# WORKING AROUND LIFE:
# SATISFACTION WITH PRECARIOUS WORK
# IN THE MILLENNIAL GENERATION

A thesis submitted

to Kent State University in partial

fulfillment of the requirements for the

Degree of Master of Arts

by

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May, 2017

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# CHAPTER I

## INTRODUCTION

Employment today elicits different expectations from their employees than employment in the past. When Baby Boomer workers first entered the workforce, they expected job security and would work in one job for a number of years (Gursoy, Maier, and Chi 2008; Kupperschmidt 2000). Over the years and changing economies, these expectations are no longer applicable (Kowske, Rasch, and Wiley 2010). The newest working generation, the Millennials, born in years 1980-2000, was forced to change their expectations and attitudes towards work in order to be satisfied with their employment even though job security is low. My contribution to the current literature is to determine if the satisfaction Millennials experience at work mediates the relationship between precarious work and depression.

Job insecurity is defined through how employees feel about their futures; are they stable or unstable jobs (perceived job security). Employees have job insecurity when their future employment is unpredictable and uncertain (Sverke, Hellgren, and Näswall 2002). In contrast to perceived job security, precarious work is defined by the employee's work experience, not just their perception. The work hours for precarious workers are unpredictable and there is an unstable work environment (Kalleberg 2009). Jobs experiencing the most precariousness consist of temporary workers, independent contractors, part-time workers, workers that have many jobs, and on-call workers (Black 2012; Kalleberg, Reskin, and Hudson 2000). The Bureau of Labor

Statistics (2005) found that 1.8-4.1% of all workers are precariously employed, 7.4% are independent contractors, 1.8% are on-call workers, and 0.9% are temporary workers

.Precarious workers have a demographic profile that is associated with disadvantage (Standing 2014). According to the Bureau of Labor Statistics (2005), people in precarious employment are more likely to be Hispanic or Latino. DiNatale (2001) found that African Americans are more likely to be precariously employed compared to whites, and that 50% of the precarious workers surveyed in 1999 were under the age of 34 years old. About 25% of them were under the age of 25 (DiNatale 2001). When looking at the education of precarious workers there are people with many different levels of completed education (Bureau of Labor Statistics 2005). However, compared to other types of employment (not precarious) they have the highest rates of high school dropouts (DiNatale 2001).

Kalleberg (2009) gave three reasons as to why precarious work has become more common in recent years compared to the period of the 1940's to the 1970's: weakening labor unions, restructuring corporations, and expanding service industry. There has been a decline in union membership and effectiveness over time (Kimeldorf 2013). The second reason for the increase of precarious work is the way that corporations restructure themselves. According to Kalleberg (2009) and Jackall (1988) corporations often conduct mass layoffs during reorganization. These layoffs turned seemingly stable employment into precarious employment. The third reason Kalleburg (2009) gave, in relation to the growth of precarious work, was the expansion of the service industry with a decrease in blue-collar jobs today, compared to the 1940's to the 1970's (Autor 2010; Kalleburg 2009). This contributed to the precariousness in work (Kalleburg 2009). Because precarious work is growing, the need for more research about precarious work and its consequences is also growing.

My contribution to the literature defining precarious work is expanding on current precarious work literature by adding a life course perspective by arguing that people growing up in different generations will have different expectations of work. Using previous research, I will explain how the generations have different attitudes towards work and how those attitudes would change the consequences of precarious work. I will also explain how these attitudes about work are influenced by the different economic conditions that occurred during the different time periods of when each generation was growing up or born. This current research cannot compare generations directly with the data but I can determine if there are mental health consequences of precarious work in the Millennial Generation. To determine if precarious work leads to depression in Millennial workers, I will use Ordinary Least Square regression while controlling for other variables that could influence the relationship.

## Generational Differences in Work Attitudes

A generation is defined as "an identifiable group that shares birth years, age, location, and significant life events at critical developmental stages" (Kupperschmidt 2000). The Baby Boomer Generation consists of people born between 1943-1960 and they have their own attitudes towards work (Gursoy et al. 2008; Kupperschmidt 2000). They are heavily influenced by their parents reinforcing the success of the American Dream of working hard will bring success (Sullivan, Forret, Carraher, and Mainiero 2009). Unsuccessful political endeavors, Watergate and the Vietnam War, are also highly influential which causes the Baby Boomers to be suspicious of authority (Kupperschmidt 2000; Wey Smola and Sutton 2002; Sullivan et al. 2009). Because these are the constant influences on the Baby Boomer workers, they have developed different attitudes about their work and how it is valued.

Due to their devotion to the American Dream and idealization of work, the Baby Boomers value work highly. These workers have work at the center of their lives, they work to live (Gursoy et al. 2008; Kupperschmidt 2000). To move up the ranks in their employment is seen as successful because it shows the world that they are succeeding in their employment (Gursoy et al. 2008; Kupperschmidt 2000). The Baby Boomers also value moving up in a job because they become the new authority figure instead of the older, less trust worthy, authority figure (Gursoy et al. 2008). This alleviates their distrust in the workplace because they are the ones making the decisions.

