Women and jobs in recoveries: 1970–93

During business cycles, the distribution of jobs by sex and industry undergoes large shifts; these changes have a permanent effect on job distribution by sex

William Goodman

Because men accounted for the vast majority of jobs that were cut in connection with the 1990–91 recession, one might expect that, as employment returned to the prerecession level, men would regain most of the lost jobs. Instead, women filled the majority of the jobs added in the latest recovery of employment (February 1992 to April 1993), and men still filled substantially fewer jobs than they had before the recession began. According to the Bureau of Labor Statistics survey of businesses,[1] this pattern occurred in each of the four most recent business cycles (from 1975 to 1993). Men lost a net 72 to 100 percent of the jobs cut in the last four cyclical declines, and women filled 51 to 59 percent of the jobs added as employment returned to prerecession peak levels—although the employment of men did eventually recover and reach new highs as employment of women continued to increase at a faster rate.

The lag in the rebound of men's employment was longer after the most recent recession than after any of the three previous downturns. It was not until March 1994 that men regained the number of jobs they had held at the prerecession peak of employment 3-3/4 years earlier. Meanwhile, the number of employed women increased by 2.2 million. (See chart 1.) This article explains why women gained most of the net new jobs in recent business cycles, and emphasizes the latest period of recovery in employment.

While employment always falls during recessions, the exact months in which it begins to decline and starts growing again often differ from the official peaks and troughs of the business cycle.[2] The turning points of the nonfarm payroll employment series are used here to analyze gender shifts associated with recessions and recoveries. The period from the peak of employment preceding a falloff in jobs to the trough of employment is here termed a *decline*, and the period from the trough of employment to the point at which the number of jobs reaches the level of the preceding peak is called a *recovery*. The subsequent period preceding the next decline is defined here as an *expansion*; the combined decline, recovery, and expansion is called a *cycle of employment*. The employment recovery period reveals particularly well the recurring cyclical contrast of substantial job gains for women during a long interval of substantially reduced employment of men.

The latest recovery

In the latest *decline* in total employment, from the prerecession peak of June 1990 to the trough in February 1992, men lost 2.0 million jobs as women *gained* 125,000 net jobs. In the subsequent employment recovery, men gained 940,000 jobs and women acquired 1.1 million from the trough to April 1993, when employment first surpassed its 1990 peak level. The net result: although the total number of jobs was about the same in April 1993 as in June 1990, 1.2 million more women and 1.0 million fewer men had jobs.

Data from an alternate source, the Federal survey of households,[3] confirms that women gained net jobs between June 1990 and April 1993 while men lost net jobs. (For purposes of a check on the business survey, the nonagricultural wage and salary worker estimate was selected from the

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many statistical time series of the household survey. That particular series closely approximates the coverage of the business survey, which also excludes agriculture and self-employed persons.) According to household data, from June 1990 to February 1992—the period of decline in employment—men with nonagricultural jobs decreased by 1.1 million, while women with nonfarm jobs increased by 100,000. From the trough to April 1993, when employment had fully recovered, household data show that the number of employed men excluding farmworkers increased by 700,000, and that of their female counterparts grew by 730,000. For the two periods combined, then, employed men lost 430,000 jobs and employed women gained 840,000.[4]

The figures above exclude the self-employed and farmworkers. When these groups are included, household data show that the trends are little affected except for an increase of 350,000 in self-employed men during the recovery period. If the self-employed and agricultural workers are included, the number of employed men increased more during the recovery period than did the number of employed women: the gain among men becomes 1.1 million, and that for women becomes 570,000. But the extent of self-employment and the income derived from it, especially when a one-person business is just being started, may not be substantial. Anecdotal evidence suggests that some men try self-employment because they cannot find jobs.

During the decline and recovery combined, women still fared vastly better than men in net employment gain or loss, including self-employment and agricultural work. Employed and self-employed men show a decrease of 160,000 during the entire period, versus an increase of 500,000 for women.

Trends in unemployment also reflect the reduction in male employment. From the peak to the point of recovery, the number of unemployed men increased by 1.5 million while that of unemployed women increased by 1.0 million.[5]

Job trends in recessions

Before discussing the recovery of employment in the 1990's and its effects on jobs by sex, it will be helpful to review developments during the preceding decline in employment (from June 1990 to February 1992).[6] The effects of the latest recession on male and female employment by industry was fairly representative of the effects of the four preceding recessions.

