WHO'S IN, WHO'S OUT:

A DESCRIPTIVE ANALYSIS OF DEMOGRAPHIC AND CONTEXTUAL FACTORS

RELATED TO LABOR FORCE PARTICIPATION AMONG OLDER ADULTS

by

NYSHETIA L WHITE-CHAPMAN

GORDON MACNEIL, COMMITTEE CHAIR
BRENDA SMITH
MICHAEL PARKER
TANIA ALAMEDA-LAWSON
MICHAEL LAWSON

A DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
in the School of Social Work
in the Graduate School of
The University of Alabama

TUSCALOOSA, ALABAMA

2018

ABSTRACT

As the proportion of older adults in the United States grows, there are significant

concerns surrounding economic well-being in retirement. The two major components of the U.S

retirement income system, Social Security and employer-sponsored retirement plans, have

undergone significant changes that erode financial security in retirement. Working longer has

been proposed to help older adults overcome deficits in retirement income. However, even when

motivated to work, many older adults face significant challenges in the labor market, particularly

those who are unemployed or displaced. In the current study, secondary data from the Health and

Retirement Study (HRS) is used to identify demographic and contextual factors associated with

unemployment, displacement, and reemployment (among those who are displaced at Time 2)

among older adults. Logistic regression is used to examine the influence of race/ethnicity,

gender, education, relationship status, health status, income status, geographical location,

eligibility for retirement/age, and sector of employment on unemployment, displacement, and

reemployment. Results suggest being of an "other" race, being married, being in fair to poor

health, and having household income below the poverty threshold increased the odds of

employed while being previously employed in the service sector reduced the odds of

unemployment. All else equal, being African American and living in the West increases the

likelihood of displacement among older adults while being female, living in poverty, and being

eligible for retirement (aged 62 and older) reduces an older adult's chances of being

displaced. Finally, all else equal, being African American, living in the Northeast, and being

eligible for retirement (aged 62 and older) reduced the likelihood reemployment at Time 2. The

major implications of these findings for research, policy, and practice are discussed.

DEDICATION

I dedicate this work to those I have served as a social worker. Your lives, your struggles, and your resilience have had an indelible effect on who I am personally and professionally. I am forever grateful to you all and hope you have gained as much from me as I have gained from you.

LIST OF ABBREVIATIONS AND SYMBOLS

AARP   American Association of Retired Persons

ACA   Affordable Care Act

BLS   Bureau of Labor Statistics

DOLETA   Department of Labor, Employment, and Training Administration

DWS   Displace Workers Survey

FRA   Full Retirement Age

HRS   Health and Retirement Study

OASI   Old-Age and Survivors Insurance

α significance level

β Coefficient

CI   confidence interval

df   degrees of freedom

f   frequency (i.e. how often something happens)

n   sample size

p   p-value

R^2 coefficient of determination

=   equal to

>   greater than

<   less than

ACKNOWLEDGEMENTS

CONTENTS

LIST OF TABLES

CHAPTER ONE: INTRODUCTION

The population of United States is aging. Between now and 2030 the number of adults

aged 65 and older is projected to reach 72.8 million, or 20 percent of the U.S population, more

than double the population of 35 million older adults in 2000 and nearly 26.6 million more older

adults than in 2014 (Hetzel & Smith, 2000; Ortman, Velkoff, & Hogan, 2014). As the number of

retirees increases relative to the number of adults in the labor force, so do concerns about

society's ability to their meet the social and economic needs, particularly the growing number of

those with few, if any, financial resources beyond Social Security in retirement. Concerns are

warranted. The two major components of the U.S retirement income system, Social Security and

employer-based defined pension plans, have undergone significant changes in recent years

prompting researchers and legislators to encourage older adults to work later in life and take

greater personal responsibility for their own economic well-being in retirement. However,

despite longer, healthier life spans, many older adults, who are motivated to work, face

significant challenges in the labor market. Indeed, the labor market has changed significantly in

the last several decades. Many jobs once prevalent in our economy have either been outsourced

to low-wage countries or eliminated altogether as technology continues to replace human labor

in the production process. Despite assertions that jobs lost have been replaced with comparable

positions, research suggests these positions are often in different sectors of the economy and

require workers to have higher levels of education and skill for comparable pay (Autor, 2010).

These macro-economic changes place older displaced workers at a distinct disadvantage in the

labor market during a time in their lives they should be making financial preparations for

retirement (Szinovacz, Martin, & Davey,2013). Without systematic efforts to understand factors that inhibit or enhance their ability to secure subsequent employment, older displaced workers face prolonged periods of unemployment that prevent them from meeting their immediate financial needs, let alone save for their retirement.

Background to the Study

Financial stability in retirement has historically rested upon what is often referred to as the "three-legged stool" of retirement (Befort, 2006). The three-legs, Social Security, Employer-sponsored retirement plans, and personal savings, represent what is needed to build a strong financial foundation for retirement. Much like a real three-legged stool, if one leg in the retirement stool is broken or otherwise damaged, the stool cannot safely bear weight. Even so, macro-level changes have resulted in many older adults entering retirement with stools that have one or more broken legs.

The first leg, and the most prevalent source of income among older adults in retirement, is Social Security. Social Security is an employment-based social insurance program that provides a level of income for workers in the event disability or retirement (Social Security Administration (SSA), 2016). Workers make contributions into the program while employed and benefits are paid upon retirement. The amount a retiree receives varies based on their age at retirement, prior earnings, and work history (SSA, 2017). Most workers in the U.S. are covered by Social Security. Indeed, approximately 84 percent of older adults received benefits in 2014 (SSA, 2016). Although an important source of income in retirement, Social Security was never intended to be the primary or sole means of financial support for older adults in retirement (Segal, Gerdes, & Steiner, 2015). Despite this, 61 percent of older adults rely on Social Security for over half of their income in retirement; of those, 33 percent depend on benefits for 90 percent or more of their income in retirement (Segal, Gerdes, & Steiner, 2015; Social Security

Administration, 2016). This suggests many older adults may face significant financial difficulties in retirement. Indeed, to maintain their pre-retirement standard of living, research suggests the average older adult needs to replace roughly 85 percent of their pre-retirement income (Rhee, 2013). Under the current benefit formula, Social Security only provides a replacement rate of roughly 35 percent, leaving a retirement gap of 50 percent of pre-retirement earnings (Rhee, 2013). This raises serious questions about the living standards of income poor older adults relying primarily or solely on Social Security in retirement and poses additional questions about the living standards and needs of future retirees at risk for overreliance on Social Security in retirement. This is particularly troubling in light of concerns about the program's long-term viability. The current system is pay-as-you-go; meaning today's workers support today's retirees. However, as the number of older adults receiving benefits increases relative to the number of adults working and paying into the system, supporting the program's costs and the needs of older adults will create significant challenges for society (Quinn & Cahill, 2016; Segal, Gerdes, & Steiner, 2015; Toossi, 2015). If no action is taken to increase program funding, Social Security's combined Old-Age and Survivors Insurance (OASI) and DI trust funds will be exhausted in 2034 (Board of Trustees, Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds (Board of Trustees), 2016). After 2034, Social Security would only be able to pay three-fourths of scheduled benefits; essentially thrusting those relying on benefits for income support in retirement into dire financial straits (Board of Trustees, 2016).

The next leg and second most important source of income among older adults in retirement is employer-sponsored retirement plans. Employer-sponsored retirement plans are benefits offered to employees that provide an avenue for saving for retirement. Many employers do not offer this benefit to their employees (Rhee, 2013; Rhee, 2014; Rhee & Boivie 2015). Only

55 percent of workers in the private sector have access to employer sponsored retirement plans with just 4 out of 10 being covered by the more financially secure defined benefit plans (Rhee & Boivie, 2015). Traditionally referred to as pensions, defined benefit plans, provide a dependable source of retirement income that is also insured by the federal government. The maximum benefit guaranteed for workers in 2016 was $60,136 a year with the guarantee being lower for those who retire early and higher for those retiring later (after age 65) (Pension Guaranty Benefit Corporation, 2016). Despite the financial security offered by defined benefit plans, changes in the private sector have resulted in more workers being offered defined contribution plans. These plans are less secure than defined benefit plans and require workers to contribute a percentage of their income to an individual retirement account where employers may also make contributions (Rhee, 2013). Workers with defined contribution plans must make their own decisions about how much they contribute and how their funds are invested. This places the funding burden and investment risk on individuals who often have difficulty knowing how much to contribute on their own and who typically lack investment expertise (Rhee, 2013). Further, defined contribution plans are not insured by the government and there is no guaranteed level of income in retirement. The amount of income in retirement depends on workers contributions to the account while working and the performance of their investment choices in the stock market. If workers do not contribute enough or make poor investment choices, they risk outliving their funds in retirement (Rhee, 2013). As a result, the shift from defined benefit pensions to defined contributions plans has significantly eroded income security in retirement for many older adults (Rhee, 2013).

The last leg in the three-legged stool of retirement security, and arguably the weakest for many older Americans, is personal savings. Although there is no consensus, financial advisors

suggest households save between 8 and 11 times their annual salaries for retirement; this includes any contributions from employer retirement plans (Rhee, 2010). For example, a couple nearing retirement whose combined annual salary is $50,000 would need to save between $400,000 and $550,000 to maintain their living standards in retirement. To accomplish this, they would need to save for retirement across their careers. This is a savings burden most households are unable to meet. Indeed, research suggest that 4 out of 5 older adult households have saved less than a year's salary (Rhee, 2013).

Collectively, questions surrounding Social Security's financial solvency, declining access to defined benefit plans, and insufficient personal savings have resulted in the three-legged stool no longer offering sufficient support for many in retirement. To address these concerns, policymakers have taken several important steps to encourage older adults to work later in life (Abraham & Houseman, 2008). For example, recent legislative changes allow older adults receiving full retirement benefits to work without their benefits being reduced and permit workers under the normal retirement age to phase into retirement while working a reduced schedule (Abraham & Houseman, 2008). Further, benefits have been made less generous by increasing the age at which workers may collect full Social Security benefits (Abraham & Houseman, 2008). Despite these efforts, many who would benefit from working longer having difficulties finding work (Kampfe, Wadsworth, Mamboleo, & Schonbrun, 2008). This is particularly disconcerting as research suggests displacement may induce older workers to retire when they are unable to find work; even when they are financially ill prepared for retirement (Van Solinge & Henkens, 2007). Indeed, Poterba, Venti, and Wise (2012) find that nearly half of older adults outlive their financial assets and must rely primarily on Social Security in late life. Further, approximately 64 percent of older adults draw their Social Security retirement benefits

before reaching the full retirement age (FRA); resulting in permanent reductions to their monthly benefits; up to 25 percent of those born between 1943 and 1954, and up to 30 percent of those born after 1959 (Munnell, 2015; Quinn & Cahill, 2016; U.S. Social Security Administration, 2015). For older adults with few opportunities to save or limited to no access to employer sponsored retirement plans, working until full retirement age adds significantly to their lifetime monthly benefit payments and allows them more time to make financial preparations for retirement. Additionally, for each year social security retirement is delayed beyond the FRA, benefit payment increases by 8 percent (Munnell, 2015; Quinn & Cahill, 2016). The difference between claiming retired worker benefits at age 66 and age 70 is an incredible 32 percent increase in monthly benefits (Munnell, 2015).

Problem Statement

While working longer offers significant financial benefits to older adults, it is based largely on the prevailing belief that opportunities to work are available to all interested in doing so. However, many older adults face significant challenges in today's labor market. Of particular interest to this research are the challenges faced by older workers experiencing involuntary job disruptions. Indeed, the U.S economy has undergone significant structural shifts over the last several decades that have resulted in an increase in the prevalence of work displacement among older workers as businesses move their operations overseas, eliminate positions, or permanently close their doors. Further, while worker displacement is generally accepted as a consequence of an evolving economy, older displaced workers face significant challenges to finding subsequent work. Although a substantial body of research documents change in the prevalence and risk associated with work displacement among the working age population, a relatively small amount of that literature has been dedicated to understanding factors associated with displacement and

subsequent reemployment among older workers. More specifically, very little is known about the characteristics of today's older displaced workers, factors that increase their susceptibility to displacement, and their likelihood of reemployment.

Purpose of the Study

The purpose of this study was to examine demographic (race, ethnicity, gender, education, relationship status, health) and contextual (income, residence, retirement eligibility, and industry of previous employment) factors related to the incidence of unemployment, displacement and reemployment among older adults. This study addressed the following research questions:

> **Research Question 1**: Among older adults, what demographic (Race, Ethnicity, Gender, Eligibility for retirement, Education, Relationship Status, Health Status) and contextual (Income Status, Geographical location, Sector of Employment) factors are associated with the likelihood of being unemployed at Time 1?
>
> **Research Question 2:** Among older unemployed adults, what demographic (Race, Ethnicity, Gender, Eligibility for retirement, Education, Relationship Status, Health Status) and contextual (Income Status, Geographical location, Sector of employment) factors are associated with the likelihood of workers being displaced at Time 1?
>
> **Research Question 3:** Among older workers displaced at Time 1, what demographic (Race, Ethnicity, Gender, Eligibility for retirement, Education, Relationship Status, Health Status) and contextual (Income Status, Geographical location, Sector of employment) factors are associated with the likelihood of being reemployed at Time 2?

Overview of Methodology

This research study was a secondary analysis of the 2010-2012 waves of the Health and Retirement Study (HRS). The survey is an ongoing study of older adults in the U.S. Interviews are conducted biannually on variety of issues related to aging; including work (Chien et. al., 2015; Sonnega, Faul, Ofstedal, Langa, Phillips, & Weir, 2014). This study used respondent level data on demographic and contextual factors to address the research questions. Logistic regression was used to examine the influence of the independent variables on each of the dependent variables. All estimation was done in SPSS 24. Weighted tests were conducted using SPSS's module for complex samples.

Significance of the Study

This study is significant in that it furthers our understanding of demographic and contextual factors that predispose older adults to unemployment, displacement, and post-displacement reemployment. The findings are useful for gerontological social workers and policy makers interested in understanding factors that inhibit or support older adult labor force participation and provides guidance in the development of policies and interventions to support continued employment among older adults.

Organization of the Study

This dissertation is organized into five chapters. This chapter introduced the general problem and issues under investigation, the significance to social work research, and the approach used in this study. Chapter 2 reviews important theoretical and empirical foundations for this study. Chapter 3 presents the study's methods including information on research design, sample selection, data collection, and data analysis. Chapter 4 presents the results of the analysis and Chapter 5 provides a discussion of the study's results and implications for future research.

CHAPTER TWO: LITERATURE REVIEW

Theoretical Perspective

This study uses a systems perspective to understand the relationship between changes in the economy and three separate phenomena among older workers: general unemployment, unemployment resulting from displacement, and reemployment among displaced workers. Systems theory is central to social work practice. It provides an organizing theoretical framework for understanding client problems within the larger social context (Friedman & Allen, 2014). Utilizing a systems perspective increases awareness of how interactions between systems and subsystems can create, maintain, or alleviate social problems (Forder, 1976). This in turn draws attention to the range of potential systems at which social work interventions may be targeted (Forder, 1976). There are several major concepts and principles associated with systems theory that are particularly relevant to understanding general unemployment, displacement, and reemployment among older workers. They include: defining systems, understanding system boundaries, how energy drives system behavior- specifically as it relates to energy inputs and outputs, homeostasis, and feedback.

A system can be defined as an organized set of interrelated parts working together to perform the functions necessary to achieve its objectives (Friedman & Allen, 2014; Forder, 1976; Kondrat, 2013). Inherent in this definition is the concept of the holon; the idea that all systems are simultaneously complete systems and subsystems of larger systems. An ancillary concept is that a system cannot be deconstructed; it must be understood as a whole (Kondrat, 2013). Also, systems engage in goal-directed behavior. For example, the goals of the economic

system generally include the production, distribution, and consumption of goods and services. Its processes and subsystems work to ensure efficiency and financial gain. To understand and evaluate the effectiveness of a system, it is important to keep the goals of that system in mind.

Another important concept in systems theory is boundaries. All systems have boundaries that make them distinguishable from other systems. Boundaries determine which entities are inside the system and which entities are not. Systems can also change and grow as they exchange energy with other systems. However, this is only possible if a system is open and its boundary are permeable or permissive of the transfer of energy (Friedman & Allen, 2014; Kondrat, 2013). Energy often takes the form of tangible and intangible resources. Tangible resources include food, shelter, transportation, and money. These things contribute to the physical maintenance of a system. Intangible resources, like information, provide valuable knowledge that can be used to help the system improve its functioning (Friedman & Allen, 2014). The exchange of information, within and between systems, takes place via feedback whereby systems evaluate whether its output is commensurate with its goals. (Netting, 2013). If not, systems, which are often self-regulating, are able to adjust their input to correct the output (Friedman & Allen, 2014; Netting, 2013).

