Job search of the unemployed by duration of unemployment

The length of time the jobless spent searching for work before finding a job increased from 5.2 to 10.4 weeks between 2007 and 2010, edging down to 10.0 in 2011; for the unemployed who eventually quit looking and left the labor force, duration also increased sharply between 2007 and 2011, from 8.7 to 21.4 weeks

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ollowing the 2007–2009 recession, the number of persons who were out of work for an extended time rose to record high levels. Consequently, median duration of unemployment rose to 21.4 weeks in 2010 and held through 2011; this measure, however, represents the ongoing number of weeks individuals had been unemployed when surveyed and is not a measure of a completed period of job search. That is, it does not indicate how many weeks an unemployed person took to find employment or leave the labor force. To provide estimates that more closely resemble "completed spells of unemployment," the Bureau of Labor Statistics (BLS) created measures of the number of weeks the jobless took to find work or quit looking and leave the labor force. These data show that the median length of time an unemployed person searched before finding a job increased sharply between 2007 and 2010, from 5.2 to 10.4 weeks; in 2011, it edged down to 10.0 weeks. Unemployed individuals looked much longer for work in 2011, compared with 2007, before giving up and leaving the labor force, 21.4 weeks versus 8.7 weeks, respectively.

Background on labor force flows

Labor force flows measure the transitions from one month to the next of individuals as they change their labor force status between employment and unemployment or as they enter or leave the labor market. The flows also measure the number of persons who remained employed, unemployed, or not in the labor force over the month. Each month, the Current Population Survey (CPS) is administered to about three-quarters of the same households (sample) as in the previous month.¹ This month-to-month overlap allows for the calculation of the separate flows. The flows provide the underlying dynamics to the net change in official "stock" estimates-such as employment and unemployment-that the BLS publishes each month.² In any given month, a person is in one of three labor force states: employed (E), unemployed (U), or not in the labor force (N). The next month, that person could either have the same status or change to one of the other two states.

Nine of the labor market flow possibilities can be expressed with the following 3×3 matrix:

	Status in current month				
Status in prior month	Em- ployed	Unem- ployed	Not in labor force		
Employed	EE	EU	EN		
Unemployed	UE	UU	UN		
Not in the labor force	NE	NU	NN		

Other flows, such as those due to normal increases or decreases in population, are not discussed further in this article because of their marginal influence on changes to labor force estimates.³ The notation of the matrix is such that the first letter denotes the labor force status in the previous month and the second letter denotes the status in the current month. Thus, EE represents all individuals who remained employed over the month (not necessarily with the same employer), UE is the number of unemployed persons in the previous month who became employed in the current month, EU is the number employed persons in the previous month who were unemployed in the current month, and so forth.

Most transitions from employment to unemployment (EU) represent job loss, whereas transitions from unemployment to employment (UE) represent persons who sought and found jobs.⁴ The CPS flows, however, do not specifically reveal why people changed their labor force status. For example, one cannot determine whether employed persons who drop out of the labor force (EN) do so voluntarily or involuntarily, whether NE and NU represent new or returning entrants to the labor force, or whether jobless persons who quit looking for work (UN) are discouraged over job prospects.⁵

Duration by flow measure

Researchers in BLS' Office of Employment and Unemployment Statistics created estimates of completed spells of unemployment by linking the duration variable for individuals who were jobless in one month with their labor force status in the subsequent month. These measures reflect completed spells of duration as of the last reference period in which persons were still classified as unemployed, or the length of job search for those who became employed and for those who quit searching for work and left the labor force.

