

Survey of Income and Program Participation

A Methodological Study Using
Administrative Records: The Special Frames
Study of the Income Survey Development Program

No. 8814 61

Weltha J. Logan, Daniel Kasprzyk, and
Roger Cavanaugh

July 1988

The authors wish to thank all those who helped to make the Special Frames Study a unique methodological study. This includes the many contacts with the participating agencies, staff members at the Bureau of the Census, Social Security Administration and in the Office of the Assistant Secretary for Planning and Evaluation. Special thanks are due to Census Bureau Staff who graciously made their space available for the review of the data; to Robert Klein and Janice Olson of the ISDP staff, whose comments in early stages of text preparation as well as Janice's primary role in this summation process were very helpful, and most particularly to Denton Vaughan for his ever present assistance in text editing of this report.

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Chapter I

Overview of the Special Frames Study

The Income Survey Development Program (ISDP) was conducted by the Department of Health and Human Services (HHS) and the Bureau of the Census to examine and resolve operational, technical, and content issues in the design of the Survey of Income and Program Participation (SIPP). The SIPP, planned as a national longitudinal household survey program to collect data on cash and in-kind income, program eligibility and participation, net worth and related variables, was scheduled to begin in 1982. Although eight million dollars and twenty-six positions were included in the Administration's Budget before Congress, the Social Security Administration's request was not confirmed and SSA work relating to the SIPP was terminated. Information concerning the ISDP and the SIPP may be found in Kasprzyk and Lininger [38], Lininger [40] and Ycas and Lininger [51].

The Special Frames Study was initiated in July and August 1980 as the fourth field activity of the ISDP. This activity was a five State pilot survey of 1900 persons and members of their households selected from six administrative record systems. Personal interviews were conducted to provide an income profile of each adult selected for the study. The purposes of the Special Frames Study were primarily methodological:

- To assess the feasibility of using administrative record systems as sampling frames;
- To test the interviewers' ability to locate respondents from addresses listed on administrative records; and
- To determine the efficiency of the 1979 ISDP questionnaire in identifying program participants, their benefit amounts and other specified data.

This chapter provides general descriptions of the basic features of the Special Frames Study.

Origin of the Study

The use of administrative records to improve sampling efficiency and to improve measurements of program participation and changes in

program participation on a subannual basis had been established as research objectives early in the ISDP. The former requires knowledge of the administrative record systems, file structure and content, and the accuracy of addresses. The latter requires knowledge of program participation and benefit amounts from an accurate source. These issues had been addressed somewhat in earlier ISDP field activities. In particular, Griffith and Kasprzyk [16] discuss the use of administrative records in the ISDP, and Vaughan [47], Klein and Vaughan [39], and Kaluzny and Butler [24] discuss the accuracy of survey reports of the reciprocity and amount of benefits. The papers cited, however, discuss only a selected few programs; Aid to Families with Dependent Children (AFDC) and Supplemental Security Income (SSI).

In the fall of 1978, to address the research objectives of the ISDP more effectively, the Assistant Secretary for Planning and Evaluation (ASPE) recommended that additional evaluation work be initiated on these topics. As a result, the ISDP staff began a small research program to identify administrative record systems, characteristics and content of the information systems, and characteristics of the programs. A series of internal ASPE and Bureau of the Census memoranda ([13-15] - [25-33]) relate the results of this investigation. The principal finding of the investigation was that program administration and most record systems are neither centralized nor uniform. This divergence among record systems, along with the issues of data accessibility and transfer, forced HHS and the Bureau of the Census Staff to limit the projected scope of the study by reducing the number of programs and geographic areas 1/.

The Scope of the Study

The Special Frames Study was a methodological study of the ISDP which investigated the use of administrative records to improve sampling efficiency for persons receiving benefits and analyzed household survey reports of program participation and benefit amounts. Sampling from administrative records addresses twin concerns: that program participants 1) may not be successfully identified in household surveys and 2) will be too few for most policy analyses in an area probability sample. Analysis using both survey-reported and administrative data allows a case-by-case comparison to improve our understanding of survey-reported program data.

Time and personnel constraints dictated the limitation on the number of administrative record systems to be included in the study. While on one hand, the need for diversity of experience recommended as many programs as possible; on the other, the time required to arrange for sample selection, the willingness of the agency to participate, and the number of States (for State-administered programs) to contact

recommended that fewer programs be considered. Overall, though, the primary objective was to obtain experience with administrative record systems which were likely candidates for use in future national longitudinal household surveys.

States participating in the study would have to be relatively few in number and still provide a reasonable amount of information on the diversity of administrative record systems for the same program. Also contributing to the State selection process was the geographic dispersion of the States, the accessibility of the administrative files, the availability of experienced ISDP interviewers and trainers, and the availability of several administrative record sources within each State 2/.

Sample Size and Design

Samples for the Special Frames Study were selected from six administrative sources: Unemployment Insurance (UI), Aid to Families with Dependent Children (AFDC), Workers' Compensation (WC), Old Age Survivors and Disability Insurance (OASDI), Veterans Administration Compensation and Pension File (VA), and the Internal Revenue Service (IRS). Persons sampled from the first five administrative sources were personally interviewed during July 1980, while the IRS sample was interviewed during August 1980. Total sample size for the Special Frames Study was approximately 1,900, with the following targeted number from each source:

<u>Sampling Frame</u>	<u>Sample Size</u>
Unemployment Insurance	252
Aid to Families with Dependent Children	264
Workers' Compensation	90
Old Age, Survivors and Disability Insurance	264
Veterans Administration Compensation & Pension	240
Internal Revenue Service	<u>800</u>
	1,910

Unlike the 1978 and 1979 ISDP Research Panels, which were national probability samples, the Special Frames sample was spread over 26 Primary Sampling Units (PSU) 3/ in five States: Pennsylvania, North Carolina, Wisconsin, Missouri, and California.

Three of the samples for the Special Frames Study: UI, AFDC, and WC, were drawn from State record files. The OASDI, VA, and IRS samples were obtained from Federal record systems, maintained respectively by the Social Security Administration, Veterans Administration, and the Internal Revenue Service. Each Special Frames sample was drawn by the

State or Federal agency that maintains the specific record system, with the exception of the IRS sample, which was selected by the Bureau of the Census. A set of guidelines for selecting the sample was provided to each agency requesting that the sample be random and dispersed geographically throughout each PSU.

Sample selection for the IRS sample was more complicated than the other programs primarily because of the need to oversample upper-income tax filers as well as Schedule C tax filers (persons who operated a business or professional practice), Schedule F tax filers (persons reporting income & expenses from a farm) and SE tax filers (persons who claimed themselves as self-employed).

The samples for this study were newly selected. However, since the study was conducted in current ISDP PSU's, the possibility of selecting persons sampled for previous panels existed. No systematic attempt was made prior to field enumeration to determine whether an individual participated in previous ISDP panels. If such a case had been discovered, it would have been excluded from the study.

The Special Frames Study samples consisted of persons, not households, selected from administrative program records which were one to three months old at the time of the interview 4/. Thus, prior to the interview, an address check was completed through the United States Postal Service for all persons sampled. The purpose of the Advance Post Office Check (APOC) was to update addresses on the administrative record which had changed or were incorrect. This procedure expedited the location of sample persons thereby saving interviewer time and travel costs. It also permitted evaluation of the accuracy and currency of address listings of participants of programs as supplied by administrative record systems, and evaluation of the feasibility of using the postal service for verification of addresses.

Field Procedures

Procedures used by interviewers for the Special Frames Study were very similar to those used in earlier ISDP field activities (see 1979 Panel documentation [52]). The questionnaire (Form ISDP-7101) closely resembled the ISDP-101A questionnaire, which was used for Wave 1 of the 1979 Research Panel. Differences in questionnaire content included items dealing with employment, Veterans Administration income (disability, compensation or pension), food stamp reciprocity, and asset income amounts 5/. A copy of all Special Frames Study Forms is included in the Appendix.

As in all previous ISDP field work, to encourage participation, an introductory letter (Form ISDP-7105L), signed by the Director of the

Bureau of the Census was sent to all sample addresses. The letter described the study and notified persons at the sample addresses that they would be visited by an interviewer from the Bureau of the Census. A Statement regarding the privacy of the information was also provided. The Special Frames Study was conducted under Title 13, U.S. Code; therefore, all information given to the interviewer was confidential by law and to be used only for statistical purposes.

Interviewers were provided control cards (Forms ISDP-7102 & 7102A) 6/ with the names and addresses of the persons selected from the administrative records ("sample persons"). The interviewer was instructed to locate the sample person identified on the control card and interview all individuals 16 years or older living in the sample person's household. If the sample person was under 16 years of age, he/she was not interviewed, but all other eligible members of the household were.

Interviews were conducted by Bureau of the Census personnel who had worked on previous ISDP panels. Since interviewers were experienced, training for the Special Frames Study consisted of a two-day "refresher" session which focused on reviewing the questionnaire and interviewing procedures, and identifying the differences between the Special Frames Study and previous ISDP field work.

Several procedural differences between Special Frames and previous ISDP field work are important to note. First, in July, interviewers determined whether the sample person lived at the original household address obtained from administrative records. If so, all eligible persons living in the household were interviewed. If not, no interviews were taken at that address; instead, the interviewer would try to obtain the sample person's current address and interview him/her and all other eligible persons living at that current address. In August, the interviewer did not ask whether the sample person lived in the household. Instead, the household roster 7/ was recorded on the control card. An item on the control card instructed the interviewer to continue the interview if the sample person's name was listed on the household roster. If the sample person did not reside in the household, the check item instructed the interviewer to ask a short series of economic and demographic questions and then end the interview. Information from these questions was compared with corresponding information obtained about the sample person when he/she was located.

Second, self-employment income information was collected from all eligible respondents (Form ISDP-7107). The purpose of the latter questionnaire was to obtain more detailed information on income-related topics for nonfarm self-employed persons for the months of

April, May and June. The questionnaire itself was similar to the mail-out form used for the first calendar quarter of the 1979 Research Panel (see Appendix).

Third, an additional form was given to the interviewers to complete when a sample person did not live at the address noted on the control card. The Questionnaire for Sample Person Address Location Problems (Form ISDP-7111) was created specifically for the Special Frames Study to characterize the problems associated with hard-to-locate sample persons. The questions help the interviewer describe the major problems encountered while trying to locate the sample person's current household address.

Data Analysis

The Special Frames Study data were analyzed by the Department of Health and Human Services and the Bureau of the Census. Plans for analysis of the data consisted of:

- evaluating selected data items by obtaining recipient benefit data from the administrative record files used to select the sample, and comparing them with data collected in the Special Frames interviews. Problems of misreporting, nonreporting, recall, and accuracy of amount reporting were evaluated;
- analyzing location problems encountered by interviewers stemming from incorrect, inaccurate, or commercial addresses supplied by administrative records;
- comparing basic household economic and demographic data obtained for the IRS sample persons who moved, with data obtained for the households that replaced them; and
- analyzing income-related information obtained from self-employment income questionnaires.

Chapter II

Sampling Procedures

Introduction

Samples for the Special Frames Study were selected from six administrative record systems in 26 PSUs in five States: Pennsylvania, North Carolina, Wisconsin, Missouri and California. State files were used to select a sample of individuals receiving benefits from UI, AFDC and WC; OASDI and VA records were sampled from national frames. A sixth file, the IRS Individual Master File of taxpayers, was used to select taxfilers reporting certain types of income. Each administrative frame was not sampled in every State. Table 1 shows the final sample sizes by State, PSU and administrative frame, along with the county makeup of each PSU, and the number of experienced interviewers available.

Sampling Specifications

The Statistical Methods Division (SMD) of the Bureau of the Census defined the sample selection specifications for each participating agency. Since records for the programs of interest are maintained at both the federal and State level, HHS and Census staff contacted key personnel at federal and State agencies to discuss access issues and to assess the feasibility of implementing Bureau of the Census sampling procedures. Ultimately, because of the amount of work required to write State-specific and program-specific sampling requirements, SMD defined general sampling specifications which required a systematic selection of sample persons geographically dispersed throughout the participating counties. Agencies were requested to describe the procedures actually implemented at the time the sample listings were provided to Census. In several instances, the creation of the sample universe file was more complicated than the sample selection itself. Described below are the files used, their general content, a description of the sample universe for each program and the information actually received from the agencies.

