Dynamics of Economic Well-Being: Spells of Unemployment, 1996-1999

Household Economic Studies

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This report presents data from the 1996 panel of the Survey of Income and Program Participation (SIPP) on how long people remained unemployed during each of the times (spells) they experienced unemployment. The data cover the period of January 1996 through December 1999.[1] The table in the appendix displays the detailed statistical data analyzed in this report.

The labor market of the United States is dynamic and flexible, changing as people enter and exit it or change jobs within it. And, as the overall structure of the U.S. economy continues to shift, from a manufacturing base to a service-oriented base, so does the demand for particular types of labor.[2] Data on spells of unemployment provide an insight into how easily the market allows people to make these transitions and respond to shifts in labor demand.

Unemployment lasted longer for men than for women.

The median duration of a spell of unemployment for individuals was 1.8 months during the period from January 1996 through December 1999.[3] The median spell of unemployment for women (1.7

This report is an update of a section of a previous report, P70-48: "Dynamics of Economic Well-Being: Labor Force, 1991 - 1993," August 1995, which contained a statistical analysis of unemployment spells, labor turnover, and new job earnings using the 1991 panel of SIPP. This report updates the unemployment spells analysis portion of the earlier report by expanding the demographic groups examined and using the 1996 panel of SIPP. The data presented in this report span the period 1996 through 1999. Due to the redesign of the 1996 SIPP panel, the reader should use caution in making comparisons between the 1996 SIPP panel and other SIPP panels.

[1] SIPP is a longitudinal panel survey that interviews a representative sample of U.S. households every 4 months. The population represented (the population universe) is the civilian noninstitutionalized population of the United States. The core content of SIPP identifies demographic characteristics, labor force participation, government program participation, and various income sources of respondents in sampled households. The longitudinal estimates presented here are based on people who were interviewed in all waves of the reference period, or for whom imputed information exists. Efforts were made during the life of the panel to ensure that the sample remained representative of the noninstitutional population of the United States. If the people included in the estimates have different experiences of employment and unemployment than the people who did not respond initially, left the sample, or missed two or more consecutive waves, these longitudinal estimates may be biased. The panel consists of four rotations interviewed in consecutive months. For rotations with missing data at the beginning of 1996 or end of 1999, imputations were made on the basis of the closest month of data available. Rotation 3 had 1 month of data imputed in 1996, rotation 4 had 2 months imputed in that year, and rotation 1 had 1 month of imputed data in 1999.

[2] For a more thorough discussion of U.S. economic structural change and its relationship to changing labor demands, see Kevin Murphy and Finis Welch, "Industrial Change and the Rising Importance of Skill," pages 101-132 in *Uneven Tides: Rising Inequality in America*, Sheldon H. Danziger and Peter Gottschalk, eds., 1993, and George E. Johnson, "Changes in Earnings Inequality: The Role of Demand Shifts," pages 41-54 in *Journal of Economic Perspectives*, Spring 1997.

[3] The estimates in this report are based on responses from a sample of the population. As with all surveys, estimates may vary from the actual values because of sampling variation and other factors. All comparisons made in this report have undergone statistical testing and are significant at the 90-percent confidence level unless otherwise noted. All spells are included in the statistical analysis, so individuals may be represented more than once. Median spell duration estimates relate to the civilian noninstitutional population of the United States 15 years old and over at the end of the 1996 SIPP panel in December 1999.