Generation X consists of people born 1961-1979 and they have their own attitudes towards work (Gursoy et al. 2008; Kupperschmidt 2000). This generation is strongly influenced by their Baby Boomer parents (Gursoy et al. 2008; Kupperschmidt 2000; Sullivan et al. 2009). Their upbringing is characterized by a recession and rising divorce rates (Gursoy et al. 2008; Kupperschmidt 2000; Wey Smola and Sutton 2002; Sullivan et al. 2009). The recession caused instability in family income and higher divorce rates caused unstable families (Gursoy et al. 2008; Kupperschmidt 2000; Wey Smola and Sutton 2002; Sullivan et al. 2009). This instability made their attitudes towards work different than their stable Baby Boomer Parents. The major shift in attitudes between the Baby Boomers and Generation Xers is in their value of work compared to home-life. Generation Xers do not live to work, they are more focused on their lives outside of work and how work can supplement their lives (Gursoy et al. 2008; Wey Smola and Sutton 2002). Because they are focused on their lives outside of work, Generation X employees prefer flexible work that they can mold around the important events in their lives (Gursoy et al. 2008; Lub et al. 2012; Sullivan et al. 2009).

All the participants in this current research were born within the confines of the Millennial Generation. The Millennial Generation consists of people born 1980-2000 and they have distinct ideas about work (Gursoy et al. 2008). Only using people in the Millennial Generation makes this research unique from other research on precarious work and it is also necessary because they view work differently from people in other generations.

The Millennial Generation is newest generation to enter the workforce (Gursoy et al. 2008; Kowske et al. 2010; Levenson 2010). Along with being the newest generation in the workforce, this generation has different expectations about work and potential flexibility of work (Deal, Altman, and Rogelberg 2010; Gursoy et al. 2008; Kowske et al. 2010). Compared to the Baby Boomer Generation, the Millennial Generation workers are more satisfied with their jobs and job security despite coming of age in an era with fewer unionized jobs, shorter tenure at each job, and restructuring of corporations causing job loss (Kalleberg 2009; Kowske et al. 2010). Kowske et al. (2010) argued that this difference in job satisfaction is due to layoffs being commonplace. An increase in layoffs, job insecurity, and job satisfaction is counterintuitive. However, Millennial workers became used to the frequent layoffs which makes their expectations of work different than the Baby Boomer Generation, normalizing an unstable job market (Kowske et al. 2010). Temporary work is common for Millennial workers compared to employees in other generations (Levenson, 2010). When they have precarious and temporary jobs, the employees in the Millennial Generation have more work satisfaction because they have adjusted their expectations and plan work around their lives (Deal et al. 2010; Gursoy et al. 2008). Gursoy et al. (2008) found that Millennial workers do not have strong loyalty to their employers which allows them to change employment. The Millennials are satisfied with flexible work schedules because work can be planned around their lives (Deal et al. 2010; Gursoy et al.

2008). Their attitudes towards work, like other generations, are influenced by the state of the economy during their lives.

## The Economy Then and Now

The attitudes expressed by people in different generations are influenced by the economic climate in which they grew up. One major difference in the economy of today and the past are the different technological advancements. These technological advances have replaced certain jobs because it is more cost effective to have a machine complete a task instead of paying a person to complete the same task (Carter et al. 2005; Kalleburg 2009). For example, Carter et al. (2005) described how factories used to hire people to move partially completed products from one area of the factory to another. Once the conveyer belt was introduced, this job was eliminated (Carter et al. 2005). The jobs that were replaced were stable blue collar jobs available to people without many years of education (Kalleburg 2009). For the Baby Boomers, jobs were plentiful before technology was able to replace people with machines, giving employees the opportunity to find a job and be comfortable working there for a lifetime. These employees did not need to be flexible when they were needed to keep a company or factory running.

Education was not necessary for gainful employment in the past (Autor 2010; Goldin and Margo 1991). This made it possible for people to forgo expensive college degrees and still live comfortably in a job that only required a high school education (Autor 2010; Goldin and Margo 1991). However, at this time, employers expect applicants to have more education than what is actually needed to complete the job (Autor 2010; Standing 2014). This makes it harder for people with less than a college education to find work when the minimum education has risen to include a college degree (Autor 2010; Rosenbaum and Pearson 2003). Autor (2010) argued that the increase of education expectations led to a polarization of the kinds of jobs available. There

are very high skilled jobs for people with many years of education (more than a Bachelor's Degree) and there are very low skilled jobs (less than a Bachelor's Degree), without jobs in the middle (Autor 2010; Rosenbaum and Pearson 2003).

The struggle for middle ground jobs led to the creation of the "Gig Economy." The "Gig Economy" normalized precarious work, making it more acceptable to have one of these jobs. The word "gig" refers to a slang term that bands use when they have an opportunity to play in front of a live audience (Friedman 2014). They have to schedule gigs to make money in their band. This is similar to employees in the "Gig Economy." Employees are bouncing from job to job selling their skills to companies who need them for a short period and then move on to the next one (Friedman 2014). However, the relationship between gig employer and the different companies that want to hire them is not a direct one. The gig workers are usually employed by a larger company and the larger company sends the gig workers to use their skills at other jobs and then collects the money (Donovan, Bradley, and Shimabukuro 2016; Friedman 2014; Torpey and Hogan 2016). The larger company then pays the gig workers after taking a percentage of the money (Donovan, et al. 2016; Friedman 2014; Torpey and Hogan 2016).

