

# The Individual Experience of Unemployment

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Annu. Rev. Psychol. 2012. 63:369–96

First published online as a Review in Advance on July 1, 2011

The *Annual Review of Psychology* is online at [psych.annualreviews.org](http://psych.annualreviews.org)

This article's doi:  
10.1146/annurev-psych-120710-100500

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0066-4308/12/0110-0369\$20.00

## Keywords

job loss, job search, job seeker, layoff, reemployment, mental health

## Abstract

This review describes advances over the past decade in what is known about the individual experience of unemployment, predictors of reemployment, and interventions to speed employment. Research on the impact of unemployment has increased in sophistication, strengthening the causal conclusion that unemployment leads to declines in psychological and physical health and an increased incidence of suicide. This work has elucidated the risk factors and mechanisms associated with experiencing poor psychological health during unemployment; less so for physical health and suicide. Psychologists have begun to contribute to the study of factors associated with reemployment speed and quality. The past decade has especially illuminated the role of social networks and job search intensity in facilitating reemployment. Evidence suggests some individuals, especially members of minority groups, may face discrimination during their job search. Although more work in this arena is needed, several intervention-based programs have been shown to help individuals get back to work sooner.

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## INTRODUCTION

A financial crisis beginning in 2007 produced the worst unemployment situation the world has encountered since the Great Depression. An estimated 210 million people worldwide were registered as out of work in the third quarter of 2010, a 30 million increase from the beginning of the crisis (Int. Monetary Fund, Int. Labor Organ. 2010). Increases in unemployment levels have been most severe in the United States, New Zealand, Spain, and Taiwan. In the United States, the unemployment rate as of December 2010 was 9.4%, with even higher levels among youth aged 16 to 24, among some minority groups, and in certain states such as Nevada (Bur. Labor Stat. 2011). In Spain, unemployment rates are even higher, at a startling 20.6% (Newsweek 2011). In a press release preceding a global conference to discuss the outlook for employment, the director general at the International Labor Organization stated, “We are now seeing signs of a fragile recovery, but for millions of people and

enterprises around the world the [economic] crisis is far from over” (Int. Labor Organ. 2010).

Empirical research on unemployment has been approached from both macro (encompassing topics such as job creation and unemployment insurance policies) and micro (emphasizing the individual experience of unemployment) perspectives. The current review covers individual-focused research on unemployment, research that has examined the experience of unemployment from the unemployed individual’s perspective. Several narrative reviews have summarized this research (e.g., Catalano 1991, DeFrank & Ivancevich 1986, Dooley et al. 1996, Eisenberg & Lazarsfeld 1938, Fryer & Payne 1986, Hanisch 1999, Kasl et al. 1998, Leana & Feldman 1988, Winefield 1995). This review builds upon these past summaries by focusing on research on unemployment from the 2000–2010 decade. The review does not focus on unemployment in special groups such as individuals with mental illness, chronic health issues, or disabilities.

Advances in knowledge in the past ten years in three primary areas are explored. First, how does unemployment affect individual well-being (including psychological health, physical health, and suicide)? Second, what do we know about the job search process and other key variables associated with faster (and higher-quality) reemployment? Finally, what interventions have been proposed to speed reemployment, and how effective are they? Emphasizing psychological research but integrating work from other disciplines such as economics and sociology, the review delineates how our understanding of these three areas has progressed in the past decade.

## IMPACT OF UNEMPLOYMENT

A substantial amount of research, dating back to the Great Depression, has focused on the impact of unemployment on individual well-being. This research suggests that being unemployed may result in a range of stress-related consequences for the individual including depression, anxiety, physical ailments

**Unemployment:** individuals are considered to be unemployed if they meet a country-specified minimum working age, do not currently hold a job, and are actively seeking and available for work (Husmanns 2007)

such as stomachaches and headaches, and even suicide. The negative effects of unemployment on psychological well-being have been explained through a variety of theories (see Creed & Bartrum 2006 for a review). Perhaps the most influential theory has been Jahoda's (1982, 1987) latent deprivation model. Jahoda proposed that employment provides both manifest (e.g., income) and latent (e.g., time structure, social contact, sharing of common goals, status, and activity) benefits to the individual. While unemployed, individuals are deprived of these benefits and thus experience lower psychological health. Several pathways through which unemployment is thought to affect physical health and suicide have also been suggested (Korpi 2001). For example, the stress involved with being unemployed may directly translate into physical symptoms or suicide. In addition, physical health may be diminished by an inability to afford healthy food and other necessities, and if an individual is not able to afford health care, certain health conditions can go untreated. Individuals having problems coping psychologically may also be unable to afford psychological help.

A frequent focus of recent research on unemployment and well-being has been on issues of causality. Specifically, researchers have attempted, through a myriad of methods, to examine whether the lower well-being of unemployed individuals is a causal outcome of unemployment or whether it is instead due to a tendency of individuals with poor psychological and physical health to lose their jobs (i.e., a selection effect). Appearing on a more limited basis in the extant literature, but not described here, is research that examines the impact of unemployment on the family unit (e.g., Kalil 2009) and health-related behaviors such as smoking and drinking (e.g., Falba et al. 2005).

## Unemployment and Psychological Health

Psychological health refers to an individual's emotional and mental well-being, ability to function in society, and capacity to meet

the demands of day-to-day life. A significant advancement in the past decade relevant to the understanding of unemployment and psychological health came from two meta-analytic summaries of the many studies that have been conducted across time on this topic (McKee-Ryan et al. 2005, Paul & Moser 2009). These meta-analyses provide insight into the effect size of the relationship between unemployment and reduced psychological health (i.e., how strong is the association?) as well as a differentiation of results from studies with stronger versus weaker methodological designs.

In the most recent meta-analysis, Paul & Moser (2009) first summarized the results of 237 cross-sectional studies (involving a total of 458,820 participants) that had compared the psychological health of unemployed individuals with the psychological health of an employed comparison group. Consistent with the results of the earlier meta-analysis (McKee-Ryan et al. 2005), this analysis showed unemployed individuals had significantly lower levels of psychological health than employed individuals (Paul & Moser 2009). The standardized mean difference in psychological health between the two groups, assessed through Cohen's *d*, was 0.54. Cohen's effect sizes can be roughly categorized as small, medium, or large; 0.54 is a medium-sized effect, likely to be "visible to the naked eye of a careful observer" (Cohen 1992, p. 156). The proportion of individuals that could be deemed as clinically distressed was twice as high in the unemployed sample as in the employed sample. The differences in mental health between the unemployed and employed were highest in studies with more men, blue-collar workers, long-term unemployed, and countries with weak unemployment protection systems. The authors also examined whether the year of data collection was a moderator of study findings. Given the changing context of work and the normalization of unemployment due to recurrent layoffs, the question of whether unemployment is as harmful to well-being now as it was in earlier periods has been raised in the popular press (e.g., Brady 2010). Paul & Moser (2009) found

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**Meta-analysis:** a statistical aggregation of results across studies

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$r_c$ : the average sample weighted correlation across studies

$k$ : the number of studies

$N$ : the total sample across studies

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no evidence suggesting that the association between unemployment and lower psychological health was stronger in earlier decades.

Cross-sectional studies do not allow strong causal conclusions about the link between unemployment and psychological health. Specifically, cross-sectional findings that unemployed groups have lower psychological health may be due to a selection effect—i.e., individuals with poor psychological health may be more apt to lose their jobs. To address this concern, Paul & Moser (2009) identified a subset of the cross-sectional studies ( $n = 27$ ) that had assessed the psychological health of individuals who had been part of a factory closure (a situation where it is highly unlikely that job loss was produced by poor psychological health). In these studies, unemployed individuals again had higher levels of distress than employed individuals, strengthening the conclusion that it is the unemployment situation that is responsible for heightened distress.

