

Disability Patterns Among SSI Recipients

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In December 1993, about 3.8 million persons under age 65 received Supplemental Security Income (SSI) payments because of a disability. More than half of these recipients had some form of mental disorder. In recent years, the number of disabled SSI recipients has climbed sharply. At the same time, there has been a change in the disability patterns among these recipients. The proportion of recipients with mental disorders, particularly those with psychiatric illness, is increasing steadily. Many of these recipients enter the SSI program in their youth and may stay in the program for many years. Similar increases and disability patterns in the Social Security Administration's Disability Insurance (DI) program imply program related causes, including recent changes to the disability requirements and outreach efforts. These changing disability patterns have implications for the size and shape of future SSI caseloads.

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The Supplemental Security Income (SSI) program provides monthly cash payments to aged, blind, or disabled persons with limited income and resources. Of the nearly 6 million SSI recipients in December 1993, about 3.8 million were eligible solely because they were blind or disabled.¹ In this article, both blind and disabled recipients will be referred to as "disabled."

One of the most important pieces of information about disabled recipients is the type of disabling condition involved. This information tells us many things about these recipients, including the permanence and severity of their disabilities, the length of time they are likely to remain on the program rolls, the amount of lifetime benefits they will receive, and the likelihood of their returning to the labor force. For many years, the age and disability patterns among SSI disabled recipients changed very little. In the last several years, however, there has been a sharp increase in the numbers of SSI recipients. The newer recipients exhibit age and disability patterns that are different from their predecessors. These changes in patterns have profound implications for the size and shape of future SSI caseloads.

This article presents diagnostic information on disabled individuals receiving federally administered payments. It also describes the current age ranges and types of disabilities for SSI recipients, compares SSI disability patterns with those for other disabled populations, summarizes increases in SSI caseloads during the 1987-93 period, and relates those increases to changing age and disability patterns.

Methodology and Definitions

This study is based on the 10-Percent SSI Disability Sample File² which is taken from the Supplemental Security Record (SSR)—the main administrative computer file used by the SSI program. The prominent feature of this sample file is that it captures the disability diagnosis from several other administrative files for all sample recipients.

Diagnostic groups are represented by categories from the *International Classification of Diseases* (ICD). Social Security

Administration uses a version of the ICD to classify diagnoses of individuals applying for SSI payments on the basis of blindness or disability.³ Except for mental disorders, the diagnostic distributions shown here are limited to the 12 major classifications in ICD-9. More detail was provided for mental disorders because they are more prevalent among SSI disabled recipients. The diagnostic distributions presented reflect primary diagnoses. Standard errors for estimated counts and percents are in the Technical Note at the end of this article.

Disability Categories

For the 3.8 million SSI disabled recipients in December 1993, the leading cause of disability was some form of mental disorder (chart 1, table 1). About 58 percent of all SSI disabled recipients had a mental disorder, which was equally divided between mental retardation and psychiatric illness.⁴ The most common form of psychiatric illness was schizophrenia, with about 33 percent of those with psychiatric illness having some form of it. Overall, those with schizophrenia comprise about 10 percent of the disabled SSI caseload.

The next largest category was diseases of the nervous system and sense organs, which included approximately 11 percent of the disabled recipients in 1993. This category includes deafness, blindness, and other diseases that affect the nervous system, such as meningitis, Alzheimer's disease, Parkinson's disease, multiple sclerosis, cerebral palsy, paralysis, and epilepsy. All other diagnostic classifications contained less than 10 percent of the disabled recipients:

- Diseases of the musculoskeletal system and connective tissue (7 percent)—such as low back injuries, rheumatoid arthritis, osteoarthritis, osteoporosis, and intervertebral disc disorders.
- Diseases of the circulatory system (6 percent) such as rheumatic fever, heart disease, high blood pressure, ischemic

heart disease, angina pectoris, cerebral thrombosis, arteriosclerosis, aneurysm, and pulmonary heart disease.

- Endocrine, nutritional and metabolic diseases, and immunity disorders (4 percent)—such as diabetes mellitus, cystic fibrosis, thyroid and pituitary gland disorders.
- Injury and poisoning category (3 percent)—such as injuries resulting from accidents and poisons.
- Diseases of the respiratory system (3 percent)—such as asthma, emphysema, and pleurisy.
- Infectious and parasitic diseases (2 percent)—diseases generally recognized as communicable or transmissible such as AIDS, polio, tuberculosis, typhoid, salmonella, leprosy, and whooping cough.
- Congenital anomalies (2 percent)—birth defects such as spina bifida, congenital heart defects, congenital cystic lung, and Down's syndrome.
- Neoplasms (1 percent)—such as leukemia, Hodgkin's

disease, carcinoma, and other types of cancers.

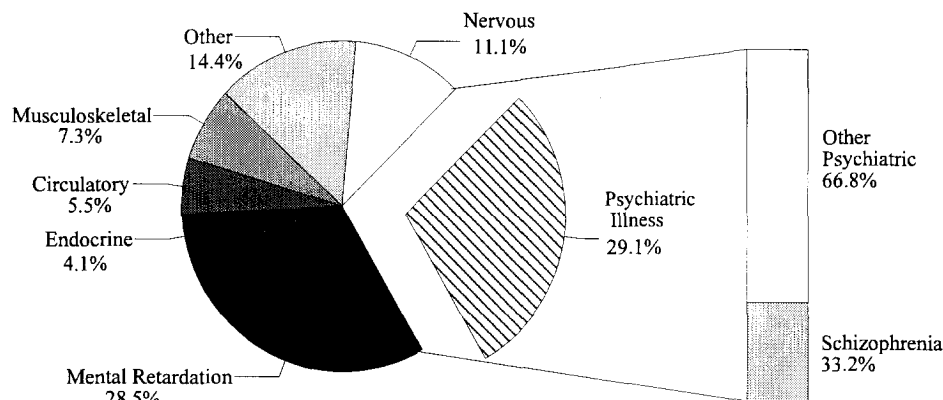
- Diseases of the digestive system (less than 1 percent)—such as ulcers, hernia, and liver cirrhosis.
- Other categories (3 percent)—such as diseases of the blood and blood-forming organs, diseases of the genitourinary system, diseases of the skin and subcutaneous tissue, certain conditions originating in the perinatal period, and ill-defined conditions.