The companies that work in the middle consider the gig workers as independent contractors. This distinction is detrimental to the gig workers because this allows the company to legally forgo benefits that regular employees have like pensions and health insurance (Donovan et al. 2016; Rogers 2016; Standing 2016; Torpey and Hogan 2016). This saves the middle company a substantial amount of money. According to Rogers (2016) if a popular middle company, Uber, was forced to provide benefits for their employees it would cost them four billion dollars. However, the gig workers benefit from the gig economy too. The benefit for the employee is that they are allowed to refuse jobs and set their own hours (Donovan et al. 2016).

Unfortunately, the research on the gig economy is limited because it is difficult to measure the gig economy because the definition is not very concrete (Donovan et al. 2016; Torpey and Hogan 2016). The most recent study conducted by the Bureau of Labor Statistics was published in 2005, which is cited in this paper (Torpey and Hogan 2016).

## Precarious Work and the Consequences

The gig economy is just a way to make precarious work seem less precarious. Even though an employee is working for a company that sells employees to people that need them whenever they need them, there is still no security. Mental health consequences from precarious work have been found in participants of all ages working in precarious jobs. There also is a discrepancy in the literature where researchers find no mental health consequences of precarious jobs as long as the participants are satisfied. This section of the paper will chronicle both sides of the literature.

Poor mental health as a result from precarious work has been found by Artazcoz et al. (2005), Buffel, Dereuddre, and Bracke (2015), and Ferrie et al. (2002). Because precarious work is a chronic stress for the employees, they have higher rates of depression compared to secure employees (Artzacoz et al. 2005; Ferrie et al. 2002). Artazcoz et al. (2005) found that women and minorities experienced worse mental health consequences compared to white men. This is worrisome because African Americans, Hispanics, and Latinos are more likely to have precarious work (Bureau of Labor Statistics 2005; DiNatale 2001). These higher rates of depression in precarious employees cause an increased use in anti-depressants and mental health care (Buffel et al. 2015).

Artazcoz et al. (2005) Buffel et al. (2015), and Ferrie et al. (2002) were all consistent in finding that precarious work leads to poor mental health. However, some research does not find

any mental health consequences associated with precarious work (Chambel and Castanheria 2007; De Cuyper and De Witte 2006; Guest et al. 2006; Wilkin 2013). Precarious workers are not more stressed that secure workers, the amount of stress is the same between the two (Guest et al. 2006). For this research Guest et al. (2006) used satisfaction at work as a mediator between precarious work and the stress outcome and found no difference between regular workers and precarious workers. Chambel and Castanheira (2007) argued that satisfaction is important to how employees feel about their jobs, it makes people attached to their employment even if they are precariously employed. This satisfaction is protective for the precarious workers, they do not feel the negative consequences of precarious work if they are satisfied with their employment (Chambel and Castanheria 2007; De Cuyper and De Witte 2006; Guest et al. 2006; Wilkin 2013). This satisfaction can be from their different expectations of their employment (De Cuyper and De Witte 2006). Precarious workers expect their jobs to be unstable compared to stable workers, this is protective and gives the precarious workers more satisfaction in their employment (De Cuyper and De Witte 2006). Also, as long as precarious workers do not compare their situation to the situations of regular workers the precarious workers will have satisfaction in their employment (Wilkin 2013).

I contend that the normative job expectations associated with the "Gig Economy" and generational attitudes towards work – particularly among Millennials – are not well understood in the current literature. Previous research of precarious work does not separate the participants according to their generation. Do Millennials experience satisfaction at work that protects them from experiencing depression associated with precarious work? I propose two hypotheses to evaluate this question.

## Hypotheses

H1. I hypothesize that working in a "precarious job" – a job that I define as having unstable work hours or low control – will be associated with more depressive symptoms than non-precarious jobs.

H2a. I hypothesize that job satisfaction will mediate the relationship between having a precarious job and depressive symptoms: unstable hours or low control will have a reduced or non-significant relationship with depression once satisfaction is included in the models.

H2b. I hypothesize that job satisfaction will moderate the relationship between having a precarious job and depressive symptoms: those with high satisfaction will be less negatively affected by having a precarious job, compared with those with low satisfaction.

My significance level is $p \leq 0.05$ for all of the analyses. I will also look to see if there are any differences in depression between the people in precarious work situations and people in stable work situations.

# CHAPTER II

# METHODS

## Sample

I use Waves III and IV of the National Longitudinal Study of Adolescent to Adult Health (Add Health) to evaluate my research questions. Add Health participants are a representative sample of the United States population generated from a school-based sample of 80 different schools during the 1994-1995 academic year (Harris 2013). The participants were selected from randomly selected high schools and the middle schools that fed into them in the United States (Harris 2013). I will primarily use the most recent wave of data, collected in 2008 (Wave IV). The Add Health data are appropriate because these data have a great deal of information on participants' work schedules, control in the work place, satisfaction at work, and various demographic variables. When properly weighted, Add Health is nationally representative and generalizable to the population of older Millennials in the United States.