Chart 1. **Employment of men and women in the latest recession and recovery, 1990-93**

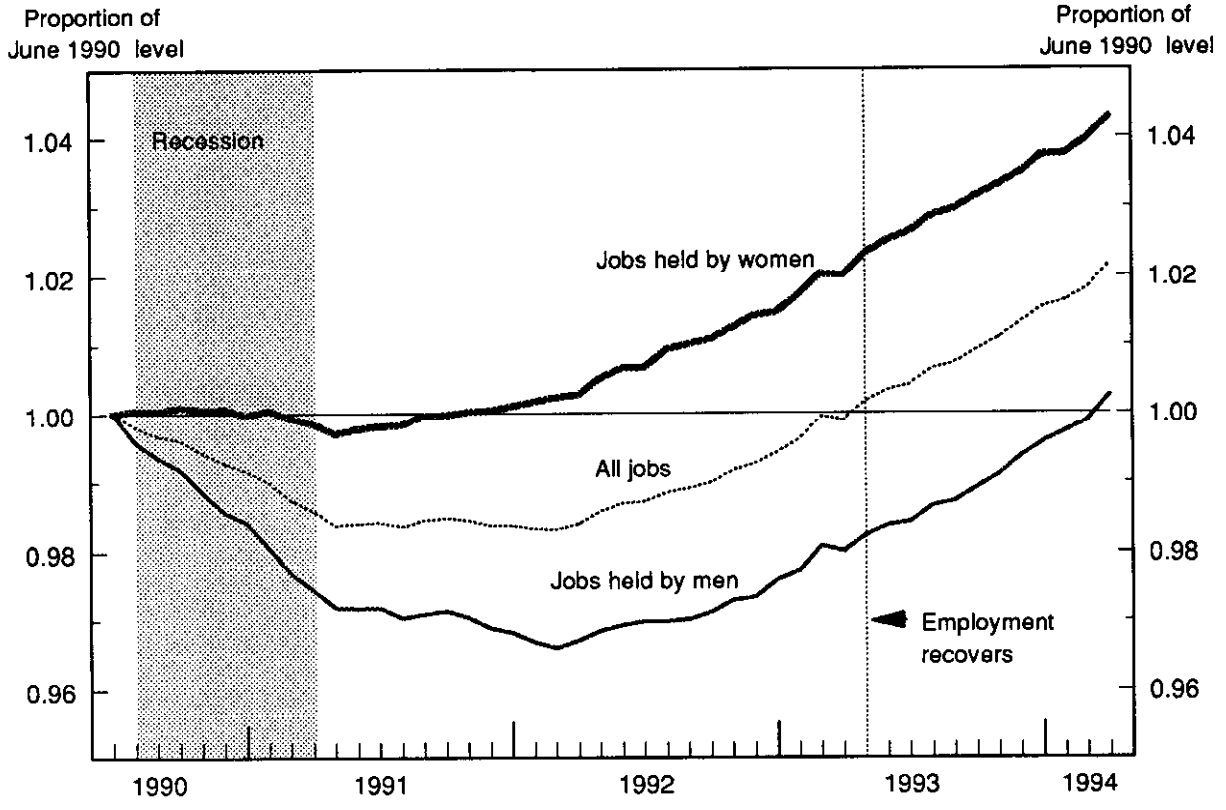


Table 1. **Peak-to-trough changes in employment by sex and industry, June 1990–February 1992**

[Numbers in thousands, seasonally adjusted]

Division	Changes in employment		
	Both sexes	Women	Men
Total nonfarm	−1,844	+124	−1,968
Goods-producing sector	−1,784	−370	−1,414
Mining	−66	−1	−65
Construction	−681	−42	−639
Manufacturing	−1,037	−327	−710
Service-producing sector	−60	+494	−554
Transportation, communication, and utilities	−83	−29	−54
Wholesale trade	−148	−42	−106
Retail trade	−366	−158	−208
Finance, insurance, and real estate	−136	−50	−86
Services	+700	+640	+60
Government	−27	+133	−160

Table 1 shows changes in nonfarm payroll employment by sex and industry from the peak in employment just before the recession to the trough or low point. As indicated, the goods-producing sector—especially manufacturing and construction—posted the heaviest losses by far. These losses were suffered primarily by men, because the mining, construction, and manufacturing industries employ far more men than women. Construction employment is about 90 percent male, and men hold about 2 out of 3 manufacturing jobs. During the general decline in employment, men accounted for 94 percent of the net jobs lost in the construction industry and 68 percent of the lost manufacturing jobs. Job losses in the much smaller mining industry also were incurred almost exclusively by men.