Disabling Condition and Age

The type of disabling condition varied considerably with the age of the recipient (table 2). Persons with disabilities resulting from mental retardation, diseases of the nervous system and sense organs, and congenital anomalies were among the youngest of the recipients. Of those recipients with mental retardation, 57 percent were under age 30. Only 11 percent were older than age 50. Similarly, a large percentage (47 percent) of those with diseases of the nervous system and sense organs were under age 30.

Two factors may account for the relative youth of mentally retarded recipients. First, this condition usually appears at birth or shortly thereafter. Second, mentally retarded recipients have higher mortality rates (Conley

Chart 1. —Diagnostic groups of SSI recipients, December 1993



Source: 10-percent Disability Data Base.

1973). Also, as mentally retarded recipients age, more of them may be placed in institutional settings because aging parents or other members of the family may no longer be able to provide for their care (Fujiura *et al* 1990). As residents of such facilities, they are usually no longer eligible for SSI.⁵

These same factors may also contribute to the relatively young age of recipients with congenital anomalies and diseases of the nervous system. Congenital anomalies includes birth defects such as spina bifida, congenital heart defects, and Down's syndrome. Diseases of the central nervous system include infantile cerebral palsy, multiple sclerosis, or muscular dystrophy. These conditions also appear very early in life, and those affected are more likely to die in childhood or in early adulthood.

Recipients with other types of conditions were much older. Persons with diseases of the musculoskeletal system and of the circulatory system were clustered at the higher age ranges. Only 8 percent of those with musculoskeletal disease and 6 percent of those with circulatory problems were under age 30. Most persons with musculoskeletal (65 percent) and circulatory diseases (72 percent) were aged 50 or older. These diseases include arthritis, osteoporosis, osteoarthritis, high blood pressure, angina, ischemia, and other heart diseases that occur in the later stages of life.

Some recipients had disabling conditions that affect persons over a broad range of age groups. This pattern is most apparent with psychiatric disorders. Many recipients who have psychiatric disorders are in their prime working age years. Relatively few are very old or very young. Most psychiatric disorders manifest themselves in early adulthood (APA 1987). The study file did not contain the date that the disability first occurred. However, a previous study found that of those who received SSI payments in December 1988 on the basis of psychiatric disorders, more than half were between ages 18-44 at the time of application (Kochhar 1991).

Length of Time in Program

There is also a relationship between the disabling condition and the length of time on program rolls (table 3). Recipients with the following diagnoses more frequently stayed in the program for 10 years or more: diseases of the nervous system and sense organs (37 percent), congenital anomalies (36 percent), mental retardation (32 percent), and schizophrenia (32 percent). Recipients with these disabling conditions are relatively young. Recipients with the following diagnoses were less likely to stay on the rolls for 10 years or more: neoplasms (19 percent), respiratory disorders (16 percent), musculoskeletal disorders (16 percent), endocrine and metabolic disorders (14 percent), infectious and parasitic diseases (14 percent), digestive diseases (13 percent), and other psychiatric disorders (11 percent). Recipients with these diseases were more likely to have applied for SSI payments later in life or to have died from their disabilities before spending 10 years on the rolls.⁶

Disabling Condition and Work

The type of disabling condition is related to both the likelihood of working

after receiving SSI award and the monthly SSI payment amount (table 4). Although about 6 percent of all recipients had earnings, that percentage was much higher for those with mental retardation.⁷ Persons with infectious and parasitic diseases, endocrine disorders, and diseases of the circulatory and musculoskeletal systems were least likely to work.

Comparing Disabled Populations

When describing a diagnostic distribution of SSI disabled recipients, it is useful to compare the distribution with other disabled populations. The comparison used here is with Title II Disability Insurance (DI) program population.

The DI program uses the same definition of disability and the same ICD-9 based codes as that used for the SSI program. To receive DI benefits, an individual also has to meet the requirements of insured status (disabled worker)⁸ or be a dependent of an insured worker.⁹ An overlap exists in the caseloads of the two programs. In December 1993, 2,801,410 persons received only SSI benefits, 3,579,300 received only DI benefits, and 1,033,270 persons received benefits concurrently from both programs (table 5). Concur-

Table 1.—Number and percent of disabled individuals under age 65, by diagnostic group, December 1993

Diagnostic group	Number	Percent
Total number.....	3,834,680	100.0
Infectious and parasitic.....	72,090	1.9
Neoplasms.....	59,160	1.5
Endocrine and metabolic.....	155,870	4.1
Mental disorders—		
Retardation.....	1,092,090	28.5
Psychiatric illness.....	1,117,180	29.1
Schizophrenia.....	371,040	9.7
Other psychiatric illness.....	746,140	19.5
Diseases of—		
Nervous system and sense organs.....	424,630	11.1
Circulatory system.....	212,070	5.5
Respiratory system.....	102,270	2.7
Digestive system.....	24,630	.6
Musculoskeletal system.....	281,290	7.3
Congenital anomalies.....	64,200	1.7
Injury and poisoning.....	113,300	3.0
Other.....	115,900	3.0

Source: 10-percent Disability Data Base.

