# THE LABOR MARKET STATUS OF WOMEN Edward T. Gullason

The last time the annual *Economic Report of the President*, prepared by the President's Council of Economic Advisers (CEA), included an in-depth analysis of the labor market status of women was in 1987. A central observation in that study, "Women in the Labor Force," is that from the end of World War II to 1986 there was a dramatic increase in the share of the U. S. labor force made up of women—a structural change whose magnitude and significance exceeded the substantial movement of workers out of the agricultural sector during the early 1900s.

The 1987 *Report* shows that the integration of the large number of women into the labor force took place without a major disruption in the performance of the U.S. economy and its labor market, and with minimal government intervention. This major change occurred in an atmosphere of rising real earnings for both women and men. In the early 1980s, the female unemployment rate fell below that of males for the first time in the post–World War II era. Women increasingly entered higher-paying jobs and the ratio of female-to-male median earnings rose.

The prognosis made in the 1987 *Report* is that the labor market status of women would improve to an even greater extent in the future. I shall investigate the accuracy of that prediction, given the

Cato Journal, Vol. 19, No. 1, (Spring/Summer 1999). Copyright  $\ ^{\circ}$  Cato Institute. All rights reserved.

Edward T. Gullason is Associate Professor of Economics at Dowling College. He was previously a Staff Economist for President Reagan's Council of Economic Advisers, where he contributed to Chapter 7 of the 1987 *Economic Report of the President:* "Women in the Labor Force," which this article updates. The author thanks Steven Hipple, Jay Meisenheimer, and Tiffany Stringer of the Bureau of Labor Statistics of the U.S. Department of Labor for providing some of the data analyzed in this study, as well as insight into its appropriate interpretation and use. The author also thanks W. Vance Grant of the U.S. Department of Education for providing the data on earned degrees. Research support provided by Dowling College is gratefully acknowledged. The author assumes responsibility for any errors and/or omissions.

major structural changes in the U.S. economy since 1986. Those structural changes include: the end of the Cold War and the accompanying decline in the defense industry; the 1990–91 recession and the subsequent sluggish recovery; an extraordinary amount of corporate restructuring and downsizing; the rapid, significant increase in the use of computers, the Internet, and the accompanying necessity for laborers to acquire more sophisticated education and training; and the emergence of the global economy, along with the accompanying increase in international economic competition (see Gullason 2000, forthcoming).

This study examines many of the aspects of the labor market status of women analyzed in the 1987 *Report* using Current Population Survey (CPS) data from the U.S. Department of Labor's Bureau of Labor Statistics. In 1994 there were major changes in the CPS (see Cohany, Polivka, and Rothgeb 1994: 13–37). Consequently, data from 1994 to the present are not fully comparable with pre-1994 data.

The modifications incorporated in the occupational classification system used in the 1990 Census do not affect the subsequent analyses since only broad occupational categories are examined. Since the 1987 *Report* was published, the percentage of the U.S. labor force made up of women rose from 44 percent to 46 percent. Analyses of a variety of additional dimensions of labor market status uncover solid advances for women.

### Female Work Expectations

One factor identified in the 1987 *Report* as having a significant impact on the future economic status of women is their expectations regarding subsequent labor market activity. Factors that affect these expectations include preferences for future labor market relative to non–labor market activity, one's forecast of future job opportunities, and the level of sex discrimination in the workplace.

The 1987 Report observes that up through the 1980s, "more women were working than had expected to work" (President's Council of Economic Advisers [hereafter CEA] 1987: 215), based on surveys of future work plans conducted years earlier. As a result, women were less prepared for labor market activity than they would have been had they become better prepared by obtaining additional education, and education more directly related to their ultimate occupational choices. This helps explain why the female-to-male earnings ratio fell from the end of World War II to the early 1980s. By the early 1980s, the female-male education and work experience gaps narrowed to such an extent that the female-to-male earnings ratio began to rise.

The 1987 *Report* notes that "young women [are currently expected] to spend a much greater fraction of their adult lives working in the labor market than their mothers did" (CEA 1987: 215–16). This was thought to contribute to further increases in the female-to-male earnings ratio.

