

During the past 20 years, legislative and judicial actions have affected Supplemental Security Income and Disability Insurance beneficiaries. This article compares important changes in demographics, income sources and amounts, and poverty status of beneficiaries of both programs between 1984 and 1999, using data from the Survey of Income and Program Participation matched to administrative data from the Social Security Administration. The average age of both groups has decreased, while their education levels increased. In 1999, Disability Insurance beneficiaries and their families relied less on Social Security, while their poverty rate remained fairly constant. The Supplemental Security Income population had a lower poverty rate, while beneficiaries were slightly more reliant on Social Security for personal income.

Teran Martin was an economics student at Colorado College at the time this article was written and is now with the Board of Governors of the Federal Reserve System. Paul S. Davies is with the Division of SSI Statistics and Analysis, Office of Research, Evaluation, and Statistics, Office of Policy, Social Security Administration.

Changes in the Demographic and Economic Characteristics of SSI and DI Beneficiaries Between 1984 and 1999

by Teran Martin and Paul S. Davies

Summary

Social Security has paid benefits to persons insured for disability since 1956 under its Disability Insurance program and, since 1974, to the low-income aged, blind, and disabled under its Supplemental Security Income program. Over time major demographic, economic, and societal changes have affected the underlying populations who are eligible for these programs, and legislation and court decisions have affected the programs themselves.

This article capitalizes on the availability of data collected by the U.S. Census Bureau in its Survey of Income and Program Participation that go back to 1984 and that have been linked to Social Security administrative records. It examines changes in the Disability Insurance and Supplemental Security Income beneficiary populations between 1984 and 1999, the latest year for which Survey of Income and Program Participation data linked to administrative records are available.

Both the Disability Insurance and Supplemental Security Income populations have experienced marked growth and compositional changes in that 15-year period.

- The average age of both groups decreased. The Supplemental Security Income population is much more likely to be working-aged and less likely to be aged. The Disability Insurance population is much more likely to be under the age of 55.
- Marital status has shifted for both groups as a result of underlying trends in the population and the types of beneficiaries on the rolls. The Disability Insurance population is more likely to be divorced and less likely to be married. The Supplemental Security Income population is more likely to be never married and less likely to be widowed.
- Both groups are on average more educated in 1999 than they were in 1984, although half of the adult Supplemental Security Income population has not graduated from high school.

In 1999, the Disability Insurance population had about the same level of average personal and family income (almost \$13,000 and \$30,000, respectively, in 1999 dollars) and a similar poverty rate (about 22%) as it had in 1984. However, Disability Insurance

beneficiaries and their families were less dependent on Social Security and relied more heavily on family earnings and a range of other sources of income in 1999. Disability Insurance beneficiaries had relied on Social Security for over 70 percent of their own income and over 50 percent of their family income in 1984. In 1999, reliance on Social Security was about 15 percentage points lower: 58 percent of personal income and 36 percent of family income.

The Supplemental Security Income population in 1999 had slightly higher average income (personal and family) and a lower poverty rate than it did in 1984. The poverty rate among beneficiaries declined from 47 percent in 1984 to 42 percent in 1999. In 1999, Supplemental Security Income beneficiaries were slightly more reliant on the program for personal income (64 percent of income on average compared with 58 percent in 1984) but had about the same level of reliance for their family income (40 percent). The families of Supplemental Security Income beneficiaries in 1999 are relying more on earnings and less on Social Security benefits received by the Supplemental Security Income recipient or other family members.

Introduction

Many changes occurred over the past 20 years that were relevant to Supplemental Security Income (SSI) and Disability Insurance (DI) beneficiaries. Laws were enacted that redefined disability, underlying economic factors changed, and the “baby boom” generation grew older. There has been “[a] decline of manufacturing jobs, growth in female labor force participation, growth in health care costs, changes in the structure of families, immigration, and changes in the prevalence of disabling health conditions” (Rupp and Stapleton 1998, 5). This article examines changes between 1984 and 1999 in SSI and DI beneficiaries with respect to demographic characteristics, income, and poverty status. The findings are intended to be useful to policymakers as they consider program changes to better serve SSI and DI beneficiaries in the future.

This article

- provides a brief background on the SSI and DI programs, in addition to policy changes relevant to them;
- describes the data sources used in the analysis;
- explores demographic changes in SSI and DI beneficiaries, focusing mainly on changes in marital status, age distribution, family size, home ownership, and education;
- analyzes changes in income levels and sources; and

- studies changes in income as a percentage of poverty and changes in the SSI poverty gap.

Programmatic and Legislative Background

The SSI program is a means-tested transfer program administered by the Social Security Administration (SSA) and authorized by Title XVI of the Social Security Act. Established in 1972 as part of Public Law 92-603, SSI began providing monthly cash payments in 1974 according to uniform, nationwide eligibility requirements to the needy aged (65 years of age or older), blind, and disabled. Most states also provide supplements to federal SSI benefits. The means test for federal SSI benefits requires beneficiaries to have monthly, countable income below the federal benefit rate (maximum monthly benefit). The first \$20 of income is disregarded in calculating monthly countable income, as is the first \$65 of earned income and one-half of all remaining earnings.¹ The resource test for federal SSI benefits requires SSI beneficiaries to have maximum resources (assets) of \$1,500 for an individual or \$2,250 for a couple in 1984 and \$2,000 for an individual or \$3,000 for a couple in 1999. The maximum monthly federal benefit is indexed to inflation and has steadily increased from \$314 for an individual and \$472 for a couple in 1984 to \$500 for an individual and \$751 for a couple in 1999.

