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ABSTRACT

This report uses data from the National Health Interview Survey (n=1,792 million) to describe trends in labor force participation among persons with disabilities for the period 1983 through 1994. It examines labor force participation among persons with disabilities compared to participation among persons without disabilities, how people with disabilities associated with major categories of chronic conditions fare in the labor market, and how age and gender affect employment of persons with disabilities. Results found that during this period, men without disabilities experienced a relative decline in labor force participation by a rate of 0.6 percent, while those with disabilities experienced a 4.1 percent decline. While women without disabilities experienced a 9.7 percent increase in labor force participation, women with disabilities experienced a 21.7 percent increase, although from a lower base. By 1994, the labor force participation rates of younger men and women with disabilities (ages 18-44) were more than 20 percentage points lower than those of typical peers. The labor force participation rates of persons with disabilities differed dramatically across condition. Persons with disabilities caused by impairments and respiratory conditions had high labor force participation rates, while those with disabilities caused by mental, endocrine, and circulatory conditions had low rates. (CR)

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REPORT 10

# Disability Statistics Report

## Trends in Labor Force Participation Among Persons with Disabilities, 1983-1994



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# TRENDS IN LABOR FORCE PARTICIPATION AMONG PERSONS WITH DISABILITIES, 1983–1994

by

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## INTRODUCTION

In this report, we describe trends in labor force participation among persons with disabilities for the period 1983 through 1994. Specifically, we show how the trends in labor force participation among such persons compare to the trends among persons without disabilities, how persons with disabilities associated with each of the major categories of chronic conditions fare in the labor market compared to the remainder of persons with disabilities, and how age and gender affect employment of persons with disabilities.

The prevailing wisdom about what causes the employment prospects of persons with disabilities to rise or fall has shifted dramatically in the last four decades. Initially, the employment of persons with disabilities was viewed primarily in medical terms: a pathology or injury arose, impairment and activity limitation resulted, and the individual was forced to stop working (AMA, 1958). However, a rapid increase in the prevalence of work disability, in the absence of evidence that the prevalence of underlying pathology had also risen, suggested that characteristics of the individual and of the overall economy were causing individuals to claim disability status (Yelin, 1992). One group of analysts focused on the mismatch between the demands of the contemporary economy and the skills and experience of persons with disabilities (Luft, 1978; Berkowitz, Johnson, & Murphy, 1976; Nagi, 1976); another suggested that high income replacement rates—the ratio of disability compensation to wages—enticed persons with marginal disabilities to stop working (Parsons, 1980; Boskin & Hurd, 1978). In the early 1980s, income replacement rates were lowered, reducing the number of beneficiaries of disability compensation programs as well as the income of the remaining beneficiaries, but the proportion of persons with disabilities who left work did not decrease (Yelin, 1986; Haveman, Wolfe, & Warlick, 1982). In the last few years, the number of beneficiaries has again increased (Lewin-VHI, 1994), suggesting that the reduction in income replacement rates provided only a temporary solution to the problem of rising disability compensation rolls and did not improve the long-term employment situation of persons with disabilities (Yelin, 1992).

In recent years, analysts have begun to focus on how employment among persons with disabilities fits more general labor market trends (Yelin & Katz, 1994a; Reskin & Roos, 1990). In this line of inquiry, the employment situation of persons with disabilities is viewed in much the same way as that of other groups with labor market liabilities—women, members of minority groups, young workers newly entering employment, and older workers facing displacement. Thus, persons with disabilities, like these other groups, are thought to be prone to a last-hired, first-fired phenomenon. Indeed, disability may combine with gender, age, and race to place some persons with disabilities at even greater disadvantage than those with only disability as a labor market liability.

There have been three major changes in the labor market over the past 25 years. First, labor force participation rates have declined among men, especially among older men, while rising among women, especially among younger women (Yelin & Katz, 1994a). Second, the manufacturing sector has declined in its share of overall employment, while the service sector has increased in its share (U.S. Bureau of the Census, 1995). Third, the proportion of jobs providing full-time, career employment and health and pension benefits has declined, while the proportion of part-time work has increased (Yelin, 1992). These three sets of changes are related: men held a disproportionate share of the manufacturing jobs lost, while women hold a disproportionate share of the jobs gained in services. Manufacturing sector jobs are more likely to provide career employment and good benefits, while service sector jobs are more likely to involve part-time and/or temporary work and to confer few benefits.

In prior research, it has been shown that persons with disabilities have experienced a disproportionate share of these changes in employment (Yelin & Katz, 1994a; Yelin & Katz, 1994b). For example, older men with disabilities experienced a higher rate of decline in labor force participation rates than older men without disabilities, while younger women with disabilities saw their labor force participation rates increase even faster than those of women without disabilities. Similarly, persons with disabilities experienced a larger relative drop-off in employment in manufacturing than persons without disabilities, while also experiencing a larger relative increase in employment in services (Yelin, 1992). Finally, persons with disabilities experienced a much greater increase in part-time work than persons without disabilities; their increase in involuntary part-time work was especially pronounced (Yelin & Katz, 1994b).

Thus, the findings of the research on employment among persons with disabilities are consistent with the notion that disability does

accentuate more general labor market trends. The present report adds to this research by extending the data on labor force participation among persons with disabilities through 1994, by demonstrating the extent to which employment among persons with disabilities associated with each of the major diagnostic groups adheres to overall labor market trends, and by showing how gender and age affect the employment prospects of persons with disabilities.

## HIGHLIGHTS

- Labor force participation rates for persons with disabilities increased in the 1980s, but have not significantly changed since 1990.

- Labor force participation rates among women with and without disabilities increased substantially during the 1980s. However, while continuing to rise among women without disabilities, rates have not changed significantly among women with disabilities during the 1990s.

- Men with and without disabilities have experienced declining labor force participation rates, but men with disabilities account for a disproportionate share of that decline.

- Persons aged 18–44 with disabilities fared worse than older persons: the men in this age group had the largest declines in labor force participation of all men with disabilities, and the women in this age group had the smallest increases.

- Women aged 55–64 with disabilities due to cancer experienced the sharpest rise in labor force participation of any group under study. Between 1983 and 1994, their rates increased by 129 percent.

- Men with disabilities due to endocrine, nutrition, metabolism, and immunity disorders experienced a significant decline in labor force participation from 1991 to 1994. This reduction is in contrast to the stable rates of other men with disabilities during the 1990s.

- Labor force participation rates for persons with mental illness were more than 25 percentage points lower than those of other persons with disabilities in every year from 1983 to 1994, despite the fact that this group is, on average, younger than the typical person with a disability.

- Labor force participation rates for both men and women with disabilities due to respiratory conditions have increased since 1983, up 16 percent overall.

- Comorbidity substantially reduces the likelihood of labor force participation. In 1994, persons with more than one disabling condition had labor force participation rates just over half of those of persons with only one disabling condition (31.4 percent and 59.8 percent, respectively).

- Persons with disabilities due to neurotic disorders, multiple sclerosis, disorders of synovium, tendon and bursa, amyotrophic lateral sclerosis, and benign tumors had particularly large increases in labor force participation rates, each rising by more than 40 percent in each category between 1983 and 1994.

## METHODS

This report is based on data from the National Health Interview Survey (NHIS). The NHIS, conducted annually by the Census Bureau for the National Center for Health Statistics, is a cross-sectional survey of the civilian non-institutionalized population of the United States. In the NHIS, respondents provide self-reported data on general health status, medical conditions, activity limitations, use of medical care, employment status, and demographic characteristics. The survey has been administered since 1957, but changes in the questions regarding activity limitation in 1982 limit the comparability of estimates of the prevalence of disability before and after that year. Accordingly, we report trends from 1983 through 1994, the most recent year for which data are available. While the NHIS includes respondents of all ages, this report focuses only on those aged 18–64, the traditional working ages.

In this report, disability refers to a limitation in one's ability to perform life activities due to a chronic condition. The major life activities for persons aged 18–64 could include working, going to school, or keeping house, but NHIS respondents may also report limitation in non-major life

activities; in this report, such a limitation is classified as a disability, as well. A chronic condition is generally one that has lasted more than three months, although the NHIS automatically classifies certain conditions as chronic regardless of the onset date. Thus, a disabling condition is one that, according to the survey participant, is partially or completely responsible for that person's activity limitation. In the NHIS, any respondent naming more than one disabling condition also indicates which one is the main cause of disability. Conditions in the NHIS are coded according to a modified version of the *Ninth International Classification of Diseases (ICD-9)* (U.S. Department of Health and Human Services, 1990). We have grouped these codes into 12 major diagnostic categories: i) impairments, which are congenital or acquired deficits in bodily structure or function, such as hearing loss, absence of limbs, paralysis, and mental retardation; ii) neoplasms, which include cancers and benign tumors; iii) endocrine, nutritional, and metabolic diseases and immunity disorders; iv) mental illness; v) diseases of the nervous system and sense organs; vi) diseases of the circulatory system; vii) diseases of the respiratory system; viii) diseases of the digestive system; ix) diseases of the genitourinary system; x) diseases of the musculoskeletal system and connective tissue; xi) injuries and poisonings not involving impairment; and xii) a residual category for all other conditions. This classification scheme closely follows the chapter headings of the ICD-9; consult *Disability in the United States: Prevalence and Causes, 1992* (LaPlante & Carlson, 1996) for further detail.

The labor force participation rate (LFPR)—the percentage of the total population currently in the labor force—is a primary measure in labor market analysis. In the NHIS, labor force status is ascertained for the two weeks preceding the interview. A person who had a job, was on temporary layoff, or was looking for work during those weeks is considered to be in the labor force. Another measure of interest is the employment rate: the percentage of the total population with a job. However, we do not report trends in employment rates here because we found them to parallel labor force participation trends for all conditions and age groups, and for both men and women.

The NHIS follows a multistage probability design that allows for continuous sampling and reliable population estimates (Benson & Marano, 1994). The complex design precludes calculating standard errors with statistical software packages that rely on assumptions of simple random sampling. Instead, we calculate standard errors for all estimates with SUDAAN version 6.40 (Shah, et al., 1992), which uses the Taylor series linearization method. Estimates with a relative standard error greater than 30 percent are marked with an asterisk in the detailed tables to indicate their low level of reliability. Tables of standard errors that correspond to all estimates presented in the tables are available from the authors by request.

We use a summary measure of the relative change in LFPR over the entire period. To calculate this measure, we fit a linear regression model to the 12 annual rates, using the weighted least squares method to take into account differences in variance from year to year (Wonnacott & Wonnacott, 1979). The total change is estimated as the difference between the predicted rate in 1994 and the predicted rate in 1983. We then calculate the relative change by dividing this estimate of the total change in LFPR by the observed rate in 1983.

To determine whether the predicted trendline has a slope significantly different from zero, we calculate one chi-square statistic for the fitted line from the full model and another from a constrained model, in which the slope is set to zero. The difference between these two values, called a restricted chi-square, has a chi-square distribution itself, with one degree of freedom (Fleiss, 1981). Large values of the restricted chi-square mean that the observed pattern of rates would be unlikely to occur by chance alone, indicating a significant trend in LFPR during the period under study.

Because some diagnostic groups are rare in the population, annual estimates of LFPR for persons with these conditions have relatively large statistical errors. Annual labor force participation rates are shown in Figures 1–16 along with lines derived by smoothing the data, using a technique suggested by Selvin (1991) that combines median smoothing and running averages for intervals of three years. This smoothing procedure may suggest shorter term trends than would be revealed by a linear fit to the entire twelve-year period. A two-tailed test of the differences in rates is used to detect significant year-to-year changes that differ from the overall trend at the 95 percent level of confidence.

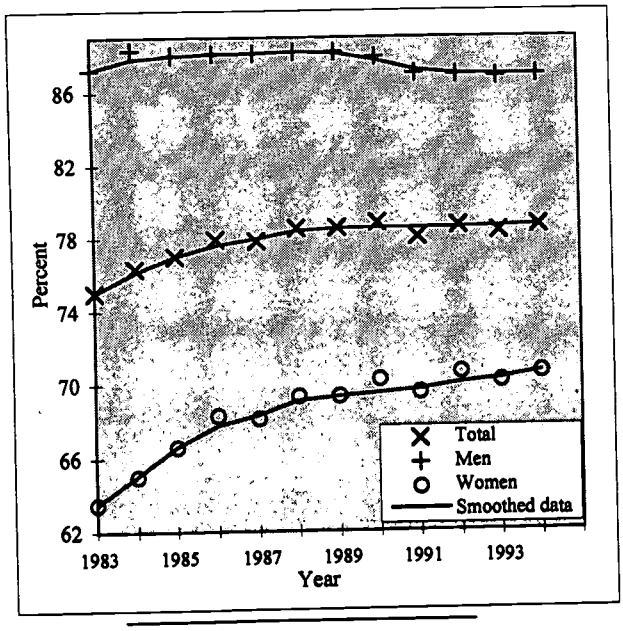
## FINDINGS

### Trends in Labor Force Participation Among Working-Age Persons, 1983–1994

Labor force participation rates among working-age persons (aged 18–64) increased steadily during the years 1983 through 1994, although the pace of the increase slackened during the early 1990s (Figure 1). Labor force participation rates showed a relative increase of 3.8 percent over the entire period, reaching 78.6 percent by 1994 (Table 1).

Women entering the labor market accounted for most of the increase in labor force participation rates among working-age persons. Women's labor force participation increased steadily and substantially during most of the 1980s; the pace of the increase lessened, however, during the economic slowdown of the late 1980s and early 1990s (Figure 1).

**Figure 1. Labor Force Participation Rate, by Gender, 1983–1994.**




The long-term trend in labor force participation among men, on the other hand, is relatively static, with a slight but significant decline from 1989–1991 offsetting a slight increase prior to that. Labor force participation rates among men have remained stable since 1991.

As a result of the increase in labor force participation rates among women and the relative stability in these rates among men, the ratio of women's to men's labor force participation rates increased from 0.73 in 1983 (63.5 percent among women vs. 87.2 percent among men) to 0.81 in 1994 (70.6 percent among women vs. 86.9 percent among men). Labor force participation rates had a relative increase of 10.0 percent among women between 1983 and 1994, while decreasing by 1.3 percent among men (Table 2).

The slight decline in the labor force participation rate among all men masks a more substantial decline among older men aged 55–64 (Figure 2). Labor force participation rates of older men declined by 3.8 percent, while for younger (18–44) and middle-aged (45–54) men, the declines were much smaller.

In contrast, older and middle-aged women experienced substantial increases in labor force participation rates during the 1980s (Figure 2). Beginning in the early 1990s, however, the rate of increase slackened for women in both age groups. Nevertheless, labor force participation rates increased by 17.0 and 17.4 percent among older and middle-aged women respectively over the entire period (Table 2). The pattern among younger women was similar, although the increase in their labor force participation rates ceased four or five years earlier than for middle-aged and older women. At the end of the period under study, approximately three-quarters of middle-aged and younger women were in the labor force, as were just under half of older women.

### Labor Force Participation Among Persons with Disabilities, 1983–1994

The trends in labor force participation among persons with and without disabilities have followed relatively similar patterns since 1983. For both groups, labor force participation rates increased steadily during the 1980s and changed little in the 1990s (Figure 3). The relative change in labor force participation rates over the entire period is also similar for persons with and without disabilities—6.4 percent and 4.2 percent, respectively (Table 1).

Throughout the period under study, labor force participation rates among persons with disabilities ranged from 49 to 52 percent, about 30 percentage points lower than those of persons without disabilities. Thus, only half of people with disabilities participate in the labor force. As of 1994, for persons with disabilities to achieve the labor force participation rate of persons without disabilities, 7.8 million out of the 10.8 million people with disabilities not currently in the labor force would have to enter the labor market.

Figure 2. Labor Force Participation Rate, by Age and Gender, 1983–1994.

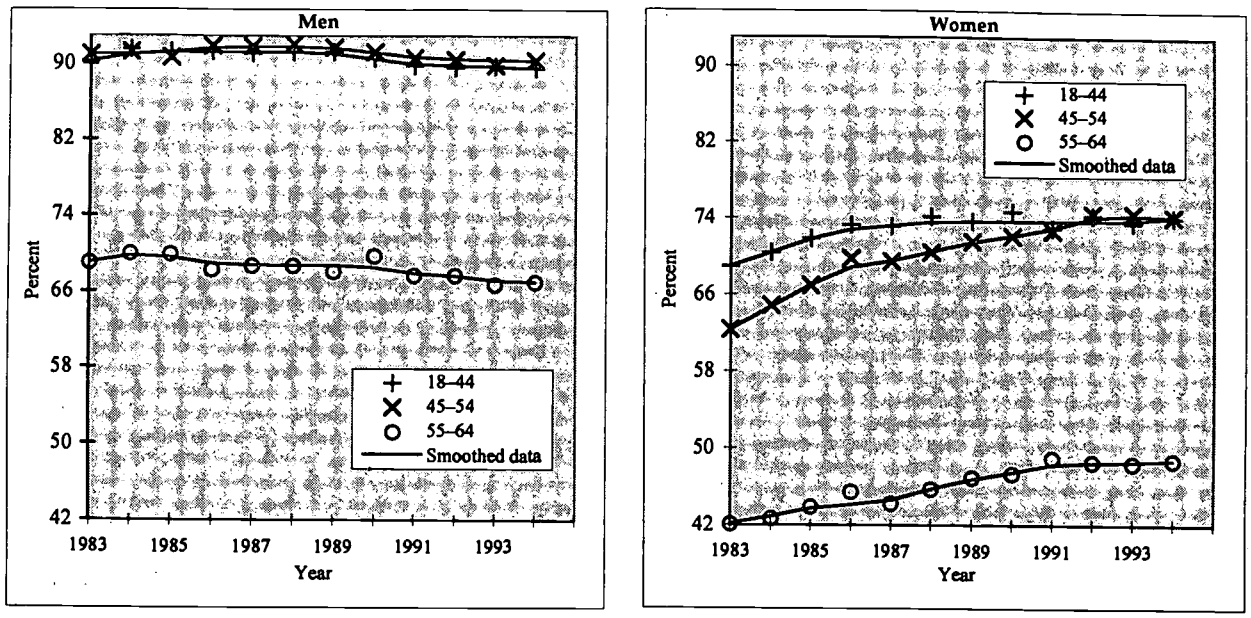
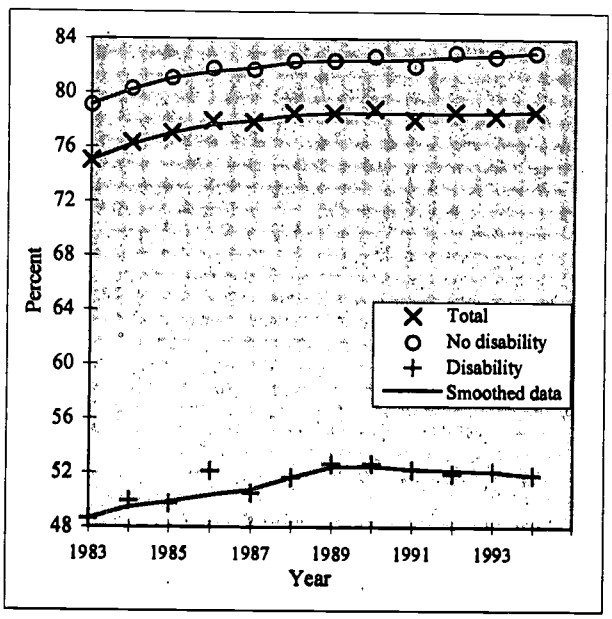



Figure 3. Labor Force Participation Rate, by Disability Status, 1983–1994.




