NON-STANDARD, CONTINGENT, AND PRECARIOUS WORK IN THE “NEW ECONOMY”

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Abstract

Non-standard, contingent, and precarious employment relations – part-time work, temporary employment, skills underemployment, on-call work, and independent contracting – have become a cornerstone of the “new economy.” This dissertation takes seriously the consequences of these changes in employment relations for both workers and business organizations while filling important gaps in the literature.

The first part of the dissertation (Chapters 2 and 3) investigates the impact of non-standard employment histories on workers’ future labor market opportunities and addresses how these consequences vary by the race and gender of the worker. To shed light on this set of issues, I analyze data from an original field experiment – sending fictitious applications to apply for real job openings across five U.S. labor markets – and a complementary survey experiment with hiring decision-makers at U.S. firms. In both experiments, the primary manipulation was the most recent employment experience of the job applicant – full-time, part-time, or temporary agency employment, a job below the applicant’s skill level, or a spell of long-term unemployment. I also manipulated the race and gender of the applicants using racialized and gendered names. By tracking employers’ responses to each employment history in both the field experiment and the survey experiment, I am able to generate causal estimates of the consequences of non-standard work histories for individuals as they move through the labor market as well as probe the mechanisms underlying these consequences. The findings provide insights into how non-standard employment, race, and gender intersect in the production of labor market opportunities.

The second part of this dissertation (Chapter 4) explores the consequences of business establishments’ use of non-standard workers. Drawing on employer-employee matched data in
the United States, I examine how employers’ use of temporary workers, on-call workers, and independent contractors is related to the attitudes and outcomes of the standard employees in those workplaces. After adjusting for key organizational and individual factors, I find that employers’ use of temporary workers, but not their use of on-call workers or independent contractors, is associated with standard employees reporting lower levels of perceived job security and organizational trust as well as worse relationships with managers and co-workers.
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Chapter 1: Introduction

The U.S. economy has changed dramatically over the past forty years. Among the most significant shifts have been the increasing size of the service sector and the declining size of the manufacturing sector (Morris and Western 1999), a movement away from internal labor markets and long-term employment with a single employer (Cappelli 2001; Hollister and Smith 2014), plummeting rates of private sector unionization (Clawson and Clawson 2000), and skyrocketing rates of income inequality (Piketty and Saez 2003; Piketty 2014). While researchers are still investigating the broad consequences of these shifts, empirical evidence suggests that these changes are associated with perceptions of lower levels of job security among workers (Fullerton and Wallace 2005), a polarization of earnings (Wright and Dwyer 2003), and a general shift of risk from employers to employees (Hacker 2006).

Against this backdrop, the forms of relationships connecting workers to employers have also been altered. Non-standard, contingent, and precarious employment relations have become a cornerstone of the “new economy” in the United States (Kalleberg 2000; Kalleberg 2009). While these three types of employment relationships have distinct features, together they represent a group of labor market positions that are generally – although not universally – characterized by lower wages, fewer employer-provided benefits, insecure and unpredictable futures, as well as relatively low levels of autonomy and control (Kalleberg et al. 2000; Kalleberg 2009). Non-standard work is characterized by at least one of three general criteria: 1) work that is not performed full-time; 2) work that is not expected to continue indefinitely; and 3) work that is not performed at the legal employer’s place of business, nor under the legal employer’s direction.
Contingent employment generally has two key characteristics: 1) it implies that the employment relationship is conditional on some other factor, such as time or completion of a particular task; and 2) it indicates a lack of attachment between the worker and the employer, such as the employee being paid by a separate agency than where he or she performs his or her tasks (Pfeffer and Baron 1988; Polivka and Nardone 1989). Finally, precarious work is generally defined as employment that is “uncertain, unpredictable, and risky from the point of view of the worker” (Kalleberg 2009, p. 2). Non-standard, contingent, and precarious employment relationships take many forms in the contemporary labor market, such as part-time work, temporary employment, on-call work, independent contracting, and skills underemployment. At its most extreme, precarious “employment” may be experienced as work with frequent lay-offs or long-term unemployment.

While millions of workers experience non-standard, contingent, and precarious labor arrangements, significant limitations exist in the literature about the consequences of these employment relationships. Much research has investigated the factors driving employers’ utilization of these types of employment relations and significant scholarship probes the experiences of workers who labor as non-standard, contingent, and precarious workers while they are in those positions (Kalleberg et al. 2000; Kalleberg 2000; Parker 1994; Rogers 2000). Much less is known, however, about the consequences of non-standard employment histories for workers’ future labor market opportunities and the ways that the insecurity of contingent employment relationships may ripple outward to influence even full-time, standard employees who work in the same organizations as contingent employees. This dissertation draws on innovative data and methods to examine these underexplored areas in the literature, contributing new insights to the sociological study of the changing U.S. economy.
NON-STANDARD, CONTINGENT, AND PRECARIOUS EMPLOYMENT

In this dissertation, I examine the consequences of six types of non-standard, contingent, and precarious employment relationships: part-time work, temporary employment, skills underemployment, independent contracting, on-call work, and long-term unemployment. Before moving on to discuss the substance of the dissertation, I briefly introduce the contours of each type of employment relationship.

In the United States, part-time employment is generally defined as working less than 35 hours per week and is the most prevalent form of non-standard work. Currently, nearly 20% of the U.S. workforce is employed in part-time positions (Bureau of Labor Statistics 2013a; Kalleberg 2000). Figure 1.1, below, presents the number and proportion of part-time workers in the U.S. economy between 1979 and 2011. While there is a clear increase in the number of part-time workers over time, the proportion of workers in part-time positions is fairly volatile, rising and falling with the economic climate. Compared with full-time workers, part-time workers tend to receive lower pay and fewer fringe benefits (Kalleberg 2000; Kalleberg et al. 2000). However, there is significant variation in the pay and benefits of part-time work (Tilly 1992; Kalleberg 2000). Since 1970, the growth in part-time work has been concentrated among “involuntary” or “secondary” part-time work (i.e., part-time positions where people would rather be working full-time). Involuntary part-time workers make up approximately one quarter of the part-time worker population. And, the size of the involuntary part-time workforce more than doubled during the recent “Great Recession,” increasing from 4.4 million workers in 2007 to 8.9 million workers in 2010 (Mishel et al. 2013). Although the gender gap in part-time work has declined over time, there remain significant gender differences in participation in part-time work. Currently,
approximately 60% of part-time workers in the United States are women (Bureau of Labor Statistics 2013a).

Temporary workers generally fall in to two broad categories: direct-hire temps and help agency temps. Direct-hire temporary workers are those workers hired directly by a given firm on short-term contracts. Once their work is done or their contract expires, the worker moves on either to a position at a different company or to a permanent position at the same firm.

Temporary help agency workers, by contrast, are those workers who are on the payroll of another firm (the “temp agency”), but who work on a temporary basis at the firm of interest. Some of the major temporary agencies in the United States include Manpower, Accountemps, and Kelly Services. Temporary agency workers generally provide staffing for special projects, assist firms in dealing with unexpected increases in demand, and help with meeting seasonal variation in employers’ needs. Additionally, firms can “try out” temps before hiring them and, in
the case of agency temps, the temporary worker has been pre-screened by a separate agency (Kalleberg 2000; Autor 2003).

Employment through temporary help agencies (THAs) has risen dramatically over the past 30 years. Between 1979 and the late 1990s, the THA sector grew at an annual rate of over 11%, which was over five times more rapid than the growth in nonfarm employment (Kalleberg 2000; Autor 2003). Since then, the level of THA employment has remained relatively stable at these higher levels. Importantly, a majority of workers (roughly 60%) work in THA positions involuntarily (Bureau of Labor Statistics 2005), preferring a standard, on-going employment relationship. While temporary workers are used in all occupational categories, they are most heavily concentrated in lower-skilled jobs, such as office and administrative support occupations and production occupations (Bureau of Labor Statistics 2005). Figure 1.2 presents the utilization of THA workers in the U.S. economy from 1979 to 2011. Importantly, the estimates in this figure for each year are cross-sectional in nature, measuring only the number of THA workers at a particular moment in time, which underestimates the total number of THA workers by missing the flows of workers in and out of temporary positions. Some researchers estimate that approximately twice as many people work as temporary help agency workers throughout the course of a year than one would find in a cross-sectional estimate (Finegold, Levenson, and Van Buren 2003).
In 2005, the most recent year for which estimates are available, there were 10.3 million independent contractors in the United States, which made up 7.4% of total employment. This was a slight increase in the prevalence of independent contractors from the previous calculation in 2001, when independent contractors made up 6.4% of total employment (Bureau of Labor Statistics 2005). Independent contractors are those individuals who work at an organization on a short-term basis, but generally possess a specialized set of skills (Barley and Kunda 2004; Osnowitz 2010). Independent contractors often remain administratively separate from the organizations to which they provide their services and generally control their own work. In fact, having control over their work is a legal criterion that distinguishes independent contractors from “standard” employees (Kalleberg et al. 2000). A key advantage of using independent contractors is that they provide firms with highly specialized and skilled labor on an as-needed basis. Independent contractors arguably help employers reduce their labor costs because employers do
not need to contribute to Social Security or Unemployment Insurance benefits for independent contractors (Hipple and Stewart 1996; Kalleberg et al. 2000). Given these financial benefits of hiring workers as independent contractors, the inaccurate classification of some workers as independent contractors has become a significant problem. Recently, the U.S. Department of Labor has been actively trying to reduce the misclassification of employees as independent contractors to insure the appropriate protection and compensation for these workers (Department of Labor 2013).

On-call workers are those employees who are on an establishment’s payroll, but who are only called in to work when they are needed. As of 2005, there were nearly 2.5 million on-call workers in the United States, making up 1.8% of total employed persons (Bureau of Labor Statistics 2005). The proportion of on-call workers remained relatively steady from 1995 to 2005 (Kalleberg 2009). On-call workers, when called to work, can work for a single day or for an extended period of time. They also often assist companies fill in for employees who are absent for some reason (Cohany 1996), such as maternity leave, illness, or vacation. Substitute teachers are a classic example of on-call workers (Coverdill and Oulevey 2007). Demographically, on-call workers are quite similar to the overall composition of the U.S. workforce, although they are more likely to be young and more likely to have less than a high school diploma (Bureau of Labor Statistics 2005).

Skills underemployment, or worker over-qualification, can also be considered a form of non-standard and precarious employment. Skills underemployment describes workers who are employed in jobs for which they have excessive skills or experience (Erdogan and Bauer 2011). Workers who are skills underemployed often perceive these positions as a temporary measure

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1 When an employer hires an independent contractor, the employer generally details the final product required from the contractor, but the contractor determines the best way to generate the final product (see Kalleberg 2000). Thus, misclassification of independent contractors may occur if an employer dictates the daily tasks of a worker, but
until they can find a job that is a better match for their skills. Thus, there is limited expectation of continued employment, which is one of the key components of non-standard employment relationships. Importantly, there is limited research on skills underemployment, which is in part due to the challenges with operationalizing the construct using standard labor force surveys. These data limitations make it difficult to estimate the prevalence of skills underemployment or how it has changed over time. However, there is evidence that workers who are skills underemployed receive lower pay than individuals with similar skills and experience, but that they receive higher pay than the workers in the jobs that they are performing (McGuiness 2006; Wilkins and Wooden 2011).

The final type of precarious “employment” that will be investigated in the dissertation is long-term unemployment. While clearly not a type of employment relationship, being unemployed for a long period of time is in many ways the ultimate form of labor market precarity. Long-term unemployment is generally defined as being unemployed for six months or more (Mishel et al. 2013). For individuals who want to be working, lacking employment can have detrimental consequences for their psychological well-being, health, happiness, and future employment prospects (Ruhm 1991; Young 2012). As Figure 1.3 demonstrates, long-term unemployment hit extreme levels during and after the recent Great Recession. In March of 2011, 45.5% of unemployed workers had been unemployed for at least six months, compared to an average of 11.4% in 2000 (Mishel et al. 2013). While long-term unemployment is not the focus of this dissertation, it provides a useful point of comparison – in addition to full-time, standard employment – against which to measure the consequences of non-standard, contingent employment.
While the information and data presented above provide a picture of what non-standard, contingent, and precarious employment look like in the United States, these employment relationships are not randomly distributed throughout the population. There are highly gendered historical trajectories of some types of non-standard employment, particularly part-time and temporary agency employment. Both of these forms of non-standard employment took hold as “women’s work” in the U.S. economy after World War II (Kalleberg 2000; Hatton 2011). Thus, part-time employment and temporary employment may “mark” women as mothers in the eyes of potential employers, raising concerns in the world of work about these women’s commitment to their jobs.

Given that a significant portion of this dissertation examines workers’ labor market opportunities following the Great Recession of 2007 to 2009, it is important to note that the consequences of the recent economic downturn varied for male and female workers. Hout and Cumberworth (2014) demonstrate that prime-age (25 to 54 years old) employment dropped more
sharply for men than women during the Great Recession. But, the recovery for women has been slower, resulting in current employment ratios for both men and women than are approximately five percent lower than before the Great Recession (Hout and Cumberworth 2014). Additionally, Farber (2011) finds that while unemployment among those displaced during the Great Recession remained higher among men than women in January of 2010 (43 percent for men compared to 35 percent for women), this difference can largely be explained by the fact that more female than male displaced workers withdrew from the labor market all together. His estimates indicate that 17 percent of female workers who lost their jobs ended up withdrawing from the labor force, compared to 10 percent of displaced male workers (Farber 2011). Importantly, though, labor market analysts have argued that while the Great Recession impacted male workers more harshly than female workers in some ways, this pattern is not specific to the most recent recession and similarly gendered patterns emerged in past recessions as well (Elsby et al. 2010).

The variation in rates of non-standard and contingent employment is not limited to gender. African Americans are generally more likely than whites to work in many non-standard, precarious positions, experiencing higher rates of involuntary part-time work, temporary agency employment, and unemployment (Bureau of Labor Statistics 2005; Bureau of Labor Statistics 2013a; 2013b). For example, in the last quarter of 2007, before the Great Recession, 2.5 percent of whites were involuntarily working part-time, compared to 3.8 percent of blacks. In the last quarter of 2009, when the effects of Great Recession were being felt, 5.2 percent of whites were involuntarily working part-time, compared to 7.5 percent of blacks (Sum and Khatiwada 2010). Thus, in both of these periods, there was a clear over-representation of black workers in involuntary part-time positions. While it would be interesting to examine whether there are also
racial differences in skills underemployment, limited empirical work has examined this issue or how it has changed over time.

The intersection and overlap between gender, race, and non-standard employment relationships raise important questions about how non-standard employment relations may be implicated in perpetuating various forms of racial and gender inequality. Additionally, variation in the consequences of non-standard employment by race and gender may provide insights into the deeper meanings of race and gender in the labor market. These issues and implications will be examined and discussed throughout the dissertation.

Just as non-standard and contingent employment is not randomly distributed among workers, it is not randomly distributed across workplaces. Research suggests that larger firms, more hierarchical firms, firms with a higher percent of full-time female employees, and firms with high levels of employer-provided benefits are more likely to use non-standard and contingent workers (Magnum, Mayall, and Nelson 1985; Kalleberg et al. 2003; Chen and Brudney 2009). And, findings suggest that unionization within the firm is associated with the use of temporary labor, but the direction of that relationship has varied across studies (Kalleberg and Marsden 2005). The footprint of contingent workers across workplaces is quite striking. In the sample of establishments in the 2002 National Organizations Survey, approximately 33% used temporary workers, 26% used on-call workers, and 26% used independent contractors (author’s calculations). Thus, even workers in nominally stable positions – full-time, permanent, standard employees – often labor in workplaces alongside non-standard and contingent workers. This reality of the contemporary workplace raises questions about the consequences of employers’ use of contingent workers for the organizational environment in which all workers spend their time.
The result of the increased utilization of non-standard, contingent, and precarious employment relations is that work in the United States has become a highly differentiated field. An employment system predicated on working full-time, with health and retirement benefits, in a job that matches one’s skills, for a single employer throughout one’s career, and moving up the internal corporate ladder until one retired was likely never a reality for most workers in the United States (Hollister 2011). However, any illusion of that set of employment relations has now disappeared. This dissertation takes seriously the meaningful variations that have emerged in employment relations and attempts to understand their role in shaping the opportunity structure of the labor market. At its core, this dissertation points to the fact that without accounting for differentiated employment relations we are unable to understand the current processes that lead to stratification in the world of work. Ultimately, non-standard and contingent employment relations have real consequences for workers’ labor market opportunities and for the ways that social inequalities by race and gender are reified and reproduced.

**Overview of Existing Literature and Research Questions**

Significant scholarship in sociology and economics has attempted to understand the forces behind the rise in non-standard and precarious employment relationships. Researchers have identified multiple causes of the rise in precarious employment. Global economic integration has increased competition for U.S. firms, creating incentives for companies to outsource work to lower-wage countries and implement more flexible employment relations for their U.S. employees (Kalleberg 2009). Legal changes in the U.S. have also paved the way for employers to alter their relationships with their employees and increase their use of contingent and precarious labor (Gonos 1997; Autor 2003). Additionally, changes in key labor market
institutions, such as the decline in the power of organized labor (Morris and Western 1999; Clawson and Clawson 1999), have enabled the emergence of more precarious positions in the U.S. labor market. Some researchers have also suggested that workers’ changing preferences for more flexible schedules and working conditions have played a role in the rise of certain forms of non-standard employment, such as part-time and temporary work (for a summary of this literature, see Ofstead 1999).

Additionally, sociologists have focused much attention on the ways that non-standard, contingent, and precarious employment impacts workers who are currently laboring in those positions. Materially, workers in non-standard positions receive lower wages and fewer employer-provided benefits, on average, compared to workers who are in standard, full-time employment relationships (Kalleberg et al. 2000). Some evidence also suggests that contingent employment is associated with psychological morbidity and higher risk of occupational injuries (Virtanen et al. 2005; for a review, see Benach et al. 2014). There is also a large literature on the subjective and qualitative experiences of non-standard and contingent workers. This research points to experiences of exclusion within the workplace as well as feelings of insecurity and inferiority among non-standard workers (Smith 1998; Henson 1996; Rogers 2000; c.f. Broschak et al. 2008).

Although these lines of inquiry have been developed with regard to non-standard and contingent employment, two important issues have remained largely absent from U.S. scholarship. First, little is know about how non-standard employment shapes workers’ future labor market opportunities and how these consequences may differ by the race and gender of the worker. Given the lower wages and benefits of many non-standard positions and the fact that many workers in non-standard employment positions want to transition in to more standard jobs,
this issue has important implications for understanding workers’ economic security as well as the consequences of non-standard employment for labor market stratification.

While non-standard and contingent employment is an important area of inquiry in its own right, histories of these types of employment relationships have likely take on additional importance in the contemporary labor market due to the decline of internal labor markets over the past decades (Cappelli 2001; DiPrete et el. 2002). With more hiring happening from the external labor market, workers’ employment histories play an increasingly important role during the applicant screening process. Employers have less information about a worker when hiring from the external labor market compared to promoting individuals who already work in their organizations. Thus, employers need to rely heavily on workers’ previous employment experiences for information about a worker’s quality when hiring external candidates. Histories of non-standard employment, therefore, may provide future employers with information that they use when making decisions about which applicants to interview and, ultimately, which applicants to hire.

Questions about the mobility prospects associated with non-standard and contingent employment harken back to long-standing questions in the social sciences about dual or segmented labor markets (see Doeringer and Piore 1971). This line of research has argued that “the American labor market is sharply divided between good jobs and bad jobs” and that workers in bad jobs do not have “any realistic chance of getting or having a better job in the future” (Hudson 2007, p. 297). While research on dual and segmented labor markets has been controversial and faced challenges when put to empirical scrutiny (for a brief summary, see Hudson 2007), it has played an important role in shaping current research on job quality (Kalleberg 2009) and the role of non-standard and contingent employment relations in affecting
the employment structure (Belous 1989, Kalleberg et al. 2000). Thus, even though this
dissertation does not directly draw upon a dual or segmented labor market perspective, it has its
lineage in those ideas.

In addition to paying limited attention to the role of non-standard and contingent work in
shaping workers’ future labor market opportunities, a second much overlooked area in the
literature is how the consequences of the rise in non-standard employment relationships may
spill over to impact even those workers who are employed in full-time, standard positions. While
nominally insulated from the rise of non-standard employment, these workers often labor side-
by-side with contingent workers within the same organizations. They often work on the same
projects, report to the same managers, and are generally jointly responsible for the completion of
specific tasks. Thus, the insecurity and instability of non-standard, contingent labor may ripple
outward to shape the experiences of workers who are employed in full-time, standard positions.
Understanding the dynamics that emerge within workplaces due to the simultaneous use of
multiple types of employment relationships presents an important area of inquiry for sociologists
and scholars of organizations.

To address these important gaps in the existing literature on non-standard, contingent,
and precarious labor relations, this dissertation asks six main research questions:

1. What are the consequences of non-standard and precarious employment for the future
employment outcomes of individual workers? Does non-standard employment penalize
workers compared to having a full-time, standard employment history? Can histories of
non-standard employment protect workers against the deep scars of long-term
unemployment?

2. Given the highly gendered history of non-standard employment in the United States, do
the consequences of these positions differ for male and female workers? Do non-standard
employment histories and histories of unemployment serve as proxies for motherhood,
leading to a type of “motherhood penalty” that penalizes women more severely than
men? Or, have employers incorporated non-standard work histories and spells of
unemployment in to their understanding of female labor force participation, leading to stronger penalties of non-standard employment for male workers?

3. Do histories of non-standard employment intersect with race at the hiring interface? And, can racial variation in hiring outcomes across histories of non-standard employment shed light on the mechanisms underlying racial discrimination in the hiring process?

4. Through what mechanisms do the effects of non-standard and precarious employment operate for individual workers? Do non-standard employment histories raise concerns for future employers about a worker’s human capital and hard skills? Do employers perceive histories of non-standard work as sending signals about a worker’s competence and commitment?

5. How does the rise of the use of contingent employment relationships influence the workplace attitudes and outcomes of those individuals seemingly insulated from these changing employment dynamics? Specifically, how does the use of non-standard and contingent workers by business establishments affect the full-time, standard employees in those workplaces?

6. What mechanisms account for the consequences of business establishments’ use of non-standard workers on the standard employees within those workplaces?

Each of these questions will be theoretically developed and empirically investigated in this dissertation. Thus, the dissertation attempts to make multiple contributions to sociological scholarship on changing employment relations, gender inequality in the labor market, and processes of racial stratification.

**Methodological Approach**

One of the reasons that the research questions posed here have remained underexplored in the academic literature is that there are methodological and data challenges in empirically examining these issues. The first four research questions, which examine the consequences of non-standard employment for workers’ future labor market outcomes and how those consequences differ by race and gender, are difficult to examine with standard labor force survey data. Workers select into and out of non-standard employment positions for many reasons – based on both observable
and unobservable factors – that are difficult to fully adjust for with observational data. To address these challenges, the dissertation approaches these research questions using both field-and survey-experimental data. While a detailed discussion of the research design and the benefits of this experimental approach will be addressed fully later in the dissertation, these data enable the generation of causal estimates of how non-standard employment histories affect workers’ future labor market outcomes and how these effects differ by the race and gender of the worker. Given the limited research that exists in this area, identifying causal estimates of the effects of non-standard employment histories serves an important role in moving forward research in this area.

The final two research questions – addressing how the use of non-standard employment within organizations may influence the attitudes and outcomes of the full-time, standard employees within those organizations – have also been challenging to examine empirically. There are few data sources that collect multi-level data about organizations and the individuals who work within those organizations. When these data sources do exist, they often contain information on only a small number of organizations, making it difficult to examine variation in organization-level attributes. Thus, to gain traction on this issue, I draw on an underutilized opportunity to create a multi-level dataset by merging information from two surveys – the 2002 National Organizations Survey (NOS) and the 2002 General Social Survey (GSS). The sample of organizations in the NOS was drawn from the respondents in the GSS and, thus, the two dataset can be merged. Merging these datasets provides the rare opportunity to examine how organizational-level variation, such as the use of contingent workers, is associated with the attitudes and outcomes of the workers in those organizations for a large, national sample of workplaces.
OUTLINE OF THE DISSERTATION

The dissertation will proceed as follows. In the next chapter, I will examine how histories of three types of non-standard employment – part-time work, temporary agency employment, and skills underemployment – shape workers’ future labor market opportunities. Drawing on original field- and survey-experimental data, this chapter examines the consequences of having a non-standard employment history for workers’ future labor market opportunities as well as how these consequences vary by the gender or the worker. Additionally, I investigate the mechanisms underlying the consequences of having a non-standard employment history.

While racial variation likely exists in the consequences of non-standard employment, Chapter 2 does not examine the intersection between race and workers’ employment histories. Chapter 3 takes up this set of issues. Specifically, I utilize variation in non-standard employment histories and variation in the gender of the worker as analytic tools to gain traction on the mechanisms of racial discrimination at the hiring interface. Empirically, I leverage an extension of the experimental data from Chapter 2 to examine employers’ behavioral responses to white and black, male and female job applicants with different employment histories (full-time, standard employment; non-standard, precarious employment; or unemployment). Ultimately, this chapter contributes to sociological scholarship on racial discrimination as well as our understanding of the ways that the consequences of non-standard employment vary by race.

The fourth chapter moves away from examining the consequences of non-standard employment for the workers with those employment histories and addresses the spillover consequences of employers’ use of non-standard and contingent labor arrangements. While some recent scholarship has begun to examine the consequences of organizations’ use of contingent
workers for the full-time, standard employees in those workplaces, important limitations remain in this line of research. First, much of the research in this area relies on small, non-random samples of organizations and data that are decades old. Second, limited attention has been paid to the mechanisms through which the use of contingent workers shapes standard employees’ attitudes and outcomes. Finally, the varied consequences of using different types of contingent workers have been underdeveloped in the literature. In this chapter, I address these limitations of existing research, contributing insights about the differential consequences of how organizations obtain flexibility as well as the ways that employers’ use of contingent workers has largely hidden consequences for the attitudes and outcomes of the full-time, standard employees who work in those organizations.

In the concluding chapter, I discuss the implications of these findings for sociological scholarship on changing employment relations, gender and work, and racial stratification. I also address how these findings may influence policy discussions about employment and economic opportunity. Finally, I present avenues for future research that develop and expand the theoretical and empirical work conducted in this project.
Chapter 2: Penalized or Protected?
The Consequences of Non-Standard Employment Histories for Male and Female Workers

 Millions of workers are currently employed in positions that deviate from the full-time, standard employment relationship (Kalleberg 2000; Smith 1997; Tilly 1992; Bureau of Labor Statistics 2005; Bureau of Labor Statistics 2013b). Working in part-time positions, through temporary help agencies, and at jobs below their skill level have become common experiences for American workers. At the same time, the consequences of these non-traditional types of employment may be more consequential than ever. Employers are increasingly filling vacancies with job candidates from the external labor market (Cappelli 2001; Hollister 2011; DiPrete et al. 2002), candidates about whom they have less direct information than if they were promoting workers from within their organizations. This aspect of the “new economy” means that workers’ employment histories and experiences, including histories of non-standard employment, are increasingly important in the hiring process. However, limited research has examined how these two trends – the rise of non-standard employment relations and the decline of internal labor markets – intersect with one another in shaping workers’ labor market opportunities.

