



California Center for Population Research
University of California - Los Angeles

The Far-Reaching Impact of Job Loss and Unemployment

Jennie E. Brand

PWP-CCPR-2014-011

Latest Revised: October 1, 2014

***California Center for Population Research
On-Line Working Paper Series***

THE FAR-REACHING IMPACT OF JOB LOSS AND UNEMPLOYMENT*

IN PREPARATION FOR *ANNUAL REVIEW OF SOCIOLOGY*

JENNIE E. BRAND
University of California – Los Angeles

Version: September 12, 2014
Running head: impact of job loss;
Word count (excluding abstract and references): 7,657;
Word count (references): 2,129;

* Direct all correspondence to Jennie E. Brand, Department of Sociology, University of California – Los Angeles, 264 Haines Hall, Los Angeles, CA 90095-1551, USA; email: brand@soc.ucla.edu; phone: 310.206.1049; FAX: 310.206.9838. This project used facilities and resources provided to the author at the California Center for Population Research at UCLA, which receives core support (R24HD041022) from the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD). The ideas expressed herein are those of the author.

AUTHOR BIOGRAPHY PAGE

JENNIE E. BRAND

Jennie E. Brand is Associate Professor of Sociology at the University of California – Los Angeles and Associate Director of the California Center for Population Research (CCPR). Her research centers on inequality and its implications for various outcomes that indicate life chances. This substantive focus accompanies a methodological focus on causal inference and the application and innovation of statistical models for panel data. Current research projects include evaluation of heterogeneity in the effects of education on socioeconomic outcomes and the socioeconomic and social-psychological consequences of disruptive events, such as job loss and family disruption.

THE FAR-REACHING IMPACT OF JOB LOSS AND UNEMPLOYMENT

ABSTRACT

Job loss is an involuntary disruptive life event with a far-reaching impact on workers' life trajectories. Its incidence among growing segments of the workforce, alongside the recent era of severe economic upheaval, has increased attention to the effects of job loss and unemployment. As a relatively exogenous labor market shock, the study of displacement enables robust estimates of associations between socioeconomic circumstances and life outcomes. Research suggests that displacement is associated with subsequent unemployment, long-term earnings losses, and lower job quality; declines in psychological and physical well-being; loss of psychosocial assets; social withdrawal; family disruption; and lower levels of children's attainment and well-being. While reemployment mitigates some of the negative effects of job loss, it does not eliminate them. Contexts of widespread unemployment, although associated with larger economic losses, lessen the social-psychological impact of job loss. Future research should attend more fully to how the economic and social-psychological effects of displacement intersect and extend beyond displaced workers themselves.

Keywords: job loss; worker displacement; unemployment; socioeconomic mobility; psychological and physical well-being; social withdrawal;

THE FAR-REACHING IMPACT OF JOB LOSS AND UNEMPLOYMENT

A central tradition of research in sociology and economics seeks to identify and take account of the processes shaping socioeconomic outcomes, including the mechanisms that affect mobility and define opportunity structures. A notable strand of this research has assessed the extent to which job loss, often accompanied by a period of unemployment, divides the career achievement of workers. With the recent severe economic upheaval came a precipitous increase in attention to the study of job loss and unemployment. Much of this work has understandably focused on economic outcomes as indicated by employment levels and earnings, but another important body of research has attended to the wider impact of job loss.

A few definitions help fix ideas. Job separation includes both voluntary (worker initiated job separation, or “quitting”) and involuntary job termination. Job loss is generally understood as indicating involuntary separation that occurs when workers are fired or laid off, where layoffs occur as a result of firms downsizing, restructuring, closing plants or relocating. Involuntary job loss may also indicate job separation as a result of health conditions. In this case, the separation may be worker initiated, but nevertheless be considered to some degree involuntary. Job displacement is a specific form of involuntary job loss that does not include workers being fired or termination for health reasons; it is reserved for involuntary job separation that is the result of economic and business conditions that are largely beyond the control of the individual worker and thus presumably less governed by worker performance. Strict definitions include some period of pre-displacement firm-specific tenure, such as three years in the Displaced Worker Survey of the Bureau of Labor Statistics. Some studies on job loss focus attention on involuntary job loss, while

others focus more specifically on job displacement. I nevertheless use these terms somewhat interchangeably throughout this review, as the distinctions are not always explicitly made in the literature and are to some degree amorphous.

Individual-level (involuntary) unemployment occurs when individuals are without a job and actively seeking employment; some definitions allow discouraged workers who have dropped out of the labor force to be counted among the unemployed, or at least among the jobless. Unemployment is one potential consequence of job loss. Job loss, as opposed to unemployment, is a discrete event and is not synonymous with unemployment. A period (at times a prolonged period) of unemployment typically, but not necessarily, accompanies job loss. However, unemployment is not necessarily preceded by job loss, and displaced workers are not generally representative of the unemployed population (Kletzer 1998). Job loss is a discrete event, while unemployment is a state, with a great deal of heterogeneity with respect to instigation and duration. Job displacement is more of an exogenous shock than unemployment, or job loss more broadly defined, allowing for better estimates of the consequences of socioeconomic mobility. I spend considerably more time on job displacement than on unemployment, *per se*, in this review.

This review proceeds as follows. I begin with a description of trends and risk factors associated with job loss, and then consider some methodological and interpretative issues in estimating displacement effects. I then review the economic impact of job loss. Thereafter I thoroughly attend to the wider impact of worker displacement. I conclude with several directions for future research. I focus my review on job loss in the United States.

Trends in and Risk Factors Associated with Job Loss

Widespread job insecurity, waves of job loss, and associated periods of unemployment and income loss have characterized the last several decades in the U.S. (Farber 2010; Farley 1996; Kalleberg 2000, 2009; Kletzer 1998; Wetzel 1995). Most Americans believe that employment stability has declined (Hollister 2011), and job displacement is now considered a common feature of the U.S. labor market. The macroeconomic trends commonly associated with worker displacement include: technological change; foreign trade and the shift to production offshore to take advantage of low-wage foreign workers; immigration; firms' greater use of outside suppliers, subcontractors, and partners, and the paring down of the activities of the firm; the shift in U.S. consumption from manufactured goods to services; poor firm management; weakened labor unions; and regional and national economic downturn.

High levels of workers displacement marked the last four recessions in the U.S. The early 1980s recession convinced firms to utilize effective new equipment, shift production to modern plants, and lay off thousands of workers (Farley 1996). Wetzel (1995) wrote: "Industrial firms that had prided themselves on lifetime paternalistic commitments to their production workers – largely men with average or below-average educational attainment – slashed employment ... The abrupt contraction struck at the heart of the middle class by drastically impacting mature family men with strong labor force attachment, good work histories, and long job tenure" (p. 101). The economic recovery of the 1980s was marked by large employment gains; nevertheless, unemployment persisted at a relatively high rate and newly created jobs were in general of a lower quality than jobs from which workers had lost. The early 1990s recession was marked by the creation of flat organization and elimination of middle management positions. High levels, particularly during economic recessions, of job

loss and unemployment characterize the U.S. labor market since 1990. In the 1990s through early 2000s, worker layoffs, once regarded as organizational failure, were increasingly utilized as a labor allocative process available to firms in order to preserve shareholder value. Ensuing waves of downsizing, reorganization, mergers and takeovers rewarded some individuals with great prosperity while others were threatened with displacement, unemployment, and downward mobility (Baumol et al. 2003). The recessionary period from the end of 2007 to mid-2009, the “Great Recession,” was deeper and more extensive than any other since the Great Depression of the 1930s (Hout, Levanon, and Cumberworth 2011). The U.S. unemployment rate hovered around 9 to 10 percent in 2009-2011, the highest rate since the early 1980s recession and roughly twice the pre-crisis rate. The proportion of families with an unemployed member was roughly 12 percent in 2009, up from about 6 percent in 2007. The large increase in long-term unemployment in this most recent recession is suggestive of longer-term structural labor market changes (Katz 2010).