Table 2.—Number and percentage distribution of disabled individuals under age 65 receiving SSI payments, by age and diagnostic group, December 1993

Diagnostic group	Total Number	Total Percent	Age					
			Under 18	18-29	30-39	40-49	50-59	60-64
Total	3,834,680	100.0	18.8	17.1	18.8	17.2	18.1	10.1
Infective and parasitic.....	72,090	100.0	4.1	12.9	35.8	26.5	14.9	5.8
Neoplasms.....	59,160	100.0	20.2	11.0	11.4	16.6	26.9	13.9
Endocrine and metabolic.....	155,870	100.0	5.6	6.8	13.8	23.6	32.9	17.2
Mental disorders—								
Retardation.....	1,092,090	100.0	28.6	28.7	19.7	11.7	8.0	3.4
Psychiatric illness.....	1,117,180	99.9	12.9	13.5	24.8	23.8	18.1	7.0
Schizophrenia.....	371,040	100.0	1.0	14.2	33.5	26.9	17.5	6.9
Other psychiatric.....	746,140	100.0	18.8	13.1	20.5	22.3	18.4	7.0
Diseases of—								
Nervous system and sense organs.....	424,630	100.0	24.9	22.0	17.3	14.6	13.6	7.6
Circulatory.....	212,070	100.0	2.8	3.1	6.6	15.2	40.0	32.4
Respiratory.....	102,270	100.0	18.5	4.0	6.1	12.5	34.2	24.7
Digestive.....	24,630	100.0	10.4	7.6	16.5	23.2	29.2	13.2
Musculoskeletal system.....	281,290	100.0	3.4	4.3	10.0	16.9	36.3	29.1
Congenital anomalies.....	64,200	100.0	60.3	18.7	10.8	4.6	3.5	2.1
Injury and poisoning.....	113,300	100.1	4.5	17.6	23.1	20.9	21.7	12.3
Other.....	115,900	100.1	46.8	14.0	12.4	11.1	10.7	5.1

Source: 10-percent Disability Data Base.

Table 3.—Number and percent of disabled individuals receiving federally administered SSI payments, by time on rolls and diagnostic group, December 1993

Diagnostic group	Number	Total Percent	Time on SSI rolls		
			Under 5 years	5-9 years	10 or more years
Total number.....	3,834,680	100.0	55.5	20.0	24.5
Infective and parasitic.....	72,090	100.0	76.1	10.1	13.8
Neoplasms.....	59,160	100.0	65.7	15.5	18.9
Endocrine and metabolic	155,870	100.0	65.0	20.7	14.3
Mental disorders—					
Retardation.....	1,092,090	100.0	48.3	19.6	32.2
Psychiatric.....	1,117,180	100.0	60.3	21.6	18.0
Schizophrenia.....	371,040	100.0	42.4	25.7	32.0
Other psychiatric.....	746,140	100.0	69.3	19.6	11.1
Diseases of—					
Nervous system and sense organs.....	424,630	100.0	43.7	18.9	37.4
Circulatory system.....	212,070	100.0	60.4	20.9	18.7
Respiratory system.....	102,270	100.0	63.6	20.4	16.1
Digestive system.....	24,630	100.0	65.5	21.9	12.6
Musculoskeletal system.....	281,290	100.0	62.5	21.0	16.5
Congenital anomalies.....	64,200	100.0	47.7	15.9	36.4
Injury and poisoning.....	113,300	100.0	50.0	20.6	29.4
Other.....	115,900	100.0	64.1	17.9	18.1

Source: 10-Percent Disability Data Base.

rent beneficiaries have marginal wage records—sufficient to qualify them for DI benefits but insufficient to make them ineligible for SSI payments.

The diagnostic distributions for SSI and DI beneficiaries show some sharp differences. The SSI program has a larger number of persons who suffer with mental retardation than does the DI program. About 29 percent of the “SSI-only” recipients are disabled because of mental retardation, compared with only 7 percent of “DI-only” beneficiaries. The DI program has a larger number of persons with musculoskeletal diseases and circulatory problems. About 21 percent of the “DI-only” group have a musculoskeletal disease, and 15 percent have a circulatory disability, compared with 6 percent and 5 percent, respectively, for the “SSI-only” group. Generally, the concurrent group showed a diagnostic distribution more similar to the “SSI-only” group than to the “DI-only” group.

These sharp differences in diagnostic distributions of SSI recipients and DI beneficiaries suggest that the programs have two somewhat distinct populations with contrasting work and socioeconomic backgrounds. As mentioned earlier, SSI recipients more frequently have disabling conditions resulting from disorders that are likely to begin at birth or in the developmental stage of life. Disorders such as mental retardation, schizophrenia, congenital anomalies, or neurological disorders often preclude the work history required to attain the insured status needed under the DI program.¹⁰ Disabled workers receiving only DI benefits, on the other hand, generally have conditions resulting from cardiovascular or musculoskeletal diseases. Usually these disorders appear at a later age, permitting individuals to earn insured status.¹¹

As might be expected, age patterns are also different for the two programs. The population receiving only SSI payments is a much younger group than that receiving only DI (table 6). The concurrent group has an age distribution that falls somewhere between the two extremes.