The Social Security Act defines disabled adults as those who are “unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than twelve months” (42 U.S.C. 1382c(a)(3)(A)). Disabled children are children who are not engaging in substantial gainful activity and whose impairment, or combination of impairments, results in marked and severe functional limitations and is expected to result in death or has lasted or can be expected to last at least 12 months (42 U.S.C. 1382c(a)(3)(C)(i)). Substantial gainful activity is defined as monthly earnings of more than \$300 in 1984 and \$700 in 1999, with impairment-related expenses subtracted from earnings.² Elderly individuals (aged 65 or older), with the exception of some noncitizens, are categorically eligible for SSI by definition and therefore are not required to meet the disability criteria.³

The Social Security Amendments of 1956 established monthly DI benefits for disabled workers. Subsequent amendments in 1958 established benefits for dependents of disabled workers (i.e., spouses and children). The average monthly benefit for disabled workers was \$470.70 in 1984 and \$754.10 in 1999 (Social Security

Administration 2001a, Table 1). DI covers workers with severe disabilities, using the same definition of disability that is used for the SSI program (42 U.S.C. 416(i)(1)). In addition, to receive DI benefits an individual must

- be insured for disability benefits, that is, the person must have worked long enough, and recently enough, in Social Security–covered jobs to be disability insured;⁴
- not yet have attained full retirement age; and
- file an application for benefits (Social Security Administration 2001a, 2).

The following legislative and judicial actions affected the number and characteristics of SSI beneficiaries, DI beneficiaries, or both during the period of analysis (1984 to 1999). The Social Security Disability Benefits Reform Act of 1984 changed the disability standard that is used in determining SSI and DI eligibility. The *Sullivan v. Zebley* U.S. Supreme Court decision and the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 changed the definition of disability that is used in determining SSI eligibility for children. The Fair Housing Act and the Americans with Disabilities Act contributed to making the living environment and workplace more accessible to persons with disabilities.

The Social Security Disability Benefits Reform Act of 1984 revised the mental impairment listings and required that the combined effect of all impairments be taken into consideration when determining eligibility for disability benefits. Also, it added a “medical improvement standard” in the continuing disability review process (Social Security Administration 2001a, 2). The medical improvement standard states that an individual’s disability benefits may be terminated on the basis of the disability only “if there is substantial evidence which shows that the individual’s impairments have medically improved and the individual can now perform substantial gainful activity” (Social Security Administration 1986).

The U.S. Supreme Court decision *Sullivan v. Zebley*, 493 U.S. 521 (1990), ruled that child SSI cases were not judged equally to adult cases. Child cases cannot be accepted or rejected solely on the basis of whether the child’s condition is on the Listing of Impairments, as this does not include any form of the “comparable severity” clause found in the definition of adult disability. This decision redefined and expanded the child disability criteria in an effort to make them more compatible with the adult disability criteria. These revisions allowed children to qualify for disability benefits if their impairment was “functionally equivalent” to an impairment on the adult listing (Rogowski and others 2002). The Disability Benefits Reform Act of 1984 and the *Sullivan v. Zebley* decision are two important factors in the rapid

increase in the SSI child caseload during the 1990s (Rupp and Stapleton 1995).

The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), Public Law 104-193, set criteria that were more restrictive for childhood disability and required that eligibility be redetermined using adult disability criteria when the child reaches 18 years of age. PRWORA also requires continuing disability reviews not less than once every 3 years for all SSI beneficiaries under the age of 18.

Additionally, PRWORA prohibits SSI eligibility for anyone who is not a U.S. citizen unless they are determined to be in a “qualified alien” category and meet certain other requirements such as work or military service or a classification as a refugee or an asylee. PRWORA barred immigrants from receiving cash assistance under the SSI program, as well as most other federal means-tested benefits (for example, food stamps, Aid to Families with Dependent Children, which was replaced by Temporary Assistance for Needy Families), for 5 years from the date that they entered the United States (Kaestner and Kaushal 2001). The Balanced Budget Act of 1997 made many of PRWORA’s provisions inapplicable to legal immigrants who arrived before August 22, 1996, the date of PRWORA’s enactment (Parrott, Kennedy, and Scott 1998).

At about the same time, Public Law 104-121 eliminated drug and alcohol addiction from the medical listings of disabilities that qualify for SSI and DI benefits and explicitly denied benefits to applicants whose primary disability was drug or alcohol addiction. This included ceasing benefits to current SSI and DI beneficiaries whose primary disability was drug or alcohol addiction.⁵

The Fair Housing Act (FHA), as amended in 1988, makes housing more accessible to the disabled and prohibits discrimination on the basis of race, color, religion, sex, disability, familial status, or national origin. For example, the FHA may require a landlord with a “no pets” policy to grant an exception to this rule and allow an individual who is blind to keep a guide dog in the residence. The FHA applies to private housing and housing that receives federal, state, or local government financial assistance. It stipulates that new multifamily housing units be designed and built to allow access for persons with disabilities (Department of Justice 2002). Although the actual effects of the FHA are unclear, an increasing number of cases involving discrimination against the disabled have cited the FHA and reached settlements or findings of probable cause for complaint (Schill and Friedman 1999).

The Americans with Disabilities Act (ADA) “prohibits discrimination on the basis of disability in employment, state and local government, public accommodations,

commercial facilities, transportation, and telecommunications” (Department of Justice 2002). By July 26, 1994, the ADA required that individuals with disabilities be given an equal opportunity to benefit from the full range of opportunities available to others. For example, the ADA prohibits discrimination in recruitment, hiring, promotions, training, pay, social activities, and other privileges of employment and helps make the work environment more accessible to the disabled.

The actual effect of the ADA is unclear. One of the major purposes of the legislation was to promote access to jobs for individuals with disabilities. In addition, the ADA has been cited in disputes about job retention and promotion. To date, the U.S. Supreme Court has generally sided with employers in disputes that cite the ADA in connection with unfair termination or lack of promotion. Overall, employment among the total U.S. disabled population decreased between 1984 and 1999. Studies by Acemoglu and Angrist (1998) and DeLeire (2000) argue that this decline was an unintended consequence of the passage of the ADA. Burkhauser and others (2001, 19) conclude the following:

[N]o studies have been able to satisfactorily disentangle the impact of demand side factors related to the passage of the ADA or changes in the mix of jobs in the economy in the 1990s from supply side factors related to changes in the ease of access to DI and SSI benefits or to a reduction in the share of jobs that provide private health insurance, which would discourage work among the population with disabilities.