To address this limitation of existing research and extend the sociological understanding of the consequences of non-standard employment, this chapter addresses three inter-related questions. First, what are the consequences of having a history of non-standard employment for workers’ future labor market opportunities? Second, do these consequences vary for male and female workers? And, finally, what mechanisms can assist in explaining the consequences of having a non-standard employment history?
Non-standard employment – part-time work, temporary agency employment, or working in a job below one’s skill level – could affect workers’ future labor market opportunities in multiple ways. These types of positions may serve a protective force against the negative effects of long-term unemployment (Ruhm 1991), limiting the penalties workers with non-standard histories face compared to individuals who remain in full-time, standard jobs. If this is the case, as some policy experts and popular wisdom suggests (see Yu 2012; Stafford 2012), then there may be an important role for non-standard employment in promoting opportunity for workers in the “new economy.” Alternatively, the penalties associated with histories of non-standard employment may be similar to those of long-term unemployment, limiting workers’ abilities to obtain employment in the future. If employers screen out workers with non-standard employment histories in favor of workers with standard, full-time histories, then concerns arise about the labor market becoming segmented into jobs that provide mobility opportunities and those that are “dead ends” (Kalleberg et al. 2000).

The consequences of non-standard employment may also vary in meaningful ways by the gender of the worker. Part-time work and temporary agency employment arose in the U.S. economy as heavily feminized types of work (Kalleberg 2000; Hatton 2011) and may be considered an indication that a female worker is on the “mommy track” (Williams 2001). Thus, non-standard employment could serve as a proxy for a worker’s parenthood status, resulting in a “motherhood penalty” and greater disadvantage for women than men (Correll et al. 2007). However, it is also possible that employers have incorporated into their understanding of female labor force participation that women may have a spell of non-standard work or unemployment, limiting its influence on women’s hiring outcomes. For men, though, a history of non-standard work could send a strong signal that he was unable to find a full-time, standard job and therefore
raise concerns about him as a potential employee. This could lead to more severe penalties for men than women. Thus, the protective or penalizing nature of non-standard employment is likely to vary by a worker’s gender, but those differences could go in either direction.

While these issues are integral to understanding processes of labor market stratification and gender inequality in the “new economy,” existing data sources have made it difficult for researchers to examine the ways that workers’ histories of non-standard employment shape their future labor market outcomes. Few data sets track workers over time while simultaneously capturing detailed information about their non-standard employment experiences. And, the ability to control for the relevant factors that lead workers in to (and out of) non-standard employment is limited, leaving concerns about biases in the estimates that have been generated by research using observational data (see Addison, Cotti, and Surfield 2009; Addison and Surfield 2009; Booth; Francesconi, and Frank 2002).

To gain traction on this set of issues and to alleviate concerns about bias due to selection and omitted variables, this chapter analyzes original data from two experiments: 1) a field experiment examining actual hiring decisions in five major U.S. labor markets; and 2) a survey experiment conducted with hiring decision-makers at U.S.-based firms. The primary manipulations in both experiments were the most recent work histories that were presented on the applicants’ resumes. The resumes were randomly assigned twelve months of recent employment experience consisting of a full-time job, a part-time job, employment through a temporary help agency, a job below the applicant’s skill level, or a spell of unemployment. The experiment also manipulated the gender (male vs. female) of the worker using gendered names. The data generated by these experiments provide causal estimates of the effect of non-standard employment histories for workers’ future labor market outcomes and how these consequences
vary by gender. Together, these data shed new light on the consequences of changing labor market institutions while probing whether the gendered nature of non-standard employment translates into distinct consequences for male and female job applicants.

The chapter proceeds as follows. First, I define and provide background information about non-standard work in the United States. The chapter then builds on the unemployment scarring literature and research on the “ideal worker” to generate hypotheses about the whether non-standard work histories buffer or scar workers as they move through the labor market and how these consequences may differ by gender. I then present the findings from the field experiment, followed by the findings from the survey experiment. Finally, I discuss the results and then address the implications of the findings for understanding processes of labor market stratification and gender inequality in the “new economy.”

THREE TYPES OF NON-STANDARD EMPLOYMENT

This chapter examines the consequences of three forms of non-standard employment: part-time work, temporary agency employment, and skills underemployment. While these employment relations were discussed in the Introduction, here I provide some of the key aspects of each type of non-standard employment that are relevant for the argument and analyses that follow.

Part-time employment is generally defined as working less than 35 hours per week and is the most prevalent form of non-standard work, with nearly 20% of the U.S. workforce laboring in part-time positions (Bureau of Labor Statistics 2013a; Kalleberg 2000). While gender differences in part-time employment are addressed more fully below, it is important to note that, although the gender gap in part-time work has declined over time, there remain significant gender differences in participation in part-time work. Currently, approximately 60% of part-time
workers in the United States are women (Bureau of Labor Statistics 2013a; 2013b). Temporary help agency employment captures those workers who are on the payroll of one firm (the “temp agency”), but who perform their tasks on a temporary basis at a separate firm. Importantly, a majority of workers (roughly 60%) work in THA positions involuntarily. And, while women tended to dominate THA employment as the sector developed after World War II (Hatton 2011), THA workers are now roughly half male and half female (Bureau of Labor Statistics 2005).

Finally, this chapter examines the consequences of skills underemployment, or worker overqualification. One key difference between skills underemployment and the other types of non-standard work histories that are examined in this chapter is that skills underemployment does not have a history of being heavily feminized.

**Penalized or Protected?**

While social scientists have examined in great depth the forces behind the rise of non-standard employment relations in the United States and the consequences of non-standard employment for workers currently in those position (Autor 2003; Kalleberg et al. 2000; Kalleberg 2011), limited scholarship examines how histories of non-standard employment shape workers’ future labor market opportunities. On the one hand, non-standard employment histories may insulate workers from the scarring consequences of long-term unemployment, playing a positive role in shaping workers’ opportunities. Alternatively, histories of part-time work, temporary employment, or skills underemployment may limit workers’ abilities to obtain future employment compared to workers with full-time, standard employment histories.

At their core, these issues are about the demand side of the job matching process, examining how employers perceive workers with non-standard employment histories and,
ultimately, which job applicants employers choose to hire. While there is a voluminous literature
on how employers make hiring decisions (for example, see Oyer and Schaefer 2011; Rivera
2012; Moss and Tilly 2001), I develop and extend theoretical insights from research on
unemployment scarring (Ruhm 1991; Gangl 2006) and scholarship on the “ideal worker”
construct (Correll et al. 2007; Turco 2010) to understand how non-standard employment
histories may shape the job applicant screening process.

Penalties and Non-Standard Employment

The literature on the scarring effects of unemployment, which examines if and how histories of
unemployment affect workers’ future earnings and employment opportunities (Ruhm 1991;
Gangl 2006), is particularly useful in understanding why and how workers’ histories of non-
standard employment may negatively affect their hiring outcomes compared to workers who
remain in full-time, standard positions. Sociologists and economists have articulated two primary
mechanisms through which unemployment may negatively influence workers as they move
through the labor market: a human capital or “hard skills” pathway and a negative signaling
pathway, which focuses on underlying aspects of the worker’s character rather than their human
capital.

The first proposed mechanism linking a history of unemployment with hiring outcomes is
a human capital or “hard skills” pathway. Human capital theory suggests that: “an
unemployment spell not only precludes the accumulation of work experience but may also bring
the deterioration of general skills” (Arulampalam, Gregg, and Gregory 2001, p. F577; see also
Becker 1964). Thus, unemployment histories are hypothesized to scar workers because they lead
to the erosion of human capital – both general and occupation-specific – and preclude the
accumulation of new skills. Regardless of whether this accurately reflects the consequences of unemployment for workers’ human capital, if employers perceive unemployment to negatively affect a worker’s human capital, then workers with histories of unemployment may by penalized at the hiring interface.

Just as a history of being unemployed may lead employers to perceive workers as having lower levels of human capital, a similar process may occur for workers who end up in non-standard employment positions. For example, workers in part-time jobs are at their place of employment for fewer hours. Thus, this could suggest to future employers that their human capital has not developed at comparable rates to workers employed full-time, raising concerns about part-time workers compared to full-time workers. Future employers could also see employment through temporary employment agencies as leading to lower levels of human capital for workers. Even if a worker is performing temporary work in his or her occupation of choice, he or she will be moving between different employers and therefore may be perceived as having developed skills at a lower rate than a worker in a full-time, standard position at a single employer (Nollen 1996; Polivka 1996). Concerns about lower levels of human capital are also likely for workers who move in to jobs beneath their skill level, almost by definition. These workers are not performing tasks that utilize their occupation-specific skills and therefore will likely be seen by future employers as having lower levels of human capital and less relevant experience.

A second pathway articulated in the literature on unemployment scarring is that a history of unemployment may serve as a signal to future employers about unobserved, negative worker attributes that are distinct from their human capital (Eriksson and Rooth 2014). At the hiring interface, employers are often faced with dozens, or even hundreds, of applications for a single
vacancy. And, obtaining information about the quality of a worker from a job application can be difficult. Thus, employers may perceive a history of unemployment on a resume as an observable signal that there is something unobservable and negative about the worker.

Similar to a history of unemployment, a history of non-standard employment may send signals about unobservable worker characteristics to future employers. While suggesting that the content of the signal sent by a history of unemployment may have something to do with a worker’s productivity, the unemployment scarring literature remains relatively silent on this issue (Arulampalam, Gregg, and Gregory 2001). Therefore, to gain traction on the underlying content of the signal that may be sent by histories of non-standard employment, I turn to sociological scholarship about cultural conceptions of the “ideal worker” (Turco 2010; Correll et al. 2007; Davies and Frink 2014). While the contours of what it means to be an “ideal worker” vary with time and place, certain aspects remain relatively consistent. The “ideal worker” is generally highly competent, committed to his or her full-time job, free from the competing demands of family life, and has an unblemished employment history. Summarizing this notion, Correll et al. (2007) write: “According to this ‘ideal worker’ belief, the best worker is the ‘committed’ worker who demonstrates intensive effort on the job through actions that appear to sacrifice all other concerns for work” (p. 1306). In a similar vein, Davies and Frink (2014) argue: “The ideal worker is one who is devoted single-mindedly to the good of the employer, and is not subject to personal distractions from family or other responsibilities” (p. 20). Limited research has examined the ways that changing labor market institutions – specifically the rise of non-standard employment – render the attainment of the “ideal worker” status nearly impossible for a large share of the workforce. Indeed, the very nature of non-standard work may violate prescriptive norms about what an “ideal worker” should be – competent and committed. Thus,
employers may perceive workers with histories of non-standard employment as lacking competence and/or commitment when compared to workers with full-time, standard histories of employment.

Competence – the first dimension of the “ideal worker” construct – differs from human capital in that it is centered on a worker’s general ability, rather than his or her specific occupational knowledge and work experience. Concerns about a worker’s competence are likely to be strongest if a potential employer perceives a job applicant’s history of non-standard employment as involuntary – working in a non-standard position, but wanting to be in a full-time, standard position (Tilly 1992; Kalleberg 2000). For example, while involuntary part-time employment is quite common, it may suggest to an employer that the worker doesn’t have the competence to obtain and maintain a full-time job. Competence may also be a strong signal sent by workers with histories of temporary employment. Boyce et al. (2007) argue: “Stereotypical conceptions of temporary workers revolve around low skills, a lack of intelligence, a weak work ethic, and general inferiority” (p.7) (see also Martella 1991; Parker 1994; Rogers 2000; Williams 2001). While there is less research and theorizing about skills underemployment, this type of non-standard employment is generally conceived of as being undesirable and involuntary for the worker. Thus, the inability of a worker to maintain a job at their level of skill and experience may send a negative competence signal to future employers.

A history of non-standard employment may also violate the commitment aspect of the “ideal worker” construct. Even though survey data suggests that there are few systematic differences between the reported commitment levels of full-time and non-standard workers, particularly part-time workers (Kalleberg 1995), employers may perceive non-standard workers as less committed. A negative commitment signal is likely to be strongest if a future employer
perceives the move into non-standard employment as voluntary. For example, workers often utilize part-time employment as a strategy to balance the competing demands of work and family life (Williams 2001), which would be considered voluntarily working part-time. Decisions about voluntarily moving into part-time employment are often heavily gendered decisions and, thus, the consequences of part-time work may also be different for men and women. This issue will be discussed in detail below. In terms of temporary agency employment, the nature of temporary work – moving from organization to organization – may raise concerns for employers about the commitment temporary workers have to their careers and the organizations for which they work. Finally, it is unclear what signal a history of skills underemployment would send to future employers. The involuntary nature of most skills underemployment, though, may limit its signal about a worker’s commitment with employers mainly seeing skills underemployment as providing information about a worker’s human capital or competence.

The above perspectives suggest that workers with histories of non-standard employment are likely going to face penalties at the hiring interface compared to workers with full-time standard histories. These consequences could be due to employers’ perceptions of applicants’ human capital as well as signals sent by histories of non-standard work about an applicant’s competence or commitment.

The Protective Force of Non-Standard Employment

While non-standard employment histories may limit workers’ future labor market opportunities compared to workers with full-time, standard histories, it is also possible that non-standard employment provides workers with an advantage over long-term unemployment. Indeed, current workforce development policies in the United States are predicated on this idea. “Work first”
policy initiatives, for example, prioritize moving workers from joblessness into any job, regardless of the job’s match for the worker’s education or experience (see Autor and Houseman 2010). Additionally, the media often takes the stance that workers are better off working in any job rather than remaining unemployed. For example, a recent newspaper article, entitled “Underemployment is Better than Unemployment,” poses the question: Should you take a job beneath your skill level? The article concludes by arguing: “… doing something – anything – is better than having an extended blank on your resume” (Stafford 2012). Following policy prescriptions and this line of popular thought in the media, one would expect workers with histories of non-standard employment to fare better than workers with histories of unemployment when being evaluated during the job application process. However, research to date has not been able to support or reject this claim.

The public policy and media positions in this area, though, are not without theoretical grounding. Following the arguments of the human capital pathway, workers with non-standard employment histories should fare better at the hiring interface than unemployed workers who – by definition – have not been working (Becker 1964). Compared to workers with histories of long-term unemployment, employers are likely to perceive workers with histories of part-time work, temporary agency employment, and skills underemployment as keeping their skills and human capital more updated (for a discussion of this issue, see Yu 2012). This benefit over long-term unemployment is likely particularly strong if the worker is performing part-time or temporary employment in his or her desired occupation. For skills underemployment, which is outside of a worker’s occupation, it is unclear whether future employers would see this work as maintaining a worker’s human capital compared to unemployment.
The signaling pathway also opens the possibility that histories of non-standard employment could improve workers’ future hiring outcomes compared to workers with histories of long-term unemployment. Taking any job, rather than remaining unemployed, may correspond more closely to employers’ conceptions of the competence and commitment dimensions of the “ideal worker.” A worker who is able to get a job – even if it is non-standard – may signal to a future employer that he or she is more competent than a worker who has been unable to find work for long period of time. The commitment signal may be particularly strong for workers with a history of non-standard employment compared to workers with histories of long-term unemployment. Workers who take a part-time position, temporary job, or job below their skill level may signal to future employers that they are willing to do “whatever it takes” to remain employed, even if they have to take a job that is not the most desirable (i.e., non-standard). Additionally, most temporary workers (roughly 60%) want to transition into full-time, permanent work (Kalleberg 2000). Because of their desire to transition into full-time employment, some, but not all, research has found that temporary workers are at least as committed as permanent workers (Smith 1998; see also De Cuyper et al. 2011). Similarly, employers may think that hiring a worker out of a position of skills underemployment would increase that worker’s level of commitment because he or she would be grateful to have moved on to a better employment opportunity. Thus, employers may perceive workers with non-standard employment histories, particularly temporary agency employment and skills underemployment, as more committed than workers with histories of long-term unemployment and potentially as committed at full-time, standard workers.
**Empirical Grounding**

While the empirical literature on the effects of unemployment histories consistently finds negative consequences for workers’ future employment outcomes (Ruhm 1991; Arulampalam et al. 2001; Gangl 2006; Gregg 2001; Eriksson and Rooth 2014; Kroft et al. 2012), the limited empirical literature on the consequences of non-standard employment is mixed. Addison and Surfield (2009) find that jobless individuals who obtain nonstandard employment (of multiple kinds) are more likely to be employed than the jobless who continue to search for work – both one month and one year later – and have similar employment continuity to full-time, permanent employees. This finding suggests that non-standard employment, at least temporary employment, may serve to buffer workers against the negative effects of unemployment. Mavromaras, Sloane, and Wei (2013) use panel data from Australia and find that workers with histories of skills underemployment are more likely to be unemployed in the future compared to workers with employment histories that match their skill level, suggesting a scarring effect for histories of skills underemployment. Some research has also documented negative associations between histories of part-time and temporary employment and workers’ future earnings, compared to workers who remained in full-time employment (Ferber and Waldfogel 1998). The limited and varied empirical findings in this literature as well as the use of observational data leave open important questions about the causal nature of the association between non-standard work and future employment outcomes and whether they serve to buffer or scar workers as they move through the labor market.
THE GENDERED CONSEQUENCES OF NON-STANDARD EMPLOYMENT

While significant progress toward gender equality was made over the last half of the 20th Century, recent evidence suggests that some of that movement has stalled in recent years (England 2010; Gerson 2010). In the world of work, women are still underrepresented in executive positions (Leahey 2012) and receive lower wages, on average, than men (White House 2014). While multiple explanations likely contribute to persistent gender labor market inequalities, occupational sex segregation (England 2005), the increasing demands for long hours in particular occupations (Cha 2010; Goldin 2014), and workplace policies predicated on a masculine notion of the “ideal worker” (Acker 1990; Jacobs and Gerson 2004; Williams 2001) play key roles in perpetuating gender stratification. This last mechanism, the gendered construction of the “ideal worker,” is directly implicated in understanding how the consequences of non-standard employment histories may differ for male and female workers.

While the “ideal worker” construct appears gender neutral at first glance, demands outside of the workplace such as childcare and household work often fall disproportionately on women. These competing demands for many women likely intersect with unsupportive workplace and social policies in the United States that make it more challenging for women than men to live up to the “ideal worker” standard (Acker 1990; Kelly et al. 2010; Gornick and Meyers 2003; 2009; O’Connor, Orloff and Shaver 1999). As Davies and Frink (2014) contend: “This ideal [worker] is most readily approximated by White, middle-class men because this group is the most likely to have a stay-at-home spouse who provides backstage support” (p. 20). However, empirical research has consistently demonstrated that there are no meaningful differences in work effort and commitment between similarly situated men and women (Bielby and Bielby 2002). Although, even if women are able to balance work and family demands and
present similar levels of commitment as their male counterparts, employers are likely more concerned about this set of issues for women than they are for men.

While the “ideal worker” construct takes on an implicitly masculine form, part-time work and temporary employment arose in the United States as highly feminized positions in the labor market (Williams 2001; Hatton 2011). Part-time jobs have historically been viewed as part of the “mommy track” (Williams 2001) – an employment option for women attempting to balance the “competing devotions” of work and family life (Blair-Loy 2003). Experimental research has also demonstrated that when participants were asked to explain why a target in a vignette was in a part-time job, their responses differed by the gender of target. Female targets were assumed to be in part-time positions to deal with domestic and family duties, whereas male targets were assumed to be in part-time positions because they could not find a full-time job (Eagly and Steffen 1986). Similarly, temporary agency employment developed as a form of women’s work (Rogers 2000; Vosko 2000). Hatton (2011) argues that as the THA industry began to emerge after World War II, industry leaders, such as Kelly Services, were intentional about defining temporary jobs as “women’s jobs” to avoid confrontations with organized labor. The THA sector likely would have received significant resistance if labor unions thought that “temps” would be competing for jobs with their (largely male) unionized workforce. Thus, the THA industry arose and persisted until the 1980s as a predominantly feminized classification of work (Hatton 2011). Importantly, though, there is now approximate gender parity in the THA sector (Bureau of Labor Statistics 2005).

How might the gendered consequences of the “ideal worker” construct intersect with the gendered histories of part-time and temporary work during the job application process? On the one hand, women may be penalized more heavily than men for having a history of non-standard
employment, or a spell of unemployment, because employers may read these employment histories as an indication that the female applicant is on the “mommy track” and is not fully committed to her work. Previous research has found that mothers are penalized at the hiring interface, but fathers are not (Correll et al. 2007). This finding suggests that there is an additional disadvantage faced by women who are perceived to violate the role of the “ideal worker.”

On the other hand, employers may have already incorporated in to their evaluations of female applicants that women’s employment histories are more likely to include non-standard employment, or even employment gaps. Thus, a female worker’s history of part-time or temporary work may provide employers with limited new information about a woman’s compliance with the “ideal worker” standard. For men, however, part-time or temporary work or employment gaps may trigger employers’ concerns about whether there is something deficient about him. Additionally, men with part-time and temporary employment histories may be seen as violating standard “breadwinning” models of masculinity. Summarizing this perspective, Cha (2010) writes: “Whereas men who quit work or go part-time are viewed negatively because they are expected to financially support their families, women’s quitting or reducing work hours is often viewed as a practical strategy for reconciling work and family” (p. 306). And, significant research documents the ways that violating gender stereotypes can result in social and economic sanctions (i.e., “backlash effects”) (Rudman 1998; Rudman and Phelan 2008; Moss-Racusin, Phelan, and Rudman 2010). These perspectives suggest that men will be more heavily penalized than women for histories of non-standard employment as well as unemployment at the hiring interface.

There is some preliminary empirical support for the aforementioned line of thought. For example, researchers have found that temporary work is associated with long-term penalties in
the United States and the United Kingdom for men, but not for women (Addison, Cotti, and Surfield 2009; Booth, Francesconi, and Frank 2002). In Canada, there is some evidence that women are more likely than men to exit temporary jobs for full-time employment, suggesting that temporary work is less scarring for female workers (Fuller 2011). And, in the United States, histories of part-time work are associated with lower future earnings for men and women, but the negative effects are stronger for men (Ferber and Waldfogel 1998). Experimental research has also found that men are penalized more heavily than women for taking a leave of absence or needing to leave work for family reasons (Allen and Russell 1999; Butler and Skattebo 2004). While taking time away from work is different from having a history of non-standard employment, it may trigger similarly gendered responses from employers.

The signals sent by histories of non-standard employment are also likely to vary by the gender of the worker. Employers are likely to perceive women’s histories of part-time and temporary work, although not necessarily skills underemployment, as voluntary. Whether moving into non-standard employment is actually voluntary for women – or the result of various forms of constraint – is a much-debated topic in the literature (see Stone 2007; Cha 2010). However, following the theoretical argument articulated above, the voluntary movement into non-standard employment is likely to send signals about a worker’s commitment, rather than his or her competence. Therefore, it may be expected that the relationship between non-standard employment and women’s labor market outcomes, at least for part-time employment and temporary work, will be primarily accounted for by perceived commitment. For men, however, employers are likely to perceive non-standard employment histories as involuntary, thus sending stronger signals about competence than commitment. Together, existing theoretical perspectives
indicate that the effect of non-standard employment histories will vary by the gender of the worker. Although, whether men or women will face more severe penalties remains unclear.

**Methodological Considerations**

The aforementioned empirical studies on the consequences of non-standard employment histories rely on observational data (Addison, Cotti, and Surfield 2009; Addison and Surfield 2009; Booth, Francesconi, and Frank 2002; Ferber and Waldfogel 1998; Mavromaras, Sloane, and Wei 2013), leaving open the possibility that workers’ selection into non-standard employment, employers’ demand-side preferences, or some other unobservable worker or employer characteristics are driving the associations that are found. To my knowledge, only one U.S.-based study has attempted to deal with these endogeneity concerns by using a quasi-experimental research design. Autor and Houseman (2010) address the problem of selection bias by exploiting the random assignment of people in Detroit’s welfare-to-work program to different types of job placements (i.e., a temporary help agency placement vs. no job placement). They find that, after correcting for selection bias, temporary help agency employment does *not* improve the future employment outcomes or earnings of the welfare recipients in the study, compared to receiving no job placement. However, when they analyze their data *without* correcting for selection bias, it appears as if temporary help agency employment is *positively* related to employment and earnings, compared to receiving no job placement. Overall, these results indicate that the causal effect of non-standard work histories (at least temporary employment) may actually be no better than unemployment. While the generalizability of the Autor and Housemen (2010) study beyond the low-skilled welfare population in Detroit is unknown, their findings clearly suggest that selection bias makes identifying the causal effects of
non-standard work difficult using observational data. Given this challenge, experimental research
designs that remove concerns about selection bias and bias due to omitted variables – on both the
supply and demand sides of the labor market – are vital to furthering our understanding of the
consequences of non-standard employment histories (Pager 2007; Pager et al. 2009).

To address the methodological issues in existing research, I implemented complementary
field and survey experiments to examine the effects of non-standard employment for male and
female workers’ labor market opportunities. In the analysis, I first utilize data from the field
experiment, where fictitious job applications were sent to apply for real job openings, to examine
how non-standard employment histories and gender affect hiring outcomes in the actual labor
market. The field experiment, however, only provides information about whether an employer
responds in a positive fashion to the job application. It does not provide any details about the
signals that histories of non-standard employment may send to future employers. For this fine-
grained information, I analyze data from the survey experiment, which used the same
experimental manipulations as the field experiment and collected information on hiring decision-
makers’ perceptions of job applicants’ human capital, competence, and commitment. Thus, the
survey experiment enables an analysis of what mechanisms assist in accounting for the
consequences of non-standard employment histories. When employers are taking surveys,
however, they are not making real hiring decisions or evaluating real job applicants and, thus,
there may be aspects of the actual hiring process that are not fully present in the survey-
experimental context. Together, though, these methods provide a comprehensive lens into the
ways that non-standard employment histories intersect with gender to shape workers’
experiences at the hiring interface while addressing the methodological concerns that have
plagued previous research in this area. I proceed first with the field experiment and then move on to the survey experiment.

