

# Dynamics of Economic Well-Being: Spells of Unemployment, 2004–2007

*Household Economic Studies*

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The U.S. labor market is dynamic and flexible—constantly changing as people enter it, leave it, or change status within it. This report, which looks at the incidence and length of spells of unemployment among various demographic groups, provides insights into the efficiency of the labor market in responding to shifts in the economy and in the society at large.

This report uses longitudinal data from the 2004 panel of the Survey of Income and Program Participation (SIPP) on how often and how long individuals in the United States were unemployed during the 4-year period of January 2004 to December 2007.<sup>1,2</sup> It updates and adds to the topics presented in the previous report from the SIPP on this subject, which was based on the 2001 SIPP panel and covered the period from January 2001 to December 2003 (Gottschalck, 2006). This new report contains comparisons of data on spell duration from the 2004 SIPP panel with data from the previous report. The tables in Appendix A display the detailed statistical data underlying the analysis.

The insights offered by the data in this report are framed within the particular economic and social conditions that marked the years 2004 through 2007.

<sup>1</sup> The data in this report were collected from February 2004 to January 2008 in the 12 waves (interviews) of the 2004 panel of the Survey of Income and Program Participation. The population represented (the population universe) is the civilian noninstitutionalized population living in the United States.

<sup>2</sup> The sample for the SIPP was reduced by about 50 percent beginning with the data for June to September 2006 (Wave 9 of the SIPP collection schedule). For a discussion of the effect of the reduction on the analysis of this report, see Appendix B.

During the first 3 years of this period, unemployment declined and employment increased. In 2007, however, employment growth slowed, and both the unemployment level and rate increased. The National Bureau of Economic Research identified December 2007 as the start of a recession.<sup>3</sup>

## UNEMPLOYMENT SPELLS: BRIEF BACKGROUND

As defined for this report, a spell of unemployment for a worker is a period of 1 or more consecutive calendar months throughout each of which the individual was without a job and was either on layoff or actively looking for work in at least 1 week.<sup>4</sup> A spell involves one of the four types of unemployed people: those who lost a job or who had completed a temporary job, those who voluntarily left a job, those who reentered the workforce after an absence, and those who were looking for their first job. A spell can be initiated voluntarily (quitting a job to seek a better job, for example) or involuntarily (such as being laid off). A spell ends when the individual either finds a job or withdraws from the labor market. Over a suitable period of time, the same individual may

<sup>3</sup> See Morisi, 2005; Sok, 2006; Kline, 2007; and Borbely, 2008 and 2009.

<sup>4</sup> The term “worker” is used loosely throughout this report to refer to people in the labor force, including unemployed people.

## Current Population Reports

By  
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experience more than one spell of unemployment.<sup>5, 6</sup>

## UNEMPLOYMENT SPELLS IN GENERAL AND BY SEX

Over the 4-year period 2004 to 2007, there were 66.4 million spells of unemployment, an average of 16.6 million per year.<sup>7, 8</sup> Overall, about 43 million people were affected, a mean of about 1.5 spells per unemployed worker over the entire period. The

<sup>5</sup> By definition, a minimum of 2(n) months is required for (n) spells (for example, a minimum of 4 months is required for a worker to experience two spells of unemployment).

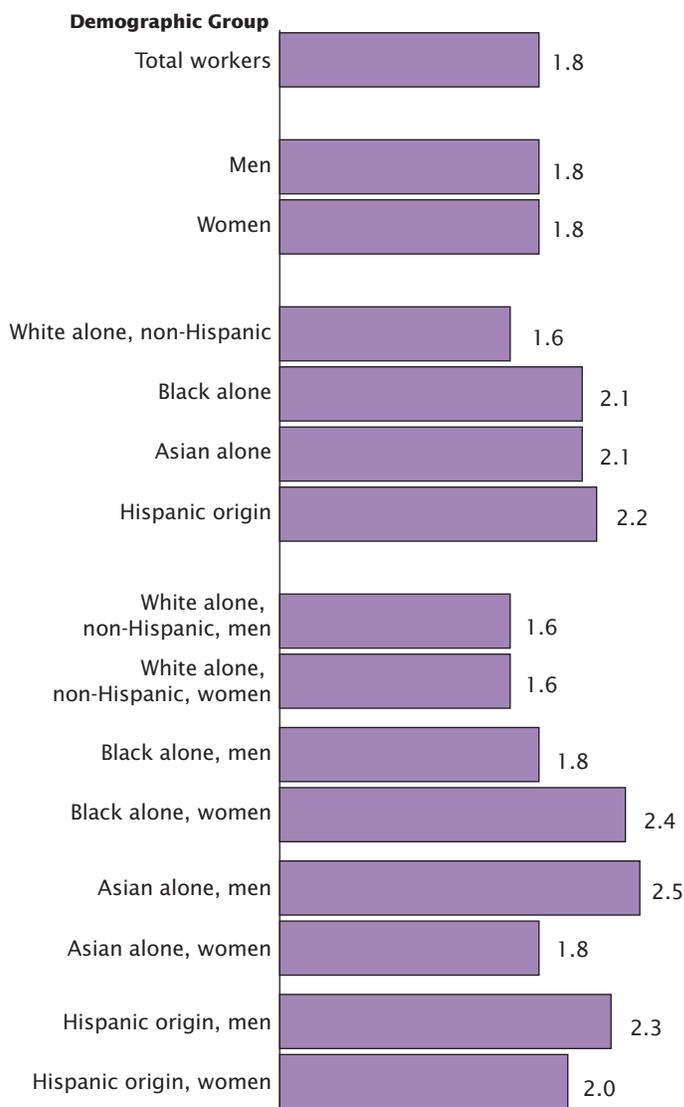
<sup>6</sup> Each month the Current Population Survey (CPS) presents data on the length of time in weeks (through the monthly reference week) that people classified as unemployed in the month had been looking for work or on layoff. For example, see Table A-9 at <[www.bls.gov/news.release/empsit.t09.htm](http://www.bls.gov/news.release/empsit.t09.htm)>. The Annual Social and Economic Supplement (ASEC) to the CPS presents data on the number of weeks that people were unemployed during each calendar year. For example, see <[www.bls.gov/news.release/archives/work\\_12102008.pdf](http://www.bls.gov/news.release/archives/work_12102008.pdf)>. These data from the CPS, based on retrospective questions, do not necessarily represent completed spells of unemployment and are not comparable with the data in this report. Data on completed spells of unemployment have been constructed using CPS data. See Valletta, 2002; Bleakley, Ferris, and Fuhrer, 1999; Ryscavage, 1988; Horrigan, 1987; Kaitz, 1970.