A systems perspective suggests general unemployment and displacement are unintended, but necessary consequences resulting from the economic systems efforts to grow and realign itself with a changing environment. For example, general unemployment and displacement both increase during economic recessions. As the demand for goods falls, energy exchanged between systems, in the form of information, prompts a corrective response to maintain homeostasis. This response generally involves finding ways to lower costs until the demand for goods returns. Systems theory suggests, when businesses receive information suggesting they are not meeting

their goals (i.e., maximizing profit), they adjust their inputs to match their outputs. Corrective actions often involve lowering labor costs by eliminating overtime, reducing hours, and increasingly displacing workers. In this way, businesses maintain economic viability, but at the cost of placing workers in economically vulnerable positions. To be fair, the goals of the economic system, particularly a capitalist system, are not to ensure the economic well-being for individual and family systems. Indeed, the ethos in the U. S suggests economic well-being is the responsibility of the individual and their families. However, systems are inextricably linked. It is the demand for products and services from consumers (via the consumption of goods and services from individuals and families) that increases the need for businesses output and thereby their input. Across time, interactions with other systems, like the political system, have made it easier for entities within the economic system to pursue profit at the expense of the economic well-being of workers. Businesses often complain that the cost of labor is often too high to maintain profitability and lobby for legislation that lowers taxes or makes it easier to move operations abroad to take advantage of lowered labor costs. This process involves energy transfers between the economic and political system. Indicators, such as the unemployment rate, retail sales, and gross domestic product, are used to communicate barriers to effectiveness of the economic system in accomplishing its overall goals. When these indicators are off, a corrective response is triggered that operates in tandem with other systems to help optimize the system's ability to achieve its goals. However, these changes reverberate throughout all systems. This is essentially what has happened over the last several decades.

A Changing Economic System

Understanding the major drivers of change and the historic effects within and between systems aides in understanding the contextual challenges faced by older displaced workers in

today's labor market. Work in the Colonies centered around subsistence farming for more than a century. As the nation grew, specialized occupations emerged to support the population's changing needs (Cox, Tice & Long, 2016). Indeed, the percentage of workers employed in agriculture sector (agriculture, forestry, and fishing) fell from 81.6 percent in the early 1800s to 34.4 percent in 1910 (Brady, 1996). This decline was largely associated with technological advances allowing land to be farmed, much faster, with fewer workers. This resulted in increases in agricultural output, but significant declines in the need for agricultural labor (Brady, 1966). As the need for human labor in agriculture decreased, other systems were also forced to adjust as the U.S economy transitioned from an agricultural base focused on the maintenance and production of crops to an industrial base driven by technology and the mass production of goods.

The mass production of goods is based on a highly specialized labor force. Workers are trained to complete one repetitive task well. This process is highly efficient, but results in a group of workers with highly specific skills that are rarely transferable in the event workers lose their jobs. Indeed, individual workers are only skilled in the tasks they were trained to perform (i.e, creating button holes, sewing inseams). For example, in a factory that makes jeans, no individual worker makes an entire pair of jeans. The factory is comprised of a series of production lines. Each line is responsible for one component in the jean making process (i.e., button holes or inseam). When they complete their task, the product is moved to the next stage of production and the process is repeated until the product is finished. Each production line could be understood as a subsystem within the larger system of the factory. Each line must communicate with each other in the same way systems communicate within and between themselves. Energy in the form of a task completed towards a finished product flows between the lines and feedback is continuously given to ensure input matches output and daily quotas are

12

met. A disruption in any of the production lines will result in the entire system having to adjust if the lines are to continue towards their goal. Similarly, when systems experience disruptions, they sometimes require additional input from other systems (i.e., corporate bailouts) to correct inefficient functioning and ensure its long-term viability. However, this illustration runs counter to an important concept of systems theory: there is no linear "cause and effect" understanding but rather a circular "everything is affecting everything simultaneously" position is taken. So, my illustration refers only to the interactions between systems- and does not hold up with the chronological "cause and effect" relationship articulated.

Work in the goods-producing sector is driven by consumer demand for goods. As a result, employment in the sector is sensitive to the business cycle. When demand is high, companies hire workers to fill demand. When demand is low, companies lay workers off until demand improves (Cox, Tice, & Long, 2016). If there were significant decline in the demand for jeans. This information would be communicated through declining retail sales and reduced orders for jeans from the factory. The factory owner would take this information and evaluate the companies output and determine ways to reduce its input to match current demand. The most efficient way to adjust input into the factory system is to lay workers off, but depending on demand, other methods, like eliminating overtime, might also be taken into consideration. This process is consistent with the idea of feedback in systems theory. Businesses take the information communicated by other systems and use that information to improve its functioning and maintain homeostasis. This feedback loop allows economic systems to maximize profits and cut costs. Indeed, this process whereby lowered demand for goods results in temporary layoffs was a common feature in the goods-producing sector until the late 1970s when temporary layoffs became permanent displacements.

At that time, U.S companies were facing increased competition from around the world and sought ways to lower the costs of production (Janoski, Luke, & Oliver, 2014). To remain competitive, companies took advantage of technological advances in communication and information management to lower their labor costs (Janoski, Luke, & Oliver, 2014; Tuzemen & Willis, 2013; Autor, 2010). More specifically, technological innovation provided the necessary tools for companies to coordinate and control goods, services, and people from anywhere in the world; enabling businesses to more easily offshore and outsource their operations to exploit cheaper sources of labor abroad (Tuzemen & Willis, 2013; Autor, 2010). Automation also supported companies' efforts to reduce labor costs by eliminating the need for human labor in routinized parts of the production process (Janoski, Luke, & Oliver, 2014). Combined, these efforts resulted in the permanent displacement of workers and declines in the total share of employment in the goods-producing sector (Tuzemen & Willis, 2013; Autor, 2010). Once again, the U.S economic system transitioned; this time from an industrial base to a service base.

Service-based employment involves the provision of services rather than the production of tangible goods (Goodman, Nelson, Ackerman, & Weisskopf, 2009). As such, jobs in the service sector operate in separate, but related system. Service sector employment includes jobs in transportation, food service, and retailing of physical goods in addition to direct services not involving the distribution of any physical goods, such as education, social services and administration (Goodman, Nelson, Ackerman, & Weisskopf, 2009). Despite its expanding opportunities, work in the service sector is very different from work in the goods-producing sector. For example, jobs in the goods-producing sector typically offer full time schedules, competitive wages, and benefits that frequently include pension plans (Kalleberg, Reskin, & Hudson, 2000). Many available jobs in the service sector are part-time, offer lower wages and

provide no access to pension plans (Kalleberg, Reskin, & Hudson, 2000). Service sector jobs paying competitive wages typically require more education than comparable jobs in the goods-producing sector (Autor, 2010). This creates barriers to finding jobs in the service sector offering comparable benefits to those offered in the goods-producing sector, particularly for those with lower levels of education. If a system's boundaries are permeable it allows for energy to come into it and leave it. Largely this energy is in the form of information. So, in this example the boundaries would be more permeable if everyone in the system was able to input and use information about the status of the system. If the system had less permeable boundaries this information flow would be reduced- perhaps the administration would limit the workers' access to information about the larger system. When agricultural workers were displaced, they moved seamlessly into available employment opportunities in factories. There were few, if any, educational requirements and companies trained employees to fulfill their job functions. Today, on-the-job-training is far less prevalent and workers are expected to meet training requirements prior to employment. Displaced workers are often unable to meet job requirements in the service sector because the skills they have acquired are largely obsolete. For workers employed for many years in the goods-producing sector, workers displacement comes with significant consequences, particularly for older workers.

Consequences for Older Workers

When workers are displaced, there are immediate financial challenges associated with unemployment, especially for workers who are unable to quickly secure another position with comparable wages and for those who have limited financial resources. Even with the availability of unemployment benefits, workers face significant economic challenges after displacement. For example, unemployment benefits typically replace 46.3% of lost wages with dramatic

differences in the replacement ratio from state-to-state (DOLETA, 2015). Indeed, benefits replaced as little as 35% of lost earnings in Alaska and as much as 56% of lost earnings in Hawaii (DOLETA, 2015). Further the maximum duration of benefits varies dramatically from state-to-state with workers in Montana being eligible for up to 28 weeks of benefits while workers in Florida are only eligible for up to 12 weeks (Center on Budget and Policy Priorities (CBPP), 2017). The state-to-state disparities in unemployment benefits result from concerns that more generous benefits discourage work (Tatsiramos, 2010). States offering lower replacement rates and shorter benefit durations place workers at an increased risk for financial difficulties, particularly for older workers (Brand 2004; Chan & Stevens 1999; Farber 2003, 2005; Kletzer 1998).

Compared to their younger counterparts, older workers experience longer durations of unemployment (AARP, 2017). Subsequently, they are more likely to reach the maximum number of weeks allowed for unemployment benefits despite their efforts to secure new employment. Research suggests older adult difficulties finding employment may be related to discrimination and negative age-related stereotypes held by employers (Brenner, 2017). However, Ng and Feldman (2012) examine six common stereotypes about older workers including: older workers are less motivated and career ambitious, older workers are less willing to participate in supplemental training and education; older workers are more resistant to change; older workers are less healthy than younger workers; and older workers are more susceptible work-family imbalances. Their findings suggest that, despite the pervasiveness of these stereotypes, there is only empirical support for older workers being less willing to participate in supplemental training and education (Ng & Feldman, 2012). This generally attributed to older adults concerns about the costs associated with additional education and training and their

educational performance after so many years out of school (Liu, Courtenay, & Valentine, 2011). Subsequently, if available jobs require additional training and education, older unemployed adults may feel forced to retirement (Shultz, Morton, & Weckerle, 1998; Szinovacz, & Davey, 2005).

Even when older adults find new jobs, they often suffer significant long-term wage loss in excess of that experienced by their younger counterparts (Couch & Placzek, 2010). This is generally attributed to the loss of firm-specific capitol. As a worker's tenure with a company increases their pay increases with raises and they become more valuable to the organization. However, firm-specific capitol is valued within a specific firm and typically non-transferable for displaced workers whose skills are already in low demand (Couch, Jolly, & Placzek, 2009). To secure new jobs, workers must often accept positions of lower quality that are typically in other industries (Brand 2015, 2006). This is particularly problematic for older adults who have not prepared for retirement across their working life. Although not ideal, many households actively start planning for retirement in the years preceding retirement (Rhee, 2013). This suggests that instead of saving and making suggested contributions to retirement accounts across their working lives, many older adults begin active financial preparations for retirement when it is already too late to ensure they will have adequate funds that will last through their retirements (Rhee, 2013). When older workers are displaced from their jobs and reemployed in in jobs offering lower wages, this further impedes their ability to financially prepare for retirement and makes working longer a less attractive option to early retirement (Shultz, Morton, & Weckerle, 1998; Szinovacz, & Davey, 2005).

The financial strain resulting from unemployment is also associated with marital strain and dissolution (Charles & Stephens, 2004, Schaller, 2013). Research suggests worker

displacement affects marital stability and family economic security (Brand, 2015). Viewed from a systems perspective, being unable to work and provide for one's family severely hinders the family system's ability to achieve its goals and the family would need to respond in ways to reestablish homeostasis, placing a strain on the system (Price, Choi, & Vinokur, 2002; Wanberg, 2012). Although unemployment benefits help buffer some of the effects of financial strain by increasing input into the family system, benefits only replace a small proportion of loss income. Displaced workers and families must continue to find ways to supplement income deficits and meet their financial obligations. As they look for employment, workers must also deal with the emotional strain associated with changes to their role within the family. Research suggests spouses are initially understanding of the challenges displaced workers face, but this support often diminishes as the duration of unemployment increases and financial strain persists (Charles & Stephens, 2004; Schaller, 2013). Consequently, prolonged joblessness following worker displacement is often associated with an increased risk of divorce (Charles & Stephens, 2004, Schaller, 2013). Although research on job displacement and marital dissolution/divorce is limited by its focus on this phenomena among the working age population (adults aged 20-54), a growing body of literature is beginning to examine the factors associated with the rising incidence of divorce among older adults. Using data from the U.S Vital Statistics and American Community Survey (ACS), Brown and Lin (2012) document changes in the divorce rate among persons aged 50 and older between 1990 and 2010. They also examine sociodemographic factors, including employment status, associated with incidence of divorce. Their results suggest, all else equal, the incidence of divorce is higher among unemployed older adults (Brown & Lin, 2012). This is problematic for aging adults; particularly aging men. In the absence of a spouse, older adults are likely to place greater demands for social support on their adult children.

However, available research suggests parent-adult children relationships change with parental divorce with adult children being unlikely to provide care for their divorced father (Brown & Lin, 2012; Lin, 2008; Shapiro 2003). In the absence of family willing to provide social support and caregiving as older divorced men age, society will have to find ways to address this populations needs.

In addition to the financial and relationship changes associated with worker displacement and unemployment, research suggests displacement is associated with worsening physical and mental health among older displaced workers. Using data from the HRS, Gallo, Bradley, Siegel, and Kasl (2000) examined the effects of displacement on the health among older workers. Their results suggest worker displacement is associated with worsening physical functioning and mental health among older displaced workers. This is consistent with a systems perspective which suggests job loss presents a source of acute stress associated with the immediate disruption to the work role, as well as chronic stress resulting from continuing economic and social and psychological strain (Pearlin et al. 1981; Price, Choi, & Vinokur, 2002; Wanberg, 2012). At the level of the individual-as-a-system, Maier et al. (2006) showed that cortisol levels steadily increased during the first year of unemployment as well as thereafter. The authors conclude that psychological distress increases with the duration of unemployment which is reflected in an increase of cortisol production over time. Dettenborn et al. (2010) also found elevated cortisol levels among long-term unemployed individuals compared to healthy controls. Elevated cortisol levels among the unemployed is significant because repeated elevations in cortisol levels are associated with a range of negative health outcomes including: diabetes, weight gain, obesity, immune system suppression, gastrointestinal problems, and cardiovascular disease (Society of Endocrinology, 2013).

Although research suggests that mental health generally improves upon reemployment or adjustment to the unemployment state, older displaced workers with fewer financial resources are at increased risk of enduring problems with mental health (Gallo, Bradley, Dubin, Jones, Falba, Teng, & Kasl, 2006). This is particularly troubling in light of recent research by Stolove, Galatzer-Levy, and Bonanno (2017), suggesting those who become depressed following a job loss are much less likely to become reemployed. Further, worker displacement is associated with other negative health outcomes including the increased risk for myocardial infarction and stroke as well as negative health-related behaviors including increased alcohol consumption and substance abuse (Gallo, Bradley, Siegel, & Kasl, 2001; Paul & Batinic, 2010; Price, Choi, &Vinokur, 2002; Wanberg, 2012).

Changes in one systems affect other systems because of the interrelatedness of their processes and functions (Netting, 2013). Similarly, worker displacement also has negative financial consequences for communities and the regions in which they are located. When businesses close and workers are displaced, the effects ripple across systems as local communities lose important sources of individual and corporate tax revenue used to support community needs and infrastructure (Downs, 1995; Ginsburg, 1994; Russo & Linkon, 2009). This in turn reduces the community's ability to respond to the social needs of individuals and families devastated by the effects of displacement (Streeter, 2013). Further, in many communities, companies and their ancillary support services are the major source of economic activity (Lichter & Graefe, 2011). For example, if a major car manufacturer moves to a region, companies that supply the components needed in the production of cars (e.g., steel, tires, etc.) will also establish operations in the region to supply the needs of the car manufacturer. However, if this same manufacturer permanently shuts down production, it's not uncommon for ancillary

businesses to also close (Feldman, 2003). Subsequently, when major business close or downsize, the results can be economically devastating to communities. The economic problems created are evident in the deterioration of infrastructure, education, and other vital public services (Hoerr, 1988; Felman, 2003). For community leaders, the loss of local revenue occurs simultaneous to displaced workers increased need for economic support and the urgent need to revitalize the community and attract new businesses to replace lost jobs.

