

# Chapter 1

## Changes in Job Stability and Job Security: A Collective Effort to Untangle, Reconcile, and Interpret the Evidence

David Neumark

At a symposium at the Federal Reserve Bank of New York in the fall of 1996, various researchers presented their findings on changes in long-term employment relationships in U.S. labor markets. The researchers focused on two dimensions of these relationships: “job stability,” meaning the duration of jobs or the probability of retaining or leaving a job; and “job security,” referring to the likelihood of experiencing involuntary job loss. The disparity of the conclusions was striking. Some, myself included, reported that there was “nothing new under the sun.” Despite intense media attention, culminating in the 1996 *New York Times* series “The Downsizing of America,” overall changes in the stability of jobs during the 1970s and 1980s were trivial or nonexistent. Others, in contrast, reported substantial declines in job stability. Similar, if slightly less sharp, disagreements emerged over job security, with some research indicating large declines and other research reporting only modest declines or speculating that the increased job loss reflected changes in survey methods rather than real changes in the economy.

Toward the end of the day, Eric Wanner, president of the Russell Sage Foundation, which helped fund the symposium, wondered what research foundations could do to help resolve these contradictions and provide a clear picture of labor market developments in the United States. Somewhat facetiously, I suggested that the foundation lock the various researchers in a room and not let us out until we figured out exactly what the data really say about these issues.

Sometime later, substituting comfortable surroundings, nice meals, and nominal financial inducements for a lock on the door, many of the researchers active in this debate convened and embarked on just this task. The process began with a conference at which researchers presented papers that pursued two goals: first, to present the most up-to-date and accurate assessment of their evidence on changes in job stability and job security; and second, to reconcile their evidence with the findings of

other research, including both earlier papers and those presented at the conference. In addition, some papers began to explore possible explanations of changes in the employment relationship emerging from the ongoing research, adding a vital component to what to that point had been largely a debate about empirical facts—a necessary first step, but an incomplete research agenda. Following the conference, the usual process of review and revision of the papers was accompanied by a deliberate effort to push the contributors in the direction of reconciling, whenever possible, contradictory findings, both among the papers and with respect to other research on job stability and job security. The final product of this process is represented in this volume.

As the title of this chapter suggests, this process was unique in its collective effort to establish a consensus on the empirical evidence across numerous papers using a variety of data sets. Besides assembling a set of new papers that would generally advance our knowledge about changes in job stability and job security, we also set out to push a research “model” that focuses a number of papers simultaneously on the same topic, with a strong emphasis on delineating points of reconciliation, points of continued disagreement, and, wherever possible, the reasons for each. This emphasis gives this conference volume a unique flavor. It is hard to read its chapters and not come away believing that as a whole—but in some sense *only* as a whole—it substantially advances our knowledge of changes in the employment relationship.

In this introductory chapter, I briefly summarize the original findings presented in each chapter and then move on to what each has to say about findings in the previous literature and in the other conference papers. My purpose is to provide a synthesis that is somewhat difficult for the reader to obtain from reading the individual chapters without engaging in his or her own detailed process of comparing and contrasting them, since they are filled with a rather bewildering array of discussions about data issues, measurement problems, alternative estimates, and references to other research findings. I hope this synthesis helps the reader absorb the contributions of this research more easily.<sup>1</sup>

In addition to the contribution this volume makes to the debate over the changing employment relationship, I believe readers will also find in it a wealth of useful suggestions and insights regarding the measurement of worker-employer attachments (tenure, job separations, job loss, and so on) in many of the main data sets that labor economists use in a variety of applications. These contributions have resulted from what is probably the most serious attention such issues have received. This volume may prove indispensable not only in future research on changes in the employment relationship but also in a much wider body of research on job mobility, job attachment, and job loss.

## JOB STABILITY

### UNTANGLING THE EVIDENCE

The chapters in part I address the issue that has figured most prominently thus far in the research and debate over changes in the employment relationship—whether the distribution of the duration of jobs has changed appreciably in the U.S. economy in recent years, and in particular whether jobs have become less stable. Chapters 2 through 5 use the main secondary data sources available to labor economists to study this question and are distinguished from previous research by two main features: they update evidence through the mid- to late 1990s, and they make serious attempts to verify and, more important, reconcile the evidence from earlier studies and alternative data sources. Chapter 6 casts another look at this question using a proprietary data set on a small sample of large employers; by taking a narrower look at the question, the chapter addresses the important issue of changes in the employment relationship at the largest corporations. Table 1.1 summarizes the findings of these papers in a form that enables easy comparison of data sets, samples, sample periods, the “definition” of stability, and results. Thus, my summary of each chapter is brief and restricted to findings on job stability.

In chapter 2, David Jaeger and Ann Huff Stevens study the evolution of job stability over the 1970s, 1980s, and 1990s using the two primary data sources exploited in the earlier research: the Panel Study of Income Dynamics (PSID) and the various tenure supplements of the Current Population Survey (CPS). Whereas past research has used primarily one data set or the other, this is the first research to attempt to use both data sets while doing everything possible to ensure that we are looking at comparable measures from the two sources. Jaeger and Stevens look at job duration at both the “short” and “long” ends of the distribution by measuring changes over time in the shares of workers with less than eighteen months of tenure, and of those with less than ten years of tenure. The former measure is closely related to turnover, since the fraction of workers with low tenure would increase if workers were leaving or losing their jobs (and becoming reemployed) at higher rates. The ten-year measure, which captures the extent to which workers are accumulating high amounts of tenure on the job, is not as closely related to turnover per se, since average tenure could be rising while the proportion with ten or more years of tenure is shrinking.<sup>2</sup> Jaeger and Stevens find consistent results in the PSID and in the CPS tenure supplements, indicating that the share of workers with less than eighteen months of tenure rose over the early part of the sample period, but not since about 1983. In contrast, for men the share with less than ten years of tenure began to increase in the late 1980s.

In chapter 3, my colleagues, Daniel Polsky and Daniel Hansen, and I

**Table 1.1 Summary of Findings of Studies That Focus on Job Stability**

Authors	Main Data Sets	Sample Period	Coverage	Outcomes	Findings
Jaeger and Stevens	PSID CPS tenure and employee benefits supplements	1976 to 1996 1973 to 1996	Heads of households and spouses, ages twenty to fifty-nine, employed (not self-employed)	Share of workers with tenure of less than eighteen months; share with tenure of less than ten years	Increased share with less than eighteen months of tenure, but only over early years, not 1983 to 1996. Increased share with less than ten years of tenure beginning in late 1980s. Patterns consistent across most education, age, and race groups. No trend in share with less than ten years of tenure for women. PSID and CPS used on consistent basis yield similar answers. Other studies used PSID through 1988, when share with low tenure peaked.
Neumark, Polsky, and Hansen	CPS tenure and contingent work supplements	1983, 1987, 1991, 1995, and 1996	Employed workers (nonagricultural, not self-employed)	Four-year and eight-year job retention rates	Four-year retention rates unchanged in early 1990s; eight-year retention rates fell. Both rates declined among higher-tenure and older workers, but these declines emerged only in 1990s, when declines among higher-tenure workers occurred for white men and for blacks. Blacks also experienced decline in aggregate stability. Decline in job stability in 1990s sharp for more-tenured managerial-professional workers. Results robust to numerous adjustments to CPS.
Bernhardt, Morris, Handcock, and Scott	NLSYM NLSY	1966 to 1981 1979 to 1994	Ages fourteen to thirty-eight (fourteen to twenty-two in first waves, thirty to thirty-eight in last waves),	Two-year job separation rates; wage changes	Substantially higher separation rate among NLSY cohort than earlier NLSYM cohort. Finding arises across age, education, and tenure groups. Wage returns to job changing have declined and become more unequal for recent cohort.