While macroeconomic and firm-level factors influence the incidence of job loss and unemployment, a number of individual-level characteristics also govern the risk of displacement. Men and blacks and Hispanics had a higher probability of being displaced than women and whites in the 1980s; family background disadvantage, blue-collar and manufacturing work, low occupational status, low job tenure, and low levels of education likewise heightened the risk of job loss over this period (Brand 2005; Farber 2005). Job loss rates increased for women and for whites in the 1990s, as well as for college-educated and high tenure workers (Couch 1998; Farber 1993b, 1997, 2005). While educated workers maintain a lower risk of displacement, the increased rates have nevertheless aroused public

concern that the structure of job loss qualitatively changed over recent decades, increasing vulnerability to job loss across the population (Fallick 1996; Farber 1993a, 1993b, 2010).

Estimating Effects of Job Loss

Abrupt changes in socioeconomic conditions provide a sort of "natural experiment" offering a stronger basis for inference than the usual practice of examining the covariation of outcomes with socioeconomic status that may arise from a variety of sources over an indeterminate period of time. The study of job displacement, thus, provides a unique opportunity to assess within individual changes in socioeconomic conditions that are relatively exogenous to individual characteristics. Indeed, scholars often explicitly describe the study of displacement as a purer way to estimate the effects of socioeconomic shocks (Stevens 2014). Nevertheless, the study of displacement does not fully mitigate selection issues, as job loss is clearly conditioned by factors that are also associated with levels of subsequent outcomes. A primary concern in attempting to identify effects of job loss is the potential presence of unobservable characteristics that affect both worker displacement and subsequent outcomes. That is, we are left with the fundamental question of whether workers who were displaced from jobs have outcomes that are different than they otherwise would have been had they not been displaced. If employers make targeted decisions regarding whom to displace, there is a possibility that it is relatively less productive workers (e.g. lower levels of motivation, commitment, and ability), workers with physical or mental health issues, and socially inept workers who both are more likely to lose jobs and have worse economic and social outcomes. Scholars, however, have found few differences across several leading estimators of causal effects (including regression, matching, difference-in-difference

and fixed effects models), suggesting a degree of robustness regarding the nature of the observed associations between displacement and life outcomes in the face of various technical assumptions and model specifications (Brand 2006; Coelli 2011; Stevens and Schaller 2009).

Yet another strategy to deal with possible selection bias is to adopt a quasi-experimental strategy that tracks the well-being of workers following a plant closure. When an entire organization closes, it is unlikely that a workers' specific characteristics are responsible for the displacement. Thus if the results for plant closings and more individualized lay-offs are similar, we have a firmer basis for claiming the validity of the effect estimates for the full population of displaced workers. Likewise, job losses occurring during recessionary periods, in which large numbers of individuals lose jobs, may provide better causal estimates of job loss (Stevens 2014). A few caveats as to inferences we can make from mass layoff studies are nevertheless in order. While such studies make strong claims for having eliminated the influence of selection, plant closure studies are typically limited to specific populations (often blue-collar workers) in specific geographic areas, restricting generalizability to the U.S. workforce as a whole. That is, studies of plant closures ostensibly sacrifice external for internal validity. Some closure studies are also lacking a control group of non-displaced workers. Additionally, plant closure studies may still be subject to selection bias, as more qualified and adaptive employees may leave the plant upon word of the impending closure. The same can be said for studies of workers displaced during recessions.

Job losses due to layoffs and those due to plant closings, and job loss occurring in different economic contexts, may also produce different effects because they are potentially

different treatment conditions. In the case of layoffs and job loss during economic expansions, the greater likelihood for discretionary dismissal of employees can call into question competency and character and act as a signal of below-average productivity, to the displaced workers, as well as to their families and communities, and in the labor market. If potential employers interpret layoffs as indications of ineptitude, hiring will be discouraged. The resulting difficulty of laid-off workers to secure suitable reemployment may result in greater long-term economic losses. Economic distress, alongside attribution of job loss to one's own shortcomings, and the stigma of a layoff and resulting strained relations with colleagues, friends, and/or family members, can in turn lead laid off workers to lower self-esteem, anxiety, and depressive symptoms (Leana and Feldman 1992; Miller and Hoppe 1994). Individually laid off workers may also lack similarly strained workers to offer a network of support (Miller and Hoppe 1994; Brand, Levy, and Gallo 2008). These circumstances contrast with that of job loss due to plant closings and loss occurring in economic recessions, in which clearly external influences, including the health of the macro-economy and firms' decisions to restructure or relocate business units, provokes separation. Because such factors are clearly beyond the control of individual employees, plant closings do not involve a negative signal that raises transaction costs for displaced workers. Indeed workers displaced due to business closings are victims of an event that could befall anyone, and seldom perceive themselves as responsible for the job loss. Thus, such workers may endure lower economic and social-psychological burdens.¹

¹ In addition to the issue of selection bias, measurement error, recall bias, and attrition bias are all of concern in the study of the effects of worker displacement. Most studies of job displacement have used administrative or survey data. Commonly used nationally representative data include the Displaced Worker Survey supplement to the Current Population Survey, the Panel Study of Income Dynamics, and the National Longitudinal Survey. Others have used data from specific geographic areas, or specific establishments. Some of these data are limited for making causal statements because

Economic Effects of Job Loss

Increasing job insecurity and displacement has motivated a large body of research on effects, beginning with economic losses. The average displaced worker experiences a long period of unemployment (Brand 2004; Chan and Stevens 1999; Fallick 1996; Farber 2003, 2005; Kletzer 1998; Podgursky and Swaim 1987; Ruhm 1991), but the duration has a high degree of worker variance (Seitchik 1991). Unemployment among displaced workers generally lasts longer during recessions than expansions (Farber 1993a; Kletzer 1991, 1998). The impact of job loss on careers is considerable even when workers do not experience long-term unemployment. Displaced workers suffer substantial earnings losses, which are generally more persistent than unemployment effects (Brand 2004; Cha and Morgan 2010; Chan and Stevens 1999, 2001; Couch 1998; Couch, Jolly, and Placzek 2011; Couch and Placzek 2010; Davis and von Wachter 2012; Fallick 1996; Farber 2003, 2005; Jacobson, LaLonde, and Sullivan 1993; Kletzer 1998; Podgursky and Swaim 1987; Ruhm 1991; Seitchik 1991; Stevens 2014; von Wachter 2010). Couch and Placzek (2010) report an immediate 33 percent earnings loss and as much as a 15 percent loss six years following job separation. The cumulative lifetime earning loss is estimated to be roughly 20 percent, with wage scarring observed as long as 20 years post-displacement (Brand and von Wachter 2013; Davis and von Wachter 2012; von Wachter 2010; von Wachter, Song, and Manchester 2009). Reemployed displaced workers are more likely than their non-displaced counterparts to be employed part-time, and this likelihood has increased over time, particularly during

they are cross-sectional, inadequate for constructing a control group of comparable non-displaced workers, or are unable to distinguish displaced workers from those suffering other types of job loss, such as firings.

recessions (Farber 1993b, 2003, 2005). Displaced workers may also find, when reemployed, that their jobs are of lower quality in terms of job authority, autonomy, and employer-offered benefits in comparison to both the jobs they lost and those held by their non-displaced counterparts (Brand 2004, 2006; Podgursky and Swaim 1987). Workers also withstand greater job instability for at least a decade following a displacement event (von Wachter 2010).

