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The Great Recession of 2007–2009 created the largest economic upheaval in the United States since the Great Depression of the 1930s. Although economic downturns are a recurring phenomenon, the most recent recession was exceptional in its duration and depth. It was the longest recession since the Great Depression. At eighteen months, from December 2007 to June 2009, it exceeded the sixteen-month recessions of 1973–1975 and 1981–1982; the average period from peak to trough of post–World War II recessions was 11.1 months. The Great Recession was also especially severe; both GDP and number of jobs declined by about 6 percent and median family incomes declined by about 8 percent. The Great Recession was particularly worthy of its name because of the protracted slump in employment that followed even after the recession was officially over, as assessed on the basis of the dating procedure of the National Bureau of Economic Research.[1]

As a result, during the Great Recession unemployment rates skyrocketed, housing prices and stock portfolios plummeted, and the lives of millions were disrupted. By some measures, over 30 million individuals lost their jobs, and the rate of long-term unemployment doubled its historical high (Song and von Wachter 2014). Household net worth dropped by 18 percent, or more than $10 trillion, the largest loss of wealth in the fifty years since that the federal government has collected data on wealth accumulation (Jacobsen and Mather 2010). The Great Recession did not affect all subgroups within the population equally; rather, the impacts of the economic downturn differed for different groups, according to their members'

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1. Recessions, as defined by the Business Cycle Dating Committee of the National Bureau of Economic Research (2010), are periods of a "significant decline in economic activity . . . [that] can last from a few months to more than a year." The committee's definition of what constitutes a recession is not fixed, but rather is based on its judgment of the behavior of various indicators of economic activity, such as declines in real gross domestic product (GDP), real income, employment, and industrial production and wholesale-retail sales. Since World War II, the NBER has declared eleven recessions (1948–1949, 1953–1954, 1957–1958, 1960–1961, 1969–1970, 1973–1975, 1980, 1981–1982, 1990–1991, 2001, and 2007–2009). There have been twenty-two recessions and recoveries since 1900.

gender, race, and ethnicity. Men, the less-educated, and African Americans were especially hard hit.

The profound impact of the Great Recession has prompted numerous studies by social scientists of its causes and consequences for individuals, their families, communities, and society more generally (see, for example, Grusky, Western, and Wimer 2011; Danziger 2013; Card and Mas 2016). This research has tracked economic outcomes such as the impacts of unemployment on poverty, economic inequality, and earnings growth, as well as social outcomes such as marriage and fertility, education, health, politics, and child development, throughout the recession and the immediate recovery. From these and other studies we have made important progress in understanding some of the consequences and mechanisms of the Great Recession. Yet many questions remain as to the nature and consequences of the Great Recession and its aftermath.

The passage of nearly ten years since the NBER declared the official beginning of the Great Recession in December 2007 puts us in a better position than we were earlier to undertake deeper analyses of the sources and consequences of the protracted recovery on workers, families, and communities. We can thus begin to assess with greater confidence the extent to which the changes wrought by the Great Recession represent structural and transformative changes, whether these are continuations of the kinds of structural changes that began in the mid-1970s, or whether these are relatively temporary features associated with business cycles.

Like the collections of studies about the Great Recession cited above, this issue of *RSF: The Russell Sage Foundation Journal of the Social Sciences* is also devoted to understanding some of the characteristics of the U.S. labor market during and after the Great Recession. The articles in this issue deal with several important questions about the nature as well as economic and noneconomic consequences of the Great Recession. Despite much work, ongoing controversy reigns as to the potential causes of the Great Recession and the protracted weakness in the labor market that followed. With the benefit of having access to data spanning the long recovery, several articles in the volume contribute new empirical findings that inform our understanding of alternative economic channels. The article by Jesse Rothstein studies how the role of mismatches and wage growth evolved before and during the Great Recession and has continued to evolve since its official end. Brian L. Levy, Ted Mouw, and Anthony Daniel Perez examine the role of regional mobility in the adjustment process. Erling Barth, James Davis, Richard Freeman, and Sari Pekkala Kerr study the role of establishments in job destruction during the Great Recession and the job creation that followed. In the final article, Henry S. Farber, Dan Silverman, and Till von Wachter provide new evidence on the extent of hysteresis in the U.S. labor market during the recovery. By helping to assess the nature of the Great Recession, these studies also inform other important yet understudied issues: the mechanisms behind the protracted and costly losses in earnings and long-term unemployment following widespread job destruction during the Great Recession.

Several articles in this volume also examine the direct impact of job loss and unemployment on workers. Although this question has received more attention in the literature than some others, several open questions remain. William Dickens, Robert Triest, and Rachel Sederberg contribute to the complex but crucial question as to the extent to which workers are able to self-insure against income losses during job loss. In three separate articles, Kelsey O'Connor; Gokce Basbug and Ofer Sharone; and Daniel Schneider further examine the social consequences of unemployment on the social outcomes (on happiness, mental health, and teenage fertility, respectively), other important but understudied areas. This volume of the journal also takes up the impact of the Great Recession on the institutional environment in the labor market, a subject neglected so far in the literature. The political storm around public sector unions in the aftermath of the Great Recession has shown that economic conditions can interact with and affect political and institutional landscapes. Ruth Milkman and Stephanie Luce take up this question in their study of the evolution of unions in the context of the Great Recession.

THE GREAT RECESSION IN ECONOMIC, POLITICAL, AND SOCIAL CONTEXTS

We begin by putting the Great Recession in historical perspective by comparing it to previous recessions on a variety of dimensions and situating it in relation to broader social and economic trends. We also briefly summarize the current understanding of the mechanisms behind the Great Recession, thus indicating how the contributions in this volume help to address ongoing debates.