<sup>7</sup> The estimates in this report are based on responses from a sample of the population and may differ from the actual values because of sampling variation and other factors. As a result, apparent differences between the estimates for two or more groups may not be statistically significant. All comparative statements have undergone statistical testing and are significant at the 90percent confidence level unless otherwise noted.

<sup>8</sup> Spells that began prior to 2004 but continued into 2004 are excluded from these figures and from the data in this report. All spells that began in 2004–2007 of anyone in the labor force during that period are included in the statistical analysis, so individuals may be represented more than once.

Figure 1.  
**Median Duration of Spells of Unemployment by Sex, Race, and Hispanic Origin: 2004–2007**

(In months)



Note: Includes all unemployment spells for people in the labor force. People of Hispanic origin may be any race.

Source: U.S. Census Bureau, Survey of Income and Program Participation, 2004 panel.

## THE SIPP—A LONGITUDINAL SURVEY

The Survey of Income and Program Participation (SIPP) is a longitudinal survey that interviews the same panel of individuals every 4 months (a “wave”) over a period of years. Data are collected by turn from one-fourth of the sample members (a “rotation group”) in each of the 4 months of a wave. Demographic characteristics, labor force participation, government program participation, and various income sources of the panel members are identified for each of the 4 months prior to the interview, a time known as the “reference period.” The population represented (the population universe) is the civilian non-institutionalized population living in the United States. The estimates in this report relate to the members of that population who were 15 years and older at the end of the 2004 SIPP panel in December 2007. The estimates exclude the institutionalized population, which consists of people residing in group quarters such as correctional facilities and nursing homes.

Efforts were made during the life of the panel to ensure that it remained representative of the noninstitutionalized population of the United States. Due to budget constraints, the sample for the SIPP was reduced by about 50 percent beginning with Wave 9 (affecting the data for June 2006 and beyond). The longitudinal estimates presented here (from 2004 forward) are based exclusively on the responses of people who survived the reduction and were interviewed in all waves of the 2004–2007 period or for whom imputed information exists. If these people had different experiences of employment and unemployment from other members of the original sample, the longitudinal estimates may be biased. See Appendix B for a brief analysis of the effects of the sample reduction on the estimates.

median length of a spell was 1.8 months—meaning half the spells were shorter and half were longer than 1.8 months. See Table A-1 and Figure 1.

Men and women had the same median spell length of 1.8 months (Figure 1). The median spell length for a group is influenced by such things as the types of jobs the members of the group tend to

seek, the extent and intensity of their job-search efforts, and their propensity to accept job offers.

In a typical month during the 2004 to 2007 period, women comprised 47 percent of all workers. For the period as a whole, however, they accounted for 35.1 million unemployment spells, or 53 percent of the total number. See Tables A-1 and A-3, and Figure 2.

## UNEMPLOYMENT SPELLS BY RACE AND HISPANIC ORIGIN

Among race groups, non-Hispanic White workers experienced the shortest spells of unemployment, a median of 1.6 months (Figure 1).<sup>9</sup> Black workers had a median spell length of 2.1 months, or about a third longer than that for non-Hispanic Whites. People of Hispanic origin, who can be of any race, had a spell length of 2.2 months, about the same as that of Black and Asian workers.<sup>10</sup>

Non-Hispanic White men had the same median spell length, 1.6 months, as non-Hispanic White women. The apparent differences between the spell lengths for men and women for the other race and Hispanic categories shown in Figure 1 are not statistically significant.

Non-Hispanic White workers comprised 71 percent of the workers

<sup>9</sup> Federal surveys now give respondents the option of reporting more than one race. There are two basic ways of defining a race group. A group such as Black may be defined as those who reported Black and no other race (the race-alone or single-race concept) or as those who reported Black regardless of whether they also reported another race (the race alone-or-in-combination concept). This report shows data using the first approach (race-alone). The use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The U.S. Census Bureau uses a variety of approaches. Information on people who reported more than one race, such as White *and* American Indian, or Asian *and* Black or African American, is available from Census 2000 through the American FactFinder Web site. About 2.6 percent of people reported more than one race in Census 2000.

<sup>10</sup> The apparent difference between the spells length for non-Hispanic White workers and that for Asian workers is not statistically significant.

in an average month in the period, but they accounted for about 58 percent of the total number of unemployment spells (38.5 million of the 66.4 million total). On the other hand, Black workers accounted for 11 percent of workers, but 18 percent of the total spells. The comparable figures for Asian workers were 3 percent of workers and 4 percent of spells (Figure 2).

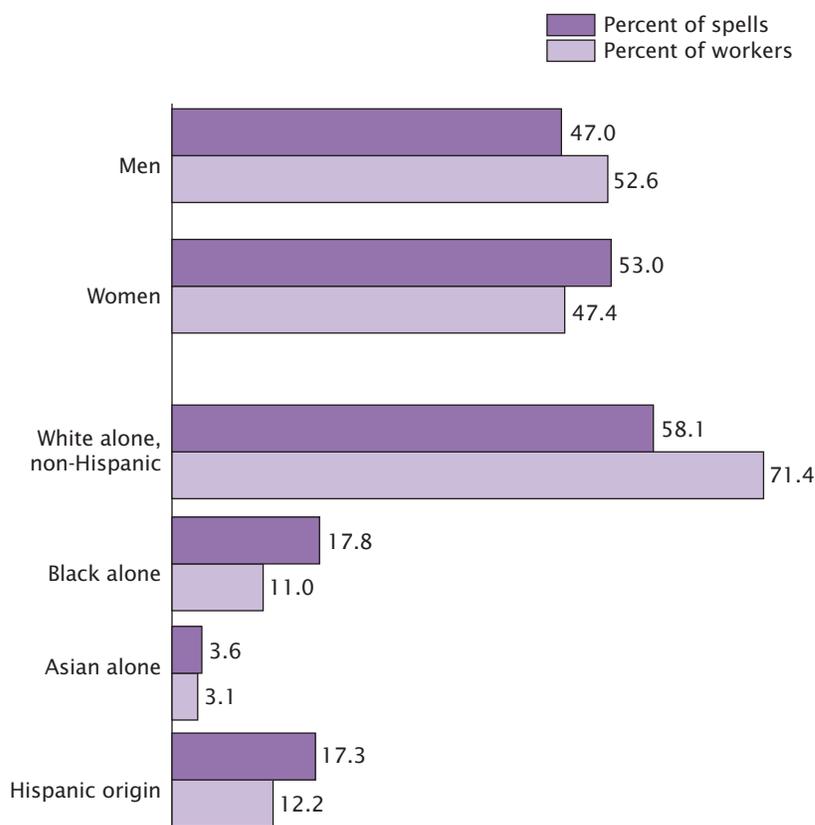
### UNEMPLOYMENT SPELLS BY AGE

People below 25 years of age tended to have shorter spells than people aged 25 years and older (Table A-1). The shortest median spell length was 1.0 months for 16-to-19-year-olds and the longest was 2.5 months for people aged 45 to 54. Within age groups, the spell lengths for men were about the same as those for women, with no other obvious pattern (Figure 3). The shorter spell durations of younger workers may partly reflect the possession of more current or flexible job skills, as well as fewer constraints by family or financial responsibilities on job and residential mobility.<sup>11</sup>