While economic losses occur for displaced workers across demographic categories, across industries and throughout the skill distribution (von Wachter 2010), there is nevertheless effect variation by worker characteristics. Displaced workers' losses reflect both industry-specific decline and the loss of firm- and industry-specific skills (Kalleberg 2000). Older workers with higher pre-displacement tenure, those who change industries, and those who experience multiple job losses thus experience greater earnings losses (Carrington and Zaman 1994; Couch, Jolly, and Placzek 2009; Fallick 1996; Jacobson, LaLonde, & Sullivan 1993; Stevens 1997; von Wachter 2010). As greater skill transferability is expected for educated workers, employment, earnings, and job quality reductions are typically more pronounced for less-educated workers (Farber 1997, 2003, 2005; Kletzer 1991, 1998; Podgursky and Swaim 1987; Seitchik 1991). Still, as the incidence of displacement for more educated workers has increased, the transition difficulties for such workers have increased as well.

While displaced workers' economic costs are substantial during both economic recessions and expansions, losses are cyclical (Couch, Jolly, and Placzek 2011; Davis and von Wachter 2012; Fallick 1996; Farber 1993a, 1997, 2005; Jacobson, LaLonde, and Sullivan 1993; Kletzer 1998; von Wachter 2010). As few firms hire during economic

contractions, displaced workers seeking reemployment are in a poorer negotiating position than during economic expansions. Davis and von Wachter (2012) find that men lose an average of 1.4 years of pre-displacement earnings if displaced in mass-layoff events that occur when the national unemployment rate is below 6 percent, and lose 2.8 years of pre-displacement earnings if displaced when the unemployment rate exceeds 8 percent. Similarly, Couch, Jolly, and Placzek (2011) find that long-term earnings losses for displaced workers during a recessionary period are about 2 to 4 times larger than for those observed during a period of economic expansion.

There is some debate over variation in economic losses by the specific form of job loss. Recent work (Kashinsky 2002; Stevens 1997; von Wachter 2010) has questioned the findings of an influential study by Gibbons and Katz (1991) that suggested that layoffs are associated with greater economic losses than are plant closings. Gibbons and Katz (1991) argued that in the case of a layoff, the discretionary dismissal of employees acts as a signal of below average productivity, stigmatizing laid-off workers, resulting in large employment and earnings losses. On the contrary, a plant closing, in which all workers are terminated without discretion, does not carry a comparable performance signal, rendering earnings penalties less severe. Extending this argument to differences in earnings losses by economic context, we might expect countercyclical earnings losses, as the stigma associated with displacement during an economic contraction should be less than that during an economic expansion. However, as I note above, such losses are cyclical. In support of the evidence for cyclicity, we should expect larger earnings losses from job loss due to plant closings as such closures may indicate weak local or macro economic conditions. Krashinsky (2002) argues that the Gibbons and Katz (1991) result is driven by the fact that small plants are more likely to close,

and that layoffs that occur from larger, higher-wage employment establishments result in larger earnings losses.²

Several mechanisms help explicate the large economic losses of displaced workers. Earnings and job quality declines are likely to increase with unemployment duration. Yet it is unclear whether this association is the result of length of unemployment itself, and possible stigma effects, or because those workers facing the greatest challenges in the labor market take longer to find a new job (von Wachter 2010). Workers are also disadvantaged in the market if industries in which they were previously employed shift their operations elsewhere or permanently reduce their employment levels. Relatedly, lower job quality upon reemployment is a function of the loss of a high quality match between the worker and the job (Fallick 1996). While a worker generally only leaves a job voluntarily when he or she believes there are relative gains in career attainment to be made, displaced workers likely feel an urgency to find a new job and are in a poor position to perform a quality job screening (Newman 1988).

Non-Economic Effects of Job Loss

Job loss is a negative, often unpredictable event that entails a sequence of stressful experiences, from job loss notification, anticipation, dismissal, and often unemployment, to (in most cases) job search, re-training and eventual reemployment, often at jobs with lower wages and job quality. Yet the impact of job loss and unemployment is not limited to economic decline; it is also associated with considerable, long-term non-economic

² When an entire plant closes, it is unlikely that a worker's specific characteristics are responsible for his or her displacement; larger differences from layoffs relative to plant closings could thus also be the result of greater selection bias, as I describe above.

consequences for displaced workers, as well as for their families and communities. Displaced workers face psychological and physical distress, personal reassessment in relation to individual values and societal pressures, and new patterns of interaction with family and peers. Much of the work on the non-economic consequences of job loss is consistent with a large literature demonstrating a strong correlation between indicators of socioeconomic status and individual life chances and well-being. However, as displacement is a relatively exogenous labor market shock, its study enables a stronger causal link between socioeconomic circumstances and life outcomes. In this section, I begin reviewing individual worker effects on psychological and physical well-being, and then consider the consequences for families and communities.

Job Loss and Psychological Well-Being

A large literature on mental health has focused on the impact of stressful life events, such as unemployment and job loss. Job loss disrupts more than just income flow; it disrupts individuals' status, time structure, demonstration of competence and skill, and structure of relations. It carries societal stigma, creating a sense of anxiety, insecurity, and shame (Newman 1988). The loss of a job presents a source of acute stress associated with the immediate disruption to a major social role, as well as chronic stress resulting from continuing economic and social and psychological strain (House 1987; Pearlin et al. 1981). Research suggests that displaced workers report higher levels of depressive symptoms, somatization, and anxiety and the loss of psychosocial assets including self-acceptance, self-confidence, self-esteem, morale, life satisfaction, goal and meaning in life, social support, and sense of control (Brand, Levy, and Gallo 2008; Burgard, Brand and House 2007;

Catalano et al. 2011; Dooley, Fielding and Levi 1996; Darity and Goldsmith 1996; Dooley, Prause, and Ham-Rowbottom 2000); Gallo et al. 2000; Gallo et al. 2006a; Hamilton et al. 1990; Jahoda 1981, 1982; Jahoda, Lazarsfeld, and Zeisel 1933[1971]; Kasl and Jones 2000; Kessler, Turner, and House 1988, 1989; Leana and Feldman 1992; McKee-Ryan et al. 2005; Miller and Hoppe 1994; Paul and Moser 2009; Pearlin et al. 1981; Turner 1995; Warr and Jackson 1985).³ The increase in reported symptoms of depression and anxiety among displaced workers compared to non-displaced workers is roughly 15 to 30 percent (Burgard, Brand, and House 2007; Catalano et al. 2011; Paul and Moser 2009). Leading explanations for why job loss and unemployment negatively impact well-being include lowered self-esteem, sense of purpose, and control; heightened apathy, idleness, isolation, and the breakdown of social personality structure; and a loss of the positive derivatives of participating in a work environment, such as skill use, time structure, economic security, interpersonal socialization, and valued societal position (Darity and Goldsmith 1996; Jahoda 1982; Jahoda, Lazarsfeld, and Zeisel 1933[1971]; McKee-Ryan et al. 2005).⁴

Although displacement is more of an exogenous shock than other types of job mobility, the possibility of omitted variable bias nevertheless threatens the validity of results associating job loss to subsequent outcomes. Of particular concern in the study of psychological well-being, workers with psychological distress and lacking self-confidence and morale may be those workers most likely to be displaced from jobs. Studies have used

³ Some scholars contend that the lowest level of well-being may occur prior to and in anticipation of the job loss, and lessen when the actual loss occurs (Dooley, Fielding, and Levi 1996). Other research suggests that persistent job insecurity may be even more detrimental for psychological well-being than actual job loss (Burgard, Brand, and House 2009).