*(Table continues on p. 5.)*

**Table 1.1** *Continued*

Authors	Main Data Sets	Sample Period	Coverage	Outcomes	Findings
Gottschalk and Moffitt	SIPP PSID	1983 to 1995 1981 to 1992	non-Hispanic whites, employed (not self-employed) Male (married) heads of households in PSID; all males and females in SIPP, ages twenty to sixty-two, employed	One-year and one-month job separation rates; involuntary job separations and other classifications of reason for separation; characteristics of separations; wage changes upon job changes	One-year separation rates did not increase in SIPP or in PSID with given sample restrictions, variable definitions, and sample period. Involuntary separations in PSID increased, but only from 1970s to 1980s; no increase after 1980. No trend increase in monthly separation rates in SIPP; secular decline from mid-1980s to early 1990s. Little evidence that job endings were more likely to be accompanied by spell of nonemployment, but duration of nonemployment increased for less-educated. No downward drift in wage gains associated with job changes.
Allen, Clark, and Schieber	Database of consulting clients (firms) of Watson Wyatt World-wide	1990 to 1997	All workers	Change in average tenure; changes in percentages with more than ten and more than twenty years of tenure; five-year retention rate	Average tenure rose over 1990s, although not uniformly across firms. Percentages of workers with more than ten and more than twenty years of tenure rose over 1990s. Most of the lower retention rates associated with downsizing firms relative to growing firms were found among junior workers.

Abbreviations: Panel Study of Income Dynamics (PSID); Current Population Survey (CPS); National Longitudinal Survey of Young Men (NLSYM); National Longitudinal Survey of Youth (NLSY); and Survey of Income and Program Participation (SIPP).

update the evidence on job stability based on CPS tenure supplements by extending into the 1990s the type of estimates presented in our earlier work. Rather than looking at point-in-time distributions of tenure or some transformation thereof (such as the share with tenure below some cutoff), we string together tenure supplements to estimate retention rates, which are free of the influence of factors such as changes in participation.<sup>3</sup> Overall, however, the findings are quite consistent with those of Jaeger and Stevens. Shorter-term (four-year) retention rates were largely unchanged for the sample as a whole over the sample period (1983 to 1995). In contrast, longer-term (eight-year) retention rates fell in the early 1990s; both rates fell for higher-tenure and older workers, and more so for higher-tenure managerial and professional workers. These results point to a weakened tendency, in the short run at least, for managerial and professional workers to remain in long-term jobs.

Annette Bernhardt, Martina Morris, Mark Handcock, and Marc Scott look at job stability in chapter 4 by comparing two-year job separation rates across cohorts of young white men in the National Longitudinal Surveys (NLS). This data source, an alternative to the PSID or CPS, offers some advantages that the authors describe (most important, a unique employer code), but it also presents potential problems of changes over time stemming from differences in the survey methods used for the two NLS cohorts. The authors carefully consider the issues that arise because of differences between the surveys, and they present a compelling case that their findings of substantially higher separation rates in the later NLS cohort reflect a real behavioral change. Their results compare one cohort followed over the period 1966 to 1981 with another cohort followed over the period 1979 to 1994. Thus, their findings of higher separation rates in the more recent cohort to a large extent compare the 1970s with the 1980s and hence are not inconsistent with the evidence reported in other chapters in this volume that job stability declined somewhat over the 1970s and early 1980s (see, for example, Jaeger and Stevens) but not during the 1980s. In addition, their data are restricted to relatively young men, in contrast to most of the other analyses in this volume.

Bernhardt and her colleagues also broach the interesting question of whether the consequences of job changing have shifted over time; they report that the wage returns to job changing have declined and become more unequal. Although there is not enough material in these chapters to reach definitive conclusions on this issue, I would argue that research along these lines has a valuable role to play. Much of the recent debate has been about empirical measurement of changes in the employment relationship, but little if any research has asked, "So what?" To know what to make of the evidence on changes in the employment relationship, we need a better idea of what the consequences of such changes are.

The study by Peter Gottschalk and Robert Moffitt is the first to look at job stability using data from the Survey of Income and Program Participation (SIPP). The SIPP data offer two advantages. First, monthly data allow the study of short-term dynamics, thus adding an important dimension to the study of job stability, given that a high fraction of workers (about 20 percent) have less than one year of tenure in their jobs. Second, the SIPP includes thirty-two months of job history data with unique identifiers throughout each panel. Looking first at one-year separation rates, the authors reach conclusions similar to those of Jaeger and Stevens—namely, that one-year separation rates did not increase from 1983 to 1995. Looking at monthly separation rates, Gottschalk and Moffitt find not only no trend increase but, if anything, a decline from the mid-1980s through the early 1990s.<sup>4</sup> Like Bernhardt and her colleagues, these authors devote some attention to the consequences of job changes, finding, in contrast to the findings reported in chapter 4, no downward drift in wage gains associated with job changes.

Finally, Steven Allen, Robert Clark, and Sylvester Schieber study a database of consulting clients of Watson Wyatt Worldwide. These data cover the 1990s only and principally permit comparisons of tenure distributions over this period. The firms in these data display a fairly high degree of downsizing, which may, of course, be related to their selection into a sample of consulting clients. The key finding that Allen and his colleagues emphasize is that, putting aside the impact on “downsized” workers, the average tenure of the workforces in this sample of firms rose over the 1990s, as did the percentages of workers with more than ten years of tenure and with more than twenty years. Moreover, although retention rates were naturally lower in downsizing firms (with downsizing defined simply as reducing employment), the differential appears for lower-tenure, rather than higher-tenure, workers. In other words, whether or not firms are downsizing, in these data we do not observe declining representation of high-tenure workers. However, because these data are not representative and cover a relatively short period, this evidence does not necessarily undermine the conclusion from representative samples that it was high-tenure, not low-tenure, workers who experienced the decline in stability in the 1990s. One possible reconciliation is that the types of very large corporations represented in these data may have experienced different patterns of job separation.

