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Los Angeles

The Hidden Social Costs of Precarious Employment:
Parental Co-Residence, Marriage Timing, and Political Participation During Young
Adulthood

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in partial satisfaction of the requirements
for the degree of Doctor of Philosophy in Sociology

by

Yelizavetta Kofman

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ABSTRACT OF THE DISSERTATION

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Precarious employment—that is, jobs that entail a nonstandard contract, are short term, and/or do not provide fringe benefits like health insurance and retirement savings—has become a widely discussed topic in the media and a key research topic among scholars. Despite increasing scholarly and public interest in precarious employment, however, few studies have considered the effects of such employment beyond typical work and career outcomes. Using longitudinal panel data from the National Longitudinal Survey of Youth

1997, this study examines the effect of precarious employment on the social and political lives of contemporary young adults. The first chapter reviews the literature on the rise of precarious employment and the parallel phenomenon of delayed adulthood. The second chapter investigates the effects of precarious employment on parental co-residence and moving back home during young adulthood. I find evidence that nonstandard employment, short tenure, no employer-provided health insurance, and no employer-provided retirement benefits results in greater likelihood of living at home with parents. The third chapter analyzes the effects of precarious employment among young adults on having a first marriage. Here too, I find evidence that all four forms of precarious employment have negative effects on having a first marriage by the normative age. The fourth chapter assesses how precarious employment impacts political participation during young adulthood. Findings suggest that young adults that experience nonstandard employment are no less likely to be politically active than their peers with formal employment, but those that experience short tenure and no employer-provided benefits are less likely to vote, attend political meetings, and donate money to a cause. The fifth chapter discusses the theoretical and policy implications of these findings.

The dissertation of Yelizavetta Kofman is approved.

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CHAPTER 1:

INTRODUCTION

The growth of precarious employment has become a widely discussed topic in the media (Grabell 2013; Baribeau 2014; Singer 2014) and a key research topic among scholars (Hacker 2006; Kalleberg 2009, 2011; Hollister 2011). The hallmarks of precarious employment—lack of legal protections, insecurity, and risk for workers—contrast sharply with American employment norms that emerged following New Deal era reforms and the postwar boom. During this period, workers increasingly enjoyed access to jobs with legal protections, a mutual understanding of continuous employment, access to promotions through internal job ladders, and company-provided benefits, like health insurance and pensions. Advances for workers in the form of formal employment were made possible by a combination of successful union organizing, public policy reforms, and broadly shared economic expansion. Though segments of society were excluded from the gold standard of formal employment, including many women and minorities, these jobs nevertheless entered our collective imaginations as the employment norm in America. As this norm becomes unattainable for more and more people in the United States, even among college-educated workers who previously enjoyed a privileged position in the labor market, the importance of understanding the contours and consequences of precarious employment becomes ever more urgent.

In his 2008 ASA Presidential address, Arne Kalleberg asserted “precarious work has far-reaching consequences that cut across many areas of concern to sociologists [...]. It has pervasive consequences not only for the nature of work, workplaces, and people’s work

experiences, but also for many nonwork individual (e.g. stress, education), social (e.g. family, community), and political (e.g. stability, democratization) outcomes” (2009: 2). Yet, to date, most studies of precarious employment in the United States focus on the labor process (Barley & Kunda 2004; O’Riain 2000; Henson 1996; Osnowitz 2010; Smith 1998), individual work and career outcomes (Kalleberg et al. 2000; DiPrete et al. 2002; Autor & Houseman 2010), or economic mobility (Bernhardt et al. 2001). Few studies have examined how precarious employment affects non-work individual outcomes.

Despite widespread public concern about declines in job security since the 1990s (Fullerton & Wallace 2007; Vallas & Prener 2012), lack of clear early trends dampened enthusiasm for empirical research in this area (Hollister 2011). As a result, scholarship lags behind in tracking different forms of precarious employment and in testing theories about their broader implications. This is unfortunate from both a public policy perspective and a theoretical one: demographers and stratification researchers are uniquely equipped to study the problem of precarious employment. Moreover, it is an area of research that may offer new theoretical leverage on class formation and reorganization, an area that has long been of interest to sociologists.

In this dissertation, I investigate outcomes associated with precarious employment during the transition to adulthood years in the United States. Through a collection of three essays, I shed light on the social impact of precarious employment by estimating its effects on home return, marriage timing, and political participation among a cohort of contemporary young adults. The remainder of this introduction places contemporary precarious employment in historical context and summarizes the current literature on its effects. I conclude with a brief statement about the goals and structure of this dissertation.

Precarious Employment in the Post-Fordist Period

Several scholars have advanced the perspective that contemporary capitalism is undergoing significant changes in markets, technologies, and workplace organization that combined have radically changed employment practices in the United States. These changes can only be understood in relation to the previous economic and employment system, Fordism-Keynesianism, which itself was a relatively short-lived period in the history of American capitalism, from the war boom until the early 1970s. Fordism entailed a capital accumulation strategy based on labor control vis-à-vis routinized technology-driven production practices and a labor force that could afford to consume what they produced (Harvey 1989). Keynesian welfare policies along with strong trade unions complemented this economic strategy by securing benefits and security for insiders; in exchange, workers ceded labor control. The Fordist-Keynesian employment system was closed, inwardly focused, and hierarchically governed. Most job mobility was achieved from within the organization through internal labor markets, workers were expected to remain with one firm for their entire career, and pay was aimed at maintaining equity within the organization (Althausen & Kalleberg 1981; Doeringer & Piore 1971; Jacoby 1985), at least for those in “core” sectors.

Ultimately, the Fordist-Keynesian economic system resulted in mass production, mass consumption, and, finally, by the mid-1970s, overproduction and saturation of demand for mass consumer goods—i.e. a “crisis of profitability” (Silver 2003). At the same time, workplace alienation arising from boring, repetitive, unfulfilling tasks resulted in widespread discontent, sabotage, chronic absenteeism and wildcat strikes among blue-collar and white-collar workers (reviewed in Smith 1997). Combined with the economic shocks of the early 1970s, the floating

of the U.S. dollar, and a wave of Fordist industrialization in developing countries (minus the social contract with labor, save a few industry exceptions), by the mid-1970s it was clear that the Fordist-Keynesian bargain was broken (Harvey 1989; Smith 1997). This realization led to a period of restructuring, technological change, outsourcing, and a host of “corporate strategies for survival under general conditions of deflation” (Harvey 1989: 146).

What has replaced the Fordist-Keynesian bargain? According to David Harvey (1989), “flexible accumulation” has emerged as a new economic-political accumulation strategy. This strategy “rests on flexibility with respect to labor processes, labor markets, products, and patterns of consumption” (147). The flexible accumulation strategy pressures capitalists to seek more flexible work regimes and labor contracts, either through functional flexibility with core workers trained to accomplish a wider range of tasks (“high road” flexibility) or with numerical flexibility via peripheral workers who are easily laid off (“low road” flexibility).

Since the 1980s, employment systems in the United States have changed to reflect these more “flexible” systems oriented toward external markets, with the defining characteristic being increased market penetration in employment—without an accompanying increase in government oversight or social safety net. While there is no one clear trend that neatly summarizes the turn to flexibility for employers on the one hand and increased precariousness for employees on the other, researchers have documented several worrying trends in the last few decades including: growing use of contingent and nonstandard workers (Kalleberg 2011); declines in job tenure, especially among men in the private sector (Farber 2008); increases in involuntary job loss (Farber 2010; Hallock 2009); reduced employer role in health and retirement benefits (Kalleberg 2011; Boushey and Tilly 2009); increased outsourcing (Dey et al. 2009; Silver 2003); increased occupation changing (Kambourov & Manovskii 2009; Hollister 2009); the use of involuntary

part-time workers¹ (Tilly 1996; U.S. Bureau of Labor Statistics 2008); and a rise in evasion of labor laws, like minimum wage and overtime compliance (Bernhardt et al 2008) (see Table 1.1).

[Table 1.1 here]

Some scholars are optimistic about the shift from Fordist to “post-Fordist” employment, hypothesizing that it will lead to less hierarchical and more liberated and fulfilling work (Piore and Sabel 1984). Among sociologists, however, this has become a minority view. Vallas (1999), for example, argues that such an optimistic account mischaracterizes the nature of the workplace changes underway because it typically stems from studies that focus on the “survivors” of flexible restructuring—the remaining core works—and ignores workers pushed to the periphery. For many workers, the post-Fordist project is not turning out to be a positive one. As Andrew Ross (2008: 35) writes, “the managerial program to sell liberation from drudgery was accompanied by the introduction of risk, uncertainty and nonstandard work arrangements.”

Certainly, it may be possible to combine the positive aspects of flexible employment systems—the increased autonomy, the less prominent hierarchy, the opportunities for better work-life balance—with public policies that help ameliorate some of the increased risk and uncertainty. For example, Denmark’s famed “flexicurity” model combines flexible hiring and firing with generous unemployment and re-training provisions for workers (Viebrock and Clasen 2009).¹ In the United States, however, employment flexibility has gone largely unregulated. Given the lack of political will for increased government intervention in employment and social safety nets, one step toward improved protections for workers in the United States is teasing out

¹ In Denmark, unemployment benefits are paid out for up to two years (down from four years before the 2008 recession) and at up to 90% of pre-unemployment earnings. Laid off workers are entitled to retraining programs throughout their life. Denmark spends 1.5% of GDP on active labor market policies, more than any other country in the OECD. Perhaps as a result, while over 30% of Danes change jobs each year, fewer than 10% say they are concerned about job security (Viebrock and Clasen 2009; Nie and Struby 2011).

the negative consequences of different forms of precarious employment.

In this dissertation I will focus on three forms of precarious employment: nonstandard employment relationships, low job-tenure, and lack of employer-provided health and retirement benefits. I briefly define each and summarize the research conducted to date.

Nonstandard employment

In this study, nonstandard employment includes independent contractors, freelancers, temporary-agency workers, on-call workers, and day laborers. The precise definition of nonstandard employment is still contested and being constructed through a scholarly, legal, and political process (just as the meaning of “employer” and “employee” was socially constructed [see Gonos 1997, 1998] and is in fact still contested today). Like Kalleberg, Reskin, and Hudson (2000) and Kalleberg (2000), I define independent contractors, freelancers, temps, on-call workers and day-laborers as “nonstandard” workers because the dimensions of work arrangements for these groups of workers differ from workers involved in standard employment. Standard employment is characterized by “the exchange of a worker’s labor for monetary compensation from an employer, with the work done on a fixed schedule—usually full-time—at the employer’s place of business, under the employer’s control, and with the mutual expectation of continued employment” (Kalleberg, Reskin, and Hudson 2000).

In contrast, most nonstandard workers cannot assume that their employment will continue. In fact, employers often use independent contractors, freelancers, consultants, temps, on-call workers, and day laborers precisely to limit the duration of employment (Pfeffer and Baron 1988; Kalleberg, Reskin and Hudson 2000). Further, some nonstandard workers do not have an employer (instead having several “clients”) or are only weakly attached to their legal

employer in terms of work location and control (Kalleberg 2000; Kalleberg, Reskin and Hudson 2000). For example, independent contractors and temps may technically be employed through an agency that is the *de jure* employer but does not dictate what work is done or where it is performed. Finally, while most standard employees are protected by the government “from dangerous working conditions through health and safety laws, from exploitation through the Fair Labor Standard Act, from unfair treatment through the National Labor Relations Act and antidiscrimination laws, and from the vicissitudes of unemployment through unemployment insurance,” some of these protections do not currently extend to independent contractors, freelancers, consultants, temps, on-call workers, and day laborers (Kalleberg, Reskin and Hudson 2000: 258). In fact, there is evidence that employers increasingly try to classify standard employees as nonstandard in order to avoid the legal responsibility and costs associated with the standard employment relationship (Jost 2011; Stone 2006).

Research findings have documented numerous negative aspects associated with nonstandard employment. In a seminal study analyzing the BLS Contingent Work Survey, Kalleberg et al. (2000) found that having a nonstandard employment contract increases workers’ exposure to bad job characteristics (low wages, no health insurance, no pension) net of controls for workers’ personal characteristics, family status, occupation, and industry. Analyzing the 1994, 1996, and 1998 waves of the NLSY79, which allow an operationalization of nonstandard employment similar to that used in the BLS Contingent Work Study, DiPrete et al. (2002) found that temporary work (one form of the broader category of nonstandard contract employment) leads to an 11 percent lower hourly wage two years after working a nonstandard job and a 14 percent reduction after four years. The same study found a lower probability of employment two years later for nonstandard workers relative to standard workers. Unfortunately, more recent

research on the impacts of nonstandard employment on career outcomes is scarce, partly because the BLS discontinued the Contingent Worker Survey in 2005 and the NLSY79 data on nonstandard employment is complicated by smaller sample sizes and non-consecutive years of measurement. Looking at a less representative population of low-skilled workers, however, Autor and Houseman (2010) use unique welfare-to-work data in Detroit to show that temporary job placements do not improve, and may actually diminish, subsequent earnings and employment among participants over a two year follow-up period.²

Research on the effects of precarious employment outside the workplace is slim, with the notable exception of research on health outcomes. A recent review of health literature has found that nonstandard contract employment is associated with worse self-reported health, higher probability of reporting fatigue or exhaustion, and greater risk of antidepressant use (Benach et al. 2014). Using the NLSY97 and propensity score matching, Quesnel-Vallée et. al. (2010) find that temporary work increases depressive symptoms by 50 percent from the average level of depressive symptoms in the two years following such employment, though these effects are no longer significant after four years. There also exist social stigmas and stereotypes regarding nonstandard workers, especially those who perform “temp” work or day labor (Gowan 2000; Henson 1996). Henson (1996) documents how office temps try to distance themselves from the stigma of temp work by developing a “cover story” (“I’m really not a temporary, I’m really...”), ignoring other temps, and disparaging the status of standard employees as “lifers.” Such strategies may lead to tension between nonstandard and standard employees who work in the same environment.

Short job tenure

² Another study, however, found that low earners that experience temp employment have generally higher earnings “if they manage to gain stable employment with other employers” (Andersson, Holzer and Lane 2009: 395).

Another form of precarious employment individuals increasingly experience is jobs that are short in duration. A key component of the standard employment norm that took hold during the post-war period was the mutual expectation between employees and employers of continued employment. In exchange for loyalty, retention, and labor peace employees could expect stable employment, increasing wages, and the possibility of promotion via an internal labor market ladder (Harvey 1989).

Today, most Americans believe employment has become more insecure (Kalleberg 2011). Research on changing employment stability in the 1990s and early 2000s, however, produced mixed results (Hollister 2011). More recent research has found that, in fact, employment stability has declined for most groups, but tenure patterns diverge by gender and parenthood status, which served to obscure trends in early studies (Farber 2008; Hollister and Smith 2014). Farber (2008), for example, analyzes changes in job tenure with a given employer and finds that in the thirty-year period between the early 1970s and early 2000s, average private-sector job tenure fell almost 25 percent for men, but female job tenure remained constant. Farber (2010) also finds that long-term employment has declined for men employed in the private sector, with employment of ten years falling from about 50 percent to 37 percent and the 20-year rate falling from 35 percent to 22 percent between 1973 and 2008. Farber concludes that lifetime employment, although characteristic of male workers in the 1970s, became relatively uncommon by the 2000s. Breaking down gender differences further, Hollister and Smith (2014) find that married mothers have increased job tenure averages among women because women are more likely to remain in the workforce before and after childbirth; however, job tenure has declined since the 1980s for never-married non-mothers, similar to the trend for men.

Is short job tenure simply a matter of workers trying to optimize job fit, especially during

young adulthood? Economists typically make a theoretical distinction between unproductive job turnover (or “churning”) and job mobility that optimizes the worker-job match (Jovanovic 1979). A widely cited study argues that low job tenure among young adults “may be critical to the development of stable work careers (Topel and Ward 1992). However, economic models of job changes tend to treat mobility as a decontextualized individual choice and sometimes ignore evidence that low job tenure can have negative employment consequences for individuals (Ahituv & Lerman 2010; DiPrete et al. 2002; Fuller 2008; Neumark 2002).³ DiPrete et al. (2002), for example, found that low tenure in a standard job led to lower probability of being employed two and four years later. In a comprehensive study, Fuller (2008) finds that wage outcomes deteriorate as job changes rise. Workers with short job tenures have lower average wage trajectories for several of reasons: they don’t benefit from the wage premiums associated with staying for up to five years with the same employer, they are more likely to be not employed for longer periods; and a greater proportion of their job changes are due to layoffs rather than voluntary quits.

Outside career impacts, researchers have been more likely to measure effects of subjective job insecurity rather than more objective measures of job tenure, probably because job tenure data is difficult to measure and requires panel studies while subjective job insecurity is easier to include in a survey. Nevertheless, findings about subjective job insecurity are revealing of potential outcomes of low job tenure. Reviews and meta-analysis of job insecurity find consistent negative association between job insecurity and job involvement, job satisfaction, and physical and mental health outcomes (Benach et al. 2014; Chen & Chang 2008).

³ This is not to say that there aren’t legitimate labor supply and demand theories as to why young adults may have short jobs, such as a “life cycle” pattern wherein young adults start out with high turnover and low commitment to the labor market and then settle into a longer tenure pattern as they get older. I merely point out that short tenure should not simply be dismissed as part of an “optimal search” process.

Lack of Employer-Offered Benefits

In addition to nonstandard employment and short job tenure, jobs that lack fringe benefits contrast with the norm of standard employment in the United States. Whereas individuals in many advanced industrial countries are guaranteed a social safety net through universal health insurance, parental leave and child allowances, and pension schemes, in the United States such insurance schemes are not universal—they are primarily provided through the employer.⁴ With the turn to “flexible accumulation” and precarious employment for workers, such a safety net for individuals is becoming even more tenuous.

Today, employers increasingly do not provide or only partially provide benefits such as health insurance, sick leave, and pensions and retirement savings contributions (Boushey & Tilly 2009). Kalleberg (2011) reports that the share of all private-sector workers who received health insurance coverage from their employers fell from 69 percent in 1979 to 55 percent in 2006. These decreases in health benefits do not take into consideration the decline in quality of such benefits, such as shifts from fully funded premiums and PPO plans to requiring employees to contribute to premiums, additional costs to coverage dependents, and HMO plans. Importantly, the decrease in benefits is happening across the educational spectrum, with the proportion of college-educated workers, for example, that have employer-provided health benefits decreasing from 80 percent in 1979 to about 67 percent in 2006.

Declines in retirement benefits are evident as well. The overall proportion of U.S. workers with any form of retirement plan dropped from 91 percent in 1985 to 66 percent in 2007 (Employee Benefit Research Institute 2013). Further, whereas most retirement plans in the 1980s

⁴ The Affordable Care Act works toward a universal health insurance scheme, though it is not fully implemented at the time of this analysis.

consisted of guaranteed pensions, today the vast majority of employer-provided retirement benefits comes in the form of 401(k)s, which are susceptible to market fluctuations. Because the social safety net is provided via employment in the United States, lack of access to a safety net despite working is an important measure of precarious employment.

While the career and economic impact of nonstandard employment, short job tenure, and lacking fringe benefits have received increased attention, research on the effects of precarious employment on non-economic life is quite limited.

A Life Course Perspective: Transition to Adulthood

This dissertation takes a life course perspective, a theoretical approach that takes into consideration how life changes shape individual's lives over time with special focus on transitions, developmental states, and life course trajectories (Elder 1998).

Scholars have argued that the young adulthood period is a distinct life course stage. Arnett (2014, 2006, 2007), for example, has proposed that this period, which he defines as between 18 to 29 and terms *emerging adulthood*, is a developmentally distinct period in terms of demographic transitions (i.e. unique patterns of participation in higher education, marriage, childbirth, and residential change). While conceptions of what it means to be an adult in society have changed over time, scholars agree that this transition is taking considerably longer in the contemporary era (Arnett 2014, 2007, 2006, 2000; Cook and Furstenberg 2002; Coté 2000, 2002; Coté and Bynner 2008; Danziger and Ratner 2010). In the 1960s, the average 25 year old, both male and female, had completed schooling, began full-time work, left the parental house, married, and became a parent. Today, a 25-year-old that has achieved all those markers of adulthood is a relatively rare find (by my calculations from the NLSY97 only about 12% of 25-

year-olds born between 1980 and 1984 meet those criteria, see Table 1.2).⁵

Many decisions young adults make over the transition to adulthood period are shaped in part by historical *time and place* (Elder et al. 1994, 2003) This dissertation examines the decision to return to the parental home, get married, and participate in political life during a period of rising precarity in terms of the type and quality of employment available.

Research Overview

The research literature described above has documented the contemporary rise of precarious employment, the economic impact of such employment on workers, and the parallel trend of delayed adulthood. In this dissertation, I aim to extend the work on precarious employment by using empirical data to measure the effects of precarious employment on non-work outcomes, specifically home return, marriage timing, and political participation.

Many past studies of precarious employment have used cross-sectional data and are therefore limited because they are unable to control for unobserved heterogeneity. The NLSY97 data used in this study do not have such limitations. As a longitudinal panel study, the NLSY97 is better suited to testing causal relationships and modeling efforts to control for unobserved heterogeneity. The NLSY97 is also richer in exogenous variables than many other studies in terms of describing the socioeconomic background, cognitive ability, educational achievement, and job characteristics of workers; such variables are ideal for constructing a comparable control group of non-precarious workers. Job measures of the NLSY97 are especially rich. It is the only

⁵ While it's true that the subjective importance of marriage and becoming a parent as a marker of adulthood has declined (Arnett 2014, 1997) and that making a decision not to marry or have children is increasingly viewed as a culturally accepted life choice, the majority of young Americans express the desire to get married and have children (Arnett 2014; Taylor 2010).

nationally representative longitudinal survey where it is possible to identify and separate nonstandard jobs (e.g. freelancers, independent contractors, on-call workers) from workers with standard employment contracts.

As discussed earlier, from a sociological and policy perspective, one of the most important limitations of previous research on precarious employment is its emphasis on economic and career outcomes to the exclusion of most other life outcomes. Though the NLSY97 includes extensive employment histories, the survey is also concerned with a wide range of life experiences and outcomes, which allows for a far broader analysis of precarious employment effects.

This dissertation is organized as follows:

Chapter 1 has shown the socioeconomic context in which the NLSY97 cohort works and lives (namely, period of rising precarity and delayed adulthood), has reviewed previous findings on the effects of precarious employment, and has given an overview of the study's objectives.

Chapter 2 examines the effect of precarious employment on moving back in to the parental home among young adults that have completed their education and entered the working world.

Chapter 3 examines the effects of precarious employment on marriage timing during later young adulthood.

Chapter 4 turns to the effects of precarious employment on political participation, including voting, attending meetings, and donating money to a cause.

In Chapter 5, I provide concluding remarks and discuss potential policy implications of my findings.

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Tables

Table 1.1: Summary of Changes in Employment Since the 1970s

Type	Examples	Citations
Declining tenure	<ul style="list-style-type: none"> * Average tenure of employment relationships has fallen since 1970s * Greatest changes among men, in the private sector, and in large organizations 	Farber 2008a; Neumark et al. 1999
Increased involuntary layoffs	<ul style="list-style-type: none"> * Layoffs more likely to take place as a means of reorganization or to control costs, even when profits rise * Mixed evidence on overall rate of layoffs 	Faber 2008b; Hallock 2009
Growth of nonstandard workers	<ul style="list-style-type: none"> * Often hired through intermediaries such as temporary service firms * Lack workplace protections available to standard employees 	Kalleberg 2011, 2009; Pfeffer & Baron 1988
Increased outsourcing	<ul style="list-style-type: none"> * Focus on "core competencies," many functions (and associated employees) spun off into separate firms 	Dey et al. 2009; Silver 2003
Increased occupation changing	<ul style="list-style-type: none"> * Increase in occupation changing among a wide spectrum of education, industry, and occupation groups * Concentrated among younger workers * Increase occurred only among private sector workers (public sector workers saw declines in occupation changing rates) 	Kambourov & Manovskii 2008; Hollister 2009
Involuntary part-time work	<ul style="list-style-type: none"> * Involuntary part-time work among workers who would prefer full-time hours accounts for almost all the growth in the part-time share of employment between the 1970s and 1990s. * About one-third of workers who report they work less than 35 hours a week would prefer to work more hours 	Tilly 1996; Golden and Gebreselassie 2007
Evasion of labor laws	<ul style="list-style-type: none"> * Evidence of increases in employers paying less than minimum wage, wage theft, not paying overtime, misclassification of employees as independent contractors, etc. 	Bernhardt et al. 2008
Reduced employer role in benefits	<ul style="list-style-type: none"> * Declining employer provision of health and retirement benefits * Shift of risk from employer to worker through growth of defined contribution plans 	Kalleberg 2011; Boushey and Tilly 2009

Table 1.2 Percentage of Young Adults that Have Achieved Traditional Markers of Adulthood by age 25, NLSY97

	All	Men	Women
Has completed schooling	80.2	80.4	76.9
Has completed schooling + Is employed	70.7	76.4	64.5
Has completed schooling + Is employed + Lives outside parental home	54.5	56.6	52.2
Has completed schooling + Is employed + Lives outside parental home + Married	21.1	19.4	22.9
Has completed schooling + Is employed + Lives outside parental home + Married + Has Own Child	12.3	11.3	13.5

CHAPTER 2:
THE EFFECTS OF PRECARIOUS EMPLOYMENT ON
PARENTAL CO-RESIDENCE

Abstract: While there is increasing scholarly and public interest in precarious employment—jobs that entail a nonstandard contract, are short term, and/or do not provide fringe benefits—few studies have considered the effects of such employment beyond the workplace. I use panel data from the National Longitudinal Survey of Youth 1997, and event history and propensity score matching methods, to examine the effect of precarious employment on parental co-residence. Among young adults that have completed their education, had at least one job spell and initially moved out of the parental home, I find evidence that precarious employment leads to higher odds of living at home with parents compared to young adults who do not experience precarious employment during these years.

INTRODUCTION

Significant academic and popular attention has been paid to the changing experience of young adulthood over the past decade. One important aspect of these changes is the living arrangements of young adults. After a long decline in multi-generational co-residence, U.S. households have seen a pronounced resurgence in co-residence over the last three decades (Qian 2012, Settersten & Ray 2010). A Pew Research Center analysis, for example, shows that the percentage of young adults ages 25 to 34 living in a multi-generational household fell to about 11 percent in the 1980s, but rose to 22 percent by 2010 (D’Vera 2011). Moreover, about 40 percent of young adults between 18 and 34 say they lived with their parents temporarily in recent years (Parker 2012). The media has termed young adults that return home “boomerang kids,” and much ink has been spilled discussing the phenomenon.

Historically, the form and function of family living arrangements have adapted to economic and cultural changes. During times of economic difficulty, families can serve as an important safety net. The increase in multi-generational households during the 2008 recession, for example, suggests that moving in together is one way that families deal with financial difficulties (Mykyta and Macartney 2011). Further, there is recent evidence that co-residence can help young adults pursue jobs with higher earnings growth potential and act as a cushion during difficult economic times. Kaplan (2012) examines men in their early 20s, for example, and finds that young adults who are able to move back in with their parents after a job separation are spared the otherwise long-term earnings losses associated with job loss⁶. Based on his findings, Kaplan argues that co-residence is a desirable form of social insurance for young adults.

⁶ One serious limitation of this study is that Kaplan was unable to include youth that have gone to college in the analysis.

Although boomerang kids are a common phenomenon, young adults in the current era still live in a society where independence and self-reliance are highly valued (Billari and Liefbroer 2007; Beck-Gernsheim 2002). For example, a study using experimental vignettes found that only 30 percent of Americans agree co-residence is a good idea entirely, suggesting that normative support for intergenerational assistance through co-residence is relatively weak in the United States (Seltzer, Lau and Bianchi 2012). In the above study, over half of respondents answered “it depends” when asked about the desirability of co-residence in response to financial hardship. Respondents viewed the desirability of co-residence as dependent on the quality of the relationship among parents, their adult children, and their children’s partners.

While Kaplan’s (2012) theory of “co-residence as a form of social insurance” assumes purely altruistic behavior on the part of parents (i.e. willingness to co-reside in order to help young adult children maximize their future earnings), Seltzer and colleagues (2012) find that family members are more likely to view living together as a good idea when the *mother* needs help than when the adult child does. The authors conclude Americans “may be ambivalent about transfers to adult children because of the two conflicting norms of always providing for family members in need, on one hand, and raising children to be independent and stand their own two feet, on the other hand” (1317). Furthermore, the issue of what kind of families can afford to provide co-residence as an option for young adults should not be overlooked. A recent study finds that greater economic resources are actually associated with delayed exits from and earlier returns to the parental home (Sandberg-Thoma et al. 2015), indicating that co-residence may be an unequally distributed resource.

Precarious Employment and Parental Co-Residence

At the same time as family's economic resources have become more stratified and unequal, potentially limiting how much parents are able to support their young adult children through co-residence, young adults increasingly face the prospect of precarious employment—that is, jobs that feature nonstandard employment contracts, short tenure, lack of employer-provided health insurance and lack of employer-provided retirement benefits. The American workforce has seen an increase in precarious employment since at least the 1990s⁷ (Farber, 2010; Farley, 1996; Hollister & Smith, 2014; Kalleberg, 2000, 2009, 2011; Luo et al. 2010; Farber & Levy 2000).

Today, substantial numbers of Americans face some form of precarious employment. Almost one-fifth of total job growth since the recession ended in 2009, for example, has been in temporary agency jobs. The Bureau of Labor Statistics predicts the temporary help and consulting industries will be among those with the highest projected employment growth into 2020 (Henderson 2012).⁸ Over the last three decades, average private-sector job tenure for men decreased almost 25 percent (Farber 2008). Further, in 2010, nearly 60 percent of workers were working for an employer that did not offer health insurance (Janicki 2013).

