## Facts onWorking

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EARNINGS DIFFERENCES BETWEEN WOMEN AND MEN

What is the earnings gap? When we talk of comparing women's earnings with men's earnings, we find that no matter how we measure them, women's earnings are below those received by men. Very often men's earnings are used as the "yardstick" to measure women's, and we say women's earnings are a percentage of men's. The earnings gap is the difference between this percentage ratio of women's earnings to those of men and 100 percent.


How large is the earnings gap? In 1988 for those receiving hourly rates, women's median hourly earnings were 74 percent of men's; for full-time wage and salary workers, women's median weekly earnings were 70 percent of men's; and median annual earnings for women were 66 percent of men's annual earnings. The earnings gap, then, for hourly earnings is 26 percent; for weekly earnings, 30 percent; and for annual earnings, 34 percent. All three measures are developed from Current

Population Survey (household survey) data and released by the Bureau of Labor Statistics (BLS).

Why the difference among measures? We find the three measures which compare women's earnings with men's earnings differ because women workers generally work fewer hours than their male counterparts, and those paid hourly rates are essentially a different group from wage and salary workers.

Are we closing the earnings gap? Historically, we find that women's median hourly earnings as a percent of men's reported by the BLS have climbed from 64 percent to 74 percent during the decade from 1979 to 1988. Weekly earnings as reflected in Current Population Survey data show that women's earnings as a percent of men's moved from 62 percent to 70 percent from 1979 to 1988. Median annual earnings for women changed from 60 percent of men's earnings in 1979 to 66 percent in 1988.

The chart provides perspective on women's gains over the decade. We see the direction is toward greater equality, but some find the pace extremely slow. Full equality would be 100 percent. Table 1 presents the percentage ratios from which the chart was developed.

Table 1. Women's earnings as percent of men's

| Year | Hourly | Weekly | Annual |
| :--- | :---: | :---: | :---: |
| 1979 | 64.1 | 62.5 | 60.0 |
| 1980 | 64.8 | 64.4 | 59.7 |
| 1981 | 65.1 | 64.6 | 59.9 |
| 1982 | 67.3 | 65.4 | 62.0 |
| 1983 | 69.4 | 66.7 | 63.3 |
| 1984 | 69.8 | 67.8 | 63.0 |
| 1985 | 70.0 | 68.2 | 63.3 |
| 1986 | 70.2 | 69.2 | 63.6 |
| 1987 | 72.1 | 70.0 | 64.8 |
| 1988 | 73.8 | 70.2 | 66.0 |

In the face of gains made by women in many areas, why is change in the earnings ratio so slow? The earnings ratio data are not uniform among all occupations. In some occupations women receive approximately equal, or even greater compensation than their male coworkers in the same occupation; the pace is not slow here. These occupations are often nontraditional jobs for women, repairer for example. In the more traditional jobs, such as teachers or nurses, employers with
large numbers of employees can still act to keep wages low (monopsony), and this strategy coupled with the fewer hours worked by women than men tend to keep weekly and annual earnings of all women well below those of all men. Table 2 presents median weekly earnings ratios of women's earnings as a proportion of men's for selected occupational groups. The groups that have been selected for this table are those in which national totals for women's earnings were at least 80 percent of men's earnings in 1989. Ratios are also presented for 1983 so that the recent trend in relative earnings for women and men will be apparent. Table 2 also presents the proportion of women's employment to total employment for the years 1989 and 1983. In this context, we can see that the individual occupations which seem to fare well when women's earnings are compared with men's are not located in only "women's" work (those occupations which have high proportions of women's employment to total employment) or "men's" jobs (those with high proportions of employed men). Instead, these occupations appear to occur throughout the whole spectrum of jobs.

Traditionally, women have "crowded" into a few occupations. In 1989 the six most prevalent occupations for women were, in order of magnitude, secretaries, school teachers (excluding those teaching in colleges and universities), semi-skilled machine operators, managers and administrators, retail and personal sales workers, and bookkeepers and accounting clerks. In 1989 about onethird of all women at work were employed in these occupations. It has been argued that women choose these occupations because there tends to be less skill obsolescence for workers who leave and reenter the labor force. It has also been argued that the educational commitment for employment in these fields is less than in some others, and workers can have more time at home for other responsibilities.