**The Field Experiment**

What are the consequences of non-standard employment histories for workers as they apply for jobs in the future? And, how do these effects differ by the gender of the worker? To examine these questions, I analyze original data from a field experiment where I submitted 2,420 applications to 1,210 job openings between November of 2012 and June of 2013. After sending each application, I tracked the “callbacks” (i.e., positive employer responses), defined in detail below, received by each application. The overall callback rate for the field experiment was 7.4%, which is consistent with similar previous studies (Correll et al. 2007; Bertrand and Mullainathan 2004).

There were two primary axes of variation in the field experiment. First, the experiment varied the most recent employment experience on the applicant’s resume. Each resume was randomly assigned 12 months of recent work experience that was a full-time job, a part-time job, a job through a temporary employment agency, a job below an individual’s skill level, or a

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2 The experiment was fielded during the recovery from the “Great Recession,” which may influence the external validity of the empirical findings. However, conducting the experiment in a time of economic recovery likely means that the effects that are detected are conservative. In times of economic distress, more individuals are pushed into non-standard employment and employers are more likely to perceive these histories as being outside of the worker’s control (see Gibbons and Katz 1991). Thus, the estimates of the effects of non-standard work presented below are likely conservative.

3 A “treatment” period of 12 month was selected because of the need to keep the duration of the treatment equal across conditions and the need to use an amount of time that would be appropriate for each non-standard employment history. The average length of unemployment in the United States is roughly 40 weeks, which is between nine and ten months (Bureau of Labor Statistics 2013b). And, the average length of temporary agency employment is estimated to be between three and four month – with 43% of temporary help agency workers having a tenure between two and twelve months (Berchem 2006). At the same time, I wanted to ensure that the full-time, standard condition had enough time in his or her current job so as to limit the negative signal to future employers due to limited duration at a job. A “treatment” period of one year was a reasonable balance between these different constraints.
spell of unemployment. The second axis of variation in the experiment was the gender of the applicant, which was signaled using gendered names. The male names were Jon Murphy and Matthew Stevens and the female names were Katherine Murphy and Emily Stevens. A resume and a cover letter were included with each job application. Each cover letter was crafted with similar language, while also accurately reflecting the work history presented on the resume. The cover letter for each experimental condition remained consistent across employers, except that each cover letter was personalized with the employer’s name and the job title for the open position. Since two resumes were submitted for each job opening, I constructed two separate resume templates that were similar in content, but aesthetically distinct. Each resume indicated that the applicant graduated from one of two large, public universities in the Midwest with similar rankings by U.S. News and World Report. After graduating from college, each resume indicated that the applicant had a first job that lasted for just under two years. Each applicant then had a second job that lasted for nearly four and half years. Then, all applicants transitioned in to a new job, which is where the experimental manipulations were implemented. The standard, full-time resumes were pre-tested before using them in the experiment and they received similar ratings on key dimensions of perceived human capital and experience. For examples of the experimental treatments used in the field experiment, see Appendix 2.A.

Applications were submitted to four different job types that varied in the level of skill they required: sales, accounting/bookkeeping, project management/management, and administrative/clerical job types. The resumes submitted for each job type had an employment

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4 Unemployment was signaled through dates that the applicant did not have a job. The formal definition of unemployment is that an individual does not have work and is looking for work. The second component of the definition is not formally signaled, although the jobless individual is clearly looking for work at the time that the application is submitted. To the employer, however, unemployment and simple joblessness are indistinguishable and, thus, I refer the condition with a spell of joblessness as the “unemployment” condition.

5 The field experiment also included a set of African American racialized names, which are not included in the analyses for this chapter. They are examined in the following chapter.

6 The applications did not provide any information about the applicant’s parental status.
history with relevant experience for that occupation. The applications were submitted to job openings in five major U.S. labor markets – New York City, Atlanta, Chicago, Los Angeles, and Boston – to add geographic diversity to the analysis. The employment histories for each applicant were geographically specific to the labor market in which the applicant was applying. For example, the resumes that were submitted in Chicago had employment histories with real employers in Chicago. Each resume also included a local phone number and a local address. Each phone number had its own voice mailbox and a unique gender-specific voice recording where employers could leave messages for the applicant. The applicants’ street addresses were located a few blocks away from each other in each city. The addresses were real, but the apartment numbers were fictitious.

The sample of job openings for the experiment was drawn from one of the leading national on-line job posting websites and therefore represents a broad cross-section of job openings. Using a national job posting website ensured some level of consistency in the jobs being posted across labor markets. To collect the job openings that met the search criteria for the experiment, I worked with a computer programmer to design a computer script that executed the needed searches. Each search was for a particular job type (e.g., administrative assistant), within a 20-mile radius of each city, that was posted over the previous 30 days, and that could be applied for directly through the job posting website. After collecting the job openings that matched these requirements, duplicate postings from the same employer were removed (i.e.,

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7 In a few cases, I limited the search to jobs posted for fewer than 30 days. In these cases, the computer script would not run for the full 30-day search period, but worked for these shorter amounts of time. The level of education included in the search criteria was also different across occupations. For accounting and sales jobs, the education level was limited to jobs requiring an Associates or Bachelors degree. For the project manager/manager openings, the search was limited to jobs requiring a Bachelors degree, due to the large number of openings in this category for most cities. Finally, I did not limit the administrative assistant searches by education because many employers did not specify any education level requirement for this job type. Additionally, some job openings required completing intensive applications on the employers’ website, which the IRB protocol did not cover and which often required essay questions that would have made it more difficult to ensure that differences in answers were not responsible for driving the differences in “callbacks.” Thus, applications were not submitted for these job openings.
keeping only one job opening for employers who were hiring for more than one position) to reduce the likelihood that employers would perceive the resumes as fictitious.

After the final set of job openings was selected for a given job type in a given city, I randomly assigned each job opening to a demographic category (male or female) and to applications with two different employment histories. However, the randomization ensured that each employer received at least one application with either the full-time or unemployment treatments. Two applications were sent to each employer, separated by one day. The names at the top of the resumes, the formats of the resumes, and the order of the resumes were randomized and counterbalanced to ensure that these aspects of the job application would not be correlated with the treatment.

The primary outcome variable for the field experiment was whether the applicant received a positive response or “callback” from the employer via phone or e-mail. Responses were coded as callbacks if the employer requested an interview with the applicant or if the employer asked the applicant to contact them to discuss the position in more depth. Auto-generated responses and simple requests for more information were not coded as positive responses.\(^8\)

**Field Experiment Results**

I present the main field-experimental results as bar graphs with the “callback” rate for each employment history category. For statistical tests, I use z-tests for differences in proportions and present results for two-tailed statistical tests throughout. The results are nearly identical when I use logistic regression models with standard errors clustered at the level of the job opening (results presented in Appendix 2.B). The first bar in Figure 2.1 demonstrates that applicants with

\(^8\) The empirical results are similar when requests for more information are included as positive responses.
a full-time history received positive responses from employers 10.4% of the time. The next bar presents the callback rate for all non-standard employment histories combined into one aggregate category (part-time work, temporary agency employment, and skills underemployment). The four right-most bars present callback rates disaggregated by employment history. A z-test for differences in proportions shows that workers with a full-time, standard employment history were more likely than workers with a history of non-standard work to receive a callback from an employer (10.4% vs. 6.8%; |z| = 2.62, \( p < .01 \)). There is no discernable difference, however, between the negative consequences of non-standard employment histories and having a history of unemployment (6.8% vs. 5.9%; |z| = .73, \( p = .47 \)). The differences between the full-time and part-time histories and the full-time and temporary agency histories are not statistically significant. However, the differences between full-time employment and skills underemployment (10.4% vs. 5.0%; |z| = 2.91, \( p < .01 \)) and between full-time employment and unemployment (10.4% vs. 5.9%; |z| = 3.04, \( p < .01 \)) are statistically significant. Importantly, none of the non-standard employment history callback rates are statistically significantly different from the callback rate in the unemployment history category. This finding provides compelling evidence non-standard employment does not protect workers from the scarring effects of long-term unemployment.
The consequences of non-standard work, however, may differ by the gender of the worker. In Figure 2.2, I disaggregate the previous figure by the gender of the job applicant. I begin by examining the consequences of non-standard employment histories for men and then turn to the consequences for women. I then compare the callback rates for men and women within each employment history category. Male job applicants received a 10.4% callback rate in the full-time condition. In all of the other conditions (All Non-Standard Employment: 10.4% vs. 5.5%; \(|z| = 2.61, p < .01\); Part-Time: 10.4% vs. 4.8%; \(|z| = 2.18, p < .05\); Skills Underemployment: 10.4% vs. 4.7%; \(|z| = 2.07, p < .05\); Unemployment: 10.4% vs. 4.2%; \(|z| = 3.11, p < .01\)), with the exception of temporary agency employment (10.4% vs. 7.1%; \(|z| = 1.21, p = .23\)), male job applicants received a statistically significant lower callback rate than in the full-time condition. The results also indicate that, for men, none of the non-standard work categories received statistically significantly higher callback rates than the unemployment condition. Thus, there is strong evidence that histories of non-standard employment scar male
job applicants, compared to full-time employment histories, and do not serve as a protective force against the negative consequences of unemployment.

The callback rates across non-standard work histories appear quite different for women. Skills underemployment is the only employment category where female job applicants received a callback rate that was statistically significantly lower than the full-time condition (10.4% vs. 5.2%; \( |z| = 2.05, p < .05 \)). In general, the callback rates are slightly lower in the other non-standard employment history categories, including the unemployment category, but these differences are not statistically significantly different from having a full-time history. Of particular interest is that there is no reduction at all in the callback rate for women with histories of part-time work (10.4% vs. 10.9%). Overall, there seem to be limited negative consequences of non-standard employment histories and histories of unemployment for female job applicants.
Finally, I compare the callback rates for male and female job applicants in each employment history category. In the full-time work history condition, male and female job applicants received the same response rate from employers; 10.4% for men and 10.4% for women. While female applicants with non-standard employment histories (8.0%) appear to receive a higher callback rate than male applicants with non-standard employment histories (5.5%), this difference is not statistically meaningful at conventional levels ($|z| = 1.58, p = .11$).

The next cluster of columns examines the positive responses for resumes with the part-time employment history. Here, there is a statistically significant gender difference. Men with a part-time history received positive responses 4.8% of the time, compared with a 10.9% positive response rate for women with part-time histories ($|z| = 2.14, p < .05$). Men and women with temporary employment histories had similar callback rates of 7.1% and 8.3%, respectively ($|z| = 0.42, p = .68$). Both the male and female applicants with a skills underemployment history also received callbacks from employers at similar rates (4.7% for men and 5.2% for women; $|z| = 0.23, p = .82$). However, a marginally significant gender difference emerges for histories of unemployment. For applicants with histories of unemployment, men received positive responses 4.2% of the time, compared with 7.5% for women ($|z| = 1.89, p = .059$).

The results from the field experiment demonstrate that workers with a history of non-standard employment are penalized at the hiring interface compared to workers with full-time employment histories. In fact, a history of non-standard work is just as scarring as a history of unemployment. However, there is important variation in the consequences of non-standard employment, both by type of non-standard employment as well as by gender. While male

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9 There is also a positive and statistically significant interaction between having a part-time history and being a female applicant in a logistic regression model predicting callbacks. This finding is presented in Model 8 of Table 2.B1.
applicants with histories of part-time employment, skills underemployment, and unemployment are penalized at the hiring interface, female applicants are only negatively impacted if they have histories of skills underemployment. The results also indicate that female job applicants with histories of part-time employment and unemployment fare better than their male counterparts at the hiring interface. The field-experimental findings, however, are not able to provide insight into the mechanisms underlying the consequences of non-standard employment histories for male and female workers. For that task, I turn next to the results from the survey experiment.

**The Survey Experiment**

While the field-experimental results provide compelling evidence about the effects of non-standard employment in the actual labor market and how they differ by gender, those data are unable to examine the reasons why non-standard employment histories shape employers’ evaluations of job applicants. Thus, to complement the field experiment, I conducted an Internet-based survey experiment with individuals in U.S. firms who make hiring decisions for their companies. The primary goal of the survey experiment is to replicate the main findings from the field experiment and then to examine whether employers’ perceptions of applicants’ human capital, competence, and commitment assist in explaining the consequences of non-standard employment histories for male and female job applicants.

The survey experiment was conducted between December 6, 2012 and January 4, 2013. Most hiring studies that use experimental methods are conducted on undergraduate or graduate students (e.g., Correll et al. 2007). The survey experiment presented here therefore advances research methodology in this area by surveying individuals who make actual hiring decisions. While not based on a random probability sample of hiring decision-makers, the respondents
represent a broad array of industries, regions, and firm sizes. Any potential limits on generalizability, however, do not impact the ability to generate internally valid, causal estimates of the effects of interest from the survey-experimental data. Descriptive statistics about the sample are presented in Table 2.1. Roughly half (52.9%) of the respondents are male, 74.6% are white, the vast majority have at least a college degree, the median income is $67,500, and the median age is just over 40 years old. While it is not possible to obtain national estimates of the demographic characteristics of individuals who make hiring decisions at U.S.-based firms, it is possible to obtain estimates of firm-level characteristics in the United States such as size and industry. Thus, the lower panel of Table 2.1 presents the distribution of the firm sizes and industries of respondents in the sample compared to national estimates. While respondents come from a broad cross-section of firm sizes and industries, larger firms are over-represented in the sample. And, while the sample under-represents firms in the agriculture, mining, and construction and professional and business services sectors, the education and health, financial and information, and manufacturing sectors are over-represented (U.S. Census Bureau 2008).

To reach the sample of hiring decision-makers, I collaborated with Qualtrics, a survey research company. Electronic invitations to participate in the survey were sent to 49,930 potential respondents. Of those individuals, 11,920 (24%) responded to the invitation to participate in the survey, which is in line with response rates for organizational surveys (Baruch and Holtom 2008). After answering the necessary screening questions, 1,816 (15%) of those respondents were qualified to participate in the survey.10 Qualified respondents were then randomly assigned to two different groups – one for the analyses presented here and one for a

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10 Respondents were screened based on three criteria: 1) providing informed consent; 2) responding “yes” to the following question: “As part of your job, do you make decisions regarding whether or not to hire job applicants?”; and 3) meeting one of five broad job type criteria: human resources manager, human resources associate/assistant, business executive, mid-level manager, or business owner.
Table 2.1. Survey Experiment Respondent and Firm Characteristics

<table>
<thead>
<tr>
<th>Respondent Characteristics</th>
<th>Sample Percent/Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>52.9%</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>74.6%</td>
</tr>
<tr>
<td>Black</td>
<td>11.5%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>8.9%</td>
</tr>
<tr>
<td>Asian</td>
<td>6.8%</td>
</tr>
<tr>
<td>Other Race</td>
<td>2.2%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>High School or Less</td>
<td>7.6%</td>
</tr>
<tr>
<td>Some College</td>
<td>17.6%</td>
</tr>
<tr>
<td>College</td>
<td>42.4%</td>
</tr>
<tr>
<td>Some Graduate School</td>
<td>11.3%</td>
</tr>
<tr>
<td>Graduate School</td>
<td>21.2%</td>
</tr>
<tr>
<td>Income (Median)</td>
<td>$67,500</td>
</tr>
<tr>
<td>Age (Median)</td>
<td>40.5</td>
</tr>
<tr>
<td>Job Tenure in Years (Median)</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Firm Characteristics</th>
<th>Sample Percent</th>
<th>National Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Employees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fewer than 10</td>
<td>17.4%</td>
<td>78.6%</td>
</tr>
<tr>
<td>Between 10 and 99</td>
<td>37.9%</td>
<td>19.6%</td>
</tr>
<tr>
<td>Between 100 and 499</td>
<td>18.8%</td>
<td>1.5%</td>
</tr>
<tr>
<td>500 or more</td>
<td>26.0%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture, Mining, Construction</td>
<td>5.4%</td>
<td>13.6%</td>
</tr>
<tr>
<td>Education and Health</td>
<td>16.6%</td>
<td>11.8%</td>
</tr>
<tr>
<td>Financial and Information</td>
<td>16.3%</td>
<td>10.3%</td>
</tr>
<tr>
<td>Leisure and Hospitality</td>
<td>7.5%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>14.4%</td>
<td>4.7%</td>
</tr>
<tr>
<td>Professional and Business Services</td>
<td>16.8%</td>
<td>24.7%</td>
</tr>
<tr>
<td>Public Administration</td>
<td>4.9%</td>
<td>5.6%</td>
</tr>
<tr>
<td>Retail</td>
<td>9.3%</td>
<td>11.7%</td>
</tr>
<tr>
<td>Transportation, Utilities, Wholesale</td>
<td>8.3%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Other</td>
<td>0.7%</td>
<td>0.2%</td>
</tr>
</tbody>
</table>

Notes: National estimates of the individual-level characteristics of hiring decision-makers are not available. National firm characteristic estimates are from the U.S. Census Bureau, 2008 Statistics of U.S. Businesses.
separate study of race and hiring, which will be discussed in the next chapter. Thus, the final sample for the below analyses contains 903 respondents who are hiring decision-makers at their company and that fall in to one of the following occupational groups: human resources manager, human resources associate/assistant, business executive, mid-level manager, or business owner.

Once a respondent was qualified to participate in the survey, he or she was asked to review and evaluate two experimentally manipulated resumes for an open accounting clerk position at his or her company. The accounting position was selected because non-standard work is common in the accounting profession and most companies have somebody who performs an accounting or bookkeeping role. It also parallels the accounting/bookkeeping category of jobs applied to in the field experiment discussed above. The two axes of variation on the resumes in the survey experiment were the same as in the field experiment. The most recent employment history of the applicant (full-time, part-time, temporary agency, skills underemployment, or unemployment) was varied along one axis and the gender of the applicant, using the same names as in the field experiment, was manipulated along the other axis.11 Each respondent was randomly assigned to review either two male resumes or two female resumes that had different employment histories (although, every respondent was presented with at least one full-time or one unemployed resume). Thus, the gender manipulation was “between subjects,” which reduces concerns about social desirability bias by making it less likely that the respondent would identify gender as a key issue interest, and the employment history manipulation was “within subjects.” The format and order of the resumes as well as the names at the top of the resumes were randomized and counter-balanced.

11 Before implementing the survey experiment, a number of individuals with human resources experience took the survey in my presence and discussed their rationale for evaluating the resumes in particular ways. None of these individuals indicated that they knew what the survey was about before being told.
Variable Construction

After reviewing each resume, respondents were asked to evaluate the applicant. To parallel the outcome variable in the field experiment, respondents were asked on a five-point scale: “How likely would you be to recommend that your company interview this applicant?” In the analyses presented here, I model this “interview likelihood” variable in two ways. For the first analyses, I maintain all five of the response categories. However, the goal of these analyses is to parallel as closely as possible the “callback” measure from the field experiment, which is a binary measure. Thus, I also convert the “interview likelihood” item into a dichotomous variable with the “very likely” category equal to “1” and the other categories equal to “0” (27.3% of job applicants were “very likely” to be recommended for interviews). Coding the “interview likelihood” variable in this way makes sense theoretically because only the applicants who attained the “very likely” category on the “interview likelihood” measure in the survey context would have been likely to receive callbacks in the field-experimental context. The dichotomous measure therefore is most likely to mirror the outcome measure in the field experiment.

To allow for an examination of the different mechanisms that may account for the consequences of non-standard employment histories, respondents were asked to evaluate the applicant on a host of measures that capture perceptions of the applicant’s human capital, competence, and commitment. The human capital measure was generated by combining three survey items. First, I include respondents’ answers to items where they were asked, on a seven-point scale ranging from “strongly disagree” to “strongly agree,” to respond to the statements: “The applicant has adequate accounting experience” and “The applicant has relevant work experience.” Additionally, I include respondents’ answers to the question: “Compared to similar employees who already work at your company, how much relevant experience in accounting and
bookkeeping does this applicant have?” The five categories of responses ranged from “Much less experience” to “Much more experience.” The Chronbach’s alpha for this three-item scale was 0.78. The scale is standardized for use in the analyses presented below.

Next, four items were combined to capture respondents’ perceptions of the applicants’ competence. Respondents were asked: “On a scale from one to seven, how strongly do you agree or disagree with the following statements about this applicant?” Responses ranged from “strongly disagree” to “strongly agree.” The statements used to create the competence measure were: “the applicant is competent,” “the applicant is productive,” and “the applicant is skilled.” Additionally, the competence scale included the following item where respondents were given five response categories ranging from “Much more quickly” to “Much less quickly”: “Compared to similar employees who already work at your company, how quickly do you think this applicant would learn how to perform new tasks?” These four items combined with a Chronbach’s alpha of 0.82 and the standardized scale is used throughout.

Finally, four items were used to create the perceived commitment scale. Using the same seven-point scale as was used for the competence measure, respondents were asked to respond to the statement: “the applicant is committed.” Then, on a five-point scale ranging from “Much more committed” to “Much less committed,” respondents were asked: “Compared to similar employees who already work at your company, how committed do you think this applicant would be to their job if they were hired?” Also on a five-point scale, ranging from “very likely” to “not at all likely,” respondents were asked: “If your company needed to ask this applicant to work extra hours, how likely is it that this applicant would meet that request?” Finally, respondents were asked: “If this applicant were to be hired at your company, how long do you think that they would stay?” The five response categories ranged from “Less than 1 year” to
“More than 4 years.” These four items combined with a Chronbach’s alpha of 0.72 and the scale used in the analyses is standardized.

The key explanatory variables for the analysis are the different employment histories on the resume that the respondent reviewed – full-time, part-time, temporary agency, skills underemployment, or unemployment – and the gender of the applicant. All models include controls for the order that the resumes were reviewed, the name at the top of the resume, and the format of the resume.\textsuperscript{12} Listwise deletion is used to deal with missing data and only respondents who provided interview recommendations for both applicants that they reviewed are kept in the analytic sample.\textsuperscript{13} All analyses adjust for the fact that respondents evaluated two resumes by clustering the standard errors by respondent.

\textit{Interview Likelihood}

The first analyses examine whether non-standard work histories affect employers’ responses about how likely they would be to recommend that their company interview the applicant. In essence, this analysis seeks to determine whether the main findings from the field experiment replicate in the survey-experimental context. I begin with the analysis of the five-category ordered scale and then move on to the binary “interview likelihood” outcome. Ordered logistic regression models are used for the full item and logit models are used for the binary outcome. Given the gender differences in the effects of non-standard employment histories found in the field experiment, I examine the consequences of non-standard employment histories separately for male and female job applicants. Then, I test whether gender differences within each employment history category are statistically significant.

\textsuperscript{12} Results are similar when these controls are not included.
\textsuperscript{13} There were 13 respondents who only provided an interview recommendation for one of the two applicants that they reviewed.
In Model 1 of Table 2.2, I examine the consequences of non-standard employment histories for male applicants’ interview likelihood recommendations using the full five-point ordered scale. While the coefficients for each type of non-standard employment and unemployment are negative, only the coefficient for skills underemployment is statistically significant at standard levels. There is a marginally significant coefficient for part-time employment ($p = .079$). Interestingly, a Wald test indicates that the consequences of skills underemployment are actually worse than unemployment for male applicants in this context ($p < .05$). Thus, for the ordinal outcome measure, the effects of non-standard employment histories for men appear more muted in the survey-experimental context than in the field-experimental context, with the exception of skills underemployment. Model 2 examines the consequences for female job applicants. There are clear scarring effects of skills underemployment and unemployment. Part-time work has a marginally significant negative effect and there is no discernable consequence of temporary agency employment histories. Wald tests indicate that none of the non-standard employment histories are statistically significantly different from histories of unemployment. Again, for women, the ordinal outcome measure produces results that diverge from the field experiment.

Next, I move on to the binary “interview likelihood” measure. Model 3 examines the consequences of non-standard employment histories for whether male applicants are “very likely” to be recommended for an interview. The results demonstrate that men with histories of part-time employment, skills underemployment, and unemployment are heavily penalized in terms of their interview likelihood. For example, male applicants with histories of part-time work have 40% lower odds ($exp(-0.518 = 0.595)$) of being “very likely” to be recommended for an interview compared to male workers with full-time, standard employment histories. There is also
a marginally significant negative effect of temporary agency employment for men ($p < .10$). Wald tests indicate that none of the non-standard work categories are statistically significantly different from unemployment. Thus, the consequences of non-standard employment for male applicants are very similar to those found in the field experiment when the binary “interview likelihood” measure is examined.

Next, Model 4 in Table 2.2 examines the consequences of non-standard employment histories for female job applicants using the binary outcome measure. The only non-standard employment category where female job applicants are statistically significantly penalized is the skills underemployment category. The scarring consequence of unemployment for women is marginally statistically significant ($p < .10$). There are no discernable differences in the interview recommendations for women with histories of part-time work or temporary employment and a history of full-time employment. There are also no statistically significant differences between having a history of non-standard employment and having a history of unemployment. Again, the survey-experimental findings for female applicants are aligned closely with the results presented in the field experiment when the dichotomous “interview likelihood” measure is utilized.

Importantly, the results presented in Table 2.2 do not test for differences in the interview recommendation likelihood for male and female job applicants within each employment category. This is where the results diverge substantially between the field and survey experiments. While the field experiment found that female job applicants received higher callback rates than male applicants in the part-time work and
unemployment history categories, this is not the case in the survey-experimental context. There are no statistically significant differences in the interview likelihood recommendations (using either the ordinal or the binary measure) between male and female applicants within employment history categories in the survey experiment.

Two puzzles emerge from the survey-experimental findings. First, there is a difference in the empirical patterns between the ordinal and binary “interview likelihood” outcomes. This discrepancy appears to be driven by two forces. Female job applicants are more likely than male applicants to attain the highest “interview likelihood” category when they have a non-standard employment history. However, when hiring decision-makers do penalize female job applicants
for non-standard employment histories, they are penalized more severely than male job applicant. Male applicants with histories of non-standard employment are easily moved from the “very likely” to “likely” category, one step down. Female applicants, however, are less likely to be penalized at all, but when they are penalized they are relegated to the “somewhat likely” rather than the “likely” category, an additional step down the scale. This finding is consistent with the idea that many employers have adapted to women having non-standard employment histories and, thus, do not penalize them if they deviated from full-time, standard employment. However, the employers who have not taken this view of women’s labor force participation are quite harsh toward women with non-standard histories of employment.

A second puzzle arises from the analysis of the binary “interview likelihood” outcome. While the gendered patterns of the consequences of non-standard employment are comparable between the survey and field experiments with this outcome measure when the data are subset by applicant gender, the gender differences themselves are less pronounced and less statistically reliable in the survey context. Why might this discrepancy exist? While it is difficult to address this issue empirically, the difference may be related to social desirability biases that arise in the survey context (Schuman et al. 1997; Heerwig and McCabe 2009). The hiring decision-makers in the survey experiment are likely well aware of social norms against biased gender evaluations, especially in employment. The survey context may prime their desire to comply with social norms (and legal regulations) around gender equality and these concerns may reduce gender biases in the survey-experimental context. Even though respondents reviewed applications from applicants of the same gender (i.e., two female applicants), they may still have concerns related to social desirability bias about using gender in their evaluations of job applicants. Since strong social norms about screening job applicants based on their employment histories do not exist,
however, it is unlikely that social desirability bias would enter into employers’ evaluations of job applicants with non-standard employment histories or histories of unemployment. This is consistent with the empirical finding that non-standard work histories are generally scarring for men in both the survey- and field-experimental contexts.