## Gender and Disability Status

Labor force participation rates for women with and without disabilities increased substantially during most of the 1980s, leveling off toward the end of the decade. Subsequently, the patterns of the two groups diverged: labor force participation rates again began to increase among women without disabilities, while women with disabilities experienced no such increase (Figure 4). Nevertheless, over the entire period of study, the relative increase in labor force participation rates among women with disabilities (21.7 percent) exceeded the increase among women without disabilities (9.7 percent), albeit from a lower base (Table 2).

Among men with and without disabilities alike, labor force participation rates remained relatively stable during much of the 1980s, declined in the recession of 1990–1991, and leveled off afterwards (Figure 4). However, labor force participation rates for men with disabilities decreased by 4.1 percent over the entire period, compared with a relative decline of 0.6 percent for men without disabilities. Men with disabilities thus account disproportionately for the decline in the labor force participation of all men between 1983 and 1994, and women account for all of the increase in labor force participation rates among persons with disabilities.

*Gender, Age, and Disability Status.* In contrast to men without disabilities aged 18–44, who showed no significant change in labor force participation

**Figure 4. Labor Force Participation Rate, by Disability Status and Gender, 1983–1994.**

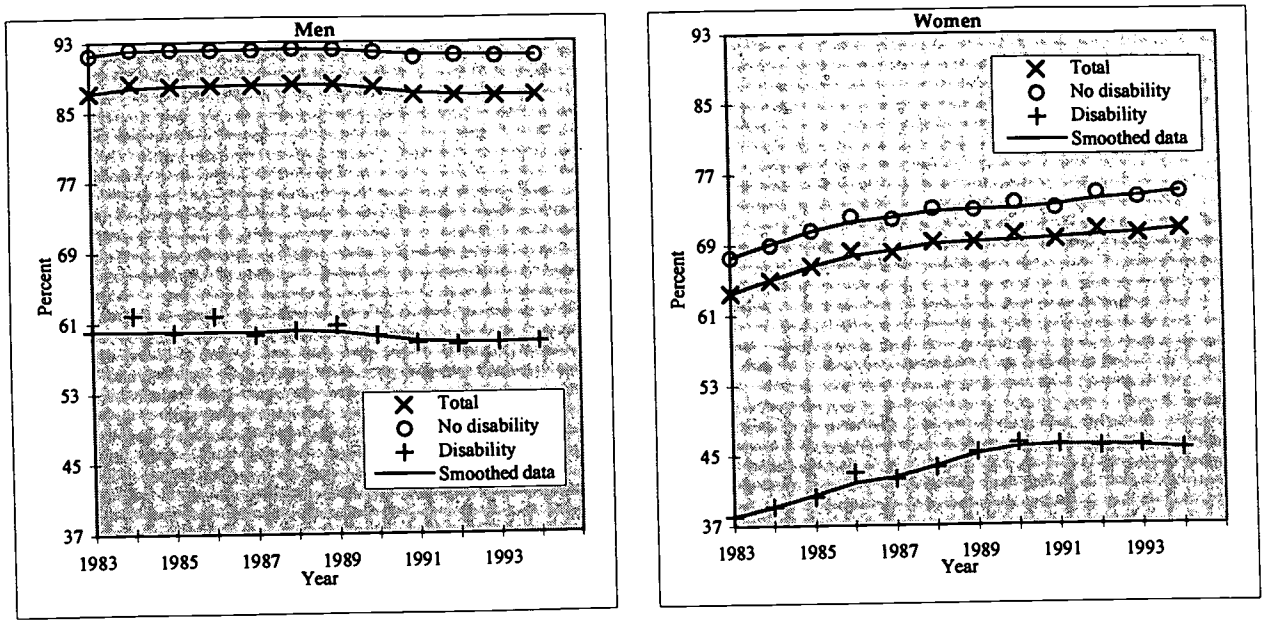
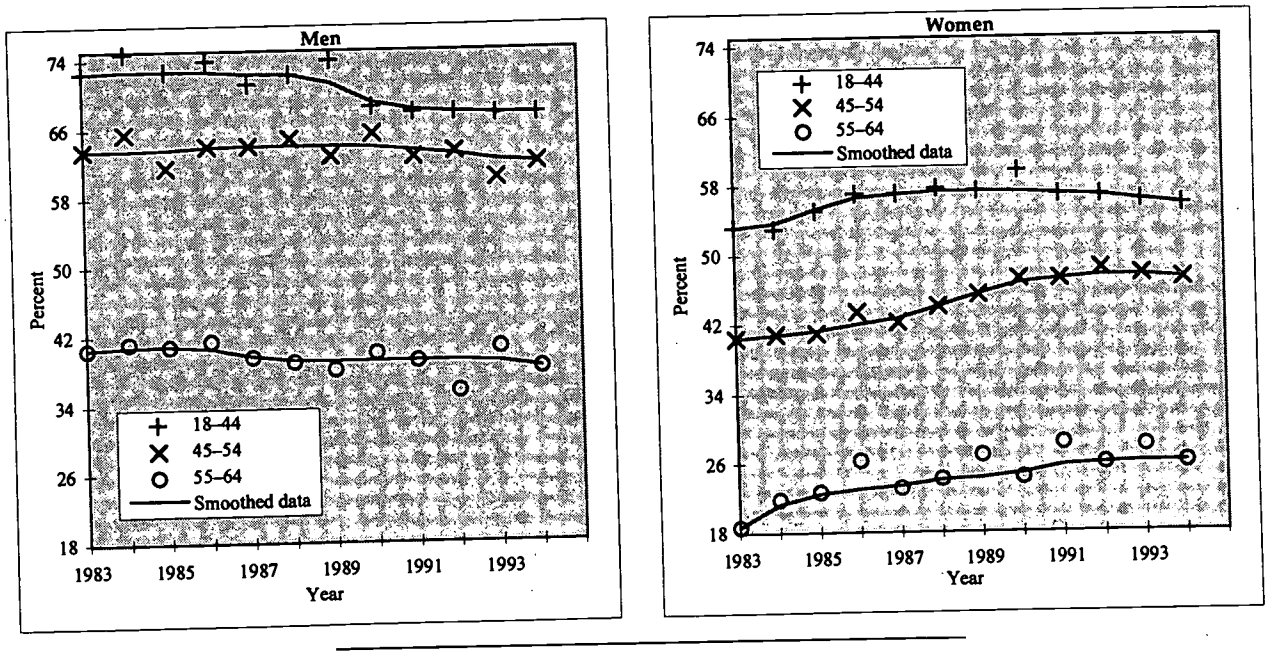



**Figure 5. Labor Force Participation Rate for Persons with Disabilities, by Age and Gender, 1983–1994.**




rates between 1983 and 1994, men in this age group with disabilities experienced a relative decline of 9.7 percent in labor force participation rates (Table 2). As discussed in the introduction, younger men with disabilities fared better than their older counterparts before 1983, but in the current period, this age group had the greatest relative decline in labor force participation. Young men with disabilities also endured the sharpest fall-off in labor force participation rates during the 1990–91 recession (Figure 5). Thus, it appears that younger men with disabilities experienced both cyclical and long-term changes in employment to a greater degree than older men with disabilities or than men without disabilities of any age.

The labor force participation rates of women

with disabilities in all three age groups have remained relatively stable since 1990 (Figure 5). The slight decline apparent in the 1990s among women with disabilities aged 18–44 does not reach statistical significance.

Although women with disabilities in all age groups experienced improvement in labor force participation rates over the entire period of study, the relative increase was greatest among older women—39.0 percent; rates for middle-aged and younger women increased by 21.3 and 5.5 percent, respectively (Table 2). Older women with disabilities also had much larger increases in labor force participation relative to those in this age group without disabilities (13.0 percent); there were no substantial differences based on disability status for the two younger age groups. This pattern also represents a change from analyses of earlier periods, in which younger women with disabilities made larger gains in labor force participation than older women with disabilities and than younger women without disabilities.

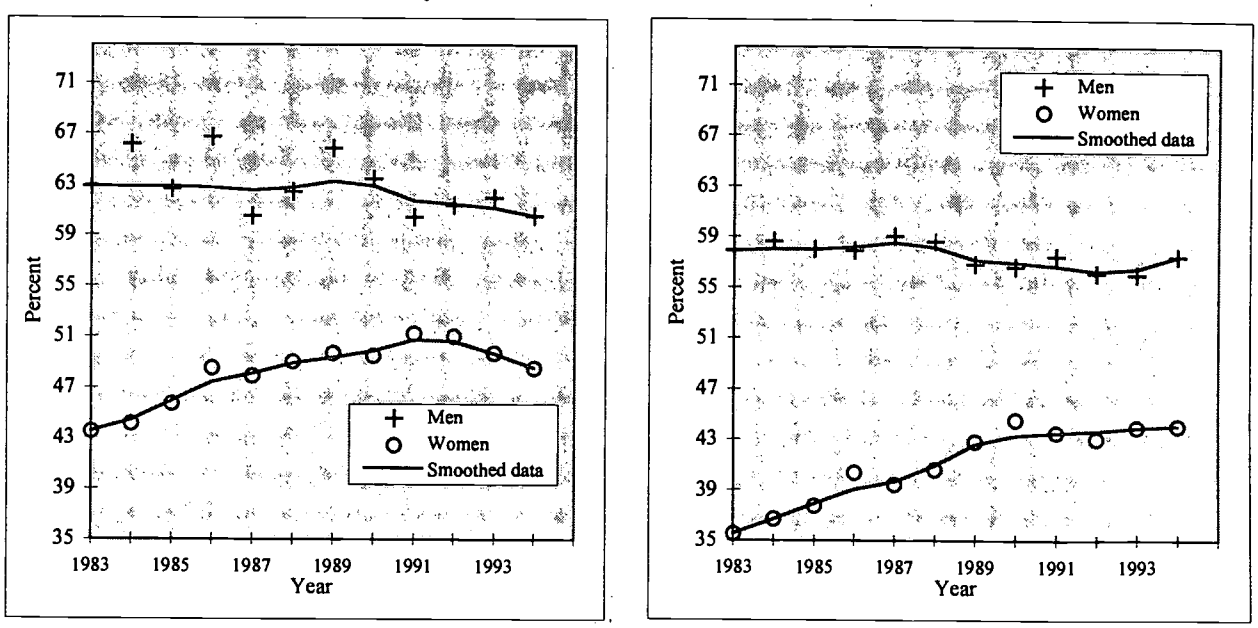
Younger men with disabilities experienced larger declines in labor force participation rates than middle-aged and older men with disabilities, while younger women with disabilities had the smallest increases of all women with disabilities. Thus, the growing disparity in labor force participation between persons with and without disabilities appears to be having its greatest impact on younger persons with disabilities.

### Labor Force Participation Among Persons with Disabilities Caused by Major Disease Groups, 1983–1994

In this section, we report on trends in labor force participation among persons with disabilities by major diagnostic groups. For each category, we compare employment patterns for people with disabilities who report a condition in that category as a cause of activity limitation to the patterns for all other persons with disabilities (i.e., those who do not report a limiting condition in that category).

*Impairments*. This group of conditions includes congenital or acquired deficits in bodily function or structure, such as hearing loss, absence of limb, paralysis, or mental retardation. Persons with disabilities caused by impairments have higher labor force participation rates than those with disabilities due to all other conditions (Figure 6). Persons with impairments are younger (56.9 percent are 18–44 compared to 47.2 percent of all persons with disabilities, Appendix Table); they may also tend to be in better health than those who report disability due to other conditions, which are predominantly chronic illnesses. These differences

**Figure 6. Labor Force Participation Rate for Persons with Disabilities due to Impairments and for All Other Persons with Disabilities, by Gender, 1983–1994.**




Impairments

All Other Disabling Conditions

in age and health status partly account for the variation in labor force participation rates between persons with disabilities caused by impairments and all other persons with disabilities. The labor force participation rate of people with impairments increased by only 1.3 percent, which is not statistically significant (Table 1). However, this figure masks a significant decline for men (5.2 percent) and a significant increase for women (13.4 percent). The patterns of labor force participation for men with disabilities due to impairments and for other men with disabilities appear substantially the same, showing a small decline over the entire period. The relative decrease of 5.2 percent among all men with impairments is strongly influenced by the significant decline of 8.5 percent by younger men in this category; the older two age groups show no significant trend (Table 2).

In the 1980s, both women with impairments and the remainder of women with disabilities had increasing labor force participation rates (Figure 6). Beginning in 1991, however, rates for women with impairments began to decline, a trend that approaches statistical significance and is not apparent for the remainder of women with disabilities. The 13.4 percent relative increase in labor force participation rates for women with impairments is due entirely to increases among middle-aged and older women; rates for younger women with impairments did not change significantly between 1983 and 1994 (Table 2). Thus, both younger women and younger men with disabilities due to impairment have fared worse than their older counterparts. Of the 9.5 million persons aged 18–44 who have disabilities, 4.5 million have disabling impairments (Appendix Table). This would indicate that the experiences of younger persons with impairments likely account for much of the finding, noted earlier in this report, that all younger persons with disabilities fared less well than older or middle-aged persons.

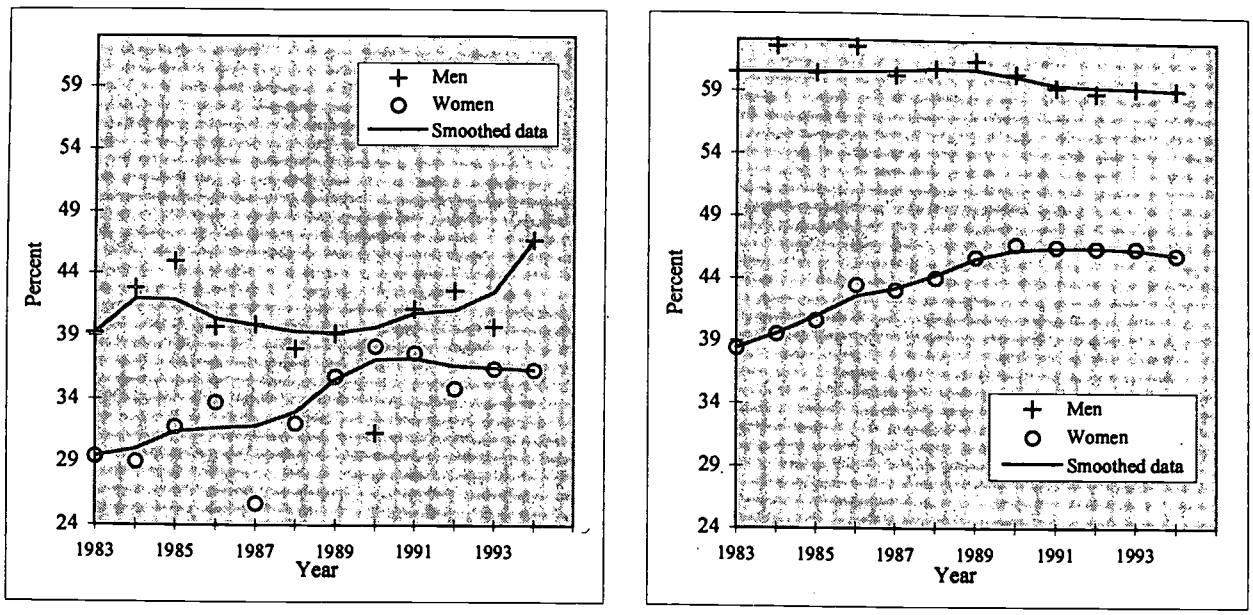
*Neoplasms*. Neoplasms include all cancers, benign tumors, and other non-cancerous or pre-cancerous growths. Labor force participation rates were lower for persons with disabilities attributed to neoplasms than for other persons with disabilities (Figure 7). This was particularly true for men with neoplasms, whose labor force participation rates were nearly 20 percentage points lower in most years than those of other men with disabilities.

People with disabilities due to neoplasms had an increase in labor force participation of 18.4 percent (Table 1). Men with disabilities attributed to neoplasms had flat labor force participation rates over the entire period (Table 2); the increase apparent on the graph during the 1990s is not significant. However, men aged 45–54 had a relative decrease of 34.7 percent in labor force participation between 1983 and 1994. Women experienced an increase of 31.1 percent during this time, due overwhelmingly to older women whose labor force participation rates rose by 129 percent, the largest increase of any group under study.

*Endocrine, Nutrition, Metabolism, and Immunity-related Disorders*. The absolute level of labor force participation rates of men and women with disabilities due to endocrine, nutrition, metabolism, and immunity disorders was far below that of the remainder of persons with disabilities (Figure 8). Labor force participation rates for people in this category have remained relatively stable since the early 1980s (Table 1). For women with these conditions, the stability is in contrast to the increases experienced by women with disabilities caused by other conditions.

Men with disabilities caused by conditions in this diagnostic category—like their counterparts with disabilities due to other conditions—showed no clear rising or falling trend in labor force participation rates during the 1980s. But, while rates for the latter group were relatively stable in the 1990s, men with disabilities due to endocrine, nutrition, metabolism, and immunity disorders experienced a significant decline in labor force participation from 1991 to 1994. Among all the age and gender groups in this category, only men aged 18–44 showed a significant trend over the entire period, with a relative decline of 24.4 percent since 1983 (Table 2).