⁴ The work cited generally focuses on subclinical symptomatology, as measured by some form of the Center for Epidemiologic Studies-Depression (CESD) battery currently administered in many U.S. surveys. Little work has examined the link between displacement and clinically diagnosable depression and anxiety (Catalano et al. 2011).

various approaches to address this selection problem, most often attempting to control for a range of factors that impact the likelihood of job loss and subsequent well-being. Studies continue to find an association, although often reduced in magnitude. For example, Burgard, Brand, and House (2007) adjust for numerous social background characteristics, including baseline psychological health, and find a significant effect of job loss on depressive symptoms. Moreover, using meta-analytic techniques drawing on over 100 empirical studies, McKee-Ryan et al. (2005) find consistency in results across multiple kinds of studies and hundred of data points suggesting a relationship between job loss and worker well-being. Studies based on plant closures, thought to be less prone to issues of selection, continue to find an increased risk of mental distress among the displaced (Hamilton et al. 1990).⁵

As is true with the economic consequences of job loss, the effects of job loss on psychological well-being vary by a range of factors, including demographic characteristics, socio-emotional skills and social support, and the economic context. While more disadvantaged workers may be more vulnerable to financial shocks (Hamilton et al. 1990), such economic adversity is a comparatively normative experience; by contrast, job displacement and socioeconomic decline may instigate an acute sense of deprivation among more advantaged families whose peers tend to be likewise advantaged and for whom displacement is a considerable shock (Brand and Simon Thomas 2014). That is, judgments of disruptive events depend on the experience of similar situations in the past, and higher levels of past adversity may lessen the impact of current adversity (Clark, Georgellis, and Sanfey 2001; Dooley, Prause, and Ham-Rowbottom 2000). If the difficulties posed by job loss and

⁵ As I note above, job loss due to layoffs may also have larger effects on psychological well-being than that due to plant closings as the former are more likely to suggest personal deficiencies and thus negatively impact self-concept and social relations (Miller and Hoppe 1994). Few studies explicitly compare effects by form of job loss on psychological distress [although see Brand, Levy, and Gallo (2008) for evidence on older workers].

unemployment are primarily financial, then reemployment has the potential to remove much of the stress, particularly if the income is comparable to what the worker had been earning. If job loss profoundly alters one's self-concept and place in society, however, the extent to which reemployment will reverse these effects is unclear. While significant effects of reemployment have been documented among blue-collar workers (Kessler, Turner, and House 1989; Warr and Jackson 1985), professionals and upper-level, white-collar workers do not seem to recover as readily. In contrast to the literature on the economic effects, attention has also been paid to variation in the effects of job loss by socio-emotional skills and social support. For example, worker response to displacement varies by individual work-role centrality, or employment commitment, where workers who place more importance on the work role to their sense of self suffer more from job loss. Individuals also vary in their coping resources, i.e. the personal, financial, and social resources they draw on to cope with job loss, and social support, such as social integration, availability of friends, relatives, and co-workers, and marital status and spousal support (Darity and Goldsmith 1996; Leana and Feldman 1988; Pearlin et al. 1981).

The experience of job loss and unemployment may also vary by the economic context. Displacement that occurs during recessions, in which many workers are laid off, is associated with greater economic losses than displacement that occurs during economic expansions (Couch, Jolly, and Placzek 2011; Davis and von Wachter 2011; Fallick 1996; von Wachter 2010). However, contexts of widespread unemployment lessen the internalization of blame and social stigma associated with job loss (Brand, Levy, and Gallo 2008; Charles and Stephens 2004; Clark 2003, 2010; Miller and Hoppe 1994). That is, displaced workers may benefit from a "social norm effect": as aggregate unemployment increases, one's own

unemployment represents a smaller deviation from the social norm (Clark 2010), and thus displacement effects on social-psychological well-being may be less in contexts of mass layoffs. Turner (1995) shows a three-way interaction, indicating that unemployment effects on psychological well-being are strongest in low unemployment areas, particularly among individuals with a college-level education. While economic burden is greater among workers with lower socioeconomic status and those displaced in higher unemployment contexts, personal attribution is greater among higher status victims of job loss and those displaced in low unemployment contexts (Kessler, Turner, and House 1988; Pearlin et al. 1981; Turner 1995). These interactions highlight that results are sensitive to the population, geographic location, and time period under study.

Scholars have proposed a number of mechanisms to explain the relationship between job loss and psychological well-being. First, economic deprivation and downward socioeconomic mobility provide leading explanations for the relationship between job loss and psychological distress, as indicated by unemployment duration (Clark, Georgellis, and Sanfey 2001; McKee-Ryan et al. 2005) and income loss (Gallo et al. 2006a; Kasl and Jones 2000; Kessler, Turner, and House 1988; Warr and Jackson 1985). Second, job loss and unemployment can dampen self-esteem, aspirations, and time structure; incite resignation, apathy, uncertainty, and stigmatization; and frustrate one's social identity by replacing a socially approved role with one of markedly lower prestige (Jahoda 1982; Jahoda, Lazarsfeld, and Zeisel 1933[1971]). Scholars either include these measures within the set of dependent variables of interest, or treat the psychosocial indicators as mediators linking job loss to depressive symptoms. Third, family and social strain help to explain the relationship (Darity and Goldsmith 1996). Fourth, additional stressful life events that occur subsequent to

job loss, such as additional job losses, divorce, health shocks, and migration explain some of the effects. Although scholars routinely implicate these mechanisms, few studies rigorously empirically test these mediating influences (Catalano et al. 2011).

Job Loss and Physical Well-Being

Job loss has been linked to both short and long-term declines in physical health, including worse self-reported health, physical disability, cardiovascular disease, a greater number of reported medical conditions, increase in hospitalization, higher use of medical services, higher use of disability benefits, an increase in self-destructive behaviors and suicide, and mortality (Burgard, Brand, and House 2007; Catalano et al. 2011; Dooley, Fielding, and Levi 1996; Ferrie et al. 1998; Gallo et al. 2000; Gallo et al. 2004; Gallo et al. 2006b; Gallo et al. 2009; Kasl and Jones 2000; Kessler, Turner, and House 1988; McKee-Ryan et al. 2005; Strully 2009; Turner 1995). For example, Gallo et al. (2004, 2006b) found that job loss doubled the risk of subsequent myocardial infarction and stroke among older workers. Sullivan and von Wachter (2009) and von Wachter (2010) found a 50 to 100 percent increase in mortality the year following displacement and a 10 to 15 percent increase in mortality rates for the next 20 years.

Despite a large literature suggesting an association between job loss and ill health, the causal relationship remains contested due to concerns over selection bias. The fundamental concern is whether job loss leads to ill health, or whether at least some or all of the observed association occurs because those individuals who have poor health are more likely to lose jobs. Even with a rich set of pre-displacement covariates, the question remains as to whether models fully adjust for pre-displacement health, personality and psychosocial characteristics,

lifestyle, and labor market experiences that may lead to both job loss and ill health. Burgard, Brand, and House (2007) continue to find a significant association between involuntary job loss and overall self-rated health even after adjustment for social background characteristics and baseline health. More nuanced analyses of specific reasons for job loss and the timing of job loss relative to health shocks reveal that those who lose their jobs for health-related reasons have, not surprisingly, the most precipitous declines in health. Effects of job losses for non-health reasons on self-rated poor health are relatively small (Burgard, Brand, and House 2007). Studies of plant closures also show that workers' health declines following job loss (Arnetz et al. 1991; Beal and Nethercott 1987; Gore 1978; Iversen, Sabroe, and Damsgaard 1989; Kasl and Cobb 1970; Kessler, House, and Turner 1987; Strully 2009).