Table 2. Ratio of median weekly earnings for women and men and ratio of women's employment to total employment for selected occupations in 1989 and 1983

| Occupational class | Women to men earnings ratio(\%) |  | Women to total employment ratio(\%) |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1989 | 1983 | 1989 | 1983 |
| TOTAL | 70.1 | 66.7 | 42.1 | 40.4 |
| Inspectors, compliance officers | 80.6 | N.A. | 8.8 | 22.4 |
| Engineers | 85.7 | 82.8 | 8.0 | 5.9 |
| Computer scientists, analysts | 83.0 | 77.3 | 31.2 | 29.6 |
| Operations/systems analysts | 83.7 | N.A. | 40.9 | 30.1 |
| Registered nurses | 89.7 | 99.5 | 92.9 | 94.4 |
| Therapists | 87.8 | N.A. | 72.3 | 75.1 |
| Teachers, except college/univ | 85.6 | 84.9 | 70.6 | 68.0 |
| Elementary teachers | 90.3 | 86.7 | 83.7 | 82.5 |
| Secondary teachers | 96.1 | 88.6 | 49.7 | 49.1 |
| Counselors, education/vocation | 85.1 | 80.3 | 55.1 | 48.4 |
| Psychologists | 83.1 | N.A. | 51.9 | 53.9 |
| Social/religious workers | 90.3 | 86.5 | 46.9 | 42.2 |
| Social workers | 85.1 | 79.6 | 66.8 | 62.8 |
| Lab technician/technologists | 86.2 | 83.7 | 71.9 | 73.3 |
| Engineering technicians | 84.6 | 73.0 | 19.1 | 17.6 |
| Drafting occupations | 89.4 | N.A. | 19.9 | 16.8 |
| Computer programmers | 83.1 | 82.7 | 35.7 | 31.9 |
| Advertising/related sales | 85.2 | N.A. | 55.0 | 46.5 |
| Sales reps, except retail | 84.5 | 71.1 | 19.2 | 14.5 |
| Cashiers | 94.8 | 84.3 | 78.5 | 80.9 |
| Scheduling supervisors/clerks | 91.3 | N.A. | 36.5 | 20.1 |
| Information clerks | 80.6 | 72.6 | 89.1 | 88.6 |
| Records clerks | 85.5 | 76.2 | 82.5 | 82.0 |
| Bookkeepers, accounting clerks | 83.8 | 79.1 | 91.4 | 89.2 |
| Postal clerks, except mail carriers | 94.1 | 93.4 | 39.5 | 32.2 |
| Mail carriers, postal service | 88.9 | N.A. | 22.1 | 14.3 |
| Mail clerks, except postal service | 94.8 | 89.0 | 47.6 | 48.9 |
| Dispatchers | 83.2 | 77.6 | 50.6 | 44.6 |
| Shipping/receiving clerks | 82.3 | 77.4 | 26.8 | 19.6 |
| Stock/inventory clerks | 85.2 | 81.2 | 39.7 | 38.4 |


| Misc admin support occupations | 80.7 | 74.3 | 84.6 | 85.2 |
| :--- | :---: | :---: | ---: | ---: |
| General office clerks | 91.6 | 79.7 | 79.2 | 80.7 |
| Police and detectives | 89.8 | 77.5 | 12.3 | 9.6 |
| Public service police/detectives | 92.1 | N.A. | 11.6 | 6.0 |
| Guards | 86.4 | 80.6 | 18.9 | 13.7 |
|  |  |  |  |  |
| Guards/police, except public service | 95.5 | 91.3 | 15.8 | 11.1 |
| Food preparation/service occupations | 85.3 | 86.2 | 52.9 | 57.4 |
| Bartenders | 82.7 | 84.4 | 48.3 | 46.3 |
| Cooks, except short order | 84.7 | 85.8 | 44.4 | 47.8 |
| Waiters'/waitresses' assistants | 97.0 | N.A. | 37.5 | 36.9 |
|  |  |  |  |  |
| Misc food preparation occupations | 95.0 | 102.5 | 40.7 | 48.6 |
| Health aides, except nursing | 87.3 | N.A. | 81.9 | 87.4 |
| Nursing aides, orderlies | 82.7 | 81.0 | 88.4 | 86.8 |
| Maids/housemen | 85.4 | 79.0 | 77.1 | 75.5 |
| Janitors/cleaners | 85.1 | 81.0 | 24.0 | 20.5 |
|  |  |  |  |  |
| Mechanics/repairers | 102.8 | 89.4 | 3.5 | 3.4 |
| Electrical/electronic repairers | 94.6 | N.A. | 8.1 | 8.1 |
| Textile sewing machine operators | 82.4 | 75.3 | 90.8 | 81.7 |
| Laundry/dry cleaning machine operators | 89.9 | N.A. | 61.4 | 63.0 |
| Packaging/filling machine operators | 88.5 | 78.5 | 62.2 | 64.2 |
|  |  |  |  |  |
| Bus drivers | 82.5 | 71.0 | 40.1 | 29.2 |
| Handlers/helpers/laborers | 81.1 | 84.1 | 16.1 | 16.0 |
| Stock handlers/baggers | 81.1 | 91.9 | 23.5 | 19.0 |
| Freight/stock/material handlers | 84.7 | N.A. | 9.2 | 5.9 |
| Laborers, except construction | 87.5 | 79.0 | 19.5 | 19.4 |
| Farming/forestry/fishing occupations | 83.7 | 84.5 | 11.7 | 11.2 |
| Farm occupations, except managers | 87.9 | 86.7 | 13.5 | 12.7 |
| Farm workers | 90.4 | 88.5 | 13.0 | 12.7 |
| Related agricultural occupations | 82.7 | N.A. | 10.6 | 11.1 |
|  |  |  |  |  |