An indication of the effect that younger workers have on the median spell length of workers in general is given in Table A-1. As previously mentioned, the overall median spell length was 1.8 months. In contrast, the median length of spells for workers aged 20 years and over was 2.1 months. The median for spells for workers aged 25 years and over was 2.2 months.

<sup>11</sup> The apparent differences between the following median spell lengths are not statistically significant: that for people 25 to 34 years compared with those for people 35 to 44 years and for people 55 years and over; that for people 35 to 44 years compared with those for people 45 to 54 years and for people 55 years and over; and that for people 45 to 54 compared with that for people 55 years and over.

Figure 2.  
**Percentage of All Spells of Unemployment Compared With Average Monthly Percentage of Workers by Sex, Race, and Hispanic Origin: 2004–2007**



Note: Includes all unemployment spells for people in the labor force. People of Hispanic origin may be of any race.  
Source: U.S. Census Bureau, Survey of Income and Program Participation, 2004 panel.

Younger people are heavily over-represented among the total number of unemployment spells (Figure 4). A quarter of all unemployment spells were experienced by teenagers (16 to 19 years old), even though they composed, on average, only about 5 percent of all workers. Similarly, people 20 to 24 years old were involved in about a sixth of all spells, yet they constituted an average of about a tenth of all workers. The converse is observed among the three age groups 35 years old and over. People in these prime-working-age

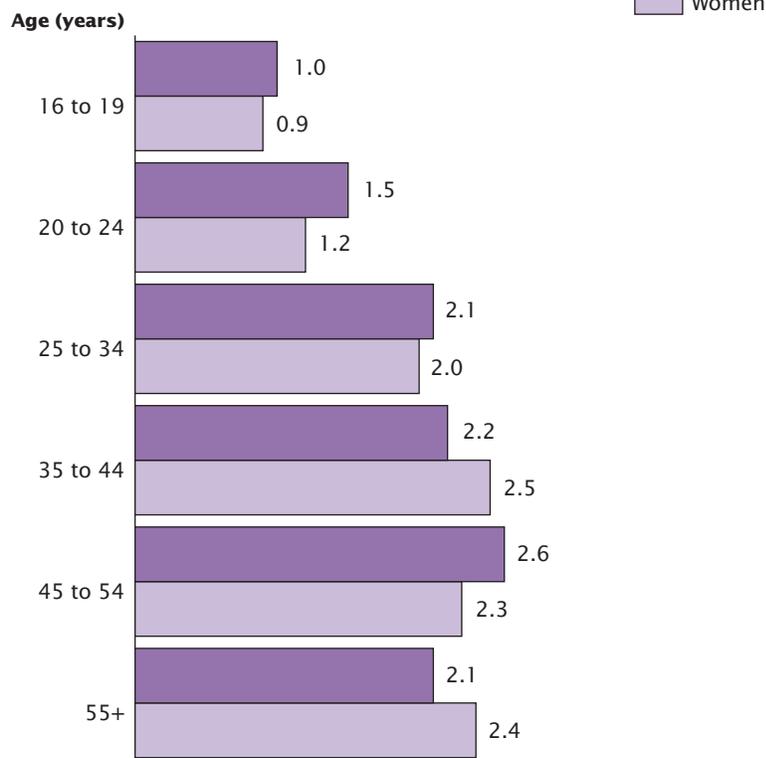
groups were associated with 17 percent, 13 percent, and 9 percent, respectively, of all unemployment spells, while constituting 24 percent, 23 percent, and 18 percent, respectively, of all workers in an average month.

### UNEMPLOYMENT SPELLS BY EDUCATION

Among people 21 years and older, the median length of the unemployment spells for people with at least some college education was considerably below those for people with less educational attainment

Figure 3.  
**Median Duration of Spells of Unemployment  
 by Age and Sex: 2004–2007**

(In months)



Note: Includes all unemployment spells for people in the labor force.

Source: U.S. Census Bureau, Survey of Income and Program Participation, 2004 panel.

(Figure 5). Individuals with less than a high school diploma had a median spell-length of 2.6 months, which was about 35 percent longer than that of people with at least some college education, 1.9 months. The spell length for high school graduates, 2.4 months, exceeded that of people with some college by about 25 percent.<sup>12</sup>

The relationship between a group's representation among unemployment-spells and its average representation in the workforce varied positively among

<sup>12</sup> The apparent difference between the median spell length for people in the category "less than high school graduate" and that for people in the category "high school graduate" is not statistically significant.

educational-attainment groups (Figure 6). People with less than a high school diploma had twice the representation among spells (12 percent) as they did, on average, among workers (6 percent). Conversely, the representation of people with at least some college among spells (57 percent) was considerably less than their representation (68 percent) among the average monthly number of workers.

### AVERAGE NUMBER OF SPELLS OF UNEMPLOYMENT

Overall, unemployed workers experienced an average (mean) of 1.5 spells of unemployment during the 4 years from 2004 to 2007 (Figure

7).<sup>13</sup> The averages for the separate groups of unemployed workers shown in Figure 7 clustered closely around this overall figure, with most being in the range of 1.4 spells to 1.6 spells. These data suggest that, even though, as previously noted, unemployment spells were often distributed disproportionately among the groups within the sex, race, Hispanic-origin, age, and educational-attainment characteristics shown in Figure 7, the likelihood of an unemployed worker experiencing multiple spells over the 4-year period was about the same regardless of group or characteristic.