#### RECONCILING THE CONFLICTING FINDINGS

A summary of the attempts to reconcile or in some cases verify the findings reported in these chapters and in other research regarding changes in job stability is presented in table 1.2.

Jaeger and Stevens address the vexing issue of why past research based

**Table 1.2 Reconciling Evidence and Establishing Consistent Results on Job Stability**

Authors	Studies Addressed	Findings
Jaeger and Stevens	PSID studies (Marcotte 1996; Rose 1995; Gottschalk and Moffitt 1994) reporting reductions in one-year retention rates from 1970s to 1980s and in 1980s.	Some of the increase in instability in 1980s is due to changes in survey questions regarding job and position changing and failure to account for heaping. Some is due to sample periods ending in late 1980s, when probability of having tenure of one year or less peaked. Some is also due to restriction to younger workers.
	Polsky (1999) PSID study reporting no increase in turnover through 1991.	Consistent evidence.
	CPS studies (Diebold, Neumark, and Polsky 1997; Farber 1998a) finding little decrease in job stability from 1970s to 1980s.	Upward trends in instability for some groups may be masked in the CPS because of question changes prior to 1983.
	Neumark, Polsky, and Hansen (this volume) finding decreased job retention rates in 1990s using CPS data.	Consistent evidence.
	Monks and Pizer (1998) and Bernhardt et al. (this volume) finding increased job separation rates from 1966 to 1981 period to 1979 to 1994 period using NLSYM and NLSY cohorts.	PSID data also show increase in fraction of young men with low tenure from 1976 through 1988.



Neumark, Polisky, and Hansen	Cappelli et al. (1997) reporting largely anecdotal evidence that 1990s witnessed organizational restructuring, including streamlined managerial structures.  Farber (1997a), using CPS tenure supplements, reporting declining proportions of male workers with ten or more, or twenty or more, years of tenure, especially after 1993; Jaeger and Stevens (this volume) finding increase in fraction of male workers aged thirty or older with fewer than ten years of tenure in the 1990s.	Consistent evidence from representative samples of declines in job stability for more tenured managerial-professional workers in 1990s.  Consistent evidence.
Bernhardt, Morris, Handcock, and Scott	Monks and Pizer (1998) reporting declines in two-year retention rates between the NLSYM and NLSY cohorts.	Confirmed with, if anything, a larger rise in instability.
Gottschalk and Moffitt	Jaeger and Stevens (this volume) findings on separation rates using CPS and PSID as cross-sectional data sets.	Confirmed using PSID as longitudinal data set. Separation rates shift, but time-series pattern (no upward trend) persists.

Abbreviations: see table 1.1 note.

on the PSID (Marcotte 1996; Rose 1995) reported declines in job stability over the 1980s, while evidence based on CPS tenure supplements indicated little decrease in job stability from the 1970s to the 1980s or in the 1980s. As already noted, Jaeger and Stevens conclude that there was no increase in the share of workers with low tenure over the 1980s or through the mid-1990s, but that stability fell from the 1970s to the 1980s. They attribute the contrast between earlier and later PSID studies to changes in the questions in the 1980s that inflated measures of turnover in that period, and to sensitivity to the sample period: studies ending in the late 1980s coincidentally used as their end date the peak in the share of workers with low tenure (less than eighteen months). On the other hand, they argue, the PSID studies reveal that, in contrast to CPS studies comparing the 1970s and the 1980s, some relatively small but real decreases in job stability occurred over this period, and they seem to have been masked by changes in the CPS tenure question in 1983. An important conclusion from this chapter is that, in contrast to the impression created by the contradictory findings in the earlier research, the PSID and CPS yield similar findings when used in a comparable manner. Aside from helping to settle issues regarding trends in job stability, this insight may reassure researchers who need information on turnover and might sometimes find the CPS better suited to answering particular questions while at other times find a better fit in the PSID. Jaeger and Stevens also present some evidence suggesting that the findings of Bernhardt and her colleagues and the earlier findings of James Monks and Steven Pizer (1998) of an increased separation rate from roughly the 1970s to the 1980s, based on the NLS surveys, are reflected in the PSID data, which indicate what they characterize as a “strong” increase in the fraction of young men with low tenure (in their data, from 1976 through 1988).

In chapter 3, Polsky, Hansen, and I do not focus quite as much on the reconciliation of conflicting evidence from different data sources. However, the extension of our earlier research through the mid-1990s provides a significant check on the consistency between anecdotal and media reports of declines in long-term jobs and evidence from representative samples. As suggested in Neumark and Polsky (1998), the “evidence” from these two types of sources may have seemed contradictory because the latter—research-based evidence—lagged behind the media and anecdotal reporting and therefore failed to pick up the most recent changes. In that study, we concluded that the evidence of declines in job stability for more tenured workers overall in the 1990s, especially for managerial and professional workers, was in part consistent with the anecdotal evidence reported in the media, though we cautioned against drawing conclusions regarding long-term trends since these changes showed up mainly in the first part of the 1990s.

The analysis of Bernhardt and her colleagues of changes in separation rates largely revisits an earlier paper, using the NLS cohorts, by Monks and Pizer (1998), who reported rather sharp declines in two-year retention rates between the NLS cohorts. After considering the role of measurement issues, differences in attrition (which is plausibly associated with measured job retention), and some other empirical issues, they largely confirm the Monks and Pizer results, finding, if anything, an even larger decline in job stability.

Finally, the Gottschalk and Moffitt chapter is not devoted to reconciling conflicting evidence but rather to presenting evidence on short-term dynamics from the SIPP. However, to ensure that any differences they find are not due simply to differences between data sets, they first endeavor to verify that the SIPP and the PSID, when used longitudinally and in a comparable fashion to study yearly turnover, yield similar results. In addition, because past research with the PSID did not treat it as a longitudinal data set but instead as a series of cross-sections, an important by-product of their “benchmarking” of the data is showing that when the PSID data are used longitudinally, they give very similar results to those obtained when using the PSID as a series of cross-sections; although estimated separation rates shift, the time-series pattern of no upward trend remains the same. Again, this finding is of interest to researchers who may be measuring job stability or turnover with other questions in mind that require longitudinal data.

## JOB SECURITY

Although the research on job stability focuses on the duration of jobs, another critical dimension is what has come to be labeled “job security.” The distinction between job stability and job security was introduced as a means of sharpening the interpretation of different types of changes in the employment relationship.<sup>5</sup> A decline in job durations might be construed as negative or positive depending on whether workers are leaving their jobs involuntarily more often or quitting their jobs more frequently to take better jobs (such as occurs to some extent in an economic expansion). A decline in job security, in contrast, refers specifically to a decline in job durations attributable to increased involuntary job loss, an unambiguous “negative” from the perspective of workers. Tracking changes in both job stability and job security is important for understanding how the employment relationship is changing. As in the previous section, table 1.3 presents the evidence on changes in job security in a condensed form, and table 1.4 summarizes the attempts to reconcile the conflicting evidence.