There may be other factors which are difficult to measure that also affect women's career decisions. To what extent have women been denied the opportunity to find employment in other occupations? Have they been fearful of entering occupations where few women are employed because of lack of knowledge about the field, or fear that sexual harassment may be a factor? These are aspects which are difficult to quantify.

What other factors besides occupational choice affect the earnings gap? It has been suggested also, that seniority within the firm and in the job has much to do with earnings of American workers. If this is the case, then the work experience of the two groups will have an impact on the earnings ratio of women to men. Data from the Survey of Income and Program Participation (SIPP)
(continued on page 6)

Table 3. Percent of potential work-years spent away from work by sex, age, and years of school, 1984

| Age and school years completed | $\underline{\text { All }} \mathbf{\text { workers }}$ |  | $\frac{\text { Full-time }}{\text { Women }} \frac{\text { workers }}{\text { Men }}$ |  |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Workers 21 to 64 years of age | 14.7 | 1.6 | 11.5 | 1.3 |
|  |  |  |  |  |
| 21 to 29 years of age | 5.3 | 2.3 | 3.7 | 1.8 |
| Less than 12 years of school | 8.8 | 3.3 | 6.5 | 2.2 |
| 12 to 15 years of school | 5.7 | 2.2 | 3.8 | 1.8 |
| 16 years or more of school | 2.6 | 2.0 | 2.3 | 1.6 |
|  |  |  |  |  |
| 30 to 44 years of age | 16.6 | 1.6 | 12.3 | 1.2 |
| Less than 12 years of school | 20.2 | 2.6 | 16.3 | 1.8 |
| 12 to 15 years of school | 17.6 | 1.5 | 12.8 | 1.3 |
| 16 years or more of school | 12.1 | 1.2 | 9.5 | 1.0 |
|  |  |  |  |  |
| 45 to 64 years of age | 22.7 | 0.9 | 19.5 | 0.7 |
| Less than 12 years of school | 19.2 | 1.0 | 16.9 | 0.7 |
| 12 to 15 years of school | 24.1 | 0.8 | 20.3 | 0.6 |
| 16 years or more of school | 23.0 | 0.9 | 20.4 | 0.9 |
|  |  |  |  |  |

Table 4. Hourly earnings for those with no work interruptions by sex, age, and years of school, 1984

| Age and school years completed | Women | Men | Women/men ratio(\%) |
| :--- | ---: | ---: | :--- |
| Workers 21 to 64 years of age | $\$ 7.44$ | $\$ 10.76$ | 69.1 |
|  |  |  |  |
| 21 to 29 years of age | 6.64 | 7.98 | 83.2 |
| Less than 12 years of school | 5.30 | 6.59 | 80.4 |
| 12 to 15 years of school | 6.15 | 7.70 | 79.9 |
| 16 years or more of school | 8.54 | 9.91 | 86.2 |
|  |  |  |  |
| 30 to 44 years of age | 8.40 | 11.60 | 72.4 |
| Less that 12 years of school | 5.56 | 8.09 | 68.7 |
| 12 to 15 years of school | 7.60 | 10.71 | 71.0 |
| 16 years or more of school | 10.85 | 14.68 | 73.9 |
|  |  |  |  |
| 45 to 64 years of age | 7.57 | 12.60 | 60.1 |
| Less than 12 years of school | 5.54 | 9.01 | 61.5 |
| 12 to 15 years of school | 7.62 | 12.07 | 63.1 |
| 16 years or more of school | 11.10 | 18.03 | 61.6 |

were used in the Bureau of the Census release, "Male-Female Differences in Work Experience, Occupation and Earnings: 1984" which showed that for all men only 1.6 percent of all potential work-years were spent away from work while 14.7 percent of all potential work-years were spent away from work by women workers. Table 3 presents data from this survey.

