

# Disabled-Worker Beneficiaries and Disabled SSI Recipients: A Profile of Demographic and Program Characteristics

by John L. McCoy  
and Kerry Weems\*

This article compares demographic and other characteristics of disabled-worker beneficiaries aged 18-64 in the Social Security Disability Insurance (DI) program and disabled recipients in the Supplemental Security Income (SSI) program who were receiving benefits in December 1986.<sup>1</sup> Selected comparisons are also made with disabled persons who were concurrently receiving Social Security and SSI payments. Other aspects of the analysis include an examination of annual program trends to compare changes over time in the disabled-worker populations under both programs. Finally, comparisons are made by program category for gender, age, race, program payment amounts, major diagnostic disabling conditions, and State disability program prevalence rates.

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\*John McCoy is currently with the Program Analysis Staff, Office of Research and Statistics, Office of Policy, Social Security Administration. Kerry Weems was previously with the Office of Supplemental Security Income, Social Security Administration. He is currently with the Staff of the Assistant Secretary for Management and Budget, Department of Health and Human Services. An earlier version of this article was presented at the Medical Care Section of the 1987 Annual Meetings of the American Public Health Association.

<sup>1</sup> For purposes of comparability, disabled SSI recipients aged 65 or older were excluded from this analysis. The DI population consists only of disabled workers. Disabled adult children and disabled widows were eliminated from the analysis. Concurrent recipients represent those disabled-worker beneficiaries also receiving SSI payments.

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The Social Security Administration (SSA) administers two national programs for disabled individuals—the Disability Insurance (DI) and the Supplemental Security Income (SSI) programs. The DI program is part of the Old-Age, Survivors, and Disability Insurance (OASDI) program (popularly referred to as Social Security).<sup>2</sup> The SSI program replaced the Federal-State Adult Assistance Matching Grants program—Old-Age Assistance; Aid to the Blind; Aid to the Permanently and Totally Disabled. One difference between the two programs is that the DI program is designed to provide benefits for eligible workers who become disabled after a period of covered employment and the SSI program is designed to provide a safety net for persons with very little, if any, paid work.

The DI program, which has been in operation since 1954, assists primarily the working population and the survivors of workers who meet both the SSA definition of disability and the insured status requirements. The program is funded from Federal Insurance Contributions Act (FICA) taxes paid

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<sup>2</sup> The Social Security Administration also administers part of the Black Lung program, established in 1969 to provide monthly benefits to coal miners totally disabled as a result of pneumoconiosis and to their survivors.

into the Social Security trust funds. Disabled workers account for approximately 10 percent of all Social Security beneficiaries.<sup>3</sup> Disabled-worker beneficiaries who attain age 65 are automatically converted to retired-worker beneficiary status.

Implemented in 1974 and funded from general revenues, the SSI program is designed primarily to serve aged, blind, and disabled persons who have very little income and resources. Disabled SSI recipients, unlike disabled-worker beneficiaries, remain classified as disabled regardless of age. Consequently, the SSI disabled population has undergone a gradual “graying.” Currently, 1 in 5 recipients is aged 65 or older.

### Disability Determination

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Both programs use the same statutory definition of disability: “the inability to engage in any substantial gainful activity (SGA) by reason of any medically determinable physical or mental impairment which can be expected to result in death or has lasted or can be expected to last for a continuous period of not less than 12 months.”<sup>4</sup> Physical or mental

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<sup>3</sup> Others receiving disability-related benefits include persons entitled as surviving children or widows and other dependents.

<sup>4</sup> See Section 223(d)(1), Social Security Act, as amended; 42 U.S.C. 5423(d)(1).

impairment is further defined as “an impairment which results from anatomical, physiological, or psychological abnormalities which are demonstrable by medically acceptable clinical and laboratory diagnostic techniques.”<sup>5</sup>

Disability determinations are made at the State level by agencies known as the Disability Determination Services (DDS). The DDS units often are a division of a State’s Department of Vocational Rehabilitation. Evaluation teams, consisting of a physician and a disability evaluation specialist, are responsible for making individual disability determinations. Quality control procedures are maintained and periodically reviewed by SSA. Individuals seeking disability compensation must first file a claim with an SSA district or branch office. After the initial review and processing, individual claims are referred to the State’s DDS unit for further evaluation.

Social Security regulations provide a sequential evaluation process to determine if the legal definition of disability has been met. The process determines if: (1) the claimant is working and earning more than the specified SGA limit; (2) the impairment is severe; (3) the impairment meets or is the equivalent of the requirements of an established listing of impairments;

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<sup>5</sup> See Section 223(d)(1), Social Security Act, as amended; 42 U.S.C. 8423(d)(3).

(4) the claimant can perform work as before; and (5) the claimant has the capacity to do other work. Other factors considered in the process include the extent to which age affects the ability to adapt to new work situations or to do work in competition with others.

Residual work capacity and vocational factors become increasingly important when disability status cannot be determined on the basis of medical evidence alone. A separate statutory definition of blindness is used for the SSI program.<sup>a</sup>

To qualify for benefits as a disabled-worker beneficiary, an individual must meet the definition of disability and the insured status requirement—that is, the applicant applying for DI payments must have sufficient quarters of coverage in Social Security covered employment. Disabled SSI recipients, in addition to meeting SSA's definition of disability, must also meet certain income and asset tests.

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## Data Analysis

### Data Sources

Data were obtained from the 1-Percent OASDI Sample file extracted from the Master Beneficiary Record (MBR) system and from the 1-Percent SSI Sample file extracted from the Supplemental Security Record (SSR). The MBR includes all persons currently receiving OASDI benefits. The SSR includes all current SSI recipients. Both data sets were created by random digit Social Security number generation designed to produce 1-percent random samples of the December 1986 program recipient

populations. The total population in the OASDI and SSI files consisted of 37.7 million individuals and 4.2 million individuals, respectively.

### Data Limitations

Certain limitations in the data elements should be noted because the results are based on observations represented in the administrative file data. The elements selected for analysis were examined for consistency, completeness of reporting, and accuracy of coding. As a result, some key data elements could not be used. Significant missing data problems with International Classification of Diseases (ICD) codes were especially evident among SSI disability cases. More than 40 percent of these cases had missing ICD data problems. Completeness of ICD coding is inversely related to time in the program—that is, more recent cases, especially those with record establishment dates of 1983 or later, had more complete diagnostic coding. Missing ICD codes were a relatively minor problem for the disabled-worker caseload. Only 7 percent of the females and 6 percent of the males had missing ICD codes.