Obtaining information on the precise week between survey periods when jobless individuals become employed or leave the labor force is not feasible. In the CPS, one's labor force status is determined for 1 week only each month; this is usually the week that contains the 12th, which is referred to as the "CPS survey reference week." Thus, if one's labor force status is unemployed (U) in one month and either employed (E) or not in the labor force (N) in the subsequent month, then the actual length of any one job search may be understated by as much as 3 to 4 weeks, the number of weeks between survey reference periods.⁶

Median duration of job search

During the recession that began in December 2007 and

ended in June 2009, millions of employed individuals lost their jobs and the ranks of the unemployed nearly doubled.⁷ In the aftermath, the number of jobless who were unemployed for 27 weeks or more continued to rise for about a year until early 2010, when it began to level off. In 2007, the median number of weeks that jobseekers were unemployed in the month prior to finding work was 5.2 weeks. In sharp contrast that emphasizes the severity of the 2007–2009 economic downturn, the median length of time for a successful job search doubled to 10.4 weeks by 2010. In 2011, it changed little, edging down to 10.0 weeks. Comparatively, during the robust economic expansion of the late 1990s and early 2000s, the median length of time that the jobless took to find work was about 4 weeks. This measure had reached as high as 6.1 weeks in the aftermath of the 2001 recession. The median duration of unemployment for those who eventually quit looking for a job and left the labor force also increased sharply between 2007 and 2011, from 8.7 weeks to 21.4 weeks. (See table 1.)

In 2011, the median number of weeks that unemployed men actively searched for work before landing a job was 10.2 weeks, compared with 9.6 weeks for women. Unemployed men also searched longer for a job than women in 2011 before giving up and leaving the labor force, spending 22.6 weeks looking compared with 20.2 weeks for women. Nonetheless, both men and women spent considerably more time searching for employment in 2011, whether successful or not, than during or prior to the 2007–2009 recession.

Distribution of job search by weeks of duration

Table 2 shows the distribution of job search for the unemployed who found jobs, by duration of unemployment in weekly increments. From 1994 through 2008, roughly half of successful jobseekers found work within 5 weeks of beginning their search. Prior to the start of the recent recession in December 2007, for example, 49 percent of those who were unemployed in one month but employed in a subsequent month had been jobless for less than 5 weeks. In 2011, a little more than one-third of jobseekers found work in less than 5 weeks. As the share of shortterm successful job searches declined, the share of longterm successful job searches (those lasting 6 months or longer) increased dramatically. By 2011, more than a quarter (26.7 percent) of successful job searches lasted 6 months or longer, with about half of those taking more than a year. In comparison, about 10 percent of successful job searches lasted 6 months or longer in 2007.

Table 1.

Median duration of unemployment for persons who became employed or left the labor force, by gender, annual averages, 1994-2011

Year	Total, bot	Total, both sexes		Men		Women	
	Became employed	Left the labor force	Became employed	Left the labor force	Became employed	Left the labor force	
1994	5.4	9.1	5.8	10.8	5.1	8.0	
1995	4.8	8.3	5.0	9.4	4.5	7.5	
1996	4.7	7.6	4.9	8.2	4.5	7.2	
1997	4.5	7.6	4.6	8.5	4.2	7.0	
1998	4.2	6.9	4.6	7.5	4.0	6.3	
1999	4.1	6.8	4.3	7.2	4.0	6.5	
2000	4.0	6.5	4.2	7.3	4.0	5.6	
2001	4.1	6.9	4.2	7.4	4.0	6.5	
2002	5.6	8.7	5.6	9.0	5.5	8.5	
2003	6.1	9.6	6.4	9.9	5.9	9.3	
2004	6.0	9.6	5.9	10.2	6.3	9.2	
2005	5.4	8.6	5.5	9.3	5.4	8.1	
2006	5.1	8.3	5.3	8.9	5.0	7.9	
2007	5.2	8.7	5.3	9.2	4.9	8.2	
2008	5.6	9.5	5.2	9.6	6.1	9.4	
2009	8.4	15.2	8.6	16.0	8.1	14.4	
2010	10.4	20.0	10.9	22.2	9.6	18.2	
2011	10.0	21.4	10.2	22.6	9.6	20.2	

employed in the month before becoming employed or leaving the labor force and, therefore, somewhat understates the true length of

SOURCE: Research series from the BLS Current Population Survey.