Prior research suggests that precarious employment is associated with exposure to undesirable job characteristics, such as low wages; worse future employment prospects; negative work-related attitudes, such as lower job satisfaction, less job involvement, higher turnover

⁷ While this trend likely started in the 1970s, it was not until the 1990s that institutions such as the Bureau of Labor Statistics began systematically measuring precarious employment. For example, the BLS Contingent Worker Survey, which measures nonstandard contract employment and involuntary short-term employment, was first conducted in 1995. Furthermore, empirical support for the rise in precarious employment is sparse because there is a paucity of consistent measures that are available for representative samples since the 1970s in the United States.

⁸ Even during bad times, this is a change from the past. Gottesdiener (2012) found that after the 1990 recession, 11% of jobs added went to temporary help agency employees, while in 2010, after the Great Recession, more than 26% of added jobs went to temps.

intention and reduced performance; declines in mental well-being and increased stress; and social stigma relative to individuals with standard employment (Autor and Houseman 2010; Cheng and Chan 2008; DiPrete et al. 2002; Kalleberg 2000, 2013; Gowan 2000; Henson 1996; Quesnel-Vallée et al. 2010; Benach et al. 2014). Yet researchers know little about the effects of precarious employment on the family lives of workers and, therefore, about the broader societal ramifications of increased flexibility in the employment system.

This paper considers one possible consequence of precarious employment during young adulthood: the likelihood of moving back to the parental home after a period of living independently. In the contemporary United States, moving back home with parents may be a valuable form of private, inequitably distributed social insurance *and*, at the same time, run counter to American norms of young adults living independently as a marker of transitioning to adulthood. This paper seeks to expand our understanding of co-residence despite parents' and young adults' ambivalence toward the practice in the current era. Utilizing a nationally representative sample of young adults, I use event history analysis and propensity score matching to examine the effects of precarious employment on moving back home and living with parents.

BACKGROUND

A Life Course Perspective on Co-Residence

A life course perspective emphasizes how life changes influence development across one's life span, with specific focus on life transitions, developmental states, and life course trajectories (Elder 1998). In this chapter I use the life course perspective to emphasize moving back home as an important life transition that depends on the characteristics and circumstances of parents, is shaped by the current employment landscape, and may ultimately lead to different

life trajectories.

The transition to adulthood period is often described as a time of self-focused exploration when residential instability is common (Arnett 2006), though socioeconomic differences make it difficult to generalize. The life course perspective highlights the concept of *linked lives*, which maintains that individual lives are interdependent (Elder et al. 2003; Elder 1998), a clear component of co-residence. Finally, the life course principle of *time and place* suggests that the life course is shaped by particular historical moments (Elder et al. 1994; Elder et al. 2003), in this case the shift from a Fordist employment system to one characterized by flexible and precarious employment relations.

Precarious Employment

In this study, I examine four forms of precarious employment: jobs that entail a nonstandard employment contract, jobs that short in tenure, jobs that do not provide health insurance benefits, and jobs that do not provide retirement benefits. I describe each form of precarious employment below.

Nonstandard Employment

Nonstandard employment includes independent contractors, freelancers, temporary agency workers (temps), on-call workers, and day laborers. These workers differ from standard employees on several important dimensions of work, including that many such workers cannot assume that their employment will continue; many either do not have an employer or they are only weakly tied to their *de jure* (legal) employer in terms of work direction and location; and many are not protected by the labor laws that protect standard employees (Kalleberg, Reskin, and Hudson 2000; Kalleberg 2000; Stone 2006, 2007). There is evidence that employers increasingly

try to classify employees as nonstandard in order to avoid the legal responsibility and costs associated with the standard employment relationship (Jost 2011; Stone 2006).

The negative effects of nonstandard employment on work-related outcomes, health, and identity documented in previous research (Autor and Houseman 2010; Cheng and Chan 2008; DiPrete et al. 2002; Kalleberg 2000, 2011; Gowan 2000; Henson 1996; Quesnel-Vallée et al. 2010; Benach et al. 2014) suggest that nonstandard employment relationships may cause objective financial insecurity, as well as escalate feelings of future financial and status insecurity. Such insecurities may push young adults living independently to move back with their parents.

Short job tenure

Another form of precarious employment individuals increasingly experience is jobs that are short in duration. A main component of the standard employment norm, which flourished during the post-war period, is the mutual expectation between employees and employers of continued employment. That is, in exchange for loyalty, retention, and labor peace, employees could expect stable employment, increasing wages, and the possibility of promotion via an internal labor market ladder (Harvey 1989). Today, however, employment stability has declined for most groups. Farber (2008), for example, analyzes the evolution of job tenure with a given employer and finds that between the early 1970s and early 2000s, average private-sector job tenure for men fell almost 25 percent. Hollister and Smith (2014) find that while married mothers have increased job tenure among women due to greater continuity of employment around childbirth, job tenure has declined since the 1980s for non-married non-mothers, just as it has for men.

For young adults, short job tenure may prolong feelings of financial and status uncertainty, the feeling that “I just can’t get ahead.” After completing their education, young

adults ideally look for jobs that can become careers or allow them to gain enough skills and bargaining power to advance in the future. While some job churning is desirable, having a job for less than a year may not be long enough to acquire the skills or resume enhancement that will lead to better employment in the future. Moreover, as most rental lease agreements are for one year or more, and home mortgage loans often require two years or more of employment with the same company, short job tenure may make it difficult for young adults to commit to a lease or acquire a mortgage. These difficulties combined with the status insecurity of looking for new work, may encourage young adults to move back in to their parental home.

Lack of Employer-Offered Benefits

Since the post-war era, employment has been the primary way individuals access health insurance and retirement savings in the United States. Today, however, employers increasingly do not provide or only partially provide health insurance and retirement benefits (Boushey & Tilly 2009). For example, Kalleberg (2011) reports that the share of all private-sector workers who received health insurance coverage from their employers fell from 69 percent in 1979 to 55 percent in 2006. Moreover, these decreases in health benefits do not take into consideration the decline in quality of such benefits, which now affects workers across the educational spectrum. The proportion of college-educated workers, for example, who have employer-provided health benefits decreasing from 80 percent in 1979 to about 67 percent in 2006. The overall proportion of U.S. workers with any form of retirement plan dropped from 91 percent in 1985 to 66 percent in 2007 (Employee Benefit Research Institute 2013). Because the social safety net has traditionally been provided via employment in the United States, lack of access to a safety net despite working is an important measure of precarious employment.

Even during young adulthood, lack of health and retirement benefits may lead to feelings

of uncertainty that in turn influence how individuals experience adulthood. Lacking a safety net to take care of future health and financial needs may leave young adults feeling insecure and not fully ready to live independently⁹.

Economic Context and Social Background

Young adults' economic resources help determine whether living outside the parental home is possible or sustainable. Not surprisingly, financial difficulties, such as loss of income or lack of job opportunities, are associated with moves back home (Smits, Van Gaalen & Mulder 2010; Sassler, Ciambrone & Benway 2008; Qian 2012). The economic recession of the 1990s and 2000s led to higher rates of moving back home among young adults (Qian 2012; Mykyta and Macartney 2011). In the face of rising housing costs and delayed labor force participation in exchange for greater investment in schooling, there is also some evidence that young adults move back home in order to get ahead financially in the future (Kaplan 2012).

Existing studies also commonly link demographic and family characteristics to co-residence behavior. Women are consistently found to move out earlier and are less likely to experience parental co-residence (Sandberg-Thoma et al. 2015; White 1994). Black and Hispanic youth are more likely to live with parents compared to Whites and are more likely to move back home (Sandberg-Thoma et al. 2015; White 1994). Young adults from alternative family situations, such as stepfamily households, are less likely to move back into their parental home compared to youth from two-parent, biological families (Sandberg-Thoma 2015; Goldscheider & Goldscheider 1998; Britton 2013). Marriage is linked to exits from the parental home (Michelin,

⁹ I use the term "live independently" interchangeably with living outside the parental home. By living independently I do not mean living alone. Young adults that live outside the parental home may actually have a roommate or be cohabitating with a romantic partner or spouse. I nevertheless consider this independence because this requires a transition from co-residence and as such is an important developmental marker from a life course perspective.

Mulder & Zorlu 2008) and there is a normative expectation that married couples continue to live independently. Having a child is also linked to leaving home (Goldscheider, Hofferth, & Curtin 2014) but parenthood may also result in young adults moving back home because their parents can provide childcare (Smits, Van Gaalen & Mulder 2010). Finally, as discussed earlier, family socioeconomic status impacts co-residence patterns, with young adults from poorer families less likely to move back home and young adults from socioeconomically advantaged families more likely to return home (Sandberg-Thoma 2015; Kaplan 2012).

Hypotheses

In this study I build on prior research by examining the role of precarious employment on co-residence for a contemporary sample of young adults. Specifically, I ask: What are the effects of nonstandard employment, short job tenure, and no employer-provided benefits for young men and women on parental co-residence? I propose the following hypotheses:

Hypothesis 1: Nonstandard employment, short job tenure, and no employer provided benefits will be associated with a higher odds of living in the parental home for both men and women.

Hypothesis 2: The effect of nonstandard employment, short tenure, or no employer provided benefits on living at home will not fully be explained by reduced earnings commonly, but not always, associated with precarious employment.

DATA AND METHODS

Data

I use data from the National Longitudinal Survey of Youth 1997 (NLSY97), a nationally

representative panel sample of youth born between 1980 and 1984 in the United States. The NLSY97 captures detailed information on employment, including unique measures of precarious employment, and educational experience, family backgrounds, and family formation patterns of youth. Respondents were interviewed annually beginning in 1997, when they were 12 to 18 years old, until 2011, when respondents were 27 to 31 years old. The initial sample contained 8,984 young adults.

I restrict cases to those who responded to the 1998 survey (N=8,873), had at least one employment spell (a paid job for 3 months or longer) after completing schooling (N=7,293), and were living with at least one parent in the first interview year (N=6,915). I drop respondents that have missing data on precarious employment variables (N=6,631). I also drop a small number of respondents classified as mixed race (the category is too small to include in analysis and I did not feel it was appropriate to collapse into another category) (N=6,565), respondents missing information on family structure in 1997 (N=6,545), and respondents with missing data on highest educational attainment (N=6,525). Finally, I drop respondents who were always self-employed. The resulting sample includes 6,462 respondents (in some models I further limit the sample to only those young adults who are employed). Appendix Table 2.A1 provides descriptive statistics comparing the full sample of NLSY97 respondents to the restricted analytic samples. If young adults did not transition out of the parental home, they were censored at the final interview date in the event history analysis. The full NLSY97 sample is not representative because black and Hispanic youths were purposely oversampled; in all estimations I therefore use a set of weights to account for oversampling.

Dependent Variable: Parental Co-residence

Parental co-residence was measured using data about household members who shared a residence with the young adult. Parental co-residence (used in the discrete choice and propensity score matching analysis) is defined as reporting a parent as a household member. Parental co-residence is fairly common during young adulthood, even after completing education. For example, 63% of 18 year olds who have completed their education (they are never observed to be enrolled in school in any subsequent survey year) live at home with their parents. That number drops precipitously with age, but fully one in five young adults who has completed schooling lives with parents by age 27 (see Figure 2.1).

[Figure 2.1 here]

Parental co-residence can also be seen as a dynamic process during young adulthood, with moves toward independent living and then back again to the parental home; I explore this process using event history analysis. I define moving back home as a year that respondents report their parent as a household member when the previous year they did not report their parent as a household member.

It is rather common for young adults to move back home. To move back home, of course, young adults must at some point first live away from home. Fully 92% of young adults in the sample are observed to have lived away from home at some point. Of those young adults that have completed their education and moved away from home—that is, youth “at risk” of moving back home—28% have moved back home at least once. Men are more likely to have moved back home than women (32% versus 24%, respectively).

Independent Variables

Precarious Employment. I consider four forms of precarious employment: nonstandard

employment, short tenure, no employer-provided health insurance and no employer-provided retirement savings. I consider the impact of precarious employment status only once a respondent has completed their education (as far as I can glean with the longitudinal data available). As credentialing requirements have increased for many jobs, particularly well-paying jobs, young adults are taking longer to complete their education (Furstenberg, 2010); in the meantime, they may hold precarious jobs, internalizing them as supplementary and temporary. Therefore, I limit my analysis to individuals who have completed their education and are most likely seeking non-temporary employment.

I classify a worker as experiencing a nonstandard employment relationship when the respondent indicates a spell of on-call work, freelancing, working for a temporary help services firm, independent contracting, or day labor¹⁰ in a given year.¹¹ The NLSY97 only began asking the uniquely detailed measure of nonstandard work in 2005, when respondents were already ages 21 to 25. Furthermore, the question regarding nonstandard employment contracts was only asked of individuals who changed jobs in 2005. I categorize respondents who did not change jobs in 2005 as having standard employment, which likely underestimates nonstandard employment. I classify respondents as experiencing a spell of short job tenure when a respondent has completed

¹⁰ The NLSY97 survey asks the following questions to determine nonstandard employment: 1) “Where you an independent contractor, independent consultant or freelancer?”; 2) “Where you paid by a temporary help agency that assigned you to assist other employers?”; 3) “Some people are called on-call workers. They are called to work only when they are needed, although they can be scheduled to work for several days or weeks in a row. Some examples of on-call workers are substitute teachers and construction workers. Where you an on-call worker?”; 4) “Some companies provide employees or their services to other companies under contract. A few examples of services that can be provided under contract include private security services, landscaping, or computer programming. On this job, did you work for a company that provided your services to other companies under contract?”

¹¹ The NLSY97 collects information on all respondents’ jobs in a given year, so it is possible to have multiple jobs in an interview year and respondents are not asked to identify a “primary” employer. Because I do not want to count nonstandard employment spells that are not the respondent’s primary source of employment, I do not count nonstandard employment spells that occur the same time that a respondent has a “standard” job where they work 35+ hours per week for 50 or more weeks.

an employment spell that lasts for less than 52 weeks. I classify respondents as experiencing a spell of no insurance when a respondent is employed and reports that he or she does not have access to employer-provided health insurance in a given year. Finally, I classify individuals as experiencing a spell of no retirement benefits when a respondent reports a year wherein no job provided retirement benefits.

Economic characteristics. Economic characteristics are measured via job characteristics reported in the employment roster, which links each job a respondent had with job characteristics. Earnings are measured as a time-varying variable of total yearly earnings; earnings are adjusted for 2011 dollars and \$500 is added before taking the log. Respondents who worked 35 hours or more per week were coded as being employed full-time, while those working 34 hours or less were coded as working part-time.

Social background control measures include gender, race, parental income, parental education attainment, and intact family status. These measures are time-invariant and measured in 1997. Gender is measured as a dichotomous indicator where 1 = female and 0 = male. Race is categorized as Black, Hispanic or White, with White as the reference category. Parental income is measured as a started log (in 2011 dollars, with \$500 added before taking the log). Parental education is a categorical variable measuring the educational attainment of the highest educated parent, where 0 = no high school, 1 = high school graduate, 2 = college graduate or more. Intact family is a dichotomous variable of whether or not the respondent lived with both biological parents in 1997 (at age 12 to 16).

Family formation measures include marital status, parenthood status, and marital expectations. Marital status is a time-varying dichotomous variable where 1 = currently married and 0 = not married in the survey year. Parenthood status is a time-varying dichotomous variable

where 1= respondent has an own child living in the household and 0= respondent does not have an own child living in the household in a given survey year. Martial expectations is a time-invariant measure asked in 2001 (when respondents were 17 to 21 years old) of whether the respondent expects to be married in five years, where 1= 50% chance or more that respondent will be married, and 0=49% chance or less that respondent will be married.

Finally, I also include region and urban residence variables as time-varying controls. Region is categorized as Northwest, Midwest, South, and West. Urban residence is a categorical variable where 1=respondent lives in an urban area and 0= respondent does not live in an urban area.

Methods

I start by estimating the relationship between precarious employment and parental co-residence with a simple discrete choice logit model for living with parents. Then, I use propensity score analysis to provide additional evidence of effects between employment type and co-residence.

Studying causal effects of non-experimental data is problematic because lack of randomization increases the likelihood of confounding effects; there are likely numerous factors, both measured and not, that are influencing an observed outcome. Rubin (1974) proposed a counterfactual model of causality, wherein treatment effects can be estimated under the condition of strong ignorability (i.e. stochastic independence of the potential outcomes and the assignment to treatment conditions on a set of covariates (Rubin 1997; Rosenbaum & Rubin 1983). In this study, assignment to precarious employment or standard employment condition would have to be independent of the potential outcome, given background characteristics and pre-treatment

variables of the respondents. I analyze the effects of precarious employment versus non-precarious employment by modeling the assignment of young adults to the treatment conditions. The *average treatment effect of the treated* (ATT) is the average of the individual causal effects of the young adults in the treatment group (in this case, the “treatment” is being precariously employed).

Finally, I use yearly individual-level panel data to establish a relationship between precarious employment and moving back home using discrete time event history analysis. Discrete choice logit analysis and propensity score matching are useful starting points for understanding co-residence at a point in time. However, I also conduct an event history analysis of moving in to the parental home, because this method is well-suited for higher frequency data with transitions across state and takes into consideration individuals who may move back home after the period of observation (i.e. right-censoring in the data). I use multi-spell discrete time logistic regression to estimate how the probability of transitioning across co-residence states is affected by precarious employment. While event history analysis is ideal for examining patterns of event occurrence, studying the occurrence of repeatable events, such as moving in and out of the parental home, can be difficult. In addition to allowing for repeatable events, the advantages of the multi-spell discrete time event history approach include easy inclusion of time-invariant and time-varying predictors and no reliance on the proportional-hazards assumption, which allows the effects of predictors to vary over time within and across spells (Willett and Singer 1995). In this study, the discrete-time method is appropriate given that time is recorded in discrete intervals (yearly ages, employment status, school enrollment, etc.) rather than in continuous format (Singer and Willet 2003). The existence of many ‘ties’ in the data, when two or more subjects in the sample experience the event at the same time, would have introduced bias

in parameter estimates for alternative approaches developed for continuous time data, such as Cox regression (Yamaguchi 1991).

RESULTS

Logit Analysis

I begin my analysis of the relationship between precarious employment and co-residence with logit models for living away from home. Table 2.1 and Table 2.2 report logit estimate results for the effect of four forms of precarious employment on co-residence for men and women: an indicator for whether the young adult had a nonstandard job, a short tenure job, or a job without employer-provided health insurance or retirement benefits in a given year. The sample is restricted to young adults who have completed their education¹². For the models that include log earnings, full-time employment, and proportion unemployed as mediating variables, the sample is further restricted to working respondents. All models include a large set of fixed and time-varying control variables discussed above.

[Table 2.1 and Table 2.2 here]

Table 2.1 reports results for the effects of precarious employment on co-residence for men. Model 1 shows that male young adults with nonstandard contracts are more likely to live at home with their parents than are young adults with standard contracts (the reference category). Controlling for other independent variables, the odds that a male young adult with nonstandard

¹² I categorize an individual as having completed their education the year after the last observed year they report school enrollment. I observe young adults in the data from ages 13-17 until ages 27-31. It is possible that individuals return to school after age 27-31, when they are no longer observed in the data set in 2011. Among 27 to 31 year-olds still observed in the data (NLSY97 respondents were born 1980 to 1984, so they range in age), 7% of 27-year-olds report being enrolled in schooling and this drops each year with 3% of 30-year-olds reporting being enrolled in schooling (0% of 31-year olds report being enrolled in schooling in my sample).

employment is living at home is 27% higher than a young adult with a standard contract. However, Model 2 shows that the effect of nonstandard employment is still positive but no longer statistically significant once earnings, full-time status, and proportion of work history unemployed¹³ after completing education are included as controls.

For men, similar patterns can be seen for models examining that effect of short tenure, lacking health insurance benefits, and lacking retirement savings benefits. Each of these forms of precarious employment is associated with higher odds that male young adults live at home with their parents relative to their peers that have non-precarious employment (45% higher for those with short jobs, 35% higher for those that lack employer provided health insurance, and 53% higher for those that do not have retirement benefits). The effect of precarious employment is substantially reduced but is still significant when earnings, full-time versus part-time status, and proportion of time spent unemployed is included in the model.

Table 2.2 reports results for the effects of precarious employment on co-residence for women. Model 1 shows that female young adults with nonstandard contracts are more likely to live at home with their parents than are young adults with standard contracts. Controlling for other independent variables, the odds that a male young adult with nonstandard employment is living at home is 34% higher than a young adult with a standard contract. Model 2, which adjusts for earnings, full-time status, and proportion of time spent unemployed, shows that the effect of nonstandard employment is slightly reduced but still statistically significant.

For women, having short tenure is associated with living at home (those experiencing

¹³ While lower earnings, part-time work, and greater chance of unemployment are associated with nonstandard employment, it is not necessarily the case that nonstandard employment entail these characteristics. Some respondents with nonstandard employment are well-paid freelancers or consultants that work over 40 hours per week and are constantly in demand. However, it is their employment status—that of a contractor, freelancer, on-call worker or day laborer rather than an “employee”—that marks them as nonstandard.

short tenure have 13% higher odds of living with their parents), however, this effect is negative and not significant when earnings and other employment characteristics are controlled for. Having a job without health insurance is associated with higher odds of living at home with parents, even in the model controlling for other employment characteristics. But while youth who have a job with no retirement benefits are more likely to live with their parents in the full sample (model 7), when limited to employed adults and other employment characteristics are adjusted for the coefficient is greatly reduced and no longer statistically significant.

For both men and women, the other independent variables behave as expected in all models. Being older, having a parent with a college degree, having a college degree, higher cognitive ability, expecting to be married within five years (for men only), being married, having a child, living outside the Northeast, and living in an urban area are all associated with a lower odds of living at home with parents, while being Black or Hispanic (especially for women) relative to being white, and having parents with no high school degree are associated with higher odds of living with parents. Interestingly, coming from an intact family is also associated with higher odds of living at home with parents.

Propensity Score Matching

Next, I examine the effect of experiencing precarious employment at age 26 on living at home with parents at age 27 using propensity score matching. I examine living at home at age 27 because it is an age that makes substantive sense—the normative expectation is that by age 27, young adults should be living outside the parental home. Examining co-residence at age 27 also allows me to best leverage propensity score matching since all respondents in my sample have reached age 27 by the last survey year and I can therefore maximize the available sample. Pre-

treatment variables are measured when respondents are age 25 because I lag precarious employment variables one year (that is, I examine the effects of employment at age 26 on residential status at age 27). I restrict the analysis to respondents that have completed school and where employed for at least 3 months every year during ages 25 to 27.

I report a series of estimates of precarious employment, beginning with simple bivariate associations, or unmatched mean differences, to provide a baseline estimate of differences in parental co-residence between young adults who do and do not experience precarious employment. I then report kernel matching estimates where individuals who do and do not experience precarious employment are matched according to their propensity for precarious employment. I estimate the propensity score with a logit regression. Differences between the unmatched and matched estimates suggest selection into precarious employment by observed covariates. I then examine the average treatment effect on the treated (TT) and the average treatment effect on the untreated (TUT).

[Table 2.3 here]

Tables 2.3 present logit models of the effects of the pre-precarious employment covariates on the probability of experiencing precarious employment. Logistic regression results suggest that men who have higher earnings and work full-time at age 25 are less likely to experience nonstandard contract employment. Black women are more likely to experience nonstandard contract employment relative to white women, while those with higher earnings at age 25 are less likely. The lack of many significant predictors for nonstandard employment suggests that nonstandard employment contracts are relatively random experiences, or that it is predicted by omitted and/or unobserved characteristics. This finding lends support to a growing consensus among researchers that nonstandard contract employment is a form of precarious

employment that has spread even to workers who previously enjoyed a privileged position in the labor force, such as non-minorities and individuals with college graduates.

On the other hand, logit model estimates predicting short tenure, lacking health insurance, and lacking retirement benefits suggest that men and women who experience such precarious employment are more disadvantaged than young adults who never experience such employment. Men and women who are college graduates and have higher earnings at age 25 are less likely to experience short tenure, lack of employer-provided health insurance, and lack of employer provided retirement benefits.

Not surprisingly, individuals who work full time are less likely to lack employer provided health insurance and retirement benefits, relative to those that worked part-time at age 25. Further, men who predicted they will be married in five years in 2001 were less likely to have a job that didn't provide health insurance or retirement savings, but no less likely to have nonstandard contracts or short tenure.

Next, I report unmatched differences and three sets of propensity score matching estimates of experiencing precarious employment (nonstandard employment, short tenure, lacking health benefits, and lacking retirement benefits) at age 26 on living at home with parents at age 27 for men in Table 2.4 and women in Table 2.5. The unmatched differences establish a benchmark to compare to matched results. The propensity scores are derived using kernel matching, including treatment effects of the treated (TT) (i.e. effects pertaining to respondents who experienced nonstandard employment) and treatment effects for the untreated (TUT) (i.e. effects pertaining to respondents who did not actually experience nonstandard employment, had they experienced nonstandard employment).

Men who experience nonstandard employment at age 26 have 6.4 percentage points

higher rate of parental co-residence at age 27, according to unmatched differences. Turning to the TT, point estimates of nonstandard employment effects are slightly lower than unmatched differences, but nonstandard employment remains associated with lower rates of first marriage for men (a 5.5 percentage point difference that is marginally significant). The estimates of the TUT is positive but is no longer statistically significant. Men who experience short tenure during early young adulthood have 12.6 percentage points higher rate of living at home with parents compared to young adults with normal tenure. Although the TT point estimates of short tenure effects are slightly lower than unmatched differences, short tenure remains associated with lower rates of co-residence (a 10.3 percentage point difference). The estimates of the TUT are similar to those for the TT (11.5 percentage points) and are statistically significant. Men who experience a job that lacks health benefits have a 12.9 percentage point higher rate of living at home with parents. For TT, point estimates of employment without health insurance effects are reduced but such employment remains associated with 7.9 percentage point higher rates of co-residence. The estimates of the TUT is similar to the TT and remains significant for men. The similarity of the TT and TUT suggests a relatively homogeneous treatment effect. Finally, unmatched differences show that men who lack retirement benefits have an 11.0 percentage points higher rate of co-residence; TT and TUT point estimates are about half that and but remain statistically significant.

Results for women follow a somewhat different pattern than for men, with less clear effects of precarious employment. Women who experience nonstandard employment have a 9.9 percentage point higher rate of living at home when looking at unmatched differences. The TT is marginally significant for women, while the TUT is positive but not significant. Short tenure follows an unexpected pattern. Women who experience short tenure employment have 4.2

percentage points *lower* rate of parental co-residence, but this difference is not statistically significant. The effect of short tenure on TT and TUT is greater, negative and statistically significant, with women who experience short tenure having about an 8 percentage points lower rate of co-residence. On the other hand, women who experience employment without health insurance have a 7.9 percentage points higher rate of living with parents, although TT point estimates are lower than unmatched difference and only marginally significant, such employment remains associated with higher rates of parental co-residence (a 4.5 percentage point difference). Women who experience employment without retirement benefits at age 26 have a 6.6 percentage points higher rate of parental co-residence at age 27. The TT estimates, however, are substantively and statistically insignificant.

The matching results are similar to the regression results, but the effects of precarious employment are more evident in the matching results for men. For example, while nonstandard employment has no statistically significant effect on parental co-residence in the regression results, it is marginally statistically significant for men in the matching results. Similarly, while short tenure has only a marginally statistically significant effect on living at home for men in the regression results, it has a statistically and substantively significant effect in the matching results. For women, the results of the regression and matching results are more complex. Regression results indicate a negative effect on co-residence for nonstandard employment and no health insurance, but not short tenure or no retirement benefits. The matching results indicate nonstandard effects for the treated, but not for the untreated groups; significant but *negative* short tenure effects for both treated and untreated groups on living at home with parents; and significant positive no health insurance effects only for the treated group.

Multi-Spell Discrete-Time Event History Analysis

Finally, I turn to an event history analysis of moving in to the parental home. Event history analysis is useful for examining the dynamic process of parental co-residence, and allows me to estimate parental co-residence that occurs after individuals are no longer observed in the data because this method accounts for right-censoring. I fit logistic models where the dependent variable is whether or not the respondent moved back home at time t . An individual becomes at risk of moving back home the year after the respondent is last observed to be enrolled in school (what I refer to as “completed schooling,” though it is possible that these young adults will go back to school after the last observed survey year) *and* is living away from his or her parents. In the full sample, 8% of young adults who have completed their education never move out of their parents’ home in the first place; therefore, they are not at risk of moving back in with their parents.

I organize the data into a person-spell-period data set, wherein each of the n people in the original sample contributes multiple independent observations. A person-spell-period data set contains: (1) spell and time period identifiers, (2) the event indicator variable, and (3) independent variables. For each individual, spell is a measure of how many transition states an individual has. For example, after living independently (spell 0) an individual might move home for 3 years (spell 1), and then moved out again and be observed to live in an independent state for 4 years until the observation period ends in 2011 (spell 2). In this case, spell 1 would remain “1” for each of the three records in that spell, while time period would take on the values 1 the first year, 2 the second year, and 3 the third year. The event indicator value indicates whether an individual experienced a transition to moving back home; this transition can happen multiple times over the course of young adulthood.

I estimate multi-spell discrete-time logistic regression models separately for men and women. In addition to the period and spell indicators, all models include controls for age, race, parental education, parental income, intact family in 1997, educational attainment, cognitive ability, marriage expectations, marriage, biological children, region, and urban residence. Some models are restricted to employed youth; these models include controls for earnings, full-time versus part-time status, and proportion of time unemployed since completing schooling.