Paul & Moser (2009) also summarized the results of 64 longitudinal studies: 19 studies that followed individuals from employment into unemployment and 45 studies that followed individuals from unemployment into employment. Longitudinal research, although not without limitations, is a more robust design since it follows the same individuals over time as they have changes in their employment status. The meta-analytic findings suggested that across studies, there was a significant increase in distress ( $d = 0.19$ ) as individuals moved into unemployment and a significant decrease in distress as individuals moved into employment ( $d = -0.35$ ). These effect sizes, although considered small by Cohen (1992), are still meaningful changes. Once again, these findings are consistent with those reported by the McKee-Ryan et al. (2005) meta-analysis.

Some evidence for selection effects was shown in the meta-analysis, although not enough to overpower the findings that unemployment is uniquely associated with lower psychological health (Paul & Moser 2009). For example, employed individuals who later lost their jobs had slightly higher distress levels

than individuals who did not lose their jobs. In addition, students who were unemployed after high school had slightly higher distress levels while at school than did their peers who found jobs. In balance, the selection effects are small. The cumulative data, triangulated with different research methods, strongly suggest that lower psychological health levels among unemployed individuals occur beyond those explained through selection effects.

These meta-analytic results describe the average impact of unemployment, aggregated across individuals. There is considerable variability in how individuals appraise and react to job loss. In the past decade, there has been an improved understanding of risk factors and the processes associated with experiencing diminished psychological health during unemployment. McKee-Ryan et al. (2005) quantitatively summarized the results of available studies from 2002 and earlier that had examined predictors of psychological health during unemployment. The authors identified five variable categories that have been studied in relation to psychological health during unemployment: work role centrality (how important work is to the individual); coping resources (the individual's personality, social support, financial resources, and ability to structure one's time during unemployment); cognitive appraisal (how individuals interpret the job loss); coping strategies (the cognitive and behavioral strategies individuals use to manage the demands associated with unemployment); and demographics. The five strongest correlates of psychological health identified by the meta-analysis included core self-evaluations ( $r_c = 0.55$ ,  $k = 26$ ,  $N = 5,186$ ), financial strain ( $r_c = -0.45$ ,  $k = 17$ ,  $N = 5,257$ ), stress appraisal ( $r_c = -0.38$ ,  $k = 4$ ,  $N = 881$ ), social undermining from significant others ( $r_c = -0.36$ ,  $k = 2$ ,  $N = 1,700$ ), and work role centrality ( $r_c = -0.34$ ,  $k = 19$ ,  $N = 4,398$ ). These results indicate that individuals are likely to fare better during unemployment if they have a higher sense of self-worth, perceived control, and optimism, less financial strain, a less negative appraisal of being unemployed, are not strongly identified

with work, and if they do not have a spouse or significant other who nags and berates them.

Although not one of the strongest correlates, job search effort was negatively correlated with psychological health ( $r_c = -0.11$ ,  $k = 20$ ,  $N = 8,214$ ), indicating that individuals who spend more time and effort looking for a job have lower levels of psychological health. A subsequent study examined the directionality of this relationship (Song et al. 2009). This study, using a repeated measures design over a 14-day period, suggests the relationship is reciprocal. Specifically, job search seems to increase psychological distress and psychological distress seems to increase job search effort (perhaps individuals are motivated to end the pain of unemployment). The authors also assessed whether a third variable, financial hardship, might be responsible for producing a spurious relationship between job search and mental health. Examination of this third variable hypothesis was not supported.

Other research has proposed detailed process models to describe mechanisms through which variables important to psychological health during unemployment play their roles. For example, Price et al. (2002a) highlight financial strain as the key stressor during unemployment. Their data suggest unemployment produces a “chain of adversity.” Severe financial strain impacts levels of depression, which in turn increases feelings of helplessness and erodes feelings that one can exert control over life outcomes. Decreasing personal control contributes further to poor health and lower emotional functioning.

Additional stressors of unemployment, including pension applications, updating one’s resume, job search, interviews, job rejections, financial adversity, relationship problems, and boredom are portrayed in the COPES (Coping, Psychological, and Employment Status) model (Waters 2000). The effect of these stressors on psychological health is mediated by cognitive appraisal (how the individual evaluates the stressor) and choice of coping strategies. Individuals may choose several ways to cope with the stressors of unemployment

including problem-focused strategies such as job search activity or retraining and emotion-focused strategies such as seeking support from others. Negative appraisals along with ineffective coping strategies produce lower well-being during unemployment.

Finally, unemployment was portrayed as a process that requires extensive self-regulation of both effort and emotion by Wanberg et al. (2011). Self-regulation of effort is needed to sustain one’s job search over time, despite continued rejections and the monotony of the process. Self-regulation of emotion is needed when individuals feel discouraged, angry, worried, or frustrated about the multiple stressors involved with job search and being unemployed. Their findings suggest that individual differences with respect to how individuals approach goals predict vacillations in self-defeating cognition (negative or dysfunctional self-talk) as well as motivational control (goal setting or other strategies to stay on course with one’s job search) from week to week over the unemployment experience. Over the 20-week duration of the study, the mental health of participants was lower when unemployed participants engaged in self-defeating cognition. In weeks where unemployed participants engaged in more motivational control, their mental health and job search intensity was higher.

## Unemployment and Suicide

At the extreme, unemployment may be distressing enough to some individuals to lead to suicide. The last comprehensive review of the relationship between unemployment and suicide was conducted by Platt & Hawton in 2000. These authors summarized the results of 165 empirical studies on this topic from the period 1984–1999. Some studies examining suicide have used the same techniques as described in the previous section, such as comparing suicide levels of unemployed and employed groups. However, aggregate studies are also used. Aggregate studies examine the relationship between macro indices such as unemployment and suicide rates in given regions. The amassed

literature on unemployment and suicide has been difficult to summarize because of inconsistent findings, a large array of designs and methodologies, and differences in study quality. However, Platt & Hawton (2000) conclude, on the basis of their review, that unemployment is associated with an increased risk of both suicide and parasuicide (self-injurious behavior). They were unable, on the basis of the studies available, to make a strong statement about causality (e.g., to what extent these results represent self-selection of suicidal individuals into unemployment versus a stress-produced outcome of the experience of unemployment).

In the past decade, researchers have continued to study the relationship between unemployment and suicide. Of 18 post-2000 articles identified for the current review, 15 reported findings that unemployment and suicide are related (Åhs & Westerling 2006, Blakely 2003, Chen et al. 2010, Chung 2009, Classen & Dunn 2011, Koo & Cox 2008, Kposowa 2001, Lin 2006, Noh 2009, Rehkopf & Buka 2006, Stack & Wasserman 2007, Taylor 2003, Voss et al. 2004, Wu & Cheng 2010, Yamasaki et al. 2005). Chen et al. (2010), using longitudinal aggregate data from Taiwan from the years 1978 to 2006, found that a 1% increase in the unemployment rate corresponded to a 4.9% increase in the suicide rate. U.S. data analyzed by Classen & Dunn (2011) depicted one additional death by suicide for every 4,200 males who lose their job during a mass layoff, with a lower rate for females (one out of 7,100). The Classen & Dunn study is unique because it focused on the relationship between suicide rates and numbers of individuals losing their jobs through mass layoffs or establishment closings, where many individuals lose their jobs at the same time. This methodology substantially reduces arguments that linkages between suicide and unemployment can be explained by selection effects, such as a tendency of suicidal individuals being more likely to lose their jobs.

A review of 86 peer-reviewed publications examining the relationship between aggregate measures of socioeconomic status and incidence of suicide suggests that the size of the area

aggregated is important (Rehkopf & Buka 2006). Specifically, studies that focus on smaller geographical units are more likely to report increased suicide in areas of low socioeconomic position. When studies report the relationship between indices such as unemployment rate and suicide at large levels of aggregation (e.g., at a state or country level), there is large heterogeneity within these units that can confound results (Rehkopf & Buka 2006). Other reasons for result heterogeneity include the geographical area or sample that is the focus of the study. For example, of the three post-2000 studies that did not show unemployment and suicide to be related, one was focused on European countries where there are substantial safety nets (Andrés 2005), one was focused on Latvia, during a period when there were several social and economic changes taking place (Rancans et al. 2001), and the last was focused specifically on suicide rates for individuals over the age of 65 (Shah 2008).