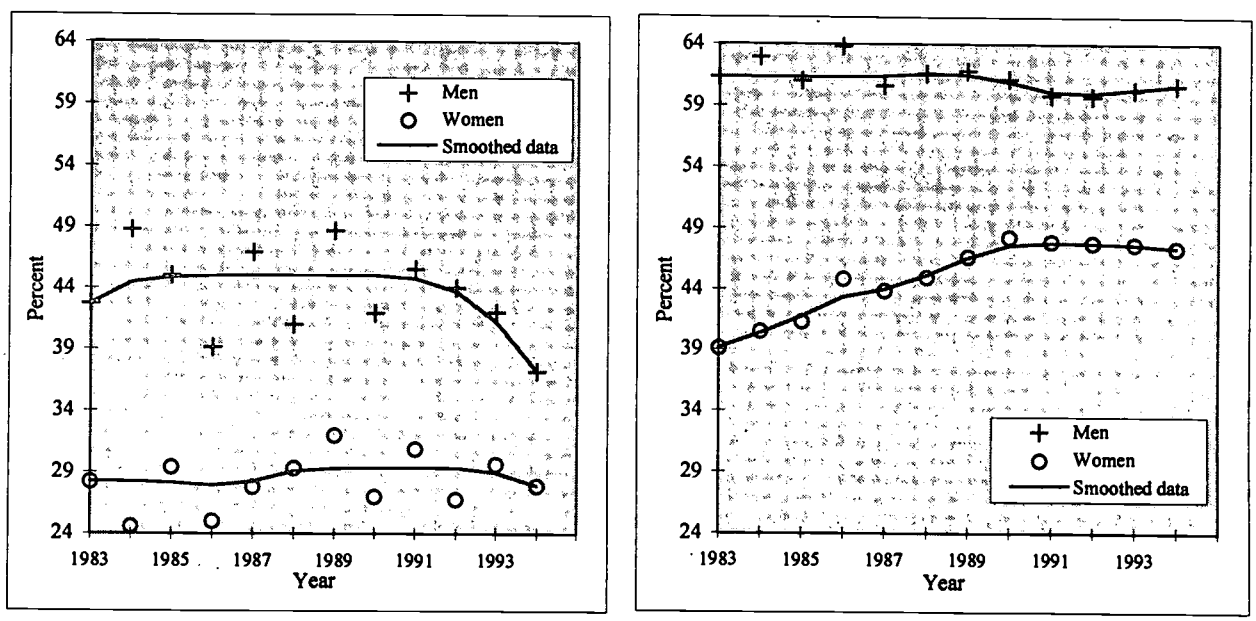
**Figure 7. Labor Force Participation Rate for Persons with Disabilities due to Neoplasms and for All Other Persons with Disabilities, by Gender, 1983–1994.**




Neoplasms

All Other Disabling Conditions

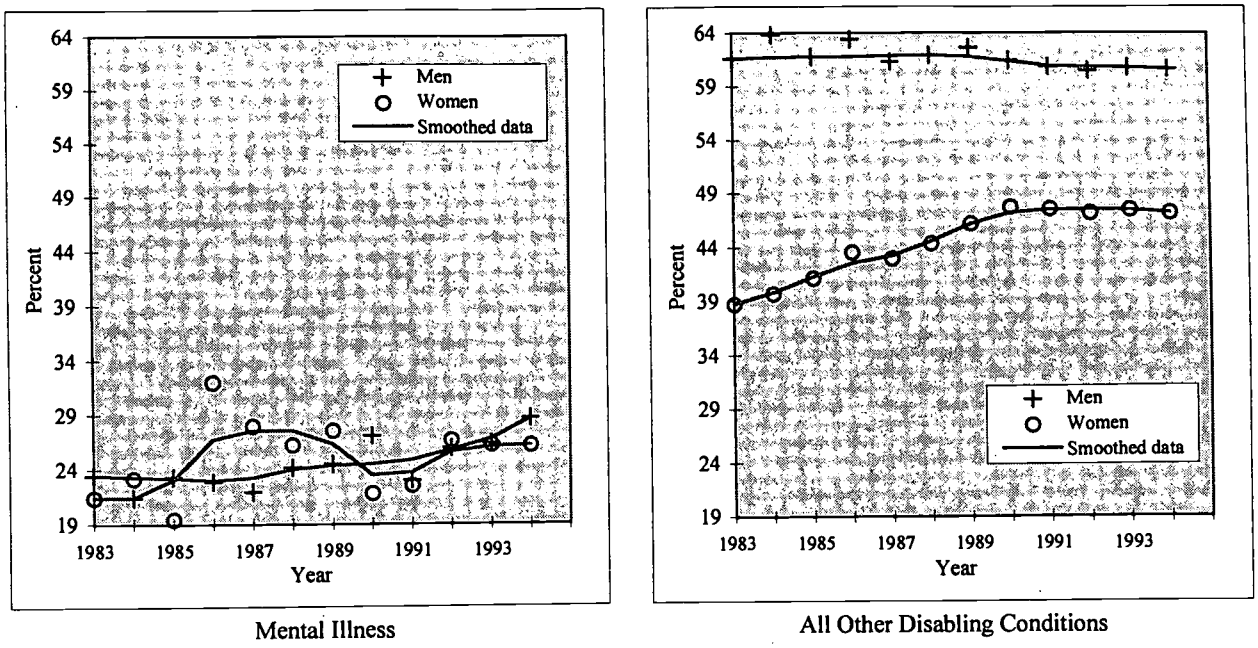
**Figure 8. Labor Force Participation Rate for Persons with Disabilities due to Endocrine, Nutrition, Metabolism, and Immunity Disorders and for All Other Persons with Disabilities, by Gender, 1983–1994.**




Endocrine, Nutrition, Metabolism, and Immunity Disorders

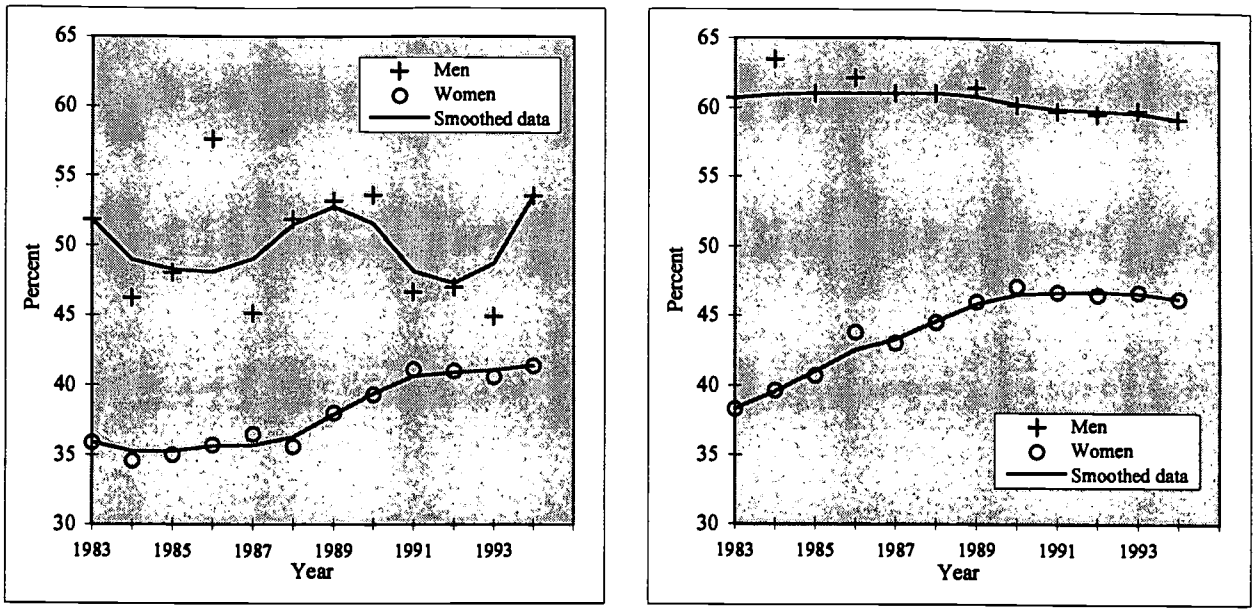
All Other Disabling Conditions

**Figure 9. Labor Force Participation Rate for Persons with Disabilities due to Mental Illness and for All Other Persons with Disabilities, by Gender, 1983–1994.**




*Mental Illness.* Labor force participation rates for persons with disabilities caused by mental illness are striking for two reasons. First, both the magnitude and the temporal pattern of the rates are very similar for men and women (Figure 9). Second, the labor force participation rates of persons with disabilities attributed to mental illness lag far behind those of others with disabilities, a situation that is more pronounced among men. Given that persons with mental illness are more likely to be in the youngest age group than other persons with disabilities (Appendix Table), they would be expected to have higher rates of labor force participation. However, the labor force participation rates of persons under age 45 with disabilities due to mental illness consistently fall far below the rates of all persons with disabilities in this age group (Table 2). While labor force participation rates increased overall by 18.0 percent for people with disabling mental illness (Table 1), no statistically significant changes in rates are observed for the entire time period by age or gender.

**Figure 10. Labor Force Participation Rate for Persons with Disabilities due to Nervous System and Sense Organ Disorders and for All Other Persons with Disabilities, by Gender, 1983–1994.**

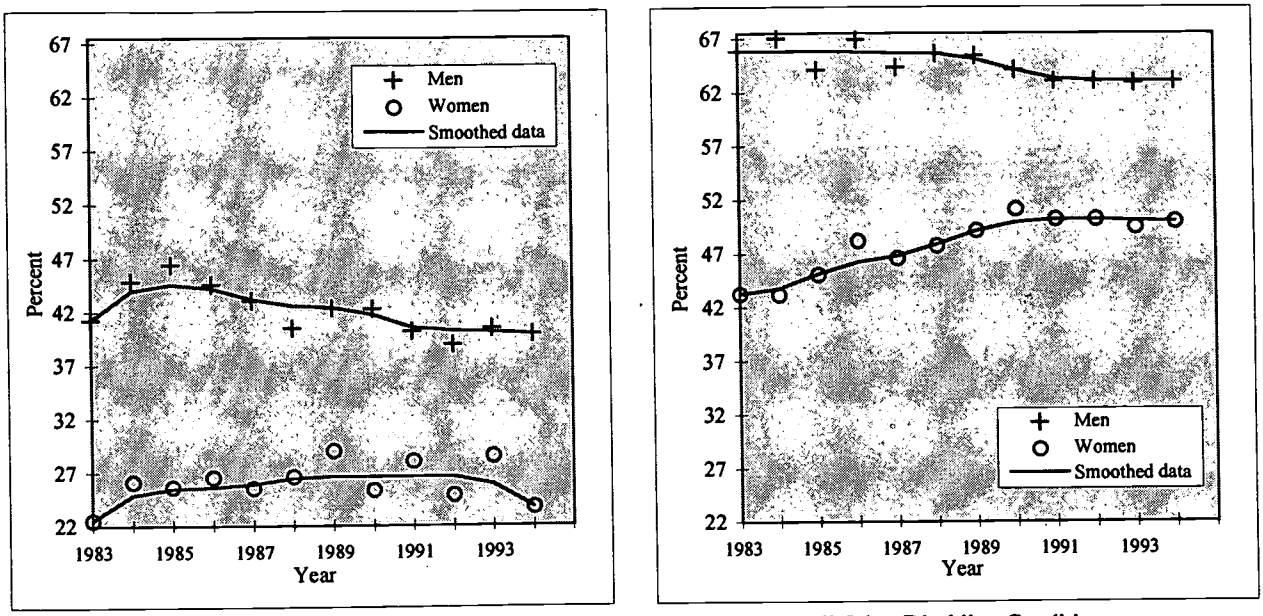



Nervous System and Sense Organ Disorders

All Other Disabling Conditions

*Nervous System and Sense Organ Disorders.* The trends in labor force participation rates for women with disabilities attributed to nervous system and sense organ disorders resemble those of the remainder of women with disabilities (Figure 10). The proportion in the labor market of people with disabilities caused by these conditions rose by 8.1 percent (Table 1) but showed no net change for men throughout the period under study (Table 2). Labor force participation for women with disabilities caused by these conditions, like that of other women with disabilities, increased in the 1980s and leveled off in the 1990s. From 1983 to 1994, labor force participation rates increased by 20.5 percent among women. Once again, the labor force participation rates of women aged 55 to 64 accounted for most of this increase, rising by 44.2 percent.

**Figure 11. Labor Force Participation Rate for Persons with Disabilities due to Circulatory System Disorders and for All Other Persons with Disabilities, by Gender, 1983–1994.**



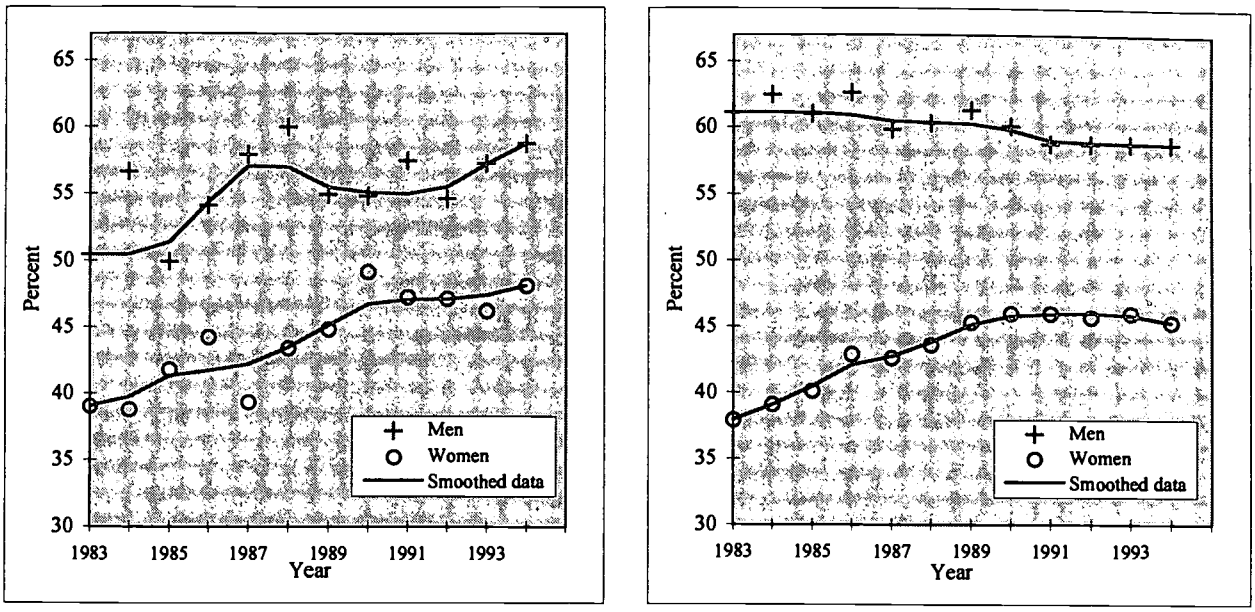

Circulatory System Disorders

All Other Disabling Conditions

*Circulatory System Disorders.* Labor force participation rates among all persons with disabilities caused by circulatory system disorders did not significantly change between 1983 and 1994 (Table 1). Men in this group experienced a relative decline of 11.3 percent (Table 2), which is statistically significant. Declines occurred among men at all ages, but were statistically significant among the youngest and oldest age groups (17.6 and 18.3 percent, respectively).

In comparison to persons with disabilities caused by other conditions, those with disabilities due to circulatory system disorders had lower rates of labor force participation, (Figure 11), owing partly to the fact that this group is more likely to be in the oldest age group (Appendix Table). Women with disabilities due to circulatory disorders did not have the increase in labor force participation experienced by other women with disabilities. The pattern for men with disabilities caused by circulatory system disorders was very similar to that of the remainder of men with disabilities.

**Figure 12. Labor Force Participation Rate for Persons with Disabilities due to Respiratory System Disorders and for All Other Persons with Disabilities, by Gender, 1983–1994.**

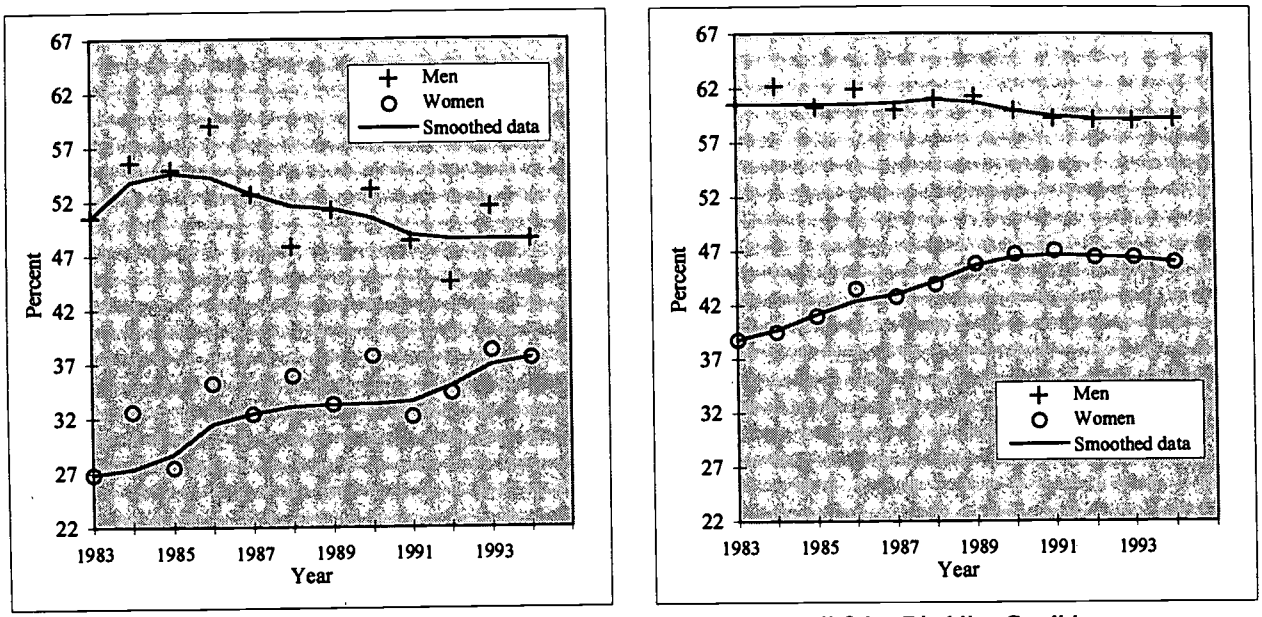



Respiratory System Disorders

All Other Disabling Conditions

*Respiratory System Disorders.* Labor force participation rates among people with disabilities due to respiratory system disorders have increased since 1983, rising by 15.6 percent overall (Table 1) and by 10.0 percent for men and 25.0 percent for women (Figure 12 and Table 2). While this rising trend is also apparent for the remainder of women with disabilities, the pattern for men with disabilities due to respiratory conditions is markedly different from that of other men with disabilities, whose rates have decreased slightly since 1983.