Variation in displacement effects and the mechanisms linking job loss to physical health are similar to psychological effects, including economic loss (Sullivan and von Wachter 2009; von Wachter 2010) and erosion of psychosocial assets and social support (Eliason and Storrie 2009) and subsequent adverse life events. Yet a few comments specific to the mediating effects on physical health are merited. The effect of job loss and unemployment on depressive symptoms may manifest itself in physiological outcomes, thus the impact of job loss on psychological well-being can help explain the effect on physical health. In addition, health behaviors, such as greater alcohol and drug use, unhealthy food consumption and less exercise, and sleep quality, may partially mediate the association. On the other hand, for some individuals, the increase in discretionary time due to unemployment may be used to pursue health-promoting behaviors, such as physical activity, that might precipitate weight loss or encourage alcohol temperance (Catalano et al. 2011). Another clear

mechanism is the loss of employer-offered health insurance and reduced access to medical care.

Job Loss and Families

As job displacement has significant, long-term effects on workers' socioeconomic status and psychological and physical well-being, we reasonably expect these consequences to impact the families of displaced workers. The displaced have an increased risk of family tension, and of family disruption (Attewell 1999; Charles and Stephens 2004; Jahoda, Lazarsfeld, and Zeisel 1933 [1971]). Charles and Stephens (2004) considered differences in the mode of displacement on subsequent risk for divorce, reporting increased likelihood of divorce following a layoff but not a plant closing. The authors attributed the higher risk for marital dissolution to the spouse's negative inference about the worker's personal role in the layoff, i.e. the discretionary nature of the termination conveys to the spouse certain qualities of the displaced worker which may suggest a lack of marital fitness.

A literature is also emerging which suggests deleterious effects of parental displacement on children, including lower self-esteem and higher likelihood of grade repetition, dropout, and suspension or expulsion from school (Johnson, Kalil, and Dunifon 2012; Kalil and Ziolo-Guest 2005, 2008; Stevens and Schaller 2010), educational attainment (Kalil and Wightman 2011), and lower income of children in adulthood (Page, Stevens, and Lindo 2009). These studies largely emphasize the deleterious effects of fathers' loss of financial standing in the family among married couple households. Studies examining differences between paternal and maternal displacement effects among married couples find significant effects of paternal but not maternal displacement (Kalil and Ziolo-Guest 2008;

Rege, Telle, and Votruba 2011). They hypothesize that maternal displacement is not as detrimental to children's outcomes as paternal due to greater psychological consequences associated with economic loss among fathers who are largely expected to maintain the role of primary provider. Brand and Simon Thomas (2014), however, focus on displacement among single mothers, and find significant negative effects on children's educational attainment and social-psychological well-being in young adulthood. Overall, the evidence suggests a significant impact of parental displacement on children's life outcomes.

Just as worker response to job loss varies, children also respond differently to parental displacement. As I note above, more disadvantaged workers and workers displaced during recessions tend to have greater economic losses than more advantaged workers and workers displaced during economic expansions. However, disadvantaged families may have acquired particular coping skills and support structures as a result of previous experience with economic adversity, while advantaged families lack referents to similarly strained families and a social norm of deprivation. Additionally, contexts of widespread unemployment increase economic losses but lessen the internalization of blame and social stigma associated with job loss, and thus effects on social-psychological well-being among displaced workers and their families are potentially greater in contexts of more individualized layoffs. Some studies suggest that effects are concentrated among disadvantaged families (Kalil and Wightman 2011; Oreopoulos, Page, and Stevens 2008; Stevens and Schaller 2011), while others find larger effects among more advantaged families and in low unemployment contexts (Brand and Simon Thomas 2014).⁶

⁶ Effects of displacement may also vary by children's age when parental job displacement occurs. Early childhood is important for development and may be a period especially sensitive to parental displacement and associated economic adversity. Low income can limit families' ability to provide adequate nutrition, health care, and enriching activities during children's formative years. Conversely,

Mechanisms linking parental job loss to children's outcomes are similar to those I discuss above. Fewer parental resources restrict the ability to purchase goods critical for child development, such as schooling, housing, food, and safe and cognitively-enriched learning environments (Kalil and Ziol-Guest 2008). Job loss is also associated with residential mobility, inciting stress as well as a disruption of children's schooling and social networks. Parental downward mobility can also dampen children's attitudes about the value of education and work. Displaced parents may foster psychological distress among their children to the extent that they model despondency and despair. Displaced parents' decreased physical and psychological well-being can inhibit emotional warmth and incite erratic or punitive parenting practices (Kessler, Turner, and House 1989; McLoyd 1990; McLoyd et al. 1994), and social withdrawal can reduce children's social capital and collective efficacy.

Job Loss and Communities

Employment and career stability have long been considered important factors for social involvement (Durkheim 1933; Jahoda, Lazarsfeld, and Zeisel 1933 [1971]; Rotolo and Wilson 2003; Wilensky 1961; Wilson and Musick 1997). Expanding on Durkheim's (1933) notion that employment performs an integrative role, drawing people into social life, Wilensky (1961) and Wilson and Musick (1997) find that stable employment and an orderly career marked by functionally related, hierarchically-ordered jobs (i.e., the absence of job displacements and downward socioeconomic mobility) is associated with higher levels of

periods of unemployment allow mothers more time to spend with children. Moreover, young children are likely less conscious of relative status. We may expect larger effects of parental displacement when children are adolescents, as older children are more attuned to social stigma and relative status, such that displacement negatively impacts important life transitions in adolescence. Economic adversity is quite important to adolescents as well, especially for their educational decision making process.

social integration. Likewise, Rotolo and Wilson (2003) show that disorderly careers have the potential to undermine social involvement. These studies, however, are restricted to specific populations and careers marked by substantial job movement, whether voluntary or involuntary. In fact, the research on the effects of job loss and unemployment is decidedly limited. Brand and Burgard (2008), in an analysis most similar to those I review above, find that displaced workers have significant and long-term lower probabilities of involvement in various modes of social participation, including church groups, youth and community groups, charitable organizations, and informal social gatherings with friends. The strain of insecure employment, displacement events, periods of unemployment, reemployment in jobs with lower earnings and quality, psychological distress, geographic mobility, and diminished social trust and the erosion of commitment to social reciprocity indubitably contribute to decreased levels of social involvement among displaced workers (Putnam 2000; Wilson 2000; Wilson and Musick 1997). Brand and Burgard (2008) find that workers who experience one displacement are significantly less likely to participate socially, while workers experiencing disorderly careers marked by multiple job displacements are no less likely to participate, relative to non-displaced workers. Among workers with high levels of job instability, displacements may be more normalized and less of a shock, and thus less likely to lead to further declines in already lower levels of social involvement.

Effects described above are individual effects on social involvement. The assumption is that social withdrawal will have a meaningful impact upon the aggregate welfare and the distribution of welfare in society, but this impact is not directly estimated in these studies. Another approach is to consider the impact of community-level job loss and unemployment on individual well-being. For example, Ananat, Gassman-Pines, and Gibson-Davis (2011)

show that community-level job losses affect the achievement test scores of children, possibly the result of both direct effects on children whose parents lost jobs and indirect peer and teacher effects. The link between individual job loss and unemployment and community well-being, as well as the link between community-level unemployment and individual well-being, is limited (Dooley, Fielding, and Levi 1996).

Conclusions and Directions for Future Research

A job is more than a source of income. It is a fundamental social role providing a source of identity, self-concept, and social relations. Classical social theorists, including Weber and Marx, describe, in diverse ways, the centrality of work to the individual ego and social identity and prestige. Jobs are also an integral component to the process of social stratification, inequality, and mobility, representing a principal outcome of social background resources and individual attainment. The displacement of workers has become a normative feature of the U.S. labor market, commonly assumed to increase economic efficiency. However, the costs of such fluidity are unequally distributed, born largely by displaced workers and those closest to them. Moreover, if lack of regulation negatively impacts worker, family, and community well-being, countervailing effects that decrease overall productivity inevitably follow.