Since 1986, womens' work expectations have indicated greater future labor market commitment based on the amount and type of education women have been obtaining. The educational level of females in the aggregate has been increasing, reinforcing the trend observed in the 1987 *Report*. In 1996, women received 40 percent of the doctoral degrees (up from 34 percent in 1985), 56 percent of the master's degrees (up from 50 percent in 1985), and 55 percent of the bachelor's degrees (up from 51 percent in 1985).

This increase in education on the part of women serves to enhance their level of job stability in addition to qualifying them for higherpaying jobs. David Marcotte (1995) indicates that even though aggregate job stability economywide has been steady in recent times, the level of job stability of college graduates relative to high school graduates and high school dropouts has been increasing. Jeffrey Grogger and Eric Eide (1995: 280) find that "the college wage premium for new labor market entrants rose sharply during the 1980s."

# Changes in the Occupational Distribution of Women

The type of education obtained by women would lead one to predict a solid improvement in their labor market status. Over the last decade, women have been increasingly obtaining education appropriate for "high-atrophy" occupations, continuing a trend that had already been observed in the 1987 *Report*. For example, in 1996 women received 41 percent of the degrees in medicine (up from 30 percent in 1985), 36 percent of the degrees in dentistry (up from 21 percent in 1985), and 43 percent of the degrees in law (up from 38 percent in 1985).

High-atrophy occupations require that practioners keep up with the rapidly changing amount and sophistication of the body of knowledge necessary in order to perform effectively. Solomon Polachek (1981) and Jacob Mincer and Haim Ofek (1982) demonstrate that if one leaves a high-atrophy occupation for a given time and later returns, the subsequent earnings decline is significantly greater compared with the situation in a "low-atrophy" occupation, *ceteris paribus*.

The higher earning and prestige levels typically associated with high-atrophy occupations are necessary to encourage individuals to make the substantial human capital and time investments needed to become qualified for, obtain, and succeed in high-atrophy occupations. Women expecting a brief or intermittent stay in the labor market will, from an investment standpoint, opt to acquire a smaller amount of human capital, and will be especially less likely to obtain the education needed for high-atrophy occupations.

Polachek (1981) determines empirically that the highest-atrophy occupations are those in the craft, professional, and managerial categories—e.g., mathematical and computer scientists, natural scientists, health diagnosing occupations, lawyers and judges, and precision woodworking occupations.

As demonstrated in Table 1, women have been greatly increasing their representation in many high-atrophy occupations such as medicine and law, which had previously been considered "untraditional" for women. This phenomenon contributes to the decline of the sex stereotyping of occupations, which should serve to increase the likelihood that more young women will aspire to such jobs.

Job opportunities for women in high-atrophy occupations are projected to increase partly because many of them are in the service sector. Janet Pfleeger (1996) indicates that an increasing share of consumers' disposable incomes are being spent on services. To an ever-greater extent over time, this translates into a greater percentage employment share of occupations in the services industry. Pfleeger (1996: 8) notes: "The proportion of the economy's jobs generated by consumer expenditures increased from 60 percent in 1977 to 64 percent in 1993." The growth in job opportunities in high-atrophy service-sector occupations "could lower barriers to entry such as gender discrimination" (Wootton 1997: 15).

Another factor contributing to the increasing importance of highatrophy service-sector jobs is that capital and labor are highly complementary and not substitute factors of production, contrary to the situation in low-atrophy service-sector jobs and in numerous non-service-sector jobs. Technologically intensive capital goods, which have been utilized in the production process more frequently and with ever-increasing levels of sophistication, are good substitutes for unskilled labor and are complementary to the skills of highly educated labor—especially in high-atrophy jobs. Consequently, those jobs are less expendable, and women working in them will realize higher levels of job stability and earnings. Given the high amount and sophistication of human capital investments made in workers in high-atrophy jobs, employers would be more anxious to retain those workers as opposed to workers in low-atrophy jobs.