Taking Stock of the Great Recession and Its Aftermath

Apart from its intensity, the Great Recession initially resembled in many ways a large postwar recession, such as the downturns in 1975 or 1982. For example, while the decline in GDP and the rise in unemployment were unusually steep, the unemployment rate at its peak was about the same as in the 1982 recession. The canonical relationship between unemployment rates and GDP growth, termed Okun's Law, held in the Great Recession, consistent with it being a large, demand-driven downturn (Ball, Leigh, and Loungani 2012). In accordance with this view, the Great Recession was broad, and ultimately led to large employment declines in all sectors of the economy and among all demographic groups.

Over time, it quickly became apparent that perhaps the most unusual and unexpected feature of the Great Recession was the persistence of weak economic conditions in its aftermath. Despite the fact that the Great Recession officially ended in December 2009, GDP remains well below its potential level even at the date of publication of this volume. Moreover, since the start of the Great Recession, estimates of potential GDP itself have been revised downward substantially (Congressional Budget Office 2014). Hence, some fraction of the recovery that did occur was a result of the reduction in the target rather than due to actual growth.

At the same time, recovery in the labor market has been slow. Although the rate of unemployment has fallen close to pre-recession levels, it has taken nearly ten years after the start of the Great Recession to do so, by far exceeding the period of recovery after previous downturns. Moreover, the gradual but steady decline in the official unemployment rate masks several related phenomena that signal continued weakness in the labor market. The number of marginally attached and discouraged workers during the Great Recession rose substantially, and the labor force participation rate declined. The fraction of workers reporting involuntarily working part-time for economic reasons remains high. For example, as of March 2016, the fraction of individuals among the total labor force that is unemployed, discouraged, marginally attached, or involuntarily working part-time is 9.8 percent. At the trough, the rate was 17 percent.[2] This number does not include workers who permanently left the labor force because of the economic downturn, and hence would not be counted as marginally attached in official statistics, but may still work if the opportunity came along. One measure that includes these workers, the employment-to-population ratio, has fallen substantially and has not recovered since the beginning of the Great Recession. The employment of both men and women decreased during the Great Recession, but the drop was especially sharp among men: in November 2010, about 80 percent of working-age men were employed, down from about 88 percent before the Great Recession (in April 2015, the figure was 84.5 percent; see Donovan 2015, figure 4). This is lowest since 1948, and it has never fallen as much during a recession. The decrease among women's em-

2. See Bureau of Labor Statistics, Economics News Release, "Table A-15. Alternative Measures of Labor Utilization," www.bls.gov/news.release/empsit.t15.htm (accessed April 5, 2016). The Bureau of Labor Statistics defines persons marginally attached to the labor force as those who currently are neither working nor looking for work but indicate that they want and are available for a job and have looked for work sometime in the past twelve months. Discouraged workers, a subset of the marginally attached, are those who give a job-market-related reason for not currently looking for work. Persons employed part-time for economic reasons are those who want and are available for full-time work but have had to settle for a part-time schedule (Bureau of Labor Statistics 2009).

ployment was not as great, though it reversed a long-term upward trend (Hout and Cumberworth 2012).

Not only the labor market has been exceptionally sluggish after the Great Recession. Capital investment, too, has been low, and a projected decline in investment has contributed substantially to the reduction in predicted potential output. This is noteworthy, since business profits have rebounded and companies have substantial reserves of cash, indicating a potential lack of profitable investment opportunities. Measures of productivity growth have declined as well. Perhaps not surprisingly, given the state of investment, productivity, and labor supply, wage growth was minimal for many years after the recession, only picking up in the course of 2016.

The Great Recession and Preexisting Trends

Some important consequences often associated with the Great Recession may have their roots in events beginning in the United States in the mid-1970s. The Great Recession is likely to have interacted with or exacerbated several preexisting trends in the U.S. economy, some of which may have been masked by the dot.com and housing bubbles.[3] During the past decades, there was a confluence of events that gained traction, such as the rise of global competition, technological advances such as the invention of the microprocessor, the spread of neoliberal policies that emphasized the deregulation of markets, the continued expansion of the service sector, and the sustained decline of unions with the associated reduction in institutional protections for workers.

The Great Recession also occurred against the backdrop of significant changes in the composition of the labor force since the 1970s. For example, the number of dual-earner families increased, as did the share of the workforce made up of women. The U.S. economy and society also experienced other profound changes over the last several decades, including an aging workforce, stagnating or even declining educational attainment among men, and a growing proportion of nonwhite and immigrant workers, who tended to be concentrated in the most insecure and low-quality jobs.

It is likely that many of the changes in American society that began in the mid-1970s reflect structural changes and were not merely temporary features of the business cycle that corrected themselves once economic conditions improved—as was the case in the recessions of 1973–1975 and 1981–1982. These structural changes are likely to have influenced the path and effects of the Great Recession. For example, the strong rise in women's labor force participation in the 1980s masked a persistent decline in the employment rate of men during the 1970s and 1980s recessions; this counteracting channel was absent in the Great Recession, bringing out more clearly a pattern of declining labor force participation for men over a longer horizon.