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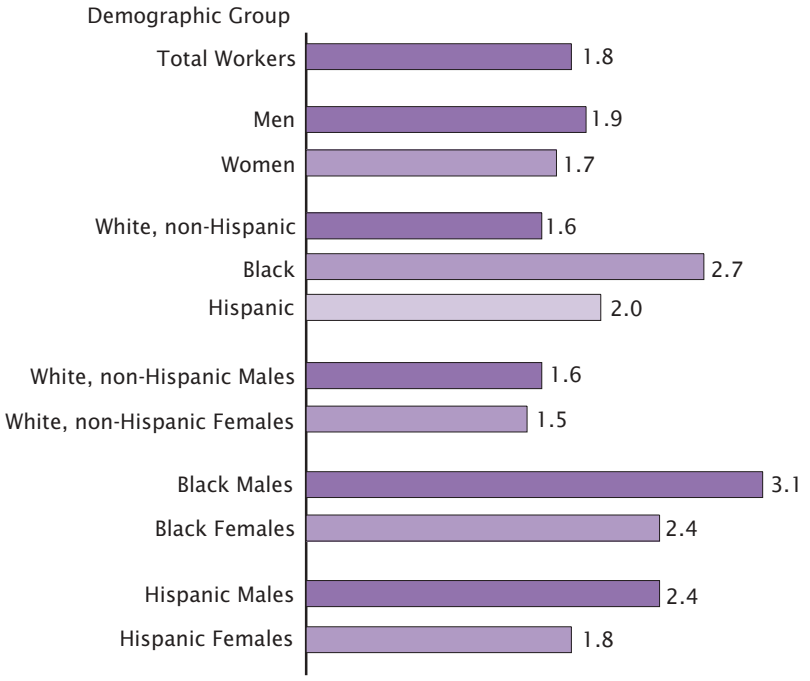
months) was shorter than that for men (1.9 months), which may reflect a segmentation between men and women in the types of jobs they were seeking, the intensity of their job searches, the conditions under which they would accept jobs (reservation wage, for example), and other factors (see Figure 1).

Unemployment lasted longer for Black workers than for non-Hispanic White workers.

Non-Hispanic White workers experienced the shortest spells of unemployment, while Black workers had the longest (see Figure 1).[4] Black workers had a median spell length that was 69 percent longer than that of non-Hispanic White workers and 35 percent longer than that of Hispanic workers. Both male and female Black workers had unemployment spell durations that were longer than their non-Hispanic White and Hispanic counterparts (see Figure 1). Male Black workers had a median duration of 3.1 months and female Black workers a median of 2.4 months. The median unemployment spell length for Black women (2.4 months) was shorter than that of Black men (3.1 months).[5]

Figure 1.
Median Duration of Spells of Unemployment by Sex, Race, and Hispanic Origin: 1996-1999 (In months)



Note: Includes all unemployment spells for people in the labor force; people of Hispanic origin can be of any race.
Source: U.S. Census Bureau, Survey of Income and Program Participation, 1996 panel.

The median length of an unemployment spell tended to increase with age.

Spell length and age were positively related, with the median unemployment spell duration generally increasing with age (see Figure 2). The shortest median spell length was 1.4 months for 16- to 19-year-olds; the longest was 2.3 months for people aged 45-54. Both male 20- to 24-year-olds (1.9 months) and male 25- to 34-year-olds (2.2 months) had longer spell lengths than their female counterparts (1.5 months and 1.7 months) (see Figure 3). Of the male age cohorts, 16- to 19-year-olds had the shortest spell lengths (1.5 months). Within the female age cohorts, 16- to 19-year-olds had the shortest spell lengths (1.4 months) when compared to 25- to 34-year-olds (1.7 months), 35- to 44-year-olds (1.9 months), and 45- to-54-year-olds (2.2 months). The shorter unemployment spell durations for younger workers relative to older workers may be partly a result of younger workers possessing more current job skills that the modern service-oriented labor market demands and being less constrained by family responsibilities, thereby allowing them to transition between jobs more easily and quickly. Also, younger workers tend to be less well-paid than older workers, and since more jobs are available in the lower wage ranges, younger workers may be able to transition between lower paying jobs more quickly.