[Tables 2.6 and 2.7 here]

I present the results separately for men and women in Table 2.6 and Table 2.7, respectively. In both tables, models 1-8 show how the probability of moving back home is affected by four measures of a youth's precarious employment situation. The odd models (1, 3, 5, 7) include the entire sample of young adults that have completed their education for the time-varying number of years they are observed¹⁴. The even models (2, 4, 6, 8) are further restricted to years that respondents are employed; in these models, I am interested in examining whether other common employment characteristics (such as earnings, full-time versus part-time status, and proportion of time spent unemployed) attenuate the effects of precarious employment.

In the full sample, a male youth who experienced nonstandard employment the previous year is about 34% more likely to move back home than a youth who had standard employment, controlling for other factors (Model 1). However, in the sample restricted to working respondents (Model 2) the difference is smaller (12%) and not significant. A male young adult who experienced short job tenure the year before is 90% more likely than a similar youth with normal tenure to move back home. This difference is smaller but still substantial (48%), when

¹⁴ The sample is limited to young adults that have experienced at least one job spell, so while this sample includes individuals that experience periods of nonemployment, all respondents have at least one year of employment and are therefore "at risk" of experiencing precarious employment.

limited to employed youth and controlling for other employment characteristics. A male youth who experienced a job without health insurance is 24% more likely to move back home, but the difference is only 7% and no longer significant in the employed sample controlling for other employment characteristics. Similarly, while male youths who experienced a job without retirement benefits are 29% more likely to move back home than similar youths who had jobs with such benefits, the difference is much smaller and not-significant among employed youth when considering other employment characteristics.

Turning to Table 2.7, a female young adult who has nonstandard employment in the previous year is around 65 % more likely to move back home than a youth who had standard employment, controlling for other factors. When limited to employed youth, women with nonstandard employment are still 56 % more likely to move back in with their parents than youth with standard employment, even controlling for other employment factors. A female with a short job the year before is 60 % more likely to move back home than a similar youth who had a normal tenure job (a job lasting for more than 50 weeks); among employed women, youth with short tenure are 50 % more likely to move back home. A female youth with a job that does not provide health insurance in the past year is 8 % more likely to move back home than a similar youth that has a job with health benefits, but this difference is not statistically significant. Among employed women the difference is also small and not significant. A female youth with a job that does not provide retirement benefits in the past year is 15 % more likely to move back home than a youth that has a job with retirement benefits but this difference is only marginally significant. Among employed women, there is no statistically significant effect of lacking retirement benefits.

The spell variables indicate that the hazard of moving back home is typically highest in

the first spell and then diminishes (but is still positive) in spells 2, 3, and 4, before typically rising again. This suggests that many individuals are likely to have at least one spell of moving back home and by the time an individual has had five or six transitions moving in and out of home, the likelihood of moving home again increases. The period variables generally indicate that the longer a person has been in a particular spell, the less likely they are to transition to moving back in with their parents (compared to someone who has only been in a particular spell for 1 year).

Among employed young adults, earnings are important predictors, with higher earnings resulting in lower odds of moving back in with parents, controlling for other factors. Higher the proportion of time spent in unemployment is strongly associated with higher odds of moving in with parents for men, but this association is much smaller and not significant for women.

DISCUSSION

This chapter asks whether young adults who experience precarious employment have different patterns of parental co-residence than they would have if they experienced “non-precarious” employment— that is jobs that have standard employment contracts, last for longer than a year, have employer-provided health insurance, and/or have employer-provided retirement benefits. I control for a host of covariates, including those that adjust for socioeconomic background, family formation and expectations, human capital, and other job characteristics.

Simple discrete choice regression models suggest that having a nonstandard job increases the likelihood of living at home with parents for men and this effect is confirmed with propensity score matching results, which take selection issues more seriously than does regression; however, the effect of nonstandard employment is not statistically significant in event history

models, which takes into account possible co-residence events after young adults are no longer observed in the study. For women, all three analyses (discrete choice, event history, and propensity score models) indicate nonstandard employment increases the likelihood of living at home with parents. For men, all three analyses indicate that having a short tenure job increases likelihood of living at home with parents. For women, however, this relationship is only observed in the event history analysis. For both men and women, discrete choice and propensity score models indicate that lacking employer-provided health insurance increases the odds of living at home with parents, however this relationship is not statistically significant in the event history models (though the coefficients are positive). Among men, lacking a job with employer-provided retirement savings increases the likelihood of living at home with parents in the discrete choice and propensity score models, but it is not associated with moving back home in the event history models. Among women, none of the models indicate a significant effect of lacking retirement benefits on parental co-residence. To summarize, for men, it appears that short tenure is most consistently associated with parental co-residence, while for women it is nonstandard employment.

CONCLUSION

In the last few decades, the pathways to adulthood have become less standardized and more complex. I contend that precarious employment is an important component of the changing economic landscape for young adults, and, therefore, an important factor in the transition to independent living.

After completing their education, the vast majority of young adults leave their parental home during young adulthood. However, a sizeable group—almost one-third—returns at least

once. Overall, I find evidence that nonstandard employment, short job tenure, and lacking employer provided health insurance, increases the odds of living in the parental home for young adults. Lacking employer provided retirement benefits appears to only have a significant effect on men's co-residence patterns. I found mixed evidence for my hypothesis that nonstandard employment, short tenure, and lacking employer provided health insurance and retirement benefits goes beyond the impact of earnings when it comes to parental co-residence. This appears to be the case at least for women who experience nonstandard employment and men who experience short tenure.

Changes in the US economy over the past few decades have likely influenced the co-residence behavior of today's young adults in complex ways. For example, scholars have examined the increased need for higher education to secure decent employment (Furstenberg et al 2005), which likely delays youths' ability to live independently. Indeed, this study also finds that youth with higher earnings are less likely to live at home. However, higher earnings alone are not enough. I find at least some evidence that nonstandard employment, short tenure, and lacking employer provided health insurance and/or retirement benefits are positively associated with parental co-residence even when comparing young adults with similar earnings and job profiles.

For American young men and women in this cohort, institutional supports that would help young adults maintain independent living and continue on a forward path toward adulthood are not readily available. Such labor market policies could include paid job training and apprenticeship programs, more generous unemployment insurance (including providing nonstandard workers that lose their jobs with unemployment, which is not currently the case), job search assistance, and employment incentives for employers to hire and retain workers. The

United States spends less than almost all OECD countries on such passive and active labor market policies (0.5% of GDP, compared to, for example, Germany's 3% and Denmark's 4% of GDP).

While not a labor market policy per se, a recent potentially positive step is the Affordable Care Act, which makes access to health insurance possible even for young adults who have precarious employment. Unfortunately, this change was made after 2011 and therefore its impact cannot be measured in this study. The possible moderating impact of "Obamacare" on co-residence among young adults with precarious employment is an important topic for future study.

One limitation of this study is that variables about household composition are available only yearly, which means I am not able to capture home return and leaving events that last for shorter periods. Lacking this information likely underestimates the effect of precarious employment on parental co-residence. A further limitation is that these results are subject to the possibility that some important omitted variables differentiate young adults who experience precarious employment and those who do not. Nevertheless, this study benefits from the unique measures of precarious employment in the NLSY97, along with good measures of household co-residence, family formation expectations, and human capital.

This study suggests that young adults continue to rely on their parents well into young adulthood. It is important to go beyond media depictions of "boomerang kids" and get a better handle on parental co-residence patterns. This is a necessary first step to improving policies and institutional supports available to current and future generations of young adults as they struggle to deal with a changing employment landscape.

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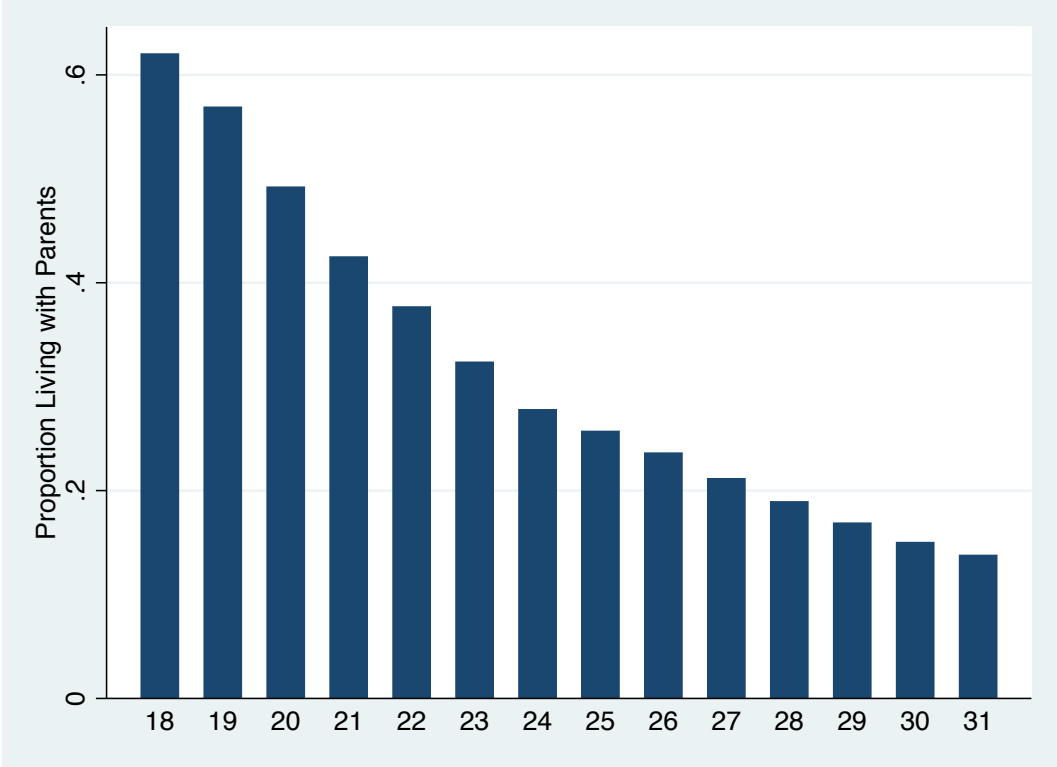
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Figures

Figure 2.1 Proportion of Young Adults Living with Parents After Completing Education by Age, NLSY97



Tables

Table 2.1 Discrete Choice Models for Living with Parents, Men, NLSY97

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Nonstandard		Short		No Insurance		No Retirement Benefits	
Non-employed	0.001 (0.051)		0.438*** (0.044)		-0.103* (0.044)		0.051 (0.048)	
Precarious Employment	0.245*** (0.060)	0.064 (0.062)	0.374*** (0.043)	0.091+ (0.047)	0.303*** (0.035)	0.084* (0.039)	0.428*** (0.035)	0.244*** (0.038)
Log Earnings		-0.174*** (0.022)		-0.157*** (0.018)		-0.156*** (0.019)		-0.139*** (0.019)
FT Employment		-0.415*** (0.066)		-0.418*** (0.053)		-0.406*** (0.056)		-0.380*** (0.056)
Proportion Unemployed		1.911*** (0.229)		1.673*** (0.198)		1.696*** (0.200)		1.633*** (0.200)
Age	-0.095*** (0.008)	-0.098*** (0.009)	-0.144*** (0.005)	-0.135*** (0.006)	-0.133*** (0.005)	-0.136*** (0.006)	-0.129*** (0.005)	-0.134*** (0.006)
Black	0.334*** (0.051)	0.283*** (0.060)	0.362*** (0.042)	0.308*** (0.049)	0.366*** (0.042)	0.314*** (0.050)	0.356*** (0.042)	0.314*** (0.050)
Hispanic	0.401*** (0.055)	0.511*** (0.061)	0.481*** (0.045)	0.573*** (0.050)	0.434*** (0.045)	0.580*** (0.051)	0.430*** (0.045)	0.579*** (0.051)
Parent No HS	0.194*** (0.050)	0.190** (0.059)	0.155*** (0.041)	0.109* (0.048)	0.159*** (0.041)	0.110* (0.049)	0.152*** (0.041)	0.104* (0.049)
Parent College	-0.124* (0.054)	-0.171** (0.060)	-0.089* (0.045)	-0.149** (0.050)	-0.131** (0.046)	-0.153** (0.051)	-0.144** (0.046)	-0.164** (0.051)
Parent Income	-0.047* (0.019)	-0.039+ (0.022)	-0.036* (0.016)	-0.016 (0.018)	-0.032* (0.016)	-0.016 (0.018)	-0.033* (0.016)	-0.016 (0.018)
Intact Family	0.531*** (0.041)	0.570*** (0.047)	0.542*** (0.034)	0.556*** (0.037)	0.502*** (0.034)	0.552*** (0.038)	0.507*** (0.034)	0.555*** (0.038)
No HS Degree	-0.018 (0.057)	-0.146* (0.070)	-0.077+ (0.046)	-0.150** (0.055)	-0.071 (0.045)	-0.163** (0.056)	-0.080+ (0.045)	-0.180** (0.056)
College Degree	-0.382*** (0.063)	-0.324*** (0.068)	-0.418*** (0.058)	-0.385*** (0.062)	-0.427*** (0.058)	-0.371*** (0.063)	-0.391*** (0.058)	-0.345*** (0.063)
ASVAB	-0.008*** (0.001)	-0.007*** (0.001)	-0.007*** (0.001)	-0.007*** (0.001)	-0.007*** (0.001)	-0.007*** (0.001)	-0.006*** (0.001)	-0.007*** (0.001)
Expect to Marry	-0.085+ (0.045)	-0.051 (0.051)	-0.112** (0.036)	-0.087* (0.039)	-0.074* (0.036)	-0.067+ (0.040)	-0.072* (0.036)	-0.065 (0.040)
Married	-1.354*** (0.053)	-1.281*** (0.059)	-1.351*** (0.048)	-1.306*** (0.053)	-1.355*** (0.049)	-1.318*** (0.054)	-1.343*** (0.049)	-1.311*** (0.054)
Has Child	-0.537*** (0.043)	-0.618*** (0.050)	-0.600*** (0.036)	-0.634*** (0.042)	-0.559*** (0.036)	-0.643*** (0.043)	-0.560*** (0.037)	-0.644*** (0.043)
Midwest	-0.356*** (0.059)	-0.494*** (0.067)	-0.414*** (0.049)	-0.493*** (0.054)	-0.378*** (0.049)	-0.501*** (0.055)	-0.365*** (0.049)	-0.492*** (0.055)
South	-0.298*** (0.053)	-0.353*** (0.061)	-0.350*** (0.044)	-0.384*** (0.050)	-0.290*** (0.044)	-0.396*** (0.051)	-0.284*** (0.044)	-0.392*** (0.051)
West	-0.366*** (0.060)	-0.411*** (0.068)	-0.355*** (0.050)	-0.405*** (0.056)	-0.306*** (0.050)	-0.430*** (0.057)	-0.300*** (0.050)	-0.427*** (0.057)
Urban	-0.174*** (0.047)	-0.269*** (0.054)	-0.247*** (0.038)	-0.331*** (0.043)	-0.248*** (0.038)	-0.321*** (0.044)	-0.241*** (0.039)	-0.315*** (0.044)
Unknown Location	-0.606*** (0.113)	-0.580*** (0.126)	-0.617*** (0.088)	-0.576*** (0.097)	-0.551*** (0.089)	-0.550*** (0.100)	-0.545*** (0.089)	-0.543*** (0.100)
Constant	2.908*** (0.281)	4.960*** (0.368)	4.128*** (0.203)	5.624*** (0.262)	3.741*** (0.205)	5.622*** (0.277)	3.498*** (0.207)	5.253*** (0.279)
Observations	16,723	13,711	23,604	19,682	23,248	18,961	23,248	18,961

Standard errors in parentheses.

*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Table 2.2: Discrete Choice Models for Living with Parents, Females, NLSY97

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Nonstandard		Short		No Insurance		No Retirement Benefits	
Non-employed	-0.120*		0.141**		-0.050		-0.023	
	(0.055)		(0.046)		(0.049)		(0.053)	
Precarious	0.292***	0.219**	0.120*	-0.086	0.262***	0.105*	0.218***	0.058
	(0.080)	(0.081)	(0.050)	(0.055)	(0.041)	(0.046)	(0.041)	(0.046)
Log Earnings		-0.163***		-0.164***		-0.155***		-0.160***
		(0.024)		(0.020)		(0.020)		(0.020)
FT Employment		-0.067		-0.133**		-0.109*		-0.128*
		(0.061)		(0.048)		(0.052)		(0.051)
Proportion Unemployed		1.005***		0.869***		0.644**		0.648**
		(0.276)		(0.239)		(0.246)		(0.247)
Age	-0.092***	-0.087***	-0.126***	-0.109***	-0.117***	-0.108***	-0.117***	-0.109***
	(0.009)	(0.011)	(0.006)	(0.007)	(0.006)	(0.007)	(0.006)	(0.007)
Black	0.422***	0.464***	0.409***	0.399***	0.405***	0.397***	0.401***	0.394***
	(0.060)	(0.068)	(0.049)	(0.056)	(0.049)	(0.058)	(0.049)	(0.058)
Hispanic	0.719***	0.783***	0.734***	0.772***	0.703***	0.780***	0.696***	0.777***
	(0.063)	(0.071)	(0.052)	(0.059)	(0.052)	(0.060)	(0.052)	(0.060)
Parent No HS	-0.010	0.074	-0.016	0.020	-0.028	0.026	-0.027	0.027
	(0.059)	(0.069)	(0.047)	(0.055)	(0.047)	(0.057)	(0.047)	(0.057)
Parent College	-0.207***	-0.145*	-0.140**	-0.091	-0.167**	-0.084	-0.166**	-0.084
	(0.062)	(0.068)	(0.052)	(0.057)	(0.052)	(0.058)	(0.052)	(0.058)
Parent Income	0.022	0.013	0.026	0.030	0.022	0.019	0.021	0.019
	(0.021)	(0.024)	(0.017)	(0.020)	(0.017)	(0.020)	(0.017)	(0.020)
Intact Family	0.366***	0.414***	0.345***	0.345***	0.329***	0.344***	0.329***	0.345***
	(0.047)	(0.053)	(0.038)	(0.043)	(0.038)	(0.044)	(0.038)	(0.044)
No HS Degree	-0.064	-0.169+	-0.125*	-0.193**	-0.144*	-0.205**	-0.142*	-0.203**
	(0.072)	(0.094)	(0.055)	(0.071)	(0.056)	(0.074)	(0.056)	(0.074)
College Degree	-0.254***	-0.191**	-0.299***	-0.267***	-0.306***	-0.264***	-0.299***	-0.263***
	(0.064)	(0.069)	(0.058)	(0.062)	(0.058)	(0.063)	(0.058)	(0.063)
ASVAB	-0.009***	-0.008***	-0.008***	-0.007***	-0.008***	-0.007***	-0.008***	-0.007***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Expect to Marry	-0.085+	-0.080	-0.065+	-0.063	-0.046	-0.055	-0.048	-0.056
	(0.046)	(0.053)	(0.037)	(0.042)	(0.037)	(0.043)	(0.037)	(0.043)
Married	-1.198***	-1.251***	-1.277***	-1.312***	-1.260***	-1.318***	-1.258***	-1.318***
	(0.053)	(0.062)	(0.046)	(0.053)	(0.046)	(0.054)	(0.046)	(0.054)
Has Child	-0.505***	-0.594***	-0.626***	-0.633***	-0.572***	-0.649***	-0.565***	-0.646***
	(0.048)	(0.056)	(0.039)	(0.045)	(0.039)	(0.047)	(0.039)	(0.047)
Midwest	-0.286***	-0.418***	-0.268***	-0.369***	-0.274***	-0.395***	-0.274***	-0.396***
	(0.071)	(0.081)	(0.057)	(0.064)	(0.058)	(0.066)	(0.058)	(0.066)
South	-0.070	-0.201**	-0.106*	-0.189***	-0.100*	-0.197***	-0.099*	-0.196***
	(0.061)	(0.069)	(0.050)	(0.057)	(0.051)	(0.058)	(0.051)	(0.058)
West	-0.141*	-0.223**	-0.182**	-0.237***	-0.176**	-0.259***	-0.174**	-0.258***
	(0.068)	(0.076)	(0.056)	(0.063)	(0.056)	(0.064)	(0.056)	(0.064)
Urban	-0.333***	-0.293***	-0.311***	-0.289***	-0.304***	-0.274***	-0.305***	-0.274***
	(0.057)	(0.065)	(0.046)	(0.052)	(0.046)	(0.054)	(0.046)	(0.054)
Unknown Location	-0.934***	-0.771***	-0.687***	-0.550***	-0.688***	-0.553***	-0.685***	-0.551***
	(0.153)	(0.175)	(0.114)	(0.129)	(0.116)	(0.133)	(0.116)	(0.133)
Constant	1.976***	3.502***	2.865***	4.034***	2.570***	3.981***	2.562***	4.064***
	(0.316)	(0.401)	(0.222)	(0.287)	(0.227)	(0.308)	(0.229)	(0.311)
Observations	15,104	11,841	20,380	16,111	20,239	15,517	20,239	15,517

Standard errors in parentheses
 *** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Table 2.3 Logit Models Predicting Precarious Employment at Age 26, NLSY97

	Nonstandard		Short		No Insurance		No Retirement Benefits	
	Men	Women	Men	Women	Men	Women	Men	Women
Black	0.037 (0.223)	0.585* (0.295)	-0.134 (0.267)	0.225 (0.310)	-0.133 (0.171)	-0.347+ (0.203)	-0.063 (0.154)	-0.018 (0.174)
Hispanic	-0.495+ (0.252)	0.140 (0.347)	-0.388 (0.282)	0.181 (0.338)	-0.195 (0.179)	-0.663** (0.222)	-0.265+ (0.159)	-0.370* (0.185)
Parent No HS	-0.410+ (0.228)	-0.262 (0.322)	-0.773** (0.247)	-0.421 (0.307)	-0.189 (0.171)	-0.095 (0.206)	-0.422** (0.161)	0.025 (0.185)
Parent College	-0.295 (0.297)	0.081 (0.404)	-0.876* (0.347)	-0.187 (0.409)	-0.143 (0.227)	0.073 (0.267)	-0.264 (0.205)	-0.072 (0.232)
Parent Income	0.012 (0.087)	-0.032 (0.101)	0.138 (0.113)	0.215+ (0.125)	-0.046 (0.059)	-0.021 (0.066)	-0.090+ (0.055)	-0.105+ (0.061)
Intact Family	-0.088 (0.174)	-0.330 (0.244)	-0.300 (0.203)	-0.766** (0.256)	-0.051 (0.127)	-0.190 (0.152)	-0.018 (0.113)	0.14 (0.131)
No HS Degree	0.396 (0.287)	0.554 (0.504)	0.061 (0.282)	0.056 (0.391)	-0.321+ (0.192)	-0.226 (0.266)	-0.421* (0.193)	-0.652* (0.278)
College Degree	-0.117 (0.396)	0.592 (0.593)	-0.915+ (0.479)	-1.227* (0.568)	-1.189*** (0.285)	-0.790* (0.341)	-1.008*** (0.255)	-1.077*** (0.324)
ASVAB	0.000 (0.004)	-0.001 (0.006)	0.001 (0.005)	0.008 (0.006)	-0.002 (0.003)	-0.009* (0.004)	-0.006* (0.003)	-0.006+ (0.003)
Expect to Marry	-0.242 (0.193)	-0.229 (0.244)	-0.267 (0.222)	-0.181 (0.240)	-0.340* (0.142)	-0.012 (0.149)	-0.292* (0.122)	0.003 (0.128)
Married	-0.063 (0.201)	-0.001 (0.268)	-0.270 (0.238)	-0.452+ (0.270)	-0.348* (0.153)	-0.088 (0.162)	-0.184 (0.131)	-0.398** (0.139)
Has Child	0.316+ (0.180)	-0.146 (0.258)	0.549** (0.204)	0.375 (0.256)	0.281* (0.134)	0.202 (0.161)	0.224+ (0.122)	0.227 (0.140)
Midwest	0.237 (0.282)	-0.542 (0.367)	0.201 (0.312)	-0.325 (0.410)	-0.090 (0.195)	-0.281 (0.239)	-0.166 (0.169)	-0.192 (0.200)
South	0.493+ (0.259)	-0.183 (0.297)	-0.026 (0.299)	0.248 (0.331)	0.046 (0.179)	0.029 (0.211)	-0.192 (0.158)	0.168 (0.179)
West	0.512+ (0.281)	-0.646+ (0.370)	0.397 (0.313)	0.006 (0.379)	-0.010 (0.196)	0.057 (0.231)	-0.066 (0.172)	0.189 (0.196)
Urban	0.117 (0.204)	0.375 (0.321)	0.223 (0.245)	-0.106 (0.283)	-0.188 (0.147)	0.324+ (0.192)	-0.187 (0.133)	0.254 (0.164)
Log Earnings	-0.284*** (0.085)	-0.239* (0.107)	-0.459*** (0.084)	-0.385*** (0.095)	-0.515*** (0.072)	-0.507*** (0.077)	-0.580*** (0.074)	-0.577*** (0.078)
FT Employment	-0.574* (0.248)	-0.291 (0.277)	0.357 (0.316)	0.070 (0.280)	-1.018*** (0.198)	-1.355*** (0.163)	-0.788*** (0.211)	-1.001*** (0.166)
Constant	0.833 (1.182)	0.075 (1.422)	0.781 (1.391)	-0.824 (1.497)	6.441*** (0.912)	5.806*** (0.993)	8.688*** (0.910)	8.027*** (0.968)
Observations	1,705	1,286	1,913	1,485	1,801	1,444	1,801	1,444

Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Table 2.4 Matching estimates of precarious employment at age 26 on living at home at age 27, Men, NLSY97

	Unmatched differences	Propensity score kernel matching, TT	Propensity score kernel matching, TUT
Nonstandard Employment	0.064* (0.03)	0.055 + (0.03)	0.043 (0.04)
Short Tenure	0.126*** (0.04)	0.103 ** (0.04)	0.115 * (0.05)
No health insurance	0.129 *** (0.02)	0.079 ** (0.03)	0.056 * (0.03)
No retirement savings	0.110 *** (0.02)	0.058 * (0.02)	0.042 * (0.02)

Notes: Numbers in parentheses are standard errors.

Standard errors were bootstrapped on 50 replications.

† p<.10 * p <.05 ** p < .01 *** p < .001 (two-tailed tests)

Table 2.5 Matching estimates of precarious employment at age 26 on living at home at age 27, Women, NLSY97

	Unmatched differences	Propensity score kernel matching, TT	Propensity score kernel matching, TUT
Nonstandard Employment	0.099** (0.04)	0.081+ (0.04)	0.056 (0.04)
Short Tenure	-0.042 (0.04)	-0.076 + (0.04)	-0.081** (0.03)
No health insurance	0.079 *** (0.05)	0.045+ (0.03)	0.062 (0.04)
No retirement savings	0.066** (0.02)	0.003 (0.03)	0.013 (0.02)

Notes: Numbers in parentheses are standard errors.

Standard errors were bootstrapped on 50 replications.