Data

This article capitalizes on the advantages of two data sources: the Survey of Income and Program Participation (SIPP) and matched SSA administrative records from the Supplemental Security Record, the Master Beneficiary Record, and the Summary Earnings Record.⁶ The Supplemental Security Record maintains detailed information on SSI applicants and beneficiaries, including monthly payment status and benefit amounts from 1974 to the present. The Master Beneficiary Record maintains similar information for Social Security beneficiaries, including DI beneficiaries and recipients of old-age and survivors benefits. The Summary Earnings Record provides annual earnings in Social Security–covered jobs and is based on tax records from the Internal Revenue Service.

The SIPP collects information from noninstitutionalized U.S. residents on a broad spectrum of topics, including demographic characteristics, household composition, work, income, and program participation. The 1984 panel of the SIPP conducted 8 waves of interviews with ap-

proximately 26,000 households. The 1996 panel conducted 12 waves of interviews with approximately 36,700 households. Both panels interviewed the respondents of each wave once every 4 months and asked for information about the prior 4 months. The information in the SIPP is self reported, and responses may suffer from reporting error. Such errors can be problematic when analyzing receipt of SSI and DI benefits and the benefit amounts. To combat that problem, the SIPP data are matched to the SSA administrative records, which are not affected by attrition or misreporting by self or proxies. Hence, the resulting data on DI and SSI beneficiaries are more precise and provide additional reinforcement to the article’s findings (Huynh, Rupp, and Sears 2002).

SSI beneficiaries in 1984 and 1999 are identified on the basis of information from the Supplemental Security Record. Similarly, DI beneficiaries in 1984 and 1999 are identified on the basis of information from the Master Beneficiary Record. SSI beneficiaries can be of any age (disabled children aged 17 and under, disabled adults aged 18 to 64, and elderly adults aged 65 or older), whereas DI beneficiaries are aged 18 to 64 by definition. Some individuals receive both SSI and DI benefits. Those concurrent beneficiaries are not treated separately; rather, they appear in the tables as SSI beneficiaries and again as DI beneficiaries. Beneficiary employment status is based on earnings data from the Summary Earnings Record. Poverty status is defined on the basis of the poverty threshold variable included in the 1984 and 1999 SIPP. All other demographic and economic characteristics come from the SIPP.

From the 1984 SIPP-SSA matched data file, 795 SSI and 627 DI observations were identified. The 1999 SIPP-SSA matched data file contained 1,100 SSI and 893 DI observations. These observations were weighted by using the SIPP-provided sample weight, adjusted upward to account for excluded nonmatched observations, to become a representation of the total SSI and DI populations. The weighted sample counts are 4,398,495 SSI beneficiaries and 3,277,716 DI beneficiaries in 1984 and 6,824,567 SSI beneficiaries and 6,145,121 DI beneficiaries in 1999.⁷ These weighted sample counts are slightly higher than published totals that are based on administrative data alone, partly because of potential population coverage issues in SIPP and partly because of nonreporting of Social Security numbers by SIPP respondents. Any categories with fewer than 30 unweighted observations were dropped from the tables, because of concerns of disclosure and statistical unreliability of the estimates. Tests for differences in means between 1984 and 1999 were conducted using standard statistical procedures and bootstrapped standard errors to account for the complex SIPP sample design.

Demographic Characteristics

Perhaps the most important demographic difference between 1984 and 1999 was the change in marital status among the total U.S. population.⁸ People are waiting longer before marriage, the number of people who never marry has increased, and marriages are more likely to end in divorce. Among the total U.S. household population, the percentage of married couples decreased between 1984 and 1999, while the percentage of divorced couples increased.

Similar patterns were observed among DI and SSI beneficiaries, with the exception of the marriage rate of SSI beneficiaries, which rose between 1984 and 1999 (Table 1). The share of DI beneficiaries who were married fell by 8.5 percentage points (from 54.0 percent in 1984 to 45.5 percent in 1999), and the share who were divorced or separated increased by 7.7 percentage points (from 15.1 percent in 1984 to 22.8 percent in 1999). Both changes are statistically significant. The share who never married rose 3.8 percentage points, although this change was not statistically significant. Among SSI beneficiaries, the share who were divorced or separated rose by 3.3 percentage points between 1984 and 1999. The share who were never married increased by 8.1 percentage points (from 36.3 percent to 44.4 percent), and the share who were widow(er)s fell by 13.5 percentage points, both of which were statistically significant.

Changes in the definition of mental impairments, as a result of the Disability Benefits Reform Act of 1984 and the *Sullivan v. Zebley* U.S. Supreme Court decision, made it less difficult for young people to qualify for disability benefits. The reduction in the percentage of widowed beneficiaries, 82 percent of whom were aged 65 or older, and the change in the definition of mental impairments may have contributed to the decrease in the average age of DI and SSI beneficiaries. In addition, the aging of the baby boom cohort undoubtedly played an important role. Individuals born between 1946 and 1965 were between the ages of 19 and 38 in 1984. By 1999, they were aged 34 to 53—ages that are generally associated with higher probabilities of receiving disability benefits. Between 1984 and 1999, the decrease in average age was statistically significant for both: 1.7 years for DI beneficiaries (from 51.4 years of age to 49.7 years of age), and 6.4 years for SSI beneficiaries (from 53.7 years of age to 47.3 years of age). Those changes are also reflected in the decrease in the percentage of DI beneficiaries aged 55 or older and in the percentage of SSI beneficiaries 65 or older (Table 1).

The racial composition of DI and SSI beneficiaries between 1984 and 1999 was relatively constant. However, the percentage of SSI beneficiaries who were Hispanic was significantly greater in 1999 than it was in

1984: 18.3 percent compared with 13.0 percent.⁹ The percentage of DI beneficiaries who were Hispanic decreased slightly over the same period, although the change was not statistically significant.