Table 4.—Number and percent of disabled individuals, with earned and unearned income, by diagnostic group and average monthly SSI payments, December 1993

Diagnostic group	Number	Percent with earned income	Percent with unearned income	Average monthly SSI payments ¹
Total number.....	3,834,680	5.8	27.0	\$360.00
Infectious and parasitic.....	72,090	2.2	29.4	360.34
Neoplasms.....	59,160	3.4	25.7	352.11
Endocrine and metabolic.....	155,870	2.3	27.2	350.28
Mental disorders—				
Retardation.....	1,092,090	11.0	25.7	359.59
Psychiatric illness.....	1,117,180	3.9	27.0	373.96
Schizophrenia.....	371,040	5.6	32.4	362.74
Other psychiatric.....	746,140	3.0	24.3	379.54
Diseases of—				
Nervous system and sense organs...	424,630	6.7	23.8	361.08
Circulatory system.....	212,070	2.0	30.9	335.39
Respiratory system.....	102,270	1.8	26.1	355.26
Digestive system.....	24,630	1.3	28.5	348.15
Musculoskeletal system.....	281,290	2.1	36.2	330.23
Congenital anomalies.....	64,200	6.0	12.8	386.44
Injury and poisoning.....	113,300	3.9	36.4	329.40
Other.....	115,900	2.4	17.7	381.32

Source: 10-percent Disability Data Base.

¹ Includes federally administered State supplementation.

Table 5.—Number and percent of disabled individuals receiving SSI only, DI only, and concurrent SSI and DI benefits, by diagnostic group, 1993

Diagnostic group	Individuals receiving—		
	SSI only	DI only	Concurrently SSI and DI
Total number.....	2,801,410	3,579,300	1,033,270
With diagnosis.....	2,801,410	3,349,900	1,033,270
Total percent.....	100.0	100.0	100.0
Infective and parasitic.....	1.8	1.9	2.1
Neoplasms.....	1.6	3.2	1.5
Endocrine and metabolic.....	4.1	3.8	4.1
Mental disorders—			
Retardation.....	29.0	7.3	27.2
Psychiatric illness.....	29.1	22.4	29.2
Diseases of—			
Nervous system and sense organs..	11.6	10.6	9.8
Circulatory system.....	5.2	14.5	6.3
Respiratory system.....	2.7	3.9	2.6
Digestive system.....	.6	1.3	.7
Musculoskeletal system.....	6.4	20.7	9.9
Congenital anomalies.....	2.0	.6	.8
Injury and poisoning.....	2.6	6.4	4.0
Other.....	3.4	3.3	2.0

Source: SSI only and concurrent recipients based on SSI 10-percent Disability Data Base, December 1993. DI data based on 1-percent DI Disability File, December 1993.

Since only the SSI program contains children, a comparison with the DI program is enhanced by removing children from the SSI totals. However, diagnostic differences remain between the SSI and DI distributions even when children are eliminated from the totals (table 7). Eliminating those under age 18 from the SSI distribution causes a slight drop in the percent of SSI recipients with mental retardation and with diseases of the nervous system and sense organs (from 29 percent to 25 percent, and from 12 percent to 10 percent, respectively). A slight increase occurs in the percentage distribution of recipients with diseases of the circulatory system and the musculoskeletal system (from 5 percent to 7 percent, and from 6 percent to 8 percent, respectively).

Comparisons with the General Population

It is also useful to compare the diagnostic patterns for SSI disabled recipients to those persons in the general population who have work limitations. These attempts are often frustrated by the fact that survey data on disability seldom use the ICD-9 categories to describe the disabled population. Data from the Survey of Income and Program Participation (SIPP) for 1990 have been arranged using a classification scheme similar enough to permit a rough comparison (table 8). For the best comparison, the SSI and DI data bases were restricted to non-institutionalized persons aged 18-64.¹² The results show that in 1990, more than 7 million persons reported that they were prevented from performing any work, and an additional 10 million reported some limitation in their work. The latter group was composed of those who were able to work on a full- or part-time basis in spite of their disabilities.

For the most part, the survey data show percentages that are similar to the two disability programs.¹³ There were some exceptions, however. The percentages of persons with mental disorders (both retardation and psychiatric illness) were much lower among the self-reported groups with work limitations than in

either of the disability programs. If the percents are converted to counts, the result suggests either that mental disorders are underreported in the survey or

that very large numbers of persons with mental disorders are in the two programs. At the other end of the spectrum are those with musculoskeletal problems.

Table 6.—Disabled individuals under age 65 receiving federally administered SSI payments only, DI only, and those receiving both benefits concurrently, by age, December 1993

Age	Individuals receiving--		
	SSI only	DI only	Concurrently SSI and DI
Total number.....	2,801,410	3,579,300	1,033,270
Total percent.....	100.0	100.0	94.7
Under 18.....	23.8	...	15.4
18-29.....	17.8	5.4	15.1
30-39.....	16.7	15.8	24.5
40-49.....	16.2	24.1	19.8
50-59.....	17.6	34.7	19.5
60-64.....	8.0	20.0	15.7

Source: SSI only and concurrent recipients based on SSI 10-percent Disability Data Base, December 1993. DI data based on 1-percent Disability File, December 1993.

¹SSI recipients under age 18 concurrently receiving DI benefits as minor dependents of disabled workers.

