

City University of New York (CUNY)

CUNY Academic Works

Dissertations, Theses, and Capstone Projects

CUNY Graduate Center

9-2018

The Unemployment Rate for Post-9/11 Veterans: A Multivariate Statistical Evaluation of American Community Survey Data, 2003–2015

M. Celada

The Graduate Center, City University of New York

[How does access to this work benefit you? Let us know!](#)

More information about this work at: https://academicworks.cuny.edu/gc_etds/2882

Discover additional works at: <https://academicworks.cuny.edu>

This work is made publicly available by the City University of New York (CUNY).
Contact: AcademicWorks@cuny.edu

THE UNEMPLOYMENT RATE FOR POST-9/11 VETERANS:
A MULTIVARIATE STATISTICAL EVALUATION OF AMERICAN COMMUNITY
SURVEY DATA, 2003-2015

by

M. CELADA

A dissertation submitted to the Graduate Faculty in Social Welfare in partial fulfillment of the requirements for the degree of Doctor of Philosophy, The City University of New York

2018

© 2018

M. CELADA

All Rights Reserved

The Unemployment Rate for Post-9/11 Veterans: A Multivariate Statistical Evaluation of American Community Survey Data, 2003-2015

by M. Celada

This manuscript has been read and accepted for the Graduate Faculty in Social Welfare in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

Date

Sarah-Jane (SJ) Dodd

Chair of Examining Committee

Date

Harriet Goodman

Executive Officer

Supervisory Committee:

Sarah Jane (SJ) Dodd

Mary Clare Lennon

Andrea Savage

THE CITY UNIVERSITY OF NEW YORK

ABSTRACT

The Unemployment Rate for Post-9/11 Veterans: A Multivariate Statistical Evaluation of
American Community Survey Data, 2003-2015

by

M. Celada

Advisor: Sarah-Jane (SJ) Dodd

This research has two objectives: to develop the case for examining Post-9/11 veteran unemployment through the prism of race and gender and to analyze Post-9/11 veteran unemployment, 2003-2015, through this demographic lens. First, it critically considers how entrenched normative assumptions and statistical methodologies for veteran unemployment analyses, largely irrespective of race, gender, and skill-biased technological change, impede the development of an alternate theoretical frame and analytical method to assess Post-9/11 veteran labor outcomes. As a result, scant information exists on the labor force outcomes of Post-9/11 veterans. Secondly, it conducts an intersectional methodological multivariate analysis of unemployment outcomes for Black, Hispanic, Asian, Multiethnic as well as White veterans, respectively.

TABLE OF CONTENTS

ABSTRACT	iv
LIST OF TABLES	viii
LIST OF GRAPHS	ix
CHAPTER ONE: INTRODUCTION	1
The Significance of Post-9/11 Veteran Unemployment	2
Practice and Policy Relevance of Post-9/11 Veteran Unemployment	5
Research Questions	8
CHAPTER TWO: U.S. POLICY RESPONSES TO VETERAN UNEMPLOYMENT, 1818-2012	11
Veteran Transitional Programs from 1818-1918	11
The G.I. Bill of 1944	13
The Transitional Assistance Program of 1991	16
The New Transitional Assistance Program of 2011	18
CHAPTER THREE: THEORIES UNDERPINNING THE OPPORTUNITY CREATOR NARRATIVE OF THE MILITARY	22
The Capital Theories	23
Status Attainment Theory	27
An Institutional Economic and Intersectional Critique of the Capital Theories	28
CHAPTER FOUR: LITERATURE REVIEW OF VETERAN’S LABOR FORCE OUTCOMES	32
The Civilian Labor Force Outcomes of WWII and Korean Veterans	33
The Civilian Labor Force Outcomes of Vietnam Veterans	39

The Civilian Labor Force Outcomes of the All-Volunteer Force, 1973-2000	41
The Civilian Labor Force Outcomes of Post-9/11 Veterans	44
Research Questions	48
CHAPTER FIVE: METHODOLOGY	50
Data	50
Sample Restrictions	51
Outcome Measures	52
Analytic Strategy	53
Model Specifications	53
Techniques	60
Summary	63
CHAPTER SIX: RESULTS	65
Demographic Composition of the Post-9/11 Veteran and Civilian Populations	65
Regression Results	69
Regression Diagnostics	87
CHAPTER SEVEN: CONCLUSION	89
Findings	89
Limitations	93
Policy Considerations	95
Conclusion	99
Suggestions for Future Research	102

APPENDIX	104
REFERENCES	131

LIST OF TABLES

Table 1: Descriptive Statistics for Unemployment Analytical Samples by Veteran Status and Male Gender	66
Table 2 Descriptive Statistics for Unemployment Analytical Samples by Veteran Status and Female Gender	67
Table 3: Mean Values for Percent Unemployed by Veteran Status, Male Gender, Race And Ethnicity	68
Table 4: Mean Values for Percent Unemployed by Veteran Status, Female Gender, Race And Ethnicity	68
Table 5: Results of Three Regression Models for the Outcome, Male Unemployment	71
Table 6: Estimates From IPWRA Regression Model of Unemployment, Male	74-76
Table 7: Results of Three Regression Models for the Outcome, Male Unemployment Using the Employment Participation Rate, 18-40 Years of Age	77
Table 8: Results of Three Regression Models for the Outcome, Female Unemployment	78
Table 9: Estimates From IPWRA Regression Model of Unemployment, Female	81-83
Table 10: Results of Three Regression Models for the Outcome, Female Unemployment, Using the Employment Participation, 18-40 Years of Age	84
Table 11: The Regression Adjusted Unemployment Rate by Demographic Category for Male Post-9/11 Veterans and Civilians, 2003-2015	85
Table 12: Summary of Hypothesis and Support for RQ3	86
Table 13: The Regression Adjusted Unemployment Rate by Demographic Category for Female Post-9/11 Veterans and Civilians, 2003-2015	86
Table 14: Summary of Hypothesis and Support for RQ3	82

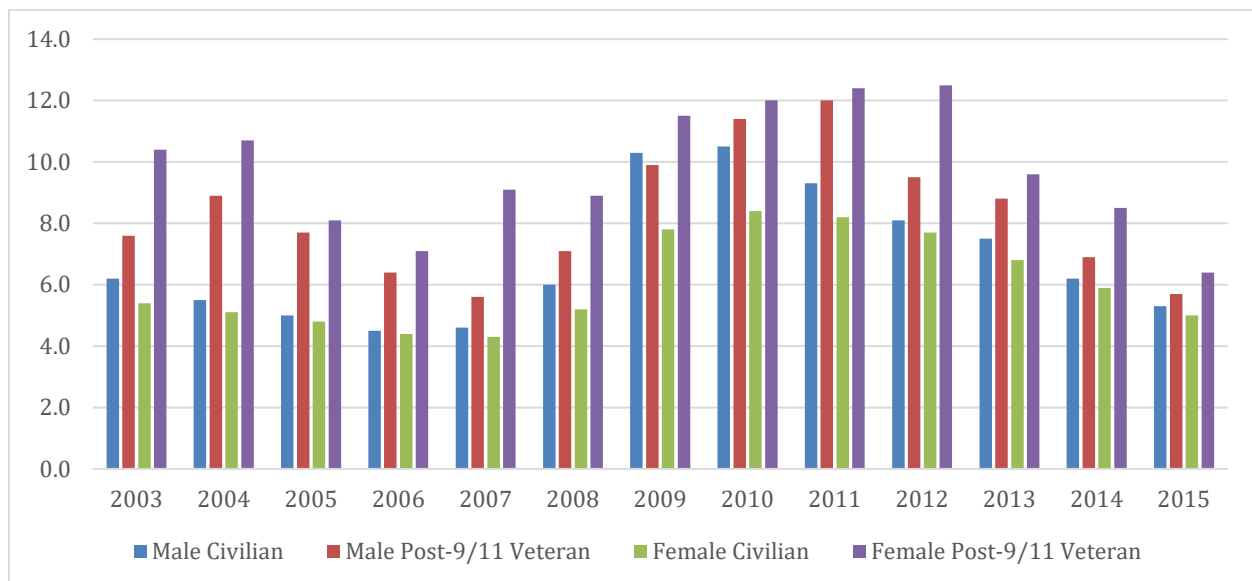
LIST OF FIGURES

Figure 1: Post-9/11 Veterans and Civilian Unemployment by Gender, 2003-2015 (BLS, 2015)	1
--	---

CHAPTER ONE: INTRODUCTION

Since September 11, 2001, the United States has been on a war footing. During this time, over 4.1 million Americans served in the Armed Forces. Many of these Post-9/11 soldiers are now returning stateside, with an estimated 200,000 of them transitioning into the US civilian labor market annually (Ross, 2017). They represent the withdrawal of troops from Afghanistan and Iraq, retirement from service, and the downsizing of conventional military forces due to Pentagon budgets cuts. But in every year from 2003 to 2015, the Bureau of Labor Statistics (BLS) reported that these veterans had a higher unemployment rate than almost every other veteran or civilian cohort (BLS, 2015). (See Figure 1.) After the recession in 2011, their employment situation only worsened: An estimated one in ten of all Post-9/11 veterans and an estimated one in three of these Post-9/11 veterans aged 18-24 years were unemployed (BLS, 2015).

Figure 1: Post-9/11 Veterans and Civilian Unemployment by Gender, 2003-2015 (BLS, 2015).



This high Post-9/11 unemployment rate as represented by BLS is uncommon in the

history of U.S. veteran employment (BLS, 2015). Historically, statistics for the unemployment rates of World War (WWII) and Korean veteran cohorts have been lower than their civilian cohort (Altschuler & Blumin, 2009). The only other veteran group that underperformed its civilian cohort was the Vietnam cohort; researchers believed this cohort did worse than their peers due to a large demobilization of veterans during an economic slowdown (Angrist & Krueger, 1994; Martindale & Poston, 1979; Teachman, 2004; Teachman & Tedrow, 2007).

The Significance of Post-9/11 Veteran Unemployment

Policy makers, the civilian population, and the military agree that high Post-9/11 veteran unemployment is a significant concern. First, it breaches the societal obligation to support veteran wellness (Andrews, Bullock, Braud, & Phillips, 2009; Brinn & Auerbach, 2011; CRS, 2014; Harrell & Berglass, 2012; Kleykamp, 2007; 2009; 2010; 2013; Loughran, 2014; Office of the Under Secretary of Defense for Personnel and Readiness, 2014). State legislatures, federal representatives, and the U.S. public are sensitized to how only 7% of the population bore the moral, psychological, and physical burden of the Post-9/11 wars in Afghanistan and Iraq. Thus, local and federal legislatures feel an ethical commitment to assist veterans in their civilian transition (Brinn & Auerbach, 2011; Disabled American Veterans [DAV], 2014; Federal Information and News Dispatch, 2013; Loughran, 2014; Savych, Klerman, & Loughran, 2008). A crucial aspect of successful military-to-civilian transition is *job activation* and *retention*, getting and keeping civilian employment. In fact, the US has a tradition of providing benefits, employment, and training service programs to improve veterans' labor force outcomes since the 1800s (CRS, 2014; Harrell & Berglass, 2012; Mettler, 2005). It is seen as part of the military-civilian social contract.

Second, Post-9/11 veteran unemployment is significant because it is a signaling device

for future volunteers. If the next generation of possible recruits sees the Post-9/11 cohort having difficulty with civilian employment transition, the first cohort of the All-Volunteer Force to do so, they may be deterred from enlisting. The Post-9/11 comparatively higher unemployment rate over the past 12 years, particularly among ages 18-34, calls into question the belief commonly held by policy makers, the public, and the United States Armed Forces post-WWII that veteran status and military service is an *opportunity creator* advancing civilian employment (Bowles et al., 2015; Kleykamp, 2007, 2013; Loughran, 2014; Office of the Under Secretary of Defense for Personnel and Readiness, 2014). As Four-Star General Norman Schwarzkopf concluded in the early Nineties, nobody enlists in the military to do poorly in the labor force after discharge (Schwarzkopf, 1992). If the opportunity creator narrative is undermined, military recruitment is weakened because those who would enter the military to advance their socioeconomic mobility will be deterred from enlisting. In fact, declining enlistment rates among qualified 18-24 year olds is a pressing concern for the Department of Defense (DoD) and policy makers. In a 2015 Washington Post survey, 85% of 18-29 year olds indicated that they would not join the Armed Forces (Spencer, 2015). As of 2018, the U.S. standing army had just fewer than 500,000 soldiers, the smallest number since 1940 (Spencer, 2015). A decreasing number of volunteers negatively impacts the Armed Forces' capabilities and responsibilities, such as patrolling international shipping lanes, global humanitarian efforts, as well as defense; only 10% of what the military does is combat related (Office of the Under Secretary of Defense for Personnel and Readiness, 2014). Moreover, it causes the military to lower their psychological, cognitive, and physical standards and accept recruits that may be unfit to serve, thereby challenging the performance of the unit (Spencer, 2015).

Third, Post-9/11 high unemployment affects the fastest growing demographic group in

the military. The demographic composition of this veteran group is different than the previous, predominantly White male cohorts. Specifically, over 35% of Post-9/11 veterans are non-White, and 17% of Post-9/11 veterans are women (Ruggles et al., 2015). As these statistics from the U.S. American Community Survey (ACS) demonstrate, enlistees are increasingly female and of color; non-White and White women as well as Black men represent the fastest growing demographic groups to enlist (Ruggles et al., 2015; Office of the Under Secretary of Defense for Personnel and Readiness, 2014). The increase of these new groups of veterans into the labor market intensifies the need to assess their unemployment rates, employment obstacles, and professional reintegration needs (Brinn & Auerbach, 2011; CRS, 2014; Harrell & Berglass, 2012; Kleykamp, 2009, 2013; Loughran, 2014; Smith, 2014). This demographically unique cohort should benefit from their military service as advertised with enhanced civilian labor force outcomes. If they do not, the universality of the opportunity creator narrative becomes a problematic assumption in the age of the All-Volunteer Force.

Fourth, the high Post-9/11 unemployment rate has profound implications not just for the individual veterans, but also for their families. This cohort of veterans is more likely to be married and have children than previous ones (Brinn & Auerbach, 2011; Federal Information and News Dispatch, 2013; Ruggle et al., 2015). The United States Armed Forces estimates that for every 200,000 unemployed veterans, there are over 500,000 family dependents, including children, spouses, and/or parents (Bowles et al., 2015; Ruggles et al., 2015). Thus, their difficulty gaining civilian employment negatively impacts families and communities. Female veterans are a particularly vulnerable population. Specifically, 51% of female veterans are parents compared to 42% of male veterans; 11% of Post-9/11 female veterans are single parents, as opposed to only 4% of male veterans who are single parents (Ruggles et al., 2015). Therefore, children are

impacted by their joblessness (CNN, 2014; Harrell & Berglass, 2013; Nagel & Kleykamp, 2007; Smith, 2014). Female veterans' income loss affects not just the financial, but also the psychological and social condition of their children (Bowles et al., 2015; Bratberg, Nilsen, & Vaage, 2008; Canfield, 2014; Office of the Under Secretary of Defense for Personnel and Readiness, 2014). Thus, Post-9/11 veterans' inability to attach to the labor market affects American families nationwide. Neglecting to professionally integrate these veterans could create socioeconomic difficulties that would challenge social services for years to come.

Practice and Policy Relevance of Post-9/11 Veteran Unemployment

The increase of veterans in the labor market will intensify the need for researchers, practitioners, and policy makers to understand their civilian employment transition and their unemployment rate (Badger, 2014; CRS, 2014; Harrell & Berglass, 2012; Loughran, 2014). BLS has documented the problem of Post-9/11 veteran unemployment; however, interest groups, service providers, Congress, and policy makers are still struggling with the problem scope around it after the last federal veteran benefit package was passed in 2011.¹ Specifically, some policy makers do not even know enough about the demand- and the supply-side reasons for high Post-9/11 unemployment rate to effectively craft strategies (Loughran, 2014; Parsons, 2013; Williams, Barnett, & Graham, 2014). Specifically, Post-9/11 veterans can experience obstacles to employment from both the demand-side and supply-side. Demand-side obstacles are exogenous to the veteran and can include: Veterans have no valuable experience for hiring companies because military jobs are too specialized, low skilled, or have no equivalent in the civilian labor force (such as weapons maintenance); veterans are transitioning during downward economic cycles, and the labor force cannot absorb them; hiring entities typecast and discriminate against veterans. Supply-side challenges are endogenous to the veteran and include

lack of knowledge, experience, or confidence about the entire civilian employment process, from work culture to resume writing. (An example of translating a military job into a civilian occupation is: Company gunnery sergeant is listed on a civilian resume as a high level supervisor). Policy makers need to understand the demand- and supply-side obstacles so they can critically consider existing programs and change their budget allocation to address both sets of obstacles. Subsequently, military and civilian transition-service providers can design programs and services informed by data. Any assumption that most of the obstacles are on the supply-side is not based on evidence.

Moreover, researchers do not know exactly how the Post-9/11 unemployment rate compares to the civilian rate from 2003-2015. Although BLS reports the unemployment rates for Post-9/11 veterans and civilians, their summary statistics do not control for other variables that may be contributing to this cohort's comparatively higher unemployment rate. Specifically, the Post-9/11 veteran population may have compositional differences from their civilian cohort, meaning more characteristics that are associated with higher unemployment, such as young age, low educational attainment, minority identification, and single marital status (Blau & Kahn, 2016; CRS, 2014; DAV, 2012; Faberman & Foster, 2013; Feng & Hu, 2013; Harrell & Berglass, 2012; Kleykamp, 2013; Loughran, 2014). If the Post-9/11 unemployed veteran cohort has a different demographic composition than its unemployed civilian cohort, the higher unemployment rate could possibly stem from this reason (Brinn & Auerbach, 2015; CRS, 2014; Feng & Hu, 2013; Harrell & Berglass, 2012; Kleykamp, 2013; Loughran, 2014). Some policy organizations, including Disabled American Veterans (DAV), Center for A New American Security (CNAS), and the Department of Veteran Affairs (VA) posit that veterans' pre-service characteristics influence or may even account for their labor force participation, although, as of

2018, they do not have any published multivariate statistical analyses to evidence this claim (DAV, 2014; Harrell & Berglass, 2012; VA, 2015).

It is important to note that the opportunity creator narrative was held out to enlistees without consideration of their demographic background. In fact, military service is often advertised to the *uncredentialed*, those without access to or funds for college, as a bridge to better civilian employment, higher civilian wages, and education after discharge (Faberman & Foster, 2013; Fallows, 2015; Kleykamp, 2010, 2013). If compositional differences explain the high Post 9/11 veteran unemployment, then the opportunity creator narrative of the Armed Forces is called into question because precisely those veterans who were supposed to benefit from military service, the uncredentialed, appear not to do so. In fact, the vets from these marginalized backgrounds may be disproportionately affected by unemployment.

Scant statistical work exists considering the labor outcomes of male and female Post-9/11 veterans from different racial groups (Kleykamp, 2009, 2013). In fact, most veteran labor outcome statistical methodologies have revolved around problematic assumptions. For example, the BLS figures treat Post-9/11 male and female veterans as two uniform groups respectively, without considering other coexisting identities, such as race and ethnicity. Also, military manpower experts at Research and Development Decisions/National Defense Research Institute (RAND) (Loughran, 2002; 2014; Savych, Klerman, & Loughran, 2008) have modeled only men in their analysis of Post-9/11 veteran unemployment, without a consideration of gender or race. Female veterans have been largely absent from unemployment analyses; therefore, their labor force experience is largely unknown. Any research illuminating the correlation of military service on post-service, socioeconomic outcomes of women would be a contribution to veteran labor history.

Research Questions

This dissertation has two objectives: to develop the case for examining Post-9/11 veteran unemployment through the prism of race and gender and to analyze Post-9/11 veteran unemployment, 2003-2015, through this demographic lens. First, it critically considers how entrenched normative assumptions and statistical methodologies for veteran unemployment analyses, largely conducted irrespective of race, gender, and skill-biased technological change, impede the development of both an alternate theoretical frame and an analytical method to assess Post-9/11 veteran labor outcomes. As a result, scant information exists on the labor force outcomes of veterans. Secondly, it establishes an intersectional methodological approach for a multivariate analysis of unemployment outcomes for Black, Hispanic, Asian, multiethnic as well as White male and female veterans, respectively, and suggests more effective policy and service remedies.

The following questions are addressed with multivariate analyses of American Community Survey (ACS) data, the U.S. Census Bureau survey with the largest number of veteran observations:

- (RQ1): Is the high male Post-9/11 veteran unemployment rate, 2003-2015, due to veteran status or to differences between male veterans and male civilians?
- (RQ2): Is the high female Post-9/11 veteran unemployment rate, 2003-2015, due to veteran status or to differences between female veterans and female civilians?
- (RQ3): Does Post-9/11 veteran status affect the probability of unemployment for men of different races?
- (RQ4): Does Post-9/11 veteran status affect the probability of unemployment for women of different races?

This first chapter describes how Post-9/11 veteran unemployment calls into question the opportunity creator narrative of the US military. Chapter Two situates Post-9/11 unemployment within the broader backdrop of veterans' labor force outcomes and assistance programs, from the American Revolution through Post-9/11, and tells how the development of veteran-focused federal legislation scaffolds the opportunity creator narrative. Chapter Three considers how the opportunity creator narrative and veteran unemployment has been theoretically framed in past scholarship and offers intersectionality as an alternative conceptual framework. Chapter Four reviews the landmark research on the labor force outcomes of America's WWII, Korean, Vietnam, and All-Volunteer Force (AVF) veterans, with particular attention to their investigative assumptions and methodological approaches. Chapter Five, the methodology chapter, introduces the intersectional methodology of retrospective secondary data analysis to analyze the Post-9/11 veteran unemployment rate, 2003-2015, according to race and gender.² Chapter Six reports the results from the analysis, and Chapter Seven examines the meaning of the research and its implications on whether military service is an opportunity creator narrative in the Post-9/11 era. In conclusion, policy and practice strategies are suggested.

The goal of a race and gender analysis of veteran labor force outcomes is to comprehend the labor force experience of those Post-9/11 veterans at the intersection of multiple identities. Currently, intersectional methodological research is underutilized in the veteran labor outcome field (McBride, Hobson, & Holgate, 2014). As a result, the unemployment rate and earnings research have conflated or ignored veterans' intergroup differences because intersectional experiences are expunged when a single demographic category of male or White is used or assumed. (Lepinard, 2014; McBride, Hobson, & Holgate, 2014). For example, when the word veteran is used, does it refer to all historical cohorts, Black and White men, or men and

women? More importantly, when female or multi-ethnic veterans are omitted from differentiation and analysis, they are also removed from the policy solutions and targeted service consideration (Crenshaw, 2016; McBride, Hobson, & Holgate, 2014; McCall, 2005). As a result of this omission, policies and services tend to focus on the needs of the privileged set within the group and remain problematic for others. Veteran labor research would benefit from a bigger commitment to an intersectional methodological approach. If adopted, researchers, policy makers, and service providers could appreciate the range of experiences of veterans who have been marginalized in civilian employment and design more targeted transitional labor services on the demand and the supply side.

CHAPTER TWO: THE US POLICY RESPONSES TO VETERAN UNEMPLOYMENT, 1818-2012

The US has a history of providing benefits, employment, and training service programs to improve veterans' employment outcomes (CRS, 2014; Office of the Under Secretary of Defense for Personnel and Readiness, 2014). In this policy section, the problem of Post-9/11 veteran unemployment is situated in the broader backdrop of US benefits and civilian-transitional assistance programs from the American Revolutionary War to Post-9/11. This genealogy traces the paradigm shift in legislative strategy for veteran-transition: moving away from pensions awarded to the majority of veterans or their widows and advancing towards an *occupational-assistance model* to foster self-reliance and civilian employment to all honorably discharged veterans serving over 90 days and their spouses. The sociopolitical, economic, and ideological context of each veteran cohort's unemployment will be considered.