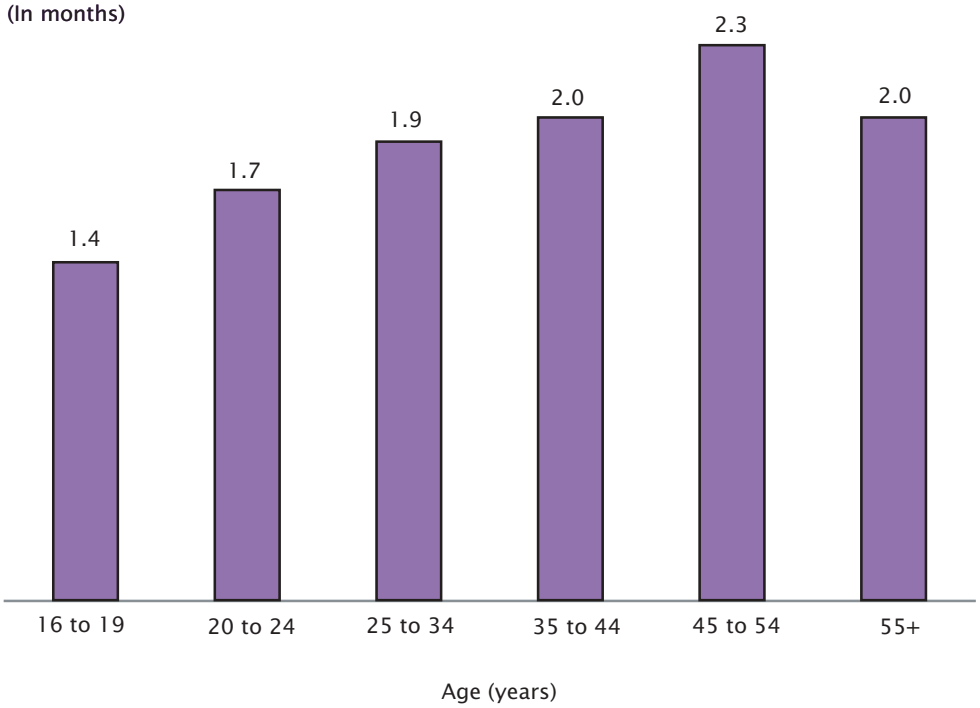
Greater education was usually associated with shorter unemployment spells.

Educational attainment was negatively related to spell length. The greater the educational attainment, the shorter the spell of unemployment (see Figure 4). Individuals with less than a high school education had a median spell-length that

[4] Because Hispanics may be of any race, data in this report for Hispanics overlap slightly with data for the Black population. For this report, the number of Hispanic Black workers comprised less than 1 percent of total workers. Data for Asians and Pacific Islanders and American Indians and Alaska Natives are not shown in this report because of their small sample sizes.

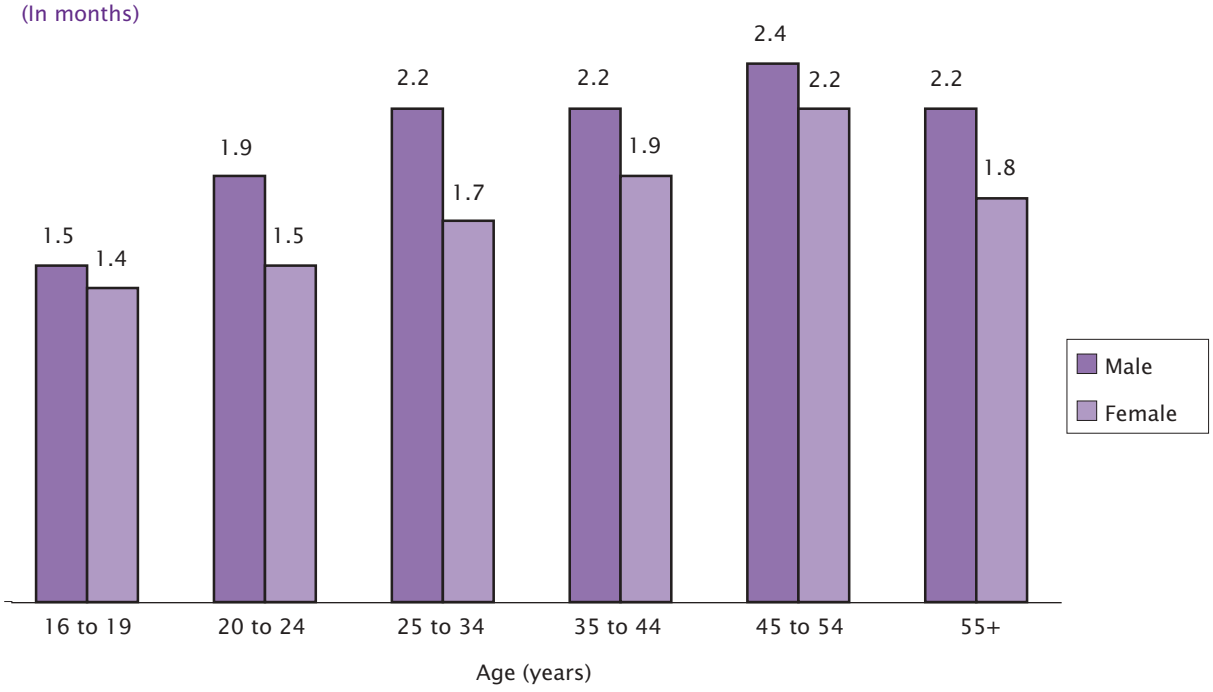
[5] The median spell lengths for non-Hispanic White women (1.5 months) and Hispanic women (1.8 months) were not statistically different from that of their male counterparts (1.6 months for non-Hispanic White males and 2.4 months for Hispanic males).