Because of coding problems in SSI disability cases, ICD category responses shown in the accompanying tables are limited to post-1982 SSI record establishment dates. This approach reduces the overall nonresponse rate for disabled SSI recipients to 8 percent for females and 10 percent for males. All other comparisons and rates shown in the tables and charts are based on the total populations of disabled-worker beneficiaries and disabled SSI recipients.

## Analysis Procedures

Results of the comparative analysis are shown in the tables as the percentage distribution within program categories and, where appropriate, as the rate per 1,000 persons in the general population aged 18-64. Separate prevalence rates were calculated by gender and age group. Substitution of the "insured disabled-worker population" as a more appropriate denominator in the calculation of program prevalence rates was rejected because it would have precluded comparisons with the SS disabled population, for which there is no comparable "insured" population. In any case, prevalence rates calculated on the basis of the insured disabled-worker population were found to be comparable to those calculated on the basis of the population aged 18-64.

## Analysis Results

As of December 1986, more than 2.3 million persons were receiving DI benefits only (table 1). The number of disabled persons receiving SSI payments only was 1.6 million. Individuals receiving both benefits concurrently—357,000 persons—qualified because their combined DI benefits and other countable income met the minimum income requirement test. Concurrent beneficiaries are demographically more similar in gender, race, age, and other characteristics to the disabled SSI population than to the population receiving DI benefits only.

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## Trend Comparisons

For the 1962-86 period, trend comparisons of the total numbers of disabled-worker beneficiaries and

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<sup>a</sup> Since the program's inception, blind recipients have consistently represented about 3 percent of all disabled SSI cases.

the prevalence rates for disabled workers per 1,000 persons aged 18-64 are shown in chart 1.<sup>7</sup> A similar comparison for SSI recipients is not possible because the program did not exist before 1974.

<sup>7</sup> Data used to examine annual trends for disabled-worker beneficiaries were obtained from the 1986 *Annual Statistical Supplement* to the *Social Security Bulletin*. Data used in the analysis of annual prevalence rates (chart 1) and in the calculation of program prevalence rates by age group and gender were obtained from special tabulations provided by the U.S. Bureau of the Census and from the *Current Population Report, Series P-25*.

The trend data show that the DI program prevalence rate has generally followed a pattern similar to that of the unadjusted number of disabled workers—increasing in the 1960's and 1970's, declining during the early 1980's, then increasing again after 1984. In 1962, more than 740,000 persons were disabled-worker beneficiaries; by 1978, the number had increased to more than 2.8 million. The number of beneficiaries then fell steadily, reaching 2.5 million in 1984 and then rose again, reaching 2.7 million in 1986. In 1978, there was a convergence and cross over in the disabled-worker rate, compared

with the absolute number. This cross-over pattern indicates that since 1978, the number of disabled-worker beneficiaries has been decreasing relative to the natural increase in the population aged 18-64.

### Benefits and Beneficiaries

Table 1 shows the distributions of the number of disabled persons who were DI-only beneficiaries, disabled SSI-only recipients, and receiving both benefits concurrently, for alternate years beginning in 1978—4 years after implementation of the SSI program. As has been noted above, the number of disabled-worker beneficiaries declined during 1978-84, but it has been increasing in recent years. In 1978, more than 2.5 million individuals were receiving DI benefits only. An additional 300,000 disabled workers were receiving DI and SSI payments. And, more than 1.4 million disabled individuals were receiving SSI payments only. From 1978 to 1986, the proportion of disabled-worker beneficiaries receiving only DI benefits declined from slightly more than 60 percent of the combined 1978 total to 55 percent of the 1986 total. The disabled SSI-only recipient share of this combined population increased modestly, from 33 percent in 1978 to 37 percent in 1986.

The prevalence rates for those receiving only DI benefits declined steadily from 19 per 1,000 persons in 1978 to 16 per 1,000 in 1984. Rates for concurrent recipients and rates for disabled SSI-only recipients changed little over the 1978-86 period.

**Table 1.—Number, percentage distribution, and rate per 1,000 disabled persons receiving federally administered payments, by type of payment, selected years 1978-86**

Year <sup>1</sup>	Total	Disabled-worker beneficiaries		Recipients with SSI only <sup>2</sup>
		With DI only	With SSI and DI	
Number (in thousands)				
1978.....	4,285.1	2,579.1	300.7	1,405.3
1980.....	4,259.4	2,573.0	288.2	1,398.2
1982.....	3,962.2	2,343.9	259.7	1,358.5
1984.....	4,045.1	2,301.7	294.8	1,448.6
1986.....	4,342.2	2,370.3	357.1	1,614.8
Percent				
1978.....	100.0	60.4	7.0	32.7
1980.....	100.0	60.4	6.7	32.8
1982.....	100.0	59.1	6.5	34.3
1984.....	100.0	56.9	7.3	35.8
1986.....	100.0	54.6	8.2	37.2
Rate per 1,000 persons <sup>3</sup>				
1978.....	32.2	19.4	2.2	10.6
1980.....	30.9	18.7	2.1	10.1
1982.....	27.8	16.5	1.8	9.5
1984.....	27.8	15.8	2.1	9.9
1986.....	29.2	15.9	2.4	10.9

<sup>1</sup> Represents December counts for the years cited.

<sup>2</sup> Includes only disabled or blind SSI recipients aged 18-64, and may also include some recipients of title II survivor or dependent benefits.

<sup>3</sup> Prevalence rates were calculated by dividing the total cases for each year by that year's population aged 18-64 and multiplying by 1,000.

Note: All numbers reflect counts in the 1-Percent OASDI and SSI Sample file extracts inflated to the population. Counts for selected distributions may vary due to rounding, missing codes, or missing data.

### Demographic Characteristics

Based on the history and intent of these two national programs for disabled persons, some striking

contrasts should be evident in the distributions of recipients by gender, race, metropolitan status, and other factors. As noted earlier, the DI program is designed to cover persons with a recent and substantial connection with the labor force; the SSI program is designed to provide assistance to persons who have had minimal or no significant labor-force participation.

### Gender

It is not surprising that males continue to dominate the disabled-worker population.<sup>6</sup> Eligibility for

<sup>6</sup> Since its inception in 1954, the DI program has consistently manifested patterns of higher male to female prevalence rates.