Table 1: Sample Sizes by State, PSU and Administrative Frame

State	PSU	Interviewers (# of)	Counties	Administrative Frame						July Totals:	Aug. IRS	1980 Totals:
				UI	AFDC	WC	OASDI	VA				
Penn- sylvania	101	2	Berks	17	11	11	11	10	60	45	105	
	102	1	Lehigh, Northampton	8	6	5	5	6	30	26	56	
	103	1	Luzerne	8	5	6	5	6	30	25	55	
	111	4	Bucks, Chester, Delaware, Montgomery, Philadelphia	33	22	22	20	21	118	91	209	
	115	2	Allegheny, Beaver,	16	11	11	11	11	60	47	107	
	120	1	Washington, Westmoreland Lancaster	8	5	5	6	6	30	24	54	
				90	60	60	58	60	328	258	586	
North Carolina	528	2	Forsyth, Guilford,	26	15	-	10	-	51	44	95	
	533	2	Randolph, Yadkin	22	15	-	11	-	48	40	88	
	535	1	Durham, Orange	13	8	-	5	-	26	19	45	
	609	1	Granville, Person	13	8	-	5	-	26	23	49	
	639	1	Cleveland, Gaston	13	8	-	5	-	26	20	46	
					87	54	-	36	-	177	146	323
Wisconsin	300	1	Milwaukee, Ozaukee,	-	8	8	6	7	29	23	52	
	326	1	Washington, Waukesha	-	7	7	7	7	28	25	53	
	432	1	Dane	-	8	8	7	7	30	24	54	
	449	1	Green, Rock	-	9	7	8	6	30	7	37	
					-	32	30	28	27	117	79	196

Table 1: Sample Sizes by State, PSU and Administrative Frame (con't)

State	PSU (# of)	Interviewers	Counties	Administrative Frame					July Totals:	Aug. IRS	1980 Totals:
				UI	AFDC	WC	OASDI	VA			
Missouri	301	1	Cass, Clay,	16	-	-	5	7	28	25	53
	306	2	Jackson, Platte Franklin, Jefferson								
	357	1	St. Charles, St. Louis	36	-	-	9	15	60	44	104
	<u>3</u>	<u>4</u>	City, St. Louis County Carter, Shannon	6	-	-	5	7	18	2	20
				58	-	-	19	29	106	71	177
California	702, 762	6	Los Angeles	-	44	-	41	42	127	86	213
	703	4	Alameda, Contra Costa, Marin, San Francisco, San Mateo								
	704	2	Riverside, San Bernardino	-	28	-	28	29	85	43	128
	706	2	Placer, Sacramento, Yolo	-	14	-	14	14	42	23	65
	707	1	Santa Clara	-	14	-	15	14	43	23	66
	709	1	San Diego	-	7	-	7	6	20	22	42
	715	1	Kern	-	6	-	7	6	19	22	41
	<u>8</u>	<u>17</u>		-	7	-	7	7	21	24	45
				-	120	-	119	118	357	243	600
	TOTALS:	26	43		235	266	90	260	234	1,085	797

Unemployment Insurance Sample

The files of Unemployment Insurance claimant records maintained by State Employment Security Offices in Pennsylvania, Missouri and North Carolina were used for selecting a sample of UI claimants. When a worker is separated from a job and is not immediately re-employed, he/she may file an initial claim at a local claims office. After the initial filing, an eligible claimant files a continued claim for each week of unemployment. UI samples were drawn from the list of continued claimants for the week of April 28 through May 2, 1980 in each of the specified States. The number of UI continued claimants for each PSU is shown in Table 1. Since States have differing claimants systems, general procedures provided by SMD were used to select these samples. Each State was asked to select a systematic sample within each PSU, taking care that sample persons were geographically dispersed throughout the county.

The list of UI claimants sent to the Bureau of the Census was to contain the following information: State name, PSU number, claimant's name, social security number, current living address, age, sex, race, and amount and duration of weekly benefits. The initial submissions from the UI data files included only the number and amounts of each payment received in April, May and June, 1980. An additional request was later made by the Census Bureau to obtain the information for January, February and March and to include the date each payment was mailed. North Carolina and Missouri wanted formal letters of request for the information and copies of all previous correspondence. A query of the Missouri data files record layout revealed a difference between what was requested and the data actually available. The data item most like "Date Payment Was Mailed" is the "Process Date"--the date the check was processed by the agency. This should not vary more than 2-3 days from the mailing date. In addition, the request for current lay-off data was clarified; it was important to distinguish between current and past lay-off dates as people are periodically laid off from jobs.

Aid to Families With Dependent Children

The April 1980 payment file of Aid to Families with Dependent Children (AFDC) assistance groups maintained by the Welfare Director of each State agency--Pennsylvania, North Carolina, Wisconsin and California--was used for selecting a sample of persons receiving AFDC program benefits. Since each State maintained a different AFDC record system, general procedures provided by SMD were used to select these samples. A systematic sample was selected within each PSU, again with the caution that sample persons were geographically dispersed throughout

the county (Table 1 shows the number of sample persons within each PSU).

The AFDC sample file sent to the Bureau of the Census was to provide the following information for each sample person: name, social security number, number of persons in assistance group, maximum AFDC grant, amount of AFDC grant, amount of payments in excess of the maximum AFDC grant, amount of AFDC reduction, race, and sex. Again it was necessary to request further information from several of the participating agencies: Pennsylvania, North Carolina, and California.

Workers' Compensation Sample

A small sample of persons receiving payments for wages lost due to job-related injuries was selected from the Bureau of Workers' Compensation files maintained by the Pennsylvania Department of Labor and Industry and the Department of Industry, Labor and Human Relations of Wisconsin. As in other State agency-selected samples, sample persons were to be geographically dispersed within each designated county; in addition, the sample was selected to avoid having a number of persons with similar characteristics (i.e.; date of first payment, age, race or sex). The listing of sample persons submitted by each State agency to the Bureau of the Census contained the State name, PSU number, county name, claimant's name, social security number, and current living address. Recipients from the Wisconsin frame began receiving payments no earlier than May, therefore payments were recorded only for the last month of the reference period. Table 1 shows the number of the Workers' Compensation Cases for each PSU.

To investigate the quality of survey-reported data; it was necessary to request, in addition, the number and amounts of payments received by persons on the Pennsylvania sample list for the months of April, May and June, 1980. Pennsylvania, in turn, asked for a formal letter explaining the need for additional information and a copy of all previous correspondence, including the sample listing.

Old Age, Survivors and Disability Insurance Sample

The Old Age, Survivors and Disability Insurance (OASDI) sample was selected from the Master Beneficiary Record (MBR) of the Social Security Administration (SSA) by SSA staff in Baltimore, Maryland. The MBR is an administrative system which maintains data on benefit amounts, payment history, pertinent demographic characteristics, and other information needed to administer the OASDI program.

Prior to sample selection, a universe file was created that contained all individuals with an ISDP PSU mailing address who were receiving

OASDI as of March 20, 1980, except for: eligible spouses receiving OASDI in 1980 (this helped to reduce multiple chances for selection of these households), adult recipients with representative payees $\frac{8}{}$; children under 18 years of age with a representative payee other than a parent living at the same address; institutionalized persons; and OASDI recipients in terminated, suspended, or deferred pay status.

A record was transferred from the MBR file for each person in this universe, containing the following information: PSU, age, race, social security number, recipient name, representative payee flag, custody code, recipient street address, and State and County. This sub-file of individuals was then sorted by PSU, by race (white; black; other; unknown), and by five age categories: (less than 18 years; 18-34 years; 35-49 years; 50-64 years, and 65 years and older). A systematic sample was then selected from this sampling universe and the information transmitted to the Bureau of the Census for interviewing purposes (see Table 1 for the number of OASDI sample persons in each PSU).

In September, the Bureau of the Census requested further information for the data validation project and was asked to send a formal letter identifying the additional information needed. Clarification of the OASDI data file layout was necessary to update data items which did not match the initial request:

- Amount and number of payments: OASDI can furnish the amount paid for each month rather than the actual amount paid in each month, since benefits may have been withheld during the month in question because of previous over-payment(s). In perhaps 10% of cases the amount a person should have received is reported rather than the amount actually received.
- Medicare coverage: This item, obtainable only for disabled primary beneficiaries or their widows and children, yields the date of eligibility to the program, not usage.
- Part B premiums paid by a local welfare office: Information is available for Part B premiums paid by "3rd parties." Local welfare agencies are a subset of these.
- Whether or not benefits were reduced because of earnings: The accepted terminology for this is "partial payments," with the category "reduced benefits" implying a totally different concept.

Veterans Administration Sample

The Veterans Administration sample was selected from twenty PSUs in four States (Table 1) by VA staff during a routine updating of the April, 1980, VA Compensation and Pension File (C & P File) national master file 9/. This file contains records of benefits provided as disability compensation, dependency and indemnity compensation, disability pension, death pension, or burial allowance.

Due to time constraints, a simplified sampling procedure was used by the VA. No preliminary file sorting was performed; although only records representing payments to individuals within households were used, these were sampled directly from the C & P File. The file is ordered by the last two digits of the VA case number which the VA maintains is essentially unrelated to the characteristics of the recipients.

Since the PSUs were not designated within the C & P file, they were identified by the Statistical Methods Division from a list of zip codes for the counties composing the PSU. These had been manually obtained from United States Postal Service publications and were not necessarily complete. Erroneous zip codes leading to the selection of addresses from the wrong PSU and addresses, such as the recipient's bank, rather than household, were expected, thus the VA was asked to provide twice the desired number of names and addresses from each PSU. The Field Division of the Bureau of the Census was instructed to contact a targeted number of addresses in the order of selection by the VA: the remaining names constituted a supplemental list to replace any of the first list that were not households in that PSU. The 100 percent oversample was overly cautious; in retrospect, 25 percent above the target would have been sufficient.

The VA-extracted file given to Census contained the following information: VA file number, claimant name, sex, marital status, percent disability, total number of dependents, effective date of original award, number of payments for months of January through June 1980, amount and type of special payment, and amount and type of recurring benefit.

Additional administrative information requested at a later date by HHS and the Bureau of the Census included: number of payments received in the first six months of 1980, gross and net amounts of those payments, the length of time recipient has received VA payments (i.e., date payments began), type of recipient, number of people covered by the payment (and names, if possible), benefit type: compensation or pension, payments made under the G.I. bill, or for G.I. life

insurance, and the basic payment amount as well as any allowances, special payments, or amounts given individually and not aggregated.

The administrative data were supplied by VA after receipt of a formal letter enclosing prior correspondence concerning the confidentiality issue as well as the VA sample listing. Some items requested that differed from what was actually supplied included:

- Number of persons covered by payment and their names: While the number of persons covered is available in all cases, names cannot be provided for all those covered. A "stub name" which contains the first initial of the first and second names and the first five letters of the last name of the primary beneficiary and possibly the spouse and children, has recently been added to the VA layout; it may not be part of all records.
- Sex: Since the VA assumes all veterans to be male and spouses to be female, inaccurate information may be provided for this item. Also, VA has discontinued allocating a sex code for children.
- Marital status: The closest item to this is the VA "Dependency" code which provides the person's relationship to the primary beneficiary.
- Basic payments in addition to any allowances, special payments, amounts given individually, not aggregated: The only additional amount VA could provide on an "individual" level would be an annual clothing allowance.
- Payments made under the GI Bill: VA maintains three basic files, the Compensation and Pension File, which was sampled for the study, an education file and a Chapter 31 file for seriously disabled veterans receiving both compensation and/or pension and education benefits. Since a separate operation would be needed to provide the information from the education file, this item was not pursued.
- Payments for GI Life Insurance: Although this data is maintained on a fourth VA file, the information was available through the C & P file since most veterans have life insurance payments deducted from their compensation and/or pension payment.

Internal Revenue Service Sample

The source of the IRS sample of 800 cases was the 1978 Internal Revenue Service Individual Master File (IMF) records for the five participating States. The IMF is a record of selected income and tax information from all Individual Income Tax returns pertaining to wages, dividend and interest income, taxes paid, exemptions and the tax identification record. Amended and audited returns are maintained in separate modules. Selection was made from income tax returns of primary taxfilers whose filing addresses were in the designated PSUs and whose social security number ending digits fell within the 1979 Statistics of Income (SOI) sample. A subset of the cases were drawn from returns which were also contained within SSA's Continuous Work History Sample. A double sampling approach was used for the selection of IRS Form-1040 and 1040A series returns in this file. Stratification by type of return (business or non-business) and the amount of adjusted gross income (AGI) took place prior to initial selection based on the terminal digits of the primary tax-filer's social security number. From this, a systematic subsample was selected from each of the strata by Bureau of the Census staff. Identification of primary taxpayers was made, and household information was transmitted for transcription to the control cards. This sampling procedure was based on a proposal by Fritz Scheuzen of the Internal Revenue Service to provide for a larger than proportional allocation of high income and self-employed returns. Table 1 presents the number of persons selected from the IRS file.

Chapter III

Field Procedures and Data Collection

To evaluate the effectiveness of the ISDP questionnaire, the Special Frames Study replicated many of the field procedures of the 1979 ISDP Panel. The specialized nature of the sample and the study led, however, to some differences in interviewer procedures. This chapter will delineate similarities and differences.

Authority and Confidentiality

The Special Frames Study, as all ISDP field activities, was conducted under the authority of Title 42, Section 1310 and Title 13, Section 182 of the United States Code. All data collected are held confidential by law (Title 13, U.S.C.). Identifiable data can be seen only by sworn agents of the Bureau of the Census engaged in the analysis of the survey data and cannot be disclosed or released to others for any purpose.

Questionnaire and Income Source Summary

The questionnaire (ISDP-7101) was very similar to the ISDP-101A used in Wave 1 of the 1979 ISDP Research Panel [52]. Minor changes were made to update the ISDP-101A to the 1980 interview period, and to test revisions in areas of employment, Veterans Administration income, food stamp reciprocity and asset income amounts. The Income Source Summary (ISS:ISDP-7103) was identical to that used in the 1979 Panel 10/.

Interviewer Training

The availability of experienced ISDP interviewers and supervisors played a role in the selection of the participating States. The "refresher" training, which focused on the differences between the 1979 ISDP Panel and the Special Frames Study, was conducted in the Regional Offices with jurisdiction over the respective participating States. The Special Surveys Branch, Demographic Surveys Division of the Bureau of the Census, provided a verbatim training guide.

Covered in the two-day sessions were basic changes between the 1979 ISDP Panel and the Special Frames Study with respect to respondent

rules, mover rules and interviewing procedures. Since interviewing procedures differed for the months of July and August, each period was handled separately by the trainers.