### UNEMPLOYMENT INSURANCE AND SPELL DURATION

There has long been a debate about whether the reception of unemployment-insurance benefits tends to prolong an individual's spell of unemployment.<sup>14</sup> The data on unemployment compensation in Table A-1 address this issue.

Of the approximately 38.7 million spells of unemployment for workers aged 25 years or older, 31 million, or 80 percent, did not involve the receipt of unemployment benefits.<sup>15</sup> The median duration of these uninsured spells was 2.1 months, compared with 2.8 months for spells in which the unemployed worker received unemployment insurance benefits. This difference in spell duration is not necessarily related to the receipt of unemployment compensation, but may stem from differences, if any, between insured and uninsured workers in

<sup>13</sup> This average excludes spells that started prior to 2004 but continued into 2004.

<sup>14</sup> See Ehrenberg and Oaxaca, 1976. Also see the discussion of the research on this issue in the section "Econometric Evidence" in Nicholson and Needels, 2006.

<sup>15</sup> The data and analysis were restricted to spells for older workers to attenuate the effects of non-economic factors, such as school attendance, on spell duration.

such characteristics as the types of industries they work in and their levels of unionization, average ages, and places of residence.<sup>16</sup>

### DURATION OF SPELLS OF UNEMPLOYMENT: 2001–2003 COMPARED WITH 2004–2006

Figure 8 compares data on spell duration for January 2004 to December 2006 from the 2004 SIPP panel with data from the 2001 SIPP panel for January 2001 to December 2003. The latter data were published in the previous report from the SIPP on the topic of spells of unemployment (Gottschalck, 2006).

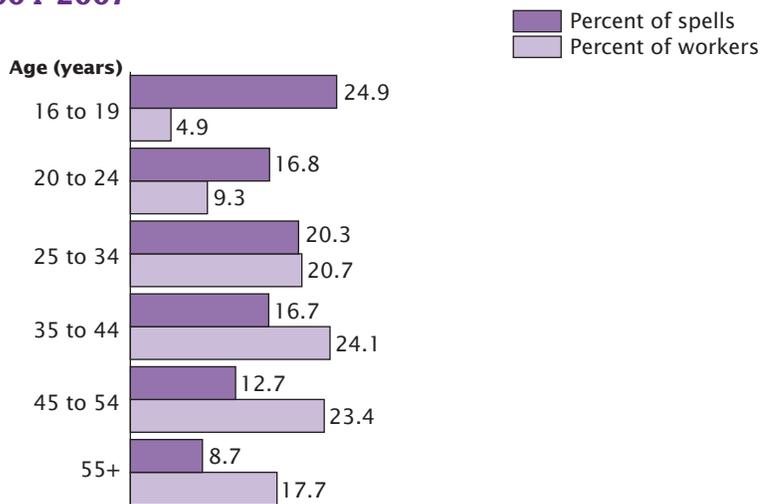
The years 2001–2003 were a period of weakness in the labor market—which began to recover in late 2003.<sup>17</sup> In contrast, 2004 through 2006 saw continued improvement in the labor market. The comparisons in Figure 8 afford a glimpse into the effects on unemployed workers of opposite economic conditions.

For workers in general and for groups of workers by sex, race, and Hispanic-origin, Figure 8 reveals that the median duration of a spell of unemployment in the 2004–2006 period was almost always less than that of a spell in the 2001–2003 period. For all workers, the median duration was 1.7 months in the more recent period and 2.4 months in the earlier period. For male workers, the difference between the periods

<sup>16</sup> For example, if insured workers tend to be older on average than uninsured workers, or if they are more likely to live in places experiencing strong economic growth, then age or residence may be more predictive than insurance status of spell duration.

<sup>17</sup> See Langdon, McMnamin, and Krolik, 2002; McMnamin, Krantz, and Krolic, 2003; Krantz, Di Natale, and Krolic, 2004; and Borbely, 2008.

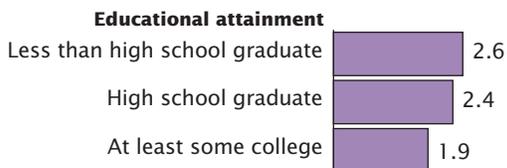
Figure 4.  
**Percentage of All Spells of Unemployment Compared With Average Monthly Percentage of Workers by Age: 2004–2007**



Note: Includes all unemployment spells for people in the labor force.  
Source: U.S. Census Bureau, Survey of Income and Program Participation, 2004 panel.

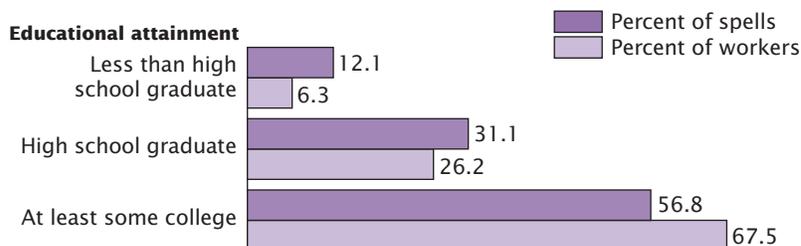
Figure 5.  
**Median Duration of Spells of Unemployment by Educational Attainment for People 21 Years and Older: 2004–2007**

(In months)