The public use Wave IV data have a total sample size of 5,114 participants. From this, I limit the sample to 1,336 participants who are employed for at least ten hours a week at Wave IV. The dependent variable is the Center for Epidemiological Studies – Depression Scale (CES-D), where higher scores indicate greater psychological distress. Seven respondents lacking a CES-D score are excluded. The Wave III CES-D score has 23 missing participants that are not included in the study. One additional respondent is excluded because they are missing data on

control in the workplace. I exclude 54 people that are missing the work schedule stability variable and 47 who are missing a response to the income variable. Four participants are excluded for missing the tenure variable. Union membership and the household roster has one missing participant each. In total, my sample includes 1,076 employed respondents who range in age from 25 to 28 in 2008-2009.

## Dependent Variable

For this study the dependent variable is frequency of depressive symptoms. Depressive symptoms are measured by using the CES-D (Radloff 1977). Each question is a Likert scale where scores range from 0 = never to 3 = often or where scores range from 0 = never to 4 = very often. This gives a person a possible depression score from zero to twenty. A score of zero means the participant is not depressed and a score of twenty is severely depressed. The five item scale for depression has a Cronbach's Alpha of 0.73:

1. How often do you feel isolated?
2. In the last 30 days, how often have you felt that you were unable to control the important things in your life?
3. In the last 30 days, how often have you felt confident in your ability to handle your personal problems?
4. In the last 30 days, how often have you felt that things were going your way?
5. In the last 30 days, how often have you felt that difficulties were piling up so high that you could not overcome them?

Abbreviated depression scales are used successfully in different research to measure depression (Andresen et al. 1994; Cheung, Liv, and Yip 2007; Rinaldi et al. 2003). Cheung et al. (2007) tested the validity of different abbreviated scales of the CES-D. They found that five-item and

ten-item scales are almost as effective as the 20-item scale (Cheung et al. 2007). The major difference between the abbreviated scales and the standard scale is that the abbreviated scales do not determine an inclination towards suicide (Cheung et al. 2007). Because this research is not focused on suicidal tendencies, it will be effective determining participants' depression.

## Independent Variables

The two independent variables that define work precariousness are control at work and work hour schedule. Control was measured by asking participants how often they had control over what is happening at work (none or almost none of the time, some of the time, most of the time, all or almost all of the time). Work hour schedule is measured by asking the participants what hours they worked (regular day shift, regular evening shift, regular night shift, shift rotates, split shift, irregular schedule or hours, and other). Then the variable is turned into a dichotomous variable, stable work hours vs. unstable work hours. The participants with the unstable work hours are the people that picked irregular schedule hours and rotating shifts options for the question about work schedule. The participants with stable work hours are everyone else in the sample.

## Mediation Variable

The mediation variable for this study is satisfaction at work. It was measured by asking respondents how satisfied they were with their jobs (extremely satisfied, satisfied, neither satisfied nor dissatisfied, dissatisfied, and extremely dissatisfied).

*Controls*

Models control for gender, household income (this was all the income brought in by all members of the household), and education (highest level of educational degrees completed).

Brush, Moch, and Pooyan (1987) and Guest et al. (2006) found that gender, age, income, and education are influential on job satisfaction. Since DiNatale (2001) found that African Americans were more likely to hold precarious work, models will also control for race. For household composition, models control for whether respondents live with their families, parents, romantic partners, or a spouse. Finally, I control for other characteristics associated with precarious work, including repetitive work, not unionized, and if there is physical labor involved in the work (Kalleberg et al. 2000; Kalleberg 2009). Estimated job tenure (in years) will also be controlled for in this model. To establish time-order of precarious work and depression, I am controlling for depression at Wave III of Add health, collected in 2001-2002.

## Data Analysis

I use Ordinary Least Squares (OLS) regression to evaluate my hypotheses because my research does not violate any of the assumptions of the model. I also use the weights in the Add Health data set, which correct for the school-based clustering of respondents so that the sample is generalizable to the US population of Millennials born in 1980 to 1983 of the sample (Chen and Chantala 2014). To clarify causal order, and to better determine if there is a causal relationship between precarious work and depression, I am using a lagged dependent variable analysis with the Wave III CES-D score (Allison 1990).

The Sobel-Goodman mediation test in STATA will determine if job satisfaction is a mediator of the relationship between precarious work and depressive symptoms (Sobel 1982). The Sobel-Goodman mediation test determines if the indirect relationship between the independent variable, the mediator, and the dependent variable is significant (Sobel 1982). This test is similar to the maximum-likelihood procedures in structural equation modeling (SEM)

when looking at indirect effects (Sobel 1982). Because this method is similar to SEM, the sample size needs to be large for the confidence intervals (Sobel 1982).