Jobseeking women spent less time than men searching for work in 2011 before succeeding (medians of 9.6 versus 10.2 weeks, respectively). Unemployed men, however, were somewhat more likely than were women to be successful in job searches that lasted 27 weeks or more (27.3 versus 25.7 percent, respectively). Reflecting higher unemployment as a result of the 2007–2009 recession, an average of 2.4 million unemployed persons sought and found work each month in 2011, an increase of about 400,000 over the monthly average in 2007.

As shown in table 3, a far greater share of the unemployed who quit looking also spent much more time searching in 2011 than those who quit looking prior to the start of the recession in 2007. About 44 percent of the jobless searched for work for a half year or longer before giving up in 2011, compared with about 21 percent in 2007.

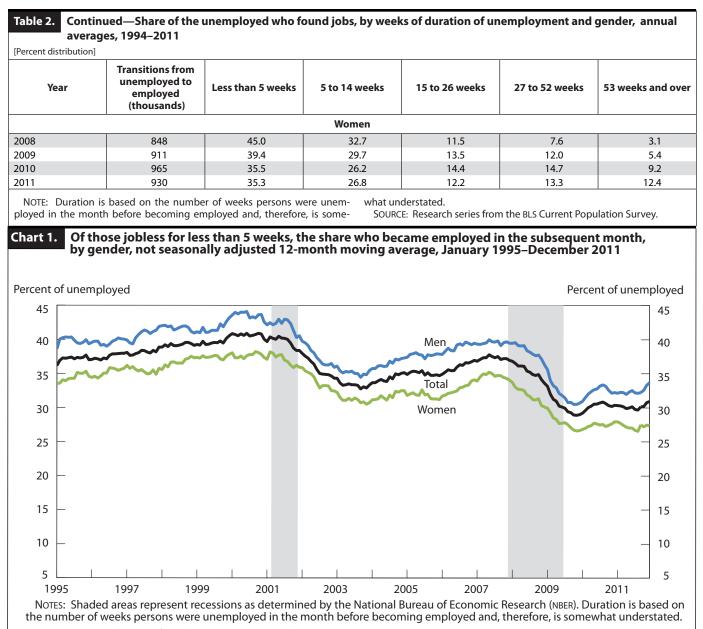
A greater share of the unemployed who found jobs (UE) in 2011 were men (61 percent, versus 39 percent for women). (See table 2.) However, roughly equal shares of unemployed men and women (48 versus 52 percent, respectively) gave up their search and left the labor force (UN). Also, similar proportions of unemployed men and women who eventually left the labor force spent more than half a year in their job search before giving up (45.2 and 42.4 percent, respectively). (See table 3.)

Likelihood of finding work by weeks of unemployment

In addition to the medians and distributions of completed spells presented earlier, the likelihood of the unemployed becoming employed or leaving the labor force was tabulated for selected duration categories. These measures show that the chance of becoming employed decreases the longer one is unemployed. This relationship holds regardless of expansions or contractions in the business cycle. However, the chance of finding a job has been substantially lower in the aftermath of the 2007-2009 economic downturn. In 2011, an individual who had been unemployed for less than 5 weeks had a 31-percent chance of becoming employed in a subsequent month, whereas an individual who had been jobless for a half year or longer had only a 10-percent chance. In comparison, during the tight labor market of 2000, the proportions were higher, 40 percent and 20 percent, respectively. (See charts 1 and 2.)

From 1995 to 2011, unemployed men were more likely than unemployed women to be successful in their job search during unemployment durations of less than 5 weeks; however, that pattern was less well defined for job searches that exceeded a half year. Among men who had been jobless for less than 5 weeks in 2011, about 34 percent were employed in the subsequent month, compared with

