^aCalifornia does not have SCHIP eligibility groups.

^bColorado does not have SCHIP eligibility groups. We used the variable “program rate,” which is based on income and family size, to determine SCHIP eligibility group.

^cColorado does not count assets when calculating income, whereas Medicaid does. Consequently, certain children under age 18 may not qualify for Medicaid and will be covered by SCHIP. Therefore, children of any age can be found in categories N, A, B, and C (telephone conversation with Joanne Lindsay, of Colorado, on 9/19/2003).

^dChild must be born before 10/01/1983.

^eChild must be born after 9/30/1983.

^fNew York does not have SCHIP eligibility codes. We used the variable “payment category” to determine eligibility group.

^gAll nonmissing eligibility codes in New York that were not classified in the documentation were grouped into a separate eligibility category.

^hTexas does not have SCHIP eligibility groups. We used the co-payment category to determine SCHIP eligibility group.

FPL= federal poverty level; MSCHIP = Medicaid-expansion SCHIP; NA = not applicable; TPL = third-party liability.

TABLE C.18

CROSSWALK OF STATE ELIGIBILITY CODES INTO UNIFORM CODES,
BY STATE AND PROGRAM (MEDICAID)

State Eligibility Code	Federal Eligibility Code					MPR Eligibility Code	Unique MPR Eligibility Code	MPR Eligibility Code Description
	MAS Code	MAS Description	BOE Code	BOE Description				
CA	30	1	Individuals receiving cash assistance	4/5	Child/adult	1	111	Individuals receiving cash assistance
	32	1	Individuals receiving cash assistance	4/5	Child/adult	1	111	Individuals receiving cash assistance
	33	1	Individuals receiving cash assistance	4/5	Child/adult	1	111	Individuals receiving cash assistance
	35	1	Individuals receiving cash assistance	4/5	Child/adult	1	111	Individuals receiving cash assistance
	60	1	Individuals receiving cash assistance	2	Blind/disabled	1	111	Individuals receiving cash assistance
	3E	1	Individuals receiving cash assistance	4/5	Child/adult	1	111	Individuals receiving cash assistance
	3L	1	Individuals receiving cash assistance	4/5	Child/adult	1	111	Individuals receiving cash assistance
	3M	1	Individuals receiving cash assistance	4/5	Child/adult	1	111	Individuals receiving cash assistance
	3N	1	Individuals receiving cash assistance	4/5	Child/adult	1	111	Individuals receiving cash assistance
	3P	1	Individuals receiving cash assistance	4/5	Child/adult	1	111	Individuals receiving cash assistance
	3R	1	Individuals receiving cash assistance	4/5	Child/adult	1	111	Individuals receiving cash assistance
	3U	1	Individuals receiving cash assistance	4/5	Child/adult	1	111	Individuals receiving cash assistance
	34	2	Medically needy	4/5	Child/adult	2	112	Medically needy
	37	2	Medically needy	4/5	Child/adult	2	112	Medically needy
	64	2	Medically needy	2	Blind/disabled	2	112	Medically needy
	67	2	Medically needy	2	Blind/disabled	2	112	Medically needy
	82	2	Medically needy	4	Child	2	112	Medically needy
	83	2	Medically needy	4	Child	2	112	Medically needy
	47	3	Poverty related	4	Child	3	113	Poverty related
	72	3	Poverty related	4	Child	3	113	Poverty related
	7A	3	Poverty related	4	Child	3	113	Poverty related
	8P	3	Poverty related	4	Child	3	113	Poverty related
	8R	3	Poverty related	4	Child	3	113	Poverty related
	38	4	Other	4/5	Child/adult	4	114	Other
	39	4	Other	4/5	Child/adult	4	114	Other
	40	4	Other	8	Foster care child	4	114	Other
	42	4	Other	8	Foster care child	4	114	Other
	45	4	Other	8	Foster care child	4	114	Other
	58	4	Other	2, 1, 4/5	Blind/disabled	4	114	Other
	59	4	Other	4/5	Child/adult	4	114	Other
	74	4	Other	4	Child	4	114	Other
	3T	4	Other	4/5	Child/adult	4	114	Other
	3V	4	Other	4/5	Child/adult	4	114	Other
	5F	4	Other	5	Adult	4	114	Other
	5K	4	Other	8	Foster care child	4	114	Other
	6N	4	Other	2	Blind/disabled	4	114	Other
	7C	4	Other	4	Child	4	114	Other

TABLE C.18 (continued)