Retail trade posted the third heaviest losses, and many of the jobs terminated had been held by women. In this division, too, the losses were roughly in proportion to the gender composition of employment. About half of retailing employees are women.

The services division is a subset of the service-producing sector and includes industries such as health care, business services, and social services, among others. Employment in services continued to grow during the recession, with almost all of the increase occurring in the health and social services industries. Demand for such services as medical care and residential care of the elderly, driven in part by the aging of the population, continues to grow during recessions partially because these services are frequently of much higher priority to individuals than are various other purchases. In addition, the vast government funding of health services through medicare and medicaid has the effect of supporting health care jobs during recessions, as does the availability of private health insurance. Furthermore, new treatments continually become available and support additional health care jobs. Women gained the vast majority of the jobs added to services during the decline in total employment, mainly because the proportions of women workers utilized in health care and social services are extraordinarily high (at 82 percent and 78 percent).

Although overall government employment fell slightly during the general decline in employment, women gained net government jobs. This fact is partially explained by the fact that, while employment in Federal Government dropped greatly because of the termination of workers hired to conduct the 1990 Decennial Census, the number of jobs in State and local governments—which employ a higher proportion of women—grew. Growth occurred especially in local public school systems, in which employment is 70 percent female.

The household survey shows that declines in employment among men from June 1990 to February 1992 were concentrated in the precision production, craft, and repair occupations (down 600,000) and among operators, fabricators, and laborers (down 750,000). These results are not surprising considering the industrial composition of job reductions.

The younger age groups among employed men suffered the greatest job losses. The youngest group of employed males, from 16 to 19 years old, shrank by 500,000; those aged 20 to 24 decreased by 400,000; and those aged 25 to 34 decreased by 600,000. The number of employed white men was reduced by 1 million, as employment of black men decreased by 200,000. Proportionately, however, the losses were greater for black men. Except for the decline in employed 16- to 19-year-old males, whose population was reduced, these changes were primarily economic effects rather than results of population shifts.

Job growth in recoveries

Comprehensive estimates of the numbers of women and men with nonagricultural jobs have been produced since 1964 from the survey of employers. Since then, five recessions and five recoveries have occurred. Table 2 shows job gain or loss for both sexes during each employment decline and recovery associated with these business cycles. In the earliest recovery shown in the table, from late 1970 to mid-1971, men gained more jobs than women did. In the remaining four recoveries, women gained substantially more jobs than did men. Interestingly, even in the earliest recovery of 1970 to 1971, men ended with fewer jobs than at the preceding peak of employment, and women ended with more jobs.

The main explanation for women's greater job gains in the last four recoveries, like the explanation for their smaller job losses in recessions, has to do with the widely varying proportions of male or female employees in the various industries and the extent of job growth or loss in those industries. The following tabulation shows the number of jobs lost or gained in the goods-producing and service-producing sectors in the last five recoveries:

Period	Change in employment (in thousands)— Goods-producing	Service-producing
November 1970–September 1971	+282	+949
April 1975–February 1976	+830	+1,478
July 1980–January 1981	+552	+775
November 1982–November 1983	+997	+2,081
February 1992–April 1993	+11	+2,018

Clearly, the service-producing sector gained far more jobs in each case. It also employs a much greater proportion of women. In January 1994, women held 54 percent of the jobs in service-producing industries and 28 percent of the jobs in goods-producing industries. In January 1969, women held 43 percent of service-producing jobs and 24 percent of goods-producing jobs. (See chart 2.) Although the percentages changed considerably over time, women consistently had (and have) a much larger share of service-producing jobs than of goods-producing jobs. Women gained more jobs in recoveries primarily because the industries that added the greatest numbers of employees use larger percentages of women workers. Health services, social services, and public school systems are some of the most important industries which added many jobs in the latest recovery and employ more women than men.

In the latest cycle, these industries experienced relatively little or no recessionary decline and then, as other industries recovered, continued to grow at about the same rate or, in the case of health services, at about two-thirds of the previous rate. In the last five cycles, employment in the entire service-producing sector declined so little that it reached full recovery within 3 months after the trough of total employment, or even before it. In the last three cycles, the goods-producing sector never again reached the prerecession peak in employment because of the long-term and substantial decline in manufacturing employment.