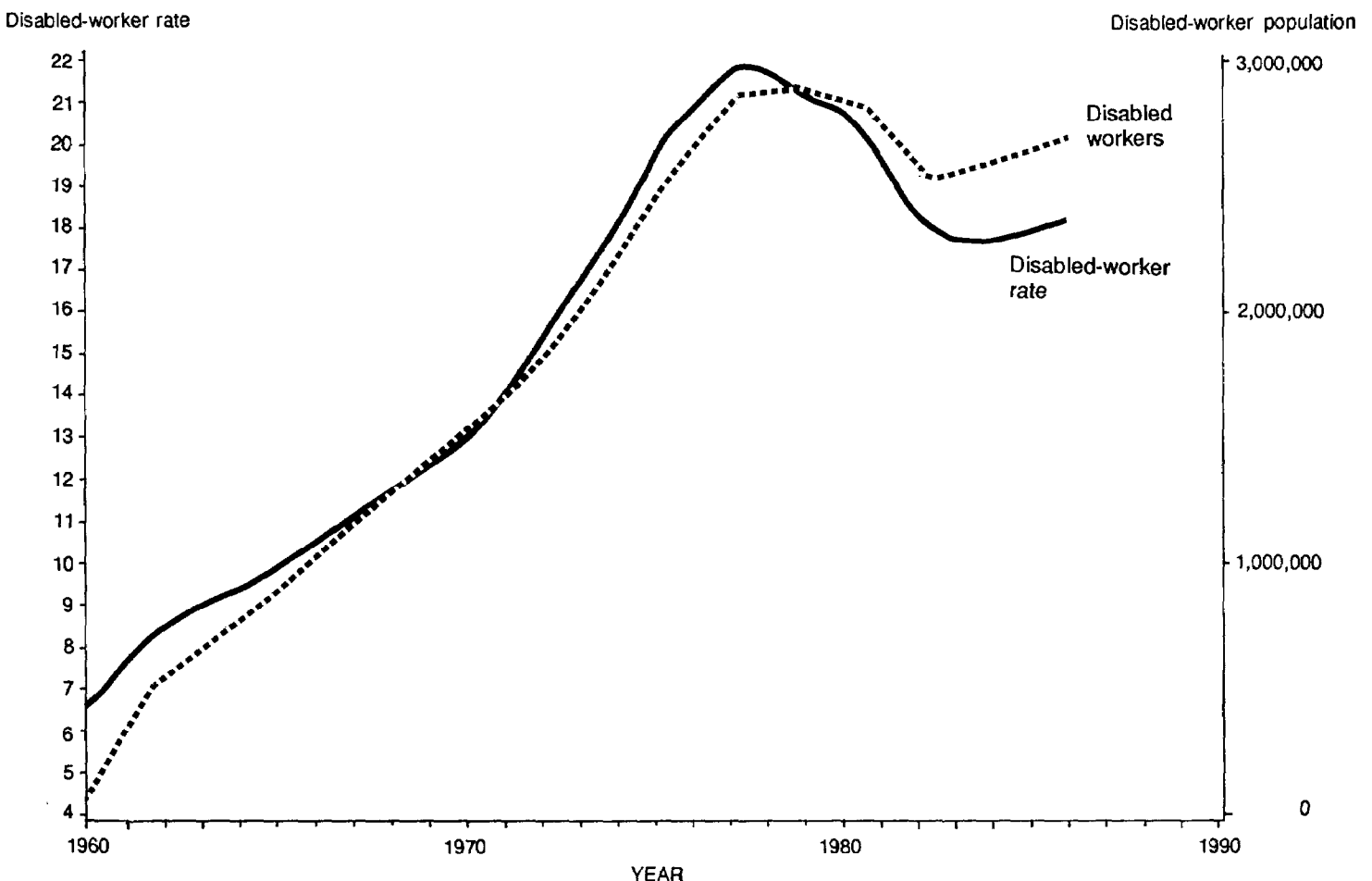
benefits is based on work history and, to date, males have continued to have more work experience than females. However, disabled SSI recipients are much more likely to be females. As the data in table 2 show, the proportion of females receiving only SSI disability payments was 59 percent, compared with 31 percent receiving only DI benefits and 49 percent concurrently receiving both payments. This phenomenon is partly due to the lower earnings history among females than males in the general population and among those females who became disabled. Differences by gender also suggest that, compared with male recipients, female disabled

SSI recipients were less likely to have met the DI insured-status requirements before they were disabled.

### Race

Across the programs, differences by race parallel those found for gender in many respects. Whites are disproportionately represented among DI-only beneficiaries. The number of Blacks increases proportionately among the disabled SSI recipient population. However, the proportion of Blacks among the disabled SSI-only group does not increase among those with enough Social Security covered employment to qualify them for concurrent benefits.

**Chart 1.—Disabled-worker population and disabled-worker rate per 1,000 persons aged 18-64**



## Residence

Data for 1986 show that the distribution of cases across the three program subcategories varies very little by metropolitan classification. For example, 69 percent of the DI-only beneficiaries are residents of metropolitan areas, compared with 71 percent of those concurrently receiving benefits and 72 percent of the disabled SSI-only recipients. Data from the 1980 decennial census showed a somewhat higher proportion—75 percent—of the total U.S. population living in metropolitan areas.

## Age and Gender

Although the data show that the DI-only beneficiaries are older than disabled SSI-only recipients, no age differences by gender are apparent—the median age is 56 for both male and female DI beneficiaries. In contrast, the females are older than the males in both concurrent recipient and disabled SSI-only recipient groups, especially the latter (table 3). The younger ages of male concurrent beneficiaries and disabled SSI-only recipients are strikingly demonstrated by their greater concentration among those under age 30. Greater concentrations of older single females, primarily widows, within the SSI population explain many of these age-gender differences.

## Prevalence Rates

As can be seen from the data in table 3, DI-only male beneficiaries have higher program prevalence rates than DI-only female beneficiaries. The opposite is true among disabled SSI-only recipients. Comparative rates for male and female beneficiaries dramatically

demonstrate these differences—DI-only males have a prevalence rate that is two-and-one-half times that for disabled SSI-only males (22.4, compared with 9.0). Except for males receiving SSI-only disability payments, prevalence rates increase with age in both programs. Among DI-only beneficiaries, the rates increase substantially for both males and females, but males within each age group have much higher prevalence rates.<sup>9</sup> In contrast, female disabled SSI-only recipients have higher prevalence rates than their male counterparts, especially at more advanced ages.

Among disabled-worker male beneficiaries, higher prevalence rates associated with increasing age appear to be influenced by two factors: (1) decreasing job-related functional capacity and (2) a shrinking older population base.

<sup>9</sup> Female disabled-worker prevalence rates were 35-40 percent of the rates for their male counterparts.

Higher prevalence rates among disabled female SSI recipients aged 40 or older further suggest that the causes of disability and the circumstances leading to SSI payment eligibility are influenced by their employment history and by specific changes in functional status associated with the aging process.