The overall U.S. home ownership rate increased slightly, from about 64 percent in 1984 to about 67 percent in 1999. Whereas DI beneficiaries had similar home ownership rates (64 percent in 1999) to the overall population, home ownership among SSI beneficiaries was substantially lower (40 percent in 1999), reflecting the generally poorer economic circumstances of SSI beneficiaries. In addition, between 1984 and 1999, a noticeable decrease in the home ownership rate among DI beneficiaries occurred, as did a statistically significant decrease in the rate among SSI beneficiaries (Table 1). Over the same period, the percentage of DI and SSI beneficiaries who resided in public housing increased slightly, although the change was not statistically significant.

The average U.S. family size decreased between 1984 and 1999, especially the percentage of families with more than five members. Average family size decreased by a similar amount for DI and SSI beneficiaries over that period; however, changes in the family size distribution were quite different for DI beneficiaries than they were for SSI beneficiaries. The percentage of DI beneficiaries with a family size of two or more decreased, while the percentage of one-person families increased (Table 1). This change coincides with the increase in the percentage of DI beneficiaries who are divorced or separated or never married. A smaller, opposite change occurred for SSI beneficiaries in that the percentage with a family size of one decreased, while the percentage with two or more slightly increased. With the exception of the decrease in average family size among DI beneficiaries, none of these changes are statistically significant.

Finally, the educational attainment of DI and SSI beneficiaries improved between 1984 and 1999 (Table 1). Between 1985 and 2000, U.S. educational attainment increased substantially overall. The percentage of individuals aged 25 or older with at least a high school diploma increased from 73.9 percent to 84.1 percent, while the percentage with a bachelor's or higher degree increased from 19.4 percent to 25.6 percent (National Center for Education Statistics 2002). Although the level of educational attainment is substantially lower among SSI and DI beneficiaries than it is for the general U.S. population, the increase in educational attainment for both was similar to that of the general population. In 1984, a majority of DI beneficiaries had a high school education or less. That was still the case in 1999, but the percentage of those beneficiaries with 8 or fewer years of education decreased significantly, and the percentage with some college education or a college degree increased by nearly 18 percentage points. The improve-

Table 1.
Demographic characteristics of DI and SSI beneficiaries, 1984 and 1999

Characteristic	Disability Insurance beneficiaries			Supplemental Security Income beneficiaries		
	1984	1999	Change	1984	1999	Change
Number of beneficiaries	3,277,716	6,145,121	2,867,405	4,398,495	6,824,567	2,426,072
Female (percent)	40.1	40.9	0.8	66.7	55.8	-10.9 *
Marital status (percent)						
Married	54.0	45.5	-8.5 *	18.5	21.2	2.7
Widow(er)	8.2	5.5	-2.7	27.1	13.6	-13.5 *
Divorced or separated	15.1	22.8	7.7 *	17.5	20.8	3.3
Never married	22.4	26.2	3.8	36.3	44.4	8.1 *
Age						
Mean (years)	51.4	49.7	-1.7 *	53.7	47.3	-6.4 *
Distribution of DI beneficiaries ^a (percent)						
Under 25	1.4	2.4	1.0	...	...	...
25-34	10.1	7.8	-2.3	...	...	...
35-44	12.0	19.0	7.0	...	...	...
45-54	28.1	30.7	2.6	...	...	...
55 or older	48.4	40.1	-8.3	...	...	...
Distribution of SSI beneficiaries ^a (percent)						
Under 18	...	...	...	11.2	13.3	2.1
18-65	...	...	...	44.2	59.5	15.4
65 or older	...	...	...	44.6	27.1	-17.5
Race (percent)						
White	80.4	78.6	-1.8	66.5	61.9	-4.6
Black	18.6	18.5	-0.1	29.9	29.8	-0.1
American Indian, Alaska Native	0.6	2.0	1.4 *	0.4	2.7	2.3 *
Asian, Pacific Islander	0.5	0.9	0.4	3.2	5.7	2.5 *
Hispanic (percent)	7.8	7.1	-0.7	13.0	18.3	5.3 *
Housing (percent)						
Own home	68.4	63.7	-4.7	46.1	39.7	-6.4 *
Residence in public housing	4.0	6.4	2.4	11.4	12.6	1.3
Family size						
Mean (number of persons)	2.7	2.4	-0.3 *	2.8	2.7	-0.1
Distribution ^a (percent)						
1 person	19.3	29.2	9.9	36.9	32.4	-4.4
2 persons	37.9	35.3	-2.6	21.9	22.9	1.0
3-4 persons	30.6	27.5	-3.1	24.4	27.3	2.8
5 or more persons	11.6	7.9	-3.7	15.8	17.4	1.6

Continued

Table 1.
Continued

Characteristic	Disability Insurance beneficiaries			Supplemental Security Income beneficiaries		
	1984	1999	Change	1984	1999	Change
Years of education (percent)						
Unknown ^b	...	...	...	20.3	9.9	-10.4
0–8	31.0	15.5	-15.5 *	45.5	33.6	-11.9 *
9–11	21.1	18.0	-3.1	17.0	20.6	3.6
12	29.8	34.6	4.8	12.9	24.7	11.8 *
13–15	9.4	22.3	12.8 *	3.4	8.6	5.1 *
16 or more	4.5	9.5	5.0 *	0.8	2.5	1.7 *

SOURCE: Data are from the 1984 and 1996 Survey of Income and Program Participation, matched to administrative records from the Social Security Administration.

NOTE: The difference between percentages is presented as a change in percentage points.

... = not applicable.

* Change is statistically significant at the 1 percent level.

a. Statistical tests were conducted for changes in the mean of the characteristic. Changes in the percentage distribution were not tested for statistical significance.

b. Years of education is unknown for children under the age of 18 whose education is not complete.

ments in educational attainment were similar for SSI beneficiaries between 1984 and 1999, although SSI beneficiaries overall were less educated than were DI beneficiaries.