Veteran Transition Programs from the American Revolution to World War One (WWI)

Since its inception, the US has provided benefits and pensions to combat veterans. After the Revolutionary War, the Fifteenth Congress passed the Act of 1818, which established programmatic benefits for combat veterans, war musicians, and men in war-support functions who were disabled, poor, or could not work. This act received widespread support because legislators and citizens believed that the new nation owed its independence to these men and supporting them was a matter of national pride (Meyer, Jenness, & Ingram, 2005). This benefit package was expanded in 1832 to include all veterans who had served for nine months and widows whose husbands died in service. Women who either fought disguised as male soldiers, provided nursing care, or protected homesteads were not included in this benefit package or its 1832 expansion (Meyer, Jenness, & Ingram, 2005).

The Act of 1818 established a precedent for allocating public funds to this unique section of the public. Subsequent legislation never challenged the underlying concept of differentiating unemployed or poor veterans for benefits from the nonmilitary poor or unemployed. Veterans were considered *deserving and entitled* to programmatic benefits (Meyer, Jenness, & Ingram, 2005; Schneider & Ingram, 2005). Future debates were about increasing or decreasing the benefit packages after each war, not eliminating them (Meyer, Jenness, & Ingram, 2005).

After the Civil War, the 1862 veteran program package offered pensions and land grants to those unable to work. Only two groups of people were eligible for the benefit: male veterans disabled by combat and widows of soldiers killed-in-action. The Grand Army of the Republic lobbied Congress to broaden eligibility to include combat veterans, not just the blind, paraplegic, and quadriplegic veterans. The threat of a veteran uprising after a bloody Civil War triggered policy change. As a result of the Grand Army of the Republic's collective action, the legislation changed in 1890 to broadly include any male veteran as well as all veterans' widows (Mettler, 2005; Meyer, Jenness, & Ingram, 2005). The Black men who fought in the Civil War were excluded from the pension system because they were not considered full citizens. The Spanish-American War in 1898 was the first time Black men could fight for the U.S as citizens (Reid-Pharr, 2016). They were eligible for benefits; however, little research exists on how many Black men actually received these benefits due to discriminatory implementation.

After World War One (WWI) in 1918, veterans were having trouble integrating into civilian life. The pension system established in 1890 had proven costly to the federal budget, and Congress sought a cheaper benefits program than offering land grants and pensions to all veterans (Mettler, 2005; Meyer, Jenness, & Ingram, 2005). These policy makers wanted to promote self-reliance and employment in both male veterans with a service-related disability and

veterans' widows (Mettler, 2005; Meyer, Jenness, & Ingram, 2005). This smaller, less expensive program included only healthcare and vocational training for male veterans with a disability. Veterans were upset when their benefits shrunk and again successfully lobbied Congress for cash payouts to compensate them for their obligatory war service as well as lost educational and labor force opportunities (Mettler, 2005; Meyer, Jenness, & Ingram, 2005). Although President Coolidge vetoed this new provision, Congress, due to pressure from its constituents, enacted this new legislation, the Bonus Act of 1924, and vowed cash bonus payouts by 1945. When the Depression hit, however, veterans wanted their bonus payouts immediately. In 1932, 20,000 veterans marched on Washington and squatted in federal buildings.³ Federal troops led by General Douglas MacArthur forcefully disbanded the veterans. The public watched as soldiers removed veterans from the Capital.

In 1933, during the depression, President Roosevelt and policy makers believed that the expanding federal spending under President Hoover was hurting the economy. Therefore, President Roosevelt signed the 1933 Economy Act that included a 50% cut in veteran benefits. He repealed the previous veteran legislation and granted smaller pensions only to means-tested veterans with service-related disabilities. President Roosevelt also signed into law the Civilian Conservation Corps and the Federal Emergency Relief Administration that provided jobs, a demand-side strategy, for thousands of veterans along with civilians. These relief packages quieted the former group's social unrest. Subsequently, the period from 1930 to 1944 was one of relative stability in veteran programs (Baumgartner & Jones, 2009).

The G.I. Bill of 1944

After WWII, 15.7 million veterans returned back stateside (Altschuler & Blumin, 2009). Congressional committees, President Roosevelt, the media, and the public were concerned that

when these veterans returned home, they would flood the unskilled labor market, negatively impact the economy, and possibly create another depression (Altschuler & Blumin, 2009). As a result, many veterans would potentially be unemployed for a significant period of time and could create another disruptive social movement similar to the 1932 march on Washington (CRS, 2014; Mettler, 2005). The aforementioned groups constructed veteran unemployment and idleness after war service as dangerous to the veterans themselves, the American family, the economy, and society at large (Office of the Under Secretary of Defense for Personnel and Readiness, 2014). Millions of unemployed veterans were deemed a societal risk because they (a) knew how to fight, (b) had unstructured free time, and (c) may have had some war-related psychological issues (Altschuler & Blumin, 2009). The priority was to integrate them back into employment or an educational institutional (CRS, 2014; Office of the Under Secretary of Defense for Personnel and Readiness, 2014). At the same time, the American Legion created a grassroots social movement that pressured Congress to pass a substantial transitional assistance package for veterans (Mettler, 2005; Meyer, Jenness, & Ingram, 2005). Given how gravely the government framed the consequences of veteran unemployment, Congress acted quickly. The military, the veterans, Congress, and the public formed a bipartisan consensus around the need to assist veterans with employment by creating new structures to absorb them as well as job placement services (Andrews, Bullock, Braud, & Phillips, 2009; Baumgartner & Jones, 2009; CRS, 2014; Rochefort & Cobbs, 1994).

Subsequently, the Serviceman's Readjustment Act, better known as the G.I. Bill, was passed in 1944. The G.I. Bill represented a paradigm shift in veteran transition assistance; it was a *statutory bill of rights* for veterans administering significant benefits at both the structural and the supply-side levels without the earlier requirements, such as a means test (Mettler, 2005). It

contained three mission prongs: training and education; unemployment insurance for returning war veterans; and home, farm, or business loan guaranty (CRS, 2014). Specifically, it had the following provisions: \$500 million was budgeted for the building of veteran facilities; unemployment insurance was given out at \$20 a week for up to 52 weeks;⁴ employment placement services were provided; and veterans received four years of tuition for educational or vocational training⁵ combined with a \$50 to \$74 monthly living allowance while in school. According to Altschuler and Blumin (2009), more than half of the returning WWII veterans used the G.I. Bill for education, and this mass educational movement prevented millions of veterans from flooding the civilian labor market as well as facilitated America's movement from a low skill to a higher skilled-based economy. Many scholars suggest that the rapid development of America's White middle class-largely comprised of veterans and their families- is due to the G.I. Bill (Altschuler & Blumin, 2009). As a result of more veterans entering the middle class after WWII, the idea that military service was an opportunity creator, advancing socio-economic mobility, came into play.

Due to implementation prejudice, however, Black men, as well as White and Black women fared differently. Administration of G.I. Bill benefits fell to the states, while the VA only oversaw it, thus enabling discriminatory implementation in states that worried about desegregation in the post-WWII social order (Frydl, 2009). The over 14 million White male veterans were ushered into college. Seventy percent of Black veterans, an estimated 750,000, returned to the segregated South and were steered into vocational training or low skilled jobs, and those returning to the North did not receive college educations with the same prevalence as White male veterans. Not enough research has been done to examine this trend, although three reasons are offered by scholars. First, discrimination on white college campuses impeded the

enrollment of Black men and women; second, there was a limited number of Black colleges to enroll Black students; third, the majority of Black veterans did not graduate from high school, and the G.I. Bill funds were used for a high school diploma (Frydl, 2009; Katznelson, 2006). Women veterans experienced discrimination when applying for college as preference was given to men (Frydl, 2009). In addition, the VA guaranteed an estimated 2.4 million home loans largely for White veterans (Frydl, 2009; Katznelson, 2006). Black male veterans as well as Black and White female veterans were often denied loans from banks even though the government guaranteed the loan. It is extremely important to note that White male veterans were the primary beneficiaries (Frydl, 2009; Katznelson, 2006). Even after President Truman signed Executive Order 9981 on July 26, 1948 integrating the military, the educational and wealth disparity between Black and White veterans increased in the post-War period after the G.I. Bill's implementation, (Frydl, 2009; Katznelson, 2006).

In 1956, the G.I. Bill expired. The provisions included in its renewal were significantly reduced for the estimated 6.7 million returning Korean and 2.5 million returning Vietnam veterans (Mattila, 1978). Veterans received only \$110 a month for tuition, housing, and living expenses combined.⁶ Therefore, many in the Vietnam veteran cohorts did not go to school (Altschuler & Blumin, 2009). The G.I. Bill was renewed again in 1985, but these educational benefits continued to shrink to only cover 10% of education and living costs by 2000 (Altschuler & Blumin, 2009). There is limited research on Black and White veterans' utilization of the G.I. Bill's educational benefit from the Korean and Vietnam cohorts.

The Transitional Assistance Program in 1991

After the Cold War in 1990,⁷ the House of Representatives reconsidered the VA's veteran-to-civilian transitional assistance program. Congress realized that returning Vietnam and

Cold War veterans were having difficulty transitioning to the civilian labor force and that their unemployment rate was high (McEnaney, 2011). President Bush, policy makers, advocacy groups, and the VA considered veteran employment integral to a successful civilian transition (CRS, 2014; Federal Information and News Dispatch, 2013; McEnaney, 2011; Office of the Under Secretary of Defense for Personnel and Readiness, 2014). Moreover, high unemployment undermined the *All You Can Be* and opportunity creator narratives of the Armed Forces, damaging future enlistment. Essentially, employment was seen as raising the standard of living for veterans, which was seen as a prerequisite for reintegrating them into societal categories, buffeting potential social uprisings, and inspiring new enlistees (Mettler, 2005).

Policy makers and veterans defined the problem as follows: Male veterans were having difficulty transitioning to civilian employment due to (a) an inability to identify educational, financial, and career next steps post discharge, which was a supply-side issue, and (b) the inability of military service to substitute for direct civilian work experience, which was a demand-side issue (CRS, 2014). Again, a grassroots veterans' movement successfully agitated, forcing legislative change. In 1991, new laws were enacted with bipartisan support (CRS, 2014). The legislative centerpiece was the Transition Assistance Program (TAP). TAP was a collaboration among the Department of Labor (DoL), the DoD, and the VA; it provided supply- and demand-side strategies to improve veteran employment.

On the supply-side, these government departments provided job and training counsel to Armed Forces members and their eligible spouses. It was offered to soldiers one year before and up to two years after discharge. It was conveniently provided at military bases and offered transition-related, pre-discharge support and counseling to separating service members. TAP provided information on financial management and healthcare. In addition, it offered information

on credentialing (i.e. licensing, certifications, and apprenticeships required for civilian work), federal employment opportunities, entrepreneurship, education, and training assistance (CRS, 2014; VA, 2017). Additional allocations included funds to organizations that trained veterans and financing for state personnel that offered high-touch employment services for some groups of veterans. On the demand-side, TAP developed strategies and services to encourage government and private organizations to hire and train veterans. They included federal hiring priority for veterans and tax incentives for organizations that hired veterans. The TAP legislation consolidated the decades long paradigm shift in veteran benefits towards an occupational-assistance model with a significant emphasis on supply-side strategies. The locus of policy intervention was the individual veteran with job placement services.

The New Transitional Assistance Program of 2011

During Post-9/11 warfare, both male and female veterans were again reporting formidable transitional difficulties (Adler et al., 2011; CRS, 2014; Federal Information and News Dispatch, 2013; McEnaney, 2011; Office of the Under Secretary of Defense for Personnel and Readiness, 2014). Post-9/11 veterans' difficulty with employment transition was obvious when looking at employment data from 2003-2011 (BLS, 2015; Ruggles et al., 2015). The VA conducted surveys of Post-9/11 veterans who attended TAP programs. The largest problem veterans cited was the inability to translate their military occupational specialty into a civilian occupational specialty (CRS, 2014). Repeatedly, veterans stressed that they did not know how to explain their military specialty in civilian language to hiring organizations (Harrell & Berglass, 2012; Weissman 2014; Williams, Barrett, & Graham, 2014). Veterans also cited difficulty developing impactful job seeking behaviors due to low levels of career self-efficacy and decisiveness (Harrell & Berglass, 2012; J. Musselman, CEO of The Honor Foundation, personal

communication, 2015; Stone & Stone, 2015). After a regimented professional life in the military, veterans were having difficulties with the psychology and strategy of the entire job activation process. Their low career decision-making was characterized by unpreparedness to begin a job search, indecision about a civilian career, and cognitive distortions about their ability and the job market (Gati, Ryzhik, & Vertsberger, 2013; J. Musselman, CEO of The Honor Foundation, personal communication, 2015). Examples of cognitive distortions included all-or-nothing thinking around initiative taking and global labeling of civilian work culture as ruthless and individualistic. As a result, veterans did not have a sense of agency, confidence, or decisiveness when pursuing a civilian occupation (J. Musselman, CEO of The Honor Foundation, personal communication, 2015). Veterans concluded that TAP was an ineffective tool in their job search because the program did not help with these issues (J. Musselman, CEO of The Honor Foundation, personal communication, 2015; Stone & Stone, 2015).

Veterans complained about their personal inability to find a job; however, they did not complain about demand-side structural issues, such as insufficient funds for education, discrimination at the hiring entity, or military experience being (a) unvalued in the civilian labor force, (b) too specialized and having no equivalent in the civilian labor force, or (c) too low skilled. In fact, the inability to translate military specialty into a civilian specialty was seen as a supply-side issue as opposed to a demand-side one. Some researchers, including Stone and Stone (2015), have argued that veterans indeed faced demand-side difficulties, such as discrimination in the labor market due to a specialized military skillset, limited civilian job experience, or negative stereotyping. The latter included generalizations about emotional instability, personal initiative deficits, and behavioral rigidity. This cohort of veterans was different than the WWI activist cohort that marched on Washington in 1932 and demanded financial assistance, or the

WWII American Legion that threatened not to demobilize out of Europe unless they had a job upon their return. An argument could be made that these Post-9/11 veterans had internalized their unemployment as a personal struggle and failing. Another argument could be made that because the number of returning veterans was not large enough to threaten the economy, as during WWII, different demand-side strategies were not considered.

The problem of veteran unemployment was drawn in sharper rhetoric by a bipartisan group of veteran groups, policy makers, advocacy groups, the DoD, DoL, and the VA: They all argued that veterans' unemployment was higher than civilians' and the inadequacy of existing supply-side programs, not the lack of demand-side programs, was at fault (Andrews, Bullock, Brand, & Phillips, 2009; Brinn & Auerbach, 2015; CRS, 2014; MacLean & Kleykamp, 2016; Strong et al., 2014). Moreover, after a decade of unpopular wars in Afghanistan and Iraq, Democratic and Republican legislatures as well as President Obama worried that enlistment in the All-Volunteer Force would decrease if prospective enlistees thought that society and the labor market did not value their service (Brinn & Auerbach, 2015; CRS, 2014; Harrell & Berglass, 2012; Kleykamp, 2013; MacLean & Kleykamp, 2016). Therefore, the DoD, DoL, and the VA needed to do more to ensure that veterans could activate and retain civilian employment; otherwise, enlistment rates might decrease (CRS, 2014; Kleykamp, 2013; Loughran, 2014; Office of the Under Secretary of Defense for Personnel and Readiness, 2014).

As a result of the above considerations, legislative mobilization and policy change ensued (Baumgartner & Jones, 2009). The TAP program was redesigned to meet the new requirements of the Veteran Employment Initiative Executive Order of 2009 and the Veteran Opportunity to Work to Hire Heroes Act of 2011 (VOW). The retooled program was called TAP Goals, Plans, Success (TAP GPS)⁸. The VOW Act added five new elements to the existing TAP program.

First, all military personnel are now required to attend TAP GPS when separating from the Armed Forces (CRS, 2014). Second, all must receive an individual transition plan, which is a personalized list of civilian jobs applicable to their military occupational specialty. Third, TAP GPS offers new program courses, including pre-discharge counseling, a VA benefit review, a job workshop, a financial planning class, a resilience-acculturation seminar, and a military-to-civilian skillset conversion practicum. All are offered with small class sizes providing individual attention.⁹ Fourth, the program is only considered completed if the service person meets career readiness standards and has an individualized job search plan. If a veteran does not complete TAP GPS, their exit paperwork is considered incomplete for discharge. Fifth, elective tracks on entrepreneurship, higher education, and technical training are available over the course of two days. Although demand-side strategies such as more tax incentives, federal hiring priority, and funds to organizations that hire veterans are included, the majority of programs and services in TAP GPS target the supply-side and veteran training issues. As of 2015, the VA advertised more than 180 programs targeting job skills development and civilian job activation for veterans, including (1) broad-based veterans' programs, (2) programs for veterans with service-related disabilities, and (3) competitive award programs granting supplemental services and funds. (See Table 1 in the Appendix for a list of current VA transition assistance programs, services, and benefits offered to veterans as of 2015.) This occupational-assistance model, largely based on supply-side strategies, can be viewed as scaffolding the opportunity creator narrative of the Armed Forces—a narrative whose theoretical underpinnings, as the next chapter demonstrates, have proven problematic in the context of the All-Volunteer Force.

CHAPTER THREE: THEORIES UNDERPINNING THE OPPORTUNITY CREATOR NARRATIVE OF THE MILITARY

Policy, military, and academic researchers have posited the advantage of military service in the civilian labor force (Browning, Lopreato & Poston, 1973; CRS, 2012; Loughran, 2008; Moskos and Butler, 1996; Kleykamp, 2007, 2013). They cite veterans' comparatively higher earnings after WWII.¹⁰ The human capital, cultural capital, social capital, and status attainment theories are ubiquitously mentioned in veteran labor research conducted from the 1980s to Post-9/11, and they are normatively understood as the theoretical underpinnings that support the opportunity creator narrative (Brinn & Auerbach, 2015; Kleykamp, 2007, 2013; Martindale and Poston, 1979; Teachman & Tedrow, 2004, 2007). All focus on individual development: A veteran's function and value in the economy is largely a product of their training, expertise, and network developed while in the Armed Forces, and a veteran's military service provides a competitive return on investment in the civilian labor market.

Although during this forty year period from the 1980s to 2015, military enlistment, soldiers' racial and gender identities, demand- and supply-side veteran employment obstacles, and labor economics have all changed, these theories continue to be cited in most of the literature and provide the basis for supply-side veteran transitional assistance programs (Faberman & Foster, 2013; Kleykamp, 2008, 2012; Martindale & Poston, 1979; Savych, Klerman, & Loughran, 2008; Schulker, 2016; Teachman & Tedrow, 2004, 2007). In fact, even after the results generated had nuanced or repudiated these theories, they continued to be cited and no researcher has taken these theories on for buttressing an employment mythology that clearly seems problematic in the age of the All-Volunteer-Force and the Post-9/11 veteran cohort. In this chapter, the application of these theories in a veteran labor context will be critically considered.

Second, intersectional theory will be offered as a contemporary framework that accommodates the limitations of the capital and status attainment theories.

The Capital Theories

The human capital theory posits that investments in education and training yield earnings and employment benefits (Becker, 1975; Mincer, 1974). Two economists, Mincer (1974) and Becker (1975), analyzed the income of people with different education levels in U.S. surveys. Based on this research, they theorized that education is important in promoting individual as well as societal economic development. Since its origin, this theory has been applied by veteran labor researchers to military service. It has three applications. First, military service is positioned as providing education and training that develops hard (such as information technology and logistics) and soft (such as discipline and obedience) skills. The development of these skills can enhance veterans' civilian labor profile competitively versus their peers (CRS, 2014; Kleykamp, 2007, 2013; Loughran, 2014; Teachman & Tedrow, 2004, 2007). This human capital development includes specialized skills, such as clerical skills and computer maintenance. Secondly, through military service, veterans may also gain environmental work traits, such as experience working in a large bureaucracy or supervising a large team. Thirdly, veterans receive G.I. educational benefits for a college education and thus improve their employment prospects and economic condition. In these ways, joining the military after high school is seen as an alternative way to enhance one's abilities and employment prospects for those who lack the prerequisites, access, or funds for higher education. According to this theory, a non-serving peer who does not attend college may not have the opportunity for similar education and training outside of military service. Therefore, these three opportunities to increase human capital in the military are expected to yield higher employment rates and earnings.

This human capital development through military service, however, is problematic. First, the Armed Forces develop human capital in an individual with a high school diploma only in a unique culture for a targeted, military-related job. This military-specific training and education may not translate or be relevant to a civilian-related job. Demand- and supply-side research has reported that both employers and veterans cannot translate many military occupational specialties into a civilian job because they are too specialized (CRS, 2014; DAV, 2014; Harrell & Berglass, 2012; Kleykamp, 2007, 2013; Loughran, 2014). If most veterans are complaining about this translation problem, maybe the training in the military does not, in fact, have a civilian equivalent. Second, civilian jobs have become increasingly skillset specific since the 1990s, requiring direct experience. Skill-biased technological change, the movement away from low-skilled work to information technology work, has resulted in a downward shift in the demand for low-skilled workers (Card and DiNardo, 2002). This might be true for military services: the capital developed through military services is not as valued as in the past. Generalized skills, such as leadership, work ethic, and supervisory skills, are not requested divorced from a targeted job function. On this view, the training and education received in military service may not result in more positive labor force outcomes for veterans compared to civilians. Moreover, although the G.I. Bill offers tuition and allowance for higher education, many veterans do not leverage it because (a) the age upon discharge may be deemed too old to go to school, (b) counseling offered around pursuing a college degree, from application process, choosing a major, writing and study habits, was inadequate, or (c) the veteran attended a non-accredited school which is undervalued in the civilian labor market (Harrell & Berglass, 2012; Kleykamp, 2007). In this way, an investment in military training before joining the civilian labor force may be detrimental to long-term education, employment, and earnings (Angrist, 1990; Angrist and Krueger, 1994;

Browning, Lopreato, & Poston, 1973; Bryant, Samaranayake, & Wilhite, 1993; Daywalt, 2014; Desrosiers, 2013; Fredland & Little, 1980; 1985; Furbish, 2014; Harrell & Berglass, 2012; Kilbourne, England, & Beron, 1994; Kleykamp, 2007, 2009, 2010, 2013; Loughran, 2002, 2014; MacLean & Kleykamp, 2016; Martindale & Poston, 1979; Nagel & Kleykamp, 2007; Savych, Klerman, & Loughran, 2008; Smith, 2014; Teachman & Tedrow, 2004, 2007; Weissman, 2014; Wilcox et al., 2015; Williams, Barrett, & Graham, 2014).

Cultural capital theory claims that systems and people benefit from changing or enhancing their attitude, habits, belief systems, and behavior (Bourdieu, 1986; Lamont & Lareau, 1988). The benefit is social mobility. The veteran outcome literature positions military service as developing such cultural assets (Coleman, 1988; Kleykamp, 2007, 2013; Portes, 2000; Teachman & Tedrow, 2004, 2007). When applied to veterans, the cultural capital theory posits that a soldier will learn how to operate in a team with discipline, loyalty, and goal orientation. In this way, a person's work behavior is enhanced through military service, making them desirable to hiring organizations (Harrell & Berglass, 2012). Military service may act as a cultural training ground for individuals who could not gain such traits elsewhere. Moreover, military service and veteran status could function as a job market signal to employers (DeTray, 1983). Specifically, an employer could consider veterans who have met enlistment standards and were honorably discharged as positively distinguished from other anonymous job candidates. This signal could enhance job prospects and, thus, social mobility. Indeed in veteran labor research, emphasis is put on veterans' general teamwork skills, diligence, and obedience gained through military service (Curry et al., 2014; Harrell & Berglass, 2012; Prudential, 2012). In a landmark study about veteran employment conducted by the Center for a New American Security (Harrell & Berglass, 2012), 69 companies ranked these precise qualities as the top reasons to hire veterans.