A different approach to examining the relationship between unemployment and suicide, using qualitative methods, was used by Stack & Wasserman (2007). These authors examined suicide files from a county medical examiner's office from 1997 to 2000. Nearly half of the 62 suicides reviewed mentioned unemployment in the description of the cause, such as a 61-year-old man who killed himself after losing his job at a lawn service. The study found that 43 of the 62 suicides were marked by multiple strains, such as being unemployed combined with losing one's home or being unemployed combined with being in a poor relationship.

## **Unemployment and Physical Health**

Post-2000, researchers have used increasingly sophisticated methods to examine the premise that unemployment may not only affect psychological health, but also physical health. Similar to the research on psychological health and suicide, this research has aimed to differentiate between selection effects of poor health into unemployment and the extent to which unemployment reduces physical health. In this



work, physical health has been operationalized in a variety of ways, including via self-reports of health, health symptom checklists, mortality (not specific to suicide), and biochemical indices such as cortisol levels.

Findings suggest that individuals do lose their jobs as a consequence of poor health. Using a large nationally representative data set from the U.S. Panel Study of Income Dynamics, Strully (2009) found a significant relationship between previous poor health and being subsequently fired or leaving a job voluntarily. Yet, this same study showed unemployment is linked to declines in physical health beyond that explainable through selection effects. For example, compared to a stably employed reference group, individuals who lost their jobs due to an establishment closure had a 54% increase in the odds of reporting only fair or poor health and an 83% increase in the odds of reporting a new health condition such as hypertension, arthritis, or diabetes. Because the analysis focused on individuals who had lost their jobs due to an establishment closure (i.e., a mass layoff), arguments that the results are due to selection issues are very weak. This finding held even after controlling for several variables such as previous health status, gender, ethnicity, education, occupation, marital status, family income, and having experienced a recent move or change in marital status. Having been fired or laid off raised the odds of a new health problem by 43%.

Similar results were reported by Korpi (2001). This author used data from the 1981 and 1991 Swedish Level of Living Survey, a survey that includes both physical health data and employment status data over time. The physical health data were represented by a total symptom index, composed of responses about experiencing several illnesses or ailments including aches or pains in the chest, bronchitis, stomach pains, and backache. Although the results suggest that ill health increases the risk of job loss and the risk of remaining unemployed, they also portray a worsening of health status (especially among individuals with multiple or long spells of unemployment) that does not seem to be attributable to selection.

Another recent study showed that males who lost their jobs in the early and mid 1980s in Pennsylvania had significantly higher mortality rates than individuals in a nondisplaced comparison group (Sullivan & von Wachter 2009). The data for this study involved matching worker employment and wage data from 1974 to 1991 to death records from 1974 to 2006. Because the data did not indicate whether job displacements were voluntary or involuntary, the authors counted individuals as displaced if they had been working in a firm whose employment was 30% or more below its peak. Other individuals leaving their firms, along with stably employed individuals, were included in the comparison group. In the immediate period after experiencing a job loss (i.e., between 1987 and 1993), displaced individuals had a 40% higher likelihood of dying than nondisplaced individuals (5.15 per 1,000 versus 3.67 per 1,000). The effect was reduced yet sustained over time; 20 years later mortality rates were approximately 15% higher for the displaced individuals in the sample. To help control for selection effects, the authors controlled for industry and earnings for several years prior to job loss, and included only individuals with several years of stable employment prior to job loss in the displaced worker sample. The authors also found that job displacement was associated with a 15% to 20% decline in long-term earnings. The employment situation in Pennsylvania during the 1980s was particularly dire, which possibly reduced the generalizability of the findings.

These findings are not inconsistent with studies (e.g., Gerdtham & Ruhm 2006) that show in the aggregate, times of higher unemployment tend to be associated with a slight decline in overall mortality rates (perhaps because there is less commuting, fewer work accidents, and more leisure time). Sullivan & von Wachter (2009) argue that it is possible for mortality to be elevated among involuntarily displaced individuals and for this trend to be masked in aggregate analyses of mortality levels across the whole population. They also argue that mortality consequences of job loss

are not contemporaneous with the time of job loss and may take much longer to show up.

The past decade showed new methodologies to examine the impact of unemployment on biomedical measures. Maier et al. (2006) examined changes in both general physical capacity and cortisol levels among 71 unemployed individuals at three time points during their first year of unemployment. Physical capacity was measured by having individuals engage in an ergonomic test on a bicycle. Cortisol levels, which have been linked to several health-related problems, were examined via blood samples drawn after fasting overnight. The 23 unemployed individuals showed a decrease in physical working capacity of 16.3% throughout the duration of the study. Cortisol levels for males increased throughout the study duration, signaling a stress response; cortisol levels for women increased for the first six months and then declined. The authors suggest, but do not have evidence to support this possibility, that the decline in cortisol levels for women may be due to women adopting the role as housewife rather than continuing their job search.

Results of another study showed having previous spells of unemployment was associated with higher levels of c-reactive protein (CRP) five to eight years later, even after controlling for age, education, body mass index, initial CRP levels, and household income (Janicki-Deverts et al. 2008). CRP is a marker of inflammation that has been linked to elevated stress and an increased risk for diabetes, hypertension, and cardiovascular disease. Part, but not all, of the observed relationship between unemployment and CRP levels was explained by participant levels of tobacco and alcohol use, physical activity, and depression. The authors examined for selection issues by assessing whether there was a relationship between early assessments of CRP and change in employment status; the authors found no evidence that elevated CRP influenced incidence of unemployment in the following three years.

Findings inconsistent with the conclusion that unemployment has an impact on physical health were reported by Bockerman &

Ilmakunnas (2009), based on a large nationally representative sample in Finland over the period 1996–2001. Their results show that lower levels of self-reported physical health predict later episodes of unemployment. Unemployment, however, was not associated with a decline in physical health. Sullivan & von Wachter (2009) argue that these results are not necessarily inconsistent with the conclusion that unemployment impacts physical health. Specifically, they note that the Finnish system provides more generous unemployment and health benefits than, for example, is the case in the United States. This may mean that unemployment is less likely to affect physical health in certain countries.

## Summary

Despite some inconsistent findings, the studies illustrate that unemployment can impact not only psychological health, but also physical health, suicide, and mortality. Selection effects of poor well-being into unemployment occur, but the research provides evidence (through a mixture of diverse methodologies) that poor health effects are not solely due to selection. Significant individual differences in the experience of unemployment occur, however, and the portrayal of unemployment as a damaging experience does not apply to everyone. The past decade of research has delineated the most important risk factors for psychological health during unemployment and has begun to examine in more detail the process and mechanisms involved. Less research has examined the process or mechanisms involved in the linkages between unemployment and suicide or reduced physical health.

## JOB SEARCH AND REEMPLOYMENT

What, then, do we know about the job search process and other factors associated with successfully finding work? Pre-2000, psychological research examining the job search and especially reemployment outcomes



was relatively sparse in comparison to the substantial attention paid to the impact of unemployment. Although even more research is needed, extensive progress has been made in advancing understanding of the job search process and factors predictive of reemployment in the past decade. Some research has broadly focused on delineating the myriad of factors related to reemployment success. Yet, the bulk of micro-level research has focused on specific topics relevant to reemployment success, especially the sources of information used to learn about jobs, other aspects of the job search, and discrimination in hiring.

### General Factors Related to Reemployment Success

A large number of factors are relevant to reemployment success, variously defined as finding work quickly and/or finding a good job (i.e., with satisfactory wages, benefits, and commute time, fit with the individual's interests or skills, etc.). To help organize these factors, a comprehensive model of the variable groups associated with reemployment success was proposed by Wanberg et al. (2002). According to this model, a job seeker's reemployment success depends on the labor market's need for employees (nationally, regionally, and by occupation and industry of the displaced individual) and the job seeker's human capital (i.e., his or her job-related knowledge, skills, and abilities and other individual differences). Also important are characteristics of the individual's job search (including job search intensity and quality) and his or her level of social capital (i.e., having a large and ideally high-status social network of friends, relatives, previous coworkers, and other acquaintances). Finally, situational constraints (e.g., having a disability or illness), self-imposed constraints (e.g., setting a high level of desired pay), discrimination on the part of employers, and an individual's financial need to work are also relevant. These variable groups, with the exception of job search quality and employer discrimination, were operationalized by the authors and studied as predictors of reemploy-

ment success. The variables explained only a small percentage of the variance in an array of reemployment success outcomes, suggesting that additional variables, interactions of variables, and better ways to measure relevant variables are all needed to better explain reemployment outcomes.