The evidence that job loss matters, that the range of consequences is wide, and that the effects persist long-term, is persuasive. The research literature described above documents nontrivial, short- and long-term observed differences between displaced and non-displaced workers across far-reaching life outcomes. Displacement is associated with significant economic costs, including a period of unemployment, reduced income, lower job

quality, loss of health and pension benefits, and interruption of asset accrual. Long-term trends of rising inequality and job market polarization exacerbate adjustment problems the displaced endure. And, as indicated throughout this review, job loss is not limited to economic effects. Worker displacement is associated with: lower levels of self-acceptance, goal and meaning in life, and morale; higher levels of depressive symptoms and poor health; loss of social support and personal reassessment in relation to societal norms and unemployment stigmatization; new patterns of interaction with family members, restriction of socially-supportive collegial relationships, and disruption of social and family ties; and intergenerational effects as indicated by reduced attainment among children of displaced workers. Some of these themes have received considerable empirical investigation, while others, including family and community effects, have received less attention. Future work should attend more fully to the impact of displacement beyond workers themselves.

An intricate intersection of the outcomes of displacement is needed to illuminate any particular estimated effect. When job loss impacts workers' psychological well-being, for example, human capital depreciates and further restricts displaced workers' ability to secure comparable reemployment and socioeconomic welfare. Social withdrawal may further impede labor market position, as social and economic resources are embedded in social networks. Likewise, while reemployment mitigates some of the negative effects of job loss on social and psychological well-being, it does not eliminate them. In fact, no single explanation can account for why job loss hurts. Here, also, more work is needed to understand the mechanisms linking displacement to workers' outcomes, and to the outcomes of the families and communities of the displaced. Scholars have not rigorously attended to

the empirical study of these mechanisms, and particularly to the complex issues that underlie a causal analysis of direct and indirect effects (Morgan and Winship 2014).

Effects vary by workers characteristics and contexts in which displacement occurs. Economic consequences seemingly diminish with workers' relative position in the labor market. Future work would benefit from developing models that explicitly recognize the way in which both opportunity and choice influence employment outcomes, incorporating data on the characteristics of both employees and potential employers [see e.g., Logan (1996)]. Moreover, while workers with fewer skills and workers displaced in economic recessions have more transition difficulties and suffer greater economic losses, the same cannot be said for the non-economic consequences of displacement. Economic adversity is a comparatively normative experience for disadvantaged workers, while socioeconomic decline may be a greater shock and incite a stronger sense of relative deprivation among more advantaged workers, and consequently have a greater impact upon psychological well-being and social interactions. Likewise, contexts of widespread unemployment, while associated with larger economic losses, lessen the internalization of blame and social stigma associated with job loss. As one's own unemployment represents a smaller deviation from the social norm, psychological and social effects are potentially lessened. Future research should continue to explore the way the economic and social responses to worker displacement interact with and potentially diverge according to differing economic and social contexts.

Important interactions may exist not only between displacement and the social and economic context, but also between one displacement and another one nearby, between one displaced worker and another competing for a job in the same market (Fallick 1996). Such interference, or dependency, violates the "stable unit treatment value assumption" in the

estimation of worker displacement effects, i.e. that the observation on one unit is unaffected by the assignment of treatments to other units (Morgan and Winship 2014). Research to date has focused, understandably, on individuals. But spillover effects are themselves substantively interesting and should be the subject of future study.

The most common response to reduce the burden of job loss is to increase the duration over which eligible workers can receive unemployment benefits. Extended benefits provide workers some income to buffer short-term earnings losses and allow workers time to search for a suitable job. While many express concern that unemployment insurance may reduce recipients' willingness to work, the aggregate benefits of extended unemployment insurance surely outweigh the possible costs (von Wachter 2010). Additional policy suggestions include prompt reallocation of workers to suitable employment and skill retraining, as well as universal health care (Farber 2005). Reemployment efforts should be focused on getting displaced workers in jobs that offer the prospect of long-term employment, preferably in a job in their pre-layoff industry or one that is a good match to their skills. Most of these policy efforts focus on alleviating the economic burden of displacement. Yet it is unclear if these will have the same impact upon the social and psychological consequences of job loss. For example, assistance with geographic mobility may help workers find jobs, but discounts potential consequences of migration for psychological well-being and for families and communities of displaced workers. Discourse involving social assistance should admit to the widespread consequences of involuntary job separation.

Economists and sociologists have many motivations for studying job loss and unemployment. There is clearly interest in the economic and social difficulties that workers

face when they lose their jobs due to reasons beyond their control. Job displacement is an involuntary and often unforeseen disruptive life event that induces abrupt changes in workers' trajectories, enabling robust estimates of associations between socioeconomic circumstances and life outcomes. The increasing incidence of job displacement among growing segments of the workforce, alongside the recent era of economic upheaval, furthers societal attention to the far-reaching impact of job loss on life chances.

References

- Ananat, Elizabeth O., Anna Gassman-Pines, and Christina M. Gibson-Davis. 2011. "The Effects of Local Employment Losses on Children's Educational Achievement." Pp. 299-313 in *Whither Opportunity: Rising Inequality, Schools, and Children's Life Chances* Greg J. Duncan and Richard Murnane (eds.), New York: Russell Sage Foundation.
- Attewell, Paul. 1999. "The Impact of Family on Job Displacement and Recovery." *The ANNALS of the American Academy of Political and Social Sciences* 562:66-82.
- Baumol, William J., Alan S. Blinder and Edward N. Wolff. 2003. *Downsizing in America: Reality, Causes, and Consequences*. New York: Russell Sage Foundation.
- Brand, Jennie E. 2004. *Enduring Effects of Job Displacement on Career Outcomes*. University of Wisconsin – Madison, Doctoral Dissertation.
- Brand, Jennie E. 2006. "The Effects of Job Displacement on Job Quality: Findings from the Wisconsin Longitudinal Study." *Research in Social Stratification and Mobility* 24:275-298.
- Brand, Jennie E., and Sarah A. Burgard. 2008. "Job Displacement and Social Participation over the Life Course: Findings for a Cohort of Joiners." *Social Forces* 87(1):211-242.
- Brand, Jennie E., Becca Levy, and William T. Gallo. 2008. "Effects of Layoffs and Plant Closings on Depression among Older Workers." *Research on Aging* 30(6):701-721.
- Brand, Jennie E. and Juli Simon Thomas. 2014. "Job Displacement Among Single Mothers: Effects on Children's Outcomes in Young Adulthood." *American Journal of Sociology* 119(4):955-1001.
- Brand, Jennie E. and Till Von Wachter. November 20, 2013. "The Economic and Social Consequences of Job Loss and Unemployment." *Population Reference Bureau (PRB) Webinar*. <http://www.prb.org/Multimedia/Video/2013/job-loss-webinar.aspx>
- Burgard, Sarah A., Jennie E. Brand, and James S. House. 2007. "Toward a Better Estimation of the Effect of Job Loss on Health." *Journal of Health and Social Behavior* 48:369-384.