Income

Average income for a family of four in the overall U.S. population, when adjusted for inflation and put into 1999 dollars, increased from about \$50,000 in 1984 to \$60,000 in 1999.¹⁰ This increase was reflected among SSI beneficiaries, but less so for DI beneficiaries. The inflation-adjusted average family income of SSI beneficiaries increased from \$19,840 in 1984 to \$21,962 in 1999 (Table 2). Average family income for DI beneficiaries, after adjusting for inflation, increased by only \$334, from \$29,130 in 1984 to \$29,464 in 1999. Neither change is statistically significant. For SSI beneficiaries, median family income was much lower than mean family income, suggesting that families at the high end of the income distribution heavily influence the mean.

An in-depth analysis of the income distribution reveals that the percentage of SSI beneficiaries with family incomes of less than \$10,000 decreased substantially between 1984 and 1999, while the percentage with incomes above \$20,000 increased. Among DI beneficiaries, the small increase in average family income is the result exclusively of an increase among those with average incomes of \$40,000 or more. The percentage of DI beneficiaries in all other income categories decreased between 1984 and 1999, with the exception of those with

incomes less than \$10,000, whose percentages actually increased between 1984 and 1999.

A possible explanation for the larger increase in average annual family income of SSI beneficiaries is the smaller percentage of beneficiaries who were widow(er)s in 1999. Two-thirds of widow(er)s had a family income of less than \$10,000 in 1984 (data not shown). Considering that in 1984, 27.1 percent of SSI beneficiaries were widow(er)s, compared with 13.6 percent in 1999, this statistically significant decrease could have considerably reduced the percentage of those with family incomes of less than \$10,000. In addition, a larger percentage of beneficiaries worked (see below), and a smaller percentage were aged 65 or older in 1999 (Table 1). Other explanations for this change in SSI family income are also possible, including changes in economic conditions and in family composition. A more detailed examination is beyond the scope of this article, however.

Average inflation-adjusted annual personal income for DI beneficiaries remained roughly constant at \$12,855 in 1984 and \$12,805 in 1999 (Table 2). For SSI beneficiaries, average inflation-adjusted annual personal income increased significantly, from an average of \$6,714 to \$7,990 over the same period. Median personal income decreased slightly for both DI and SSI beneficiaries. Personal income of SSI beneficiaries was substantially lower than it was for DI beneficiaries, reflecting the nature of SSI as a means-tested, income-support program, in contrast to DI's requirement of prior workforce attachment.

Table 2.**Inflation-adjusted family income, inflation-adjusted personal income, and work among DI and SSI beneficiaries, 1984 and 1999**

Characteristic	Disability Insurance beneficiaries			Supplemental Security Income beneficiaries		
	1984 ^a	1999	Change	1984 ^a	1999	Change
Number of beneficiaries	3,277,716	6,145,121	2,867,405	4,398,495	6,824,567	2,426,072
Annual family income						
Mean (dollars)	29,130	29,464	334	19,840	21,962	2,122
Median (dollars)	23,173	23,574	401	10,955	13,780	2,825
Percentage distribution by income level ^b (dollars)						
Less than 5,000	1.3	4.8	3.5	3.2	2.1	-1.1
5,000–9,999	14.9	17.2	2.3	42.8	34.0	-8.8
10,000–14,999	14.2	10.9	-3.3	11.9	17.4	5.6
15,000–19,999	12.5	10.3	-2.2	13.8	10.0	-3.8
20,000–24,999	10.3	10.0	-0.4	7.1	9.0	1.9
25,000–29,999	8.1	7.0	-1.1	3.0	5.9	2.9
30,000–34,999	8.3	7.0	-1.3	2.8	4.1	1.3
35,000–39,999	8.1	6.4	-1.6	2.6	3.6	0.9
40,000 or more	22.2	26.5	4.3	12.9	13.8	1.0
Annual personal income						
Mean (dollars)	12,855	12,805	-50	6,714	7,990	1,276 *
Median (dollars)	9,751	9,316	-435	6,433	6,324	-109
Percentage distribution by income level ^b (dollars)						
Less than 2,500	2.5	7.1	4.6	6.9	2.8	-4.1
2,500–4,999	6.5	9.7	3.3	16.7	13.2	-3.5
5,000–7,499	19.0	20.5	1.5	50.1	50.5	0.4
7,500–9,999	23.0	17.0	-6.0	18.6	15.4	-3.2
10,000–12,499	16.2	11.5	-4.6	4.0	7.4	3.4
12,500–14,999	8.2	7.5	-0.7	1.6	3.5	2.0
15,000–17,499	5.9	4.6	-1.3	0.7	2.5	1.8
17,500–19,999	3.6	4.6	1.0	0.6	0.9	0.3
20,000–22,499	3.1	3.2	0.1	0.5	1.1	0.6
22,500–24,999	3.8	3.3	-0.4	0.0	0.8	0.8
25,000 or more	8.3	10.9	2.6	0.3	1.9	1.6
Worked in survey year (percent)	10.1	22.0	11.9 *	5.7	11.3	5.6 *

SOURCE: Data are from the 1984 and 1996 Survey of Income and Program Participation, matched to administrative records from the Social Security Administration.

NOTE: The difference between percentages is presented as a change in percentage points.

* Change is statistically significant at the 1 percent level.

a. Income figures for 1984 have been adjusted to account for inflation between 1984 and 1999.

b. Statistical tests were conducted for changes in the mean of the characteristic. Changes in the percentage distribution were not tested for statistical significance.

The analysis also looked at the percentage of DI and SSI beneficiaries who, according to earnings data from the Summary Earnings Record, worked in the year of the SIPP interview (Table 2). Individuals are assumed to have worked if their earnings reported in the Summary Earnings Record were greater than zero for that year. These results should be interpreted with some caution. They could be underestimates to the extent that DI and SSI beneficiaries work in the informal economy or have earnings that are not covered by the Social Security system. They may be overestimates because some of the earnings may not be for time worked but could be part of a prearranged disability compensation package paid by the former employer after work had already ceased because of disability. Also, when interpreting the results, it is important to distinguish between “beneficiaries who work” and “beneficiaries who leave the rolls because of work.” This article presents data on the former. SSI beneficiaries can work and continue to receive benefits as long as countable income does not exceed the federal benefit rate. Similarly, DI beneficiaries can have earnings below substantial gainful activity without affecting their benefit amount or eligibility. Earnings in excess of substantial gainful activity lead to loss of benefits. Very few beneficiaries leave the rolls because of work.

