

Trends in labor force flows during recent recessions

An analysis of labor force status flows reveals that the current recession, characterized by the slowing of flows into employment, differs from the recession of 2001 and most earlier recessions, which were marked more by increasing flows out of employment

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The Current Population Survey (CPS) is the Federal Government's main source of information on the labor force status of the population. Employment and unemployment estimates derived from the CPS are watched closely each month to gauge the health of the labor market. During periods of economic weakness, unemployment rises and the employment-population ratio declines. Chart 1 shows the unemployment rate and the employment-population ratio from January 1990 to December 2008. From a recent low point of 4.4 percent in March 2007, the jobless rate increased by 2.8 percentage points, to 7.2 percent in December 2008. Over the same period, the employment-population ratio declined by 2.3 percentage points, to 61.0 percent.

The sources of the changes in these two measures, however, are not as readily apparent from the published CPS data. Are more persons exiting employment, or are fewer entering? Are more persons becoming jobless, or are those currently unemployed exiting unemployment at a slower rate?

Since October 2007, the Bureau of Labor Statistics (BLS) has produced a set of research series of labor force status flows that measure the month-to-month move-

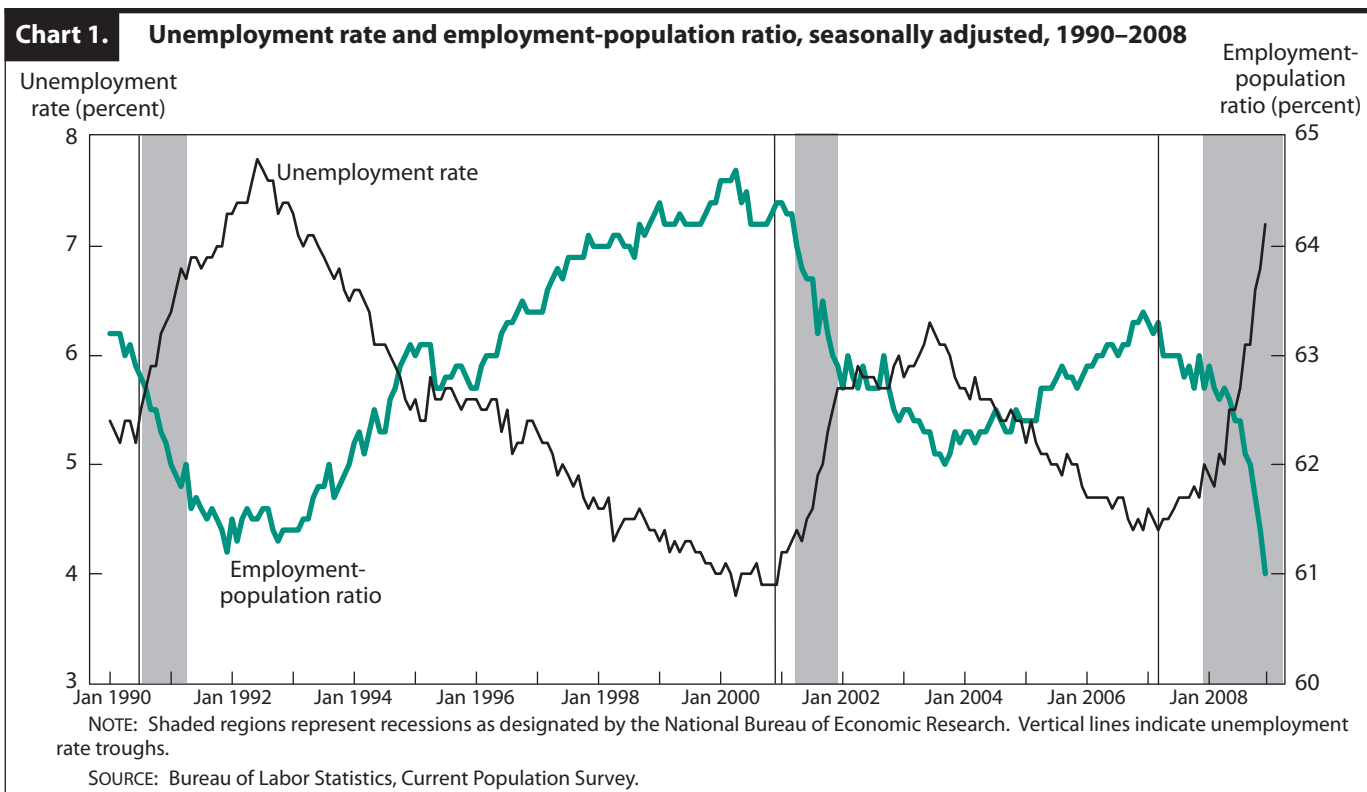
ments of individuals as they change their labor force status between employment and unemployment or enter or leave the labor market. These series extend from February 1990 to the present. This article uses those series to examine the sources of changes in employment and unemployment in labor market downturns since the 1990s.

The series measure the number of individuals in each of the three labor force states of employment (E), unemployment (U), or not in the labor force (N) in a given month who are in each labor force state in the next month. The set of possibilities for moving between labor force states can be expressed in the following 3 × 3 matrix:

<i>Status in previous month</i>	<i>Status in current month</i>		
	<i>Employed</i>	<i>Unemployed</i>	<i>Not in the labor force</i>
Employed.....	EE	EU	EN
Unemployed.....	UE	UU	UN
Not in the labor force.....	NE	NU	NN

The first letter in each cell of the matrix represents the labor force status of an individual in the previous month, the second letter the status in the current month. The cells on the main diagonal of the matrix (EE, UU, and NN) represent individuals who remained in the same labor force state over the month. The cells off the diagonal (EU, EN, UE, UN, NE, and NU) ac-

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count for most of the change in the published labor force estimates. (The scope of the CPS is the civilian noninstitutional population aged 16 years and older. In addition to the flows shown in the matrix, there are smaller flows into and out of the scope of the CPS. These flows are relatively constant over time, and for the most part, they are not discussed in this article.¹) As an example of the magnitude of the flows, about 16 million individuals, or 6.7 percent of the population aged 16 years and older, changed their labor force status in an average month in 2008. Nearly 5.8 million individuals entered the labor force in an average month, about equal to the number of persons that left the labor force. About 5.7 million entered employment in an average month, and 6.0 million exited. Finally, 4.2 million individuals entered unemployment each month, and 4.0 million individuals left unemployment.²

To describe trends in flows during recessions, periods of relative stability in the labor market—that is, the 6-month periods just prior to low points in the unemployment rate—are compared with subsequent periods extending from unemployment rate troughs to the next peak. The analysis that follows of the most recent labor market downturns shows contrasting patterns of labor market flows for the different downturns. Declining flows into employment were relatively more important than increasing flows out

of employment in 2007–08 compared with 2001.

Flows into unemployment increased sharply at some point in all downturns in the series, but in 2007–08 that increase lagged the trough in the unemployment rate, with the initial rise in unemployment caused by a decline in flows out of unemployment. Men and women show contrasting patterns, with greater increases in exits from employment and entrances into unemployment for men than for women in the most recent downturn.