There is also empirical evidence that social categories, such as race and gender, are more likely to be used as heuristic devices when time is scarce (Fiske 1998). In the field experiment, hiring managers are likely screening hundreds of applicants in a short time period, making gender stereotypes more likely to be activated than in the survey context where the respondents had as much time as they wanted to review two resumes. Finally, the survey experiment asked respondents to review resumes for one job type – an accounting clerk position – whereas the field experiment examined four occupational groups, which included but were not limited to accounting and bookkeeping positions. Thus, it is possible that differences in the job types under investigation may contribute to the different gender findings in the field and survey experiments.

*The Mediating Effects of Perceived Human Capital, Competence, and Commitment*

The next set of analyses utilizes the binary “interview likelihood” findings to examine whether employers’ perceptions of job applicants’ human capital, competence, and commitment can account for the reduced interview likelihood for applicants with histories of non-standard employment. The binary, rather than ordinal, measure is used here given how closely those findings parallel the findings from the field experiment. Importantly, since the gender differences within each non-standard employment category are not statistically significant, it is unfortunately not possible to test for the mechanisms underlying gender differences in the consequences of non-standard employment.
To examine whether hiring decision-makers’ perceptions of applicants’ human capital, competence, and commitment can account for the consequences of non-standard employment histories, I utilize the average causal mediation analysis framework proposed by Imai, Keele, and Tingley (2010). Table 2.3 presents the average mediation effect of perceived human capital (panel 3a), perceived competence (panel 3b), and perceived commitment (panel 3c), separately for male and female applicants, for the interview recommendation likelihood of each type of non-standard employment and unemployment. Also presented in Table 2.3 is the proportion of the total effect of each employment history that is mediated by each perception of the job applicant.

Panel 3a in Table 2.3 examines whether employers’ perceptions of an applicant’s human capital can account for the consequences of having a non-standard employment history. The results indicate that employers’ perceptions of an applicant’s human capital explain a significant proportion of the penalty faced by both male and female workers with histories of skills underemployment and unemployment. In fact, hiring decision-makers’ perceptions of male applicants’ human capital is estimated to account for 63% of the negative effect of skills underemployment on male job applicants’ interview likelihood. However, perceived human capital does not explain the penalties faced by male workers with histories of part-time work or temporary agency employment. No mediation analysis results are presented for female applicants with histories of part-time or temporary agency employment because female applicants did not face any penalties for those types of employment histories.

Next, Panel 3b demonstrates the mediating effect of perceived competence on the consequences of non-standard employment histories. The results indicate that perceptions of competence play an important role in mediating the effects of temporary agency employment

---

14 Each analysis was conducted using 1,500 simulations.
Table 2.3. Mediation Analysis of the Role of Perceived Human Capital, Competence, and Commitment in Explaining the Effects of Non-Standard Work Histories on Interview Recommendations

<table>
<thead>
<tr>
<th></th>
<th>Male Applicants</th>
<th>Female Applicants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average Mediation</td>
<td>Proportion of Total Effect Mediated</td>
</tr>
<tr>
<td>Part-Time</td>
<td>-0.005</td>
<td>0.059</td>
</tr>
<tr>
<td></td>
<td>[-0.041, .032]</td>
<td></td>
</tr>
<tr>
<td>Temporary Agency</td>
<td>-0.030</td>
<td>0.429</td>
</tr>
<tr>
<td></td>
<td>[-0.067, .001]</td>
<td></td>
</tr>
<tr>
<td>Skills Underemployment</td>
<td>-0.085</td>
<td>0.628</td>
</tr>
<tr>
<td></td>
<td>[-.123, -.047]</td>
<td></td>
</tr>
<tr>
<td>Unemployment</td>
<td>-0.036</td>
<td>0.429</td>
</tr>
<tr>
<td></td>
<td>[-.068, -.004]</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Male Applicants</th>
<th>Female Applicants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average Mediation</td>
<td>Proportion of Total Effect Mediated</td>
</tr>
<tr>
<td>Part-Time</td>
<td>-0.010</td>
<td>0.125</td>
</tr>
<tr>
<td></td>
<td>[-0.042, .023]</td>
<td></td>
</tr>
<tr>
<td>Temporary Agency</td>
<td>-0.036</td>
<td>0.432</td>
</tr>
<tr>
<td></td>
<td>[-.072, -.000]</td>
<td></td>
</tr>
<tr>
<td>Skills Underemployment</td>
<td>-0.079</td>
<td>0.632</td>
</tr>
<tr>
<td></td>
<td>[-.115, -.043]</td>
<td></td>
</tr>
<tr>
<td>Unemployment</td>
<td>-0.024</td>
<td>0.289</td>
</tr>
<tr>
<td></td>
<td>[-.054, .005]</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Male Applicants</th>
<th>Female Applicants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average Mediation</td>
<td>Proportion of Total Effect Mediated</td>
</tr>
<tr>
<td>Part-Time</td>
<td>-0.037</td>
<td>0.404</td>
</tr>
<tr>
<td></td>
<td>[-0.072, -.000]</td>
<td></td>
</tr>
<tr>
<td>Temporary Agency</td>
<td>-0.031</td>
<td>0.335</td>
</tr>
<tr>
<td></td>
<td>[-.068, .006]</td>
<td></td>
</tr>
<tr>
<td>Skills Underemployment</td>
<td>-0.040</td>
<td>0.318</td>
</tr>
<tr>
<td></td>
<td>[-.077, -.003]</td>
<td></td>
</tr>
<tr>
<td>Unemployment</td>
<td>-0.008</td>
<td>0.098</td>
</tr>
<tr>
<td></td>
<td>[-.038, .023]</td>
<td></td>
</tr>
</tbody>
</table>

Notes: 95% confidence intervals in brackets. Estimates derived from 1500 simulations and standard errors are clustered by respondent. Bolded "Average Mediation" estimates indicate that the confidence interval does not include zero.
and skills underemployment for male workers. Importantly, though, perceptions of competence do not account for the negative effect that a part-time work history or unemployment history has for male applicants. The results also demonstrate that hiring managers’ perceptions of female applicants’ competence are important in explaining the effect of histories of both skills underemployment and unemployment.

Finally, in Panel 3c, I examine the mediating effects of perceived commitment. Perceptions of commitment play an important role in mediating the negative effects of part-time work histories for male applicants, explaining 40% of the effect. Perceived commitment also explains a significant portion of the consequences of skills underemployment for male applicants, but does not mediate the effects of temporary agency employment or unemployment. Panel 3c also demonstrates that female applicants are penalized for unemployment histories, in part, because of employers’ perceptions of their commitment.

These findings indicate that different mechanisms explain the scarring consequences of different types of non-standard employment. Part-time work appears to be scarring for men because it reduces employers’ perceptions of job applicants’ level of commitment. Meanwhile, temporary agency employment appears to be scarring for men largely because it influences employers’ perceptions of an applicant’s competence. However, skills underemployment sends multiple negative signals to future employers about male applicants, leading to concerns about human capital, competence, and commitment. For female applicants, there were no negative consequences of part-time work and temporary agency employment on their interview likelihood and, therefore, these types of employment histories are not investigated in the mediation analysis. However, the mediation analysis reveals that female applicants with histories of skills
underemployment are penalized due to perceptions of lower levels of human capital and competence, but not perceptions of commitment. And, the marginally statistically significant, negative effect of unemployment is penalizing for women because of negative signals sent across the board. Together, these results provide compelling evidence that the underlying reasons why non-standard employment histories are scarring for workers, particularly male workers, are highly varied depending on the type of employment history on a worker’s resume.

**Discussion**

The dramatic rise in non-standard employment relationships over the past four decades has been coupled with employers’ increased reliance on the external labor market to fill vacancies. Thus, workers’ employment histories have arguably taken on a more important role in the hiring process. Yet, limited research has examined how non-standard employment histories shape workers’ abilities to obtain future employment. Employers may perceive workers with non-standard employment histories as having lower levels of human capital or being less competent or committed, penalizing them compared to workers with full-time employment histories. At the same time, however, any job may be better than no job in the eyes of future employers. Therefore, it is also possible that non-standard work may buffer workers against the scarring consequences of long-term unemployment.

The set of theoretical issues explored in this chapter has been difficult to empirically examine with existing data sources. To address these limitations, the analyses presented above draw on original data from a field experiment and a complementary survey experiment. The field experiment provides compelling evidence that having a history of non-standard employment is highly scarring for workers compared to having a full-time employment history. And, the scars
of non-standard work are indistinguishable from the scars of unemployment, indicating that non-standard employment generally does not protect workers from the negative effects of long-term unemployment. However, there is also important variation in these consequences by the type of non-standard employment history as well as by the gender of the worker. The field experiment demonstrates that, for men, histories of part-time employment, skills underemployment, and unemployment are severely penalizing in terms of the likelihood of receiving a callback from an employer. However, for women, the only employment history that appears to lead to penalties is skills underemployment. There is limited evidence that female applicants with histories of part-time work, temporary employment, and unemployment were penalized at the hiring interface. Importantly, the field experiment also finds strong evidence that a part-time employment history is more scarring for men than women and provides some evidence that women with unemployment histories fare better than men with unemployment histories.

The survey-experimental component of the research opens up the black box of the field experiment to explore whether employers’ perceptions of job applicants’ human capital, competence, and commitment can explain the consequences of non-standard employment histories. Consistent with the theoretical predictions articulated at the beginning of the chapter, temporary agency employment appears to be scarring for male workers because of perceived competence. However, part-time work leads to penalties for male workers because it raises concerns about their level of commitment. This is unexpected given that employers would likely perceive male applicants with a part-time history as involuntarily in that position. Thus, men with part-time histories would be expected to trigger employers’ concerns about competence. It is possible, however, that the commitment signal that is being picked up in the data is partially a reflection of employers’ concerns about male workers with part-time histories not complying
with traditionally masculine labor market trajectories. In this case, levels of “commitment” indicate something about whether a worker is perceived as “masculine” enough by the employer. While this interpretation is certainly speculative, future research would be well served to examine this possibility in more depth. For male workers, skills underemployment is heavily scarring and the penalty can be attributed to a combination of human capital, competence, and commitment concerns. For female applicants in the survey experiment, they only faced penalties for histories of skills underemployment (and unemployment). The penalty of skills underemployment can be attributed to employers’ perceptions of female applicants as having less human capital and less competence, but not employers’ perceptions of their commitment. Thus, there are highly variable reasons for why different types of non-standard employment lead to penalties for workers as they move through the labor market.

While making important contributions, this chapter is not without limitations. First, the discrepancy between the findings in the field experiment and the survey experiment with regards to gender differences in the effects of non-standard employment histories leave open important questions. While gendered patterns emerge in the survey experiment, the differences by gender are not statistically reliable. As discussed above, these differences between the two experiments may be due to social desirability bias around issues of gender equality, time pressure differences in the survey and field experiments, and/or differences in the occupations for which applications were being reviewed. This limitation of the current research, however, opens up two fruitful avenues for future research. First, it leaves open important theoretical questions about the intersection of gender and the consequences of non-standard employment. Specifically, what mechanisms account for the gender differences in the consequences of part-time work and unemployment? Methodologically, understanding why there is a discrepancy in the moderating
effects of gender in the survey and field experiments could prove useful in developing more sound survey-experimental methods. Research probing how, when, and why demographic characteristics (such as gender) produce evidence of bias and discrimination in survey experiments could assist future research in this area. This discrepancy also generates interesting questions about how different respondent samples may be more or less susceptible to biases in survey experiments. Previous survey and lab studies that have conducted employment experiments using student samples have found moderating effects of the worker’s gender (Correll et al. 2007; Castilla and Benard 2010). However, the sample for the survey experiment in this chapter consisted of actual hiring decision-makers and the gender differences that emerge are relatively muted. Research disentangling why these discrepancies exist would assist in moving forward survey-experimental methodologies.

Notwithstanding these limitations, the findings presented above have meaningful implications for sociological scholarship on the changing nature of employment in the United States. Both experiments provide evidence that non-standard employment histories can be penalizing at the hiring interface. This finding encourages a shift from research to date that has focused primarily on the consequences of non-standard employment for workers’ earnings, benefits, autonomy, and control while they are working in the non-standard position. More research is needed to understand how non-standard employment may have lasting consequences for workers’ economic and social trajectories.

The gender differences in the scarring effects of part-time work and unemployment also contribute to sociological theories of gender inequality at work. These findings suggest that employers have already incorporated certain types of non-standard employment and even employment gaps in to their understandings of female labor force participation. Men, however,
are expected to maintain full-time, standard, and “primary breadwinner” employment trajectories. These gender differences contribute to new insights to the gendered construction of the “ideal worker.” While women face many barriers to attaining the “ideal worker” status in employers’ eyes, it appears that they are able to maintain a level of favorability among future employers even if they have a history of non-standard work or unemployment. This is not the case for men. A history of non-standard work – particularly part-time work – violates what it means for men to be an “ideal worker.” This is possibly because non-standard work violates prescriptive gender stereotypes, resulting in “backlash effects.” And, as the mediation analysis demonstrates, part-time work for men is perceived as indicating an underlying negative attribute of lower levels of commitment.

These gender-differentiated findings lead to important questions for future research about why histories of part-time work are not penalizing for women while there is compelling evidence from previous research that signaling that one is a mother does produce negative outcomes (Correll et al. 2007). Part-time work and motherhood likely send similar signals to future employers about a female worker – having family obligations outside of the workplace. Given that the content of these two signals is similar, why might divergent empirical patterns emerge for the consequences of part-time work and motherhood? Disentangling these processes will likely assist in better understanding the forces that underlie gender stratification in the labor market.

The findings from this research also complicate “work first” public policy prescriptions that argue that any job is better than no job. Many workforce development programs are based on the premise that assisting a worker to obtain employment, any employment, will serve as a “stepping stone” to better jobs in the future. While there are certainly good reasons that people
take any job that they can find – specifically in cases where economic hardship is imminent – the experimental data presented here finds that non-standard employment is generally as scarring for workers as unemployment. Thus, it may be the case that any job – specifically, a job with a non-standard employment relationship – is no better than joblessness when thinking about one’s future employment opportunities.

The theoretical development and empirical findings presented in this chapter advance sociological scholarship about the consequences of the changing economic landscape. The increase in non-standard employment relations in the United States affects workers not just while they are in those positions, but also limits their opportunities as they attempt to transition in to their next job. Additionally, the negative effects of non-standard employment – with the exception of skills underemployment – appear to be concentrated among male workers. This finding assists in conceptualizing the complex ways that gender infuses the labor market in the contemporary United States. Together, these findings develop sociological knowledge about how changing economic structures shape workers’ employment opportunities and begin to identify the mechanisms through which those consequences operate.
APPENDIX 2.A.
FIELD EXPERIMENT TREATMENTS

Below, I provide examples of the different employment histories used in the field experiment. The examples are for the Administrative Assistant openings that were applied to in Boston, Massachusetts. The employers’ names have been altered. Each of these treatments was the applicant’s work history for the 12 months prior to submitting the job application.

1. Full-Time, Standard:

Technology Company – Boston, MA

Office Manager & Executive Assistant

- Coordinate all office management tasks, which includes working with computer and phone system vendors, maintaining necessary levels of office supplies, and managing all office filing systems.
- Answer and screen incoming phone calls, coordinate travel arrangements, and draft memos and letters for executive staff.
- Plan and coordinate all aspects of meetings for executive staff and key stakeholders.

June 2012 – Present

2. Part-Time:

Technology Company – Boston, MA

Office Manager & Executive Assistant (Part-Time)

- Coordinate all office management tasks, which includes working with computer and phone system vendors, maintaining necessary levels of office supplies, and managing all office filing systems.
- Answer and screen incoming phone calls, coordinate travel arrangements, and draft memos and letters for executive staff.
- Plan and coordinate all aspects of meetings for executive staff and key stakeholders.

June 2012 – Present

3. Temporary Employment Agency:

Temp Agency – Boston, MA

Temporary Administrative Assistant

Serve as a temporary Administrative Assistant through [Name of Temp Agency]. Assignments at different companies have included:

- Answering incoming phone calls, scheduling travel arrangements, and writing letters and other correspondence for executive staff.
- Coordinating conferences, meetings, and retreats for staff, managers, and clients.
- Developing and improving office coordination systems, such as ordering supplies and updating administrative technology.

June 2012 – Present

4. Skills Underemployment:

Large Retailer – Boston, MA

Sales Representative

- Provide high-quality customer assistance in merchandise selection and other service areas.
- Maintain high level of cleanliness and a welcoming environment on the retail floor.
- Build and strengthen relationships with repeat customers.

June 2012 – Present

5. Unemployment: The most recent job was omitted in the unemployment condition. To ensure that this resume was of a similar length to and had the same number of work experiences as the resumes in the other conditions, a college internship was added to the applicant’s work history. The internship was the following:
Anonymou Bank – Boston, MA

Summer Intern

- Assisted with meeting and conference planning, scheduling, and answering phones.
- Drafted memos and correspondence and participated in special projects on an as-needed basis.
### APPENDIX 2.B.
FIELD EXPERIMENT REGRESSION RESULTS

Table 2.B1. Logistic Regression Models of the Consequences of Employment Histories for Receiving a "Callback" from an Employer

<table>
<thead>
<tr>
<th>Employment History</th>
<th>All Applicants</th>
<th>Received &quot;Callback&quot; From Employer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
</tr>
<tr>
<td></td>
<td>(3)</td>
<td>(4)</td>
</tr>
<tr>
<td></td>
<td>(5)</td>
<td>(6)</td>
</tr>
<tr>
<td></td>
<td>(7)</td>
<td>(8)</td>
</tr>
<tr>
<td>Full-Time (omitted)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Any Non-Standard</td>
<td>-0.468***</td>
<td>-0.679***</td>
</tr>
<tr>
<td></td>
<td>(0.137)</td>
<td>(0.190)</td>
</tr>
<tr>
<td>Unemployment</td>
<td>-0.615**</td>
<td>-0.615**</td>
</tr>
<tr>
<td></td>
<td>(0.189)</td>
<td>(0.189)</td>
</tr>
<tr>
<td>Part-Time</td>
<td>--</td>
<td>-0.318</td>
</tr>
<tr>
<td></td>
<td>(0.209)</td>
<td>(0.341)</td>
</tr>
<tr>
<td>Temporary Agency</td>
<td>--</td>
<td>-0.332</td>
</tr>
<tr>
<td></td>
<td>(0.209)</td>
<td>(0.285)</td>
</tr>
<tr>
<td>Skills Underemployment</td>
<td>--</td>
<td>-0.817**</td>
</tr>
<tr>
<td></td>
<td>(0.261)</td>
<td>(0.397)</td>
</tr>
<tr>
<td>Interactions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Standard X Female</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>(0.274)</td>
</tr>
<tr>
<td>Unemployed X Female</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>(0.389)</td>
</tr>
<tr>
<td>Part-Time X Female</td>
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<td>--</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>(0.436)</td>
</tr>
<tr>
<td>Temporary X Female</td>
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<td>--</td>
<td>(0.417)</td>
</tr>
<tr>
<td>Underemployed X Female</td>
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<td>--</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>(0.528)</td>
</tr>
<tr>
<td>Female Applicant</td>
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<td>0.312</td>
</tr>
<tr>
<td></td>
<td>(0.195)</td>
<td>(0.195)</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.312***</td>
<td>-2.319***</td>
</tr>
<tr>
<td></td>
<td>(0.176)</td>
<td>(0.177)</td>
</tr>
</tbody>
</table>

Notes: Standard errors in parentheses. Log-odds presented.
Statistical significance (two-tailed tests): * p<0.05, ** p<0.01, *** p<0.001
Chapter 3: Race and Non-Standard Employment at the Hiring Interface

The previous chapter theorized and empirically tested the consequences of non-standard employment histories for workers’ future labor market opportunities and how those consequences differed by gender. However, the consequences of non-standard employment – and even unemployment – may also differ by the race of the worker. In this chapter, I examine the intersection of race (white vs. African American), gender (male vs. female), and non-standard employment histories for workers’ future hiring outcomes. In addition to analyzing differences in the consequences of non-standard employment histories by race, the theoretical aim of this chapter is to strategically utilize comparisons between histories of full-time, standard employment, non-standard employment, and long-term unemployment as well as comparisons between male and female applicants to gain traction on the mechanisms underlying racial discrimination in hiring.

Racial disparities in the labor market remain among the most persistent forms of inequality in contemporary American society. Myriad possible explanations have been articulated to explain racial labor market stratification – from differences in human and social capital (Heckman 1998; Royster 2003; Smith 2007), to occupational segregation (Tomaskovic-Devey 1993; Huffman and Cohen 2004), industrial shifts (Wilson 1996), and spatial mismatches (Ihlanfeldt and Sjoquist 1998; Stoll 2005). Additionally, racial discrimination in hiring may shape black-white disparities in employment outcomes, but theorizing, measuring, and empirically testing for racial discrimination has proved challenging. Rigorous empirical studies often leave the black box of discrimination theoretically underdeveloped. At the same time,
scholars interested in theorizing discrimination often face methodological challenges in measuring racial bias and ruling out competing explanations. And, empirical research on racial discrimination often limits its purview to male workers (e.g., Pager et al. 2009), or gender features only tangentially in the analysis and little conceptual work is done to understand why gender differences in racial discrimination may exist (e.g., Moore 2010; Bertrand and Mullainathan 2004).

To advance the sociological understanding of racial discrimination, this chapter theoretically develops and empirically tests a model of racial discrimination at the hiring interface that anticipates variation by gender. I build on models that conceptualize race as a heuristic in the hiring process (Aigner and Cain 1977; Fiske 1998), and understand racial discrimination as subtle, contextual, and diffuse (Pager et al. 2009). This chapter argues that employers’ deeply held beliefs about the employment challenges faced by African Americans, particularly African American men, as well as the aggregate-level disparities in racial employment outcomes – higher rates of unemployment and non-standard employment – play a central role in shaping racially biased hiring decisions. As employers equate black workers, particularly black male workers, with poor worker quality, these group-level categories become intertwined at the hiring interface. In turn, individual black workers with unblemished, full-time, standard employment histories may be penalized in the labor market because of the employment challenges faced by black workers in general. If this is the case, the result is blocked employment opportunity for an entire social group based on employers’ conceptions of and beliefs about African American workers. The empirical pattern that emerges – continued unemployment and non-standard, precarious employment among African Americans – is similar to what Merton’s (1948) notion of the self-fulfilling prophecy would predict (see also Loury 2002).
The perspective articulated above also suggests that employer’s racial biases will be more strongly negative for black men than for black women. The employment situation of black women and employer’s perceptions of black women as workers, are generally more positive than they are for black men (Moss and Tilly 2001). At the same time, as the previous chapter demonstrated, employers may understand non-standard employment histories, and even spells of unemployment, as a typical and unremarkable component of women’s labor force participation. Thus, if the proposed mechanism is accurate, then the racialized effects of non-standard, precarious work histories and unemployment spells for female workers will be more muted and follow a different pattern than for male workers.

Empirically testing for discrimination is difficult given the general, albeit incomplete, liberalization of racial attitudes in the United States and the discrepancies that exist between what people say in interviews or surveys and how they actually behave (Schuman et al. 1997; Pager and Quillian 2005). To overcome these challenges, this chapter utilizes data from the same experimental audit study of job openings analyzed in the previous chapter, but includes an additional set of conditions where the race of the job applicant was manipulated using African American racialized names. The experimental audit study approach enables the generation of unbiased, causal estimates of race-based exclusion in hiring and how this process of exclusion varies for workers with precarious, non-standard employment histories or spells of unemployment. At the same time, the research design allows for an examination of how these patterns of racial exclusion differ for men and women. As in the last chapter, the audit study data are complemented by data from a survey experiment where hiring decision-makers evaluated job applicants along a host of dimensions.
The chapter proceeds as follows. I begin by discussing the challenges faced by African Americans in the labor market and how these challenges differ by gender. I then build the theoretical argument for why employers may discriminate against African Americans, and particularly African American men, at the hiring interface. Next, I introduce the data and methods used in the study and then present the empirical findings. Finally, I discuss the implications of the results for scholarship on race and gender inequality in the labor market.

**Racial Inequality in the Labor Market**

Black workers fare worse in the labor market than their white counterparts in terms of both earnings and unemployment (Kim 2009; Gottschalk 2003; Dawkins, Shen, and Sanchez 2005). Greenman and Xie (2008) find that, on average, black men’s earnings are 25% lower than white men’s earnings and black women’s earnings are 12% lower than white women’s earnings. Similar patterns emerge in the realm of unemployment. As Figure 3.1, below, demonstrates, the unemployment rate for African Americans generally hovers around double the unemployment rate for whites. And, since the late 1990s, unemployment among black men has been higher than among black women. In 2012, the unemployment rate for white men was 7.4%, compared to 15.0% for black men. The racial unemployment gap was less pronounced for women, with white women having an unemployment rate of 7.0%, compared to 12.8% for black women (Bureau of Labor Statistics 2012a; 2012b). And, the racial gap in unemployment does not disappear as one moves up the education ladder. In 2012, African American workers with at least a college education had an unemployment rate of 6.3%, compared to 3.7% among college-educated white workers (Bureau of Labor Statistics 2012b).
In addition to racial differences in earnings and unemployment, black workers are also more likely than white workers to be employed in non-standard, precarious labor market positions. Over the past 30 years, employment relations have changed dramatically in the United States, with an increase in the use of non-standard, precarious, contingent, and flexible labor relations (Kalleberg 2009). This set of employment relationships includes part-time employment, temporary help agency employment, and skills underemployment (i.e., taking a job below one’s level of skill or experience) (Kalleberg 2000). While some workers choose these non-standard employment relationships, many workers involuntarily end up in these jobs. In general, African American workers are more likely than white workers to have non-standard, precarious employment, often involuntarily. Among part-time workers, African Americans are much more likely to be working part-time for economic reasons, such as not being able to find a full-time job.
job. While 34.3% of African Americans were working part-time for economic reasons in 2012, only 24.4% of whites were (Bureau of Labor Statistics 2013a). The most recent estimates, from 2005, also suggest the African Americans are over-represented in the temporary help industry. While 10.9% of workers in traditional employment relationships were African American, 22.7% of temporary help agency workers were African American (Bureau of Labor Statistics 2005). Unfortunately, given data limitations, it is difficult to estimate whether African Americans are over-represented in jobs below their skill level. But, in terms of part-time work for economic reasons and temporary agency employment, severe racial disparities are observed.