Factors Related to Unemployment

Existing research comparing unemployment among subgroups in the populations typically explores the relationship between unemployment and demographic factors like race/ethnicity, gender, age, and education among working age adults or those aged 20 to 54 years of age (Elsby, Hobijn, & Sahin, 2010; Kroft, Lange, Notowidigdo, & Katz, 2016; Sahin, Song, & Hobijn, 2010). This research typically suggests the chances of being unemployed are higher for minorities compared to Whites, those with less education compared to those with higher levels of education, younger workers compared to older workers, and men compared to women (Elsby, Hobijn, & Sahin, 2010; Kroft, Lange, Notowidigdo, & Katz, 2016; Michealides & Mueser, 2013; Sahin, Song, & Hobijn, 2010). The relationship between demographic factors and unemployment is less understood, but existing research suggests similar relationships exist among older workers. For example, using nationally representative data from the Current Population Survey (CPS), Jeszeck (2012) examined differences in the incidence of unemployment among subgroups of older workers. His findings suggest men compared to women, minorities compared to whites, and those with less than a high school education compared to those with a high school education or greater, have higher incidences of unemployment (Jeszcek, 2012).

Research also suggests marital status is negatively associated with unemployment, however, it is uncertain whether being unemployed influences whether older adults stay or get married/partnered or whether being married/partnered influences one's employment status (Emeka, 2009). Spousal support may buffer the negative emotional effects of unemployment and encourage job search self-efficacy (Maddy, Cannon, & Lichtenberger, 2015; Milner, Krnjacki, Butterworth, & LaMontagne, 2016). Spouses/partners may also facilitate job search and reemployment by eliciting information about job openings from others in their social networks (Seibert, Kraimer & Liden, 2001). Conversely,

Research on health and unemployment suggests job loss increases the risks of cardiovascular disease in older adults (Gallo, 2012; Gallo, Bradley, Falba, Dubin, Cramer, Bogardus, & Kasl, 2004; Gallo, Teng, Falba, Kasl, Krumholz, & Bradley, 2006; Dupre, George, Liu, & Peterson, 2012; Noelke & Avendano, 2015). This may be indicative of poor coping skills among the unemployed. Research further suggests unemployment is associated with a number of negative health behaviors including increases in smoking, alcohol consumption, and illegal drug use (Compton, Gfroerer, Conway, & Finger, 2014).

Research further suggests a relationship exists between poverty and unemployment (Atkinson, & Swanstrom, 2012; Gallie, Paugam, & Jacobs, 2003; Piven & Cloward, 2012). Atkinson & Swanstrom (2012) suggest poverty may predispose workers to unemployment. Conversely, the economic strain associated with unemployment may result in poverty (Atkinson, & Swanstrom, 2012). Gallie, Paugam, and Jacobs (2003) propose both processes may be at work. They suggest the relationship between poverty and unemployment is reiterative and being marginalized in the labor market results in poverty and social isolation which subsequently reinforce unemployment (Gallie, Paugam, & Jacobs, 2003).

Research also suggests employment in the service sector may be associated with lower odds of unemployment. Indeed, service sector workers fare better in today's labor market compared to workers in the goods-producing sector (Autor, 2010; David, Katz, & Kearney, 2006; Lippman, 2008).

Factors Related to Worker Displacement

Relatively little was known about factors related to worker displacement prior to 1984 (Flaim & Sehgal, 1985). Around that time, there were public concern about permanent job loss among displaced workers as globalization, generous foreign trade policies, and technological advances changed the demand for labor in the United States (Flaim & Sehgal, 1985). To address concerns, the Department of Labor developed the Displaced Workers Survey (DWS) to better understand factors associated with the incidence of worker displacement and factors associated with post-displacement employment outcomes like reemployment, (Flaim & Sehgal, 1985). It is important to note these changes had been occurring within the economic system for years, but it was not until its effects were felt within individual and family systems that action was taken to understand the effects of worker displacement. The DWS is administered every two years and asks respondents about their post-displacement employment experiences in the previous 3 years (prior to 1994, respondents were asked about the previous 5 years) (BLS, 2016). Since its inception, researchers have used DWS data to evaluate demographic and contextual factors related to an increased susceptibility to worker displacement and to determine the relationship between these factors and post-displacement employment outcomes. This has resulted in a sizeable body of literature evaluating factors associated with worker displacement and reemployment since the early1980s and documented the changing association of these factors with worker displacement and reemployment over time. From a systems perspective, these

changes reflect businesses' efforts to adjust to changing economic contexts and makes systems more efficient in the attainment of their goals which often involve maximizing profit; automation and permanent worker displacement are often used as tools to cut the cost of labor.

Between January and July of 1980, the U.S. entered a relatively brief recessionary period (Bednarzik, Hewson, & Uruquhart, 1982). Before the economy could fully recover, the U.S entered another recessionary period, between July 1981 and November 1982 (Bednarzik, Hewson, & Uruquhart, 1982). The back-to-back recessions resulted in 12 million workers being displaced (Gardner, 1995; Westcott & Bednarzik, 1981). The goods-producing sector accounted for 9 out of every 10 jobs loss (Uruquat & Hewson, 1983). Between January 1981 and December 1982 nearly 2.5 million workers were displaced from the goods-producing sector with nearly 2 million being displaced from manufacturing industries alone (Uruquat & Hewson, 1983). An additional 400,000 workers were displaced from the service sector, however, 600,000 jobs were added to the service sector by the end of the recession for a net gain of 200,000 jobs (Uruquat & Hewson, 1983). Because of their higher concentrations in the goods-producing sector, men were more likely than women to be displaced. Similarly, because of the regions high concentration of manufacturing industries, workers in the Midwest's Rustbelt were particularly vulnerable to displacement (Gardner, 1995). The incidence of displacement among African Americans was much higher than that of Whites and Hispanics; younger workers also had higher rates of displacement compared (Uruquat & Hewson, 1983).

Between July 1990 and March 1991, the U.S entered another recessionary period that resulted in approximately 5.5 million workers being permanently displaced from their jobs (Gardner, 1995). Despite the recessions official end in 1991, job loss and unemployment continued to rise through 1992 and did not return to pre-recession levels until 1997 (Smith,

2011). In addition to a jobless recovery, there were also several notable differences between this recession and previous recessionary periods. Displacement during this period was more broadly distributed across the economy with the incidence of displacement increasing among workers in the service sector (Dzialo, Shank, & Smith, 1993; Gardner, 1995). More specifically, workers in the goods-producing sector were still more likely to be displaced, but incidence of displacement was lower than it had been in the early 1980s. This is in direct contrast to the service sector where the displacement rate was higher than it had been in the early 1980s. Using seven waves of data from the DWS, Farber (1996) examined changes in the incidence of worker displacement by demographic factors. The factors examined included age, education, sex, and race. His results suggest, all else being equal, the incidence of displacement among older workers and those with more education increased relative to their respective incidence of displacement in the 1980s (Farber, 1996). However, despite these increases, younger, workers, men and those with low levels of education continued to exhibit the most vulnerability to displacement (Farber, 1996). Also using data from the DWS, Gardner (1996), examined differences in the in the displacement experience of workers reporting worker displacement during the early 1980s and those displaced a decade later during the early 1990s. Her findings suggest significant changes in incidence of worker displacement among several demographic groups. Between the early 1980s and the early 1990s, there was a higher incidence of displacement among older workers, those employed in the service sector, and those in white-collar occupations (Gardner, 1995). She also finds geographical location influenced the incidence of displacement between the early 1980s and the early 1990s. The incidence of displacement was higher in the Midwest during the 1981-1982 period; the incidence of displacement was highest in the Northeast and West during the 1991-1992 survey period (Gardner, 1995). Growth in the labor market slowly improved and by the

decade's end nearly 21 million jobs were added to the service sectors as jobs in the goods-producing sector continued to leave the economy (Hatch & Clinton, 2000).

In March 2001, the U.S entered a global recession that lasted eight months and resulted in the loss of 11.4 million jobs between 2001 and 2003 (BLS, 2003). Job loss occurred across industries in the goods-producing sector as well as those in the service sector with 2.9 million workers being displaced from manufacturing, 1.7 million being displaced from wholesale and retail trade, and 1.5 million being displaced from professional and business services (BLS, 2003). Younger workers, men, and those with lower levels of education exhibited the most vulnerability to displacement. However, the incidence of displacement among older workers, women, and those with higher levels of education increased relative to their levels in the previous three recessions (Farber, 2005).

The most recent recessionary period occurred from December 2007 to June 2009 and was deeper and more extensive than any other recessionary period since the Great Depression (Hout, Levanon, & Cumberworth 2011). The U.S. unemployment rate fluctuated between 9 and 10 percent between 2009 and 2011; the highest rate since the early 1980s (Hout, Levanon, & Cumberworth 2011). Of the of 8.8 million jobs loss, 2.0 million were from the manufacturing industries (Goodman & Mance, 2011). In addition to those employed in the goods-producing sector, younger adults, men, and those with lower levels of education had higher incidences of displacement. Again, the incidence of displacement among older workers, women, and those with higher levels of education increased relative to their levels in the previous three recessions (Farber, 2011).

From a systems perspective, these changes reflect businesses efforts to adjust to changing economic contexts and makes systems more efficient in the attainment of their goals which often

involve maximizing profit; automation and permanent worker displacement are often used as a means to that end. However, as the effects of these changes have spread across time and systems, sufficient corrective action has not been taken to enhance the ability of individuals, families, and communities to adjust to changes in the larger economic context. In other words, to achieve homeostasis, more intervention is needed to improve access to programs and services that will support retraining and continued opportunities to work.

Factors Associated with Reemployment

Despite the deleterious consequences of worker displacement, the economy generally rebounds and new jobs are added to replace jobs that have been lost. Indeed, research suggests many workers have few difficulties finding new employment. However, the odds of finding subsequent work are not that same for all workers (Koeber & Wright, 2006). Research has explored a variety of factors associated with reemployment outcomes. Wanberg, Hough, and Song (2002) propose a model of multidisciplinary model of reemployment success with seven categories of predictors related to reemployment: labor market demand, job seeker human capital, job seeker social capital, situational constraints, need to work, job search, and employer discrimination. Using data from the Minnesota Department of Economic Security (MDES), they assess the effects of a subset of variables representing their variable categories on reemployment among adults receiving unemployment insurance in the state of Minnesota. Despite their inclusion of theoretically relevant variables, the amount of variance explained was small. However, they only explore the effects of a small subset of potential variables in each of the major variable groups; suggesting the need for additional research exploring a wider variety of variables in the seven major categories of variables.

Using data from the DWS, Koeber and Wright (2006) examined the influence of education, industry, occupation, region, pre-displacement earnings, pre-displacement tenure, marital status, children in the home, age, and race/ethnicity on reemployment among displaced workers aged 20 and older. Their findings suggest, ceteris paribus, being married, female, older, a racial/ethnic minority, or having less than a high school education is associated with reduced odds of being reemployed while working full-time prior to displacement is associated with increased odds of reemployment (Koeber & Wright, 2006). Johnson and Mommaerts (2011) used longitudinal data from the Survey of Income and Program Participation (SIPP) to estimate the log odds of displacement and subsequent reemployment. Their results show that although older workers are less likely to be displaced, those who are have greater difficulty finding subsequent employment compared to their younger counterparts (Johnson & Mommaerts, 2011). Further, their logit model for reemployment which included controls for race, ethnicity, education, marital status, location, health, income, and industry indicated the log odds of being reemployed were significantly lower, all else equal, for African Americans, Hispanics, and those in fair to poor health (Johnson & Mommaerts, 2011). Research exploring the relationship between geographical location and unemployment also suggests regional unemployment is an important predictor of reemployment (Wanberg, Hough, & Song, 2002). When regional unemployment is high, workers have longer durations of unemployment

Limitations in the Existing Literature

In recent years, researchers have focused less on the demographic and contextual factors related to worker displacement; choosing to focus more on post-displacement employment and earnings. Although this is important, a systems perspective suggests demographic and contextual factors are interrelated to vulnerability in the labor market and this vulnerability may

change with economic context. Further, to facilitate longevity in the workforce among older adults, we need more information about who among older adults is most vulnerable in the labor market. Indeed, older adults have received less attention in the literature on displacement and unemployment compared their younger peers. This is largely due to long-held beliefs that older workers were insulated from the vicissitudes in the labor market. However, it is now understood that although older workers tend to have lower unemployment rates, they have significantly longer durations of unemployment than their younger counterparts. Further, it is particularly important for social workers to understand those most influenced by changes occurring in the economic system effecting the availability and mix of different jobs. As older adults are increasingly being held responsible for financing their own retirements, policy responses and social work interventions must be responsive to both the changing economic contexts and the need for many older adults to work longer. Further, research on worker displacement rarely focuses on its effects among subgroups of workers. For example, demographic and contextual factors are examined for all workers, but not specifically for racial minorities, older workers, less educated workers, etc. Finally, the subset of demographic and contextual factors is limited; there are additional variables that may influence the likelihood of displacement and reemployment.

CHAPTER THREE: METHODS

The purpose of this study was to describe labor force participation among older adults and to examine demographic and contextual factors associated with the likelihood of unemployment, displacement, and subsequent displacement (among displaced workers). This chapter provides the methodology used to address the following research questions/hypotheses:

Research Question 1: Among older adults, what demographic (Race, Ethnicity, Gender, Eligibility for retirement, Education, Relationship Status, Health Status) and contextual (Income Status, Geographical location, Sector of Employment) factors are associated with the likelihood of being unemployed at Time 1?

Research Question 2: Among older unemployed adults, what demographic (Race, Ethnicity, Gender, Eligibility for retirement, Education, Relationship Status, Health Status) and contextual (Income Status, Geographical location, Sector of employment) factors are associated with the likelihood of workers being displaced at Time 1?

Research Question 3: Among older workers displaced at Time 1, what demographic (Race, Ethnicity, Gender, Eligibility for retirement, Education, Relationship Status, Health Status) and contextual (Income Status, Geographical location, Sector of employment) factors are associated with the likelihood of being reemployed at Time 2?

Data Source

The Health and Retirement Study (HRS) is an ongoing longitudinal study of Americans 50 and over and their spouses that began in 1992. The study uses a multistage area probability

sampling design with geographical stratification, clustering, and oversampling among African Americans and Hispanics (Sonnega, Faul, Ofstedal, Langa, Phillips, & Weir, 2014). Through in-depth interviews, data is collected on issues related to work, retirement, disability, income, wealth, health, and cognition (Chien et. al., 2015; Sonnega, Faul, Ofstedal, Langa, Phillips, & Weir, 2014). Interviews have been conducted biannually since 1992 with additional cohorts added in 1998 (the "War Babies," born from 1942 to 1947), in 2004 (the "Early Baby Boomers," born from 1948 to 1953), and in 2010 (the "Mid Baby Boomers," born from 1954 to 1959) (Chien et. al., 2015; Sonnega, Faul, Ofstedal, Langa, Phillips, & Weir, 2014). To make the data more accessible and easier to use, the RAND Center for the Study of Aging cleans the data and reconciles contradictory information in the RAND HRS Data Files (Chien et. al., 2015). These files include all available waves of data and a wide variety of variables derived from the original survey. However, they do not include the complete range of variables available (Chien et. al., 2015). To access variables not in the RAND HRS Data File, researchers can also access the RAND Enhanced Fat files which contain the raw HRS variables (Chien et. al., 2015). Because the same identification numbers are used in the RAND HRS Data Files and the RAND Enhanced Fat Files, the datasets are easily merged. This study used merged data from the RAND HRS Data File, version O and the 2010 Enhanced Fat File.

Considerations Regarding the Use of Secondary Data

The use of secondary data has several strengths and limitations. Two major strengths associated with its use are cost-effectiveness and convenience (Johnston, 2017). Because the data has already been collected, the resources typically associated with data collection are limited. The use of secondary datasets also provides access to high-quality datasets, large samples, and

diverse variables (Johnston, 2017). Further, large sample sizes allow for greater validity and more generalizable findings (Johnston, 2017; Smith, 2008).

Despite benefits, secondary analysis also has limitations. The most commonly cited is the use of existing data to answer questions that the original study was not designed to answer (Cheng & Phillips, 2014; Johnston, 2017). Because secondary data are not collected to address a study's specific research questions, issues may arise concerning whether the variables chosen truly reflect the constructs intended by the original researchers. For longitudinal studies, changes in the way variables are measured over time present challenges to historical comparisons. Additionally, the researchers involved in data collection and those involved in data analysis are often different in secondary data analysis. Researchers involved in data analysis may not be aware of important nuances related to data collection that may impact the interpretation of results (Cheng & Phillips, 2014). Further, the amount of documentation when using secondary datasets can be daunting and data users may miss important details that are not prominently presented; this is particularly the case with large complex datasets (Cheng & Phillips, 2014).