Year	Transitions from unemployed to employed (thousands)	Less than 5 weeks	5 to 14 weeks	15 to 26 weeks	27 to 52 weeks	53 weeks and ove
			Total, both sexes		·	
994	2,208	47.3	29.0	11.4	8.3	4.0
995	2,072	50.5	28.6	10.7	6.6	3.5
996	2,035	52.1	28.8	10.1	6.5	2.6
997	2,003	52.3	28.9	10.3	6.0	2.5
998	1,909	54.5	28.5	8.9	5.8	2.4
999	1,874	55.6	28.3	9.2	5.0	2.0
2000	1,839	56.5	28.2	8.1	4.9	2.1
2001	1,952	55.7	29.0	9.2	4.6	1.6
2002	2,111	47.4	29.8	12.1	8.1	2.6
2003	2,085	44.7	29.1	12.8	9.3	4.1
2004	2,065	45.5	28.6	12.3	9.3	4.3
2005	1,985	47.3	28.7	12.0	8.0	3.9
2006	1,967	49.5	28.5	11.7	7.5	2.8
2007	1,930	49.0	29.7	11.4	7.1	2.8
2008	2,064	47.2	30.4	11.9	7.3	3.2
2009	2,402	38.9	29.1	14.9	12.1	5.1
2010	2,517	34.0	25.9	13.8	15.3	11.0
2011	2,372	35.3	24.9	13.1	13.8	12.9
			Men			
994	1,264	45.3	28.6	12.3	9.2	4.7
995	1,163	49.3	28.2	11.5	7.1	4.0
996	1,142	50.5	28.4	11.4	6.7	3.0
997	1,123	51.4	28.6	10.8	6.5	2.8
998	1,039	53.1	28.6	8.6	6.9	2.9
999	1,027	55.3	27.8	9.9	5.0	2.0
2000	1,005	56.5	27.8	8.4	4.9	2.4
2001	1,114	54.8	29.2	9.9	4.5	1.6
2002	1,209	46.7	29.9	12.4	8.5	2.5
2003	1,228	44.0	29.0	13.2	9.4	4.4
2004	1,197	45.3	28.3	11.8	9.7	4.9
2005	1,139	47.6	27.6	12.7	8.0	4.2
2006	1,117	49.4	27.3	12.7	7.8	2.9
2007	1,120	48.7	29.6	11.9	6.8	3.1
2008	1,216	48.7	28.8	12.2	7.1	3.2
2009	1,492	38.6	28.7	15.7	12.1	4.9
2010	1,552	33.1	25.6	13.5	15.7	12.1
2011	1,442	35.3	23.7	13.6	14.1	13.2
			Women			
994	943	50.0	29.6	10.2	7.2	3.0
995	909	52.2	29.0	9.8	6.0	3.0
996	893	54.1	29.2	8.4	6.3	2.1
997	880	53.6	29.2	9.7	5.3	2.2
998	870	56.1	28.4	9.2	4.5	1.8
999	848	56.0	28.9	8.2	5.0	2.0
2000	834	56.6	28.8	7.8	4.9	1.8
2001	838	56.9	28.7	8.2	4.8	1.5
2002	902	48.2	29.7	11.7	7.6	2.8
2003	857	45.7	29.2	12.2	9.2	3.6
2004	869	45.9	29.1	13.1	8.6	3.4
2005	846	47.0	30.3	11.2	7.9	3.6
2006	850	49.6	30.1	10.4	7.2	2.8
2008	809	49.6	29.9	10.4	7.2	2.8



SOURCE: Research series from the BLS Current Population Survey.

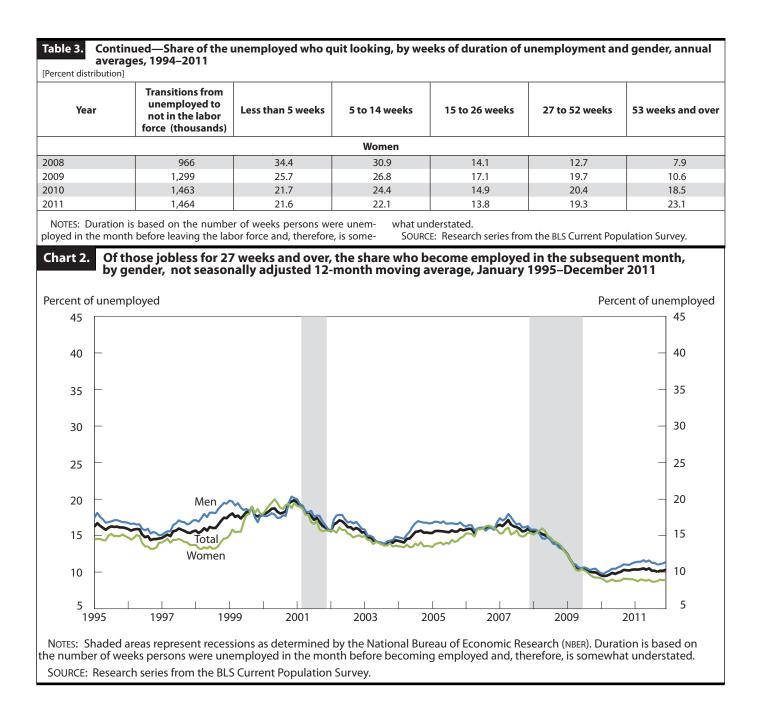
about 27 percent of women.