The ratio of women workers to all employees within each major industry division changed during the latest recovery, but only slightly. Changes in the gender distribution of jobs at the total level are mainly attributable to the shifts in the sizes of the various industries. In fact, the net effect of all *intradivision* changes in the proportions of women workers is actually in a *downward* direction—the effects of interindustry shifts in the numbers of jobs had to overcome internal changes in each division to yield a net upward effect on the proportion of women employees. Changes in employment by sex and industry in the latest employment recovery are shown in table 3. The major developments include some that are characteristic of the last five recoveries and some that are considerably different.

The trends characteristic of post-1964 employment recoveries are extensive. The *retail trade, services,* and *government* divisions added hundreds of thousands of jobs and hired vast numbers of women in this latest recovery, as in past ones. Services and government hired far more women than men. These two divisions were primarily responsible for the greater overall gains of women in the recovery. (However, services, government, and retail trade each performed

Table 2. **Job gain or loss by sex in declines and recoveries of employment, 1970–93**

[Numbers in thousands, seasonally adjusted]

Period	Description of period	Change in numbers of— Employed men	Employed women
March 1970–November 1970	Decline	–968	–83
November 1970–September 1971	Recovery	+733	+498
October 1974–April 1975	Decline	–1,642	–629
April 1975–February 1976	Recovery	+1,138	+1,170
March 1980–July 1980	Decline	–1,151	–168
July 1980–January 1981	Recovery	+543	+784
July 1981–November 1982	Decline	–2,626	–135
November 1982–November 1983	Recovery	+1,476	+1,602
June 1990–February 1992	Decline	–1,968	+124
February 1992–April 1993	Recovery	+943	+1,086

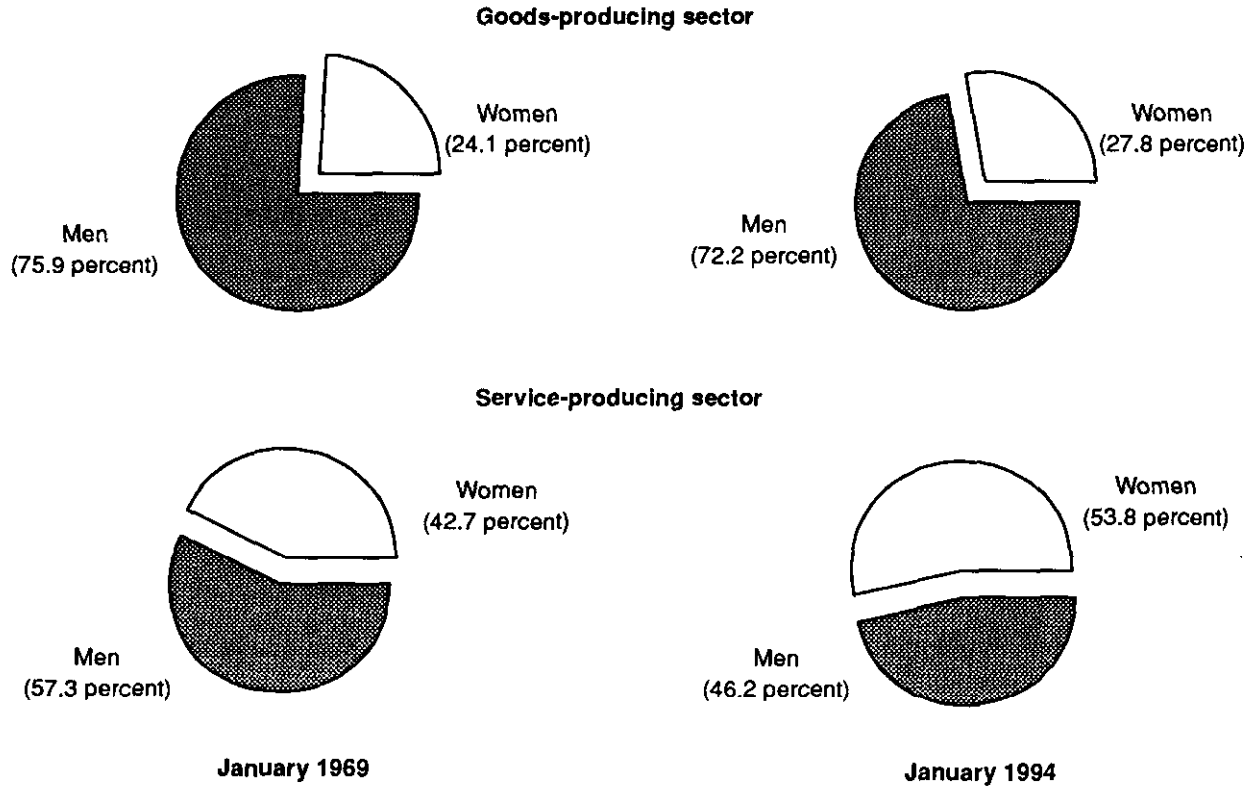
Table 3. **Changes in employment by sex and industry in the latest recovery of employment, 1992–93**