Similarly, the economic restructuring and removal of institutional protections since the 1970s may have affected the impact of the Great Recession. For example, much has been written about the rise of low-wage, insecure jobs that are now a central, and in some cases growing, portion of employment in the United States (Kalleberg 2011). While many economists have put emphasis on secular shifts involving long-term changes in methods of production, including a reduction in manual routine work (Acemoglu and Autor 2014), recent research suggests that part of these changes may have occurred during recent business cycle downturns (Jaimovich and Siu 2012). This research is ongoing but implies that the Great Recession may have accelerated the replacement of routine work with computers and machines. Similarly, recent studies indicate that another trend already in existence before the Great Recession is the secular decline in labor market dynamism in the U.S. (Davis and Haltiwanger 2014). A secular decline in the exit rate from unemployment implies that the same amount of job destruction can lead to a substantially more persistent rise in unemployment rates (Song and von

3. It is a classic hypothesis that recessions help to reallocate factors of production to more productive uses in sectors that are growing, at the expense of secularly declining industries. Edward Leamer (2007) and Kerwin Charles, Erik Hurst, and Matthew J. Notowidigdo (2015) assess the extent to which the housing bubble masked the effect of the long-term decline of manufacturing.

Wachter 2014), underscoring how the Great Recession may have interacted with preexisting trends in the labor market.

Explanations of the Great Recession and Its Aftermath

The initial efforts to understand the sources of the sudden and large downturn associated with the Great Recession focused on several partly intertwined areas. The main suspects were the bursting of the housing bubble and the financial crisis that began with the collapse of Lehman Brothers in September 2008, which led to a substantial contraction in the availability of credit and the need for protracted deleveraging among households (Hall 2014). Others emphasized the potential role of structural mismatches in the labor market (Kocherlakota 2010; Şahin et al. 2014), high implicit disincentives to work created by government programs (Mulligan 2010), or the uncertainty created by economic events and public policy (Bloom 2009; Taylor 2010).

The absence of a full recovery in employment and output to pre-recession levels has raised the question of whether the Great Recession was indeed substantially different from prior downturns. It became apparent that none of the macroeconomic approaches that were initially used to explain the onset of the Great Recession are able to explain the high degree of persistence of dislocation that followed (Hall 2012; Ohanian 2010). The question of the sources of the continuing economic slump in the aftermath of the Great Recession may well be the most important one in macroeconomics today. The ongoing search for explanations drew comparisons to prior episodes of high and persistent unemployment, chiefly in continental Europe in the early 1980s and following the Great Depression.

One explanation of the high degree of persistence of the after-effects of the Great Recession in the labor market is that high rates of unemployment, especially high rates of long-term unemployment, led to a lasting increase in the equilibrium unemployment rate, a pattern sometimes called hysteresis. By permanently reducing the quantity and possibly the quality of labor output, hysteresis in the labor market can also reduce aggregate output. A key feature of the labor market in the aftermath of the Great Recession was indeed the staggering increase in the proportion of unemployed that had spells of unemployment longer than twenty-six or fifty-two weeks, which at the trough of the Great Recession stood at more than double its historical value. This led to the concern that the United States may be experiencing a similar phenomenon as that observed in several European countries that endured lasting increases in equilibrium rates of unemployment after a steep rise in unemployment and unemployment duration in the early 1980s (Ball 2009).[4]

Another popular view of the persistent rise in European unemployment was that rigid labor market institutions and high social benefits prevented the necessary labor reallocation following a set of economic shocks (Blanchard and Wolfers 2000; Ljungqvist and Sargent 1998). This view of unemployment has received substantial attention during the Great Recession because it combined the hypothesis of structural mismatch with the notion that substantial social benefits may reduce work incentives, especially for those at the bottom of the labor market (Glaeser 2014). However, the evidence of mismatch in the labor market was mixed (Lazear and Spletzer 2012; Rothstein 2012), leading some supporters to revise their views (Kocherlakota 2012). A related hypothesis is that

4. There are several hypotheses as to how such hysteresis might arise. The most straightforward view is that a cohort of unemployed workers becomes permanently less employable, perhaps because their skills or their motivation declines during unemployment. Although this channel could play a potentially important role for given estimates of unemployment persistence (see Kroft et al. 2016), the effect depends on the number of people directly affected by hysteresis (Song and von Wachter 2014). Even though the cohort-specific effect would necessarily fade over time, the original hypothesis posited that an increasing set of "outsiders" would lead to a rise in wage demands by "insiders," thus leading to a rise in equilibrium unemployment (Blanchard and Summers 1986). Although such a channel may not be directly relevant for the U.S. labor market because of the absence of widespread collective bargaining, the permanent withdrawal of workers from the labor force may have a similar effect, in terms of wages and employment if wages of existing workers are downwardly rigid.

the high duration of unemployment insurance (UI) benefits in the Great Recession—UI duration reached ninety-nine weeks in the Great Recession, compared to fifty-two weeks in the early 1980s recession—explains part of the rise and persistence in unemployment. Although there is some evidence that supports this explanation (Hagedorn et al. 2013), other studies suggest high UI benefits are unlikely to be a cause of persistent unemployment in the United States (Rothstein 2012; Marinescu 2015).

The unusual depth and duration of the Great Recession has prompted comparisons to the Great Depression of the 1930s (Summers 2014; Eichengreen 2015). The Great Depression was substantially larger, involving a decline of over 20 percent of GDP and a rise in unemployment rates of about twenty percentage points, to approximately 30 percent. Yet, the Great Depression also began with a financial crisis and was followed by a prolonged slump. Some have taken the parallels further, noting that both economic downturns occurred in an environment of slowing population growth and increasing savings. If these and other concurrent developments were associated with a persistent decline in real interest rates, this may contribute to what has been called "secular stagnation" (Summers 2014). One view is that only a large government stimulus can return the economy to a higher path of growth, such as occurred with the New Deal and World War II after the Great Depression. Another, complementary view is that the cyclical slack in the U.S. economy is in fact subsiding, and that secular stagnation began well before the Great Recession (Hall 2014).