**Table 1.3 Summary of Findings from Studies Focusing on Job Security**

Authors	Main Data Sets	Sample Period	Coverage	Outcomes	Findings
Valletta	PSID	1976 to 1992	Workers (not self-employed), ages twenty-one to sixty-four	Dismissals (permanent layoffs and firings), quits, and general turnover	For men, although tenure is negatively associated with dismissal, significant upward time trend in probability of dismissal, stemming from upward trend for high-tenure workers. Negative effect of tenure on dismissals reduced in declining sectors (but no consistent trend toward greater probability of dismissal of high-tenure workers in declining sectors). Downward trend in probability of quit for low-tenure workers and upward trend for high-tenure workers. Similar results for skilled white-collar women.
Stewart	CPS (March)	1967 to 1997	Men and women over nineteen, with one to forty years of potential experience; worked (not self-employed) at least one week in previous year	Employment-to-unemployment transitions (worked in previous year and unemployed in March) as proxy for job loss	Rate of job loss was higher in 1980s than in the 1970s but did not increase in 1990s. Also holds for men in all education groups, for less educated women, and for all experience groups. For most groups, job loss during the 1990 recession was lower than during the more severe 1982 recession. But for some groups—usually more insulated from recessions—1990 recession was as severe, including college-educated men, men with twenty-one or more years of experience, and white-collar workers.
Schmidt	GSS	1977 to 1996	Men and women over eighteen, employed full-time or part-time in survey week	Perceived likelihood of job loss or layoff in next twelve months (fear of job loss) and interaction of this with perceived difficulty of finding job with same income and fringe benefits (fear of costly job loss)	Workers in 1990s were more pessimistic about involuntary job loss and costly job loss than in earlier periods. This is apparent in comparison of economic recovery years 1993 to 1996 to late 1980s, with similarly low unemployment, and in comparison of the 1990 to 1991 recession years to 1982 to 1983 recession years. These perceptions are broadly consistent with patterns of actual job loss in DWS overall and for many demographic subgroups.

Abbreviations: General Social Survey (GSS); Displaced Workers Survey (DWS); see table 1.1 note.

**Table 1.4 Reconciling Evidence and Establishing Consistent Results on Job Security**

Authors	Studies Addressed	Findings
Gottschalk and Moffitt	Boisjoly et al. (1998) PSID results showing that involuntary terminations rose over 1970s and 1980s.	Results driven by increases from 1970s to 1980s, but not increases in 1980s.
Stewart	Farber (1997b) DWS study concluding that rate of job loss increased from 1991 to 1993 period to 1993 to 1995 period.	Omitting the potentially troublesome category of job loss in the DWS for “other” reasons, job loss rate in March CPS data (employment-to-unemployment rate) falls from 1991 to 1993 period to 1993 to 1995 period, while job loss rate in DWS data remains constant (despite economic recovery). Concludes that the job loss rate actually did decline, but that changes in questions in 1996 DWS (covering 1993 to 1995) resulted in more job-leavers being classified as job-losers than in earlier years.
	Boisjoly et al. (1998) PSID results showing that involuntary terminations rose over 1970s and 1980s.	Job security declined over early 1970s, but from mid-1970s through mid- to late 1990s there has been little change.
	Monks and Pizer (1998) reporting increase in rate of job loss between the NLSYM and NLSY cohorts.	CPS data show increased job loss rates for those with at most a high school education, but (in contrast to Monks and Pizer) not for those with some college or college graduates. Suggests that contrast between the two data sets is not due to differences in survey between NLSYM and NLSY, since this would generate contrasting results across all schooling groups.

Abbreviations: see table 1.1 note.

## UNTANGLING THE EVIDENCE

Part II opens with Robert Valletta's chapter on the evidence on changes in the probability of dismissal over the period 1976 to 1992 using the PSID. Valletta estimates how this probability has changed differentially for high- and low-tenure workers; how this probability varies (overall, and with tenure) in declining versus expanding sectors; and how the latter relationships have changed over time. These particular empirical analyses are motivated by what is one of the first attempts in this growing literature to offer a theoretical framework for interpreting the empirical analysis. In particular, Valletta attempts to estimate parameters that might reflect behavior in the context of implicit employment contracts that are designed to overcome incentive problems and imperfect monitoring, as well as changes in the terms of such contracts, although he acknowledges that the theoretical framework does not impose enough structure on the empirical analysis to test sharp hypotheses. Nonetheless, there is evidence consistent with the general "implicit contracts" approach, in particular the diminution of the influence of tenure in reducing the likelihood of dismissal for workers in declining sectors, dismissals that Valletta interprets as employer default on delayed payment contracts in the face of adverse shocks. In light of this framework, the upward trend in dismissals for high-tenure workers and a similar upward trend in quits suggest some change in the incentives or behavior underlying long-term implicit contracts. Valletta's chapter clearly establishes a case for incorporating more theoretical analysis into what has until now been a purely empirical research agenda.

Jay Stewart's contribution to the job security literature is to develop a time series on job loss that can be used as an alternative to those based on the PSID and Displaced Workers Surveys (DWS), which have been used to date. As Stewart points out, neither of these two data sources provides consistent measures of job loss over time. The changes in questions over time in the PSID have received careful attention in previous research (see, for example, Polsky 1999). The changes in the DWS are more recent, but their impact on estimates of changes in job loss in the 1990s is potentially serious (see Polivka and Miller 1998; Farber 1998b; Polivka 1998). Stewart looks instead at the rate of employment-to-unemployment transitions in the CPS over a thirty-year period. Although such transitions are not synonymous with job loss—some job-losers go directly to other jobs—they offer an alternative perspective. Stewart then reports findings that draw some potentially interesting contrasts with the existing literature. He finds that the rate of transition to unemployment increased in the 1980s relative to the 1970s but did not increase in the 1990s. For example, for most groups this rate was lower during the 1990 recession than during the more severe 1982 recession. However, this was

reversed for some groups that typically are quite insulated from recession-induced spells of unemployment, including more educated workers, more experienced workers, and white-collar workers. This finding may provide some support for the greater media attention and, in my view, hyperbole regarding decreased job stability and job security in the 1990s. In particular, those in the media may have increased the attention they paid to these issues in part because their peers were experiencing far greater dislocation than they had at other times.<sup>6</sup>