Another conceptualization of factors necessary to experience reemployment success was put forth by Fugate et al. (2004). These authors argue an individual's employability requires high levels of career identity, personal adaptability, and social and human capital. Career identity involves having a clear grasp of one's work-related experiences and aspirations (i.e., who am I, and who do I want to be?). Personal adaptability entails a willingness and ability to adjust to changing situations and requires optimism, openness to learn, flexibility, agency, and self-efficacy. Social capital allows individuals greater access to information and access to career opportunities. Human capital denotes a myriad of factors including age, education, work experience, skills, occupational knowledge, emotional intelligence, and cognitive ability.

A meta-analysis conducted by Kanfer et al. (2001) helps to summarize the relationships between various antecedents and the duration of unemployment. Although based on very few studies, several personality and other individual difference variables were related to shorter unemployment duration, including extroversion ( $r_c = -0.10$ ,  $k = 2$ ), openness to experience ( $r_c = -0.08$ ,  $k = 2$ ), agreeableness ( $r_c = -0.09$ ,  $k = 2$ ), conscientiousness ( $r_c = -0.12$ ,  $k = 4$ ), self-esteem ( $r_c = -0.24$ ,  $k = 5$ ), and job search self-efficacy ( $r_c = -0.12$ ,  $k = 4$ ). Higher financial need is also associated with faster reemployment ( $r_c$  with duration =  $-0.07$ ,  $k = 5$ ). The mean sample weighted correlation ( $r_c$ ) between job search intensity (encompassing greater effort and time put into job search) and unemployment duration was  $-0.14$  ( $k = 9$ ). Small relationships were found between educational levels and ethnicity and unemployment duration, suggesting that individuals become reemployed faster if

they have higher education and are white. Quality of employment was not examined as an outcome variable in this meta-analysis due to insufficient numbers of studies measuring quality of employment outcomes.

Additional research suggests that individuals who receive more generous unemployment insurance benefits may become reemployed less quickly (Krueger & Meyer 2002). Several studies have noted a “spike” of reemployment that occurs when unemployment benefits lapse. However, these findings may be overstated because many studies do not account for individuals who simply stop receiving benefits (e.g., drop out of the system) rather than actually finding jobs (Card et al. 2007).

The relationship between psychological health and reemployment success has been examined in a few studies. For example, does lower psychological health reduce speed of reemployment (i.e., by impairing search efforts and signaling negative characteristics to an employer) or increase speed of reemployment (i.e., motivating individuals to find work faster)? Studies tend to find that lower psychological health slightly impairs reemployment speed (Paul & Moser 2009, Vinokur & Schul 2002) or that there is no relationship at all between psychological health and reemployment success (Ginexi et al. 2000, Wanberg et al. 2010b). One exception was reported by Crossley & Stanton (2005), who found higher combined levels of depression, anxiety, and stress to be positively related to job search success. It is likely that this result is due to multicollinearity produced by inclusion of both negative affectivity and distress in a multivariate model. Yet, further examination of the psychological health/reemployment success may be in order, with careful attention to types of measures (i.e., depression may reduce job search effort whereas anxiety may stimulate effort) as well as curvilinear effects (i.e., anxiety up to a certain level may amplify employment success, but if it surpasses that level it may diminish employment success).

Predictors of reemployment quality have been studied less often than predictors of

reemployment speed. Available research highlights two sets of variables that are predictive of postunemployment job quality: demographics and career planning. First, the prevalence of underemployment (i.e., working in a job that requires less education than one has, or working part-time when wishing to work full-time) is highest among younger (18–24) and older (55–64) age groups. Women, minorities (especially American Indians, Hispanics, and African Americans) and individuals in extractive industries such as farming, forestry, mining, or fishing are also at higher risk for underemployment (Jensen & Slack 2003). Second, research has shown that individuals who engage in a careful and deliberate job search, employ career planning and decision making, and are confident about their job search tend to be more satisfied with their post-unemployment jobs (Crossley & Highhouse 2005, Koen et al. 2010, Saks 2006, Saks & Ashforth 2002, Wanberg et al. 2002, Zikic & Klehe 2006). Some research, however, has indicated that career planning has both its upsides and downsides. Specifically, “maximizers” (individuals who have a trait-based tendency to seek out the very best choice following an exhaustive examination of many possibilities) tend to find jobs with higher wages than “satisficers” (individuals who seek a good choice without looking for perfection). Yet, maximizers are more likely than satisficers to experience anxiety during the search and be less satisfied with the search outcome (Iyengar et al. 2006). Career planning may also be less beneficial for individuals with low financial resources. If individuals do not have the financial means to hold out for the right job, they may be forced to take the first job that comes along (Wanberg et al. 2002).

As reviewed in the next section, a few studies suggest that there may be a link between the job information source used to find one’s job and some aspects of job quality. Finding work through social connections may facilitate a better match between the worker and the job due to the depth of information the job seeker is able to secure about the job before taking it. Finding work through public employment

offices usually yields lower wages than private employment offices, but this is likely due to selection effects with regard to the type of individuals who use these job information sources.

## Job Information Sources

In order to obtain employment, most individuals have to acquire information about job openings. The literature has typically differentiated between formal (e.g., print and electronic advertisements, employment agencies) and informal (e.g., friends, relatives, acquaintances) sources of job information or search methods. In the past decade, several studies have focused on examining the use and effectiveness of these various search sources.

Research dating back to the 1960s has highlighted the particular importance of informal networks in finding a job (e.g., see Granovetter 1995). Work in the past decade has continued to show that a substantial proportion of job seekers secure jobs through social networks, not only in the United States, but around the world. For example, on the basis of a survey of individuals in 28 countries, Franzen & Hangartner (2006) found that the proportion of job seekers finding jobs through contacts was highest in Brazil, Chile, Cyprus, and the Philippines (ranging from 67% to 83%) and lowest in Finland, Austria, Denmark, and Norway (ranging from 26% to 28%). In the U.S. portion of the sample, 44% of job seekers found their last job through a social contact. A member of one's social network may help by offering information about available jobs, alerting the organization that the job seeker is available or interested, exerting actual influence over the decision to hire the job seeker, or standing behind the job seeker as a good hire (Lin 2001).

Arguing that chance can play a role in job finding, McDonald (2010) introduced serendipity as an underdiscussed concept in finding work through social connections. Specifically, many individuals find jobs by fortuitously running into someone rather than through a planned or formal inquiry made to a friend or acquaintance. Even an unplanned

conversation between a job seeker's mother and a neighbor may produce a job (McDonald 2010). A survey of nearly 3,000 adults indicated that socially advantaged individuals are the most likely to experience "serendipitous" job leads (McDonald 2010). Social investment before a job search, even investment that is noninstrumental in nature, may lead to a later job. Time spent networking during the job search, however, still seems to make a difference. Two studies that have explicitly examined time spent in networking suggest that individuals who put more time and effort into networking in their job search are more likely to find jobs (Wanberg et al. 2000) and attain more offers (Van Hove et al. 2009).

In aggregate, it seems that finding a job through a social contact does not result in higher wages. However, several studies have found that finding a job through a higher-quality connection (e.g., higher status) is associated with the receipt of higher wages (for a review, see Mouw 2003). These findings may be confounded, however, because job seekers with better qualifications may be the ones with higher-quality connections (Mouw 2003). Because informal connections may be a good source of information about potential jobs, research has linked finding work through social connections to nonpecuniary benefits. For example, jobs found through informal, rather than formal, search methods were more likely to fit individuals' level of education and long-term career needs (Franzen & Hangartner 2006). In a study in China, getting a job through a social tie (*guanxi*) was related to higher job satisfaction than getting a job through other methods such as authority assignment (Cheung & Gui 2006).