	Federal Eligibility Code					MPR Eligibility Code	Unique MPR Eligibility Code	MPR Eligibility Code Description
	State Eligibility Code	MAS Code	MAS Description	BOE Code	BOE Description			
	7J	4	Other	4	Child	4	114	Other
	7K	4	Other	4	Child	4	114	Other
NC	MICLN ^a	0	Separate SCHIP	0		0	910	Separate SCHIP
	AAFCN ^b	1, 4	Individuals receiving cash assistance	4, 5, 6, 7		1	911	Individuals receiving cash assistance
	MABCY	1	Individuals receiving cash assistance	2		1	911	Individuals receiving cash assistance
	MADCY	1	Individuals receiving cash assistance	2		1	911	Individuals receiving cash assistance
	MAFCN	1	Individuals receiving cash assistance	4, 5, 6, 7		1	911	Individuals receiving cash assistance
	MAFMN	2	Medically needy	4, 5		2	912	Medically needy
	MADNN ^c	3, 4	Poverty related	2		3	913	Poverty related
	MICNN	3	Poverty related	4		3	913	Poverty related
	MPWFN	3	Poverty related	5		3	913	Poverty related
	MPWNN	3	Poverty related	3		3	913	Poverty related
	HSFNN	4	Other	8		4	914	Other
	IASCN	4	Other	8		4	914	Other
	MAFNN	4	Other	4, 5		4	914	Other

Source: Documentation provided by the states for the enrollment files for the samples of recent enrollees and disenrollees for the 2002 congressionally mandated survey of SCHIP enrollees and disenrollees in 10 states.

^aBased on an email from Marilyn Ellwood on July 3, 2003, these children are part of the separate SCHIP program. As a result, they are given a MAS/BOE code of 00, as they are not Medicaid enrollees.

^bBased on an email from Lorenzo Moreno, of MPR, on 6/24/2003, the MPR eligibility code for AAFCN = 1.

^cBased on an email from Lorenzo Moreno, of MPR, on 6/24/2003, the MPR eligibility code for MADNN = 3.

BOE = basis of eligibility; MAS = maintenance assistance status.

2. Life-Table Methods: Descriptive Analysis

We used the life-table method, a statistical approach for analyzing data on duration of participation in a given status, for the descriptive analyses of enrollment and exit spells (Namboodiri and Suchindran 1987). Specifically, we used the life-table method for estimating the cumulative distribution of children who remained enrolled in SCHIP (and in Medicaid, in California and North Carolina) at specific durations since enrollment (that is, the “survival function” in the parlance of life-table methods). Similarly, we used a life table for estimating the cumulative distribution of children who reenrolled in SCHIP at specific durations since leaving the program.³⁵

The life table is the appropriate approach for overcoming one of the problems of event-history data (enrollment histories), that of censoring of the experience of individuals in a specific status. Censoring occurs when enrollment or exit spells are ongoing at the time the investigation ends (that is, the data set is truncated at December 31, 2002; see Figure C.1). Unless censoring present in the sample is adequately factored in, any estimates of the mean duration of enrollment in a specific status will be biased downward.

To estimate the enrollment and reenrollment life-table distributions for each subgroup of interest, for each state, for groups of states, and for all states pooled, we used STATA (StataCorp 2003). To estimate these distributions, we used the sample weights developed for the surveys of SCHIP and Medicaid enrollees and recent disenrollees to account for the fact that the enrollment and exit spells correspond to a representative sample of children in each state.^{36, 37}

³⁵The percentage of children who have reenrolled in SCHIP at selected durations since leaving SCHIP is calculated as $(1 - S_{[x]})$, where $S_{[x]}$ is the cumulative distribution of children who remain disenrolled from SCHIP at selected durations since leaving the program.

³⁶Neither STATA nor SUDAAN—another statistical package for analyzing complex survey data—allow for the specification of the survey design (a two-stage clustered design) for estimating the variances of the life table estimates. However, STATA allows for the use of sampling weights with life-table methods. (SUDAAN allows for

We used the estimates of the quartiles of the enrollment and reenrollment distributions to define the *tri-mean*, a robust measure of central tendency (Tukey 1977). This measure is defined as:

$$T = \frac{P_{25} + 2P_{50} + P_{75}}{4},$$

where P_{25} , P_{50} , and P_{75} denote, respectively, the 25th, 50th, and 75th percentiles of the cumulative survival distribution.³⁸ In some instances, at least one of the quartiles of the cumulative distribution could not be determined because of data censoring, so the tri-mean could not be estimated. In those instances, we reported the longest interval between enrollment and the end of the follow-up period, which can be interpreted as a lower bound of the median and tri-mean. To test whether the distributions of enrollment (or reenrollment) varied across subgroups, we used a variant of the log-rank test for weighted data, using Cox regression.^{39,40} We also estimated the percentage of children who exited at selected durations from the corresponding

(continued)

sampling weights and for the specification of the survey design only for proportional hazards models [see next section]). In our judgment, for a descriptive analysis such as the one presented in this report, it is more critical to use the appropriate weights in our estimates than to account for the survey design. Moreover, the estimator for the variance of life-table estimates is very different from that of simpler estimates, such as means and proportions, so there have been no attempts to calculate the life-table variances under complex sampling designs. Although weighted life-table estimates are unbiased, their variances could potentially be underestimated as the result of not accounting for the survey design.

³⁷We did not present the distribution for a given subgroup's category if it had less than 10 unweighted observations.

³⁸These percentiles correspond to the three quartiles of the distribution. The second quartile, or P_{50} , corresponds to the median of the distribution.