- Burgard, Sarah A., Jennie E. Brand, and James S. House. 2009. "Perceived Job Insecurity and Worker Health in the United States." *Social Science and Medicine* 69:777-785.
- Carrington, W., and A. Zaman. 1994. "Interindustry Variation in the Costs of Job Displacement." *Journal of Labor Economics*, 12, 243-276.
- Catalano, Ralph, Sidra Goldman-Mellow, Katherine Saxton, Calire Margerison-Zilko, Meenakshi Subbaraman, Kaja LeWinn, and Elizabeth Anderson. 2011. "The Health Effects of Economic Decline." *Annual Review of Public Health* 32:431-50.
- Cha, Youngjoo and Stephen Morgan. 2010. "Structural Earnings Losses and Between-Industry Mobility of Displaced Workers, 2003-2008." *Social Science Research* 39:1137-1152.
- Chan, Sewin, and Ann Huff Stevens. 2001. "Job Loss and Employment Patterns of Older Workers." *Journal of Labor Economics* 19:484-521.
- Charles, Kerwin Kofi, and Melvin Stephens Jr. 2004. "Job Displacement, Disability, and Divorce." *Journal of Labor Economics* 22: 489-522.
- Clark, Andrew. 2003. "Unemployment as a Social Norm: Psychological Evidence from Panel Data." *Journal of Labor Economics* 21 (2): 323-351.
- Clark, Andrew. 2010. "Boon or Bane? Others' Unemployment, Well-Being and Job Insecurity." *Labour Economics* 17:52-61.
- Clark, Andrew E., Yannis Georgellis, and Peter Sanfey. 2001. "Scarring: The Psychological Impact of Past Unemployment." *Economica* 68:221-241.
- Coelli, Michael. 2011. "Parental Job Loss and the Education Enrollment of Youth." *Labour Economics* 18:25-35.
- Couch, Kenneth A., Nicolas A. Jolly, and Dana W. Placzek. 2011. "Earnings Losses of Displaced Workers and the Business Cycle: An Analysis with Administrative Data." *Economics Letters* 111:16-19.
- Couch, Kenneth A., and Dana A. Placzek. 2010. "Earning Losses of Displaced Workers Revisited." *American Economic Review* 100(1):572-589.
- Darity, William Jr. and Arthur H. Goldsmith. 1996. "Social Psychology, Unemployment, and Macroeconomics." *Journal of Economic Perspectives* 10(1): 121-140.
- Davis, Steven, and Till von Wachter. 2012. "Recessions and the Cost of Job Loss." *Brookings Papers in Economic Activity*.
- Dooley, David, Jonathon Fielding, and Lennart Levi. 1996. "Health and Unemployment." *Annual Review of Public Health* 17: 449-465.
- Dooley, David, Joann Prause, and Kathleen A. Ham-Rowbottom. 2000. "Underemployment and Depression: Longitudinal Relationships." *Journal of Health and Social Behavior* 41:421-436.
- Durkheim, Emile. 1933. *Division of Labor in Society*. Free Press.
- Eliason, Marcus and Donald Storrie. 2009. "Does Job Loss Shorten Life?" *Journal of Human Resources* 44(2): 277-302.
- Fallick, Bruce. 1996. "A Review of the Recent Empirical Literature on Displaced Workers." *Industrial and Labor Relations Review* 50:5-16.
- Farber, Henry S. 1993a. "The Changing Face of Job Loss in the United States, 1981-1995." *Brookings Papers on Economic Activity. Microeconomics* 1:55-42.
- Farber, Henry S. 1993b. "The Incidence and Costs of Job Loss: 1982-91." *Brookings Papers on Economic Activity. Microeconomics* 1:73-119.

- Farber, Henry S. 1997. "The Changing Face of Job Loss in the United States, 1981-1995." *Brookings Papers on Economic Activity*. Microeconomics 1997(1997): 55-142.
- Farber, Henry S. 1999. "Alternative and Part-time Employment Arrangements as a Response to Job Loss." *Journal of Labor Economics* 17(4): S142-S169.
- Farber, Henry S. 2005. "What Do we Know About Job Loss in the United States? Evidence from the Displaced Workers Survey, 1984–2004." *Economic Perspectives* 2Q:13-28.
- Farber, Henry S. 2010. "Job Loss and the Decline of Job Security in the United States." Pp. 223-262 in *Labor in the New Economy*. Katharine G. Abraham, James R. Spletzer, and Michael Harper eds. Chicago: University of Chicago Press.
- Farley, Reynolds. 1996. *The New American Reality: Who We Are, How We Got Here, Where We Are Going*. New York, NY: Russell Sage Foundation.
- Ferrie, J. E., M. J. Shipley, M. G. Marmot, S. A. Stansfield, and G. D. Smith. 1998. "An Uncertain Future: The Health Effects of Threats in Employment Security in White-Collar Men and Women." *American Journal of Public Health* 88:1030–1036.
- Gallo, William T., Elizabeth H. Bradley, Michele Siegel, and Stanislav V. Kasl. 2000. "Health Effects of Involuntary Job Loss among Older Workers: Findings from the Health and Retirement Study." *Journal of Gerontology: Social Sciences* 55B:S131–S140.
- Gallo, William T., Elizabeth Bradley, Tracy A. Alba, Joel Dubin, Laura Cramer, Sidney T. Bogardus Jr., and Stanislav V. Kasl. 2004. "Involuntary Job Loss as a Risk Factor for Subsequent Myocardial Infarction and Stroke: Findings from the Health and Retirement Survey." *American Journal of Industrial Medicine* 45:408–416.
- Gallo, William T., Elizabeth Bradley, Joel Dubin, Richard Jones, Tracey Flaba, Hsun-Mei Teng, and Stanislav V. Kasl. 2006a. "The Persistence of Depressive Symptoms in Older Workers who Experience Involuntary Job Loss: results from the Health and Retirement Survey." *Journal of Gerontology: Social Sciences* 55B:S131–S140.
- Gallo, William T., Hsun-Mei Teng, Tracy A. Falba, Stanislav V. Kasl, Harlan M. Krumholz, and Elizabeth H. Bradley. 2006b. "The Impact of Late-Career Job Loss on Myocardial Infarction and Stroke: A 10-Year Follow-Up Using the Health and Retirement Survey." *Occupational and Environmental Medicine* 63:683-87.
- Gallo, William T., Jennie E. Brand, Hsun-Mei Teng, Linda Leo-Summers, and Amy L. Byers. 2009. "Differential Impact of Involuntary Job Loss among Older Workers: Does Predisposition Matter?" *Research on Aging* 31(3):345-360.
- Gibbons, Robert, and Lawrence Katz. 1991. "Layoffs and Lemons." *Journal of Labor Economics* 9:351-80.
- Hamilton, V. Lee, Clifford L. Broman, William S. Hoffman, and Deobrah S. Renner. 1990. "Hard Times and Vulnerable People: Initial Effects of Plant Closing on Autoworkers' Mental Health." *Journal of Health and Social Behavior* 31:123–140.
- Hollister, Matissa. 2011. "Employment Stability in the U.S. Labor Market: Rhetoric vs. Reality." *Annual Review of Sociology* 37:305-24.
- Hout, Michael, Asaf Levanon, Erin Cumberworth. 2011. "Job Loss and Unemployment" Pp. 59-81 in *The Great Recession* David Grusky, Bruce Western, and Christopher Wimer (eds.), New York: Russell Sage Foundation.
- Jacobson, Louis S., Robert J. LaLonde, and Daniel G. Sullivan. 1993. "Earnings Losses of Displaced Workers." *American Economic Review* 83:685-709.
- Jahoda, Marie. 1981. "Work, Employment, and Unemployment." *American Psychologist* 36:184–191.