**Figure 13. Labor Force Participation Rate for Persons with Disabilities due to Digestive System Disorders and for All Other Persons with Disabilities, by Gender, 1983–1994.**

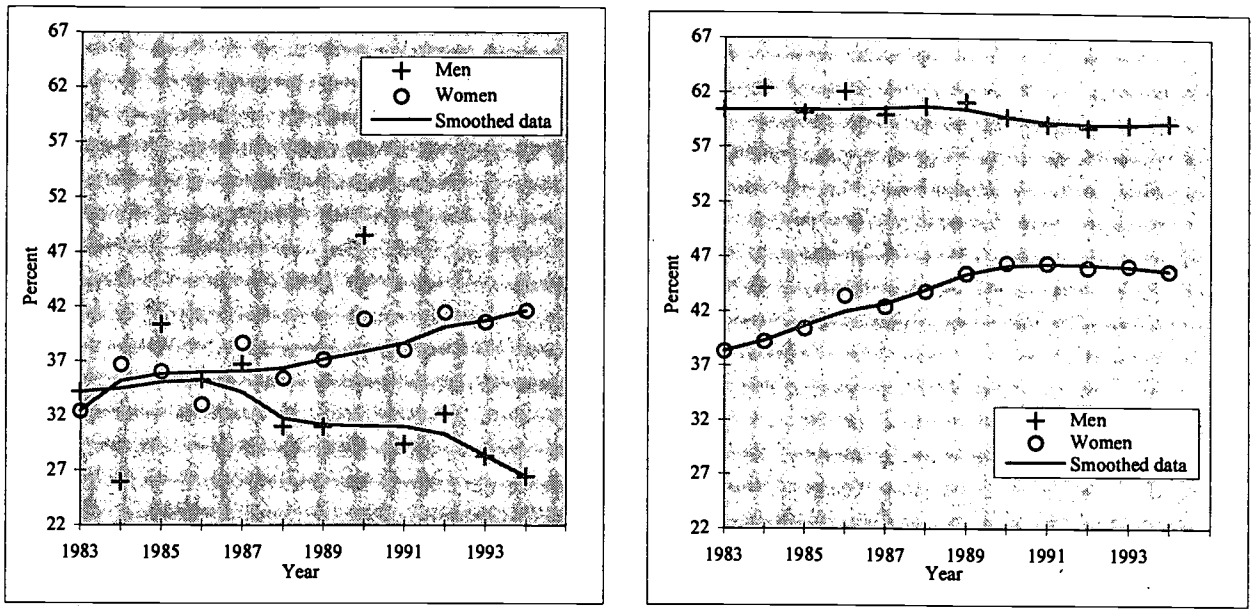



Digestive System Disorders

All Other Disabling Conditions

*Digestive System Disorders.* Labor force participation did not increase significantly for people with disabling digestive disorders overall (Table 1), but it did for women. Rates of labor force participation among women with disabilities due to digestive system disorders increased by 32.1 percent between 1983 and 1994 (Table 2). Despite this increase, however, the 1994 labor force participation rate of women with disabilities due to digestive system conditions was 8 percentage points below the rate of other women with disabilities (Figure 13). For men with disabilities caused by digestive system disorders, the pattern of labor force participation did not change significantly between 1983 and 1994 (Table 2). The absolute level of their labor force participation was, however, lower than that of other men with disabilities.

**Figure 14. Labor Force Participation Rate for Persons with Disabilities due to Genitourinary System Disorders and for All Other Persons with Disabilities, by Gender, 1983–1994.**



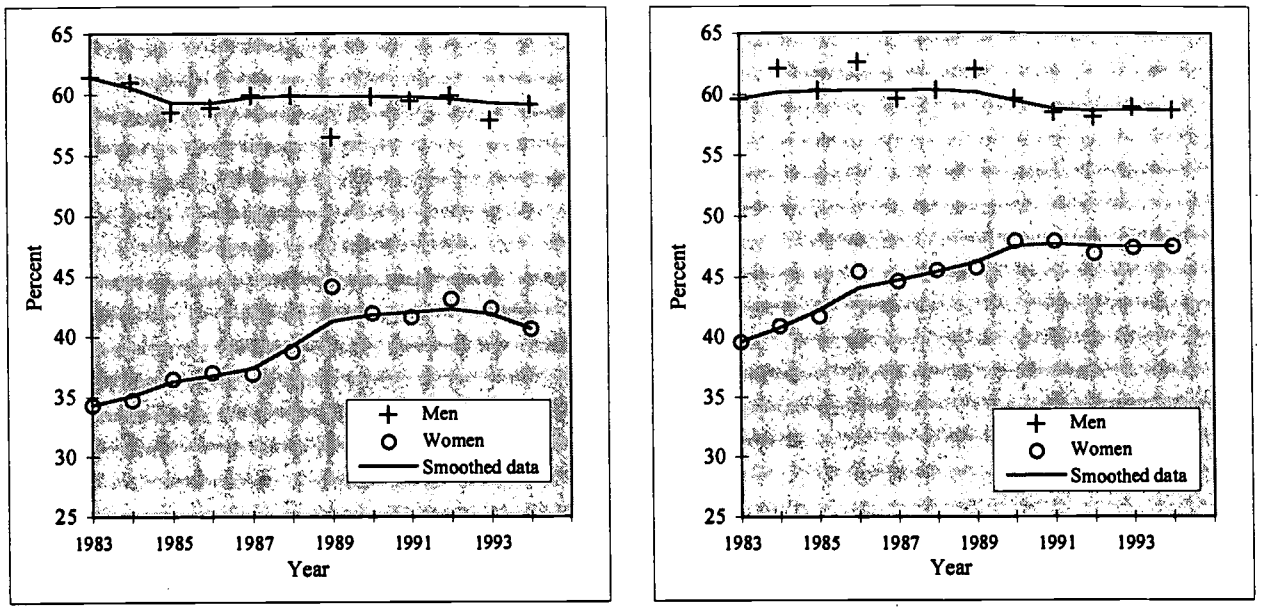

Genitourinary System Disorders

All Other Disabling Conditions

*Genitourinary System Disorders.* The labor force participation of persons with disabilities caused by genitourinary system disorders increased by 14.0 percent (Table 1). In numbers, women predominate in this group over men (Appendix Table), and the trend pattern is unique in that women in this group increasingly fare better than their male counterparts (Figure 14). Labor force participation increased by 24.6 percent for women (Table 2).

Through most of the 1980s, labor force participation rates for men and women with genitourinary conditions were similar in both magnitude and temporal pattern. At the end of the decade, however, rates for men appear to take a downward turn, while rates among women continued to increase.

**Figure 15. Labor Force Participation Rate for Persons with Disabilities due to Musculoskeletal System Disorders and for All Other Persons with Disabilities, by Gender, 1983–1994.**



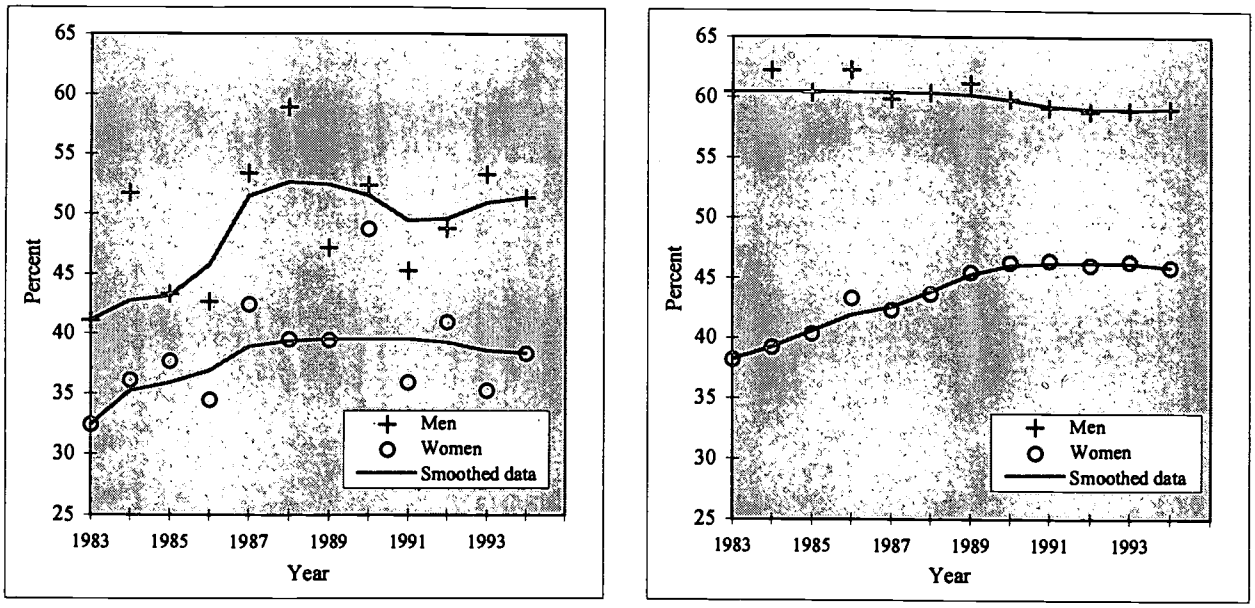

Musculoskeletal System Disorders

All Other Disabling Conditions

*Musculoskeletal System Disorders.* Labor force participation of persons with disabilities caused by musculoskeletal system disorders increased by 10.6 percent overall (Table 1), and the trend looks very similar in both magnitude and temporal pattern to that for persons with disabilities related to all other conditions (Figure 15). Over the course of the twelve years, labor force participation rates for women with disabilities caused by musculoskeletal conditions increased by 25.5 percent (Table 2). Most of this increase was due to gains among women aged 45 to 54 and those aged 55 to 64, whose rates increased by 21.3 percent and 33.6 percent, respectively. There was no significant net change in labor force participation rates for men aged 55–64. However, younger and middle-aged men did experience significant declines in labor force participation of 11.7 and 9.2 percent, respectively.

*Disabilities Due to Injury and Poisoning.* The labor force participation rates of persons with disabilities caused by injury and poisoning do not show a statistically significant trend (Table 1), and are somewhat lower than those of other persons with disabilities (Figure 16). For women in this diagnostic category, the trend in labor force participation rates is similar to that of women with disabilities caused by other conditions. Among men in this group, only those aged 45 to 54 experienced a significant net change in labor force participation; their rates increased by 83.0 percent from 1983 to 1994 (Table 2).

**Figure 16. Labor Force Participation Rate for Persons with Disabilities due to Injury or Poisoning and for All Other Persons with Disabilities, by Gender, 1983–1994.**




Disabilities Due to Injury or Poisoning

All Other Disabling Conditions

**Labor Force Participation Among Persons with Disabilities Categorized by the Main Cause of Activity Limitation, 1983–1994**

In the preceding analyses, we presented estimates by the major diagnostic categories in which a condition was identified as *a cause* of activity limitation. In this section, only those conditions identified as *the main cause* of activity limitation are included in the category. For Table 3, we stratify the respondents according to the presence or absence of comorbidity, (i.e., a secondary cause of activity limitation in another diagnostic category). When people report more than one condition as a cause, this analysis is focused on the condition that the individual considers most important. Generally, people who report more than one disabling condition will have lower labor force participation. By separating them from those with just one condition, we are able to isolate the effect of multiple conditions on labor force participation.

The majority of working-age persons with disabilities report only one condition causing activity limitation. In 1994, 59.8 percent of this group were in the labor force (Table 3). As expected, comorbidity substantially reduces the likelihood of labor force participation; the rate for persons with more than one condition causing activity limitation was only 31.4 percent in 1994. This pattern holds for all the diagnostic categories included in this report.

Between 1983 and 1994, labor force participation increased both for persons with one condition causing activity limitation and for those with more than one such condition, rising by 5.2 percent and 7.5 percent, respectively. Generally, the trends by main-cause diagnostic group mirror those observed for all causes. However, within some of the diagnostic categories, there are differences in trends associated with comorbidity. Among persons with disabilities due to neoplasms alone, labor force participation rates showed a significant relative increase of 21.0 percent; there was a small, statistically insignificant decline in rates among those with neoplasms and other conditions. Thus, labor force participation has improved most among people disabled only by neoplasms. Those with comorbid conditions have much lower labor force participation—only 21.1 percent in 1994—and may represent a population that is more ill. For persons with mental illness who report no other disabling conditions, labor force participation rates rose by 19.7 percent. Persons in this category who report a

secondary condition showed a larger, but not significant, increase, likely due to the small size of this subgroup. For persons with disabilities due to respiratory conditions, both those with and those without secondary conditions had significant increases in labor force participation, which rose by 20.7 and 15.2 percent, respectively. Respiratory conditions constituted the only category in which persons with secondary disabling conditions had a significant change in labor force participation between 1983 and 1994.

**Labor Force Participation Among Persons with Disabilities Due to Selected Discrete Conditions, 1983–1994**

In Table 4 we report labor force participation rates from 1983 through 1994 for persons with disabilities who attribute the main cause of their disability to the 50 discrete conditions most prevalent in 1994. This enables us to see what particular conditions are behind the trends observed for the broader diagnostic groups discussed above. The five most prevalent conditions in 1994 were impairments of the back or neck, intervertebral disc disorders, impairments of the lower extremities, heart disease, and osteoarthritis; they account for 38 percent of persons with disabilities aged 18–64. With the exception of those with osteoarthritis, persons with these highest-prevalence conditions experienced no significant net change in labor force participation rates between 1983 and 1994. Persons with disabilities due to osteoarthritis had a relative increase of 12.6 percent during this time.

Persons with certain conditions had much greater growth in labor force participation than did persons with disabilities as a whole. Rates for persons with disabilities due to neurotic disorders increased by 46.1 percent; for those with multiple sclerosis, they grew by 51.6 percent; for those with disorders of synovium, tendon, or bursa, by 41.3 percent; with amyotrophic lateral sclerosis, by 49.9 percent. And persons with disabilities caused by benign tumors experienced a 76.5 percent increase in labor force participation. There was a significant decline in labor force participation for only one of the conditions shown in Table 4: rates for persons with impairments of the shoulder or upper extremity declined by 10.2 percent from 1983–1994.

People with mental retardation, included in the broad impairment category used earlier, showed a significant increase in labor force participation of 35.9 percent. Another group whose labor force participation increased significantly is people with bilateral hearing impairments, whose labor force participation rate increased by 31.3 percent. Thus, not all people with impairments have fared the same. Similarly, among those with circulatory disorders, people with hypertensive disease, who saw an increase of 17.8 percent in labor force participation, have fared better than those with heart disease, who saw no change in participation. While hypertension is relatively high in prevalence, some of the above-mentioned groups are very low in prevalence and the identified trends may be less robust over time.

## CONCLUSIONS

Over the period 1983 through 1994, the proportion of the working-age population in the labor force has increased from 75.0 percent to 78.6 percent (Table 1). This overall increase reflects two trends: a substantial increase in the labor force participation rate among women and a slight decline in the labor force participation rate among men (Table 2). The steep rise in employment among women and the decrease among men are a continuation of trends that began around 1970. In the earlier period, the increase in labor force participation rates among women occurred disproportionately among young women, while the decrease among men occurred disproportionately among older men. However, in the period 1983 through 1994, middle-aged and older women experienced a much greater increase in labor force participation rates than younger women. In keeping with past trends, older men continued to experience a larger decline in labor force participation rates than younger and middle-aged men.

The labor force experience of persons with disabilities reflects most of these general trends in employment, albeit in exaggerated form. Thus, while men without disabilities experienced a relative decline in labor force participation rates of 0.6 percent over the years covered by this study, those with disabilities experienced a 4.1 percent decline. Similarly, while women without disabilities experienced a 9.7 percent increase in labor force participation, those with disabilities experienced a 21.7 percent increase.

Substantial growth in the labor force during the 1980s buoyed employment among persons with disabilities. Since 1990, the overall labor force participation rate has remained fairly stable. Thus, while the rising economic tide of the 1980s brought

increasing proportions of persons with disabilities into the labor market, this process has halted with the relative stasis in employment in this decade.

The labor market experience of younger people with disabilities is of particular concern. From 1983 to 1994, the labor force participation rate of men aged 18 to 44 with disabilities worsened relative to that of their nondisabled counterparts. While younger women with disabilities fared about the same as their nondisabled peers, they failed to improve as did older women with disabilities. By 1994, the labor force participation rates of younger men and women with disabilities were still more than 20 percentage points lower than those of their nondisabled peers (Table 2). The recent stagnation in labor force participation may bode poorly for future labor market success.

The labor force participation rate of persons with disabilities differs dramatically across conditions: persons with disabilities caused by impairments and respiratory conditions have high labor force participation rates, while those with disabilities caused by mental, endocrine, and circulatory conditions have low rates. Similarly, the pattern of change in labor force participation rates differs across conditions. The labor force participation rate of persons with disabilities caused by neoplasms, mental illness, respiratory conditions, nervous system conditions, and musculoskeletal conditions increased substantially more during the period under study than the average rate among those with other conditions. In contrast, the rate among persons with disabilities due to impairments, injury, digestive, genitourinary, circulatory, and endocrine or immune system disorders showed no significant change. These differences probably arise from a number of elements, including the demographic characteristics of those with the condition, change in the "true" prevalence of the condition, changing propensity to self-report the condition, as well as improved screening, diagnosis, medical treatment and rehabilitation, and social conditions such as attitudes and environmental accessibility.