Several articles in this volume contribute further to our understanding of the potential explanations of the Great Recession and the protracted recovery that followed. The article by Rothstein disputes the idea that the Great Recession has produced a "new normal" characterized by structural unemployment. He convincingly shows that wages have not been increasing, holding the composition of employment constant. Such a finding is inconsistent with the view that a lack of appropriate workers prevented employers from creating jobs, a mechanism that would have eventually led to a rise in wages. Hence, Rothstein's finding points to a demand-based explanation of the recent recession and the ensuing weakness in the labor market lasting into 2016. Levy, Mouw, and Perez examine the incidence and patterns of regional mobility, another debated aspect in the context of potential spatial mismatch between unemployment and jobs during the Great Recession (see also, Yagan 2014).

Barth, Davis, Freeman, and Kerr (this volume) provide a new set of facts regarding an understudied but presumably crucial set of players during the Great Recession—employers. Their findings on job creation and destruction, further discussed later, sharpen our understanding of the process of renewal in the labor market during recessions. In addition, they show that the degree of labor hoarding, and ensuing productivity changes was substantially different in the United States than in other countries, but also heterogeneous within the United States itself. Their numerous findings challenge standard models of labor market adjustment.

Farber, Silverman, and von Wachter also identify potentially important heterogeneity in the adjustment processes in the U.S. labor market. Their article addresses the question of whether hysteresis of unemployment is likely to be a widespread phenomenon. In contrast to recent work, they conclude that hysteresis from unemployment duration appears not to be present among the mature women they study. Hence, the effects of long-term unemployment in reemployment rates may be concentrated among younger workers, but may be less devastating for the economy as a whole.

ECONOMIC CONSEQUENCES OF THE GREAT RECESSION

The Great Recession had profound and potentially long-term economic consequences; we provide a brief overview of these economic consequences in the next section.

Effects of Job Loss and Unemployment on Income and Consumption

The workers most immediately affected by the Great Recession were those who lost their jobs. A growing literature shows how a job loss during a recession can have profound consequences for workers and their families. In particular, workers losing stable jobs with good employers can experience substantial losses in wages and earnings in the immediate aftermath of a job loss (Farber 2011; Couch and Placzek 2010; Jacobson, Lalonde, and Sullivan 1993). These large initial losses fade only somewhat, and translate into annual earnings disadvantages lasting beyond twenty years (Davis and von Wachter 2011). The large declines in earnings are certainly telling, but economists often also use measures of income or consumption to measure the welfare consequences of shocks. Such measures better reflect the actual change in well-being if workers are able to supplement their earnings, for example, by earnings from other family members, savings, or social insurance programs. It is not easy, however, to estimate the effects of job loss on consumption and income.

Nevertheless, there is some evidence on the role of transfer programs and private insurance mechanisms, such as dissaving or spousal labor supply. Existing evidence suggests that the take-up of social programs rose in the Great Recession. Clearly, an increasing number of workers have received and are increasingly dependent on unemployment benefits, owing to a rise in unemployment, its long duration, and a substantial expansion of the program (Rothstein and Valletta 2014). In addition, especially in the aftermath of the Great Recession, the importance of food stamps (the Supplemental Nutrition Assistance Program, or SNAP), the earned income tax credit (EITC), and Supplemental Security Income (SSI) increased (Moffitt 2012). At the same time, more workers claimed Social Security benefits and Social Security Disability Insurance (Mueller, Rothstein, and von Wachter 2015).

Moreover, workers have means to temporarily offset some of their lost earnings by borrowing, reducing their savings, increasing labor supply of other family members, and family transfers. William T. Dickens, Robert K. Triest, and Rachel B. Sederberg (this volume) examine in detail families' ability to weather the earnings declines due to job loss in the Great Recession by relying on their own financial resources. Their conclusion is pessimistic, since, as they note, most families did not possess sufficient wealth to buffer the large and extended earnings losses for more than a short period of time. More generally, borrowing and saving may simply postpone or redistribute the realization of lost income over time. In contrast, family labor supply and transfers can present a real buffer, albeit not without costs in terms of lost leisure or household production (Pistaferri, Blundell, and Saporta-Eksten 2016).

Although transfer programs often mitigate the loss of earnings resulting from job displacement, the replacement amounts are quite modest compared with estimates of present-value earnings losses. The few studies that estimate the effects of job loss or unemployment directly on consumption typically find sizable near-term declines in consumption expenditure but lack evidence on long-term consumption responses (see, for example, Gruber 1997; Stephens 2004). The consumption responses tend to be concentrated at the lower end of the income distribution (Browning and Crossley 2001; Congressional Budget Office 2004). Even the generous, long-lasting benefits available under the German unemployment insurance system replace only a modest share of the earnings loss associated with job displacement (Schmieder, von Wachter, and Bender 2009).