Regarding this research, changes occurring during previous waves resulted in worker displacement no longer being directly assessed in the regular survey. Instead, unemployed workers are asked to provide reasons for their unemployment and those responses are subsequently grouped and coded by similar categories. By not directly assessing job displacement, the displacement variable used in this study reflects respondent's perception of the reason for their unemployment at the time the questionnaire was administered; potentially underreporting the rate of job displacement in this study. For example, a worker may have been displaced, but identify themselves as being fired. It would be ideal if job displacement were directly assessed and specific information pertaining to those jobs were collected. With that said,

the HRS questionnaire does provide detailed information on most variables of interest in this research including respondent's labor force participation across waves as well as demographic, economic, and job characteristics. It is, therefore, suitable for use in this study.

Sample

The initial sample of the HRS included 12,652 respondents across 7,000 households in 1992. This study used data from the 2010 and 2012 waves of the HRS with total sample sizes of 22,032 and 20,544, respectively (Chien et. al., 2015; Sonnega, Faul, Ofstedal, Langa, Phillips, & Weir, 2014). Data from a sub-sample of 8818 respondents aged 50 and over identified as being in the labor force on a binary indicator of labor force participation in 2010 was used to answer the first research question. To answer the second research question, a binary indicator for unemployment was used to further reduce the sub-sample to respondents in the labor force but unemployed (n=798). The third research question was addressed by further reducing the sub-sample to those who indicated being unemployed due to business closures or layoffs on a categorical indicator of reason for unemployment (n=262).

Independent Variables

Demographic variables. Race, ethnicity, gender, education, relationship status, and health were the demographic variables of interest in the analysis to answer the research questions. *Race* refers to a respondent's self-reported racial identification and was specified by a categorical indicator of race where 1= White/Caucasian, 2= Black/African American, and 3= Other. Dummy variables were created for each category of race with White/Caucasian used as the reference category in analysis. *Ethnicity* refers to whether respondents identify themselves as Hispanic and was specified by a dichotomous indicator of Ethnicity where 0= Not Hispanic and 1= Hispanic; Non-Hispanic was the reference category for analysis. Gender refers to the

biological sex of respondents and was specified by a dichotomous indicator reflecting respondent's self-identified sex where 1= Male and 2= Female. A dummy variable for Female was created with Males being the reference category. *Education* refers to highest level of education and was a recode of the HRS variable for years of education specified by the highest level of education attained where 1= less than high school, 2= GED, 3= High-school graduate, 4= Some college, and 5= College and above. Dummy variables were created for each category of Education with College and above being the reference category. *Relationship Status* refers to whether respondents were married/partnered at the time of interview and was specified by a dichotomous indicator where 1= Married/Partnered and 2= Not Married/Partnered. The variable for relationship status was recoded. The original categorical variable from the HRS RAND dataset was recoded because the N was to small within the original 8 categories. A dummy variable was created for Not married/Partnered with Married/Partnered being the reference category. *Health* refers to the respondent's perception of their general health at the time of interview and was specified in the HRS dataset by an ordinal level indicator ranging from "1" for Excellent to "5" for Poor. A dummy variable was created for Fair to Poor Health with Good to Excellent Health being used as the reference category.

Contextual variables. Income status, geographical location, eligibility for retirement, and sector of employment were the contextual variables of interest in this study. *Income Status* refers to whether the respondent's household income was below the poverty line based on income from the previous year and was specified in the dataset by a dichotomous indicator where 0= above the poverty threshold and 1= below the poverty threshold; 'above the poverty threshold' was used as the reference category in analysis. *Geographical Location* refers to the region of the United States respondents lived in at the time of interview and was specified in the

34

dataset by a categorical indicator of the census region of the residential address of respondents where 1=Northeast, 2=Midwest, 3=South, 4= West, 5=Other. Dummy variables were created for each category with living in the South being used as the reference group. *Eligibility for Retirement* refers to whether respondents were eligible for social security benefits (62 years of age or older). This variable was derived from the chronological age of respondents in the 2010 specified in years based on the birthdate of the respondent at the ending interview date. A dummy variable was created for Eligibility for Retirement (aged 62 and above) with Not eligible for retirement being the reference category. *Sector of employment* refers to sector of the economy of the respondent's last job. The original industry categorical variable from the 2010 Enhanced Fat Files was recoded because the N was to small within the original 19 categories. The original categories were regrouped to reflect the two major economic sectors of the economy: goods-producing sector and Service sector. The goods-producing sector consisted of Agriculture/Forestry/Fishery, Construction, Manufacturing, and Mining. The service sector reflected the remaining industries of Utilities, Wholesale Trade, Retail trade, Transportation/Warehousing, Information, Finance and Insurance, Real Estate/Rentals/Leasing, Professional/Scientific/Technical Services, Management/Administration/Support Services, Educational Services, Health Care/Social Assistance, Arts/Entertainment/Recreation, Accommodations/Food Service, Public Administration/Active Duty Military, and Other Services. A dummy variable was created for Service sector with goods-producing sector being the reference category.

Dependent Variables

    Unemployment was considered the dependent variable for the first research question. Unemployment refers to respondents who were not working for pay, but actively seeking

employment at Time 1 and is specified by a dichotomous indicator of unemployment where 0=
No and 1= Yes. An indicator of unemployment was chosen over another available indicator of
employment for two important reasons. First, the indicator of employment asked whether
respondents were working for pay (no=0 and yes=1). If they were not, distinctions were not
made concerning whether respondents were unemployed. Respondents could be retired, disabled,
or unemployed. In contrast, the indicator for unemployment uses the Bureau of Labor Statistics
(BLS) definition of unemployment (unemployed and actively seeking work) to determine
whether individuals are considered unemployed. To do this, respondents' previous responses to
other questions concerning work and job search are considered. If respondents were working for
pay, they were coded as 0. Those who did not meet the criteria for unemployment and were not
working for pay, were coded as X. Although this coding scheme excludes older adults who are
not working, but also not looking for work, it allows for comparisons to be made between the
employed and the unemployed. The indicator of employment did not. *Displacement* was
considered the dependent variable for research question two. Displacement refers to whether
respondents lost their jobs due to businesses closures or layoffs and is specified by a
dichotomous indicator where 0= No and 1= Yes. The original categorical variable from the
Enhance Fat Files was recoded because the N was to small within the original 17 categories.
Reemployment was considered the dependent variable for the third research question.
Reemployment refers to whether respondents were employed at Time 2 and is specified by a
dichotomous indicator where 0= No and 1= Yes. The original categorical variable from the HRS
RAND was recoded to reflect whether respondents were employed at Time 2.

Statistical Analysis

Standard statistical methods and software analysis programs often assume that simple random sampling (SRS) is used in the collection of research data (Bell, Onwuegbuzie, Ferron, Jiao, Hibbard, & Kromrey, 2012). However, this is typically not the case. Large surveys, like the HRS, often utilize complex sampling methods that violate this assumption and make the use of standard statistical methods and software analysis programs inappropriate.   Data collected from respondents selected through complex sampling procedures differ in at least three significant ways from data collected from respondents selected though simple random sampling. First, the chances of being selected for inclusion are not equal when complex sampling strategies, like those used in the HRS, are used. Second, multistage sampling results in clustered observations that have less variance than would generally be observed in the population (Bell, Onwuegbuzie, Ferron, Jiao, Hibbard, & Kromrey, 2012). Third, stratified sampling is often used in complex sampling methods. Although this ensures subgroups in the population are adequately represented in the sample, it also negatively biases estimations of variance in the population (Bell, Onwuegbuzie, Ferron, Jiao, Hibbard, & Kromrey, 2012). If these aspects of survey design are not taken into consideration during analysis, standard errors and estimates will be biased and result in faulty inferences (Bell, Onwuegbuzie, Ferron, Jiao, Hibbard, & Kromrey, 2012). To account for the effects of sampling design in surveys like the HRS, research suggests the use of sample weights and statistical analysis software that accounts for the use of complex sampling designs. This study uses respondent level sampling weights and complex sampling analysis through the SPSS Complex Samples add-on module.

Research Question 1. For the first research question, complex samples logistic regression was performed to assess the demographic and contextual factors most related to unemployment. In this analysis, the independent variables consisted of demographic variables

37

(Race, Ethnicity, Gender, Education, Relationship Status, and Health Status) as well as contextual variables (Income Status, Geographical location, eligibility for retirement, and sector of employment). The dependent variable for this research question, unemployment, was a discrete variable with two unordered and independent categories: employed versus unemployed. Descriptive statistics were used to examine the distribution of data within each variable. Contingency tables were created to examine the distribution the independent variables across each level of the dependent variable; cells with low frequency counts were further examined and decisions made concerning their transformation or deletion. To test the null hypothesis of no association, complex samples logistic regression was used to examine the influence of the independent variables on the dependent variable. A significance level of $p<.05$ was used for hypothesis testing. The overall model significance for the complex samples logistic regression was examined using an F-Test. Nagelkerke R^2 was used to assess the percent of variance accounted for by the independent variables. The odds of an event occurring was determined by Exp (β).

Research Question 2. For the second research question, complex samples logistic regression was performed to assess demographic and contextual most related to displacement. In this analysis, the independent variables consisted of demographic variables (Race, Ethnicity, Gender, Education, Relationship Status, and Health Status) as well as contextual variables (Income Status, Geographical location, eligibility for retirement, and sector of employment). The dependent variable for this research question, displacement, was a discrete variable with two unordered and independent categories: not displaced versus displaced. Descriptive statistics were used to examine the distribution of data within each variable. Contingency tables were created to examine the distribution the independent variables across each level of the dependent variable;

38

cells with low counts (<5) were further examined and decisions made concerning their transformation or deletion. To test the null hypothesis of no association, complex samples logistic regression was used to examine the influence of the independent variables on the dependent variable. A significance level of $p<.05$ was used for hypothesis testing. The overall model significance for the complex samples logistic regression was examined using an F-test. Nagelkerke R^2 was used to assess the percent of variance accounted for by the independent variables. The odds of an event occurring was determined by Exp (β).

Research Question 3. For the third research question, complex samples logistic regression was performed to assess demographic and contextual most related to reemployment. In this analysis, the independent variables consisted of demographic variables (Race, Ethnicity, Gender, Education, Relationship Status, and Health Status) as well as contextual variables (Income Status, Geographical location, eligibility for retirement, and sector of employment). The dependent variable for this research question, reemployment, was a discrete variable with two unordered and independent categories: Not reemployed versus Reemployed. The not reemployed category was coded as the reference category. Descriptive statistics were used to examine the distribution of data within each variable. Contingency tables were created to examine the distribution the independent variables across each level of the dependent variable; cells with low counts (<5) were further examined and decisions made concerning their transformation or deletion. To test the null hypothesis of no association, complex samples logistic regression was used to examine the influence of the independent variables on the dependent variable. A significance level of $p<.05$ was used for hypothesis testing. The overall model significance for the complex samples logistic regression was examined using an F-test.

Nagelkerke R^2 was used to assess the percent of variance accounted for by the independent variables. The odds of an event occurring was determined by Exp (β).

CHAPTER FOUR: RESULTS

This research study explored labor force participation among older adults and examined demographic and contextual factors related to three separate outcomes: unemployment, displacement, and reemployment (among those who indicated being displaced). The methodology used closely followed what was described in Chapter 3, with two exceptions. First, the sector of employment variable had a large number of missing values and was not available for individuals who indicated being displaced. The public use HRS files contained two industry variables, one measuring the industry of the respondent's current job, and one measuring the industry of the job at which the respondent had the longest tenure. The latter was ultimately used because it had fewer missing values, however, the amount of missingness was still around 50% and could only be used in the model for unemployment. In that model a dummy variable for unknown industry was created to include as much of the sample as possible. The second change was comparatively minor. The variable, *Geographical Location*, had a category for "other" that had very few observations (only six cases with non-zero weights). These observations were dropped from the analysis to avoid problems with the logit model estimation. The results of each research question are reported below.

Analysis of Research Question 1

The first question examined the demographic and contextual variables related to unemployment among older adults. A subsample of HRS respondents aged 50 and older in the labor force in 2010 (n=8812) were used to address this question. The results of preliminary analyses are presented in Table 1. Descriptive statistics are presented first for the whole analysis

sample. Unweighted Ns and percentages are presented to provide a sense of the sample

characteristics, and weighted percentages are provided next to the unweighted percentages to

show the estimated population values. Table 1 also presents weighted percentages of each

variable separated by the categories of the dependent variable. These estimates are weighted to

account for differences between the sample and the target population. The final column in the

tables present p-values from an F-test that is analogous to the chi-square test but that accounts for

the sampling weights.

Table 1

Sample Description for Unemployment Analysis

	N	Unweighted Percent	Weighted Percent	Weighted Percent within Not Unemployed	Weighted Percent within Unemployed	p-value
Race						< .001
White/Caucasian	6027	68.7	83.3	84.0%	74.9%	
African American	1851	21.1	9.6	9.3%	13.1%	
Other	898	10.2	7.1	6.6%	12.1%	
Ethnicity						< .001
Not Hispanic	7513	85.4	92.0	92.5%	85.8%	
Hispanic	1284	14.6	8.0	7.5%	14.2%	
Gender						0.091
Male	4278	48.5	51.6	51.3%	55.4%	
Female	4534	51.5	48.4	48.7%	44.6%	
Education						< .001
Less than high-school	1102	12.5	7.7	7.2%	13.7%	
GED	414	4.7	4.0	4.0%	4.6%	
High School Grad	2246	25.5	24.3	24.1%	27.1%	
Some College	2490	28.3	28.2	28.2%	27.6%	
College and Above	2558	29.0	35.8	36.6%	27.0%	
Marital Status						< .001
Married/Partnered	6170	70.0	72.7	73.3%	64.9%	
Not Married/Partnered	2640	30.0	27.3	26.7%	35.1%	
Self-Reported Health						< .001
Good to Excellent Health	7178	81.5	85.3	86.2%	75.2%	
Fair or Poor Health	1634	18.5	14.7	13.8%	24.8%	
Poverty						< .001
Not Below Poverty Threshold	8127	92.2	95.0	96.1%	81.6%	
Below Poverty Threshold	685	7.8	5.0	3.9%	18.4%	
Region						0.37
Northeast	1371	15.6	18.1	18.4%	15.2%	

Midwest	1913	21.7	24.8	24.8%	25.0%	
South	3545	40.2	35.8	35.7%	36.8%	
West	1983	22.5	21.3	21.2%	23.0%	
Retirement Eligibility						0.038
Not Eligible	5814	66.0	68.8	68.5%	72.9%	
Eligible for Retirement	2998	34.0	31.2	31.5%	27.1%	
Industry						< .001
Goods Producing Sector	1098	12.5	13.0	12.7%	15.7%	
Service Sector	3352	38.0	40.2	41.0%	30.1%	
Unknown Industry	4362	49.5	46.9	46.2%	54.2%	
Unemployment						
Not Unemployed	8014	90.9	91.9			
Unemployed	798	9.1	8.1			

Results from the descriptive analysis indicate several significant differences in the distribution of demographic and contextual variables among employed and unemployed older adults. Whites represent 84% of older adults who are employed compared to 74.9% of the unemployed. The percentage of Hispanics is significantly larger in the unemployed group compared to the employed group. The percentage of respondents with less than high school education is 7.2% in the employed group but 13.7% in the unemployed group, whereas the percentage of college graduates goes down in the unemployed group relative to the employed group. Those not married or partnered tend to be more likely to be unemployed, as are those in worse health. The poverty threshold is very different between the unemployed and not unemployed group, with the unemployed having a higher incidence of poverty. Retirement eligibility is lower for the unemployed. The service sector is less well represented in the unemployed group compared to the not-unemployed group, though it is important to remember that unemployed respondents were less likely to answer this question. There were no statistically significant differences in gender or geographical location among the two groups.

The full model containing all the predictors was statistically significant, Wald F(8744)=12.760, p< .001, suggesting there is significant variation in the log odds of unemployment based on the estimated covariates. As a whole, the model explained 6.9% of the variance in employment status (Nagelkerke's R^2).

Table 2 shows the results for the logistic regression. Regression models estimate how changes in each of the independent variables are related to changes in the dependent variable. In doing this, the regression analysis assesses the influence of each independent variable controlling for all other independent variables in the model. For the first model, this resulted in five statistically significant results. All else equal, the odds of being unemployed were 51.2% higher

for older adults of "Other" races than for older adults who were White (*OR*=1.512, *p*<.033). The odds of unemployment for respondents with fair to poor self-reported health was 48.5% higher compared to respondents with better self-reported health (*OR*=1.485, *p*<.002). This suggests self-reporting poorer health, ceteris paribus, is associated with a greater likelihood of being unemployed among older adults. Older adults who were not married/partnered were 26.3% more likely to be unemployed compared to those who were married/partnered (*OR*=1.263, *p*<.039). Relative to those with household incomes above the poverty threshold, older adults living below the poverty threshold increased the odds of unemployment by 400% (*OR*=4.075, *p*<.001). This suggests poverty, by itself, has significant associations with unemployment. However, in the absence of information pertaining to whether respondents were employed during the timeframe for which household income was reported, it is unclear whether poverty leads to unemployment or unemployment leads to poverty. Finally, the odds of unemployment were noted to be 29.2% lower for those working in the service sector relative to those working in the goods-producing sector (*OR*=.708, *p*<.027). This suggests that, all else being equal, employment in the service sector may provide more employment security for older adults.