Stefanie Schmidt presents a different kind of evidence altogether, namely, estimates of how workers' *perceptions* regarding job security have changed over time. Using the General Social Survey (GSS) from 1977 to 1996, Schmidt studies changes over time in the perceived likelihood of job loss or layoff (in the next twelve months) and the perceived likelihood of job loss coupled with the perceived difficulty of finding a job with similar income and benefits; she refers to the latter combination as "costly job loss." It is useful to consider what these unconventional data can tell us about changes in job security. There are at least three ways to interpret the GSS data, all of them potentially informative. One is as a check on the objective findings from other data sources. If workers' perceptions parallel evidence on job loss from the PSID, DWS, and CPS, then the strength of that evidence would be bolstered. On the other hand, we might attribute any undue pessimism in workers' subjective assessments to exaggerated claims in the media and elsewhere regarding the decline of long-term employment relationships. Second, these data may be informative about changes in the distribution of the probabilities of job loss as they measure the *ex ante* probabilities that workers face job loss rather than *ex post* measures of actual job loss. For example, an employer could lay off a higher-than-normal fraction of its workforce but commit to lifetime job security for the remaining workers, in which case we might observe more job loss but increases in perceived job security for many workers. Third, "security" is a subjective characteristic, and a change in workers' subjective assessments of their job security—whether validated or not in observed behavior for the same period—may still have implications for labor market behavior. For example, as Schmidt suggests, drawing on testimony by Federal Reserve Board Chairman Alan Greenspan, a greater perceived threat of job loss could moderate wage inflation demands, yet if this perceived threat does indeed moderate wage demands, the threat may never be realized.<sup>7</sup>

Schmidt's evidence suggests that, in terms of workers' perceptions of job security, the 1990s were different from the earlier decade and a half. Perceived risk of job loss, especially costly job loss, rises during a recession, but workers were more pessimistic in the period following the recession of 1990 to 1991 than in earlier comparable periods, although the perceived risks of both types of job loss declined following the recession.

In common with the other work on both job stability and job security, these findings point to some unique developments in the early to mid-1990s but do not establish any long-term trends. More important, perhaps, Schmidt's research suggests that more careful analysis of data on workers' perceptions of job security can further our understanding of labor market developments generally, not just changes in job stability and job security.<sup>8</sup>

#### RECONCILING THE CONFLICTING FINDINGS

There is not as much conflicting evidence in the prior literature on job security as there is in the literature on job stability. Most papers, including those in this volume, report some evidence of declining job security. The disagreements focus more on the timing of the changes, in particular whether job security declined in the 1990s. This is, of course, an important issue, since tests of explanations of changes in job security to some extent hinge on the coincidence of the timing of changes in job security and the causal factors under consideration.

Gottschalk and Moffitt's replication of some PSID results on changes in involuntary terminations, although not central to their analysis, is based on careful consideration of how best to use the PSID in a consistent manner over time. These replications lead them to conclude that the findings from the PSID reported by Johanne Boisjoly, Greg Duncan, and Timothy Smeeding (1998)—that involuntary terminations rose over the 1970s and 1980s—were driven by increases from the 1970s to the 1980s, but not by increases over the 1980s. Note that this conclusion squares with Stewart's conclusion that, in his data, there was little change in job security from the mid-1970s through the mid- to late 1990s (see table 1.4).

Aside from addressing the evidence in the paper by Boisjoly and his colleagues (1998), Stewart also carefully explores two other sets of findings on changes in job security from the previous literature. He devotes most of his attention to Henry Farber's (1997b) conclusion, based on the DWS, that the rate of job loss increased over the 1990s (from the period 1991 to 1993 to the period 1993 to 1995), a finding not replicated in Stewart's data. Stewart is cognizant of the fact that his employment-to-unemployment transitions do not necessarily measure the same thing as job loss in the DWS. But following careful consideration of discrepancies between the two measures, and the effects of changes in the DWS questionnaire, he concludes that changes in the questions in the 1996 DWS (covering the 1993 to 1995 period) resulted in more job-leavers being classified as job-losers than in previous surveys, and that the job-loss rate actually did decline in this period.

Finally, Stewart also revisits the evidence in Monks and Pizer (1998),



reporting an increase in the rate of job loss across the NLS cohorts. Stewart finds consistent evidence in the CPS data for some education groups (those with only a high school education), but no rise for other groups (college graduates or those with some college). Whereas other authors have speculated that the NLS findings (including possibly those reported in this volume by Bernhardt and her colleagues on job stability) may be driven by differences between the survey methods used for the different NLS cohorts, Stewart suggests that such an explanation is unlikely since it would tend to apply across all schooling groups, not just isolated ones.

#### INTERPRETING AND UNDERSTANDING SOURCES OF CHANGE IN THE EMPLOYMENT RELATIONSHIP: A BEGINNING

The chapters discussed to this point parallel the existing research on job stability and job security in that they focus on the measurement of changes in these characteristics of the employment relationship. Although an accurate description of changes in job stability and job security is, of course, critical, especially in light of the disagreements in past research, it is equally imperative to develop an understanding of why any changes have occurred. Job stability and job security are, after all, only symptoms of underlying behavioral changes. Among the previously discussed chapters, only Valletta's emphasizes this point explicitly, but his focus is theoretical. The four chapters in part III, in contrast, seek to understand which changes in the behavior or decisions of employers and in the choices of workers underlie changes in job stability and job security. Because this inquiry is new and not as focused on a previous literature, these chapters are a bit more eclectic in terms of the types of behaviors, decisions, and outcomes studied. They are summarized in table 1.5.

Alec Levenson focuses on changes in part-time and temporary work (that is, employment in the temporary staffing industry). He considers both voluntary and involuntary part-time work because the latter in particular is thought to correspond more to the "menu" of jobs that firms offer workers in the labor market (a presumption that he questions). Overall, the rate of involuntary part-time employment has grown since the 1970s, although this growth occurred principally between the 1970s and 1980s. (For a thorough analysis of overall trends in part-time employment, see Levenson 1996.) The rate of temporary employment increased sharply after the 1970s, though it grew from a very small base and therefore remains low. Levenson first documents that involuntary part-time work has grown faster for low-skill men and women than for high-skill men and women, and that voluntary part-time work and temporary employment has increased faster for low-skill men. These findings provide the jumping-off point for his inquiry. The growth in involuntary part-time and temporary work appears to be part of the shift toward the

**Table 1.5 Findings from Studies of Sources of Changes in the Employment Relationship**

Authors	Main Data Sets	Sample Period	Coverage	Question Studied	Findings
Levenson	CPS (March)	1964 to 1996 (changes studied from 1971 to 1973 period to 1988 to 1990 period)	Prime-age men and women, ages twenty-five to fifty-nine	Do increased rates of voluntary and involuntary part-time employment and temporary employment partly reflect labor supply responses to changes in wages?	Involuntary part-time employment has grown faster for low-skill men and women than for high-skill men and women, as have voluntary part-time employment and temporary employment among men. The relative increase in involuntary part-time employment for low-skill workers is partly a voluntary labor supply response to lower wages for men, but not women. A labor supply response can explain only a small amount of the increase in temporary employment among low-skill men and women. Thus, not all growth in these alternative employment arrangements should be interpreted as “forced” on workers who would otherwise (at the same wage) prefer full-time, permanent jobs.
Farber	Matched DWS and CPS contingent work supplements	1994 to 1997	Individuals ages twenty to sixty-four in DWS files, employed at time of survey	Are job-losers more likely to become employed under flexible staffing arrangements? Are these flexible arrangements “permanent” or used as bridge jobs?	Job-losers are more likely to be in temporary jobs and in involuntary part-time jobs than otherwise similar workers who have not lost their jobs. But these relationships weaken with time following job loss, suggesting that these alternative work arrangements are part of a transition to regular, full-time employment. Workers in temporary jobs appear to be of two types: job-losers in transition to full-time jobs; and non-job-losers, working voluntarily part-time, for whom temporary jobs may represent a desired arrangement.