		TA	TABLE 1								
Percentage of the Employed Who Are Women, Total and in Each Occupational Category (16 Years and Over)	40 Ari (16	Wow Year	ARE WOMEN, TOTAL. (16 Years and Over)	Over)	ND IN	Еасн	Осси	ATION	al Ca	regor	<b>&gt;</b> -
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
ALL OCCUPATIONS	45	45	45	45	46	46	46	46	46	46	46
HIGH-ATROPHY OCCUPATIONS											
Precision Production, Craft, and Repair	6	6	6	6	6	6	6	6	6	6	6
Precision Woodworking Occupations	12	12	14	14	14	11	12	11	12	10	5
Managerial and Professional Specialty	44	45	45	46	46	47	48	48	48	49	49
Mathematical and Computer Scientists	34	33	36	37	37	34	32	34	35	31	30
Natural Scientists	24	24	27	56	56	27	30	31	27	53	31
Health Diagnosing Occupations	17	18	17	18	18	18	21	22	23	56	25
Physicians	20	20	18	19	20	20	22	22	24	56	56
Health Assessment and Treating											
Occupations	98	85	85	98	98	87	98	98	98	98	87
Registered Nurses	95	95	94	92	92	94	94	94	93	93	94
Lawyers and Judges	20	20	22	21	19	21	23	25	56	53	27
										(continued)	nued)

	T/	TABLE 1 (continued)	(conti	(panu							
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Low-Atrophy Occupations											
Technical, Sales, and Administrative											
Support	65	65	65	65	65	64	64	64	64	64	64
Technicians and Related Support	49	48	48	49	49	49	51	52	51	53	52
Engineering and Kelated	7	,	5	Ċ	0	0	9	C	9	0	9
rechnologists and rechnicians	1/	Ιλ	Ιâ	70	18	10	18	70	18	70	ΙS
Sales Occupations	48	49	49	49	49	48	48	49	20	20	20
Administrative Support Occupations,											
Including Clerical	80	80	80	80	80	79	79	79	80	79	79
Secretaries, Stenographers, and											
Typists	86	86	86	86	66	86	86	86	86	86	86
Mail and Message Distributing	35	36	37	36	38	37	38	39	40	37	38
Service Occupations	61	61	09	09	09	09	09	09	09	59	59
Sheriffs, Bailiffs, and Other Law											
Enforcement Officers	14	17	13	13	18	21	20	16	16	16	22
Bartenders	20	20	51	26	54	52	53	52	54	54	22
Waiters and Waitresses	82	83	81	81	85	80	80	79	28	28	28
Operators, Fabricators, and Laborers	56	56	56	56	25	25	25	24	24	24	25
Printing Machine Operators	27	56	27	56	56	23	56	25	25	22	23
Motor Vehicle Operators	10	11	11	11	11	10	11	11	11	11	11
Bus Drivers	48	49	55	52	47	42	46	47	46	47	48
Farming, Forestry, and Fishing	16	16	17	16	16	16	15	19	20	19	19
Cormer II & Burgan of I abor Statistics											

Source: U.S. Bureau of Labor Statistics.

#### Female Job Tenure

Another important development signals an improvement in the labor market success of women, especially for those in high-atrophy jobs. Job tenure, the number of years one spends with a single employer, increased to a fairly great extent for women in absolute terms, and relative to men since 1987 overall, and in many different low- and high-atrophy occupations (see Tables 2 and 3). These

TABLE 2

MEDIAN YEARS OF TENURE WITH CURRENT EMPLOYER FOR
FEMALE WAGE AND SALARY WORKERS
(16 Years and Over)

	1987	1991	1996
ALL OCCUPATIONS	3.0	3.2	3.5
HIGH-ATROPHY OCCUPATIONS			
Precision Production, Craft, and Repair	4.2	4.8	4.5
Managerial and Professional Specialty Mathematical and Computer	4.4	4.6	4.8
Scientists	4.2	3.9	6.0
Natural Scientists	3.9	4.9	4.1
Health Diagnosing Occupations Health Assessment and Treating	2.3	2.3	2.6
Occupations	4.1	4.2	4.9
Lawyers and Judges	2.5	3.1	4.1
LOW-ATROPHY OCCUPATIONS			
Technical, Sales, and Administrative			
Support	2.7	3.0	3.3
Technicians and Related Support	3.3	3.6	4.4
Sales Occupations	2.1	2.2	2.0
Administrative Support Occupations,			
Including Clerical	3.1	3.5	3.9
Secretaries, Stenographers, and			
Typists	3.0	3.4	4.5
Mail and Message Distributing	3.2	4.7	6.7
Service Occupations	2.2	2.3	2.2
Operators, Fabricators, and Laborers	3.7	3.4	3.5
Motor Vehicle Operators	3.0	3.3	4.6
Farming, Forestry, and Fishing	1.3	2.4	2.7

Note: Data for 1996 are not strictly comparable with data for 1991. See U.S.