† p<.10 * p <.05 ** p < .01 *** p < .001 (two-tailed tests)

Table 2.6: Multi-spell Discrete Time Logit Models for Moving Back in with Parents, Men, NLSY97
(Dependent Variable: Transition to living with parents)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Nonstandard		Short		No Insurance		No Retirement Benefits	
Non-employed	0.486*** (0.098)		0.456*** (0.097)		0.613*** (0.085)		0.686*** (0.092)	
Precarious Employment	0.293* (0.118)	0.109 (0.122)	0.644*** (0.085)	0.394*** (0.093)	0.211*** (0.074)	0.074 (0.082)	0.253*** (0.072)	0.126 (0.078)
Log Earnings		-0.139** (0.045)		-0.080* (0.036)		-0.095* (0.038)		-0.089* (0.038)
Full-time Employment		-0.259+ (0.143)		-0.215+ (0.116)		-0.167 (0.125)		-0.165 (0.123)
Proportion Unemployed		2.646*** (0.451)		2.330*** (0.385)		2.839*** (0.390)		2.823*** (0.390)
Period 2	-1.213*** (0.101)	-1.277*** (0.115)	-0.907*** (0.082)	-0.880*** (0.089)	-0.846*** (0.079)	-0.900*** (0.091)	-0.846*** (0.079)	-0.900*** (0.091)
Period 3	-1.830*** (0.129)	-1.911*** (0.149)	-1.542*** (0.109)	-1.553*** (0.120)	-1.504*** (0.105)	-1.587*** (0.123)	-1.502*** (0.105)	-1.586*** (0.123)
Period 4	-1.858*** (0.135)	-1.834*** (0.152)	-1.626*** (0.121)	-1.512*** (0.129)	-1.551*** (0.117)	-1.533*** (0.131)	-1.547*** (0.117)	-1.532*** (0.131)
Period 5	-2.037*** (0.153)	-2.101*** (0.179)	-1.725*** (0.141)	-1.764*** (0.159)	-1.726*** (0.138)	-1.850*** (0.165)	-1.721*** (0.138)	-1.848*** (0.165)
Period 6	-2.164*** (0.173)	-2.056*** (0.194)	-1.960*** (0.171)	-1.821*** (0.184)	-1.974*** (0.169)	-1.881*** (0.189)	-1.969*** (0.169)	-1.880*** (0.189)
Period 7	-2.947*** (0.257)	-2.732*** (0.276)	-2.622*** (0.250)	-2.460*** (0.266)	-2.655*** (0.249)	-2.474*** (0.267)	-2.652*** (0.249)	-2.476*** (0.267)
Period 8	-2.857*** (0.274)	-3.280*** (0.393)	-2.698*** (0.292)	-3.035*** (0.391)	-2.733*** (0.291)	-3.385*** (0.459)	-2.726*** (0.291)	-3.382*** (0.459)
Period 9	-3.038*** (0.349)	-3.503*** (0.515)	-2.721*** (0.348)	-3.230*** (0.513)	-3.000*** (0.391)	-3.253*** (0.513)	-2.995*** (0.391)	-3.253*** (0.513)
Period 10	-2.581*** (0.337)	-2.394*** (0.380)	-2.172*** (0.336)	-2.072*** (0.377)	-2.290*** (0.336)	-2.123*** (0.377)	-2.296*** (0.336)	-2.127*** (0.377)
Period 11	-3.674*** (0.720)	-3.851*** (1.013)	-3.958*** (1.009)	-3.538*** (1.012)	-3.383*** (0.719)	-3.584*** (1.012)	-3.386*** (0.719)	-3.588*** (1.012)
Period 12	-2.730*** (0.599)	-3.477*** (1.020)	-2.853*** (0.726)	-3.208** (1.019)	-2.405*** (0.599)	-3.179** (1.018)	-2.420*** (0.599)	-3.191** (1.018)
Spell 1	1.478*** (0.111)	1.706*** (0.128)	1.518*** (0.089)	1.604*** (0.098)	1.490*** (0.086)	1.590*** (0.101)	1.489*** (0.086)	1.589*** (0.101)
Spell 2	0.952*** (0.152)	1.167*** (0.176)	0.826*** (0.138)	0.916*** (0.152)	0.774*** (0.132)	0.896*** (0.156)	0.769*** (0.132)	0.892*** (0.156)
Spell 3	0.930*** (0.144)	1.095*** (0.168)	0.958*** (0.131)	0.994*** (0.145)	0.938*** (0.126)	0.977*** (0.148)	0.934*** (0.126)	0.974*** (0.148)
Spell 4	0.843*** (0.243)	1.285*** (0.278)	0.899*** (0.240)	1.180*** (0.260)	0.868*** (0.232)	1.189*** (0.265)	0.873*** (0.232)	1.193*** (0.265)
Spell 5	0.951*** (0.249)	1.465*** (0.280)	1.184*** (0.245)	1.494*** (0.263)	1.047*** (0.237)	1.482*** (0.265)	1.041*** (0.237)	1.475*** (0.265)
Spell 6	1.335** (0.478)	1.206* (0.561)	1.219* (0.497)	1.178* (0.548)	1.476** (0.472)	1.241* (0.554)	1.446** (0.471)	1.227* (0.553)
Spell 7	1.347** (0.472)	0.800 (0.600)	1.456** (0.487)	0.800 (0.591)	1.524** (0.466)	0.836 (0.594)	1.478** (0.464)	0.810 (0.594)
Age	0.063*** (0.017)	0.078*** (0.020)	0.024+ (0.013)	0.031* (0.014)	0.019 (0.012)	0.035* (0.015)	0.021+ (0.012)	0.036* (0.015)
Black	-0.209* (0.105)	-0.381** (0.126)	-0.239** (0.090)	-0.370*** (0.103)	-0.210* (0.087)	-0.436*** (0.107)	-0.216* (0.087)	-0.438*** (0.107)

Hispanic	-0.128 (0.112)	-0.111 (0.127)	-0.112 (0.097)	-0.129 (0.106)	-0.121 (0.094)	-0.130 (0.109)	-0.124 (0.094)	-0.131 (0.109)
Parent No HS	-0.065 (0.107)	-0.062 (0.129)	-0.043 (0.091)	-0.058 (0.103)	-0.057 (0.087)	-0.056 (0.106)	-0.060 (0.087)	-0.057 (0.106)
Parent College	-0.073 (0.105)	-0.049 (0.116)	-0.017 (0.093)	-0.010 (0.099)	-0.025 (0.090)	-0.010 (0.101)	-0.028 (0.091)	-0.011 (0.101)
Parent Income	-0.008 (0.040)	-0.010 (0.047)	-0.024 (0.035)	-0.033 (0.039)	-0.033 (0.033)	-0.028 (0.040)	-0.033 (0.033)	-0.029 (0.040)
Intact Family	0.011 (0.084)	-0.005 (0.094)	-0.041 (0.071)	-0.043 (0.077)	-0.017 (0.069)	-0.033 (0.079)	-0.013 (0.069)	-0.031 (0.079)
No HS Degree	0.077 (0.116)	-0.059 (0.145)	-0.036 (0.099)	-0.078 (0.115)	0.015 (0.093)	-0.058 (0.119)	0.008 (0.093)	-0.066 (0.119)
College Degree	-0.062 (0.127)	0.064 (0.140)	0.037 (0.119)	0.087 (0.126)	0.021 (0.116)	0.093 (0.128)	0.035 (0.117)	0.102 (0.128)
ASVAB	-0.002 (0.002)	-0.002 (0.002)	-0.003+ (0.002)	-0.002 (0.002)	-0.003* (0.002)	-0.003 (0.002)	-0.003* (0.002)	-0.003 (0.002)
Likely to Marry	-0.072 (0.088)	-0.136 (0.101)	0.024 (0.073)	0.008 (0.080)	0.037 (0.071)	0.002 (0.082)	0.036 (0.071)	0.002 (0.082)
Married	-0.282** (0.089)	-0.215* (0.100)	-0.315*** (0.082)	-0.327*** (0.089)	-0.354*** (0.082)	-0.346*** (0.091)	-0.352*** (0.082)	-0.345*** (0.091)
Has Child	0.025 (0.084)	-0.021 (0.098)	-0.048 (0.074)	-0.048 (0.082)	-0.010 (0.071)	-0.013 (0.084)	-0.012 (0.071)	-0.014 (0.084)
Midwest	0.340** (0.129)	0.324* (0.147)	0.373*** (0.110)	0.394*** (0.119)	0.350*** (0.104)	0.420*** (0.122)	0.356*** (0.104)	0.423*** (0.122)
South	0.419*** (0.119)	0.439** (0.136)	0.346*** (0.103)	0.376*** (0.113)	0.325*** (0.097)	0.363** (0.116)	0.328*** (0.097)	0.364** (0.116)
West	0.358** (0.132)	0.342* (0.150)	0.301** (0.114)	0.309* (0.125)	0.283** (0.108)	0.267* (0.127)	0.289** (0.108)	0.270* (0.127)
Urban	0.179+ (0.098)	0.214+ (0.115)	0.130 (0.084)	0.162+ (0.093)	0.161* (0.081)	0.208* (0.096)	0.164* (0.081)	0.210* (0.096)
Unknown Location	-0.151 (0.221)	-0.113 (0.255)	-0.132 (0.181)	-0.111 (0.203)	-0.137 (0.183)	-0.037 (0.208)	-0.137 (0.183)	-0.038 (0.208)
Constant	-3.852*** (0.603)	-2.950*** (0.780)	-2.742*** (0.463)	-2.094*** (0.575)	-2.513*** (0.447)	-2.112*** (0.607)	-2.618*** (0.450)	-2.245*** (0.611)
Observations	11,552	9,552	13,994	12,006	14,144	11,708	14,144	11,708

Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

**Table 2.7: Multi-spell Discrete Time Logit Models for Moving Back in with Parents, Females, NLSY97
(Dependent Variable: Transition to living with parents)**

	(1) Nonstandard	(2)	(3) Short	(4)	(5) No Insurance	(6)	(7) No Retirement Benefits	(8)
Non-employed	0.153 (0.101)		0.246** (0.091)		0.244** (0.091)		0.304** (0.099)	
Precarious Employment	0.502*** (0.140)	0.448** (0.144)	0.475*** (0.093)	0.408*** (0.102)	0.081 (0.083)	0.034 (0.096)	0.146+ (0.081)	0.091 (0.091)
Log Earnings		-0.100* (0.046)		-0.077* (0.038)		-0.119** (0.040)		-0.114** (0.039)
FT Employment		0.114 (0.121)		0.138 (0.100)		0.181+ (0.109)		0.193+ (0.107)
Proportion Unemployed		0.403 (0.523)		0.314 (0.461)		0.757 (0.467)		0.726 (0.468)
Period 2	-1.488*** (0.119)	-1.524*** (0.137)	-1.199*** (0.094)	-1.219*** (0.107)	-1.206*** (0.094)	-1.248*** (0.110)	-1.205*** (0.094)	-1.248*** (0.110)
Period 3	-1.587*** (0.127)	-1.593*** (0.147)	-1.408*** (0.108)	-1.424*** (0.124)	-1.374*** (0.106)	-1.398*** (0.125)	-1.372*** (0.106)	-1.397*** (0.125)
Period 4	-1.896*** (0.145)	-1.911*** (0.169)	-1.694*** (0.128)	-1.624*** (0.144)	-1.642*** (0.125)	-1.652*** (0.147)	-1.636*** (0.125)	-1.649*** (0.147)
Period 5	-2.160*** (0.164)	-2.083*** (0.184)	-1.867*** (0.146)	-1.870*** (0.167)	-1.891*** (0.146)	-1.931*** (0.172)	-1.890*** (0.146)	-1.932*** (0.172)
Period 6	-2.494*** (0.202)	-2.314*** (0.225)	-2.317*** (0.195)	-2.200*** (0.218)	-2.351*** (0.195)	-2.257*** (0.222)	-2.349*** (0.195)	-2.256*** (0.222)
Period 7	-2.665*** (0.230)	-2.878*** (0.295)	-2.562*** (0.233)	-2.678*** (0.283)	-2.541*** (0.228)	-2.762*** (0.293)	-2.537*** (0.228)	-2.761*** (0.293)
Period 8	-3.153*** (0.303)	-3.506*** (0.423)	-2.933*** (0.302)	-3.309*** (0.421)	-3.050*** (0.314)	-3.515*** (0.459)	-3.049*** (0.314)	-3.515*** (0.459)
Period 9	-3.178*** (0.349)	-3.405*** (0.463)	-2.946*** (0.348)	-3.202*** (0.462)	-2.977*** (0.348)	-3.214*** (0.462)	-2.977*** (0.348)	-3.217*** (0.462)
Period 10	-2.564*** (0.311)	-2.438*** (0.361)	-2.385*** (0.322)	-2.202*** (0.358)	-2.356*** (0.310)	-2.248*** (0.359)	-2.352*** (0.310)	-2.245*** (0.359)
Period 11	-3.508*** (0.593)	-3.052*** (0.599)	-3.220*** (0.592)	-2.787*** (0.597)	-3.682*** (0.719)	-3.228*** (0.724)	-3.680*** (0.719)	-3.227*** (0.724)
Period 12	-4.097*** (1.012)		-3.779*** (1.012)		-3.833*** (1.011)		-3.830*** (1.011)	
Spell 1	1.663*** (0.108)	1.821*** (0.123)	1.690*** (0.089)	1.749*** (0.101)	1.665*** (0.088)	1.758*** (0.103)	1.666*** (0.088)	1.759*** (0.103)
Spell 2	1.214*** (0.144)	1.175*** (0.172)	1.131*** (0.129)	1.066*** (0.149)	1.118*** (0.126)	1.042*** (0.154)	1.114*** (0.127)	1.039*** (0.154)
Spell 3	1.222*** (0.156)	1.294*** (0.186)	1.113*** (0.145)	1.128*** (0.169)	1.064*** (0.143)	1.091*** (0.174)	1.065*** (0.143)	1.092*** (0.174)
Spell 4	0.763** (0.269)	0.723* (0.321)	0.780** (0.262)	0.612* (0.311)	0.801** (0.256)	0.657* (0.312)	0.790** (0.256)	0.648* (0.312)
Spell 5	1.300*** (0.304)	1.468*** (0.383)	1.427*** (0.305)	1.554*** (0.374)	1.335*** (0.303)	1.451*** (0.385)	1.338*** (0.303)	1.455*** (0.385)
Spell 6	1.232+ (0.705)	1.891* (0.824)	1.398* (0.694)	2.093** (0.803)	1.375* (0.691)	2.087** (0.805)	1.371* (0.692)	2.086** (0.807)
Age	0.073*** (0.018)	0.108*** (0.021)	0.043*** (0.013)	0.071*** (0.015)	0.039** (0.013)	0.075*** (0.015)	0.041** (0.013)	0.076*** (0.015)
Black	0.059 (0.115)	0.117 (0.132)	0.033 (0.099)	0.035 (0.113)	0.018 (0.098)	0.023 (0.116)	0.020 (0.098)	0.026 (0.116)
Hispanic	0.054 (0.119)	0.024 (0.139)	0.113 (0.102)	0.107 (0.116)	0.105 (0.101)	0.105 (0.119)	0.107 (0.101)	0.106 (0.119)

Parent No HS	-0.106 (0.118)	-0.044 (0.141)	-0.079 (0.097)	-0.021 (0.114)	-0.048 (0.096)	-0.006 (0.117)	-0.047 (0.096)	-0.006 (0.117)
Parent College	-0.048 (0.111)	-0.007 (0.125)	-0.035 (0.099)	-0.024 (0.110)	-0.031 (0.097)	-0.000 (0.111)	-0.030 (0.097)	-0.000 (0.111)
Parent Income	0.063 (0.042)	0.087+ (0.051)	0.090* (0.036)	0.113** (0.043)	0.087* (0.036)	0.114** (0.044)	0.088* (0.036)	0.114** (0.044)
Intact Family	-0.049 (0.088)	-0.015 (0.101)	-0.090 (0.076)	-0.130 (0.086)	-0.108 (0.075)	-0.140 (0.088)	-0.109 (0.075)	-0.141 (0.088)
No HS Degree	0.143 (0.139)	0.215 (0.181)	0.125 (0.111)	0.180 (0.139)	0.120 (0.110)	0.180 (0.146)	0.118 (0.110)	0.178 (0.146)
College Degree	-0.055 (0.123)	-0.047 (0.135)	-0.070 (0.116)	-0.073 (0.125)	-0.066 (0.113)	-0.068 (0.125)	-0.053 (0.114)	-0.061 (0.126)
ASVAB	-0.003 (0.002)	-0.003 (0.002)	-0.003 (0.002)	-0.004+ (0.002)	-0.003+ (0.002)	-0.004* (0.002)	-0.003+ (0.002)	-0.004+ (0.002)
Likely to Marry	-0.078 (0.085)	0.007 (0.097)	-0.062 (0.072)	-0.056 (0.082)	-0.072 (0.072)	-0.053 (0.084)	-0.071 (0.072)	-0.053 (0.084)
Married	0.036 (0.089)	-0.052 (0.103)	-0.062 (0.078)	-0.100 (0.089)	-0.088 (0.077)	-0.114 (0.091)	-0.083 (0.077)	-0.111 (0.091)
Has Child	0.133 (0.092)	0.172 (0.105)	0.001 (0.078)	0.020 (0.088)	-0.009 (0.077)	0.016 (0.090)	-0.011 (0.077)	0.016 (0.090)
Midwest	0.100 (0.141)	0.008 (0.162)	0.050 (0.121)	-0.023 (0.137)	0.097 (0.120)	-0.011 (0.139)	0.097 (0.120)	-0.011 (0.139)
South	0.300* (0.123)	0.239+ (0.142)	0.306** (0.106)	0.236* (0.120)	0.346** (0.105)	0.266* (0.122)	0.346** (0.105)	0.264* (0.122)
West	0.259+ (0.135)	0.298+ (0.154)	0.238* (0.117)	0.229+ (0.131)	0.265* (0.116)	0.233+ (0.134)	0.266* (0.116)	0.235+ (0.134)
Urban	0.068 (0.110)	0.147 (0.130)	0.084 (0.094)	0.127 (0.109)	0.098 (0.094)	0.135 (0.112)	0.098 (0.094)	0.134 (0.112)
Unknown Location	0.084 (0.233)	-0.075 (0.294)	0.098 (0.199)	-0.014 (0.239)	0.164 (0.193)	0.006 (0.243)	0.164 (0.193)	0.006 (0.243)
Constant	-4.944*** (0.645)	-5.425*** (0.818)	-4.482*** (0.487)	-4.774*** (0.616)	-4.280*** (0.487)	-4.475*** (0.658)	-4.393*** (0.492)	-4.611*** (0.663)
Observations	11,652	8,981	14,400	11,341	14,507	10,989	14,507	10,989

Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Table 2.A1 Descriptive Statistics by Sample Restrictions

	Full Sample (n=8,984)	Restricted Sample (n=6,462)	Employed Age 25-27 and Completed Schooling (n=4,741)
Female	48.7	47.9	45.5
<i>Race</i>			
White	70.4	72.7	74.4
Black	15.4	14.3	12.9
Hispanic	12.9	13.0	12.8
<i>Social background</i>			
Parent no HS	12.4	12.2	11.3
Parent HS	59.5	59.5	59.5
Parent college	28.2	28.4	29.2
Parent's income	10.4	10.5	10.5
<i>Human capital</i>			
Mental ability	49.3	49.2	50.7
No high school degree	8.3	8.1	6.5
High school graduate	61.5	61.1	61.7
College graduate	30.3	30.8	31.8
<i>Life Expectations</i>			
Married in 5 years	28.3	28.3	27.6
<i>Characteristics in 2011</i>			
Log Earnings	9.2	9.3	9.8
Full-time	64.9	69.5	77.5
Prof./Managerial	33.6	33.0	32.2
Service	44.4	43.8	44.0
Blue collar	22.0	23.2	23.8
Nonemployed	18.6	19.1	10.6
Married	47.6	48.1	47.7
Has Child	53.0	53.1	50.6
Lives with parent	18.3	18.4	17.6

CHAPTER 3:
THE EFFECTS OF PRECARIOUS EMPLOYMENT
ON MARRIAGE FORMATION AMONG YOUNG ADULTS

Abstract: In this study, I use panel data from the National Longitudinal Survey of Youth 1997, and propensity score matching methods, to examine the effect of precarious employment among employed young adults on having a first marriage. Among men, I find significant negative effects of having a nonstandard contract job, a short term job, and having a job that does not include employer-provided health insurance on the probability of having a first marriage. Among women, I find significant negative effects of not having employer-provided health insurance and not having employer-provided retirement savings on the probability of a first marriage. This research suggests that it is not only earnings that are important factors shaping young adults' family formation; rather, the uncertainty involved in precarious employment may make it difficult for young adults to assume roles traditionally linked to adulthood, such as marriage.

INTRODUCTION

Precarious employment has been a key concern among researchers since the 1990s (Geary 1992; Hacker, 2006; Hollister, 2011; Kalleberg, 2000, 2009, 2011; Kelly 2000; Lewchuk et al. 2003, 2008; Stone 2004, 2006; Vosko, 1997, 2000, 2009). Precarious employment entails employment that is uncertain, unpredictable, and risky from the point of view of the worker (Kalleberg, 2009). In the United States, the term precarious employment represents employment conditions that differ from the gold standard of legally protected, secure employment with fringe benefits including jobs that do not guarantee labor protections, such as nonstandard contract employment; short-term jobs; and jobs without employer-provided health insurance and retirement savings.

The American workforce has seen an increase in precarious employment since at least the 1990s (Farber, 2010; Farley, 1996; Hollister & Smith, 2014; Kalleberg, 2000, 2009, 2013; Luo et al. 2010; Farber & Levy 2000). Today, substantial numbers of Americans face some form of precarious employment. In 2010, for example, over 13 million workers were engaged in nonstandard contract work, temporary-help agency employment and independent contracting (U.S. Bureau of Labor Statistics 2010a, 2010b). Almost one-fifth of the total job growth since the recession ended in mid-2009 has been in temporary agency jobs and the Bureau of Labor Statistics predicts the temporary help and consulting industries will be among those with the highest projected employment growth into 2020 (Henderson 2012). Between the early 1970s and early 2000s, average private-sector job tenure for men fell almost 25% (Farber 2008). Further, in 2010, 58.6% of workers were working for an employer that did not offer health insurance (Janicki 2013).

Prior research suggests that precarious employment is associated with exposure to undesirable job characteristics, such as low wages; worse future employment prospects; negative work-related attitudes, such as lower job satisfaction, less job involvement, higher turnover intention and reduced performance; declines in mental well-being and increased stress; and social stigma relative to individuals with standard employment (Autor and Houseman 2010; Cheng and Chan 2008; DiPrete et al. 2002; Kalleberg 2000, 2011; Gowan 2000; Henson 1996; Quesnel-Vallée et al. 2010; Benach et al. 2014). Yet researchers know far less about the effects of precarious employment on the family lives of workers, and thus about the broader social impact of the contemporary turn to flexibility in the employment system.

In a separate line of inquiry, numerous studies have documented the social phenomenon of a prolonged transition to adulthood (Amato et al. 2008; Arnett 1997, 2006, 2007; Billari and Liefbroer 2007; Cook and Furstenberg 2002; Coté 2000, 2006; Coté & Bynner 2008; Danziger & Ratner 2010; Furstenberg 2010; Furstenberg et al. 2004; Silva 2013). During the early postwar period, the transition to adulthood was relatively quick and orderly: by around age 25 both men and women completed school, began full-time work, left their parental home, married and began their own families (Arnett 2006). In the contemporary period, however, the transition to adulthood has lengthened, with significant delays in home-leaving and family formation (Furstenberg 2010; Manning et al. 2014). Recent ethnographic work suggests that changes in employment are forcing young adults today to dramatically re-imagine romantic relationships and family (Silva 2013).

In this paper, I extend the precarious employment and transition to adulthood literature to examine the effects of precarious employment on marriage timing among young adults. Using data from the National Longitudinal Survey 1997, I examine young adults who were and were

not precariously employed but had the same propensity for precarious employment based on a set of observed covariates. Viewing marriage as one aspect of the transition to adulthood, I ask whether precarious employment delays first marriage among young adults.

BACKGROUND

The Rise of Precarious Employment

Since the late 1970s, employment systems in the United States have changed to reflect more “flexible” systems oriented toward external markets, with the defining characteristic being increased market penetration in employment, without an accompanying increase in government oversight or social safety net (Harvey 1990; Kalleberg 2011). Observed workforce trends toward flexibility include the growing use of nonstandard contracts (e.g. independent contractors, freelancers, on-call workers, temp agency workers, and day laborers) (Kalleberg 2011); declines in job tenure, especially among men and non-married women in the private sector (Farber 2008; Hollister & Smith 2014); and reduced employer roles in health and retirement benefits (Boushey & Tilly, 2009; Kalleberg 2011).

Nonstandard employment

Nonstandard employment includes independent contractors, freelancers, temporary agency workers (temps), on-call workers, and day laborers. These workers differ from standard employees on several important dimensions of work, including that many such workers cannot assume that their employment will continue; many either do not have an employer or they are only weakly tied to their *de jure* (legal) employer in terms of work direction and location; and many are not protected by the labor laws that protect standard employees (Kalleberg, Reskin, and Hudson 2000; Kalleberg 2000; Stone 2006, 2007). There is evidence that employers increasingly

try to classify employees as nonstandard in order to avoid the legal responsibility and costs associated with the standard employment relationship (Jost 2011; Stone 2006).

The negative effects of nonstandard employment on work-related outcomes, health, and identity documented in previous studies (Autor and Houseman 2010; Cheng and Chan 2008; DiPrete et al. 2002; Kalleberg 2000, 2011; Gowan 2000; Henson 1996; Quesnel-Vallée et al. 2010; Benach et al. 2014) suggests that nonstandard employment relationships may escalate feelings of financial and status insecurity that taken together could lead youth to delay institutionalized roles traditionally signaling adulthood status, such as marriage.

Short job tenure

Another form of precarious employment individuals increasingly experience is jobs that are short in duration. A key component of the standard employment norm that took hold during the post-war period was the mutual expectation between employees and employers of continued employment. In exchange for loyalty, retention, and labor peace employees could expect stable employment, increasing wages, and the possibility of promotion via an internal labor market ladder (Harvey 1989).

Today, most Americans believe employment has become less stable over the past few decades; initial research on the topic, however, produced mixed results (Hollister 2011). More recent research has found that, in fact, employment stability has declined for most groups, but there is a divergence in tenure patterns by gender and parenthood status, which served to obscure trends in early studies (Farber 2008; Hollister 2014). Farber (2008), for example, analyzes changes in job tenure with a given employer and finds that between 1973 and 2006, average private-sector job tenure for men decreased almost 25%, whereas female job tenure remained constant. Farber (2010) also finds that the prevalence of long-term employment has declined for

men employed in the private sector, with employment of ten years falling from about 50% to 37% and the 20-year rate falling from 35% to 22% between 1973 and 2008. Breaking down gender differences further, Hollister and Smith (2014) find that married mothers have increased job tenure among women because women are more likely to remain employed around the time that they have children; however, job tenure has declined since the 1980s for non-married non-mothers.

As with the uncertainty nonstandard employment relationships may produce regarding financial and status security, short job tenure may prolong feelings of financial and status uncertainty. After completing their education, young adults ideally search for jobs that can become careers or allow them to gain enough skills and bargaining power to advance in the future. While some job churning is likely desirable, having a job for less than a year may not be long enough to acquire the skills or resume enhancement that will lead to better employment in the future. Moreover, finding a new job is often a time-consuming process; those with less than one year of job tenure have to find at least two jobs in one year. Short job tenure, therefore, may not be compatible with simultaneously transitioning to marriage.

Lack of Employer-Offered Benefits

In addition to nonstandard employment and short job tenure, jobs that lack fringe benefits contrast with the norm of standard employment in the United States. Whereas individuals in many advanced industrial countries are guaranteed a social safety net through universal health insurance, parental leave and child allowances, and pension schemes, in the United States such insurance schemes are not universal—they are primarily provided through the employer. With the turn to “flexible accumulation” and precarious employment for workers, such a safety net for individuals is becoming even more tenuous.

Today, employers increasingly do not provide or only partially provide benefits such as health insurance, sick leave, and pensions and retirement savings contributions (Boushey & Tilly 2009). Kalleberg (2011) reports that the share of all private-sector workers who received health insurance coverage from their employers fell from 69% in 1979 to 55% in 2006. These decreases in health benefits do not take into consideration the decline in quality of such benefits. Importantly, the decrease in benefits is happening across the educational spectrum, with the proportion of college-educated workers, for example, that have employer-provided health benefits decreasing from 80% in 1979 to about 67% in 2006. The overall proportion of U.S. workers with any form of retirement plan dropped from 91% in 1985 to 66% in 2007 (Employee Benefit Research Institute 2013). Because the social safety net is provided via employment in the United States, lack of access to a safety net despite working is an important measure of precarious employment. Nevertheless, little research exists evaluating the effects of the lack of such benefits on non-work outcomes.

Even during young adulthood, lack of health and retirement benefits may lead to feelings of uncertainty that in turn influence how individuals plan for their adult lives. In considering whether they are ready for a transition to marriage, young adults may feel that lacking a safety net to take care of future health and financial needs leaves them unprepared to make such a transition.

Employment and impacts on marriage chances

The labor market changes reviewed above have made it more difficult for young adults to achieve economic stability (Furstenberg 2010; Danziger 2010). These employment changes appear to dovetail with delays in marriage. While the form and function of family life has long

adapted to fluctuations in economic conditions, demographic patterns, cultural beliefs, and social institutions (Furstenberg 2010), family life in the late twentieth and early twenty first century has undergone extensive shifts. There is substantial evidence that the timing of first marriage has been delayed. Whereas about 60% of young adults ages 20 to 24 (what I will refer to as “early” young adulthood) were married in the 1960, only 14% of young adults in this age range were married in 2010, a dramatic decline by any measure (Cohn et al. 2011). Further, in 2010, the average age of first marriage was 27 for women and 29 for men. Today a very small minority of young adults marries during early young adulthood and the average age of first marriage falls during “late” young adulthood for both men and women.

Trends in delayed family formation signal important changes to the organization and timing of family life in contemporary America, yet social scientists still only partially understand the reasons for these changes. Early theories about the delay of marriage assigned blame to either the growing economic role of women, arguing that women’s greater economic independence led to a decline in the gains to marriage (Becker 1981), or to value changes, like increasing individualism and decreasing ideological approval of traditional institutions (Bumpass et al. 1991; Lesthaeghe 1995; Van de Kaa 1987). Empirical evidence, however, does not generally support either theory. Although women’s employment and education has had an effect on fertility and divorce, women with good economic prospects are not less likely to get married—if anything, these women are *more* likely to marry (Oppenheimer 1997; Manning 2014). Moreover, recent evidence suggests that people are postponing marriage, not foregoing it altogether.¹⁵ Surveys find the vast majority of both single men and women still want to be married, even

¹⁵ A notable exception is that the proportion of people marrying among the lower educated in the United States has in fact declined (Goldstein and Kenney 2001).

individuals with low socioeconomic status (Oppenheimer 1994; Arnett 2014). In fact, ethnographic evidence suggests that individuals with low socioeconomic status, especially, view marriage as an aspirational status—one that can only be attained once a certain level of economic stability is achieved (Edin et al. 2004).

A more convincing theory regarding delays in marriage in the United States is that economic stratification and increasing inequality are fueling these trends (Furstenberg 2008, 2010; Silva 2013). These theories typically focus on men's worsening employment prospects and subsequent effects on marriage. Oppenheimer (1988), for example, argues that the rapid decline in young men's economic position in the 1980s and 1990s, especially for those with little schooling, made men who were unable to fulfill the breadwinner role unattractive partners and fathers. An important aspect of Oppenheimer's theory of marriage timing is that a major source of uncertainty in industrial society is the timing of the transition to a stable work career, as such timing has a major influence in structuring a couple's lifestyle and socioeconomic status (Oppenheimer 1988). In an empirical test of this hypothesis, Oppenheimer et al. (1997) examine the effect of "stopgap" jobs, which they operationalize as jobs that disproportionately employ men under age 25 and on a part-time basis, on men's marriage chances. They argue such jobs signal uncertainty to potential partners about the ability of possible male mates to provide for the future and about the kind of lifestyle he will lead. Indeed, they find that "stopgap" jobs have a substantial negative impact on marriage formation. Oppenheimer's uncertainty hypothesis is consistent with the rise of cohabitation, since uncertainty about a man's future economic and lifestyle prospects is less of a problem for cohabitation, often seen as a trial stage, than for marriage.