**The Role of Discrimination**

While the empirical patterns above are quite clear, do they point to the persistence of racial discrimination? Or, do other forces account for ongoing racial inequalities in the labor market? In terms of earnings, some research has argued that racial differences in cognitive test scores largely account for the racial earnings gap (Farkas and Vicknair 1996; Neal and Johnson 1996). Indeed, some leading labor market analysts argue that racial inequalities in the labor market are largely due to cognitive and skill differentials, sidelining racial discrimination as a key explanatory factor (see Heckman 1998). And, when examining unemployment, some scholars argue that self-selection on the labor supply side of the job matching process means that racial discrimination only plays a minimal role in limiting African Americans’ access to employment (Heckman 1998; c.f. Pager and Pedulla 2013). According to this research, the importance of racial discrimination in the labor market may be limited, with other factors – such as differences in human capital – accounting for the persistence of racial disparities.
Contrary to research indicating that racial discrimination in the labor market is a thing of the past, recent experimental research that tests for racial discrimination in hiring finds compelling evidence that black workers face severe discrimination. Bertrand and Mullainathan (2004) implemented a correspondence study, sending roughly 5,000 experimentally manipulated fake resumes to apply for 1,300 real job openings. They found that applicants with white-sounding names received approximately 50% more callbacks for jobs than identical applicants with black-sounding names. They also found that there were limited returns to additional credentials for African Americans and that the occupation and industry to which the application was sent did not moderate the effect of race. Importantly, they did not find significant gender differences in racial discrimination (Bertrand and Mullainathan 2004). Using a field-experimental approach with actors posing as job applicants, rather than simply sending paper job applications, Pager et al. (2009) tested for racial discrimination against male job applicants in New York City’s low-wage labor market. They found that white applicants were approximately twice as likely as nearly identical black applicants to receive positive responses from employers (Pager et al. 2009). Together, these studies provide clear empirical support for the on-going reality of race-based exclusion at the hiring interface.

Qualitative research also points to employers’ deeply held negative stereotypes about African American workers. While employers’ stated attitudes about particular groups of workers are not necessarily perfect, or even accurate, predictors of how they will behave when making hiring decisions (Pager and Quillian 2005), a significant body of research suggests that employers talk about black workers as unskilled and unmotivated (Kirschenman and Neckerman 1991; Waldinger and Lichter 2003; Shih 2002). Moss and Tilly (2001) find that 33.4% of the employers they interviewed, out of 350 face-to-face interviews, made statements about black
workers having lagging motivation and 20.3% indicated that they thought blacks had lagging hard skills (p. 97). Similarly, drawing on extensive qualitative interviews with employers in Los Angeles, Waldinger and Lichter (2003) quote one of their respondents, discussing black workers, as saying: “They don’t try hard enough. They want everything to be handed down to them. They don’t want to work for what they get” (p. 171). While much of the research on employers’ attitudes toward black workers focuses on the lower-skilled labor market, obtaining additional educational credentials does not appear to protect black individuals from experiencing discrimination (Feagin 1991). Thus, the qualitative evidence suggests that black job applicants – across the education spectrum – may face discrimination throughout the employment process.

When employers discuss African American workers, however, they often talk about black men and black women quite differently. Drawing on data from their interviews with employers in five cities, Moss and Tilly (2001) report that employers consistently stated preferences for black women over black men (see also Kirschenman 1991). Specifically, they argue that employers perceived black women as more educated and skilled than black men. They write: “Respondents described black women as having ‘better communication skills, better work skills in everything,’ and being ‘a hell of a lot sharper’ and ‘very impressive’ compared to black men, who ‘tended to be less skilled, less educated’” (Moss and Tilly 2001, p. 127). Thus, aggregate rates of employment challenges for African American women are less severe than for black men (i.e., they have lower unemployment rates) and interviews indicate that employers perceive black women as more skilled and motivated than black men. Insofar as these factors shape employers’ decisions at the hiring interface, racial discrimination in hiring is likely to vary by gender.
Theorizing Racial Discrimination

While existing field-experimental evidence and qualitative interview data point to the persistence of racial exclusion in hiring, the underlying mechanisms of race-based decision-making at the hiring interface remain elusive in the sociological literature (Reskin 2003). Why might employers discriminate against African Americans in the hiring process? While multiple existing theoretical frameworks have developed to understand discriminatory hiring decisions (see Becker 1957; Blalock 1956; Cuddy et al. 2007), one group of theories posits that categorical differences – such as race – are used as heuristics by employers to differentiate between the workers they want to hire and those that they do not want to hire (Phelps 1972; Arrow 1973; Correll and Benard 2006; Correll et al. 2007). Describing these perspectives, Pager et al. (2009) write: “Here group-based generalizations provide guidance about the expected profile of individuals from a given group and facilitate decision making when information or time are scarce” (p. 779). The hiring process is often characterized by employers needing to make important decisions under time pressure and with limited information, conditions when group-based attributes are more likely to be used as heuristic devices (Aigner and Cain 1977; Fiske 1998).

How might race serve as a heuristic for employers at the hiring interface? I posit that existing racial disparities in the labor market play a central role (consciously or unconsciously) in shaping employers’ use of race as a heuristic device. As was discussed in detail above, black workers, on average, have higher rates of unemployment and are more likely to work in non-standard, precarious employment positions compared to whites. And, deeply held stereotypes about race and employment persist in the public discourse and media, which likely influence the

15 Here, I include theories of both “statistical discrimination” and “status-based discrimination.” While there are differences between these two perspectives, they both conceive of group differences as heuristics used in decision-making processes.
ways that employers understand these issues. Thus, for employers making hiring decisions, the categories “African American” and “poor worker quality” (i.e., having a history of unemployment or non-standard employment) may largely overlap with one another. Independently, therefore, these categorical distinctions between job applicants may lead to racial discrimination (in the case of black men with full-time, standard employment histories) as well as penalties at the hiring interface (for white male workers with histories of long-term unemployment or non-standard employment). However, the addition of one category, for example having a history of long-term unemployment, to the other category, for example being a black male, is unlikely to provide additional information to the employer about the job applicant. Thus, there may be a limited additional penalty for workers presenting both characteristics – being African American and having a “blemished” employment history – during the job application process.

While it is not possible to observe employers’ thoughts as they make decisions about whom to hire, it is possible to observe their behavior and infer an underlying process from those observations. In the primary analysis presented below, I utilize multiple strategic comparisons to examine whether the perspective articulated above is borne out in the empirical data. First, I focus on male applicants – where I expect racial discrimination to be strongest – and examine variation in employers’ responses to white and black men with different employment histories. Specifically, I compare employers’ behavioral responses (i.e., do they positively respond to an applicant) to white and black male job applicants with three different employment histories: 1) standard, full-time employment; 2) non-standard, precarious employment; and 3) long-term unemployment. If the theoretical argument articulated above is accurate – that being a black male and having a “spotty” work history are largely synonymous and negative for employers
and, thus, provide limited new information when combined – then one would expect to see three empirical patterns emerge. First, there will be severe penalties for black men with full-time, standard employment histories, compared to white men with the same employment histories. This is the comparison normally used to identify racial discrimination in hiring. Second, there will be little variation in employers’ responses to black men with different work histories. Black men with seamless work histories will be penalized in similar ways to black men with histories of non-standard employment or long-term unemployment. For black male job applicants, histories of non-standard employment and long-term unemployment are unlikely to provide employers with any additional information about the worker. In essence, the race of black male applicants automatically leads employers to make assumptions that they have a history of unemployment or non-standard employment. Finally, white men will be penalized for non-standard work histories and histories of long-term unemployment, compared to white men with a full-time, standard employment history. Whether raising employers’ concerns about a workers’ human capital, competence, or commitment, non-standard employment histories and unemployment histories are likely to result in white men facing challenges in gaining employment (Kroft et al. 2013).

If the theoretical mechanism posited here is inaccurate, however, and other factors drive racial exclusion in hiring, then one might expect to see additional penalties for black men with histories of non-standard, precarious work and spells of unemployment. In this case, black men with non-standard employment histories or unemployment histories will be penalized twice – once for being black and once for having a “scarred” employment history.

As a second strategic comparison to understand the mechanisms underlying racial discrimination, I examine employers’ responses to white and black female applicants with the
same set of employment histories. Since the mid-1990s, the unemployment rate for black women has been lower than for black men. At the same time, employers’ stereotypes about and attitudes towards black women as workers are more favorable than their opinions of black men (Moss and Tilly 2001; Kirschenman 1991). Additionally, the previous chapter demonstrated that non-standard, precarious employment histories and spells of unemployment are generally less penalizing for women (at least for women with names that are likely to be perceived as racially neutral and default to assumptions of whiteness) in the labor market, potentially due to employers’ perceptions of these employment relations as a “normal” part of female labor force participation. Therefore, employers’ racial biases at the hiring interface should differ for men and women, with less severe racial penalties for black women. While I hypothesize that black women will face racial discrimination, it will likely be more muted than for black men.

Alternatively, if the mechanism I posit above is inaccurate, race and gender disadvantages may be additive and produce a “double disadvantage” for black female job applicants (Ransford 1980; Beale 1970; King 1988; for a review and race and gender intersections in the labor market, see Browne and Misra 2003). In this case, discrimination against black women would be expected to be more severe than for black men across different employment histories.

**Data and Methods**

Given the challenges with using observational data to identify racial discrimination in the employment process (Pager and Western 2012), I analyze additional data from the field and survey experiments presented in the last chapter. In addition to the employment and gender manipulations that were presented in the experiments discussed in Chapter 2, the experiments
also included a manipulation of the job applicant’s race (white vs. African American), which was not presented in the last chapter. The race manipulations were “between-subjects” and, therefore, did not influence the findings presented in Chapter 2.

In this chapter, I include the race conditions in the analyses. For the field experiment, or audit study, the inclusion of the race conditions increases the sample to 4,822 applications that were submitted to 2,411 job openings. As was discussed in the last chapter, I tracked the “callbacks” (i.e., positive employer responses) received by each application. The overall callback rate for the full experiment, including the race conditions, was 6.6%, which is consistent with previous studies that submitted applications with work experience after college (Correll et al. 2007; Bertrand and Mullainathan 2004).

The race of the applicant was signaled through the use of African American racialized names. The assumption here is that the names that were used in the previous chapter – Jon Murphy and Matthew Stevens for men and Katherine Murphy and Emily Stevens for women – are racially neutral or “white” names. It is not clear whether these names actively led employers to think the applicant was white or whether these names simply did not prime a race of the applicant and, thus, defaulted to assumptions of whiteness. To signal an African American racial background, racialized male and female names were used: Darnell Washington and Tyrone Jackson for men and Kimora Washington and Kenya Jackson for women. Using names to signal race is complicated, since heavily racialized names may signal more than just the race of the applicant, such as social class (see Fryer and Levitt 2004). To gain some traction on this issue, I obtained data on the first names of all New York State resident births in 2008-2009 by the mother’s race and educational attainment. I then selected names that were highly likely to have either a black or a white mother (at least 60% for the black names and 70% for the white names).
Next, I took this set of names and selected a set where the average level of maternal education was similar, attempting to net out the potential confounding effects of social class. Additionally, all of the resumes in the study explicitly state that the applicants have attained a college degree, which is a clear marker of the applicant’s current social class.

The second axis of variation in the experiment – applicants’ employment histories – was identical to the set of manipulations discussed in the previous chapter. One key difference for the analyses presented in this chapter, however, is that the part-time, temporary, and skills underemployment categories are pooled into an aggregate “non-standard, precarious” employment history category. This analytic decision reduces the number of comparisons and clarifies the empirical patterns that are observed given that there are fully 20 experimental conditions in the experiment (race (2) X gender (2) X employment history (5)). The results for the disaggregated non-standard employment history categories is presented in Appendix 3.A. Additionally, in Appendix 3.B, I present the distribution of applications submitted with each experimental manipulation, in each labor market, and for each occupation. The implementation of the field experiment was identical to the procedures discussed in Chapter 2.

The survey experiment discussed in Chapter 2 also included a set of conditions that manipulated the job applicant’s race. Here, the same African American racialized names from the field experiment were used and the implementation of the survey experiment was identical to the procedure discussed in the previous chapter. The race categories were “between-subjects,” which again means that their exclusion had no impact on the results presented in Chapter 2. The full sample size for the survey experiment was 1,816 respondents who reviewed and evaluated 3,632 resumes. Below, I present the field-experimental results first and then move on to the results from the survey experiment.
FIELD EXPERIMENT RESULTS

In this section, I draw on original experimental audit study data to empirically examine whether the combination of racial stereotypes and generalized information about the employment challenges faced by African Americans – higher rates of unemployment and non-standard, precarious employment – underlie hiring discrimination in the U.S. labor market. I utilize two strategic comparisons to gain theoretical traction on this issue. First, I compare the callback rates for white and black men across different employment histories. Second, I examine the patterns of callback rates for white and black women and explore whether there are gender differences in the processes of racial exclusion.

The empirical results from the field experiment are most easily presented graphically as the callback rate in each employment history category for each demographic group. Figure 3.2 presents the results in this manner. Panel 2a is for applicants with male names, broken down by applicants with white-sounding and black-sounding names. Panel 2b presents the results for the applicants with female-sounding names. The statistical tests presented below are z-tests for differences in proportions and two-tailed tests are used throughout. Moving forward, I will refer to applicants with a particular demographic-sounding name as applicants from that demographic background (i.e., “white female applicants”). While this approach loses some precision, it will hopefully increase the clarity of the findings.

Panel 2a demonstrates that black male applicants in the full-time condition received a much lower callback rate than white male applicants in the full-time condition. This difference is highly statistically significant (4.3% vs. 10.4%, $|z| = 2.92, p < .01$). Consistent with previous research, this finding provides support for the hypothesis that black men face discrimination
compared to white men. Next, the figure demonstrates that black male applicants received similar callback rates in each employment condition. It is striking that for black men there are no statistically significant differences in the callback rates between the full-time and aggregated non-standard work history conditions (4.3% vs. 6.1%, $|z| = 1.09, p = .28$) or the full-time and long-term unemployment work history conditions (4.3% vs. 6.2%, $|z| = 1.07, p = .28$).\textsuperscript{16} Black men with full-time, standard, seamless work histories are penalized as severely as black male applicants with non-standard employment histories and histories of long-term unemployment. The empirical pattern for white men, however, is quite different. Compared to white men with full-time, standard employment histories, white men face serious penalties for histories of non-standard employment (10.4% vs. 5.5%; $|z| = 2.61, p < .01$) and histories of long-term unemployment (10.4% vs. 4.2%; $|z| = 3.11, p < .01$).

I next examine whether the consequences of different employment histories are statistically significantly different for white and black men. To test for these differences, I ran a logistic regression model, with standard errors clusters at the level of the job opening, and included interaction terms between each employment condition and whether the applicant was a black male. As Model 1 in Table 3.1 demonstrates, both interaction terms in the model are statistically significant. This indicates that the consequences of non-standard employment and unemployment are meaningfully different for white and

\textsuperscript{16} I also ran a logistic regression model, limited to black male applicants, where the different employment statuses where the predictor variables. The chi-square statistic for the model was 47, indicating that there is no statistically meaningful variation across employment categories in callbacks for black male job applicants.
black male job applicants. The first set of comparisons – examining employers’ responses to white and black male applicants across employment histories – provides support for the theoretical argument and hypotheses articulated above. There are no meaningful differences in callback rates across employment histories for black men. All black men, therefore, appear to 

17 Given some methodological concerns about including interaction terms in logistic regression models (Allison 1999), I also ran Model 1 in Table 3.1 using a linear probability model. The findings hold under this alternative specification (results available upon request).
bear the stigma of “spotty,” non-standard, and jobless work histories, regardless of their personal work experience.

I now turn to examining racial differences in callback rates, by employment history, for female job applicants. The picture here looks quite different than it did for male job applicants. In each employment category, black women received lower callback rates than white women by roughly two to four percentage points. The racial difference in callback rates for female applicants, however, is only statistically significant in the nonstandard work category (4.8% vs. 8.0%; $|z| = 2.13, p < .05$). Additionally, however, the overall difference in callback rates for black and white women across all categories, not presented in the figure, is highly statistically significant (5.6% vs. 8.5%; $|z| = 2.76, p < .01$). As Model 2 in Table 3.1 demonstrates, however, there are no statistically significant interactions between the applicant’s race and having a history of non-standard employment for female job applicants. This means that the effects of non-standard employment and unemployment histories, compared to full-time employment histories, do not differ by race for female applicants. For women, therefore, racial discrimination appears to be more diffuse and more muted than it does for the male applicants. These findings are congruent with the argument put forth above that employers perceive black women less negatively than black men.

To ensure that these gender differences in racial discrimination are statistically reliable and not just “noise” in the data, Model 3 in Table 3.1 includes three-way statistical interactions between race, gender, and the applicant’s employment history. Both of the three-way interactions are statistically significant, indicating that the racial differences in the consequences of histories

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18 This finding holds in a logistic regression model where controls are included for each employment history category.
of non-standard employment and unemployment differ for male and female applicants in a meaningful way.

Table 3.1. The Consequences of Race, Gender, and Employment Histories on the Likelihood of Receiving a "Callback"

<table>
<thead>
<tr>
<th>Employment History</th>
<th>Male Applicants (1)</th>
<th>Female Applicants (2)</th>
<th>All Applicants (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-Time (omitted)</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Any Non-Standard Employment</td>
<td>-0.679***</td>
<td>-0.286</td>
<td>-0.679***</td>
</tr>
<tr>
<td></td>
<td>(0.190)</td>
<td>(0.198)</td>
<td>(0.190)</td>
</tr>
<tr>
<td>Unemployment</td>
<td>-0.960**</td>
<td>-0.352</td>
<td>-0.960**</td>
</tr>
<tr>
<td></td>
<td>(0.294)</td>
<td>(0.255)</td>
<td>(0.294)</td>
</tr>
<tr>
<td>Black Applicant</td>
<td>-0.926**</td>
<td>-0.435</td>
<td>-0.926**</td>
</tr>
<tr>
<td></td>
<td>(0.327)</td>
<td>(0.275)</td>
<td>(0.327)</td>
</tr>
<tr>
<td>Non-Standard Employment X Black</td>
<td>1.035**</td>
<td>-0.120</td>
<td>1.035**</td>
</tr>
<tr>
<td></td>
<td>(0.349)</td>
<td>(0.298)</td>
<td>(0.349)</td>
</tr>
<tr>
<td>Unemployment X Black</td>
<td>1.330**</td>
<td>0.0948</td>
<td>1.330**</td>
</tr>
<tr>
<td></td>
<td>(0.457)</td>
<td>(0.397)</td>
<td>(0.456)</td>
</tr>
<tr>
<td>Female Applicant</td>
<td>--</td>
<td>--</td>
<td>0.00457</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>--</td>
<td>(0.254)</td>
</tr>
<tr>
<td>Non-Standard Employment X Female</td>
<td>--</td>
<td>--</td>
<td>0.393</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>--</td>
<td>(0.274)</td>
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<tr>
<td>Unemployment X Female</td>
<td>--</td>
<td>--</td>
<td>0.608</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>--</td>
<td>(0.389)</td>
</tr>
<tr>
<td>Black X Female</td>
<td>--</td>
<td>--</td>
<td>0.491</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>--</td>
<td>(0.427)</td>
</tr>
<tr>
<td>Non-Standard X Black X Female</td>
<td>--</td>
<td>--</td>
<td>-1.155*</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>--</td>
<td>(0.459)</td>
</tr>
<tr>
<td>Unemployment X Black X Female</td>
<td>--</td>
<td>--</td>
<td>-1.235*</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td>--</td>
<td>(0.605)</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.158***</td>
<td>-2.154***</td>
<td>-2.158***</td>
</tr>
<tr>
<td></td>
<td>(0.179)</td>
<td>(0.181)</td>
<td>(0.179)</td>
</tr>
<tr>
<td>n (clusters)</td>
<td>1205</td>
<td>1206</td>
<td>2411</td>
</tr>
<tr>
<td>n (observations)</td>
<td>2410</td>
<td>2412</td>
<td>4822</td>
</tr>
</tbody>
</table>

Notes: Log-odds are presented. Clustered standard errors in parentheses.
Statistical Significance (two-tailed tests): * p < .05, ** p < .01, *** p < .001
**Survey Experiment Results**

The strategic comparisons presented in the field experiment provide insights into the potential mechanisms underlying racial discrimination. Another way to examine mechanisms, however, is to attempt to empirically measure the mechanisms of interest—in this case, employers’ negative perceptions of black male and female workers’ labor force participation and work ethic—and test whether those constructs mediate the relationship of interest—in this case, between race and hiring outcomes. This type of analysis is not possible with the audit study design presented above because one cannot measure the thought processes of employers as they are making actual hiring decisions. While important for examining employers’ actual behaviors, the audit study method only provides the researcher with a binary “callback” variable. No information is obtained about the employers’ evaluation of the applicant or the thought process behind the “callback” decision. Other methods are necessary to obtain that information.

To gain additional traction on these issues, I turn to the survey-experimental findings. The goal of conducting the survey experiment was to replicate the racially distinct patterns of interview receipt from the field experiment and then to examine whether employers’ evaluations of applicants’ work ethic and competence can account for these relationships. The empirical findings from the survey experiment, however, do not provide any evidence of racial bias. Across the board, for both men and women, the applicants with black-sounding names received similar interview likelihood ratings to applicants with white-sounding names. In Table 3.2, below, I present regression analyses examining whether applicants were “very likely” to be recommended for an interview (i.e., the binary “interview likelihood” outcome measure from Chapter 2). Model 1 examines whether histories of non-standard employment or unemployment
interact with being a black applicant for male applicants. Model 2 presents the same analysis for female applicants. As the results demonstrate, the main effect of being a black applicant (in the full-time condition) is not statistically significant. In fact, in both models this coefficient in slightly positive, albeit not significant. And, neither of the interactions between race and an applicant’s employment history is statistically significant in either model. In a supplementary analysis (not presented here), I tested for three-way interactions between race, gender, and employment history. These interaction terms were not statistically significant.

Even though the survey experiment did not identify racial differences in applicants’ interview likelihood recommendations, it is possible that black applicants were evaluated more harshly along other dimensions (i.e., work ethic, etc.). However, this is not the case. Applicants with African American-sounding names were not rated any differently in terms of their work ethic or competence compared to the white applicants (results not presented here). Thus, these findings indicate that there is a large disjuncture between the empirical results from the field and survey experiments with regard to racial bias.

What should be made of these empirical results? Given the clear pattern of racial discrimination that is detected in the field-experimental component of this chapter, which measures actual employer behavior, the survey experiment results should not be taken as an indication that racial discrimination is a thing of the past. Similar to the survey-experimental results presented in the last chapter, where gender differences were less pronounced in the survey than the field experiment, we see here that the effects of key social categories are more muted in the survey context than in the field context. As in the last chapter, it is possible that social desirability bias, heightened attention to legal norms in the survey context, and the reduction of time pressure when taking a survey produce the different findings around race in the field and
survey experiments (Schuman et al. 1997; Fiske 1998). It is also possible that the selection of only one job type in the survey experiment – compared to four job types in the field experiment – contribute to these discrepancies.

Regardless of which of these explanations is at play, these findings raise important questions about the ways in which researchers study race and gender biases. Survey data, even survey-experimental data, appear to miss some of the key aspects of racialized and gendered behavioral patterns that are observed in the social world. In other words, individuals’ stated

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**Table 3.2. The Consequences of Race, Gender, and Employment Histories on Being "Very Likely" to be Recommended for an Interview**

<table>
<thead>
<tr>
<th>Employment History</th>
<th>Male Applicants (1)</th>
<th>Female Applicants (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-Time (omitted)</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Any Non-Standard Employment</td>
<td>-0.548** (0.138)</td>
<td>-0.326* (0.163)</td>
</tr>
<tr>
<td>Unemployment</td>
<td>-0.448* (0.294)</td>
<td>-0.310+ (0.182)</td>
</tr>
<tr>
<td>Black Applicant</td>
<td>0.138 (0.185)</td>
<td>0.163 (0.184)</td>
</tr>
<tr>
<td>Non-Standard Employment X Black</td>
<td>0.200 (0.220)</td>
<td>-0.186 (0.218)</td>
</tr>
<tr>
<td>Unemployment X Black</td>
<td>0.215 (0.262)</td>
<td>-0.155 (0.261)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.782*** (0.134)</td>
<td>-625*** (0.130)</td>
</tr>
</tbody>
</table>

Notes: Log-odds are presented. Clustered standard errors in parentheses.
Statistical Significance (two-tailed tests): + p < .10, * p < .05, ** p < .01, *** p < .001
preferences may not correspond to their behaviors (Pager and Quillian 2005). Given these challenges, additional methodological work in the social sciences is necessary to understand the ways that different methodological approaches may reveal or conceal race and gender biases.

**DISCUSSION**

Why do African Americans face persistent discrimination at the hiring interface? Answers to this question have remained elusive given the challenges with empirically identifying discriminatory behavior and the even more complicated issues associated with identifying the mechanisms of racial discrimination. Utilizing two strategic analytic comparisons – across employment histories and across genders – and original field-experimental data from nearly 5,000 job applications submitted in five major U.S. labor markets, this chapter makes important inroads into the study of the mechanisms underlying racial discrimination.

Conceptualizing race as a heuristic used by employers to sort workers at the hiring interface, I propose a specific mechanism of racial discrimination: employers equate being African American – and particularly being an African American man – with negative work histories (specifically, unemployment and non-standard employment). Thus, all African American male applicants, even those with seamless work histories – bear the penalty of higher aggregate rates of unemployment and non-standard work. Two empirical patterns are predicted by this theoretical argument. First, black male workers with full-time, standard, seamless work histories will face the same negative response from employers as black men with non-standard and jobless work histories. Second, the pattern of racial exclusion will be more muted for black women than it is for black men.
The field-experimental results provide empirical support for both of these hypothesized patterns. Thus, black men appear to be caught in a vicious cycle where higher aggregate rates of labor market challenges – unemployment and non-standard employment – reproduce themselves, even in the face of disconfirming individual-level employment experiences. Employers’ stereotypes and perceptions of the aggregate-level employment challenges facing African Americans lead to the scarring of all black male workers.

While the empirical results from the field experiment generally support the proposed mechanism, alternative explanations may also be possible. A simple alternative explanation is that when employers see an African American name on a job application – particularly an African American male name – they do not read the rest of the job application and the applicant is not contacted for an interview (see Bertrand and Mullainathan 2004, p. 1011). The same underlying reasons discussed in this paper – concerns about African Americans’ employment patterns or stereotypes about black men’s work ethic – could lead employers to not even read an application if the name at the top of the resume indicates that the applicant is an African American man.