Department of Labor (1997) for details.

Source: U.S. Bureau of Labor Statistics.

TABLE 3

Median Years of Tenure with Current Employer for Female Wage and Salary Workers as a Percentage of That of Males (16 Years and Over)

	1987	1991	1996
ALL OCCUPATIONS	75	78	88
HIGH-ATROPHY OCCUPATIONS			
Precision Production, Craft, and			
Repair	88	100	92
Managerial and Professional Specialty	77	78	87
Mathematical and Computer			
Scientists	79	85	146
Natural Scientists	57	69	89
Health Diagnosing Occupations	85	68	70
Health Assessment and Treating			
Occupations	100	98	100
Lawyers and Judges	64	79	95
LOW-ATROPHY OCCUPATIONS			
Technical, Sales, and Administrative			
Support	77	86	94
Technicians and Related Support	75	90	86
Sales Occupations	68	71	67
Administrative Support Occupations,	00	• -	٠.
Including Clerical	76	81	91
Secretaries, Stenographers, and		01	0.2
Typists	125	117	188
Mail and Message Distributing	53	66	87
Service Occupations	92	96	85
Operators, Fabricators, and Laborers	112	97	113
Motor Vehicle Operators	94	103	139
Farming, Forestry, and Fishing	50	89	69

Note: Data for 1996 are not strictly comparable with data for 1991. See U.S. Department of Labor (1997) for details.

Source: U.S. Bureau of Labor Statistics.

increases are especially pronounced between 1991 and 1996. As is well-known, an additional year of job tenure tends to enhance earnings to a greater extent than does an additional year of work experience.

Job tenure is not only important since it adds to one's specific human capital, but it also is especially important in high-atrophy jobs where work continuity has a greater positive effect on earnings. Increases in job tenure for women increase earnings to a greater extent in high-atrophy than in low-atrophy jobs (Gullason 1991). Employers are more willing to invest additional specific human capital in women, in both low- and high-atrophy occupations, as they remain employed for longer periods. According to Steven Maguire (1993: 46), "Tenure increases as the level of educational attainment increases," so the higher education level of women signals future increases in job tenure and subsequent job stability and earnings.

### Female Unemployment Rates

The 1987 Report observes that before the early 1980s, unemployment rates were higher for women than for men. In the early 1980s, the female unemployment rate fell below the male rate for the first time in the post–World War II period. Subsequently, male and female unemployment rates remained roughly comparable up to the present. This is partly due to the increased commitment of women to the labor market. It is also an outcome of the continuing convergence of the occupational distributions of men and women in recent years, confirmed empirically in Wootton (1997). Since occupations have associated with them different unemployment rates due to various jobrelated characteristics, such as the extent to which overall economic downturns affect the number of jobs in the various occupational categories, a greater convergence in the occupational distributions of men and women should result in greater convergence in male and female unemployment rates, ceteris paribus, a phenomenon that is fairly apparent in Table 4.

The most likely period in recent times that women would have experienced high unemployment rates was during the 1990–91 recession and the subsequent sluggish recovery. Even though unemployment rates for both women and men rose in absolute terms during this period, the female-male unemployment rate differential indicates that women were less adversely affected relative to men in the aggregate, and in many of the occupational categories analyzed in Table 4.

## Female-to-Male Earnings Ratios

As a result of the numerous solid labor market gains realized by women since the publication of the 1987 *Report*, there have been increases in the female-to-male earnings ratios in the aggregate and across many occupational categories (see Table 5). In certain instances, such as in the mathematical and computer scientists occupations, the increases have been substantial.