As shown in chart 2, unemployed men and women who were jobless for 27 weeks or more were about equally likely to find jobs in a subsequent month during the 2007–2009 recession. In 2011, men were slightly more likely than women to become employed following prolonged periods of unemployment duration. Trendwise, the likelihood that job-seeking men and women became employed in searches that exceeded a half year converged during economic downturns and diverged during expansionary periods.

The pattern of greater success in men's job search than women's holds throughout the series history, although outcomes of job search are clearly cyclical. Independently of how long the unemployed take to find a job, successful outcomes (the likelihood that an unemployed person will become employed) peaked preceding the 2001 recession and have never approached those levels since. (See charts 1 and 2.)

Unemployed men were much less likely than unemployed women to leave the labor force regardless of the duration of job search, suggesting that men have a stronger attachment to the labor market. Of those who were unemployed for less than 5 weeks or for 27 weeks or longer, respectively, charts 3 and 4 show the share who quit

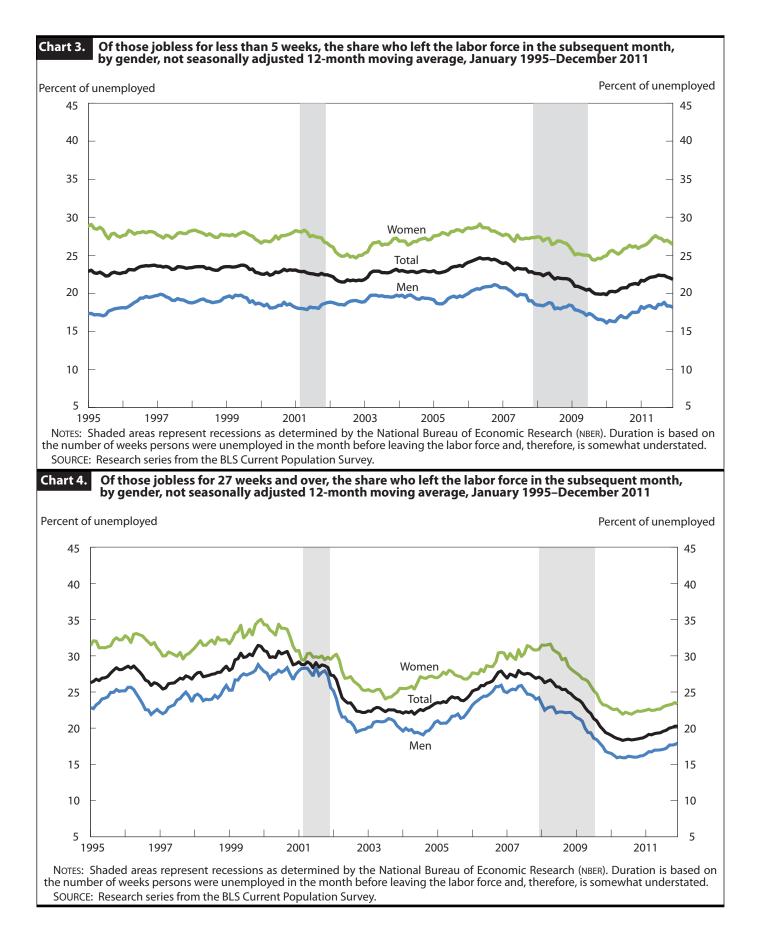
Veer	Transitions from unemployed to	Looothon 5 weeks	E to 14 weeks	15 to 26 weeks	27 to 52 we also	52 weeks and ave
Year	not in the labor force (thousands)	Less than 5 weeks	5 to 14 weeks	15 to 26 weeks	27 to 52 weeks	53 weeks and over
		II	Total, both sexes	1	1	
1994	1,831	35.7	27.0	13.8	14.1	9.4
1995	1,707	37.5	28.2	12.8	12.8	8.7
1996	1,674	39.5	28.2	12.6	11.7	8.1
1997	1,584	39.8	29.7	12.1	11.1	7.3
1998	1,512	41.2	30.6	11.2	10.7	6.3
1999	1,411	41.3	30.3	12.1	10.9	5.4
2000	1,371	43.7	31.5	11.0	9.1	4.7
2001	1,499	42.4	30.9	12.8	9.2	4.8
2002	1,759	35.9	30.5	15.2	12.2	6.2