Table 2

Logistic Regression Results for Unemployment

Parameter	B	SE	Sig.	Odds Ratio	95% CI for OR Lower	Upper
(Intercept)	-2.621	0.195	< .001			
African American	0.150	0.135	0.264	1.162	0.893	1.513
Race = Other	0.414	0.194	0.033	1.512	1.035	2.210
Hispanic	0.125	0.185	0.501	1.133	0.788	1.629
Gender = Female	-0.187	0.106	0.076	0.829	0.674	1.020
Education Less than High School	0.213	0.205	0.297	1.238	0.829	1.849
Education GED	0.101	0.232	0.664	1.106	0.702	1.743
Education High School Graduate	0.242	0.146	0.097	1.274	0.957	1.696
Education Some College	0.127	0.139	0.363	1.135	0.864	1.491
Not married/Partnered	0.233	0.113	0.039	1.263	1.012	1.575
Self-Reported Health Fair or Poor	0.395	0.128	0.002	1.485	1.156	1.907
Below Poverty Threshold	1.405	0.149	< .001	4.075	3.043	5.459
Region = Northeast	-0.101	0.156	0.516	0.904	0.665	1.227
Region = Midwest	0.056	0.138	0.686	1.058	0.806	1.387
Region = West	0.056	0.138	0.684	1.058	0.808	1.385
Eligible for Retirement	-0.077	0.129	0.549	0.926	0.719	1.192
Industry = Unknown	-0.114	0.159	0.473	0.892	0.653	1.218
Industry = Service Sector	-0.345	0.156	0.027	0.708	0.522	0.962

Note. Baseline race is white; baseline ethnicity is non-Hispanic; baseline education is college and above; baseline region is south; baseline industry is goods producing. Respondent case weights used. Unweighted N = 8,761.

Analysis of Research Question 2

The next analysis was limited to respondents who were unemployed and examined the demographic and contextual factors of those who were displaced versus those who became unemployed for other reasons (n=798). Table 3 presents the results of the descriptive statistics for the independent and dependent variables used in the analysis and includes the weighted comparisons for the independent variables across each level of the dependent variable. Results from the descriptive analysis indicate fewer statistically significant differences between older displaced adults and those unemployed for other reasons. Whites represent 78.8% of those unemployed for other reasons compared to 66.8% of those displaced. In contrast, non-Whites (African Americans and older adults of "Other" races) are more likely to be represented among the displaced. Additionally, the vast majority of those displaced are ineligible for retirement benefits (aged 50 to 61) whereas only 62.3% of those unemployed for other reasons are ineligible for retirement benefits (aged 50 to 61). Also, the distribution of sector shows 100% unknown for the displaced respondents; it could not be included in the logistic regression. These were the only statistically significant comparisons.

Table 3

Sample Description for Displacement Analysis

	N	Unweighted Percent	Weighted Percent	Weighted Percent within Not Displaced	Weighted Percent within Displaced	p-value
Race						0.01
White/Caucasian	450	56.7	74.9	78.8%	66.8%	
African American	224	28.2	13.1	11.1%	17.0%	
Other	119	15.0	12.1	10.0%	16.2%	
Ethnicity						0.61
Not Hispanic	632	79.4	85.8	86.4%	84.7%	
Hispanic	164	20.6	14.2	13.6%	15.3%	
Gender						0.055
Male	411	51.5	55.4	52.2%	61.8%	
Female	387	48.5	44.6	47.8%	38.2%	
Education						0.266
Less than high-school	147	18.4	13.7	14.2%	12.9%	
GED	45	5.6	4.6	3.9%	6.0%	
High School Grad	209	26.2	27.1	29.9%	21.2%	
Some College	233	29.2	27.6	26.5%	29.6%	
College and Above	163	20.5	27.0	25.4%	30.3%	
Marital Status						0.64
Married/Partnered	497	62.4	64.9	65.70%	63.4%	
Not Married/Partnered	300	37.6	35.1	34.3%	36.6%	
Self-Reported Health						0.952
Good to Excellent Health	561	70.3	75.2	75.3%	75.0%	
Fair or Poor Health	237	29.7	24.8	24.7%	25.0%	
Poverty						0.106
Not Below Poverty Threshold	596	74.7	81.6	79.7%	85.5%	
Below Poverty Threshold	202	25.3	18.4	20.3%	14.5%	
Region						0.096

Northeast	131	16.4	15.2	14.8%	16.0%	
Midwest	153	19.2	25.0	26.1%	22.8%	
South	316	39.6	36.8	39.3%	31.5%	
West	198	24.8	23.0	19.7%	29.7%	
Retirement Eligibility						<.001
Not Eligible	589	73.8	72.9	62.3%	94.8%	
Eligible for Retirement	209	26.2	27.1	37.70%	5.2%	
Industry						< .001
Goods Producing Sector	105	13.2	15.7	23.3%	0.0%	
Service Sector	214	26.8	30.1	44.8%	0.0%	
Unknown Industry	479	60.0	54.2	31.9%	100.0%	
Displacement						
Unemployment not due to Displacement	536	67.2	67.2			
Unemployment due to Displacement	262	32.8	32.8			

The full model containing all the predictors was statistically significant, Wald

$F(774)=5.366$, p< .001, suggesting there is significant variation in the log odds of displacement

based on the estimated covariates (Nagelkerke's R^2). The model explained 27.3% of the variance

in displacement status. Table 4 shows the results from the logit model. Regression models

estimate how changes in each of the independent variables is related to changes in the dependent

variable. In doing this, the regression analysis assesses the influence of each independent

variable controlling for all other independent variables in the model. For the second model, this

produced five statistically significant results. All else being equal, the odds of displacement were

well over double for older African Americans compared to older whites (*OR*=2.401, *p*<.002).

This suggests that despite their gender, income status, geographical location, age, marital status,

education, or health, African Americans are twice as likely as Whites to be displaced. In contrast,

the odds of displacement for older women was roughly half that of older men (*OR*=.543,

p<.008). Also, all else being equal, older adults with household incomes below the poverty

threshold had lower odds of displacement than did older adults with household incomes above

the poverty threshold (*OR*=.389, *p*<.003). This suggests that although a strong association exists

between older adults living in poverty and unemployment (see results for research question one),

their unemployment is typically not the result of job displacement. Relative to older adults who

are ineligible for retirement (aged 50 to 61), eligibility for retirement (aged 62 and older) reduces

the odds of displacement by nearly 97% (*OR*=.077, *p*< .001). This suggests older adults of

retirement age (those aged 62 and older) are far less susceptible to displacement than those aged

50 to 61. Finally, older adults in the West have twice the odds of displacement compared to

older adults in the South (*OR*=2.207, *p*<.008). This indicates that living in the West rather than

South doubles older adults' odds of displacement in the U.S.

Table 4

Logistic Regression Results for Displacement

Parameter	B	SE	Sig.	Odds Ratio	95% CI for OR Lower	Upper
(Intercept)	-0.405	0.314	0.198			
African American	0.876	0.281	0.002	2.401	1.384	4.165
Race = Other	0.345	0.347	0.320	1.412	0.715	2.789
Hispanic	0.472	0.381	0.216	1.603	0.758	3.387
Gender = Female	-0.611	0.230	0.008	0.543	0.346	0.853
Education Less than High School	-0.481	0.408	0.239	0.618	0.277	1.378
Education GED	0.494	0.512	0.335	1.639	0.600	4.477
Education High School Graduate	-0.514	0.323	0.112	0.598	0.317	1.128
Education Some College	-0.054	0.297	0.855	0.947	0.529	1.696
Not married/Partnered	0.446	0.247	0.071	1.563	0.962	2.538
Self-Reported Health Fair or Poor	-0.107	0.264	0.685	0.898	0.535	1.509
Below Poverty Threshold	-0.944	0.316	0.003	0.389	0.209	0.723
Region = Northeast	0.576	0.352	0.102	1.779	0.891	3.550
Region = Midwest	0.379	0.317	0.232	1.460	0.784	2.718
Region = West	0.791	0.298	0.008	2.207	1.230	3.958
Eligible for Retirement	-2.568	0.358	< 0.001	0.077	0.038	0.155

Note. Baseline race is white; baseline ethnicity is non-Hispanic; baseline education is college and above; baseline region is south. Industry excluded due to empty cells. Respondent case weights used. Unweighted N = 789.

Analysis of Research Question 3

The final research question relates to reemployment among older displaced workers. This analysis is limited to the subsample of respondents displaced in 2010 (n=262), which reduces the sample size and power. Table 5 presents the results of the descriptive statistics for the independent and dependent variables used in the analysis and includes the weighted comparisons for the independent variables across each level of the dependent variable. Results from the descriptive analysis indicate two significant differences in the distribution of demographic and contextual variables among older adults reemployed in 2012 and those not reemployed in 2012. Whites represented 71.2% of older adults reemployed in 2012 and 56.3% of those not reemployed. Further, older adults of "Other" races were slightly more likely to be reemployed than the not reemployed. In sharp contrast, African Americans represented just 9.7% of older adults reemployed in 2012, but an astounding 31.3% of those not reemployed. Similarly, older adults with household incomes below the poverty threshold represented just 6.5% of the reemployed and 20.6% of those not reemployed. Reemployment also varied substantially by geographical location with older displaced adults in the Midwest and the South being more likely to be reemployed than not reemployed in 2012. Older displaced adults in the Midwest represented 32.9% of the reemployed compared to 10.7% of those not reemployed. Older displaced adults in the South represented 25.6% of the reemployed and 21.2% of those not reemployed. In contrast, older displaced adults in the Northeast and West were more likely to not be reemployed than they were to be reemployed in 2012. Older displaced adults in the Northeast represented 29.7% of those not reemployed and just 12.3% of the reemployed in 2012. Similarly, older displaced adults in the West represented 38.4% of those not reemployed and 29.2% of those reemployed in 2012. The other comparisons were not statistically significant.

Table 5

Sample Description for Re-employment Analysis

	N	Unweighted Percent	Weighted Percent	Weighted Percent within Not Re-employed	Weighted Percent within Re-employed	p-value
Race						0.02
White/Caucasian	131	50.2	66.8	56.30%	71.2%	
African American	87	33.3	17.0	31.3%	9.7%	
Other	43	16.5	16.2	12.4%	19.1%	
Ethnicity						0.946
Not Hispanic	209	80.1	84.7	85.7%	86.2%	
Hispanic	52	19.9	15.3	14.3%	13.8%	
Gender						0.462
Male	145	55.3	61.8	58.6%	66.1%	
Female	117	44.7	38.2	41.4%	33.9%	
Education						0.525
Less than high-school	41	15.6	12.9	15.1%	5.9%	
GED	21	8.0	6.0	7.1%	7.3%	
High School Grad	60	22.9	21.2	14.7%	22.5%	
Some College	84	32.1	29.6	27.0%	28.7%	
College and Above	56	21.4	30.3	36.1%	35.6%	
Marital Status						0.439
Married/Partnered	160	61.1	63.4	58.9%	67.0%	
Not Married/Partnered	102	38.9	36.6	41.1%	33.0%	
Self-Reported Health						0.064
Good to Excellent Health	184	70.2	75.0	66.6%	83.4%	
Fair or Poor Health	78	29.8	25.0	33.4%	16.6%	
Poverty						0.007
Not Below Poverty Threshold	200	76.3	85.5	79.4%	93.5%	
Below Poverty Threshold	62	23.7	14.5	20.6%	6.5%	
Region						0.035

Northeast	45	17.2	16.0	29.7%	12.3%	
Midwest	44	16.8	22.8	10.7%	32.9%	
South	89	34.0	31.5	21.2%	25.6%	
West	84	32.1	29.7	38.4%	29.2%	
Retirement Eligibility						0.084
Not Eligible	246	93.9	94.8	94.5%	98.8%	
Eligible for Retirement	16	6.1	5.2	5.5%	1.2%	
Displacement						
Not Re-employed	58	33.5	30.5			
Re-employed	115	66.5	69.5			

The full model containing all the predictors was statistically significant, Wald

$F(156)=1.828$, $p< .035$, suggesting there is significant variation in the log odds of reemployment

based on the estimated covariates. The model explained 33.8% of the variance in displacement

status (Nagelkerke's R^2). Regression models estimate how changes in each of the independent

variables is related to changes in the dependent variable. In doing this, the regression analysis

assesses the influence of each independent variable controlling for all other independent

variables in the model. For the third model, this resulted in three statistically significant findings.

All else being equal, the odds of being reemployed in 2012 were 76.6% lower for African

Americans compared to Whites ($OR = .234$, $p<.014$). So, in addition to being twice as likely as

Whites to be displaced (see the results of research question two), older African American adults

are also much less likely than Whites to be subsequently reemployed.

Relative to older displaced adults in the South, the odds of reemployment were 80.7%

lower for older displaced adults in the Northeast ($OR = .193$, $p<.015$). Although not statistically

significant, the odds of reemployment approached significance for older displaced adults in the

West ($OR=.304$, $p<.054$). This suggests older displaced adults living in the South have better

odds of finding subsequent reemployment than older displaced adults living in the Northeast and

West. Additionally, although the relationship was not statistically significant, the odds of being

reemployed were 29.8% higher for older displaced adults in the Midwest than for those living in

the South ($OR=1.298$, $p<.706$).

Finally, those eligible for retirement were 90.9% less likely to be reemployed compared

to those who were ineligible for retirement ($OR=.091$, $p<.032$). Thus, although being eligible for

retirement is associated with lower odds of displacement, when those eligible for retirement are

displaced, they are less likely than those aged 50 to 61 to be reemployed.

Table 6

Logistic Regression Results for Re-employment

Parameter	B	SE	Sig.	Odds Ratio	95% CI for OR Lower	95% CI for OR Upper
(Intercept)	2.241	0.679	0.001			
African American	-1.452	0.583	0.014	0.234	0.074	0.739
Race = Other	1.089	0.710	0.127	2.971	0.731	12.069
Hispanic	0.175	1.016	0.863	1.192	0.160	8.851
Gender = Female	-0.551	0.500	0.272	0.576	0.215	1.546
Education Less than High School	-1.601	1.094	0.145	0.202	0.023	1.747
Education GED	-0.012	0.776	0.988	0.988	0.214	4.576
Education High School Graduate	0.256	0.681	0.707	1.292	0.337	4.950
Education Some College	0.330	0.612	0.591	1.391	0.416	4.653
Not married/Partnered	-0.004	0.485	0.993	0.996	0.382	2.593
Self-Reported Health Fair or Poor	-0.933	0.569	0.103	0.394	0.128	1.211
Below Poverty Threshold	-1.091	0.657	0.099	0.336	0.092	1.228
Region = Northeast	-1.647	0.667	0.015	0.193	0.052	0.719
Region = Midwest	0.261	0.691	0.706	1.298	0.332	5.080
Region = West	-1.191	0.613	0.054	0.304	0.091	1.019
Eligible for Retirement	-2.395	1.105	0.032	0.091	0.010	0.807

Note. Baseline race is white; baseline ethnicity is non-Hispanic; baseline education is college and above; baseline region is south. Industry excluded due to empty cells. Respondent case weights used. Unweighted N = 171.

CHAPTER FIVE: DISCUSSION

This study reports the findings of a **s**econdary analysis of the 2010 and 2012 waves of the HRS describing labor force participation among older adults and examining the association of demographic (race, ethnicity, gender, education, relationship status, health) and contextual (income, residence, retirement eligibility/age, and sector of employment) factors with the likelihood of unemployment, displacement and reemployment among older adults. In this chapter detailed findings for each of the research questions are presented, followed by a brief summary of primary findings. Following this, the findings are discussed and implications provided and a discussion of the findings presented.

Research Question 1

For the first research question, logistic regression was used to examine demographic and contextual factors associated with unemployment among older adults.