## Monthly Payment Amounts

Many of the same factors that influence the individual's program eligibility also appear to determine what the benefit amount will be. For disabled workers, benefit amounts are based on their past earnings in employment covered under the Social Security program. A major determinant of the DI benefit amount is the level of earnings an insured worker received and the length of time over which contributions were made. For example, a 50-year-old worker who had maximum covered earnings and who became disabled in 1986 would be entitled to a monthly benefit of \$820. In contrast, the

**Table 2.—Percentage distribution of disabled persons receiving federally administered payments, by type of payment, gender, race, and residence, December 1986**

Characteristic	Total	Disabled-worker beneficiaries		Recipients with SSI only
		With DI only	With SSI and DI	
Total number (in thousands) .....	4,319.9	2,365.1	347.2	1,607.6
Total percent .....	100.0	100.0	100.0	100.0
Female .....	42.6	30.6	48.8	58.8
Male .....	57.4	69.4	51.2	41.1
Black .....	20.7	14.6	28.8	27.7
White .....	71.7	82.7	65.3	57.1
Other .....	3.3	2.7	5.4	3.8
Unknown .....	4.2	( <sup>1</sup> )	1.5	11.3
Metropolitan .....	70.3	69.2	70.6	71.8
Nonmetropolitan .....	29.7	30.8	29.4	28.2

<sup>1</sup>Less than 1.0 percent.

Note: All numbers reflect counts in the 1-Percent OASDI and SSI Sample file extracts inflated to the population. Counts for selected distributions may vary due to rounding, missing codes, or missing data.

statutory SSI maximum disability payment in January 1987 was \$340 per month. Mitigating determinants of SSI payment amounts include countable earned income and assets and living arrangement (residence in the household of another or residence in a Medicaid certified nursing home where Medicaid pays for over half of the cost of care for a patient).

Thus, disabled-worker-only beneficiaries receive an average monthly benefit amount that is more than twice the amount received by disabled SSI-only recipients (\$516, compared with \$256). Male disabled-worker-only beneficiaries received a higher payment amount (\$563) than females (\$409). No

differences by gender existed in the overall SSI average monthly disability payment received; it was \$256 for both males and females.

Except for those in the group aged 50-59, among males receiving DI-only benefits, the average amount increased with age, from \$417 for ages 18-29 to \$581 for ages 60-64. In contrast, average benefit amounts for females with DI-only increased for those under age 40 and decreased thereafter. These divergent benefit patterns may reflect both the historical and cultural processes that have influenced female labor-force participation. Those in the youngest age group have lower average earnings, probably because they

were employed in lower, entrance-level jobs at the beginning of their careers. Older female workers have had consistently lower earnings profiles primarily because of employment in a restricted range of occupations and industries and because of a lack of sustained labor-force participation.

Monthly payment amounts to disabled females receiving SSI-only increased from \$249 for those aged 18-29 to \$278 for those aged 40-49. The amount decreased to \$226 for the group aged 60-64 (table 4). Payment amounts for disabled males with SSI-only were slightly above \$250 for those aged 18-39, \$270 for those aged 50-59, and \$243 for the group aged 60-64.

**Table 3.—Percentage distribution and rate of disabled persons receiving federally administered payments, by type of payment, gender, and age, 1986**

Age	Total		Disabled-worker beneficiaries				Recipients with SSI only	
			With DI only		With SSI and DI		Female	Male
	Female	Male	Female	Male	Female	Male		
Percentage distribution								
Total number (in thousands).....	1,839.5	2,476.1	724.1	1,636.7	169.3	177.9	946.1	661.5
Total percent.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
18-29 .....	12.3	13.3	2.9	3.4	8.1	16.2	20.2	36.2
30-39 .....	14.6	15.8	11.4	12.2	15.4	23.6	17.0	22.7
40-49 .....	16.9	16.4	16.6	16.7	16.1	17.1	17.2	15.5
50-59 .....	30.4	28.4	34.9	34.1	34.8	23.8	26.2	15.4
60-64 .....	25.8	26.1	34.3	33.5	25.6	19.4	19.4	9.5
Rate per 1,000 persons <sup>1</sup>								
Total .....	24.4	33.8	9.6	22.4	2.2	2.4	12.5	9.0
18-29 .....	9.0	13.3	.8	2.3	.6	1.2	7.7	9.8
30-39 .....	13.1	19.9	4.1	10.2	1.3	2.1	7.7	7.6
40-49 .....	23.0	31.7	8.9	21.3	2.0	2.4	12.1	8.0
50-59 .....	45.9	66.1	19.3	52.6	5.1	3.9	21.5	9.6
60-64 .....	81.0	126.7	42.3	107.5	7.4	6.8	31.3	12.4
Median age.....	52	52	56	56	54	46	47	35
Mean age.....	48.4	47.9	52.7	52.4	49.7	44.9	44.8	37.6
Standard deviation.....	13.1	13.4	10.2	10.5	12.0	13.3	14.2	13.9

<sup>1</sup> Prevalence rates were calculated for each gender and specific age category shown by dividing the number of program beneficiaries by the total number of persons for the gender age group in the population.

Note: All numbers reflect counts in the 1-Percent OASDI and SSI Sample file extracts inflated to the population. Counts for selected distributions may vary due to rounding, missing codes, or missing data.

## Major Disabling Conditions

### Overall Patterns

Different patterns of disabling conditions distinguish program subgroups and further distinguish gender and age groups within each program<sup>10</sup> (table 5). For example, among DI-only female beneficiaries, the most frequently noted condition is musculoskeletal disorders (20 percent) followed closely by mental conditions and circulatory disorders (17 percent and 15 percent, respectively). Among the disabled-worker males, circulatory disorders are the most common (23 percent), followed by mental conditions (18 percent) and musculoskeletal disorders (15 percent).

Problems with mental functioning are more common among disabled SSI recipients. Although mental illness and mental retardation are more prevalent among males (53 percent), it is notable that more than 4 in 10 females receiving SSI payments also have mental functioning and related psychiatric problems (43 percent). Nervous system conditions are also common among the SSI recipient males (10 percent), whereas the females are more likely to have circulatory problems (10 percent) and musculoskeletal disorders (9 percent). The prevalence of circulatory disorders, which are relatively more significant among disabled female SSI recipients, is contrary to the pattern found among disabled-worker beneficiaries and is probably explained by differences in age distribution (tables 6 and 7).