[Numbers in thousands, seasonally adjusted]

Division	Change in employment February 1992–April 1993[1] Total	Women	Men
Total nonfarm	+2,029	+1,086	+943
Mining	–35	–6	–29
Construction	+110	+4	+106
Manufacturing	–64	–41	–23
Transportation, communication, and utilities	+65	+22	+43
Wholesale trade	–88	–36	–52
Retail trade	+379	+102	+277
Finance, insurance, and real estate	+106	+53	+53
Services	+1,316	+781	+535
Government	+240	+207	+33

[1] Period of recovery in nonfarm payroll employment.

Chart 2. **Gender shifts in employment of industry sectors over 25 years**



unusually in some way in this latest recovery. The abnormal changes in these divisions and others are described in the next section.)

The loss of jobs in *mining* during the latest recovery was not unique. A large number of mining jobs also was lost during the preceding recovery. In the two latest recoveries (1982–83 and 1992–93), the job cuts in mining were primarily in oil and gas extraction. Eighty-six percent of mining workers are men, and men accounted for most of the mining jobs that were gone by the ends of the latest two recoveries of nonfarm jobs.

The increase in *construction* from February 1992 to May 1993 was middling compared with other recoveries. As in the past, the new construction jobs went to men as the number of women in construction was almost unchanged.

Unusual developments

Several trends in the latest recovery were dramatic departures from preceding business cycles. Possibly the most striking contrast was the loss of 60,000 *manufacturing* jobs during the recovery. In previous recoveries, manufacturing gained hundreds of thousands of jobs, although the even larger losses during the declines were not fully regained. The main factors resulting in the recent failure of manufacturing jobs to show any net gain while the economy expanded include increasing automation, foreign competition, defense cutbacks, and reduced demand for commercial, as well as military, aircraft. The losses were concentrated in the durable goods industries, especially instruments and aircraft and parts; instruments lost 40,000 jobs, and aircraft and parts lost 70,000 jobs. Primary metals and electronic and other electrical equipment each lost about 20,000 jobs. Partly compensating for the losses were gains elsewhere in manufacturing, particularly in lumber and wood products and rubber and plastics products. Women as well as men in manufacturing lost jobs this time, but had gained hundreds of thousands of jobs in each of the three preceding recoveries.

Services gained 1.3 million jobs in the 1992–93 recovery, far more than the number added in previous recovery periods. The gains in the latest recovery were concentrated in health services, business services (especially help supply—the furnishing of mainly temporary workers to client firms), and social services. Each of these industries grew at a faster rate than did services as a whole and gained far more jobs in the latest recovery than in the preceding one (1982–83).

Their growth over the two latest recoveries in total employment is summarized in the following tabulation:

Industry	Growth in jobs (in thousands)	
	November 1982–November 1983	February 1992–April 1993
Business services	+368	+509
Health services	+147	+315
Social services	+43	+137

Almost 800,000 of the new services jobs went to women. In preceding recoveries, women gained at most about 65 percent of that number.

Until the latest episode, changes in employment in *retail trade* during recoveries were generally in proportion to the gender makeup of the industry. But in the most recent recovery, women got only about a quarter of the jobs added in retailing, although they held about half of the jobs in the division. (The overall increase in retailing jobs was also relatively weak—about 100,000 jobs short of the average gain in preceding recoveries.) This time, the more specific retailing industries in which women are most concentrated, including *general merchandise stores* and *apparel and accessory stores*, had substantially smaller employment increases than in the previous recovery. Precarious financial positions and major layoffs have characterized the department store field in the last few years. Competition from discount stores, warehouse clubs, and more specialized stores has been a large part of the problem.[7] In addition, this time women gained only 34 percent of the quarter-million jobs added to the eating and drinking places industry. In the preceding recovery, women got half of the jobs added to that industry.