In this same research, however, the companies also ranked negative stereotyping (i.e., characterizing veterans as emotionally unstable or behaviorally rigid) and slow acclimation as reasons deterring them from hiring veterans (Harrell & Berglass, 2012). The media's coverage of veteran stories with combat-related, post-traumatic stress (PTS) may have contributed significantly to these stereotypes even though only an estimated 10% of the Post-9/11 cohort served in a combat specialty (Spencer, 2015). Thus, military culture is a double-edged sword for hiring entities. Hiring companies may want the obedience and loyalty developed in the command-control hierarchical environment of the military, but complain about veterans' poor initiative and reluctance to speak up, which are also byproducts of such a training environment (Harrell & Berglass, 2012). In fact, both veterans and hiring entities complain that acclimating to a flatarchy and a matrix organization, where employees are expected to exercise a greater amount of initiative, is a difficult and long process for veterans (Harrell & Berglass, 2012; Prudential, 2012; RAND, 2008). For example, veterans were trained to wait for instruction, follow orders, and not question or debate with authority. Therefore, they may require time to behaviorally adjust to the new requirements of developing their own workplace priorities as well as asking questions and offering suggestions to authority. Moreover, in today's job market, applicants are chosen for their skills and direct experience, not solely for their environmental work traits: New hires must have both (Harrell & Berglass, 2012; Prudential, 2012; RAND, 2008).

The third capital theory often cited in veteran outcome literature is the social capital theory, which posits that resources from durable interpersonal relationships are instrumental for social change and individual social mobility (Coleman, 1988). Existing literature suggests that communities rich in social capital also have lower rates of poverty and unemployment (Putnam,

2000). In this context, military service provides veterans with a network of peers able to provide social support, norms of reciprocity, and professional opportunities that scaffold civilian employment transition (Kleykamp, 2007, 2013; Putnam, 2000; Teachman & Tedrow, 2004, 2007). Network bonds, often called *tribe bonds* (Junger, 2016), are celebrated in the military; however, there is little research on whether these tribe bonds yield greater employment opportunities. Networked social linkages between veterans from the same unit or base may not provide the breadth of system linkages across civilian hiring levels and entities that would positively impact employment prospects. No evidence exists in the literature to support the social capital advantages of military service in regards to civilian employment in the Post-9/11 era.

Status Attainment Theory

Blau and Duncan (1967) originally theorized that an individual's mobility from their socioeconomic origins to their adult status is affected by both demographic attributes beyond their control (sex, race, and ethnicity) as well as their ambitions. The status attainment theory was used to explain how a key influencing event, e.g., military service, could affect a person's movement from the socioeconomic status of their origins to their adult position (Blau & Duncan, 1967). Military service acts as such a catalyst by both enhancing skillsets and attitudes through education and training and disrupting negative social influences that may thwart professional development. Therefore, veterans from disadvantaged or minority backgrounds may benefit the most from military service because of relocation and the cutting off of negative social ties as well as the opportunity for education when pre-service access to college is limited (Kleykamp, 2007; 2009). In fact, Browning, Lopreato, and Poston (1973) have argued that the military offers a *bridging environment* that facilitates movement out of one disadvantageous environment into a better one with opportunities for socioeconomic mobility. However, this bridging concept is not

critically explored in the veteran outcome literature (Kleykamp, 2007, 2009, 2013; Martindale & Poston, 1979; Teachman & Tedrow, 2004, 2007). The bridge from *civilian to soldier* may lead to employment and financial improvement, but the bridge from *soldier to veteran* may not lead to any socioeconomic improvements.

An Institutional Economic and Intersectional Critique of the Capital Theories

Institutional economists have contested the capital and status attainment theories because these theories position labor outcomes as the result of ahistorical, economically rational processes, when, in fact, the labor behavior of individuals is better understood as a result of societal norms interacting with the individual and influencing their prospects (Bottone & Sena, 2011). Thus, the application of the capital and status attainment theories to military service in veteran labor outcome research and thus the narrative that the military creates opportunity in the civilian labor force are problematic. First, they recast veterans' labor outcomes as fundamentally dependent on the individual; unemployment is seen as a problem with an individual veteran's human, social, and cultural capital development, as opposed to multifactorial socioeconomic and institutional processes (Bottone & Sena, 2011; Holobrow, 2012; Steinberg, 1985). Labor outcomes, however, are a result of demand- and supply-side issues. Secondly, these theories are not informed by an intersectional understanding of race and gender, and thus, how systemic racism and sexism can (a) impede the development of a person's human capital by unequal training or education compared to privileged demographic groups or (b) block socioeconomic mobility from education and training. It is important to remember that in the original economic research on U.S. survey data for the original capital theorists, such as Coleman (1988), the economists did not consider race and gender ascription. As a result, how dissimilar race and gender groups may have differentially benefited from capital development were not analyzed

(Coleman, 1988). In this context, veterans' labor force outcomes are artificially separated from social realities and institutional processes (e.g., demobilization during the economic downturn of 2009) as well as structural discrimination and biased hiring norms (including prerequisites). On this view, veterans are simply a monolithic category. Often, this monolithic veteran category conflates being a veteran with being a White male veteran.

The advantages of human capital development vary by gender and race (Blau & Duncan, 1967; Humes, 2006; Moskos & Butler, 1996). Specifically, the civilian labor force can discriminate against non-White men and non-White and White women, siloing them in low-skill jobs, offering them limited advancement, or not hiring them at all (Humes, 2006; Moskos & Butler, 1996). Some believe that military service, advertised as a more race- and gender-neutral environment, may provide a more equitable environment to these men and women for skill development (Humes, 2006; Moskos & Butler, 1996; Savych, Klerman, & Loughran, 2008; Schulker, 2016). Because of the military's more equitable training, these veterans may do better in the labor force than their civilian peers. But scant comparative research has been done to support the following two assumptions: (a) that the military is less racist or sexist than the civilian labor force and (b) that military service moderates the effects of racism or sexism for a veteran who is female or of color.¹¹ An analysis of military labor, training, and civilian labor force outcomes through the prism of race and gender has not been conducted as of 2018. Thus, there are no multivariate employment statistics for Hispanic, Asian, multiethnic, Alaskan, and Pacific Islander Post-9/11 veterans.

Crenshaw's (2016) theory of intersectionality offers a framework with which to critique the application of the capital theories in a multiracial, multiethnic labor context (Hancock, 2007; McCall, 2005). This theory contests the notion that the experience of the dominant group, male

and White, is the benchmark to evaluate others, including women and non-White people (Crenshaw, 2016). It posits that two or more unique kinds of identification, in this case race and gender status, construct social categories with an experience of employment transition different from that of a single identity category (Hancock, 2007; McCall, 2005). Due to the interaction of many identities, simply examining one of them, such as Post-9/11 veteran status, would be inadequate because the race and gender of a veteran impact capital development and employment.

In the late 1990s, Altonji and Blank (1999) researched and reported direct evidence of discrimination in the US labor market, and provided some preliminary statistics that still hold today. First, they posited that the capital development from early education and family childrearing practices differed along race and gender lines, and this happens pre-labor force participation, biasing subsequent labor market outcomes. In this way, pre-labor market discrimination impacts employability and earnings. Second, Altonji and Blank (1999) argued, that Black men, Hispanic men, and White women earned two thirds less than White men per hour, and that Black and Hispanic women earned one half of what White men earned per hour. Third, occupational location differed along race and gender lines. White men dominated executive administration, professional industries, and precision manufacturing while Black men, Hispanic men, Black women, and White women were under represented in the upper echelon of professional categories. Fourth, the return on education and experience for women and Black people was lower than for White men, signaling a discriminatory bias in the labor market impacting wages/compensation, job characteristics, and job mobility. It is important to note that Altonji and Blank (1999) focused on Black and White people because data on Hispanic-Americans and Asian-Americans labor outcomes and characteristic was scarce in US Census

survey data in the 1990s. Currently, scant research exists for the later two demographic groups of men and women. Although the wage gaps between most female demographic groups and White men have narrowed, the trend of discriminatory bias in occupational location, job mobility, wage and non wage compensation is durable between Black, Hispanic men and women compared to White men (Patten, 2016). Altonji's and Blank's (1999) seminal work as well as other scholars after them (Blau & Kahn, 2016; Patten, 2016) seemed to indicate that no labor force outcomes were race or gender blind. As of 2016, Black women earn 62% of what White men earn, while Hispanic women earn 57%, Asian women earn 86%, and White women earn 81% (Patten, 2016). Black men earn 71% of what White men earn, while Hispanic men earn 66.7%, and Asian men earn 114% of what White men earn (Patten, 2016). Therefore, race and gender must be considered in analyses of labor force outcomes.

Given the changing demographics of the Post-9/11 veteran cohort described earlier, labor outcome research must be conducted along multiple identity lines to account for these occupational outcome differences. The demographically unique Post-9/11 veteran cohort—more women and men of color--should benefit from their military service as advertised in the opportunity creator narrative with enhanced civilian labor force outcomes. If not, the universality of the opportunity creator narrative becomes a problematic assumption in the All-Volunteer Force. Given these considerations of race and gender, intersectional theory informs both the analysis of historical research in the next chapter as well as the statistical techniques used in this research.

CHAPTER FOUR: LITERATURE REVIEW OF VETERANS' LABOR FORCE OUTCOMES

The U.S. Armed Forces contends that military service creates opportunity in the civilian labor market (Bowles et al., 2015; Kleykamp, 2007, 2013; Loughran, 2014; Office of the Under Secretary of Defense for Personnel and Readiness, 2014). In fact, the supply-side employment assistance services described in Chapter Two are designed to facilitate job acquisition and support the opportunity creator narrative of the Armed Forces. However, researchers do not agree about the actual effect of military service on civilian labor force outcomes (Bowles et al., 2015; Kleykamp, 2007, 2013; Loughran, 2014; Office of the Under Secretary of Defense for Personnel and Readiness, 2014). A reason for this disagreement may be that scholarship on actual veteran labor market outcomes uses different investigative assumptions, time frames, demographic groupings, statistical techniques, outcome measures, and data sets, all of which reflect the statistical tools and methods available to each scholar during the time in which they researched. Some researchers use longitudinal data sets, and others use cross-sectional ones; some consider the unemployment rate, while others consider earnings; some group all veterans in one homogenous category, while others do an intersectional analysis of White men and Black men. Furthermore, researchers controlled for conscription bias in WWII, Korean, and Vietnam Wars and selectivity bias in the All-Volunteer Force with dissimilar strategies or no strategy at all. It is also important to note, researchers have limited to no controls for a veteran's time-since-discharge and/or months and years looking for employment in their outcome research; the difference in these time frames influence results. All these factors may contribute to different findings.

This chapter reviews landmark research on the civilian labor force outcomes of five

veteran cohorts: WWII, Korean, Vietnam, All-Volunteer Force, and Post-9/11. The unique characteristics of both the service period and the sociopolitical and economic climate upon discharge compel researchers to analyze each veteran cohort separately (Martindale & Poston, 1979). For each cohort-based research, three issues will be critically considered: 1) research assumptions that underpin investigations, 2) data sets deployed to analyze labor outcomes, and 3) limitations of each research method. Tracing the development of veteran-labor outcome scholarship highlights the shifts in thinking and strategies used to shape methodology and generate findings.

The Civilian Labor Force Outcomes of WWII and Korean Veterans

Between 1976 and 1985, scholars reported that the WWII veteran cohort achieved higher annual incomes than their civilian counterparts (Fredland & Little, 1980, 1985; Martindale & Poston, 1979). This WWII veteran earnings premium was most significant for Black veterans and White veterans with no high school education in some intersectional analyses. These findings supported the claims that military service compared to labor force experience enhanced human capital development more significantly for those with low educational attainment. Researchers (Fredland & Little, 1980; Villemez & Kasarda, 1976) used logistic regression with some demographic controls, such as age and education, to generate these findings; however, they did not consider other factors or variables that may have influenced the outperformance of both Black and White veterans with low educational attainment versus their civilian peers with no high school degree.

First, these studies focused strictly on earnings and not on unemployment rate. Comparative analyses of veteran-civilian earnings only suggest how some veterans that secured employment are fairing in the labor force; they do not tell us anything about White and Black

veteran's aggregate labor force status. With earnings as the outcome measurement, a veteran's multiple experiences with unemployment or longer unemployment period will be unreported. Limited research has been conducted on WWII veterans' unemployment rate versus their civilian peers. Although historians Altschuler and Blumin (2009) report that by 1965 WWII and Korean veterans' unemployment rate was smaller than civilians by 50%, however, these figures are regression unadjusted and do not represent a uniform time since discharge for each veteran. Moreover, they do not give us an intersectional understanding of how Black and White male and female veterans did in the labor market, and how these dissimilar groups differed amongst each other. Nonetheless, these figures bolstered the characterization that the military was an opportunity creator.

Second, conscription bias could partially explain why WWII veterans did better than their civilian cohort, that is, men who were drafted in WWII presumably had higher physical and mental abilities than those who were not drafted. Specifically, men who scored in the 50% percentile or lower on the Armed Forces General Classification Test were not drafted, as well as those who were deemed *miscellaneously unfit* despite higher test scores, such as gay and queer men. Third, region of civilian relocation is influential; if veterans returned to a city with significant employment possibilities (versus a small town with limited possibilities), the probability of them being employed would be greater (Harrell & Barglass, 2012; Kleykamp, 2007, 2013; Loughran, 2014). Fourth, the marital status of the veteran could be a factor; it is a labor economic truism that married people have higher employment rates than single people (Blau & Kahn, 2015; Harrell & Berglass, 2012). Researchers did not consider these demographic compositional differences between WWII veterans and civilians that may have contributed to higher earnings and employment.

Two foundational writers in veteran labor outcome research, Angrist and Krueger (1994), considered the demographic compositional differences overlooked in the research above. They questioned if the WWII veteran advantage in the civilian labor force was actually due to military service or to other differences not related to military service. They reasoned that during WWII, 75% of eligible men were conscripted and served. The remaining 25% were classified as unfit to serve due to physical or mental impairment; this *unfit-to-serve* group constituted the civilian pool. Thus, the civilian cohort may have been unfit for civilian employment as well as military service. Angrist and Krueger (1994) offered a new consideration in the scholarship: Conscription in the military was not randomized; men were selected into it based on the above criteria. Thus, this *selection bias in conscription* may actually account for the WWII veteran premium in the civilian labor force versus its civilian cohort. They argued this conscription bias had to be controlled for in labor outcome studies.

In their research, econometric modeling was used to analyze the WWII premium. Their model controlled for educational attainment, marital status, disability status, race, and region of residence (Angrist & Krueger, 1994). They conducted five analyses, using data sets from the U.S. Census from 1960, 1970, and 1980, respectively, the 1973 Current Population Survey (CPS), and the 1983 Survey of Income and Program Participation (SIPP). The CPS data set is a periodic cross-sectional survey of 60,000 households. Households are surveyed for four consecutive months, not surveyed for the subsequent eight months, resurveyed again for the next four months, then omitted from the survey, with new households added every month to maintain a constant sample size. This method is called 4-8-4 sampling design because it surveys households in this monthly sequence. It is important to note that the CPS highlights income from only one point in time, whereas the SIPP provides an income arc over time. The SIPP is a

longitudinal survey. Every four months for a period of 32 months, a nationally representative sample of 8,200 households answers the survey questionnaire. It is considered the gold standard data set for analyzing the income and capital of Americans. Angrist and Krueger (1994) used these two data sets, one cross-sectional and the other longitudinal, for an instrumental variable analysis. Physical fitness and cognitive ability test scores were used as controls for the conscription bias mentioned above.

They concluded that WWII did not earn more than their civilian cohort once they controlled for both nonrandom selection into the military (conscription bias) and educational attainment. Contradicting earlier research (Fredland & Little, 1980, 1985; Martindale & Preston, 1979), they found that WWII veterans, in fact, earned less over time than their civilian peers, perhaps due to loss time in the civilian labor market. Angrist and Krueger's research had two limitations. First, the interaction between race and veteran status was not considered although race was a control; the effect of veteran status on employment is likely to be dissimilar for different racial groups due to structural racism (Teachman & Tedrow, 2004). Second, these researchers did not consider the employment rate. The opportunity creator narrative of the Armed Services contends that military service gives a person advantages in the civilian labor force, such as a high probability of employment and higher wages. If more veterans are employed, one aspect of the narrative is maintained.

A decade later, Teachman and Tedrow (2004) built on Angrist and Krueger's (1994) research. They offered two theories, different from the conscription bias theory above, for why WWII veterans outperformed in the labor market (Teachman, 2004; Teachman & Tedrow, 2004). First, the public was very supportive of this war because a majority of the population served in it or had family members that did so. It was constructed as a righteous war against

fascism, not as a war among declining colonial powers. Therefore, this popular engagement may have translated into preferential hiring treatment for these veterans once they returned home. Secondly, these veterans may have acquired skills in war service that were competitive in the civilian job market. Such skills include logistics, written communications, and administrative competencies.

Unlike previous researchers, Teachman and Tedrow (2004) explored whether racial differences influenced WWII veteran labor force outcomes. Moreover, they used a different data set, the National Longitudinal Study of Mature Men (NLSMM), which was crafted to collect data at several intervals about the employment activity of men. In contrast to earlier data sets, the NLSMM is the only longitudinal survey that provides data on veterans' pre-service health, aptitude, and other characteristics that may relate to civilian labor market success (Loughran, 2014; Teachman & Tedrow, 2004). Using logistic regression, they examined the effects of WWII veteran status on two outcomes, income and occupational status. The latter is the education, salary, and power associated with a job as measured by the Duncan socioeconomic index (Teachman & Tedrow, 2004).

These researchers agreed in part with Angrist and Krueger (1994), suggesting that, once education was controlled for, the veteran earnings premium and occupational status disappeared for White and Black veterans with a college degree. Thus, veterans with higher educational attainment did not receive any premium for their WWII veteran status. Teachman and Tedrow (2007) also demonstrated that the veteran premium differed by race. Specifically, Black veterans with less than a middle school education had the highest veteran premium in income compared to their civilian cohort; however, they did not have an occupational status premium versus their civilian peers. White veterans with less than a middle school education, on the other hand, earned

a smaller income premium compared to their civilian cohort, but did have an occupational status premium versus their civilian cohort. These benefits can be explained by (a) the WWII conscription bias mentioned earlier, (b) the better human capital development for less educated Black and White people in the military versus the human capital development among their civilian peers who never entered military service or only held a middle school degree (Angrist, 1998; Angrist & Krueger, 1994), and (c) the limited employment opportunities for Black civilians due to structural racism. Because of a variable-rich database and an intersectional consideration of veteran status and race, Teachman and Tedrow (2007) added significantly to the literature. They provided critical information on how the opportunity creator narrative of the Armed Services differed along racial dimensions by using an interaction term of WWII veteran with race. Although intersectional theory was not explicitly discussed, Teachman and Tedrow (2004) did use an intersectional methodology. However, similar to Angrist and Krueger (1994) discussed above, they did not consider comparative part time and full time unemployment rates, just income and status.

Historically, scholars have paid very little attention to the Korean War, 1950-1953; most of the research has been done in comparison to WWII veterans (DeTry, 1982; Little & Fredland, 1979; Villemez & Kasarda, 1976). Research by CRS (2014) and the Office of the Under Secretary for Personnel and Readiness (2014) comparatively examined WWII and Korean veterans' labor force outcomes and concluded that military service advances civilian labor force outcomes for these two veteran cohorts. Two researchers worth mentioning, Martindale and Poston (1979), used the 1970 U.S. Census of Population, which later became the CPS, to consider the labor force outcomes of Black, White, and Mexican American WWII and Korean veterans, respectively. These were more extensive demographic groupings than previous

intersectional research. After controlling for compositional differences in age, education, region, and marital status, they found that Black, Mexican American, and White WWII and Korean veterans, respectively, earned more than their civilian peers. Martindale and Poston's (1979) research had two additional interesting findings. First, they found that the WWII veteran advantage was larger than the Korean veteran advantage for all races. Second, they found that WWII and Korean veteran status, respectively, converted into the highest earnings advantage first for Mexican American veterans, second for White veterans, and lastly for Black veterans. Martindale and Poston's (1979) research contradicted Teachman and Tedrow's (2004) above finding that the WWII earnings premium was the greatest for non college educated Black and non-White veterans. Their different findings could be due to using a cross-sectional versus a longitudinal data set or grouping veterans along three different demographic categories. A criticism of their research is that the researchers ascertained Mexican American status by simply making a determination on a veteran's last name. The researchers could have falsely assigned people with what they considered a Hispanic-sounding name to the Mexican American cohort. In this way, miscategorization of ethnic status could have influenced results in a small sample size of 9,100 Mexican Americans.

The Civilian Labor Force Outcomes of Vietnam Veterans

In contrast to WWII and Korea, Vietnam veterans served in a war vilified by a large and vocal percentage of the public. Thus, some scholars argue that this veteran cohort often experienced discrimination when entering the civilian labor market, a demand-side obstacle (Moskos & Butler, 1996; Nagel & Kleykamp, 2007; Teachman & Tedrow, 2004). Other scholars believe that a large number of veterans were discharged during an economic recession, which stunted their ability to find jobs, another demand-side obstacle (Martindale & Poston, 1979). In

addition, the combat or combat-support skills many learned during service may not have been translatable to or valued in the civilian labor force, yet another demand-side obstacle (Berger & Hirsch, 1983; Mangum & Ball, 1989; Teachman & Tedrow, 2004). Many Vietnam veteran labor scholars who conducted longitudinal research agree on two findings: This cohort of veterans experienced lower earnings than their civilian peers, and their earnings declined more sharply across their lifespan (Berger & Hirsch, 1983; Mangum & Ball, 1989; Teachman, 2004). Similar to some of the WWII and Korean scholarship above, research indicated that White Vietnam veterans underperformed their civilian cohorts, whereas Black Vietnam veterans had better civilian labor market outcomes compared to their Black civilian peers (Angrist & Krueger, 1994; Teachman and Call, 1996; Teachman, 2004; Teachman & Tedrow, 2007).

In his study of Vietnam veterans' earnings outcomes, Angrist (1990) noted a different selection bias regarding Vietnam veterans compared to the WWII cohort. The majority of college educated and wealthy young men avoided service although they were conscripted, while noncollege educated men from lower socioeconomic classes and racial/ethnic minorities served. Thus, the Vietnam veteran population was largely comprised of men without a college education, whereas the civilian pool was college educated. Earlier research had demonstrated that a college degree is advantageous in the workforce (Blau & Kahn, 2016; Teachman & Tedrow, 2004; 2007). Using econometric modeling, Angrist (1990) analyzed the Social Security Administration's Continuous Work History Sample (CWHHS) longitudinal data set from 1964-1984 and controlled for demographic compositional differences (such as age, marital status, and educational attainment) between Vietnam veterans and civilians. He concluded that it was, in fact, lack of direct civilian job experience that was associated with 15% lower earnings among White Vietnam veterans compared to their civilian peers. Black veterans without a college

education outperformed their Black civilian cohort on earnings, but this difference was not statistically significant.

Generally, the research from 1976 through 1990 about WWII, Korean, and Vietnam veteran labor outcomes agreed that the premium in the labor force probably depended upon the sociopolitical backdrop of the specific war and the educational attainment and race of the veteran; however, they were not in agreement about (a) what racial group enjoyed the biggest premium and (b) whether college educated Black and White veterans enjoyed any veteran premium at all (DeTry, 1982; Elder, 1987; Little & Fredland, 1979; Villemez & Kasarda, 1976).

The Civilian Labor Force Outcomes of the All-Volunteer Force, 1973-2000

In 1973, after Vietnam, the U.S. Military became an All-Volunteer Force; people self-selected into the military, and conscription effectively ended. In the 1990s, research about veterans' civilian labor force outcomes changed to reflect this recruitment strategy. Largely, researchers would need to control for selectivity bias versus conscription bias. The relevant question was: How are people who choose to enter the military after high school different from people who attend college or enter the civilian workforce after high school (CRS, 2014; Kleykamp, 2007, 2013; Loughran, 2007)? Because this question had not been researched sufficiently, researchers did not control for selectivity in their analysis.