The percentage of disabled persons with musculoskeletal conditions and circulatory disorders

**Table 4.**—Average monthly federally administered payment amounts to disabled persons, by gender and age, December 1986

Age	Disabled-worker beneficiaries			SSI Recipients		
	Total	Female	Male	Total	Female	Male
Total number (in thousands).....	2,365.1	723.7	1,641.4	1,607.6	946.1	661.3
Average monthly payment.....	\$516	\$409	\$563	\$256	\$256	\$256
18-29.....	403	367	417	251	249	253
30-39.....	511	463	530	257	262	251
40-49.....	539	448	579	273	278	264
50-59.....	510	391	563	268	267	270
60-64.....	523	394	581	230	226	243
Median monthly payment amount.....	512	391	576	340	340	340

Note: All numbers reflect counts in the 1-Percent OASDI and SSI Sample file extracts inflated to the population. Counts for selected distributions may vary due to rounding, missing codes, or missing data.

**Table 5.**—Percentage distribution of disabled persons receiving federally administered payments, by gender and disabling condition, December 1986

Disabling condition	Disabled-worker beneficiaries		SSI recipients <sup>1</sup>	
	Females	Males	Females	Males
Total number (in thousands).....	723.3	1,635.3	326.0	221.0
Total percent.....	100.0	100.0	100.0	100.0
Musculoskeletal.....	19.9	15.1	9.1	3.8
Mental conditions <sup>2</sup> .....	16.9	17.6	25.8	30.5
Circulatory.....	15.1	22.5	10.2	5.8
Nervous system.....	2.0	9.6	7.5	9.8
Injury/poisoning.....	4.4	7.8	1.4	3.3
Endocrine/metabolic.....	4.4	2.3	5.7	1.4
Neoplasms.....	4.2	2.8	2.5	1.9
Infectious/parasitic.....	3.8	3.6	3.1	3.1
Respiratory.....	3.3	4.7	4.6	2.7
Mental retardation.....	2.3	3.4	17.4	22.6
Missing/invalid.....	6.7	5.8	8.2	9.7
Miscellaneous.....	5.2	4.3	4.0	4.9

<sup>1</sup> Includes only recipients with a post-1982 record date.

<sup>2</sup> Does not include mental retardation.

Note: All numbers reflect counts in the 1-Percent OASDI and SSI Sample file extracts inflated to the population. Counts for selected distributions may vary due to rounding, missing codes, or missing data. Tables for the ICD comparison for disabled SSI recipients are based on reduced samples restricted to the post-1982 recipient population.

<sup>10</sup> See earlier discussion concerning data limitations on page 18. The ICD categories for disabled SSI recipients pertain only to post-1982 SSI record establishment dates.



is substantially higher among the older groups in both programs. Although nervous system disorders ranked fourth in overall importance among disabled-worker beneficiaries, these disorders are more prevalent among the younger age groups. Mental conditions (including schizophrenia) also represent a leading cause of disability for the younger age groups in both programs. It is particularly notable, but not surprising, that mental retardation—the most program-specific disabling condition represented—is almost exclusively confined to SSI recipients. Because these program-associated conditions are so distinctively distributed by gender and age, each demographic group is profiled separately in the following sections.

#### Females: Disability Insurance Benefits Only

The four leading disabling conditions among females receiving DI benefits only are musculoskeletal (20 percent), mental excluding retardation (17 percent), circulatory (15 percent), and nervous disorders (12 percent). Mental conditions occur more often among beneficiaries aged 18-29 (26 percent), than among those aged 60-64 (11 percent). Musculoskeletal disorders account for 23 percent of the disabilities for those aged 60-64 and 6 percent in the group aged 18-29. Circulatory disorders are more prevalent among females aged 50 or older, and the disorder increases proportionately among the older age groups, reaching 21 percent for those aged 60-64. Nervous system disorders follow a reverse pattern and are more prominent among beneficiaries under age 40 and diminish proportionately until they reach 8

percent among the group aged 60-64. One reason for this diminishing pattern by age may be that nervous system disorders, consisting of a diverse group of conditions such as epilepsy, multiple sclerosis, cerebral degeneration, and certain severe degenerative eye conditions, often have early developmental origins.

#### Males: Disability Insurance Benefits Only

The pattern of disabling conditions among males is in many respects similar to that for females. Circulatory and mental disorders, followed by musculoskeletal conditions, are the most prevalent conditions reported by disabled-worker males. Circulatory disorders are particularly evident among beneficiaries aged 50 or older.

**Table 6.**—Percentage distribution of disabled-worker beneficiaries by age, gender, and disabling condition, December 1986

Disabling condition	Total	Age				
		18-29	30-39	40-49	50-59	60-64
Females						
Total number (in thousands) . . . . .	723.3	21.0	82.1	119.8	252.4	248.0
Total percent . . . . .	100.0	100.0	100.0	100.0	100.0	100.0
Musculoskeletal . . . . .	19.9	6.2	9.9	15.6	22.6	23.7
Mental conditions <sup>1</sup> . . . . .	16.9	25.7	26.4	24.6	15.0	11.2
Circulatory . . . . .	15.1	1.9	4.6	9.1	18.7	20.8
Nervous system . . . . .	12.0	22.4	18.8	15.2	11.1	8.3
Endocrine/metabolic . . . . .	4.4	1.9	2.8	5.1	4.8	4.6
Injury/poisoning . . . . .	4.4	9.0	6.2	5.2	3.8	3.8
Neoplasms . . . . .	4.2	5.2	3.7	3.5	4.6	4.3
Infectious/parasitic . . . . .	3.8	3.8	5.9	6.3	4.3	1.5
Respiratory . . . . .	3.3	<sup>2</sup>	1.3	1.6	4.2	4.0
Mental retardation . . . . .	2.3	11.9	7.4	2.5	1.3	<sup>2</sup>
Missing/invalid . . . . .	6.7	3.3	5.1	5.2	4.5	10.5
Miscellaneous . . . . .	5.2	8.1	7.3	5.2	5.3	4.0
Males						
Total number (in thousands) . . . . .	1,635.3	56.3	200.0	273.1	558.1	547.8
Total percent . . . . .	100.0	100.0	100.0	100.0	100.0	100.0
Circulatory . . . . .	22.5	3.7	3.9	12.0	26.7	32.1
Mental conditions <sup>1</sup> . . . . .	17.6	34.4	35.3	24.5	14.3	9.4
Musculoskeletal . . . . .	15.1	3.5	7.1	14.8	16.1	18.5
Nervous system . . . . .	9.6	14.0	13.2	11.4	9.1	7.3
Injury/poisoning . . . . .	7.8	21.8	13.1	10.2	6.3	4.7
Respiratory . . . . .	4.7	<sup>2</sup>	<sup>2</sup>	1.6	5.8	7.4
Infectious/parasitic . . . . .	3.6	2.8	3.9	5.9	4.5	1.7
Mental retardation . . . . .	3.4	8.7	8.6	4.4	2.7	1.3
Neoplasms . . . . .	2.8	1.7	2.1	2.3	3.0	3.2
Endocrine/metabolic . . . . .	2.3	<sup>2</sup>	1.9	2.8	2.5	2.2
Missing/invalid . . . . .	5.8	2.4	4.7	4.9	4.9	8.1
Miscellaneous . . . . .	4.3	5.8	5.5	5.0	3.8	3.8

<sup>1</sup> Does not include mental retardation.