Interviewing and Field Procedures

A major distinction between the Special Frames Study and other ISDP field activities was that the entire Special Frames sample was a person sample rather than an address sample. For each person sampled, the interviewers were given a control card containing the sample person's name and address. Interviewers were instructed to locate the sample person and interview all individuals, 16 years old or older (who were physically and mentally competent) currently living in the sample person's household. If the sample person was under 16 years of age, he/she was not interviewed, but all other eligible members of the household were asked to respond. Proxy respondents were used when an eligible person was physically or mentally incompetent, or was absent at the time of the interview. This included persons who had been household members at any time during the 3-month reference period. Children's income items were to be answered by a knowledgeable household member who was 16 years or older, preferably a parent, guardian, or the adult responsible for the child. These practices correspond to "usual" respondent rules; that is, self-respondent interviews were conducted with all eligible household members present at the time of the initial contact, and a proxy interview accepted for any household member 16 years or older (including the sample person) not present at that time.

As in previous ISDP field activities, each eligible household in the study was to be classified as an interview or noninterview by the interviewer. The distinction in definition between this study and earlier field activities was minor. As before, if an interview was obtained for any eligible household member, the unit was classified as an interviewed household. Household noninterviews were defined as one of two types, Type A or Type C, while Type Z noninterviews referred to persons in participating households who refused to cooperate or were absent and no other member of the household felt able to respond on his/her behalf.

Type A noninterview households were, as in the 1979 Research Panel, entire households which refused to be interviewed or could not be contacted. Determination of Type C noninterview status was on the basis of whether or not a sample person was a member of the household at the time of the interview. Type C was assigned to the household if the sample person had moved more than 50 miles from any Special Frames PSU in the State or had moved out of the State in which he/she was originally identified as living, was in the military and living in

Armed Forces barracks, was institutionalized, deceased, or had earlier participated in the ISDP. A Type Z noninterview status indicated that other members of a household had been interviewed, but that a 16+ member of the household had not, nor could a proxy interview be obtained.

The July and August interviewing procedures differed so that in August a comparison could be made between the households selected from the IRS file and their replacement households at the sampled address if the original sample person had moved.

In July, interviewers determined whether the sample person lived at the original household address obtained from administrative records. If so, all eligible persons living in the household were interviewed. If not, no interviews were conducted at that address; the interviewer would try to obtain the sample person's current household address and all those eligible at the sample person's current address would be interviewed.

Each household visited in August was the source of a certain amount of economic and demographic information whether or not the sample person lived in the household. Information collected at households from which the sample person had moved was then compared to corresponding information collected at the sample person's current household address. The interviewer did not ask if the sample person lived in the household. This information was obtained in the course of the interview, as the household roster was completed by the interviewer. A "check item" on the control card identified whether or not the sample person's name was listed on the household roster. If the name was listed, the control card was completed and all eligible persons living there interviewed. If the sample person's name did not appear on the household roster at the original address entered on the control card, the interviewer completed the entire control card, ended the interview and determined the sample person's current household address.

In both July and August, rules for following sample persons and their households who were no longer at the sample address did not differ from previous ISDP field work. Interviewers were instructed to follow only the sample person of a household who had moved from his/her original address. If the mover was within 50 miles of the PSU in the State in which the original address was listed, the person was followed either by the interviewer to whom first assigned, or by an interviewer whose assignment area was closer to the new address. Sample persons moving from one Special Frames PSU to another in the same State were also followed. Sample persons who had moved out of the State in which they were originally listed were classified as a

Type C noninterview. Other sample persons not followed were those institutionalized, military personnel living in Armed Forces Barracks, those no longer living in the United States and those who had died. An attempt was made to obtain a new address for Type C noninterviews, but no further contact was required.

Several sources contributed to a better understanding of the problems of locating sample persons; these were the ISDP-167, Name and Address Correction Request Card, sent to U.S. Postal Service Office for the sample address (also called Advance Post Office Check--APOC); the ISDP-7102 and 7102A, July and August Control Cards; and the ISDP-7111, Special Frames Study Questionnaire for Sample Person Address Location Problems, to be discussed below. Each of these forms was unique to the Special Frames Study and (except for the Control Cards) intended to provide a more thorough examination of household mover rates. The ISDP-7111 was to be filled out if the sample person had moved from his/her original address whether or not the interviewer completed the search for the sample person or the case was assigned to another interviewer. The form itself is a short questionnaire designed to describe the major problems encountered while trying to locate persons and households selected into the Special Frames Study sample. It obtains information about original households, any follow-up information the interviewer may have received, the source of the information and the final outcome of the search. The data collected were intended to help understand the problems associated with hard-to-locate and incorrect addresses obtained from administrative files.

Survey of Self-Employment Income

As an additional methodological test in the measurement of nonfarm self-employment income, interviewers were instructed to obtain more detailed information from respondents who identified themselves as having such income. The additional questions were contained on the Survey of Self-Employment Income (ISDP Form-7107); one questionnaire was to be completed for each business or professional practice owned. The form used was similar to the one used in the 1979 Research Panel; it was designed to collect detailed income-related information for each nonfarm business or professional practice. Interviewers were instructed to ask if a person so identified would be able to complete a self-employment form while the interviewer waited. If the form could be completed within 15 minutes, it was then transmitted to the regional office with other materials obtained. If it could not be quickly completed, a preaddressed stamped envelope was left with the form to be completed by the respondent and returned to the Bureau of the Census.

The household's control card indicated whether the self-employment form was left behind for completion after the interview. Upon receipt of the control card at the regional office, this information was transcribed to an ISDP-7109, Regional Office Control Form (see Appendix), in order to keep a record of the number and source of self-employment forms expected. The interviewer was instructed by regional office staff to telephone any respondent who had not returned the self-employment questionnaire within 10 days of its receipt, unless the person had clearly refused to complete the form. Blank ISDP-7107s were supplied to interviewers who were required to make telephone followups. These were to be completed and transmitted to the regional office within five working days of the interviewer's notification from regional office staff to call the respondent.

Interviewer Observations

In order to assess the quality of the interviewer training and the interview process, ISDP personnel spent several days in the regional offices which administered the Special Frames Study, to observe and comment on areas where improvement could be made in future data collection activities.

In North Carolina the interviewers were particularly concerned about the age of the addresses from the list frames and possible location problems. They reported that local post offices are not always cooperative in providing them with new addresses for movers, although contacts through the regional office do bring a response.

Observers were, overall, impressed with the quality of the interview process and the ability and willingness of the interviewers to probe for answers, particularly income amounts, when respondents were hesitant to reply. It was noted that some interviewers were less reluctant about asking for sensitive information when they do not expect to return to the same household again.

Accuracy of addresses and sample persons' names received varying comments within the same PSU--one observer noting a number of misspellings which were awkward in the field and another, a week later, stating satisfaction in this respect. Several observers were impressed with the cooperation displayed by the respondents, even though a number of interviewed households confused this survey with the decennial census and felt they had already answered the Census questions.

An IRS frame observation mentioned the need to include a category for money market funds as a source of income. In the low income rural counties of North Carolina, however, it seemed as inappropriate to ask

the recipients questions concerning stocks, bonds, certificates of deposits, etc., as it was to ask welfare questions in affluent areas where the household income is reported as "DK" or "Ref". Additionally, in the rural areas, confusion arose over the distinction between a farm business and a nonfarm business.

Chapter IV

Analysis of Data

The primary focus of the Special Frames Study was to understand more fully the inherent difficulty in the use of administrative records for sampling frames. As Stated previously, three major questions were to be addressed--the selection of samples from administrative lists of program participants, the difficulty in locating respondents from the addresses supplied by the program frames and the efficiency of the questionnaire design in identifying program participants, their reported benefits and income by comparison with administrative records. Another questionnaire design issue focused on the feasibility and practicality of an alternative means of collecting self-employment income. This chapter will look at the information obtained in the July-August interview period to see what answers can be provided.

Sampling from Administrative Frames

Two approaches were taken to address the issue of feasibility of selecting a sample from lists of program participants; the first considered the credence that could be placed in the address of the sample person as found in the administrative record system. The Advance Post Office Check (APOC), the Location of Address Form (ISDP-7111) and the mover rates were used for this analysis. An additional question concerned the addresses supplied by the 1978 IRS administrative records, and asked whether the age of the IRS addresses can create a bias when the persons at the address no longer include the sample person. To look into this question, basic demographic and economic data were collected from household members currently living at the sampled address and compared with demographic and economic data collected from the sample person at his/her current address.

Advance Post Office Check (APOC)

As noted earlier, the Special Frames Study interviewers were to locate the person selected into the sample from administrative records which were, for the most part, from one to three months old at the time of the interview. The IRS file contained addresses almost two years old at the time of sample selection. In an attempt to assure that

accurate addresses were available, the ISDP-167 was designed to request confirmation from Post Offices of the address listed, or that the name or address be corrected according to the records maintained at that office.

The Statistical Methods Division (SMD) of the Bureau of the Census was assisted by the Bureau's Data Preparation Division (DPD) in preparation of materials for the Special Frames Study. When DPD received the sampling list from SMD, DPD transcribed the control number, name and address for each sample unit from the list to Section 2 of the APOC card (Form ISDP-167). Using the most recent Zip Code Directory, DPD staff determined the Post Office for each APOC Card and batched cards going to the same Post Office. A Transmittal Form was prepared for each Post Office receiving APOC cards, with copies retained for SMD and DPD files. Control cards (Form ISDP-7102 or 7102A) were prepared for each sample person according to the SMD protocol and were mailed to the appropriate Regional Offices. A delay in transmission of the sample lists for the Pennsylvania Unemployment Insurance sample and the Wisconsin Workers' Compensation sample made it impossible to include these in the APOC, lowering the number of cards actually sent from the Bureau of the Census to the Post Offices. Changes received from Post Offices by the Demographic Surveys Division (DSD) were either corrected by them or communicated to Regional Office staff so that control cards could be corrected.

The procedure for the APOC and control cards for the August interview of IRS participants was essentially the same as for the July interview. APOC cards were mailed to the Post Offices by the third week of May for the July interviews, and by the third week of June for August interviews. Sample addresses and control numbers were scheduled for transcription to control cards three weeks later; control cards were then sent to the Regional Offices.

Actual sample sizes indicate 1,882 sample persons were selected (Table 1). A review of the 1,762 APOC cards--less the 120 from Pennsylvania UI and Wisconsin WC samples--sent to the Post Offices for verification or correction, showed that 1,619 were returned for a return rate of about 92%. Table IV-1 provides return rates by State and by administrative sampling frame.

The return rate is only an indication of the extent to which Post Offices cooperated with the Bureau of the Census; as will be noted later, the return of Form ISDP-167 did not necessarily mean that the correct address was now available for the interviewer nor that the sample person could be readily located. The return rates vary little by State, 89% for Wisconsin to 94% for Pennsylvania; a somewhat larger

Table IV-1: Percentage Distribution of Returned APOC Cards, by State and Frame

State	UI	AFDC	Administrative Sampling Frame				Totals:
			MC	OASDI	VA	IRS	
TOTALS:							
% returned	87.6%	83.0%	83.3%	93.5%	95.3%	94.7%	91.9%
# returned	(127)	(221)	(50)	(243)	(223)	(755)	(1,619)
PA	-	93.3%	83.3%	89.7%	91.6%	97.3%	93.5%
	-	(56)	(50)	(52)	(55)	(251)	(464)
MO	84.5%	-	-	94.7%	100%	94.3%	92.0%
	(49)	-	-	(18)	(30)	(67)	(163)
NC	89.7%	88.8%	-	91.6%	-	93.8%	91.7%
	(78)	(48)	-	(33)	-	(137)	(296)
CA	-	77.5%	-	95.0%	95.0%	94.7%	91.3%
	-	(93)	-	(113)	(112)	(230)	(548)
WI	-	75.0%	-	96.4%	100%	88.6%	89.2%
	-	(24)	-	(27)	(27)	(70)	(148)

Table IV-2: Percentage Distribution of Returned APOC Cards,
by Category and Frame

Frame	% APOC # Returned	Name/Address Correct	Incorrect	Moved	Business	Deceased	Totals:
TOTALS:		82.3% (1,334)	8.0% (130)	9.0% (145)	.4% (7)	.2% (3)	100% (1,619)
IRS		37.2% (602)	3.4% (56)	5.6% (90)	.2% (4)	.2% (3)	46.6% (755)
OASDI		12.9% (208)	1.3% (23)	.7% (11)	.1% (1)	0 (0)	15.0% (243)
VA		11.6% (188)	1.3% (21)	.7% (12)	.1% (2)	0 (0)	14.0% (223)
AFDC		11.5% (186)	.9% (15)	1.2% (20)	0 (0)	0 (0)	13.8% (221)
UI		6.7% (108)	.7% (12)	.4% (7)	0 (0)	0 (0)	7.8% (127)
WC		2.6% (42)	.2% (3)	.3% (5)	0 (0)	0 (0)	3.1% (50)

variation is observed by comparing the return rates among the various sampling frames--83% for AFDC to 95% for VA.

Examination of the returned APOC cards revealed nine response categories: name and address correct, name incorrect/changed, address incorrect/changed, address incomplete, person moved, address unknown, no change order on file, business address, person deceased. Of these, "person moved," "address unknown" and "no change order on file" were collapsed into the classification "moved." Three other categories--"name incorrect/changed," "address incorrect/changed" and "address incomplete" were collapsed into the "name/address incorrect" category. Table IV-2 shows the results of classifying returned cards in the five categories: address correct, address incorrect, moved, business address, deceased.