Government employment rose by almost a quarter of a million during the recovery, and this increase was far greater than those of the three previous recoveries, as shown below:

Period	Change (in thousands)	
	All employees	Women
November 1970–September 1971	+242,000	+95,000
April 1975–February 1976	+186,000	+2,000
July 1980–January 1981	–52,000	+53,000
November 1982–November 1983	+31,000	+131,000
February 1992–April 1993	+240,000	+207,000

Although women hold about half of government jobs, most of the new public-sector jobs were filled by women in the latest recovery. A partial explanation for women's gains has to do with the more specific parts of the government sector that gained or lost employment. While total government jobs increased greatly, the Postal Service and civilian employment in the Department of Defense were cut, by 20,000 and 50,000 jobs respectively. (Uniformed military personnel are excluded from the survey.) About two-thirds of the civilian jobs in each of these two organizations were held by men. The gains in government were at the State and local levels, especially in local public school systems, in which women constitute about 70 percent of employees. Local public education gained approximately 155,000 jobs, and most of them were filled by women.

The unusual changes in employment of women in manufacturing, retail trade, services, and government are illustrated in chart 3. Combined, these movements that break with the past resulted in even larger proportions of women getting the net new jobs than in most past recoveries. While two of the industries shown hired reduced numbers of women, government and especially services hired so many more women than in past recoveries that the overall percentage of jobs filled by women increased from all of the earlier recoveries except that of 1980 to 1981.