Table 7.—Number and percent of disabled adults aged 18-64 receiving benefits from SSI only, DI only, and concurrent SSI and DI benefits, by diagnostic group, December 1993

Diagnostic group	Disabled adults receiving—		
	SSI only	DI only	Concurrently SSI and DI
Total number.....	2,136,170	3,579,300	977,920
With diagnosis.....	2,136,170	3,349,900	977,920
Total percent.....	100.0	100.0	100.0
Infective and parasitic.....	2.3	1.9	2.1
Neoplasms.....	1.5	3.2	1.5
Endocrine and metabolic.....	4.9	3.8	4.3
Mental disorders—			
Retardation.....	24.7	7.3	25.8
Psychiatric illness.....	32.0	22.4	29.5
Diseases of—			
Nervous system and sense organs.....	10.5	10.6	9.7
Circulatory system.....	6.6	14.5	6.7
Respiratory system.....	2.7	3.9	2.6
Digestive system.....	.7	1.3	.7
Musculoskeletal system.....	8.0	20.7	10.3
Congenital anomalies.....	.9	.6	.7
Injury and poisoning.....	3.2	6.4	4.2
Other.....	2.1	3.3	1.8

Sources: SSI only and concurrent recipients based on SSI 10-percent Disability Data Base, December 1993. DI data based on 1-percent DI Disability File, December 1993.

The percentages of persons with musculoskeletal conditions were much higher in both self-reporting groups than with those under either of the disability programs. Apparently, both disability programs have a very small proportion of individuals who report that their work is limited by this condition.

Changes in the SSI Caseload

During the 6-year period 1987-93, there has been a sharp increase in the SSI caseload. The number of disabled SSI recipients under age 65 rose from 2.3 million to more than 3.8 million, an increase of 65 percent (table 9). In the 12 years prior to 1987, the disability caseload grew by only 19 percent (SSA 1988).

There are many potential explanations for the overall increase in the caseload during this period. One potential explanation might be the various outreach activities conducted by SSA, during the

last 6 years, to encourage increased program participation. Such efforts can directly and/or indirectly affect caseloads by improving the "adjudicative climate" through word-of-mouth and the involvement of community disability interest groups. Another explanation for the increased caseload is the changed economic conditions, like the shift from relatively high paying jobs in the manufacturing sector to lower paying ones in the service sector and the lengthy and deep recession in 1990 (Yelin 1992). However, Lewin (1994) found that only those SSI applicants and awardees who received DI benefits concurrently were impacted to any degree by economic conditions.

The explanations pursued in this article are those that relate specifically to the age and disability patterns of the SSI population over the last 6 years.

The number of children under age 18 receiving SSI increased dramatically in recent years (table 9). From 1987 to

1993, the number of children rose by 191 percent, while the number of adults (aged 18-64) rose by 50 percent.

One explanation involves legislation enacted in 1984—The 1984 Social Security Disability Reform Act (Public Law 98-460)—which contained several provisions that directly affected the number of mentally ill persons on the SSI rolls. The changes in regulations and policies regarding mental conditions were intended to reflect state-of-the-art tools for the evaluation of level of impairment, severity, and capacity to engage in work activity. These changes may well have influenced the rate at which applicants were approved.

However, since most of the increase in the child caseload occurred from 1990 to 1993 (chart 2), an additional explanation is needed. In 1990, in compliance with the Supreme Court ruling in *Sullivan v. Zebley*, SSA revised the evaluation process for determining childhood disabilities. To make the disability determina-

Table 8.—Diagnostic distributions of noninstitutionalized disabled populations aged 18-64, by program (December 1993) and general population (1990)

Diagnostic group	SSI recipients (December 1993)	DI beneficiaries (December 1993)	General population reporting that they were—	
			Prevented from working (1990)	Limited in ¹ working (1990)
Total number.....	23,038,490	24,151,100	7,302,650	9,820,000
Diagnosis reported.....	3,038,490	3,904,800	7,302,650	9,820,000
Total percent.....	100.0	100.0	100.0	100.0
Neoplasms.....	1.5	3.0	1.9	1.7
Endocrine and metabolic.....	4.8	4.0	3.9	3.0
Mental disorders—				
Retardation.....	24.6	9.5	3.8	2.0
Psychiatric.....	31.6	23.1	11.9	6.7
Diseases of—				
Nervous system and sense organs.....	10.1	10.4	7.8	8.1
Circulatory system.....	6.6	13.3	14.9	10.8
Respiratory system.....	2.7	3.9	6.6	6.5
Digestive system.....	.7	1.3	1.7	2.1
Musculoskeletal system.....	8.9	19.3	32.5	42.4
Injury and poisoning.....	3.5	5.9	3.7	5.0
Other.....	5.0	6.1	11.4	11.8

Source: SSI data from SSI 10-percent Disability Data Base, December 1993. DI data based on 1-Percent Disability File, December 1993. Survey data from Survey of Income and Program Participation (SIPP) for 1990, Wave 3.

¹Includes persons who are limited in work and can work either full- or part-time.

²Includes 977,280 adults receiving SSI and DI benefits concurrently.

tion process comparable to that for adults, SSA added another step to the evaluation process for child disability claims. In adult claims, where medical impairments are not severe enough, vocational factors are considered together with the medical impairments in making a disability determination. To make the disability evaluation for children comparable to that for the adults—in cases where medical impairments alone are not severe enough to warrant a disability award—an assessment is made of the impact of the child's impairment on

his or her physical and/or mental functioning capabilities. This individualized functional assessment is used to decide whether or not the impairments so limit the child's abilities to function independently, appropriately, and effectively in an age-appropriate manner, and if they are comparable in severity to those that would disabled an adult. Not only were new applications adjudicated under the revised criteria, children denied disability claims during 1980-90 were reconsidered to see if they were eligible for SSI.

Adult age groups also had sizable

increases during this period (chart 3, table 10). By diagnostic group, the greatest percentage increase for adults was in the category of infectious and parasitic diseases—up 238 percent. This category includes such diseases as AIDS. A large percentage increase also occurred in the category of musculoskeletal diseases—up about 77 percent. A possible reason for this increase could be recent legislative amendments to the Social Security Act that clarified SSA's policy on pain for both the SSI and DI programs. The legislation clarified policies on the evaluation of pain and other symptoms so that adjudicators would clearly understand that, once a medically determinable impairment is established, the effects of pain and other symptoms are considered at each step of the sequential evaluation process.