Demographic variables. All else being equal, being of a race other than African American or White, being married, and being in fair to poor health, increased the likelihood of unemployment. Existing research comparing unemployment among subgroups in the populations typically explores the relationship between unemployment and demographic factors like race/ethnicity, gender, age, and education (Elsby, Hobijn, & Sahin, 2010; Kroft, Lange, Notowidigdo, & Katz, 2016; Sahin, Song, & Hobijn, 2010). Further, existing research typically suggests the chances of being unemployed are higher for African Americans and Hispanics (compared to Whites), those with less education (compared to those with higher levels of education), younger workers (compared to older workers), and men (compared to women)

(Elsby, Hobijn, & Sahin, 2010; Kroft, Lange, Notowidigdo, & Katz, 2016; Michealides & Mueser, 2013; Sahin, Song, & Hobijn, 2010). Although the current study supports existing research suggesting Whites are less likely than non-Whites to be unemployed, it also suggests this relationship may look differently among older workers. For example, existing research suggests the unemployment rate among African Americans is higher than the rate for other minorities and generally twice that of Whites (BLS, 2017; Desilver, 2013; Wilson, Tienda, & Wu, 1995). However, contrary to existing research, my findings suggest there is no significant relationship between being African American and the likelihood of being unemployed when compared to Whites. Instead, I find that compared to Whites, the odds of being unemployed were 51.2% higher for older adults of races/ethnicities other than African American and White. This suggests older adults of "Other" races may face unique challenges in the labor market that have previously not been explored or addressed (Delgado, 2014).

The results of the current study also suggest that not being married or otherwise partnered is associated with higher odds of unemployment. Although, this is consistent with research suggesting marital status is negatively associated with unemployment (Emeka, 2009), my study does not examine why this relationship exists. Although no causal arguments can be made, existing research suggests spousal support may buffer the negative emotional effects of unemployment and encourage job search self-efficacy (Maddy, Cannon, & Lichtenberger, 2015; Milner, Krnjacki, Butterworth, & LaMontagne, 2016). Further, spouses/partners may facilitate job search and reemployment by eliciting information about job openings from others in their social networks (Seibert, Kraimer & Liden, 2001). For example, a woman may talk to a co-worker about her spouse/partner being unemployed and that co-worker may provide a lead for a job opening at another firm.

My findings also suggest older adults with poor-to-fair self-reported health have higher odds of being unemployed than do those with good-to-excellent health. However, because this study looks at the relationship between variables, no causal arguments are made. Existing research on health and unemployment suggests job loss increases the risks of cardiovascular disease in older adults (Gallo, 2012; Gallo, Bradley, Falba, Dubin, Cramer, Bogardus, & Kasl, 2004; Gallo, Teng, Falba, Kasl, Krumholz, & Bradley, 2006; Dupre, George, Liu, & Peterson, 2012; Noelke & Avendano, 2015). This may be indicative of poor coping skills among the unemployed as unemployment has been associated with negative health behaviors including increases in smoking, alcohol consumption, and illegal drug use (Compton, Gfroerer, Conway, & Finger, 2014).

Contextual variables. Among the contextual factors explored in the current study, income status and sector of employment were most related to the odds of being unemployed. Older adults living in poverty had significantly higher odds of unemployment compared to those not living in poverty. This is consistent with research supporting the relationship between poverty and unemployment (Atkinson, & Swanstrom, 2012; Gallie, Paugam, & Jacobs, 2003; Piven & Cloward, 2012). Although, the results of this study do not suggest the direction of this relationship, others have suggested that this relationship results from one of two possibilities; poverty may predispose workers to unemployment or unemployment causes worker to suffer severe economic strain resulting in poverty (Atkinson, & Swanstrom, 2012). Gallie, Paugam, and Jacobs (2003) propose that both processes may be at work. They suggest that the relationship between poverty and unemployment is reiterative, and being marginalized in the labor market results in poverty and social isolation which subsequently reinforce unemployment (Gallie, Paugam, & Jacobs, 2003).

My findings also suggest that previous employment in the service sector is associated with lower odds of unemployment. Although, the results of this study do not suggest the direction of this relationship, my findings support existing research suggesting that service sector workers fare better in today's labor market compared to workers in the goods-producing sector (Autor, 2010; David, Katz, & Kearney, 2006; Lippman, 2008). Further, my findings lend support to research suggesting economic restructuring may be altering the occupational landscape in the U.S (Acemoglu & Autor, 2011; Autor, 2010; David, Katz, & Kearney, 2006).

Research Question 2

For the second research question, logistic regression was used to examine demographic and contextual factors associated with displacement among older adults at Time 1.

Demographic variables. Among the demographic variables examined, the results suggest that, all else being equal, being African American increased the odds of displacement while being female reduced the odds of displacement among older adults. Others who have examined worker displacement and subsequent reemployment suggest that African Americans are more likely than whites and workers of other races to be displaced (Emeka, 2009; Johnson & Mommaerts, 2011; Hironimus-Wendt, 2008; Sum, Trubskyy, & Palma, 2011; Wilkens & Wooden, 2013). The increased susceptibility of African Americans to displacement supports existing research suggesting historical patterns of occupational clustering in the goods-producing sector and low paying service sector jobs, in addition to historical patterns of discrimination and disadvantage, have placed African Americans and Hispanics at a disproportionate risk of displacement (Quane, Wilson, & Hwang, 2013).

Consistent with existing research, my findings suggest women are less likely to be displaced than men (Farber, 2011; Johnson & Mommaerts, 2011; Hironimus-Wendt, 2008; Sum,

Trubskyy, & Palma, 2011; Wilkens & Wooden, 2013). The relationship between gender and displacement is generally attributed to occupational segregation (Blau, Brummund, & Liu, 2013). Men have historically been concentrated in industries that are highly cyclical; meaning the demand for labor varies closely with the economy (Michealides & Mueser, 2013; Wilkens & Wooden, 2013). Women in the labor force, on the other hand, are generally concentrated in industries that are much less cyclical like education or healthcare (Michealides & Mueser, 2013; Wilkens & Wooden, 2013).

Contextual variables. Among the contextual variables examined, the results suggest that, all else being equal, living in the West increased the likelihood of displacement while living in poverty and being eligible for retirement (aged 62 and older) reduced the odds of displacement among older adults. Consistent with existing research (Neffke, Otto, Hidalgo, 2017), my findings suggest that geographic location, or where one lives, influences susceptibility to worker displacement as well as determines the employment opportunities available to job seekers. Certainly, as regional economies grow and change, the industries that are most prevalent in that economy also change (Reisinger, 2003). As workers are displaced from declining industries within a region, concentrated efforts should be made to help workers understand the areas of employment growth within their regions and state-funded training and education opportunities should be widely publicized. Indeed, it seems that very few workers, whether generally unemployed or displaced, are aware of the services frequently offered by state employment agencies (Katz, 2014). In addition to factors that increase the likelihood of displacement (being African American and living in the West), the results of the current study also suggest that being female, living in poverty, and being eligible for retirement (aged 62 and older) reduce the odds of displacement among older adults.

I also found that being poor lowers the odds of displacement among older adults. This is consistent with research suggesting that middle-waged workers are those most vulnerable to the effects of worker displacement (Acemoglu & Autor, 2011; Autor, 2010). This lends support to existing research suggesting our economy is restructuring and jobs are increasingly polarized between low-skill/low-wage jobs and high-skill/high-wage jobs as middle-skill/middle-wage jobs increasingly leave our economy with the rapid adoption of technology in the workplace (Acemoglu & Autor, 2011; Autor, 2010).

The results of my study further suggest that being eligible for retirement (aged 62 and older) reduces the odds of displacement among older adults. This finding lends support to existing research suggesting when older adults eligible for retirement are displaced, many decide to retire (Szinovacz & Davey, 2005; Shultz, Morton, & Weckerle, 1998; van Solinge & Henkens, 2007). Conversely, the findings may suggest older adults aged 62 and older are less likely to be employed in industries vulnerable to the effects of worker displacement. However, the current research did not assess interactions between age and sector of employment.

Research Question 3

For the third research question, logistic regression was used to examine demographic and contextual factors associated with reemployment among older displaced workers at Time 2.

Demographic variables. Among the demographic variables examined, all else equal, being African American reduced the odds of reemployment. This is consistent with existing research suggesting African Americans are more likely to be displaced and experience greater difficulties finding subsequent reemployment (Ameka, 2016). Their challenges with reemployment are typically attributed to discriminatory hiring practices (Peterson & Murphy, 2010).

Contextual variables. Among the contextual variables studied, living in the Northeast

and being eligible for retirement (aged 62 and older) reduced the odds of reemployment, all else

being held equal. While living in the West increased the odds of displacement, older adults living

in the Northeast were less likely to find subsequent reemployment. This is consistent with

existing research suggesting where one lives can either facilitate or hinder opportunities to work

(Neffke, Otto, Hidalgo, 2017). Although no causal arguments can be made, my findings may

suggest older displaced workers living in the Northeast may have heightened risks related to

discriminatory hiring practices or slow regional job growth may limit the number of jobs

available for workers to move into following displacement. If slow regional job growth is the

culprit, workers should be incentivized to relocate for job opportunities in other regions of the

state or country. It is particularly important that opportunities to relocate be provided to all

workers despite their ability to afford the costs associated with relocating. In recent years,

legislators have sought ways to support the geographic mobility of those unemployed for at least

26 weeks. For example, House Bill 2755 (2015) or the American Worker Mobility Act of 2015

(AWMA) proposed the creation of a new program within the Department of Labor that would

provide $10,000 vouchers to those unemployed for at least 26 consecutive weeks. Although the

bill was not widely publicized and did not make it beyond the House, supporting innovative

policies like the AWMA may one day help improve older workers access to late life

employment.

My findings further suggest that older adults eligible for retirement are less likely to

subsequently be employed. This is consistent with research suggesting worker displacement may

induce older adults to retire, even when they had no prior intention of doing so prior to

displacement (Szinovacz & Davey, 2005; Shultz, Morton, & Weckerle, 1998; van Solinge &

Henkens, 2007). The decision to retire is often attributed to older adults' longer durations of unemployment following displacement and subsequent financial hardship (Fisher, Chaffee, & Sonnega, 2016; Shultz, Morton, & Weckerle, 1998; Szinovacz & 2005). Research further suggests older adults seeking employment face challenges related to ageism due to employer misconceptions about the capabilities and abilities of older adults (Wanberg, Kanfer, Hamann, & Zhang, 2016).

Summary of Major Findings

Table 7 presents an overview of the major findings of the current study. In summary, my results suggest that unemployment, displacement, and reemployment among older adults vary significantly by race/ethnicity, gender, relationship status, health, socioeconomic status, age, and sector of employment. The implications of these findings for research, theory, practice and policy are discussed below.

Table 7
Overview of Major Findings
_____

Unemployment

Factors increasing the likelihood of unemployment:
- "Other" races,
- Poor health
- Not married/partnered
- Poverty

Factors decreasing the likelihood of unemployment
- Service sector employment

Displacement

Factors increasing the likelihood of displacement
- African American

Factors decreasing the likelihood of displacement
- Women
- Poverty
- Retirement Eligibility/Age
- Living in the West

Reemployment

Factors decreasing the likelihood of Reemployment
- African American
- Living in the Northeast
- Retirement Eligibility/Age

_____

Implications for Research

My findings affirm the literature on unemployment, displacement, and reemployment in

several important ways. Consistent with the existing literature on unemployment, my results

suggest those in poorer health, those living in poverty, and those not married/partnered are more

likely to be unemployed while those employed in the service sector are less likely to be

unemployed. My findings also affirm existing research on displacement suggesting African

Americans are more likely to be displaced while women, those living in poverty, and those aged

62 and older are less likely to face displacement. This finding was somewhat surprising.

Displacement frequently occurs during economic downturns or in declining industries with occupations that have become obsolete. In recent years, this has happened as technology has made many jobs obsolete. Because of the drastic changes that have occurred in the employment landscape since they began their careers, it seems plausible older workers would face an increased likelihood of displacement. However, my findings do not support this. The push for older adults to work later in life is a relatively new convention. Previously older workers in the goods producing sector were often incentivized to retire after so many years of service to a company. Although trends towards early retirement have reversed in recent years, it is possible that older adults feel financially pressured to retire when faced with displacement. These participants would self-report as retired, not displaced. This possibility should not be overlooked. Additional research is needed to explore the pathways older displaced workers take into retirement and differences that exist between when their anticipated retirement and their actual retirement date.

My findings also affirm existing literature on reemployment (among those who are displaced). Consistent with existing research, my findings suggest African Americans and those aged 62 and older are less likely to be reemployed (Johnson & Mommaerts, 2011; Koeber & Wright, 2006). Because employment in the goods-producing sector has been associated with an increased risk of displacement, future research might examine interactions between race and industry to help determine whether historic patterns of occupational clustering among African Americans in goods-producing sector underlie their increased vulnerability to displacement. The current study attempted to assess the influence of sector of employment on displacement and reemployment. However, due to limitations in the public dataset, there was insufficient information on sector of employment for displaced workers. The current study could be extended

by applying for access to restricted data on industry and occupation and assessing the interaction of race and industry on displacement and reemployment.

My findings amend the literature on unemployment in one important way. Existing research suggests the chances of being unemployed are higher for African Americans and Hispanics (compared to Whites), those with less education (compared to those with higher levels of education), younger workers (compared to older workers), and men (compared to women) (Elsby, Hobijn, & Sahin, 2010; Kroft, Lange, Notowidigdo, & Katz, 2016; Michealides & Mueser, 2013; Sahin, Song, & Hobijn, 2010). Although the current study supports existing research suggesting Whites are less likely than non-Whites to be unemployed, it also suggests this relationship may look differently among older workers. For example, existing research suggests the unemployment rate among African Americans is higher than the rate for other minorities and generally twice that of Whites (BLS, 2017; Desilver, 2013; Wilson, Tienda, & Wu, 1995), however, contrary to existing research, my findings suggest there is no significant relationship between being African American and the likelihood of be unemployed when compared to Whites. Instead, the current research study suggests, compared to Whites, the odds of being unemployed were 51.2% higher for older adults of "Other". However, because of choices made by the researcher in coding, the racial/ethnic groups included in "Other" are largely unclear. The only thing that is known about this group is that they do not identify as White or African American. It is believed the "Other" category may be comprised predominantly of Hispanics; however, this is unclear in the current study. This research should be extended by redefining race/ethnicity to include categories for Whites, African Americans, Hispanics, and others. This would provide more detailed information on the vulnerabilities older unemployed minority workers face with unemployment in labor market.

My findings also extend the literature on displacement and reemployment in two important ways. The current study suggests geographic location, or where one lives, influences older workers susceptibility to displacement as well as determines the employment opportunities available to job seekers (Neffke, Otto, Hidalgo, 2017). Certainly, as regional economies grow and change, the industries that are most prevalent in that economy also change (Reisinger, 2003). My findings suggest older workers in the West have an increased likelihood of displacement while those in the Northeast are least likely to reemployed at time 2. Taken together these findings were surprising. One might assume that since older workers in the West were more likely to be displaced, those in that same region would also face the greatest challenges to reemployment. This research offers no insight into why this difference exists or processes that might underlie its presence. Although, the current study attempted to assess whether sector of employment is associated with the likelihood of displacement and reemployment, there was insufficient data in the HRS public use dataset. Detailed information about participants industry of employment and occupations is available in restricted datasets. This research should be extended by applying for access to restricted data on industry and occupation and assessing the independent influence of these variables have on displacement and reemployment.

Implications for Theory

My findings suggest systems work differently for different people. More specifically, there are subgroups of older adults who experience more vulnerability in the labor market because of ascribed characteristics. To understand why these differences exist, it is important to understand how a systems organization and structure influence access to its opportunities. Systems emerge across time because of social interactions between individuals agreeing to coordinate their behavior in some way for some collective outcome. As this happens, the

dominant culture shapes decisions about how the system will function; its goals, boundaries, hierarchy, the extent of its reach, and criteria for participation and membership. On the microlevel this translates into social standards that mitigate social interactions by determining what constitutes appropriate versus deviant behavior. For example, it is appropriate to continue one's education to improve their employment opportunities, but it is inappropriate to drop-out of high school to work; even when the individual is dropping out to support the financial needs of their family. With no prior knowledge of a job candidate, employers use information from applications and resumes to determine the desirability of an applicant. College education cues employers that the applicant has a set of desirable traits that will make them a potentially good employee while not finishing high school cues employers that the applicant has a set of undesirable traits. These judgements are not necessarily accurate, but most people operate according to these norms without question. The individual with the college education will be perceived differently and afforded different opportunities because their degree cues the behavior from others in the social systems; it signals other individuals to treat them differently. Conversely, the individual with who dropped out of high school will cue a different set of behaviors as their lack of education will suggest to others they are lazy, unintelligent, and incompetent; where opportunities are enhanced for those with an education, they are constrained for those without an education. Further because these norms are shaped and influenced by the dominant culture, other cultural subgroups may not understand or be aware of the invisible rules, roles, and expectations that shape system functioning; without this understanding they are unable to effectively navigate the system or fight injustices. This in turn creates a hierarchical structure within the system that favors the dominant ideology and constrains the individual choices of

subgroups throughout the population. My findings suggest the economic system constrains the opportunities available to racial/ethnic minorities, the poor, the sick, and those aged 62 and older. This is likely due to discriminatory processes similar to those previously noted in the example about the cues that education sends to employers. However, with these processes, individuals wear their cues. When employers see an African American or glean racial/minority status from the name of resume, discriminatory behaviors that they may or may not be aware of are triggered and employment opportunities are constrained. It is important to understand that barriers are embedded in the structure of our social system and shape individual and system behavior. Utilizing a systems perspective helps us conceptualize the ways in which systems create barriers for individuals and focuses attention on where in the system change needs to be made.