Houseman and Polivka	CPS contingent work supplements Match between CPS contingent work supplement and monthly CPS files	1995, 1997 1995 to 1996	All workers	Do workers in flexible staffing arrangements (temporary, on-call, contract, and part-time work) have less stable jobs? Can growth in flexible staffing arrangements account for changes in job stability?	Workers in most flexible staffing arrangements (especially agency temps, on-call workers, direct-hire temps, and contract workers) are less likely to remain in their jobs for one year than workers in full-time arrangements. Simulations based on applying these cross-section results to the growth in temporary help agency employment from 1986 to 1996 suggest that growth in flexible staffing arrangements could explain a substantial share (30 percent or more) of the modest increase in employer switching in this decade.
Cappelli	EQW National Employers Survey	1994, 1997	Sample of private establishments with more than twenty employees	What establishment-specific factors are associated with downsizing, and what are the consequences of downsizing?	Downsizing (defined as cuts in employment by firms operating at or above capacity) is related to both management practices and variables reflecting factor prices (such as unionization), but not always in the expected direction. Factors explaining downsizing are not too different from those explaining overall job losses, and overall job reductions are not driven mainly by demand shortfalls. Downsizing is associated with cuts in both sales per employee and labor costs per employee, possibly mitigating overall performance effects.

Abbreviations: National Center on the Educational Quality of the Workforce (EQW); see table 1.1. note.

increasingly “bad” jobs offered to low-skill workers. Although not documented in this chapter (see, however, Henry Farber’s chapter in this volume), these jobs are probably less stable and secure, suggesting a link between the types of jobs some firms are offering and changes in job stability and job security.

However, Levenson considers an important alternative hypothesis. We know that the wages of low-skill workers have fallen over the past couple of decades, both absolutely (in real terms) and relative to high-wage workers, and that this decline is in part responsible for the relative declines in labor-force participation among low-skill individuals (see, for example, Katz and Murphy 1992; Juhn 1992). Levenson builds on this research by asking whether the relative rise in involuntary part-time and temporary work among low-skill workers in fact reflects a voluntary labor supply response to lower wages. With respect to part-time work, this would imply, of course, that the “involuntary” distinction used in the CPS is not meaningful; it may reflect an inability to find full-time work at the wage at which the individual would choose to work full-time rather than an inability to find such work *per se*. Levenson finds that for men, but not for women, the relative increase in involuntary part-time work among the less skilled can be partly understood as a labor supply response, and that only a small amount of the relative increase in temporary employment among low-skill men can be explained as a labor supply response. This finding injects an important perspective into the debate about changes in the employment relationship broadly defined—namely, whether some of the changes reflect market responses to relative wages, or changes in workers’ preferences or constraints, rather than changes in the nature of the employment relationship *per se* driven by corporate restructuring, management strategies, and so on.

Henry Farber looks at a different source of the flow of workers into temporary and involuntary part-time employment. He defines temporary employment more broadly to include on-call and contract work. Matching data from the DWS to the 1995 and 1997 Contingent and Alternative Employment Arrangements Supplements (CAEAS) to the CPS, he finds that workers who lose jobs are more likely to be in temporary or involuntary part-time jobs than workers who have not lost their jobs. Farber goes on to characterize these jobs and the workers who fill them in more detail. In particular, he finds that the relationships between job loss and temporary or involuntary part-time employment weaken with time, suggesting that these jobs are to some extent used as workers make transitions back to full-time, regular employment following a job loss. Indeed, his evidence suggests that those in temporary jobs specifically are of two types: job-losers using them as transitions back to full-time, regular employment; and voluntary part-time workers who prefer these jobs over other alternatives.

Although the nature of Farber's evidence is different, the perspective it yields is in some ways similar to Levenson's. In particular, we should not necessarily view involuntary part-time or temporary employment as "bad" employment relationships foisted on workers who would otherwise have full-time, regular jobs. Job loss is a persistent phenomenon, and the availability of transitional jobs may serve a useful function. Moreover, as Levenson points out, some workers may prefer some types of flexible or nonpermanent employment relationships. The evidence Farber presents is cross-sectional, but coupled with some other evidence suggesting that the rate of job loss has increased it could explain part of the growth in involuntary part-time employment and temporary employment. If the relationship between job loss and employment in these types of jobs has been stable over time, then higher rates of job loss would lead to a higher incidence of these types of employment. However, this cannot be established with the data Farber has available; data on most forms of temporary employment, in particular, are available beginning only with the CPS contingent work supplements in 1995.

Susan Houseman and Anne Polivka study flexible employment arrangements, broadly defined. They begin by presenting evidence from an Upjohn Institute employer survey on why employers use flexible staffing arrangements. They focus on the reasons that are likely to have implications for job stability, in particular whether employers use these arrangements to screen workers for more permanent positions, and whether they actually move employees in flexible arrangements into regular positions. Houseman and Polivka conclude that employers sometimes use flexible arrangements for screening—most notably agency temporaries—but that other factors are generally more important in determining employers' reliance on these employment arrangements.<sup>9</sup>

The main part of their analysis exploits the CPS contingent work supplement, matching the 1995 supplement to other CPS files to obtain evidence on job turnover among workers in flexible and regular employment relationships. Their principal finding is that workers in these flexible employment relationships are less likely to remain in their jobs for an additional year (or an additional month) than workers in full-time employment. Among workers in such flexible arrangements, this is especially true for agency temps, on-call workers, direct-hire temps, and contract workers. Houseman and Polivka are naturally concerned with the possibility that workers in these latter types of jobs are simply higher-turnover workers—that it is not the nature of the jobs per se that reduces job stability. Although more complete panel or work history data might address this issue better, they argue—based on controls they can include (measures of very recent job loss, turnover, unemployment, and non-employment), as well as on other evidence from longitudinal data for

temporary services workers (Segal and Sullivan 1997)—that there is a causal effect of employment in these types of arrangements on job stability.

On the assumption that their evidence points to such a causal effect, Houseman and Polivka also attempt to answer the question of whether the growth of flexible staffing arrangements can explain part of the modest decline in job stability in the 1990s. Because of data limitations and the lack of evidence on the relationship between flexible employment arrangements and job stability in earlier years, this exercise must be viewed cautiously. But based on their estimates, the authors' calculations suggest that the growth in flexible employment arrangements from 1986 to 1996 may explain nearly one-third of the modest decline in job stability over this period.

