

Introduction

Employment in jobs paying low wages is an important aspect of the National debate over growing economic inequality in our society and the job creating capacity of our economy. Concern over the growth of low-paying jobs has been raised in both the media and policy circles, and proposals for raising the Federal minimum wage from its current level of \$4.25 have been discussed.

What is known about employment in low-wage jobs comes from research using government surveys.¹ Although conceptual issues abound in defining low-wage employment (some of these are discussed in the Note at the end of the report), there is a general belief that low-wage workers are relatively more numerous today than in previous decades. Indeed, data on workers with low earnings from the Census Bureau tend to corroborate this. In 1994, 16.2 percent of all persons who usually worked full-time (35 hours or more a week), year-round (50 to 52 weeks) had annual earnings below the poverty threshold for a four-person family (or \$13,828); in 1984, the comparable proportion was 14.6 percent.²

Research and statistics about low-wage workers are based primarily on cross-sectional data from

¹ For an example of the research in this area, see Sheldon Danziger and Gregory Acs, "Educational Attainment, Industrial Structure, and Male Earnings Through the 1980s," *Journal of Human Resources*, Vol. 28, No. 3, Summer 1993, pp. 618-648 and John McNeil, *Workers With Low Earnings: 1964 to 1990*, *Current Population Reports*, Consumer Income, Series P-60, No. 178 (Washington, DC, Bureau of the Census, March 1992).

² See McNeil, *Workers With Low Earnings: 1964 to 1990*.

household surveys which relate to a point or period of time; for example, a month or a year. Such statistical "snapshots," however, do not capture the fluidity of the labor market. People are continually moving into and out of jobs and the labor force. Consequently, it is important to observe the occurrence of low-wage employment during periods of time—and this can be done with data from longitudinal surveys. These surveys, therefore, can provide a "panoramic" view of individuals' earnings experiences across time.

The data in this report were collected in the Survey of Income and Program Participation (SIPP), a longitudinal survey which follows the same people over nearly 2 1/2 years. Most of the data discussed here were obtained from the 1992 panel of SIPP and relate to the experiences of persons in 28 months occurring primarily in 1992 and 1993. The focus of the report is on the occurrence of low-wage employment during this period among the 53.9 million workers who had wage and salary earnings in each of the 28 months.³ These workers are referred to as full-time, full-period jobholders.

Highlights

- Of all full-time, full-period jobholders in the 28-month 1992-93 period, over one-quarter (27.1 ±0.8 percent) had average hourly earnings below \$5.70—the definition of low-wage employment used in

³ In calendar year 1993, 82.5 million persons worked between 50 to 52 weeks for 35 hours a week or more in the majority of those weeks according to the Bureau of Labor Statistics.

this report—in at least 1 month of the 28-month period.⁴

- Only 5.7 (± 0.4) percent of all full-time, full-period jobholders experienced more than 12 months of low-wage employment in the 28-month period.
- The occurrence of low-wage employment for 1 month or more among full-time, full-period jobholders increased slightly between 1983-85 and 1992-93, going from 25.9 (±0.8) to 27.1 (±0.8) percent; the proportion experiencing low-wage employment for 13 to 28 months rose proportionately more—from 4.2 (±0.4) to 5.7 percent (±0.4).
- The average hourly earnings for adult men age 25 to 54 who experienced between 1 to 6 months of low-wage employment was \$10.27 (±1.10). As the number of such months increased, average earnings fell, reaching \$3.90 (± 0.86) for those with 25 to 28 months of low-wage employment. This decline also held for women.⁵
- Of the 3.1 million full-time, full-period jobholders in the 1992-93 period that experienced low-wage employment for 13 to 28 months, 77.9 (± 1.9) percent were workers with high school education or less.

⁴ The figures in parentheses signify the 90-percent confidence intervals of the estimates.

⁵ The decline in earnings of women with 7 to 12 months in low-wage jobs (\$6.62) was not statistically different from those with 13 to 24 months (\$5.46). The decline in earnings of men with 7 to 12 months in low-wage jobs (\$6.74) was not statistically different from those with 13 to 24 months (\$5.61).