I am skeptical of this alternative interpretation of the callback results for black men for two reasons. First, African American male applicants in the field experiment received a non-zero callback rate, which means that some employers actually reviewed the applications submitted by these applicants. Therefore, among the subset of employers who did actually read the applications from black male workers, one would expect to see a differentiated pattern of callbacks between the full-time, non-standard, and unemployed work histories if the theoretical model presented in this paper were incorrect. Second, the analyses presented above examine the aggregate non-standard employment category, which combines histories of part-time work,
temporary agency employment, and skills underemployment. However, when the “non-standard” employment category is disaggregated (see Appendix 3.A), African American men with temporary employment histories actually receive higher callback rates than African American men with histories of full-time, standard employment. This suggests that a significant proportion of employers do not stop reading a job application when they see that it is from someone with an African American male name. The employer would have needed to see the “temporary agency employment” signal for it to have a positive effect. Therefore, it is unlikely that employers simply discarding applications when they see a black male name can explain the findings presented above.

While providing new insights to sociological conceptions of racial discrimination and the processes underlying racial inequality in the labor market, these findings also raise important challenges for public policy. If the exclusion of black men at the hiring interface is largely impenetrable to individualized information about an individual’s employment experiences, then policy interventions designed to address racial disparities in the labor market by focusing on job training and skill development will likely prove ineffective. The evidence presented above suggests that changing racial disparities in aggregate-level rates of unemployment and non-standard, precarious work may have a meaningful impact on reducing racial discrimination, but even this intervention may not be able to dislodge deeply held beliefs about the connection between race and employment outcomes. These insights therefore present a conundrum for policy-makers because the macro- and micro-processes investigated here are entangled.

19 Why might there be a benefit for black male job applicants who have a history of temporary agency employment? While the data do not permit an empirical investigation of this issue, it is possible that employers’ stereotypes about black male job applicants’ work ethic, personality, or potential criminal background are reduced if the black male applicant has worked for a temporary help agency. Temporary employment agencies generally put workers through personality tests, drug tests, and criminal background tests before hiring them, which may reduce employers’ concerns about these issues related to black male job applicants. Future research would likely be well served to investigate this issue further.
Reshaping macro-level processes requires changes at the micro-level, which in turn require changes at the macro-level.

While advancing the literature in important ways, the analyses above have some limitations. First, the data only provide information about preliminary callbacks, leaving open important questions about racial inequality in final hiring decisions, wage setting, promotions, and terminations. Second, although the racialized names were carefully selected for this study, concerns may persist that something other than race is being signaled through the names of the fictitious applicants. Third, I am unable to examine how organizational factors – such as the racial composition of management or organizational formalization – influence the processes discussed here. Additional theoretical leverage could be gained from understanding the moderating forces of these organizational-level mechanisms. Finally, an important scope condition of the findings is that they are limited to job applicants with college degrees. Employers’ responses to black job applicants in the low-skilled labor market may look quite different.

Notwithstanding these limitations, this chapter contributes key new theoretical insights to the underlying processes that generate racial discrimination at the hiring interface. Aggregate labor market inequalities and the ways that these inequalities shape employers’ perceptions of African American workers, particularly African American men, appear to be generalized to produce a scarring effect for all black male workers. Future research that continues to probe the mechanisms underlying racial discrimination is warranted to improve policy interventions in this area and deepen our understanding of racial stratification in the labor market.
APPENDIX 3.A.
DISAGGREGATED EMPLOYMENT HISTORY CALLBACK RATES

Figure 3.A1. Disaggregated Field Experiment Callback Rates, by Race and Gender

Source: Experimental audit study data.
### Table 3.B. Distribution of Applications Submitted in Experimental Audit Study

<table>
<thead>
<tr>
<th>Employment History</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-Time</td>
<td>1,343</td>
<td>27.85%</td>
</tr>
<tr>
<td>Part-Time</td>
<td>707</td>
<td>14.66%</td>
</tr>
<tr>
<td>Temporary Agency</td>
<td>645</td>
<td>13.38%</td>
</tr>
<tr>
<td>Skills Underemployment</td>
<td>704</td>
<td>14.60%</td>
</tr>
<tr>
<td>Unemployment</td>
<td>1,423</td>
<td>29.51%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,822</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Demographic Group</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Male</td>
<td>1,198</td>
<td>24.84%</td>
</tr>
<tr>
<td>Black Male</td>
<td>1,212</td>
<td>25.13%</td>
</tr>
<tr>
<td>White Female</td>
<td>1,222</td>
<td>25.34%</td>
</tr>
<tr>
<td>Black Female</td>
<td>1,190</td>
<td>24.68%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,822</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Labor Market</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlanta</td>
<td>598</td>
<td>12.40%</td>
</tr>
<tr>
<td>Boston</td>
<td>952</td>
<td>19.74%</td>
</tr>
<tr>
<td>Chicago</td>
<td>780</td>
<td>16.18%</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>1,010</td>
<td>20.95%</td>
</tr>
<tr>
<td>New York City</td>
<td>1,482</td>
<td>30.73%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,822</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting/Bookkeeping</td>
<td>780</td>
<td>16.18%</td>
</tr>
<tr>
<td>Administrative/Clerical</td>
<td>848</td>
<td>17.59%</td>
</tr>
<tr>
<td>Project Management/Management</td>
<td>1,642</td>
<td>34.05%</td>
</tr>
<tr>
<td>Sales</td>
<td>1,552</td>
<td>32.19%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4,822</strong></td>
<td><strong>100.00%</strong></td>
</tr>
</tbody>
</table>

Source: Experimental audit study data.
Chapter 4: Employers’ Use of Contingent Workers and Standard Employees’ Attitudes and Outcomes

The previous two chapters focused on how histories of non-standard employment affect the future labor market opportunities of individual workers. In this chapter, I turn to examining the ways that the insecurity and instability of non-standard and contingent employment may ripple outward to impact the attitudes and outcomes of full-time, standard employees. Specifically, this chapter asks the question: How does a business establishment’s use of contingent workers impact the standard, full-time employees in that workplace? And, what mechanisms can account for those consequences?

While a set of findings has begun to emerge in this area (Davis-Blake et al. 2003; Broschak and Davis-Blake 2006), important gaps remain in understanding the relationship between employers’ use of contingent workers and the outcomes of standard employees. First, much of the research in this area has relied on small, non-random samples of organizations or data that are, by now, decades old. Building on the insights from this earlier research, I utilize a national sample of more recent employer-employee matched data to examine the connections between contingent worker use and standard employees’ outcomes. Second, existing sociological research has directed limited attention towards examining the underlying reasons why employers’ use of contingent workers may impact the standard employees in those workplaces. To address this limitation, I theoretically develop and empirically examine two mechanisms that

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20 A version of this chapter has been published in Social Forces (volume 92, issue 2). The chapter benefitted greatly from the feedback of the anonymous Social Forces reviewers.
have been posited to link employers’ use of contingent workers to standard employees’ attitudes and outcomes – perceived job security and perceived social status within the workplace (Vough et al. 2005). I distinguish between these two mechanisms and test whether they assist in accounting for the associations between employers’ use of contingent workers and other attitudes and outcomes of standard employees. Thus, this research contributes theoretical insights to the sociological understanding of the forces underlying the consequences of employers’ use of contingent workers.

Additionally, extant research on this set of issues has focused on the consequences of employers’ use of temporary workers and, to some extent, independent contractors and part-time workers (Davis-Blake et al. 2003; George 2003; Broschak and Davis-Blake 2006). However, there is a dearth of research that examines how the use of on-call workers affects the standard employees in those workplaces. In this chapter, I simultaneously examine the consequences of employers’ use of temporary workers, independent contractors, and on-call workers and posit that the use of each type of contingent worker will have distinct consequences for standard employees’ attitudes and outcomes. I argue that the differences between temporary workers, independent contractors, and on-call workers (e.g., varying levels of skill and desire for standard employment), as well as their distinct relationships to the establishments where they work (e.g., level of administrative separation and the reasons that employers use them) will have varied consequences for standard employees. Thus, this analysis further contributes to the literature on the consequences of the rise in contingent labor arrangements by explicitly examining the impact of the use of on-call workers and developing a theoretical understanding of why the consequences of contingent worker use vary across temporary workers, independent contractors, and on-call workers.
The empirical analysis demonstrates that employers’ use of temporary workers is negatively related to standard employees’ pride in working for their employer and organizational trust as well as their relationships with managers and co-workers. I also find compelling evidence that these negative relationships are mediated by standard employees’ perceived job security. However, I do not find evidence that standard employees’ perceived social status within the organization, which I measure as standard employees’ perceived respect, plays a role in mediating the association between temporary worker use and standard employees’ outcomes. Additionally, these results indicate that the use of on-call workers is positively related to certain outcomes for standard employees, but I do not find any consistent associations between the use of independent contractors and standard employees’ attitudes or outcomes. This chapter, therefore, documents the consequences of using contingent workers within U.S. workplaces, distinguishes between two potential mechanisms through which these consequences operate, and explores the distinct consequences of employers’ use of three forms of contingent labor. These findings have important implications for understanding the differential consequences of how organizations obtain flexibility as well as the nature of job insecurity in the “new economy.”

**CONTINGENT WORKER USE AND STANDARD EMPLOYEE’S OUTCOMES**

*Theoretical Background*

Why might employers’ use of contingent workers affect the attitudes and outcomes of standard employees? In response to this question, researchers have proposed three mechanisms: 1) standard employees’ perceived job security; 2) standard employees’ perceived social status; and 3) standard employees’ accommodation of the integration of contingent workers into their daily routines (see Vough et al. 2005). While these mechanisms have been clearly articulated by
Vough et al. (2005) and others (Davis-Blake et al. 2003; Broschak and Davis-Blake 2006), they have received limited empirical scrutiny in the literature. In this chapter, I explicitly test for the role of the first two mechanisms – perceived job security and perceived social status – in linking employers’ use of contingent workers with the attitudes and outcomes of standard employees. While I would ideally like to also test the third proposed mechanism, accommodation, the data do not contain the necessary information to empirically investigate this issue. Below, I build a theoretical model of the ways that employers’ use of contingent workers may affect the attitudes and outcomes of standard employees and present hypotheses about each of these associations. Figure 4.1 illustrates the relationships between the different constructs of interest as well as how each hypothesis fits in to that set of associations.

**Figure 4.1. Theoretical Model of the Relationship Between Employers’ Use of Contingent Workers and Standard Employees’ Attitudes and Outcomes**

![Figure 4.1](image)

In their theoretical work, Vough et al. (2005) posit that employers’ use of contingent workers may be perceived by standard employees as a threat to their job security in two ways. First, standard employees may see their employers’ use of contingent workers as a first step
towards replacing standard employees at the workplace (Kraimer et al. 2005). Second, Vough et al. (2005) argue that standard employees may believe that “…[contingent workers’] presence signals decreased organizational commitment to standard work arrangements” (p. 241). In each of these cases, the expectation of continued employment, which is a central aspect of the “psychological contract” (Rousseau 1990), will be perceived as being violated and therefore negatively impact a host of other attitudes and outcomes for standard employees, such as organizational trust and relationships with managers and co-workers.

Perceived social status within one’s workplace captures the respect, prestige, and esteem that a worker has within an organization and is the second proposed mechanism linking employers’ use of contingent workers to standard employees’ outcomes. Contingent workers are often seen as low-status laborers within an organization because they are only partial members of the workplace and because they are – almost by definition – expendable (Henson 1996; Rogers 2000). As Vough et al. (2005) argue: “When members of two groups have unequal status due to their social positions (e.g., standard vs. nonstandard [employees]), contact between members of the two groups in social settings is likely to threaten the social standing of the high-status members [e.g., standard employees]” (p. 242). Therefore, as low-status contingent workers move in to a workplace and begin to perform similar tasks as standard employees, standard employees may feel that their social status – perceived respect within the workplace as well as organization-specific knowledge and skills – is threatened. This threat to social status could have important negative consequences for standard employees’ workplace attitudes and relationships (Vough et al. 2005).

While the aforementioned reasons make it clear why the use of contingent workers may negatively impact standard employees, it is also possible that the use of contingent workers will
serve to improve standard employees’ perceived job security and social status. Some researchers have argued that the differentiation between standard workers (the “core”) and contingent workers (the “periphery”) insulates standard employees from market fluctuations (Atkinson 1984; Magnum et al. 1985; Matusik and Hill 1998; Lepak and Snell 1999). Summarizing this perspective, Kalleberg (2003) writes:

“Segmenting the organization’s workforce into fixed and variable components is assumed to achieve cost effectiveness, as numerically flexible, nonstandard, peripheral workers are used to buffer or protect the regular, core labor force from fluctuations in demand” (p. 157).

If standard employees’ perceive their organization’s use of contingent workers as an effort to insulate them from market volatility or build “organizational slack” (Bourgeois 1981) into the workplace, then standard employees’ perceived job security might be enhanced by the use of contingent workers. Similarly, if employers use contingent workers to enable their core, standard employees to take time off to deal with family or medical issues – and standard employees are aware of that decision – then the use of contingent workers may positively impact standard employees’ perceived job security. Additionally, the threat dynamics articulated above by Vough et al. (2005) depend on the level of integration of contingent workers into the organization. If contingent workers remain physically and administratively separated from the standard employees in the organization, then they will likely have little impact on the perceived security or status of standard workers. Thus, employers’ use of contingent workers may not be related to standard employees’ perceived job security and social status or may even be positively associated with these outcomes.
Variation Across Types of Contingent Worker Use

The theoretical discussion above posits that contingent workers may have positive or negative effects on the perceived job security and social standing of standard employees. I argue that the strength and direction of these consequences will vary with the type of contingent worker used within the organization because of the characteristics of different types of contingent workers and because of the different ways, and reasons, that organizations use temporary workers, on-call workers, and independent contractors. While relatively few studies have simultaneously explored the consequences of multiple types of contingent workers for standard employees’ attitudes (Davis-Blake et al. 2003), in this chapter I analyze three different types of contingent worker use, which provides valuable insight about the variation that exists across the ways that organizations obtain flexibility.

A central reason that Vough et al. (2005) argue that contingent workers will negatively impact standard employees’ job security is that contingent workers may be perceived as a new source of competition that is there to replace standard employees. I argue that this threat process is likely to occur for the use of temporary workers, but not the use of on-call workers or independent contractors. The majority of temporary help agency workers, 56.2%, report wanting to move into permanent employment (Bureau of Labor Statistics 2005). And, an important factor contributing to the rise in temporary worker use is employers’ desire to “try out” workers on a temporary basis before hiring them into permanent positions (Autor 2003). Drawing on data from a national survey of employers, Kalleberg et al. (2003) found that “… over a third of managers (35%) said that using employees of temp agencies or contract companies to see how they performed before offering them regular employment was either moderately or very important …” (p. 541; see also Houseman 2001).
It is unlikely, however, that standard employees perceive independent contractors or on-call workers as replacements or competition in the same way as temporary workers. Independent contractors are largely satisfied with their employment status, making it unlikely that they would try to transition into permanent employment at the organizations where they were working. Only 9.1% of independent contractors indicate that they would prefer a traditional employment arrangement to independent contracting (Bureau of Labor Statistics 2005). And, Houseman (2001) found that, in her sample of employers, only 8% of organizations used on-call workers as a way to screen job candidates for regular jobs, making it less likely that on-call workers will transition into standard, permanent employment.

The reasons that employers use on-call workers as well as on-call workers’ distinct relationship to the employer suggest that these workers may actually positively impact the perceived security of standard workers. First, the reason most commonly cited by employers for the use of on-call workers (69.3%) is to fill in for absent standard employees who are sick, on vacation, or on family medical leave (Houseman 2001). On-call workers can therefore serve as a form of “organizational slack” (Bourgeois 1981), providing organizations with the flexibility to deal with the changing needs of standard employees. At the same time, on-call workers are often on their employer’s payroll and have an on-going relationship with the employer. Thus, standard employees are likely to know that their employer has a pool of on-call workers because an on-call worker has filled in for that standard employee (or someone they work closely with) at some point. And, since on-call workers often have an ongoing relationship with the employer, standard employees likely know who the on-call workers are and why they are present in the organization. This type of information is likely less clear with temporary workers and independent contractors, raising more uncertainty, and therefore concern, in the eyes of standard employees. Standard
employees may perceive the use of on-call workers as an organizational strategy that assists them in maintaining their full-time, standard employment relationships while still being able to deal with various challenges that they face outside of work. While limited research has examined the use of on-call workers, there are theoretical reasons to think that the use of on-call workers may improve the perceived job security of standard employees. Thus, I put forward the first hypothesis:

*Hypothesis 1: Employers’ use of temporary workers will be negatively associated with the perceived job security of standard employees. This association will be positive for the use of on-call workers and there will be no association for the use of independent contractors.*

Standard employees’ perceived social status will also be impacted in different ways depending on the type of contingent worker that is used in the workplace. Contingent workers who are integrated into the day-to-day functioning of the organization and whose contingent work status is most salient within the organization will likely have the most negative effect on standard employees’ perceived social status (Vough et al. 2005; Davis-Blake and Uzzi 1993). Thus, temporary workers will be most likely to negatively impact the perceived social status of standard employees. Temporary workers are often administratively integrated into the same work groups as standard employees, “temps” are often made to wear distinctive markers (such as special badges), and organizations often implement policies that clearly demarcate how temporary workers differ from standard employees (Broschak and Davis-Blake 2006).

Independent contractors, however, are unlikely to threaten standard employees’ perceived social status because they often remain administratively separate from the organizations that employ them and are often brought into a workplace because they possess a specialized set of skills that are missing within the organization (Davis-Blake and Uzzi 1993). Thus, independent contractors are less likely than temporary workers to have daily contact with standard employees.
Employers’ use of on-call workers will likely improve standard employees’ perceived social standing within the organization. While on-call workers perform similar tasks to standard employees, they are most often present at the workplace to fill-in for standard employees and thus serve as complements for standard employees, rather than replacements. This complementary role of on-call workers will likely reinforce for standard employees their respect, prestige, and status within the organization. Thus, I present the second hypothesis:

*Hypothesis 2: Employers’ use of temporary workers will be negatively associated with the perceived social status of standard employees within the workplace. This association will be positive for the use of on-call workers and there will be no association for the use of independent contractors.*

The characteristics of standard employees themselves will also likely moderate the relationship between employers’ use of contingent workers and standard employees’ perceived job security and social status. Since organizations generally use temporary workers to perform jobs with low technical and informational complexity (Davis-Blake and Uzzi 1993), standard employees with lower levels of education and lower earnings are more likely to be in competition with temporary workers and, therefore, will be more threatened – in terms of both their job security and social status – by their employers’ use of temporary workers. Additionally, workers who receive higher pay or have more education are more likely to possess human capital that is scarce or firm specific, making their skills more valuable to the employer and making them more difficult to replace. Thus, workers with higher earnings and education are less likely to feel threatened by the use of temporary workers (Davis-Blake et al. 2003; Broschak and Davis-Blake 2006). This line of thought is supported by Barnett and Miner’s (1992) finding that temporary worker use was associated with slower promotion rates for lower-level staff and faster rates of promotion for higher-level staff within a Fortune 500 utility company. However, I do not anticipate that there will be differential effects by income and education for the use of
independent contractors because of the administrative separation between independent contractors and standard employees. Given the limited extant theory and research on on-call workers, it is unclear if and how the earnings and education of standard workers will moderate the consequences of on-call worker use.

Hypothesis 3: The negative association between the use of temporary workers and standard employees’ perceived job security and social status will be stronger for standard employees’ with lower earnings and less education.

Standard Employees’ Other Attitudes and Outcomes

A recent body of empirical research has examined the relationship between organizations’ use of contingent workers and a broad set of standard employees’ attitudinal, relational, and material outcomes that have consequences for the well-being of individual workers and workplace environments (see Davis-Blake and Broschak 2009; Connelly and Gallagher 2004). Importantly, however, much of the research in this area has relied on small, non-random samples of workplaces or examines data that are from the early 1990s. The empirical findings from the studies that examine the consequences of temporary worker use suggest that employers’ use of temporary workers is negatively associated with standard employees’ workplace attachment, trust, and commitment (Davis-Blake et al. 2003; Geary 1992; George 2003), their relationships with managers (Smith 1997; Lautsch 2002; Davis-Blake et al. 2003; Chen and Brudney 2009), and their relationships with co-workers (Chattopadhyay and George 2001). While previous literature has not directly examined the relationship between employers’ use of temporary workers and standard employees’ earnings, there is reason to believe that there may be a

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21 While the primary analyses in this chapter focus on the consequences of whether or not employers use contingent workers, sociological theory also suggests the relative size of the contingent worker population within the organization may impact standard employees (Blalock 1967; Broschak and Davis-Blake 2006). Therefore, I also tested for the association between the ratio of contingent workers to full-time workers within the organization and the outcomes of standard employees. Similar results emerge to the findings presented in the body of the chapter (see Appendix 4.A).
connection between these two constructs. Insofar as temporary workers introduce a new source of competition into the workplace, standard employees’ ability or desire to bargain over wages with their employers may be undermined (Tilly and Tilly 1998; Davis-Blake et al. 2003). Wanting to keep their jobs, standard employees working alongside temporary workers may hesitate to exercise their voice or negotiate for better pay, resulting in lower wages for standard employees who work in organizations with temporary employees.

The limited research that has examined the consequences of using independent contractors generally finds that they have weaker associations with standard employees’ outcomes, compared to temporary worker use (Davis-Blake et al. 2003). As an exception, Pearce’s (1993) analysis of data from an aerospace company found that standard employees who worked alongside contract workers reported lower organizational commitment than those who did not. However, as I discussed above, independent contractors are often kept administratively and physically separate from standard employees, making the generalizability of Pearce’s findings uncertain. Evidence from larger samples of employers suggests that the use of independent contractors have a limited impact on employees’ attitudes and outcomes (see Davis-Blake et al. 2003).

To my knowledge, there is only one study that has examined the relationship between on-call worker use and the outcomes of standard employees. Looking solely at the restaurant industry, Sumner et al. (2011) found that restaurant employees who worked for employers that used on-call workers were less likely to go into work while they were sick. While it is difficult to draw broad conclusions from this single industry study, drawing on this empirical findings and the theoretical discussion above it is likely that on-call worker use will be positively associated with standard employees’ attitudes and outcomes. Therefore, I hypothesize:
Hypothesis 4: Employers’ use of temporary workers will be negatively associated with standard employees’ pride in working for their employer, organizational trust, relationships with management, relationships with co-workers, and earnings. These relationships will be positive for the use of on-call workers and there will be no association for the use of independent contractors.

Mediating Factors

Existing research repeatedly theorizes that perceived job security and perceived social status are central mechanisms through which the use of contingent workers affects the attitudes and outcomes of standard employees that are addressed in the fourth hypothesis (Davis-Blake et al. 2003; Vough et al. 2005). If workers feel that their job security or status within the organization is threatened by contingent worker use then they will have negative attitudes and outcomes at work. The opposite will be true if they feel that contingent worker use protects or enhances their security or status. However, previous research has not examined these constructs as mediating factors nor has it empirically examined the direct consequences of contingent worker use for standard employees’ perceived job security. In this chapter, I empirically examine the connection between employers’ use of contingent workers and standard employees’ perceived job security and social status and test for the role these variables play in explaining the associations between employers’ use of contingent workers and the other attitudes and outcomes of standard employees. I therefore posit the final hypothesis:

Hypothesis 5: Standard employees’ perceived job security and perceived social status will mediate the relationship between employers’ use of contingent workers and the other attitudes and outcomes of standard employees.

DATA AND METHODS

The analysis uses employer-employee matched data to examine the relationship between establishments’ use of contingent workers and standard employees’ pride in working for their
employer, organizational trust, relationships with managers and co-workers, and earnings. I then examine how these associations are mediated by standard employees’ perceived job security and social status within the workplace. I have generated a multi-level dataset by matching individual-level data from the 2002 General Social Survey (GSS) with establishment-level data from the 2002 National Organizations Survey (NOS). The sample for the 2002 NOS, a national survey of establishments in the United States, was drawn from respondents to the 2002 GSS, which allows for the two datasets to be merged. The unit of analysis for the NOS is the workplace itself, not the entire firm, which is ideal for researchers interested in the internal dynamics of the workplace. The NOS dataset contains information on 516 establishments, which was generated through surveys completed by the firms’ human resources managers. After removing cases for which the GSS respondent was not a permanent standard employee, 407 cases remain. Finally, I only keep cases where the employer had more than two full-time employees and less than 10,000 full-time employees because the consequences of contingent labor in these workplaces would likely be quite different.\textsuperscript{22} The resulting data file contains 338 cases with matched information between individual respondents from the GSS – including demographic information and their attitudes about their current job – and their employer’s responses to the series of questions in the NOS. It is important to note that the merged dataset only includes information about one standard employee within each workplace. Yet, the NOS-GSS matched data provide a rare combination of a national sample of organizations, information on individual workers within those organizations, and a large set of variables at both levels.

\textsuperscript{22} The main substantive results presented below are similar when other cut-offs are used for the number of full-time employees.
**Independent Variables**

The primary independent variables for this analysis come from the NOS’s information on each employer’s use of temporary workers, on-call workers, and independent contractors. The NOS asks each employer about whether or not they utilize each type of contingent worker. From employers’ responses to these items, I generate binary variables for establishments’ use of each type of contingent worker, which means that the contingent work use categories are not mutually exclusive. The means and standard deviations for the primary variables in the analysis are presented in Table 4.1.