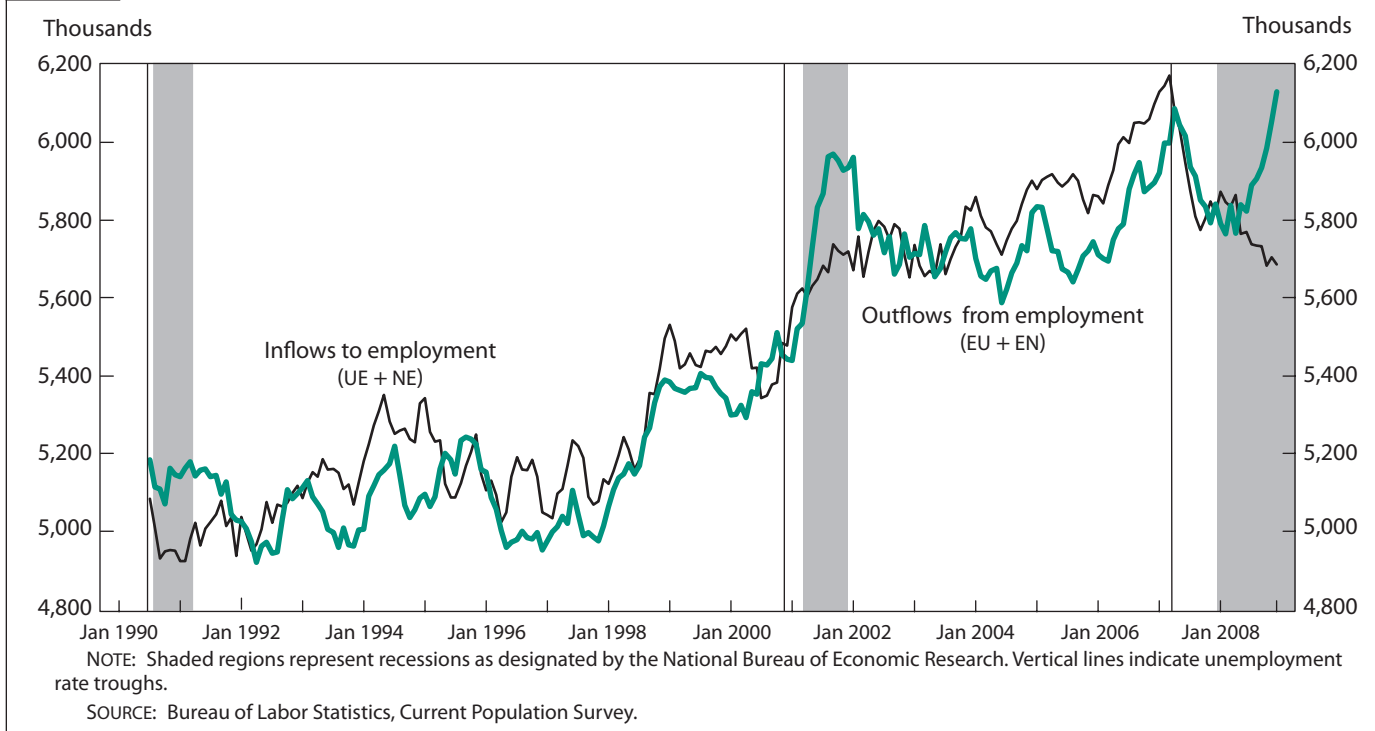
Employment flows

Changes in the employment-population ratio are attributable to changes in the difference in flows into and out of employment. Relative to a situation in which the employment-population ratio is stable or increasing, decreases in the ratio can be attributed to a combination of declining inflows to employment and increasing flows out of employment.

During the 6-month period prior to March 2007, the employment-population ratio was relatively stable—with in a tenth of a percentage point of its March 2007 value of 63.3 percent. Which flows changed to cause the ratio to drop after a period of stability?

Chart 2 shows flows into and out of employment from

Chart 2. Inflows to and outflows from employment, seasonally adjusted 6-month moving average, 1990–2008



other labor force states. The outflow series combines flows from employment to unemployment (EU) and from employment to not in the labor force (EN). The inflow series shows flows from unemployment to employment (UE) and from not in the labor force to employment (NE). Because the flow data are quite volatile from month to month, the data presented in charts 2–10 are based on 6-month moving averages for legibility. Chart 2 shows that employment inflows and outflows were quite close in magnitude from March 2007 to early 2008, after which the two series diverged because of increases in outflows and decreases in inflows. As the chart also shows, inflows to employment declined sharply early in 2007. Outflows from employment declined as well, but not to the same extent, and only partially counteracted the decline in inflows.

Table 1 summarizes flow magnitudes over time. The sixth row of the table shows that, from the most recent unemployment rate trough in March 2007 to December 2008, outflows exceeded inflows by about 170 thousand per month, so the employment-population ratio declined. Comparing the flows for the 6 months before March 2007 to the period from March 2007 to December 2008 shows that inflows declined by an average of 416,000 while outflows declined by an average of 73,000. Thus,

the decline in the employment-population ratio over the period as a whole was due entirely to declines in flows into employment.

The behavior of employment (and unemployment) flows differs for different periods after March 2007. As shown both in chart 2 and in the last three rows of each panel (total, men, and women) in table 1, flows into employment declined between March and August 2007. Flows into and out of employment were relatively stable between August 2007 and February 2008, with the difference between them narrowing. Consequently, the employment-population ratio decreased only slightly, by 0.1 percentage point, during this period, after declining by 0.5 percentage point in the 5 months between March and August 2007. (Table 1 shows that inflows slightly exceeded outflows in the August 2007–February 2008 period. Note that the net effect of flows into and out of the civilian noninstitutional population aged 16 years and older, not shown in the table or in any of the charts in this article, is to reduce the employment-population ratio, because much of the inflow consists of 15-year-olds turning 16. These individuals tend to be employed at a much lower rate than the general population. Thus, inflows from other labor force states to employment need to be greater than the corresponding outflows in order for the employment-population ratio

Table 1. Change in the employment-population ratio and labor force status flows for selected periods preceding and during the last two major recessions and the current recession, by sex, seasonally adjusted

[Numbers in thousands]

Period	Percentage-point change in employment-population ratio from low point to high point in unemployment rate series	Inflows to employment			Outflows from employment		
		Average monthly inflows (UE + NE)	Average UE flows	Average NE flows	Average monthly outflows (EU + EN)	Average EU flows	Average EN flows
Total							
January 1990 to June 1990 .....	...	5,099	1,959	3,140	5,173	1,781	3,392
June 1990 to June 1992.....	-1.4	4,993	2,080	2,912	5,076	1,973	3,103
June 2000 to December 2000 .....	...	5,478	1,814	3,663	5,442	1,596	3,846
December 2000 to June 2003	-2.1	5,711	2,033	3,679	5,785	1,925	3,860
September 2006 to March 2007 .....	...	6,172	2,011	4,161	5,998	1,809	4,190
March 2007 to December 2008	-2.3	5,756	2,003	3,753	5,925	1,962	3,963
March 2007 to August 2007	-.5	5,745	1,887	3,858	5,916	1,754	4,162
August 2007 to February 2008.....	-.1	5,847	1,963	3,884	5,765	1,800	3,964
February 2008 to December 2008	-1.7	5,706	2,085	3,622	6,027	2,163	3,863
Men							
January 1990 to June 1990 .....	...	2,374	1,141	1,233	2,412	1,082	1,329
June 1990 to June 1992.....	-2.3	2,444	1,274	1,170	2,506	1,261	1,246
June 2000 to December 2000 .....	...	2,563	983	1,580	2,550	912	1,638
December 2000 to June 2003	-3.0	2,746	1,166	1,579	2,802	1,135	1,667
September 2006 to March 2007 .....	...	2,902	1,142	1,760	2,862	1,089	1,773
March 2007 to December 2008.....	-3.4	2,788	1,177	1,611	2,920	1,197	1,723
March 2007 to August 2007	-.7	2,756	1,100	1,656	2,851	1,033	1,818
August 2007 to February 2008.....	.0	2,841	1,146	1,695	2,794	1,070	1,723
February 2008 to December 2008	-2.7	2,772	1,235	1,537	3,031	1,356	1,676
Women							
January 1990 to June 1990 .....	...	2,726	818	1,907	2,761	699	2,062
June 1990 to June 1992.....	-.7	2,548	806	1,742	2,570	712	1,857
June 2000 to December 2000 .....	...	2,915	832	2,084	2,892	684	2,208
December 2000 to June 2003	-1.2	2,966	866	2,099	2,984	791	2,193
September 2006 to March 2007 .....	...	3,269	868	2,401	3,137	720	2,418
March 2007 to December 2008	-1.2	2,968	826	2,142	3,005	765	2,240
March 2007 to August 2007	-.4	2,989	788	2,202	3,065	721	2,344
August 2007 to February 2008.....	.0	3,006	817	2,188	2,971	730	2,241
February 2008 to December 2008	-.8	2,934	850	2,085	2,995	807	2,188

NOTE: Flow data represent the change in level of the flow from the previous month to the current month (for example, January to February, February to March, and so forth). The series low and high points refer to the overall unemployment rate.

to remain stable.) Flows out of employment accelerated sharply from February 2008 to December 2008, while the decline in inflows into employment continued and the employment-population ratio decreased by 1.7 points.

Comparisons with the other recessions examined are instructive. Because the focus of this article is on the labor market, in all cases the period immediately preceding the low point in the unemployment rate is compared with the

period from the low point to the next peak. For all three recessions, the unemployment rate trough was before the official start of the recession as determined the National Bureau of Economic Research, by periods ranging from 1 month in 1990 to 9 months in 2007.

In the recession of 2001, the unemployment rate was 3.9 percent at its trough in December 2000 and increased to 6.3 percent by June 2003. (The recession officially began in March 2001.) The employment-population ratio declined from 64.4 percent to 62.3 percent over the same period. The recent changes in flows into and out of employment contrast sharply with the pattern found in the 2001 downturn, but are somewhat similar to that of the 1990-92 recession. As can be seen in chart 2, flows out of employment increased in 2001. Unlike the situation in the recent downturn, flows into employment also increased, though not enough to counteract the rise in outflows.

In the early 1990s, the unemployment rate reached a low point of 5.2 percent in June 1990, from which it increased to a high of 7.8 percent by June 1992. The employment-population ratio decreased from 62.9 percent to 61.5 percent over the same period. (The peak in the ratio occurred slightly earlier, in March 1990.) Comparing the period from February 1990 to June 1990 with the period from June 1990 to the unemployment peak in June 1992 reveals declines in both inflows to and outflows from employment, a pattern of declines similar to that in the current recession. The small differences between the change in outflows and the change in inflows shown in the first two rows of table 1 implies only a slight acceleration in the decline of the employment-population ratio; the ratio had already started declining before June 1990. Unfortunately, data limitations do not allow a comparison of the period before February 1990 with the 1990-92 downturn.