For example, older women with disabling cancer showed an increase of 129 percent in labor force participation. The number of women with the condition remained relatively stable, which reduces the likelihood that major population changes due to changing incidence or duration had an impact on employment rates. In fact, national statistics show that the incidence of cancer among women has increased by roughly 1 percent per year from 1973 to 1992, and that five-year survival has increased slightly during the same period (NCHS, 1996). Thus, we would expect a small increase in the number of women with cancer. The fact that the number of women with disabling cancer has remained stable suggests that the notably improved labor force participation rates observed here may be due to a decline in the severity of disability or to a more accommodating work environment.

Disentangling the roots of the observed trends becomes more complex when prevalence changes dramatically, as in the case of mental illness. Labor force participation increased by 18.0 percent among people with disabling mental illness, but the prevalence nearly doubled, the largest increase of any diagnostic group (Table 1). Other researchers have noted that the recent increases in applications for disability have been greatest among people with mental disorders (Lewin-VHI, 1994). However, the factors behind this growth remain unresolved; they include increased labeling and case-finding and increased incidence of serious disorder. The former may dispose towards an improvement in labor force outcomes, while the latter towards a decline. The net increase in labor force participation identified here may result from both. Future research should endeavor to determine the relative contribution of each of these sets of factors.

The passage and subsequent implementation of the Americans with Disabilities Act (ADA) of 1990, combined with an improvement in the labor force participation rate of persons with disabilities during the 1980s, raised expectations for further improvement in the employment of such persons during this decade. This report demonstrates that the disparity in labor force participation rates between persons with and without disabilities has, if anything, grown in recent years. Of course, we do not know whether the employment situation for persons with disabilities would have been worse in the absence of the ADA. Nevertheless, the findings reported here suggest that the enforcement mechanisms of the ADA have not yet proved sufficient to begin narrowing the gap in employment rates between persons with and without disabilities.

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## LIST OF DETAILED TABLES

**Table 1. Estimated Population and Labor Force Participation (LFP) Rate, by Disability Status and Diagnostic Category of All Causes of Limitation, Ages 18–64, 1983–1994.**

| | 1983 | | 1984 | | 1985 | | 1986 | | 1987 | | 1988 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) |
| All persons | 140,816 | 75.0 | 142,581 | 76.3 | 143,932 | 77.0 | 145,678 | 77.9 | 147,118 | 77.8 | 148,638 | 78.5 |
| Persons without disabilities | 121,595 | 79.1 | 123,976 | 80.3 | 125,136 | 81.1 | 126,572 | 81.8 | 128,633 | 81.7 | 129,578 | 82.4 |
| Persons with disabilities | 19,221 | 48.6 | 18,604 | 49.9 | 18,795 | 49.7 | 19,106 | 52.1 | 18,485 | 50.5 | 19,061 | 51.6 |
| Diagnostic category | | | | | | | | | | | | |
| Impairments | 7,145 | 54.2 | 7,053 | 56.1 | 6,926 | 55.0 | 7,341 | 58.6 | 7,162 | 54.7 | 7,518 | 56.2 |
| Neoplasms | 599 | 33.0 | 640 | 34.7 | 710 | 37.2 | 699 | 36.3 | 649 | 30.9 | 636 | 34.3 |
| Endocrine, nutrition, metabolism, and immunity | 1,622 | 34.1 | 1,482 | 34.5 | 1,500 | 35.7 | 1,634 | 31.5 | 1,531 | 35.5 | 1,477 | 34.0 |
| Mental illness | 758 | 22.4 | 788 | 22.3 | 844 | 21.5 | 795 | 27.7 | 758 | 25.0 | 839 | 25.3 |
| Nervous system and sense organs | 1,736 | 42.7 | 1,677 | 39.9 | 1,615 | 41.1 | 1,579 | 44.3 | 1,723 | 40.1 | 1,772 | 42.4 |
| Circulatory system | 4,683 | 31.1 | 4,365 | 34.8 | 4,550 | 35.2 | 4,491 | 35.0 | 3,920 | 34.1 | 3,906 | 33.5 |
| Respiratory system | 1,962 | 44.4 | 1,788 | 46.5 | 1,814 | 45.7 | 1,836 | 48.8 | 1,770 | 48.0 | 1,878 | 50.6 |
| Digestive system | 1,058 | 37.2 | 1,029 | 43.3 | 1,000 | 39.5 | 939 | 46.2 | 898 | 41.5 | 977 | 42.0 |
| Genitourinary system | 531 | 32.9 | 464 | 34.1 | 447 | 37.0 | 479 | 33.6 | 422 | 38.2 | 439 | 34.2 |
| Musculo-skeletal system | 4,875 | 45.4 | 4,588 | 44.9 | 4,679 | 45.3 | 4,781 | 46.1 | 4,770 | 45.7 | 4,806 | 47.4 |
| Injury and poisoning | 497 | 35.9 | 522 | 43.3 | 460 | 40.0 | 435 | 38.2 | 431 | 47.5 | 416 | 49.9 |
| All other conditions | 1,666 | 36.6 | 1,639 | 36.1 | 1,529 | 38.9 | 1,611 | 37.0 | 1,523 | 36.4 | 1,570 | 38.8 |

[1] Change in LFP Rate estimated using weighted least-squares regression and expressed as a percentage of the 1983 rate (see Methods).

† Test for trend is significant at .05 level.

Source: National Health Interview Survey.

| 1989 | | 1990 | | 1991 | | 1992 | | 1993 | | 1994 | | Percent Change in LFP Rate 1983–1994[1] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | |
| 150,310 | 78.5 | 151,667 | 78.8 | 152,900 | 78.0 | 154,195 | 78.6 | 155,553 | 78.3 | 158,583 | 78.6 | 3.8% † |
| 130,677 | 82.4 | 132,264 | 82.7 | 132,688 | 82.0 | 132,391 | 83.0 | 132,823 | 82.7 | 136,082 | 83.0 | 4.2% † |
| 19,633 | 52.6 | 19,403 | 52.6 | 20,213 | 52.2 | 21,804 | 51.9 | 22,731 | 52.1 | 22,501 | 51.8 | 6.4% † |
| 7,738 | 58.3 | 7,691 | 56.8 | 8,003 | 56.2 | 8,796 | 56.6 | 9,469 | 56.2 | 9,077 | 54.9 | 1.3% |
| 699 | 37.1 | 731 | 35.8 | 717 | 39.2 | 827 | 37.9 | 806 | 37.9 | 773 | 41.1 | 18.4% † |
| 1,675 | 39.2 | 1,654 | 33.4 | 1,771 | 37.2 | 1,803 | 34.5 | 1,923 | 35.5 | 1,869 | 31.9 | -0.7% |
| 926 | 26.0 | 992 | 24.4 | 1,078 | 22.7 | 1,265 | 26.3 | 1,375 | 26.3 | 1,418 | 27.2 | 18.0% † |
| 1,731 | 44.3 | 1,852 | 45.4 | 1,929 | 43.5 | 2,272 | 43.6 | 2,261 | 42.2 | 2,300 | 45.6 | 8.1% † |
| 3,819 | 35.5 | 3,816 | 33.8 | 3,691 | 34.0 | 3,870 | 32.0 | 3,916 | 34.6 | 3,873 | 31.8 | -1.3% |
| 1,751 | 49.3 | 1,874 | 51.6 | 1,936 | 51.7 | 2,029 | 50.2 | 2,186 | 50.7 | 2,315 | 52.3 | 15.6% † |
| 919 | 42.0 | 850 | 45.0 | 1,014 | 39.3 | 969 | 39.2 | 919 | 44.5 | 920 | 42.7 | 5.2% |
| 444 | 35.8 | 417 | 42.8 | 504 | 35.6 | 479 | 38.8 | 439 | 37.9 | 438 | 37.0 | 14.0% |
| 4,936 | 49.4 | 4,757 | 49.5 | 5,072 | 49.1 | 5,325 | 50.0 | 5,736 | 48.9 | 5,630 | 48.2 | 10.6% † |
| 455 | 43.2 | 495 | 50.6 | 545 | 40.4 | 731 | 44.9 | 553 | 44.8 | 638 | 44.0 | 14.7% |
| 1,611 | 34.0 | 1,612 | 40.4 | 1,896 | 37.4 | 2,008 | 40.3 | 1,963 | 37.6 | 2,167 | 37.0 | 4.0% |

**Table 2. Labor Force Participation Rate of Persons Aged 18–64 by Age, Gender, Disability Status, and Diagnostic Category of All Causes of Limitation, 1983–1994.**

| | 1983 | | 1984 | | 1985 | | 1986 | | 1987 | | 1988 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Men (%) | Women (%) | Men (%) | Women (%) | Men (%) | Women (%) | Men (%) | Women (%) | Men (%) | Women (%) | Men (%) | Women (%) |
| **All persons** | 87.2 | 63.5 | 88.3 | 65.0 | 88.0 | 66.6 | 88.1 | 68.3 | 88.1 | 68.1 | 88.2 | 69.3 |
| 18–44 | 90.3 | 68.9 | 91.6 | 70.3 | 91.3 | 71.8 | 91.4 | 73.2 | 91.2 | 73.1 | 91.3 | 74.1 |
| 45–54 | 91.0 | 62.3 | 91.3 | 64.8 | 90.7 | 66.9 | 91.9 | 69.7 | 91.9 | 69.4 | 92.1 | 70.3 |
| 55–64 | 69.0 | 42.1 | 70.0 | 42.7 | 69.9 | 43.9 | 68.3 | 45.4 | 68.7 | 44.2 | 68.7 | 45.7 |
| Persons without disabilities | 91.5 | 67.6 | 92.2 | 69.0 | 92.2 | 70.6 | 92.1 | 72.2 | 92.1 | 71.9 | 92.3 | 73.1 |
| 18–44 | 92.1 | 70.3 | 93.2 | 71.9 | 93.1 | 73.2 | 93.2 | 74.6 | 93.0 | 74.5 | 93.1 | 75.7 |
| 45–54 | 96.8 | 67.7 | 96.4 | 70.2 | 96.4 | 72.5 | 97.4 | 75.6 | 97.3 | 75.4 | 97.4 | 76.0 |
| 55–64 | 81.3 | 52.1 | 81.3 | 51.7 | 81.7 | 53.2 | 78.8 | 53.7 | 79.6 | 52.6 | 80.3 | 54.4 |
| Persons with disabilities | 60.0 | 38.0 | 61.9 | 39.1 | 59.9 | 40.2 | 61.8 | 43.0 | 59.7 | 42.3 | 60.2 | 43.6 |
| 18–44 | 72.5 | 53.2 | 74.8 | 53.0 | 72.7 | 55.1 | 73.9 | 57.0 | 71.2 | 57.0 | 72.2 | 57.6 |
| 45–54 | 63.5 | 40.4 | 65.5 | 40.8 | 61.5 | 40.9 | 64.0 | 43.4 | 64.0 | 42.2 | 64.8 | 44.0 |
| 55–64 | 40.5 | 18.7 | 41.2 | 21.8 | 40.8 | 22.6 | 41.4 | 26.3 | 39.5 | 23.1 | 38.9 | 24.1 |
| **Diagnostic category** | | | | | | | | | | | | |
| Impairments | 62.8 | 43.5 | 66.1 | 44.1 | 62.6 | 45.7 | 66.7 | 48.5 | 60.5 | 47.9 | 62.4 | 49.0 |
| 18–44 | 72.5 | 57.3 | 76.5 | 53.7 | 71.9 | 56.6 | 76.9 | 57.8 | 69.6 | 60.1 | 72.1 | 60.1 |
| 45–54 | 63.9 | 41.2 | 66.0 | 47.3 | 65.8 | 43.5 | 61.3 | 50.6 | 66.1 | 43.3 | 62.2 | 49.5 |
| 55–64 | 39.3 | 16.7 | 39.0 | 23.6 | 39.6 | 26.4 | 42.7 | 28.8 | 34.0 | 24.6 | 37.7 | 23.3 |
| Neoplasms | 39.2 | 29.4 | 42.8 | 29.0 | 45.0 | 31.8 | 39.7 | 33.7 | 39.9 | 25.7 | 38.0 | 32.1 |
| 18–44 | 56.7 | 46.9 | 59.8 | 42.7 | 70.0 | 40.3 | 48.9 | 66.2 | 60.3 | 52.5 | 49.9 | 55.0 |
| 45–54 | 58.8 | 37.7 | 70.7 | 41.3 | 69.7 | 49.1 | 57.9 | 37.3 | 60.1 | 23.4 | 51.2 | 30.7 |
| 55–64 | 26.1 | 11.2 * | 26.7 | 10.9 * | 27.4 | 17.1 | 28.0 | 14.2 * | 23.1 | 12.0 | 28.9 | 17.5 |
| Endocrine, nutrition, metabolism, and immunity | 42.7 | 28.2 | 48.7 | 24.6 | 45.0 | 29.4 | 39.1 | 25.0 | 46.9 | 27.8 | 41.0 | 29.3 |
| 18–44 | 70.1 | 54.8 | 73.3 | 45.7 | 79.4 | 50.4 | 53.0 | 49.0 | 70.7 | 52.7 | 57.8 | 51.5 |
| 45–54 | 46.7 | 30.0 | 50.3 | 31.8 | 48.2 | 30.5 | 45.7 | 30.5 | 48.3 | 27.6 | 53.0 | 31.5 |
| 55–64 | 28.5 | 14.0 | 38.6 | 12.3 | 26.9 | 19.7 | 30.3 | 10.9 | 32.4 | 16.8 | 25.5 | 17.3 |
| Mental illness | 23.4 | 21.4 | 21.4 | 23.2 | 23.3 | 19.4 | 22.9 | 32.0 | 21.9 | 28.0 | 24.2 | 26.3 |
| 18–44 | 28.2 | 30.6 | 25.4 | 23.8 | 31.1 | 21.0 | 32.8 | 35.8 | 22.9 | 36.3 | 28.7 | 31.4 |
| 45–54 | 20.3 * | 16.5 | 22.7 * | 34.0 | 4.0 * | 24.6 * | 0.0 | 48.4 | 27.1 | 29.0 | 21.8 * | 26.3 |
| 55–64 | 14.6 * | 9.7 * | 7.6 * | 14.5 * | 23.0 * | 10.9 * | 10.7 * | 11.2 * | 12.1 * | 7.7 * | 9.8 * | 15.4 * |
| Nervous system and sense organs | 51.8 | 35.9 | 46.2 | 34.6 | 48.0 | 35.0 | 57.6 | 35.7 | 45.1 | 36.5 | 51.8 | 35.6 |
| 18–44 | 65.7 | 50.0 | 55.4 | 46.8 | 60.8 | 45.9 | 68.2 | 54.4 | 55.7 | 52.1 | 65.2 | 48.5 |
| 45–54 | 50.5 | 40.3 | 48.6 | 38.1 | 47.4 | 39.7 | 60.9 | 34.9 | 48.5 | 31.4 | 58.0 | 27.9 |
| 55–64 | 27.4 | 16.7 | 29.2 | 15.4 | 22.6 | 16.3 | 35.2 | 12.4 * | 24.5 | 15.4 | 29.1 | 20.6 |