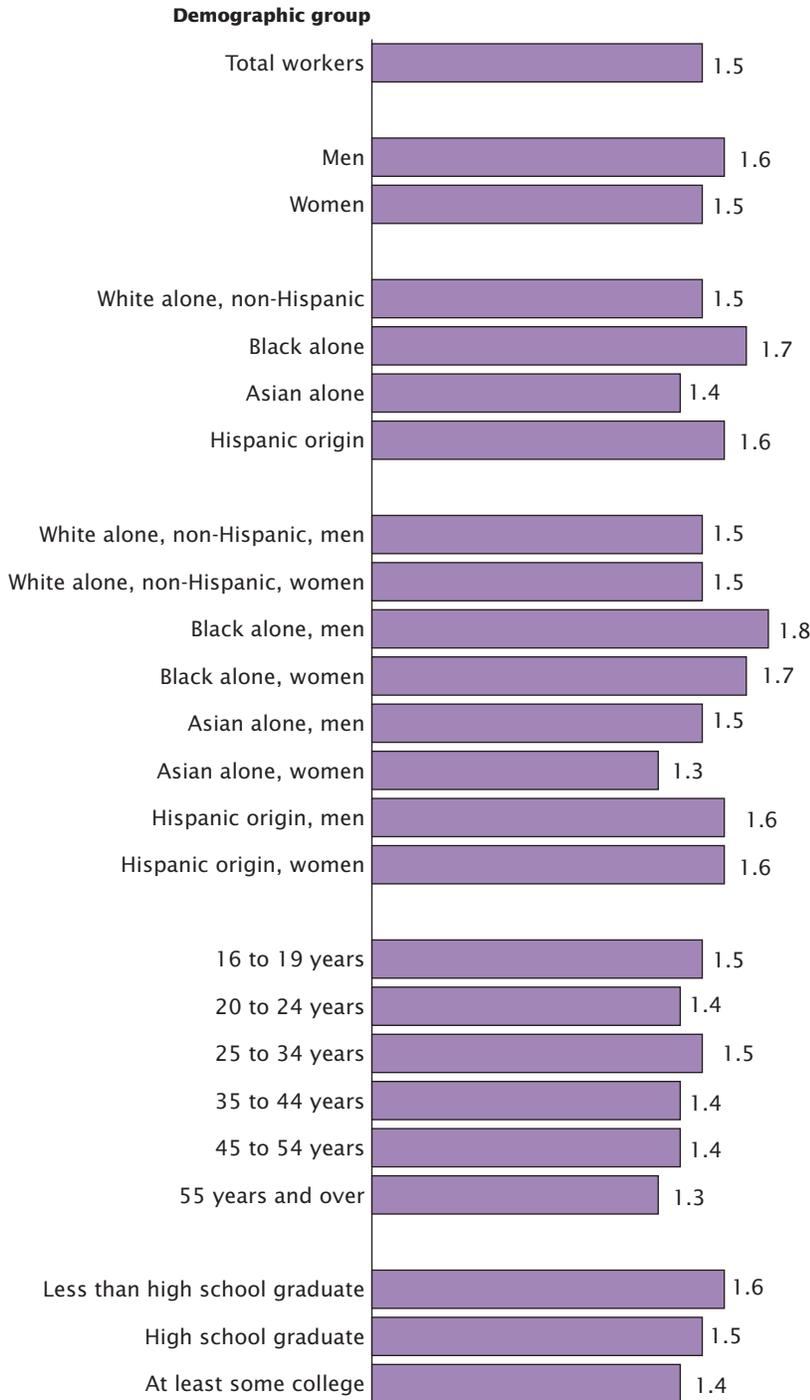
Note: Includes all unemployment spells for people in the labor force.  
Source: U.S. Census Bureau, Survey of Income and Program Participation, 2004 panel.

Figure 6.  
**Percentage of All Spells of Unemployment Compared With Average Monthly Percentage of Workers by Educational Attainment for People 21 Years and Older: 2004–2007**



Note: Includes all unemployment spells for people in the labor force.  
Source: U.S. Census Bureau, Survey of Income and Program Participation, 2004 panel.

Figure 7.  
**Mean Number of Spells of Unemployment by Sex, Race, Hispanic Origin, Age, and Educational Attainment: 2004–2007**



Note: Includes all unemployment spells for people in the labor force. People of Hispanic origin may be any race.

Source: U.S. Census Bureau, Survey of Income and Program Participation, 2004 panel.

in spell duration was 1 month; for Black men, it was 1.5 months. For female workers, the difference was one-half month.<sup>18</sup> A parallel story is told for the age and educational attainment groups in Figure 8. In general, median spell lengths for 2004–2006 were below those for 2001–2003.<sup>19</sup>

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- <sup>18</sup> The apparent differences between the median spell lengths for 2001–2003 and those for 2004–2006 for the following race categories are not statistically significant: Black women, Asian men, and Asian women.
- <sup>19</sup> The apparent differences between the median spell lengths for 2001–2003 and those for 2004–2006 for the "35 to 44 years" and "55 years and over" categories are not statistically significant.

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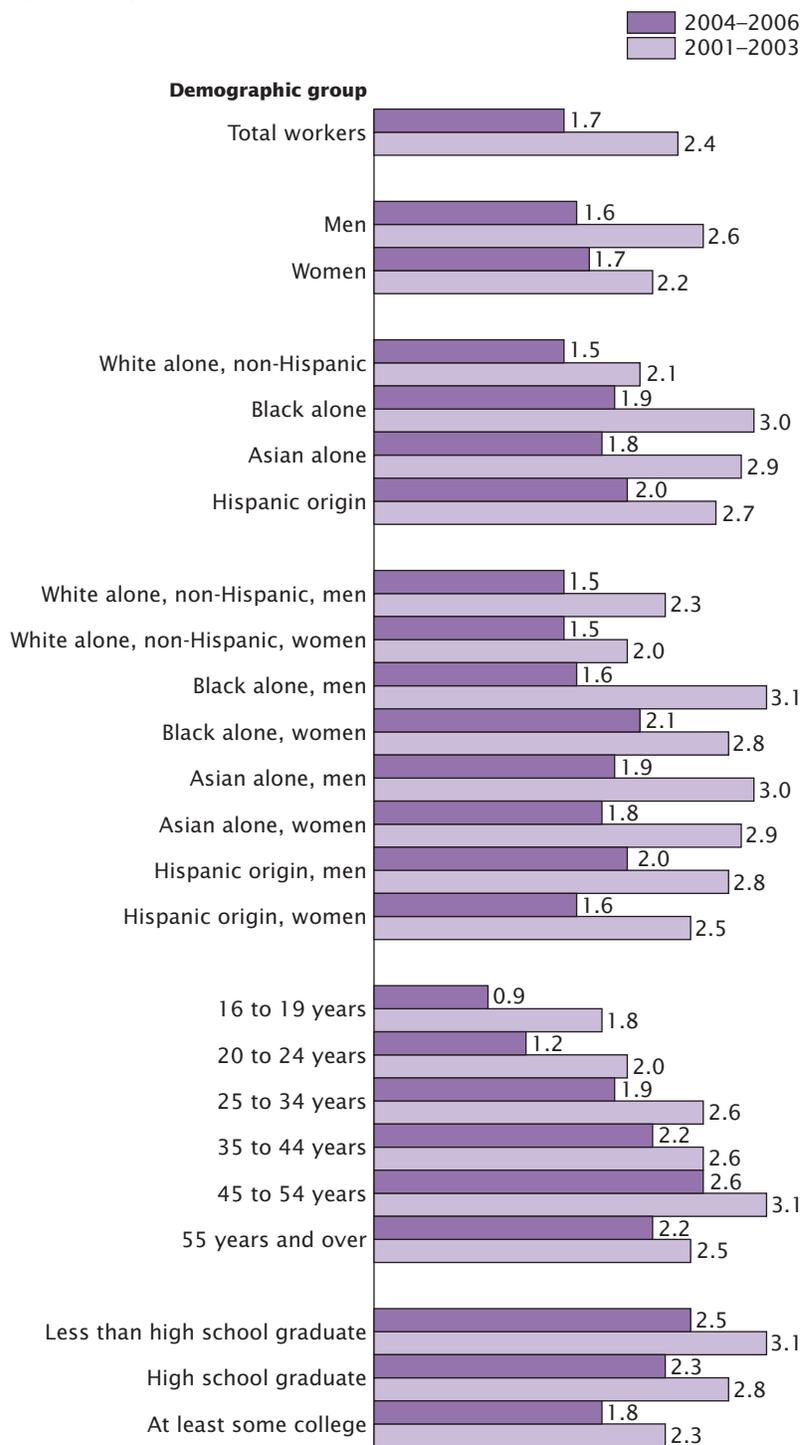
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Figure 8.  
**Median Duration of Spells of Unemployment by Sex, Race, Hispanic Origin, Age, and Educational Attainment: 2004–2006 and 2001–2003**  
(In months)