2003	1,911	33.9	29.2	14.2	14.2	8.5
2004	1,823	33.6	28.6	14.5	13.5	9.9
2005	1,781	36.3	29.7	13.3	12.1	8.6
2006	1,699	37.3	29.7	12.9	12.0	8.1
2007	1,601	36.1	30.1	13.0	12.7	8.0
2008	1,879	33.7	31.1	13.5	13.8	7.9
2009	2,612	24.6	26.7	17.6	19.8	11.3
2010	2,893	20.6	22.7	15.3	21.6	19.7
2011	2,834	20.9	21.6	13.7	19.4	24.3
		<u> </u>	Men	1	1	-
1994	809	31.3	26.3	14.9	15.3	12.3
1994	762	34.6	20.5	12.6	13.8	11.3
1996	753	37.7	28.4	12.0	12.5	9.4
1990	691	37.5	28.9	12.8	11.7	9.1
1998	690	37.9	31.1	11.4	12.0	7.6
1998	627	39.2	30.4	12.1	11.6	6.7
2000	615	39.8	32.7	11.2	10.3	6.1
2000	698	40.5	30.7	13.1	9.9	5.8
2002	826	35.8	29.6	14.6	12.6	7.3
2002	919	32.8	28.6	13.9	15.0	9.7
2003	860	32.5	27.9	14.1	13.8	11.6
2004	829	34.1	29.1	13.7	13.2	9.9
2006	809	35.9	28.3	13.8	12.8	9.2
2007	749	34.3	30.7	12.3	12.9	9.7
2008	914	33.0	31.3	12.8	14.9	8.0
2009	1,313	23.5	26.5	18.1	19.8	12.0
2010	1,429	19.5	21.0	15.7	22.9	20.9
2011	1,370	20.1	21.1	13.7	19.6	25.6
	1,070	2011	Women			2010
1004	1.022	20.2		12.0	12.2	7.0
1994	1,022	39.2	27.6	12.9	13.2	7.2
1995	945	39.8	28.6	12.9	12.0	6.7
1996	921	41.0	27.9	13.1	11.0	6.9
1997	893	41.6	30.4	11.5	10.6	5.9
1998	822	44.1	30.1	11.0	9.6	5.2
1999	783	43.0	30.3	12.1	10.3	4.3
2000	756	46.8	30.6	10.9	8.2	3.6
2001	800	44.1	31.0	12.5	8.6	3.9
2002	932	35.9	31.3	15.7	11.9	5.2
2003	993	35.0	29.6	14.6	13.4	7.4
2004	963	34.5	29.2	14.9	13.2	8.3
2005	952	38.1	30.2	13.0	11.2	7.5
2006	891	38.6	31.1	12.0	11.3	7.0
2007	852 l of table.	37.7	29.6	13.7	12.5	6.6



looking for a job and left the labor force. Unemployed women were more likely than unemployed men to give up their search for work in less than 5 weeks, a pattern that was consistent throughout the period from 1995 to 2011. Unemployed women also were more likely to quit looking and leave the labor force after unemployment durations of a half year or longer.