The possibility that social networks may be used differently or yield fewer benefits for ethnic minorities and women (e.g., because of their reduced power status in the workforce) was explored in several studies. In a four-city study using data collected from 1992 to 1994, white men and Hispanics were more likely to find jobs through social connections than were white women and blacks (Smith 2000).

Some evidence suggests that women who have a greater proportion of men in their networks receive more offers (Belliveau 2005), and that men and women who find jobs through male contacts receive higher wages than those who find jobs through female contacts (Loury 2006). Women tend to disseminate information to other women about lower-paying and female-dominated, rather than male-dominated, jobs (Huffman & Torres 2002, Mencken & Winfield 2000). Inner-city blacks may tend to rely on close ties within their neighborhood to find work, meaning they will rely on a network that is socially isolated, homogenous, and higher in poverty (Mouw 2002). These networks should not necessarily be avoided, however, because turning to formal postings may not yield better jobs. Individuals without college degrees, for example, may need to rely more on social networks to find work than do individuals with college degrees (Zang 2003).

Another study found that individuals in rural areas need to rely more on informal networks than do individuals in urban areas (Matthews et al. 2009). In a Canadian study using stratified random samples from both rural ( $n = 2,881$ ) and big-city urban ( $n = 2,230$ ) areas, only 20% of individuals from urban areas reported finding their current job through an informal channel. In contrast, 53% of the rural sample reported finding their current job through an informal channel. The importance of informal networks in rural communities makes it especially difficult for newcomers to those communities; if newcomers want to find a job, they need to first establish their reputation (Matthews et al. 2009). Jobs in rural communities are also less likely to be posted; information about openings is circulated by word of mouth (Lindsay et al. 2005).

Not everyone is comfortable using informal search methods or networking. Many individuals have weak networks, are uncomfortable with a systematized networking process, and don't know how to go about contacting friends, family, and acquaintances during their job search. Recent research characterizes the type of job seeker likely to spend less time networking

during a job search. Individuals with lower extraversion, conscientiousness, and proactivity and those with smaller networks will be most likely to avoid networking during their job search (Lambert et al. 2006, Tziner et al. 2004, Van Hove et al. 2009, Wanberg et al. 2000).

Although most of the research on job information sources has focused on the use of social networks, a few post-2000 studies were focused on the effectiveness of public employment offices. Public employment offices provide employer listings and aim to help job seekers find work within (or outside of) these listings. Research has linked the use of public employment offices to lower earnings and shorter tenure in the new job (Addison & Portugal 2002, Weber & Mahringer 2008). However, this lack of effectiveness may reflect the types of jobs advertised through public employment offices as well as the lower qualifications of individuals using these services. For example, data from the Norwegian Graduate Surveys (1995–2000) suggest that new market entrants who used the public employment service were from fields with higher unemployment rates and had lower grade point averages in school (Try 2005). Furthermore, a study in Austria showed that a job found through the public employment service paid 16% less than jobs found through other methods. Yet, individuals who found work through the service also had lower pay before securing a job through the service. In comparison, the use of private employment services tends to be associated with higher wage levels and faster reemployment; these agencies tend to work with individuals with higher levels of qualifications (Bortnick & Ports 1992, Huffman & Torres 2001, Weber & Mahringer 2008).

A major change in search methods in the past decade has been the increasing sophistication, availability, and use of the Internet as a source of job postings. Available research portrays no advantage with regard to reemployment speed to individuals who use the Internet to look for jobs (Kuhn & Skuterud 2004), perhaps because most job seekers now use this tool (Fountain 2005). Despite this finding, the Internet is a central job search tool, and the number of jobs

that individuals can find on the Internet greatly exceeds what can be found in print outlets (Van Rooy et al. 2003). Social networking sites such as LinkedIn, Facebook, and Twitter also have utility with respect to finding information about open positions (Challenger, Gray, & Christmas Inc. 2009).

Overall, although job search methods differ with respect to their effectiveness, jobs are found through many means, including newspaper and online advertisements, direct contact with employers, networking, private and public employment offices, and unsolicited offers. As such, it is recommended that job seekers use an array of search methods in their job search (Mau & Kopischke 2001, Van Rooy et al. 2003, Wanberg et al. 2000).

### Other Aspects of the Job Search

Beyond the sources that individuals use to identify job openings, other dimensions of job search behavior that are important to reemployment success include intensity-effort (the amount of time and effort an individual puts into looking for work), temporal-persistence (whether an individual persists in his or her efforts and how the job search is changed over time), and other aspects of the content and direction of the search (such as the quality of search behaviors) (Kanfer et al. 2001). Of these dimensions, the intensity or effort individuals put into their job search has received the greatest amount of research attention.

In studies focusing on this construct, job search intensity is typically operationalized as the frequency of engagement in various job search activities, such as how many times in the previous two weeks an individual has viewed job openings online or in a newspaper. Measures of job search effort typically ask about the number of hours or amount of energy an individual is putting into one's job search. Meta-analytic data show that higher levels of both job search intensity and effort are related to receiving more job offers and shorter unemployment duration (Kanfer et al. 2001).

Some authors have also distinguished between preparatory and active search intensity following some research that originated with employed job seekers (Blau 1993, 1994). Preparatory search involves gathering information, considering a search, and getting everything in order to search (e.g., revising one's resume or reading a book about job search). Active job search has been conceptualized as expressing one's availability for work (e.g., listing oneself as a job applicant) and actually applying for open positions. The distinction between preparatory and active behaviors from a measurement standpoint can be murky for unemployed job seekers. Specifically, some search behaviors that are scored as active (e.g., contacting an employment agency) may actually be preparatory (the job seeker may attend a job search workshop at the agency). Likewise, some behaviors typically counted as preparatory (e.g., speaking with a previous employer to get job leads) indicate availability for work and may involve an actual employment request. Furthermore, preparatory behaviors are thought to come in advance of active behaviors (Blau 1993, 1994). This may be suitable for employed or college student job seekers preparing for graduation (Saks 2006). However, unemployed individuals may engage in preparatory behaviors such as revising one's resume on a continual basis while also engaging in active search. Research including measures of both preparatory and active job search intensity suggests active search intensity has stronger relationships with reemployment outcomes (Saks 2006, Saks & Ashforth 2000).

Estimates suggest unemployed individuals spend an average of 41 minutes to 3.5 hours a day on their job search in the United States (Krueger & Mueller 2010; Wanberg et al. 2010b, 2011). This level of job search effort is substantially higher than that reported in European countries (Krueger & Mueller 2010). More time is spent in job search within countries and U.S. states that provide lower unemployment benefits. Furthermore, time spent in job search increases as the time of benefit exhaustion approaches (Krueger &



Mueller 2010). Time spent in search differs considerably across individuals. For example, in a U.S. sample of individuals self-reporting they were actively pursuing jobs, 5.2% reported an average of 0–1 hours of search a day across a three-week period. In contrast, 1.3% reported 8–9 hours a day (Wanberg et al. 2010b).

A motivational, self-regulatory conceptualization of job search was proposed by Kanfer et al. (2001) to explain individual differences in time spent in job search. Self-regulation theories suggest that individuals differ in their abilities to successfully modulate their emotions, attention, effort, and performance during goal-directed activity (see, for example, Bandura 1986, Kuhl 1985). The ability to self-regulate emotions and effort is important in the job search context. Specifically, looking for work is a highly autonomous activity, requiring individuals to self-organize and manage their search. Discouragement, frustration, distraction, uncertainty, and many other factors may make it difficult for some individuals to expend effort on their job search. Kanfer et al. (2001) suggest that individual differences in personality, expectancies, self-evaluation, and motives are relevant to effective functioning in such a context. Meta-analytic data provided by these authors suggest that job seekers who put more time and effort into their job searches have higher levels of extraversion, openness to experience, agreeableness, emotional stability, and conscientiousness, as well as higher perceived control over life events, self-esteem, and self-efficacy. Job search intensity is also positively correlated with financial need, employment commitment, and social support. Demographics have very small relationships with search intensity. For example, men tend to report higher levels of job search than women, but the sample weighted correlation between gender and job search intensity was only 0.05.