1		I ~	I		3	2	1	9	9	6	7
		199	0		0.3	0	0	-0	0	0.9	Τ.
		1996	0		-0.2	0.2	0.2	-0.2	0.1	0.4	0.7
		1995	-0.1		-0.4	0.3	0	0.7	0.7	0.3	1.8
	ATES	1994	-0.3		-0.4	0.4	0.7	0.3	1.2	1.3	3.2
	ent R	1993	-0.7		-0.1 - 0.4	0.3	0.1	1.1	1.8	0.4	2.8
	гоум	1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997	$-0.3 \ -0.1 \ 0 \ -0.3 \ -0.9 \ -1.0 \ -0.7 \ -0.3 \ -0.1 \ 0$		-0.6	-0.1	-0.9	1.7	9.0	-0.1	1.4
	UNEMI	1991	-0.9		-0.1 -0.6	0.5	-0.5	0.1	9.0	-0.6 -0.1	1.9
	MALE Over)	1990	-0.3		0.7	0.3	-0.3	1.7	9.0	0.7	
TABLE 4	S and	1989	0		0.5	0.0	1.0	1.2	-0.1	-0.5	0.4
TA	FEMALE AND MALE (16 Years and Over)	1988	-0.1		0.4	0.3	-0.6	0.9	1.9	-0.8 -0.2 -0.5	0.0
	EEN F	1987	-0.3		0.4	0.5	0.4	0.1	1.6	-0.8	2.0
	DIFFERENCES BETWEEN FEMALE AND MALE UNEMPLOYMENT RATES (16 Years and Over)		ALL OCCUPATIONS	HIGH-ATROPHY OCCUPATIONS	Precision Production, Craft, and Repair	Managerial and Professional Specialty	Mathematical and Computer Scientists	Natural Scientists	Health Diagnosing Occupations Health Assessment and Treating	Occupations	Lawyers and Judges

	/L	TABLE 4 (continued)	(cont	inued)							
	1987	1988	1989	1990	1991	1992	1993	1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997	1995	1996	1997
Low-Atrophy Occupations											
Technical, Sales, and Administrative Support	1.0	1.0	1.0	0.7	1.0 0.7 0.7 1.0	1.0	0.8	1.1	1.0	1.0	0.8
Technicians and Related Support		0.4	0	-0.6	-0.9	-1.0	0.1	-0.1	0.2	0.2	0.4
Sales Occupations	3.0	2.9	2.7	2.7	2.7	3.4	2.6	3.0	2.8	3.0	2.6
Administrative Support Occupations,											
Including Clerical		-0.5	-0.4	-0.7	-0.8	-0.8	-0.4	$-0.4 \ -0.5 \ -0.4 \ -0.7 \ -0.8 \ -0.8 \ -0.4 \ -0.3 \ -0.6 \ -0.5$	-0.6	-0.5	-0.5
Secretaries, Stenographers, and											
Typists		8.0	-0.8	-2.9	-6.7	-3.0	-4.0		-2.9	-0.2	-4.2
Mail and Message Distributing	1.3	1.1	1.5	2.1	1.1	-0.2	0.9	-0.1	0.3	1.1	2.0
Service Occupations		0.3	0.1	-0.1	-0.9	-0.8	-0.5		0.1	-0.1	0.3
Operators, Fabricators, and Laborers		0.8	1.4	1.0	0.8	0	0.9		1.8	1.8	1.7
Motor Vehicle Operators		-1.0	-0.2	-1.2	-0.7	-0.8	0.1		0.4	0.4	0.4
Farming, Forestry, and Fishing		1.5	1.2	1.2	0.5	2.4	2.4		1.9	1.1	0.0

 $\ensuremath{\mathsf{NOTE}}\xspace$  . The unemployed refer to the experienced unemployed. Source: U.S. Bureau of Labor Statistics.