Approximately eight percent of the cards were not returned. Of the 1,619 cards returned by the Postal Service, 1,334 were correct as addressed--this represented 76% of the total cards mailed or 82% of the cards returned. Addresses cited as incorrect by the Postal Service--130--were 7% of the 1,762 cards mailed, 8% of the returned cards. Slightly more cards--145--were identified as "moved," comprising 8% of the total APOC cards mailed (9% of the returned APOC cards). Of the 275 cards which were returned with notations of incorrect, inaccurate, moved, etc., 221 contained updated information, which increased the total number of correct or corrected home addresses to 1,555 (96% of the returned cards or 88% of the total cards mailed). Less than one percent of the addresses from administrative sampling frames were identified as a business address or as sample person deceased.

Sample Person Address Location Problems

The Questionnaire for Sample Person Address Location Problems (Form ISDP-7111) was intended to describe problems encountered in locating the sample person's current household address. Information was collected on original households, any follow-up information the interviewer may have received, where the information was obtained, and the final outcome of the search. A total of 317 ISDP-7111s were received by the Bureau of the Census (17% of the 1,882 cases). The number of ISDP-7111s filed was low relative to the actual number of problem addresses in the Special Frames Study. This was due to the various interpretations given to the purpose of the form by the interviewers. Of the 317 ISDP-7111s, 46% were from the IRS frame, 18% from AFDC, 14% from the VA frame, 11% from the OASDI frame, 8% from the UI frame and 4% from the WC frame.

A frequency count of the categories from items 7-16 of the ISDP-7111 can be found in R. Cavanaugh [10]. Rather than repeat the comprehensive tables prepared, only a summary of the results will be presented here. Tables IV-3 and IV-4 show the final outcome of the search for the sample person's current household address by frame and then by State.

Of the 317 ISDP-7111s filed, the majority of initial addresses (61%) were occupied residential units. Twenty-two percent of the ISDP-7111s were filed because the address on the control card was that of an occupied business establishment--three-fourths of these were North Carolina Post Office addresses or box numbers. At the original residential addresses, 62% of the occupants said they were either friends, relatives, or knew the sample person; 30% reported they did not know the sample person. Within each frame, with the exception of the WC frame, more than 60% of occupants were friends, relatives or acquaintances of the sample person. The majority of occupants (57%) of the original WC addresses for which ISDP 7111s were filed reported that they did not know the sample person [10].

In 255 cases, interviewers responded to the ISDP-7111 item which asked whether a sample person's new household address was obtained at the original sample address. Overall, in 42% of these cases, the sample person's new household address was obtained at the original sample address. In four of the five States, a new household address was not obtained at the original sample address for more than one-half of the cases reported. In North Carolina, however, with its many post office related addresses, slightly more than 50% of new addresses were obtained at the original sample address. Of the 103 cases where a new household address was obtained at the original address, 78% were valid addresses; however, in 13% of the cases, the sample person did not live at the address obtained. The validity of the addresses obtained in the remaining 9% was not certain, as these cases were designated Type A or Type C noninterviews.

In 232 cases, interviewers recorded they tried to obtain information about the sample person at a place other than the original address; this was successful in 70% of these cases. Places most often contacted included the post office, the telephone company or directory, and friends, relatives or others who knew the sample person.

In the 71 cases where the interviewer was unable to obtain information somewhere other than the original address, 42% were classified as Type A or Type C noninterviews. Another 44% showed that a place was contacted but information leading to the sample person's correct

Table IV-3: Percentage Distribution of Type of Unit on Original Address List, by Frame
(ISDP-7111, Item 7)

Frame:	Occupied Residential Unit	PO Box, Bank or Credit Union, Law or Accountant Firm	Business Address	Unoccupied Residential Vacant Lot	Unable to Locate	Other	Totals: % Frame
TOTALS:	60.6% (192)	18.6% (59)	3.5% (11)	7.3% (23)	6.9% (22)	3.2% (10)	100% (317)
IRS	63.9% (94)	21.1% (31)	4.8% (7)	4.1% (6)	4.1% (6)	2.0% (3)	100% (147)
AFDC	73.2% (41)	7.1% (4)	1.8% (1)	7.1% (4)	7.1% (4)	3.6% (2)	99.9%# (56)
VA	46.5% (20)	27.9% (12)	7.0% (3)	9.3% (4)	4.7% (2)	4.7% (2)	100.1%# (43)
OASDI	64.7% (22)	(0)	(0)	17.6% (6)	14.7% (5)	2.9% (1)	99.9%# (34)
UI	33.3% (8)	41.7% (10)	(0)	12.5% (3)	4.2% (1)	8.3% (2)	100% (24)
WC	53.8% (7)	15.4% (2)	(0)	(0)	30.8% (4)	(0)	100% (13)

Legal blanks or missing values = 10
Marginals do not sum to 100% due to rounding

Table IV-4: Percentage Distribution of Type of Unit on Original Address List, by State
(ISDP-7111, Item 7)

State:	Occupied Residential Unit	PO Box, Bank or Credit Union, Law or Accountant Firm	Business Address	Unoccupied Residential Vacant Lot	Unable to Locate	Other	Totals: % State
TOTALS:	60.6% (192)	18.6% (59)	3.5% (11)	7.3% (23)	6.9% (22)	3.2% (10)	100% (317)
CA	66.4% (87)	11.4% (15)	2.3% (3)	6.9% (9)	8.4% (11)	4.6% (6)	100% (131)
NC	47.9% (34)	42.3% (30)	2.8% (2)	4.2% (3)	(0)	2.8% (2)	100% (71)
PA	60.7% (34)	5.4% (3)	5.4% (3)	12.5% (7)	12.5% (7)	3.6% (2)	100% (56)
WI	67.6% (25)	16.2% (6)	2.7% (1)	2.7% (1)	10.8% (4)	(0)	100% (37)
MO	54.5% (12)	22.7% (5)	9.1% (2)	13.6% (3)	(0)	(0)	99.9%# (22)

Legal blanks or missing values = 10
Marginals do not sum to 100% due to rounding

household address could not be obtained; in the remaining 14%, some other, or no reason, was given for the lack of information.

By the end of the Special Frames Study, slightly less than 60% of the 317 original sample persons' addresses for which ISDP-7111s were filed had been located and interviews conducted, 17% were not able to be located, 6% were Type A noninterviews and 17% were Type C noninterviews. The Type C noninterview rate appears overly high; this is attributed to the 41 cases (out of 53) where the sample person had moved more than 50 miles from a Special Frames PSU. A large scale national survey would have many more PSUs, therefore the Type C rate is not indicative of what would be achieved in a national survey. Tables IV-5 and IV-6 show the final outcome of the search for the sample persons' current households by frame and then by State.

In interpreting percentages in these tables, careful attention should be given to the number of cases on which they are based. For example, there were only 13 WC cases for which ISDP-7111s were completed, and only 22 cases in the State of Missouri. It does appear, however, that cases from the older IRS frame were as likely to be located and interviewed as were those from all other frames combined: when aggregated, 58% of program frame cases and 60% of IRS ones were interviewed.

The average time an interviewer spent in trying to find an ISDP-7111 case was one hour, seven minutes. Most time was consumed looking for the UI recipients--an average of one hour, fifty-five minutes. Average time looking for the AFDC cases for which an ISDP-7111 had been filed was one hour, fifteen minutes; for a WC case one hour, four minutes; for an IRS sample person address, one hour; OASDI and VA cases averaged fifty-nine and fifty-six minutes, respectively, to locate.

While attempting to reconcile base figures from the Bureau of the Census reports (which analysed aspects of the Special Frames Study as discrete entities [4 - 10]), questions arose concerning the flow of the process from the APOC to the interview stage and filing of the ISDP-7111s. To clarify discrepancies, a match was made of the control cards, the APOC cards and the ISDP-7111s for two States: Pennsylvania and North Carolina. Pennsylvania was the only State in which all six frames were interviewed, although APOC cards were not mailed for the UI sample. North Carolina was chosen for further exploration because of the relatively large number of ISDP-7111s returned.

Careful review of the matched control cards, APOC cards and the ISDP-7111s for the two States resulted in defining a "Not Readily Located" (NRL) rate for cases in the Special Frames Study. The concept of "Not

Table IV-5: Percentage Distribution of Final Outcome of Search for Sample Person's Current Household Address, by Frame

Frame:	Sample Person/Proxy Located, Interviewed	Address not Obtained	Address Obtained Type A	Address Obtained Type C	Totals:
TOTALS:	58.6% (180)	17.9% (55)	6.2% (19)	17.3% (53)	100% (307)
WC	84.6% (11)	(0)	(0)	15.4% (2)	100% (13)
UI	70.8% (17)	12.5% (3)	(0)	16.6% (4)	99.9%# (24)
IRS	60.0% (85)	14.0% (20)	10.6% (15)	15.5% (22)	100.1%# (142)
VA	56.1% (23)	19.5% (8)	4.8% (2)	19.5% (8)	99.9%# (41)
OASDI	52.9% (18)	17.6% (6)	(0)	29.4% (10)	99.9%# (34)
AFDC	49.1% (26)	34.0% (18)	3.8% (2)	13.2% (7)	100.1%# (53)

Legal blanks or missing values = 10
Marginals do not sum to 100% due to rounding

Table IV-6: Percentage Distribution of Final Outcome of Search for Sample Person's Current Household Address, by State

State:	Sample Person/Proxy Located, Interviewed	Address not Obtained	Address Obtained Type A	Address Obtained Type C	Totals:
TOTALS:	58.6% (180)	17.9% (55)	6.2% (19)	17.3% (53)	100% (307)
NC	80.9% (55)	(0)	1.5% (1)	17.6% (12)	100% (68)
PA	60.0% (33)	16.4% (9)	10.9% (6)	12.7% (7)	100% (55)
MO	59.1% (13)	13.6% (3)	4.5% (1)	22.7% (5)	99.9%# (22)
WI	51.4% (19)	2.7% (1)	2.7% (1)	43.2% (16)	100% (37)
CA	48.0% (60)	33.6% (42)	8.0% (10)	10.4% (13)	100% (125)

Legal blanks or missing values = 10
 # Marginals do not sum to 100% due to rounding

Readily Located" arose because it became clear that the filing of an ISDP-7111 indicated not only that the sample person had moved, but also that numerous sample persons had a mailing address consisting of a route number or Post Office box number. Furthermore, in North Carolina, 59 of 250 APOC cards tallied as "address correct" required a search for the sample person--with minimal assistance from Postmasters, who in most instances, gave only the area or road on which the household may have been located, leaving it up to the interviewer's ingenuity (and some trusting neighbors) to locate the sample person's household address. To further cloud the issue, control cards showed indications that 47 sample persons had moved, while the APOC return rate shows only two movers for North Carolina. The Postal Service did, however, supply corrected addresses for 40 of the 41 APOC cards that were tallied in the "incorrect" category. Four addresses are listed as business addresses on the control cards, APOC disclosed one of these.

Use of the ISDP-7111 was equivocal; Pennsylvania interviewers filed slightly fewer than appeared necessary from the matching of control cards, APOC cards and ISDP-7111s. This Statement stands despite the fact that in one PSU, nine out of thirteen ISDP-7111s which had been filed matched with APOC cards returned unmarked from the Post Office; these had been interpreted as "address correct," (reasonably enough, upon scrutiny of the directions on the APOC card). Thus, this was no simple process of the Postal Service providing addresses which were then easily located by interviewers. Also, ISDP-7111s were not always filed when persons at the initial address were able to give an address for the sample person that was readily located by the interviewer.

Cross-matching of the forms for Pennsylvania and North Carolina produced comparable figures to those called "Mover Rates" in [5]; however, we included all control numbers where the sample person was difficult to locate from the address supplied from the list frame--as shown by an APOC designation of moved, incorrect, business, or deceased; by filing of an ISDP-7111 or from notations on the control card. These are the figures defined as "Not Readily Located (NRL) Rates;" they are presented in Table IV-7. The data show that 425 of the 1,882 sample persons (23%) presented some problem for the interviewers, with a NRL/State workload range of 12% - 37% during July and August, giving an average range by State of 17% - 28%. Pennsylvania's administrative list frames provided addresses that were most accurate and up-to-date, with a NRL/ State Workload rate of 16.5% for the two-month period. The highest NRL rate occurred in the August interview for the IRS sample in Wisconsin, where more than one-third (37%) of the workload was identified as presenting difficulty in locating the sample person. This brought the total rate for Wisconsin to 28%, virtually the same as that of California--a rate that was

Table IV-7: Percent of Sample Persons Not Readily Located, by State and Frame

By State:	By Frame:		Totals*	By Frame:	
	July	August		July and August	July and August
TOTALS:	19.9% (216/1085)	26.2% (209/797)	22.6% (425/1882)		22.6% (425/1882)
WI	22.4% (26/117)	36.7% (29/79)	28.1% (55/196)	IRS	26.2% (209/797)
CA	28.0% (100/357)	28.0% (68/243)	28.0% (168/600)	AFDC	25.9% (69/266)
NC	18.6% (33/117)	25.3% (37/146)	21.7% (70/323)	VA	21.4% (50/234)
MO	16.0% (17/106)	25.3% (18/71)	19.8% (35/177)	OASDI	19.2% (50/260)
PA	12.2% (40/328)	22.1% (57/258)	16.5% (97/586)	WC	15.5% (33/253)
				UI	14.0% (33/235)

* Frequencies are compared to total workload for the period or for the frame

consistent for the California IRS sample (with addresses that were up to two years old at the time of interview) and all its other administrative frames. IRS and AFDC frames were highest in NRL rating, around 26%; the NRL/State workload range when all frames are considered was 14% - 26%. The IRS NRL/State range by States was 22% - 37%, with Missouri and North Carolina each showing 25% of the workload to be not readily located. Further information would be needed to explain the high NRL rate for IRS in Wisconsin.