Following the Kanfer et al. (2001) meta-analysis, a number of studies in the past decade have used self-regulatory frameworks to further elucidate the job search process. Several individual differences relevant to how individuals tend to approach goal-based situations (i.e.,

autonomous and controlled motivation, action and state orientation, and goal orientation) have been shown to be related to the time and effort individuals devote to their job search. Collectively, these studies show that job search effort and intensity are higher among individuals who (a) initiate and commit to action and (b) engage in goal striving volitionally, for the purpose of personal growth or because they find it interesting (Creed et al. 2009, Song et al. 2006, Vansteenkiste et al. 2004, Wanberg et al. 2011).

Self-regulatory theories have also been used to help understand the mechanisms involved in job search—e.g., how self-regulation occurs and through which processes individual differences exert their influence. For example, proactive personality (having a tendency to take initiative) may help an individual get more interviews and offers through increasing one's employment confidence and job search intensity (Brown et al. 2006). Extraversion, conscientiousness, and leadership experience may facilitate interview self-efficacy, which in turn improves chances of interview success (Tay et al. 2006). Meta-cognitive activities (setting goals, developing plans, and monitoring progress) and emotional control (managing one's emotions during unemployment) mediate the relationship between more stable personality traits and job search intensity (Creed et al. 2009, Turban et al. 2009, Wanberg et al. 2011). Non-self-determined motivation, defined as performing job search activities because one is pressured to do so rather than because one wants to do so, predicts procrastination in job search activities; procrastination is related to increased hopelessness (Senecal & Guay 2000). In another study, procrastination did not help to explain the extent to which intentions to search translate into actual search behavior (van Hooft et al. 2005).

Some additional studies aimed to deepen the understanding of factors and mechanisms important to the job search by using other, non-self-regulatory perspectives. Data from Cote et al. (2006) suggest that job search clarity (having clear job search objectives as well as clarity about the job search process)



is higher among individuals with higher conscientiousness and positive affectivity. Job search clarity mediated the relationship between positive affectivity and job search intensity. Because the Dutch culture is highly individualistic, Van Hooft et al. (2006a,b) expected to find that Dutch job seekers would be more likely to apply for jobs endorsed by their significant others than would job seekers from more collectivist minority groups in the Netherlands. Contrary to these expectations, the views of significant others were predictive of inclination to apply for a position for both groups.

The majority of studies in the literature examine job search at only one point in time, disregarding the possibility that job search intensity (or an individual's search approach) may change over time. The past decade yielded a few studies aiming to understand the dynamic processes involved in job search. Graduating college seniors, surveyed in their final term and four months later, showed an increase in preparatory and active search intensity and formal and informal source usage from the first survey to the second (Saks & Ashforth 2000). Another study assessed job search intensity every two weeks over 20 weeks and found that individuals with a higher positive self-concept and efficacy with dealing with life's challenges (i.e., core self-evaluation) reported higher persistence in their job search over time (Wanberg et al. 2005). This study also assessed whether cumulative, average job search intensity (measured across several weeks) would be more predictive of reemployment probability and speed than a Time 1, initial assessment of job search intensity. Although both Time 1 and average levels of job search were associated with reemployment success, aggregated levels of job search intensity did not improve the prediction of the reemployment outcomes.

Daily and weekly changes occurring over the duration of the job search were reported by Wanberg et al. (2010b, 2011). For example, Wanberg et al. (2010b) surveyed job seekers every weekday for three weeks. On days that job seekers perceived progress had been made in their job search, their mood and

feelings of confidence about finding work were elevated, especially among individuals with lower levels of financial hardship. Perceived progress, even without an actual offer in hand, was related to lower levels of search in the next day. This finding is consistent with control theory, which suggests that when individuals make progress toward achieving a goal, they may "coast" or take time off to devote to other activities (Carver 2006). In another study, job seekers experienced insights over time from learning the job search process, seeking guidance from others, and through self-reflection (Wang et al. 2007).

Especially when the unemployment rate is high, putting substantial time and effort into one's job search is a necessary condition for reemployment to occur (Prussia et al. 2001). Yet, job search intensity only accounts for a relatively small part of the variance in reemployment success outcomes (Kanfer et al. 2001). Authors during the past decade have begun to call for research that extends beyond looking at job search intensity (and sources) to other aspects of the job search, such as quality of individuals' search and presentation to employers as well as employers' decision-making practices (Kanfer et al. 2001, Sverko et al. 2008, Vinokur & Schul 2002).

Two recent studies provide insight into how a job seeker's search strategy and application materials can be improved. The efficacy of three job search strategies was examined by Crossley & Highhouse (2005). Individuals vary in the extent that they engage in a focused search (having a clearly defined employment objective and searching specifically for jobs that meet one's specified criteria), an exploratory search (gathering information about various employment options and being open to examining different opportunities), and a haphazard search (viewing and applying for opportunities without a plan or collection of information). A focused search was related to higher satisfaction in the postsearch job. An exploratory search was not related to job satisfaction but was related to getting more offers. Finally, a haphazard approach was negatively related to number of offers and

job satisfaction in the postsearch job. Another study found that adding competency statements to a resume or cover letter to describe the job seeker's knowledge, skill, or abilities in relation to the job posting resulted in higher interest on the part of hiring managers (Bright & Hutton 2000).

A few other studies elucidate issues relevant to performance in the job interview. Various dimensions that comprise interview anxiety were delineated by McCarthy & Goffin (2004). According to these authors, during an interview individuals may experience communication anxiety (e.g., becoming so uneasy they may not be able to express their thoughts clearly), appearance anxiety (e.g., worrying about if they are dressed appropriately), social anxiety (e.g., apprehension about the impression one is making), performance anxiety (e.g., worrying about what will happen if they don't get the job), and/or behavioral anxiety (e.g., shaking hands, fast heartbeat, fidgeting, dry mouth). A scale was developed to assess these dimensions. Higher levels of interview anxiety were negatively related to interview performance as rated by an interviewer ( $r = -0.34$ ). Consistent with this finding, individuals with high self-efficacy about the search process are more likely to have their interviews translate into job offers than individuals with low self-efficacy (Moynihan et al. 2003).

A recent meta-analysis addressed the relationship between self-presentation tactics and interview performance (Barrick et al. 2009). Results show candidate appearance is important: Across multiple studies, individuals evaluated to have a more professional appearance ( $k = 8$ ,  $r_c = 0.48$ ) and physical attractiveness ( $k = 17$ ,  $r_c = 0.54$ ) were given higher interview scores and deemed more suitable for hire. Impression management behaviors during the interview, including self-promotion (revealing positive information about oneself;  $k = 18$ ,  $r_c = 0.32$ ) and other-enhancement (e.g., agreeing with the interviewer or making ingratiating remarks;  $k = 15$ ,  $r_c = 0.26$ ) were also positively correlated with interviewer ratings. Finally, control over verbal (e.g., not talking too fast) and

nonverbal behavior (e.g., smiling) in the interview was related to more positive interviewer ratings ( $k = 7$  and  $20$  and  $r_c = 0.24$  and  $0.40$ , respectively).

## Discrimination

The extent to which racial, ethnic, gender, age, or other types of discrimination may limit the employment success of individuals was the focus of several studies. These studies tended to be conducted by selection or workplace equity researchers, rather than unemployment researchers, suggesting there is potential for unemployment researchers to be more actively involved in this stream of research. Issues related to discrimination are difficult to study because discrimination is often very subtle and difficult to prove given the millions of one-on-one employer/job applicant interactions that take place each year. Many studies have consequently taken place in university laboratory settings, using undergraduates posing as employers to evaluate artificial resumes. Although these methods have been heavily criticized, triangulation of laboratory studies with other creative methodologies suggests that discrimination of various sorts occurs in the hiring process as well as within other work-related decisions (Leslie et al. 2008).