Defining Low-Wage Employment

Since the focus of this report is on workers employed in jobs paying low wages, the definition of low-wage employment we use here is job-oriented. An attempt was made to isolate that part of the Nation's stock of jobs which required a strong attachment and long-term commitment. To make this estimate in the context of SIPP, it was decided that, for the purpose of this definition, workers must have received wage and salary earnings in each of the 28 months of the survey and worked at a full-time job (35 hours or more a week) in at least 1 week of each month.⁶ For each of these workers, an estimate of average hourly earnings in each month was made by dividing monthly wages and salaries by the number of hours worked that month. These persons are referred to as full-time, full-period workers.⁷

Average hourly earnings in the course of a month were considered low if they were below \$5.70 an hour. This wage level would approximate the average of the 1992 and 1993 Federal Govern-

⁶ Because of SIPP's sample design, the 28-month period for which data are available differs by rotation group. Consequently, the 28-month period for the first rotation group in the field covers the October 1991 to January 1994 period; the second from November 1991 to February 1994; the third from December 1991 to March 1994; and the fourth from January 1992 to April 1994. As a result, most of the data relate to months in the 1992-93 period.

⁷ This definition of full-time, full-period workers parallels that of the definition of full-time, year-round workers used in the Census Bureau's report on low earners, but there are three important differences. First, and most obvious, the period of employment is considerably longer (28 months versus 12 months). Second, only wage and salary earnings are examined while the report on low earners includes earnings from self-employment. And third, the SIPP definition measures the actual weekly hours worked each month, while "usual" weekly hours are used in the Census Bureau's report on low earners.

ment's poverty thresholds for a three-person family when divided by 2,000 hours.⁸ This poverty threshold averaged \$11,354 and an hourly wage of \$5.70 for 2,000 hours of work would place one's annual income just above that amount.⁹ Obviously, this definition of low-wage employment is a subjective one, but it does conform to the general concept of low earnings used by other researchers. (The Federal Government's minimum wage was \$4.35 an hour in 1992 and 1993.)

According to the SIPP, 127.1 million persons had wage or salary earnings in at least 1 or more of the 28 months covered by the survey.¹⁰ Of that number, 53.9 million persons, or 42.4 percent, had earnings in every month and held a full-time job for at least 1 week of every month.¹¹ From this smaller universe then, estimates were made of workers experiencing months of low-wage employment. It is very important to note that by restricting the analysis to full-time, full-period workers, however, the findings reported below are most likely an underestimate of the proportion of all workers with low-wage employment.

Not surprisingly, full-time, full-period jobholders are disproportionately adult men. As shown in figure A, approximately 50 percent of all full-time, full-period workers were men between the ages of 25

⁸ As mentioned, the Census Bureau's report on low earners uses the poverty threshold for a family of four persons for identifying low earners. In 1993, family size in the country averaged 3.2 persons and household size, 2.7 persons.

⁹ It would not be sufficient, however, for a household of a larger size since the poverty thresholds are higher.

¹⁰ This was a period of economic recovery from the 1990-91 recession and the monthly unemployment rate was dropping. In 1992 it averaged 7.5 percent and in 1993, 6.9 percent.

¹¹ This proportion is lower than the proportion which full-time, year-round workers made up of the total number of persons with work experience in 1992 (60.6 percent) according to the Current Population Survey (CPS). This is because the SIPP data relate to 2 years compared to the 1-year period in the CPS.

and 54. Women of the same ages accounted for about 34 percent of the total. Consequently, the vast majority of full-time, full-period jobholders were adults, age 25 to 54. Young persons age 16 to 24 and older workers age 55 and over each accounted for about 8 percent of the total.