| 1989 | | 1990 | | 1991 | | 1992 | | 1993 | | 1994 | | Percent Change 1983–1994[1] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Men (%) | Women (%) | Men (%) | Women (%) | Men (%) | Women (%) | Men (%) | Women (%) | Men (%) | Women (%) | Men (%) | Women (%) | Men | Women |
| 88.2 | 69.3 | 87.9 | 70.2 | 87.0 | 69.5 | 86.9 | 70.6 | 86.8 | 70.1 | 86.9 | 70.6 | -1.3% † | 10.0% † |
| 91.3 | 73.6 | 90.6 | 74.6 | 89.9 | 72.9 | 89.7 | 74.2 | 89.8 | 73.4 | 89.6 | 74.0 | -1.6% † | 6.1% † |
| 91.8 | 71.5 | 91.3 | 72.1 | 90.7 | 72.6 | 90.5 | 74.4 | 89.9 | 74.4 | 90.4 | 74.1 | -1.3% † | 17.4% † |
| 68.1 | 46.9 | 69.7 | 47.3 | 67.7 | 48.9 | 67.7 | 48.5 | 66.7 | 48.4 | 67.0 | 48.7 | -3.8% † | 17.0% † |
| 92.2 | 73.0 | 91.9 | 73.8 | 91.3 | 73.1 | 91.5 | 74.8 | 91.4 | 74.3 | 91.4 | 74.9 | -0.6% † | 9.7% † |
| 93.0 | 75.2 | 92.7 | 76.0 | 92.2 | 74.5 | 92.2 | 76.1 | 92.4 | 75.4 | 92.1 | 76.1 | -0.6% | 6.7% † |
| 97.2 | 77.4 | 96.8 | 77.7 | 96.5 | 78.7 | 96.4 | 80.6 | 96.3 | 81.0 | 96.3 | 80.9 | -0.5% | 17.4% † |
| 79.9 | 54.5 | 80.3 | 55.6 | 78.2 | 56.7 | 79.6 | 58.0 | 77.4 | 57.4 | 77.8 | 58.1 | -4.2% † | 13.0% † |
| 60.8 | 45.3 | 59.6 | 46.3 | 58.7 | 46.1 | 58.5 | 45.9 | 58.7 | 46.0 | 58.8 | 45.6 | -4.1% † | 21.7% † |
| 73.9 | 57.3 | 68.5 | 59.6 | 67.8 | 56.9 | 67.8 | 56.8 | 67.6 | 56.2 | 67.6 | 55.7 | -9.7% † | 5.5% † |
| 62.8 | 45.3 | 65.3 | 47.1 | 62.6 | 47.1 | 63.2 | 48.3 | 60.1 | 47.6 | 61.9 | 47.1 | -4.1% | 21.3% † |
| 38.0 | 26.9 | 39.9 | 24.3 | 39.0 | 28.2 | 35.5 | 25.9 | 40.5 | 27.9 | 38.1 | 26.0 | -7.1% † | 39.0% † |
| 65.8 | 49.7 | 63.4 | 49.5 | 60.4 | 51.2 | 61.3 | 51.0 | 61.9 | 49.7 | 60.5 | 48.5 | -5.2% † | 13.4% † |
| 76.5 | 58.5 | 70.4 | 61.8 | 67.9 | 59.0 | 67.5 | 60.6 | 70.1 | 58.4 | 68.8 | 56.9 | -8.5% † | 4.7% |
| 61.8 | 51.1 | 64.5 | 48.8 | 60.8 | 51.2 | 65.4 | 50.8 | 60.1 | 47.6 | 61.5 | 48.2 | -5.7% | 14.9% † |
| 40.5 | 26.9 | 41.2 | 22.0 | 37.2 | 31.6 | 36.1 | 27.8 | 40.6 | 29.5 | 37.1 | 27.2 | -2.7% | 48.1% † |
| 39.2 | 35.8 | 31.3 | 38.3 | 41.2 | 37.7 | 42.7 | 34.9 | 39.8 | 36.5 | 46.8 | 36.4 | 2.2% | 31.1% † |
| 59.8 | 53.3 | 48.6 | 59.4 | 47.7 | 43.3 | 72.5 | 47.7 | 33.7 | 47.2 | 69.7 | 41.3 | 1.6% | -3.0% |
| 49.7 | 40.9 | 39.2 | 43.8 | 59.4 | 45.7 | 52.5 | 42.1 | 45.5 | 37.3 | 51.3 | 45.7 | -34.7% † | 18.3% |
| 25.2 | 18.3 | 21.9 | 15.9 | 30.4 | 27.2 | 21.4 | 19.1 | 38.9 | 28.4 | 28.9 | 25.7 | 14.8% | 128.7% † |
| 48.6 | 32.0 | 41.9 | 27.0 | 45.5 | 30.9 | 44.0 | 26.8 | 42.0 | 29.6 | 37.2 | 27.9 | -10.6% | 6.9% |
| 69.7 | 49.3 | 60.9 | 57.1 | 57.7 | 52.3 | 59.9 | 41.8 | 63.1 | 41.8 | 49.7 | 50.8 | -24.4% † | -8.6% |
| 57.4 | 31.1 | 50.6 | 23.3 | 55.6 | 26.0 | 48.9 | 30.9 | 41.7 | 40.1 | 45.8 | 28.3 | -4.3% | -2.0% |
| 29.2 | 21.9 | 27.8 | 12.7 | 31.6 | 23.3 | 28.5 | 15.0 | 28.3 | 15.6 | 23.1 | 14.0 | -18.4% | 12.6% |
| 24.5 | 27.6 | 27.1 | 21.8 | 23.0 | 22.5 | 26.0 | 26.7 | 26.4 | 26.3 | 28.7 | 26.2 | 22.6% | 14.6% |
| 32.6 | 35.3 | 26.9 | 30.6 | 25.2 | 25.5 | 26.8 | 33.0 | 30.2 | 32.3 | 29.3 | 29.3 | 5.0% | 12.1% |
| 15.3 * | 23.3 | 31.3 | 12.0 * | 30.9 | 19.8 | 33.3 | 22.2 | 29.7 | 24.2 | 27.0 | 26.4 | — | -6.2% |
| 9.6 * | 16.0 * | 21.1 * | 11.4 * | 8.6 * | 18.8 * | 13.1 * | 12.9 * | 10.1 * | 11.9 * | 28.4 * | 17.8 | — | — |
| 53.1 | 38.0 | 53.5 | 39.3 | 46.6 | 41.1 | 47.0 | 41.0 | 44.9 | 40.6 | 53.5 | 41.4 | -1.2% | 20.5% † |
| 68.5 | 48.0 | 59.9 | 52.6 | 58.0 | 50.8 | 57.5 | 49.7 | 55.2 | 50.4 | 64.3 | 52.1 | -3.3% | 5.1% |
| 54.4 | 37.8 | 61.8 | 30.4 | 50.9 | 40.1 | 46.2 | 39.5 | 48.3 | 41.4 | 52.5 | 34.7 | 0.6% | -0.6% |
| 25.2 | 14.9 | 32.0 | 20.6 | 24.6 | 24.3 | 23.6 | 23.8 | 17.1 | 19.0 | 27.4 | 22.0 | -18.1% | 44.2% † |

**Table 2. Labor Force Participation Rate of Persons Aged 18–64 by Age, Gender, Disability Status, and Diagnostic Category of All Causes of Limitation, 1983–1994, continued.**

| | 1983 | | 1984 | | 1985 | | 1986 | | 1987 | | 1988 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Men (%) | Women (%) | Men (%) | Women (%) | Men (%) | Women (%) | Men (%) | Women (%) | Men (%) | Women (%) | Men (%) | Women (%) |
| Circulatory system | 41.2 | 22.5 | 44.8 | 26.1 | 46.4 | 25.6 | 44.5 | 26.5 | 43.0 | 25.5 | 40.4 | 26.6 |
| 18–44 | 59.9 | 34.5 | 64.0 | 45.3 | 69.5 | 43.2 | 63.4 | 44.8 | 65.4 | 41.9 | 52.3 | 45.8 |
| 45–54 | 50.3 | 28.5 | 57.9 | 29.1 | 54.4 | 29.7 | 49.0 | 28.0 | 49.8 | 31.5 | 57.2 | 33.3 |
| 55–64 | 33.0 | 16.0 | 35.9 | 19.1 | 36.7 | 17.8 | 37.8 | 19.8 | 34.2 | 17.6 | 30.3 | 17.3 |
| Respiratory system | 50.4 | 39.0 | 56.6 | 38.8 | 49.9 | 41.8 | 54.1 | 44.2 | 57.9 | 39.3 | 59.9 | 43.4 |
| 18–44 | 78.8 | 54.9 | 84.7 | 55.9 | 79.8 | 59.9 | 76.3 | 54.2 | 79.2 | 52.4 | 85.9 | 57.6 |
| 45–54 | 43.9 | 41.8 | 57.3 | 35.7 | 48.7 | 38.9 | 47.1 | 52.4 | 65.6 | 41.5 | 65.5 | 44.9 |
| 55–64 | 27.2 | 17.3 | 33.3 | 16.5 | 27.3 | 16.2 | 32.1 | 25.3 | 29.8 | 17.5 | 26.6 | 22.4 |
| Digestive system | 50.5 | 26.8 | 55.6 | 32.6 | 54.9 | 27.5 | 59.0 | 35.2 | 52.7 | 32.4 | 47.9 | 35.9 |
| 18–44 | 67.5 | 48.4 | 72.7 | 39.6 | 81.7 | 34.1 | 71.9 | 61.0 | 69.2 | 55.1 | 68.0 | 55.1 |
| 45–54 | 54.7 | 27.5 | 64.9 | 40.3 | 52.1 | 30.4 | 47.0 | 18.5 * | 50.1 | 29.3 | 51.5 | 31.2 |
| 55–64 | 37.0 | 13.4 | 35.3 | 22.9 | 29.4 | 20.8 | 48.8 | 21.6 | 35.7 | 14.3 | 30.3 | 18.1 * |
| Genitourinary system | 34.2 | 32.4 | 25.9 | 36.7 | 40.4 | 36.1 | 35.3 | 33.1 | 36.7 | 38.7 | 31.0 | 35.5 |
| 18–44 | 54.3 | 51.9 | 23.3 * | 51.4 | 60.1 | 44.5 | 62.1 | 48.7 | 55.3 | 51.5 | 57.1 | 43.5 |
| 45–54 | 30.0 * | 20.5 | 36.9 * | 28.5 | 53.8 * | 37.5 * | 41.9 * | 31.9 | 44.9 * | 31.3 | 37.2 * | 27.5 * |
| 55–64 | 17.8 * | 6.4 * | 24.7 * | 20.4 | 7.2 * | 22.0 | 8.0 * | 12.2 * | 23.7 | 8.0 * | 10.5 * | 26.1 * |
| Musculoskeletal system | 61.4 | 34.3 | 61.0 | 34.7 | 58.5 | 36.5 | 58.9 | 37.0 | 59.9 | 36.9 | 59.9 | 38.8 |
| 18–44 | 81.9 | 57.3 | 83.0 | 61.3 | 78.1 | 59.1 | 79.4 | 53.2 | 78.6 | 56.3 | 76.3 | 56.2 |
| 45–54 | 67.1 | 39.6 | 64.9 | 38.5 | 60.8 | 42.0 | 68.3 | 40.3 | 64.2 | 43.4 | 68.1 | 44.3 |
| 55–64 | 38.6 | 19.1 | 39.7 | 19.5 | 38.5 | 20.6 | 37.1 | 25.9 | 38.3 | 21.6 | 38.7 | 24.2 |
| Injury and poisoning | 41.1 | 32.4 | 51.7 | 36.1 | 43.3 | 37.7 | 42.7 | 34.5 | 53.4 | 42.5 | 58.9 | 39.6 |
| 18–44 | 53.2 | 49.6 | 64.6 | 56.4 | 61.4 | 50.0 | 51.4 | 42.4 | 70.0 | 54.6 | 71.5 | 47.9 |
| 45–54 | 43.6 * | 27.4 | 44.5 | 39.4 | 5.6 * | 37.5 | 79.2 | 51.3 | 59.1 | 54.9 | 62.7 | 42.6 |
| 55–64 | 25.1 | 15.9 * | 34.3 | 12.9 * | 31.7 | 26.0 * | 10.9 * | 17.4 * | 30.0 | 12.7 * | 35.5 | 25.5 |
| All other conditions | 45.5 | 30.6 | 47.4 | 28.7 | 48.5 | 31.8 | 46.8 | 31.2 | 44.1 | 30.8 | 44.1 | 34.8 |
| 18–44 | 60.4 | 42.5 | 57.1 | 38.7 | 69.2 | 44.3 | 61.5 | 45.0 | 57.7 | 42.8 | 56.6 | 52.8 |
| 45–54 | 45.8 | 31.2 | 52.7 | 31.1 | 37.6 | 22.7 | 36.2 | 26.7 | 39.5 | 29.6 | 39.3 | 32.3 |
| 55–64 | 22.3 | 16.3 | 28.0 | 13.5 | 31.2 | 21.9 | 27.3 | 21.7 | 27.9 | 15.3 | 31.4 | 13.7 |

[1] Change in LFP Rate estimated using weighted least-squares regression and expressed as a percentage of the 1983 rate (see Methods).

* Estimate has low statistical reliability (relative standard error > 30%).

† Test for trend is significant at .05 level.

— Trend not estimated due to low statistical reliability of several annual rates.

Source: National Health Interview Survey.

| 1989 | | 1990 | | 1991 | | 1992 | | 1993 | | 1994 | | Percent Change 1983–1994[1] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Men (%) | Women (%) | Men (%) | Women (%) | Men (%) | Women (%) | Men (%) | Women (%) | Men (%) | Women (%) | Men (%) | Women (%) | Men | Women |
| 42.3 | 29.0 | 42.2 | 25.3 | 40.1 | 28.0 | 38.9 | 24.8 | 40.4 | 28.5 | 39.9 | 23.7 | -11.3% † | 7.8% |
| 61.6 | 46.2 | 53.3 | 46.0 | 62.5 | 41.1 | 48.5 | 42.1 | 60.7 | 47.2 | 54.8 | 36.6 | -17.6% † | 5.4% |
| 54.6 | 31.8 | 56.0 | 30.1 | 50.2 | 32.3 | 53.8 | 29.6 | 43.0 | 37.0 | 50.9 | 27.8 | -9.0% | 8.3% |
| 31.9 | 19.7 | 32.7 | 16.4 | 29.3 | 20.7 | 27.8 | 16.8 | 33.4 | 15.7 | 29.7 | 16.2 | -18.3% † | -5.1% |
| 54.9 | 44.8 | 54.8 | 49.1 | 57.4 | 47.2 | 54.6 | 47.1 | 57.2 | 46.2 | 58.7 | 48.1 | 10.0% † | 25.0% † |
| 79.5 | 63.8 | 75.2 | 65.5 | 75.3 | 61.4 | 73.6 | 59.7 | 79.6 | 57.5 | 79.1 | 59.7 | -5.6% | 9.5% |
| 60.6 | 38.2 | 63.7 | 42.4 | 55.6 | 43.2 | 51.2 | 45.7 | 55.0 | 45.0 | 52.9 | 46.6 | 7.8% | 14.9% |
| 27.8 | 18.3 | 27.2 | 22.3 | 32.6 | 24.8 | 28.2 | 26.1 | 30.9 | 25.7 | 29.1 | 25.8 | 1.7% | 60.0% † |
| 51.3 | 33.3 | 53.2 | 37.8 | 48.4 | 32.2 | 44.6 | 34.4 | 51.6 | 38.3 | 48.6 | 37.6 | -12.5% | 32.1% † |
| 66.5 | 43.4 | 63.9 | 55.3 | 59.0 | 43.5 | 58.5 | 51.6 | 66.1 | 50.2 | 75.6 | 54.4 | -11.8% | 17.4% |
| 60.0 | 30.9 | 57.7 | 44.8 | 55.9 | 30.3 | 45.7 | 29.6 | 56.9 | 39.3 | 37.7 | 34.1 | -19.2% | 14.9% |
| 27.2 | 21.6 | 37.3 | 13.2 | 33.1 | 24.3 | 28.9 | 17.8 | 31.0 | 25.1 | 26.7 | 19.0 | -22.0% | 25.2% |
| 31.0 | 37.2 | 48.5 | 40.9 | 29.4 | 38.1 | 32.2 | 41.5 | 28.3 | 40.6 | 26.4 | 41.7 | -10.5% | 24.6% † |
| 40.0 | 39.1 | 56.8 | 47.8 | 44.0 * | 53.1 | 45.1 | 46.3 | 35.9 * | 50.0 | 25.9 * | 57.8 | -16.7% | 3.4% |
| 55.4 * | 47.8 | 76.8 | 46.6 | 30.2 * | 33.1 | 28.1 * | 51.2 | 33.4 * | 36.8 | 34.6 * | 41.9 | — | 101.2% † |
| 14.3 * | 20.9 * | 32.0 * | 12.6 * | 20.3 * | 9.0 * | 11.6 * | 18.3 * | 18.3 * | 21.0 * | 21.8 * | 17.9 * | — | — |
| 56.5 | 44.2 | 59.8 | 42.0 | 59.5 | 41.7 | 59.9 | 43.2 | 57.9 | 42.4 | 59.2 | 40.7 | -3.2% | 25.5% † |
| 74.6 | 65.0 | 71.9 | 59.2 | 76.0 | 62.1 | 77.3 | 60.5 | 69.4 | 59.0 | 74.4 | 57.1 | -11.7% † | 3.1% |
| 58.7 | 43.5 | 69.8 | 44.7 | 65.8 | 42.9 | 56.3 | 50.3 | 59.5 | 48.7 | 60.7 | 45.1 | -9.2% † | 21.3% † |
| 34.4 | 28.7 | 37.7 | 26.0 | 34.3 | 25.0 | 38.1 | 24.3 | 39.6 | 26.8 | 37.9 | 23.5 | -3.6% | 33.6% † |
| 47.2 | 39.5 | 52.4 | 48.8 | 45.3 | 36.0 | 48.8 | 41.0 | 53.3 | 35.3 | 51.4 | 38.4 | 12.5% | 14.1% |
| 63.4 | 51.1 | 61.0 | 58.3 | 59.7 | 46.0 | 59.5 | 49.6 | 56.6 | 45.3 | 57.5 | 51.4 | -7.1% | -4.7% |
| 52.2 * | 41.2 | 44.3 | 58.2 | 45.6 | 32.1 | 51.8 | 41.6 | 56.3 | 36.2 | 51.9 | 31.6 | 83.0% † | 11.4% |
| 26.7 * | 22.0 * | 47.0 | 27.9 | 17.2 * | 22.5 | 25.0 | 24.9 | 45.1 | 20.4 * | 39.8 | 23.2 | 37.5% | — |
| 37.9 | 31.4 | 43.5 | 38.5 | 43.3 | 33.0 | 46.2 | 36.0 | 41.5 | 34.6 | 40.0 | 34.8 | -12.4% † | 19.5% † |
| 54.3 | 38.0 | 57.6 | 48.7 | 53.5 | 47.4 | 54.7 | 44.6 | 47.3 | 46.4 | 46.1 | 43.1 | -24.5% † | 8.6% |
| 40.9 | 31.9 | 37.6 | 45.2 | 34.3 | 29.3 | 52.2 | 39.0 | 46.5 | 28.1 | 34.6 | 35.5 | -10.4% | 20.5% |
| 11.5 | 19.9 | 25.7 | 16.4 | 25.7 | 12.7 | 18.8 | 17.6 | 26.9 | 22.8 | 29.4 | 18.6 | -7.9% | 9.0% |