Finally, Peter Cappelli seeks to shed light in chapter 13 on the corporate downsizing phenomenon, which has been fingered by the media as a prime cause of the decline in job stability and job security in the 1990s, although its contribution to overall trends is difficult to gauge. Cappelli seeks to accomplish two goals with his analysis of establishment-level data from the 1994 and 1997 National Employer Surveys. First, he is interested in understanding some of the characteristics of establishments and their workforces that are related to the incidence and magnitude of downsizings. Second, he examines the consequences of downsizing for productivity and labor costs per employee. To operationalize the concept of downsizing, Cappelli defines such an event as an employment reduction that is not associated with excess capacity. Such employment reductions seem more likely to coincide with events such as corporate reorganizations and management restructurings, which correspond to the popular conception of a downsizing, than to be associated with slack demand.<sup>10</sup> To the best of my knowledge, this chapter is the first establishment-level empirical analysis, based on representative data, of the determinants and consequences of downsizing in terms of workforce and establishment characteristics or outcomes. It is easy to criticize the data for a failure to capture unambiguous downsizings, specific events, or factors that might have spurred them. Nonetheless, it presents some new evidence that helps inform our understanding of downsizing.

Cappelli reports that downsizings are associated not only with reductions in labor costs per worker but also with declines in sales per worker (productivity), suggesting that overall performance is unlikely to be enhanced by downsizing.<sup>11</sup> The failure to find beneficial consequences of downsizing is consistent with the research cited by Cappelli indicating that financial performance on average declines after a downsizing, although this research also indicates that downsizings accompanied by specific features—such as restructuring plans—may have more beneficial financial effects.<sup>12</sup> The apparent absence of beneficial performance effects

implies that the motivations for the downsizings, which are believed to have generated at least some of the increased job loss in the 1990s, remain somewhat of a mystery. Of course, a strong possibility is that the existing studies, including Cappelli's, fail to capture the right counterfactual through regression controls. That is, what might have happened to establishments or firms had they not downsized could have been far worse than what happened to other establishments or firms that are similar in terms of the control variables available to researchers. In this case, downsizings are driven by idiosyncratic factors that are unobserved by the researcher, and regressions such as those reported by Cappelli and elsewhere in the literature could be biased against finding positive effects of downsizing. Although Cappelli's use of the National Employer Surveys to study employment reductions in the absence of excess capacity ought to reduce any such bias, this is a difficult issue to resolve fully. More important, however, this chapter should spur other researchers to attempt to better understand the decision to downsize and its consequences and to figure out how to gauge the aggregate role of downsizing in generating changes in job stability and job security.

## CONCLUSIONS

Although readers may draw somewhat different conclusions from the chapters in this volume, I believe that they point to a relatively broad and in many cases consistent set of facts regarding changes in the employment relationship. Overall, my reading of the evidence is that the 1990s have witnessed some changes in the employment relationship consistent with weakened bonds between workers and firms. Although the magnitudes of these changes sometimes suggest sharp breaks with the recent past, they nonetheless indicate that these bonds have been only weakened, not broken. Furthermore, the changes that occurred in the 1990s have not persisted long enough even to earn the label "trends." This makes it at least as plausible, based on what we know at this point, to conclude that these changes are the unique product of changes in the corporate world in the 1990s rather than longer-term developments that will necessarily persist or accelerate in the near future. It is therefore premature to infer long-term trends toward declines in long-term employment relationships, and even more so to infer anything like the disappearance of long-term, secure jobs.

One shortfall in our knowledge that this volume tries to ameliorate concerns what we know about the sources of changes in job stability and job security in the 1990s. The chapters addressing this question point to some possible explanations, including relative wage movements, growth in alternative employment relationships, and downsizing. However, with the possible exception of the first explanation, this list does not encom-

pass “fundamental” or exogenous changes that have an impact on the employment relationship; rather, it suggests how various changes in the employment relationship may reinforce each other. To the extent that we can understand the structural changes underlying empirical observations on changes in job stability and job security, we are in a better position to make inferences or predictions about future developments. In my view, this is one of the most fruitful frontiers for research on changes in the employment relationship.

This chapter provides a road map to the contributions made by the authors of the other chapters in this volume, but reading a map is not the same as taking the trip. In addition to gaining an appreciation of the rich and detailed analyses that each chapter presents, researchers interested in exploring the employment relationship will find here many interesting detours, side trips, and perhaps even a few unmarked highways that invite further exploration and ultimately a better understanding of this complex topic.

## ACKNOWLEDGMENTS

Annette Bernhardt, Peter Cappelli, Peter Gottschalk, Susan Houseman, David Jaeger, Alec Levenson, Martina Morris, Anne Polivka, Daniel Polsky, and David Wetzell provided valuable comments on this chapter. Support for this project from the Russell Sage Foundation is gratefully acknowledged.

## NOTES

1. I do not review the previous literature except in cases where its findings are directly addressed in these chapters. For reviews of that literature, see Schmidt and Svoyny (1998), Marcotte (1995), and Diebold, Neumark, and Polsky (1997). For broader reviews of workplace changes extending well beyond job stability and job security, see Cappelli and his colleagues (1997), Cappelli (1999), and Committee on Techniques for the Enhancement of Human Performance (1999). For a brief overview of a subset of the papers included in this volume, see Valletta (1999).
2. This emphasizes a more general issue in this research, namely, that we do not have sufficient data to observe changes over time in full distributions of completed tenure spells for jobs beginning at different points of time. We have to choose instead particular metrics that may obscure some of the details regarding changes in these distributions.
3. Jaeger and Stevens present results that address the issue of changing participation in another way, by comparing employment-based and population-based measures.
4. In research released after the earlier versions of this chapter, but apparently done concurrently, Cynthia Bansak and Steven Raphael (1998) and John



Fitzgerald (1999) reached the similar conclusion that the SIPP data do not provide evidence of a decline in job stability.

5. To the best of my knowledge, this distinction was introduced into the recent debate by Robert Valletta (1996).
6. This hypothesis was suggested in Neumark and Polsky (1998). See Kletzer (1994) for a review of evidence on the changing incidence of displacement for white-collar workers in the early 1990s.
7. Greenspan stated in testimony before the U.S. House Committee on Banking, Housing, and Urban Affairs on February 26, 1997, that “atypical restraint on compensation increases has been evident for a few years now and appears to be mainly the consequence of greater worker insecurity” (see also Aaronson and Sullivan 1998).
8. For another recent attempt to study workers’ perceptions of job security and probable outcomes in the event of job loss (using the Survey of Economic Expectations [SEE]), see Manski and Straub (1999), a paper that took some steps toward making theoretical predictions of the patterns of these perceptions and expectations in the data.
9. They also report some suggestive evidence, based on CPS data discussed later, that workers are sometimes moved from regular permanent positions into flexible arrangements.
10. This definition contrasts with the common equating of downsizing with employment reductions (see, for example, Allen et al., this volume; Farber and Hallock 1999; and the American Management Association’s annual survey on downsizing, job elimination, and job creation).
11. This finding parallels the finding in Cappelli and Neumark (1999) that the introduction of innovative work practices appears to move labor costs per worker and productivity in the same direction—positive in this case.
12. In a recent study of this issue, Farber and Hallock (1999) reported that the magnitude of the negative effects of reductions in force on stock prices has declined over time, suggesting that more recent reductions in force have focused on improvements in efficiency (downsizing?) rather than reductions in product demand.