Incidence and Frequency

Table A presents data on the incidence and frequency of low-wage employment among full-time, full-period jobholders, in other words, how often and for how long these workers' hourly earnings fell below \$5.70 an hour during the 1992-93 period.¹² As the data show, 27.1 percent of the total experienced at least 1 month in which their hourly wage and salary earnings could be considered low.¹³

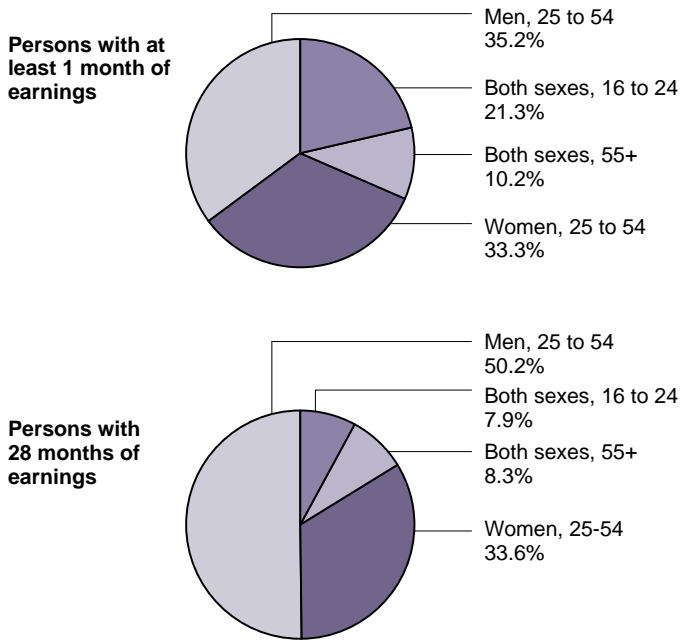
This relatively high proportion of workers who experienced at least 1 month in a low-wage job, however, may be misleading. As shown in table A, 60.4 percent of those with low-wage employment for at least 1 month were in low-wage jobs for between 1 and 6 months, while 20.9 percent—3.1 million workers—were in low-wage jobs for 13 months or more.¹⁴ Therefore, while the chance of experiencing at least 1 month of low-wage employment is relatively high, even for those strongly committed to the labor market, the proportion of persons experiencing long periods of low-wage employment is not particularly large (this, of course, excludes those workers who may have become unemployed or dropped out of the labor

¹² Hourly earnings in the 1992-93 period are expressed in terms of 1992-93 dollars.

¹³ Hourly earnings which are above the low-wage level in 1 month could fall below it in the following month for several reasons: A worker might quit, be laid off, or discharged from a job and then quickly find another, but lower-paying job; or a worker may be asked to work additional hours but for no additional earnings.

¹⁴ Low-wage employment may not necessarily have been all in one spell (although for those who had 13 or more months of low wage employment, consecutive months are likely).

Figure A.
Persons With Wage and Salary Earnings in at Least 1 Month and Persons With Earnings in 28 Months by Age-Sex Groups: 1992-93



Source: U.S. Bureau of the Census, Survey of Income and Program Participation.

force after experiencing a period of low-wage employment).

This finding is mirrored in the data for adult men age 25 to 54 and, to some extent, for adult women of the same ages. While 20.2 percent of the adult men had a month or more in a low-wage job, only 17.5 percent of these workers, or 947,000 adult men, did so for over 1 year. For women, 31.0 percent were in a low-wage job for a month or more and 22.9 percent of these workers, or 1.3 million adult women, had a low-wage job for over a year. Despite these relatively low proportions, approximately 2.2 million adult men and women worked in jobs paying less than \$5.70 an hour for between 13 to 28 months in the 1992-93 period.

The occurrence of low-wage employment was high for young persons (those between the ages of 16 and 24) who worked at full-time jobs for the full period. Approximately 55.1 percent of them experienced low-wage employment. Of young workers who experienced low-wage employment, 23.6 percent did so for 13 to 28 months. These workers, of course, are typically at the beginning of their work careers and are probably receiving entry level wages in their jobs.