Teachman and Tedrow (2007) explored the possible advantage of military service on civilian income from 1979-2002, the onset of the All-Volunteer Force era. Similar to the aforementioned research on other veteran cohorts, Teachman and Tedrow (2007) found that Black and White veterans with less than a high school diploma and Black veterans with a high school diploma earned more than their civilian peers. A possible reason was that All-Volunteer Force military service commanded an income premium in the civilian labor force. Another

explanation is that Black veterans face less discrimination in the work force than Black nonveterans do because military service status is a positive signal for employers (Reid-Pharr, 2016; Teachman & Tedrow, 2007). This income premium diminished, however, over time since discharge. In contrast, for White veterans with at least a high school diploma, time spent in the military away from the civilian labor force negatively affected earnings (Teachman & Tedrow, 2007). For them, losing civilian job experience negatively impacted earnings. These findings about educational attainment reinforced previous scholarship.

Teachman and Tedrow's (2007) research used sophisticated statistical techniques, enabling them to draw conclusions about earnings over time. As in their earlier WWII studies, they used a longitudinal data set, this time the National Longitudinal Study of Youth (NLSY), to analyze the trajectory of veteran and civilian males' earnings over time. They used a fixed effects regression model, a sophisticated control for selectivity in the All-Volunteer Force military which lowered the likelihood that the results were due to omitted variables. This statistical method controlled for stable individual and household-level characteristics that may contribute to selection into the military. Their research underscored a methodological change in All-Volunteer Force research literature due to the growing sophistication of statistical approaches. The change was the need to control for selectivity in the military through statistical techniques, such as fixed effects regression models for panel data. By performing this control, these researchers were able to compare veterans with civilians who were similar to them, as opposed to comparing them with any civilian.

Teachman and Tedrow's (2007) research, however, had two limitations. First, the researchers had a limited number of veteran observations in their data. Second, they did not consider the unemployment rate difference between veterans and civilians. The reader is left

wondering if the All-Volunteer Force veterans had a higher or lower unemployment rate than their civilian cohort. Actual employment became an important aspect of civilian economic integration from 1979-2002 (CRS, 2014; Kleykamp, 2007, 2013; Loughran, 2014). If more veterans were employed than civilians, despite the earnings disparity, one aspect of the opportunity creator narrative is upheld.

Cooney, Segal, Segal, & Falk (2003) also analyzed the All-Volunteer Force era but with an intersectional methodology considerate of race and gender, one of the first studies to do so. Their primary focus was the earnings of White, Black, and Hispanic female veterans using the U.S. Census from 1990. They detailed that these demographic groups of veterans did not benefit from military service, which involved waiving/delaying a college education as well as civilian labor market experience. Specifically, White female veterans were employed at a lesser rate and did not have an individual earning advantage compared to civilian women. Black female veterans had more experiences of unemployment, but their earnings were comparable to civilian peers, whereas Hispanic veterans were disadvantaged relative to their peers in term of income and employment stability. They believed that Black women have less opportunity in the civilian labor force due to structural racism, and thus, their veteran-civilian earnings disparity was negligible. This foundational research on female veteran labor outcomes through the prism of race posited that women as a minority and disadvantaged group in the labor force did not appear to benefit socioeconomically from their military service. Significant limitations of their research include no control for selectivity in the military and only one year, 1990, under analysis. While they did consider employment stability (i.e., days out of the labor force), they did not consider the official unemployment rate.

The Civilian Labor Force Outcomes of Post-9/11 Veterans, 2001-2012

Continuing with this All-Volunteer Force analysis, Faberman and Foster (2013) examined the labor force outcome of Post-9/11 veterans during the Great Recession, 2008-2009, using the CPS from 1989-2012; however, they focused on unemployment, not earnings. The CPS, unlike the NLSY used in earlier studies, is a cross-sectional, not a longitudinal data set. The researchers used logistic regression and generated three significant findings for this new cohort of veterans. First, they found that the All-Volunteer Force had a greater percentage of people with the demographic characteristics associated with unemployment, such as non-White racial identity, low educational attainment (no college education), single marital status, state of residence, and young age, 18-24 (Faberman & Foster, 2013). In their methodology, they noted that compositional differences between veterans and civilians influenced the gap in unemployment. Secondly, they found that the impact of the negative business cycle (i.e., the 1990-1991 and 2008-2009 recession, jobless recovery, and economic recovery) did not cause higher unemployment rates for veterans. It is important to note here that the researchers controlled for state of residence but did not have a control for urban or rural residency in the state, which may have had dissimilar recession and recoveries from each other. Thirdly, they discovered that wartime deployments negatively affected All-Volunteer Force veterans' employment rates. The precise mechanism of this impact was ambiguous. They suggested three reasons: The psychological and physical impact of warzone operations may have negatively influenced job seeking strategies; deployments may have limited training opportunities valued in civilian employment; and the prospect of numerous deployments may have caused soldiers to leave the military, when, in fact, they were more suited to military service than civilian employment (Faberman & Foster, 2013).¹²

Faberman and Foster's (2013) research considered many compounding variables, such as deployment and business cycle; however, it analyzed a data set with limited All-Volunteer Force veteran observations. Also, intersectionality was not considered in this study; thus, all veterans were considered as a uniform population. Finally, unlike previous researchers, Faberman and Foster (2013) did not use any techniques to account for the aforementioned selectivity bias in the All-Volunteer Force. In their regressions, they simply compared civilians to veterans, not veterans with civilians who were similar to them. As a result, their findings may have been biased.

In the research above, Faberman and Foster (2013) merged all of the All-Volunteer Force cohorts, including Gulf War 1 (GW1) and Post 9/11, together in their study using CPS data. Another significant researcher, Loughran (2007, 2014) at RAND, considered the Post-9/11 cohort only and explored reasons why their unemployment rate was higher than the civilian cohort as reported by BLS. He used two U.S. Census Bureau data sets, the CPS and the ACS, to analyze this problem. First, he analyzed data from the CPS from January 2001 to December 2012, which is what the BLS uses for its summary statistics on veteran unemployment. Restricting the samples to male veterans only in the CPS data set, Loughran (2014) limited his regression model to citizens with a high school degree, ages 18-24. Similar to previous researchers, he controlled for education, marital status, region of residence, and month and year surveyed. For the period 2001-2012, he found that veterans 18-24 years old had a 3.6% higher unemployment rate than their civilian cohort. From 2008-2012, the unemployment difference spiked to 8.1%.

Loughran (2014) used a similar model with the above specifications with ACS data. As a nationwide survey containing 5% of the population, the ACS provides a statistical picture of

communities. It randomly selects an estimated 3.5 million addresses from the District of Columbia, Puerto Rico, and every state. Thus, this data set contains information on significantly more male and female veterans from 2005-2012 than the CPS. Using the ACS data with 1,672 veterans, Loughran (2014) found that difference in unemployment rate between Post-9/11 veterans and the civilian cohort was similar to that found with the CPS. Specifically, from 2002-2008, Post-9/11 veterans' aged 18-24 had a 2.7% higher unemployment rate than their civilian peers. Unlike the CPS, the ACS data set did not demonstrate the same 2008-2012 increasing unemployment gap between Post-9/11 veterans and civilians 18-24 years of age. Loughran (2014) theorized that the CPS's small sample size exaggerated Post-9/11 unemployment rates.

The second prong of his analysis considered the relationship between unemployment and time out of military service. By creating a linear regression model including age, race, the exact time point-in-the sample, and survey month and year, Loughran (2014) concluded that the Post-9/11 veteran unemployment rate fell by an estimated 0.1% for each month spent in the census sample, which captures time out of military service. Analyses with the ACS also showed that the highest unemployment was among Post-9/11 veterans within one year of discharge from the Armed Forces. Afterwards, Post-9/11 veterans' trend in employment was similar to their civilian counterparts. Due to the larger number of observations, he recommended deploying the ACS in veteran unemployment analyses.¹³ Limitations in this research included having no women in his model, no intersectional analyses of race and gender considered with veteran status, no control for education, and no technique to account for the aforementioned selectivity bias in the All-Volunteer Force.

Kleykamp (2013) continued research on the employment outcomes of the Post-9/11 cohort. Earlier veteran labor outcome research considered race/ethnicity and education. Gender

had rarely been considered previously because of (a) women's low participation rates in the Armed Services and (b) the need to model male and females separately. Kleykamp's study (2013) was one of the first to consider gender in her intersectional analyses of Post-9/11 veteran outcomes. Controls included age, education, race/ethnicity, and marital status. She added to the existing research by using the following three interaction terms: veteran status and sex, veteran status and race, and veteran status and educational attainment. Her goal was to analyze how veteran labor force outcomes were dissimilar along these dimensions. Using the CPS from 2005-2011, she analyzed the unemployment rate, earnings, and college enrollment of this military cohort versus its civilian peers. She used multivariate regression techniques to examine whether the reason for high Post-9/11 veteran unemployment was due to the aforementioned compositional differences between military and civilian cohorts. She utilized CPS weights and conducted average marginal effects analyses.

In this study, Kleykamp (2013) found that female veterans had a 3.1% higher unemployment rate than male veterans and a 6.4% higher rate than civilian women. Black veterans had a statistically similar unemployment rate to their civilian peers, whereas veterans from Hispanic and Other ethnicities had a 4% to 7.5% higher unemployment rate, respectively, than their civilian peers. On the other labor force outcome, earnings, Kleykamp (2013) found the following: Female and male veterans across racial identities with a high school degree and no college education earned more than their civilian peers by \$1.06 and \$0.74 per hour, respectively, and both sexes were more likely to be enrolled in college than their peers. On the other hand, those Post-9/11 veterans with a college education seemed to lose the veteran advantage and had lower earnings and educational enrollment post-service than their comparable civilian peers. The inference here was the following: For those with a college degree, direct labor

market experience was more rewarded in the marketplace than military service. Kleykamp's (2013) education findings reinforced earlier research conducted with earlier veteran cohorts (Angrist, 1998; Angrist & Krueger, 1994; Teachman & Tedrow, 2004, 2007).

As an academic, Kleykamp was one of the pioneers of female veteran outcome analyses. There are three limitations in her research, though, that may have biased the robustness of her results. First, she did not consider the employment of Post-9/11 veterans over time that may have changed since discharge (Loughran, 2014). Second, she did not consider selectivity bias in the military with a rigorous statistical technique. Third, she did not use the ACS data set, which has more veteran observations.

Research Questions

Despite the employment assistance benefits described in Chapter Two and the normative assumptions about capital development in the military discussed in Chapter Three, labor outcome research on the AVF veteran cohort challenges the universality of the opportunity creator narrative of the Armed Forces. At the same time, the differences among data sets, outcome measures, and statistical methods deployed or not deployed to control for selectivity bias and intersectional identities problematizes the conclusions drawn for this cohort of veterans. The present study is informed by the strengths of the previous literature and fills in two gaps. First, ACS data, which includes the largest Post-9/11 veteran observations, is analyzed using contemporary, weighting-statistical methods to control for selectivity bias in the AVF. Second, the statistical method employed reflects current theoretical developments and experiential realities about intersectional identities, such as veteran status, gender, and race, versus the singular identity of veteran status.

This study is guided by the following four questions:

- (RQ1): Is the high male Post-9/11 unemployment rate, 2003-2015, due to veteran status or to differences between male veterans and male civilians?
- (RQ2): Is the high female Post-9/11 unemployment rate, 2003-2015, due to veteran status or to differences between female veterans and female civilians?
- (RQ3): Does Post-9/11 veteran status affect the probability of unemployment for men of different races?
- (RQ4): Does Post-9/11 veteran status affect the probability of unemployment for women of different races?

CHAPTER FIVE: METHODOLOGY

Statistical analysis of survey data examines unemployment trends in populations and enables these trends to be generalizable across the population because of the random sampling method (Blau & Kahn, 2016; Loughran, 2014). To analyze the Post-9/11 unemployment rate for the years 2003-2015 (Ruggles et al., 2015), a retrospective secondary data analysis was conducted using the U.S. Census Bureau's American Community Survey (ACS) data, a large, randomly selected representative sample. This methods chapter gives a brief description of the ACS data. It then specifies and justifies the analytical strategy used, including model specifications for each research question, statistical techniques, sensitivity analysis, and regression diagnostics.

Data

Every year since 2005, the U.S. Census Bureau (2017) has conducted the ACS, which replaced the long form census-survey that was previously conducted once every 10 years since 1790 (U.S. Census Bureau, 2017). It gathers the following self-reported information on the individual level: sex, race and ethnicity, veteran status, educational attainment, marital status, parental status, income, employment, state of residence, urban/rural residence, language ability, migration, disability, and housing characteristics. Because of the rich information collected by the ACS, federal departments including the VA, state agencies, and social service organizations analyze it to assess the demand for employment, healthcare, and educational services for their communities (U.S. Census Bureau, 2018). ACS is the largest survey conducted by the U.S. Census Bureau; it contains the most veteran observations of all U.S. surveys. As the ACS is a publicly available, retrospective secondary data set with all personal identifiers already stripped from the data, no ethical issues arise with human subjects.¹⁴

Sample restrictions

For this research, the dependent variable was binary: employed or unemployed. The ACS official unemployment rate was used: It captures the total of unemployed persons over the civilian labor force (BLS, 2018). This rate defines unemployed people as those who are not working, but are ready to work and have actively looked for a job within the past four weeks. Employed people are defined as those that executed at least 35-40 hours of paid work in the reference week (Ruggles et al., 2015). This unemployment figure deliberately excludes part-time workers, retirees, unpaid homemakers, full-time students, people who are incarcerated, those who do not want to work, and those who have become discouraged with the job search and subsequently dropped out of the labor force.¹⁵

This study's sample was restricted to those ACS respondents most eligible to enlist in military service. All Post-9/11 veteran observations were included in the veteran sample. Following the practice in the literature, Post-9/11 veteran status was operationalized as veterans who served after September 11, 2001, the most current service category captured in the ACS survey (Kleykamp, 2013; Loughran, 2014). For the civilian count, 10% of the ACS database was randomly sampled and used. Given the difference in size between the civilian and the Post-9/11 veteran populations in the ACS, the number of civilian observations was reduced for parity. There was no statistical reason to use a civilian group, i.e., the control group, that was 100 times the treatment group; a random 10% sample generated the same results as the full count. Following the conventions in the literature, the entire sample was restricted to U.S. citizens, 18 to 40 years of age, with a High School (HS) diploma or General Educational Development (GED) (mandatory for armed service enrollment) (CRS, 2013; Faberman & Foster, 2013; Kleykamp, 2013; Loughran, 2014; Office of the Under Secretary of Defense for Personnel and

Readiness, 2014; Teachman & Tedrow, 2004, 2007). The age bracket was stipulated for three reasons. First, people in the military are younger than those in the civilian population (CRS, 2013; Kleykamp, 2013; Loughran, 2014). The 18-40 years of age bracket is representative of 75% of all soldiers active since September 11, 2001 (Kleykamp, 2013; Loughran, 2014). Second, for a person to have entered and exited the Armed Forces as a veteran, they would have to be 18 years of age or older. Third, age 40 years is the retirement age for those who entered the military at ages 18-22 (CRS, 2013; Kleykamp, 2013; Loughran, 2014).

Outcome measures

Based on the practice in the literature (CRS, 2013; Faberman & Foster, 2013; Kleykamp, 2013; Loughran, 2014; Office of the Under Secretary of Defense for Personnel and Readiness, 2014; Teachman & Tedrow, 2004, 2007), the control (civilian group) in this model excluded men and women who (a) were not working or looking for work, specified as *out of the labor force* and (b) those who were working fewer than 35 hours a week, considered *part-time* or *marginally attached to the labor force*. Note, the ACS variable for employment status only includes *employed*, *unemployed*, and *out of the labor force*. The ACS does not have a variable for (a) *discouraged and dropped out of the labor force* or (b) *underemployed*, which would capture those persons not having enough paid work or persons working under their skillset level. The (a) group is included in the *out of the labor force* variable, meaning that the ACS employment status variable does not distinguish *discouraged and subsequently out of the labor force* from those who do not want to or cannot work and have dropped out of the labor force.

In order to consider how *out of the labor force* figures influence the probability of Post-9/11 unemployment, a sensitivity analysis was conducted using a different outcome measure: the employment participation rate of people 18-40 years of age. This participation rate is different

from the official rate. It was chosen for the following reasons. First, it includes all people attached to the labor force in the numerator, regardless of the number of hours worked per week. The official rate only includes full-time workers. Second, the participation rate treats *out of the labor force* and *unemployed* the same; both groups are not considered employment participators. The official rate differentiates the two as unique labor statuses, and only includes unemployed people in its calculation. Because of this distinction, people out of the labor force are not included as unemployed; if they were, the unemployment rate would be higher. In this study, the same statistical techniques used with the official unemployment rate were used with the employment participation rate to ascertain if a different measure impacted the probability of unemployment for veterans and civilians.

Analytical Strategy

Model specifications

In line with the research question, the model includes the following independent variables: survey year (dummy years were created for 2003-2015 to control for economic cycles), age in years (age is considered a labor force determinant) and age squared (to account for nonlinearities in age); educational attainment (high school diploma, one year of college, two years of college, three years of college, a college degree, and more than four years of higher education); race (Black, White, Hispanic, Asian, and Other¹⁶); marital status (married with spouse present, married with spouse absent, separated, divorced, widowed, never married/single); parental status¹⁷; parental status with children under five years; and state of residency (every state and the District of Columbia were included as unemployment varies by state). The above variables were chosen because they are normatively understood in the literature to influence the outcome of unemployment (Angrist, 1990; Blau & Kahn, 2016; Kleykamp,

2007, 2013; Loughran, 2014).

As recommended by military labor statisticians at RAND and the U.S Armed Forces Office of Economic and Manpower Analysis (OEMA), all analyses were separated by gender. In order for the results to be gender sensitive, men and women were analyzed independently to account for a) different observation sizes in the ACS between male and female veteran populations (women are an estimated 15% of the veteran population) and b) the different labor assumptions around women and men (Blau & Kahn, 2016; CRS, 2014; Kleykamp, 2013; Loughran, 2014; Office of the Under Secretary of Defense for Personnel and Readiness, 2014). Examples of different labor assumptions include the following: Women spend time out of the labor force on uncompensated household and childcare work and are active in the labor force when they have the time flexibility and the job opportunity; women spend more time out of the labor force, so when they enter it again, they do not have advantages from a cumulative and consistent labor history (OECD, 2018). Therefore, this study included 14 models for the outcome of unemployment.

The models and reference groups are included below under the hypotheses indicating how each research question was answered. Please note that baseline Model (1) for men and baseline Model (3) for women were run to report the effect of Post-9/11 veteran status on the probability of unemployment on men and women, respectively, with no controls. Afterwards logistic MFX and IPWRA with controls were run.

(RQ1): Is the high male Post-9/11 unemployment rate, 2003-2015, due to veteran status or to the population's compositional differences?

Hypothesis 1 (RQ1 H1): Post-9/11 veteran status is positively associated with the probability of unemployment for men. This probability does not appear to be due to the

different demographic composition between the Post-9/11 veteran and the civilian populations.

- Model (1): Male Post-9/11 veterans and comparable civilian males. Reference group: White men, married, no children, HS/GED.¹⁸
- Model (1-Sensitivity analysis): Male Post-9/11 veterans and comparable civilian males. Reference group: White men, married, no children, HS/GED.
- Model (2): Male Post-9/11 veterans and comparable civilian males and controls. Reference group: White men, married, no children, HS/GED.
- Model (2-Sensitivity Analysis): Male Post-9/11 veterans and comparable civilian males and controls. Reference group: White men, married, no children, HS/GED.

(RQ2): Is the high female Post-9/11 unemployment rate, 2003-2015, due to veteran status or to the population's compositional differences?

(RQ2 H1): Post-9/11 service is positively associated with the probability of unemployment for women. This probability does not appear to be due to the different demographic composition between the Post-9/11 veteran and the civilian populations.

- Model (3) Female Post-9/11 veterans and comparable civilian females. Reference group: White women, married, no children, HS/GED.
- Model (3-Sensitivity analysis) Female Post-9/11 veterans and comparable civilian females. Reference group: White women, married, no children, HS/GED.
- Model (4): Female Post-9/11 veterans and comparable civilian females and controls. Reference group: White women, married, no children, HS/GED.
- Model (4-Sensitivity analysis): Female Post-9/11 veterans and comparable civilian

females and controls. Reference group: White women, married, no children, HS/GED.

(RQ3): How does Post-9/11 veteran status affect the probability of unemployment for men of different races?

(RQ3 H1): Post-9/11 veteran status is positively associated with the probability of unemployment for White men.

- Model (5): White Male Post-9/11 veterans and comparable civilian White males and controls. Reference group: White men, married, no children, HS/GED.

(RQ3 H2): Post-9/11 veteran status is negatively associated with the probability of unemployment for Black men.

- Model (6): Black male Post-9/11 veterans and comparable civilian Black males and controls. Reference group: Black men, married, no children, HS/GED.

(RQ3 H3): Post-9/11 veteran status is positively associated with the probability of unemployment for Hispanic men.

- Model (7): Hispanic male Post-9/11 veterans and comparable civilian Hispanic males and controls. Reference group: Hispanic men, married, no children, HS/GED.

(RQ3 H4): Post-9/11 veteran status is positively associated with the probability of unemployment for Asian men.

- Model (8): Asian male Post-9/11 veterans and comparable civilian Asian males and controls. Reference group: Asian men, married, no children, HS/GED.

(RQ3 H5): Post-9/11 veteran status is positively associated with the probability of

unemployment for Other men defined as Native American, Alaskan, Pacific Islander and multiethnic persons.

- Model (9): Other male Post-9/11 veterans and comparable civilian Other males and controls. Reference group: Other men, married, no children, HS/GED.

(RQ4): How does Post-9/11 veteran status affect the probability of unemployment for women of different races?

(RQ4 H1): Post-9/11 veteran status is positively associated with the probability of unemployment for White women.

- Model (10): White female Post-9/11 veterans and comparable civilian White females and controls. Reference group: White women, married, no children, HS/GED.

(RQ4 H2): Post-9/11 veteran status is negatively associated with the probability of unemployment for Black women.

- Model (11): Black female Post-9/11 veterans and comparable civilian Black females and controls. Reference group: Black women, married, no children, HS/GED.

(RQ4 H3): Post-9/11 veteran status is positively associated with the probability of unemployment for Hispanic women.

- Model (12): Hispanic female Post-9/11 veterans and comparable civilian Hispanic females and controls. Reference group: Hispanic women, married, no children, HS/GED.

(RQ4 H4): Post-9/11 veteran status is positively associated with the probability of unemployment for Asian women.

- Model (13): Asian female Post-9/11 veterans and comparable civilian Asian females and controls. Reference group: Asian women, married, no children, HS/GED.

(RQ4 H5): Post-9/11 veteran status is positively associated with the probability of unemployment for Other women defined as Native American, Alaskan, Pacific Islander and multiethnic persons.

- Model (14): Other female Post-9/11 veterans and comparable civilian Other females and controls. Reference group: Other women, married, no children, HS/GED.

Models (1) and (2) examined male veteran status and answered (RQ1), whether the high male Post-9/11 unemployment rate versus their civilian cohort is due to compositional differences. The reference group was White, married¹⁹, male civilians with no children and a HS/GED degree. Models (1-Sensitivity analysis) and (2-Sensitivity analysis) examined the association of male veteran status on unemployment using the outcome measure *employment participation rate*. The model specifications and reference group were the same as Model (1) and Model (2). Models (3) and (4) examined female Post-9/11 veteran status and answered (RQ2), whether the high female Post-9/11 unemployment rate versus their civilian cohort is due to compositional differences. The reference group was White, married, female civilians with no children and a HS/GED degree. Models (3-Sensitivity analysis) and (4-Sensitivity analysis) examined the association of female veteran status on unemployment using the outcome measure *employment participation rate*. The model specifications and reference group were the same as Model (3) and Model (4), respectively.