- Jahoda, Marie. 1982. *Employment and Unemployment: A Social Psychological Analysis*. Cambridge: Cambridge University Press.
- Jahoda, Marie, Paul F. Lazarsfeld, and Hans Zeisel 1933[1971]. *Marienthal: The Sociography of an Unemployed Community*. Transaction Publishers.
- Johnson, Rucker C., Ariel Kalil, and Racehl E. Dunifon. 2012. "Employment Patterns of Less-Skilled Workers: Links to Children's Behavior and Academic Progress." *Demography* 49:747-772.
- Kasl S., and B. Jones. "The Impact of Job Loss and Retirement on Health." in *Social Epidemiology*, Lisa Berkman and Ichiro Kawachi eds., Chapter 6, OUP: Oxford.
- Kalil, Ariel and Patrick Wightman. 2011. "Parental Job Loss and Children's Educational Attainment in Black and White Middle-Class Families." *Social Science Quarterly* 92(1):57-78.
- Kalil, Ariel, and Kathleen M. Ziol-Guest. 2005. "Single Mothers' Employment Dynamics and Adolescent Well-Being." *Child Development* 76(10):196-211.
- Kalil, Ariel, and Kathleen M. Ziol-Guest. 2008. "Parental Employment Circumstances and Children's Academic Progress." *Social Science Research* 37:500-515.
- Kalleberg, Arne L. 2000. "Changing Contexts of Careers: Trends in Labor Market Structures and Some Implications for Labor Force Outcomes." in *Generating Social Stratification: Toward a New Research Agenda*, edited by A. C. Kerkhoff. Boulder: Westview Press.
- Kalleberg, Arne L. 2009. "Precarious Work, Insecure Workers: Employment Relations in Transition." *American Sociological Review* 74(1): 1-22.
- Katz, Lawrence. 2010. "Long-Term Unemployment in the Great Recession." Hearing on "Long-Term Unemployment: Causes, Consequences and Solutions", Joint Economic Committee U.S. Congress, April 29, 2010.
- Leana, C. R., and D. C. Feldman. 1988. "Individual Responses to Job Loss: Perceptions, Reactions, and Coping Behaviors." *Journal of Management* 14:375-389.
- Kessler, Ronald C., J. Blake Turner, and James S. House. 1988. "Effects of Unemployment on Health in a Community Survey: Main, Modifying, and Mediating Effects." *Journal of Social Issues* 44:69-85.
- Kessler, Ronald C., J. Blake Turner, and James S. House. 1989. "Unemployment, Reemployment, and Emotional Functioning in a Community Sample." *American Sociological Review* 54:648-657.
- Kletzer, Lori. 1991. "Earnings after Job Displacement: Job Tenure, Industry and Occupation." in *Job Displacement: Consequences and Implications for Policy*, edited by J. T. Addison. Detroit: Wayne State University Press.
- Kletzer, Lori. 1998. "Job Displacement." *Journal of Economic Perspectives* 12:115-136.
- Krashinsky, Harry. 2002. "Evidence on Adverse Selection and Establishment Size in the Labor Market." *Industrial and Labor Relations Review* 56(1):84-96.
- Leana, Carrie, and Daniel Feldman. 1992. *Coping with Job Loss: How Individuals, Organizations, and Communities Respond to Layoffs*. New York: Lexington.
- Logan, John. 1996. "Opportunity and Choice in Socially Structured Labor Market." *American Journal of Sociology* 102(1):114-160.
- McKee-Ryan, Frances M., Zhaoli Song, Connie R. Wanberg, and Angelo J. Kinicki. 2005. "Psychological and Physical Well-Being During Unemployment: A Meta Analytic Study." *Journal of Applied Psychology* 90(1):53-76.

- McLoyd, Vonnie C. 1990. "The Impact of Economic Hardship on Black Families and Children: Psychological Distress, Parenting, and Socioemotional Development." *Child Development* 61(2):311-346.
- McLoyd, Vonnie C., Toby E. Jayaratne, Rosario Ceballo, and Julio Borquez. 1994. "Unemployment and Work Interruption among African American Single Mothers: Effects on Parenting and Socioeconomic Functioning." *Child Development* 65:562-589.
- Miller, Michael V., and Sue Keir Hoppe 1994. "Attributions for Job Termination and Psychological Distress." *Human Relations* 47:307-28.
- Morgan, Stephen, and Christopher Winship. 2014. *Counterfactuals and Causal Inference: Methods and Principles for Social Research, Second Edition*. Cambridge, UK: Cambridge University Press.
- Newman, Katherine S. 1988. *Falling from Grace: The Experience of Downward Mobility in the American Middle Class*. New York, NY: Vintage Books.
- Oreopoulos, Philip, Marianne Page, and Ann Huff Stevens. 2008. "The Intergenerational Effects of Worker Displacement." *Journal of Labor Economics* 6(3):455-483.
- Page, Marianne, Ann Huff Stevens, and Jason Lindo. 2009. "Parental Income Shocks and Outcomes of Disadvantaged Youth in the United States." Pp. 213-236 in *The Problems of Disadvantaged Youth: An Economic Perspective*, by J. Gruber. University of Chicago Press.
- Paul, K. I. and K. Moser. 2009. "Unemployment Impairs Mental Health: Meta-Analyses." *Journal of Vocational Behavior* 74:264-82
- Pearlin, Leonard, Morton Lieberman, Elizabeth Menaghan, and Joseph Mullan. 1981. "The Stress Process." *Journal of Health and Social Behavior*. 22: 337-56.
- Podgursky, Michael, and Paul Swaim. 1987. "Job Displacement and Earnings Loss: Evidence from the Displaced Worker Survey." *Industrial and Labor Relations Review* 41:17-29.
- Putnam, Robert. 2000. *Bowling Alone: The Collapse and Revival of American Community*. Simon & Schuster.
- Rege, Mari, Kjetil Telle, and Mark Votruba. 2011. "Parental Job Loss and Children's School Performance." *Review of Economic Studies*.
- Rotolo, Thomas, and John Wilson. 2003. "Work Histories and Voluntary Association Memberships." *Sociological Forum* 18(4):603-19.
- Ruhm, Christopher J. 1991. "Are Workers Permanently Scarred by Job Displacement?" *The American Economic Review* 81:319-324.
- Seitchik, Adam. 1991. "Who Are Displaced Workers?" in *Job Displacement: Consequences and Implications for Policy*, edited by J. T. Addison. Detroit, MI: Wayne State University Press.
- Stevens, Ann Huff. 2014. "Labor Market Shocks: Are there Lessons for Antipoverty Policy?" *Pathways* Summer 2014:20-22.
- Stevens, Ann Huff, and Jessamyn Schaller. 2010. "Short-Run Effects of Parental Job Loss on Children's Academic Achievement." *Economic of Education Review* 30(2):289-299.
- Strully, Kate W. 2009. "Job Loss and Health in the U.S. Labor Market." *Demography* 46(2):221-246.
- Sullivan, Daniel, and Till von Wachter. 2009. "Job Displacement and Mortality: An Analysis Using Administrative Data," *Quarterly Journal of Economics* 124:1265-1306.

- Turner, J. Blake. 1995. "Economic Conditions and the Health Effects of Unemployment." *Journal of Health and Social Behavior*. 36: 213-229.
- Von Wachter, Till. 2010. "Long-Term Employment: Causes, Consequences, and Solutions." Testimony before the Joint Economic Committee of the U.S. Congress.
- Warr, P., and P. Jackson. 1985. "Factors influencing the psychological impact of prolonged unemployment and of re-employment." *Psychological Medicine* 15:795-807.
- Wetzel, James R. 1995. "Labor Force, Unemployment and Earnings." Pp. 59-105 in *State of the Union: America in the 1990s*, edited by R. Farley. New York, NY: Russell Sage Foundation.
- Wilensky, Harold. 1961. "Orderly Careers and Social Participation: The Impact of Work History on Social Integration in the Middle Mass." *American Sociological Review* 26(4):521-39.
- Wilson, John. 2000. "Volunteering." *Annual Review of Sociology* 26:215-40.
- Wilson, John, and Marc A. Musick. 1997. "Work and Volunteering: The Long Arm of the Job." *Social Forces* 76(1):251-72.