For both programs, the fraction who worked in the year of the survey increased significantly between 1984 and 1999. Approximately 10.1 percent of DI beneficiaries worked in 1984, compared with 22.0 percent in 1999. Analogous figures for SSI beneficiaries are 5.7 percent in 1984 and 11.3 percent in 1999.¹¹

Between 1984 and 1999, the female labor force participation rate in the overall U.S. population increased by approximately 10 percentage points. With married men composing about 45 percent of the total DI population, an increase in female labor force participation could translate into an increase in spouses joining the workforce, which would lead to some beneficiaries receiving higher total family incomes. In addition, this increase in female labor force participation could help explain the increase in the percentage of SSI beneficiaries who worked in the year of the survey, given that nearly two-thirds of SSI beneficiaries are females.

The percentage of DI beneficiaries for whom DI benefits account for 50 percent or more of personal income decreased between 1984 and 1999 (Table 3). Corresponding to this drop was a sharp increase in the percentage for whom DI benefits were less than 25 percent of total personal income. Overall, DI benefits as a percentage of personal income decreased significantly, from an average of 71.4 percent in 1984 to 57.5 percent in 1999. Other sources of income for DI beneficiaries might include earnings, other disability payments, public

assistance, pensions, and asset income (Social Security Administration 2001b).

There was a smaller, opposite change for SSI beneficiaries. The percentage of SSI beneficiaries for whom benefits were 50 percent or more of personal income increased, while the percentage for whom benefits were less than 50 percent decreased (Table 3). On average, the SSI benefit as a percentage of personal income increased by a statistically significant 6.5 percentage points between 1984 and 1999, from 57.6 percent to 64.1 percent. One possible explanation is that, although the percentage of SSI beneficiaries who had earnings in 1999 was greater than it was in 1984 (Table 2), those earnings may come from marginal jobs in low-paying occupations.

Family Social Security benefits (including Disability Insurance) accounted for a significantly smaller percentage of total family income in 1999 than they did in 1984 for both DI and SSI beneficiaries (Table 4). Family SSI benefits constituted a slightly larger percentage of total family income for DI beneficiaries, compared with a marginally smaller percentage of SSI beneficiaries’ total family income. Family earnings as a percentage of total family income increased significantly for DI beneficiaries (from 24 percent in 1984 to 31 percent in 1999). The increase in family earnings as a percentage of total family income for SSI beneficiaries was not statistically significant. These increases may be partially explained by the increase in the percentage of beneficiaries who were working in the year of the survey (Table 2), the decrease in the percentage of beneficiaries who are older (Table 1), and, possibly, an increase in spousal earnings.

Poverty Status

The percentage of SSI beneficiaries with income below the poverty threshold and the percentage who are near poor—those with income between 100 percent and 125 percent of the poverty threshold—decreased between 1984 and 1999, as shown in Table 5. In fact, the poverty rate for SSI beneficiaries decreased significantly from 47.4 percent to 42.0 percent; however, the absolute number of SSI beneficiaries in poverty increased, because of the substantial increase in the SSI caseload between 1984 and 1999.

For DI beneficiaries, the percentage with income below 50 percent of the poverty threshold jumped from 2.6 percent in 1984 to 6.0 percent in 1999. In association with the increase in the percentage of DI beneficiaries at the extreme lower and upper tails of the income distribution, the percentage with income between 50 percent and 200 percent of the poverty threshold decreased over the same period. However, the poverty rate for DI beneficiaries was essentially unchanged from 1984 to 1999. Just over 20 percent of DI beneficiaries were in poverty.

SSI payments substantially reduced the “poverty gap” in 1984 and 1999. When a beneficiary’s family income is below the poverty threshold, the difference between the poverty threshold and family income is equal to that person’s poverty gap. The smallest individual poverty gap is zero, if family income is equal to or greater than the poverty threshold. The largest poverty gap is equal to the poverty threshold, for those with no family income at all. Changes in the inflation-adjusted aggregate poverty gap for SSI beneficiaries are shown in Table 6. Notice that SSI payments were significantly more effective at reducing the overall poverty gap in 1984 than they were in 1999. In 1984, SSI benefits reduced the poverty gap by 70.4 percent, compared with 65.2 percent in 1999. One possible explanation could be the increased importance of

family earnings as a percentage of family income that occurred from 1984 to 1999. With the strong economic growth of the 1990s, some beneficiaries and their family members may have found jobs or increased earnings from existing jobs. This hypothesis is supported to some degree by data in Table 4, which shows that the percentage of family income from earnings grew for SSI beneficiaries, while the percentage from Social Security and SSI fell during this period. When looking at poverty gap reduction by age of beneficiary, the analysis showed that SSI payments were better able to reduce the poverty gap among beneficiaries under the age of 18 in 1999 than they could in 1984 but were slightly less effective in reducing the poverty gap among the working-age and elderly populations.

Table 3.
Percentage distribution of DI and SSI beneficiaries, by benefits as a share of personal income, 1984 and 1999

Benefits as a share of personal income	Disability Insurance beneficiaries			Supplemental Security Income beneficiaries		
	August 1984	December 1999	Change	August 1984	December 1999	Change
Mean ^a	71.4	57.5	-13.9 *	57.6	64.1	6.5 *
Under 25%	7.4	25.3	18.0	25.4	20.7	-4.7
25–49%	14.7	16.5	1.9	24.3	17.8	-6.6
50–74%	28.8	17.4	-11.4	10.9	14.4	3.5
75–99%	30.4	25.3	-5.1	12.3	14.3	2.0
100%	18.8	15.4	-3.4	27.1	32.9	5.8

SOURCE: Data are from the 1984 and 1996 Survey of Income and Program Participation, matched to administrative records from the Social Security Administration.