Researchers consistently find support for Oppenheimer's theory of marriage timing, showing that earnings are positively associated with first marriages for men (Oppenheimer 2003; Schwartz and Mare 2005) and have become more important for women (Oppenheimer 1994; Schwartz and Mare 2005; Sweeney 2002).

In the last decade, however, few researchers have further examined or updated Oppenheimer's uncertainty hypothesis in the United States. Meanwhile, the nature of work has continued to change. Oppenheimer's stopgap theory implies that eventually young adults will land in stable, permanent jobs—she may not have fully anticipated the extent to which long-term precarious employment would permeate the U.S. economy.

An important limitation of Oppenheimer's studies, and of more recent tests of her theory in Europe (e.g., Kalmijn 2011), is that they focus only on the effects of male's labor force circumstances. In an era when dual-earner households are all but required to meet the financial needs of families in the United States, a male-only focus is problematic. If, as Oppenheimer's theory suggests, it is still male's employability signaling about future earnings and lifestyle that is important in the marriage market, this would suggest that precarious employment will have a negative impact on marriage timing for men but possibly not for women. However, a recent study found that the positive association between earnings and marriage is as important for women as it is for men in their mid to late 20s (Kuo and Raley 2014). The same study also found that occupational autonomy was positively associated with marriage for women but not for men. As gendered ideas about the breadwinner model are changing and employment characteristics can have different effects on marriage for men and women, it is important to consider the effects of precarious employment on marriage timing separately by gender.

Hypotheses

In this paper, I hypothesize that precarious employment impedes first marriage among young adults, both male and female and across the educational spectrum. Specifically, employment that lacks legal protections, is short in duration, and/or does not provide health or retirement benefits may lead to delays in taking on adult roles, such as marriage.¹⁶ I also hypothesize that the negative impact of precarious employment on marriage will be more acute for men than for women when it comes to nonstandard employment and short tenure, as couples may still expect men to have more stable employment. On the other hand, I hypothesize that not having health insurance will have a more negative impact on marriage timing for women, who may be more likely to consider future medical needs related to fertility. I test these hypotheses with nationally representative data that includes unique measures of precarious employment.

DATA AND METHODS

Data

The data used for this analysis come from Rounds 1-15 of the National Longitudinal Survey of Youth 1997 (NLSY97). The NLSY97 cohort is representative of American youths born between 1980 and 1984. Interviews were first conducted in 1997 when the respondents were 12-16 years of age, and since then the cohort has been interviewed every year. The NLSY97 sample was designed to be representative of the corresponding cohort in the non-institutionalized civilian population of the United States.

¹⁶ While not all adults marry, developmental psychologists and increasingly sociologists often characterize marriage as signifier of a transition from adolescence to an “adult role” (school completion, job entry, and parenthood are also commonly associated with a transition to adulthood) (Crockett and Beale 2012; Arnett 2004).

NLSY97 data have several major strengths. The retention rate is high: about 83% of the original sample was still in the panel in 2011. Respondents who missed an interview during a certain year are re-contacted in following years; the NLSY collects retrospective information up to and including the respondent's most recent date of interview. The NLSY97 collect detailed job history records of every job a respondent has had. Especially important for this study is that the NLSY97 allows researchers to identify nonstandard employment relationships, such as temporary, contract, day labor, and freelance work; to the best of my knowledge, the NLSY97 is the only U.S. longitudinal data set with which this is possible. NLSY97 data also capture a wide range of pre-employment exogenous variables and numerous characteristics of workers' labor market experiences and jobs. The data provide substantial information on social origins, aspirations, human capital, and labor market experience for a large sample that is representative of American young adults in the contemporary period. Although samples from this data set are still young and many of them have not yet married, the NLSY97 serves as an excellent source of data for researchers interested in understanding the association between employment and the transition to adulthood due to its extensive labor market and family composition and formation questions.

I restrict cases to those who had no missing data on the variable used to determine year of first marriage (N=8,984 cases), had at least one job spell (a paid job for 3 months or longer) after completing education (N=7,240 cases). I also drop a small number of respondents classified as mixed race (the category is too small to include in analysis and I did not feel it was appropriate to collapse into another category) (N=7,171). Finally, I drop respondents who married before age 25 (N=5,455). Appendix Table 3.A1 provides descriptive statistics comparing the full sample of NLSY97 respondents to the restricted analytic sample.

Measures

This study examines the effects of precarious employment on first marriage during young adulthood. The primary independent variables are measures of precarious employment, which I conceptualize in four ways: 1) having a nonstandard employment contract relationship, 2) experiencing short job tenure, 3) lacking employer-provided health insurance, and 4) lacking employer-provided retirement benefits. I consider the impact of precarious employment status only once a respondent has completed their education. As credentialing requirements have increased for many jobs, particularly well-paying jobs, young adults are taking longer to complete their education (Furstenberg, 2010); in the meantime, they may hold precarious jobs, internalizing them as supplementary and temporary. Therefore, I limit my analysis to individuals who have completed their education (as far as I can glean with the longitudinal data available) and are most likely seeking non-temporary employment.¹⁷

There are a number of labor force participation states that young adults who have completed their education can be in: in addition to being precariously employed, they may be nonemployed (either not in the labor force or unemployed), have a non-precarious job, or be self-employed. I create a measure of ever being precariously employed during early young adulthood (ages 21-24), where those experiencing a year or more of precarious employment are directly compared only with other young adults that have had non-precarious employment during those years (that is, excluding individuals who have been nonemployed during those years). In this

¹⁷ Between ages 21 and 24, about 17% of men and 20% of women are enrolled in schooling (GED, 2- or 4-year college, or graduate program) full-time, and about 3.4% of men and 4.6% of women are enrolled in schooling part-time. The pattern of schooling enrollment and employment shows that women are slightly more likely to combine full-time schooling and employment. Among men, 15.4% combine employment and full-time schooling and 3.6% of men combine employment and part-time schooling. Among women, 20.8% of women combine full-time schooling and employment and 5.1% combine part-time schooling and employment.

way, I am able to focus on the effects of precarious employment versus non-precarious standard employment, rather than the additional possible effects of nonemployment.

I assess the impact of precarious employment during early young adulthood on having a first marriage during late young adulthood (ages 25-30). While a substantial percentage of respondents marry before the age of 24 (26.7%), examining marriage in late young adulthood allows me to most directly examine the impact of precarious employment on a later outcome. I pool ages 21-24 and 25-30 because these are developmentally significant markers of early and late adulthood commonly used in the literature on young adulthood,¹⁸ as well as for the purpose of having significantly large sample sizes.

Nonstandard employment status. I classify a worker as experiencing a nonstandard employment relationship when the respondent indicates a spell of on-call work, freelancing, working for a temporary help services firm, contracting, or day labor in a given year.¹⁹ The NLSY97 only began asking the uniquely detailed measure of nonstandard work in 2005, when respondents were already ages 21 to 25. Furthermore, the question regarding nonstandard employment contracts was only asked of individuals who changed jobs in 2005. I categorize respondents who did not change jobs in 2005 as having standard employment, which likely underestimates nonstandard employment. While many studies on employment only examine the most recent job reported, I exploit the NLSY97's extensive job measures, which allow

¹⁸ I also exclude individuals who are employed as interns. While internships share some features of precarious employment, they are primarily intended to be a form of job training. There is some evidence that employers are abusing internships and that this is becoming a new form of precarious, even free, employment. However, because it is hard to distinguish respondents that are receiving job training and those that are being exploited in the data, I do not include interns in the analysis. Further, internships represent a very small number of cases in the NLSY data.

¹⁹ It is common in data collected by the US. Census Bureau and in the literature on young adulthood to make an analytical distinction between age 24 and age 25 (Furstenberg, 2010; Danziger, 2010). While examining the effects of precarious employment during late young adulthood on first marriage at age 30 and beyond would also be desirable, the NLSY97 cohort is not yet old enough for such an analysis.

respondents to report all of the jobs held in a year.²⁰ In this way I am able to capture all instances of nonstandard employment. Finally, in this analysis, I do not classify self-employed workers as precarious because there is considerable evidence to suggest that some self-employed, particularly those with incorporated businesses, are a demographically privileged group (Hipple, 2010) and self-select into this form of employment. Among men ages 21 to 24 that have not yet experienced a first marriage, 14.3% of respondents have experienced at least one spell of nonstandard employment after completing their education since 2005. A smaller proportion of women, 11.1%, have experienced one or more spells of nonstandard employment after completing their education.

Short tenure. I classify respondents as experiencing a spell of short job tenure when a respondent has completed an employment spell that lasts for less than 52 weeks. Again, to make comparisons between short tenure and normal tenure explicit, I exclude workers who experienced nonemployment during these years for 13 weeks or more. Experiencing short tenure is much more common than experiencing nonstandard employment during young adulthood. Among employed early young adult men that have completed their education and have not yet had a first marriage, 27.0% have experienced at least one short tenure job spell. A slightly smaller proportion of women, 22.3%, experienced at least one short tenure job spell.

Lacking health insurance. I classify respondents as experiencing a spell of no insurance when a respondent is employed and reports that he or she does not have access to employer-provided health insurance in a given year. After completing their education, 54.3% of employed

²⁰ The NLSY97 collects information on all respondents' jobs in a given year, so it is possible to have multiple jobs in an interview year and respondents are not asked to identify a "primary" employer. Because I do not want to count nonstandard employment spells that are not the respondent's primary source of employment, I do not count nonstandard employment spells that occur the same time that a respondent has a "standard" job where they work 35+ hours per week for 50 or more weeks.

unmarried early young adult men and 55.3% of women have experienced a spell of being employed but lacking access to employer-provided health insurance.

Lacking retirement benefits. I classify individuals as experiencing a spell of no retirement benefits when a respondent reports a year wherein no job provided retirement benefits. This is the most common form of precarious employment, with fully 74.1% of employed unmarried men age 21 to 24 and 73.8% of women reporting two consecutive years of being employed by an employer that does not provide retirement benefits.

Respondents may experience several forms of precarious employment at some point during early young adulthood. Among respondents that experience nonstandard contract employment during early young adulthood, for example, 42.3% also experience short job tenure, 70.4% also experience having a job that doesn't provide health insurance, and 85.7% experience a job that doesn't provide retirement benefits between the ages of 21 and 24.

Propensity Score Matching

In studying the effects of precarious versus non-precarious employment, my interest is in estimating the causal effect of employment type on marriage. Causal analysis of non-experimental data is problematic, however, because lack of randomization increases the likelihood of confounding effects. There are likely numerous factors, both measured and not, that are influencing the outcome. Rubin (1974) proposed a statistical approach, which he termed the counterfactual model of causality, to conceptually address these confounding variables.

At the heart of the counterfactual model of causality is the following proposal: for each worker, we can imagine one hypothetical outcome if the worker gets a non-precarious job and one hypothetical outcome if the worker gets a precarious job. The difference between these two

potential outcomes is the individual causal effect of precarious employment versus non-precarious employment (Rubin, 1974, 1997). In reality, of course, only one of the hypothetical outcomes is ever observed. Thus, the individual causal effect can never be estimated; this is the fundamental problem of causal inference (Holland 1988).

Rubin (1997), however, posited that treatment effects can be estimated under the condition of *strong ignorability*. Strong ignorability is defined as stochastic independence of the potential outcomes and the assignment to treatment conditions conditional on a set of covariates (Rubin 1997; Rosenbaum & Rubin 1983). In this case, assignment to precarious employment or standard employment condition would have to be independent of the potential outcome, given background characteristics and pre-treatment variables of the respondents. Strong ignorability would be fulfilled if assignment to employment type could be considered random, given a set of background covariates. Strong ignorability requires that all covariates that influence both the potential outcomes and the treatment assignment probabilities are known and included in adjustment models.

In this study I analyze the effects of precarious employment versus non-precarious employment by modeling the assignment of young adults to the treatment conditions. The *average treatment effect of the treated* (ATT) is the average of the individual causal effects of the workers in the treatment group, or, more generally, the average in a population of individuals with the same characteristics as the treatment group. In this case, the ATT would be effect of being precariously employed for the population of respondents who actually experienced precarious employment. To estimate the ATT, the condition of *strong ignorability* has to hold. In this paper, I focus on logistic regression for estimating propensity scores, and employ kernel

matching estimates where individuals who were and were not precariously employed are matching according to their propensity for precarious employment.

[Table 3.1 here]

Covariates used to estimate the propensity for the four forms of precarious employment are described in Table 3.1. Earlier research shows that family background affects both labor market performance and transition to adulthood. Therefore, I include control variables for race, the educational level of the respondents' most highly educated parent, and parental income. I include two human capital measures as controls: educational attainment and cognitive ability. The categorical measure for educational attainment indicates whether a respondent is not a high school graduate, a high school graduate, or a college graduate. Cognitive ability is based on ASVBA multiple-aptitude battery scores. I take into consideration respondent's expectations about marriage as this may affect self-selection into precarious or non-precarious forms of employment (to the extent that such self-selection is possible). This survey question asks respondents whether he or she expects to be married in 5 years (asked in 2001). Job characteristic variables listed in the bottom panel of Table 1 measure respondent labor market characteristics after completing education but pre-treatment (at age 20): earnings, hours worked, occupation (professional/managerial, sales, blue collar), and region of residence.

Estimating Precarious Employment Effects

I report a series of estimates of precarious employment, beginning with simple bivariate associations, or unmatched mean differences, to provide a baseline estimate of differences in marriage formation between young adults who do and do not experience precarious employment. I then report kernel matching estimates where individuals who do and do not experience

precarious employment are matched according to their propensity for precarious employment. I estimate the propensity score with a logit regression. Differences between the unmatched and matched estimates suggest selection into precarious employment by observed covariates. I then examine the average treatment effect on the treated (TT) and the average treatment effect on the untreated (TUT).

RESULTS

An Overview of the Pace of Marriage Formation

[Figure 3.1 here]

To provide context for the analysis, I first present changes in the proportions of never married young adults based on event history life tables and survival graphs on the full NLSY97 sample (before my analytic sample restrictions, See Table 3.A2 for details). Figure 3.1 presents the results of life table estimates of men's and women's cumulative survival to first marriage. As researchers have long reported, there are notable gender differences in age at first marriage. At age 25, about 80% of men are never-married while 70% of women are never-married by age 25 (Figure 1). In my analytic sample, respondents are at "risk" of first marriage at age 25. That is, I exclude from my analysis individuals who marry before age 25 and focus only on those who marry within a few years of the "normative" or average age of first marriage (age 27 for women and 29 for men). Among respondents who have not married prior to age 25, 52.5% of men and 47.0% of women remain never-married by age 30. This is a small yet still statistically significant gender difference ($p=0.0264$).

[Figure 3.2 and 3.3 here]

Now I turn to life-table estimates of men's and women's survival to first marriage by precarious employment status. Figure 2 shows that 76.6% of men who ever experience nonstandard contract employment during young adulthood after completing their education remain unmarried by age 30, compared to 61.4% of men that do not experience nonstandard employment contract during early young adulthood. A log-rank test indicates this is a statistically significant difference ($p=0.004$). Among women, 72.0% of respondents who experience nonstandard employment during early young adulthood remain unmarried by age 30, compared to only 54.0% who never experience a nonstandard job during this period, however, a log-rank test indicates this is only marginally significant difference ($p=0.068$).

Among men who experience short tenure during early young adulthood after completing their education, 53.8% remain unmarried by age 30 compared to 52.9% who only experience jobs that last longer than one year ($p=0.002$). Among women with short tenure spells during early young adulthood, 50.0% remain unmarried by age 30 compared to 43.3% of women who do experience short tenure, however, this difference is not significant ($p=0.119$).

Among men, the marriage gap between those with employer-provided health insurance and those without is substantial: among those without health insurance benefits 58.2% are never-married by age 30, while only 44.0% of those with employer provided health insurance benefits are never-married ($p=0.000$). Among women, the gap is even more pronounced, with 56.4% of women without this fringe benefit remaining never-married by age 30 but only 35.9% of women with health insurance benefits remaining never-married ($p=0.000$).

Similarly, among men with employer-provided retirement benefits 53.4% remain unmarried by age 30, while 47.3% of those without retirement benefits remain unmarried

($p=0.003$). The difference is far greater among women: 53.2% of women without retirement benefits remain unmarried, compared with 25.8% of those with retirement benefits ($p=0.000$).

In order to examine whether these observed differences in first marriage by precarious employment are in fact due to a main effect of precarious employment, I now turn to propensity score matching models.

Descriptive Statistics

[Table 3.2 and 3.3 about here]

The risk of precarious employment may vary along a number of dimensions that in turn condition the extent to which this type of job impacts marriage timing. Tables 3.2 and Table 3.3 describe characteristics of NLSY97 male and female respondents, respectively, by precarious employment status.

Overall, respondents who have experienced a spell of nonstandard employment during early young adulthood after completing their education are similar to respondents who never experienced a spell of nonstandard employment. Men who have ever experienced nonstandard employment are slightly more likely to be Black, have a parent that didn't graduate from high school and themselves not graduate high school. Among women, the observed differences in terms of social background, human capital and previous work characteristics are even more similar. Notably, among both men and women, about one-fifth of men and one-third of women who have experienced nonstandard employment completed college—about the same proportion of young adults that *do no* experience nonstandard employment. Also, women and men who have had a spell of nonstandard employment after completing their education indicate the same levels of future marriage expectations as individuals that have never had a spell of nonstandard

employment. The relatively similar expectations about marriage among those who ultimately experience nonstandard employment and those who do not indicates it is unlikely individuals “self-select” into precarious employment because they are less likely to *want* to marry in the future. Men who experience nonstandard employment are more likely to report living in the South at age 20, while nonstandard employed women are more likely to report living in the Northeast. At age 20, a year prior to the treatment, respondents that have ever been nonstandard at ages 21 to 24 report lower earnings and women are more likely to have been non-employed at age 20.

In contrast to nonstandard employment, respondents that have ever had short tenure job, lacked health benefits, and/or lacked retirement benefits are slightly more disadvantaged than those that never experienced these forms of precarious employment. Among men, respondents that experience short tenure during early young adulthood are more likely to be black, have a parent that did not graduate from high school, have lower degree attainment, and have lower cognitive ability scores. Among women, those experiencing short tenure are more likely to be black, have lower degree attainment, and have been nonemployed at age 20. Further, both men and women who experience short tenure and those who do not report similar expectations for marriage. Among both men and women, workers that have ever had a spell of no health insurance are more likely to be black, have a parent that did not graduate from high school, have lower cognitive ability scores, are less likely to be college graduates. Men lacking health insurance are more likely to have been nonemployed at age 20 and have lower earnings at age 20. Women are slightly less likely to expect to be married in 5 years. Among men and women, workers that have ever had a spell of no retirement benefits are more likely to be black or Hispanic, have a parent that did not graduate from high school, have lower cognitive ability

scores, and are less likely to be college graduates. In this case as well, women who experience lacking retirement benefits report lower expectation of getting married.

[Table 3.4 about here]

Tables 3.4 present logit models of the effects of the pre-precarious employment covariates on the probability of experiencing precarious employment. Logistic regression results suggest that men who have higher earnings and work full-time at age 20 are less likely to experience nonstandard contract employment. The lack of many significant predictors for nonstandard employment suggests that nonstandard employment contracts are relatively random experiences, or that it is predicted by omitted and/or unobserved characteristics. This finding lends support to a growing consensus among researchers that nonstandard contract employment is a form of precarious employment that has spread even to workers who previously enjoyed a privileged position in the labor force, such as non-minority men and the higher educated.

On the other hand, logit model estimates predicting short tenure, lacking health insurance, and lacking retirement benefits suggest that men and women who experience such precarious employment are more disadvantaged than young adults that never experience such employment. Men and women who are college graduates and have higher earnings at age 20 are less likely to experience short tenure. Among men, high school and college graduates, those living in the South and West, and those with higher earnings at age 20 are less likely to experience employment without health insurance. Women with higher mental ability, higher educational attainment and higher earnings at age 20 are less likely to experience employment without health insurance, while those working part-time at age 20 are more likely to experience such employment. Turning to retirement benefits, logit models show that among men, graduating from high school and college, having higher cognitive ability scores, not living in the Northeast,

and having higher earnings at age 20 is protective against having employment without retirement savings. Controlling for other factors, Hispanic women appear less likely to experience employment without employer-provided retirement benefits compared to white women. Women with higher mental ability, those that graduated from high school and college, those that expected to be married in five years, and those that had higher earnings at age 20 are less likely to experience employment without employer provided retirement benefits.

Propensity Score Matching Results

[Table 3.5 and Table 3.6 about here]

I report unmatched differences and three sets of propensity score matching estimates of experiencing precarious employment (nonstandard employment, short tenure, lacking health benefits, and lacking retirement benefits) during early young adulthood (age 21-24) on first marriage in late young adulthood (age 25-29) for men in Table 3.5 and women in Table 6. The unmatched differences establish a benchmark to compare to matched results. The propensity scores are derived using kernel matching, including treatment effects of the treated (TT) (i.e. effects pertaining to respondents who experienced nonstandard employment) and treatment effects for the untreated (TUT) (i.e. effects pertaining to respondents who did not actually experience nonstandard employment, had they experienced nonstandard employment).

Men who experience nonstandard employment have 6.9 percentage points lower rate of first marriage in later young adulthood, according to unmatched differences. Turning to the TT, although point estimates of nonstandard employment effects are slightly lower than unmatched differences, nonstandard employment remains associated with lower rates of first marriage for men (a 5.5 percentage point difference). The estimates of the TUT are similar and remain

significant for compared to the TT; the similarity of the TT and TUT suggests a relatively homogeneous treatment effect by selection into treatment. Men who experience short tenure during early young adulthood have 6.1 percentage points lower rate of first marriage in later young adulthood. Again, although the TT point estimates of short tenure effects are lower than unmatched differences, short tenure remains associated with lower rates of first marriage (a 3.9 percentage point difference), and the estimates of the TUT are similar to those for the TT (5.5 percentage points). Men who experience a job that lacks health benefits have a 9.7 percentage points lower rate of first marriage in later young adulthood. For TT, point estimates of employment without health insurance effects are reduced but such employment remains associated with 6.5 percentage point lower rates of first marriage. The estimates of the TUT are similar to the TT and remain significant for men. The similarity of the TT and TUT, again suggest a relatively homogeneous treatment effect. Finally, unmatched differences show that men who lack retirement benefits have an 8.5 percentage points lower rate of first marriage in later young adulthood, but TT point estimates are lower and only marginally statistically significant.

Results for women follow a somewhat different pattern than for men. Women who experience nonstandard employment have a 7.2 percentage points lower rate of first marriage in later young adulthood, but this difference is not statistically significant for women. Only the TUT is marginally significant. Women who experience short tenure employment have 5.0 percentage points lower rate of first marriage in later young adulthood, but again for women this difference is not statistically significant. The TT and TUT effects are greatly reduced and not statistically significant. On the other hand, women who experience employment without health insurance have a 12.8 percentage points lower rate of first marriage in later young adulthood and

although TT point estimates are lower than unmatched differences, such employment remains associated with lower rates of first marriage women (a 7.2 percentage point difference). Retirement benefits appear to have the greatest effect on women. Women who experience employment without retirement benefits have a 16.1 percentage points lower rate of first marriage in later young adulthood. The TT estimates are much lower than unmatched differences but are still substantively and statistically significant (a 9.7 percentage point difference). The similarity of the TT and TUT results suggests a relatively homogeneous treatment effect for women of lacking retirement benefits.

DISCUSSION

In this study, I examine how different forms of precarious employment leads to divergent rates of first marriage in young adulthood. I use data from the National Longitudinal Survey of Youth 1997 (NLSY97), which has followed a recent cohort of Americans for 15 years. The NLSY97 is well suited for studying the family formation effects of precarious employment, as it contains extensive panel data on the social background, education, labor market, and family formation experiences of young adults. In contrast to most panel data, the NLSY allows researchers to distinguish between traditional forms of employment and employment that is nonstandard, such as independent contracting, freelancing, and on-call work.

Estimating the propensity for precarious employment based on a range of respondent characteristics, I find that common socioeconomic, human capital, and employment characteristic variables are not very predictive of experiencing a nonstandard employment contract. These factors are more predictive in estimating short tenure and jobs without fringe benefits. One interpretation of this is that nonstandard employment contracts are a way that

employers can shirk traditional and normative expectations about stable, formal contracts with employees in a way that does not motivate substantial pushback from workers with more bargaining power, such as those with more educational attainment and higher cognitive ability. Another interpretation is that workers from across the socioeconomic, human capital, and work experience spectrums are drawn to nonstandard contracts.

Using propensity score kernel matching, I find significant effects of nonstandard contract employment, short tenure, and employment without health insurance on first marriage for men. For women, I find significant negative effects only for employer-offered benefits. The gender differences in what forms of precarious employment negatively affect first marriage need to be explored further. It is possible that nonstandard contracts and short tenure are stronger signals to individuals and their potential mates about status uncertainty than lacking health insurance benefits or retirement savings—and that, in turn, this outward status is less important for women of this cohort. Indeed the idea that women are still expected to have unstable jobs and this is not an issue for marriage, but that a more stable trajectory is expected of men fits the “marriageable male” hypothesis (Oppenheimer 1998). Less clear, however, is why jobs with health benefits and retirement benefits are even more important for women’s transition to marriage than men’s.

A limitation of these results is that they are subject to the possibility that some important omitted variables differentiate young adults that experience precarious employment and those that do not (such selection issues unfortunately exist for many forms of analysis, including regression). This study is also limited to a relatively narrow age range when respondents can experience precarious employment (21 to 24) and first marriage (25 to 29). Further, I do not capture the substantial proportion of marriages that will occur in the future at older ages (an event history analysis in Appendix A offers suggestive evidence and largely supports findings

from propensity score matching models). I also do not include how transitioning from precarious employment to non-precarious employment may impact marriage chances.²¹ As data become available, future work should focus on what age periods and durations matter most.

This study also does not consider how precarious employment impacts cohabitation and, specifically, cohabitation versus marriage; this would be a fruitful future avenue of both qualitative and quantitative research. Finally, in this study I do little to explicitly address what potential mechanisms link precarious employment to differences in having a first marriage. The concepts I rely most on to hypothesize about potential mechanisms are uncertainty and risk, which are not well operationalized in the literature. Future work should explore the relationship between employment, perceived uncertainty and risk, and the transition to adulthood. My focus in this paper was to first determine whether an effect exists between precarious employment and first marriage.

Jobs that are flexible and place fewer burdens on employers may well be the future for an increasing segment of the American workforce. It is important that researchers document the real and potential consequences of such changes for individuals, families, and society so that public policy makers can take a more holistic view of employment. Debates about employment are often limited to the unemployment rate and earnings, where public policy intervention is limited to market interventions such as Keynesian stimulus or raising the minimum wage, ideas that are

²¹ Of the young adults that have precarious work during ages 21 to 24 and remain employed during ages 25 to 29, about 80% eventually transition to a standard job for at least one year; of those that experience short tenure, 76% eventually have a job with normal tenure; of those that work jobs without employer-provided health insurance, 65% eventually get jobs with health insurance for at least one year; and of those that work jobs that do not include employer-provided retirement benefits, 54% eventually transition to jobs with retirement benefits. While substantial portions of young adults eventually transition to non-precarious employment, propensity score analyses presented in this paper suggest that experiencing precarious employment during early young adulthood nevertheless has negative impact on having a first marriage by the normative time for both men and women. This may be evidence of a “scarring” effect of precarious employment.

politically polarizing in the United States. A turn to examining the impact of precarious employment may suggest alternative interventions that focus on social welfare and safety nets more broadly.

Appendix

Event History Analysis

[Table 3.A2 here]

I use discrete-time logistic regression to estimate how the probability of having a first marriage is affected by precarious employment. Event history analysis is ideal for examining patterns of event occurrence. In this study, the discrete-time method is appropriate given that time is recorded in discrete intervals (yearly ages, employment status, school enrollment, etc.) rather than in continuous format (Singer and Willet 2003). The existence of many ‘ties’ in the data, when two or more subjects in the sample experience the event at the same time, would have introduced bias in parameter estimates for alternative approaches developed for continuous time data, such as Cox regression (Yamaguchi 1991).

I organize the data into a person-period data set, wherein each of the n people in the original sample contributes multiple independent observations. I estimate discrete-time logistic regression models separately for men and women. I restrict the models to employed young adults. In addition to the period (year) indicators, all models include controls for age, race, parental education, parental income, intact family in 1997, educational attainment, cognitive ability, marriage expectations, region, and 1-year lagged employment characteristics (earnings, full-time versus part-time employment, and occupational sector).

I present the results for men and women in Table 3.A. Results indicate that during late young adulthood (age 25 to 29), a male youth who experienced nonstandard employment the previous year is about 80% as likely to get married as a youth with standard employment, controlling for other factors, though this difference is not statistically significant. Nonstandard employment does not appear to have an effect on first marriage for women during late young

adulthood. Men with short tenure jobs the year before are 36.4% less likely to get married compared to those that experience regular tenure, controlling for other factors. For women, the effect of precarious employment is not statistically significant in the model. On the other hand, results indicate that both men and women that experience lack of employer-provided health insurance and lack of employer provided retirement benefits are less likely to marry relative to young adults that received such benefits.

These results are substantively very similar to the results of the propensity score analysis in terms of the differences in effects of precarious employment by gender. Though the negative association between nonstandard employment and first marriage during the mid to late 20s is not statistically significant for men in the event history analysis (the only difference with the propensity score analysis, where it is significant), it is likely that there is not enough data for sufficient power in the event history analysis as each year is considered separately and lagging removes one year from available observations.