<sup>2</sup> Less than 1.0 percent.

**Note:** All numbers reflect counts in the 1-Percent OASDI and SSI Sample file extracts inflated to the population. Counts for selected distributions may vary due to rounding, missing codes, or missing data. Tables for the ICD comparison for disabled SSI recipients are based on reduced samples restricted to the post-1982 recipient population.

These disorders are primarily represented by atherosclerosis and ischemic conditions related to a narrowing of the blood vessels. However, some distinctive differences are apparent. Mental conditions are represented proportionately more often among males under age 40 than in the older groups. Nervous system disorders do manifest a similar diminishing pattern with age,

although not as pronounced as that observed for female beneficiaries. Injuries and poisonings are more prevalent among younger males. However, it should be noted that the combined ICD category represents more injuries than it does poisonings. The percentage of younger males with disabling injuries accounts for almost 22 percent of all disabling conditions among those under age 30.

### Females: SSI Disability Payments

The prevalence of mental conditions is consistently frequent among all age groups—except for the oldest disabled SSI recipients (table 7). This category includes a variety of conditions—schizophrenia, paranoia, certain phobic disorders, and chronic depression and hysteria. Mental retardation, the second most frequently reported category of conditions overall, is the leading disabling condition among disabled female SSI recipients under age 30. As noted earlier, circulatory disorders also have a somewhat surprisingly higher representation among these females, especially among those aged 50 or older. Atherosclerosis and ischemic conditions are the most frequently reported subcategories. Musculoskeletal conditions are also more often represented in the older age categories, which probably reflects an increasing incidence of arthritic conditions among older females in the general population.

**Table 7.**—Percentage distribution of disabled SSI recipients, by age, gender, and disabling condition, December 1986

Disabling condition	Total <sup>1</sup>	Age				
		18-29	30-39	40-49	50-59	60-64
Females						
Total number (in thousands)....	326.0	72.3	47.6	55.7	94.2	65.2
Total percent.....	100.0	100.0	100.0	100.0	100.0	100.0
Mental conditions <sup>2</sup> .....	25.8	23.4	39.7	34.4	23.8	12.1
Mental retardation.....	17.4	40.0	19.9	14.5	7.3	6.2
Circulatory.....	10.2	1.1	3.3	8.0	16.0	20.1
Musculoskeletal.....	9.1	2.5	3.8	5.0	13.1	20.1
Nervous system.....	7.5	14.4	7.5	6.8	3.8	5.8
Endocrine/metabolic.....	5.7	(3)	5.4	6.6	8.3	6.9
Respiratory.....	4.6	(3)	1.6	3.4	7.8	8.1
Infectious/parasitic.....	3.1	1.8	2.7	3.6	3.6	3.9
Neoplasms.....	2.5	1.8	1.2	2.7	2.5	4.2
Injury/poisoning.....	1.4	1.4	(3)	1.4	1.7	1.6
Missing/invalid.....	8.2	8.5	9.6	8.6	7.6	7.1
Miscellaneous.....	4.0	3.8	4.2	4.6	3.9	3.5
Males						
Total number (in thousands)....	221.8	99.5	38.2	29.1	35.6	19.4
Total percent.....	100.0	100.0	100.0	100.0	100.0	100.0
Mental conditions <sup>2</sup> .....	30.5	29.8	48.1	34.7	19.1	13.9
Mental retardation.....	22.6	35.2	15.7	13.4	9.5	9.2
Nervous system.....	9.8	14.2	4.4	6.5	6.1	9.2
Circulatory.....	5.8	(3)	2.6	8.2	14.6	20.1
Musculoskeletal.....	3.8	1.5	1.3	2.0	10.1	11.8
Injury/poisoning.....	3.3	3.8	3.1	3.7	3.0	1.0
Infectious/parasitic.....	3.1	1.7	1.5	6.8	5.3	4.1
Respiratory.....	2.7	(3)	(3)	1.3	8.9	10.3
Neoplasms.....	1.9	1.1	1.0	1.3	3.3	6.1
Endocrine/metabolic.....	1.4	1.0	1.8	1.7	3.3	1.5
Missing/invalid.....	9.7	6.8	13.3	14.7	10.6	8.7
Miscellaneous.....	4.9	4.3	6.5	6.8	5.6	3.6

<sup>1</sup> All totals shown are based on recipients with a post-1982 record date.

<sup>2</sup> Does not include mental retardation.

<sup>3</sup> Less than 1.0 percent.

**Note:** All numbers reflect counts in the 1-Percent OASDI and SSI Sample file extracts inflated to the population. Counts for selected distributions may vary due to rounding, missing codes, or missing data. Tables for the ICD comparison for disabled SSI recipients are based on reduced samples restricted to the post-1982 recipient population.

### Males: SSI Disability Payments

Mental conditions also represent the most frequently reported major ICD category among males. The subcategories have similar prevalence patterns to those seen for disabled SSI females, and they include schizophrenia, paranoia, obsessive-compulsive disorders, and neurotic depression (table 7). Almost 50 percent of the disabling conditions reported for disabled SSI males are mental (48 percent). The prevalence pattern for mental retardation parallels the pattern reported for females, with its highest representation occurring among recipients under age 30 (35 percent). Patterns of diminishing concentration among older age groups may simply be a function of

the developmental origins of mental retardation—that is, although many retarded persons survive to become older SSI recipients, very few if any new cases emerge among older age groups. However, the lower percentages reported may reflect an increasing importance of other disabling conditions in the SSI disabled population. Circulatory and musculoskeletal conditions increase in importance with age, as has been observed in other recipient classifications.

Because the ICD conditions reported here are only for post-1982 disabled SSI-only recipients, interpretations of these patterns must be made with caution. Consequently, the underlying gender-age patterns could conceivably have been different from those shown. Nevertheless, these results do not appear to be incongruent with what may be expected for a disabled population eligible for SSI payments that is further characterized by very little, if any, labor-force participation.

### Geographic Distributions

Charts 2 and 3 show the geographic distributions of disability program prevalence rates for DI-only and SSI-only cases in the 50 States and the District of Columbia.<sup>11</sup> These distributions are particularly noteworthy because they show a strikingly similar pattern of disability prevalence for both program populations.