Models (5) through (9) looked at the effect of veteran status on the probability of

unemployment within each race/ethnicity and male gender group. It addressed (RQ3), whether the probability of unemployment is different for male veterans and civilians within each race and ethnicity, and estimated the employment rate for each of these groups of veterans and civilians. This regression adjusted unemployment rate was compared intergroup. For each model, the reference group was married with no children and a HS/GED degree. Specifically, in the Model (5), the reference group for White Post-9/11 male veterans and civilians was White, married male civilians with no children and a HS/GED degree. In Model (6), the reference group for Black Post-9/11 male veterans and civilians was Black, married male civilians with no children and a HS/GED degree. In Model (7), the reference group for Hispanic male Post-9/11 veterans and civilians was Hispanic, married male civilians with no children and a HS/GED degree. In Model (8), the reference group for Asian male Post-9/11 veterans and civilians was Asian, married male civilians with no children and a HS/GED degree. In Model (9), the reference group for Other Post-9/11 male veterans and civilians was Other, married male civilians with no children and a HS/GED degree.

Models (10) through (14) looked at the effect of Post-9/11 veteran status within each race/ethnicity and female gender group. It addressed (RQ4), whether the probability of unemployment is different for women of dissimilar races. Again, the reference group was married, no children, and a HS/GED degree. Specifically, in Model (10), the reference group for White Post-9/11 female veterans and civilians was White, married female civilians with no children and a HS/GED degree. In Model (11), the reference group for Black Post-9/11 female veterans and civilians was Black, married female civilians with no children and a HS/GED degree. In Model (12), the reference group for Hispanic Post-9/11 female veterans and civilians was Hispanic, married female civilians with no children and a HS/GED degree. In Model (13),

the reference group for Asian Post-9/11 veterans and civilians was Asian, married female civilians with no children and a HS/GED degree. In Model (14), the reference group for Other Post-9/11 female veterans and civilians was Other, married female civilians with no children and a HS/GED degree.

Techniques

In order to answer the research questions, two separate regression techniques—logistic with marginal effects (Logit MFX) and inverse probability weighted regression (IPWRA)—were used to estimate the effect of Post-9/11 veteran status has on the probability of unemployment. First, logistic regression with marginal effects (Logit MFX) were conducted for Models (1) through (12). Regression with MFX will confirm that a series of independent variables can explain some part of the variance in the dependent variable at a significance threshold (Longnecker & Ott, 2016). The logistic regression MFX calculation is the most common and preferred technique in contemporary scholarship with a binary outcome, such as employed or unemployed (Allison, 1999; Longnecker and Ott, 2016). The marginal effect computation provides an interpretation on the change in the probability of the outcome, unemployment, and provides easily understandable coefficients (Hellevik, 2007).²⁰ In this study, it provided percentage point changes in the unemployment rate of male and female veterans compared to their respective civilian cohort.

Models (3) through (12) captured the more nuanced effect of veteran status for each intersection of gender and race than simply controlling for race and gender, separately. Specifically, this analysis suggested a change in the probability of unemployment for male and female veterans, respectively, if they are White, Black, Hispanic, Asian, or Other compared to their civilian cohort. This analysis answered (RQ3) and (RQ4). A logit and logistic regression

MFX were run on each Post-9/11 veteran and civilian sample. The coefficient of the logit was considered for statistical significance. After the coefficient was considered for statistical significance, MFX was run to determine the probability of unemployment between the Post-9/11 veteran and civilian populations. The predicted margins were calculated at means for all control variables.²¹

As mentioned earlier, Post-9/11 veterans self-selected into the military; they were not randomly assigned into it. Although regression with MFX is a respected technique, it does not match the veteran and the civilian populations on covariates so that these two populations are similar to each other; rather this method controls for covariates as a strategy to deal with differences within a population. This strategy may not be sufficient because some variables may be associated with both veteran status and the outcome, unemployment. For example, an individual with low educational attainment, young age, unmarried marital status, and minority racial or ethnic status may enlist in the military, and yet these same characteristics are related to a higher probability of unemployment. Therefore, Post-9/11 veterans are just being compared to civilians; these veterans are not being compared to civilians that are similar to them. This constitutes a selection bias. The following technique, inverse probability weighted augmented regression adjustment, IPWRA, enables matching on these characteristics.

IPWRA is considered a more rigorous technique than the above regressions because it addresses selection bias. With the earlier regressions, logistic and logistic MFX, the results may have been biased because the veteran group was different from the civilian group. In order to deal with this heterogeneity, the IPWRA method adjusted for selection bias on the observable variables included in the model. Specifically, to control for this selection bias, IPWRA was conducted on Model (2) male Post-9/11 veterans and comparable civilians males and controls

and Model (4) female Post-9/11 veterans and comparable civilians females and controls. Stata 14 estimated probability weights based on the following model specifications: race and ethnicity, age, educational attainment, marital status, parental status, number of children under age five years, and state.

IPWRA creates a control group of civilians that is more similar to the treatment group, the Post-9/11 veterans. The best matching traits for this analysis were previously those labor force determinants mentioned directly above because these variables may be associated with both veteran status and the outcome, unemployment, so using them as controls is not sufficient. Therefore, in this regression, the same controls were used as matching criteria. The reason for using the same controls in this IPWRA regression are the following: It is a norm in statistical research when using IPWRA to use the same controls as matching criteria; using the same controls ensures continuity with the earlier logistic MFX regressions used in this study that use these controls; IPWRA will never be a perfect match on all criteria so the regression still needs to employ controls for these labor force determinants.

Note that within the IPWRA regression, compositional differences on unspecified or on unobservable variables still exist between the civilian control group and the veteran group. IPWRA does not control for selection on variables unspecified in the ACS dataset (such as occupational specialty, high school grades, past labor market experience, or year of higher education completion) or unobservable variables (such as personality traits of discipline or motivational drive). However, this technique *de-biases* on the basis of the observable compositional differences mentioned above. Although this technique does not eliminate compositional differences between the veteran and civilian group all together, some observable differences included in the IPWRA model may be correlated with unobservable differences that

are not included, such as marital status may be associated with more physical health; higher education may be associated with middle to upper middle class identification and parents that went to college (Altonji & Blank, 1999; Blau & Kahn, 2016). (See the limitation section for more on IPWRA's constraints.)

Despite these considerations, the control group used with IPWRA was weighted towards civilians who have similar characteristics to Post-9/11 veterans, but are *not actually veterans*. IPWRA does not literally match one veteran to one or more civilians with very close propensity scores as in the propensity score matching technique (Rosenbaum and Rubin, 1983). Instead, it uses weights to achieve balance between these two groups as well as balance on the matching criteria based on propensity scoring. Specifically, the weight for the veterans is $1/\text{propensity score}$ and the weight for the civilians is $1/1-\text{propensity score}$. Thus, IPWRA represents a more rigorous method of matching by leveraging propensity scores and weighting. It reports a more apples-to-apples comparison between veterans and civilians. Thus, these logistic MFX and IPWRA methods were employed in sequence to address the limitations of the previous method.

All regressions utilized sample weights, that is, weights representing the inverse of the probability that the observation is included due to the sampling design (Ruggles et al., 2015). To explain, in surveys, some groups can be under- or over-represented. If the survey has under- or over-representation, then the survey sample would not be representative of the U.S. population, and conclusions could not be generalizable to the U.S. population. In order for the ACS data set to be representative of all of the variables considered in the survey, a weighting adjustment technique was used. This weighting technique gave an adjustment weight to every respondent, and ACS provided these sample weights. Specifically, people in underrepresented groupings got a weighting greater than one, and those in overrepresented groupings got a weighting less than

one; these are the adjustment weights. These weighted values (Ruggles et al., 2015) were used in the regression calculations.

Summary

Deploying multivariate analyses on these 14 models provided findings into whether the high Post-9/11 male and female unemployment rate is due to being a veteran or whether it is due to the population's compositional differentials articulated earlier. Moreover, the intersectional analysis helped evaluate whether the civilian-labor opportunity creator narrative of the Armed Services is supported for all, some, or no demographic groups.

CHAPTER SIX: RESULTS

Demographic Composition of Post-9/11 Veteran and Civilian Populations

This study calculated the outcome and covariates of interest across the analytic samples of those in the labor force by veteran status. Using the ACS data, 2003-2015, summary descriptive statistics were generated for male and female Post-9/11 veterans compared to their civilian cohorts, the control group. The demographic characteristics of the male Post-9/11 veterans and civilians in the labor force are listed in Table 1. Per Table 1, the male veteran population has a higher unemployment rate of 9.22% compared to the 8.91% male civilian rate. There are a higher percentage of Black males in this Post-9/11 veteran population than in the civilian population and a slightly higher percentage of White (0.31%) and Other (0.64%) males and a smaller percentage of Asian males (1.49% lower) in the veteran population. Also noteworthy, more of these male veterans than male civilians are married, have some college education but no degree, children, and children under the age of five.

Table 1: Descriptive Statistics for Unemployment Analytical Samples by Post-9/11 Veteran Status and Male Gender

Demographic controls	Male veterans	Male civilians	Difference
Unemployed	9.22%	8.91%	0.31%
White	69.28%	69.25%	0.03%
Black	13.16%	11.49%	1.67%
Hispanic	11.89%	12.75%	(0.86%)
Asian	2.39%	3.88%	(1.49%)
Other	3.27%	2.63%	0.64%
Age in years	29.69	29.47	0.22
Married	50.15%	39.91%	10.24%
Separated	3.01%	1.38%	1.63%
Previously married	10.99%	5.33%	5.66%
Never married	35.85%	53.38%	(17.53%)
High school	40.62%	43.13%	(2.51%)
Some college	39.3%	29.06%	10.24%
Four-year college	14.78%	20.62%	(5.84%)
Graduate degree	5.31%	7.19%	(1.88%)
Children	42.3%	35.13%	17.17%
Children under five years	27.89%	21.36%	6.53%

In Table 2, the demographic characteristics of the female Post-9/11 veterans and civilians in the labor force are listed. The female Post-9/11 veteran population has a 10.08% unemployment rate, 1.76% higher than the 8.32% civilian rate. There are compositional differences between female veterans and civilians in the White, Black, Asian, and Other groups. There is a higher percentage of Black female veterans (9.88% higher) and Other veterans (1.61% higher), and a lower percentage of Whites female veterans (10.42% lower) and Asian female veteran (0.98% lower) relative to the civilian sample. Similar to male veterans, female veterans are more likely to have the following characteristics: be married, have some college education but no degree, have children, and have children under the age of five.

Table 2: Descriptive Statistics for Unemployment Analytical Samples by Post-9/11 Veteran Status and Female Gender

Demographic controls	Female veterans	Female civilians	Difference
Unemployed	10.08%	8.32%	1.76%
White	55.85%	66.27%	(10.42%)
Black	24.42%	14.54%	9.88%
Hispanic	12.28%	12.37%	(0.09%)
Asian	2.98%	3.96%	(0.98%)
Other	4.47%	2.86%	1.61%
Age in years	29.28	29.27	0.01
Married	43.39%	39.22%	4.17%
Separated	4.26%	2.5%	1.76%
Previously married	16.44%	8.09%	8.35%
Never married	35.91%	50.19%	(14.28%)
High school	26.84%	33.54%	(6.7%)
Some college	43.17%	33.06%	10.11%
Four-year college	20.31%	23.4%	(3.09)
Graduate degree	9.68%	10%	(0.32)
Children	51.43%	45.95%	5.48%
Children under five years	30.24%	23.6%	6.64%

Table 3 adds another dimension to these statistics by representing the mean unemployment outcomes by male veteran/civilian status and race and ethnicity. Note that these figures are calculated using *in the labor force* variables, which only include those employed with a full time job and those who are out of work while actively looking for a job. Those people who became discouraged, dropped out of the labor force, and are unemployed are not included in this unemployment calculation. The unadjusted average differences in unemployment signal that White and Asian Post-9/11 male veterans are having more difficulty transitioning to employment than their civilian peers as evidenced by their higher unemployment rates, while Black, Hispanic, and Other male veterans have a lower unemployment rate than their civilian peers.

Table 3: Mean Values for Percent Unemployed by Veteran Status, Male Gender, Race and Ethnicity

Race/ethnicity	Post-9/11 male veterans		Male civilians		Difference
	Count	Percentage	Count	Percentage	
White	99,445	8.3%	299,477	7.1%	1.2%
Black	14,301	13.6%	43,050	17.5%	(3.9%)
Hispanic	15,337	9.3%	47,935	10.4%	(1.1%)
Asian	3,624	9.5%	17,328	7.6%	1.9%
Other	5,037	12.0%	12,948	13.6%	(0.4%)

In Table 4 below, the unadjusted average differences in female veteran and civilian unemployment are reported. They signal that the majority of Post-9/11 female veterans are having more difficulty transitioning to employment than their civilian peers as evidenced by their higher unemployment rate. The biggest differences in unemployment are among White (3.3%) and Asian (3.1%) Post-9/11 veterans. The exception is Black female veterans who have a 2.4% lower unemployment rate than civilian peers.

Table 4: Mean Values for Percent Unemployed by Veteran Status, Female Gender, Race and Ethnicity

Race/ethnicity	Post-9/11 female veterans		Female civilians		Difference
	Count	Percentage	Count	Percentage	
White	19,596	9.6%	314,636	6.3%	3.3%
Black	6,013	12.6%	50,387	15.0%	(2.4%)
Hispanic	3,918	10.9%	52,317	10.2%	0.7%
Asian	1,002	9.4%	19,277	6.3%	3.1%
Other	1,558	13.0%	14,257	11.5%	1.5%

The means in Tables 3 and 4 were not calculated with controls for compositional difference between veterans and civilians, such as age, marital status, race/ethnicity, state of residency, parental status, children under five years at home, and education. While they do not help answer any of the study's research questions, they have been included here to report unemployment rates that are generated by descriptive statistics versus multivariate analysis that considers controls and variables. The results of the regression-adjusted unemployment rate for men and women,

respectively, are given below.

Regression Results

To answer the research questions, multivariate regressions Models (1) through (14) were run for the outcome of unemployment.

(RQ1): How does Post-9/11 military service affect the probability of unemployment for men?

- Hypothesis 1 (RQ1 H1): Post-9/11 veteran status is positively associated with the probability of unemployment for men. This probability does not appear to be due to the different demographic composition (in age, race and ethnicity, education, marital status, parental status, and children under five) between the Post-9/11 veteran and the civilian populations.

RQ1 H1 was upheld using a naïve regression with marginal effects, logistic regression with marginal effects, and Inverse Probability Weighted Regression Adjustment (IPWRA). Table 5 reports the regression results for the outcome, unemployment for men. The first technique, naïve regression with no controls, was run with 467,249 male observations. It calculated that male veterans have a 0.313% higher unemployment rate than civilians. The R squared, which suggests how good of a fit the naïve regression logistic MFX model is for this veteran-civilian unemployment data, was 0.014, meaning that 1.4% of the variations in unemployment was explained by this model with zero controls. This low figure indicates that a regression with no controls was not a good fit with our data. With no controls, the civilian and the veteran group were so heterogeneous that the results were not as robust as those generated from regressions run with controls. However, this naïve regression model served as a baseline model against which to compare the explanatory value of the controls in the subsequent two regressions.

The second technique, logistic regression with marginal effects (logit MFX) with controls

for the compositional differences between veterans and civilians, was conducted to calculate the percentage difference in unemployment. Results are reported in Table 5. In the MFX regression, male veterans had a 1.36% higher rate of unemployment compared to civilians, with a robust standard error of 0.00110 and a p-value less than 0.001. The R squared for this regression was 0.0851, meaning 8.51% of the variation in unemployment was explained by the controls. This regression model with controls represented a significant improvement in goodness of fit for the data over the baseline, naïve regression. (R squared values are never big with binary outcomes because the errors are large when choosing between only two options.) Note that this regression did not deal with selection bias: Veterans and civilians were being compared with controls for demographic differences.

The third technique, IPWRA, suggested that male veterans have a 1.92% higher unemployment rate than male civilians with a robust standard error of 0.00117. The control group was now weighted towards civilians who are more similar to Post-9/11 veterans based on age, race and ethnicity, marital status, educational attainment, parental status, number of children under five years of age, and state. With this weighted matching technique, the probability of male veterans' unemployment increased. Therefore, we can report that when veterans are compared to civilians through a sophisticated matching technique, male veterans' unemployment is not attributable to demographic differences, and their probability is 1.92% higher than their civilian cohort. (The IPWRA technique does not generate a post-estimation R squared value, thus it is not included here).

TABLE 5: Results of Three Regression Models for the Outcome, Male Unemployment.

	Naïve Logit MFX (Men)	Logit MFX (Men)	IPWRA (Men)
Effect of Post-9/11 service	0.00313*** (0.00127)	0.0136*** (0.00110)	0.0192*** (0.00117)
R squared	0.014	0.0851	NA

Observations 467, 249

Standard errors are in parenthesis.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The IPWRA model is the most robust as it uses weights and propensity scores to make an apples-to-apples comparison between Post-9/11 veterans and civilians. Therefore, the coefficients generated from the IPWRA analysis will be briefly discussed. As reported in Table 6, most of the coefficients are significant with a p-value less than 0.001 with four exceptions: having children under five and years 2004, 2013, and 2014. These results were expected as all the coefficients chosen, except parental status, U.S. states, and years, have been reported to be labor force determinants by labor economists (Blau & Kahn, 2016). To report that these known labor force determinants are associated with veteran unemployment is not surprising.

First, age squared was used to model the affect of different ages on unemployment. Year of age is significant on unemployment for the Post-9/11 veteran population. (Note the age figure. It does not take into account non-linearities, meaning age is always correlated with employment but the relationship is not linear; some age ranges are negatively associated, and other ranges are positively associated with employment.) The highest Post-9/11 male veteran unemployment figures are in the 25-34 age bracket (Ruggles et al., 2015). Unemployment in the early 30s age-range goes against the trend for male employment. Labor economists calculate that a man's peak employment is 31-33 years of age (Blau & Kahn, 2016).

Second, employment is known to be correlated with minority race and ethnic identification (Blau & Kahn, 2016). All the demographic groups used here, Black (0.0807, or an 8.07% increase in unemployment rate), Hispanic (0.00946, or 0.946% increase), Asian (less

significant at 0.00756, or 0.756% increase), and Other (0.0474, or 4.74% increase), are correlated with the probability of Post-9/11 veteran unemployment.

Third, higher education is negatively associated with the probability of unemployment. All of our educational coefficients, from one year of college to five or more years of college, are negatively associated with being unemployed. Having more education than a college degree, a graduate degree, has the highest association with employment at -0.0617 (the highest negative association at 6.17%).

Fourth, all of our marital status categories are associated with unemployment, with the reference group being married, spouse present. However, being widowed (0.0645, or 6.45% increase) or separated (0.0566, at 5.66% increase) has the highest association, while being married with spouse absent (0.0363, or 3.63% increase) has the lowest. Being married with spouse present is associated with employment and is the reference group, thus the other categories are associated with unemployment in this veteran population.

Fifth, the parental status categories have not been considered in the earlier veteran outcome research because economists do not consider it a labor force determinant. In this study, however, for Post-9/11 veteran men, having a child at home was negatively correlated with unemployment (-0.00701, or a -0.7% decrease): Male veterans are more likely to work if they have children to support. Whereas, having children under five was mildly correlated with male veteran unemployment (0.00368, or 0.368% increase).

Sixth, the years of the study had varying degrees of association: 2004-2008, then 2014-2015 were negatively associated with the probability of unemployment in this veteran population. The first set of years is before the Great Recession of 2009, and the second set is after the recovery and employment rebound (Blau & Kahn, 2016). As expected, in ascending

order, 2010, 2011, 2009, and 2012 had the highest associations with unemployment as they are the years with the highest Post-9/11 male veteran unemployment. Reasons for this higher unemployment are the demobilization of troops in 2009 at the same time hiring was frozen and layoffs were common (Faberman & Foster, 2016).

Seventh, states where the male veteran resided were associated with probability of unemployment. Table 2 in the Appendix reports the coefficient values for the 50 states and the District of Columbia. A state's job market and unemployment rate are influenced by the industry there. The states with the largest associations with employment are below: Married male veterans with a HS degree living in Hawaii, whose industries include agriculture, manufacturing, fishing, and services, have a 3.13% lower unemployment rate than the baseline: a married, White civilian male with a HS/GED degree and no children residing in Alabama (our reference group). South Dakota, with agriculture and tourism, has a 2.52% lower unemployment rate; Wyoming, with its mining, tourism, and agriculture, has a 2.4% decrease; North Dakota, with its agriculture and mining, has a 2.10% lower rate; Louisiana, with its mining, fishing, and agriculture, has a 1.3% decrease. Thirty-three states were associated with male unemployment. The industrial states, such as Michigan (3.93% increase in unemployment) and Illinois (2.62% increase), mining states such as West Virginia (2.69% increase), advanced manufacturing states Oregon (3.92% increase) and mixed industry states, such as California (2.91% increase), New Jersey (2.54% increase) and New York (1.96% increase), have the highest association with unemployment (Ruggles et al., 2015).

Table 6: Estimates From IPWRA Regression Model of Unemployment, Male

Demographic controls	IPWRA coefficient value
Age	-0.0249*** (0.000846)
Age squared	0.000377*** (0.0000137)
Black	0.0807*** (0.00217)
Hispanic	0.00946*** (0.00165)
Asian	0.00756** (0.00233)
Other	0.0474*** (0.00337)
1 year of college	-0.0434*** (0.00130)
2 years of college	-0.0468*** (0.00156)
4 years of college	-0.0579*** (0.00113)
5+ years of college	-0.0617*** (0.00130)
Married, spouse absent	0.0363*** (0.00451)
Separated	0.0566*** (0.00514)
Divorced	0.0399*** (0.00234)
Widowed	0.0645*** (0.0172)

Never married/single	0.0551*** (0.00130)
Children	-0.00701*** (0.00153)
Children under five	0.00368** (0.00131)
2004	-0.00951** (0.00329)
2005	-0.0115*** (0.00283)
2006	-0.0178*** (0.00280)
2007	-0.0150*** (0.00281)
2008	-0.0174*** (0.00280)
2009	0.0228*** (0.00299)
2010	0.0312*** (0.00304)
2011	0.0261*** (0.00304)
2012	0.0144*** (0.00299)
2013	0.00438 (0.00292)
2014	-0.00607* (0.00287)
2015	-0.0146*** (0.00283)
Constant	0.456***

(0.0135)

Observations

467,249

Reference: Non veteran, married, HS/GED, white, no children, Alabama, year 2003.

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

A sensitivity analysis with the employment participation rate, ages 18-40, was also run for men. The participation rate, 18-40 years of age, has a greater number of observations than the regressions calculated with the official rate because it includes men participating in the labor market, such as part-time or marginally attached workers and men out of the labor force. Generally, the participation rate includes those out of the labor force as well as those unemployed; therefore, the probability is expected to be bigger than a measurement of just unemployed. The regressions run with the participation rate produced similar results to the regressions run with the unemployment rate. As Table 7 demonstrates, the naïve logistic MFX regression result, -10.2%, is large and meaningless; it explains only 0.01% of the model.²² The logistic regression with controls indicates that Post-9/11 male veterans have an increased probability of unemployment of 3.32%, explaining 11.56% of the model. However, the IPWRA was smaller than the MFX figure in the sensitivity analysis with the participation rate. A reason for this smaller figure is that the labor participation rate of White male civilians is going down annually with the loss of manufacturing jobs (the skill-biased technological change mentioned in Chapter Three) and as a result their unemployment rate is going up (Blau & Kahn, 2016). As White male civilians unemployment rate goes up, the disparity between White male veterans and White male civilians gets smaller.

Table 7: Results of Three Regression Models for the Outcome, Male Unemployment Using the Employment Participation Rate, 18-40 Years of Age.