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Figures

Figure 3.1. Proportion of Men and Women That Remain Unmarried by Age, NLSY97

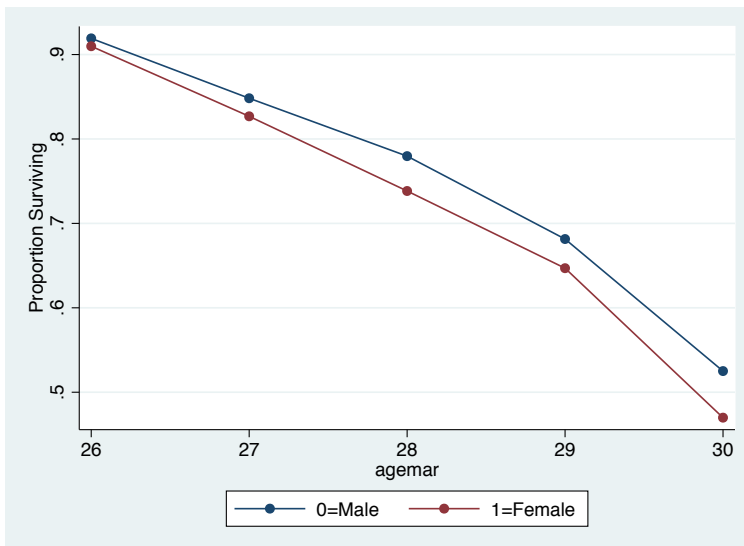
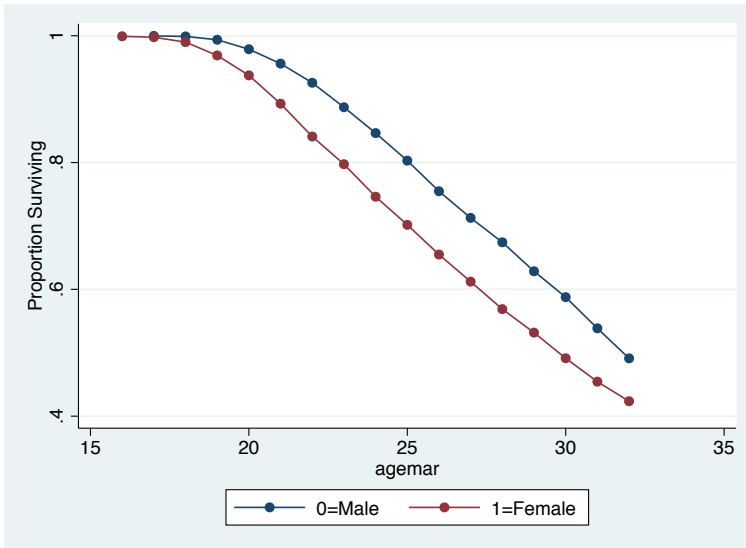


Figure 3.2. Precarious Employment and Proportion Without a First Marriage by Age, Men, NLSY97

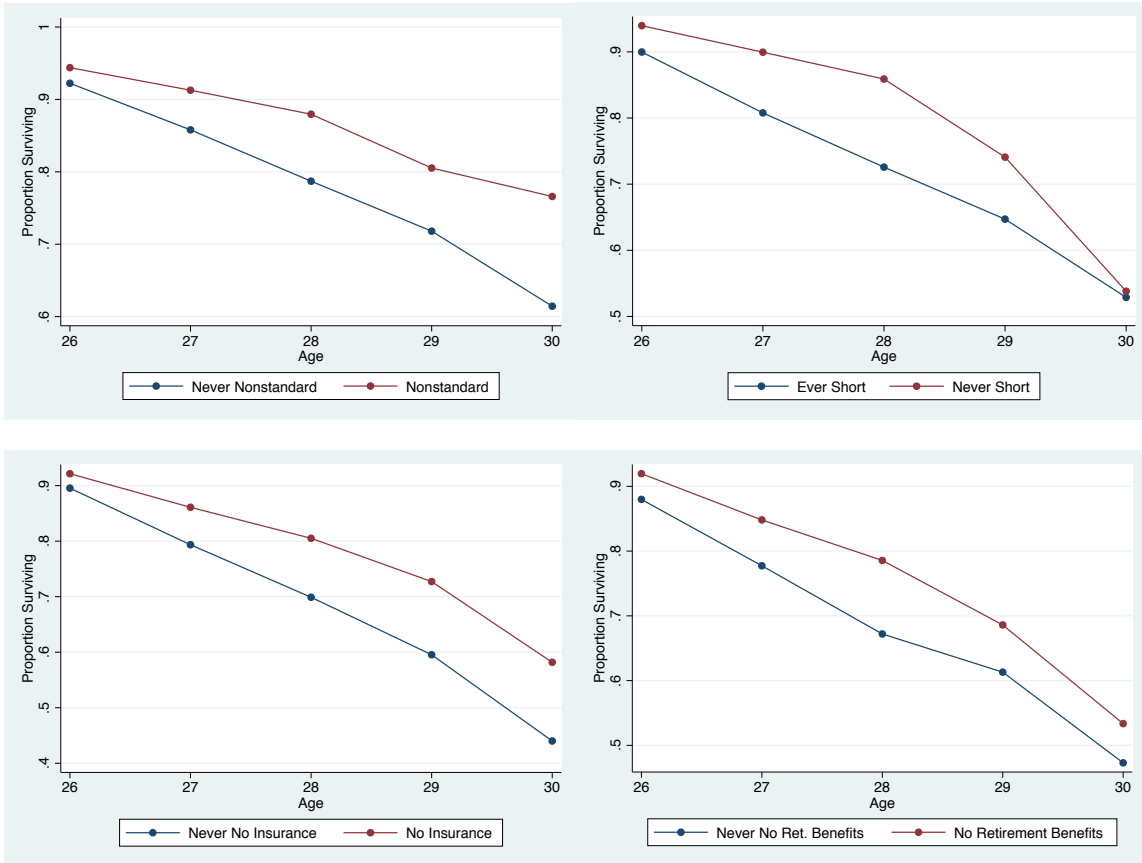
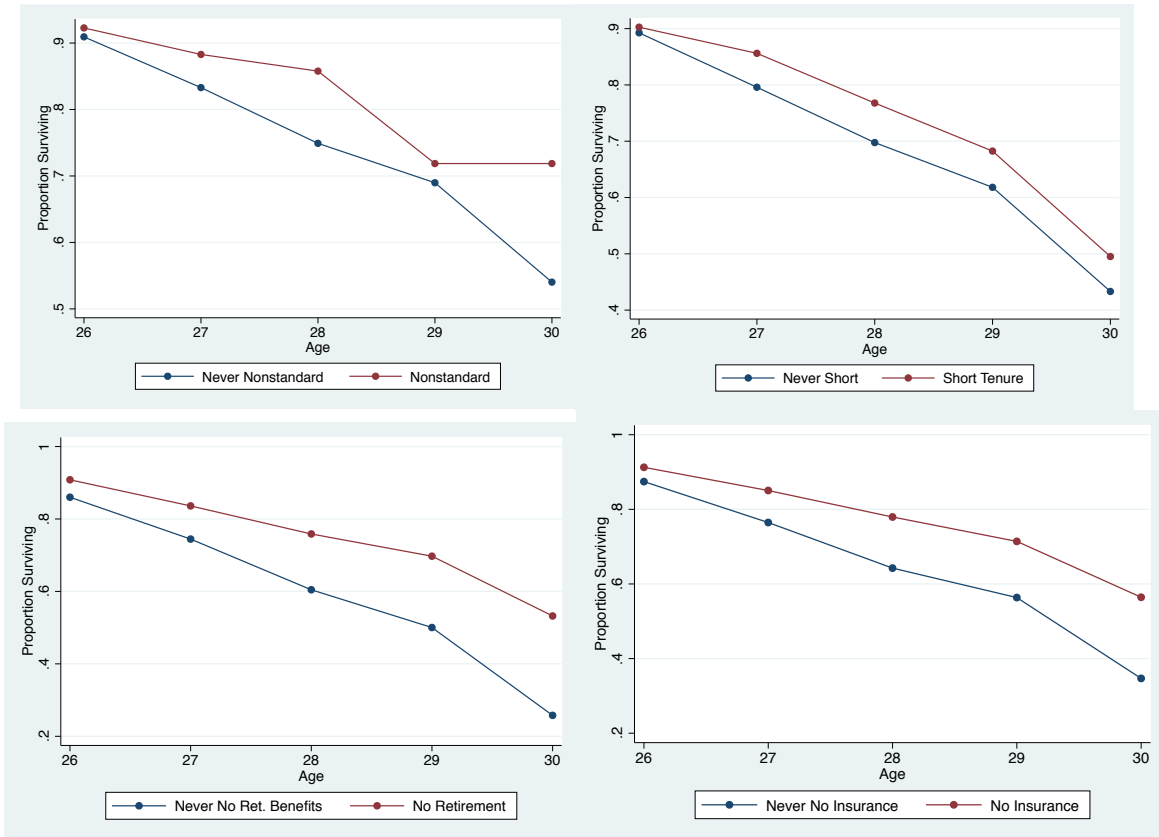


Figure 3.3. Precarious Employment and Proportion Without a First Marriage by Age, Women, NLSY97



Tables

Table 3.1. Measurement of additional independent variables, NLSY97

Variables	Description
Sex	Dummy variable; 1=female
Social background	
Parent's educ. attainment	Degree completed by highest educated parent
Parent's income	Started log
Race	Respondent's race (white, black, or Hispanic)
Human capital	
Mental ability	ASVAB percentile
Educational Attainment	Respondent's highest degree completed (No high school, high school, or college)
Life Expectations	
Married in 5 years	Dummy variable; 1 = more than 50% chance married within next 5 years (asked in 2001)
Region of residence at age 20	Northeast, Northcentral, South, or West
Pre-treatment job characteristics	
Earnings at age 20	Earnings from job, started log (0 + \$0.50 if nonemployed)
Hours worked at age 20	Full-time, part-time, or nonemployed
Occupation of worker at age 20	Professional/managerial, service worker, blue collar, or non-employed

Table 3.2. Descriptive Statistics: Never-married Employed Men by Precarious Employment Status, NLSY97

	Nonstandard		Short Tenure		Lacking Insurance		Lacking Retirement Benefits	
	1+ years (n =222)	Never (n=1,321)	1+ years (n=462)	Never (n=1,254)	1+ years (n =917)	Never (n= 734)	1+ years (n = 1,256)	Never (n=395)
Race								
White	0.659	0.700	0.688	0.744	0.695	0.765	0.708	0.780
Black	0.220	0.150	0.183	0.135	0.169	0.124	0.157	0.125
Hispanic	0.121	0.139	0.129	0.121	0.136	0.112	0.135	0.095
Social background								
Parent no HS	0.168	0.117	0.167	0.093	0.139	0.093	0.134	0.071
Parent HS	0.595	0.633	0.629	0.632	0.622	0.633	0.626	0.630
Parent college	0.237	0.250	0.204	0.275	0.239	0.274	0.240	0.298
Parent's income	10.280	10.390	10.331	10.494	10.360	10.555	10.401	10.587
Human capital								
Mental ability	42.720	45.780	41.210	49.140	43.137	50.760	43.343	56.007
No high school degree	0.147	0.094	0.135	0.068	0.128	0.044	0.111	0.027
High school graduate	0.650	0.700	0.742	0.692	0.707	0.700	0.722	0.653
College graduate	0.204	0.205	0.123	0.240	0.165	0.256	0.167	0.320
Life Expectations								
Married in 5 years	0.185	0.194	0.201	0.210	0.195	0.232	0.205	0.233
Residence at age 20								
Northeast	0.170	0.209	0.190	0.210	0.223	0.184	0.221	0.161
Northcentral	0.289	0.267	0.284	0.264	0.260	0.296	0.260	0.322
South	0.368	0.315	0.345	0.320	0.315	0.321	0.317	0.319
West	0.174	0.209	0.182	0.206	0.202	0.200	0.202	0.198
Job characteristics at age 20								
Log Earnings	0.708	0.745	7.905	7.422	7.429	8.214	7.654	8.172
Full-time	0.584	0.641	0.691	0.654	0.709	0.632	0.664	0.675
Occupation at age 20								
Prof./Managerial	0.083	0.061	0.499	0.090	0.094	0.061	0.070	0.094
Service	0.437	0.413	0.407	0.433	0.443	0.406	0.406	0.472
Blue collar	0.313	0.359	0.400	0.348	0.367	0.376	0.385	0.333
Nonemployed	0.167	0.161	0.143	0.129	0.157	0.096	0.139	0.101

Table 3.3 Descriptive Statistics: Never-married Employed Women by Precarious Employment Status, NLSY97

	Nonstandard		Short Tenure		Lacking Insurance		Lacking Retirement Benefits	
	1+ years	Never	1+ years	Never	1+ years	Never	1+ years	Never
	(n=118)	(n= 831)	(n=246)	(n= 849)	(n= 606)	(n= 479)	(n= 807)	(n= 278)
Race								
White	0.702	0.706	0.686	0.761	0.715	0.769	0.722	0.786
Black	0.211	0.177	0.206	0.133	0.185	0.116	0.167	0.116
Hispanic	0.087	0.117	0.108	0.107	0.101	0.115	0.110	0.098
Social background								
Parent no HS	0.117	0.116	0.110	0.092	0.116	0.070	0.111	0.052
Parent HS	0.631	0.596	0.600	0.590	0.599	0.600	0.611	0.567
Parent college	0.252	0.289	0.290	0.319	0.285	0.331	0.278	0.382
Parent's income	10.384	10.457	10.454	10.585	10.429	10.673	10.452	10.782
Human capital								
Mental ability	52.879	48.298	48.705	53.410	47.663	56.861	47.841	62.867
No high school degree	0.064	0.077	0.094	0.029	0.069	0.023	0.064	0.005
High school graduate	0.576	0.581	0.652	0.561	0.641	0.517	0.651	0.399
College graduate	0.360	0.342	0.254	0.409	0.290	0.460	0.285	0.596
Life Expectations								
Married in 5 years	0.235	0.257	0.254	0.284	0.252	0.308	0.259	0.326
Residence at age 20								
Northeast	0.272	0.220	0.199	0.241	0.238	0.220	0.241	0.198
Northcentral	0.190	0.251	0.245	0.277	0.237	0.312	0.257	0.309
South	0.282	0.319	0.361	0.267	0.313	0.268	0.290	0.301
West	0.256	0.210	0.195	0.214	0.212	0.200	0.212	0.191
Job characteristics at age 20								
Log Earnings	6.518	7.174	6.629	7.863	7.895	7.371	7.558	7.737
Full-time	0.386	0.503	0.514	0.515	0.478	0.569	0.509	0.545
Occupation at age 20								
Prof./Managerial	0.144	0.079	0.065	0.092	0.074	0.974	0.077	0.107
Service	0.564	0.720	0.676	0.763	0.745	0.749	0.760	0.710
Blue collar	0.063	0.051	0.046	0.070	0.058	0.058	0.046	0.077
Nonemployed	0.229	0.151	0.213	0.089	0.095	0.095	0.117	0.107

Table 3.4: Logit Regression estimates predicting precarious employment during early young adulthood (age 21-24), NSLY97

	Nonstandard		Short Tenure		Lacking Insurance		Lacking Retirement Benefits	
	Men	Women	Men	Women	Men	Women	Men	Women
White	--	--	--	--	--	--	--	--
Black	0.327 (0.217)	0.403 (0.280)	0.105 (0.165)	0.003 (0.217)	0.108 (0.157)	-0.078 (0.191)	-0.190 (0.184)	-0.300 (0.227)
Hispanic	0.029 (0.253)	-0.127 (0.334)	-0.046 (0.181)	-0.336 (0.258)	0.036 (0.170)	-0.600 (0.217)	0.149 (0.208)	-0.824** (0.254)
Parent no HS	--	--	--	--	--	--	--	--
Parent HS	-0.089 (0.224)	0.147 (0.318)	-0.097 (0.171)	0.123 (0.248)	-0.050 (0.170)	-0.241 (0.225)	-0.147 (0.215)	-0.583† (0.307)
Parent college	-0.236 (0.303)	-0.030 (0.405)	-0.138 (0.222)	0.369 (0.305)	0.103 (0.216)	-0.119 (0.270)	0.134 (0.265)	-0.570 (0.349)
Parent income	-0.016 (0.072)	-0.070 (0.097)	0.022 (0.059)	-0.129 (0.080)	-0.055 (0.059)	-0.081 (0.074)	-0.019 (0.072)	-0.070 (0.090)
Mental ability	0.000 (0.004)	0.007 (0.006)	-0.002 (0.003)	0.000 (0.004)	-0.003 (0.003)	-0.008* (0.003)	-0.009* (0.003)	-0.013* (0.004)
No HS	--	--	--	--	--	--	---	---
HS grad	-0.332 (0.237)	0.027 (0.384)	-0.204 (0.192)	-1.020** (0.310)	-0.749*** (0.210)	-0.845* (0.359)	-0.593* (0.285)	-1.472* (0.738)
College grad	-0.176 (0.352)	0.103 (0.470)	-0.941** (0.281)	-1.770*** (0.381)	-1.529*** (0.276)	-1.638*** (0.399)	-1.535*** (0.342)	-2.690*** (0.760)
Expect Marry	-0.001 (0.195)	-0.136 (0.237)	0.019 (0.144)	-0.254 (0.178)	-0.193† (0.132)	-0.216 (0.148)	-0.181 (0.153)	-0.340* (0.170)
Northeast	--	--	--	--	--	--	---	---
Northcentral	0.379 (0.248)	-0.162 (0.318)	0.247 (0.183)	0.408† (0.245)	-0.316 (0.168)	-0.137 (0.201)	-0.597* (0.204)	0.006 (0.236)
South	0.227 (0.231)	-0.178 (0.284)	0.026 (0.174)	0.490* (0.223)	-0.366* (0.162)	0.111 (0.188)	-0.597* (0.200)	-0.249 (0.220)
West	0.056 (0.272)	0.163 (0.312)	-0.012 (0.195)	0.054 (0.261)	-0.411 (0.180)	0.084 (0.210)	-0.777*** (0.218)	-0.081 (0.248)
Job characteristics (age 20)								
Earnings	-0.137* (0.056)	-0.012 (0.085)	-0.318*** (0.052)	-0.192** (0.070)	-0.201*** (0.052)	-0.221** (0.065)	-0.190** (0.064)	-0.282** (0.082)
Non-employed	---	---	---	---	---	---	--	--
Part-time	1.490* (0.576)	-0.134 (0.813)	2.045*** (0.521)	0.256 (0.690)	0.257* (0.514)	0.510** (0.155)	1.235* (0.621)	0.435* (0.182)
Full-time	1.183* (0.592)	-0.218 (0.844)	2.234*** (0.532)	0.653 (0.710)	0.767 (0.526)	0.024 (0.639)	0.961 (0.637)	0.633 (0.791)
Prof./Managerial	---	---	---	---	---	---	---	--
Service	-0.175 (0.327)	0.211 (0.524)	0.247 (0.266)	-0.133 (0.468)	0.201 (0.226)	-1.112 (0.610)	0.114 (0.244)	-1.835 (0.768)
Blue collar	-0.322 (0.345)	-0.471 (0.440)	0.274 (0.274)	0.117 (0.362)	0.240 (0.235)	-0.932 (0.659)	0.225 (0.258)	-1.170 (0.812)
Constant	-1.478† (0.777)	-1.248 (1.034)	-0.445 (0.642)	1.869* (0.887)	2.679*** (0.646)	3.421*** (0.851)	3.634*** (0.793)	5.742*** (1.199)
LR χ^2	25.65	19.27	76.18	87.60	108.97	102.66	104.39	140.09
$P > \chi^2$	0.081	0.313	0.000	0.000	0.000	0.000	0.000	0.000
n	1408	977	1531	1020	1494	1015	1494	1015

Notes: Numbers in parentheses are standard errors.

† $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

Table 3.5: Matching estimates of the effects of precarious employment during early young adulthood (age 21-24) on first marriage during late young adulthood (age 25-29), Men, NLSY97

	Unmatched differences	Propensity score kernel matching, TT	Propensity score kernel matching, TUT
Nonstandard Employment	-0.069** (0.030)	-0.055* (0.026)	-0.061* (0.024)
Short Tenure	-0.061** (0.023)	-0.039* (0.019)	-0.055* (0.028)
Lacking Health Benefits	-0.097*** (0.021)	-0.065** (0.020)	-0.064** (0.024)
Lacking Retirement Benefits	-0.085** (0.025)	-0.050† (0.028)	-0.051† (0.028)

Notes: Numbers in parentheses are standard errors. TUT

standard errors were bootstrapped on 50 replications.

† p<.10 * p<.05 ** p<.01 *** p<.001 (two-tailed tests)

Table 3.6: Matching estimates of the effects of precarious employment during early young adulthood (age 21-24) on first marriage during late young adulthood (age 25-29), Women, NLSY97

	Unmatched differences	Propensity score kernel matching, TT	Propensity score kernel matching, TUT
Nonstandard Employment	-0.072 (0.042)	-0.063 (0.042)	-0.071 † (0.036)
Short Tenure	-0.050 (0.033)	-0.004 (0.034)	-0.008 (0.042)
Lacking Health Benefits	-0.128*** (0.027)	-0.072* (0.033)	-0.067* (0.032)
Lacking Retirement Benefits	-0.161*** (0.031)	-0.097* (0.039)	-0.094** (0.034)

Notes: Numbers in parentheses are standard errors. TUT

standard errors were bootstrapped on 50 replications.

† p<.10 * p<.05 ** p<.01 *** p<.001 (two-tailed tests)

Table 3.A1 Descriptive Statistics by Sample Restrictions

	Full Sample (n=8,984)	Restricted Sample (completed schooling, didn't marry before age 25) (n=5,455)
Female	48.7	43.6
<i>Race</i>		
White	70.4	69.4
Black	15.4	18.2
Hispanic	12.9	12.5
<i>Social background</i>		
Parent no HS	12.4	11.3
Parent HS	59.5	59.0
Parent college	28.2	29.7
Parent's income	10.4	10.5
<i>Human capital</i>		
Mental ability	49.3	49.1
No high school degree	8.3	8.1
High school graduate	61.5	59.0
College graduate	30.3	33.0
<i>Life Expectations</i>		
Married in 5 years	28.3	23.8
<i>Characteristics in 2011</i>		
Log Earnings	9.2	9.4
Full-time	64.9	71.3
Prof./Managerial	33.6	34.2
Service	44.4	43.4
Blue collar	22.0	22.4
Nonemployed	18.6	15.4
Married	47.6	29.0
Has Child	53.0	42.6

Table 3.A2: Discrete Time Logit Models for Having a First Marriage After Age 25, Employed Respondents, NLSY97

	Nonstandard		Short Tenure		No Insurance		No Retirement	
	Men	Women	Men	Women	Men	Women	Men	Women
Precarious Employment	-0.212 (0.177)	0.012 (0.198)	-0.452* (0.192)	-0.117 (0.190)	-0.543*** (0.130)	-0.477** (0.147)	-0.387*** (0.109)	-0.283* (0.121)
Log Earnings	0.284*** (0.076)	0.204** (0.065)	0.231*** (0.068)	0.157* (0.062)	0.211** (0.073)	0.126* (0.062)	0.221** (0.073)	0.147* (0.063)
Hours Worked	0.007* (0.003)	-0.001 (0.005)	0.009** (0.003)	0.001 (0.004)	0.004 (0.004)	-0.004 (0.005)	0.005 (0.003)	-0.002 (0.005)
Service Worker	0.457** (0.149)	0.219 (0.134)	0.286* (0.132)	0.241+ (0.124)	0.292* (0.139)	0.222+ (0.125)	0.286* (0.138)	0.215+ (0.126)
Blue Collar	-0.149 (0.150)	-1.087** (0.353)	-0.084 (0.134)	-0.896** (0.306)	-0.085 (0.143)	-0.926** (0.322)	-0.084 (0.142)	-0.921** (0.321)
Constant	-6.712*** (0.947)	-5.370*** (0.947)	-6.485*** (0.863)	-4.558*** (0.886)	-5.781*** (0.942)	3.555*** (0.904)	-5.890*** (0.961)	3.824*** (0.935)

Standard errors in parentheses

*** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Note: all models include controls for age, race, parental education, parental income, intact family in 1997, educational attainment, cognitive ability, marriage expectations, and region.

CHAPTER 4:
THE EFFECTS OF PRECARIOUS EMPLOYMENT ON
POLITICAL PARTICIPATION DURING YOUNG ADULTHOOD

Abstract: I use panel data from the National Longitudinal Survey of Youth 1997 and propensity score matching methods, to examine the effect of precarious employment on political participation. Findings suggest that nonstandard employment does not have an effect on voting or on attending meetings or donating money to a cause during later young adulthood (ages 26 to 30). Short tenure, on the other hand, has relatively strong negative effects on voting, attending meetings, and donating money. Employment with no health insurance does not affect voting, attending meetings, or donating money to a cause during this period. Finally, employment with no retirement benefits has no effect on voting or attending meetings, but does have a negative effect on donating money to a cause.

INTRODUCTION

The question of why some citizens are politically active while others are not has inspired decades of social science research. The classic literature on political participation highlights individual characteristics such as race, gender, education, class and income as the main source of political participation (Almong and Verba 1963; Verba and Nie 1972; Lipset 1959; Wolfing and Rosenstone 1980). Education in particular has been a dominant predictor of many political participation outcomes, with college education found to increase voting, political knowledge, interest, and engagement (Putnam 1995; Wilson and Musick 1998; Verba, Schlozman, and Brady 1995). Similarly, wealth and its attendant resources, such as leisure time, have been found to facilitate political participation (Verba and Nie 1972). A later wave of scholarship has examined the role of organizations, such as churches, political parties, workplaces, and unions, as the key source of political participation (Verba, Schlozman, and Brady 1995; Norris 2002; Meyer 2007). To the extent that organizations encourage members to be involved in activities, such as attending meetings, writing letters, and organizing events, this builds individuals' organizational skills and ultimately enables their ability to participate in politics (Verba, Schlozman and Brady 1995; Peterson 1992; Kerrissey and Schofer 2013).

One key organization in many adults' lives is the workplace. Since Durkheim, scholars have argued that there is a deep connection between employment and social participation (Durkheim 1933; Wilensky 1961; Rotolo and Wilson 2008). What happens to political participation when employment is precarious?

BACKGROUND

Employment and political participation

Durkheim's theory of the integrative role of occupational groups suggests that the workplace draws people into the mainstream of social life. Pateman (1976) further argued that employees who experience efficacy at work—through participation in decision-making, for example—would be motivated to take part in politics. Wilensky (1961: 522) shared the view that participation in community and civic life is a “natural extension of participation in the labor market” but added a crucial dimension: the “vitality of social participation...are in part a function of *cumulative* experience in the economic system.” He argued that social integration depended on having an “orderly” and “pleasant” work history. That is, it is not just having any job and income that encourages political participation; the type of employment relationship an individual enjoys matters as well.

Karl Polanyi (1944) also places the economic system, more specifically the market economy, at the center of his theory of political participation. In contrast to Marx, Polanyi argues that in market economies it is not class interests but *social* interests—the stability, cohesiveness, and continuity of status and community—that are central to political participation. He argues that if people feel that their social interests are threatened, they will actively summon the regulatory capacity of the state to introduce security and stability in social relations. This theory suggests that precarious workers may be more likely to participate politically because, unlike workers who experience “just” low-wages, these workers may sense that their precarious status will prevent them from achieving social status as a “normal” worker and the attendant social privileges. For example, many banks require evidence of two years of employment with the same company and an ongoing contract with that employer in order to approve a home mortgage loan; thus, workers in precarious jobs (such as freelancers or those with a string of

short tenure jobs) may not be able to become homeowners, a key social status marker in the United States. The following section documents and further defines precarious employment as it is experienced by young adults today.

Precarious Employment

Since the late 1970s, employment systems in the United States have changed to accommodate the market and employer demands for flexibility (Harvey 1989; Kalleberg 2011). For many employees, these changes are experienced as precarious employment—that is employment that is uncertain, unpredictable and risky from the worker’s perspective (Kalleberg 2009). Specifically, in the United States, the term precarious employment represents employment conditions that differ from the gold standard of legally protected, secure employment with fringe benefits including jobs that do not guarantee labor protections, such as nonstandard contract employment; short-term jobs; and jobs without employer-provided health insurance and retirement savings.

Today, substantial numbers of Americans face such forms of precarious employment. In 2014, for example, over 13 million workers were engaged in contract work, temporary-help agency employment and independent contracting (all forms of nonstandard employment) (U.S. Bureau of Labor Statistics 2010). The Bureau of Labor Statistics predicts that industries employing largely nonstandard workers, such as the the temporary help and consulting industries, will be among those with the highest projected employment growth into 2020 (Henderson 2012). Long job tenure is on the decline: between the early 1970s and early 2000s, average private-sector job tenure for men fell almost 25% (Farber 2008). Further, in 2010, almost 60% of workers were working for an employer that did not offer health insurance (Janicki

2013).

Nonstandard employment

Nonstandard employment includes independent contractors, freelancers, temporary agency workers (temps), on-call workers, and day laborers. These workers differ from standard employees on several important dimensions of work, including that many such workers cannot assume that their employment will continue; many either do not have an employer or they are only weakly tied to their *de jure* (legal) employer in terms of work direction and location; and many are not protected by the labor laws that protect standard employees (Kalleberg, Reskin, and Hudson 2000; Kalleberg 2000; Stone 2006, 2007). There is evidence that employers increasingly try to classify employees as nonstandard in order to avoid the legal responsibility and costs associated with the standard employment relationship (Jost 2011; Stone 2006).