**Table 3. Estimated Population and Labor Force Participation Rate for People Aged 18–64 with Disabilities, by Diagnostic Category of Main Cause of Limitation and Comorbidity Status, 1983–1994.**

| | 1983 | | 1984 | | 1985 | | 1986 | | 1987 | | 1988 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) |
| **All persons with disabilities** | | | | | | | | | | | | |
| One condition | 13,520 | 56.3 | 13,248 | 57.6 | 13,527 | 56.8 | 13,667 | 60.5 | 13,428 | 58.5 | 13,889 | 59.1 |
| Two or more | 5,701 | 30.6 | 5,356 | 31.0 | 5,269 | 31.4 | 5,440 | 31.0 | 5,057 | 29.5 | 5,172 | 31.4 |
| **Diagnostic category** | | | | | | | | | | | | |
| Impairments | | | | | | | | | | | | |
| Only | 4,609 | 64.8 | 4,647 | 66.9 | 4,652 | 64.2 | 5,016 | 68.1 | 4,873 | 65.4 | 5,117 | 66.3 |
| And other conditions ‡ | 1,127 | 38.1 | 1,176 | 37.3 | 1,094 | 39.9 | 1,183 | 38.0 | 1,112 | 35.0 | 1,158 | 36.1 |
| Neoplasms | | | | | | | | | | | | |
| Only | 301 | 41.6 | 297 | 42.0 | 386 | 47.9 | 349 | 43.7 | 312 | 37.2 | 293 | 36.6 |
| And other conditions ‡ | 133 | 29.2 | 139 | 24.0 | 135 | 15.1 * | 143 | 30.0 * | 129 | 24.0 | 121 | 37.0 |
| Endocrine, nutrition, metabolism, and immunity | | | | | | | | | | | | |
| Only | 434 | 61.9 | 430 | 55.8 | 400 | 61.7 | 359 | 61.2 | 433 | 60.6 | 391 | 60.7 |
| And other conditions ‡ | 358 | 29.2 | 278 | 29.4 | 311 | 36.7 | 339 | 26.3 | 353 | 28.7 | 317 | 27.1 |
| Mental illness | | | | | | | | | | | | |
| Only | 407 | 27.0 | 421 | 23.2 | 452 | 20.0 | 454 | 33.1 | 421 | 29.3 | 469 | 27.9 |
| And other conditions ‡ | 138 | 15.0 | 164 | 21.5 | 192 | 29.6 | 146 | 20.8 * | 146 | 19.8 | 184 | 19.2 |
| Nervous system and sense organs | | | | | | | | | | | | |
| Only | 775 | 51.0 | 739 | 49.8 | 780 | 53.0 | 761 | 59.6 | 828 | 50.1 | 892 | 52.0 |
| And other conditions ‡ | 437 | 41.7 | 407 | 35.1 | 332 | 30.6 | 354 | 35.6 | 367 | 30.5 | 375 | 36.9 |
| Circulatory system | | | | | | | | | | | | |
| Only | 1,939 | 44.3 | 1,772 | 51.0 | 1,973 | 48.4 | 1,764 | 51.7 | 1,606 | 48.1 | 1,542 | 49.0 |
| And other conditions ‡ | 1,305 | 20.6 | 1,169 | 25.3 | 1,087 | 23.2 | 1,159 | 23.4 | 991 | 22.9 | 1,025 | 23.6 |
| Respiratory system | | | | | | | | | | | | |
| Only | 1,001 | 58.2 | 889 | 61.5 | 904 | 61.6 | 897 | 68.2 | 876 | 65.1 | 996 | 65.1 |
| And other conditions ‡ | 408 | 33.8 | 429 | 32.0 | 416 | 28.3 | 433 | 31.3 | 383 | 32.1 | 391 | 31.6 |

| 1989 | | 1990 | | 1991 | | 1992 | | 1993 | | 1994 | | Percent |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Change in LFP Rate 1983–1994[1] |
| 14,471 | 59.5 | 14,131 | 59.9 | 14,609 | 60.1 | 15,714 | 59.0 | 16,467 | 59.3 | 16,164 | 59.8 | 5.2% † |
| 5,162 | 33.3 | 5,273 | 33.1 | 5,604 | 31.8 | 6,090 | 33.5 | 6,264 | 33.2 | 6,337 | 31.4 | 7.5% † |
| 5,308 | 67.7 | 5,182 | 66.7 | 5,443 | 66.1 | 5,820 | 66.3 | 6,396 | 65.7 | 6,001 | 65.3 | 0.2% |
| 1,141 | 42.7 | 1,277 | 38.2 | 1,268 | 39.6 | 1,369 | 37.6 | 1,469 | 39.9 | 1,414 | 37.5 | 3.1% |
| 407 | 44.8 | 363 | 44.7 | 347 | 43.6 | 425 | 48.4 | 393 | 50.3 | 399 | 51.3 | 21.0% † |
| 119 | 16.8 * | 171 | 25.7 | 127 | 22.6 | 162 | 26.8 | 120 | 20.3 | 197 | 21.1 | -3.5% |
| 534 | 63.7 | 459 | 55.9 | 482 | 65.2 | 455 | 56.3 | 505 | 55.0 | 450 | 64.0 | -0.4% |
| 344 | 33.2 | 327 | 32.3 | 360 | 33.6 | 446 | 30.1 | 412 | 32.0 | 446 | 25.5 | -3.5% |
| 478 | 31.9 | 587 | 26.4 | 549 | 23.9 | 670 | 27.9 | 757 | 31.9 | 751 | 30.3 | 19.7% † |
| 222 | 20.8 | 200 | 15.9 | 296 | 25.9 | 309 | 24.5 | 341 | 18.1 | 350 | 24.5 | 24.4% |
| 877 | 52.8 | 947 | 56.5 | 872 | 55.7 | 1,032 | 52.3 | 1,024 | 50.3 | 1,120 | 56.0 | 5.1% |
| 330 | 36.6 | 359 | 36.3 | 402 | 35.9 | 490 | 42.4 | 503 | 36.0 | 546 | 37.9 | 4.0% |
| 1,594 | 47.2 | 1,464 | 48.6 | 1,386 | 51.3 | 1,454 | 46.4 | 1,433 | 50.7 | 1,424 | 48.9 | 3.6% |
| 1,007 | 28.2 | 946 | 24.5 | 922 | 21.6 | 1,020 | 23.6 | 910 | 24.3 | 949 | 23.5 | 6.0% |
| 979 | 64.8 | 977 | 66.2 | 1,034 | 67.3 | 1,073 | 64.3 | 1,136 | 65.8 | 1,200 | 71.9 | 15.2% † |
| 359 | 34.4 | 388 | 40.9 | 348 | 37.6 | 349 | 42.5 | 444 | 36.3 | 438 | 33.1 | 20.7% † |

**Table 3. Estimated Population and Labor Force Participation Rate for People Aged 18–64 with Disabilities, by Diagnostic Category of Main Cause of Limitation and Comorbidity Status, 1983–1994, continued.**

| | 1983 | | 1984 | | 1985 | | 1986 | | 1987 | | 1988 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) |
| Digestive system | | | | | | | | | | | | |
| Only | 315 | 57.2 | 361 | 62.7 | 339 | 59.5 | 324 | 69.6 | 291 | 66.2 | 354 | 66.7 |
| And other conditions ‡ | 181 | 46.6 | 145 | 39.6 | 154 | 42.0 | 143 | 51.2 | 123 | 32.6 | 162 | 31.8 |
| Genitourinary system | | | | | | | | | | | | |
| Only | 183 | 50.6 | 158 | 48.7 | 188 | 55.9 | 172 | 49.5 | 162 | 56.1 | 168 | 47.1 |
| And other conditions ‡ | 101 | 26.1 | 79 | 25.7 | 81 | 34.1 | 94 | 18.0 * | 74 | 32.8 | 83 | 38.4 |
| Musculoskeletal system | | | | | | | | | | | | |
| Only | 2,714 | 58.9 | 2,608 | 56.5 | 2,642 | 56.7 | 2,746 | 58.7 | 2,813 | 59.8 | 2,788 | 59.3 |
| And other conditions ‡ | 1,050 | 29.7 | 977 | 31.8 | 1,042 | 31.1 | 1,002 | 29.9 | 1,010 | 29.0 | 949 | 33.1 |
| Injury and poisoning | | | | | | | | | | | | |
| Only | 181 | 49.0 | 208 | 59.1 | 174 | 52.4 | 155 | 61.9 | 172 | 65.1 | 176 | 58.8 |
| And other conditions ‡ | 93 | 26.8 | 85 | 39.0 | 99 | 42.9 | 104 | 28.6 * | 57 | 33.3 | 81 | 48.3 |
| All other conditions | | | | | | | | | | | | |
| Only | 661 | 48.5 | 718 | 46.7 | 637 | 55.4 | 670 | 49.7 | 641 | 50.7 | 701 | 55.9 |
| And other conditions ‡ | 1,005 | 28.8 | 921 | 27.7 | 892 | 27.1 | 941 | 27.9 | 882 | 26.1 | 869 | 25.1 |

[1] Change in LFP Rate estimated using weighted least-squares regression and expressed as a percentage of the 1983 rate (see Methods).

* Estimate has low statistical reliability (relative standard error > 30%).

† Test for trend is significant at .05 level.

‡ Category includes all persons who list a condition in another diagnostic category as a secondary cause of activity limitation.

Source: National Health Interview Survey.

| 1989 | | 1990 | | 1991 | | 1992 | | 1993 | | 1994 | | Percent |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Change in LFP Rate 1983–1994[1] |
| 296 | 62.4 | 321 | 62.2 | 360 | 63.6 | 360 | 61.4 | 372 | 66.5 | 296 | 59.0 | 2.4% |
| 173 | 31.5 | 174 | 43.7 | 217 | 36.4 | 150 | 36.3 | 125 | 43.1 | 164 | 43.1 | -9.9% |
| 200 | 45.7 | 159 | 55.6 | 185 | 50.4 | 184 | 46.3 | 149 | 52.3 | 157 | 50.6 | -3.8% |
| 64 | 32.8 | 71 | 38.5 | 77 | 32.1 | 116 | 38.7 | 95 | 35.2 | 87 | 27.8 | 38.3% |
| 2,987 | 61.3 | 2,798 | 63.1 | 2,949 | 63.4 | 3,100 | 62.7 | 3,292 | 60.4 | 3,217 | 62.1 | 9.1% † |
| 970 | 34.0 | 972 | 31.5 | 1,122 | 30.0 | 1,161 | 33.7 | 1,342 | 33.8 | 1,227 | 30.9 | 7.5% |
| 140 | 57.7 | 157 | 68.9 | 179 | 48.6 | 291 | 65.2 | 214 | 61.6 | 222 | 62.2 | 16.8% |
| 93 | 38.6 | 108 | 50.0 | 89 | 32.3 | 135 | 36.8 | 109 | 49.8 | 120 | 38.3 | 30.2% |
| 670 | 45.9 | 715 | 53.4 | 823 | 49.7 | 851 | 50.3 | 796 | 50.8 | 927 | 49.2 | 1.2% |
| 941 | 25.5 | 897 | 30.1 | 1,073 | 28.1 | 1,156 | 33.0 | 1,167 | 28.5 | 1,240 | 27.9 | 9.5% |

**Table 4. Estimated Population and Labor Force Participation Rate of Persons Aged 18–64, by Disability Status and for Selected Discrete Conditions Identified as Main Cause of Activity Limitation, 1983–1994.**

| | 1983 | | 1984 | | 1985 | | 1986 | | 1987 | | 1988 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) |
| All persons | 140,816 | 75.0 | 142,581 | 76.3 | 143,932 | 77.0 | 145,678 | 77.9 | 147,118 | 77.8 | 148,638 | 78.5 |
| Persons without disabilities | 121,595 | 79.1 | 123,976 | 80.3 | 125,136 | 81.1 | 126,572 | 81.8 | 128,633 | 81.7 | 129,578 | 82.4 |
| Persons with disabilities | 19,221 | 48.6 | 18,604 | 49.9 | 18,795 | 49.7 | 19,106 | 52.1 | 18,485 | 50.5 | 19,061 | 51.6 |
| Disabling condition [‡] | | | | | | | | | | | | |
| Orthopedic impairments of back or neck | 1,787 | 62.9 | 1,898 | 63.2 | 1,688 | 66.1 | 2,054 | 69.5 | 2,060 | 65.6 | 2,064 | 63.0 |
| Intervertebral disc disorders | 1,206 | 62.0 | 1,213 | 64.7 | 1,296 | 62.2 | 1,363 | 61.8 | 1,334 | 62.1 | 1,434 | 62.6 |
| Orthopedic impairments of lower extremity | 1,057 | 70.1 | 1,016 | 69.4 | 1,055 | 68.9 | 1,152 | 72.5 | 1,058 | 68.7 | 1,214 | 70.7 |
| Heart disease, excluding hypertension | 1,747 | 36.6 | 1,668 | 42.5 | 1,739 | 42.5 | 1,600 | 41.5 | 1,477 | 39.2 | 1,378 | 38.4 |
| Osteoarthrosis and allied disorders | 1,399 | 43.6 | 1,322 | 39.5 | 1,316 | 39.5 | 1,284 | 39.8 | 1,374 | 43.3 | 1,190 | 42.7 |
| Asthma | 733 | 59.3 | 691 | 60.4 | 693 | 62.2 | 712 | 60.9 | 702 | 62.7 | 825 | 62.7 |
| Orthopedic impairments of shoulder and/or upper extremities | 411 | 71.9 | 401 | 77.3 | 364 | 68.6 | 461 | 70.2 | 457 | 73.3 | 491 | 75.9 |
| Diabetes mellitus | 565 | 45.0 | 482 | 46.3 | 506 | 46.2 | 516 | 45.3 | 575 | 43.9 | 510 | 43.4 |
| Hypertensive disease | 897 | 36.5 | 685 | 41.1 | 715 | 37.3 | 725 | 43.2 | 556 | 42.6 | 612 | 39.8 |
| Mental retardation/ Down's syndrome | 372 | 25.8 | 362 | 33.2 | 345 | 31.2 | 489 | 30.4 | 381 | 23.6 | 468 | 23.9 |
| Rheumatoid arthritis and other inflammatory polyarthropathies | 345 | 40.3 | 328 | 37.8 | 369 | 44.9 | 297 | 51.7 | 316 | 38.7 | 320 | 40.5 |
| Epilepsy | 241 | 40.4 | 251 | 42.3 | 240 | 38.1 | 251 | 37.1 | 252 | 34.2 | 248 | 36.9 |
| Neurotic disorders | 195 | 20.6 | 231 | 18.7 | 233 | 17.5 | 209 | 32.7 | 254 | 15.5 | 212 | 20.8 |
| Curvature of spine or back | 381 | 67.3 | 315 | 67.8 | 328 | 61.6 | 294 | 61.0 | 250 | 57.2 | 321 | 64.2 |
| Spondylosis and allied disorders | 356 | 48.1 | 266 | 37.7 | 292 | 37.1 | 266 | 43.9 | 265 | 45.3 | 315 | 49.2 |

| 1989 | | 1990 | | 1991 | | 1992 | | 1993 | | 1994 | | Percent |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Change in LFP Rate 1983–1994[1] |
| 150,310 | 78.5 | 151,667 | 78.8 | 152,900 | 78.0 | 154,195 | 78.6 | 155,553 | 78.3 | 158,583 | 78.6 | 3.8% † |
| 130,677 | 82.4 | 132,264 | 82.7 | 132,688 | 82.0 | 132,391 | 83.0 | 132,823 | 82.7 | 136,082 | 83.0 | 4.2% † |
| 19,633 | 52.6 | 19,403 | 52.6 | 20,213 | 52.2 | 21,804 | 51.9 | 22,731 | 52.1 | 22,501 | 51.8 | 6.4% † |
| 2,271 | 67.3 | 2,240 | 64.9 | 2,474 | 63.1 | 2,567 | 62.3 | 2,991 | 63.0 | 2,739 | 62.5 | -4.1% |
| 1,607 | 65.3 | 1,564 | 62.3 | 1,625 | 61.2 | 1,771 | 60.8 | 1,973 | 59.3 | 1,970 | 59.8 | -5.7% |
| 1,170 | 69.5 | 1,188 | 70.9 | 1,182 | 73.4 | 1,404 | 71.2 | 1,385 | 72.0 | 1,402 | 69.4 | 2.3% |
| 1,415 | 39.3 | 1,467 | 38.6 | 1,269 | 39.5 | 1,443 | 38.1 | 1,361 | 40.6 | 1,350 | 41.5 | -0.6% |
| 1,264 | 44.9 | 1,146 | 45.9 | 1,251 | 47.5 | 1,291 | 45.7 | 1,321 | 44.8 | 1,187 | 45.2 | 12.6% † |
| 803 | 67.2 | 837 | 67.3 | 843 | 65.1 | 906 | 66.4 | 1,021 | 64.7 | 1,022 | 70.8 | 14.7% † |
| 592 | 72.8 | 534 | 70.3 | 544 | 70.7 | 665 | 64.1 | 685 | 68.3 | 735 | 68.6 | -10.2% † |
| 640 | 49.8 | 619 | 43.5 | 633 | 46.7 | 680 | 41.3 | 710 | 39.6 | 668 | 41.1 | -11.8% |
| 572 | 42.7 | 469 | 43.7 | 562 | 44.2 | 472 | 44.0 | 484 | 47.7 | 457 | 38.2 | 17.8% † |
| 417 | 37.1 | 526 | 29.8 | 458 | 30.4 | 466 | 40.4 | 507 | 36.3 | 456 | 33.5 | 35.9% † |
| 308 | 35.7 | 308 | 46.1 | 333 | 46.4 | 271 | 45.8 | 335 | 40.5 | 352 | 44.0 | 7.9% |
| 227 | 40.2 | 290 | 38.2 | 248 | 39.7 | 281 | 38.4 | 321 | 35.3 | 351 | 37.3 | -6.0% |
| 202 | 22.1 | 277 | 17.5 | 298 | 24.3 | 296 | 27.7 | 244 | 28.3 | 314 | 28.3 | 46.1% † |
| 318 | 68.1 | 294 | 72.7 | 271 | 67.8 | 252 | 64.8 | 356 | 65.7 | 285 | 59.2 | -0.9% |
| 299 | 52.7 | 234 | 53.8 | 266 | 38.9 | 271 | 45.3 | 277 | 43.9 | 268 | 40.9 | 1.1% |