Differences by Gender

At the onset of the Great Recession, the unemployment rate increased more for men than women, suggesting that the Great Recession was more of a "man-cession" (Hout and Cumberworth 2012).[5] However, this gender dynamic was reversed as the economy started gaining jobs: between February 2010 and June 2014, men gained 5.5 million jobs while women gained 3.6 million jobs. This recovery differs from recent recoveries from recessions, as this

5. The kinds of occupations and industries in which men were more likely than women to work (such as construction and the building trades) were especially hard hit. By contrast, women are more likely to work in the public sector and in occupations such as nursing, child care, and food preparation, which were less affected (at least initially) by the Great Recession and which benefited more from the stimulus spending (until the Spring of 2010), whose aim was to alleviate the impacts of the economic downturn.

was the first time since 1970 in which men have gained more jobs than women in the first two years of a recovery. That the unemployment rates for men have fallen but risen for women underscores the unique nature of the current recovery (Kochhar 2011), leading some to term it a "he-covery" (Rampell 2011). Nevertheless, the Great Recession was harder on men overall: men have not outperformed women in the recovery nearly as much as men underperformed women in the recession.

Differences by Race and Ethnicity

The Great Recession hit nonwhites especially hard. For example, African American and Latino homeowners were more likely than whites to default on their mortgages or to experience foreclosures of their homes (Pfeffer, Danziger, and Schoeni 2013; Wolff, Owens, and Burak 2011). Younger, less-educated, and minority workers were also more likely than whites to lose their jobs (Hout, Levanon, and Cumberworth 2011). Latino immigrants managed to gain jobs in the recovery, but also experienced large drops in wages, suggesting their greater vulnerability in the labor market (Kochhar, Espinoza, and Hinze-Pifer 2010). The consequences of the fallout from the Great Recession for individuals and communities of color remain important issues to study.

Effects on Labor Market Entrants and Youth Unemployment

How young workers have fared during and after the Great Recession is another understudied question. Young workers are particularly vulnerable to adverse labor market conditions.[6] Existing studies based on past recessions show that beginning to work in a recession leads to lasting reductions in earnings—a "typical" recession would have led unlucky labor market entrants to have lower earnings for approximately ten years (Kahn 2010; Oreopoulos, Heisz, and von Wachter 2012). Not surprisingly, the losses of labor market entrants were particularly severe during the Great Recession (Altonji, Kahn, and Speer 2016). Besides having lowered earnings, workers entering the labor market during a recession are more likely to have worse jobs and occupations and also experience lasting reductions in health and a change in attitudes. For example, Paola Giuliano and Antonio Spilimbergo (2014) found that individuals who experienced a recession during their formative years were more likely to believe that success in life depends more on luck than on effort, to support more government redistribution, and to have decreased confidence in public institutions.

Mechanisms Explaining the Incidence and Effects of Job Loss

Several mechanisms have been suggested for explaining the lasting effects of job loss and the sluggishness in the labor market after the Great Recession. A popular view is that recessions involve structural changes and require workers to adjust to new skill demands (or to skill demands appearing in other regions). As previously mentioned, there have been contrasting findings as to the role of structural change, mismatch, and reallocation during recessions in general and the Great Recession in particular. On the one hand, Nir Jaimovich and Henry E. Siu (2012) document that a substantial portion of the secular decline in routine manual employment occurred during recessions. This view is consistent with the notion that part of the earnings losses for job losers arise because they are forced to switch occupations or industry (Jacobson, Lalonde, and Sullivan 1993; Neal 1995). On the other hand, studies have found little in terms of shifts of employment between sectors during recessions (Aaronson, Rissman, and Sullivan 2004). An analysis of a range of standard labor market indicators also speaks against mismatch, and hence against an important role for structural changes (Rothstein 2012).

Another classic hypothesis is that job qual-

6. Young workers tend to have entered their job later than older workers, and thus are often the first to be let go. Many of them look for a job for a first time, and thus experience the full brunt of reduced wages and job opportunities. The lack of opportunities risks holding them back during a crucial state of the career—earnings for the average worker typically double over the first ten years in the labor market due to productive job mobility and increasing experience.

ity is reduced in recessions, leading to what has been termed "cyclical downgrading" of job seekers into lower-quality jobs (Reynolds 1951; Okun 1973). A growing body of evidence suggests that the distribution of net job creation shifts toward lower-paying jobs in recessions (Kahn and McEntarfer 2014). As a result, Johannes Schmieder, von Wachter, and Stefan Bender (2015a) show that a substantial fraction of earnings losses of job losers in recessions arises because of a persistent decline in job quality.

The literature has also examined various ways in which workers respond to adverse economic conditions during recessions. This includes such disparate but related outcomes as mobility between regions, mobility between occupations and sectors, retraining, borrowing, or withdrawal from the labor force. For example, despite the depth of the recession, there was sufficient geographical variation among U.S. states such that workers had opportunities to improve their employment situation by moving. Yet, as documented by Levy, Mouw, and Perez (this volume), regional mobility rates have declined slightly during the Great Recession, and workers were about as likely to move for economic reasons as before. In the aftermath of a job loss, mobility between jobs and industries tends to increase (von Wachter, Song, and Manchester 2011; Stevens 1997). These movements are associated with further wage declines. In fact, job-to-job transition rates typically decline in recessions and new jobs formed in recessions are typically less stable than jobs formed in expansions. Hence, although job mobility may be important in the recovery process, this is an option typically available only further into the recovery. The fact that earnings losses after job loss are so persistent suggests that this job mobility comes too late for many workers, who by then have settled into new jobs at permanently lower earnings.

Barth and his colleagues (this volume) provide an important additional piece of evidence on the mechanisms of labor adjustment during recessions. They show that most of the job creation during and after the Great Recession occurred at new establishments. In contrast, most of the job loss occurs at existing, continuing establishments. Hence, part of the reallocation process in recessions might occur through workers moving from older, higher-paying, to younger, lower-paying enterprises. If older firms pay more on average, then the shift to younger firms could help to explain the substantial earnings losses of job losers.