The negative effects of nonstandard employment on work-related outcomes, health, and identity documented in previous studies (Autor and Houseman 2010; Cheng and Chan 2008; DiPrete et al. 2002; Kalleberg 2000, 2011; Gowan 2000; Henson 1996; Quesnel-Vallée et al. 2010; Benach et al. 2014), combined with recent protests and organizing activity by nonstandard workers such as Uber drivers, Amazon warehouse temps, university adjuncts and port truckers, suggests that some nonstandard workers are not satisfied with their employment relationship. This may encourage nonstandard workers to vote, attend political meetings, and/or donate money to a cause. On the other hand, many nonstandard workers lack the organizing structure of traditional workplaces. For example, IRS rules for classifying employees prevent employers from including nonstandard workers in company meetings and events where strategic planning takes place. Thus, nonstandard workers may not develop the sense of efficacy and social integration scholars argue is a key for political participation.

Short job tenure

Another form of precarious employment individuals increasingly experience is jobs that are short in duration. A key component of the standard employment norm is the mutual expectation between employees and employers of continued employment. This unspoken social contract was built up in the post-war years, where in exchange for loyalty, retention, and labor peace employees could expect stability, increasing wages, and the possibility of promotion via an internal labor market ladder (Harvey 1989). Today, however, employment stability has declined for most groups. The trends differ by demographics, with average private-sector job tenure falling almost 25% for men (Farber 2008), employment of ten years or longer falling from about 50% to 37% between 1973 and 2008 (Farber 2010). These trends are not observed for women as a whole, as married mothers have increased job tenure in recent decades due to greater opportunities for continued employment around childbirth. However, Hollister and Smith (2014) find that, as for most men, job tenure has declined since the 1980s for non-married non-mothers.

Short job tenure may prolong feelings of financial and status uncertainty and rob workers from potential earnings and seniority gains associated with longer tenure at a job. It is possible that these concerns would encourage workers experiencing this form of precariousness would be more likely to vote, attend political meetings, or donate money to a cause to make their political voices heard. On the other hand, finding a new job is often a time-consuming process; those with less than one year of job tenure have to find two or more jobs in one year—this may make it difficult for such workers to make time for political participation. Further, those with short tenure may not be at one employer long enough to develop a sense of political efficacy, potentially depressing political participation.

No of Employer-Offered Benefits

Jobs that lack fringe benefits contrast with the norm of standard employment in the United States. In the United States, standard employment is the primary avenue through which adults access health insurance and retirement savings. Today, employers increasingly do not provide or only partially provide benefits such as health insurance and pensions and retirement savings contributions (Boushey & Tilly 2009). Kalleberg (2011) reports that the share of all private-sector workers who received health insurance coverage from their employers fell from 69% in 1979 to 55% in 2006. These decreases in health benefits do not take into consideration the decline in quality of such benefits. Importantly, the decrease in benefits is happening across the educational spectrum, with the proportion of college-educated workers, for example, that have employer-provided health benefits decreasing from 80% in 1979 to about 67% in 2006. The overall proportion of U.S. workers with any form of retirement plan dropped from 91% in 1985 to 66% in 2007 (Employee Benefit Research Institute 2013). Because the social safety net is provided via employment in the United States, lack of access to a safety net despite working is an important measure of precarious employment. Nevertheless, little research exists evaluating the effects of the lack of such benefits on non-work outcomes.

Lack of health and retirement benefits may lead to feelings of financial and status anxiety. Such anxiety may spur workers whose employers do not provide such benefits to vote, attend political meetings, or donate money to a cause to make their political voices heard. On the other hand, lack of employer provided benefits might make workers feel less connected to their employer and workplace and thereby negate the socially integrative role of employment.

Political Participation During Young Adulthood

I focus on precarious employment effects on political participation during young adulthood. There is strong evidence that certain forms of political participation, especially voting, are habitual: those who participate early are more likely to participate throughout the life course (Aldrich, Montgomery, and Wood 2011; Plutzer 2002). It is also well established that traditional forms of political participation, like voting turnout and registration, are lowest among younger age groups (Schlozman, Verba, and Brady 2012: 215; Plutzer 2002). One common explanation among political scientists for why age groups differ in their participation is that “the young are less active in politics because they are unsettled and preoccupied with the enterprise of becoming adults” (Schlozman, Verba, and Brady 2012: 210). That is, young adults focus on finding a job, getting married, buying a house, and having children—all life events that are thought to ultimately increase political participation, presumably because they give citizens a stake in public outcomes and opportunities to become the targets of requests for political involvement. The overall premise of this dissertation is that some young adults may be having additional difficulties achieving precisely these markers of adulthood due to the precarious nature of their employment. The question is: does precariousness act the same way as economic inequality in depressing political participation, or does it inspire more political participation, perhaps because individuals believe such employment will hamper their ability to gain full adulthood status?

Hypotheses

This study seeks to answer the following research question: what is the effect of precarious employment on political participation? On the one hand, precarious employment is less likely to afford workers opportunities for developing political efficacy and a sense of social

integration, and may thus lead to lower rates of voting, attending meetings, and/or donating money to a cause. On the other hand, precarious employment increasingly impacts a wide swath of individuals, including the college educated; affects material as well as social well-being; and has received considerable media attention in recent years. Thus, individuals who experience precarious employment may be more likely to vote, attend meetings, and/or donate money to a cause than young adults than otherwise similar young adults who do not experience precarious employment. It is also possible that young adults who experience precarious employment may feel that mainstream politicians do not yet advocate for the interests of the precariously employed. They may thus be more likely to express their political voice through attending political meetings or donating money to a cause that more closely aligns with their specific needs. I propose the following hypotheses:

Hypothesis 1: Young adults who experience precarious employment will be less likely to vote.

Hypothesis 2: Young adults who experience precarious employment will be more likely to attend political meetings and donate money to a cause (compared to otherwise similar young adults).

This preliminary analysis is a necessary first step to understanding new dynamics of political participation and precarious employment.

DATA AND METHODS

Data

The data used in this study come from Rounds 1-15 of the National Longitudinal Survey of Youth 1997 (NLSY97). The NLSY97 cohort is representative of American youths born

between 1980 and 1984. Interviews were first conducted in 1997 when the respondents were 12-16 years of age, and since then the cohort has been interviewed every year. In 2011, the last survey year available for analysis, respondents were 27 to 31 years old. The NLSY97 sample was designed to be representative of the corresponding cohort in the non-institutionalized civilian population of the United States.

NLSY97 data have several major strengths. The retention rate is high: about 83% of the original sample was still in the panel in 2011. Respondents who missed an interview during a certain year are re-contacted in following years; the NLSY collects retrospective information up to and including the respondent's most recent date of interview. The NLSY97 collect detailed job history records of every job a respondent has had. Uniquely, there is no upper limit on the number of jobs a respondent can report in a given year; rather, the interviewer asks respondents to report *every* job held in the interview year (in practice, the most jobs reported in any given year is fifteen). Such an employment history design is critical to studying precarious employment because if a respondent is only asked about one or two jobs per year, they may leave out nonstandard or short term jobs—precisely the kind of jobs of interest in the case of studying precarious employment.

Additionally, especially important for this study is that NLSY97 allows researchers to identify nonstandard employment relationships, such as temporary, contract, day labor, and freelance work; to the best of my knowledge, no other U.S. longitudinal data set allows researchers to systematically identify nonstandard employment relationships.

NLSY97 data also capture a wide range of pre-employment exogenous variables and numerous characteristics of workers' labor market experiences and jobs. The data provide substantial information on social origins, youthful aspirations, cognitive ability, educational

attainment, and labor market experience for a large sample that is representative of American young adults in the contemporary period. The measure of cognitive ability in the NLSY97 is noteworthy because while it is established that cognitive ability has important effects on career outcomes, measures of cognitive ability are often excluded from studies of precarious employment. As the NLSY97 includes a measure of cognitive ability as well as many measures of socioeconomic background the data is well-suited for minimized omitted-variable bias when estimating the effects of precarious employment.

I restrict cases to those who responded to the 1998 survey (N=8,873) and had at least one employment spell (a paid job for 3 months or longer) after completing schooling (N=7,293). I drop respondents that have missing data on precarious employment variables (N=7,009). I also drop a small number of respondents classified as mixed race (the category is too small to include in analysis and I did not feel it was appropriate to collapse into another category) (N=6,943) and respondents with missing data on highest educational attainment (N=6,920). I also drop respondents who were ineligible to vote in the 2010 election (N=6,691). Finally, in models I restrict the sample to those young adults that were employed (in either 2009 or 2010, depending on the model). The full NLSY97 sample is not representative due to an oversampling of black and Hispanic youths; in all estimations I therefore use a set of weights to account for oversampling. Appendix Table 4.A1 provides descriptive statistics comparing the full sample of NLSY97 respondents to the restricted analytic samples.

Dependent Variables

Voting. Voting is a self-reported dichotomous measure of voting in the 2010 midterm

elections.²² While voting in midterm elections is lower than in Presidential election years, voters in these years have the opportunity to elect members of Congress, including all 435 seats in the House of Representatives and one-third of the Senate; governors in 34 of 50 states; and state, municipal, and local offices along with a variety of citizen initiatives. Voter turnout in the 2010 midterm election was 40.9%, compared to 57.1% in the 2008 Presidential election (U.S. Census Bureau 2010). I drop respondents who self-report being ineligible to vote (about 4% of the sample).

Attending a meeting. This variable measures an important form of political participation other than voting: attended a meeting or event for a political, environmental, or community group. This question was asked in 2011.

Donating money to a cause. This variable measures another form of political participation other than voting: donating money to a cause, where 1 is donated some amount of money and 0 is did not donate some amount of money. This question was asked in 2011.

Independent Variables

The key variable of interest in this study is precarious employment. As in previous chapters, I consider four forms of precarious employment: having a nonstandard employment contract (such being an independent contractor, freelancer, on-call worker, or day laborer), having a short tenure job (a job that lasts for less than 52 weeks), having a job that does not provide health insurance, and having job that does not provide retirement benefits.

Nonstandard employment status. I classify a worker as experiencing a nonstandard

²² While the NLSY97 asks young adults if they voted in the 2008 Presidential election for young adults interviewed after the election in November, a majority of respondents were interviewed before the election. I thus decided there was too much missing data to analyze 2008 voting data in this paper. In 2011, the NLSY97 followed up with respondents about voting in the 2010 election so there is substantially less missing data.

employment relationship when the respondent indicates a spell of on-call work, freelancing, working for a temporary help services firm, contracting, or day labor²³ in a given year.²⁴ The NLSY97 only began asking the uniquely detailed measure of nonstandard work in 2005, when respondents were already ages 21 to 25. Furthermore, the question regarding nonstandard employment contracts was only asked of individuals who changed jobs in 2005. I categorize respondents who did not change jobs in 2005 as having standard employment, which likely underestimates nonstandard employment. While many studies on employment only examine the most recent job reported, I exploit the NLSY97's extensive job measures, which allow respondents to report all of the jobs held in a year. In this way I am able to capture all instances of nonstandard employment. Finally, in this analysis, I do not classify self-employed workers as precarious because there is considerable evidence to suggest that some self-employed, particularly those with incorporated businesses, are a demographically privileged group (Hipple 2010) and self-select into this form of employment. After completing education, 20.9% of young adults experience at least one year of nonstandard employment.

Short tenure. I classify respondents as experiencing a spell of short job tenure when a respondent has completed an employment spell that lasts for less than 52 weeks. Again, to make

²³ The NLSY97 survey asks the following questions to determine nonstandard employment: 1) "Where you an independent contractor, independent consultant or freelancer?"; 2) "Where you paid by a temporary help agency that assigned you to assist other employers?"; 3) "Some people are called on-call workers. They are called to work only when they are needed, although they can be scheduled to work for several days or weeks in a row. Some examples of on-call workers are substitute teachers and construction workers. Where you an on-call worker?"; 4) "Some companies provide employees or their services to other companies under contract. A few examples of services that can be provided under contract include private security services, landscaping, or computer programming. On this job, did you work for a company that provided your services to other companies under contract?"

²⁴ The NLSY97 collects information on all respondents' jobs in a given year, so it is possible to have multiple jobs in an interview year and respondents are not asked to identify a "primary" employer. Because I do not want to count nonstandard employment spells that are not the respondent's primary source of employment, I do not count nonstandard employment spells that occur the same time that a respondent has a "standard" job where they work 35+ hours per week for 50 or more weeks.

comparisons between short tenure and normal tenure explicit, I exclude workers who experienced nonemployment during these years for 13 weeks or more. Experiencing short tenure is much more common than experiencing nonstandard employment during young adulthood. Among young adults who have completed their education and have had at least one job spell, 40.8% have had at least one year of short tenure employment.

No health insurance. I classify respondents as experiencing a spell of no insurance when a respondent is employed and reports that he or she does not have access to employer-provided health insurance in a given year. After completing their education, 63.0% of young adults have had at least one year of not having employer-provided health insurance.

No retirement benefits. I classify individuals as experiencing a spell of no retirement benefits when a respondent reports a year wherein no job provided retirement benefits. This is the most common form of precarious employment, with fully 78.3% of young adults who have completed their education experiencing at least one year of being employed by an employer that does not provide retirement benefits.

Covariates used to estimate the propensity for the four forms of precarious employment are described in Table 1.

Demographic and socioeconomic background measures include gender, age, race, parental education attainment, and parental income. These variables are time-invariant and measured in 1997. Gender is measured as a dichotomous indicator where 1 = female and 0 = male. Age is a time-varying continuous variable. Race is categorized as Black, Hispanic or White, with White as the reference category. Parental income is measured as a started log (in 2011 dollars, with \$500 added to the started log). Parental education is a categorical variable measuring the educational attainment of the highest educated parent, where 0 = no high school, 1 = high school

graduate, 2= college graduate or more.

Human capital. I include two human capital measures as controls: respondent's educational attainment and cognitive ability. The categorical measure for educational attainment indicates whether a respondent is not a high school graduate, a high school graduate, or a college graduate. Cognitive ability is based on ASVBA multiple-aptitude battery scores.

Family formation. I take into consideration respondent's expectations about marriage as this may affect self-selection into precarious or non-precarious forms of employment (to the extent that such self-selection is possible). This survey question asks respondents whether he or she expects to be married in 5 years (asked in 2001). Job characteristic variables listed in the bottom panel of Table 1 measure respondent labor market characteristics after completing education but pre-treatment (at age 20): earnings, hours worked, occupation (professional/managerial, sales, blue collar), and region of residence. Marital status is a time-varying dichotomous variable where 1= currently married and 0 = not married in the survey year; this is a pre-treatment variable measured in 2009 for models predicting voting in 2010 and 2010 for models predicting meeting attendance and donating money in 2011. Parenthood status is a time-varying dichotomous variable where 1= respondent has an own child living in the household and 0= respondent does not have an own child living in the household in a given survey year; this is also a pre-treatment variable measured in 2009 for models predicting voting in 2010 and 2010 for models predicting meeting attendance and donating money in 2011.

Economic context characteristics. Economic characteristics are primarily measured via job characteristics reported in the employment roster, which links each job a respondent had with job characteristics. I measure job characteristics pre-treatment in 2009 for models predicting voting in 2010 (when respondents were age 25 to 29) and 2010 (when respondents were age 26

to 30) for models predicting meeting attendance and donating money in 2011. Earnings are measured as a time-varying variable of total yearly earnings; earnings are adjusted for 2011 dollars and \$500 is added before taking the started log of earnings. Respondents who worked 35 hours or more per week were coded as being employed full-time, while those working 34 hours or less were coded as working part-time (unemployed workers are the reference category). I also include region and urban residence variables as time-varying controls. Region is categorized as Northwest, Midwest, South, and West. Urban residence is a categorical variable where 1=respondent lives in an urban area and 0= respondent does not live in an urban area.

Methods

In studying the effects of precarious versus non-precarious employment, my interest is in estimating the causal effect of employment type on political participation. Causal analysis of non-experimental data poses a problem because lack of randomization increases the likelihood of confounding effects (measured and unmeasured factors that are influencing the outcome). Rubin (1974) proposed a statistical approach called the counterfactual model of causality to conceptually address these confounding variables.

At the heart of the counterfactual model of causality is the following proposal: for each worker, we can imagine one hypothetical outcome if the worker gets a non-precarious job and one hypothetical outcome if the worker gets a precarious job. The difference between these two potential outcomes is the individual causal effect of precarious employment versus non-precarious employment (Rubin 1974, 1997). In reality, of course, only one of the hypothetical outcomes is ever observed. Thus, the individual causal effect can never be estimated; this is the fundamental problem of causal inference (Holland 1988).

Rubin (1997), posited that treatment effects can be estimated under the condition of *strong ignorability*. Strong ignorability is defined as stochastic independence of the potential outcomes and the assignment to treatment conditions conditional on a set of covariates (Rubin 1997; Rosenbaum & Rubin 1983). In this case, assignment to precarious employment or standard employment condition would have to be independent of the potential outcome, given background characteristics and pre-treatment variables of the respondents. Strong ignorability would be fulfilled if assignment to employment type could be considered random, given a set of background covariates. Strong ignorability requires that all covariates that influence both the potential outcomes and the treatment assignment probabilities are known and included in adjustment models.

In this paper I analyze the effects of precarious employment versus non-precarious employment by modeling the assignment of young adults to the treatment conditions. The *average treatment effect of the treated* (ATT) is the average of the individual causal effects of the workers in the treatment group, or, more generally, the average in a population of individuals with the same characteristics as the treatment group. In this case, the ATT would be effect of being precariously employed for the population of respondents who actually experienced precarious employment. To estimate the ATT, the condition of *strong ignorability* has to hold. In this paper, I focus on logistic regression for estimating propensity scores, and employ kernel matching estimates where individuals who were and were not precariously employed are matching according to their propensity for precarious employment.

RESULTS

Descriptive Statistics

Approximately 41% of my sample voted in 2010, a non-presidential election year when voter turnout is typically lower. This figure corresponds well to U.S. Census estimates of voting in 2010. While voting is the most common form of political participation I examine, a substantial proportion of young adults in the full sample attended political meetings (20%) and/or donated money to a cause (28%) in 2011.

As pre-treatment variables correspond to the year the outcome variables of interest are measured, descriptive statistics vary slightly depending on the year and size of the sample for each outcome variable. I present all of these descriptive statistics by political participation outcome and form of nonstandard employment in Table 4.1 through Table 4.4. I briefly summarize the general patterns below.

[Tables 4.1, 4.2, 4.3, 4.4 here]

Nonstandard Employment

Respondents with nonstandard jobs are generally more likely to be men, more likely to be Black, have slightly lower ASVAB scores, have slightly lower earnings and are more likely to work part-time. Notably, young adults who experience nonstandard employment are otherwise quite similar to those who do not, including in terms of college education and parent's socioeconomic background.

In terms of political participation, nonstandard young adults appear to be as likely to have voted as the standard-employed in 2010. There are no significant differences between nonstandard and standard-employed young adults in terms of attending meetings or donating money to a cause in 2011.

Short-tenure Employment

Unlike nonstandard versus standard-employed young adults, major differences can be observed in the descriptive statistics of young adults who experience short tenure compared to those who experience longer tenure jobs. Young adults with short tenure jobs are more likely to be Black, less likely to have parents with a college degree, less likely to have a college degree themselves, have lower ASBAB scores, are less likely to be married but more likely to have a child, are more likely to live in the South, have lower earnings and are less likely to have worked full-time.

Young adults with short tenure are less likely to vote in 2010 (30% vs. 43%), less likely to attend a political meeting in 2011 (12% vs. 21%), and less likely to donate money in 2011 (16% vs. 29%).

No employer-provided health insurance

Young adults who experience employment without health benefits are a more disadvantaged group relative to those with jobs that include health benefits. Those that lack health benefits are more slightly more to be Black, slightly less likely to have parents with a college degree, less likely to have a college degree themselves, have lower ASBAB scores, are less likely to have a child, are more likely to live in the South, have lower earnings and are less likely to work full-time.

Young adults who lack health benefits are less likely to have voted in 2010 (36% vs. 45%), compared to those with health benefits. Those without health benefits are slightly less likely to have attended a political meeting or donated money in 2011.

No employer-provided retirement benefits

Young adults who experience employment without retirement benefits are a more disadvantaged group relative to those with jobs that include retirement benefits. Young adults

that lack health benefits are equally likely to be female, more likely to be Black, less likely to have parents with a college degree, far less likely to have a college degree themselves, have lower ASBAB scores, are less likely to be married, have lower earnings and are less likely to work full-time.

Young adults who lack retirement benefits are less likely to have voted in 2010 (36% vs. 45%), compared to those with retirement benefits. Those without retirement benefits, however, are about as likely to have attended a political meeting in 2011. Those with no retirement benefits are less likely to have donated money in 2011 (21% vs. 31%).

Tables 5.5 present logit models of the effects of the pre-treatment covariates, measured in 2008 or 2009, on the probability of experiencing precarious employment in 2009 or 2010. Logistic regression results suggest that women, young adults who are married (in 2009 only), and individuals with higher earnings the year before are less likely to experience nonstandard contract employment, while those with part-time contracts the year before are more likely to experience nonstandard employment. The lack of many significant predictors for nonstandard employment suggests that nonstandard employment contracts are relatively random experiences, or that it is predicted by omitted and/or unobserved characteristics. Perhaps most glaringly, having a college degree does not appear to have any impact on nonstandard contract employment. These findings lend support to a growing consensus among researchers that nonstandard contract employment is a form of precarious employment that has spread even to workers who previously enjoyed a privileged position in the labor force, such as non-minority men and the higher educated.

Of all four forms of precarious employment, short tenure is the only form women are not less likely to experience. Also unlike the other forms of precarious employment, not surprisingly,

short tenure is the only form of precarious employment that becomes less likely as young adults get older. Respondents whose parents have more education, who have a college degree, who had higher earnings the year before are less likely to experience short tenure; those who live in the South or West (relative to the Northeast), and those who were unemployed the year before are more likely to experience short tenure.

Turning to logit models predicting no employer-provided health insurance, here women are again less likely to experience such employment, as are, controlling for other factors, Hispanic and Black young adults, those who have a college degree, have higher ASVAB scores, those who are married, and those who had higher earnings the year before. Young adults who were part-time the year before were much more likely to experience this form of precarious employment.

Logit models predicting no employer-provided retirement benefits in 2009 and 2010 indicate that those with college degrees, higher ASVAB scores, married status, and higher earnings the year the year before are less likely to experience such precarious employment, while those that worked part time the year before are more likely, controlling for other factors.

Propensity Score Matching Results

[Table 4.6 here]

I report unmatched differences and two sets of propensity score matching estimates of experiencing precarious employment (nonstandard employment, short tenure, no health benefits, and no retirement benefits) during young adulthood among employed respondents on voting in 2010, attending a political meeting in 2011, and donating money to a cause in 2011. Respondents are ages 26 to 30 during these years. The unmatched differences establish a

benchmark to compare to matched results. The propensity scores are derived using kernel matching, including treatment effects of the treated (TT) (i.e. effects pertaining to respondents who experienced nonstandard employment) and treatment effects for the untreated (TUT) (i.e. effects pertaining to respondents who did not actually experience nonstandard employment, had they experienced nonstandard employment).

Young adults who experience nonstandard employment are very slightly more likely to vote in 2010 according to unmatched differences, but this difference is not statistically significant. Similarly, TT and TUT point estimates of nonstandard employment effects are slightly higher than unmatched differences, but nonstandard employment remains not significant in the matched results. Results are similar when examining meeting participation in 2011: there is essentially no difference between nonstandard and standard employed young adults in the unmatched or matched estimates. Unmatched differences suggest that young adults with nonstandard employment are slightly less likely to donate money, but this difference is not significant and the point estimates for TT and TUT matching are actually positive (though not significant).

In sharp contrast to the results for nonstandard employment, young adults who experience short tenure have 12.3 percentage points lower rate of voting in 2010 according to unmatched differences. The TT point estimates of short tenure effects are smaller than unmatched differences, but short tenure remains associated with lower rates of voting (a 6.1 percentage point difference). The TUT point estimates are very similar to unmatched differences and greater than TT point estimates, suggesting that there may be heterogeneous treatment effects. Unmatched differences show that young adults with short tenure are less likely to attend meetings in 2011. The TT point estimates are again smaller than unmatched differences but still

significant (a 4.4 percentage point difference). TUT point estimates are similar but moderately statistically significant. Unmatched differences indicate that young adults with short tenure are much less likely to donate money to a cause in 2011 (a 13.0 percentage point difference). Again, this difference is reduced but still significant in TT point estimates (an 8.3 percentage point difference) and very similar to unmatched differences in the TUT point estimates (a 12.8 percentage point difference). The TT and TUT point estimates are different, again indicating that there may be heterogeneous treatment effects.

Employed young adults who experience a job with no health benefits have an 8.8 percentage points lower rate of voting in 2010. For TT and TUT, point estimates of employment without health insurance effects are greatly reduced and no longer significant. The similarity of the TT and TUT suggest a relatively homogeneous treatment effect. Unlike voting, unmatched differences for attending a political meeting are quite small between those who lack employer health insurance coverage and those who have it—about 3 percentage points. Once matching is performed, the effect of no employer-provided health insurance is actually positive (and moderately statistically significant for the TT estimates but not significant for the TUT estimates). Unmatched differences indicate young adults without employer provided health insurance are 10.1 percentage points less likely to donate money to a cause in 2011. However matched difference, both TT and TUT, are greatly reduced and only the TT is statistically significant.

Finally, unmatched differences show that employed young adults who do not have retirement benefits have an 8.5 percentage points lower rate of voting in 2010, but TT and TUT point estimates are lower (3.4 and 2.0, respectively) and only the TT estimate is moderately significant. Unmatched differences indicate a negative relationship between no retirement

benefits and attending a meeting, however matching results indicate no significant relationship. However, TT and TUT point estimates indicate that young adults who do not have retirement benefits from their employer are less likely to donate money to a cause in 2011 (5.8 percentage points and 5.9 percentage point difference, respectively).

DISCUSSION

In this study, I use propensity score matching to test the relationship between difference forms of precarious employment and voting, attending meetings, and donating money to a cause. Findings suggest that nonstandard employment does not have an effect on voting in the 2010 midterm election or on attending meetings or donating money to a cause in 2011. Short tenure, on the other hand, has relatively strong negative effects on voting, attending meetings, and donating money in 2010-2011. Employment with no health insurance does not affect voting, attending meetings, or donating money to a cause (if anything, those without health insurance may be slightly more likely to attend meetings) during this period. Finally, employment with no retirement benefits has no affect on voting or attending meetings, but does have a negative affect on donating money to a cause.

While research that highlights the importance of social integration and political efficacy effects of standard employment relationships suggests that nonstandard employment would have a negative effect on voting, I do not find evidence of such an effect. Nor, on the other hand, do I find strong evidence that nonstandard employment so threatens the social status of young adults that they would be more motivated to express political voice than those with standard jobs, as a Polanyian interpretation might suggest. Still, it may be that those with nonstandard employment have to overcome the barriers to political efficacy and social integration that lack of standard

employment presents—such as not having coworkers at all in some cases, working remotely, and not having access to career ladder--and thus the fact that they are as politically active as those with standard employment is significant. More research is needed to examine the political motivations of nonstandard workers.

It appears that short tenure, which some economists have long dismissed as simply “job churn” or beneficial job matching, has quite negative effects on political participation on young adults. This is an especially troubling finding given that political participation is strongly habitual—those who don’t participate as young adults are less likely to do so in the future. It is important that political organizations and even public policy address ways to help young adults with short term job histories develop political efficacy.

Interestingly, I find some evidence that having a job with no health insurance makes young adults more likely to attend a political or community meeting. President Obama’s Affordable Care Act was a major topic of debate in 2011 leading up the 2012 election. Further, a thorough analysis of Occupy Wall Street, a protest movement focused on income inequality that started in New York City in September 2011 and subsequently spread across the country, found that concern about health care was slightly more influential in leading to protest attendance than even concerns about jobs and unemployment (Milkman, Luce and Lewis 2012).

A limitation of this study is that, as with many other forms of analysis, it is possible that some important omitted variables differentiate young adults who experience precarious employment and those who do not. This study is also limited to only the 2010 midterm election, which may not be representative of other midterm election years. Midterm election years are not representative of the wider range of voters in Presidential election years. Further, 2010-2011 was a period of economic recovery and sometimes turmoil, as evidenced by the widespread Occupy

Wall Street protests (Milkman, Luce and Lewis 2012), and may have exerted particular period effects on political participation. As data become available, it will be important to examine how precarious employment affects voting in future midterm and Presidential elections.