Implications for Practice

As the older adult population continues to grow, social workers will increasingly be confronted with the income and employment challenges older adults face. To support the growing needs of unemployed and displaced workers, my findings suggest social workers must conduct multi-systemic evaluations to understand the range of systems involved in the maintenance of client problems as well as identify and intervene with target systems that will support lasting changes. Indeed, social workers are often found in settings where the target systems for intervention is the individual or family, but the behavioral problem that brings the client system to the attention of the agency is maintained by the lack of access to resources; quite frequently this is tied to unemployment and underemployment. When there is a lack of resources (or input from a systems perspective), the social welfare system is able temporarily provided additional inputs to support individuals and families while the client systems undergoes other systemic change facilitated by targeted interventions designed to address the systems difficulties

interacting with its environment to facilitate long-term growth and change. Although this method is quite successful for impacting individual change, social workers often lost sight of the ways a systems structure shapes and constrains individual behavior. When we do this we lose opportunities to intervene at the macrolevel that might impact more lasting change for the clients systems we serve.

When working with older adults who are not employed, social workers should assess whether they are voluntarily retired or otherwise unemployed. This is an important first step. Although employment is frequently assessed and at least minimally addressed in social work practice with working age adults, social workers may overlook this area of assessment for older adults because of preconceived notions of aging and retirement. Further, social workers should be aware of the employment landscape within their regions. This involves understanding the types of work available, the skill requirements, and knowing how to facilitate access to transportation and training programs when necessary. Social workers should familiarize themselves with programs like Career One Stop which provides a full-range of employment-related services for job seekers regardless of age and the Senior Community Service Employment Program (SCSEP) which provide job-training and employment assistance for low-income older adults. My findings also suggest social worker should make targeted efforts to ensure vulnerable older adults, including racial/ethnic minorities, those living in regions where displacement has become prevalent, those aged 62 and older, those living in poverty are aware of the available employment/ training resources, options, and the long-term benefits of program participation. Social workers should also document the incidence and reason for reported unemployment among older adults as well as the service utilization patterns of this population. This would allow social workers to better understand the scope of older adult unemployment in

their communities and demonstrate to elected officials the need for the expansion of programs like the SCSEP.

Implications for Policy

Policy efforts to support continued employment among older adults should be designed with those most vulnerable to unemployment and displacement in mind. Currently, the SCSEP authorized under Title V of the Older Americans Act (OAA), is the only federal workforce program designed to support employment among older adults. The program places older adults in community service agencies to help them obtain paid job-training and employment assistance. Participants are paid the federal minimum wage while developing skills to enhance their employability. Despite evidence of its success, the program has been subjected to budget cuts over recent years which have resulted in waiting lists for the program's services (Harootyan, 2012). Further, there are ongoing discussions about whether the program should be eliminated altogether. Social workers are able to advocate on the behalf of older adults and educate legislators of the measurable impact the program has on the economic well-being for low-income seniors, their families, and communities. Further, social workers should advocate for needed expansions to the program. My findings suggest, there are vulnerable unemployed and displaced older adults who might not meet the income requirements, but would certainly benefit from the programs paid job-training and employment assistance. The program should also offer older adults a living wage to ensure they are able to meet their basic needs and to incentivize program participation over other options like filing for disability or early retirement. Despite increasing the program costs in the short-run, these measures offer significant long-term savings as older adults who previously would have filed for disability or early retirement would have access to

the resources to support working longer and provide for their own financial needs. Finally, the SCSEP is often located in local Area Agencies on Aging.

Limitations

This study has several important limitations. It utilizes secondary data that was not collected to address the specific research questions in the current study, thus there may be issues related to whether the meaning of the variables in this study truly reflect the constructs as intended by the original researchers. For longitudinal studies, changes in the way variables are measured over time present challenges to historical comparisons. Further, as the investigator of the current study was not involved in data collection it is possible that nuances related to data collection that may impact the interpretation of results are not accounted for (Cheng & Phillips, 2014). Further, the amount of documentation when using secondary datasets can be daunting and data users may miss important details that are not prominently presented; research suggests this is particularly the case with large complex datasets (Cheng & Phillips, 2014). In order to minimize the effect of these limitations, the investigator read available technical reports suggested for data users that identify changes and corrections in the dataset; HRS data collection procedures; the ways in which variables were defined, operationalized and measured; and changes in the way variables were measured across time.

<div align="center">

Conclusion

</div>

Given the social work profession's concern for special populations and high-risk groups, it is surprising that research on issues related to unemployment and displacement are underdeveloped in the social work literature. A lot of what has been published was written from the 1980s through the early 1990s and argues for greater social work involvement with the unemployed. Calls for greater social work involvement in unemployment issues have more

recently come from Reisch and Gorin (2001) and Goldberg (2012) who detailed changes in the U.S economy since the 1970s, governmental policies that support economic inequality, and an increasing need for social workers to be concerned with a wider range of policy and advocacy issues.

Although there are social work researchers conducting empirical research related to employment issues, their research generally focuses on populations other than older adults. For example, Eamon and Wu (2013) have looked at employment status, economic hardship, and sources of assistance among disadvantaged single mother headed families while Gottlieb, Pilkauskas, and Garfinkel (2014) have examined the association between the unemployment rate and private financial transfers among single mothers (Gottlieb, Pilkauskas, & Garfinkel, 2014).

The current study explored the demographic (race, ethnicity, gender, education, relationship status, health) and contextual (income, residence, retirement eligibility, and sector of employment) factors associated with the unemployment, displacement and reemployment among older adults. The results suggest that as older adults are encouraged to work longer to more adequately prepare for their own retirements, subgroups among those that are generally unemployed or displaced may face significant challenges in their efforts to remain in the labor market. This has created a gap in our knowledge base about those who are most vulnerable to unemployment and displacement and how to effectively address the unique needs of this group. Social work researchers and practitioners certainly have the knowledge and skills to address the needs of older unemployed and displaced workers. More attention needs to be paid to issues surrounding those most vulnerable to the effects of unemployment/displacement. Further, greater attention needs to be given to policies that support and hinder older unemployed and displaced workers continued employment. Finally, social work interventions supporting older unemployed

and displaced workers should be developed for meaningful gains to be made at the individual level. It is my hope that the study reported here will stimulate more social work research to address unemployment, displacement, and reemployment among older adults.

REFERENCES

Abraham, K. G., & Houseman, S. N. (2008). Removing barriers to work for older Americans.

Agbayani, C., Gasperini, B., Moore, J., Nanda, N., Patterson, L., & Wandner, S. (2016). US Department of Labor Office of the Assistant Secretary for Policy Chief Evaluation Office Labor Market and DOL-Funded Employment Assistance for Older Workers.

Adams, G. A., & Rau, B. L. (2011). Putting off tomorrow to do what you want today: planning for retirement. *American Psychologist*, *66*(3), 180.

Adams, K. M., Hester, P. T., Bradley, J. M., Meyers, T. J., & Keating, C. B. (2014). Systems theory as the foundation for understanding systems. *Systems Engineering*, *17*(1), 112-123.

Altonji, J. G., & Blank, R. M. (1999). Race and gender in the labor market. *Handbook of labor economics*, *3*, 3143-3259.

Amato, P. R. (2010). Research on divorce: Continuing trends and new developments. *Journal of Marriage and Family*, *72*(3), 650-666.

Autor, D. (2010). The polarization of job opportunities in the US labor market: Implications for employment and earnings. *Center for American Progress and The Hamilton Project*.

Autor, D. H., & Duggan, M. G. (2003). The rise in the disability rolls and the decline in unemployment. *The Quarterly Journal of Economics*, *118*(1), 157-206.

Autor, D. H., Levy, F., & Murnane, R. J. (2003). The skill content of recent technological change: An empirical exploration. *The Quarterly journal of economics*, *118*(4), 1279-1333.

Baumann, I. (2016). Reemployment or Unemployment. In *The Plight of Older Workers* (pp. 63-80). Springer International Publishing.

Beckett, J. O., & Root, K. A. (1990). Displaced Workers, Unemployment and Social Work Intervention. *Journal of International & Comparative Social Welfare*, *6*(1-2), 89-111.

Bednarzik, R. W., Hewson, M. A., & Urquhart, M. A. (1982). The employment situation in 1981: new recession takes its toll. *Monthly Lab. Rev.*, *105*, 3.

Befort, S. F. (2006). The Perfect Storm of Retirement Insecurity: Fixing the Three-Legged Stool of Social Security, Pensions, and Personal Savings. *Minn. L. Rev.*, *91*, 938.

Bell, B. A., Onwuegbuzie, A. J., Ferron, J. M., Jiao, Q. G., Hibbard, S. T., & Kromrey, J. D. (2012). Use of design effects and sample weights in complex health survey data: a review of published articles using data from 3 commonly used adolescent health surveys. *American Journal of Public Health*, *102*(7), 1399-1405.

Blau, F. D., Brummund, P., & Liu, A. Y. H. (2013). Trends in occupational segregation by gender 1970–2009: Adjusting for the impact of changes in the occupational coding system. *Demography*, *50*(2), 471-492.

Brady, D. S. (1966). Output, employment, and productivity in the United States after 1800. *NBER Books*.

Brand, J. E. (2004). *Enduring Effects of Job Displacement on Career Outcomes* (Doctoral dissertation, University of Wisconsin--Madison).

Brand, J. E. (2006). The effects of job displacement on job quality: Findings from the Wisconsin Longitudinal Study. *Research in Social Stratification and Mobility*, *24*(3), 275-298.\

Brand, J. E. (2015). The far-reaching impact of job loss and unemployment. *Annual Review of Sociology*, *41*, 359-375.

Brenner, M. H. (2017). Years of life lost, age discrimination, and the myth of productivity. *American Journal of Public Health, 107*(10), 1535-1537. doi:10.2105/AJPH.2017.304020

Brown, S. L., & Lin, I. F. (2012). The gray divorce revolution: Rising divorce among middle-aged and older adults, 1990–2010. *The Journals of Gerontology: Series B*, *67*(6), 731-741.

Bureau of Labor Statistics, (n.d). *The Economics Daily*, Major industries with highest employment, by state, 1990-2015 on the Internet at https://www.bls.gov/opub/ted/2016/major-industries-with-highest-employment-by-state.htm (visited *November 28, 2017*).

Bureau of Labor Statistics, (n.d). *The Economics Daily*, Unemployment rate and employment-population ratio vary by race and ethnicity on the Internet at https://www.bls.gov/opub/ted/2017/unemployment-rate-and-employment-population-ratio-vary-by-race-and-ethnicity.htm (visited *November 27, 2017*).

Butrica, B., Smith, K. E., & Steuerle, E. (2007). Working for a good retirement. *Government Spending on the Elderly*, 141-74.

Chan, S., & Stevens, A. H. (1999). Employment and retirement following a late-career job loss. *The American Economic Review*, *89*(2), 211-216.

Cheng, H. G., & Phillips, M. R. (2014). Secondary analysis of existing data: opportunities and implementation. *Shanghai Archives of Psychiatry*, *26*(6), 371.

Chien, S., Campbell, N., Chan, C., Hayden, O., Hurd, M., Main, R., Mallett, J., Martin, C., McCullough, C., Meijer, E., Moldoff, M., Pantoja, P., Rohwedder, P., & St. Clair, P. (2015). RAND HRS data documentation. *Version O*.

Coile, C. C., & Levine, P. B. (2007). Labor market shocks and retirement: Do government programs matter?. *Journal of Public Economics*, *91*(10), 1902-1919.

Coile, C. C., & Levine, P. B. (2010). *Recessions, reeling markets, and retiree well-being* (No. w16066). National Bureau of Economic Research.

Coile, C. C., Levine, P. B., & McKnight, R. (2014). Recessions, older workers, and longevity: How long are recessions good for your health?. *American Economic Journal: Economic Policy*, *6*(3), 92-119.

Compton, W. M., Gfroerer, J., Conway, K. P., & Finger, M. S. (2014). Unemployment and substance outcomes in the United States 2002–2010. *Drug & Alcohol Dependence*, *142*, 350-353.

Cooney, T. M., & Dunne, K. (2001). Intimate relationships in later life: Current realities, future prospects. *Journal of Family Issues*, *22*(7), 838-858.

Couch, K. A., & Fairlie, R. (2010). Last hired, first fired? Black-white unemployment and the business cycle. *Demography*, *47*(1), 227-247.

Couch, K. A., Jolly, N. A., & Placzek, D. W. (2009). Earnings losses of older displaced workers: A detailed analysis with administrative data. *Research on Aging*, *31*(1), 17-40.

Couch, K. A., & Placzek, D. W. (2010). Earnings losses of displaced workers revisited. *The American Economic Review*, *100*(1), 572-589.

Cox, L. E., Tice, C., & Long, D. D. (2015). *Introduction to Social Work*. Sage.

David, H., & Dorn, D. (2013). The growth of low-skill service jobs and the polarization of the US labor market. *The American Economic Review*, *103*(5), 1553-1597.

Desilver, D. (2013). Black unemployment rate is consistently twice that of whites. *Pew Research Center*, *21*.

Dettenborn, L., Tietze, A., Bruckner, F., & Kirschbaum, C. (2010). Higher cortisol content in hair among long-term unemployed individuals compared to controls. *Psychoneuroendocrinology*, *35*(9), 1404-1409.

Dupre, M. E., George, L. K., Liu, G., & Peterson, E. D. (2012). The cumulative effect of unemployment on risks for acute myocardial infarction. *Archives of Internal Medicine*, *172*(22), 1731-1737.

Dzialo, M. C., Shank, S. E., & Smith, D. C. (1993). Atlantic and Pacific coasts' labor markets hit hard in early 1990's. *Monthly Lab. Rev.*, *116*, 32.

Eamon, M. K., & Wu, C. F. (2011). Effects of unemployment and underemployment on material hardship in single-mother families. *Children and Youth Services Review*, *33*(2), 233-241.

Elsby, M. W., Hobijn, B., & Sahin, A. (2010). *The labor market in the Great Recession* (No. w15979). National Bureau of Economic Research.

Emeka, A. (2009). Race and unemployment amidst the new diversity: More evidence of a Black/non-Black divide. *Race and Social Problems*, *1*(3), 157-170.

Emeka, A. (2016). Where race matters most. *Contexts*, *15*(3), 72-74

Farber, H. S. (1996). *The changing face of job loss in the United States, 1981-1993* (No. w5596). National bureau of economic research.

Farber, H. S. (2005). *What do we know about job loss in the United States: Evidence from the Displaced Workers Survey, 1984-2004*. Industrial Relations Section, Princeton University.

Farber, H. S. (2011). *Job loss in the Great Recession: Historical perspective from the displaced workers survey, 1984-2010* (No. w17040). National Bureau of Economic Research.

Flaim, P. O., & Sehgal, E. (1985). Displaced workers of 1979-83: How well have they fared. *Monthly Lab. Rev.*, *108*, 3.

Fisher, G. G., Chaffee, D. S., & Sonnega, A. (2016). Retirement timing: A review and recommendations for future research. *Work, Aging and Retirement*, *2*(2), 230-261.

Friedman, B. D., & Allen, K. N. (2011). Systems theory. In J.R. Brandell (Ed.), *Theory & practice in clinical social work* (3-20). Thousand Oaks, CA: Sage

Gallie, D., Paugam, S., & Jacobs, S. (2003). Unemployment, poverty and social isolation: Is there a vicious circle of social exclusion?. *European Societies*, *5*(1), 1-32.

Gallo, W. T. (2012). Evolution of research on the effect of unemployment on acute myocardial infarction risk: comment on "the cumulative effect of unemployment on risks for acute myocardial infarction". *Archives of Internal Medicine*, *172*(22), 1737-1738.

Gallo, W. T., Bradley, E. H., Dubin, J. A., Jones, R. N., Falba, T. A., Teng, H. M., & Kasl, S. V. (2006). The persistence of depressive symptoms in older workers who experience

involuntary job loss: results from the health and retirement survey. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *61*(4), S221-S228.