Household Noninterview Rates

Households occupied by persons eligible for interviews for which no questionnaire was completed were categorized as Type A noninterview if: no one was found at home on repeated visits; all residents were temporarily away during the interview period; the respondent refused to give information; the interviewer was unable to determine the new address of a household that had moved; the unit, though occupied, could not be reached because of impassable roads; or a household could not be interviewed due to a serious illness or death. Interview status was applied to a household where the sample person had: moved more than 50 miles from the PSU in the State where he/she was documented as living; had been institutionalized; was in the military, living in Armed Forces barracks; or was deceased.

Two hundred fifty-two households (13.4%) of the Special Frames Study samples of 1,882 were not interviewed; the rates by State and Frame, and reasons for noninterview, are presented in Tables IV-8, IV-9 and IV-10. As seen in Table IV-8, California had the highest rate of noninterviews, approximately 20% of its workload for the two-month period, almost twice that of the other four states, whose average rate for the study ranged from 9% to 11% of the workload. Pennsylvania showed the greatest variation between the months, with its combined Type A and Type C noninterview rate for July half that of August. North Carolina recipients were most responsive, with the lowest noninterview rate for each month of the study.

In Tables IV-9 and IV-10, categories have been collapsed where numbers were very low. Seventy-five (57%) of the Type A noninterviews were classified as refusals. Fifty-two could not be located: 18 were temporarily absent or not at home and five were rated as other. Of the Type C noninterviews, "moved more than 50 miles or out of State" was the reason most often reported--57 of 102--(56%). Despite directions in the OASDI sampling specifications to screen for institutionalized recipients, almost half of the noninterviews for the institutionalized cases are from this frame. "Deceased" was listed as the reason for eighteen Type C noninterviews, six each from the IRS frame and the OASDI frame. None of the Special Frames Study sample

Table IV-8: Household Noninterview Rates, by State and Frame

By State:	July				August				By Frame:					
	Noninterview Type:		A+C*		A		C		A+C*		Totals*		July and August	
	A	C	A	C	A	C	A	C	A	C	Totals*	A	C	A+C*
TOTALS:	6.2% (67)	6.1% (66)	12.3% (133/1085)	4.5% (36)	10.4% (83)	4.5% (36)	14.9% (119/797)	13.4% (252/1882)	19.5% (1117/600)	10.7% (18/177)	10.2% (60/586)	9.4% (25)	4.5% (12)	13.9% (37/266)
CA	12.8% (46)	7.6% (27)	20.4% (73/357)	3.3% (8)	14.8% (36)	3.3% (8)	18.1% (44/243)	19.5% (1117/600)	10.7% (18/177)	10.2% (60/586)	10.2% (60/586)	6.8% (16)	7.3% (17)	14.1% (33/234)
MO	3.7% (4)	4.7% (5)	8.4% (9/106)	5.6% (4)	7.0% (5)	5.6% (4)	12.6% (9/71)	10.7% (18/177)	10.7% (18/177)	10.2% (60/586)	10.2% (60/586)	4.6% (12)	10.0% (26)	14.6% (38/260)
PA	3.4% (11)	3.9% (13)	7.3% (24/328)	4.3% (11)	9.7% (25)	4.3% (11)	14.0% (36/258)	10.2% (60/586)	10.2% (60/586)	10.2% (60/586)	10.2% (60/586)	6.8% (16)	7.3% (17)	14.1% (33/234)
WI	1.7% (2)	11.1% (13)	12.8% (15/117)	7.6% (6)	10.1% (8)	7.6% (6)	17.7% (14/79)	9.7% (19/196)	10.7% (18/177)	10.2% (60/586)	10.2% (60/586)	9.4% (25)	4.5% (12)	13.9% (37/266)
NC	2.2% (4)	4.5% (8)	6.7% (12/177)	4.8% (7)	6.2% (9)	4.8% (7)	11.0% (16/146)	8.7% (28/323)	10.7% (18/177)	10.2% (60/586)	10.2% (60/586)	4.3% (10)	3.8% (9)	8.0% (19/235)
												4.4% (4)	2.2% (2)	6.6% (6/90)

* Frequencies are compared to total workload for the period or for the frame

Table IV-9: Reasons for Type A and Type C Noninterviews, by State and Month

State & Month	Type A Noninterview				Type C Noninterview				Totals:	Other, Mil/AF	Totals:
	Not at Home Temp Away	Refused	Unable to Locate	Other	Moved*	Dec'd	Inst.	Other, Mil/AF			
TOTALS:	July August Total	24 51 75	35 17 52	3 2 5	67 83 150	29 28 57	12 6 18	21 0 21	4 2 6	66 36 102	
CA:	July August Total	15 19 34	27 11 38	1 0 1	46 36 82	8 4 12	5 2 7	11 0 11	3 2 5	27 8 35	
PA:	July August Total	4 15 19	4 3 7	2 2 4	11 25 36	6 9 15	4 2 6	3 0 3	0 0 0	13 11 24	
WI:	July August Total	2 7 9	0 1 1	0 0 0	2 8 10	8 5 13	2 1 3	3 0 3	0 0 0	13 6 19	
NC:	July August Total	1 6 7	2 1 3	0 0 0	4 9 13	4 6 10	1 1 2	3 0 3	0 0 0	8 7 15	
MO:	July August Total	2 4 6	1 1 1	0 0 0	4 5 5	3 4 7	0 0 0	1 0 1	1 0 1	5 4 9	

* Sample person had moved more than 50 miles from the PSU in which originally listed or out of state

Table IV-10: Reasons for Type A and Type C Noninterviews, by Frame

Frame:	Type A Noninterviews			Type C Noninterviews					Totals:
	Not at Home Temp Away	Refused	Unable Locate	Other	Moved*	Dec'd	Inst.	Other, Mil/AF	
TOTALS:	18	75	52	5	57	18	21	6	102
IRS	13	51	17	2	28	6	0	2	36
AFDC	1	5	18	0	5	3	2	2	12
VA	1	10	15	0	6	3	7	1	17
OASDI	1	6	5	0	9	6	11	6	26
UI	1	2	6	1	8	0	0	1	9
WC	1	1	1	1	1	0	1	0	2

* Sample person had moved more than 50 miles from the PSU in which originally listed or out of State

Table IV-11: IRS Household Noninterview Rates, by Adjusted Annual Income

Adjusted Annual Income	% Type A Frequency	% Type C Frequency	% Type A + Type C Frequency/\$ in Stratum
TOTALS:	10.4% (83)	4.5% (36)	14.9% (119/797)
Less than \$50,000	6.8% (27)	5.0% (20)	11.8% (47/398)
\$50,000 - \$99,000	13.6% (27)	4.0% (8)	17.5% (35/199)
\$100,000 +	14.5% (29)	4.0% (8)	18.5% (37/200)

Table IV-12: Reasons for IRS Type A and Type C Noninterviews, by Adjusted Annual Income

Adjusted Annual Income	Type A Noninterviews				Type C Noninterviews					
	Not at Home Temp Away	Refused	Unable Locate	Other	Totals:	Moved*	Dec'ed	Inst	Other, Mil/AF Totals:	
TOTALS:	13	51	17	2	83	28	6	0	2	36
Less than \$50,000	4	9	14	0	27	15	4	0	1	20
\$50,000 - \$99,000	4	20	2	1	27	7	0	0	1	8
\$100,000+	5	22	1	1	29	6	2	0	0	8

* Sample person had moved more than 50 miles from the PSU in which originally listed or out of State

persons were in the military, living in Armed Forces Barracks; this was collapsed into the "Type C other" cell.

Four frames--AFDC, OASDI, VA and IRS--ranged within a percentage point of one another, from 14% to 15%. UI and WC were substantially lower at 8% and 7%, respectively. The noninterview rate for the Special Frames Study was 13% of the total workload, with the rate for the IRS frame--and its older addresses--only slightly higher than that for all other frames interviewed (15% vs 12%). The difference between the Type A and Type C noninterviews was much greater for the IRS portion of the study.

In all, the 75 refusals constituted 29% of the 257 noninterviews, but 43% of the 119 in the IRS frame sample. To further investigate patterns in the IRS frame sample, noninterviews were developed by income stratum (adjusted annual income) 11 in Tables IV-11 and IV-12. Again, the small number of cases suggests caution in interpreting these results, but noninterview type appears to vary with income. In the two higher income strata, refusals are by far the dominant reason (20 of 35 for the \$50,000 to \$99,999 income group and 22 of 37 for the highest income group. For IRS frame sample persons with less than \$50,000 in income, mobility appears the more dominant factor (of 47 noninterviews, 15 had moved from the interviewing area and 14 could not be located, suggesting, though not guaranteeing, that they had moved). Only nine in the lowest group refused, while only 16 of the 72 noninterviews in the two highest groups had moved or were not locatable.

Self-Employment Income

The Self-employment Income Questionnaire (ISDP-7107) was used in the IRS interview in August to measure nonfarm self-employment income. Interviewers obtained one form for each business or professional practice owned by members of households in the Special Frames Study. The procedure differed slightly from that used in the 1979 ISDP Research Panel, in that, if possible, interviewers had the persons who reported owning a nonfarm business or professional practice complete the ISDP-7107 while the interviewer waited. If, however, information was not readily available, the form(s) and a preaddressed stamped envelope were left at the household to be completed and returned to the Bureau of the Census. Regional office staff recorded the number of forms expected from the identified households on a Regional Office Control Form (ISDP-7109) and reminded interviewers to check with the respondents who had not returned the ISDP-7107s within ten days. This was an attempt to increase the number of forms returned in the "off-line" or "drop-off" phase of the 1979 Panel [50].

Table IV-13: Self-employment Income (SEI) Response

State (# Households)	Sources of SEI	ISDP-7107s Returned	Usable Information
TOTALS: (230)	100% 245	57% 140	49% 119
CA (68)	70	34	26
PA (66)	77	42	35
NC (54)	60	43	37
WI (23)	23	13	13
MO (19)	15	8	8

Two hundred thirty households (29% of the IRS workload) were identified as having one or more sources of nonfarm self-employment income; for a total of 245 business or professional practices which required an ISDP-7107 to be filled out at the time of interview or left for the respondent to complete later and mail back to Census (Table IV-13). Of those households reporting more than one source of self-employment income, seventeen reported two businesses or professional practices, two reported three, four reported four sources and one indicated five sources of nonfarm income. One hundred forty ISDP-7107s were received in Washington; this represented 57% of the identified business or professional practices, a higher return rate than the approximately 50% response rate for the measurement of nonfarm self-employment income which occurred in the 1979 ISDP Panel.

Of major concern in this aspect of the Special Frames Study was the estimation of net profit or loss for the April, May, June quarter. This is obtained on the ISDP-7107 from information in gross receipts (item 4), total expense (item 7), or net profit or loss (item 10). Of the 140 returned forms, 119 had responses in one or more of these three items, producing usable information for 49% of the identified sources of nonfarm self-employment. Analysis was limited to producing simple descriptive statistics for each item; figures from the Cavanaugh report [9] were modified after careful review of control cards, the ISDP-7107s and the Regional Office control forms (ISDP-7109).

Replacement Household Characteristics

Five variables were used for comparing the households of sample persons who had moved with the current occupants of the household at the original sample address: household size, number in household employed, household's monthly income, number of income sources per household and type of income sources.

The brevity of the Cavanaugh report [6] on replacement household characteristics led to a review of the information available on the control cards for the August IRS sample. Control cards for replacement households contained, in addition to the household roster, responses to questions concerning monthly income of the household, number of employed persons in the household and sources of income for all household members (see Figure 1 for Control Card Items 35, 36 and 37). At the original sample person households only the household roster had been entered on the control cards; replies to the other items were recorded directly onto the questionnaires. At the time of this review the questionnaires had been sent to storage in Jeffersonville, Indiana and were not available. Thus, household size is the only variable for which a comparison can be made; for all

Figure 1: IRS Replacement Household Characteristics, Questions 35, 36, and 37 from the August Special Frames Study Control Card (ISDP-7102A)

35. (Show Flashcard D) Which category represents the total income received by this household last month? This includes money from wages and salaries, not business or farm income, social security payments, interest, dividends, rent, and all other income received by members of this household.
- Under \$300
 - \$300-\$599
 - \$600-\$899
 - \$900-\$1,199
 - \$1,200-\$1,599
 - \$1,600-\$1,999
 - \$2,000-\$3,999
 - \$4,000-\$5,999
 - \$6,000 or more
 - DK
 - Ref.
36. Between May 1st and July 31st, how many persons living in this household were employed at a job or business?
- None
 - 1 person
 - 2 persons
 - 3 persons
 - 4 or more persons
37. Between May 1st and July 31st, did any persons living in this household receive ANY of the following sources of income? (Read each category allowing respondent time to answer yes or no.)
- Y N Income from your own business or professional practice
 - Y N Income from unemployment compensation
 - Y N Income from savings accounts, bonds, property ownership, or other assets
 - Y N Social security benefits
 - Y N Income from government assistance programs, such as Medicare, Medicaid, food stamps, AFDC, or Supplemental Security Income
 - Y N Veterans benefits
 - Y N Retirement, disability or survivors pensions (excluding social security and veterans benefits)
 - Y N Some other types of income- Specify

other variables, only frequency counts for replacement households are presented.