But the most significant increase, in terms of its contribution to the size of the program, was among persons with psychiatric illness. The number of psychiatrically disabled adults rose by about 431,000 and accounted for 42 percent of the increase in adult disability cases.

There may be several reasons for the increase in adult recipients with psychiatric illness. Like the explanation for the increased number of children, the first reason relates to changes that SSA has made in handling cases involving psychiatric illness as a result of legislation enacted in 1984. A corroboration of the likely impact of these changes can be seen by looking at similar data for the DI program. Both programs use the same medical definition of disability, and both have undergone the same revisions to the regulations and policies regarding mental illness. If changes in the adjudication process were causing an increase in the percentage of mentally ill recipients, a similar increase might occur in the DI program. (If the prevalence of psychiatric illness among DI insured and SSI eligibles were also the same, then we would expect a similar increase in the DI program.) This increase has occurred: the percentage of DI beneficiaries with psychiatric illness has risen substantially over the last 6 years (table 11).

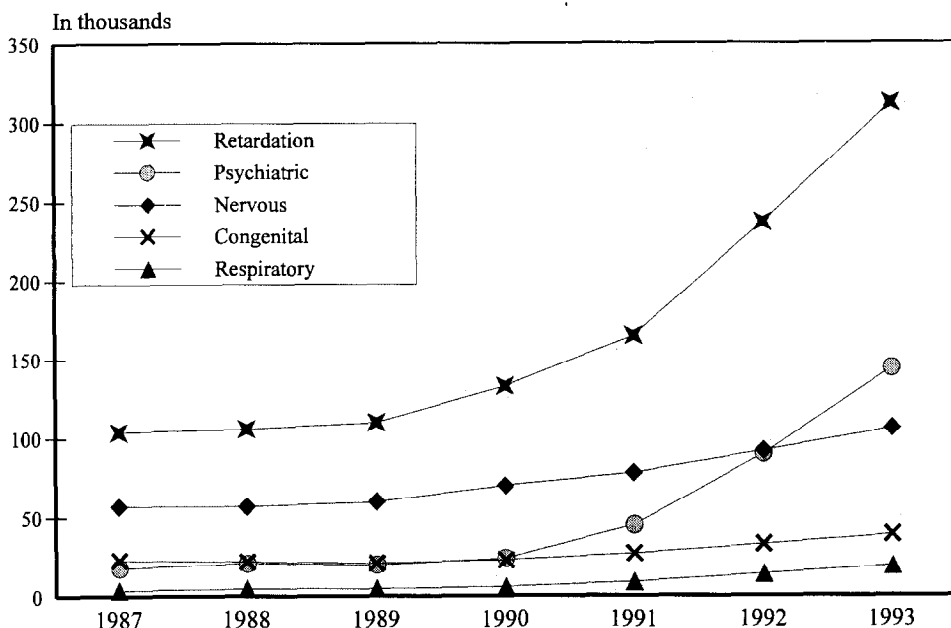
The second reason for the increase in adult recipients relates to the develop-

Table 9.— Number of disabled recipients under age 65 in 1987 and 1993, by age and percent change

Age	1987	1993	Percent change
Total.....	2,329,030	3,834,680	64.6
Under 18.....	247,670	720,590	190.9
18-29.....	506,270	655,620	29.5
30-39.....	418,270	720,190	72.2
44-49.....	353,020	658,150	86.4
50-59.....	481,700	693,900	44.1
60-64.....	322,100	386,230	19.9

Source: 10-percent Disability Data Base.

Chart 2.— Number of SSI recipients under age 18 by selected diagnoses, December 1987-93



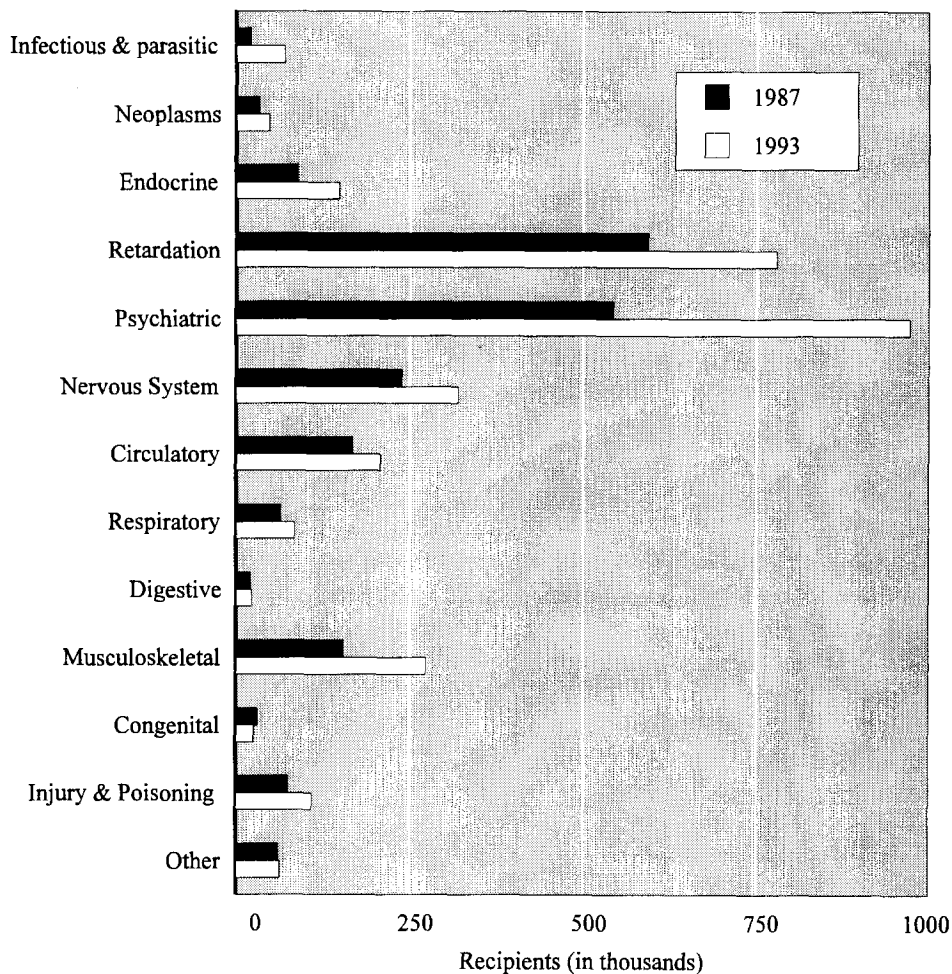
Source: 10-percent Disability Data Base.