Recall that chart 2 shows flows as levels rather than as a percentage of the population, so flows will trend upward with population growth. However, the decline in flows into employment is more pronounced when flows are shown as a percentage of the population. The 6-month average flow into employment as of December 2008 is 2.43 percent, a series low (tied with October 2008). The difference between this 6-month average flow and the series average of 2.60 percent is equivalent to a decline of approximately 400 thousand per month at the December 2008 population level. As of then, the 6-month average flow out of employment was 2.61 percent of the population, well below the series maximum for the 6-month average of 2.78 percent set in August 2001.

Combining the flows into and out of employment masks movements in the individual flows. The top panel of chart 3

separates the flows out of employment into EU and EN flows. For legibility, each flow has its own vertical axis, although, for comparability, the scale is the same. The EN flow declines more or less continuously from early 2007 forward. The EU flow is relatively stable in 2007, but turns up sharply in 2008. Summarizing the effects over the downturn, the last two columns of table 1 show that the small decline in outflows from employment from March 2007 through December 2008 is the result of two countervailing effects: more people going from employment to unemployment (an increase in the EU flow), counteracted by fewer people leaving their jobs to exit the labor force (a decrease in the EN flow). As shown in the ninth row of the table, the increase in the EU flow dominates after February 2008. In contrast, in early 2001 both the EU and EN flows increased substantially, although chart 3 shows that the EN flow declined from its peak late in 2001. During the 1990-92 downturn, the EU flow increased and the EN flow decreased, movement broadly similar to that of the current period.

The bottom panel of chart 3 displays the individual flows into employment. The NE flow was the main contributor to the decline in flows into employment, although both the UE and NE flows declined in early 2007. The increase in the UE flow from mid-2007 forward was, in some sense, an artifact of the increase in the number of unemployed, from 6.7 million in March 2007 to 11.1 million in December 2008. As the number of unemployed increases, the UE flow also will increase (in absolute numbers and as a percentage of the population) if the proportion of unemployed who find jobs in the next month does not decline too sharply. As shown later in chart 7, this proportion has, in fact, been declining throughout the current period of labor market weakness.

In 2001, the same basic pattern of flows into employment is observed, with the UE flow increasing (once again, an artifact of the increase in the number of unemployed) and the NE flow decreasing. However, as shown in chart 3 (bottom panel), the increase in the UE flow was much more pronounced and the decrease in the NE flow less pronounced, with the latter not starting until late 2001. The slight increase in the NE flow shown in table 1 between late 2000 and 2001-03 also was an artifact of the increase in the number of persons not in the labor force. The 1990-92 downturn shows the same basic pattern of decreasing NE flows and increasing UE flows as does the 2007-08 period.

Unemployment flows

Chart 4 shows flows into and out of unemployment, combining the EU and NU flows for the inflows and the UE

Chart 3. Outflows from employment (EU and EN) and inflows to employment (UE and NE), seasonally adjusted 6-month moving average, 1990–2008

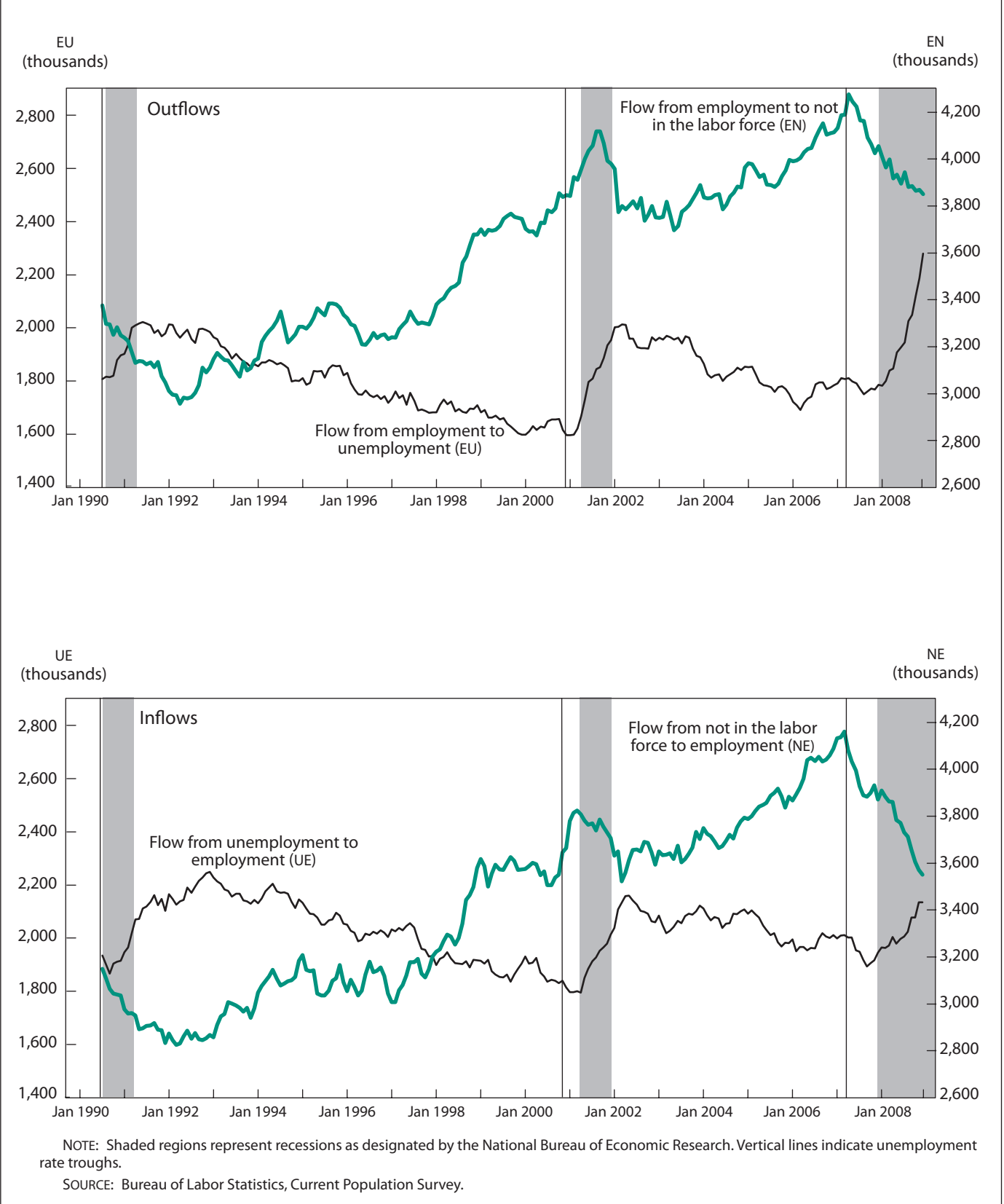
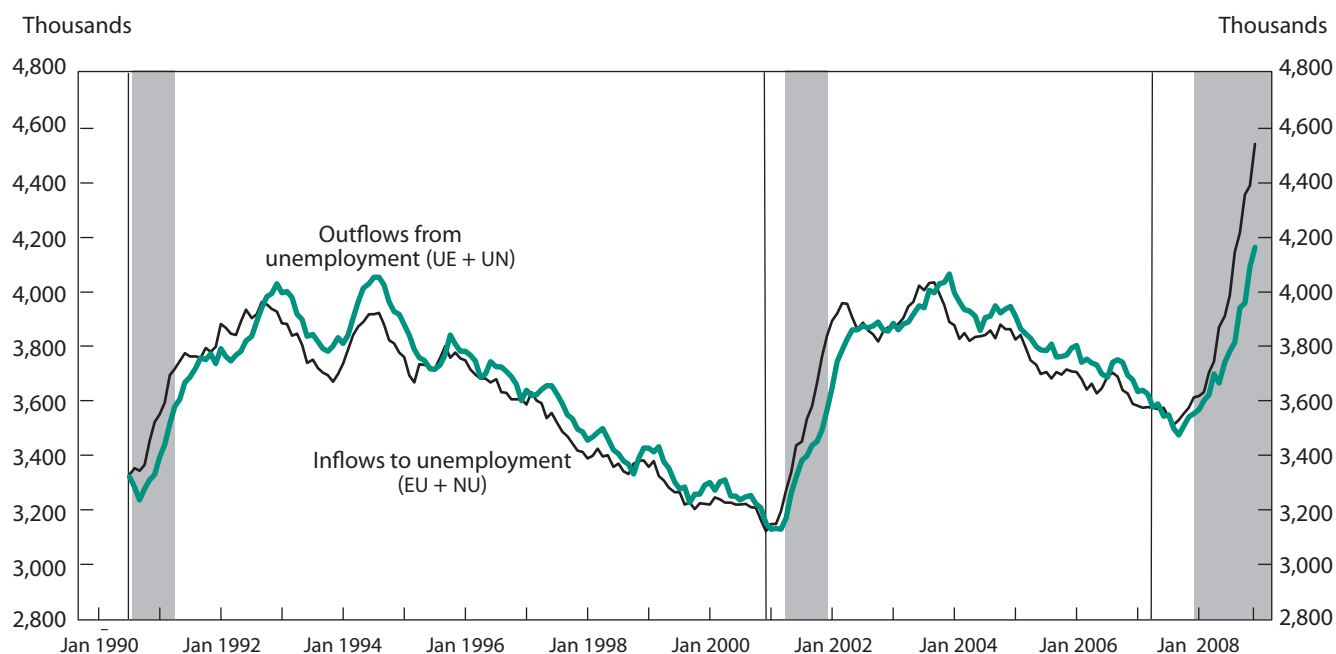


Chart 4. Inflows to and outflows from unemployment, seasonally adjusted 6-month moving average, 1990–2008



NOTE: Shaded regions represent recessions as designated by the National Bureau of Economic Research. Vertical lines indicate unemployment rate troughs.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

and UN flows for the outflows. In the 21-month period from March 2007 to December 2008, unemployment increased by 4.4 million, from 6.7 million to 11.1 million. Table 2 summarizes unemployment flows for selected periods. For the aforementioned 21-month period, relative to the preceding 6-month period from September 2006 through March 2007, when the labor market was stable, table 2 shows that flows into unemployment increased by 370,000 while outflows from unemployment rose by less than 140,000.