Hourly Earnings

Figure B shows the average hourly earnings of adult men and adult women 25 to 54 years old who worked at full-time jobs for 28 months in the 1992-93 period by the number of months in which they experienced low-wage employment. For the 3.5 million adult men who experienced 1 to 6 months of employment in jobs paying less than \$5.70 an hour, the average hourly earnings during the entire 28 months was \$10.27. In other words, while these men experienced low earnings for several months within the 1992-93 period, on average, their hourly earnings were approximately twice as high as the low-wage level (working full-time, year-round at \$5.70 an hour would result in annual earnings of

Table A.
Full-Time, Full-Period Jobholders by Their Frequency of Low-Wage Employment and Major Age-Sex Groups: 1992-93

(Numbers in thousands)

Frequency	Total	Both sexes, 16-24	Men, 25-54	Women, 25-54	Both sexes, 55+
Total	53,887	4,223	27,048	18,151	4,465
Percent	100.0	100.0	100.0	100.0	100.0
No low-wage employment	72.9	44.9	79.8	69.0	73.2
Low-wage employment	27.1	55.1	20.2	31.0	26.8
Percent	100.0	100.0	100.0	100.0	100.0
1-6 month	60.4	54.1	64.7	58.8	60.5
7-12 months	18.6	22.3	17.8	18.2	17.2
13-24 months	14.3	18.8	11.5	15.6	12.5
25-28 months	6.6	4.8	6.0	7.3	9.8

Source: U.S. Bureau of the Census, Survey of Income and Program Participation.

approximately \$20,000). It should be pointed out, however, that these data do not indicate when the periods of low-wage employment occurred. It is possible that the occurrence of low-wage employment took place at the beginning or end of the 1992-93 period and represented only a part of a much longer spell of a job paying low wages.

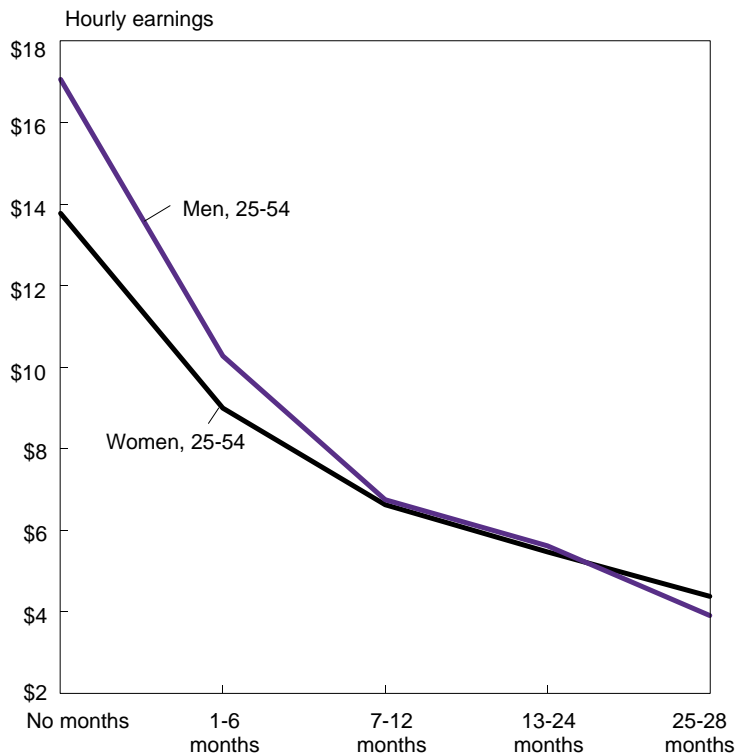
The average hourly earnings of the 947,000 men who had low hourly wages for over a year were considerably lower than those with 1 to 6 months of low-wage employment. For the full-time, full-period jobholders with 13 to 24 months of employment at low wages, average hourly earnings were only \$5.61, while for those with 25 to 28 months, the average was only \$3.90 an hour.¹⁵ Hourly wages at these levels, of course, would result in poverty if these men were the sole supporters of families with three or more persons.