# CHAPTER III

## RESULTS

Table 1 shows the proportion or mean, standard deviation (if applicable), and the total number (N) of participants for each variable. The average depression score at Wave IV of the sample is 5.65 with a standard deviation of 3.37. The average Wave III depression score was 4.61 with a standard deviation of 4.10. 20% of the sample has a job with an unstable work schedule. Having some control over the work participants do is the most common condition (24%). Over half of the sample is satisfied with their current employment (52%). 38% of the sample completed some college which is the largest education category. When looking respondents' household composition, the largest group lived with only their spouse (29%). Commonly, participants have jobs with no physical work (40%) and are comprised of mostly repetitive work (32%). Only 1% of the sample has a union job. The average income of the sample is $33,324.76 with a standard deviation of $28,964.96. 74% of the sample is white and 55% of the sample is made up of women. The average job tenure is 2.52 years with a standard deviation of 1.96. The references categories are: control most work, satisfied with work, some college, lives with spouse, mostly repetitive work, no physical work, and white. The reference groups are the largest categories in each of the variables.

Table 1. Descriptive Statistics

| Descriptive Statistics | All respondents | Precarious workers | Non precarious workers | | |
|---|---|---|---|---|---|
| | Mean/ Proportion (S.D) | Mean/ Proportion (S.D) | Mean/ Proportion (S.D) | Chi-Squared/ T-Test | |
| Depression at Wave IV | 5.56 (3.37) | 5.75 (3.40) | 5.52 (3.37) | -1.02 | |
| Control No Work | 0.07 | 0.09 | 0.06 | 2.78 | |
| Control Some Work | 0.24 | 0.13 | 0.27 | 22.87 | *** |
| Control Most Work | 0.36 | 0.32 | 0.37 | 2.63 | |
| Control all Work | 0.33 | 0.46 | 0.30 | 25.96 | *** |
| Extremely Satisfied with Work | 0.24 | 0.28 | 0.23 | 3.40 | |
| Satisfied with Work | 0.52 | 0.50 | 0.53 | 0.85 | |
| Neither Satisfied nor Dissatisfied with Work | 0.16 | 0.14 | 0.16 | 0.96 | |
| Dissatisfied with Work | 0.06 | 0.06 | 0.07 | 0.09 | |
| Extremely Dissatisfied with Work | 0.02 | 0.02 | 0.02 | 0.72 | |
| Job Tenure | 2.52 (1.96) | 2.52 (1.88) | 2.53 (1.98) | 0.04 | |
| Depression at Wave III | 4.61 (4.10) | 4.75 (4.29) | 4.58 (4.05) | -0.53 | |
| Less Than a High School Education | 0.07 | 0.06 | 0.07 | 0.48 | |
| High School Graduate | 0.14 | 0.14 | 0.15 | 0.07 | |
| Some College | 0.46 | 0.48 | 0.46 | 0.33 | |
| College Graduate | 0.22 | 0.23 | 0.22 | 0.17 | |
| School After Undergraduate Degree | 0.11 | 0.10 | 0.11 | 0.37 | |
| Income | 33,324.76 (28964.96) | 34,770.53 (39925.41) | 32,874.20 (25542.04) | 1.46 | |
| Lives with Spouse | 0.29 | 0.26 | 0.30 | 1.77 | |
| Lives with Partner and Children | 0.26 | 0.25 | 0.27 | 0.32 | |

| | | | | | |
|---|---|---|---|---|---|
| Lives with Parents and Children | 0.06 | 0.03 | 0.06 | 4.33 | * |
| Three Generation Household | 0.02 | 0.02 | 0.02 | 0.01 | |
| Cohabiting | 0.18 | 0.22 | 0.17 | 2.34 | |
| Live Alone | 0.13 | 0.15 | 0.13 | 0.59 | |
| Lives with Origin Family | 0.23 | 0.19 | 0.23 | 2.18 | |
| Lives with Others | 0.21 | 0.24 | 0.20 | 2.22 | |
| Lives with Children | 0.09 | 0.08 | 0.09 | 0.41 | |
| In Union | 0.01 | 0.00 | 0.01 | 1.71 | |
| No Repetitive Work | 0.06 | 0.09 | 0.05 | 5.87 | * |
| Some Repetitive Work | 0.32 | 0.28 | 0.32 | 2.19 | |
| Mostly Repetitive Work | 0.32 | 0.33 | 0.32 | 0.03 | |
| All Repetitive Work | 0.30 | 0.30 | 0.30 | 0.01 | |
| Heavy Physical Work | 0.14 | 0.14 | 0.14 | 0.03 | |
| Moderate Physical Work | 0.23 | 0.28 | 0.21 | 5.28 | * |
| Light Physical Work | 0.24 | 0.30 | 0.22 | 7.58 | ** |
| No Physical Work | 0.40 | 0.28 | 0.43 | 19.20 | *** |
| African American | 0.23 | 0.24 | 0.22 | 0.32 | |
| Native American | 0.01 | 0.02 | 0.01 | 4.43 | * |
| Asian | 0.02 | 0.01 | 0.02 | 1.39 | |
| White | 0.74 | 0.73 | 0.75 | 0.35 | |
| Gender | 0.55 | 0.54 | 0.55 | 0.06 | |

Reference categories: Control Most Work, Satisfied with Work, Some College, Lives with Spouse, Mostly Repetitive Work, No Physical Work, and White
* indicates a coefficient is significant at the 0.05 level
** indicates a coefficient is significant at the 0.01 level.
*** indicates a coefficient is significant at the 0.001 level.