**Mediating Variables**

The two mediating constructs in the analysis are perceived job security and perceived social status. For the first construct, I utilized the GSS item that asks respondents to state whether “the [following] statement is very true, somewhat true, not too true, or not at all true with respect to the work you do: The job security is good.” Operationalizing perceived social status is slightly more complicated. Here, I draw on existing organizational research that has examined a similar construct. Bartel et al. (2011) argue that: “Social identity research refers to status within the organization as ‘respect,’ which reflects employees’ beliefs that they are valued members of the organization” (p. 3; see also Smith and Tyler (1997) and De Cremer and Tyler (2005) for a discussion of how perceived respect maps on to workers’ perceived social status within the workplace). I follow these researchers and operationalize standard employees’ perceived social status through a GSS item that captures perceived respect at work. Respondents are asked to strongly agree, agree, disagree, or strongly disagree with the statement: “At the place where I work, I am treated with respect.” While workers’ responses to this item capture a central
### Table 4.1. Descriptive Statistics for Selected Variables from the National Organizations Survey (NOS) and the General Social Survey (GSS)

<table>
<thead>
<tr>
<th>Establishment-Level Variables from the NOS</th>
<th>Coded</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary Worker Use</td>
<td>Binary</td>
<td>0.391</td>
<td>0.489</td>
</tr>
<tr>
<td>On-Call Worker Use</td>
<td>Binary</td>
<td>0.312</td>
<td>0.464</td>
</tr>
<tr>
<td>Independent Contractor Use</td>
<td>Binary</td>
<td>0.275</td>
<td>0.447</td>
</tr>
<tr>
<td>Ratio of Temps to FT Workers</td>
<td>Continuous</td>
<td>0.071</td>
<td>0.395</td>
</tr>
<tr>
<td>Ratio of On-Call Workers to FT Workers</td>
<td>Continuous</td>
<td>0.048</td>
<td>0.228</td>
</tr>
<tr>
<td>Ratio of Independent Contractors to FT Workers</td>
<td>Continuous</td>
<td>0.018</td>
<td>0.104</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Establishment Characteristics</th>
<th>Coded</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union Present at Organization</td>
<td>Binary</td>
<td>0.274</td>
<td>0.447</td>
</tr>
<tr>
<td>Organizational Age (Years)</td>
<td>Continuous</td>
<td>41.0</td>
<td>40.1</td>
</tr>
<tr>
<td>Number of Full-Time Employees</td>
<td>Continuous</td>
<td>496</td>
<td>1200</td>
</tr>
<tr>
<td>Avoids Layoffs</td>
<td>Binary</td>
<td>0.373</td>
<td>0.484</td>
</tr>
<tr>
<td>High Financial Performance</td>
<td>Binary</td>
<td>0.523</td>
<td>0.500</td>
</tr>
<tr>
<td>Increase in Full-Time Employees</td>
<td>Binary</td>
<td>0.258</td>
<td>0.438</td>
</tr>
<tr>
<td>Decrease in Full-Time Employees</td>
<td>Binary</td>
<td>0.213</td>
<td>0.410</td>
</tr>
<tr>
<td>Provides Health Insurance</td>
<td>Binary</td>
<td>0.913</td>
<td>0.282</td>
</tr>
<tr>
<td>High Percent Female Employees</td>
<td>Binary</td>
<td>0.360</td>
<td>0.481</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Individual-Level Variables from the GSS</th>
<th>Coded</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived Job Security</td>
<td>Ordinal</td>
<td>3.408</td>
<td>0.861</td>
</tr>
<tr>
<td>Perceived Respect at Work</td>
<td>Ordinal</td>
<td>3.266</td>
<td>0.667</td>
</tr>
<tr>
<td>Earnings</td>
<td>Continuous</td>
<td>$33,243</td>
<td>$25,874</td>
</tr>
<tr>
<td>Employer Pride</td>
<td>Ordinal</td>
<td>3.240</td>
<td>0.662</td>
</tr>
<tr>
<td>Organizational Trust</td>
<td>Ordinal</td>
<td>2.937</td>
<td>0.841</td>
</tr>
<tr>
<td>Relationships with Management</td>
<td>Ordinal</td>
<td>3.932</td>
<td>0.980</td>
</tr>
<tr>
<td>Relationships with Co-Workers</td>
<td>Ordinal</td>
<td>3.444</td>
<td>0.750</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupational Controls</th>
<th>Coded</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisor</td>
<td>Binary</td>
<td>0.237</td>
<td>0.426</td>
</tr>
<tr>
<td>Supervised</td>
<td>Binary</td>
<td>0.607</td>
<td>0.489</td>
</tr>
<tr>
<td>Manager</td>
<td>Binary</td>
<td>0.377</td>
<td>0.485</td>
</tr>
<tr>
<td>Administrative</td>
<td>Binary</td>
<td>0.249</td>
<td>0.433</td>
</tr>
<tr>
<td>Services</td>
<td>Binary</td>
<td>0.171</td>
<td>0.377</td>
</tr>
<tr>
<td>Production</td>
<td>Binary</td>
<td>0.084</td>
<td>0.278</td>
</tr>
<tr>
<td>Laborer</td>
<td>Binary</td>
<td>0.120</td>
<td>0.325</td>
</tr>
<tr>
<td>Occupational Prestige</td>
<td>Continuous</td>
<td>46.302</td>
<td>14.102</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Individual Controls</th>
<th>Coded</th>
<th>Mean</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Tenure (Years)</td>
<td>Continuous</td>
<td>6.838</td>
<td>8.118</td>
</tr>
<tr>
<td>Married</td>
<td>Binary</td>
<td>0.473</td>
<td>0.500</td>
</tr>
<tr>
<td>Education</td>
<td>Continuous</td>
<td>13.935</td>
<td>2.688</td>
</tr>
<tr>
<td>Race:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>Binary</td>
<td>0.796</td>
<td>0.404</td>
</tr>
<tr>
<td>Black</td>
<td>Binary</td>
<td>0.166</td>
<td>0.372</td>
</tr>
<tr>
<td>Other Race</td>
<td>Binary</td>
<td>0.038</td>
<td>0.193</td>
</tr>
<tr>
<td>Hispanic Ethnicity</td>
<td>Binary</td>
<td>0.071</td>
<td>0.257</td>
</tr>
<tr>
<td>Male</td>
<td>Binary</td>
<td>0.429</td>
<td>0.496</td>
</tr>
<tr>
<td>Age</td>
<td>Continuous</td>
<td>41</td>
<td>13</td>
</tr>
</tbody>
</table>

Source: Data from the 2002 National Organizations Survey and the 2002 General Social Survey.

Notes: Non-imputed data used to produce means and standard deviations. Region and establishments' sector allocation not included due to space limitations.
component of perceived social status in the workplace, I understand that perceived respect does not completely encapsulate the construct of interest. Specifically, there is an element of prestige in the concept of perceived social status that is not a piece of the measure of respect. Given the data, I am not able to incorporate this additional element into the measure of perceived social status, but I hope that future research will expand the operational definition of perceived social status in examining the consequences of employers’ use of contingent workers.

**Dependent Variables**

There are five primary dependent variables in the analysis: pride in working for one’s employer, organizational trust, relationships with management, relationships with co-workers, and earnings. These outcomes are similar to those analyzed by previous research in this area and capture a range of attitudes, relationships, and material rewards that are central to workers’ well-being and the workplace environment. The first item, capturing a worker’s pride in working for his or her employer, asks respondents whether they strongly agree, agree, disagree, or strongly disagree with the following statement: “I am proud to be working for my employer.” The second item, examining organizational trust, uses the same response categories with the prompt: “I trust the management at the place where I work.” I capture relationships with managers through an item that asks respondents on a five-point scale: “In general, how would you describe relations in your work place between management and employees?” Next, I generate a measure to examine a respondent’s relationships with his or her co-workers. To examine standard employees’ relationships with co-workers, I utilize an item that asks respondents to strongly agree, agree, disagree, or strongly disagree with the following statement: “The people I work with can be relied on when I need help.” Finally, I use the earnings item from the GSS, which captures
respondents’ income broken in to 23 categories. For the analysis, I mid-point coded the earnings variable and then top-coded the variable using the method proposed by Hout (2004). Following Davis-Blake et al. (2003), I divide the earnings variable by 10,000 in the analysis to adjust for the skewed distribution of earnings.

**Control Variables**

There are important selection issues to deal with in this analysis. Workers sort themselves into different workplaces, and business establishments sort themselves into whether or not they use different forms of contingent labor. To deal with these concerns, the statistical models in this analysis include a large set of control variables that attempt to adjust for workers’ selection into their workplaces and establishments’ decisions to use contingent labor.

At the organizational level, control variables are included for the size and age of the organization, whether there is a union present at the organization, whether more than two-thirds of the establishment’s full-time employees are women, and the sector in which the organization is located.\textsuperscript{23} The models also attempt to control for the overall health of the establishment by including variables that capture the financial performance of the organization, whether the workplace has recently changed its number of full-time employees, and whether the organization offers health insurance to any of its employees.\textsuperscript{24} I also control for a proxy of management’s orientation towards labor using employers’ responses to the question: “Has your

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\textsuperscript{23} I measure organization size by the number of full-time employees. To control for the organization’s sector, a series of binary variables is used for whether the organization produces a product, a service, both a product and a service, or neither a product nor a service. Both organizational size and organizational age are logged in the analysis to adjust for the skewed distributions of these variables.

\textsuperscript{24} The financial standing measure is self-reported by the employer and is in reference to other establishments that do the same kind of work as the employer. The variable is entered as a dichotomous variable equal to one for high financial performance and zero otherwise.
organization made any explicit or implicit commitment to its employees to avoid layoffs, except in extreme circumstances?"

The models also include a set of occupational controls that situate the individual standard employee within the organizational context. I include control variables for occupational classification and occupational prestige. I also include binary variables for whether the respondent supervises other employees and whether he or she is supervised by someone else. At the individual level, I control for geographic region, education, earnings (except when it is used as a dependent variable), job tenure, marital status, race, Hispanic ethnicity, sex, and age. When standard employees’ earnings is the dependent variable, I also include a control for age-squared.

**Analytic Strategy**

The perceived job security, perceived respect, organizational pride, organizational trust, and relationships with managers and co-workers variables are ordinal. Thus, I use ordered logistic regression to examine the relationship between employers’ use of contingent workers and standard employees’ responses on these measures. The earnings variable, however, is continuous in nature. I therefore use linear regression in the analysis of earnings. For the multivariate analyses, I employ multiple imputation, using Stata’s ICE package, to deal with missing data and used five imputations.

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25 Five broad occupational categories are used as controls in the analysis.
26 After logging the job tenure variable, all respondents who had job tenures of less than one year were re-coded as zero to avoid missing and negative values.
27 The results for the multivariate analyses presented below substantively hold when list wise deletion, rather than multiple imputation, is used to deal with missing data. However, significance levels are reduced in some instances, likely due to the loss of cases.
RESULTS

Perceived Job Security and Social Status in the Workplace

In this section, I explore the relationship between employers’ use of contingent workers and standard employees’ perceived job security and social status at work, operationalized as perceived respect. First, I will examine the relationship between contingent worker use and standard employees’ perceived job security. Model 1 in Table 4.2 indicates that standard employees who work at establishments that use temporary workers have approximately 63.5% lower odds \( \exp(-1.008) = 0.365 \) of reporting the highest level of perceived job security, compared to workers at establishments that do not use temporary workers, controlling for a large set of covariates. This finding is statistically significant at the 0.001 level and provides strong support for the hypothesis that the use of temporary workers is negatively associated with standard employees’ perceived job security. I do not detect any statistically significant relationships between employers’ use of on-call workers or independent contractors and standard employees’ perceived job security.\(^{28}\)

Next, I test the hypothesis that the use of contingent workers will have stronger associations with the perceived job security of standard workers with lower earnings and education. In Model 2, I introduce into the model interactions between the use of each type of contingent worker and the earnings of standard employees. In line with the hypothesis articulated above, the positive and statistically significant coefficient for the interaction between temporary worker use and standard employees’ earnings in Model 2 indicates that the negative association between the use of temporary workers and standard employees’ perceived job security is weaker for standard employees with higher earnings. However, I do not detect any significant

\(^{28}\) Similar empirical results emerge when fewer control variables are included in the regression models. Also, when the variables for the three types of contingent worker use are entered into the models separately, rather than including them all in the same model, the results are consistent.
Table 4.2. Ordered Logistic Regression Examining Contingent Worker Use and Standard Employees' Perceived Job Security

<table>
<thead>
<tr>
<th>Contingent Worker Use</th>
<th>Perceived Job Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Not Mutually Exclusive):</td>
<td>Model 1</td>
</tr>
<tr>
<td></td>
<td>Coef.</td>
</tr>
<tr>
<td>Temporary Workers</td>
<td>-1.008</td>
</tr>
<tr>
<td>On-Call Workers</td>
<td>0.368</td>
</tr>
<tr>
<td>Independent Contractors</td>
<td>0.079</td>
</tr>
<tr>
<td>Interaction Terms:</td>
<td></td>
</tr>
<tr>
<td>Temporary Workers X Earnings</td>
<td>--</td>
</tr>
<tr>
<td>On-Call Workers X Earnings</td>
<td>--</td>
</tr>
<tr>
<td>Independent Contractors X Earnings</td>
<td>--</td>
</tr>
<tr>
<td>Temporary Workers X Low Education</td>
<td>--</td>
</tr>
<tr>
<td>On-Call Workers X Low Education</td>
<td>--</td>
</tr>
<tr>
<td>Independent Contractors X Low Education</td>
<td>--</td>
</tr>
<tr>
<td>Organizational Controls:</td>
<td></td>
</tr>
<tr>
<td>Organization Unionized</td>
<td>-0.389</td>
</tr>
<tr>
<td>Organization Age (Log)</td>
<td>0.197</td>
</tr>
<tr>
<td>Organization Avoids Layoffs</td>
<td>0.181</td>
</tr>
<tr>
<td>High Financial Standing</td>
<td>-0.059</td>
</tr>
<tr>
<td>Recent Changes in Size:</td>
<td></td>
</tr>
<tr>
<td>Increase in Full-Time Employees</td>
<td>-0.230</td>
</tr>
<tr>
<td>Decrease in Full-Time Employees</td>
<td>-0.537</td>
</tr>
<tr>
<td>No Change (Omitted)</td>
<td>--</td>
</tr>
<tr>
<td>Provides Health Insurance</td>
<td>-0.528</td>
</tr>
<tr>
<td>More than 2/3rds Female Employees</td>
<td>-0.342</td>
</tr>
<tr>
<td>Number of Full-Time Employees (Log)</td>
<td>0.021</td>
</tr>
<tr>
<td>Occupational Controls:</td>
<td></td>
</tr>
<tr>
<td>Occupational Prestige</td>
<td>-0.005</td>
</tr>
<tr>
<td>Tenure (Log)</td>
<td>0.304</td>
</tr>
<tr>
<td>Supervises Others</td>
<td>0.417</td>
</tr>
<tr>
<td>Supervised by Others</td>
<td>-0.512</td>
</tr>
<tr>
<td>Individual Controls:</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>0.209</td>
</tr>
<tr>
<td>Years of Education</td>
<td>-0.004</td>
</tr>
<tr>
<td>Race:</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>-0.564</td>
</tr>
<tr>
<td>Other Race</td>
<td>-0.159</td>
</tr>
<tr>
<td>White (Omitted)</td>
<td>--</td>
</tr>
<tr>
<td>Hispanic Ethnicity</td>
<td>-0.093</td>
</tr>
<tr>
<td>Male</td>
<td>0.067</td>
</tr>
<tr>
<td>Age</td>
<td>-0.005</td>
</tr>
<tr>
<td>Earnings (Divided by 10,000)</td>
<td>-0.076</td>
</tr>
<tr>
<td>Pseudo R-Squared</td>
<td>0.0701</td>
</tr>
<tr>
<td>n</td>
<td>338</td>
</tr>
</tbody>
</table>

Significance levels (two-tailed tests): + p < .10; * p < .05; ** p < .01; *** p < .001

Notes: Multiple imputation is used to deal with missing data. Limited to establishments with more than two and less than 10,000 full-time employees. The lowest R-Squared generated by the individual imputed data sets is reported. For presentation purposes, controls not presented for establishments' sector, standard employees' occupational category, and standard employees' region. In Models 2, the earnings variable is centered, both as a main effect and in the interaction. In Model 3, the "Years of Education" variable is coded as "1" for workers with 12 years of education or less and "0" otherwise, due to the inclusion of an interaction between temporary worker use and standard employees' having a low level of education.
interactions between standard employees’ earnings and employers’ use of on-call workers or independent contractors. In Model 3, I introduce an interaction term between having 12 years of education or less and employers’ use of each type of contingent worker. The interaction term between temporary worker use and low education is marginally significant ($p < 0.10$) and negative, which is the hypothesized direction. Overall, the findings in Table 4.2 provide support for the hypothesis that temporary worker use is negatively associated with standard employees’ perceived job security and that this association is stronger for workers with lower incomes and less education.

We now turn to an examination of the relationship between employers’ use of contingent workers and standard employees’ perceived social status within the organization, measured by their level of perceived respect at work. Model 1 in Table 4.3 indicates that there are no significant associations between employers’ use of contingent workers and standard employees’ perceived respect at work. Similarly, in Models 2 and 3 I do not detect any significant interactions between employers’ use of contingent workers and standard employees’ earnings or education. Thus, I do not have support for the hypotheses regarding the ways that employers’ use of temporary workers and on-call workers would impact the perceived respect of standard employees. These findings, or lack thereof, are important because they rule out the possibility of standard employees’ perceived social status serving as a mechanism linking employers’ use of contingent workers to the attitudes and outcomes of standard employees. While additional analysis is needed to determine whether standard employees’ perceived job security serves as a mechanism linking contingent worker use to standard employees’ outcomes, the data indicate that perceived respect does not play this mediating role.
Contingent Worker Use and Standard Employees’ Attitudes and Earnings

Next, I examine how employers’ use of contingent workers is associated with the employer pride, organizational trust, relationships with managers, relationships with co-workers, and earnings of standard employees. In Model 1 of Table 4.4, I find a statistically significant negative association between the use of temporary workers and the employer pride of standard employees. However, I do not detect any significant associations between the use of on-call workers or independent contractors and standard employees’ pride. The results presented in Model 2 indicate that there is a strong, negative, and statistically significant relationship between the use of temporary workers and the organizational trust of standard employees. And, there is a strong positive association between the use of on-call workers and standard employees’ organizational trust. Model 3 explores the association between the use of contingent workers and standard employees’ reported relationships with their managers. The coefficient for the use of temporary

<table>
<thead>
<tr>
<th>Contingent Worker Use (Not Mutually Exclusive):</th>
<th>Perceived Respect</th>
<th>Perceived Respect</th>
<th>Perceived Respect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temporary Workers</td>
<td>-0.288</td>
<td>-0.294</td>
<td>-0.235</td>
</tr>
<tr>
<td>On-Call Workers</td>
<td>0.052</td>
<td>0.048</td>
<td>0.071</td>
</tr>
<tr>
<td>Independent Contractors</td>
<td>-0.189</td>
<td>-0.227</td>
<td>-0.009</td>
</tr>
</tbody>
</table>

Interaction Terms:
- Temporary Workers X Earnings: 0.028
- On-Call Workers X Earnings: -0.081
- Independent Contractors X Earnings: 0.146

Temporary Workers X Low Education: -0.149
- On-Call Workers X Low Education: -0.037
- Independent Contractors X Low Education: -0.638

Full Set of Controls Included
- Yes

Pseudo R-Squared
- Model 1: 0.0742
- Model 2: 0.0786
- Model 3: 0.0739

Significance levels (two-tailed tests): + p < .10; * p < .05; ** p < .01; *** p < .001

Notes: Multiple imputation is used to deal with missing data. Full set of controls from Table 2 included in models. Limited to establishments with more than two and less than 10,000 full-time employees. The lowest R-Squared generated by the individual imputed data sets is reported. For presentation purposes, controls not presented for establishments’ sector, standard employees’ occupational category, and standard employees’ region. In Model 2, the earnings variable is centered, both as a main effect and in the interaction. In Model 3, the “Years of Education” variable is coded as “1” for workers with 12 years of education or less and “0” otherwise, due to the inclusion of an interaction between temporary worker use and standard employees’ having a low level of education.
workers is negative and statistically significant at the 0.05 level. I also find a positive and significant association between the use of on-call workers and standard employees’ relationships with managers, but find no association between the use of independent contractors and standard employees’ relationships with managers. In Model 4, I find marginally significant ($p < .10$) and negative associations between temporary worker use and independent contractor use and the relationships standard employees report having with their co-workers. And, on-call worker use is marginally significant ($p < .10$) and positively associated with co-worker relations. Finally, Model 5 examines the link between the use of contingent workers and standard employees’ earnings. I do not find any significant relationships here between the use contingent workers and the earnings of standard employees.

Overall, the results presented in Table 4.4 provide strong support for the main hypothesis that the use of temporary workers is negatively related to standard employees’ outcomes, after controlling for a range of organizational, occupational, and individual covariates. Similarly, in general, the use of independent contractors does not seem strongly related to standard employees’ outcomes, which is in line with the hypotheses. And, the use of on-call workers is positively associated with standard employees’ organizational trust and reported relationships with managers and co-workers, providing some support for the hypothesis regarding the positive role that on-call workers may play within the workplace.

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29 It is important to note that, in a statistical sense, I am not able to claim that there is no relationship between independent contractor use and standard employees’ outcomes. I am simply unable to reject the null hypothesis that no association exists.
Table 4.4: Multivariate Analysis of Contingent Worker Use and Standard Employees’ Attitudes and Outcomes
The Mediating Role of Perceived Job Security

The next set of analyses, presented in Figure 4.2, examines the role of standard employees’ perceived job security in mediating the relationships between employers’ use of temporary workers and standard employees’ employer pride, organizational trust, and relationships with managers and co-workers. If the mediation hypothesis is correct, then including standard employees’ perceived job security in the models predicting standard workers’ attitudes should reduce the size of the coefficient for temporary worker use and render it statistically insignificant (Baron and Kenny 1986). I do not test for the mediating role of perceived respect in the workplace because I did not find associations between the use of contingent workers and standard employees’ perceived respect. Also, I do not test for the role of perceived job security in mediating the positive associations that were found between the use of on-call workers and standard employees’ organizational trust and relationships with managers. Since the use of on-call workers was not significantly related to standard employees’ perceived job security, perceived job security cannot mediate the relationship between on-call worker use and other outcomes.

To explore the role of standard employees’ perceived job security in mediating the association between temporary worker use and standard employees’ other outcomes, I compare the coefficient for the use of temporary workers in models with the full set of controls used above, with and without including standard employees’ perceived job security. The results are presented in Figure 4.2, below. In the case of each of the dependent variables – employer pride, organizational trust, relationships with managers, and relationships with co-workers – the inclusion of standard workers’ perceived job security in the model reduces the size of the

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30 In supplementary analyses, the other relationships necessary to claim that perceived job security operates as a mediator hold (Baron and Kenny 1986). Perceived job security is statistically significantly related to standard employees’ employer pride, organizational trust, relationships with managers, and relationships with co-workers.
coefficient for temporary worker use by at least 50% and renders that coefficient no longer statistically significant. Thus, there is strong support for the hypothesis that workers’ perceived job security explains a meaningful portion of the negative relationship between employers’ use of temporary workers and standard employees’ outcomes.

**ALTERNATIVE HYPOTHESSES AND ROBUSTNESS CHECKS**

An alternative hypothesis to explain the findings presented above is that the establishments that use contingent workers are different from those that do not and that these differences are driving the associations presented above. The organizational controls in the above models have attempted to address the differences between the establishments that do and do not use contingent workers. However, to further explore the differences between the types of establishments that use each type of contingent labor, Table 4.5 examines the organizational predictors of each type of contingent labor utilization. The models in Table 4.5 demonstrate that, on most dimensions, establishments that use each type of contingent worker are not statistically
different from those workplaces that do not use contingent workers. While some statistically
significant differences emerge, it is unlikely that some underlying establishment-level variable is
driving the results presented above.

A key assumption of the argument presented in this chapter is that the standard
employees within an establishment are aware that their employer is utilizing contingent workers.
One would expect that this knowledge would be inversely related to the size of the workplace.
Therefore, the strength of the relationship between contingent work use and standard employees’
outcomes should be larger in magnitude in smaller workplaces. To test for this relationship, I ran
three separate models predicting perceived job security and added an interaction term between
working at an organization that uses temporary workers and that has fewer than 50, 500, and
1,000 full-time employees, respectively. The interaction term in all three models was large,

### Table 4.5. Logistic Regression Models Predicting Establishments' Use of Temporary Workers, On-Call Workers, and Independent Contractors

<table>
<thead>
<tr>
<th></th>
<th>Uses Temporary Workers</th>
<th></th>
<th>Uses On-Call Workers</th>
<th></th>
<th>Uses Independent Contractors</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.</td>
<td>S.E.</td>
<td>Sig.</td>
<td>Coef.</td>
<td>S.E.</td>
<td>Sig.</td>
</tr>
<tr>
<td>Organization is Unionized</td>
<td>-0.818</td>
<td>0.320</td>
<td>*</td>
<td>0.865</td>
<td>0.318</td>
<td>**</td>
</tr>
<tr>
<td>Organization Age (Log)</td>
<td>0.126</td>
<td>0.127</td>
<td></td>
<td>0.008</td>
<td>0.132</td>
<td>-0.332</td>
</tr>
<tr>
<td>High Financial Productivity</td>
<td>0.083</td>
<td>0.279</td>
<td></td>
<td>-0.379</td>
<td>0.292</td>
<td>-0.127</td>
</tr>
<tr>
<td>Recent Changes in Size:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase in Full-Time Employees</td>
<td>-0.060</td>
<td>0.321</td>
<td></td>
<td>0.529</td>
<td>0.322</td>
<td>-0.211</td>
</tr>
<tr>
<td>Decrease in Full-Time Employees</td>
<td>-0.334</td>
<td>0.350</td>
<td></td>
<td>-0.244</td>
<td>0.386</td>
<td>0.249</td>
</tr>
<tr>
<td>No Change (Omitted)</td>
<td>--</td>
<td></td>
<td>--</td>
<td>--</td>
<td></td>
<td>--</td>
</tr>
<tr>
<td>Employer Provides Health Insurance</td>
<td>-0.309</td>
<td>0.536</td>
<td></td>
<td>-0.111</td>
<td>0.546</td>
<td>0.922</td>
</tr>
<tr>
<td>More than Two-Thirds Female Employees</td>
<td>-0.710</td>
<td>0.297</td>
<td>*</td>
<td>1.247</td>
<td>0.283</td>
<td>**</td>
</tr>
<tr>
<td>Number of Full-Time Employees (Log)</td>
<td>0.546</td>
<td>0.082</td>
<td>***</td>
<td>0.254</td>
<td>0.079</td>
<td>**</td>
</tr>
<tr>
<td>Sector of Economy:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Produces Service</td>
<td>0.251</td>
<td>0.344</td>
<td></td>
<td>0.752</td>
<td>0.372</td>
<td>*</td>
</tr>
<tr>
<td>Produces Product</td>
<td>0.181</td>
<td>0.498</td>
<td></td>
<td>-1.803</td>
<td>1.027</td>
<td>0.022</td>
</tr>
<tr>
<td>Produces Neither Service nor Product</td>
<td>-1.157</td>
<td>1.268</td>
<td></td>
<td>0.368</td>
<td>1.108</td>
<td>1.383</td>
</tr>
<tr>
<td>Employer Avoids Layoffs</td>
<td>--</td>
<td></td>
<td>--</td>
<td>--</td>
<td></td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>-0.263</td>
<td>0.273</td>
<td></td>
<td>-0.030</td>
<td>0.276</td>
<td>0.820</td>
</tr>
<tr>
<td>Pseudo R-Squared</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|                         | Coef.                  | S.E.     | Sig.                 | Coef.    | S.E.                        | Sig.     |
|                         | 0.1778                 | 0.083    |                      | 0.1774   | 0.083                       | 0.0853   |
| n                       | 338                    |          |                      | 338      |                             | 338      |

Significance levels (two-tailed tests): * p <.05; ** p <.01; *** p <.001

Notes: Log-odds are presented. Multiple imputation is used to deal with missing data. Limited to establishments with more than two and less than 10,000 full-time employees. The lowest R-Squared generated by the individual imputed data sets is reported.
negative, and highly statistically significant (results not presented here). These findings indicate that the negative relationship between the use of temporary workers and perceived job security is stronger for standard employees who work at organizations with fewer full-time employees.