* Change is statistically significant at the 1 percent level.

a. Statistical tests were conducted for changes in the mean of the characteristic. Changes in the percentage distribution were not tested for statistical significance.

Table 4.
Composition of family income for DI and SSI beneficiaries, by source, 1984 and 1999 (percent)

Source	Disability Insurance beneficiaries			Supplemental Security Income beneficiaries		
	August 1984	December 1999	Change	August 1984	December 1999	Change
Social Security ^a	52.1	36.4	-15.7 *	31.4	25.5	-5.9 *
Supplemental Security Income	5.2	6.5	1.4	40.4	40.2	-0.3
Other public assistance	2.6	1.5	-1.1 *	5.6	5.2	-0.3
Earnings	24.0	31.0	7.0 *	17.8	21.9	4.1
Property income	4.1	2.8	-1.3	0.8	0.6	-0.2
Other	12.1	21.7	9.6	4.0	6.6	2.6

SOURCE: Data are from the 1984 and 1996 Survey of Income and Program Participation, matched to administrative records from the Social Security Administration.

* Change is statistically significant at the 1 percent level.

a. Data for Social Security include Old-Age and Survivors Insurance and Disability Insurance.

Table 5.
Poverty status among DI and SSI beneficiaries, 1984 and 1999

	Disability Insurance beneficiaries			Supplemental Security Income beneficiaries		
	August 1984	December 1999	Change	August 1984	December 1999	Change
Poverty rate (percent)	21.1	22.0	0.9	47.4	42.0	-5.4 *
Percentiles of poverty ^a						
Mean (percent)	220.6	233.8	13.2	136.8	153.4	16.6 *
Under 50%	2.6	6.0	3.4	3.7	3.7	0.0
50–99%	18.6	16.0	-2.6	43.7	38.3	-5.4
100–124%	11.0	8.5	-2.5	17.9	14.5	-3.3
125–149%	9.2	5.9	-3.3	8.0	10.1	2.1
150–199%	15.7	14.4	-1.3	11.1	11.6	0.6
200–299%	20.2	22.6	2.4	8.8	12.1	3.3
300% or more	22.8	26.6	3.8	6.9	9.6	2.7

SOURCE: Data are from the 1984 and 1996 Survey of Income and Program Participation, matched to administrative records from the Social Security Administration.

NOTE: "Mean" under Percentiles of poverty refers to the mean of the quotient of family income divided by poverty threshold.

* Change is statistically significant at the 1 percent level.

a. Statistical tests were conducted for changes in the mean of the characteristic. Changes in the percentage distribution were not tested for statistical significance.

Table 6.
Aggregate poverty gap among SSI beneficiaries with and without SSI payments, 1984 and 1999

Age	Aggregate poverty gap, 1984 ^a			Aggregate poverty gap, 1999			Total change (percentage points)
	Without SSI benefit (billions of dollars)	With SSI benefit (billions of dollars)	Percentage reduction in poverty gap	Without SSI benefit (billions of dollars)	With SSI benefit (billions of dollars)	Percentage reduction in poverty gap	
All SSI beneficiaries	18.9	5.6	70.4	25.7	9.0	65.2	-5.2 *
Under 18	2.7	1.0	61.8	2.6	0.9	66.8	5.1
18–64	9.0	2.5	72.1	16.8	6.1	63.5	-8.6
65 or older	7.2	2.1	71.3	6.4	2.0	68.8	-2.5

SOURCE: Data are from the 1984 and 1996 Survey of Income and Program Participation, matched to administrative records from the Social Security Administration.

NOTES: When a beneficiary's family income is below the poverty threshold, the difference between the poverty threshold and family income is referred to as the poverty gap. The smallest individual poverty gap is zero, if family income is equal to or greater than the poverty threshold. The largest poverty gap is equal to the poverty threshold, for those with no family income at all. The aggregated poverty gap is the sum of the individual poverty gaps for all SSI beneficiaries.

Changes in the aggregate poverty gap by age group were not tested for statistical significance.

* Change is statistically significant at the 1 percent level.

a. Figures for 1984 have been adjusted to account for inflation between 1984 and 1999.

Notes

Acknowledgments: We are grateful to Susan Grad, Howard Iams, John Kearney, Rene Parent, Charlie Scott, and Paul Van de Water for helpful comments and suggestions. This article was presented at the Annual Meeting of the Population Association of America, Minneapolis, MN, May 1–3, 2003.

¹ Special exclusions are provided for the work expenses of the blind and the impairment-related work expenses of the disabled (42 U.S.C. 1382a(b)(4)).

² Substantial gainful activity is not a factor in Supplemental Security Income (SSI) eligibility for individuals who meet the medical definition of blindness. Substantial gainful activity is much higher for Disability Insurance (DI) beneficiaries who are blind (Social Security Administration 1999, 45–46).

³ Noncitizens, who were in the United States before August 22, 1996, but who are not on the SSI rolls, have to be disabled to be eligible for SSI, even if aged 65 or older.

⁴ The number of work credits (quarters of coverage) a person needs to qualify for DI benefits depends on the individual's age when he or she becomes disabled.

⁵ Rogowski and others (2002), Stapleton, Fishman, and others (1999), and Stapleton, Wittenburg, and others (1998) provide detailed results from evaluations sponsored by the Social Security Administration of the effects of the Personal Responsibility and Work Opportunity Reconciliation Act and the drug and alcohol addiction legislation on SSI and DI beneficiaries. Davies, Iams, and Rupp (2000) provide some summary material regarding the design of these evaluations and early findings.

⁶ The SIPP-SSA matched data are restricted-access files under an agreement between SSA, the U.S. Census Bureau, and the Internal Revenue Service. The data can only be used for projects covered by this agreement, by individuals with Special Sworn Status from the Census Bureau, at a Census Bureau–approved secure data facility.