As shown in chart 4, a slightly different scenario occurred during the economic downturn of the early 1990s and again during the recession of 2001. In each case, both inflows to unemployment and outflows from unemployment rose at the onset of each of the recessions and continued to rise, for the most part, for the duration of the recession and beyond. The pattern observed during the current recession becomes even more distinct from that seen in earlier downturns when it is divided into three subperiods: from March 2007 to August 2007, from August 2007 to February 2008, and from February 2008 to December 2008. During the first of these subperiods, un-

employment rose because flows out of unemployment declined much more than did flows into unemployment. In contrast, increased flows into unemployment contributed to the rise in unemployment at the onset of earlier downturns. From March 2007 to August 2007, unemployment rose by about 400,000 and the jobless rate edged up by 0.3 percentage point. Compared with flows during the preceding 6-month period, flows into unemployment declined by an average of about 60 thousand per month and average flows out of unemployment fell by two-and-a-half times that amount.

From August 2007 to February 2008, both outflows and inflows increased, with outflows increasing by slightly more than inflows, and the unemployment rate changed marginally, by 0.1 percentage point. During the period from February 2008 through December 2008, however, inflows to unemployment increased dramatically, averaging over 700,000 more than during the earlier period, as shown in table 2; the pattern is visible in chart 4. As a result, the surge in inflows to unemployment produced a sharp rise in the jobless rate.

Chart 5 shows the separate unemployment inflows (top

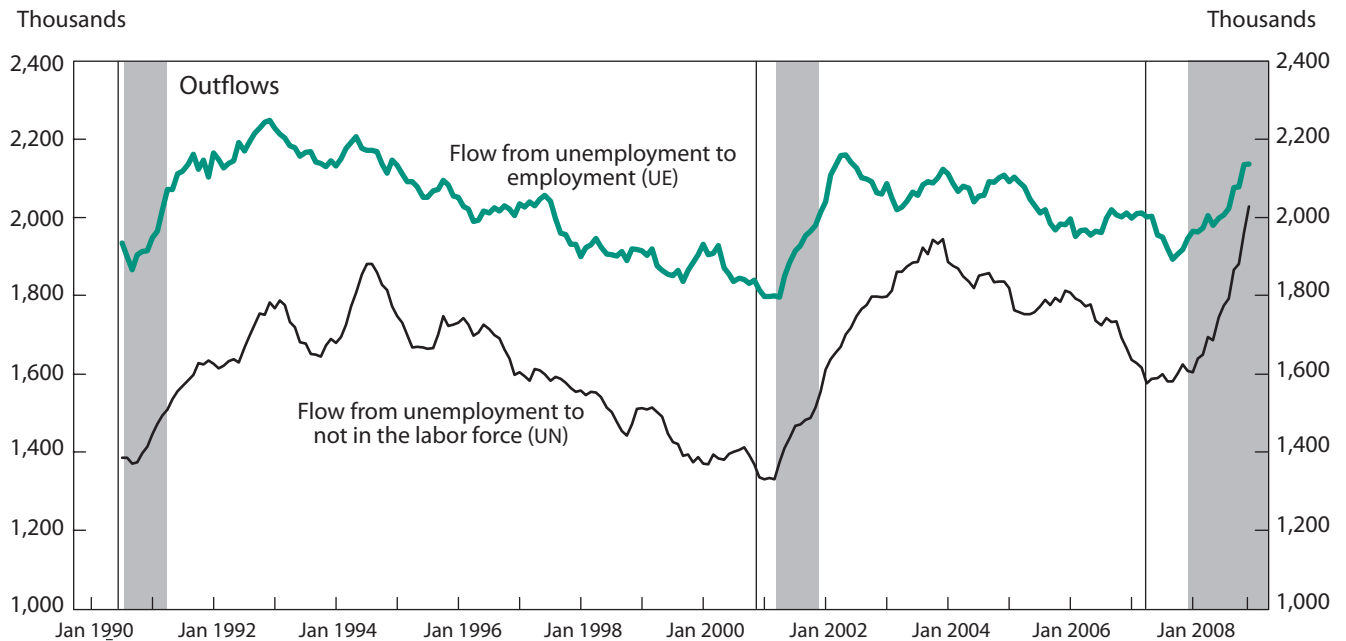
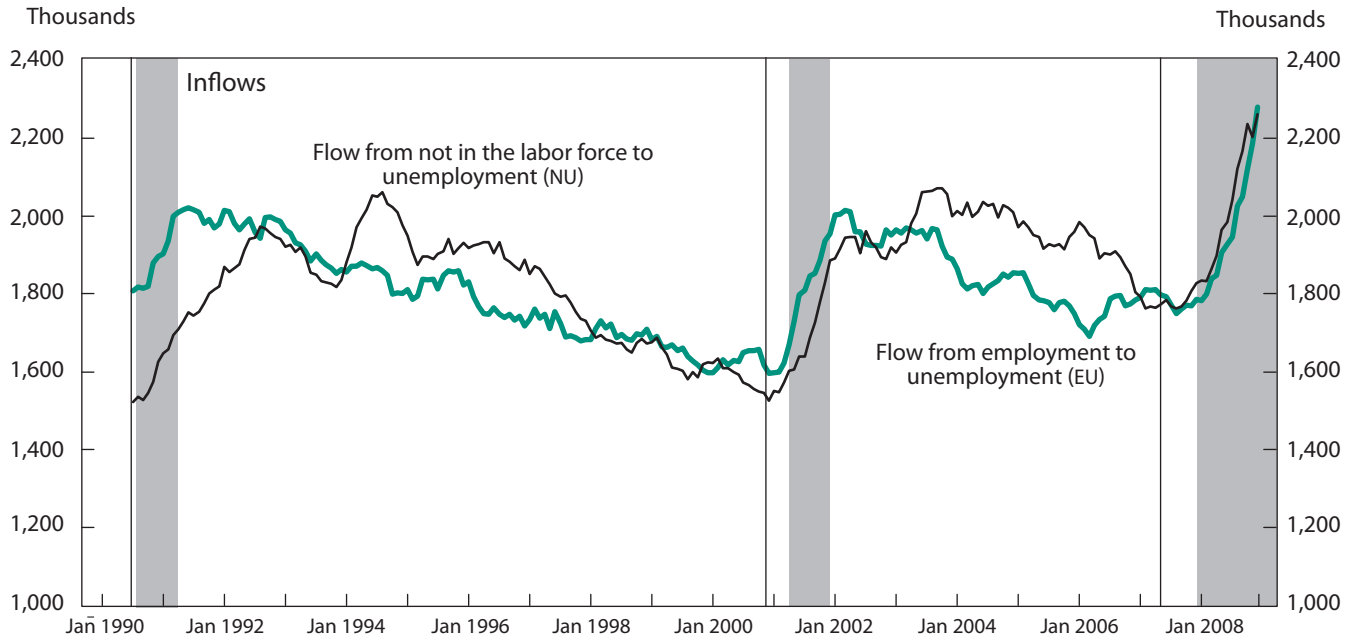
Table 2. Change in the unemployment rate and labor force status flows for selected periods preceding and during the last two major recessions and the current recession, by sex, seasonally adjusted

[Numbers in thousands]