Figure 2.
Median Duration of Spells of Unemployment by Age: 1996-1999



Note: Includes all unemployment spells for people in the labor force.
Source: U.S. Census Bureau, Survey of Income and Program Participation, 1996 panel.

Figure 3.
Median Duration of Spells of Unemployment by Age and Sex: 1996-1999

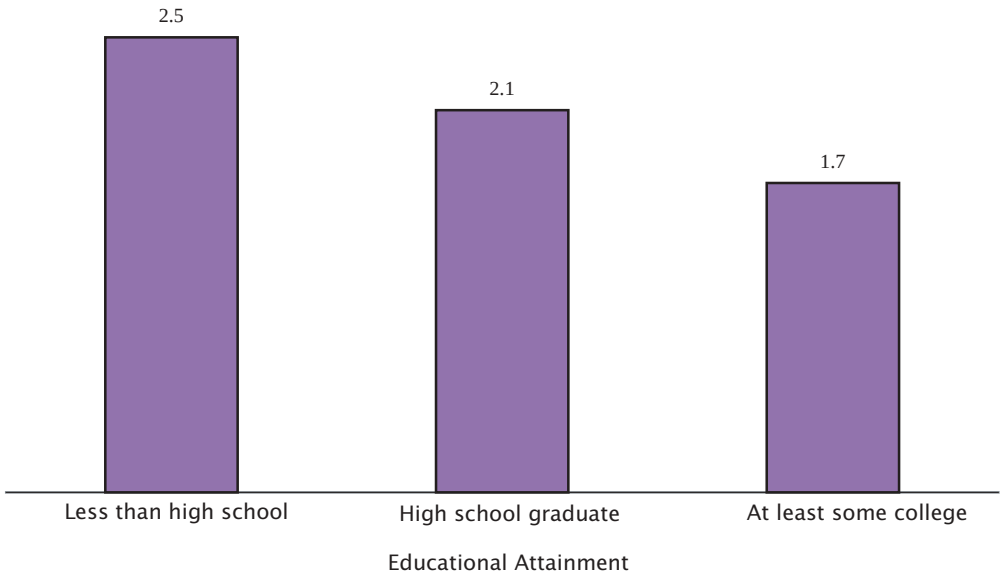


Note: Includes all unemployment spells for people in the labor force.
Source: U.S. Census Bureau, Survey of Income and Program Participation, 1996 panel.

Figure 4.

Median Duration of Spells of Unemployment by Educational Attainment for People 21 and Over: 1996-1999

(In months)



Note: Includes all unemployment spells for people in the labor force.
Source: U.S. Census Bureau, Survey of Income and Program Participation, 1996 panel.

was 47 percent longer than that of college educated individuals. The higher unemployment spell duration for workers with less than a high school education relative to more highly educated workers may partly reflect the diminished employment opportunities for less-skilled workers over the time period examined in this report. [6]

SOURCE OF THE DATA

The population represented (the population universe) in the 1996 Survey of Income and Program Participation (SIPP) is the civilian noninstitutionalized population of the United States.

[6] See *America Unequal*, by Sheldon H. Danziger and Peter Gottschalk, 1995, for a discussion of the diminished employment opportunities for less-skilled workers relative to more highly-skilled workers in the United States.

Description of Concepts

1. **Spell of unemployment:** an uninterrupted period of months in which an individual was unemployed. For this analysis, an individual was unemployed in a given month only if they had no job all month and spent at least 1 week on layoff or looking for work. This definition of unemployment differs slightly from the definition used for the Current Population Survey (CPS). SIPP considers some people who were absent without pay from a job because of layoff to be "with a job"; these people are excluded from the definition of unemployment used here, but not necessarily from the CPS definition.
2. **Layoff:** an individual was on "layoff" if the individual was (1) released from a job because of slack work, material shortages, inventory taking, plant remodeling, installation of machinery, or other similar reasons; and (2) anticipated being recalled to the job.
3. **Looking for work:** an individual "looked for work" in a given month if the individual was (1) without a job during at least 1 week during the month; and (2) tried to get work or establish a business or profession in that week.
4. **Median spell duration:** that value of spell length that divides the distribution of spells by length into two equal parts: one half being longer and the other half shorter than the median.
5. **Civilian noninstitutional population 15 years old and over:** the population 15 years old and over that does not reside in institutions, such as correctional institutions and nursing homes.