One hundred six (13%) of the 797 IRS cases were households where the sample person no longer resided. Eighty-seven of the replacement households provided information beyond a household roster (11% of 797). Frequency counts of the characteristics of replacement households are found in Tables IV-14 through IV-19.

Thirty (28%) of the 106 sample person households that had moved were designated as Type A or Type C noninterviews, while only twelve (11%) replacement households were unable to be interviewed (the noninterview rate for the entire IRS frame was 15%--see Tables IV-9 - IV-10). Household rosters were obtained for seven replacement households where further information was refused, accounting for the different noninterview figures in Table IV-15 and Tables IV-16 - IV-19.

Twenty-four (23%) of the original sample persons lived in a two-person household, roughly the same as in the replacement households (22 cases = 21%). However, three and four-person households were more common in replacement households than in original sample households.

The total monthly income received by the household for the previous month included money from wages and salaries, net businesses or farm income, social security payments, interest, dividends, rent and all other income received by members of the household (Table IV-16).

Total monthly income ranged below \$1,999 for 41 (39%) of replacement households where income was reported. Only nine (8%) of the replacement households reported monthly income exceeding \$4,000 for the previous month.

Forty-one (39%) replacement households reported one person employed, eleven (10%) indicated no one in the household was employed at a job or business during the May 1st through July 31st period (Table IV-17).

Item 37 (Figure 1) provided data for Tables IV-18 - IV-19 which show how many and what types of income were reported by replacement households. A questionnaire weakness is evident here: "Wages and Salaries" as an income source--other than from one's own business or professional practice--was not identified; from the information on the control cards it is uncertain how many of the relatively large number (26 = 25%) of households that had not indicated income from any of the listed sources could have specified wages and salaries in the category "Some other types of income - specify" (income key 8 in Table IV-19).

Table IV-14: Size of Households of IRS Sample Persons

State (# Households)	Number of persons in household						Noninterviews
	1	2	3	4	5	6 - 12	
TOTALS: (106)	16	24	15	11	5	5	30
PA (39)	5	8	6	2	1	1	16
CA (33)	8	8	5	5	-	-	7
NC (18)	2	6	2	3	1	2	2
WI (9)	1	1	-	1	5	1	3
MO (7)	-	1	2	-	1	1	2

Table IV-15: IRS Replacement Household Characteristics, Household Size

State (# Households)	Number of persons in household						Noninterviews
	1	2	3	4	5	6 - 12	
TOTALS: (106)	15	22	23	20	6	8	12
PA (39)	5	11	8	5	1	1	8
CA (33)	7	6	5	8	1	4	2
NC (18)	1	3	6	5	1	2	-
WI (9)	1	1	3	1	1	1	1
MO (7)	1	1	1	1	2	-	1

Table IV-16: IRS Replacement Household Characteristics, Total Monthly Income

Amount/Month	State:					TOTALS:
	PA	CA	NC	WI	MO	
TOTALS:	39	33	18	9	7	106
Less than \$300	3	1	2	-	1	7
\$300 - \$599	3	4	2	-	1	10
\$600 - \$899	5	1	5	2	-	13
\$900 - 1,199	3	4	2	2	-	11
\$1,200 - \$1,599	4	6	3	-	-	13
\$1,600 - \$1,999	2	4	-	-	-	6
\$2,000 - \$3,999	5	5	1	1	1	13
\$4,000 - \$5,999	-	1	-	1	1	3
\$6,000 +	3	2	-	1	-	6
DK	1	-	2	-	2	5
Noninterview	10	5	1	2	1	19

Table IV-17: IRS Replacement Household Characteristics,
Number of Persons Employed

State (# Households)	Number of Persons in Household Employed					Noninterviews
	0	1	2	3	4+	
TOTALS: (106)	11	41	21	13	1	19
PA (39)	6	15	4	3	3	10
CA (33)	4	13	6	5	-	5
NC (18)	-	5	10	2	-	1
WI (9)	-	7	-	-	-	2
MO (7)	1	1	1	3	-	1

Table IV-18: IRS Replacement Household Characteristics,
Number of Income Sources

State (# Households)	Number of Income Sources					Noninterviews
	1	2	3	4	0*	
TOTALS: (106)	29	21	8	3	26	19
PA (39)	9	10	3	1	6	10
CA (33)	10	2	2	1	13	5
NC (18)	4	5	2	1	5	1
WI (9)	3	2	1	-	1	2
MO (7)	3	2	-	-	1	1

Table IV-19: IRS Replacement Household Characteristics,
Types of Income Sources

State (# Sources)	Sources of Income (see key below)									
	1	2	3	4	5	6	7	8	0**	NI*
TOTALS: (107)	18	6	38	15	8	6	6	10	26	19
PA (42)	7	3	16	6	1	3	2	4	6	10
CA (24)	5	-	10	2	3	-	2	2	13	5
NC (26)	4	1	5	5	2	1	2	4	5	1
WI (10)	2	1	4	1	1	1	-	-	1	2
MO (7)	-	1	3	1	1	1	-	-	1	1

Key to Sources of Income:

- 1 Income from business or professional practice
- 2 Income from unemployment compensation
- 3 Income from savings accounts, bonds, property ownership, or other assets
- 4 Social security benefits
- 5 Income from government assistance program, such as Medicare, Medicaid, Food Stamps, AFDC, or Supplemental Security Income
- 6 Veterans benefits
- 7 Retirement, disability or survivors pensions (excluding social security and veterans benefits)
- 8 Some other type of income (specify)
- 0* None of income sources shown

NI* Noninterview

** Not summed in totals

Twenty-nine (27%) of the replacement households responding to Item 37, reported income from only one of the sources listed, 32 (30%) acknowledged two or more of the sources listed. Thirteen of the 26 cases which did not report income from any of the identified sources were from the State of California, this represented 40% of its responding replacement households (Table IV-18).

A total of 107 sources of income were identified on the control cards by the 87 households who did report one or more of the listed sources (Table IV-19). Thirty-eight (44%) of these reflected "Income from savings accounts, bonds, property ownership, or other assets" as one source of income. Eighteen (21%) had income from a business or professional practice, comparable to 29% of the IRS workload who reported self-employment income (see Table IV-13). Fifteen (17%) were receiving Social Security benefits; there were 26 additional listings of income from other entitlement programs (income keys 2,5,6, and 7; Table IV-19).

Comparison with Administrative Records

A major question for the Special Frames Study was the efficacy of the survey questionnaires in identifying and properly classifying the receipt of program benefits and in the accurate measurement of the amounts of program benefits received. To research this issue, the Bureau of the Census created a data file which included selected information from each sample person's questionnaire; preliminary findings based on this file [42] indicated that 58% - 94% of respondents correctly identified the program (hence, the administrative frame) from which they had received payments during the reference period (Table IV-20). Of these, only 5% either did not know or refused to provide the income amount. These figures are from a tabulation done in July of 1980 and do not account for missing cases or survey nonresponses. A comprehensive analysis of the data of the Aid to Families with Dependent Children (AFDC) program collected during the Special Frames Study was completed by Goudreau, Oberheu and Vaughan [12]; it presents evidence that the survey estimates of AFDC income are quite sensitive to survey design and data collection procedures. The report, which follows in its entirety, is a revision of a paper presented at the 1980 Meeting of the American Statistical Association 12/.

Table IV-20: Respondents Correctly Reporting Source of Entitlement Income,
by State and Frame (Preliminary Results)

State (July Workload)	UI	AFDC	WC	OASDI	VA	Totals:
TOTALS:						
%=						
# Correct	87%	75%	58%	94%	76%	81%
# Respondents	189/218	167/224	47/81	206/218	152/199	761/940
CA (357)	-	81% 69/85	-	93% 93/100	80% 75/94	85% 237/279
NC (177)	89% 73/82	87% 47/54	-	100% 29/29	-	90% 149/165
MO (106)	83% 44/53	-	-	94% 15/16	71% 20/28	81% 79/97
WI (117)	-	74% 20/27	75% 21/28	95% 20/21	76% 19/25	79% 80/101
PA (328)	87% 72/83	53% 31/58	49% 26/53	94% 49/52	73% 38/52	72% 216/298

AN ASSESSMENT OF THE QUALITY OF SURVEY REPORTS OF INCOME FROM
THE AID TO FAMILIES WITH DEPENDENT CHILDREN (AFDC) PROGRAM

by

Karen Goudreau, Howard Oberheu and Denton Vaughan
Office of Policy
Office of Research and Statistics
Social Security Administration

1. INTRODUCTION

The tendency for income to be underreported in household surveys is well known and has been the topic of considerable study. Income from public assistance programs is generally not as well reported as income from earnings or other transfer payments such as social security.^{1/} This paper describes the methodology and results of an analysis undertaken as part of the Income Survey Development Program (ISDP) in order to gain a fuller understanding of the nature of response errors in recipient reports of AFDC benefits.^{2/3/} It presents evidence that survey estimates of AFDC income are quite sensitive to survey design and data collection procedures.

2. STUDY DESIGN AND IMPLEMENTATION

The goal of the ISDP is to develop a large-scale national survey with improved information on cash and in-kind income, program eligibility and participation. In order to insure reliable survey estimates for relatively small population subgroups, such as participants in the AFDC program, a multiple frame sampling approach is required. This guarantees that sufficient numbers of program participants are included in the overall sample.

In the spring of 1980, a Special Frames Study was conducted in order to investigate the practical aspects of sampling from specific program record systems. The study was also designed to test the ability of the survey questionnaires to identify and properly classify various types of program participants and accurately measure the amounts of program income received. Sampled programs included AFDC.

social security, veterans' payments, unemployment compensation, and workers's compensation. Probability samples were obtained from administrative records for beneficiaries living in selected counties in five States: California, Missouri, North Carolina, Pennsylvania, and Wisconsin. Not every program was sampled in every state; for example, an AFDC sample was not selected in Missouri. Only the results obtained from the AFDC sample are discussed in this paper.

Approximately 260 AFDC families were selected from the April 1980 payment files maintained by the welfare agency in each State. The sample was composed of 116 families in California, 54 families in North Carolina, 60 families in Pennsylvania, and 30 families in Wisconsin.

The selected assistance groups were identified and the addresses of households in which the corresponding payees lived were provided to the Census Bureau for interviewing purposes. Household interviews for all four samples were conducted in July, resulting in information on benefits that were received during April, May and June. All household members over 16 years of age were interviewed using a somewhat modified version of the questionnaire originally employed in the first wave of the 1979 ISDP Panel.4/ The interviewers were informed that some of the sample had been drawn from program records; however, they did not know the program participation of a given household and they were assigned cases from more than one program.

After completion of the field work, a file was created which combined the survey and administrative data for the AFDC sample cases. Confidentiality was preserved by deleting all identifiers from the data file after the survey and administrative records were matched.

Of the 260 families that were selected from the April 1980 payment files, 40 families (15.4 percent of the original sample) were not interviewed. The most common reason for not conducting the interview was an inability to locate the family, sometimes because the family had moved out of the State or county between April and July. In a few cases, the family was contacted, but refused the interview. Four additional cases were deleted because the administrative data indicated that no AFDC payment was made during the April to June reference period. Therefore, 216 out of the original 260 cases in the AFDC sample were included in the analysis.

Characteristics of interviewed and noninterviewed cases were compared on the basis of their administrative records to assess the possibility of noninterview bias. The most salient characteristic was residence in California--35 of the 40 noninterviewed families lived in that state. The noninterviewed payees tended to be younger (28.8 vs.

32.1 years of age), and to have slightly fewer children (1.8 vs. 1.9). More important from an analytical standpoint was the tendency for noninterviewed families to receive higher monthly AFDC payments (\$381 versus \$282 in the month prior to interview) and to leave the AFDC rolls during the reference period (30 percent vs. 10 percent). While the higher payment levels by and large reflect California's higher payment standards, the average monthly AFDC payment of interviewed cases would have been about six percent higher had all cases been successfully interviewed. In terms of the impact of part-period participation, our analysis of interviewed families indicates that they are more likely to fail to report receipt of any cash assistance. Thus, if the noninterviewed cases had been successfully interviewed it is likely that the incidence of nonreporting would have been slightly higher (but only on the order of a half percent) than observed in the interviewed sample.

3. AFDC RECIPIENCY REPORTING

AFDC reciprocity reporting for the interviewed cases is summarized in Table 1. The table shows that although 91 percent of the cases reported receiving cash assistance from the state or local welfare office, only 78 percent were able to identify the payment as AFDC per se. Thus, misclassification of AFDC as some other type of cash assistance was a more common source of reciprocity reporting error than outright non-reporting. Thirteen percent misclassified AFDC while only nine percent did not report any type of cash assistance. As shown in Table 2, over 60 percent of those misclassifying their cash assistance reported the source of their payments as general assistance, a state supported assistance program.

The incidence of misclassification varied substantially by State, with Pennsylvania families at one extreme misclassifying nearly 39 percent of their cases and North Carolina and California families on the other, misclassifying four and one percent, respectively ($p < .001$).⁵ This suggests that there may be considerable variation among states in the extent to which recipients are made aware of the precise program under which they receive assistance. In Pennsylvania, for example, respondents sometimes simply reported receiving income from the "DPW" (Department of Public Welfare) and were unable to specify the name of the program (AFDC) under which benefits were being received.

There is also some evidence that the incidence of non-reporting varied by State. At one extreme, nearly 14 percent of the California families did not report receipt of any type of cash assistance, whereas in Wisconsin all families reported some type of assistance. While this may reflect variation among states in attitudes toward cash assistance, given the relatively small number of study cases the

Table 1.--Characteristics of AFDC Reciprocity Reporting for all Interviewed Cases, by State.