	Naïve Logit MFX (Men)	Logit MFX (Men)	IPWRA (Men)
Effect of Post-9/11 service	-1.02*** (0.00978)	0.0332*** (0.00112)	0.0249*** (0.00172)
R squared	0.0001	0.1156	NA

Observations 558,482

Standard errors are in parenthesis.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

(RQ2): Is the high female Post-9/11 unemployment rate, 2003-2015, due to veteran status or to the population's compositional differences?

- (RQ2 H1): Post-9/11 service is positively associated with the probability of unemployment for women. This probability does not appear to be due to the different demographic composition (age, race and ethnicity, education, marital status, and children under five) between the Post-9/11 veteran and the civilian populations.

RQ2 H1 was upheld. Table 8 reports the results for female veterans compared to their civilian counterparts. With our first technique, naive logistic regression with marginal effects (no controls) with 369,490 female observations, reported that female veterans have a 0.2% higher unemployment rate than their civilian counterparts. The R squared for this regression was 0.0172, meaning that 1.72% of the variations in unemployment is explained by this model with zero controls. As with the regression models for men, the low figure indicates that a regression with no controls is not a good fit with our data, but this naïve regression model served as our baseline model.

The second technique, logistic regression with marginal effects (Logit MFX female) and controls with 369,490 female observations, reported that female veterans have a 1.38% higher unemployment rate than their civilian counterparts with a robust standard error of 0.00199, significance at the 99% level. The R squared for this model is 0.069, reporting that 6.9% of the

variations is explained by this model, representing an improvement over the naïve regression model.

The third technique, IPWRA, substantiated these MFX results. Female veterans have a 2.45% higher unemployment rate than female civilians with a robust standard error of 0.00251. After more precisely dealing with selection bias through the IPWRA technique, the probability of Post-9/11 female veteran unemployment increased.

TABLE 8: Results of Three Regression Models for the Outcome, Female Unemployment.

	Naïve Logit MFX (Women)	Logit MFX (Women)	IPWRA (Women)
Effect of Post-9/11 service	0.00211*** (0.0290)	0.0138*** (0.00199)	0.0245*** (0.00251)
R squared	0.0172	0.069	NA

Observations 369,490

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

As reported in Table 9, most of the IPRWRA coefficients are significant at the 99% level, as the p value is less than 0.001 with five exceptions: Asian ethnicity and years 2004, 2005, 2013, and 2014. As with the male models, these results were expected as all the coefficients chosen, except parental status, U.S. states and years, have been determined to be labor force determinants by labor economists (Blau & Kahn, 2016).

First, similar to the male analysis, age (captured by age squared) has a significant effect on unemployment. Post-9/11 female veteran unemployment is highest in the 25-34 age range for the period, 2003-2015. The high veteran unemployment in this age bracket is in contrast to the peak unemployment rate for women at 34-35 years of age (Blau & Kahn, 2016).

Second, employment is known to be correlated with minority race and ethnicity, as structural racism against these groups impedes employment (Blau & Kahn, 2016). All the demographic groups listed here, Black (0.0661, or a 6.61% higher), Other (0.0388, or a 3.88% higher), Hispanic (0.0173, or a 1.73% higher), and Asian (less significant at 0.00579, or a

0.579% higher), are correlated with the probability of Post-9/11 veteran unemployment.

Third, higher education is negatively associated with the probability of unemployment in the Post-9/11 veteran population. All of our educational coefficients, from one year of college to five or more years of college, are negatively associated with being unemployed. Having more education than a college degree, which signals a graduate degree, has the highest association with employment at -0.0735 (7.35% increase, the highest negative association with unemployment rate).

Fourth, all of our marital status categories are associated with unemployment, with the reference group being married, spouse present. However, listed in descending order, being separated (0.0546, or 5.46% increase), widowed (0.0503, or 5.03% increase), married with spouse absent (0.0443, or 4.43% increase) has the highest association, while being divorced (0.0247, or 2.47% increase) or single (0.0226, 2.26% increase) has the lowest association with unemployment for women.

Fifth, as mentioned above, the parental status categories have not been considered in the earlier veteran outcome research because economists do not consider it a labor force determinant. For women in this study, however, having a child at home was positively correlated with unemployment: women are more likely not to work if they have children at home. Likewise, having children under five was correlated with unemployment as this child-age group is often not at school and requires supervision at home.

Sixth, the years of the study had varying degrees of association: years 2004-2008, then 2014-2015 were not associated with the probability with unemployment. The first set of years is before the Great Recession of 2009, and the second set is after the recovery and employment rebound (Blau & Kahn, 2016). As expected, in descending order, 2011 (2.23%), 2012 (2.05%),

2010 (1.99%), and 2009 (1.40%) had the highest associations with unemployment as Post 9/11 female veteran unemployment was an estimated 12% during those years (Chart 1). As with the male analysis, reasons for this higher unemployment include the demobilization of troops in 2009 at the same time hiring was frozen and lay offs were common; more women became unemployed deeper into the recession, after 2009 (Faberman & Foster, 2016).

Seventh, the state in which the female veteran resided influenced their probability of unemployment. Table 3 in the Appendix reports the coefficient values for the 50 states and the District of Columbia. Only eight states were associated with higher unemployment for female veterans: Mississippi with automotive, food, and chemical manufacturing (1.67% increase in unemployment rate from the reference group of married, White, female with a HS/GED, no children, living in Alabama in 2003); District of Columbia with its professional/business services, construction, and educational industries (1.36% increase in the unemployment rate); Michigan with its manufacturing, tourism, and agricultural industries (0.821% increase); California with its agricultural, tourism, and technology industries (0.72% increase in the unemployment rate); North Carolina with its aerospace/defense, heavy manufacturing, and health science industries (0.361% increase); Georgia with its agriculture, manufacturing, and mining industries (0.2165 increase); South Carolina with its aerospace, automotive, and health sciences industries (0.196%); and Kentucky with its agriculture, manufacturing, and mining industries (0.0179% increase). The states with the highest association with employment were: North Dakota with agriculture, manufacturing, and mining industries (4.3% decrease in unemployment rate); South Dakota with its agriculture, tourism, and mining industries (4.07% decrease); Hawaii with its agriculture, tourism, and mining (3.63% decrease); Iowa with its agriculture, manufacturing, and fuel industries (3.08% decrease); and Maryland with its manufacturing,

tourism, and biotech industries (2.72% decrease) (Ruggles et al., 2015).

Table 9: Estimates From IPWRA Regression Model of Unemployment, Female

Demographic controls	IPWRA coefficient value
Age	-0.0208*** (0.000839)
Age Squared	0.000300*** (0.0000136)
Black	0.0661*** (0.00190)
Hispanic	0.0173*** (0.00169)
Asian	0.00579** (0.00219)
Other	0.0388*** (0.00314)
1 year of college	-0.0452*** (0.00145)
2 years of college	-0.0541*** (0.00160)
4 years of college	-0.0649*** (0.00127)
5+ years of college	-0.0735*** (0.00139)
Married, spouse absent	0.0443*** (0.00454)
Separated	0.0546*** (0.00397)
Divorced	0.0247*** (0.00185)
Widowed	0.0503*** (0.00958)

Never married/single	0.0226*** (0.00124)
Children	0.00918*** (0.00145)
Children under five	0.0125*** (0.00140)
2004	-0.00622 (0.00346)
2005	-0.00733* (0.00296)
2006	-0.0136*** (0.00292)
2007	-0.0126*** (0.00292)
2008	-0.0140*** (0.00291)
2009	0.0140*** (0.00303)
2010	0.0199*** (0.00307)
2011	0.0223*** (0.00309)
2012	0.0205*** (0.00309)
2013	0.00691* (0.00301)
2014	-0.000761 (0.00298)
2015	-0.0106*** (0.00292)

Constant	0.433*** (0.0134)
Observations	369490

Reference: Non veteran, married, HS/GED, white, no children

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

In the sensitivity analysis with the employment participation rate, ages 18-40, run for women, the results were in line with the official unemployment rate regression. As with men, there were a greater number of observations than the regressions calculated with the official rate because it includes women participating in the labor market, such as part-time or marginally attached workers and those out of the labor force. The naïve regression showed female veterans had a 6.30% increase in unemployment versus civilians. The results are high because it does not have controls for years, age, race, or education, and out of the labor force figures are included along with unemployment. The MFX regression results indicate that Post-9/11 female veterans have an increased probability of unemployment by 2.53%. The IPWRA is essentially the same as the MFX figure (smaller than the MFX figure in the sensitivity analysis by 0.001%). This trend between logistic MFX and IPWRA is dissimilar from the official rate analysis. In the official unemployment rate analysis, the IPWRA figure was larger than the logistic MFX figure, seeming to indicate that when Post-9/11 veterans were compared to matched civilians, their probability of unemployment went up. The reason why the trend in the employment participation rate analysis is dissimilar from the trend in the official rate analysis is that the inclusion of out of the labor force observations is impacting the results: The out of the labor force veterans and civilians matching is making their unemployment likelihood more similar. Table 10 below reports the results for these sensitivity regressions.

Table 10: Results of Three Regression Models for the Outcome, Female Unemployment Using the Employment Participation Rate, 18-40 years of age.

	Naïve Logit MFX (Women)	Logit MFX (Women)	IPWRA (Women)
Effect of Post-9/11 service	0.132*** (0.0161)	0.0253*** (0.00175)	0.0252*** (0.00350)
R squared	0.000	0.0635	NA

Observations 482,961

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

(RQ3): How does Post-9/11 veteran status affect the probability of unemployment for men of different races and ethnicities?

Table 11 below details the regression-adjusted unemployment rate for male Post-9/11 veterans and civilians by race and ethnicity and the intergroup comparisons of average marginal effects.

The predicted margins are calculated at means for all control variables.²³ As Table 11 demonstrates, Post-9/11 White, Hispanic, Asian, and Other male veterans have higher unemployment rate than their civilian peers, and the difference is statistically significant. All of these differences are greater than 1.5%. These results indicate a Post-9/11 veteran penalty for every race and ethnicity, except Black, in the form of a higher probability of unemployment. Other (2.31%) and Hispanic (1.71%) had the highest increase in probability, while White and Asian both have a 1.65% increase. The difference in unemployment rate between Black male veterans and civilians is not statistically different. Note Black male veterans have a smaller veteran penalty than other groups; however, they do not have a smaller probability of unemployment than civilians. Because each demographic group was modeled separately, however, intergroup comparisons—for example, between White and Black people—cannot be made.

Table 11: The Regression Adjusted Unemployment Rate by Demographic Category for Male Post-9/11 Veterans and Civilians, 2003-2015

Race/ethnicity	Post-9/11 male veterans		Male civilians		Difference
	Count	Percentage	Count	Percentage	
White	99,445	7.14%	299,477	5.49%	1.65%***
Black	14,301	13.09%	43,050	13.14%	(0.005%)
Hispanic	15,337	9.41%	47,935	7.70%	1.71%***
Asian	3,624	7.31%	17,328	5.66%	1.65%***
Other	5,037	11.87%	12,948	9.56%	2.31%***

*p<.05 **p<.01 ***p<0.001

Table 12 provides a summary of hypotheses and support for RQ3: *How does Post-9/11 veteran status affect the probability of unemployment for men of different races and ethnicities?* The hypothesis that Black male Post-9/11 veterans had a lower probability of unemployment than their civilian counterparts was not upheld. All other hypotheses were upheld. These findings seem to indicate that all race and ethnic groups do not appear to benefit in terms of employment from their military service. A possible reason for the statistically similar unemployment rate between Black Post-9/11 veterans and civilians is that Black men have less opportunity in the civilian labor force due to structural racism, and thus the veteran-civilian earnings disparity is negligible.

Table 12: Summary of Hypotheses and Support for RQ3

Hypotheses for RQ3	Supported or Not Upheld
Post-9/11 veteran status is positively associated with the probability of unemployment for White men.	Supported
Post-9/11 veteran status is negatively associated with the probability of unemployment for Black men.	Not Upheld
Post-9/11 veteran status is positively associated with the probability of unemployment for Hispanic men.	Supported
Post-9/11 veteran status is positively associated with the probability of unemployment for Asian men.	Supported
Post-9/11 veteran status is positively associated with the probability of unemployment for Other men defined as Native American, Alaskan, Pacific Islander and multiethnic persons.	Supported

(RQ4): How does Post-9/11 military service affect the probability of unemployment for women of different races?

Table 13 below details the regression-adjusted unemployment rate for female Post-9/11 veterans and civilians by race and ethnicity. White (2.67%), Other (2.27%), Asian (2.24%), and Hispanic (1.17%) female veterans have a statistically higher unemployment rate than their civilian peers, whereas Black female veterans' unemployment rates are not statistically different from their civilian cohort.

Table 13: The Regression Adjusted Unemployment Rate by Demographic Category for Female Post-9/11 Veterans and Civilians, 2003-2015

Race/ethnicity	Post-9/11 female veterans		Female civilians		Difference
	Count	Percentage	Count	Percentage	
White	19,596	8.59%	314,636	5.92%	2.67%***
Black	6,013	10.20%	50,387	11.0%	(0.8%)
Hispanic	3,918	8.28%	52,317	7.11%	1.17%***
Asian	1,002	8.46%	19,277	6.22%	2.24%***
Other	1,558	11.30%	14,257	9.03%	2.27%***

*p<.05 **p<.01 ***p<0.001

Table 14 provides a summary of hypotheses and support received for the RQ4: *How does Post-9/11 military service affect the probability of unemployment for women of different races?* White, Other, Hispanic, and Asian female Post-9/11 veterans have a higher probability of unemployment than their civilian peers. The results did not support this hypothesis for Black Post-9/11 female veterans; these veterans do not have a Post-9/11 veteran penalty as their probability of unemployment is not statistically different from their peer group. As with Black male veterans, the narrow disparity between Post-9/11 female veterans and civilians could be due to structural racism creating barriers to civilian labor force opportunities.

Table 14 Summary of Hypotheses and Support for RQ4

Hypotheses for RQ4	Supported or Not Upheld
Post-9/11 veteran status is positively associated with the probability of unemployment for White women.	Supported
Post-9/11 veteran status is positively associated with the probability of unemployment for Black women.	Not Upheld
Post-9/11 veteran status is positively associated with the probability of unemployment for Hispanic women.	Supported
Post-9/11 veteran status is positively associated with the probability of unemployment for Asian women.	Supported
Post-9/11 veteran status is positively associated with the probability of unemployment for Other women defined as Native American, Alaskan, Pacific Islander and multiethnic persons.	Supported

Regression diagnostics. In this research, regressions assumptions were investigated and upheld. Regression diagnostics were conducted to meet the three following assumptions associated with unbiased regression coefficients and error: 1) the absence of multicollinearity, 2) the normal distribution of error, and 3) homoscedasticity. Specifically, a vif test was conducted to test the first assumption, the absence of multicollinearity in the male and female models, respectively;

see Chart 2 in the Appendix. A k-density plot represented the second assumption, error normality; see Chart 3 in the Appendix for male and Chart 4 for female models. The third assumption related to the error term, homoscedasticity, was addressed by using Stata 14's robust standard error, which compensated for any heteroscedasticity; see Chart 5 in the Appendix which includes the regression short forms.

CHAPTER SEVEN: CONCLUSION

Findings

Policymakers, the media, veteran groups, as well as the civilian population agree that high Post-9/11 veteran unemployment, 2003-2015, is a serious social problem. Reasons for concern revolve around the military-civilian social contract, military recruitment, the Armed Forces' changing demographic composition, and family welfare. Despite the concern, much of the coverage in the popular media as well as from veteran advocacy groups themselves do not often contain analysis of Post-9/11 veteran unemployment to determine (a) if the demographic difference between the civilian and veteran population is responsible for the differential or (b) if the unemployment rate differ between Post-9/11 veterans and civilians of the same gender and race/ethnicity. The latter limitation is stunning given the fact that nobody argues that the labor force behavior of men and women or White and Black people are equivalent. Particularly interesting, at the same time the media pundits discuss the high Post-9/11 unemployment rate, they continue to suggest that the present-day military service is a positive status, an opportunity creator, in the civilian labor market (Fallows, 2015).

Very little research is conducted examining the effect of military service training and Post-9/11 veteran status on the socioeconomic advancement of veterans, and the existing research on the Post-9/11 veteran premium in the civilian labor force has limitations, including a limited number of Post-9/11 veteran observations, the absence of a matching technique to control for selection bias, and model specifications that lack gender and race differentiations. By addressing these limitations, the present study has uncovered some interesting findings. The results suggest that Post-9/11 veterans do not seem to have a veteran premium in the civilian labor force. In fact, it appears as if veteran status is a penalty creator, not an opportunity creator,

for most male and female race and ethnic groups. For the period 2003-2015, all but Black male and female veterans, respectively, had a higher probability of unemployment than civilian peers. Moreover, the probability increased when compositional differences associated with low unemployment (such as minority racial/ethnic identification, single marital status, young age, and low educational attainment) were controlled and a technique for selection bias was used, as reported in Tables 5 and 7. Given the higher probability of unemployment among Post-9/11 veterans, an argument could be made that the media as well as policy groups, such as Disabled Veterans of America (2014) and the Center for a New American Security (Harrell & Berglass, 2012), actually play down the negative effect of Post-9/11 military service when they argue that the veteran-civilian unemployment disparity is due to compositional differences or the difficulty of comparing veterans and civilians due to selection bias. Efforts to explain away the difference between Post-9/11 veteran and civilian unemployment rates could reflect a commitment to still believing, or wanting to believe, that military service is an advantage in the civilian labor market.

This research also found that the probability of unemployment among Black male and female veterans is statistically similar to their civilian cohort. See Tables 11 and 13. This is a new finding; most previous research (Cooney et al., 2003; Teachman & Tedrow, 2007) reported that Black male and female veterans had a lower probability of unemployment than their civilian peers, which bolstered the opportunity creator narrative of the Armed Forces: The military was a good place to start and develop human capital if a person of minority status did not have the access to or funds for college. However, these results suggest instead that the benefit of gaining experience in the civilian labor force appears to be more of a premium than veteran status for Black men and women with just a high school diploma. Although this study did not have access to veterans' occupational specialty, it leaves questions if (a) Black Post-9/11 veterans with just a

HS/GED degree leave the military as unskilled workers or (b) they only obtain low-skilled jobs due to labor market discrimination. As for (a) and (b), the negative effect of decreased civilian labor market experience on employment is less significant in low-skill professions (Teachman & Tedrow, 2007). These (a) and (b) phenomena can also explain why the estimated Black Post-9/11 veteran unemployment rate is statistically the same as their civilian cohort, while the other demographic groups' rate reports a statistical increase. The durable effect of systemic anti-Black racism in the labor market is indubitably an overriding factor.

As mentioned in Chapter Four, little research has been conducted on women's post-service labor outcomes, and how those differ among demographic groups. This study is not enough to establish a trend on how Post-9/11 veteran status is associated with female employment; however, it is a contribution. Given how enduring Post-9/11 female veteran unemployment has been since 2003, it is not a surprise that in this research, White, Hispanic, Asian, and Other female veterans have a higher probability of unemployment than comparable, civilian peers. An interesting finding worth considering here and exploring further is the impact of parental status on veteran labor force outcomes. For example, parental status is not associated with female civilians' labor behavior, but it is associated with female veterans' behavior in this study. For female veterans, having children and having children under five years of age increased the probability of unemployment by 0.9% and 1.25%, respectively. It is possible that female veterans are having children or are taking care of children while they are transitioning; this competing childrearing demand could distribute their time and attention away from the job search. Another explanation for the high unemployment may be that they sacrifice or delay a higher education that is more correlated with employment than Post-9/11 veteran status. Noteworthy, Asian Post-9/11 female veterans also have a higher probability of unemployment

compared to Asian female civilians. Again, this veteran-civilian disparity is no surprise as Asian civilian women have historically one of the lowest unemployment rates for the aggregate period 2003-2015 at 6.3% (Ruggles et al., 2015).

All these results seem to challenge the advantage of human, social, and cultural capital development through military service (Browning, Lopreato & Poston, 1973; Kleykamp, 2007; 2013; Moskos & Butler, 1996). Veteran research has historically relied on capital theoretical frames, contending or assuming that military service replaces education as a capital development strategy. In this study, however, training and education in the military appear to be negatively associated with employment, a key dimension of socioeconomic mobility. Military service may prohibit higher education, civilian work experience, and related capital development that are required in the civilian labor force. Thus, veterans may have human, social, and cultural capital deficits relative to civilians, which negatively impact their labor force outcomes.

Since the 1990s, labor economists have theorized that wage and employment are influenced by skill-biased technological change (Card and DiNardo, 2002). This skill-biased technological change has resulted in a downward shift in the demand for low-skilled workers, which can include veterans with military occupational specialties that only require a HS/GED degree, such as the aforementioned Company Gunnery Sergeant position. When these low-skilled veterans search for civilian jobs, they cannot find them and remain unemployed. In this way, skill-biased technological change is a more accurate frame for understanding veteran labor outcomes 2003-2015.

The bridging concept often cited in veteran research (Kleykamp, 2007, 2013; Martindale & Poston, 1979; Teachman & Tedrow, 2004, 2007) has not been critically explored and replaced. For the soldier, the bridge from civilian opportunity to military service may lead to

employment and financial improvement, but the bridge from the military back into the civilian labor force may not lead to any socioeconomic improvements for the veteran. Given the cultural differences between military and civilian work environments and the comparatively higher Post-9/11 veteran unemployment versus civilians, the bridge does not appear to extend to civilian life in this period of the All-Volunteer Force.

Study Limitations

There are several limitations to this study. First, the ACS is a retrospective secondary dataset with repeated cross sectional data. As the ACS is not longitudinal, unemployment cannot be tracked over time; it can only be tracked at one point in time. Therefore, this study is limited to the data provided by ACS. Specifically, this dataset does not include the following variables which would be helpful in this study: a variable for cognitive, mental or physical health ability/status before enlistment to shed light on pre-service characteristics that may be influencing civilian labor outcome; a variable to ascertain life prospects after HS graduation; a variable indicating mother's and/or father's employment and education; past civilian labor market experience (Kleykamp, 2007); date of higher education; a variable stating military occupational specialty²⁴ that would describe transferrable civilian job skills; a variable capturing the date of military discharge which would evidence how long a veteran has been in the job market and unemployed; and a separate variable for discouraged persons from the labor force (discouraged people are counted in the *out of the labor force* figure). In this way, ACS variables may be different than ideally required for the study.

The second limitation of this research is self-selected enlistment, which precludes randomizing who enlists in the military and who does not. Thus, the MFX regression findings are based on comparing veterans to civilians. Therefore, when a coefficient is estimated, the

difference between veterans and civilians has not been controlled for. Adding covariates does not address or avoid this bias in the results.

The third limitation is related to the IPWRA method; it is a new technique for survey analysis, and it can possibly lead to vague estimates of veteran status effects. Specifically, IPWRA can reduce bias by including observed covariates as matching criteria, but perhaps not *all observed covariates* are measured and thus not included in the IPWRA analysis. Some may be missing by the researcher, or some highly influential characteristics may not be in the survey as variables. Thus, there may be omitted variable bias on observed and unobservable variables. Therefore, the IPWRA results which seem to indicate that veteran status increases the probability of unemployment for men and women could be influenced by unobservable or omitted variables. In this way, skill differences or job preferences may explain the veteran and civilian difference not a veteran penalty. Without a perfect match on all covariates, this method has limitations.

The fourth limitation is that the IPWRA regression includes matching criteria on educational attainment as well as an educational attainment control. The date of a person's educational attainment, whether it was before or after their military service, is unknown. If a veteran received their education after service as a result of the veteran benefit from the G.I. Bill, that education was (a) a benefit of their veteran status, and (b) that education could have influenced their employment prospects. Thus, a person's veteran status could have positively influenced their education and thus employment outcomes. This analysis confounds that consideration.

Fifth, this research shows association and not causality because people are not randomly assigned to military service in the age of the All-Volunteer Force. With IPWRA and Logit MFX, the effect of Post-9/11 veteran status can only be measured on those that served in the military; it

cannot be generalizable to a random sample.