Table 1 also reports descriptive statistics across precarious workers and non-precarious workers. Notably, precarious workers do not significantly differ from non-precarious workers in Wave III or Wave IV depression, which minimizes concerns that more depressed respondents

selected into precarious work by the Wave IV interview. For the four control at work conditions, only two of them are significantly different between precarious workers and non-precarious workers. A significantly higher proportion of precarious workers have control over all of their work (46%) than non-precarious workers (30%). In the some control over work condition, there is a significantly higher proportion of non-precarious workers (27%). The workers in this sample do not have significantly different income based on the precariousness of the job. African American participants, Asian participants, and White participants do not have significantly different proportions in each job category. However, the higher proportion of Native American participants in precarious works (2%) is significantly higher than the proportion of Native Americans in non-precarious work (1%).

Model 1 estimates the relationship between precarious work and symptoms of depression while holding all other variables constant and before including satisfaction as a possible mediator. Work schedule instability is not significantly associated with depression in this model, which was unexpected. However, two conditions of the control a person has at work are significantly related to depression. Participants without control at work score 1.32 units higher on the CES-D scale than participants who could control most of their work ($p \leq 0.01$). Some control at work is also associated with higher depressive symptoms compared to participants with most control (0.62, $p \leq 0.05$). Lack of control in the workplace is associated with higher depressions scores on the CES-D scale. However, work schedule instability is not related to depression. Model 1 accounts for 19% of the variation in the sample. This partially supports the first hypothesis that participants with precarious jobs are associated with higher depression scores. (See Table 2.)

Table 2: Regression Models

| Dependent Variable: Depression Wave IV | Model 1 | | Model 2 | | Model 3 | |
|---|---|---|---|---|---|---|
| | Coef. (s.e.) | | Coef. (s.e.) | | Coef. (s.e.) | |
| Intercept | 4.91 | *** | 4.60 | *** | 4.60 | *** |
| | (1.36) | | (1.39) | | (1.39) | |
| Work Schedule Instability | 0.39 | | 0.40 | | 0.40 | |
| | (0.30) | | (0.28) | | (0.28) | |
| Control No Work | 1.32 | ** | 0.74 | | 1.27 | |
| | (0.51) | | (0.47) | | (1.16) | |
| Control Some Work | 0.62 | * | 0.44 | | 0.34 | |
| | (0.27) | | (0.26) | | (0.87) | |
| Control all Work | 0.17 | | 0.23 | | -0.31 | |
| | (0.24) | | (0.24) | | (0.97) | |
| Extremely Satisfied with Work | | | -0.29 | | -0.39 | |
| | | | (0.33) | | (0.35) | |
| Neither Satisfied nor Dissatisfied with Work | | | 0.87 | * | 0.92 | * |
| | | | (0.34) | | (0.39) | |
| Dissatisfied with Work | | | 1.25 | ** | 1.30 | |
| | | | (0.46) | | (0.71) | |
| Extremely Dissatisfied with Work | | | 4.24 | *** | 4.27 | *** |
| | | | (0.81) | | (1.07) | |
| No Control X Satisfaction | | | | | -0.26 | |
| | | | | | (0.39) | |
| Some Control X Satisfaction | | | | | 0.03 | |
| | | | | | (0.31) | |
| All Control X Satisfaction | | | | | 0.18 | |
| | | | | | (0.30) | |
| Tenure at Current Job | -0.05 | | -0.04 | | -0.04 | |
| | (0.05) | | (0.05) | | (0.05) | |
| Depression from Wave III | 0.26 | *** | 0.25 | *** | 0.25 | *** |
| | (0.02) | | (0.02) | | (0.02) | |
| Less Than a High School Education | -0.28 | | -0.20 | | -0.21 | |
| | (0.49) | | (0.48) | | (0.48) | |
| High School Graduate | -0.46 | | -0.48 | | -0.49 | |
| | (0.36) | | (0.34) | | (0.34) | |
| College Graduate | 0.13 | | 0.07 | | 0.06 | |
| | (0.29) | | (0.30) | | (0.29) | |