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Tables

Table 4.1 Descriptive Statistics: Sample Characteristics by Political Participation Outcomes and Nonstandard Employment Status, NLSY97

	Voting 2010				Meeting 2011				Donating 2011			
	Nonstandard 2009		Standard 2009		Nonstandard 2010		Standard 2010		Nonstandard 2010		Standard 2010	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Voted, Attended or Donated	0.41	0.50	0.41	0.49	0.20	0.40	0.20	0.40	0.26	0.44	0.28	0.45
Female	0.39	0.49	0.48	0.50	0.40	0.49	0.49	0.50	0.41	0.49	0.49	0.50
Age	25.92	1.36	26.00	1.39	26.88	1.36	26.98	1.39	26.88	1.36	26.98	1.39
Black	0.32	0.47	0.24	0.43	0.30	0.46	0.24	0.43	0.29	0.46	0.24	0.43
Hispanic	0.17	0.38	0.22	0.41	0.18	0.38	0.20	0.40	0.18	0.39	0.20	0.40
Parent HS	0.54	0.50	0.62	0.49	0.59	0.49	0.61	0.49	0.59	0.49	0.61	0.49
Parent College	0.25	0.44	0.24	0.43	0.25	0.43	0.25	0.44	0.25	0.43	0.25	0.44
Log Parent Income	10.20	1.12	10.28	1.16	10.29	1.08	10.32	1.13	10.29	1.07	10.32	1.13
HS Grad	0.66	0.48	0.65	0.48	0.66	0.47	0.62	0.49	0.66	0.47	0.62	0.48
College	0.26	0.44	0.29	0.45	0.28	0.45	0.32	0.47	0.27	0.45	0.31	0.46
ASVAB	44.47	28.40	45.78	27.65	45.27	26.66	47.62	27.59	45.05	26.70	47.41	27.69
Married	0.25	0.44	0.36	0.48	0.33	0.47	0.39	0.49	0.33	0.47	0.39	0.49
Has Child	0.42	0.49	0.43	0.50	0.49	0.50	0.46	0.50	0.50	0.50	0.46	0.50
Midwest	0.20	0.40	0.21	0.41	0.24	0.43	0.21	0.41	0.24	0.43	0.21	0.41
South	0.42	0.49	0.39	0.49	0.38	0.48	0.40	0.49	0.37	0.48	0.40	0.49
West	0.24	0.43	0.23	0.42	0.24	0.43	0.22	0.42	0.24	0.43	0.22	0.42
Urban	0.80	0.40	0.76	0.43	0.80	0.40	0.76	0.43	0.80	0.40	0.76	0.43
Unknown	0.03	0.17	0.05	0.22	0.07	0.25	0.08	0.27	0.07	0.25	0.08	0.27
Log Income	9.38	1.64	9.84	1.29	9.48	1.56	9.91	1.37	9.48	1.55	9.91	1.36
Part-time	0.17	0.37	0.12	0.32	0.21	0.41	0.14	0.35	0.21	0.41	0.14	0.34
Full-time	0.75	0.43	0.82	0.38	0.68	0.47	0.79	0.41	0.67	0.47	0.79	0.41
Observations	386		3546		409		3470		413		3491	

Table 4.2 Descriptive Statistics: Sample Characteristics by Political Participation Outcomes and Short Tenure Status, NLSY97

	Voting 2010				Meeting 2011				Donating 2011			
	Short Tenure 2009		Normal Tenure 2009		Short Tenure 2010		Normal Tenure 2010		Short Tenure 2010		Normal Tenure 2010	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Voted, Attended or Donated	0.30	0.47	0.43	0.50	0.12	0.34	0.21	0.36	0.16	0.37	0.29	0.46
Female	0.46	0.50	0.47	0.50	0.51	0.50	0.45	0.50	0.48	0.50	0.47	0.50
Age	25.74	1.35	26.03	1.39	22.85	1.38	23.15	1.36	26.72	1.35	27.00	1.38
Black	0.34	0.47	0.24	0.43	0.37	0.48	0.24	0.43	0.32	0.47	0.24	0.43
Hispanic	0.20	0.40	0.20	0.40	0.18	0.38	0.20	0.40	0.20	0.40	0.19	0.40
Parent HS	0.58	0.49	0.61	0.49	0.63	0.48	0.63	0.48	0.64	0.48	0.60	0.49
Parent College	0.18	0.39	0.26	0.44	0.15	0.36	0.22	0.42	0.14	0.34	0.27	0.44
Log Parent Income	10.02	1.11	10.32	1.16	10.03	1.10	10.27	1.19	10.12	0.93	10.35	1.13
HS Grad	0.70	0.46	0.64	0.48	0.72	0.45	0.71	0.45	0.75	0.44	0.62	0.49
College	0.14	0.34	0.30	0.46	0.11	0.32	0.22	0.41	0.11	0.32	0.32	0.47
ASVAB	36.05	26.35	46.94	27.74	33.52	24.76	44.17	27.39	36.39	24.93	48.39	27.71
Married	0.30	0.46	0.36	0.48	0.18	0.38	0.23	0.42	0.34	0.47	0.39	0.49
Has Child	0.55	0.50	0.42	0.49	0.46	0.50	0.30	0.46	0.60	0.49	0.46	0.50
Midwest	0.17	0.38	0.22	0.42	0.19	0.39	0.24	0.42	0.18	0.39	0.22	0.42
South	0.47	0.50	0.39	0.49	0.47	0.50	0.38	0.48	0.46	0.50	0.39	0.49
West	0.24	0.43	0.23	0.42	0.17	0.38	0.22	0.42	0.23	0.42	0.22	0.42
Urban	0.78	0.42	0.76	0.43	0.81	0.40	0.78	0.42	0.73	0.44	0.76	0.43
Unknown	0.04	0.19	0.05	0.22	0.02	0.12	0.02	0.14	0.07	0.26	0.08	0.27
Log Income	8.55	2.16	9.89	1.18	8.10	2.15	9.39	1.39	8.57	2.21	9.95	1.27
Part-time	0.14	0.34	0.13	0.34	0.09	0.29	0.17	0.37	0.17	0.38	0.16	0.36
Full-time	0.65	0.48	0.82	0.38	0.59	0.49	0.78	0.42	0.50	0.50	0.79	0.41
Observations	427		4001		327		4055		328		4083	

Table 4.3 Descriptive Statistics: Sample Characteristics by Political Participation Outcomes and Health Insurance Status Status, NLSY97

	Voting 2010				Meeting 2011				Donating 2011			
	No Insurance 2009		Has Insurance 2009		No Insurance 2010		Has Insurance 2010		No Insurance 2010		Has Insurance 2010	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Voted, Attended or Donated	0.36	0.49	0.45	0.50	0.18	0.39	0.21	0.41	0.21	0.41	0.31	0.46
Female	0.49	0.50	0.48	0.50	0.48	0.50	0.48	0.50	0.49	0.50	0.48	0.50
Age	25.92	1.42	26.06	1.37	26.87	1.40	27.01	1.38	26.87	1.39	27.02	1.38
Black	0.29	0.46	0.23	0.42	0.28	0.45	0.23	0.42	0.28	0.45	0.23	0.42
Hispanic	0.20	0.40	0.20	0.40	0.21	0.41	0.19	0.39	0.21	0.41	0.19	0.39
Parent HS	0.62	0.48	0.59	0.49	0.65	0.48	0.58	0.49	0.64	0.48	0.58	0.49
Parent College	0.19	0.39	0.28	0.45	0.18	0.39	0.29	0.45	0.18	0.38	0.29	0.45
Log Parent Income	10.07	1.25	10.38	1.10	10.12	1.20	10.42	1.07	10.11	1.19	10.41	1.07
HS Grad	0.72	0.45	0.61	0.49	0.71	0.45	0.59	0.49	0.72	0.45	0.59	0.49
College	0.16	0.37	0.34	0.47	0.16	0.36	0.38	0.48	0.16	0.36	0.37	0.48
ASVAB	37.90	26.90	49.51	27.49	38.44	26.73	51.19	27.22	38.20	26.76	50.93	27.34
Married	0.30	0.46	0.37	0.48	0.31	0.46	0.40	0.49	0.30	0.46	0.40	0.49
Has Child	0.51	0.50	0.39	0.49	0.54	0.50	0.43	0.50	0.54	0.50	0.43	0.50
Midwest	0.21	0.41	0.22	0.42	0.21	0.41	0.22	0.42	0.21	0.41	0.22	0.42
South	0.43	0.49	0.38	0.49	0.44	0.50	0.38	0.48	0.44	0.50	0.38	0.49
West	0.22	0.41	0.23	0.42	0.22	0.41	0.22	0.42	0.22	0.41	0.22	0.42
Urban	0.77	0.42	0.77	0.42	0.76	0.43	0.76	0.43	0.76	0.43	0.76	0.43
Unknown	0.03	0.18	0.05	0.22	0.06	0.25	0.08	0.28	0.07	0.25	0.08	0.28
Log Income	9.15	1.58	10.08	1.00	9.14	1.65	10.14	1.10	9.16	1.64	10.14	1.10
Part-time	0.26	0.44	0.08	0.28	0.33	0.47	0.10	0.30	0.33	0.47	0.10	0.30
Full-time	0.64	0.48	0.89	0.31	0.56	0.50	0.86	0.34	0.56	0.50	0.87	0.34
Observations	1128		2933		1034		3033		1039		3051	

Table 4.4 Descriptive Statistics: Sample Characteristics by Political Participation Outcomes and Retirement Benefit Status, NLSY97

	Voting 2010				Meeting 2011				Donating 2011			
	No Ret. 2009		Has Ret. 2009		No Ret. 2006		Has Ret. 2006		No Ret. 2006		Has Ret. 2006	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Voted, Attended or Donated	0.38	0.49	0.46	0.50	0.17	0.38	0.22	0.42	0.22	0.41	0.34	0.47
Female	0.49	0.50	0.47	0.50	0.48	0.50	0.49	0.50	0.48	0.50	0.48	0.50
Age	25.95	1.40	26.08	1.38	26.85	1.38	27.07	1.38	26.86	1.38	27.07	1.38
Black	0.30	0.46	0.20	0.40	0.29	0.45	0.20	0.40	0.29	0.46	0.21	0.41
Hispanic	0.21	0.41	0.20	0.40	0.21	0.41	0.19	0.39	0.21	0.41	0.18	0.39
Parent HS	0.61	0.49	0.60	0.49	0.62	0.48	0.58	0.49	0.62	0.48	0.58	0.49
Parent College	0.20	0.40	0.29	0.45	0.21	0.40	0.31	0.46	0.20	0.40	0.31	0.46
Log Parent Income	10.09	1.24	10.47	1.03	10.14	1.18	10.49	1.03	10.13	1.19	10.48	1.02
HS Grad	0.71	0.45	0.58	0.49	0.70	0.46	0.56	0.50	0.70	0.46	0.56	0.50
College	0.18	0.39	0.39	0.49	0.19	0.40	0.41	0.49	0.19	0.39	0.41	0.49
ASVAB	39.11	27.29	52.44	26.78	40.09	26.92	53.73	26.76	39.76	26.95	53.59	26.85
Married	0.31	0.46	0.38	0.49	0.32	0.47	0.42	0.49	0.32	0.47	0.42	0.49
Has Child	0.48	0.50	0.37	0.48	0.52	0.50	0.42	0.49	0.52	0.50	0.42	0.49
Midwest	0.21	0.41	0.23	0.42	0.21	0.41	0.23	0.42	0.21	0.41	0.23	0.42
South	0.42	0.49	0.37	0.48	0.42	0.49	0.38	0.48	0.42	0.49	0.38	0.48
West	0.22	0.41	0.23	0.42	0.22	0.41	0.23	0.42	0.22	0.41	0.22	0.42
Urban	0.77	0.42	0.77	0.42	0.76	0.42	0.76	0.43	0.76	0.43	0.76	0.43
Unknown	0.04	0.20	0.05	0.22	0.07	0.25	0.09	0.28	0.07	0.25	0.09	0.28
Log Income	9.40	1.44	10.19	0.93	9.38	1.58	10.27	0.97	9.39	1.56	10.26	0.97
Part-time	0.21	0.41	0.07	0.26	0.24	0.43	0.09	0.29	0.24	0.43	0.09	0.29
Full-time	0.72	0.45	0.91	0.28	0.66	0.47	0.88	0.33	0.67	0.47	0.88	0.32
Observations	1889		2172		1743		2324		1597		2236	

Table 4.5: Logit Models Predicting Precarious Employment in 2009 and 2010, NLSY97

	Nonstandard		Short		No Insurance		No Retirement Benefits	
	2010	2009	2010	2009	2010	2009	2010	2009
Female	-0.497*** (0.117)	-0.515*** (0.121)	-0.147 (0.136)	-0.151 (0.120)	-0.207* (0.088)	-0.214* (0.085)	-0.203** (0.076)	-0.126+ (0.075)
Age	-0.027 (0.041)	0.010 (0.042)	-0.138** (0.048)	-0.089* (0.042)	0.001 (0.031)	-0.009 (0.029)	-0.041 (0.027)	0.014 (0.027)
Black	0.225 (0.154)	0.168 (0.158)	-0.122 (0.179)	-0.018 (0.159)	-0.308* (0.120)	-0.286* (0.115)	-0.034 (0.105)	-0.001 (0.102)
Hispanic	-0.164 (0.174)	-0.384* (0.185)	-0.223 (0.196)	-0.428* (0.179)	-0.214+ (0.128)	-0.419*** (0.125)	-0.13 (0.111)	-0.288** (0.110)
Parent HS	-0.159 (0.172)	-0.513** (0.165)	-0.254 (0.179)	-0.381* (0.159)	0.149 (0.130)	-0.083 (0.121)	0.042 (0.117)	-0.227* (0.114)
Parent College	-0.117 (0.215)	-0.373+ (0.213)	-0.537* (0.256)	-0.327 (0.218)	0.067 (0.167)	-0.154 (0.157)	0.118 (0.146)	-0.113 (0.143)
Parent Income	0.032 (0.059)	-0.012 (0.057)	0.033 (0.065)	0.000 (0.055)	-0.028 (0.043)	-0.051 (0.039)	-0.056 (0.039)	-0.085* (0.038)
HS Degree	0.203 (0.236)	0.011 (0.225)	-0.265 (0.212)	-0.524** (0.180)	-0.656*** (0.162)	-0.471** (0.154)	-0.731*** (0.170)	-0.630*** (0.164)
College Degree	0.158 (0.283)	-0.028 (0.278)	-1.136*** (0.311)	-1.103*** (0.265)	-1.401*** (0.205)	-0.948*** (0.196)	-1.319*** (0.198)	-1.182*** (0.193)
ASVAB	0.001 (0.003)	0.004 (0.003)	-0.002 (0.003)	-0.002 (0.003)	-0.006** (0.002)	-0.006** (0.002)	-0.007*** (0.002)	-0.007*** (0.002)
Married	-0.166 (0.129)	-0.398** (0.140)	-0.185 (0.149)	-0.286* (0.137)	-0.430*** (0.099)	-0.353*** (0.095)	-0.358*** (0.084)	-0.293*** (0.084)
Has Child	0.171 (0.132)	0.057 (0.134)	0.211 (0.152)	0.231+ (0.133)	0.135 (0.099)	0.242** (0.093)	0.098 (0.086)	0.103 (0.084)
Midwest	0.244 (0.183)	0.167 (0.199)	0.119 (0.238)	0.217 (0.214)	0.179 (0.144)	0.124 (0.135)	0.034 (0.121)	-0.059 (0.118)
South	0.03 (0.173)	0.288 (0.179)	0.435* (0.212)	0.456* (0.191)	0.381** (0.132)	0.197 (0.124)	0.083 (0.112)	-0.003 (0.109)
West	0.225 (0.187)	0.413* (0.196)	0.436+ (0.233)	0.616** (0.208)	0.219 (0.146)	0.256+ (0.138)	0.068 (0.123)	0.080 (0.120)
Urban	0.297+ (0.169)	0.169 (0.157)	-0.041 (0.176)	0.123 (0.153)	0.01 (0.118)	-0.058 (0.106)	0.015 (0.104)	-0.053 (0.096)
Unknown	0.126 (0.259)	-0.316 (0.345)	-0.125 (0.287)	-0.207 (0.328)	-0.167 (0.189)	-0.285 (0.231)	-0.141 (0.162)	-0.027 (0.191)
Log Earnings	-0.174*** (0.044)	-0.247*** (0.047)	-0.198*** (0.039)	-0.352*** (0.039)	-0.387*** (0.038)	-0.436*** (0.039)	-0.498*** (0.042)	-0.518*** (0.044)
Unemployed	0.046 (0.237)	-0.486+ (0.285)	1.553*** (0.195)	0.618** (0.211)	0.209 (0.200)	0.556** (0.213)	0.093 (0.195)	0.296 (0.224)
Part-time	0.465** (0.147)	0.271+ (0.164)	0.251 (0.176)	-0.163 (0.171)	1.341*** (0.106)	1.175*** (0.109)	0.838*** (0.106)	0.967*** (0.115)
Constant	-0.424 (1.282)	0.213 (1.242)	3.013* (1.486)	3.931** (1.230)	3.635*** (0.975)	4.850*** (0.894)	7.465*** (0.885)	6.767*** (0.842)
Observations	3,904	3,932	4,382	4428	4,067	4061	4,067	4061

Standard errors in parentheses
 *** p<0.001, ** p<0.01, * p<0.05, + p<0.1

Table 4.6 Matching estimates of precarious employment in 2009/2010 on political participation in 2010/2011, NSLY97

	Nonstandard			Short Tenure			No Health Insurance			No Retirement Benefits		
	Unmatched differences	TT	TUT	Unmatched differences	TT	TUT	Unmatched differences	TT	TUT	Unmatched differences	TT	TUT
Vote 2010	0.004 (0.027)	0.011 (0.024)	0.017 (0.031)	-0.123*** (0.026)	-0.061* (0.026)	-0.110*** (0.029)	-0.088*** (0.017)	-0.019 (0.017)	-0.017 (0.021)	-0.085*** (0.015)	-0.034+ (0.019)	-0.020 (0.020)
Meeting 2011	0.006 (0.022)	0.012 (0.020)	0.009 (0.024)	-0.089*** (0.024)	-0.044* (0.018)	-0.050† (0.035)	-0.029* (0.015)	0.028+ (0.014)	0.017 (0.028)	-0.051*** (0.013)	0.001 (0.015)	-0.003 (0.018)
Donate 2011	-0.022 (0.024)	0.004 (0.017)	0.002 (0.025)	-0.130*** (0.027)	-0.083* (0.026)	-0.128*** (0.028)	-0.101*** (0.017)	-0.031* (0.016)	-0.035 (0.026)	-0.120*** (0.015)	-0.058** (0.019)	-0.059** (0.018)

Table 4.A1 Descriptive Statistics by Sample Restrictions

	Full Sample (<i>n</i> =8,984)	Restricted Sample (completed schooling and employed in 2009) (<i>n</i> =5,653)	Restricted Sample (completed schooling and employed in 2010) (<i>n</i> =5,601)
Female	48.7	46.5	46.4
<i>Race</i>			
White	70.4	73.6	74.1
Black	15.4	13.5	13.2
Hispanic	12.9	12.9	12.7
<i>Social background</i>			
Parent no HS	12.4	10.9	10.8
Parent HS	59.5	59.2	32.3
Parent college	28.2	29.9	26.6
Parent's income	10.4	10.5	10.5
<i>Human capital</i>			
Mental ability	49.3	51.3	51.7
No high school degree	8.3	5.9	5.8
High school graduate	61.5	60.1	59.7
College graduate	30.3	34.0	34.5
<i>Life Expectations</i>			
Married in 5 years	28.3	28.7	29.0
<i>Characteristics in 2011</i>			
Log Earnings	9.2	9.8	10.0
Full-time	64.9	76.2	78.4
Prof./Managerial	33.6	34.5	34.7
Service	44.4	43.2	43.1
Blue collar	22.0	22.3	22.2
Nonemployed	18.6	10.7	8.0
Married	47.6	48.8	48.9
Has Child	53.0	50.5	49.8

CHAPTER 5:

CONCLUSION

Precarious work is a key feature of the contemporary employment landscape. Some young adults who have nonstandard employment contracts, short-tenure jobs or jobs without fringe benefits are well-paid and flexible, like computer programmers or financial consultants. Some are making use of new technologies that connect people to “gig” jobs with the touch of a button on a mobile phone, like the popular work-outsourcing site TaskRabbit, where anyone can offer services such as dog walking and grocery-pick up to busy individuals, and the peer-to-peer transportation service Uber, where individuals can use their own cars to offer people paid rides. Some young adults are working in precarious jobs that have been around for decades, like day labor construction work and office temping. Others are working in jobs that would have been considered standard in other eras, but now do not provide health insurance or retirement benefits. What unifies these precarious workers is that the companies that employ them are not bound by the responsibilities historically reserved for employers. The silent social contract that promised employees continued expectation of employment, access to a social safety net, and labor protections has broken down for many workers today. This dissertation provides insight into the family and political lives of young adults with precarious employment, adding to the literature on youth employment, the transition to adulthood, and political participation.

Implications for Youth Employment

This dissertation demonstrates that contemporary young adults experience a considerable amount of precarious employment between the ages of 18 and 30. Using the NLSY97 sample (N=8,984) and limiting it to respondents that have had at least one job spell and have completed their education (N=7,423), 21% of young adults have experienced a year when nonstandard employment was their primary form of employment, 41% have experienced short job tenure, 64% have experienced a year where their primary form of employment did not provide health insurance benefits, and fully 78% have experienced a time when their primary job did not offer retirement benefits.

That one in five young adults have experienced at least a year when their primary form of work was a nonstandard employment relationship (independent contracting, freelancing, temping, on-call or day-labor work) is notable. Though few studies exist that reliably measure the incidence of nonstandard employment, using the CPS Contingent Worker Survey, Kalleberg, Reskin, and Hudson (2000) report that about 12.4% of all workers over age 17 experienced nonstandard employment in 1995 (262). Looking at nonstandard employment between 2005 and 2011 and for young adults only, I find a rate of nearly double that estimate. It may be that young adults are much more likely to experience nonstandard employment than older workers or that nonstandard employment has become more common or both (unfortunately, the CWS was discontinued in 2005 so it is not possible to replicate Kalleberg, Reskin, and Hudson's analysis in later years). Regardless,

nonstandard employment is clearly not a fringe concern, but rather a common feature of employment during the young adult years. This dissertation also shows that, unlike other forms of precarious employment, nonstandard employment impacts young adults across the socioeconomic and human capital spectrum.

This dissertation also adds to the youth employment literature by shining a light on some of the negative non-work outcomes associated with short tenure. There are legitimate labor supply and demand theories as to why youth may have short tenure during the young adulthood period, such as a “life cycle” pattern wherein young adults start out with high turnover and low commitment to the labor market and then settle into a longer tenure pattern as they get older (Osterman 1994, 1980) or wherein some youth switch jobs until they find an optimal match (Topel and Ward 1992). However, researchers have also shown that there are considerable negative impacts of short tenure in terms of future employment and wage trajectories (Ahituv & Lerman 2010; DiPrete et al. 2002; Fuller 2008; Neumark 2002). Adding to this literature, I find that young adults with short tenure jobs are more likely to live at home with their parents, less likely to have a first marriage by the normative age, and are less likely to vote, attend political meetings, or donate money to a cause than their peers with longer tenure jobs. While the popular press often advocates that young people focus on developing a “portfolio of skills” and their “own brand” rather than climbing a job ladder, which is sometimes seen as passé in today’s flexible economy, the benefits of longer tenure, such as higher wage premiums and lower exposure to lay offs (Fuller 2008), and the drawbacks of short tenure on independent living, marriage formation and political life addressed in this dissertation should not be overlooked.

Employment with no employer-provided health insurance or retirement benefits is extremely pervasive during young adulthood. This is problematic for several reasons. As this dissertation shows, not having a job with health insurance is associated with increased odds of parental co-residence, not having a first marriage by the normative age, and lower likelihood of voting (for lacking retirement benefits only) and donating money to a cause.

Some may argue it is not especially worrisome that young adults, a group that is relatively healthy and is decades away from retirement, do not have access to traditional job benefits like health insurance and retirement savings. However, there is a danger that young adults will not have the kind of secure lifestyle in older ages as their parent's generation precisely because they did not have access to fringe benefits during the young adulthood period. For example, consider that a worker who obtains a job with retirement benefits at age 22, as was typical in decades past, and whose employer contributes 5% of his \$30,000 salary toward retirement would have savings of \$409,516 at age 65 (assuming a 30-year market average of 7% return). On the other hand, a worker who does not get a job with retirement benefits until age 30, just 8 years later, would only have \$225,131 by age 65. This is a difference of about \$184,000. Labor market circumstances during young adulthood matter for future life course periods.

Precarious Employment and the Transition to Adulthood

This dissertation also contributes to the growing body of literature on the transition to adulthood in the United States. Like other scholars, I find evidence that adulthood has been significantly delayed for contemporary youth. While the average

young adult had completed school, started a job, left the parental home, and married by age 25 in the 1960s, I find that fully one in four 25-year-olds today still live with their parents after completing their schooling and 70 percent are unmarried.

The causes of this dramatic change are complex. It is widely argued that changes in the labor market in the past 40 years have made it more difficult for young adults to attain economic stability and self-sufficiency (Danziger and Ratner 2010; Duncan, Boisoly, and Smeeding 1996; Sironi and Furstenberg 2012), and that these changes have made it harder for young adults to assume adult roles, such as establishing independent living arrangements and starting a family (Sironi and Furstenberg 2012). Labor market changes frequently cited as contributing to delayed adulthood include lower earning levels for male workers, unequal earnings due to increased wage premiums associated with college degrees, increased unemployment and decreased mobility for less-educated individuals. This study adds precarious employment to the list of labor market difficulties young adults face in the contemporary period.

In Chapter 2, I provide evidence that precarious employment during the young adult period leads to higher rates of parental co-residence, including moving back home after a period of independence. In Chapter 3, I show that precarious employment also has negative implications for the next phase of adult transition: marriage. Among men, nonstandard employment, short tenure, and no health insurance benefits decrease the odds of having a first marriage between ages 25 and 29. For women, not having health insurance or retirement benefits leads to lower odds of having a first marriage between ages 25 and 29. The differential impact of nonstandard and short tenure employment for

men and women suggests that it may still be more important for men to demonstrate that they are marriage material than for women to do so in the “marriage market.”

These differences by gender are consistent with previous findings that labor market outcomes affect men’s and women’s decisions about marriage differently. For example, among men, steady, career-type employment and higher earnings are consistently positively associated with marriage (Becker 1981; Oppenheimer, Kalmijn, and Lim 1997, Sweeney 2002). However, the picture for women is still debated. While some scholars argue that women’s greater economic roles have led to a decline in the gains to marriage (Becker 1981), some evidence suggests that women with good economic prospects are actually more likely to marry, though the need to spend more time in school to invest in career opportunities may delay the timing of marriage (Sweeney 2002; Manning et al. 2014). I find that women with jobs that offer health and retirement benefits are more likely to have a first marriage in their late 20s, lending support to the theory that good economic prospects for women encourages marriage.

Why does precarious employment lead to a delay in establishing independent living and forming a marriage union, even among otherwise similar youth in terms of socioeconomic background and human capital? Like other researchers (Duncan, Boisoly, and Smeeding 1996; Hill and Holzer 2006; Oppenheimer 1988), I suspect that it is the uncertainty young adults face in the labor market—in terms of the type of employment available, but also in terms of the payoff of higher education, the direction of technological change, the effects of the stock market, etc.—that makes some unable to take on adult responsibilities like independent living and family formation. It may be, for example, that young adults are using parental co-residence as a form of social insurance

to protect against some of the uncertainties of the labor market. While this can be seen as an interesting form of intergenerational transfer, such family “support” may also contribute to delays in marriage and parenthood. It will be important to follow this cohort as they get older to investigate how the effects of precarious employment interact and change over the life course.

Precarious Employment, Public Policy, and Politics

Today’s young adults live and work in an era that promises new efficiencies and great flexibility for both employers and employees, but which left unchecked threatens the underpinnings of middle-class adulthood to which most Americans aspire, including independent living, marriage, and civic engagement.

It is unlikely that the upward trend of nonstandard, short-term, and benefit-free employment will subside any time soon in the United States. Increased funding of active labor market policies such as retraining programs and incentivized hiring of full-time standard workers could help some workers who find themselves involuntarily stuck in nonstandard, short term, or benefit-less jobs. Government support of such retraining program is in fact vital as employers are reluctant to provide training to workers with whom they have only a tenuous employment relationship, such as nonstandard employees (Kalleberg 2009).

More broadly, public policies are needed that amend Social Security and other employment benefits to be prorated, portable and universal (Hanauer and Rolf 2015; Hacker 2006; Sunstein 2004). Such a system would allow all types of employees to accrue benefits via automatic payroll deductions. For example, each hour worked would

accrue a proportion of benefits on a prorated hourly or equivalent basis (e.g., a certain portion of a worker's hourly or contract rate going toward health insurance costs, retirement savings, sick days, vacation days, unemployment insurance, etc.). These benefits could be pooled from multiple employers into one account, so that they are entirely portable if an individual changes jobs.

The young adults studied in this dissertation are likely the vanguard of the future of work. While many will eventually find jobs that have legal protections, stability, and benefits, millions of Americans will continue to face precarious employment in some form. It is therefore important that public policy seriously address the limitations of the current social safety net, which was built on formal employment.

It is possible, though certainly not to be taken for granted, that a cross-class political mobilization for a new social contract is possible when Ph.D educated adjunct professors face many of the same precarious employment conditions as high-school educated temporary Amazon warehouse workers. While Polanyi (1944) predicts a countermovement response when market mechanisms swing too far in the direction of flexibility and uncertainty, he did not provide a theory of how such movements are constructed (Webster et al. 2008). It is possible that precarious employment will not move people to action; that, instead, people will continue to view it as “inevitable, part of what people consider the inescapable cost of broad social forces that none of us can do anything about” (Pugh 2015: 197). The evidence presented in this dissertation is inconclusive: while workers with nonstandard employment are no less likely to be politically active than their peers with standard employment, and individuals without health insurance benefits are actually more likely to attend a political meeting in 2011,

workers with short tenure are less likely to vote, attend meetings, and donate money to a cause. I also do not consider what political ideologies motivate the precariously employed; it may be progressive expansion of worker protections and safety nets, it may be right-wing anti-immigrant positions, or none at all. More research is needed in this area.

This dissertation has aimed to paint a picture of life outside the workplace for precariously employed young adults. It is critical that future work continue to improve upon our understanding of precarious employment and its impact on non-work outcomes throughout the life course. This will require deep qualitative investigation as well as quantitative studies. The latter will be greatly helped if more surveys take seriously the changing nature of employment and allow researchers to disaggregate employment types.

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