		TA	TABLE 5								
Female-to-Male Ratios of Median Weekly Earnings of Full-Time Wage and Salary Workers in Percentage Terms (16 Years and Over)	F MED WOR	IAN W KERS II Year	EDIAN WEEKLY EARNORKERS IN PERCENTA (16 Years and Over)	EARN SENTA Over)	INGS C GE TEI	DF FUL	L-TIME	E WAG	E AND		
	1987	1988	1987 1988 1989 1990 1991	1990	1991	1992	1993 1994	1994	1995	1996	1997
ALL OCCUPATIONS	70	70	70	72	74	75	77	92	75	75	74
HIGH-ATROPHY OCCUPATIONS											
Precision Production, Craft, and Repair	70	89	99	65	69	29	29	72	69	29	29
Managerial and Professional Specialty	69	70	70	70	70	72	73	74	73	72	72
Mathematical and Computer Scientists	74	78	85	79	98	82	85	84	84	82	83
Natural Scientists	73	80	78	86	79	79	84	98	84	85	9/
Health Diagnosing Occupations	73	69	69	74	61	73	74	77	99	61	80
Physicians	79	70	70	85	54	72	75	77	65	28	78
Health Assessment and Treating											
Occupations	98	98	87	06	88	86	88	88	98	90	81
Registered Nurses	93	35	06	66	90	105	101	96	6	92	91
Lawyers and Judges	74	85	72	70	75	92	83	74	77	77	75

	TA	BLE	TABLE 5 (continued)	(panui							
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Low-Atrophy Occupations											
Technical, Sales, and Administrative											
Support	65	65	99	29	69	70	70	69	69	69	69
Technicians and Related Support	74	75	75	73	77	74	9/	75	75	77	75
Engineering and Related											
Technologists and Technicians	9/	81	85	75	85	81	85	77	85	87	84
Sales Occupations	51	54	22	28	59	09	09	26	22	09	28
Administrative Support Occupations,											
Including Clérical	73	73	75	75	9/	9/	9/	78	79	80	78
Mail and Message Distributing	98	83	88	96	06	87	88	84	79	83	84
Service Occupations	29	70	71	72	74	75	74	73	74	92	9/
Bartendêrs	75	72	83	85	85	84	87	90	83	73	98
Waiters and Waitresses	20	28	77	73	73	84	81	79	85	85	85
Cooks, Except Short-Order	85	85	82	83	82	83	88	87	88	87	85
Operators, Fabricators, and Laborers	29	89	69	69	71	71	72	72	72	73	72
Printing Machine Operators	99	69	75	72	77	99	29	75	73	79	89
Motor Vehicle Operators	77	73	75	75	80	75	80	72	70	71	73
Bus Drivers	28	74	83	75	28	70	83	80	29	20	75
Farming, Forestry, and Fishing	87	98	84	83	83	83	88	81	82	82	82

Source: U.S. Bureau of Labor Statistics.

An increase in the aggregate female-to-male earnings ratio was predicted in the 1987 *Report* based on observed trends at that time. The 1987 *Report* indicates: "Because both experience and educational differences [between men and women] are now narrowing, the [female-to-male earnings] ratio is rising" (CEA 1987: 222). It also indicates that "young women expect to spend a much greater fraction of their adult lives working in the labor market than their mothers did" (CEA 1987: 215–16), indicating that the female-to-male earnings ratio should continue to rise economywide.

Table 5 indicates that women were not adversely affected disproportionally relative to men with respect to earnings during the 1990–91 recession and the subsequent sluggish recovery, as demonstrated by the relatively stable female-to-male earnings ratios in the aggregate and across many occupations during that period.

# Female Part-Time Employment and "NonStandard" Work Arrangements

Since the scope of international economic competition has increased significantly during this decade, there has been greater pressure for firms to contain production costs. Consequently, the widespread belief is that part-time laborers are replacing full-time laborers to an increasingly greater extent. The contention that part-time jobs offer lower earnings than, and are therefore inferior to, full-time jobs from the employee's perspective, and are more attractive to employers from a cost standpoint, is inaccurate. Marvin Kosters (1995: 263) has shown that, when employee characteristics such as age and schooling are accounted for, "wages of part-time and full-time employees are surprisingly similar." Part-time jobs are inferior for workers preferring full-time jobs. The vast majority of women work part time voluntarily.