Note: Includes all unemployment spells for people in the labor force. People of Hispanic origin may be any race.

Source: U.S. Census Bureau, Survey of Income and Program Participation, 2001 and 2004 panels.

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## SOURCE AND ACCURACY OF ESTIMATES

### Source of the Data

The population represented (the population universe) in the 2004 Survey of Income and Program Participation (SIPP) is the civilian noninstitutionalized population of the United States. The SIPP is a longitudinal survey conducted at 4-month intervals. The data in this report refer to the period from January 2004 through December 2007. 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 unless otherwise noted. 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 is 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 U.S. Census Bureau employs quality control procedures throughout the production process including the overall design of surveys, the wording of questions, the review of the work of interviewers

and coders, and the statistical review of reports to minimize these errors. The 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 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.

For further information on statistical standards and the computation and use of standard errors, go to [www.sipp.census.gov/sipp/sourceac/S&A04\\_W1toW12\(S&A-9\).pdf](http://www.sipp.census.gov/sipp/sourceac/S&A04_W1toW12(S&A-9).pdf) or contact Stephen Clark of

## DESCRIPTION OF CONCEPTS

**Spell of unemployment**—An uninterrupted period of calendar months in which an individual was unemployed. For this analysis, an individual was unemployed in a given month if and only if the individual had no job all month and spent at least 1 week on layoff or looking for work. This definition of unemployment differs from the definition used for the Current Population Survey (CPS). For example, for this analysis, some people who reported that they had a job in a given month, but that they were temporarily absent from it because of a layoff, are not considered to be unemployed in that month. In the CPS, such people could be classified as unemployed.

Spells of unemployment that began prior to 2004 but continued into 2004 (so-called "left-censored" spells) are excluded from the data in this report. Spells that were ongoing at the end of 2007 ("right-censored" spells) were included—their lengths were estimated using the life-table method of survival analysis.

**Layoff**—An individual was on "layoff" if the individual (1) was 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.

**Looking for work**—An individual "looked for work" in a given month if the individual (1) was without a job during at least 1 week during the month and (2) tried to obtain work or establish a business or profession in the month.

**Median spell duration**—The 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.

**Civilian noninstitutionalized population 15 years and older**—The population 15 years and older that does not reside in institutions, such as correctional institutions and nursing homes.

**Labor force**—An individual is considered to be in the labor force if the individual (1) was employed in a given month or (2) was unemployed in a given month and actively looking for work or on layoff.

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the Census Bureau's Demographic Statistical Methods Division at <stephen.clark@census.gov>.

Additional information on the SIPP can be found at the following Web sites:

<[www.sipp.census.gov/sipp/](http://www.sipp.census.gov/sipp/)> (main SIPP Web site), <[www.sipp.census.gov/sipp/workpaper/wp230.pdf](http://www.sipp.census.gov/sipp/workpaper/wp230.pdf)> (SIPP Quality Profile), and <[www.sipp.census.gov/sipp/usrguide/sipp2001.pdf](http://www.sipp.census.gov/sipp/usrguide/sipp2001.pdf)> (SIPP User's Guide).

## CONTACTS

Contact the Demographic Call Center Staff at 301-763-2422 or 866-758-1060 (toll free) or visit <[ask.census.gov](http://ask.census.gov)> for

further information on labor force statistics.

For further information on the content of this report, contact Thomas J. Palumbo of the Census Bureau's Housing and Household Economics Statistics Division at <[thomas.j.palumbo@census.gov](mailto:thomas.j.palumbo@census.gov)> or 301-763-6263.

## 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 write to:

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<[jennifer.cheeseman.day@census.gov](mailto:jennifer.cheeseman.day@census.gov)>.

## SUGGESTED CITATION

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**APPENDIX A.**

Table A-1.

**Unemployment Spells by Sex, Age, Educational Attainment, Race, Hispanic Origin, Receipt of Unemployment Compensation, and Year Spell Started: 2004-2007**