State	Number of cases	Percent distribution					Cash assistance reported as:	Cash assistance not reported
		Grand total	AFDC	Some other form of assistance:	General assistance	Other cash welfare/		
		Total	<u>per se</u>				reported	
All four states.....	216	100.0	91.2	77.8	13.4	8.3	5.1	8.8
California.....	79	100.0	86.1	84.8	1.3	1.3	-	13.9
North Carolina.....	54	100.0	94.5	90.7	3.8	1.9	1.9	5.5
Pennsylvania.....	57	100.0	91.2	52.6	38.6	24.6	14.0	8.8
Wisconsin.....	26	100.0	100.0	84.6	15.4	7.7	7.7	-

(-) None.

1/ Includes foster child care payments and child support.

Table 2: Misclassified Cases by Type of Misclassification

Type of misclassification	Number of class	Percent distribution	Percent of all interviewed cases
Total.....	29	100.0	13.4
General assistance.....	18	62.1	8.3
Foster child care.....	1	3.4	0.5
Other cash welfare.....	8	27.6	3.7
Child support.....	2	6.9	0.9

probability is about .15 that such differences were due to sampling variation.

One of the purposes of this study was to identify the characteristics of recipients who misclassified their income or failed to report any cash assistance. Survey data were used to compare AFDC reporters with misclassifiers and assistance reporters with nonreporters. Of the characteristics considered⁶, only race ($p < .01$) and marital status ($p < .05$) seem to distinguish AFDC reporters and misclassifiers. Nineteen percent of the white payees reported receiving assistance other than AFDC while only 6 percent of black payees were misclassifiers. Married payees were about twice as likely (22 vs. 11 percent) as those of other marital statuses to misclassify their AFDC payment. We suspect that these differences merely reflect the contrasting composition of the state samples and that they are not substantively related to the misclassification problem.

Our review indicates that only four variables differentiate nonreporters from reporters: marital status, age, work status and part-period participation. Married payees were more than 4 times as likely to be nonreporters as payees who were divorced, widowed, separated or never married (22 vs. 5 percent, $p = .002$). Nonreporters were also somewhat older than reporters--all nonreporters were at least 25 years of age while 23 percent of reporters were under age 25 ($p = .01$). More interestingly, the incidence of nonreporting was three times higher for part-period payees than for full-period recipients (21 vs. 7 percent, $p = .02$) and about two times higher for workers than nonworkers (15 vs. 7 percent, $p = .04$).

The precise mechanisms by which these four variables are related to non-reporting are not clear. While marital status has the most impact, it is not obvious why it should be so important. Although it might be related to stigma, it could also be associated with situations in which the children, but not the mother, are AFDC recipients. Given the survey procedures, which emphasized income of the adult household members, a higher incidence of non-reporting might be expected. The importance of part-period participation is more readily understood since many of these individuals were no longer AFDC recipients at the time of interview and might have overlooked this source of past income. Employment, in turn, may have been associated with leaving the rolls and thus have generated a good deal of part-period participation. Although it is conceivable that employment also had an independent effect on non-reporting, we did not pursue this possibility. Finally, although it is possible that age had an independent effect, we suspect it may only reflect the higher incidence of marriage among the older payees. In sum, misclassification appears to be largely a function of the payee's

state of residence which probably reflects variations among states in the extent to which recipients are informed of the exact program designation under which payments are made. The circumstances surrounding non-reporting are less clear but the extent to which a family receives AFDC for only part of the survey reference period appears to be quite important. Both of these elements have been documented as affecting AFDC reciprocity reporting in earlier ISDP studies.^{7/}

4. AFDC PAYMENT REPORTING

Another purpose of this study was to assess the accuracy of AFDC payment reporting. One aspect of this issue is addressed in Table 3 which shows the percentage of families reporting a monthly assistance amount that agreed with the amount carried in their administrative record.^{8/} In any given month of the reference period, between 62 and 67 percent of the families reported amounts that agreed with their administrative data. However, only 55 percent of the cases reported amounts that agreed in all three months.

Although not shown in the table, the percentage of cases reporting amounts that were in agreement with the administrative data in all three months varied substantially by State, from 75 percent in North Carolina to 41-65 percent in the other three States. In reviewing possible reasons for these interstate variations, it was noted that the payment standard changed during the first half of 1980 in the three States and did not change in North Carolina. Despite this observation, the changes in payment standards did not appear to be directly reflected in payment amount errors. Overreported amounts did not correspond to the new payment standards and underreported amounts did not correspond to the old payment standards.

When the accuracy of reported payments is differentiated by whether the payment was correctly reported as AFDC or misclassified as some other form of cash assistance, an interesting finding appears. Contrary to what might have been expected, the misclassifiers were no less accurate in reporting payment amounts than those who correctly identified themselves as AFDC recipients. In fact, the level of 3-month agreement was somewhat higher for the misclassifiers but the difference is not statistically significant ($p = .68$).

Considering that social security is generally believed to be the best reported government transfer payment in large-scale household surveys, it is quite noteworthy that available evidence indicates that the level of agreement between survey and administrative data on monthly social security payment amount is roughly comparable to that

Table 3: Percentage of Cases Reporting Receipt of Cash Assistance in Which Survey Report Agreed with Administrative Amounts Information by Reference Month and Type of Assistance Reported 1/

Time period	Total	AFDC reported as:	
		AFDC	Other cash assistance <u>1/</u>
All three.....	55.1	54.5	58.6
(N) <u>2/</u> <u>3/</u>	(185)	(156)	(29)
April.....	67.0	66.7	69.0
May.....	62.2	62.2	62.1
June.....	66.5	66.7	65.5

1/ Includes all misclassified cases regardless of reported source.

2/ Excludes seven AFDC cases for which the administrative amount was unknown and 5 AFDC cases for which the administrative amount was 0 in April.

3/ Base of percentage.

found here for respondents who correctly reported receipt of assistance in the month prior to interview.^{9/}

Table 4, which follows, shows the average survey and administrative record amounts for respondents who correctly reported assistance reciprocity in the month prior to interview by reporting category. The overall mean from both sources is quite close (\$276 in the survey and \$286 in the administrative records) with the survey mean understating the administrative mean by just 4 percent.^{10/} In 21 percent of the cases, the survey amount was less than the administrative amount, and in 9 percent of the cases the amounts reported in the survey exceeded the amounts carried in the administrative record. For cases underreporting their benefit amount, the average difference was \$79, or about 26 percent of the average appearing in the administrative record. The average survey/administrative discrepancy for cases overreporting their benefit amount was \$84, or about 37 percent of the average carried in the administrative record for these cases.

Frequently survey estimates of aggregate program income are compared to administrative aggregates for the program as a short-hand indication of the completeness of survey reporting. Such comparisons are of necessity somewhat crude since they fail to distinguish between outright non-reporting, misclassification and bias in the answers given by individuals who properly identify the given program as an income source. A more comprehensive comparison of survey and administrative aggregates is illustrated in Table 5, following. It shows that approximately 77 percent of the AFDC income received by the study sample went to individuals who correctly identified the source of their payments as AFDC. The income they reported amounted to 74 percent of the total, with the 3 percent discrepancy accounted for by their slight tendency to understate actual amounts received. An additional 13 percent of the aggregate was reported in the survey but was misclassified as some form of cash assistance other than AFDC. Thus while 87 percent of total AFDC income was reported by the program recipients a substantial portion was "hidden" by misclassification. Only 9 percent of the aggregate was missed by outright nonreporting.

To examine the factors associated with payment accuracy, the characteristics of cases in three categories were compared: agreement in all three months, disagreement in some of the months and disagreement in all three months.^{11/} We began with the characteristics of the partial and total disagreement cases. Partial disagreement cases were much more likely to have received varying monthly amounts than total disagreement cases (88 vs. 45 percent, $p < .001$), to be part-period recipients (27 vs. 11 percent, $p < .05$), and to have markedly smaller families ($p < .01$). None of the other variables

Table 4.--Number of Cases and Mean Survey and Administrative Payment in the Month Prior to Interview for Those Receiving and Reporting Cash Assistance in That Month, by Reporting Category

	Distribution of cases (in percent)	Mean monthly payment amount in dollars		Survey/administrative difference	
		Survey report	Administrative record		
				Dollar amount	As percent of mean administrative amount
Total.....	100.0 (176)	\$286	\$276	\$10	3.5
Survey and administrative amount agrees.....	69.9	289	289	0	N.A.
Survey amount less than administrative.....	21.0	221	300	79	26.3
Survey amount more than administrative.....	9.1	310	226	84	37.2

(N.A.) - Not applicable.

1/ Excludes 7 cases with missing administrative data and 2 cases with missing survey data on monthly amounts.

Table 5: Distribution of the AFDC Administrative Aggregate by Reciprocity Category

Reciprocity reporting category	Aggregate benefits in thousands 1/	Percent distribution
Total.....	\$175.6	100.0
Subtotal reporting receipt of cash assistance.....	159.4	90.8
Amounts as reported.....	153.0	87.2
Amounts received but not reported.....	6.4	3.6
Reported AFDC.....	135.1	76.9
Amounts as reported.....	129.9	74.0
Amounts received but not reported.....	5.2	2.9
Reported other cash assistance.....	24.3	13.8
Amounts as reported.....	23.1	13.1
Amounts received but not reported.....	1.2	0.7
Nonreporters.....	16.2	9.2

1/ Excludes instances where amounts are reported in the survey for a given month (aggregate reported benefits of \$4.2 thousand) but the administrative record indicates that no payment was received and cases with missing administrative or survey data on monthly amounts (N = 7 and 2 respectively).

considered, including work status, proved to be statistically significant.

Having established that for the most part the partial and total disagreement cases had similar characteristics, except for the three variables mentioned, comparisons with complete agreement cases were made treating the partial and total disagreement cases as a group. Our review indicated that the two basic groups differed along several demographic dimensions. Those with partial or total disagreement were somewhat more likely to be white (64 vs. 49 percent, $p = .04$), widowed or divorced than separated or never married (57 vs. 33 percent, $p = .005$), and were less likely to live in public housing (11 vs. 24 percent, $p = .04$). The partial disagreement cases were also more likely to have fewer children (95 vs. 72 percent with two children or less, $p < .001$).

However, a cluster of three variables; work status, part-period reciprocity and payment variation is more interesting from the standpoint of understanding what may have caused inaccurate amounts reporting. Variation in payment appears to be the underlying factor in this triad of variables. Only 6 percent of complete agreement cases had varying amounts, while 88 percent of the partial disagreement cases and 45 percent of the complete disagreement cases received varying payments over the 3-month reference period ($p < .001$ for both comparisons). Employment would appear to be the second most important factor with about 40 percent of both disagreement groups, but only 19 percent of the complete agreement cases, holding jobs ($p = .001$). Part-period payment is also clearly important for the partial disagreement group (27 vs. 3 percent, $p < .001$). However, it is of considerably less importance for the total disagreement group (11 percent vs. 3 percent, $p = .116$) and is at best at the margin of statistical significance. In short, although other factors clearly are operable (vis. only 45 percent of the total disagreement cases experienced payment variation), we strongly suspect that payment variability, generated by employment, part-period payment and other factors such as changing state payment standards, combined to produce inaccuracies in recall of assistance amounts.

Finally, the nature of the reporting errors were examined and are summarized in Table 6, following. The most common errors for the cases in partial disagreement were reporting the most recent payment for all three months of the reference period when payments actually varied, and lagging or leading the month of change in reciprocity. The most common error for cases in total disagreement was reporting a fraction or a multiple of the amount actually received. This may have resulted from a misunderstanding during the interview of the relationship between the monthly survey accounting period and the program payment

Table 6: Nature of reporting error of level of disagreement

Nature of reporting error	Percent distribution by level of disagreement	
	Partial	Total
All four states..... (N)	100.0 (41)	100.0 (47)
Reporting the most recent payment of all three months.....	26.8	-
Lagging/leading the month of change in reciprocity..	24.4	6.4
Reporting a fraction or multiple of the administrative record amount.....	17.1	46.8
Lagging/leading the month of change in payment or averaging payments over transition months.....	12.2	2.1
Rounding or reporting within \$10.....	12.2	10.6
Varying amounts correctly reported but amount value in disagreement, no reason discernable.....	7.3	8.6
Constant amounts correctly reported but amount value in disagreement, no reason discernable.....	-	14.9
Constant amount reported when payments varied and amount value in disagreement, no reason discernable.....	-	10.6

cycle. Rounding errors accounted for about 12 percent of the cases in partial disagreement and 11 percent of those in total disagreement.

5. CONCLUSION

A multi-state sample drawn from program records was used to investigate the accuracy of AFDC reciprocity and payment reporting. In terms of reciprocity reporting, misclassification was found to be a more common source of reporting error than outright nonreporting. The incidence of misclassification varied by state, most probably a function of state program operations. Nonreporting was higher for married payees and those who received payments for only part of the reference period. The implications of these findings for questionnaire design and survey procedures are threefold: more explicit treatment of partial period payments, the use of the shortest survey reference periods as is feasible given cost constraints, and intensive interviewer training on the difficulties which some AFDC recipients have in reporting the source of their income as AFDC.

In terms of AFDC payment reporting, the ability to identify the source was not associated with greater accuracy in reporting amounts. Basically, accuracy seemed largely affected by whether or not payment amounts changed during the reference period. This finding suggests that improved measurement may be obtained by stressing the importance of accurate reporting of changes in payments to both respondents and interviewers.