IN SUM, THE LENGTH OF TIME that the unemployed (both men and women) took to find work in 2011 was nearly twice as long as prior to the beginning of the recession in 2007, 10.0 weeks versus 5.2 weeks. Although

men were somewhat more persistent in their job search than women, among the jobless who found work in 2011, roughly a quarter of each gender spent over a half year searching. Among the jobless who were unsuccessful in their job search and left the labor force in 2011, more than 4 in 10 spent a half year or longer searching before giving up. Undoubtedly, one of the most profound effects of the 2007–2009 recession was the shrinking likelihood of the unemployed finding jobs; even more dramatic was that the likelihood of finding work decreased substantially as the length of time spent searching increased.



NOTES

ACKNOWLEDGMENT: The authors would like to thank Gregory P. Erkens and Thomas D. Evans in the Office of Employment and Unemployment Statistics for their input in developing the various duration series.

¹ The Current Population Survey (CPS) is a monthly survey of about 60,000 households conducted by the U.S. Census Bureau for the Bureau of Labor Statistics. Additional information on the concepts and methodology of the CPS is available at **www.bls.gov/cps/documentation.htm**.

² For BLS analytical reports that use labor force flows to analyze developments in the labor market, see Randy E. Ilg, "Analyzing CPS data using gross flows," Monthly Labor Review, September 2005, pp. 10-18, http://www.bls.gov/opub/mlr/2005/09/art2full.pdf; Žhi Boon, Charles M. Carson, R. Jason Faberman, and Randy E. Ilg, "Studying the labor market using BLS labor dynamics data," Monthly Labor Review, February 2008, pp. 3-16, http://www.bls.gov/opub/ mlr/2008/02/art1full.pdf; Harley J. Frazis and Randy E. Ilg, "Trends in labor force flows during recent recessions," Monthly Labor Review, April 2009, pp. 3-18, http://www.bls.gov/opub/mlr/2009/04/art 1full.pdf; Harley J. Frazis, "Labor Force Flows in the Most Recent Recession," Issues in Labor Statistics, Summary 10-08 (U.S. Bureau of Labor Statistics, July 2010), http://www.bls.gov/opub/ils/pdf/ opbils85.pdf; and Randy E. Ilg, "Why Has Unemployment Risen? Insight from Labor Force Flows," Issues in Labor Statistics, Summary 08-05 (U.S. Bureau of Labor Statistics, June 2008), http://www. bls.gov/opub/ils/pdf/opbils66.pdf. Additional information on labor force status flows is available in "Research series on labor force status flows from the Current Population Survey," Labor Force Statistics from

the Current Population Survey (U.S. Bureau of Labor Statistics, May 4, 2008), http://stats.bls.gov/cps/cps_flows.htm.

³ For more information on the concepts and estimation of labor force flows, including margin discrepancies, see Harley J. Frazis, Edwin L. Robison, Thomas D. Evans, and Martha A. Duff, "Estimating gross flows consistent with stocks in the CPS," *Monthly Labor Review*, September 2005, pp. 3–9, http://www.bls.gov/opub/mlr/2005/09/ art1full.pdf.

⁴ Since 1994, job losers have accounted for between 42 percent and 66 percent of the unemployed by reason for unemployment, while job leavers have accounted for 15 percent or less.

⁵ Discouraged workers are individuals who wish to work and have looked for work sometime in the previous 12 months but who are not currently looking for work specifically because they believe that no jobs are available for them.

⁶ To a lesser extent, duration measures presented here may be understated for other reasons. Only three-quarters of the sample in the CPS are accounted for in the month-to-month flows; duration estimates for months-in-sample 4 and 8 are not available and have been shown to be slightly higher. Also, this analysis implies a steady-state labor market in which entry rates into and exit rates from unemployment are fairly stable.

⁷ The National Bureau of Economic Research, the generally recognized arbiter of recessions in the United States, determined that June 2009 was the end point of the recession that began in December 2007.