The average hourly earnings for adult women who experienced between 1 to 6 months of low hourly wages was \$8.99. Many of these 3.3 million women, no doubt, were single parents and the primary earner in the family. Although most of their working time was spent in jobs above the low-wage level, the fact that women typically earn less than men places many of them closer to the edge of low-wage employment. The hourly earnings for the 1.3 million adult women with 13 to 24 months of low wages averaged \$5.46 an hour and with 25 to 28 months, \$4.37 an hour.¹⁶

¹⁵ Although the latter is below the Federal minimum wage of \$4.25 an hour, it should be remembered that not all employment is subject to minimum wage coverage. Furthermore, a certain amount of imprecision can be expected in hourly earnings estimates when they are derived by dividing monthly wages and salaries by the number of hours worked that month.

¹⁶ Average hourly earnings of men who had low hourly wages for over a year were not statistically different than those of women.

Figure B.
Average Hourly Earnings by Months of Low-Wage Employment for Adult Full-Time, Full-Period Jobholders: 1992-93



Source: U.S. Bureau of the Census, Survey of Income and Program Participation.

Table B.
Frequency of Low-Wage Employment Among Adult Men and Adult Women Who Have College Educations or More and High School Educations or Less: 1992-93

(Numbers in thousands)

Frequency	Adult men, 25-54		Adult women, 25-54	
	College or more	High school or less	College or more	High school or less
Total	8,469	12,257	4,224	8,518
Percent	100.0	100.0	100.0	100.0
No low-wage employment	90.6	70.0	83.1	57.9
Low-wage employment	9.4	30.0	16.9	42.1
Percent	100.0	100.0	100.0	100.0
1-6 months	70.5	61.5	80.9	53.0
7-12 months	13.5	18.3	10.1	18.9
13-24 months	9.6	13.6	3.7	19.9
25-28 months	6.4	6.6	5.2	8.2

Source: U.S. Bureau of the Census, Survey of Income and Program Participation

Education

The relationship between earnings and education is a well-established one and it is very evident in the data shown in table B. Among adult men with 4 years of college or more, the incidence of low-wage employment was just less than 10 percent compared to 30.0 percent for adult men with a high school education or less.

The earnings differential between college-educated and high school-educated workers was also large among women, as can be seen in table B. For example, while only 16.9 percent of college-educated women had 1 month or more of employment below \$5.70 an hour, 42.1 percent of the adult women with high school educations or less did.

If one looks at the overall pool of workers with 13 or more months of low-wage employment (including young workers and older workers in addition to the men and women aged 25 to 54) one can also see the effect of education. Of the 3.1 million full-time, full-period jobholders in the 1992-93 period who had low wages for 13 to 28 months, 77.9 percent of them were workers with high school education or less.

Comparing 1992-93 With 1983-85

It is possible to compare the low-wage employment situation for various groups of full-time, full-period workers in 1992-93 to the situation prevailing in the 1983-85 period using data from an earlier SIPP panel.¹⁷ The comparison is presented in table C.

As shown in table C, the incidence of low-wage employment of full-time, full-period jobholders increased from 25.9 to 27.1 percent. The proportion of these jobholders experiencing more than 12 months of low-wage employment also rose, from 4.2 to 5.7 percent.

Amongst those persons with 1 or more months of low-wage employment, a significant increase in the incidence occurred for adult men age 25 to 54 (from 17.1 to 20.2 percent). Amongst those with low-wage employment at 13 months or more, a significant increase occurred for adult women age 25 to 54 (from 5.8 to 7.1 percent).¹⁸

¹⁷ Average hourly earnings in the 1983-85 period were adjusted for inflation by using the Consumer Price Index for All Urban Consumers (CPI-U) and are in 1992-93 dollars.

¹⁸ The increases in the incidence were not significantly different between men and women 25 to 54 years of age.

In recent years, considerable attention has been focused on the effects of downsizing on white-collar workers and especially workers with college educations who no longer seemed immune from job displacement. The data in table C tend to confirm the fact that not only has the incidence and duration of low-wage employment increased among workers with high school education and less, but it has as well among the college-educated. Although the incidence and frequency figures are relatively low for the college-educated, periods of low-wage employment were somewhat more common for them in the early 1990's than in the early 1980's.