Period	Percentage-point change in unemployment rate from series low point to series high point	Inflows to unemployment			Outflows from unemployment		
		Average monthly inflows (EU + NU)	Average EU flows	Average NU flows	Average monthly outflows (UE + UN)	Average UE flows	Average UN flows
Total							
January 1990 to June 1990 .....	...	3,294	1,781	1,513	3,344	1,959	1,385
June 1990 to June 1992.....	2.6	3,758	1,973	1,785	3,639	2,080	1,558
June 2000 to December 2000 .....	...	3,121	1,596	1,525	3,151	1,814	1,336
December 2000 to June 2003	2.4	3,807	1,925	1,882	3,710	2,033	1,677
September 2006 to March 2007.....	...	3,577	1,809	1,768	3,626	2,011	1,616
March 2007 to December 2008	2.8	3,947	1,962	1,985	3,762	2,003	1,759
March 2007 to August 2007 .....	.3	3,514	1,754	1,761	3,462	1,887	1,575
August 2007 to February 2008.....	.1	3,633	1,800	1,833	3,602	1,963	1,639
February 2008 to December 2008	2.4	4,352	2,163	2,189	4,008	2,085	1,924
Men							
January 1990 to June 1990 .....	...	1,679	1,082	597	1,705	1,141	564
June 1990 to June 1992.....	3.0	2,007	1,261	746	1,929	1,274	655
June 2000 to December 2000 .....	...	1,600	912	689	1,590	983	607
December 2000 to June 2003	2.7	2,018	1,135	883	1,958	1,166	792
September 2006 to March 2007.....	...	1,932	1,089	843	1,924	1,142	781
March 2007 to December 2008	3.4	2,137	1,197	939	2,018	1,177	840
March 2007 to August 2007 .....	.2	1,856	1,033	824	1,838	1,100	738
August 2007 to February 2008.....	.2	1,912	1,070	842	1,891	1,146	745
February 2008 to December 2008	3.0	2,412	1,356	1,056	2,183	1,235	949
Women							
January 1990 to June 1990 .....	...	1,615	699	916	1,640	818	822
June 1990 to June 1992.....	2.1	1,751	712	1,038	1,710	806	904
June 2000 to December 2000 .....	...	1,520	684	836	1,561	832	729
December 2000 to June 2003	2.1	1,789	791	999	1,752	866	885
September 2006 to March 2007.....	...	1,645	720	925	1,702	868	834
March 2007 to December 2008	2.1	1,810	765	1,045	1,744	826	919
March 2007 to August 2007 .....	.3	1,658	721	937	1,624	788	836
August 2007 to February 2008.....	.1	1,721	730	991	1,711	817	894
February 2008 to December 2008	1.7	1,940	807	1,133	1,825	850	975

NOTE: Flow data represent the change in level of the flow from the previous month to the current month (for example, January to February, February to March, and so forth). The series low and high points refer to the overall unemployment rate.

Chart 5. Inflows to unemployment (NU and EU), and outflows from unemployment (UE and UN), seasonally adjusted 6-month moving average, 1990–2008



NOTE: Shaded regions represent recessions as designated by the National Bureau of Economic Research. Vertical lines indicate unemployment rate troughs.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

panel) and outflows (bottom panel). The stability of inflows to unemployment during early to mid-2007 is shared by its component flows, EU and NU. Both components of outflows from unemployment, UE and UN, decreased, producing the decline in outflows already noted. During the other recessions shown in this chart, all of these flows increased. Given the earlier description of flows into and out of employment, this pattern makes sense, because the EU flow is a component of employment outflows and unemployment inflows and the UE flow is a component of employment inflows and unemployment outflows. The initial decline in job creation and employment inflows led to a corresponding decline in unemployment outflows as the UE flow declined.

The sharp increase in flows into unemployment after February 2008 reflects increases in both the EU flow (noted earlier) and the NU flow. The increase in the NU flow also reflects slow job creation, as a larger share of persons entering the labor market failed to find a job in the first few weeks of searching. Chart 6 shows the percentage of persons moving into the labor force (that is, NE and NU flows) who were unemployed in the month of entry. As

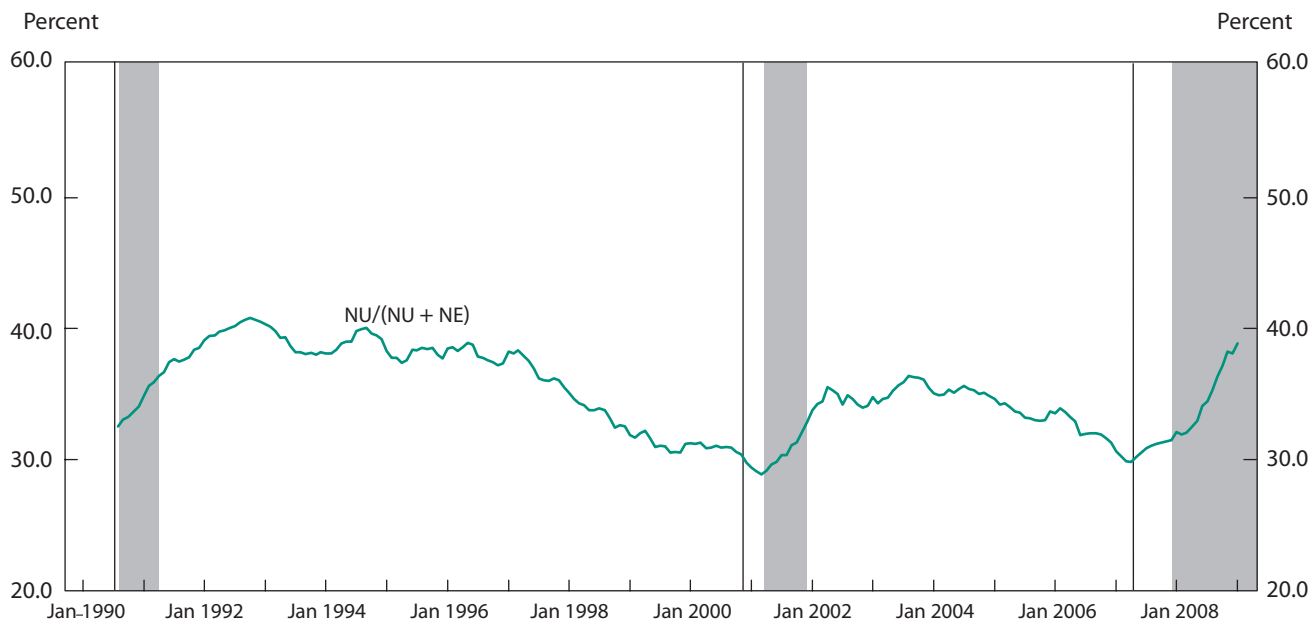
can be seen, this share increased in all three recessions.

As shown in chart 4, flows out of unemployment have increased in periods of labor market weakness, although with some delay in the current period. However, the number of unemployed also increased during these times, so it is not immediately clear whether unemployed persons have a higher probability of exiting unemployment during labor market downturns. As shown in chart 7, the share of the unemployed who remained unemployed (UU) rose sharply during each of the last two downturns and for an extended length of time in their aftermath; it also rose sharply during 2008. At the same time, the share of the unemployed who became employed (UE) declined during these recessionary periods and began to rise only after economic activity picked up.

Men's and women's labor force flows

The unemployment rate for both men and women increased from March 2007 to December 2008, from 4.5 percent to 7.9 percent for men and from 4.3 percent to 6.4 percent for women. The women's labor force participation

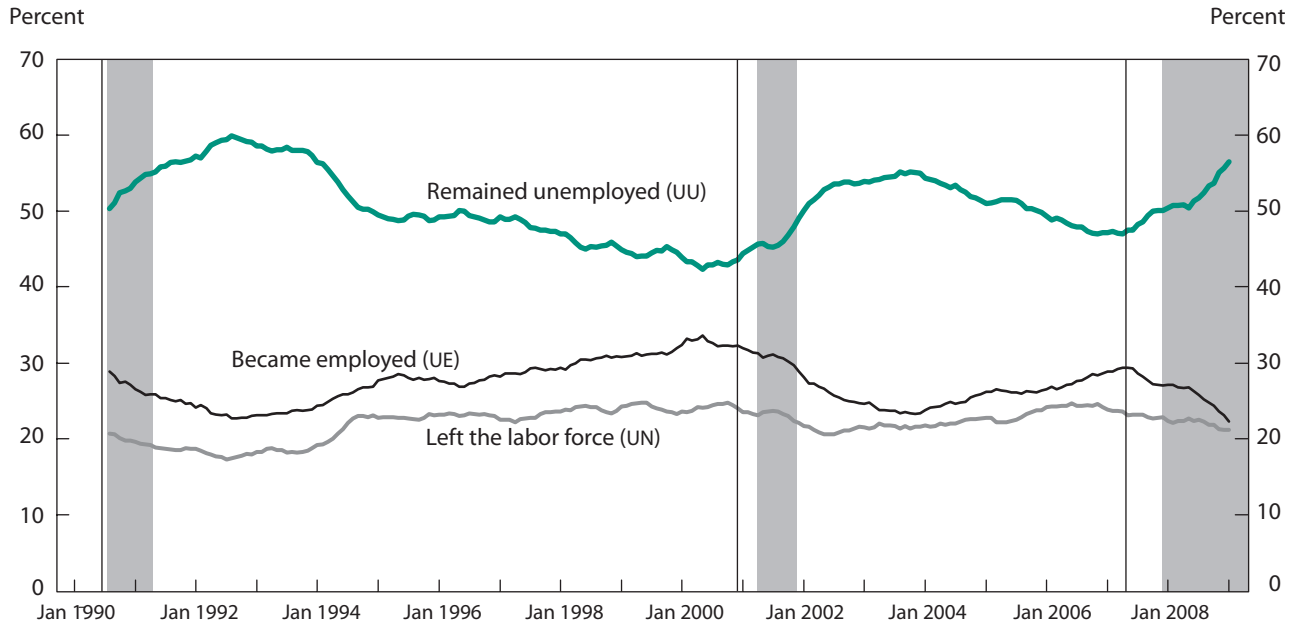
Chart 6. Flows from not in the labor force to unemployment (NU), as a percentage of labor force entrants (NU + NE), seasonally adjusted 6-month moving average, 1990–2008