In the United States, the 2010 unemployment rate was 7.3% higher among black or African Americans in comparison with whites (Bur. Labor Stat. 2010). Similar inequities in joblessness occur between majorities and minorities in other countries. Differences in unemployment rates across racial and ethnic groups may occur for several reasons, including differential skills, location of residence, and discrimination on the part of employers. One recent study aimed to examine possible racial bias in hiring using creative means to remove variance in hiring that might be attributable to differential skills. In this study, white, black, and Hispanic individuals were recruited to pose as job seekers applying for a total of 240 entry-level positions in New York City over a nine-month period in 2004 (Pager et al. 2009). The

individuals were clean-cut and matched with respect to social skills, interview and test performance, and physical attractiveness. The extent of the effort that went into this matching process is apparent—the researchers began with a field of 300 potential confederates and chose 10 that were matched on these criteria. The confederates applied for open positions with resumes that were constructed to be as similar as possible (without being identical) with respect to type and level of experience and education. A number of precautions and robustness checks were used to reduce alternative explanation issues such as the black applicants performing poorly in the interviews due to the expectation of being discriminated against. Results showed a significantly higher callback rate (i.e., second interview or job offer) for whites (31%) compared to Latinos (25.2%) and blacks (15.2%). Multiple examples of discrimination were documented through the process, such as when one employer told three of the confederates (one of each race) she was not going to interview them. As they all walked away, she asked the Hispanic and white individual to come back for a moment. She then told the two of them to return later that day to begin work.

Another U.S.-based study examined race discrimination by sending fictitious resumes with either common African American names (e.g., Lakisha Washington) or common white names (e.g., Emily Walsh). Resumes with African American names had a 3.2% lower chance of receiving a callback than resumes with white names (Bertrand & Mullainathan 2004). Comparable results have been shown in other countries with other minority groups. For example, in Greece, Albanians were 21.4% less likely to receive an interview than Greeks (Drydakis & Vlassis 2010). In the Netherlands and the United States, resumes with common Arabic names were rated lower on job suitability than resumes with common white names, although this effect depended on job characteristics and the rater's implicit prejudice (Derous et al. 2009). In India, there was evidence of discrimination against Other Backwards Caste and Scheduled Caste applicants for jobs involving

soft skills, but not for software jobs (Banerjee et al. 2009).

Other research addressed gender and sexual orientation as factors affecting hiring. In a study in Britain, gender discrimination occurred when women applied to male-dominated jobs and when men applied to female-dominated jobs (Riach & Rich 2006). In another study, male applicants were evaluated more harshly than female applicants for experiencing employment gaps (Smith et al. 2005). Pregnant job applicants and women who indicate they are parents may receive lower hiring recommendation ratings (Correll et al. 2007, Cunningham & Macan 2007). One study had individuals posing as job applicants alternatively wear (or not wear) a pregnancy prosthesis (Hebl et al. 2007). Audiotaped interactions indicated the pregnant applicant was treated with greater hostility than the nonpregnant applicant. Findings with respect to whether sexual orientation affects hirability ratings have been mixed (Horvath & Ryan 2003, Van Hoye & Lievens 2003).

A significant area of concern to job seekers is the possibility of age discrimination. Some job seekers even take radical steps such as plastic surgery to appear younger (Rubin 2011). A recent review of the research on age discrimination in hiring suggests that although several laboratory studies (often using undergraduate raters of resumes) reveal age discrimination, evidence for age bias is less consequential in field studies (Morgeson et al. 2008).

Many job applicants, especially women, report they have been discriminated against because of their weight (Roehling et al. 2007). This perception is supported by a recent meta-analysis that reported that overweight individuals receive lower recommendations for hire than nonoverweight individuals ( $d = -0.70$ ,  $k = 31$ ; Rudolph et al. 2009). As with studies on age discrimination, most of these studies are laboratory studies and vary in their level of sophistication. In one of the more innovative studies, a computer program allowed for weight to be added or subtracted from a photo of a job applicant. Undergraduates rated

the applicant with weight added to have more negative work attributes, but hiring decisions were not affected (Polinko & Popovich 2001). In a less realistic experimental manipulation, 30 men were shown full-page images of women with varying levels of body fat (from emaciated to obese) with their heads obscured to avoid bias induced by judgments of facial attractiveness. With the simple information that all of these women had equal qualifications, the men were asked how likely they were to hire individuals with each body type. Individuals with emaciated and obese body types were less likely to be hired than individuals with normal body types (Swami et al. 2008).

### Summary

Several factors are pertinent to reemployment success. Beyond the labor market situation, other factors of importance include the job seekers' level of human and social capital, job search methods and sources of job information, job search intensity and quality, situational and self-imposed constraints, level of financial need, and demographic and personal characteristics including factors such as weight. Most available micro research in this area has focused on understanding the roles of job search and discrimination in hiring practices. The research on job search shows that many individuals find jobs through social networks and that the increasing use of the Internet as a source of job postings has not seemed to produce a faster match between employer and applicant. Individuals vary in the amount of time they devote to their job search, and several studies, many using a self-regulatory framework, have identified individual differences and mechanisms involved in the job search process. The research on discrimination reflects the difficulties of studying biases of employers. Available research suggests that various types of discrimination occur in the hiring process and may slow the speed of reemployment for some individuals. Researchers used especially varied methodologies in the studies devoted to ethnic/racial discrimination, bolstering the conclusion that biases in hiring from a racial/ethnic perspective occur.

## INTERVENTIONS

Prevention or assistance-focused research aimed at helping individuals find work faster has attracted less attention than topics related to describing the difficulties of being unemployed (Hammarström & Janlert 2005). From 1994 through 1998, only four different interventions were described in the unemployment literature (Hanisch 1999). These interventions were focused on stress management, expressive writing, a job club, and the JOBS program, with multiple studies focusing on the JOBS program. Post-2000, the JOBS program commanded continued attention, building additional evidence for its efficacy and cross-cultural generalizability. In addition, several new intervention-based studies were published.

The JOBS program, developed by researchers at the University of Michigan, has two primary objectives: (a) enhancement of job search skills and self-confidence and (b) helping the job seeker prepare for the rejections and demoralization involved in the job search process (Price et al. 2002b). During the intervention, unemployed individuals identify their marketable skills, learn how to locate job opportunities, and practice responding to interview questions. Contributing to pre-2000 studies showing strong short-term outcomes, a two-year follow-up of the JOBS program found that participants continued to have higher levels of employment, higher monthly income, and lower levels of depression than did individuals in a randomly assigned control group (Vinokur et al. 2000).

Although initial examinations of the JOBS program were in the United States (for a review, see Caplan et al. 1997), more recently the benefits of the JOBS program were examined in Finland, where individuals have more substantial unemployment benefits following job loss (Vuori et al. 2002). A six-month follow-up showed the Finnish intervention participants to have higher stable employment and lower psychological distress than individuals in a control group, but there were no differences between the two groups on other indices

such as wage rate or job satisfaction. Passive job seekers and those unemployed for only a moderate amount of time (rather than recently unemployed or unemployed long-term) benefitted most from the intervention. Two years later, participants continued to be more engaged in the labor market (e.g., through employment or vocational training) than nonparticipants were (Vuori & Silvonen 2005).

Additional interventions not involving the JOBS program were examined in the past decade. An intervention involving verbal self-guidance training was developed by Yanar et al. (2009) to help Turkish women job seekers. The labor force participation level for women in Turkey is low (26.9% compared to 73.1% for men). Most women are expected to attend to household and childcare duties rather than to a career. Built upon Bandura's (1986) social cognitive theory, the intervention involved coaching the trainees to reverse negative self-statements that pertained to their employability. Individuals were coached to revise thoughts such as "I can't find a job no matter how hard I try" into positive statements such as "I know what I am capable of doing and I am very determined to get what I want" (p. 592). Following the training, participants reported higher job search self-efficacy, higher levels of job search behavior, and faster reemployment than individuals in a control group reported. Interventions to enhance perceptions of competence and self-efficacy among job seekers were also developed by Creed et al. (2001), Harris et al. (2002), Jackson et al. (2009), Joseph & Greenberg (2001), and Latham & Budworth (2006).