The relevant statistic to examine is the percentage of employed women who normally work full time but are working part time for economic reasons. For women overall, these percentages have been very low and stable in the aggregate and across occupations over the last several years. Since 1994, across all occupations, this percentage has remained 1 percent. Overall, the U.S. economy is accommodating womens' desires for full-time employment quite well.

The widespread effort on the part of firms to contain costs has also raised concerns about the proliferation of contingent and alternative employment arrangements. Workers in these types of jobs include independent contractors, on-call workers, temporary help agency workers, and workers provided by contract firms. These workers taken as an entire group earn less, experience more job instability, are less

likely to receive health insurance at their job, are not as likely to be eligible for employer-provided pension plans, and are more likely to be working part time than workers in noncontingent jobs (see U.S. Department of Labor 1997). However, as indicated in Kosters (1997), this situation is unlikely to be universally true for "market-mediated" jobs if, in the analysis, one accounts for employees' productivity-related characteristics. Thus, these types of employment arrangements are not necessarily cheaper than noncontingent jobs from the employer's perspective, and are hence not necessarily less desirable from the employee's point of view.

In fact, many women desire contingent and alternative employment arrangements because such jobs help "them balance work with other, non-labor market obligations" (Polivka 1996: 55). In the absence of those types of employment opportunities, many women would be completely unable to participate in the labor market.

For the first time in 1995, and again in 1997, the CPS offered a "comprehensive and unified measure of the number of contingent workers in the U.S. work force" (Polivka 1996: 6). The percentage of employed women in contingent and alternative employment arrangements (Estimate 3: "Workers who do not expect their jobs to last," with the modification that the incorporated self employed and independent contractors are excluded) for economic reasons, such as "Only type of work could find," or "Hope job leads to permanent employment" (as opposed to personal reasons such as "Flexibility of schedule," "Family/personal obligations," "Child care problems," or "In school/training") declined from 1.6 percent to 1.2 percent from 1995 to 1997.

It is necessary to recognize that, from workers' perspectives, the most successfully functioning labor market is one that generates the types of jobs that best facilitate workers' abilities to achieve their utility-maximizing balances between time spent in labor and non-labor market activities.

#### Conclusion

Since the analysis of the labor market status of women in the 1987 *Economic Report of the President*, the labor market status of women has improved in many important ways. The percentage of the U.S. labor force made up of women increased. Womens' expectations regarding subsequent labor market activity rose, as indicated by an increase in the amount and type of education women have been obtaining, making them better prepared for their subsequent occupational choices, and resulting in subsequent increases in job stability.

Additional women are to an ever-greater extent preparing for and entering high-atrophy jobs, which are among the highest paying, and require the greatest amount of commitment. This increased labor market commitment on the part of women is demonstrated by an increase in their job tenure overall and across many occupational categories, both in absolute terms and relative to men.

During the 1990–91 recession and the subsequent sluggish recovery, women were less severely affected relative to men with respect to unemployment rates in an environment where the unemployment rates for both men and women rose. The female-male unemployment rate gap has remained rather small up to the present. Also, the female-to-male earnings ratio overall and across many occupations was stable, indicating that women were not adversely affected disproportionately relative to men during the 1990–91 recession and the subsequent sluggish recovery with respect to earnings.

Contrary to what one would initially expect based on increased international economic competition, and the accompanying pressure on firms to contain production costs, the percentage of employed women who normally work full time but are working part time for economic reasons has remained at 1 percent since 1994. The percentage of employed women in contingent and alternative employment arrangements (Estimate 3: "Workers who do not expect their jobs to last," with the modification that the incorporated self employed and independent contractors are excluded) for economic reasons declined from 1.6 percent to 1.2 percent from 1995 to 1997. Recent research demonstrates that part-time, contingent, and alternative jobs are not in all cases automatically inferior to full-time, noncontingent jobs with respect to earnings from the employee's perspective, and thus cannot be viewed as cheaper and more attractive employment alternatives for employers who want to reduce costs (see Kosters 1995, 1997). The women in these jobs who desire them have been made better off by their availability; the alternative for many would have been an inability to participate in the labor market.