NOTE: Shaded regions represent recessions as designated by the National Bureau of Economic Research. Vertical lines indicate unemployment rate troughs.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

Chart 7. Share of the unemployed who became employed, remained unemployed, or left the labor force, seasonally adjusted 6-month moving average, 1990–2008



NOTE: Shaded regions represent recessions as designated by the National Bureau of Economic Research. Vertical lines indicate unemployment rate troughs.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

rate was unchanged at 59.5 percent, and the proportion of women employed declined by 1.2 percentage point, from 56.9 percent to 55.7 percent. In contrast, men's labor force participation fell from 73.4 percent to 72.4 percent and the proportion of men employed declined by 3.4 percentage points, from 70.1 percent to 66.7 percent. Accordingly, the net decline in the overall employment-population ratio can be attributed mostly to men.

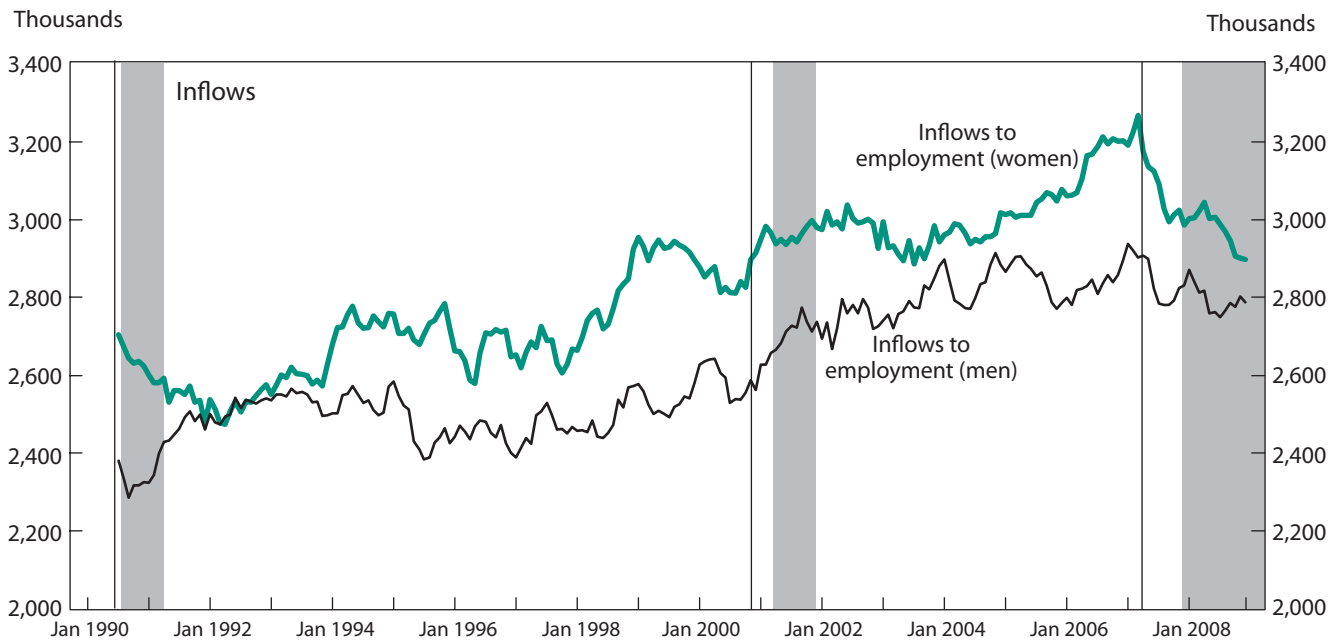
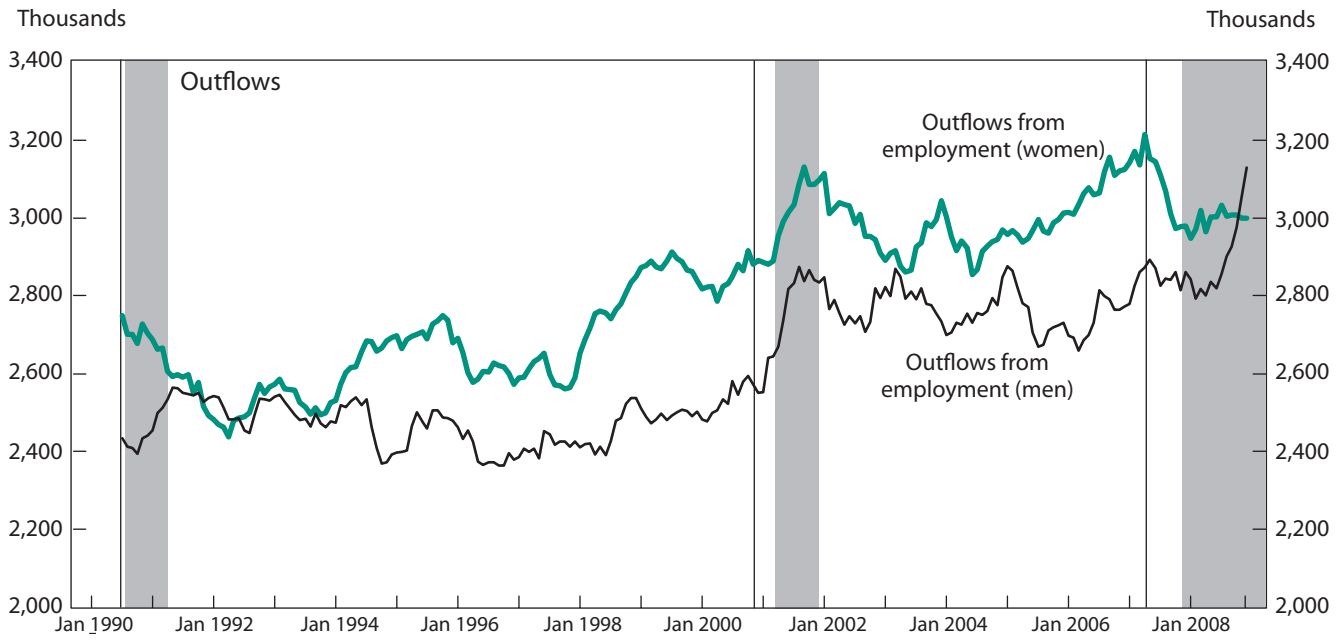
Chart 8 shows flows out of employment (top panel) and flows into employment (bottom panel), both broken down by sex. During the current recession, flows out of employment were essentially flat for men until 2008, when they increased substantially. Flows out of employment declined significantly for women in 2007. Most of the decline in flows out of employment in the periods from March 2007 to August 2007 and from August 2007 to February 2008 was accounted for by women, as is seen by comparing the relevant rows in table 1. Flows into employment declined for both sexes, but more for women. This pattern was similar to that exhibited in the 1990–92 recession, except that during that recession (after a brief period of decline for both sexes) outflows from and inflows into employment

increased for men while they declined for women. The 2001 recession showed greater increases in both outflows and inflows for men than for women.

The top panel of chart 9 shows the separate EU and EN flows, broken down by sex. The trends in the flows for the current labor market downturn are strikingly dissimilar between men and women. For men, a substantial increase in the EU flow was somewhat offset by a small decrease in the EN flow in 2008. In contrast, there was a substantial decrease in women exiting the labor force from employment in 2007 and a smaller uptick in the EU flow in 2008. This pattern is once again quite similar to that of the 1990–92 recession: men accounted for most of the increase in the EU flow, while women accounted for most of the decline in the EN flow. (Changes in the separate flows into employment are similar in pattern between men and women and are not charted here.)