³⁹We used the so-called "Cox" test (StataCorp 2003), which is equivalent to fitting a proportional hazards model (see next section), with binary indicators for each of the subgroups under consideration. The test is whether the coefficients are zero and hinges on the assumption of proportionality between hazards across subgroups. None of the alternative tests to assess the equality of survivor functions across subgroups (such as the Peto-Peto test or the Wilcoxon test) have been developed for weighted data.

⁴⁰We did not present the p-value for this test if any subgroup category had fewer than five unweighted exits (or reentries).

survival distribution. For instance, in states in which eligibility is renewed every 12 months, we estimated the percentage of children who exited at first renewal as $S_{[13]} - S_{[11]}$.⁴¹

The sample size involved in the calculations varies by the duration of the interval between enrollment (or exit) and the end of the study period (December 2002). In the month of enrollment, the sample size is equal to all children in the study sample. However, as children leave the program or as the end of the study period arrives while the children are still in the program, the size of the sample decreases. Consequently, for long intervals since enrollment, the sample size might be too small to obtain robust estimates of the rate at which children exit SCHIP (or reenter it). As a result, the estimate of the percentage who remain in SCHIP at long durations since enrollment might be unstable and must be interpreted cautiously.

3. Life-Table Methods: Analysis of the Determinants of SCHIP Enrollment and Reenrollment

We used multivariate, life-table regression methods to examine the association between program experience and the length of enrollment and length of reenrollment for the samples of recent enrollees and disenrollees, respectively. The determinants and individual- or family-level control variables were constructed from both survey and program data.⁴² This methodology is called the *Cox proportional hazard model*, as this type of model assesses the effects of individual characteristics on the hazard (or conditional event rate) function, one of the life-table distributions (Namboodiri and Suchindran 1987). We used a SUDAAN program to fit this type of regression model to account for the sample weights and survey design. We also used a

⁴¹We allowed for an extra month in our estimate because the eligibility renewal process usually takes several weeks to complete. In Florida, which renews eligibility every 6 months, we estimated this percentage as $S_{[7]} - S_{[5]}$.

⁴²Age and whether the spell is the first ever are from the program data.

STATA program to test a key assumption of these models—whether the hazard function for a subgroup was proportional to the hazard function of another subgroup.⁴³

We report the exponentiated coefficients of the determinants of continuation of coverage or reenrollment. When the assumption that the hazard functions are proportional is violated, the exponentiated coefficient has the interpretation of an *average relative risk (or hazard ratio)*—that is, the average ratio over time of the probability of exiting (reenrolling) SCHIP at any duration since enrollment (exit) for children in a subgroup relative to the probability of exiting (reentering) for children in another subgroup, controlling for individual characteristics.⁴⁴ Therefore, this ratio can be interpreted as an average change in the probability of being in one subgroup relative to being in another, controlling for other characteristics.

⁴³This assumption means that, at any duration since enrollment, both the hazard function and the cumulative distribution of children who exit from (or reenter) SCHIP are parallel for any two subgroups. The difference between the functions for the two subgroups is proportional to the value of the coefficient of the subgroup indicator in the regression model.

⁴⁴We interpret all results in this manner, as doing so applies to cases in which the proportionality assumption is violated and to cases in which it is not violated.

REFERENCES

- Hill, Ian, Corinna Hawkes, and Mary Harrington. "Congressionally Mandated Evaluation of the State Children's Health Insurance Program: Final Cross-Cutting Report on the Findings from Ten State Site Visits." Report submitted to the U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. Princeton, NJ: Mathematica Policy Research, Inc., December 2003.
- Kenney, Genevieve, Christopher Trenholm, Lisa Dubay, Myoung Kim, Lorenzo Moreno, Jamie Rubenstein, Anna Sommers, Stephen Zuckerman, William Black, Fredric Blavin, and Grace Ko. "The Experiences of SCHIP Enrollees and Disenrollees in 10 States: Findings from the Congressionally Mandated SCHIP Evaluation." Final report. Princeton, NJ: Mathematica Policy Research, Inc. and The Urban Institute, October 2005.
- Namboodiri, Krishnan, and C.M. Suchindran. "Life Table Techniques and Their Applications." New York: Academic Press, Inc., 1987.
- Nelson, Charles, and Robert Mills. "The March CPS Health Insurance Question and Its Effect on Estimates of the Uninsured." Washington, DC: U.S. Bureau of the Census, August 2001. Available online at [www.census.gov/hhes/hlthins/verif.html].
- Rajan, Shruti, Stephen Zuckerman, and Niall Brennan. "Confirming Insurance Coverage in a Telephone Survey: Evidence from the National Survey of American's Families." *Inquiry*, fall 2000, vol. 37, no. 3, pp. 317-327.
- Stata Corporation. "Survival Analysis and Epidemiological Tables." *Stata Statistical Software: Release 8*. College Station, TX: Stata Corporation, 2003.
- Zambrowski, Amy, William Black, and Lorenzo Moreno. "Obtaining Program Data for SCHIP Evaluation Sampling and Analysis: Availability and Reliability." Draft report. Princeton, NJ: Mathematica Policy Research, Inc., February 2003.