Earnings reductions can also result from a decline in hours worked or a rise in long-term unemployment. Many observers noted the stark rise in the fraction of workers reporting that they worked involuntarily part-time during the Great Recession. In fact, a substantial portion of short-run earnings losses can be explained because workers take part-time or other nonstandard jobs (Farber 1999). Although the long-term effect of job loss appears to be driven mostly by a decline in wages, Schmieder, von Wachter, and Bender (2015b) show that prolonged unemployment can have substantial consequences for reemployment wages. Identifying the causal effect of unemployment duration on reemployment probabilities in observational data is notoriously hard. One way to credibly identify the causal effect on long-term unemployment is by means of an audit study. One of the few such audit studies is by Kory Kroft, Fabian Lange, and Matthew J. Notowidigdo (2013), who show that longer unemployment duration on fictitious résumés sent in response to real job advertisements leads to a significant reduction in callback rates for job interviews for younger workers. In contrast, Farber, Silverman, and von Wachter (this volume), using a similar research design, do not find such a relationship for mature and older workers. Instead, for this demographic group they find substantial penalties for age and for having held a low-quality, interim job. This suggests that some of the increased job churning occurring in recessions may be self-perpetuating as an increasing number of workers experience sequences of short-lived job spells or unemployment.

Effects on Employed Workers

Clearly, the Great Recession also had effects on individuals who did not lose their jobs. A large number of families saw the values of their homes decline, and many found themselves under foreclosure as a result. Homeownership rates increased slightly from 2000 to 2007 (66 to 67.2 percent), then declined to 66.8 percent in 2008 and 65 percent in 2010. The median home value of owner-occupied units in the United States declined from $202,000 in 2007 to $198,000 in 2008 and $179,900 in 2010, after rising steadily from 2000 to 2007 (it decreased 16 percent each in California and Nevada, almost 9 percent in Florida). The shocks to wealth and living situation and stress may have had important consequences for families. For example, Janet Currie and Erdal Tekin (2015) show that foreclosures led to reductions in health, at least over the short run. In addition, workers with substantial savings saw at least temporary declines in the value of their wealth as a result of lower stock prices, and this may have led to a postponement of retirement among some workers. Even absent effects on house prices or wealth, employed workers may have seen reduced chances to further their careers, and may have had to work harder to maintain their jobs. Edward Lazear, Kathryn Shaw, and Christopher Stanton (2016) document for single firms that workers increased their efforts and hence increased the firm's overall productivity.

SOCIAL CONSEQUENCES OF THE GREAT RECESSION

The Great Recession was also a social recession in the sense that it affected individuals, their families, and their communities in ways that went beyond matters of employment and finances. These social outcomes of the Great Recession were of course closely linked to concerns about job and income loss, as discussed earlier. The difficulties experienced by young people in establishing themselves in the labor market and forming a family led to concerns about a "lost generation" (Coy 2009), although the extent to which young people are able, despite the knock-on effects of the Great Recession, to make successful transitions to adulthood is still an open question at this point. Moreover, studies have shown economic instability, uncertainty, job loss and residential moves experienced by parents are likely to have negative effects on their children's development (Kalil 2013). At the other end of the life cycle, older workers who become unemployed but who are unable to retire as a result of financial concerns may well lack the skills to adapt to the technological requirements of the new economy.

Thus, the negative consequences of job loss go well beyond earnings; the insecurity generated by the duration and depth of the economic downturn had pervasive consequences for individuals' well-being and their family lives. These effects of the Great Recession have exacerbated the insecurity that has been building for a number of years. Panel analyses of U.S. workers (from the General Social Survey) show that people were more likely after the Great Recession than they were before it to be pessimistic about their finances and to identify with being in the lower class (Hout and Hastings 2014). The pessimism engendered by the Great Recession is reminiscent of the powerful sense of uncertainty that was associated with the Great Depression (Schwarz 2009).

To be sure, there are some things that either were unaffected or were not made worse by the Great Recession. For example, crime decreased between 2007 and 2010 (Uggen 2012), as it did during the Great Depression, and there was not much change in voting patterns (Bartels 2013), although politics did affect perceptions, as reflected in Democrats being more likely to have an optimistic view of their standard of living during the Great Recession than Republicans (see Morgan, Cumberworth, and Wimer 2011). Moreover, undocumented migration to the United States slowed significantly during the Great Recession, which reflects in large part the slowdown in economic growth in the United States (Massey 2012).

Effects of Job Loss and Unemployment on Individuals' Health and Well-Being

Studies summarized by Jennie Brand (2015) and von Wachter (2015) find that there are short-run consequences of job loss on a range of physical and mental health outcomes, including increases in mortality. In extreme cases these health effects can be long-lasting, increasing mortality rates even several decades after job loss (Sullivan and von Wachter 2009), though the longer run impacts of the Great Recession on health and mortality are still open questions. A smaller number of studies document that job losses can also affect the outcomes of children of job losers over the short and long run. Research on the exact magnitude of these studies is ongoing; the current evidence suggests job loss can have at least some adverse consequences for children's birth weight, test scores in schools, and earnings as adults (von Wachter 2015).[7]

The effects of long-term unemployment are pervasive, affecting men and women and members of all racial and ethnic groups as well as those with differing amounts of education. Basbug and Sharone (this volume) summarize much of the literature that describes the tolls of being unemployed for long periods of time on persons' mental and physical health. They also show that marriage is a source of emotional support for both men and women. For men this was mainly due to marriage being associated with a higher household income. For women, marriage provides a buffer that goes beyond the effect from increased household income. Overall, these findings demonstrate that the large amount of job loss and unemployment typically associated with recessions is consequential for workers and their families.