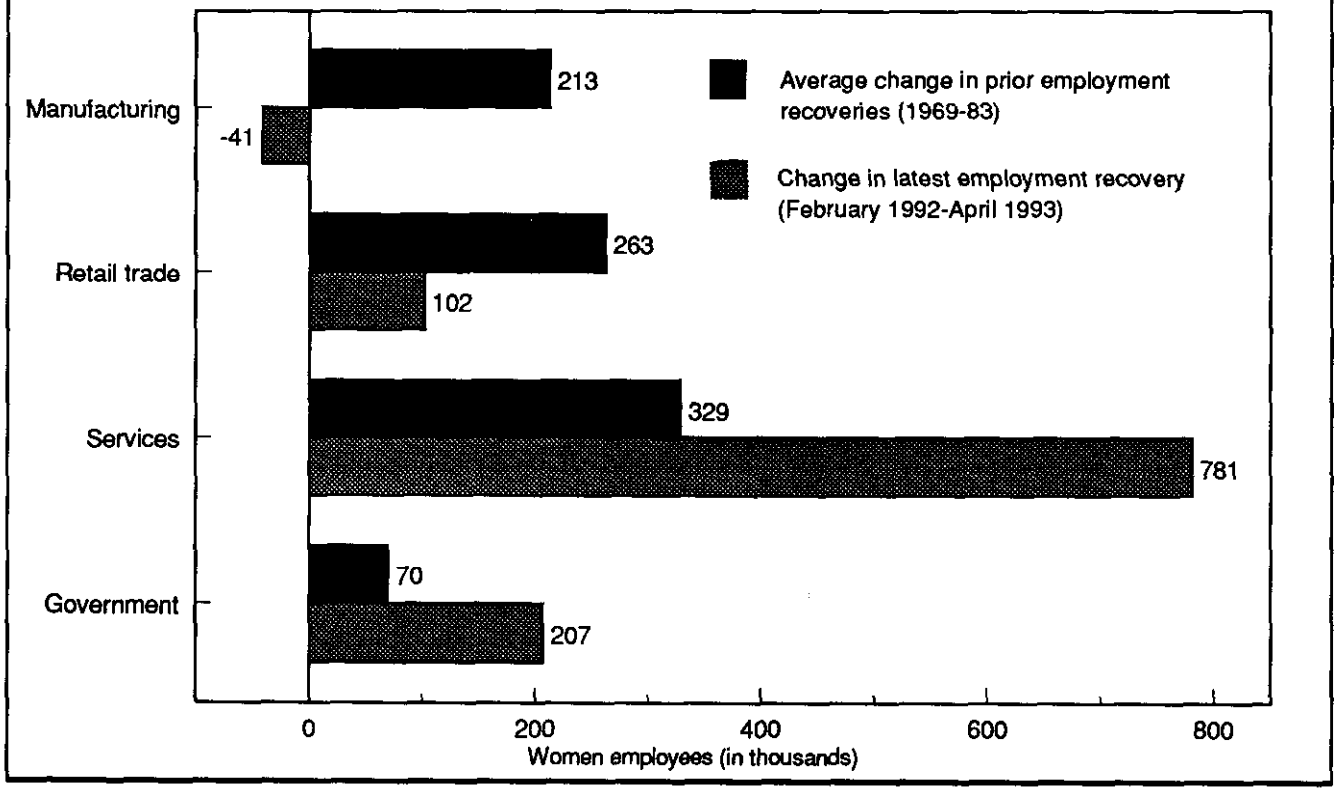
Women's demographics, occupations

During the most recent recovery, employment gains among women were concentrated among those 35 to 64 years of age, while women aged 25 to 34 showed a decline. The changes were fairly proportionate to shifts in the population of women by age, so that the ratio of working women to all women in each age group was fairly stable. The following tabulation shows changes in women's employment by age:

Age group	Job gain or loss	Percent change in employment	Change in employment-population ratio
16–19	–2,000	0	–1
20–24	+32,000	+1	0
25–34	–354,000	–3	0
35–44	+292,000	+2	0
45–54	+634,000	+7	+1
55–64	+144,000	+3	+1
65 and older	–37,000	–3	–1

During the recovery, the ratio of employed persons to population also was fairly stable among white women and black women, indicating that job growth in the two groups was about propor-

Chart 3. **Growth in employment of women during employment recoveries, selected industries, 1970-93**



tionate to growth in population. This ratio remained at 54 percent for white women and 50 percent for black women. The increase in employed white women was about 300,000, while that for employed black women was about 100,000. Employment growth among black women was boosted because the black population is growing much faster than the white population.

Women's gains were greatest in the executive, administrative, and managerial; professional specialty; and service occupations. The gain in the executive, administrative, and managerial group was about 450,000. The professional specialty occupation including the largest number of women is "teacher, excluding college and university teacher"; this category accounted for nearly all of the job growth among women in professional specialties.

Periods of expansion

During further growth of employment following re-attainment of the prerecession peak in jobs, women have generally continued to gain more jobs than men have. The same long-term factors that increase women's proportionate share of jobs during recovery periods are responsible for the faster growth of employed women during periods of expansion in jobs. The tabulation below compares job growth for men and women during past periods of expansion (based on the survey of businesses):

	Change in numbers of—	
Period	*Employed men*	*Employed women*
September 1971–October 1974	+3,169,000	+3,873,000
February 1976–March 1980	+5,262,000	+7,127,000
January 1981–July 1981	+78,000	+329,000
November 1983–June 1990	+6,717,000	+11,467,000

The relatively short 11-month period from April 1993, when employment recovered to the June 1990 peak level, to March 1994 has not followed the pattern shown above. Men gained 1.2 million jobs, and women gained 1.0 million. During this period, gains among men were concentrated in the services, retail trade, and construction industries—and, more specifically, in eating and drinking places, auto dealers and service

stations, food stores, health services, help supply, and social services. Half of men's gains were in services, and almost 20 percent were in retail trade. This distribution contrasts greatly with the first 11 months of earlier expansions, during which manufacturing was much stronger and services was less strong than in the recent period.

Whether the greater recent gains of men will persist is unknown. The current period of expansion in employment, after re-attainment of the prerecession level, is very young compared with past completed expansions, which ran for an average of 43 months. In one of the previous 11-month periods at the beginning of an expansion, men gained more jobs than women did (September 1971 to August 1972, 1.3 million jobs versus 1.1 million). By the end of the 1971–74 expansion, however, women caught up with and overtook men in job gains.

Net effects

The combined effects of employment changes in economic declines and subsequent recoveries have included vast shifts in the industry and gender makeup of U.S. employment. In general, industries that declined most have not recovered fully by the time total nonfarm employment has returned to its prerecession level—and one division (services) has grown substantially during both general declines and general recoveries. In the latest recovery, construction regained only 100,000 jobs after losing 700,000 during the general employment decline. Manufacturing lost a million jobs in the general decline and lost more jobs as total employment recovered. Services gained more than half a million jobs during the decline and an additional 1-1/3 million in the recovery. Government also had a large net gain. The changes in jobs by industry and gender in the recovery were greatly different from simple returns to prerecession levels. At the point when jobs recovered to the prerecession level, male employment was down by a million, and female employment was up by a million. Male employment stayed below its level at the prerecession peak for over 3-1/2 years, through February 1994.