States with the highest DI-only rates are concentrated in the South Atlantic and East South Central regions of the Nation (chart 2). Also, as chart 3 shows, States that have high DI-only rates also tend to have high prevalence rates for disabled

<sup>11</sup> Prevalence rates for concurrent recipients were not calculated because of insufficient data at the State level.

SSI-only recipients. Further analysis of the prevalence rates for both disability populations, by State, is made by rank comparison for the 50 States and the District of Columbia on these two variables and separately compared with an additional State contextual variable that represents the poverty rate for the population aged 18-64. It is anticipated that the poverty rate for the population under age 65 within a State should be convincingly correlated with both the disabled-worker-only and the disabled SSI-only prevalence rates. However, it is also expected that the correlation between poverty rank and the means-tested SSI disability rank will be higher than that between poverty rank and the untested disabled-worker rank. Results of the correlation analysis are shown in table 8.

The most convincing association is between a State's DI program rate and its SSI program disability rate ( $Rho = .897$ ). This high correlation suggests that a common set of environmental or cultural circumstances contributes to higher disability rates in the "disability belt" States, compared with other States. The correlation also suggests that a consistent application of the disability determination procedures is common to both programs in all the States.

These patterns of association among selected southern States raise further questions concerning historical, economic, and social forces that have both contributed to and sustained high rates of disability in this region. Evidence presented earlier supports the

**Table 8.**—Ten highest ranked States, by poverty and disabled-worker beneficiary, and disabled SSI recipient rate,<sup>1</sup> 1986

[Based on population aged 18-64]

Poverty rate	Disabled-worker beneficiary rate	SSI recipient rate
(1) South Dakota	(4) West Virginia	(3) Mississippi
(2) District of Columbia	(3) Mississippi	(4) West Virginia
(3) Mississippi	(9) Arkansas	(2) District of Columbia
(4) West Virginia	(10) Kentucky	(10) Kentucky
(5) North Dakota	(15) Tennessee	(7) Louisiana
(6) Alabama	(6) Alabama	(15) Tennessee
(7) New Mexico	(13) South Carolina	(6) Alabama
(8) Louisiana	(41) Rhode Island	(9) Arkansas
(9) Arkansas	(30) Missouri	(22) New York
(10) Kentucky	(14) Georgia	(14) Georgia

<sup>1</sup> Numbers in parentheses refer to the national rank for the State poverty rate.

### Spearman Rank Correlations<sup>1</sup>

[Based on population aged 18-64]

	Rho
Disabled-worker rate with disabled SSI rate.....	.897
Disabled-worker rate with poverty rate .....	.273
Poverty rate with disabled SSI rate.....	.538

<sup>1</sup> Spearman Rank Correlations were performed for the specific variables cited for the 50 States and the District of Columbia.

Chart 2.—Disabled-worker-only prevalence rates, December 1986

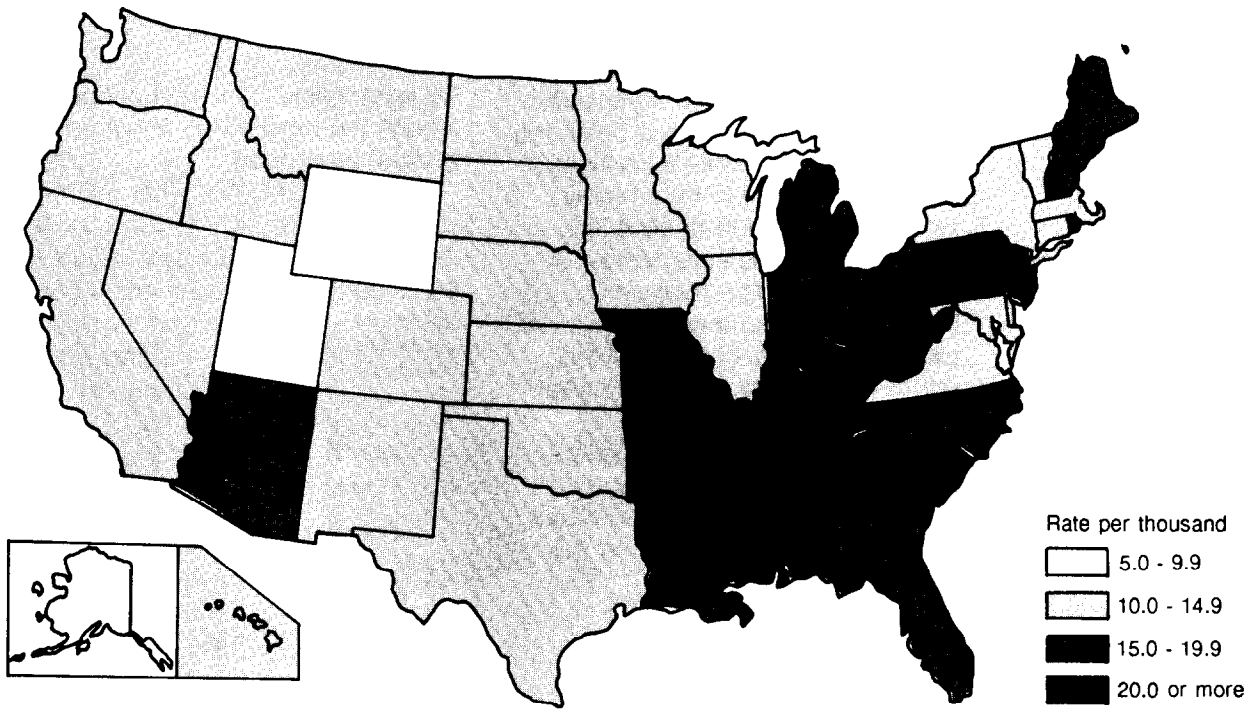
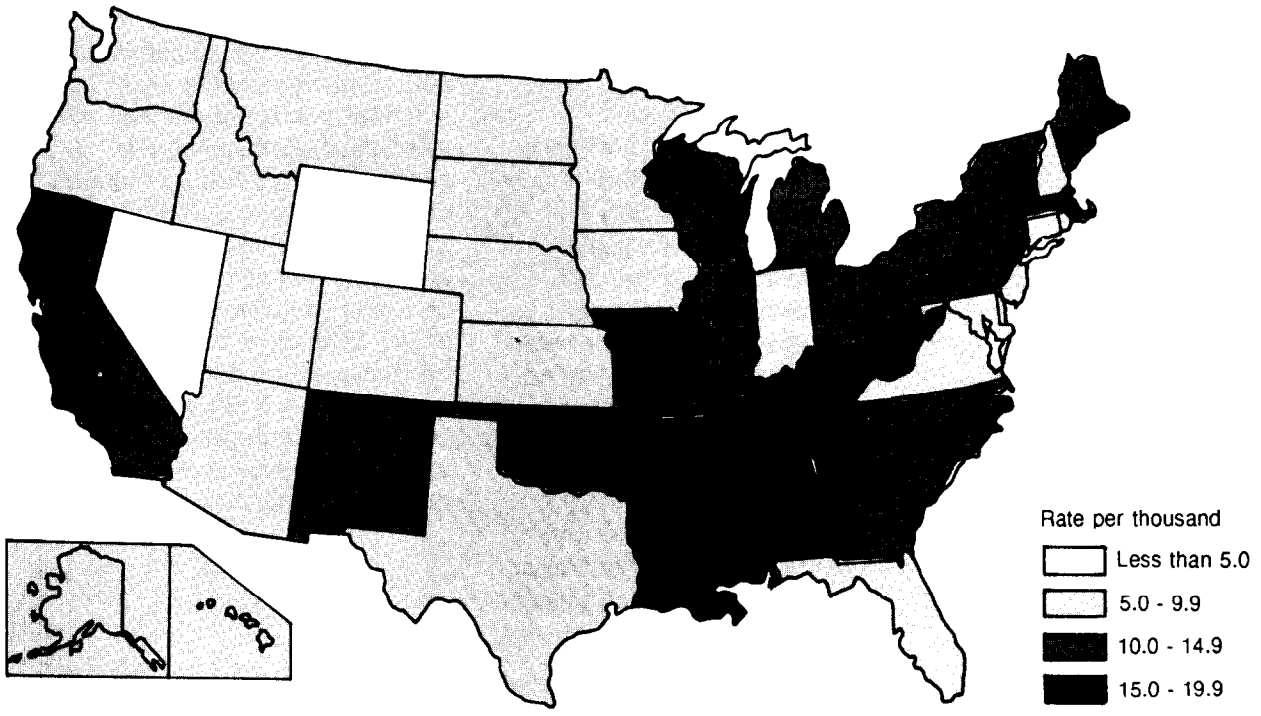