Characteristic	Total number of unemployed workers (thousands)	90 percent C.I.(+/-)* (thousands)	Total number of spells of unemployment (thousands)	90 percent C.I.(+/-)* (thousands)	Mean number of spells per unemployed worker	90 percent C.I.(+/-)*	Median length of spells of unemployment (months)	90 percent C.I.(+/-)*
<b>Total</b> .....	<b>42,951</b>	<b>1177</b>	<b>66,359</b>	<b>1113</b>	<b>1.5</b>	<b>0.03</b>	<b>1.8</b>	<b>0.12</b>
<b>Sex</b>								
Men .....	19,871	813	31,205	792	1.6	0.04	1.8	0.16
Women .....	23,081	868	35,154	782	1.5	0.03	1.8	0.16
<b>Age at start of spell</b>								
20 years and over .....	33,427	1062	49,831	933	1.5	0.03	2.1	0.16
25 years and over .....	26,175	955	38,712	818	1.5	0.03	2.2	0.17
16 to 19 years .....	10,665	631	16,528	532	1.5	0.05	1.0	0.07
Men .....	5,279	449	8,651	407	1.6	0.08	1.0	0.10
Women .....	5,386	453	7,876	338	1.5	0.06	0.9	0.08
20 to 24 years .....	7,856	544	11,119	421	1.4	0.05	1.4	0.31
Men .....	3,748	379	5,201	289	1.4	0.08	1.5	0.43
Women .....	4,107	397	5,918	306	1.4	0.07	1.2	0.46
25 to 34 years .....	9,036	582	13,454	480	1.5	0.05	2.0	0.28
Men .....	3,957	389	6,064	339	1.5	0.09	2.1	0.51
Women .....	5,079	440	7,391	339	1.5	0.07	2.0	0.28
35 to 44 years .....	7,824	543	11,056	407	1.4	0.05	2.4	0.33
Men .....	3,143	348	4,522	292	1.4	0.09	2.2	0.43
Women .....	4,680	423	6,535	284	1.4	0.06	2.5	0.49
45 to 54 years .....	5,937	475	8,435	366	1.4	0.06	2.5	0.36
Men .....	2,676	321	3,766	255	1.4	0.10	2.6	0.56
Women .....	3,261	354	4,669	262	1.4	0.08	2.3	0.48
55 years and over .....	4,287	405	5,766	311	1.3	0.07	2.3	0.39
Men .....	2,268	296	3,002	209	1.3	0.09	2.1	0.58
Women .....	2,019	279	2,765	230	1.4	0.11	2.4	0.54
<b>Educational attainment at start of spell (people 21 years and older)</b>								
Less than high school graduate .....	3,651	374	5,719	333	1.6	0.09	2.6	0.51
High school graduate .....	9,762	604	14,695	515	1.5	0.05	2.4	0.28
At least some college .....	18,951	826	26,874	646	1.4	0.03	1.9	0.15
<b>Race/ethnicity</b>								
White alone .....	32,445	1049	48,989	924	1.5	0.03	1.7	0.13
Men .....	15,310	727	23,412	654	1.5	0.04	1.8	0.18
Women .....	17,135	767	25,576	652	1.5	0.04	1.6	0.18
White alone, non-Hispanic .....	25,788	949	38,527	816	1.5	0.03	1.6	0.13
Men .....	12,176	657	18,321	572	1.5	0.05	1.6	0.20
Women .....	13,612	693	20,206	582	1.5	0.04	1.6	0.20
Black alone .....	6,878	508	11,789	547	1.7	0.08	2.1	0.44
Men .....	2,938	342	5,158	383	1.8	0.13	1.8	0.44
Women .....	3,940	390	6,632	390	1.7	0.10	2.4	0.56
Asian alone .....	1,741	259	2,357	182	1.4	0.10	2.1	0.66
Men .....	694	164	1,048	133	1.5	0.19	2.5	1.05
Women .....	1,046	201	1,309	119	1.3	0.11	1.8	0.87

See footnotes at end of table.

Table A-1.

**Unemployment Spells by Sex, Age, Educational Attainment, Race, Hispanic Origin, Receipt of Unemployment Compensation, and Year Spell Started: 2004–2007—Con.**

Characteristic	Total number of unemployed workers (thousands)	90 percent C.I.(+/-)* (thousands)	Total number of spells of unemployment (thousands)	90 percent C.I.(+/-)* (thousands)	Mean number of spells per unemployed worker	90 percent C.I.(+/-)*	Median length of spells of unemployment (months)	90 percent C.I.(+/-)*
Hispanic origin (any race) . . . . .	7,245	523	11,498	451	1.6	0.06	2.2	0.31
Men . . . . .	3,359	357	5,461	323	1.6	0.10	2.3	0.39
Women . . . . .	3,886	384	6,038	315	1.6	0.08	2.0	0.49
<b>Unemployment compensation (people 25 years and older)</b>								
Received unemployment compensation . . . . .	6,406	493	7,692	234	1.2	0.04	2.8	0.25
Did not receive unemployment compensation . . . . .	21,624	877	31,021	703	1.4	0.03	2.1	0.20
<b>Year spell started</b>								
2004 . . . . .	19,357	834	22,264	333	1.2	0.02	1.1	0.20
2005 . . . . .	15,487	752	17,367	265	1.1	0.02	1.9	0.15
2006 . . . . .	13,335	701	14,848	247	1.1	0.02	1.9	0.16
2007 . . . . .	11,008	640	11,880	191	1.1	0.02	2.6	0.25

Note: Details may not sum to totals because of rounding and because not all categories are shown. \* A 90 percent confidence interval (C.I.) is a measure of an estimate's variability. The larger the confidence interval in relation to the size of the estimate, the less reliable the estimate. For more information, see "Uses and Computation of Standard Errors" at <[www.census.gov/sipp/sourceac/S&A04\\_W1toW12\(S&A-9\).pdf](http://www.census.gov/sipp/sourceac/S&A04_W1toW12(S&A-9).pdf)>.

Source: U.S. Census Bureau, Survey of Income and Program Participation, 2004 panel, January 2004 to December 2007.

Table A-2.

**Median Length of Unemployment Spells by Sex, Age, Educational Attainment, Race, Hispanic Origin, and Year Spell Started: 2001–2003 and 2004–2006**

Characteristic	2001–2003		2004–2006	
	Median length of spells of unemployment (months)	Standard error	Median length of spells of unemployment (months)	Standard error
<b>Total</b> .....	<b>2.4</b>	<b>0.08</b>	<b>1.7</b>	<b>0.07</b>
<b>Sex</b>				
Men .....	2.6	0.11	1.6	0.10
Women .....	2.2	0.10	1.7	0.10
<b>Age at start of spell</b>				
16 to 19 years .....	1.8	0.10	0.9	0.04
Men .....	1.8	0.15	0.9	0.06
Women .....	1.7	0.13	0.9	0.05
20 to 24 years .....	2.0	0.17	1.2	0.20
Men .....	2.4	0.25	1.3	0.27
Women .....	1.8	0.14	1.1	0.30
25 to 34 years .....	2.6	0.15	1.9	0.13
Men .....	2.8	0.24	1.9	0.19
Women .....	2.5	0.20	1.9	0.18
35 to 44 years .....	2.6	0.16	2.2	0.21
Men .....	2.7	0.22	2.1	0.27
Women .....	2.6	0.22	2.2	0.31
45 to 54 years .....	3.1	0.15	2.6	0.23
Men .....	3.3	0.21	2.6	0.35
Women .....	2.8	0.33	2.5	0.31
55 years and over .....	2.5	0.27	2.2	0.24
Men .....	2.6	0.38	2.1	0.33
Women .....	2.5	0.38	2.3	0.36
<b>Educational attainment at start of spell (people 21 years and older)</b>				
Less than high school graduate .....	3.1	0.12	2.5	0.31
High school graduate .....	2.8	0.16	2.3	0.18
At least some college .....	2.3	0.12	1.8	0.10
<b>Race/ethnicity</b>				
White alone .....	2.2	0.08	1.6	0.08
Men .....	2.4	0.13	1.6	0.12
Women .....	2.0	0.11	1.5	0.12
White alone, non-Hispanic .....	2.1	0.09	1.5	0.09
Men .....	2.3	0.14	1.5	0.13
Women .....	2.0	0.08	1.5	0.12
Black alone .....	3.0	0.19	1.9	0.20
Men .....	3.1	0.15	1.6	0.29
Women .....	2.8	0.25	2.1	0.43
Asian alone .....	2.9	0.44	1.8	0.37
Men .....	3.0	0.62	1.9	0.46
Women .....	2.9	0.62	1.8	0.61

See footnotes at end of table.