## REFERENCES

- Aaronson, Daniel, and Daniel G. Sullivan. 1998. “The Decline of Job Security in the 1990s: Displacement, Anxiety, and Their Effect on Wage Growth.” *Economic Perspectives* 22(1): 17–43.
- Bansak, Cynthia, and Steven Raphael. 1998. “Have Employment Relationships in the United States Become Less Stable?” Discussion paper 98–15. San Diego: University of California, Department of Economics.
- Boisjoly, Johanne, Greg J. Duncan, and Timothy Smeeding. 1998. “The Shifting Incidence of Involuntary Job Losses from 1968 to 1992.” *Industrial Relations* 37(2): 207–31.
- Cappelli, Peter. 1999. *The New Deal at Work*. Boston: Harvard Business School Press.

- Cappelli, Peter, Laurie Bassi, Harry Katz, David Knoke, Paul Osterman, and Michael Useem. 1997. *Change at Work*. New York: Oxford University Press.
- Cappelli, Peter, and David Neumark. 1999. "Do 'High-Performance' Work Practices Improve Establishment-Level Outcomes?" NBER working paper 7374. Cambridge, Mass.: National Bureau of Economic Research.
- Committee on Techniques for the Enhancement of Human Performance. 1999. *The Changing Nature of Work: Implications for Occupational Analysis*. Washington, D.C.: National Academy Press.
- Diebold, Francis X., David Neumark, and Daniel Polsky. 1997. "Job Stability in the United States." *Journal of Labor Economics* 15(2): 206–33.
- Farber, Henry S. 1997a. "Trends in Long-term Employment in the United States, 1979–1996." Industrial Relations Section Working Paper. Princeton, N.J.: Princeton University.
- . 1997b. "The Changing Face of Job Loss in the United States: 1981–1995." *Brookings Papers on Economic Activity: Microeconomics* 1: 73–119.
- . 1998a. "Are Lifetime Jobs Disappearing?: Job Duration in the United States: 1973–1993." In *Labor Statistics Measurement Issues*, edited by John Haltiwanger, Marilyn Manser, and Robert Topel. Chicago: University of Chicago Press.
- . 1998b. "Has the Rate of Job Loss Increased in the Nineties?" Proceedings of the fiftieth annual meeting of the Industrial Relations Research Association, Madison, Wisc. (vol. 1, pp. 88–98).
- Farber, Henry S., and Kevin F. Hallock. 1999. "Have Employment Reductions Become Good News for Shareholders? The Effect of Job Loss Announcements on Stock Prices, 1970–1997." Unpublished paper. Princeton University, Princeton, N.J.
- Fitzgerald, John. 1999. "Job Instability and Earnings and Income Consequences: Evidence from SIPP: 1983–1995." Unpublished paper. Bowdoin College, Brunswick, Me.
- Gottschalk, Peter, and Robert Moffitt. 1994. "The Growth of Earnings Stability in the U.S. Labor Market." *Brookings Papers on Economic Activity* 2: 217–72.
- Hipple, Steven. 1998. "Contingent Work: Results from the Second Survey." *Monthly Labor Review* (November): 22–35.
- Juhn, Chinhui. 1992. "Decline of Male Labor Market Participation: The Role of Declining Market Opportunities." *Quarterly Journal of Economics* 107(1): 79–122.
- Katz, Lawrence F., and Kevin M. Murphy. 1992. "Changes in Relative Wages, 1963–1987: Supply and Demand Factors." *Quarterly Journal of Economics* 107(1): 35–78.
- Kletzer, Lori G. 1994. "White-Collar Job Displacement, 1983–1991." Unpublished paper. University of California, Santa Cruz.
- Levenson, Alec R. 1996. "Recent Trends in Part-time Employment." *Contemporary Economic Policy* 14(1): 78–89.
- Manski, Charles F., and John D. Straub. 1999. "Worker Perceptions of Job Insecurity in the Mid-1990s: Evidence from the Survey of Economic Expectations." NBER working paper 6908. Cambridge, Mass.: National Bureau of Economic Research.
- Marcotte, David E. 1995. "Declining Job Stability: What We Know and What It Means." *Journal of Policy Analysis and Management* 14(4): 590–98.

- . 1996. “Has Job Stability Declined?: Evidence from the Panel Study of Income Dynamics.” Unpublished paper. Center for Governmental Studies, Northern Illinois University.
- Monks, James, and Steven Pizer. 1998. “Trends in Voluntary and Involuntary Turnover.” *Industrial Relations* 37(4): 440–59.
- Neumark, David, and Daniel Polsky. 1998. “Changes in Job Stability and Job Security.” *IRRA Series* (proceedings of the fiftieth annual meeting) 1: 78–87.
- Polivka, Anne E. 1998. “Discussion.” *IRRA Series* (proceedings of the fiftieth annual meeting) 1: 107–9.
- Polivka, Anne E., and Steven Miller. 1998. “The CPS After the Redesign: Refocusing the Economic Lens.” In *Labor Statistics Measurement Issues*, edited by John Haltiwanger, Marilyn Manser, and Robert Topel. Chicago: University of Chicago Press.
- Polsky, Daniel. 1999. “Changing Consequences of Job Separations in the United States.” *Industrial and Labor Relations Review* 52(4): 565–80.
- Rose, Stephen. 1995. “Declining Job Security and the Professionalization of Opportunity.” Research report 95–4. Washington, D.C.: National Commission for Employment Policy.
- Schmidt, Stefanie R., and Shirley V. Svorny. 1998. “Recent Trends in Job Security and Stability.” *Journal of Labor Research* 19(4): 647–68.
- Segal, Lewis M., and Daniel G. Sullivan. 1997. “The Nature of Temporary Services Employment: Evidence from State UI Data.” Unpublished paper. Federal Reserve Bank of Chicago.
- Valletta, Robert G. 1996. “Has Job Security in the United States Declined?” *Federal Reserve Bank of San Francisco Weekly Letter* 96(7, February 16).
- . 1999. “Recent Research on Job Stability and Security.” *Federal Reserve Bank of San Francisco Weekly Letter* 99(22, July 23).