⁷ Published beneficiary totals based on administrative data are 4,029,333 SSI beneficiaries and 3,212,040 DI beneficiaries in 1984 and 6,556,634 SSI beneficiaries and 5,798,776 DI beneficiaries in 1999.

⁸ Historical data are taken primarily from the U.S. Census Bureau's 1980 and 1990 Census and Current Population Surveys, the National Center for Education Statistics, and the Department of Justice (Department of Justice 2002; Hobbs and Stoops 2002; National Center for Education Statistics 2002, 2001).

⁹ The Immigration Reform and Control Act of 1986 (IRCA) provided for the legalization of a large number of illegal immigrants who met certain requirements. IRCA barred legalized immigrants from participating in federally funded assistance programs for a period of 5 years; however, that prohibition did not extend to individuals who were aged, blind, or disabled according to SSI statutes.

¹⁰ Historical income data came primarily from the Current Population Survey data available on the Census Bureau Web site (Census Bureau 2002).

¹¹ On the basis of SIPP self-reported earnings data, the proportion of DI beneficiaries who reported work was 9.3 percent in 1984 and 19.8 percent in 1999. Among SSI beneficiaries, 6.5 percent reported work in 1984 and 10.2 percent reported work in 1999.

References

- Acemoglu, Daron, and Joshua Angrist. 1998. *Consequences of Employment Protection? The Case of the Americans with Disabilities Act*. NBER Working Paper No. W6670. Cambridge, MA: National Bureau of Economic Research.
- Burkhauser, Richard V., Mary C. Daly, Andrew J. Houtenville, and Nigar Nargis. 2001. *Economic Outcomes of Working-Age People with Disabilities over the Business Cycle: An Examination of the 1980s and 1990s*. Economics of Disability Research Report No. 5. Ithaca, NY: Cornell University.
- Census Bureau. 2002. "Median Income for 4-Person Families, by State." Available at <http://www.census.gov/hhes/income/4person.html>; accessed on October 15, 2002.
- Davies, Paul, Howard Iams, and Kalman Rupp. 2000. "The Effect of Welfare Reform on SSA's Disability Programs: Design of Policy Evaluation and Early Evidence." *Social Security Bulletin* 63(1):3–11.
- DeLeire, Thomas. 2000. "The Wage and Employment Effects of the Americans with Disabilities Act." *Journal of Human Resources* 35(4):693–715.
- Department of Justice. 2002. *A Guide to Disability Rights Laws*. Washington, DC: Department of Justice, Civil Rights Division. Available at <http://www.usdoj.gov/crt/ada/cguide.htm>; accessed on October 15, 2002.
- Hobbs, Frank, and Nicole Stoops. 2002. *Demographic Trends in the 20th Century*. Washington, DC: Census Bureau. Available at <http://www.census.gov/prod/2002pubs/censr-4.pdf>; accessed on October 15, 2002.
- Huynh, Minh, Kalman Rupp, and James Sears. 2002. *The Assessment of Survey of Income and Program Participation (SIPP) Benefit Data Using Longitudinal Administrative Records*. SIPP Working Paper 238. Washington, DC: Census Bureau.
- Kaestner, Robert, and Neeraj Kaushal. 2001. *Immigrant and Native Responses to Welfare Reform*. NBER Working Paper No. W8541. Cambridge, MA: National Bureau of Economic Research.
- National Center for Education Statistics. 2002. *Digest of Education Statistics, 2001*. NCES 2002-130. Washington, DC: Department of Education, National Center for Education Statistics. Available at <http://nces.ed.gov/pubsearch/pubinfo.asp?pubid=2002130>.

- _____. 2001. *Digest of Education Statistics, 2000*. NCES 2001-034. Washington, DC: Department of Education, National Center for Education Statistics. Available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2001034>.
- Parrott, Thomas M., Lenna D. Kennedy, and Charles G. Scott. 1998. "Noncitizens and the Supplemental Security Income Program." *Social Security Bulletin* 61(4):3-31.
- Rogowski, Jeannette A., Lynn A. Karoly, Jacob A. Klerman, Moira Inkelas, Melissa K. Rowe, and Randall A. Hirscher. 2002. *Final Report for Policy Evaluation of the Effect of the 1996 Welfare Reform Legislation on SSI Benefits for Disabled Children*. Report No. DRU-2559-SSA. Santa Monica, CA: RAND.
- Rupp, Kalman, and David C. Stapleton, eds. 1998. *Growth in Disability Benefits: Explanations and Policy Implications*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- _____. 1995. "Determinants of the Growth in the Social Security Administration's Disability Programs—An Overview." *Social Security Bulletin* 58(4):43-70.
- Schill, Michael, and Samantha Friedman. 1999. "Fair Housing Amendments Act of 1988: The First Decade." *Cityscape: A Journal of Policy Development and Research* 4(3):57-78.
- Social Security Administration. 2001a. *Annual Statistical Report on the Social Security Disability Insurance Program, 2000*. Washington, DC: Social Security Administration.
- _____. 2001b. *Income of Disabled Worker Beneficiaries*. Washington, DC: Social Security Administration.
- _____. 1999. *1999 Red Book on Work Incentives*. Baltimore, MD: Social Security Administration.
- _____. 1986. "A History of the Social Security Disability Programs." Available at <http://www.ssa.gov/history/1986dibhistory.html>; accessed on February 23, 2004.
- Stapleton, David, Michael Fishman, Gina Livermore, David Wittenburg, Adam Tucker, and Scott Scrivner. 1999. *Policy Evaluation of the Overall Effects of Welfare Reform on SSA Programs: Final Report Prepared for the Social Security Administration*. Fairfax, VA: The Lewin Group.
- Stapleton, David, David Wittenburg, Adam Tucker, Garrett Moran, Robert Ficke, and Michelle Harmon. 1998. *Policy Evaluation of the Effect of Legislation Prohibiting the Payment of Disability Benefits to Individuals Whose Disability Is Based on Drug Addiction and Alcoholism—Interim Report*. Fairfax, VA: The Lewin Group.