Of even more importance for improved measurement is the need for a clearer understanding, during the interview of the survey accounting period. This type of error could be substantially reduced if the interviewer was made aware of this problem.

Finally we would like to return to the importance of reference period length. Reference period length impacts on two important types of response errors--the tendency to overlook reciprocity after leaving the rolls and to err in reporting variable amounts. Use of a longitudinal panel design with relatively short reference periods, such as employed in the ISDP pilot surveys, should confine the bulk of AFDC reciprocity reporting loss resulting from partial period payments to the initial interview. Shorter reference periods also place the interview closer to the point when amount changes occur and thus can be expected to reduce the tendency to overlook or misreport such changes.

Of course, our reasoning assumes that the nature of reporting errors in a national level survey would be roughly comparable to those uncovered for the four states in this study. Given that these states

contributed 23 percent of the AFDC caseload in July 1980 and are representative of the major regions of the United States, the assumption does not seem unreasonable.

6. ACKNOWLEDGEMENTS

A study of this nature is only possible because of the cooperation of many individuals. A great deal of staff work was required at both the Bureau of the Census and the Social Security Administration (SSA) in the planning and execution of the Special Frames Study. However, we would like to give our special thanks to Daniel Kasprzyk at SSA and to Linda Murphy, John Codex, Chuck Nelson and Roger Cavanaugh of the Bureau of the Census for facilitating our access to the data and assisting in the development of the study data file. Bruce Klein, at SSA, also made a number of useful comments on early drafts of the paper.

The cooperation of program personnel at the State level was also essential in obtaining the various program samples employed in the study. Lead persons in the sampled States were Martha Mills, California; Raymond Riddle, North Carolina; Charles Passmore, Pennsylvania; and Angelica Bilkey, Wisconsin.

7. FOOTNOTES

- 1/ See for example Table A-4 in [8:297]. Earlier research on the quality of survey reports of AFDC and other public assistance income is cited in the references [1-5, 7].
- 2/ The development program is a joint undertaking of the U.S. Department of Health and Human Services and the Bureau of the Census. A brief description of the ISDP program is given in M. Ycas and C. Lininger, "The Income Survey Development Program: A Review", which appears in the 1980 Proceedings of the Section on Survey Research Methods of the American Statistical Association, pp. 486-490.
- 3/ Aid to Families with Dependent Children (AFDC) provides cash payments to families with children deprived of support of a parent due to death, disability, absence from the home or, in some states, unemployment. The program is jointly funded by the Federal and State governments.
- 4/ For additional details see [6].
- 5/ In the course of our analysis we employed chi square tests to detect association between reporting errors and various characteristics of the payees. In cases where expected cell frequencies were less than five, corrections for continuity were employed. The statements of probability which are inserted parenthetically throughout the text represent the probability that the characteristic in question is distributed randomly with respect to the presence or absence of a given response error.
- 6/ Misclassifiers and nonreporters were compared to AFDC reporters on the basis of age, race, marital status, number of children, residence in public housing, work status, months receiving AFDC, and part-period receipt.
- 7/ An earlier ISDP study carried out in Texas also demonstrated the importance of reciprocity misclassification and the impact of part-period payments on nonreporting. In the Texas sample, both misclassification and nonreporting occurred, but nonreporting was somewhat more common than misclassification (see [3]).
- 8/ The survey amount was classified as in agreement if within \$5 of the amount carried in the administrative record.
- 9/ Data on monthly social security amounts was obtained in a special July 1973 supplement to the Census Bureau's Current Population

Survey and was matched to social security program records as part of the 1973 Exact Match Project. The accuracy of monthly amount reporting was assessed by Vaughan [9: 159-162]. Of the group analyzed, only 54 percent of the monthly benefit amounts reported in the survey fell within \$5 of the amount carried in social security program records. However, this relatively low rate of agreement was heavily influenced by the tendency for recipients over age 65 to report their monthly benefit net of Medicare premiums, which are deducted prior to payment to the recipient. In the absence of such errors, which have no direct counterpart in the AFDC program, the agreement rate using the \$5 criterion would probably be in the vicinity of 70-73 percent. Given a sample size of 176 for the AFDC/public assistance reporters for the month prior to interview (table 3), and 1,250 social security recipients in the CPS sample, it is not likely that the agreement rate for social security amounts is any higher than that for AFDC (the probability for no difference by source is between .56 and .14 over the 70 to 73 percent range). In any case, because of the ambiguity introduced by the presence of Medicare deduction errors, about the most that can be said is that we have no strong evidence that the social security monthly amounts reported in the CPS were substantially more accurate than the AFDC amounts reported in the Special Frames Study.

10/ When the survey reference period covers a substantially larger block of time, such as with the annual reference period employed in the March Supplement to the Current Population Survey, yet other factors may come into play. For example, to the extent that respondents create an annual estimate by multiplying the most recently received monthly payment amount by an estimate of the number of months that they received benefits during the year, the respondents' estimates of their annual flow may tend to overstate the actual amounts received when there is a secular increase in benefit levels as has been the case with AFDC in recent years. It is quite possible that such overstatements would compensate for the tendency to underreport the actual monthly amount figure used to construct the estimate of annual flow. Also, earlier research conducted as part of the ISDP provides documentation of the very strong impact that reference period length has on nonreporting. For example, the incidence of nonreporting in the first three months of a 6-month reference period nearly doubled when date of interview was moved from the month following the initial three month period to 4 months after the end of the initial 3 months (see Table 111.1 in "Evaluation of experimental effects on data quality" which appears as chapter 6 in [3]). For additional insight into the kinds of errors that enter into respondents' estimates of transfer income on an annual

basis and in turn are reflected in survey estimates of program aggregates see [11].

- 11/ Variation in monthly payment amounts was included along with the variables listed in note 6 in our review of variables associated with payment reporting errors.

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Chapter V

Summary and Conclusions

The Special Frames Study was a continuation of ISDP efforts to better understand the administrative, methodological, and operational difficulties in using administrative sources of data for both sampling and analytical purposes. This report has focused primarily on field procedures, and the results of those procedures for the various administrative samples in the study. While difficult to summarize, there was overall success at finding sample persons and addresses although noninterview rates were higher than those usually obtained by the Census Bureau. (Some have speculated that one-time methodological tests are not treated as seriously as continuing surveys, but it is not possible to document the influence of such a factor on these rates.)

The study provided significant experience in developing systematic procedures to identify important file characteristics for sampling purposes, including knowledge of content and structure of the file. In general, it was clear that Federal agencies were cooperative and helpful in providing information about their record systems as well as in drawing a sample from those systems. However, not surprisingly, agencies with no immediate vested interest in the study accorded less priority to the project than others.

Among the few States, there were difficulties in obtaining the specified variables for the time period requested, a problem which would presumably be compounded in a national effort. In addition, record check studies using a large number of States would require great patience, good follow through, and lots of time.

Some uncertainty arose over sampling procedures, and verification of the implementation of sampling specifications by States was problematic and incomplete. Simple generalized systematic sampling procedures were given to each sample source, along with a request for a statement of how the sample was actually drawn. Such statements were difficult to obtain, but we did receive them from most States and agencies. Even then, evaluation of the procedures was not always straightforward. For example, the VA sampling specifications allowed

for sample selection during a routine updating of the file, but it is not obvious whether this provided a random sample.

While Federal record systems are neither central nor uniform in format, using other agencies' record systems is feasible if enough time is available. Similarly, there are various ways in which the issues of data access, transfer, and sampling implementation may be resolved. Day-to-day liaison activities with States and agencies are necessary to assure resolution of these issues.

Because of resource constraints and shifting priorities, the resource allocation between data collection and analysis was too heavily loaded toward data collection in the Special Frames Study. However, subsequent to their collection, some Special Frames survey data were matched to their corresponding administrative records. Findings from two of these matches--using AFDC and IRS frames--are summarized here.

The focus of the AFDC record check was on the evaluation of survey reports of this income type. There were four major findings:

- The overwhelming majority (90 percent) of AFDC recipients reported the receipt of cash public assistance.
- However, of those correctly reporting cash assistance, some 13 percent failed to identify the source of their payment as AFDC per se. Consequently, only 77 percent of all cases were identifiable directly as AFDC.
- On average, benefit amounts for the month prior to interview were relatively well reported. The mean benefit reported for the prior month amounted to 96 percent of the mean carried in the administrative record. Thus while there appeared to be a slight bias in the reported amount on average, and while approximately 30 percent of reports were notably larger or smaller than the amount appearing in the administrative record, 70 percent of respondents reported an assistance amount that came to within five dollars of the amount appearing in the administrative record. This agreement rate approximates the rate found to obtain for such well-reported transfer incomes as Social Security in the Current Population Survey.
- Careful examination of misreported survey amounts indicated that nearly 80 percent of the errors could plausibly be ascribed to a limited number of concrete and readily identifiable mistakes. The most common error was reporting an exact fraction or multiple of the amount actually

received. This type of error most likely arose because of a misunderstanding on the part of the interviewer and/or the respondent of the relationship between the monthly survey accounting period and the program payment cycle. As with other kinds of errors uncovered, explicit interviewer training on the kinds of errors that are likely to occur in reporting of benefits amounts could be expected to increase the accuracy of amounts reporting.

In general, then, these results were quite encouraging. While a significant minority of respondents failed to correctly identify their assistance as stemming from AFDC program per se, nearly 90 percent of AFDC benefits received by the study sample were picked up by the survey. Payment reporting errors affected only about 30 percent of reports for the month prior to interview and could very probably be reduced significantly with appropriate interviewer training.

Another kind of use was made of Special Frames data in a joint project by IRS and the Census Bureau as part of the IRS Statistics of Income (SOI) project [11]. This work utilized IRS frame cases to validate occupational classifications developed by SOI primarily from occupational reports on the income tax returns of these cases.

Specifically, rather than using time-consuming manual procedures, the IRS was developing a computerized dictionary system to classify the reported occupations. For the subset of SOI cases that were interviewed in the Special Frames Study, responses to the survey's detailed questions on the sample person's occupation were coded by experts at the Census Bureau, without reference to the IRS codes or information. Then, the correspondence between the classification generated in the computerized procedure and that resulting from the Census coding of survey results was examined. While based on a small number of cases, the results were both encouraging and instructive in isolating problems needing further attention in the computerized system.

The Special Frames Study was one of the last of the ISDP data collections. Throughout its history, the Income Survey Development Program had a unique commitment to administrative record data to understand the problems of measuring income in a household survey. In its several field tests, a body of knowledge was developed on procedures for developing administrative record sample frames, selecting samples, and locating specific respondents. With the Special Frames Study, that knowledge was successfully extended to files maintained at the State level and to new Federal administrative record systems.

The authors wish to thank all those who helped to make the Special Frames Study a unique methodological study. This includes the many contacts with the participating agencies, staff members at the Bureau of the Census, Social Security Administration and in the Office of the Assistant Secretary for Planning and Evaluation. Special thanks are due to Census Bureau Staff who graciously made their space available for the review of the data; to Robert Klein and Janice Olson of the ISDP staff, whose comments in early stages of text preparation as well as Janice's primary role in this summation process were very helpful, and most particularly to Denton Vaughan for his ever present assistance in text editing of this report.

FOOTNOTES:

- 1/ Early Special Frames Study plans contained more states and programs than those described below, for example, a sample from each of the following programs was considered: Social Services (Title XX), Vocational Rehabilitation, Medicaid and Food Stamps.
- 2/ In order to avoid interviewer recognition of program participants prior to the interview itself, leading to biased and, perhaps, better reports of program participation than is typically found in survey programs, several administrative record sources were necessary in each state.
- 3/ A PSU (Primary Sampling Unit) consists of one to several contiguous counties.
- 4/ The IRS sample was an exception; IRS records up to two years old in August, 1980, were selected.
- 5/ The ISDP-101A collected asset income amounts for only half of the sample as a test of 3- versus 6-month recall period for the collection of asset data; the ISDP-7101 simply used a 3-month recall period. Minor wording changes were also made to update the ISDP-101A to the Special Frames Study interview period.
- 6/ The control card is the basic record of each sample unit. On it are recorded housing-related and basic demographic information for a sample household and the persons living in that household.
- 7/ The household roster was filled in by the interviewer. It lists the names of all persons living or staying in the sample unit at the time of interview, and the names of all persons who usually lived at the address but who were temporarily away.
- 8/ A representative payee is a person designated by the Social Security Administration to receive monthly benefits on behalf of a beneficiary when such action appears to be in the beneficiary's best interest. A representative payee is appointed for an adult beneficiary when the beneficiary is physically or mentally incapable of managing his/her own funds. A payee is usually appointed to receive benefits on behalf of a child under age 18.
- 9/ A VA sample was not selected for North Carolina because North Carolina's combined sample size for other administrative frames was sufficiently large.

- 10/ The Income Source Summary (ISS) was used by the interviewer to record the type of income received by each interviewed household member. It served as a convenient, comprehensive reference for determining which sections of the questionnaire to complete and for assisting in completing certain check items on the questionnaire.
- 11/ Chapter II discusses the double sampling approach for selection of IRS Form 1040 and 1040A series returns and the stratification by business or non-business forms as well as the amount of adjusted gross income [43, 44].

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**APPENDIX
SPECIAL FRAMES STUDY FORMS**

If you would like to see the Appendix, please write to:

Daniel Kasprzyk
SIPP Research & Coordination Staff
Office of the Director
Bureau of the Census
Room 2025-3
Washington, D.C. 20233

(301) 763-5784