ment of community based mental health services that enable persons with psychiatric disabilities to remain in the community. Over the last 35 years, many individuals with mental illness have become deinstitutionalized. Many are able to remain in the community because of the community based services, and continue to be eligible for and receive SSI payments. Had they returned to public mental institutions for extended stays they would have lost their eligibility status. In addition, the availability of community based services has meant that some recipients never require institutionalization. These services have the cumulative effect of keeping more recipients in the community, thereby maintaining their continued eligibility for SSI payments.

A third reason is that individuals with psychiatric illness may be more willing to seek help now than in the past. With the decrease of institutionalization, a person can receive ambulatory care from medical and social support systems, and thereby avoid being labeled with a stigmatizing condition (Gove 1990). It is also possible that the changes in the adjudicative process and recent outreach efforts made by SSA may have encouraged persons with psychiatric illness to apply or to reapply following a previous denial.

Some of the issues discussed in this article may be having some impact on the SSI caseload. Others may be having little or no impact. But, they may serve as a starting point to further study the reasons why the SSI rolls have experienced such a change in the diagnostic mix over the last several years.

Chart 3.—Comparison of diagnosis of SSI disabled recipients aged 18-64, 1987 and 1993



Source: 10-percent Disability Data Base.

Table 10.—Percent change in the number of SSI disabled recipients, 1987-93, by age and diagnostic group

Diagnostic group	Under age 18			Age 18-39			Age 40-64		
	1987	1993	Percent change	1987	1993	Percent change	1987	1993	Percent change
Total number.....	247,670	720,590	190.9	924,540	1,375,810	48.8	1,156,820	1,738,280	50.3
Infective and parasitic.....	1,290	2,960	129.5	7,450	35,110	371.3	13,020	34,020	161.3
Neoplasms.....	6,260	11,950	90.9	10,200	13,270	30.1	22,950	33,940	47.9
Endocrine and metabolic.....	5,400	8,780	62.6	21,990	32,140	46.2	65,710	114,950	74.9
Mental disorders—									
Retardation.....	103,520	312,240	201.6	361,790	528,140	46.0	231,600	251,710	8.7
Psychiatric.....	18,410	143,860	681.4	256,130	427,730	67.0	286,530	545,590	90.4
Diseases of—									
Nervous system and sense organs.....	57,540	105,650	83.6	126,680	166,970	31.8	110,700	152,010	37.3
Circulatory system.....	2,880	5,910	105.2	21,340	20,490	-4.0	144,870	185,670	28.2
Respiratory system.....	4,210	18,930	349.6	8,580	10,290	19.9	54,290	73,050	34.6
Digestive system.....	970	2,560	163.9	4,980	5,930	19.1	15,220	16,140	6.0
Musculoskeletal system.....	3,810	9,680	154.1	27,280	40,290	47.7	126,010	231,320	83.6
Congenital anomalies.....	23,480	38,720	64.9	18,830	18,950	.6	11,490	6,530	-43.2
Injury and poisoning.....	2,700	5,070	87.8	33,020	45,990	39.3	41,070	62,240	51.5
Other.....	17,200	54,280	215.6	26,270	30,510	16.1	33,360	31,110	-6.7

Source: 10-percent Disability Data Base.

Table 11.—Number and percent of SSI and DI beneficiaries under age 65 with psychiatric disorders, 1987-93

December of year	SSI		DI	
	Total recipients	Percent with psychiatric disorders	Total beneficiaries	Percent with psychiatric disorders
1987.....	2,329,030	24.1	2,774,200	21.4
1988.....	2,424,860	24.5	2,817,600	21.9
1989.....	2,530,890	25.3	2,873,300	22.7
1990.....	2,718,100	26.3	2,994,900	23.4
1991.....	2,989,150	27.2	3,173,000	24.0
1992.....	3,415,870	28.2	3,479,700	25.3
1993.....	3,834,680	29.1	3,741,500	25.1

Source: SSI data from 10-percent Disability Data Base. DI data from U.S. Department of Health and Human Services, Social Security Bulletin; Annual Statistical Supplement 1987-93.

Notes

¹ Under the SSI program, disabled recipients who reach age 65 remain categorically "disabled" on agency records and often are counted as disabled in statistical reports. Since these recipients are eligible as "aged" recipients and other disabled populations do not include aged 65 or older, they have been removed from this study in order to facilitate the comparisons with other disabled populations.