| | | | | | |
|---|---|---|---|---|---|
| School After and Undergraduate Degree | -0.02 | | -0.04 | -0.06 | |
| | (0.38) | | (0.35) | (0.36) | |
| Income (Log) | -0.14 | | -0.11 | -0.11 | |
| | (0.12) | | (0.12) | (0.12) | |
| Lives with Partner/Spouse and Children | -0.12 | | -0.05 | -0.04 | |
| | (0.24) | | (0.24) | (0.24) | |
| Lives with Parents and Children | -0.17 | | -0.05 | -0.03 | |
| | (0.67) | | (0.67) | (0.68) | |
| Lives in a Three Generation Household | 1.28 | | 1.18 | 1.18 | |
| | (0.84) | | (0.82) | (0.83) | |
| Cohabiting | -0.42 | | -0.42 | -0.43 | |
| | (0.29) | | (0.30) | (0.30) | |
| Lives Alone | 0.52 | | 0.51 | 0.51 | |
| | (0.35) | | (0.36) | (0.36) | |
| Lives with Origin Family | 0.50 | | 0.49 | 0.49 | |
| | (0.39) | | (0.37) | (0.37) | |
| Lives with Others | 0.49 | * | 0.47 | 0.48 | * |
| | (0.24) | | (0.24) | (0.24) | |
| Lives with Children | 0.30 | | 0.42 | 0.40 | |
| | (0.48) | | (0.49) | (0.49) | |
| In Union | -0.82 | | -0.87 | -0.88 | |
| | (0.86) | | (0.94 | (0.93) | |
| No Repetitive Work | -0.69 | | -0.60 | -0.60 | |
| | (0.94) | | (0.39) | (0.39) | |
| Some Repetitive work | -0.04 | | 0.04 | 0.05 | |
| | (0.23) | | (0.23) | (0.23) | |
| All Repetitive Work | 0.47 | | 0.26 | 0.27 | |
| | (0.31) | | (0.30) | (0.30) | |
| Heavy Physical Work | 0.49 | | 0.49 | 0.50 | |
| | (0.32) | | (0.32) | (0.32) | |
| Moderate Physical Work | 0.21 | | 0.17 | 0.18 | |
| | (0.35) | | (0.36) | (0.36) | |
| Light Physical Work | -0.13 | | -0.18 | -0.18 | |
| | (0.30) | | (0.30) | (0.30) | |
| African American | -0.27 | | -0.39 | -0.38 | |
| | (0.34) | | (0.35) | (0.34) | |
| Native American | -0.37 | | -0.56 | -0.55 | |
| | (0.93) | | (0.87) | (0.86) | |

| | | | | | |
|---|---|---|---|---|---|
| Asian | 0.33 | 0.25 | | 0.26 | |
| | (0.68) | (0.63) | | (0.63) | |
| Gender | 0.38 | 0.46 | * | 0.46 | * |
| | (0.23) | (0.22) | | (0.22) | |
| R-Squared | 0.19 | 0.23 | | 0.23 | |
| Sobel-Goodman Test | | -0.25 | *** | | |
| | | 0.37 | | | |

* indicates a coefficient is significant at the 0.05 level
** indicates a coefficient is significant at the 0.01 level.
*** indicates a coefficient is significant at the 0.001 level.

Model 2 estimates the relationship between precarious work and depression and includes participants' satisfaction with work as a mediator. Work schedule instability is not significantly related to depression, as in Model 1. As hypothesized, with satisfaction included in the model, no control at work and some control at work do not have a significant relationship with depression. Being neither satisfied nor dissatisfied with employment is associated with a 0.87 increase in depressive symptoms compared to being satisfied with employment ($p \leq 0.05$). Participants that are dissatisfied with their employment have a 1.25-unit higher depression score than participants that were satisfied with employment ($p \leq 0.01$). Participants that were extremely dissatisfied with their employment also had more depressive symptoms than participants that were satisfied (4.24, $p \leq 0.001$). To determine the significance of satisfaction as a mediator, the Sobel-Goodman mediation test provides the coefficient for the indirect relationship between control at work and depression with satisfaction as a mediator (Sobel 1982). Satisfaction mediates the indirect relationship between control at work by -0.25 which is significant at $p \leq 0.001$. Satisfaction accounts for 37% of the variance between control at work and depression. Model 2 accounts for 23% of the variance. Overall this model supports the first part of the second hypothesis.

Model 3 is the analysis testing the second half of the second hypothesis that precarious work is moderated by satisfaction. The moderation of satisfaction on precarious work is

measured with an interaction between each condition of control at work and satisfaction with work. There are three interactions included in Model 3. Participants with control over most of their work are left out of the model as a reference category because it is the largest control at work condition. None of the interactions to test for a moderation effect of satisfaction at work on precarious work are associated with depressive symptoms. This does not support the second half of the second hypothesis. In Model 3, extremely satisfied with work and neither satisfied nor dissatisfied with work continue to be associated with more depressive symptoms.

Depression collected at Wave III of Add Health is significantly related to depression collected at Wave IV in all three of my models. Only using one collection of depression at Wave IV of the data would make it impossible to determine if precarious work affects the depression of the participants in this study. Controlling for depression in the past makes it possible to determine if the Wave IV depression score is due to the past feelings of depression or the participants' current situation. Even though depression at Wave III is significantly related to depression at Wave IV, control at work is still significantly related to depression at Wave IV. depression.

In the household roster categories, there is one significantly related to depression in two models: living with others (grandparents, aunts/uncles, cousins, nephews/nieces, other relatives, and non-relatives). It is possible that this significant finding is driven by the small number of participants in this category (N=267). Race is not significantly associated with depression in any of my models. However, gender is significantly associated with depression in Models 2 and 3, with women reporting more depressive symptoms on average.

Consistent with the first hypothesis, precarious work is associated with higher CESD scores of depressive symptoms. Unexpectedly, only lack of control at work relates to depression,

work schedule stability is not significantly associated with depression. The second hypothesis is also supported by the data. There is a significant mediation of satisfaction between precarious work (control at work) and satisfaction with work.