Chart 3.—Disabled SSI-only prevalence rates, December 1986



contention that both DI beneficiaries and disabled SSI recipients tend to reside in more rural nonmetropolitan areas. Additional evidence from the 1980 Decennial Census suggests that these disability belt States have historically had high rates of reported disability. Seven of the States shown in table 8 have the highest reported decennial census rates of persons with a work disability. West Virginia, Arkansas, Mississippi, Alabama, and Georgia are among the States with the highest rates of persons who reported in the 1980 Decennial Census that they had disabilities that prevented them from working. An analysis of disabled-worker allowances for the 1959-62 period also revealed heavier concentrations of severely disabled workers in the southern States.<sup>12</sup>

The correlation between State poverty and SSI disability program ranks, though not as high as that reported above for the two disability programs, is convincingly demonstrated ( $Rho = .538$ ). This relationship is further supported by the evidence that among the working-age population in 7 of the 10 States with the highest poverty rates, the prevalence rate of disabled SSI recipients also ranks in the top 10 (table 8).

Some additional caveats concerning these geographic distribution patterns should be kept in mind when reviewing these findings. State patterns of disability reflect areas of residence, not necessarily the area where the observed disabilities actually originated. Thus, migration may be

an important mitigating factor. It is possible that healthier nondisabled persons may have moved to large metropolitan areas where better job opportunities and other amenities are available, thus leaving behind in nonmetropolitan areas a population that is characterized by a higher incidence or degree of disability. Some disabled persons remain in their areas of origin their entire lives. Others, who may have moved away and then become disabled, return home to be in more familiar surroundings. It is thought that disabled SSI recipients are less mobile than disabled-worker beneficiaries, but there is no direct empirical evidence to support this assumption.

## Conclusions and Implications

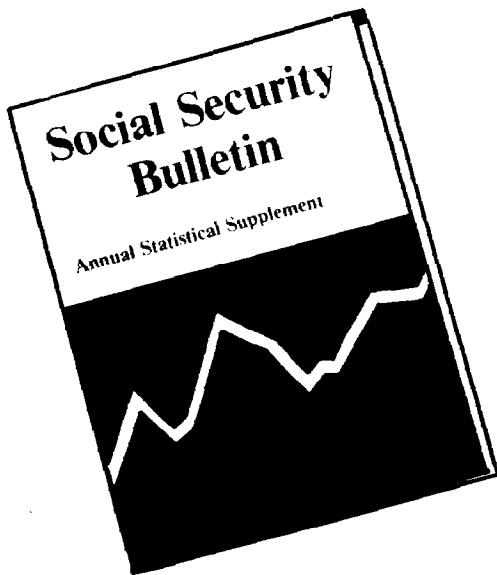
The findings presented in this article represent a "snap shot" view of disabled-worker beneficiaries and disabled SSI recipients at a specific point in time: December 1986. The analysis demonstrates basic demographic and program differences that distinguish the two populations and raise further questions concerning factors that may be associated with disability program participation and underlying disabling conditions extant among the potentially eligible population. Considering the DI and SSI programs jointly, the patterns of disability prevalence rates tend to mirror disability patterns among males and females in the general population and among those with low income. It would be useful from both a policy and a research point

of view to determine the extent to which these two programs, which serve different functions, "underrepresent" or "overrepresent" different subgroups among the functionally impaired general population.

The "discovery" of what might be called the "Disability Belt" is more realistically a case of *deja vu* since the same group of southern States has appeared in previous studies of disabled populations and has been identified in previous decennial censuses. Further ecological studies of disability program recipients, which are methodologically sensitive to migration and mobility, could provide useful insights for policy, public health, and social scientific purposes.

These findings from this study suggest that the DI and SSI programs, as intended, serve different target populations with contrastingly different work and environmental experiences, further mitigated by gender-role and racial background. Characteristically, disabled SSI recipients have disabling conditions with developmental consequences that tend to have early life onset (for example, schizophrenia and mental retardation), precluding the substantial work history required for disabled-worker insured status. Many other disabled SSI recipients, especially females, acquire disabling conditions at later stages in life. Disabled-worker beneficiaries, by contrast, appear to originate from a different population pool and to represent a different set of life circumstances consistent with the larger population.

<sup>12</sup> Jacob Schmulowitz and Henry D. Lynn, "Insured and Disabled Workers Under the Social Security Disability Program: Characteristics and Benefit Payments, 1957-1963" (Research Report No. 11), U.S. Department of Health, Education, and Welfare, 1966.



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