Table A-2.

**Median Length of Unemployment Spells by Sex, Age, Educational Attainment, Race, Hispanic Origin, and Year Spell Started: 2001–2003 and 2004–2006—Con.**

Characteristic	2001–2003		2004–2006	
	Median length of spells of unemployment (months)	Standard error	Median length of spells of unemployment (months)	Standard error
Hispanic origin (any race) . . . . .	2.7	0.20	2.0	0.20
Men . . . . .	2.8	0.29	2.0	0.25
Women . . . . .	2.5	0.28	1.6	0.31
<b>Year spell started</b>				
First year of period . . . . .	1.9	0.06	1.1	0.12
Second year of period . . . . .	2.4	0.09	1.9	0.09
Third year of period . . . . .	3.0	0.10	2.0	0.10

Note: Details may not sum to totals because of rounding and because not all categories are shown.

Source: U.S. Census Bureau, Survey of Income and Program Participation, 2001 panel, January 2001 to December 2003, and Survey of Income and Program Participation, 2004 panel, January 2004 to December 2007.

Table A-3.

**People 15 Years and Older in the Labor Force by Sex, Age, Educational Attainment, Race, and Hispanic Origin: Monthly Averages, January 2004 to December 2007**

(Numbers in thousands)

Characteristic	Monthly-average number in labor force	Standard error
<b>Total . . . . .</b>	<b>148,100</b>	<b>932</b>
<b>Sex</b>		
Men . . . . .	77,834	692
Women . . . . .	70,262	718
<b>Age</b>		
<b>Total, 16 years and older . . . . .</b>	<b>147,580</b>	<b>933</b>
16 to 19 years . . . . .	7,240	318
20 to 24 years . . . . .	13,692	432
25 to 34 years . . . . .	30,486	621
35 to 44 years . . . . .	35,516	662
45 to 54 years . . . . .	34,533	654
55 years and over . . . . .	26,116	580
<b>Educational attainment</b>		
<b>Total, 21 years and older . . . . .</b>	<b>137,830</b>	<b>944</b>
Less than high school graduate . . . . .	8,710	348
High school graduate . . . . .	36,056	666
At least some college . . . . .	93,062	917
<b>Race/ethnicity</b>		
White alone . . . . .	122,510	948
White alone, non-Hispanic . . . . .	105,870	937
Black alone . . . . .	16,237	467
Asian alone . . . . .	4,627	256
Hispanic origin (any race) . . . . .	18,097	492

Note: Details may not sum to totals because of rounding and because not all categories are shown.

Source: U.S. Census Bureau, Survey of Income and Program Participation, 2004 panel, January 2004 to December 2007.

## APPENDIX B.

### MEASURING THE EFFECTS OF THE SAMPLE REDUCTION ON MEDIAN SPELL LENGTH

Due to budget constraints, the sample for the SIPP was reduced by about 50 percent beginning with Wave 9 (affecting the data for June 2006 and beyond). The longitudinal estimates analyzed in the body of this report (from 2004 forward) are based exclusively on the responses of the “survivors.” These are sample members who survived the sample reduction and who were interviewed or for whom imputed data exists in all waves of the 2004–2007 period.

For the 25-month period from January 2004 to January 2006 (the period completely covered by the first seven waves of the 2004 SIPP panel), the table in this appendix compares the median length of unemployment spells for the universe of people represented by the survivors with those of the universe represented by the nonsurvivors.<sup>20</sup>

The differences between the groups in median spell lengths by sex, age at start of spell, and race are shown in the final column of the table. None of these differences was statistically different at the 90 percent confidence level.

<sup>20</sup> The period for the first seven waves was chosen for the comparison because it is the longest period before the sample reduction for which longitudinal survey weights are available. “Nonsurvivors” are people who were interviewed (or imputed for) in all of the first seven waves of the survey, but were either dropped by the sample reduction in Wave 9 or not interviewed (or imputed for) in Wave 8 or later.

Table B.

#### Median Length of Unemployment Spells by Sample-Reduction Status: January 2004 to January 2006

Characteristic	Survivors		Nonsurvivors		Difference in median spell length between survivors and nonsurvivors
	Median length of spells of unemployment (months)	Standard error	Median length of spells of unemployment (months)	Standard error	
<b>Total</b> . . . . .	<b>1.6</b>	<b>0.08</b>	<b>1.6</b>	<b>0.07</b>	–
<b>Sex</b>					
Men . . . . .	1.6	0.11	1.5	0.10	0.01
Women . . . . .	1.6	0.13	1.6	0.09	–
<b>Age at start of spell</b>					
16 to 19 years . . . . .	0.8	0.04	0.8	0.03	–0.04
20 to 24 years . . . . .	1.0	0.06	1.2	0.15	–0.21
25 to 34 years . . . . .	2.0	0.14	2.2	0.17	–0.26
35 to 44 years . . . . .	2.4	0.23	2.2	0.27	0.14
45 to 54 years . . . . .	2.6	0.22	2.6	0.24	0.01
55 years and older . . . . .	2.1	0.26	2.0	0.21	0.09
<b>Race/ethnicity</b>					
White alone . . . . .	1.5	0.10	1.5	0.08	0.03
White alone, non-Hispanic. . .	1.5	0.10	1.4	0.08	0.03
Black alone . . . . .	1.7	0.22	1.9	0.16	–0.25
Asian alone . . . . .	1.9	0.38	1.7	0.33	0.22
Hispanic origin (any race) . . . . .	1.8	0.22	1.9	0.23	–0.09

– Represents or rounds to zero.

Source: U.S. Census Bureau, Survey of Income and Program Participation, 2004 panel, January 2004 to January 2006.

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