Gallo, W. T., Bradley, E. H., Falba, T. A., Dubin, J. A., Cramer, L. D., Bogardus, S. T., & Kasl, S. V. (2004). Involuntary job loss as a risk factor for subsequent myocardial infarction and stroke: findings from the Health and Retirement Survey. *American Journal of Industrial Medicine*, *45*(5), 408-416.

Gallo, W. T., Bradley, E. H., Siegel, M., & Kasl, S. V. (2001). The impact of involuntary job loss on subsequent alcohol consumption by older workers: findings from the health and retirement survey. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *56*(1), S3-S9.

Gallo, W. T., Teng, H. M., Falba, T. A., Kasl, S. V., Krumholz, H. M., & Bradley, E. H. (2006). The impact of late career job loss on myocardial infarction and stroke: a 10 year follow up using the health and retirement survey. *Occupational and environmental medicine*, *63*(10), 683-687.

Gardner, J. M. (1995). Worker displacement: A decade of change. *Monthly Lab. Rev.*, *118*, 45.

Goldberg, G. S. (2012). Economic inequality and economic crisis: A challenge for social workers. *Social work*, *57*(3), 211-224.

Goodman, C. J., & Mance, S. M. (2011). Employment loss and the 2007–09 recession: An overview. *Monthly Labor Review*, *134*(4), 3-12.

Goodwin, N., Nelson, J. A., Ackerman, F., & Weisskopf, T. (2009). Microeconomics in Context ME Sharpe. *New York*

Gorodnichenko, Y., Song, J., & Stolyarov, D. (2013). *Macroeconomic determinants of retirement timing* (No. w19638). National Bureau of Economic Research.

Gottlieb, A., Pilkauskas, N., & Garfinkel, I. (2014). Private financial transfers, family income, and the Great Recession. *Journal of Marriage and Family*, *76*(5), 1011-1024.

Gough, M., & Killewald, A. (2011). Unemployment in families: The case of housework. *Journal of Marriage and Family*, *73*(5), 1085-1100.

Groshen, E. L., & Potter, S. (2003). Has structural change contributed to a jobless recovery?.

Harootyan, B., & McLaughlin, J. (2012). Respecting our elders: The case for preserving and expanding the Senior Community Service Employment Program. Retrieved from http://www.spotlightonpoverty.org/ExclusiveCommentary.aspx?id=e9d27e1c-2add-4c51-b859-fb83acbf21f9

Hatch, J., & Clinton, A. (2000). Job growth in the 1990s: a retrospect. *Monthly Lab. Rev.*, *123*, 3.

Henderson, R. (2015). Industry employment and output projections to 2024. *Monthly Lab. Rev.*, *138*, 1.

Hetzel L. & Smith A. (2000) *The 65 years and Over Population: 2000*. Retrieved from the United States Department of Commerce web site: http://www.census.gov.libdata.lib.ua.edu/prod/2001pubs/c2kbr01-10.pdf on 29 June 2015.

Hironimus-Wendt, R. J. (2008). The human costs of worker displacement. *Humanity & Society*, *32*(1), 71-93.

Hoerr, J. P. (1988). *And the wolf finally came: The decline of the American steel industry*. University of Pittsburgh Press.

Hout, M., Levanon, A., & Cumberworth, E. (2011). Job loss and unemployment. *The great recession*, 59-81.

Hudson, C. G. (2000). At the edge of chaos: A new paradigm for social work?. *Journal of Social Work Education*, *36*(2), 215-230.

Janoski, T., Luke, D., & Oliver, C. (2014). *The causes of structural unemployment: Four factors that keep people from the jobs they deserve*. John Wiley & Sons.

Jeszeck, C. (2012). Unemployed older workers: Many experience challenges regaining employment and face reduced retirement security. *GAO Reports,* 1. Retrieved from http://libdata.lib.ua.edu/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=pwh&AN=76111375&site=eds-live&scope=site

Johnson, R. W., & Mommaerts, C. (2011). Age differences in job loss, job search, and reemployment. *Washington, DC: The Urban Institute*.

Johnston, M. P. (2017). Secondary data analysis: A method of which the time has come. *Qualitative and Quantitative Methods in Libraries*, *3*(3), 619-626.

Juhn, C., & Potter, S. (2007). *Is there still an added worker effect?* (No. orrc07-14). National Bureau of Economic Research.

Kalleberg, A. L. (2009). Precarious work, insecure workers: Employment relations in transition. *American sociological review*, *74*(1), 1-22.

Kalleberg, A. L., Reskin, B. F., & Hudson, K. (2000). Bad jobs in America: Standard and nonstandard employment relations and job quality in the United States. *American sociological review*, 256-278.

Kampfe, C. M., Wadsworth, J. S., Mamboleo, G. I., & Schonbrun, S. L. (2008). Aging, disability, and employment. *Work*, *31*(3), 337-344.

Katz, L. (2014). Long-term unemployment in the Great Recession. *Members-only Library*.

Kletzer, L. G. (1998). Job displacement. *The Journal of Economic Perspectives*, *12*(1), 115-136.

Koeber, C. (2002). Corporate restructuring, downsizing, and the middle class: The process and meaning of worker displacement in the "new" economy. *Qualitative Sociology*, *25*(2), 217-246.

Koeber, C., & Wright, D. W. (2006). Gender differences in the reemployment status of displaced workers human capital as signals that mitigate effects of bias. *The Journal of Socio-Economics*, *35*(5), 780-796.

Kondrat, M. E. (2013). *Person in environment.* In T. Mizrahi & L.E. Davis (Eds). Encyclopedia of Social Work. Location: Oxford University Press.

Kroft, K., Lange, F., Notowidigdo, M. J., & Katz, L. F. (2016). Long-term unemployment and the Great Recession: the role of composition, duration dependence, and nonparticipation. *Journal of Labor Economics*, *34*(S1), S7-S54.

Lichter, D. T., & Graefe, D. R. (2011). Rural economic restructuring: Implications for children, youth, and families. *Economic restructuring and family well-being in rural America*, 25-39.

Lippmann, S. (2008). Rethinking risk in the new economy: Age and cohort effects on unemployment and re-employment. *Human Relations*, *61*(9), 1259-1292.

Liu, S. F., Courtenay, B. C., & Valentine, T. (2011). Managing older worker training: A literature review and conceptual framework. *Educational Gerontology*, *37*(12), 1040-1062.

Maier, R., Egger, A., Barth, A., Winker, R., Osterode, W., Kundi, M.,Wolf, C., Ruediger, H., 2006. Effects of short- and long-term unemployment on physical work capacity and on serum cortisol. *International Archives Occupational and Environmental Health, 79,* 193-198.

McKay, S., Berglind, H., Dhooge, Y., Popay, J., & Pilcher, A. (1990). Unemployment: Some neglected dimensions in social work. *Journal of International & Comparative Social Welfare*, *6*(1-2), 16-37.

Michael, B., & Michael, R. (2012). Outsourcing: mass layoffs and displaced workers' experiences. *Management Research Review*, *35*(11), 1029-1045.

Michaelides, M., & Mueser, P. R. (2013). The role of industry and occupation in recent US unemployment differentials by gender, race, and ethnicity. *Eastern Economic Journal*, *39*(3), 358-386.

Miller, S. (2014). Social institutions in *The Stanford Encyclopedia of Philosophy*. Retrieved from https://plato.stanford.edu/archives/win2014/entries/social-institutions/

Munnell, A. H. (2015). Falling short: The coming retirement crisis and what to do about it. *Center for Retirement Research at Boston College*, (15-7).

Myers, K., & Demantas, I. (2016). Breadwinning and bread-losing: Exploring opportunities to rework manhood. *Sociology Compass*, *10*(12), 1119-1130.

Neffke, F., Otto, A., & Hidalgo, C. (2016). The mobility of displaced workers: How the local industry mix affects job search strategies. *Utrecht University, Section of Economic Geography*.

Netting, F. E. (2013). Macro social work practice. In T. Mizrahi & L.E. Davis (Eds). Encyclopedia of Social Work. Location: Oxford University Press.

Ng, T. W., & Feldman, D. C. (2012). Evaluating six common stereotypes about older workers with meta-analytical data. *Personnel Psychology*, *65*(4), 821-858.

Noelke, C., & Avendano, M. (2015). Who suffers during recessions? Economic downturns, job loss, and cardiovascular disease in older Americans. *American journal of epidemiology*, *182*(10), 873-882.

Ortman J. M. Velkoff V.A., & Hogan H. (2014). An aging nation: The older population in the United States. Current Population Reports, P25–1140. Washington, DC: U.S. Census Bureau.

Parsons, T. (1940). An analytical approach to the theory of social stratification. *American Journal of Sociology*, *45*(6), 841-862.

Paul, K. I., & Batinic, B. (2010). The need for work: Jahoda's latent functions of employment in a representative sample of the German population. *Journal of Organizational Behavior*, *31*(1), 45-64.

Pearlin, L., Lieberman, M., Menaghan, E., & Mullan, J. (1981). The stress process. *Journal of Health and Social Behavior*, *22*, 337-56.

Petkoska, J., & Earl, J. K. (2009). Understanding the influence of demographic and

Podgursky, M., & Swaim, P. (1987). Job displacement and earnings loss: evidence from the displaced worker survey. *ILR Review*, *41*(1), 17-29.

Poterba, J. M., Venti, S. F., & Wise, D. A. (2012). Were they prepared for retirement?. *Investigations in the Economics of Aging*, *21*.

Price, R. H., Choi, J. N., & Vinokur, A. D. (2002). Links in the chain of adversity following job loss: how financial strain and loss of personal control lead to depression, impaired functioning, and poor health. *Journal of Occupational Health Psychology*, *7*(4), 302.

Quane, J. M., Wilson, W. J., & Hwang, J. (2013). The Urban Jobs Crisis. Paths toward Employment for Low-Income Blacks and Latinos. *Harvard Magazine*, *35*(1), 7-24.

Quinn, J. F., & Cahill, K. R. (2016). The new world of retirement income security in America. *American Psychologist*, *71*(4), 321–333. https://doi-org.libdata.lib.ua.edu/10.1037/a0040276

Reisch, M., & Gorin, S. H. (2001). Nature of work and future of the social work profession. *Social Work*, *46*(1), 9-19.

Rhee, N. (2013). The retirement savings crisis. *Washington DC: National Institute on Retirement Security*.

Rhee, N. (2013). Race and retirement insecurity in the United States. *Washington, DC: National Institute on Retirement Security*.

Rhee, N., & Boivie, I. (2015). The continuing retirement savings crisis.

Rothman, J., & Mizrahi, T. (2014). Balancing micro and macro practice: A challenge for social work. *Social Work*, *59*(1), 91-93.

Rousseau, D. (2015). General Systems Theory: its present and potential. *Systems Research and Behavioral Science*, *32*(5), 522-533.

Sahin, A., Song, J., & Hobijn, B. (2010). The unemployment gender gap during the 2007 recession.

Schmitt, J. (2004). The rise in job displacement, 1991-2004. *Challenge*, *47*(6), 46-68.

Schotter, A. (2008). The economic theory of social institutions. *Cambridge Books*.

Seeman, T. E., Merkin, S. S., Crimmins, E. M., & Karlamangla, A. S. (2010). Disability trends among older Americans: national health and nutrition examination surveys, 1988–1994 and 1999–2004. *American Journal of Public Health*, *100*(1), 100-107.

Segal, E. A., Gerdes, K. E., & Steiner, S. (2015). *Empowerment series: An introduction to the profession of social work*. Nelson Education.

Seibert, S. E., Kraimer, M. L., & Liden, R. C. (2001). A social capital theory of career success. *Academy of management journal*, *44*(2), 219-237.

Seligman, J. S. (2014). Involuntary retirement, US social security program participation and the Great Recession. *Public Finance and Management*, *14*(3), 329.

Sherraden, M. W. (1985a). Chronic unemployment: A social work perspective. *Social Work*, *30*(5), 403-408.

Sherraden, M. W. (1985b). Employment policy: A conceptual framework. *Journal of Social Work Education*, *21*(2), 5-14.

Shore, T. H., & Tashchian, A. (2013). Perceptions of unemployed workers: Unemployment duration, volunteerism, and age. *Journal of Applied Business Research (JABR)*, *29*(4), 983-990.

Shultz, K. S., Morton, K. R., & Weckerle, J. R. (1998). The influence of push and pull factors on voluntary and involuntary early retirees' retirement decision and adjustment. *Journal of vocational behavior*, *53*(1), 45-57.

Skyttner L. (1996) Basic Ideas of General Systems Theory. In: General Systems Theory. Information Systems Series. Palgrave, London.

Smith, E. (2008). Pitfalls and promises: The use of secondary data analysis in educational research. *British Journal of Educational Studies*, *56*(3), 323-339.

Sonnega, A., Faul, J. D., Ofstedal, M. B., Langa, K. M., Phillips, J. W., & Weir, D. R. (2014). Cohort profile: the health and retirement study (HRS). *International journal of epidemiology*, *43*(2), 576-585.

Sousa-Ribeiro, M., Sverke, M., & Coimbra, J. L. (2013). Coping with Job Loss: Antecedents of Job Search Behaviors Among Older Unemployed Adults. In *13th European Congress of Psychology, Stockholm, Sweden, 9-12 July, 2013*.

Stolove, C. A., Galatzer-Levy, I., & Bonanno, G. A. (2017). Emergence of depression following job loss prospectively predicts lower rates of reemployment. *Psychiatry Research, 253*, 79-83. doi:10.1016/j.psychres.2017.03.036

Streeter, C.L. (2013). *Community overview.* In T. Mizrahi & L.E. Davis (Eds). Encyclopedia of Social Work. Location: Oxford University Press.

Sum, A., Trubskyy, M., Palma, S. (2014). The Unemployment Experiences of Workers in the US Who Were Displaced from Their Jobs During the Great Dislocation of 2007-2009. *Members-only Library*.

Szinovacz, M. E., & Davey, A. (2005). Predictors of perceptions of involuntary retirement. *The Gerontologist*, *45*(1), 36-47.

Szinovacz, M. E., Martin, L., & Davey, A. (2013). Recession and expected retirement age: Another look at the evidence. *The Gerontologist*, *54*(2), 245-257.

Tatsiramos, K. (2010). Job displacement and the transitions to re-employment and early retirement for non-employed older workers. *European Economic Review, 54*, 517-535. doi:10.1016/j.euroecorev.2009.10.001

Tüzemen, D., & Willis, J. (2013). The vanishing middle: Job polarization and workers' response to the decline in middle-skill jobs. *Economic Review-Federal Reserve Bank of Kansas City*, 5.

Toossi, M. (2015). Labor force projections to 2024: the labor force is growing, but slowly. *Monthly Labor Rev.*, *138*, 1.

Urquhart, M. A., & Hewson, M. A. (1983). Unemployment continued to rise in 1982 as recession deepened. *Monthly Lab. Rev.*, *106*, 3.

Wanberg, C. R., Kanfer, R., Hamann, D. J., & Zhang, Z. (2016). Age and reemployment success after job loss: An integrative model and meta-analysis. *Psychological bulletin*, *142*(4), 400.

Van Solinge, H., & Henkens, K. (2007). Involuntary retirement: The role of restrictive circumstances, timing, and social embeddedness. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *62*(5), S295-S303.

Von Bertalanffy, L., & Sutherland, J. W. (1974). General systems theory: Foundations, developments, applications. *IEEE Transactions on Systems, Man, and Cybernetics*, *4*(6), 592-592.

Wanberg, C. R. (2012). The individual experience of unemployment. *Annual Review of Psychology*, *63*, 369-396.

Wanberg, C. R., Hough, L. M., & Song, Z. (2002). Predictive validity of a multidisciplinary model of reemployment success. *Journal of Applied Psychology*, *87*(6), 1100.

Wanberg, C. R., Kanfer, R., Hamann, D. J., & Zhang, Z. (2016). Age and reemployment success after job loss: An integrative model and meta-analysis. *Psychological Bulletin*, *142*(4), 400.

Warren, E., & Tyagi, A. W. (2004). *The two-income trap: Why middle-class parents are going broke*. Basic Books.

Westcott, D. N., & Bednarzik, R. W. (1981). Employment and unemployment: a report on 1980. *Monthly Lab. Rev.*, *104*, 4.

Wilkins, R., & Wooden, M. (2013). Gender differences in involuntary job loss: Why are men more likely to lose their jobs?. *Industrial Relations: A Journal of Economy and Society*, *52*(2), 582-608.

Wilson, F. D., Tienda, M., & Wu, L. (1995). Race and unemployment: Labor market experiences of black and white men, 1968-1988. *Work and Occupations*, *22*(3), 245-270.