The adverse effects of recessions are also felt by those not directly affected by job loss and unemployment. Workers and the public at large express substantial concerns about the state of the economy, the rate of unemployment, and the risk of job loss (Davis and von Wachter 2011), and job and financial insecurity have been shown to be related to psychological outcomes such as anger, stress, depression, anxiety, and pessimism (De Witte 1999). Studies have also demonstrated a clear correlation between suicide rates and the business cycle among young and middle-aged adults (Carey 2011).

It is thus not surprising that economic crises such as the Great Recession are associated with declines in subjective feelings of well-being and happiness (Arampatzi, Burger, and Veenhoven 2015). Indeed, Kelsey J. O'Connor (this volume) finds that 2010 marked the lowest level of reported happiness in the United States since the 1970s. The decline in happiness in 2010 was smaller than in the early 1980s, although the decline after the Great Recession, unlike that of the early 1980s, was due more to declining income and rising unemployment. The happiness of all population groups was negatively affected in 2010, but some reported greater declines than others, especially men, older people, and Hispanics (O'Connor, in this volume). The paucity of comparable time-series data makes it more difficult to draw firm conclusions about whether the effects of the Great Recession on such subjective social outcomes differed from previous downturns, however.

Families

Major weaknesses in the labor market and severe job disruptions such as the Great Recession are likely to affect family structures and household formation such as timing of marriage, divorce, cohabitation, and childbearing. Recessions can affect family life in two main ways (Cherlin et al. 2013). Financial hardship and uncertainty may limit the choices people are able to make about their family lives, such as making it more difficult to afford to get married or children. In addition, families may be activated as "emergency support systems" to help lessen economic impacts, as when adult children move back with their parents during periods of unemployment.

A recent study by Andrew Cherlin et al. (2013) found evidence that both of these familial responses have occurred and have lasted beyond the official end of the Great Recession in 2009. For example, there was a 9 to 11 percent drop in fertility from 2007 to 2011, which was a return to the lowest level since 1987. This decline was greater among younger women, suggesting a postponing of births (as opposed to averting fertility permanently), which is similar to the effects of recessions in other Western countries. Recession-induced declines in fertility have also been shown to lead to reductions in women's total fertility rate, mainly driven by an increase in the fraction of women remaining childless (Currie and Schwandt 2014). The drop in birth

7. Some of these outcomes may themselves arise from a behavioral response of individuals to the reduction in earnings. Such behavioral responses to the earnings loss should not be counted as additional costs of job loss in their own right. Yet, many of these outcomes are not simply consequences of earnings reductions, or at least not from a behavioral response to the earnings shock.

rates was greater among the poor and near poor and among Hispanics (see also Cohen 2015), due to a substantial decline in Mexican immigration (recent Hispanic immigrants have the highest fertility rates in the country). The decrease in fertility was also greater in red states than blue states, which may reflect differences in perceptions about the severity of the Great Recession (Morgan, Cumberworth, and Wimer 2011).

This drop in fertility is likely due to the duration and depth of the Great Recession, although fertility is procyclical and negatively related to the unemployment rate: total fertility rates consistently decline (or increases are halted) in response to recessions, but these changes are generally modest and occur in a relatively narrow range. One reason for this stability is that 49 percent of all pregnancies in the United States are unintended—over 38 percent of births are to unmarried women—so the extent to which uncertainties associated with economic disruptions actually change couples' fertility decisions in the United States is not clear (Morgan, Cumberworth, and Wimer 2011).

The Great Recession was also associated with lower rates of nonmarital and teen fertility. Daniel Schneider (in this volume) finds that this is partly due to the increased use of contraception—and the use of more effective means of contraception—which suggests that these groups consciously changed their fertility avoidance behavior in response to uncommonly large economic shocks. In past recessions, this type of avoidance behavior has differed by demographic groups: during periods of high unemployment, more highly educated black women become mothers, as do less-educated white women (Dehejia and Lleras-Muney 2004).

During the Great Recession not only fertility but also marriage and divorce rates declined and cohabitation increased. These trends, too, are typical of past economic downturns: since marriage and divorce are expensive, they decline during recessions and increase during expansions. But although the Great Recession may have exacerbated these trends somewhat, both marriage and divorce rates were already declining prior to 2007 (Morgan, Cumberworth, and Wimer 2011). In fact, the decline in marriage rates has been going on for some time, as technological and cultural changes have helped to increase women's labor force participation and to diminish the economic basis for marriage. The increase in cohabitation during the Great Recession, too, was a continuation of longer-term trends, as was the greater likelihood of both unmarried and married young adults living with their parents (Morgan, Cumberworth, and Wimer 2011).

A possible consequence of the Great Recession that has been little studied is the increase in domestic violence: a spike in intimate-partner violence coincided with the abrupt increase in men's unemployment rates. Philip N. Cohen (2015) suggests that the economic shocks associated with unemployment increased family stress and violence, such as spankings and, presumably, striking that caused an increase in abusive head traumas.