Although many job search interventions have been based on social cognitive theories, two researchers tested an alternative approach based on the concept of goal orientation (van Hooft & Noordzij 2009). Unemployed job seekers in the Netherlands were randomly assigned into one of three conditions (learning goal orientation, performance goal orientation, or a control group). The learning orientation group was trained to view their job search as a chance to learn from mistakes, to improve

their job search skill, and to set goals for learning. The performance orientation group was encouraged to focus on competing with others and performing well in the job search. Consistent with theory, which suggests that individuals who view goals from a learning perspective are better suited to cope with obstacles and challenges, individuals in the learning orientation group were more likely to be reemployed eight months after the workshop than were individuals in the two other groups.

The post-2000 literature also described several government interventions aimed at speeding reemployment. Several countries with extensive unemployment benefit structures (such as Denmark, Australia, and Switzerland) have experimented with requiring individuals to participate in programs meant to keep them active in their job searches (Borland & Tseng 2007, Graversen & van Ours 2008, Lalive et al. 2008). In Australia, where eligible individuals receive unemployment benefits for as long as they are unemployed, an intervention known as the Jobseeker Diary program was tested as a means of speeding reemployment (Borland & Tseng 2007). This intervention requires job seekers to apply for a specified number of jobs and record details about each application in a diary. Most individuals were required to apply for eight jobs in each 14-day period, but this varied by region. The program was highly successful, especially in regions with more favorable labor market conditions. Participants in the program were reemployed faster than individuals in a control group, and cost-benefit calculations suggest the program results in a net monetary gain for the government (Borland & Tseng 2007). A few programs involving job training (skill upgrading) and retraining (e.g., training in new areas) were also examined (Daniels et al. 2000, Fitzenberger & Speckesser 2007, Lechner et al. 2007). To be effective, it is especially important that retraining programs accurately gauge future job needs. For example, in Germany in the early 1990s, several unemployed individuals were retrained in the area of construction, right before construction experienced a serious decline (Lechner et al. 2007).



One issue that practitioners find challenging is matching available services to the individuals who need those services. To help with this issue, a needs assessment inventory for job seekers was developed by Wanberg et al. (2010a). This inventory, currently in use in the state of Minnesota, asks job seekers to indicate their status on several items related to reemployment success, such as how much time is being spent in the search, what search methods are being used, confidence about tasks such as writing a good resume, and levels of stress and worry. The inventory is used to identify areas job seekers may need to work on to improve their chances of successful reemployment.

In summary, peer-reviewed research on interventions to enhance reemployment speed and quality is relatively sparse. Challenging the current foci of academic work on unemployment, Hammarström & Janlert (2005) argue that more intervention- and prevention-focused work in the area of unemployment is needed. Extending current work that tends to focus on the individual, the authors suggest more work should be done at organizational, community, and national levels. For example, research could examine the incentive structure of different institutions to decrease unemployment levels. Complementing research that attends to secondary prevention (reducing the duration of unemployment) and tertiary prevention (helping individuals cope with unemployment), the authors suggest more attention should be paid to primary prevention (reducing incidence of unemployment). Finally, the authors note that intervention research must stay abreast with niche unemployment problems, such as underemployment and migrant unemployment.

## **PROGRESS AND NEXT DIRECTIONS**

In the past 10 years, unemployment research has shown significant progress. Research on the impact of unemployment has grown in its sophistication, strengthening the conclusion

that unemployment reduces psychological and physical health for individuals. Several studies have used creative approaches (e.g., considering issues of selection) to improve the extent to which causal statements can be made about the relationship between unemployment and health-related outcomes. In addition, new methods involving biomedical measures have been introduced to investigate the physical health impact of being without work. Because the literature on the physical health impacts of unemployment is less developed than that on psychological health, additional research on unemployment and physical health and health behaviors would be valuable. For example, investigators have speculated, but have not empirically tested the proposition, that declines in physical health following job loss may stem in part from individuals bypassing necessary health care due to lack of health insurance.

Given the many studies that have explored the relationship between unemployment and psychological well-being, simple descriptive studies showing that unemployment is stressful are no longer of value. However, work that extends theory and empirical understanding about the mechanisms and process by which unemployment has its negative effects is important. A deeper understanding of how job loss affects an individual's life, including short- and long-term career outcomes (a topic that has not received much attention), is also needed. Given that research has only just begun to parse to what extent poor well-being during unemployment can be causally attributed to being without work, more work designed to carefully attend to selection issues will also be valuable.

The past decade showed an increase in psychological research focused on the job search and the prediction of reemployment speed and quality. A myriad of variables are associated with reemployment success. We need additional models that depict and examine the relative importance of these variables (as well as interactions among these variables) to reemployment success outcomes. Most of the work examining job search-related predictors



of reemployment has focused on sources of job information and job search intensity. More work on other aspects of job search is necessary, including a deeper understanding of what happens day-to-day in the job search process, challenges individuals face as they look for work, and what a high-quality job search looks like. More work investigating individual differences in job search strategies as well as how the job search changes over time as an individual remains unemployed is also important. Finally, a deeper level of precision regarding how social networks help individuals find work and for whom they are the most helpful is needed. For example, we know that individuals who spend more time networking during their unemployment find jobs sooner, but is this true even for individuals with weak networks?

Available research suggests that discrimination of various sorts occurs in the hiring process. Although the research on ethnic/racial discrimination used a variety of methodologies and approaches, the literature examining other types of discrimination has continued to rely heavily on laboratory studies. The protocol of using undergraduates posing as employers evaluating artificial candidates for artificial jobs is especially overused. In order to bolster the strength of conclusions that bias occurs in hiring, triangulation of results using a variety of methods should continue to be a goal in this line of research (Leslie et al. 2008). A far deeper understanding of the extent to which this occurs and which job seeker characteristics are most vulnerable to discrimination is required. Furthermore, it is necessary to identify characteristics of the employers, interviewers, and regions most apt to discriminate against job seekers. The troubling trends in this area suggest employers must continue to use structured interviews as well as interviewer training to avoid potential biases.

Finally, several intervention-focused studies were conducted in the past decade. However, echoing the sentiments of Hammarström & Janlert (2005), additional work focused on niche unemployment problems, such as efforts to

reduce discrimination on the part of interviewers, or on helping minority job seekers, would be valuable. Intervention studies should include cost-benefit discussions delineating financial estimates involved with large-scale adoptions of a given program as well as predicted benefits. These studies should include considerations of how to choose individuals who should be included in the intervention. Interventions perfectly suited to all unemployed individuals are difficult to develop. Who benefits most from a given intervention, and how would agencies identify these individuals and get them into such a program?

Recommendations given to job seekers should integrate the rich findings available across studies. For example, recommendations meant to help individuals reduce their anxiety or depressive affect during unemployment might focus too extensively on taking time off or taking breaks. Such advice should be paired with attempts to increase search intensity (at least for individuals who put in only a small amount of search time each week), given that higher search intensity is related to faster reemployment. Recommendations to increase search intensity must likewise be paired with making sure the job seeker is engaging in quality search behaviors (e.g., using a diversity of sources of job information, engaging in a focused rather than a haphazard search). It would be useful, too, for researchers to conduct investigations that will allow more refined and specific practice-based recommendations, such as how many hours of job search per week are optimal for what types of job seekers (rather than simply more is better) and how to avoid common mistakes of job seekers.

In conclusion, it is exciting to see the progress this literature has made in the past 10 years. Yet, it is critical to further advance our understanding of the three key areas (the impact of unemployment, variables associated with faster and better reemployment, and interventions to help individuals find work) that are emphasized in this review.

## DISCLOSURE STATEMENT

The author is unaware of any affiliation, funding, or financial holdings that might be perceived as affecting the objectivity of this review.

## ACKNOWLEDGMENTS

A special thank you to Yongjun Choi and Tiffany Trzebiatowski for completing the detailed literature search necessary for this project.

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