# CHAPTER IV

# DISCUSSION

Previous research found that Millennials have different expectations inside and outside of the workplace. For them, work is not at the center of their lives (Deal et al. 2010; Gursoy et al. 2008). Millennials have grown accustomed to changing jobs caused by frequent layoffs (Kowske et al. 2010). These frequent layoffs help Millennials navigate the growth of the 'Gig Economy' by changing their expectations. They do not expect stability and their well-being is not necessarily negatively affected by the growth of the 'Gig Economy'. An unstable schedule allows Millennials to shape work around their lives, which gives them satisfaction with their employment, because the value they put on their lives is more than the job (Deal et al. 2010; Gursoy et al. 2008; Kowske et al. 2010). This is supported by the data because most of the sample is satisfied with their employment (52%).

Artazcoz et al. (2005), Buffel et al. (2015), and Ferrie et al. (2002) found that precarious work is associated with higher rates of mental illness. Artazcoz et al. (2005) and Ferrie et al. (2002) found that precarious employees have higher rates of depression and Buffel et al. (2015) found that these employees use anti-depressants more than non-precarious employees. However, these studies did not differentiate based on the generational status of the participant and they also do not include participants' work satisfaction. I advance this research by including satisfaction as a mediator and only studying the Millennial Generation. I find that precarious work in the Millennials is mediated by satisfaction.

I find that job satisfaction mediates the relationship between precarious work and depression in the Millennial Generation. Similar to this study, Chambel and Castanheria (2007), De Cuyper and De Witte (2006), Guest et al. (2006), and Wilkin (2012) found that satisfaction is mediator between precarious work and depression. These studies did not differentiate their samples by generation, but instead focused on participants of all ages without distinguishing their generational status. I also find that satisfaction is a mediator only between control in the work place and depression, and not work schedule stability as I expected. Schedule instability is not associated with depression before the mediator is introduced and after it is introduced. For these Millennial workers, they are affected by their lack of control in the work place rather than their schedule stability. Dissatisfaction and extreme dissatisfaction with work are the two conditions that are consistently related to depression as mediators. The Millennial workers are more concerned about their satisfaction than their control at work and work schedule.

The consequences of precarious work are debated in previous research. The present study finds that being satisfied with employment is important to the mental well-being of Millennials, while unstable work schedule and control at work are not. A Millennial that is unsatisfied with his or her employment will experience more depressive symptoms. Understanding that dissatisfied precarious workers experience more depressive symptoms is important to determining why and under what circumstances precarious work poses a mental health risk. This research is important because of the increased prevalence of precarious work. With this increase in precarious work it is important to know that dissatisfaction is the catalyst for poor mental health in Millennials. Because this research focuses on precarious work in Millennials, future research should address the consequences of precarious work in other generations.

This research fills a gap presented by previous research by giving focused attention to the precarious workers of a younger generation first entering the fulltime workforce. These Millennial workers are not suffering with depression from unstable work schedules or lack of control as long as they are satisfied with their employment. Even though they are working in an economy with increasingly more precarious work, most of them are satisfied. Their normalization of layoffs and changing employment are protecting them from higher rates of depression. Their employment in the gig economy is malleable and maneuverable around Millennials' lives, which is prioritized. I am adding a life course dimension to the precarious work literature by determining how precarious work is specifically impacting the Millennial Generation. More research needs to be done to determine how other generations respond to precarious work.

Aligning with past research, precarious workers are associated with a profile of disadvantage. Native Americans have a higher proportion or participants in precarious employment. However, the other minority races are not associated with precarious work. Interestingly, income for precarious workers and non-precarious workers is not statistically different. Depression at Wave III is also not different for precarious workers and non-precarious workers. This eliminates the possibility of a selection bias in the data. Both groups were statistically the same depression at Wave III so it would not suggest that the depressed participants would choose precarious work over non-depressed participants.

There are two limitations that need to be addressed when discussing the results of this study. First, due to the data that are being used for this research, I cannot conclude if the relationship between precarious work and depression is a cohort effect or a generational effect. According to De Cuyper and De Witte (2006), the average age of participants with temporary

jobs (a type of precarious work) was 29 years old. Levenson (2010) suggested that all workers in every generation are more likely to experience lower quality work at this age. As workers get older they are more likely to find higher quality employment (Levenson 2010). It is possible that my conclusion that precariously employed millennials are not associated with depression because they are satisfied with their jobs could be from a cohort expectation that most people in this age cohort are more likely to have precarious job. Second, due to missing cases for each of my variables, almost 300 participants were excluded from the analysis using listwise deletion. It is possible that the participants missing from the analysis were significantly different than the participants included and if they were included they would alter the results.

Despite these limitations, this research advances existing knowledge of precarious work and the consequences for the precarious employees. Even if there was a cohort effect on my participants, the millennial propensity to be satisfied with their unstable employment as long as they have control could last as they grow older in the job market. Future research should be focused on determining if this is a cohort or a generational effect. Because these jobs are growing more common it is important to understand the impact that they are having on the employees.

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