**Table 4. Estimated Population and Labor Force Participation Rate of Persons Aged 18–64, by Disability Status and for Selected Discrete Conditions Identified as Main Cause of Activity Limitation, 1983–1994, continued.**

| | 1983 | | 1984 | | 1985 | | 1986 | | 1987 | | 1988 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) |
| Carpal tunnel syndrome | 14 * | 55.8 * | 20 * | 72.9 | 23 * | 39.8 * | 22 * | 93.2 | 77 | 71.4 | 76 | 77.4 |
| Cerebrovascular disease | 199 | 17.7 | 214 | 14.9 | 198 | 19.8 | 203 | 15.1 * | 252 | 24.7 | 219 | 17.1 |
| Depressive disorders | 55 | 31.2 | 73 | 37.2 | 71 * | 13.9 * | 87 | 12.7 * | 62 | 28.3 | 82 | 28.9 |
| Emphysema | 292 | 30.7 | 276 | 32.5 | 312 | 29.2 | 275 | 39.9 | 228 | 27.6 | 244 | 25.9 |
| Peripheral enthesopathies and allied syndromes | 102 | 66.1 | 93 | 63.2 | 90 | 69.7 | 111 | 77.6 | 139 | 67.8 | 141 | 71.0 |
| Multiple sclerosis | 96 | 22.1 | 122 | 28.9 | 103 | 39.1 | 88 | 28.6 * | 115 | 21.4 | 127 | 31.9 |
| Schizophrenic psychoses | 74 | 17.7 * | 86 | 23.8 | 100 | 20.0 * | 75 | 14.9 * | 72 | 17.5 * | 139 | 4.4 * |
| Orthopedic impairment of hip or pelvis | 94 | 63.9 | 96 | 69.1 | 134 | 54.8 | 125 | 67.3 | 154 | 55.4 | 144 | 65.0 |
| Migraine | 85 | 48.7 | 95 | 46.1 | 84 | 57.0 | 101 | 63.5 | 87 | 44.5 | 97 | 62.7 |
| Affective psychoses | 36 | 27.9 * | 28 | 14.9 * | 49 | 22.4 * | 35 * | 38.1 * | 36 | 28.4 * | 64 | 36.3 |
| Hernia | 164 | 63.6 | 190 | 67.7 | 203 | 59.2 | 167 | 66.9 | 159 | 69.1 | 182 | 60.8 |
| Toxic poisoning and other adverse effects | 50 | 39.0 | 63 | 43.9 | 62 | 50.3 | 63 | 53.8 | 60 | 64.2 | 80 | 62.3 |
| Nervousness | 189 | 12.0 | 173 | 23.2 | 147 | 21.8 | 149 | 19.2 * | 139 | 24.4 | 129 | 27.7 |
| Hearing impairment in both ears | 122 | 57.7 | 111 | 57.5 | 123 | 55.8 | 135 | 65.7 | 122 | 69.2 | 115 | 66.6 |
| Cerebral palsy | 79 | 42.8 | 90 | 45.4 | 55 | 41.6 | 80 | 49.4 | 60 | 34.2 | 60 | 46.9 |
| Blindness in both eyes | 65 | 36.2 | 76 | 15.8 * | 95 | 48.7 | 88 | 35.2 | 91 | 23.3 | 76 | 24.5 |
| Allergic rhinitis | 108 | 64.4 | 115 | 64.1 | 122 | 65.8 | 137 | 73.8 | 112 | 79.7 | 88 | 91.4 |
| Blindness or visual impairment in one eye | 159 | 62.3 | 177 | 61.6 | 187 | 71.4 | 133 | 61.6 | 129 | 62.4 | 161 | 70.5 |
| Tuberculosis, all sites | 72 | 39.0 | 49 | 33.9 * | 47 | 40.5 | 44 * | 47.2 * | 43 | 31.2 | 50 | 57.2 |
| Malignant neoplasm of female breast | 61 | 42.5 | 55 | 30.5 | 62 | 36.9 | 73 | 51.9 | 91 | 24.3 | 58 | 46.3 |
| Deformity of lower extremity | 132 | 65.2 | 156 | 65.7 | 152 | 60.8 | 143 | 73.0 | 133 | 79.7 | 131 | 69.6 |
| Adjustment reaction | 23 * | 54.0 | 26 * | 23.2 * | 36 | 37.3 * | 57 | 64.1 | 35 | 89.5 | 30 | 49.0 |

| 1989 | | 1990 | | 1991 | | 1992 | | 1993 | | 1994 | | Percent |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Change in LFP Rate 1983–1994[1] |
| 74 | 66.0 | 117 | 64.5 | 147 | 65.3 | 178 | 67.1 | 194 | 80.7 | 263 | 73.9 | 1.1% |
| 243 | 24.8 | 192 | 21.7 | 220 | 17.7 | 262 | 14.0 | 220 | 12.9 | 254 | 23.3 | -3.7% |
| 92 | 28.0 | 84 | 30.5 | 135 | 33.4 | 119 | 23.0 | 209 | 34.1 | 222 | 25.4 | 14.2% |
| 220 | 26.5 | 204 | 25.0 | 210 | 32.5 | 191 | 22.4 | 186 | 30.6 | 208 | 27.1 | -18.4% |
| 109 | 67.2 | 159 | 68.4 | 159 | 70.1 | 175 | 74.0 | 262 | 67.6 | 187 | 73.3 | 6.2% |
| 131 | 25.8 | 165 | 38.0 | 133 | 30.0 | 205 | 38.1 | 127 | 32.3 | 184 | 36.9 | 51.6% † |
| 125 | 16.1 * | 149 | 18.1 | 144 | 13.9 | 194 | 15.6 | 204 | 11.2 * | 176 | 11.9 * | — |
| 131 | 56.7 | 122 | 65.6 | 123 | 57.9 | 143 | 60.6 | 134 | 66.4 | 151 | 59.3 | -2.8% |
| 92 | 70.4 | 91 | 50.1 | 124 | 60.6 | 134 | 51.0 | 133 | 58.7 | 144 | 69.2 | 24.3% |
| 68 | 33.2 | 104 | 23.1 | 79 | 24.0 * | 120 | 32.1 | 154 | 26.5 | 133 | 30.9 | — |
| 129 | 57.8 | 140 | 62.8 | 177 | 67.1 | 145 | 67.3 | 148 | 73.4 | 132 | 76.0 | 13.8% |
| 55 | 37.2 | 58 | 82.3 | 74 | 31.1 | 115 | 50.3 | 101 | 54.3 | 116 | 46.2 | -0.7% |
| 142 | 15.3 * | 96 | 14.6 * | 147 | 9.0 * | 135 | 22.8 | 98 | 13.9 * | 114 | 13.7 * | — |
| 126 | 67.2 | 106 | 78.8 | 119 | 69.0 | 98 | 66.8 | 110 | 82.0 | 109 | 58.7 | 31.3% † |
| 77 | 47.3 | 98 | 31.1 | 86 | 48.9 | 92 | 29.9 | 122 | 34.4 | 107 | 30.7 | -29.7% |
| 69 | 39.4 | 101 | 33.2 | 107 | 24.5 | 105 | 35.0 | 88 | 16.0 * | 106 | 28.9 | -13.7% |
| 100 | 57.8 | 121 | 70.9 | 118 | 81.3 | 91 | 72.8 | 130 | 61.7 | 106 | 80.9 | 11.3% |
| 135 | 70.4 | 132 | 65.1 | 136 | 75.3 | 118 | 62.4 | 183 | 69.2 | 105 | 69.0 | 10.7% |
| 65 | 37.3 | 80 | 60.5 | 88 | 50.8 | 76 | 32.8 | 98 | 39.7 | 100 | 37.8 | 3.8% |
| 92 | 35.2 | 91 | 49.6 | 42 | 51.0 | 106 | 43.3 | 96 | 52.6 | 95 | 46.4 | 39.5% † |
| 106 | 70.4 | 96 | 66.8 | 107 | 73.7 | 94 | 68.6 | 133 | 70.9 | 94 | 63.2 | 2.5% |
| 45 | 45.2 | 44 | 44.2 | 47 | 52.6 | 92 | 47.4 | 104 | 47.1 | 90 | 43.6 | -27.3% |

**Table 4. Estimated Population and Labor Force Participation Rate of Persons Aged 18–64, by Disability Status and for Selected Discrete Conditions Identified as Main Cause of Activity Limitation, 1983–1994, continued.**

| | 1983 | | 1984 | | 1985 | | 1986 | | 1987 | | 1988 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) |
| Chronic injuries or late effects of injuries | 72 | 46.5 | 95 | 71.1 | 78 | 52.2 | 109 | 61.4 | 84 | 57.2 | 94 | 59.1 |
| Headache | 34 | 36.7 * | 62 | 45.9 | 76 | 41.0 | 49 | 30.9 * | 68 | 53.5 | 64 | 44.1 |
| Deafness or hearing impairment in one ear only | 64 | 80.6 | 105 | 76.6 | 98 | 69.9 | 101 | 78.9 | 99 | 67.2 | 85 | 87.9 |
| Absence or loss, lower extremity | 94 | 42.2 | 90 | 43.0 | 82 | 49.0 | 76 | 43.8 | 72 | 51.2 | 65 | 38.8 |
| Disorders of synovium, tendon, and bursa | 86 | 53.8 | 73 | 55.4 | 66 | 54.9 | 70 | 55.4 | 46 | 57.0 | 53 | 60.1 |
| Chronic liver disease and cirrhosis | 44 | 28.0 * | 28 | 22.3 * | 21 * | 22.9 * | 23 * | 68.5 | 29 | 38.5 * | 36 | 39.2 * |
| Alcohol or drug dependence | 57 | 28.7 * | 69 | 34.8 | 67 | 30.5 | 43 | 20.0 * | 55 | 41.5 | 56 | 50.2 |
| Enteritis and colitis | 57 | 39.9 | 65 | 50.6 | 65 | 69.4 | 82 | 73.1 | 43 | 61.9 | 77 | 57.5 |
| Amyotrophic lateral sclerosis (ALS) | 34 | 41.6 | 45 | 30.2 * | 35 | 32.5 * | 37 * | 53.2 | 56 * | 31.9 * | 54 | 51.6 |
| Nephritis, nephrotic syndrome, and nephrosis | 47 | 30.2 * | 42 | 24.4 * | 44 | 34.9 * | 50 | 47.7 | 42 | 43.1 | 57 | 40.4 |
| Malignant neoplasm of respiratory and intrathoracic organs | 46 | 30.1 * | 48 | 29.7 * | 62 | 38.2 | 48 * | 28.5 * | 35 | 16.2 * | 60 | 21.6 * |
| Visual impairment in both eyes | 65 | 40.2 | 65 | 62.9 | 80 | 52.2 | 48 | 55.1 | 89 | 43.6 | 68 | 39.1 |
| Benign neoplasms | 58 | 29.1 * | 46 | 26.0 * | 60 | 43.5 | 38 * | 54.7 | 44 | 60.5 | 48 | 60.8 |

[1] Change in LFP Rate estimated using weighted least-squares regression and expressed as a percentage of the 1983 rate (see Methods).

* Estimate has low statistical reliability (relative standard error > 30%).

† Test for trend is significant at .05 level.

‡ Conditions listed in order of prevalence in 1994.

— Trend not estimated due to low statistical reliability of several annual rates.

Source: National Health Interview Survey.

| 1989 | | 1990 | | 1991 | | 1992 | | 1993 | | 1994 | | Percent Change in LFP Rate 1983–1994[1] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | Estimated Population (1,000s) | LFP Rate (%) | |
| 82 | 61.2 | 116 | 62.2 | 120 | 52.4 | 162 | 60.8 | 120 | 59.1 | 90 | 56.8 | -4.4% |
| 50 | 45.6 | 37 | 54.2 | 59 | 45.0 | 104 | 49.1 | 60 | 47.5 | 84 | 40.6 | 11.0% |
| 66 | 68.5 | 72 | 57.3 | 74 | 69.2 | 63 | 84.0 | 75 | 67.9 | 81 | 80.0 | -1.2% |
| 72 | 39.7 | 78 | 45.9 | 70 | 57.2 | 98 | 47.4 | 80 | 50.6 | 75 | 35.0 | 3.0% |
| 69 | 76.2 | 59 | 78.6 | 60 | 75.4 | 76 | 64.0 | 63 | 64.1 | 74 | 76.3 | 41.3% † |
| 27 | 13.6 * | 57 | 33.9 | 65 | 25.9 | 58 | 31.7 | 35 | 56.6 | 72 | 30.7 | — |
| 56 | 54.3 | 57 | 39.5 | 62 | 16.5 * | 60 | 26.3 * | 71 | 22.1 * | 72 | 45.4 | — |
| 108 | 49.7 | 93 | 62.3 | 77 | 54.1 | 100 | 63.8 | 95 | 50.3 | 71 | 47.7 | -6.8% |
| 40 | 50.8 | 57 | 65.5 | 50 | 52.1 | 59 | 62.8 | 61 | 41.1 | 71 | 50.1 | 49.9% † |
| 57 | 33.0 | 46 | 32.7 * | 57 | 34.7 | 80 | 27.4 | 56 | 25.4 * | 70 | 20.1 * | — |
| 63 | 39.5 | 50 | 24.6 * | 76 | 26.5 | 63 | 28.5 | 42 | 14.3 * | 70 | 45.0 | — |
| 62 | 42.5 | 76 | 50.3 | 74 | 32.0 | 47 | 66.2 | 89 | 47.5 | 68 | 59.8 | 2.6% |
| 78 | 52.9 | 70 | 37.0 | 71 | 42.0 | 96 | 56.6 | 48 | 56.0 | 66 | 54.0 | 76.5% † |

**Appendix Table. Average Population for Persons Aged 18–64, by Gender, Age Group, Disability Status, and Diagnostic Category of All Causes of Limitation, 1983–1994.**

| | All persons | | Men | | Women | |
|---|---|---|---|---|---|---|
| | (1,000s) | (%) | (1,000s) | (%) | (1,000s) | (%) |
| **All persons** | 149,822 | 100.0 | 72,927 | 100.0 | 76,895 | 100.0 |
| 18–44 | 103,253 | 68.9 | 50,642 | 69.4 | 52,611 | 68.4 |
| 45–54 | 25,093 | 16.7 | 12,165 | 16.7 | 12,928 | 16.8 |
| 55–64 | 21,476 | 14.3 | 10,121 | 13.9 | 11,355 | 14.8 |
| Persons without disabilities | 129,753 | 100.0 | 63,332 | 100.0 | 66,421 | 100.0 |
| 18–44 | 93,790 | 72.3 | 45,924 | 72.5 | 47,865 | 72.1 |
| 45–54 | 20,586 | 15.9 | 10,104 | 16.0 | 10,482 | 15.8 |
| 55–64 | 15,377 | 11.9 | 7,303 | 11.5 | 8,074 | 12.2 |
| Persons with disabilities | 20,069 | 100.0 | 9,596 | 100.0 | 10,474 | 100.0 |
| 18–44 | 9,464 | 47.2 | 4,717 | 49.2 | 4,746 | 45.3 |
| 45–54 | 4,507 | 22.5 | 2,061 | 21.5 | 2,446 | 23.4 |
| 55–64 | 6,099 | 30.4 | 2,818 | 29.4 | 3,282 | 31.3 |
| **Diagnostic category** | | | | | | |
| Impairments | 7,908 | 100.0 | 4,267 | 100.0 | 3,641 | 100.0 |
| 18–44 | 4,502 | 56.9 | 2,507 | 58.7 | 1,995 | 54.8 |
| 45–54 | 1,625 | 20.6 | 845 | 19.8 | 780 | 21.4 |
| 55–64 | 1,782 | 22.5 | 916 | 21.5 | 866 | 23.8 |
| Neoplasms | 707 | 100.0 | 283 | 100.0 | 424 | 100.0 |
| 18–44 | 198 | 28.0 | 67 | 23.5 | 131 | 30.9 |
| 45–54 | 183 | 25.9 | 66 | 23.4 | 117 | 27.6 |
| 55–64 | 326 | 46.1 | 150 | 53.1 | 176 | 41.4 |
| Endocrine, nutrition, metabolism, and immunity | 1,676 | 100.0 | 723 | 100.0 | 954 | 100.0 |
| 18–44 | 440 | 26.3 | 200 | 27.6 | 241 | 25.2 |
| 45–54 | 437 | 26.1 | 180 | 24.9 | 257 | 27.0 |
| 55–64 | 799 | 47.7 | 343 | 47.5 | 456 | 47.8 |
| Mental illness | 999 | 100.0 | 479 | 100.0 | 521 | 100.0 |
| 18–44 | 566 | 56.7 | 295 | 61.6 | 271 | 52.1 |
| 45–54 | 227 | 22.7 | 96 | 20.1 | 130 | 25.1 |
| 55–64 | 207 | 20.7 | 87 | 18.3 | 119 | 22.9 |
| Nervous system and sense organs | 1,894 | 100.0 | 782 | 100.0 | 1,112 | 100.0 |
| 18–44 | 952 | 50.3 | 404 | 51.7 | 549 | 49.3 |
| 45–54 | 420 | 22.2 | 166 | 21.2 | 254 | 22.9 |
| 55–64 | 521 | 27.5 | 212 | 27.1 | 309 | 27.8 |
| Circulatory system | 4,032 | 100.0 | 1,970 | 100.0 | 2,061 | 100.0 |
| 18–44 | 696 | 17.3 | 300 | 15.2 | 396 | 19.2 |
| 45–54 | 1,059 | 26.3 | 519 | 26.4 | 540 | 26.2 |
| 55–64 | 2,277 | 56.5 | 1,151 | 58.4 | 1,126 | 54.6 |
| Respiratory system | 1,939 | 100.0 | 846 | 100.0 | 1,093 | 100.0 |
| 18–44 | 910 | 46.9 | 372 | 44.0 | 538 | 49.2 |
| 45–54 | 383 | 19.8 | 155 | 18.3 | 229 | 20.9 |
| 55–64 | 646 | 33.3 | 319 | 37.8 | 327 | 29.9 |
| Digestive system | 954 | 100.0 | 443 | 100.0 | 511 | 100.0 |
| 18–44 | 356 | 37.3 | 171 | 38.6 | 185 | 36.1 |
| 45–54 | 235 | 24.7 | 103 | 23.3 | 132 | 25.8 |
| 55–64 | 363 | 38.1 | 169 | 38.1 | 194 | 38.0 |

**Appendix Table. Average Population for Persons Aged 18–64, by Gender, Age Group, Disability Status, and Diagnostic Category of All Causes of Limitation, 1983–1994, continued.**

| | All persons | | Men | | Women | |
|---|---|---|---|---|---|---|
| | (1,000s) | (%) | (1,000s) | (%) | (1,000s) | (%) |
| Genitourinary system | 460 | 100.0 | 120 | 99.9 | 340 | 100.0 |
| 18–44 | 221 | 48.2 | 44 | 36.4 | 178 | 52.3 |
| 45–54 | 103 | 22.4 | 27 | 22.2 | 76 | 22.4 |
| 55–64 | 135 | 29.4 | 49 | 41.3 | 86 | 25.3 |
| Musculoskeletal system | 5,025 | 100.0 | 2,055 | 100.0 | 2,970 | 100.0 |
| 18–44 | 1,697 | 33.8 | 811 | 39.5 | 885 | 29.8 |
| 45–54 | 1,300 | 25.9 | 513 | 25.0 | 786 | 26.5 |
| 55–64 | 2,029 | 40.4 | 731 | 35.6 | 1,298 | 43.7 |
| Injury and poisoning | 520 | 100.0 | 246 | 100.0 | 273 | 100.0 |
| 18–44 | 237 | 45.5 | 120 | 48.9 | 116 | 42.5 |
| 45–54 | 125 | 24.0 | 50 | 20.2 | 75 | 27.4 |
| 55–64 | 158 | 30.5 | 76 | 30.9 | 82 | 30.1 |
| All other conditions | 1,752 | 100.0 | 720 | 100.0 | 1,032 | 100.0 |
| 18–44 | 830 | 47.4 | 368 | 51.1 | 462 | 44.8 |
| 45–54 | 400 | 22.8 | 150 | 20.8 | 250 | 24.3 |
| 55–64 | 522 | 29.8 | 202 | 28.1 | 319 | 31.0 |

Source: National Health Interview Survey.

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