Chart 10 shows the flows out of unemployment (top panel) and the flows into unemployment (bottom panel), both broken out by sex. Flows out of unemployment exhibit roughly similar patterns for men and women. Men's outflows generally increase more than women's during pe-

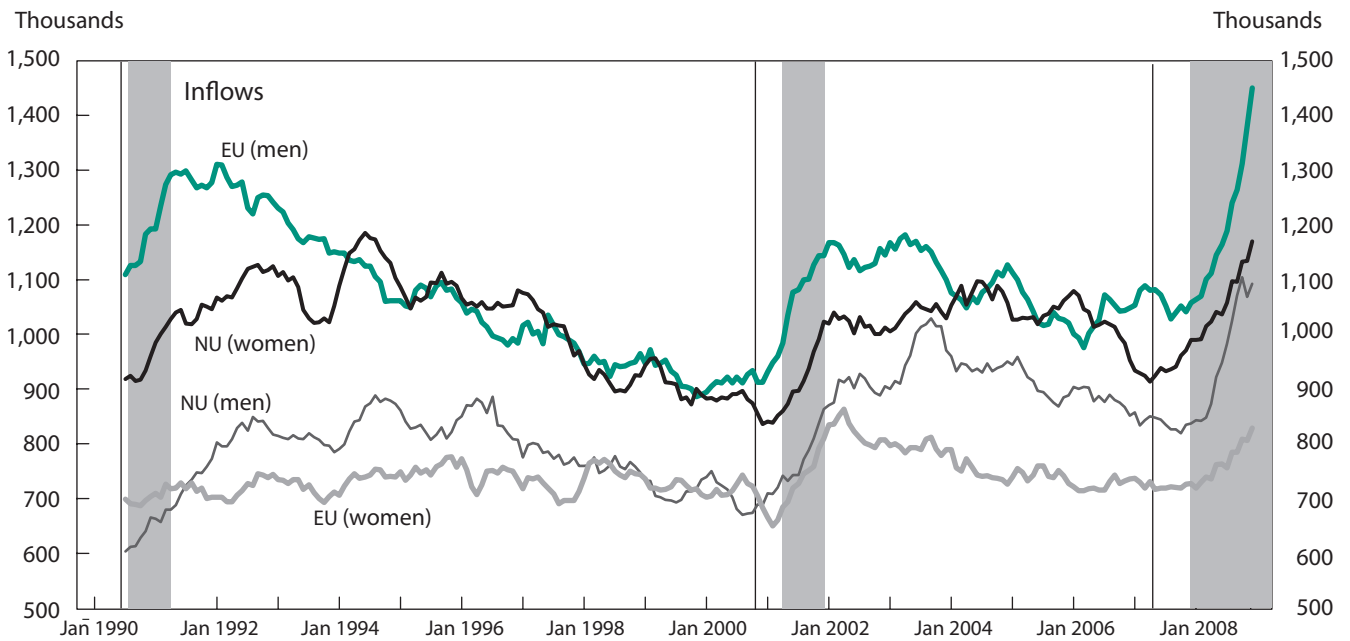
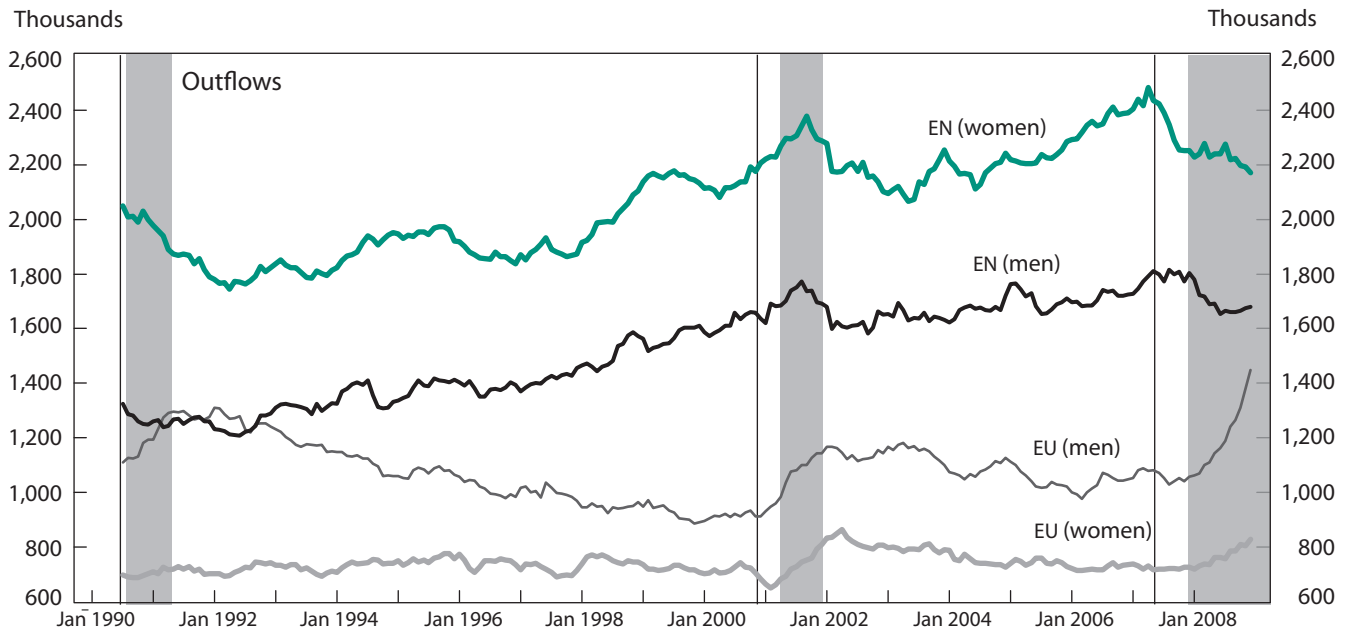
Chart 8. Outflows from employment (EU and EN) and inflows to employment (UE and NE), by sex, seasonally adjusted, 6-month moving average, 1990–2008



NOTE: Shaded regions represent recessions as designated by the National Bureau of Economic Research. Vertical lines indicate unemployment rate troughs.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

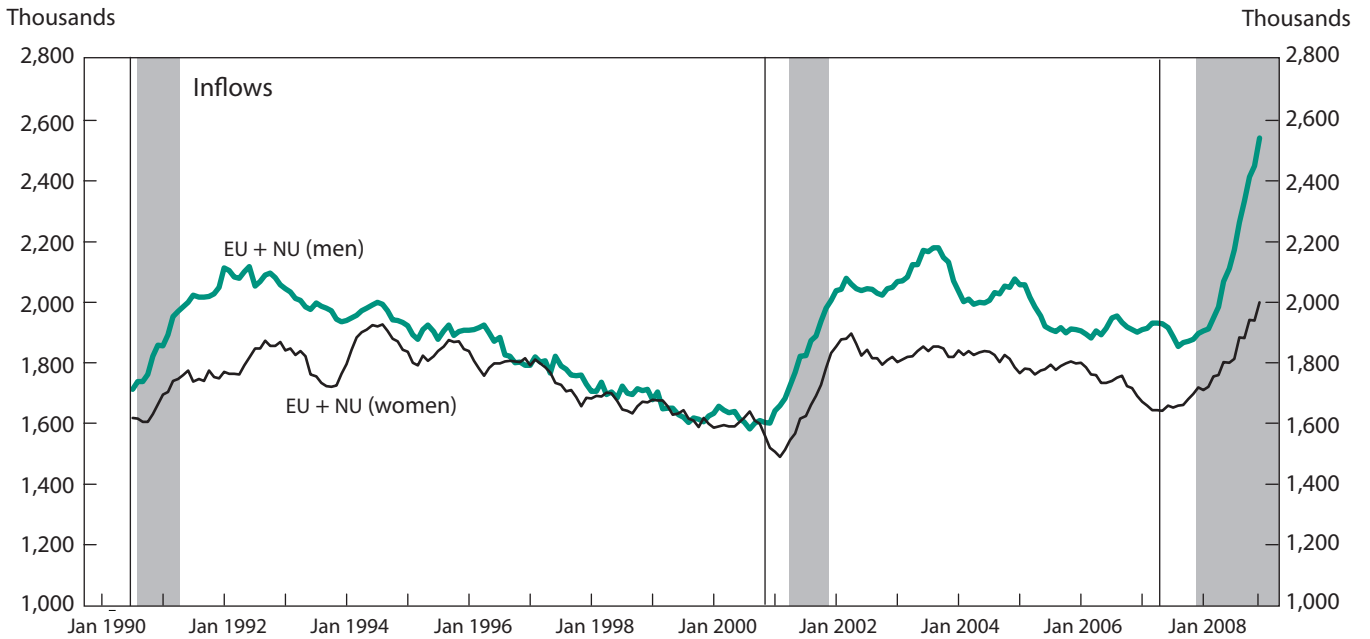
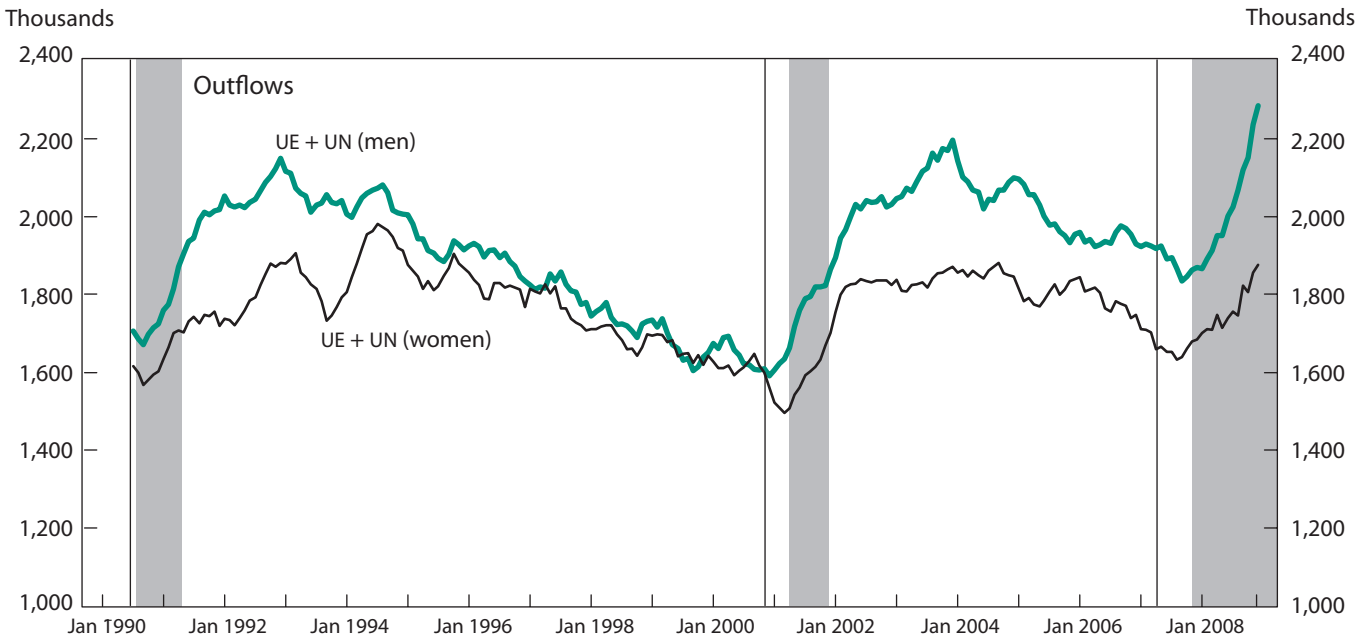
Chart 9. Outflows from employment (EU and EN) and inflows to unemployment (EU) and NU), by type and sex, seasonally adjusted 6-month moving average, 1990–2008