Table 4 shows the net effects of these shifts during the latest cycle. The movements are influenced by both cyclical and long-term factors. Manufacturing has been in long-term decline since 1979 and has lost a total of 3 million jobs. Services, government, and retail trade have been experiencing long-term growth. Long-term influences have substantially contributed to the shift toward service-producing jobs, particularly those that traditionally are held largely by women, and consequently toward more women as employees. These influences include greater automation, which reduces the need for production workers in goods-producing industry, and greater longevity, which increases the elderly population, substantially boosting demand for medical and social services. Public demand for quality education is another long-term factor.

Long-term influences can be stronger than cyclical ones. Services jobs increased during the latest general decline; manufacturing jobs continued to decline in the recovery. The transition in the long term from a primarily goods-producing economy to a largely service-producing one has resulted in greater demand for occupations

Table 4. **Changes in employment by sex and industry in the latest employment decline and recovery, 1990–93**

[Numbers in thousands, seasonally adjusted]

Division	Change in employment					
	Women			Men		
	June 1990–February 1992[1]	February 1992–April 1993[2]	Net change, June 1990–May 1993	June 1990–February 1992[1]	February 1992–April 1993[2]	Net change, June 1990–May 1993
Total nonfarm	+124	+1,086	+1,210	–1,968	+943	–1,025
Mining	–1	–6	–7	–65	–29	–94
Construction	–42	+4	–38	–639	+106	–533
Manufacturing	–327	–41	–368	–710	–23	–733
Transportation, communication, and utilities	–29	+22	–7	–54	+43	–11
Wholesale trade	–42	–36	–78	–106	–52	–158
Retail trade	–158	+102	–56	–208	+277	+69
Finance, insurance, and real estate	–50	+53	+3	–86	+53	–33
Services	+640	+781	+1,421	+60	+535	+595
Government	+133	+207	+340	–160	+33	–127

[1] Period of decline in nonfarm payroll employment.

[2] Period of recovery in nonfarm payroll employment.

generally held by women and less demand for labor in industries staffed primarily with men. As a result, women's employment growth has exceeded men's, and every cycle since 1974 has included a considerable period of reduced male employment following the recovery of total employment. □

Footnotes

[1] The Current Employment Statistics (CES) program produces estimates of employees on all nonfarm payrolls, based on a monthly survey of about 390,000 workplaces. Data from the program appear in the Bureau's monthly periodical *Employment and Earnings*.

All CES data in this article are seasonally adjusted.

[2] The official starting and ending points of business cycles are determined by the National Bureau of Economic Research, a private, nonprofit organization which tracks developments in a number of economic indicators.

[3] The Current Population Survey produces estimates of all civilian employment and unemployment based on a monthly survey of 60,000 households. This sample includes 0.1 percent of persons in the United States. Results of the survey, like estimates from the Current Employment Survey, appear in the monthly periodical *Employment and Earnings*. Information on survey techniques and the magnitudes of errors for each survey can be found in the explanatory notes of any monthly issue of *Employment and Earnings*. See, for example, pp. 228–63 of the March 1994 edition.

[4] To keep analysis of the two surveys comparable, the timespans used are based on peaks and troughs as indicated by the survey of establishments.

[5] The survey of households was recently found to underestimate the employment of women, and its interviewing techniques were changed (as of January 1994), for that reason among others. Also, beginning with estimates for January 1994, new external methods of determining the population figures used to determine numbers of persons by age, race, and sex were introduced. The revision of data for earlier months was not possible. In January 1994, when the new techniques were introduced, the number of employed women was estimated at a level 1.6 million higher than the December estimate (based on the older techniques), while the January figure for employed men was estimated at a level only 0.4 million higher than the December estimated level. Because of the changes in methodology, comparisons using household data cannot be made over spans starting before January 1994 and ending in or after January 1994. For more information on the changes to the survey of households, see Sharon R. Cohany, Anne E. Polivka, and Jennifer M. Rothgeb, "Revisions in the Current Population Survey Effective January 1994," *Employment and Earnings*, February 1994, pp. 13–39.

[6] For a fuller report on employment by sex in declines, see William Goodman, Stephen Antczak, and Laura Freeman, "Women and jobs in recessions: 1969–92," *Monthly Labor Review*, July 1993, pp. 26–35.

[7] *U.S. Industrial Outlook 1994* (U.S. Department of Commerce, 1994), pp. 39–3,4.