However, there has been a change in women's labor force participation since World War II, particularly for women between the ages of 25 and 54. Most women work today, including mothers of small children. As recently as 1975 BLS found sharp differences in participation rates among women classified by marital status and the presence and age of children. This greater participation is reflected in an increase in women's earnings as a proportion of men's earnings, particularly for younger women. Table 4 substantiates this inference. It presents data from the SIPP for women and men with no work interruptions (defined as 6 months or more without a job or business) by age and educational attainment. For young women who have completed 4 years or more of college, hourly earnings are 86 percent of the hourly earnings of their male coworkers. For young women, those 21 through 29 in 1984, the earnings ratio of women to men was 80 percent or more. The relationship between education and earnings, particularly for young women, deserves further analysis.

Turnover data for women and men have shown higher rates for women than for men. There are costs associated with hiring, and recent surveys by private employment agencies indicate that these costs can be substantial. The recent changes in women's labor force participation tends to narrow the differences in turnover rates between women and men with a concurrent increase in women's earnings. Additionally, the growing tendency of employers to provide child care
benefits, flexitime, and family leave policies can further strengthen women's opportunity to meet family responsibilities with fewer work interruptions.

What about sex discrimination? Sex discrimination still exists in the American workplace, but the magnitude of its effect on the earnings gap is hard to measure. Statistical studies have successfully attempted to measure the effects on the male-female earnings differential of several factors. Employee characteristics, such as occupation, education, and experience, have been examined using statistical techniques to assess the impact each has on women's and men's earnings. Most often the effects of discrimination in these studies are included in an "all other" category and are not measured separately. However, individuals and Federal agencies responsible for enforcement of civil rights legislation continue to win cases in which women have been discriminated against in the workplace thus demonstrating that sex discrimination persists.

What can we conclude? It appears that women's earnings are slowly climbing when compared with men's earnings, as women's participation in the labor force continues to move closer and closer to the pattern exhibited by men, and as their educational investment and occupational choices also become more similar to men's. Employers' continuing efforts to provide more training and promotion opportunities for women will help to diminish the difference between women's and men's earnings. Employers also appear to recognize the need to help families and women balance conflicting needs. The earnings gap should continue to narrow as women work more hours in the week, spend more years at work in their lifetimes, continue to increase their educational investment and widen their occupational choices.

## FURTHER READINGS:

Barbara R. Bergmann, "Does the Market for Women's Labor Need Fixing?" The Journal of Economic Perspectives, Winter 1989, pp. 43-60.

Francine D. Blau and Andrea H. Beller, "Trends in Earnings Differentials by Gender, 1971-1981," Industrial and Labor Relations Review, July 1988, pp. 513-529.

Leonard A. Carlson and Caroline Swartz, "The Earnings of Women and Ethnic Minorities, 1959-1979," Industrial and Labor Relations Review, July 1988, pp. 530-546.

Victor R. Fuchs, "Women's Quest for Economic Equality," The Journal of Economic Perspectives, Winter 1989, pp. 25-41.

Morley Gunderson, "Male-Female Wage Differentials and Policy Responses," The Journal of Economic Literature, March 1989, pp. 46-72.

Michael W. Horrigan and James P. Markey, "Recent gains in women's earnings: better pay or longer hours?" Monthly Labor Review, July 1990, pp. 11-17.

Edward P. Lazear, "Symposium on Women in the Labor Market," The Journal of Economic Perspectives, Winter 1989, pp. 37.

Jonathan S. Leonard, "Women and Affirmative Action," The Journal of Economic Perspectives, Winter 1989, pp. 61-75.

Earl F. Mellor, "Investigating differences in weekly earnings of women and men," Monthly Labor Review, June 1984, pp. 17-28.

Thomas J. Nardone, "Part-time workers: who are they?" Monthly Labor Review, February 1986, pp. 13-19.

Janice Shack-Marquez, "Earnings differences by sex: an introductory note," Monthly Labor Review, June 1984, pp. 15-16.

Susan E. Shank, "Women and the labor market: the link grows stronger," Monthly Labor Review, March 1988, pp. 3-8.

Lois B. Shaw and David Shapiro, "Women's work plans: contrasting expectations and actual work experience," Monthly Labor Review, November 1987, pp. 7-13.

Mark S. Sieling, "Staffing patterns prominent in female-male earnings gap," Monthly Labor Review, June 1984, pp. 29-33.

James P. Smith and Michael Ward, "Women in the Labor Market and in the Family," The Journal of Economic Perspectives, Winter 1989, pp. 9-23.

John F. Stinson, Jr., "Moonlighting by women jumped to record highs," Monthly Labor Review, November 1986, pp. 22-25.
U.S. Bureau of the Census, Current Population Reports, Series P-70, No. 10, Male-Female Differences in Work Experience, Occupation, and Earnings: 1984, U.S. Government Printing Office, Washington, D.C., 1987.