Overall, Andrew Cherlin et al. (2013) conclude, "The Great Recession had a moderate effect on family life. It brought about some changes in behavior but did not constitute a major disruption on the order of the effects of the Great Depression. . . . Our analysis suggests that the Great Recession did not weaken family life. . . . It heightened the importance of intergenerational exchanges of shelter and support. In doing so, we would speculate, the Great Recession may have strengthened, rather than weakened, the family as a social institution" (228–30).

Unions

The Great Recession further damaged organized labor, continuing a declining trend in union density that began a half century ago that saw a decrease in the percentage of unionized U.S wage-earning and salaried members in the public and private sectors combined from 24 percent in 1973 (the union density in the private sector was 24.2 percent) to 11.2 percent in 2012 (6.6 percent in the private sector). By contrast, union density in the public sector is fairly high, at 35.9 percent in 2012. There has also been a decline in large-scale strikes in the period 2001–2010, continuing a downward trend since the 1970s (Milkman 2013). This suggests that unionization rates do not fluctuate all that much in response to movements in the business cycle (Milkman and Luce, this volume). Steven Greenhouse (2011) reported that union density dropped in 2009 to the lowest level in more than seventy years, after a two-year growth spurt before the Great Recession.

The decline in union membership has been accompanied by a backlash against labor generally. In 2009 support for unions in the Gallup poll dipped below 50 percent for the first time ever: support went from a high of 75 percent in the 1950s, to 55 percent in the early 1980s recession, 65 percent in 2003, 59 percent in 2007, and 48 percent in 2009 (Madland and Walter 2010). In a 2010 Pew Research poll, only 41 percent of respondents said they had a favorable view of unions; the percentages holding a "mostly" or "very favorable" view fell from 58 percent in January 2007 to 41 percent in February 2010 (Surowiecki 2011).

This reduction in support for unions is likely due to the weakness of the economy during the Great Recession. Historically, there has been a negative correlation between the unemployment rate and the popularity of unions: for example, since the late 1940s, when the unemployment rate has been low, approval of labor unions has been high, and vice versa; every percentage-point increase in the unemployment rate lowers the approval rate for unions by 2.6 percentage points (Madland and Walter 2010). Disapproval of unions is likely to be magnified by the fact that so few people now belong to unions. Hence, nonmembers are increasingly resentful of union advantages, seeing unions as another interest group that gets perks for their members, often at others' expense (Surowiecki 2011).

More generally, approval ratings for powerful institutions of all kinds (government, unions, business) and their leaders decline in bad economic times such as the Great Recession (Lipset and Schneider 1987). Similarly, Lindsay A. Owens and Karen S. Cook (2013) argue that individuals in counties that were more affected by the Great Recession were more likely to decrease their support for organized labor and the federal government. To put union disapproval in context, though, David Madland and Karla Walter (2010) note that a March 2010 Pew Survey found that the percentage of respondents who view unions positively (32 percent) was greater than the percentage who have a positive view of banks and financial institutions (22 percent), of Congress (24 percent), of the federal government (25 percent), and of large corporations (25 percent).

The falling-off in approval of unions and the continued decrease in union density and strike activity are undoubtedly a reflection of the impact of the economic downturn on the inability of workers to exercise collective power. But there were also other factors at work in the Great Recession and its aftermath that contributed to the weakening of organized labor. Milkman and Luce (in this volume) argue that employers' hostility toward unions during the previous three decades, especially in the private sector, was much more consequential than the short-term effects of the Great Recession on the reduction of support for unions. For example, public disapproval of auto bailouts linked the financial problems of automakers to high wage and insurance costs that were included in union contracts. In addition, the emergence of Republican governors and legislative majorities after the midterm elections of 2010 in traditionally unionized Midwestern states such as Wisconsin and Indiana fueled assaults on public sector unions by conservatives—assaults that were powered by claims that public employees' compensation practices were largely responsible for budget deficits. Further evidence of the weakening of labor is reflected in the passage of right-to-work laws in traditionally strong union states such as Indiana and Michigan (Milkman 2013).

CONCLUSIONS

The depth and duration of the Great Recession produced widespread economic and social impacts on the U.S. labor market. Some of these effects represent continuations of trends that started well before the onset of the Great Recession in 2007, some are consequences that tend to occur during all recessions (though they might have been more severe due to the greater depth and duration of the Great Recession), and some might conceivably be regarded as relatively unique to the Great Recession.

With the advantage of almost a decade's passing since the last business cycle peak, the papers in this volume contribute to our understanding of core questions pertaining to the Great Recession and its aftermath. This includes such complex questions as the causes of the protracted downturn and the mechanisms behind the consequences of job loss and unemployment (Rothstein on the stagnation of wages; Barth, Davis, Freeman, and Kerr on job destruction and creation at the establishment level; Levy, Mouw, and Perez on patterns of regional mobility; Farber, Silverman, and von Wachter on hysteresis in the labor market); open questions regarding the economic and social consequences of job loss and unemployment (Dickens, Triest, and Sederberg on the lack of the ability of self-insurance among the unemployed; Basbug and Sharone on the mental health costs of long-term unemployment); and broad questions on the social and institutional effects of the Great Recession (O'Connor on the effect of the Great Recession on happiness; Schneider on its effect on teen fertility; Milkman and Luce on union activity during the Great Recession).

The extent to which—and for what outcomes—the Great Recession was a transformative event are still unresolved issues. One view is that, as in past recessions, a limited fraction of workers experienced large losses, whereas the majority of workers bounced back as the economy recovers. Another view is that a sufficiently large number of individuals were affected so as to lead to a transformation of society more broadly. Definitive answers to these questions await the further passage of time and the collection and analysis of additional data.

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