The numerous relevant female labor market achievements have translated into increases in the female-to-male earnings ratios in the aggregate, and across many occupational categories. An aggregate female-to-male earnings ratio of less than 1 is not an automatic signal that the labor market status of women has room for improvement. Women as well as men desire to maximize utility, which is not always consistent with the goal of maximizing earnings. Today, many women work in certain lower-paying jobs voluntarily, as they have in the past, since "they require general skills that were easily transferable and could be used in the home, and because the occupations permitted

the flexibility in hours or labor force discontinuity that many women wanted" (CEA 1987: 218) in order to rear children in the home or engage in a variety of other nonmarket activities.

However, if women are as committed to the labor force as men, by investing in the same amount and type of education and training, are equally qualified, have the same amount of job tenure, and are comparable in all other respects, a female-to-male earnings ratio of less than 1 would indicate the presence of wage discrimination. In order to address this issue more comprehensively and systematically, microdata such as the Panel Study of Income Dynamics (PSID) and the National Longitudinal Surveys (NLS) need to be employed.

The 1987 *Report* largely credited the labor market successes of women at that time to a minimal level of government intervention in labor markets. The improvement in the labor market status of women since the publication of the 1987 *Report* based on various dimensions of status indicates that additional government intervention in labor markets designed to "improve" the labor market status of women is not justified. This is underscored by the fact that women achieved impressive labor market gains during a period when the U.S. economy was subjected to major structural changes.

Future research should examine at the micro level whether the government interventions in labor markets that have taken place since the publication of the 1987 *Report*, such as the Family and Medical Leave Act of 1993, prevented women from realizing even greater labor market gains.

#### References

Cohany, S.R.; Polivka, A.E.; and Rothgeb, J.M. (1994) "Revisions in the Current Population Survey Effective January 1994." *Employment and Earnings* 41: 13–37.

Grogger, J., and Eide, E. (1995) "Changes in the College Skills and the Rise in the College Wage Premium." *Journal of Human Resources* 30: 280–310.

Gullason, E. (2000) "The Dynamics of the U.S. Occupational Structure during the 1990s." *Journal of Labor Research*, forthcoming.

Gullason, E. (1991) "The Effect of Job Tenure on the Earnings of Women." *Atlantic Economic Journal* 19: 21–31.

Kosters, M.H. (1997) "New Employment Relationships and the Labor Market." *Journal of Labor Research* 18: 551–59.

Kosters, M.H. (1995) "Part-Time Pay." Journal of Labor Research 16: 263–74.Maguire, S.R. (1993) "Employer and Occupational Tenure: 1991 Update." Monthly Labor Review 116: 45–56.

Marcotte, D.E. (1995) "Declining Job Stability: What We Know and What It Means." *Journal of Policy Analysis and Management* 14: 590–98.

Mincer, J., and Ofek, H. (1982) "Interrupted Work Careers: Depreciation and Restoration of Human Capital." *Journal of Human Resources* 27: 3–24.

- Pfleeger, J. (1996) "U.S. Consumers: Which Jobs Are They Creating?" Monthly Labor Review 119: 7-17.
- Polachek, S. (1981) "Occupational Self-Selection: A Human Capital Approach to Sex Differences in Occupational Structure." *Review of Economics and Statistics* 63: 60–76.
- Polivka, A.E. (1996) "Contingent and Alternative Work Arrangements, Defined." *Monthly Labor Review* 119: 3–9.
- Polivka, A.E. (1996) "Into Contingent and Alternative Employment: By Choice?" *Monthly Labor Review* 119: 55–74.
- President's Council of Economic Advisers [CEA] (1987) *Economic Report of the President*. Washington, D.C.: Government Printing Office.
- U.S. Department of Labor (1997) "Contingent and Alternative Employment Arrangements, February 1997." U.S. Department of Labor, Bureau of Labor Statistics News Release, 2 December.
- U.S. Department of Labor. (1997) "Employee Tenure in the Mid-1990s." U.S. Department of Labor, Bureau of Labor Statistics News Release, 30 January.
- Wootton, B.H. (1997) "Gender Differences in Occupational Employment." Monthly Labor Review 120: 15–24.