Note: Issues in Defining Low-Wage Employment

The first and most difficult conceptual issue in defining low-wage employment is what constitutes a low-wage job. Implicit in the word "low" is a sense of adequacy or need. But persons of different backgrounds (that is, age, sex, educational level, household income) will have different opinions regarding what is a low wage. For example, a corporate lawyer might consider \$20 an hour as low, while a high school student might be

Table C.

Full-Time, Full-Period Jobholders With at Least 1 Month of Low-Wage Employment and 13 or More Months of Low-Wage Employment by Major Age-Sex Groups and Educational Attainment: 1983-85 and 1992-93

(Numbers in thousands)

Age-sex and education group	Total		With low-wage employment at least 1 month (percent)		With low-wage employment 13 months or more (percent)	
	1983-85	1992-93	1983-85	1992-93	1983-85	1992-93
Total	44,551	53,887	25.9	27.1	4.2	5.7
Both sexes, 16 to 24	5,728	4,223	51.7	55.1	9.1	13.0
Adult men, 25 to 54	23,016	27,048	17.1	20.2	1.8	3.5
Adult women, 25 to 54	11,397	18,151	31.4	31.0	5.8	7.1
Both sexes, 55 and over	4,409	4,465	23.7	26.8	5.7	5.9
College, 4 or more years	10,629	15,374	11.1	13.5	0.9	1.6
College, 1 to 3 years	9,321	12,763	20.9	22.4	2.5	3.3
High school, 12 years or less	24,600	25,750	34.1	37.6	6.2	9.3

Source: U.S. Bureau of the Census, Survey of Income and Program Participation.

delighted to find a part-time job paying the minimum wage. One approach that has been used to define "low" employs the Federal Government's poverty thresholds. Historically, low earners have often been defined as those workers who usually worked full-time (35 hours or more a week), year-round (50 to 52 weeks) and had annual earnings below the poverty threshold for a four-person family. The assumption, of course, is that annual earnings below such a level would not be adequate to support a family. Family sizes, however, have declined over time. In 1993, the average family size was 3.2 persons and the average household size was 2.7 persons. Therefore, an updated version of this approach (used in this report) is to use a poverty threshold for a three-person family.

Related to this issue is the role of the wage earner in the family or household. One might argue that any definition of low-wage employment should apply only to the householder or the primary earner because this is the person who has major responsibility for the household. But others might argue that, in today's economy, more than one earner in a household is necessary to get by, even to maintain a household above the poverty level.

Another conceptual issue concerns the strength of a person's attachment to the labor force. Research in this area has typically focused only on persons with a strong attachment to the work force; for example, those usually working full-time, year-round. By doing this, variability in labor supply is presumably controlled for, resulting in a more precise measurement of the wage rate. However, it is well known that among those households at the low end of the income distribution, workers are more likely to experience unemployment and job market discouragement and have intermittent employment. A measure of low-wage employment that requires a strong attachment to the labor market would miss these people.

Some of the issues involved in defining low-wage employment are discussed by Bradley R. Schiller in *The Economics of Poverty and Discrimination*, 6th Ed., (Englewood Cliffs, Prentice Hall, 1995), Chapter 4.

Source and Accuracy of Estimates

All statistics are subject to sampling error, as well as nonsampling error such as survey design flaws,

respondent classification and reporting errors, data processing mistakes, and undercoverage. The Census Bureau has taken steps to minimize errors in the form of quality control and edit procedures to reduce errors made by respondents, coders, and interviewers. Ratio estimation to independent age-race-sex population controls partially corrects for bias attributable to survey undercoverage. However, biases exist in the estimates when missed persons have characteristics different from those of interviewed persons in the same age-race-sex group.

Analytical statements in this report have been tested and meet statistical standards. However, because of methodological differences, use caution when comparing these data with data from other sources. Contact Peter Siegel, Demographic Statistical Methods Division, at 301-457-4228 or on the Internet at peters@census.gov for information on (1) the source of the data, (2) the accuracy of the estimates, (3) the use of standard errors, and (4) the computation of standard errors.