² This file was described in some detail in an article by Kochhar. See "Development of Diagnostic Data in the 10-Percent Sample of Disabled SSI Recipients," *Social Security Bulletin*, Vol. 54, No. 7, July 1991, pp. 10-21.

³ Since 1986, diagnoses were classified by impairment codes based on the original ICD-9 codes.

⁴ The total for mentally retarded excludes an estimated 12,150 persons receiving SSI because of Down's syndrome. Persons with Down's syndrome are included under congenital anomalies.

⁵ However, SSI eligibility may continue during initial institutionalization. Under section 1611(e)(1)(G) of Social Security Act, SSI payments may be continued for up to 3 months during the temporary period of institutionalization in certain facilities, if certain other conditions are met.

⁶ It should be pointed out that such an analysis using caseload data is limited. Caseload data overstates the impact of longer stayers compared to cohort analysis. Also, because all persons in the study are currently receiving payments, ultimate length of stay is understated.

⁷ But since those with mental retardation tend to be young, age may also be a factor. An extended analysis of this relationship can be found in Scott (1992). Also, it should be noted that earned income cited here includes that from sheltered workshops.

⁸ An individual must meet the insured status requirement of 20 quarters of covered employment out of 40 immediately preceding the quarter of onset of disability. For workers becoming disabled before age 31, the quarter-of-coverage requirement is lower.

⁹ Dependents of insured workers include those receiving benefits as disabled adult children under someone else's work record, and those receiving benefits as disabled

widows/widowers under someone else's work record.

¹⁰ Although this logic is limited to disabled workers under the DI program, the data also include some auxiliary beneficiaries receiving DI benefits as dependents of insured workers. These auxiliary beneficiaries, such as disabled adult children, may have ages and work records more similar to SSI recipients than to DI beneficiaries.

¹¹ A more detailed discussion of these program differences and the effects of demographic variables on diagnostic distributions can be found in McCoy and Weems (1989).

¹² Removing all institutionalized persons from the SSI and DI populations cannot be done with precision. For both programs, it is possible to identify most of the institutionalized persons by using representative payment data and Federal living arrangement indicators.

¹³ The comparison between disability program data and survey data implies that the two disability programs are a subset of the larger survey group. Although this is largely true, survey results show that about 9 percent (400,000 persons) of those reporting receipt of SSI or DI benefits did not claim to have any work limitation (HHS 1989).

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Technical Note

Standard Errors for Study Estimates

Estimates, based on sample data, may differ because of sampling variability from the figures that would have obtained had all, rather than specified samples, of the records been used. The standard error measures the sampling variability. About 68 percent of all possible probability samples selected with the same specifications will give estimates within one standard error of the figure obtained from compilation of all records. Similarly, about 95 percent will give estimates within two standard errors and about 99 percent will give estimates within two and one-half standard errors.

Tables I and II provide approximations of the standard errors of estimates. These estimates were used to fit regression curves to provide estimates of approximate standard errors associated with counts and proportions. Table I presents approximate standard errors for the estimated number of persons from the 10-percent sample file.

Table II presents approximations of the standard errors of the estimated percentage of persons in the 10-percent sample file. The standard errors are expressed in percent points and the bases shown are in terms of inflated data.

The standard error is useful in testing the significance of the difference between two statistics—that is, the confidence that the difference in sample estimates is a real difference and not merely due to chance. In the analyses presented in this article, differences in estimates are considered statistically significant if they equal or exceed 2.0 standard errors, the level at which a predicted difference could be expected to occur by chance less than 5 out of 100 times, or the 0.05 percent level of significance.

The standard error of the difference can be calculated from the square root of the sum of the squared standard errors of each sample estimate. For example, 36.4 percent of those with congenital

anomalies stayed in the SSI program for 10 years or more, compared with 12.6 percent of those with digestive diseases. To determine if the estimated difference of 23.8 percent is statistically significant at the 0.05 percent level of significance, the approximate standard error of the difference is computed after interpolation as follows:

$$\sqrt{(.006)^2 + (.008)^2} = .01$$

where the standard errors .6 and .8 for 36.4 percent of those with congenital anomalies and 12.6 percent of those with digestive diseases, respectively, are calculated by interpolating approximations

Table 1.—Approximation of standard errors of estimated number of persons from the 10-percent sample

Size of estimated (inflated)	Standard error
1,000.....	100
5,000.....	225
10,000.....	300
50,000.....	700
100,000.....	1,000
500,000.....	2,200
1,000,000.....	3,200
5,000,000.....	6,500

Table II.—Approximations of standard errors of estimated percentages of persons from the 10-percent file

Size of Base (inflated)	Estimated percentage					50
	2 or 98	5 or 95	10 or 90	25 or 75	50	
1,000.....	1.3	2.1	2.9	4.1	4.8	
2,500.....	.8	1.3	1.8	2.6	3	
10,000.....	.4	.6	.9	1.3	1.5	
50,000.....	.2	.3	.4	.6	.7	
100,000.....	.1	.2	.3	.4	.5	
500,000.....	(1)	.1	.1	.2	.2	
1,000,000.....	(1)	.1	.1	.1	.2	
5,000,000.....	(1)	(1)	(1)	(1)	.1	

¹Less than 0.05 percent.

of standard errors given in table II. Since the difference of

$$23.8 > 2.0 * 1.0 \text{ or } 23.8 > 2.0$$

the difference is statistically significant at 0.05 level.

If instead of testing precisely one difference between two numbers or percentages at the 0.05 level of significance one tests multiple sets of differences, each at that level, then the probability of finding a significant difference when, in fact, there is no difference, will be larger than 0.05. The test described here is at 0.05 level for a difference between two percentages or numbers.