The data in this report refer to the period from January 1996 through December 1999. The institutionalized population, which is excluded from the population universe, is composed primarily of the population in correctional institutions and nursing homes (91 percent of the 4.1 million institutionalized population in Census 2000).

ACCURACY OF THE ESTIMATES

Statistics from surveys are subject to sampling and nonsampling error. All comparisons presented in this report have taken sampling error into account and are significant at the 90-percent confidence level. This means the 90-percent confidence interval for the difference between the estimates being compared does not include zero. Nonsampling errors in surveys may be attributed to a variety of sources, such as how the survey was designed, how respondents interpret questions, how able and willing respondents are to provide correct answers, and how accurately the answers are coded and classified. The Census Bureau employs quality control procedures throughout the production process including the overall design of surveys, the wording of questions, review of the work of interviewers and coders, and statistical review of reports to minimize these errors.

The Survey of Income and Program Participation (SIPP) weighting procedure uses ratio estimation, whereby sample estimates are adjusted to independent estimates of the national population by age, race, sex, and Hispanic origin. This weighting partially corrects for bias due to undercoverage, but biases may still be present when people who are missed by the survey differ from those interviewed in ways other than the age, race, sex, and Hispanic origin. How this weighting procedure affects other variables in the survey is not precisely known. All of these considerations affect comparisons across different surveys or data sources.[7]

For further information on the source of the data and accuracy of the estimates, including standard errors and confidence intervals, go to http://www.sipp.census.gov /sipp/sourceac/S&A96_030228.Long.pdf or contact John L. Boies, Demographic Statistical Methods Division, at John.L.Boies@census.gov

[7] For a more detailed discussion of SIPP sampling and weighting, see http://www.sipp.census.gov/sipp/sam_and_wt.html

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USER COMMENTS

The Census Bureau welcomes the comments and advice of users of its data and reports. If you have any suggestions or comments, please send an e-mail inquiry to: hhes-info@census.gov.

SUGGESTED CITATION

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Appendix.

Unemployment Spells by Sex, Age, Educational Attainment, and Race: 1996-1999

Characteristic	Total number of spells (thousands)	Median length of spells (months)	Standard Error
Total	**55,236**	**1.8**	**0.04**
Sex			
Men	26,359	1.9	0.07
Women	28,877	1.7	0.06
Age			
16 to 19 years	14,327	1.4	0.09
Male	7,575	1.5	0.13
Female	6,752	1.4	0.12
20 to 24 years	10,177	1.7	0.10
Male	4,831	1.9	0.16
Female	5,346	1.5	0.13
25 to 34 years	12,224	1.9	0.09
Male	5,242	2.2	0.18
Female	6,982	1.7	0.12
35 to 44 years	10,217	2.0	0.13
Male	4,660	2.2	0.18
Female	5,558	1.9	0.14
45 to 54 years	5,845	2.3	0.17
Male	2,769	2.4	0.27
Female	3,076	2.2	0.23
55 years and over	2,445	2.0	0.24
Male	1,282	2.2	0.36
Female	1,164	1.8	0.26
Educational Attainment (people 21 years and over)			
Less than high school	7,822	2.5	0.17
High school graduate	13,241	2.1	0.13
At least some college	17,786	1.7	0.07
Race/Ethnicity			
White	40,795	1.6	0.05
Male	19,724	1.7	0.07
Female	21,071	1.5	0.07
Not of Hispanic origin	34,160	1.6	0.05
Male	16,667	1.6	0.07
Female	17,493	1.5	0.07
Black	11,585	2.7	0.19
Male	5,212	3.1	0.11
Female	6,373	2.4	0.24
Hispanic origin (of any race)	7,213	2.0	0.21
Male	3,311	2.4	0.31
Female	3,902	1.8	0.21
Year Spell Started			
1996	14,123	1.7	0.06
1997	14,541	1.8	0.07
1998	14,136	1.8	0.07
1999	12,436	1.9	0.08

Source: U.S. Census Bureau, 1996 SIPP panel, January 1996-December 1999.

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