The results presented above indicate that a worker’s perceived job security plays an important role in mediating the relationship between organizations’ use of temporary workers and standard employees’ outcomes. It could also be argued, however, that the mediating role of standard employees’ perceived job security can be attributed mainly to the high correlation between job security and the other dependent variables. If this were the case, one would expect that the other dependent variables – employer pride, organizational trust, relationships with managers, and relationships with co-workers – would also play a role in mediating the relationship between employers’ use of temporary workers and standard employees’ perceived job security. Thus, adding the other dependent variables to the full model predicting perceived job security would result in a reduction of the magnitude and significance of the coefficient on establishments’ use of temporary workers. I conducted these analyses to test for this possible effect. In each model, the coefficient for the use of temporary work remained large, negative, and highly statistically significant. This sensitivity check provides additional support for the hypothesis that perceived job security acts as a mediator between employers’ use of temporary workers and standard employees’ outcomes.

While some of the key alternative hypotheses have been addressed, there are still limitations of the analysis presented here, largely due to the nature of the data that are employed. As with virtually all observational data, there is a potential problem of omitted variables bias. Although a large set of organizational-, occupational-, and individual-level controls are used in the analysis, it remains a possibility that some unobserved factor is driving workplaces’
utilization of contingent workers and standard employees’ outcomes. And, while the GSS-NOS employer-employee matched dataset is the best available in the U.S. context for the research questions, the analysis only includes 338 observations. A larger sample of employer-employee matched data would be useful for future researchers to be able to further investigate the issues I have examined here. Additionally, the data do not contain information on what tasks and roles contingent workers perform within the organization, limiting my ability to explore the level of direct intra-organizational contact between contingent workers and standard employees. While I partially address this issue by examining the ways that employee earnings and education moderate the associations between contingent worker use and standard employees’ perceived job security and respect, I hope to explore this set of issues in more depth in future research.

GENERALIZING BEYOND THE UNITED STATES CONTEXT

The analyses presented throughout this chapter are limited to the U.S. context. However, the theoretical argument that is articulated should extend to other countries with similar labor market institutions. To examine the generalizability of the main empirical findings presented here, I conducted similar analyses using employer-employee matched data from the United Kingdom. The 2004 Workplace Employment Relations Survey (WERS) provides data on a random sample of 2,295 workplaces in the U.K. Additionally, within each workplace, up to 25 employees were randomly surveyed, resulting in data on 22,451 employees that can matched to each workplace (for more details on the 2004 WERS, see Kersley et al. 2006).

Using the WERS data, I test a subset of the hypotheses from the U.S.-based analysis. I examine the relationships between workplaces’ use of temporary help agency workers and the perceived job security and relationships with management reported by full-time, standard
employees. I then test for the role of standard workers’ perceived job security in explaining the relationship between temporary help agency worker use and standard employees’ relationships with managers.

The primary independent variable is a binary variable for whether or not an employer reports using temporary help agency workers. I measure standard employees’ perceived job security with an item on the employee survey. Employees were asked on a five-point scale, ranging from “strongly agree” to “strongly disagree,” to respond to the statement: “I feel my job is secure in this workplace.” The measure of relationships with managers comes from a question asking respondents: “In general, how would you describe relations between managers and employees here?” There were five response categories ranging from “very good” to “very poor.” The multivariate models control for organizational age and size as well as a host of covariates at the individual level: race, gender, age, age-squared, education, marital status, having children, job tenure, earnings (logged), and union membership. I also limit the analyses to standard, permanent employees who work at least 35 hours per week, thus removing part-time workers. I use ordered logistic regression models to examine these relationships and cluster the standard errors for each workplace. List wise deletion is used to deal with missing data.

As Table 4.6 demonstrates, the main findings from the U.S. context are replicated using the WERS data from the United Kingdom. Model 1 in Table 4.6 indicates that employers’ use of temporary help agency workers is negatively related to standard employees’ perceived job security. Model 2 demonstrates that there is also a negative association between the use of temporary workers and standard employees’ reports of relationships with management. Finally, Model 3 finds that perceived job security accounts for a portion the association between temporary worker use and standard employees’ relationships with management. The replication
of a subset of the findings on a different dataset, in a different national context, provides additional support for the argument about the relationship between temporary worker use and standard employees’ outcomes.

### Table 4.6. Ordered Logistic Regression Models of the Relationship between the Use of THA Workers and Standard Employees’ Perceived Job Security and Relationships with Managers in the United Kingdom

<table>
<thead>
<tr>
<th></th>
<th>Perceived Job Security</th>
<th>Relationships with Managers</th>
<th>Relationships with Managers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.</td>
<td>S.E.</td>
<td>Sig.</td>
</tr>
<tr>
<td>THA Workers Present</td>
<td>-0.268</td>
<td>0.066</td>
<td>***</td>
</tr>
<tr>
<td>Perceived Job Security</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Full Set of Controls Included</td>
<td>yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pseudo R-Squared</td>
<td>0.0134</td>
<td>0.0369</td>
<td>0.0750</td>
</tr>
<tr>
<td>n (clusters)</td>
<td>1,485</td>
<td>1,487</td>
<td>1,480</td>
</tr>
<tr>
<td>n (observations)</td>
<td>12,785</td>
<td>12,837</td>
<td>12,442</td>
</tr>
</tbody>
</table>

Significance levels (two-tailed tests): +<.10; *<.05; **<.01; ***<.001
Notes: Log-odds are presented. Standard errors clustered at the level of the organization. Full set of controls included in each model are: race, gender, age, age-squared, education, marital status, having children, job tenure, organizational size (logged), organizational age (logged), earnings (logged), and union membership. All analyses limited to permanent employees working at least 35 hours per week.

### DISCUSSION

The analysis delineates how employers’ use of three types of contingent workers has differential consequences for the standard employees in those workplaces and empirically examines two constructs that have been theorized to account for these associations. Using a national sample of employer-employee matched data, the findings presented here provide strong evidence that employers’ use of temporary workers is negatively associated with standard employees’ perceived job security, employer pride, organizational trust, and relationships with managers and co-workers. I also show that the negative association between establishments’ use of temporary workers and standard employees’ perceived job security is weaker for standard employees with higher earnings and more education.
The theoretical arguments developed in this chapter posit that temporary worker use will threaten standard employees’ perceived job security and perceived social status. In turn, these threat dynamics will account for the negative associations between temporary worker use and standard employees’ attitudes and outcomes. In line with the first mechanism, the results demonstrate that the perceived job security of standard employees plays an important role in mediating the negative relationships between temporary worker use and standard employees’ employer pride, organizational trust, and relationships with managers and co-workers. Therefore, the results support the theoretical argument that temporary worker use impacts standard employees’ outcomes through its influence on perceived job security. However, the results do not provide empirical support for the hypothesis that standard employees’ perceived social status in the workplace, measured through employees’ perceived respect at work, mediates the relationship between employers’ use of temporary workers and standard employees’ outcomes.

The findings also suggest that there is important variation across types of contingent worker use for the outcomes of standard employees. The distinct nature of different types of contingent workers as well as how and why they are used in the workplace likely account for these differences. Independent contractors are generally highly skilled workers that remain administratively separate from the organizations where they work and have little interest in moving into a standard employment relationship. Thus, they are unlikely to be seen as new competition or potential replacements by standard employees. As was hypothesized, the empirical results do not find strong associations between employers’ use of independent contractors and the outcomes of standard workers.

Importantly, this study is one of the first to examine the associations between the use of on-call workers and standard employees’ attitudes and outcomes. On-call workers are likely not
perceived as a threat by standard employees because they often have an on-going relationship with the employer and are commonly used to enable standard employees to take time away from work due to illness or vacation. Thus, on-call workers are likely perceived by standard employees as serving a complementary role – allowing standard employees to have time off – rather than being a new source of competition or foreshadowing the outsourcing of particular roles within the organization. As hypothesized, the empirical results indicate that on-call worker use is actually associated with some positive outcomes for standard workers, suggesting that standard employees feel protected by the use of on-call workers. However, neither of the mechanisms I examine empirically explains the positive relationship between on-call worker use and standard employees’ organizational trust and relationships with managers and co-workers. In future research, it will be important to hone in on the consequences of employers’ use of on-call workers and to identify the mechanisms through which those consequences operate.

While the attitudes and outcomes analyzed in this analysis – perceived job security, organizational pride and trust, and relationships with managers and co-workers – are important in their own right, they are also associated with workers’ security and satisfaction more broadly. Employees’ perceived job security is correlated with future job loss, is associated with organizational commitment and job satisfaction, and is related to self-reported health and depressive symptoms (Fullerton and Wallace 2007; Burgard, Brand, and House 2009). Research has also demonstrated that workers’ connections to their organization are positively associated with satisfaction both inside and outside of the workplace and negatively related to self-reported stress and work-family conflict (Romzek 1989; Meyer et al. 2002). Similarly, previous research indicates that good relationships with supervisors and co-workers are positively related to job satisfaction and negatively associated with stress, absenteeism, and turnover (Riordan and
Griffeth 1995; Hodson 1997; Ducharme and Martin 2000; Maertz et al. 2007; Pazy and Ganzach 2008; Dur and Sol 2010). Thus, both the positive and negative associations demonstrated in this analysis between employers’ use of contingent workers and standard employees’ outcomes likely have broad implications for workers’ lives.

The analysis sheds light on workers’ attitudes and outcomes in an increasingly flexible and contingent economy. I document the consequences of employers’ use of contingent workers for full-time, standard employees. I distinguish between two mechanisms that have been proposed to explain the consequences of using contingent workers. And, finally, I explore the distinct consequences of employers’ use of three forms of contingent labor, adding the use of on-call workers to the literature. These findings improve the sociological understanding of the differential consequences of the ways that organizations obtain flexibility while deepening knowledge about the nature of job insecurity in the “new economy.”
Appendix 4.A.
Continuous Measures of Contingent Worker Use

In addition to whether or not employers use contingent workers, the relative size of the contingent worker population at an establishment may matter for the attitudes and outcomes of standard employees. In Table 4.A1, I present empirical results that examine the relationship between the ratio of contingent workers to full-time workers at an establishment and the attitudes of the standard employees. The primary independent variables are the ratio of temporary workers to full-time workers, the ratio of on-call workers to full-time workers, and the ratio of independent contractors to full-time workers at a given establishment. I multiply the ratio by 100 and log the ratio, due to the severe skew of the distribution. The ratio of each type of contingent worker to the number of full-time workers is not restricted to values between zero and one because some organizations use more contingent workers than full-time workers. As Table 4.A1 indicates, a similar empirical pattern to the findings presented in the body of the chapter emerges when the ratio of contingent workers at a workplace is used as the primary explanatory variable. The ratio of temporary workers to full-time workers is negatively associated with the perceived job security, relationships with management, and organizational trust of standard employees. The ratio of on-call workers is positively associated with standard employees’ organizational trust, relationships with managers, and relationships with co-workers.

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31 To create the variable for the log of the ratio of contingent workers to full-time workers, I take the natural log of the ratio plus a small constant (in this case, a value of one) to ensure that I do have negative ratios in the transformed variable.
<table>
<thead>
<tr>
<th>Model</th>
<th>Coef.</th>
<th>S.E.</th>
<th>Sig.</th>
<th>Coef.</th>
<th>S.E.</th>
<th>Sig.</th>
<th>Coef.</th>
<th>S.E.</th>
<th>Sig.</th>
<th>Coef.</th>
<th>S.E.</th>
<th>Sig.</th>
<th>Coef.</th>
<th>S.E.</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model A</td>
<td>0.045</td>
<td>0.008</td>
<td>+</td>
<td>0.042</td>
<td>0.008</td>
<td>+</td>
<td>0.047</td>
<td>0.008</td>
<td>+</td>
<td>0.044</td>
<td>0.008</td>
<td>+</td>
<td>0.045</td>
<td>0.008</td>
<td>+</td>
</tr>
<tr>
<td>Model B</td>
<td>-0.123</td>
<td>0.084</td>
<td>+</td>
<td>-0.120</td>
<td>0.084</td>
<td>+</td>
<td>-0.124</td>
<td>0.084</td>
<td>+</td>
<td>-0.122</td>
<td>0.084</td>
<td>+</td>
<td>-0.123</td>
<td>0.084</td>
<td>+</td>
</tr>
<tr>
<td>Model C</td>
<td>0.251</td>
<td>0.112</td>
<td>+</td>
<td>0.248</td>
<td>0.112</td>
<td>+</td>
<td>0.251</td>
<td>0.112</td>
<td>+</td>
<td>0.249</td>
<td>0.112</td>
<td>+</td>
<td>0.250</td>
<td>0.112</td>
<td>+</td>
</tr>
</tbody>
</table>

Table 4.A1. Multivariate analyses of ratio of contingent workers to full-time employees and standard employees’ outcomes.
Chapter 5: Conclusion

Millions of workers labor in non-standard, contingent, and precarious employment relationships in the United States. Yet, existing scholarship has paid limited attention to the ways that histories of non-standard employment shape workers’ future labor market opportunities and how employers’ use of contingent workers may influence the full-time, standard employees within those organizations. Drawing on field- and survey-experimental data as well as matched employer-employee survey data, this dissertation has aimed to address these limitations in the existing research.

After introducing the case of non-standard, contingent, and precarious work in the introductory chapter, the second chapter addresses three inter-related questions. First, how do histories of non-standard employment affect workers’ future hiring outcomes? Second, do these consequences differ by the gender of the worker? And, third, what mechanisms underlie these effects? Drawing on original experimental audit study data, I find that histories of non-standard employment are as scarring for workers as histories of unemployment, but that important variation exists across types of non-standard employment and the gender of the worker. Overall, non-standard employment histories are more scarring for men than they are for women. Female workers are only severely penalized for histories of skills underemployment. And, women with histories of part-time employment and unemployment actually received higher rates of “callbacks” than comparable male workers with those employment histories. Male workers are severely penalized for histories of part-time employment, skills underemployment, and unemployment, compared to male workers with full-time, standard employment histories. Importantly, men with non-standard employment histories do not fare better than men with
histories of long-term unemployment, indicating that non-standard work does not buffer male workers against the scars of unemployment.

The second chapter also addressed the mechanisms underlying the consequences of non-standard employment histories by drawing on original survey-experimental data with hiring decision-makers at U.S.-based firms. The findings indicate that histories of non-standard employment are scarring for workers largely because future employers perceive them as containing information about a worker’s human capital, competence, and commitment. However, the content of the signal sent by each type of non-standard employment varies for part-time work, temporary agency employment, and skills underemployment. Thus, the findings from the second chapter provide novel evidence about the deep, and gendered, consequences of non-standard employment histories for workers’ employment opportunities.

The third chapter shifts focus to examine how histories of non-standard employment and unemployment can provide insights into the mechanisms of racial discrimination in hiring. In this chapter, I posit that one of the mechanisms leading to discrimination against African Americans, and particularly African American men, is employers’ deeply held negative beliefs about African Americans’ work ethic and employment histories. Importantly, this model of hiring discrimination also predicts gender variation in racial discrimination, with black women facing relatively lower levels of discrimination, given the less negative stereotypes employers hold about black female workers as well as black women’s better labor market outcomes compared to black men.

Data from the experimental audit study bear out this theoretical proposition. Black male workers with full-time, standard employment histories received lower callbacks than white male workers with the same employment histories. Additionally, black male job applicants in the full-
time, standard condition did not receive a higher callback rate than black male applicants with histories of non-standard employment or histories of long-term unemployment. And, while black female job applicants face hiring discrimination compared to white female job applicants, racial bias against black women is more muted across the different employment history categories. These empirical findings provide new insights into the mechanisms underlying racial discrimination in hiring.

Finally, in the fourth chapter, I shift my focus to examine how the insecurity of contingent employment relations may ripple outward to influence workers who are in nominally stable positions – full-time, standard employees. Drawing on a national sample of employer-employee matched data, I investigate whether employers’ use of three types of contingent workers – independent contractors, on-call workers, and temporary workers – is associated with the attitudes and outcomes of the full-time, standard employees in those workplaces. The empirical findings demonstrate that employers’ use of temporary workers is negatively associated with standard employees’ organizational pride, organizational trust, relationships with managers, and relationships with co-workers. And, standard employees’ perceived job security assists in explaining these associations. There are limited relationships between organizations’ use of independent contractors or on-call workers and standard employees’ attitudes. These findings shed light on the ways the consequences of contingent worker use extend beyond the individual workers who experience those labor market positions.

Together, this dissertation advances sociological and social scientific knowledge about the consequences of non-standard, contingent, and precarious employment relations in the United States. These findings also have important implications for research and gender inequality in the labor market and racial discrimination at the hiring interface.
Understanding Race and Gender in the Labor Market

In addition to providing new insights into the ways that changing employment relationships influence workers’ career trajectories and experiences within organizations, the findings from this dissertation contribute insights into how gender and race operate in the labor market. What do the findings about gender and non-standard employment histories in Chapter 2 have to do with the findings about race and non-standard employment histories in Chapter 3? Two findings, that on the surface seem disconnected, actually offer theoretical traction on processes of labor market inclusion and exclusion at the hiring interface. Chapter 2 demonstrates that white women with part-time employment histories – a highly feminized employment position – do not suffer any penalties in terms of their hiring outcomes compare to white women with full-time, standard work histories. In Chapter 3, the findings indicate that black men with histories of non-standard employment and unemployment – labor market position that are both raced (i.e., black) and gendered (i.e., male) – receive similar “callback” rates to black male workers with full-time, standard histories.

Together, these findings suggest that when categories of employment histories (i.e., part-time work) are perceived by employers to map on to particular socio-demographic groups (i.e., women), the usefulness of that employment history category as a heuristic device for screening job applicants is limited. In turn, the penalties faced by members of the social group commonly associated with that category are minimal. However, when a labor market category is applied to a socio-demographic group with which it is not stereotypically associated (i.e., white men with histories of part-time work or unemployment), that employment history category becomes a salient and powerful heuristic device.
Certainly, there is a key distinction between the case of part-time employment for white women and non-standard employment or unemployment for black men. White women with full-time employment histories receive a similar “callback” rate to white men with full-time histories, whereas black men with full-time histories receive a much lower “callback” rate than white men in the full-time condition. Thus, there are divergent starting points for the effects of different employment histories, with black men facing severe discrimination across the board. Yet, the similarities of the experiences across white women and black men are notable and point to deeper ways of understanding how employers use race, gender, and employment histories as heuristic devices at the hiring interface. Future research would benefit by examining other contexts where categorical distinctions map on the socio-demographic groups in the eyes of evaluators to determine whether the empirical patterns found here generalize to other contexts.

**POLICY IMPLICATIONS**

While the findings from this dissertation provide insights that shape sociological theory and our general understanding of non-standard, contingent, and precarious employment, they also have important policy implications. A primary area of labor market policy – the “work first” model – argues that any job is better than not having a job. Job placement centers in the United States, many of which follow this model, therefore push job seekers to take the first job that they are offered regardless of whether it is part-time, temporary, or below their skill level. Recent policy proposals from the Obama Administration, for example, have emphasized the role that temporary jobs can play as “stepping stones” to move workers from unemployment into permanent jobs (White House 2011).
There is no doubt that for many unemployed workers, any job – even a non-standard, contingent, precarious job – is better than remaining unemployed because they need those wages to survive and it may assist their psychological wellbeing. However, the experimental data from the field experiment suggest that non-standard employment does not necessarily provide an advantage over remaining unemployed in the eyes of potential future employers. Thus, there may be some value in workers searching for jobs until they find a good match in a standard, full-time position. Currently, however, Unemployment Insurance (UI) benefits provide only a meager safety net, limiting the ability to wait for a good match in the labor market to individuals who are financially secure and who have excess resources on which to rely. Insofar as these processes are at play, two policy implications arise. First, reconsidering the “work first” job placement model may make sense. Second, improving the UI system in the United States to enable workers to find standard, full-time employment may be an important way to improve workers’ employment outcomes and, thus, enhance their economic security.

There has also been significant recent media coverage of employers posting advertisements explicitly stating that they are only interested in hiring currently employed individuals, thus excluding the unemployed from gaining employment (see National Employment Law Project 2011). However, much of the evidence for this has been anecdotal and it is not clear whether employers are actually excluding unemployed individuals who apply for jobs (c.f. Ghayad 2013). The field experiment presented here provides additional insights for the public conversation around the exclusion of the unemployed during the hiring process. Specifically, it indicates that protecting the long-term unemployed from hiring discrimination may be an important policy lever to assist these workers in avoiding economic hardship.
The final chapter of the dissertation – examining the consequences of employers’ use of contingent workers – has the ability to inform employers’ decision-making about when and how to use contingent workers as they search for increased flexibility in the global economy. While not necessarily providing recommendations for public policy interventions, these findings suggest that employers should be cautious of the potential ramifications of using temporary workers. Thinking about how and when temporary workers are utilized and how their use is framed to full-time, standard employees could assist employers in avoiding the negative impact of temporary workers on the attitudes of standard employees.

**Future Research**

In addition to addressing important gaps in the sociological literature, this dissertation provides avenues for future research. One area for further investigation lies in the mechanisms that account for the scarring effects of non-standard employment histories. Specifically, the dissertation leaves open questions about the mechanisms underlying gender differences in the consequences of non-standard employment. While white women with histories of part-time work and unemployment fare better than similar white men at the hiring interface, the data from this dissertation are not able to examine why this is the case. Addressing this limitation is particularly important to understanding gender labor market stratification because the gendered empirical pattern that is observed in the field experiment is the exact opposite of the “motherhood penalty,” where female parents are penalized more heavily than male parents (Correll et al. 2007). What can account for these divergent empirical patterns of the effects of non-standard employment and parental status? To gain traction on this issue, future work may be well served by conducting in-depth interviews with employers to explore why certain histories of non-standard employment
are more scarring for male job applicants and how employers conceptualize the nexus of gender, parenthood, and non-standard employment.

Another avenue for exploring the mechanisms underlying gender differences in the effects of histories of non-standard employment would be to utilize the text from the job postings to which applications were submitted in the field experiment. Future research could code each of these job postings for information about employers’ stated preferences for particular types of workers, such as statements about commitment, dedication, flexibility, and “soft skills,” as well as implicitly gendered language. Merging this information with the “callback” data from the field experiment would enable an analysis of the factors that shape employers’ preferences for particular types of workers, shedding light on the mechanisms of inclusion and exclusion in the hiring process.

While Chapters 2 and 3 examine variation in the consequences of non-standard employment histories by race and gender, age is held constant. The fictitious applicants in the field and survey experiments were likely perceived to be in their late 20s, given their college graduation date. Yet, there is some indication in the extant literature that the consequences of non-standard and precarious work may vary over the life course (see Addison et al. 2009; Gash 2008). I decided to focus on this age group for multiple reasons. Younger workers are generally at a higher risk of non-standard and precarious employment (Bureau of Labor Statistics 2005; Jacobe 2010). And, early labor market experiences also play a central role in shaping long-term earnings and career trajectories (Fuller 2008; Gebel 2010; Bernhardt et al. 2001). Methodologically, focusing on younger workers made standardizing applicants’ employment histories more manageable. While the dissertation focused on younger workers, future research
would be well served to examine whether the consequences of non-standard employment histories are more or less scarring for older workers attempting to find employment.

Another avenue for future research would be to examine how contextual attributes of the local labor market influence the consequences of individual workers having histories of non-standard employment. Is the concentration of non-standard workers in a given labor market related to the scarring effects of non-standard employment? How do rates of female labor force participation and the concentration of African American workers influence gender and race variation in the consequences of non-standard employment histories? Addressing these questions could shed light on the mechanisms underlying the consequences of non-standard employment while providing broader insights into the forces that shape inclusion and exclusion by race and gender at the hiring interface.

Chapters 2 and 3 of the dissertation address the demand side of the job matching process in the context of an increasingly non-standard and precarious labor market. Important questions remain, however, about the supply side of the equation. How do workers end up in non-standard, contingent, and precarious jobs? When is non-standard employment a matter of preference and when is it the result of real or perceived constraints? How do these processes vary across social and demographic groups? Understanding the selection in to non-standard, contingent, and precarious work is central to identifying the ways that these employment relationships reproduce social and economic inequality. Currently, however, standard labor force surveys do not contain the information necessary to examine these issues. To address this limitation, I am part of a research team that is fielding a nationally representative panel survey of job seekers. Our survey data capture detailed and critical information about the set of job openings to which job seekers apply, which is missing in existing surveys, and tracks this information over the course of 18
months. These data provide the opportunity to understand in new ways the processes that lead workers in to non-standard and precarious employment and will complement the findings of this dissertation in important ways.

Additionally, the pieces of the dissertation that find that non-standard work histories limit workers’ future employment opportunities prompt a set of questions about how job seekers respond to this reality. Do job seekers change their search behavior if they have a non-standard or precarious employment history or unemployment spell? And, how do workers manage the scars and stigma of non-standard work when applying for jobs? More broadly, how do workers manage “spoiled” employment identities that occur not just through non-standard employment experiences, but also through illness, incarceration, or caring for children or aging parents? Qualitative and quantitative approaches to these questions could greatly enhance our knowledge about labor market processes and job search behavior in the contemporary economy.

The final chapter of the dissertation probes the associations between employers’ use of non-standard workers and the attitudes and outcomes of standard employees. The cross-sectional and observational nature of the data, however, prevents the findings from being able to make strong causal claims. Improving data collection efforts in the United States to provide researchers with large-scale data that links meso-level organizational data with micro-level employee data and tracks both level over time would greatly enhance research in this area. Further work is necessary to understand the causal relationships between organizational outsourcing and flexibility practices and the outcomes of standard, core workers within those organizations.

This dissertation has explored the consequences of non-standard, contingent, and precarious employment relationships in the United States. Far from being neutral, the empirical evidence
presented here indicates that there are real consequences for workers of this turn towards more flexible forms of employment. While these consequences are heterogeneous and varied across types of non-standard employment as well as by workers’ social and demographic characteristics, they provide compelling evidence that scholars and policy-makers should pay attention to the ways that these changing employment relationships shape workers’ social and economic security.
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