The sixth limitation is the demographic categories. This research uses the ACS categories of Hispanic, Asian, and Other. These are very large and imprecise categories. The former subsumes all persons of Spanish speaking origin; Asian refers to a large continent; and Other refers to broad and dissimilar populations. These categories are homogenizing and assume all Spanish speakers, people from Asia, and Others can be categorized as the same, respectively. Therefore, intragroup differences may not be represented here.

The seventh limitation is that the category of veteran is too broad. The study is not informed by branch of service and occupational specialty, which are key factors in civilian employment and transitional assistance requirements. Despite these limitations, the findings from this study have the potential to provide a new theoretical and methodological frame for analyzing veteran-labor outcomes in the future.

The eighth limitation revolves around the community effect of veteran status that cannot be captured by the American Community Survey variables. An individual veteran could be impacted by community context considerations, such as a limited social and professional network of military personnel, soldiers, and veterans only. This lack of professional civilian contacts could negatively influence job acquisition, yet there is not a variable capturing the number of network connections of individuals. Also, some veterans may face more discrimination than others, and that variability in veteran penalty impact is confounded by this study.

Policy Considerations

The media's and scholars' presumption about the human capital development that occurs in the military may lead policy makers into designing and enacting ineffective strategies and

programs. If Post-9/11 veteran status is positively associated with the probability of unemployment, then an argument can be made that unemployment is not a case-by-case problem as a result of an individual veteran, but a larger structural problem due to veteran status. However, our transitional assistance programs target the individual veteran with supply-side strategies, such as resume writing and interview skills, as the leverage point. Very little is written about the demand side (Harrell & Berglass, 2012; Curry et al., 2014; Prudential, 2012). In the list of all federal transitional assistance programs in Table 1 in the Appendix, only four out of 13 programs deal with the demand side: They include federal hiring priority, tax breaks, and other financial incentives to hire veterans. Lawmakers and advocates need to pay more attention to what demand-side obstacles exist, such as hiring bias and the lack of transferable skills, and examine more systemic strategies to remedy veteran unemployment. RAND (Curry et al., 2014; Loughran, 2014), Center for a New American Security (Harrell & Berglass, 2012), and Prudential (2012) have conducted surveys of hiring entities querying them about their attitudes about hiring and retaining veterans. Generally, they cite supply-side obstacles to hiring veterans, including unsuitability to the civilian labor market, inadequate physical and mental health, lack of direct skill and experience, and ineffective job search. Despite these surveys, little is known of the precise mechanisms, such as hiring bias and veteran stigma, on the demand-side that negatively influence hiring. More demand-side research exploring the endogenous factors impacting employment needs to be conducted. Through research and outreach, VA and the Department of Labor can understand both the barriers to hiring a veteran and the education and incentives needed to encourage hiring by organizations. Public-private partnerships between government agencies, veteran groups, and private companies can work to remove the negative hiring biases, understand skillsets, and promote the hard (specialized skillset) and soft

(environmental work traits, such as discipline) benefits of hiring them.

On the supply side, veteran labor research would benefit from a bigger commitment to an intersectional methodological approach, which seeks to analyze and understand the lived civilian labor force experience of male and female veterans across ethnicities. Given the fact that Black and Hispanic men and women are the fastest growing groups of enlistees, minority veterans are predicted to grow to 33% by 2037; female veterans are expected to increase to an estimated 1% each year after 2017 (VA, 2017). As the findings show, the fastest growing veteran groups have the highest unemployment rate. Therefore, researchers, policy makers and service providers need to research the experiences of these veterans who have been marginalized in civilian employment, and subsequently, design more targeted transitional labor services. Congress and the veteran communities themselves need to debate on enlarging or revising existing transitional assistance programs to meet Post-9/11 women veterans' needs. Researchers have not focused actively on this subject matter to date. Women veteran's mental and physical medical needs are a well-funded area with landmark studies (Iverson, 2014; Washington et al., 2013) shaping the VA's and community centers' delivery of health service to them. Transitional assistance studies, however, are currently not a dynamic and active research focus, although VA records for the Post-9/11 period indicate that 53% of veteran complaints are vocational related (Strong et al., 2014). Yan et al., (2012) researched that employment stressors for female veterans start spiking between 3 months and 12 months post leave. Given the employment statistics, reported employment stressors, and professional development needs of women veterans (e.g., job search skills), more research needs to be conducted around these leverage points (Rausch, 2014).

First, data on veterans' involvement, satisfaction, and job outcomes with TAP GPS need to be collected and synthesized through gender, race, and regional lenses (Brinn & Auerbach,

2015). These analyses will provide data on how effective TAP GPS is, what demographic groups are unemployed and for how long after discharge, and what additional strategies might enhance civilian labor force outcomes and at what point before, during, or after discharge should services be administered. Information on how long discharged veterans are looking for employment will be invaluable to design and implement strategies throughout the job search period.

Second, the ACS, the largest cross-sectional database of U.S. veteran observations, as well as other panel data sets such as the NYLS, has not been analyzed to understand regional unemployment rates. The VA working with state government offices need to establish teams of interdisciplinary researchers to analyze national and regional employment trends. Once the data are understood, specific services and programs can be developed to assist veterans with employment barriers at the regional level. For example, if an online or unaccredited, for-profit college degree is negatively associated with the probability of employment, soldiers and veterans need to be informed, connected, and supported in higher educational attainment at an accredited school both while in the service and after discharge. In fact, a complaint of recently discharged veterans is that they need more assistance with higher education decision-making and applications (Holland, Malott & Currier, 2014). Third, the G.I. Bill needs to be reevaluated in the Post-9/11 era (Kleykamp, 2013). Currently, there is not any research to date that this benefit actually increases the educational attainment, employment, and socio-mobility of this veteran cohort. This education benefit may be used primarily as a stipend to defer housing and living expenses more than it is used as a veritable strategy to increase human capital at an accredited college for better employment outcomes (Kleykamp, 2012).

Fourth, by analyzing TAP GPS and survey data, service providers and policy makers can provide personalized, predictive, and preventative employment services for the veteran

depending upon their demographic data and their military occupational specialty. With this data, veteran service providers should be an integral component of multidisciplinary taskforces that advocate for more funding, data analyses, needs assessments, and the development of regional programs and services to facilitate employment transition on both the supply- and the demand-side of employment. Military service practitioners need to be active in the policy networks targeting veteran transition (Baumgartner & Jones, 2009). As the VA employs more of them than any other social service organization, they need to be a dynamic and visible component of the policy-advocacy institutional configuration. Working in teams with veteran organizations and congressional staffers, these practitioners can be active in shaping the policies around veteran-to-civilian transition. They have deep experience with this target population. This hands-on experience must be leveraged in an advocacy framework and translated into service improvements. These supply-side strategies targeting the individual veteran need to be informed by an understanding of demand-side obstacles. Together with policymakers, military service practitioners can answer these pressing questions: *Who are these unemployed veterans? What can we do for them?*

Conclusion

The opportunity creator narrative of the US Armed Services is a durable myth. Veterans believe it; the public believe it; policy makers believe it. As a nation, we have an emotional investment in this belief. These young people forego a college education for the rigors of military discipline and self denial, and these soldiers, some have argued, are tested psychically, psychologically, and morally in ways that many civilians never be will. And at the end, they will be better for it; their military service will be valued in the labor force and translate into high employability and earnings.

Buttressing this belief has been a reductionist view of military service and the misappropriated capital theories. The military has its own culture and its own brand of workforce development. Often military jobs, such as driving an 18-wheeler, do not even carry a civilian certification; others do not have a civilian labor force equivalent. This information has been shared repeatedly by every cohort of the All-Volunteer Force in VA surveys (Strong et al., 2014; Williams et al., 2011; Yan et al., 2013). Often jobs are too specialized having no equivalent in the civilian world. Moreover, many of the jobs these men and women had require only a high school degree (e.g. low skill jobs), and labor economists have emphasized repeatedly that low skill jobs are either poorly paid, transitioning to part-time work, going overseas to countries with cheaper labor, or are being replaced by automation and artificial intelligence (Blau & Kahn, 2016). Despite these well known, non controversial facts about the labor market, military service on top of a high school degree is still represented as a commodity that is valued in the civilian labor force.

Also buttressing this belief are the capital theories. The original capital theory research theorized that higher education was the key to society's modernity and an individual's socio-economic mobility. In veteran outcome literature, military service is substituted for higher education and seen as advancing earnings and employment outcomes the same way higher education does. But the military as an opportunity creator seems only to be upheld with a select class of veterans who have the technical training in occupations that they can continue to perform in post military careers.

The capital theories have been misappropriated and applied to veteran labor research. They recast socio-economic processes as acts driven solely by individuals and posit that it is the quality of the workers that matters, not the systems in place. Economists and philosophers call

this methodological individualism—the notion that all social processes around a person are the result of their own behavior. In this way, veterans' labor force outcomes are artificially and erroneously separated from social realities and institutional processes.

The results of this dissertation, using a different data set, different techniques, and different outcome measures from the previous research, suggest that Post-9/11 veterans do not seem to have a premium in the civilian labor force. In fact, it appears as if veteran status is a penalty creator, not an opportunity creator, for most male and female racial and ethnic groups. Surely unemployment is not a veteran specific problem if the results indicate veterans as a class have a higher probability of unemployment than their matched peers. But currently, veteran unemployment is constructed as a problem about the veteran, thus the majority of the solutions are supply side. Does it matter if a veteran has a well formatted resume and an individualized job search plan if all he or she has is a HS/GED degree and a specialized skill with no civilian equivalent?

How we frame this problem of veteran unemployment is how we frame the solution. Our presumption about human capital and methodological individualism leads us deeper into ineffective policies and programs. The focus on the individual veteran—their education and job search skills—takes the attention away from much needed demand side reform. It disrupts the process of learning about why the Post-9/11 veteran unemployment was so high in the 21st century; it disrupts the process of redirecting policies and strategies.

As we speak, two current veteran reforms include shortening the Unemployment Compensation for Ex-Servicemembers Benefit in order to motivate veterans to find a job more quickly and, also, eliminating the educational stipend by just giving eligible veterans a one time block check. After reading this research, how are those policy reforms going to help if veteran

unemployment is a system's problem?

Suggestions for Future Research

Future research should be two-pronged: a quantitative and a qualitative research effort. On the quantitative side, the ACS, 2003-2017, should be used to analyze men and women in each demographic group in the same analysis. Continuing with an intersectional methodology, an interaction term of Post-9/11 veteran status, race, and gender should be used enabling inter- and intragroup comparisons among White, Black, Hispanic, Asian, and Other veterans and civilians. The same techniques, logistic regression MFX and IPWRA, should be used to compare the employment outcome for Post-9/11 veteran groups. Also, the US Census Bureau's Community Population Survey will be used as it is a database that includes variables about occupational specialty and personal aptitude. The same techniques, MFX and IPWRA, will be used to determine if White, Black, Hispanic, Asian, and Other Post-9/11 veterans in the same industry have a higher probability of unemployment than their matched peers.

On the qualitative end, future research should include a mass survey of these veterans by state, querying them about their job search process, Transitional Assistance Program GPS participation, and job search experience. This survey would be conducted in partnership with state veteran organizations. Qualitative data on the Post-9/11 female veterans transition experience is scarce, and the high female Post-9/11 unemployment demands analytical attention. Thus, finding out about the lived experience of these Post-9/11 veterans as they return back to their states would provide detailed information on what employment stressors they face from the demand- and the supply-side. Both projects would add more data and depth on the labor force outcomes of the demographically diverse Post-9/11 veterans and the universality of the

opportunity creator narrative in the age of the All-Volunteer Force.

APPENDIX

Table 1: Transitional-based Benefits, Programs, and Services for Veterans (CRS, 2014)

Program	Description
TAP/TAP GPS	TAP offers employment and transition services to existing soldiers. GPS is a mandatory 5-day program with expanded TRP services.
Educational Benefits: GI Bill	Offers tuition and living stipend while enrolled in educational program
Veterans Retraining Assistance Program (VRAP)	Provides educational benefits for 35 yr. old-70yr old veterans ineligible for other VA educational programs
Local Veterans Employment Representatives (LVER)	Funds state employees that help veterans find employment in the area. Aid consists of referrals to employers or educational programs.
Federal Hiring Preferences and Special Hiring Authorities	Veterans are given hiring preference when applying for federal employment; veterans are simply appointed to positions without competition.
Priority in DOL training programs	Veterans are given priority in DOL-funded or employment service training
Small Business Administration Programs	Provides financing and small business development programs to aid veterans with entrepreneurship and winning federal grants
Vocational Rehabilitation and Employment	Provides funds and training to support veterans with service-related disabilities (SRD)
Disabled Veterans Outreach Program	Provides funds for state personnel that offers high touch employment services with veterans with SRD
SRD specialized versions of other programs	TAP, federal hiring priority, and WOTC have targeted services for veterans with SRD
Homeless Veterans Reintegration Program	Provides competitive grants to organizations that offer employment and subsistence services to homeless veterans
Veterans Upward Bound	Provides tutoring and application help for veterans applying for secondary education
Veterans Workforce Investment Program	Provides funds to NPOs that train or employ veterans

Table 2: Estimates from IPWRA Regression Model of Unemployment, Male

Demographic Controls	IPWRA Coef Value
Age	-0.0249*** (0.000846)
Age Squared	0.000377*** (0.0000137)
Black	0.0807*** (0.00217)
Hispanic	0.00946*** (0.00165)
Asian	0.00756** (0.00233)
Other	0.0474*** (0.00337)
1 year of college	-0.0434*** (0.00130)
2 years of college	-0.0468*** (0.00156)
4 years of college	-0.0579*** (0.00113)
5+ years of college	-0.0617*** (0.00130)
Married, spouse absent	0.0363*** (0.00451)
Separated	0.0566*** (0.00514)
Divorced	0.0399*** (0.00234)
Widowed	0.0645*** (0.0172)
Never married/single	0.0551*** (0.00130)

Children	-0.00701*** (0.00153)
Children Under Five	0.00368** (0.00131)
Alabama	(0) (.)
Alaska	0.0337** (0.0105)
Arizona	0.0141** (0.00488)
Arkansas	0.0138* (0.00610)
California	0.0291*** (0.00395)
Colorado	0.00334 (0.00468)
Connecticut	0.0171** (0.00576)
Delaware	-0.00425 (0.00844)
District of Columbia	0.00862 (0.00934)
Florida	0.0116** (0.00416)
Georgia	-0.0000175 (0.00444)
Hawaii	-0.0313*** (0.00617)
Idaho	0.00898 (0.00655)

Illinois	0.0262*** (0.00429)
Indiana	0.0151** (0.00472)
Iowa	-0.00730 (0.00505)
Kansas	-0.00464 (0.00526)
Kentucky	0.0205*** (0.00527)
Louisiana	-0.0146** (0.00501)
Maine	0.0116 (0.00774)
Maryland	-0.00226 (0.00487)
Massachusetts	0.0126** (0.00470)
Michigan	0.0393*** (0.00459)
Minnesota	-0.000265 (0.00458)
Mississippi	0.0194** (0.00645)
Missouri	0.00297 (0.00467)
Montana	-0.00372 (0.00749)
Nebraska	-0.0130* (0.00550)
Nevada	0.0137*

	(0.00635)
New Hampshire	-0.00120 (0.00690)
New Jersey	0.0254*** (0.00466)
New Mexico	0.00751 (0.00725)
New York	0.0196*** (0.00411)
North Carolina	0.00236 (0.00441)
North Dakota	-0.0210** (0.00677)
Ohio	0.0202*** (0.00430)
Oklahoma	-0.00762 (0.00524)
Oregon	0.0392*** (0.00566)
Pennsylvania	0.0167*** (0.00427)
Rhode Island	0.000510 (0.00760)
South Carolina	0.00182 (0.00521)
South Dakota	-0.0252*** (0.00633)
Tennessee	0.0136** (0.00479)
Texas	-0.000575 (0.00395)

Utah	-0.00273 (0.00489)
Vermont	0.00722 (0.00936)
Virginia	-0.0129** (0.00431)
Washington	0.0156*** (0.00468)
West Virginia	0.0269*** (0.00719)
Wisconsin	0.00347 (0.00468)
Wyoming	-0.0241** (0.00750)
2003	0 (.)
2004	-0.00951** (0.00329)
2005	-0.0115*** (0.00283)
2006	-0.0178*** (0.00280)
2007	-0.0150*** (0.00281)
2008	-0.0174*** (0.00280)
2009	0.0228*** (0.00299)
2010	0.0312*** (0.00304)

2011	0.0261*** (0.00304)
2012	0.0144*** (0.00299)
2013	0.00438 (0.00292)
2014	-0.00607* (0.00287)
2015	-0.0146*** (0.00283)
Constant	0.456*** (0.0135)
Observations	467,249

Reference: Non veteran, married, HS/GED, white, no children.

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3: Estimates from IPWRA Regression Model of Unemployment, Female

Demographic Controls	IPWRA Coef Value
Age	-0.0208*** (0.000839)
Age Squared	0.000300*** (0.0000136)
Black	0.0661*** (0.00190)
Hispanic	0.0173*** (0.00169)
Asian	0.00579** (0.00219)
Other	0.0388*** (0.00314)
1 year of college	-0.0452*** (0.00145)
2 years of college	-0.0541*** (0.00160)
4 years of college	-0.0649*** (0.00127)
5+ years of college	-0.0735*** (0.00139)
Married, spouse absent	0.0443*** (0.00454)
Separated	0.0546*** (0.00397)
Divorced	0.0247*** (0.00185)
Widowed	0.0503*** (0.00958)
Never married/single	0.0226*** (0.00124)

Children	0.00918*** (0.00145)
Children Under Five	0.0125*** (0.00140)
Alabama	REFERENCE (.)
Alaska	-0.00650 (0.0102)
Arizona	-0.00787 (0.00515)
Arkansas	-0.00959 (0.00633)
California	0.00723 (0.00429)
Colorado	-0.00223 (0.00514)
Connecticut	-0.00730 (0.00571)
Delaware	-0.0192* (0.00876)
District of Columbia	0.0136 (0.00885)
Florida	-0.00787 (0.00446)
Georgia	0.00216 (0.00487)
Hawaii	-0.0363*** (0.00697)
Idaho	-0.0166* (0.00725)

Illinois	-0.00223 (0.00454)
Indiana	-0.00640 (0.00496)
Iowa	-0.0308*** (0.00520)
Kansas	-0.0223*** (0.00564)
Kentucky	0.000179 (0.00550)
Louisiana	-0.0126* (0.00559)
Maine	-0.0225** (0.00740)
Maryland	-0.0272*** (0.00493)
Massachusetts	-0.0100* (0.00483)
Michigan	0.00821 (0.00481)
Minnesota	-0.0269*** (0.00476)
Mississippi	0.0167* (0.00671)
Missouri	-0.0171*** (0.00493)
Montana	-0.0216** (0.00820)
Nebraska	-0.0264*** (0.00600)
Nevada	-0.00521

	(0.00671)
New Hampshire	-0.0182** (0.00700)
New Jersey	-0.000319 (0.00486)
New Mexico	-0.000869 (0.00767)
New York	-0.00369 (0.00438)
North Carolina	0.00361 (0.00484)
North Dakota	-0.0430*** (0.00743)
Ohio	-0.00740 (0.00457)
Oklahoma	-0.0317*** (0.00553)
Oregon	-0.00217 (0.00563)
Pennsylvania	-0.0150*** (0.00449)
Rhode Island	-0.0134 (0.00767)
South Carolina	0.00196 (0.00564)
South Dakota	-0.0407*** (0.00665)
Tennessee	-0.00485 (0.00511)
Texas	-0.0118** (0.00434)

Utah	-0.0257*** (0.00559)
Vermont	-0.0217* (0.00857)
Virginia	-0.0172*** (0.00476)
Washington	-0.00225 (0.00500)
West Virginia	-0.0117 (0.00695)
Wisconsin	-0.0238*** (0.00483)
Wyoming	-0.0141 (0.00960)
2003	0 (.)
2004	-0.00622 (0.00346)
2005	-0.00733* (0.00296)
2006	-0.0136*** (0.00292)
2007	-0.0126*** (0.00292)
2008	-0.0140*** (0.00291)
2009	0.0140*** (0.00303)
2010	0.0199*** (0.00307)

2011	0.0223*** (0.00309)
2012	0.0205*** (0.00309)
2013	0.00691* (0.00301)
2014	-0.000761 (0.00298)
2015	-0.0106*** (0.00292)
Constant	0.433*** (0.0134)
Observations	369,490

Reference: Non veteran, married, HS/GED, white, no children.