NOTE: Shaded regions represent recessions as designated by the National Bureau of Economic Research. Vertical lines indicate unemployment rate troughs.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

Chart 10. Outflows from unemployment (UE + UN) and inflows to unemployment (EU + NU), by sex, seasonally adjusted 6-month moving average, 1990–2008



NOTE: Shaded regions represent recessions as designated by the National Bureau of Economic Research. Vertical lines indicate unemployment rate troughs.

SOURCE: Bureau of Labor Statistics, Current Population Survey.

riods of labor market weakness, but this also is true of the inflows. There is one exception in the current period: the decline in exits from unemployment after the trough in the unemployment rate in March 2007 is present for both sexes. Comparing the period from March 2007 to August 2007 with the period from February 2008 to December 2008 reveals that men's outflows from unemployment increased by an average of 345,000, as opposed to an average of about 200,000 for women, as shown in table 2. In contrast, men's inflows to unemployment show a much more dramatic increase over the same period: an average of about 550 thousand, compared with an average of about 280 thousand for women. This difference is attributable to the larger relative increase in the EU flow for men mentioned earlier. The NU flow shows a similar pattern between the sexes after 2007, although women display a more continuous increase while men exhibit a larger increase after early 2008. (See bottom panel of chart 9.)

Comparison with other research

How do the patterns discussed in this article compare with those found in earlier papers? Some researchers have used other adjustment techniques to produce series that enable them to investigate recessions before 1990. For example, Olivier Blanchard and Peter Diamond analyzed series from 1968 through May 1986, and Shigeru Fujita and Garey Ramey created a series that incorporated data from 1976 through 2005.³ Both of these papers adjusted flows by means of a technique borrowed from John M. Abowd and Arnold Zellner that, on average, adjusts for the discrepancy between stocks and flows found in the unadjusted data.⁴ (Unlike the current BLS research series, however, the adjusted series do not exactly match for any given month.)

The earlier series show that earlier recessions followed a pattern more typical of the 2001 recession than of the current downturn. Summarizing the four recessions captured in their data,⁵ Blanchard and Diamond estimated that flows out of employment were more responsive to recessions than were flows into employment.⁶ This conclusion contrasts sharply with the finding here of the importance of declining flows into employment in the current downturn. The general pattern of the individual flows is similar to that of the current downturn described here, but the relative magnitudes are different: EU flows typically increased by more, and earlier in the recession, than EN flows decreased, and they typically increased much more than NU flows.⁷ By contrast, the results in this article show NU flows and EU flows increasing roughly equally.

Fujita and Ramey's results are similar to those of

Blanchard and Diamond, and the two pairs of authors come to the same general conclusions. However, Fujita and Ramey's graphs show that the 1990 recession (which was too recent to have been included by Blanchard and Diamond) was dominated by decreases in flows into employment rather than increases in flows out of employment.⁸ (Fujita and Ramey do not mention this in their text, which stresses EU flows more than broader flows into and out of employment. Like the results presented here, Fujita and Ramey's series indicate an increase in the EU flow during the 1990 recession, even though they show little overall increase in flows out of employment.)

USING A SET OF RECENTLY DEVELOPED data series that extend from 1990 to the present, this article has examined labor force status flows during the current labor market downturn and compared them with flows in and around other recent economic downturns. One of the most striking features of the current downturn is the slowing of flows into employment, in contrast to the 2001 recession and most earlier recessions, which were marked to a greater extent by increased flows out of employment. Similarly, the early part of the current period of weakness was marked by a decrease in flows out of unemployment, rather than the usual increase in flows into unemployment—although, more recently, rising inflows into unemployment have resulted in a jump in the jobless rate.⁹ Both the decrease in flows into employment throughout the period from March 2007 to December 2008 and the decrease in flows out of unemployment in mid-2007 are consistent with a prolonged slowdown in job creation occurring alongside an increase in job destruction.

A more detailed picture emerged upon analyzing the flows by sex. The smaller increase in outflows from employment observed in the current period (and also in the 1990–92 recession), compared with the 2001 recession, was a result of two countervailing factors: increasing EU flows and decreasing EN flows. Increases in EU flows were relatively more important for men, whereas declines in EN flows were more important for women.

Flow data have been compared to moving pictures, in contrast to the usual “snapshot” numbers that capture the economy at a point in time. The new flow series allow an examination of the dynamics behind the headline numbers produced from the CPS. Both similarities with and differences from previous labor market downturns emerged from the analysis presented in this article. Explaining the differences and similarities between different business cycles will undoubtedly become an active area of research as users become more familiar with flow data. □

Notes

¹ For more details, 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; on the Internet at www.bls.gov/opub/mlr/2005/09/art1full.pdf (visited Feb. 27, 2009).

² For more information on labor force status flows, see Zhi 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, on the Internet at www.bls.gov/opub/mlr/2008/02/art1full.pdf (visited Mar. 3, 2009); and Randy E. Ilg, “Analyzing CPS data using gross flows,” *Monthly Labor Review*, September 2005, pp. 10–18, on the Internet at www.bls.gov/opub/mlr/2005/09/art2full.pdf (visited Mar. 3, 2009). For more on the concepts and estimation associated with gross flow data, see Frazis, Robison, Evans, and Duff, “Estimating Gross Flows.” Additional information on the new research series on labor force status flows is presented in “New research series on labor force status flows from the Current Population Survey,” in *Labor Force Statistics from the Current Population Survey* (Bureau of Labor Statistics, May 2, 2008), on the Internet at stats.bls.gov/cps/cps_flows.htm.

³ See Olivier Blanchard and Peter Diamond, “The Cyclical Behavior of

the Gross Flows of U.S. Workers,” *Brookings Papers on Economic Activity*, no. 2, 1990, pp. 85–143; and Shigeru Fujita and Garey Ramey, “The Cyclical Behavior of Job Loss and Hiring,” Federal Reserve Bank of Philadelphia Working Paper, November 2006.

⁴ John M. Abowd and Arnold Zellner, “Estimating Gross Labor-Force Flows,” *Journal of Business and Economic Statistics*, July 1985, pp. 254–83.

⁵ The cyclical peaks were in 1969, 1973, 1980, and 1981.

⁶ See their Figure 5, p. 104.

⁷ See their Figure 9, p. 117.

⁸ See their Figures 15 and 16, pp. 46–47.

⁹ See Ilg, “Analyzing CPS data,” for other information on unemployment flows in previous recessions. See also “Why Has Unemployment Risen? Insight From Labor Force Flows,” *Issues in Labor Statistics*, Summary 08–05 (Bureau of Labor Statistics, June 2008); on the Internet at www.bls.gov/opub/ils/pdf/opbils66.pdf (visited Mar. 4, 2009).