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3: Regression Diagnostics, The Vif Test of the Absence of Collinearity, Male Model

Variable	VIF	1/VIF
-----+-----		
gw2_vet_du~y	1.05	0.954448
age	114.57	0.008728
age_sq	111.63	0.008958
newrace		
2	1.21	0.826442
3	1.21	0.826224
4	1.09	0.920946
5	1.04	0.957717
educ		
7	1.32	0.755976
8	1.23	0.813171
10	1.51	0.663263
11	1.35	0.740403
marst		
2	1.06	0.946514
3	1.06	0.942538
4	1.17	0.858257
5	1.01	0.990920
6	1.91	0.524110
statefip		
2	1.19	0.841657
4	2.17	0.460823
5	1.55	0.645003
6	7.02	0.142379
8	2.10	0.475348
9	1.66	0.601404
10	1.18	0.849303
11	1.19	0.843116
12	4.23	0.236645
13	2.97	0.336218
15	1.34	0.748117
16	1.30	0.767101
17	3.46	0.288823
18	2.27	0.440620
19	1.66	0.602820
20	1.60	0.625342
21	1.84	0.544482
22	1.96	0.510048
23	1.26	0.795267
24	2.25	0.444571
25	2.28	0.438911
26	2.92	0.343017
27	2.17	0.461855

28		1.61	0.619317
29		2.24	0.447398
30		1.20	0.830202
31		1.42	0.701849
32		1.48	0.677458
33		1.26	0.795942
34		2.52	0.397024
35		1.38	0.723137
36		4.39	0.227604
37		2.88	0.347461
38		1.16	0.860279
39		3.27	0.305584
40		1.77	0.565069
41		1.76	0.569140
42		3.38	0.295701
44		1.23	0.815540
45		1.95	0.513273
46		1.19	0.843097
47		2.27	0.440784
48		5.46	0.182986
49		1.61	0.619320
50		1.13	0.884618
51		2.78	0.359320
53		2.38	0.419779
54		1.33	0.753799
55		2.20	0.453911
56		1.12	0.890798
children_d~y		2.47	0.404403
children_u~y		1.83	0.547701
year			
2004		1.87	0.534229
2005		1.88	0.531774
2006		1.93	0.518804
2007		1.93	0.518470
2008		1.95	0.511892
2009		1.97	0.507321
2010		1.97	0.508186
2011		1.99	0.503072
2012		1.99	0.501938
2013		2.00	0.500416
2014		2.02	0.494762
2015		2.04	0.489495
2016		2.06	0.484530
-----+			
Mean VIF		4.71	

Table 4: Regression Diagnostics, The Vif Test of the Absence of Collinearity, Female Model

Variable	VIF	1/VIF
-----+-----		
gw2_vet_du~y	1.11	0.904568
age	111.64	0.008957
age_sq	110.16	0.009078
newrace		
2	1.12	0.896791
3	1.18	0.844813
4	1.07	0.930700
5	1.03	0.967694
educ		
7	1.20	0.831518
8	1.13	0.882031
10	1.30	0.770513
11	1.18	0.846427
marst		
2	1.09	0.919823
3	1.07	0.937782
4	1.21	0.825247
5	1.00	0.995957
6	2.26	0.442958
children_d~y	3.08	0.324949
children_u~y	2.23	0.449096
statefip		
2	1.26	0.794333
4	2.35	0.426234
5	1.63	0.611828
6	7.44	0.134369
8	2.27	0.440310
9	1.63	0.612441
10	1.18	0.845411
11	1.15	0.866959
12	4.38	0.228491
13	2.98	0.335292
15	1.45	0.690168
16	1.38	0.726433
17	3.46	0.288730
18	2.31	0.433033
19	1.69	0.591996
20	1.67	0.600218
21	1.88	0.531162
22	1.98	0.504394
23	1.29	0.775176
24	2.24	0.446058
25	2.23	0.447882

26		2.92	0.342012
27		2.19	0.457445
28		1.60	0.624937
29		2.31	0.432480
30		1.25	0.800972
31		1.47	0.681795
32		1.58	0.632291
33		1.27	0.785846
34		2.49	0.402081
35		1.44	0.693581
36		4.23	0.236337
37		2.98	0.335874
38		1.21	0.829229
39		3.34	0.299513
40		1.87	0.535740
41		1.82	0.548595
42		3.40	0.294426
44		1.21	0.823479
45		1.99	0.501336
46		1.21	0.825580
47		2.34	0.427651
48		6.05	0.165190
49		1.73	0.577432
50		1.12	0.892070
51		3.08	0.324683
53		2.61	0.382644
54		1.38	0.725275
55		2.23	0.448328
56		1.16	0.862617
year			
2004		1.92	0.521778
2005		1.91	0.522610
2006		1.97	0.507870
2007		1.99	0.502000
2008		2.00	0.500518
2009		2.01	0.496980
2010		2.02	0.494120
2011		2.07	0.483728
2012		2.09	0.478394
2013		2.09	0.478292
2014		2.13	0.468854
2015		2.16	0.463979
2016		2.17	0.460269

Mean VIF | 4.72

Figure 1: Regression Diagnostics, A K-Density Plot Representing Error Normality In Male Model

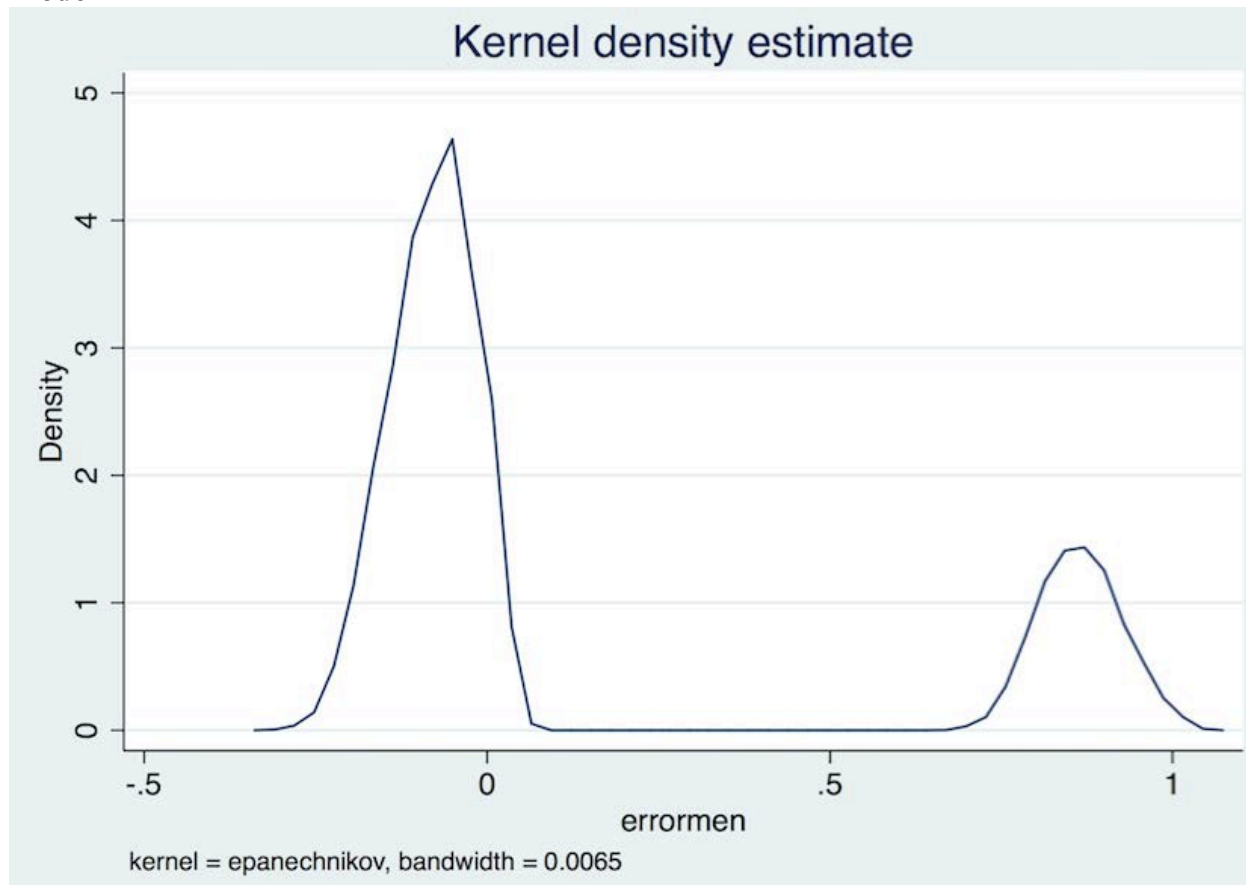


CHART 4: Regression Diagnostics, A K-Density Plot Representing Error Normality In Female Model

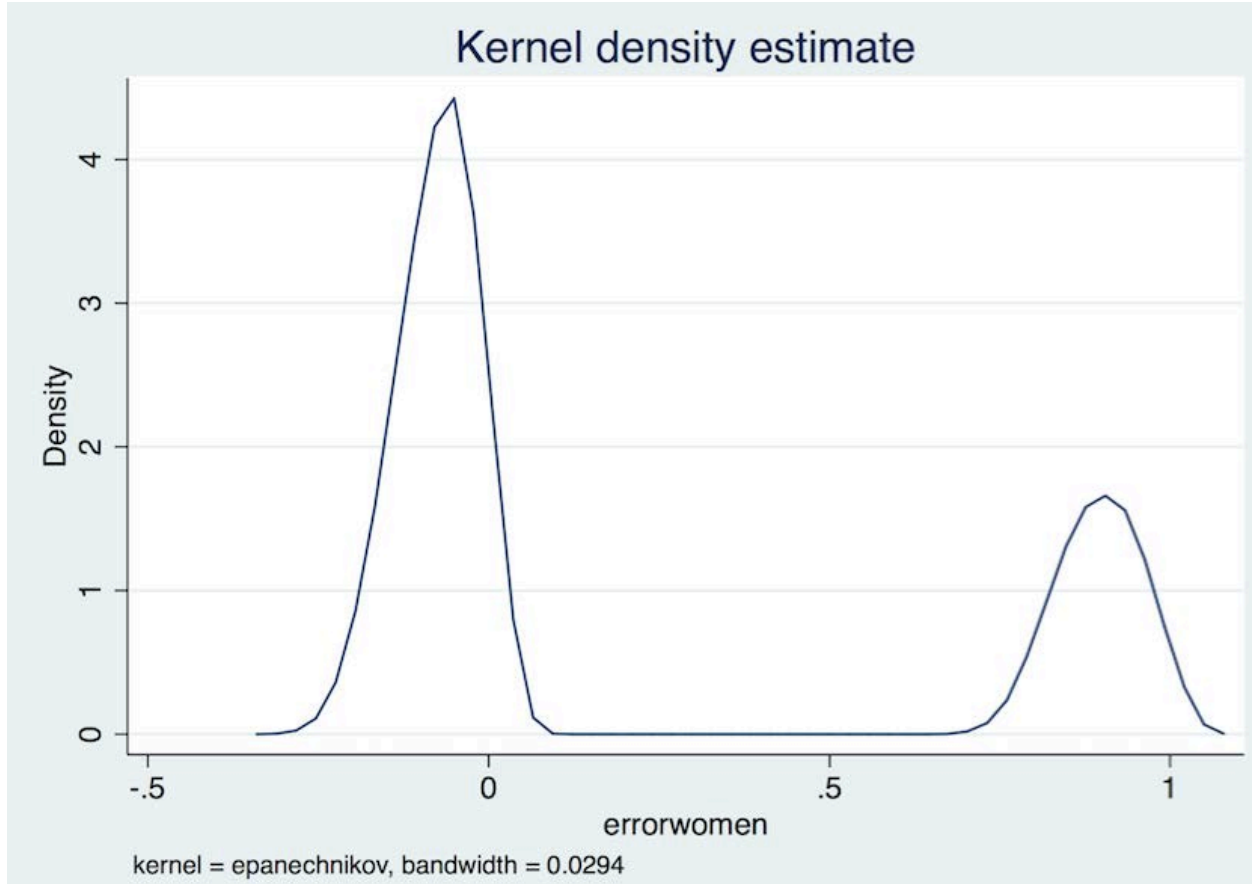


Table 5: Regression Diagnostics, The Robust Standard Error Chart Addressing Homoscedasticity for the Male and Female Models, Respectively

	(1)	(2)
	Error women	Error men
Post-9/11 Veteran	0.00000 (0.00263)	-0.00000 (0.00133)
Age	0.00000 (0.00111)	-0.00000 (0.00104)
Age Squared	-0.00000 (0.00002)	0.00000 (0.00002)
White	0.00000 (.)	0.00000 (.)
Black	-0.00000 (0.00234)	0.00000 (0.00238)
Hispanic	0.00000 (0.00210)	-0.00000 (0.00189)
Asian	0.00000 (0.00264)	0.00000 (0.00273)
Other	0.00000 (0.00418)	0.00000 (0.00380)
Grade 12	0.00000 (.)	0.00000 (.)
1 year of college	-0.00000 (0.00185)	-0.00000 (0.00154)
2 years of college	-0.00000 (0.00208)	0.00000 (0.00184)
4 years of college	-0.00000 (0.00164)	0.00000 (0.00135)
5+ years of college	-0.00000 (0.00186)	-0.00000 (0.00156)

Married, spouse present	0.00000	0.00000
	(.)	(.)
Married, spouse absent	0.00000	-0.00000
	(0.00549)	(0.00465)
Separated	0.00000	0.00000
	(0.00489)	(0.00533)
Divorced	0.00000	-0.00000
	(0.00232)	(0.00238)
Widowed	-0.00000	0.00000
	(0.01322)	(0.01595)
Never married/single	0.00000	-0.00000
	(0.00166)	(0.00156)
Children	-0.00000	-0.00000
	(0.00195)	(0.00179)
Children under 5	0.00000	0.00000
	(0.00187)	(0.00156)
Alabama	0.00000	0.00000
	(.)	(.)
Alaska	-0.00000	-0.00000
	(0.01350)	(0.01107)
Arizona	-0.00000	-0.00000
	(0.00689)	(0.00600)
Arkansas	-0.00000	0.00000
	(0.00889)	(0.00746)
California	-0.00000	0.00000
	(0.00578)	(0.00513)
Colorado	-0.00000	0.00000
	(0.00671)	(0.00593)
Connecticut	-0.00000	0.00000

	(0.00749)	(0.00730)
Delaware	-0.00000 (0.01118)	-0.00000 (0.00984)
District of Columbia	-0.00000 (0.01196)	0.00000 (0.01062)
Florida	-0.00000 (0.00598)	0.00000 (0.00530)
Georgia	-0.00000 (0.00659)	0.00000 (0.00573)
Hawaii	-0.00000 (0.00848)	0.00000 (0.00730)
Idaho	-0.00000 (0.00943)	0.00000 (0.00858)
Illinois	-0.00000 (0.00626)	0.00000 (0.00559)
Indiana	-0.00000 (0.00657)	0.00000 (0.00610)
Iowa	-0.00000 (0.00692)	0.00000 (0.00665)
Kansas	-0.00000 (0.00750)	0.00000 (0.00688)
Kentucky	-0.00000 (0.00755)	-0.00000 (0.00644)
Louisiana	-0.00000 (0.00774)	-0.00000 (0.00631)
Maine	-0.00000 (0.00956)	-0.00000 (0.00952)
Maryland	-0.00000 (0.00650)	0.00000 (0.00587)

Massachusetts	-0.00000 (0.00657)	-0.00000 (0.00607)
Michigan	-0.00000 (0.00649)	0.00000 (0.00606)
Minnesota	-0.00000 (0.00661)	0.00000 (0.00609)
Mississippi	-0.00000 (0.00887)	0.00000 (0.00777)
Missouri	-0.00000 (0.00670)	-0.00000 (0.00603)
Montana	-0.00000 (0.01147)	0.00000 (0.00949)
Nebraska	-0.00000 (0.00814)	0.00000 (0.00718)
Nevada	-0.00000 (0.00856)	0.00000 (0.00747)
New Hampshire	-0.00000 (0.00878)	-0.00000 (0.00838)
New Jersey	-0.00000 (0.00639)	-0.00000 (0.00593)
New Mexico	-0.00000 (0.00949)	0.00000 (0.00871)
New York	-0.00000 (0.00595)	0.00000 (0.00536)
North Carolina	-0.00000 (0.00654)	0.00000 (0.00572)
North Dakota	-0.00000 (0.01420)	0.00000 (0.00815)

Ohio	-0.00000	0.00000
	(0.00615)	(0.00561)
Oklahoma	-0.00000	0.00000
	(0.00785)	(0.00685)
Oregon	-0.00000	0.00000
	(0.00745)	(0.00709)
Pennsylvania	-0.00000	-0.00000
	(0.00620)	(0.00565)
Rhode Island	-0.00000	0.00000
	(0.00958)	(0.00893)
South Carolina	-0.00000	0.00000
	(0.00764)	(0.00643)
South Dakota	-0.00000	-0.00000
	(0.00920)	(0.00783)
Tennessee	-0.00000	0.00000
	(0.00682)	(0.00605)
Texas	-0.00000	0.00000
	(0.00586)	(0.00519)
Utah	-0.00000	0.00000
	(0.00786)	(0.00631)
Vermont	-0.00000	-0.00000
	(0.00991)	(0.01304)
Virginia	-0.00000	0.00000
	(0.00630)	(0.00540)
Washington	-0.00000	0.00000
	(0.00675)	(0.00589)
West Virginia	-0.00000	0.00000
	(0.00967)	(0.00874)
Wisconsin	0.00000	0.00000

	(0.00681)	(0.00629)
Wyoming	0.00000	0.00000
	(0.01107)	(0.00907)
2003	0.00000	0.00000
	(.)	(.)
2004	0.00000	0.00000
	(0.00458)	(0.00418)
2005	-0.00000	-0.00000
	(0.00396)	(0.00349)
2006	0.00000	-0.00000
	(0.00383)	(0.00344)
2007	0.00000	-0.00000
	(0.00383)	(0.00343)
2008	0.00000	0.00000
	(0.00384)	(0.00344)
2009	0.00000	-0.00000
	(0.00397)	(0.00366)
2010	-0.00000	0.00000
	(0.00395)	(0.00363)
2011	0.00000	-0.00000
	(0.00408)	(0.00372)
2012	0.00000	-0.00000
	(0.00403)	(0.00364)
2013	0.00000	0.00000
	(0.00394)	(0.00358)
2014	0.00000	0.00000
	(0.00391)	(0.00350)
2015	0.00000	0.00000
	(0.00384) ²⁵	(0.00342)

2016	-0.00000 (0.00382)	-0.00000 (0.00338)
Constant	-0.00000 (0.01767)	0.00000 (0.01699)
Observations	369,490	467,249

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

¹ As of 2017, President Trump signed into law the Forever GI Bill eliminating the expiration date on educational fund availability and the Choice Program giving veterans paid private healthcare due to inaccessible or long wait times at Veteran Affairs clinics.

² In veteran labor outcome research using cross sectional data, the timeframe between discharge and job acquisition is not determined, therefore there are not any controls for it.

³ It is important to note that these protesting veterans also agitated for pensions for veterans' widows.

⁴ The G.I. Bill's unemployment insurance program, however, was not popular; evidence of its unpopularity was that less than 20% of its budget was used (Humes, 2006). Several historians have argued that veterans considered it a handout; thus, they were reluctant to take it (Altschuler & Blumin, 2009). Other reasons for its low utilization rate could be that 50% of veterans chose the educational stipend that provided a larger living stipend and claims were only granted to those veterans that the local administration approved. The VA destroyed its records on unemployment insurance (Frydl, 2009).

⁵ The government paid the tuition directly to the educational institution.

⁶ The government no longer sent the tuition check directly to the institution; the veteran was responsible for budgeting.

⁷ The Cold War refers to the period between 1945-1990 in which the United States and the Soviet Union vied for influence through political, economic, espionage, and aid strategies versus a declaration of war with military battles (Schwartzkopf, 1992).

⁸ The word *and* is not included in this name.

⁹ Although the classes are small, the participants are from all different military occupational specialties. One TAP GPS class can have a nuclear engineer, a cook, a truck driver, and a combat veteran. General job-search skills are taught in these classes without consideration of skillset.

¹⁰ These results are often reported regression unadjusted.

¹¹ Reid-Pharr (2016) offered an historical account of how the Spanish American and subsequent U.S. wars gave Black men and women the opportunity to serve the US as citizens. Through this military service, Black soldiers and nurses were given a new social identity and a new way of being in the world. Although this new social identity was seemingly better than that of their non-serving Black peers, Reid-Pharr pushes back on the veteran status premium for

Black Americans. He problematizes veteran status as a positive intergroup differentiation among Black Americans by revealing the systemic anti-Black racism still embedded in this new identity.

¹² Similarly, Humensky et al. (2012) using the CPS, 2006-2011, noted an association between Post-9/11 veteran status and higher odds of being unemployed.

¹³ Schulker (2016) used ACS data from 2013 to compare Post-9/11 veterans and civilians earnings. His results suggested that this cohort of veterans did not have an income premium versus civilians in any industry. Furthermore, in many industries, they earned less.

¹⁴ The ACS is publicly available and free through the IPUMS.org website (Ruggles et al., 2015). I have secured permission from IPUMS.org to download and use the data set for this dissertation. Note that in March 2017, I received IRB approval (#2017-149) from the Human Research Protection Program from Hunter at CUNY to use this data set for dissertation research.

¹⁵ The effect of excluding those persons who have dropped out is a lowered unemployment rate because this rate does not include discouraged workers as unemployed. Some economists consider this effect as a disadvantage of using this official unemployment rate (Weissmann, 2017). They believe that employment to population rate, called the prime age EPOP rate, would be a better assessment of unemployment in the US than the official unemployment rate (Weissmann, 2017). It calculates all people in the prime age 25-54 years who work and everyone aged 25-54 in the population. This calculation has two advantages: The denominator captures those people who are of prime labor age but are not working, which includes the discouraged; moreover, it excludes retirees and full-time students. However, it cannot be used here because of the differences between the age group specifications of 18-40 years used in veteran labor outcome research and the 25-54 years in the EPOP rate.

¹⁶ The variable *Other* captures those persons who identify as Native American, Alaskan, Pacific Islander, or multiethnic.

¹⁷ Blau and Kahn (2016) are two prominent labor economists whose research demonstrates that parental status is not a labor force determinant for women. However, I am including it here to see if it is a determinant for male and female veterans.

¹⁸ There is no reference group for age; reference groups are only for categorical variables.

¹⁹ Married is used because the majority of male and female veterans are married.

²⁰ Odd ratios can also provide the measure of the association between Post-9/11 veteran status and unemployment. But they are not easy to interpret; therefore, probabilities are more common in labor economics.

²¹ The average in each group was used.

²² Without controls, the two groups being compared are extremely heterogeneous.

²³ The value of each variable was the average.

²⁴ The need for transitional services is based on type of military occupation.

References

- Adler, D. A., Possemato, K., Mavandadi, S., Lerner, D., Chang, H., Klaus, J., Oslin, D. W. (2011). Psychiatric status and work performance of veterans of Operations Enduring Freedom and Iraqi Freedom. *Psychiatric Services*, 62, 39–46.
- Allison, P.D. (1999). Comparing logit and probit coefficients across groups. *Sociological Methods and Research*, 28(2), 186-208.
- Altonji, J.G. & Blank, R.M. (1999). Chapter 48 Race and gender in the labor market. *Handbook of Labor Economics*, 3,(C), 3143–3259. [https://doi.org/10.1016/S1573-4463\(99\)30039-0](https://doi.org/10.1016/S1573-4463(99)30039-0)
- Altschuler, G.C. and Blumin, S.M. (2009). *The G.I. Bill: The new deal for veterans*. Oxford University Press: New York.
- Andrews, L., Bullock, E. E., Braud, J., & Phillips, J. (2009). Career concerns of unemployed U.S. war veterans: suggestions from a cognitive information processing approach. *Journal of Employment Counseling*, 46(4), 171–181. doi: 10.1002/j.2161-1920.2009.tb00080.x
- Angrist, J. D. (1990). Lifetime earnings and the Vietnam era draft lottery: Evidence from Social Security administrative records. *The American Economic Review*, 80(3), 313–336. Retrieved from <https://www.aeaweb.org/journals/aer>
- Angrist, J., & Krueger, A. B. (1994). Why do World War II veterans earn more than nonveterans? *Journal of Labor Economics*, 12(1), 74–97. Retrieved from <http://www.journals.uchicago.edu/toc/jole/current>
- Badger, E. (2014). Can big data solve veteran unemployment? *The Washington Post*. Retrieved from https://www.washingtonpost.com/news/wonk/wp/2014/09/18/can-big-data-solve-veteran-unemployment/?utm_term=.e09860f3782f

- Baumgartner, F.R. and Jones, B.D. (2009). *Agendas and instability in American Politics*. Chicago, IL: University of Chicago Press.
- Becker, G.C. (1973). Human capital: A theoretical and empirical analysis with special reference to education. NBER: New York. Retrieved from <http://www.nber.org/chapters/c3730.pdf>
- Berger, M.C. & Hirsch, B.T. (1983). Veteran status as a screening device during the Vietnam era. *Social Science Quarterly*, 66(1), pp79-89.
- Blau, P.M. & Duncan, O.D. (1967). *The American occupational structure*. New York, NY: The Free Press.
- Blau, F. & Kahn, L. (2016). The gender wage gap: Extent, trends, and explanations. NBER Working Paper No. 21913.
- Bourdieu, P. 1986. The Forms of Capital. In J.G. Larsen (Eds.), *The Handbook of Theory and Research for the Sociology of Education*, pp. 241-258. New York, NY: Greenwood Press.
- Bratberg, E., Nilsen, O.A., & Vaage, K. (2008). "Job losses and child outcomes." *Labour Economics*. 15(4): 591-603.
- Bottone, G. & Sena, V. (2011). "Human Capital: Theoretical and Empirical Insights." *The American Journal of Economics and Sociology*. 70(2): 401-423.
<https://doi.org/10.1111/j.1536-7150.2011.00781.x>
- Bowles, S. V., Pollock, L. D., Moore, M., Wadsworth, S. M., Cato, C., Dekle, J. W., and Bates, M. J. (2015). Total force fitness: The military family fitness model. *Military Medicine*, 180(3), 246–258. <http://doi.org/10.7205/MILMED-D-13-00416>
- Brinn, A. J., & Auerbach, C. F. (2015). The warrior's journey: Sociocontextual meaning-making in military transitions. *Traumatology*. <http://doi.org/10.1037/trm0000030>

- Browning, H. L., Lopreato, S. C., & Poston, D. L. J. (1973). Income and veteran status: Variations among Mexican Americans, Blacks and Anglos. *American Sociological Review*, 38(1), 74–84. Retrieved from <http://search.proquest.com.ezproxy.cul.columbia.edu/docview/37609713?pq-origsite=summon&>
- Bryant, R. R., Samaranayake, V. A., & Wilhite, A. (1993). The effect of military service on the subsequent civilian wage of the post-Vietnam veteran. *The Quarterly Review of Economics and Finance*, 33(1), 15–31. [https://doi.org/10.1016/1062-9769\(93\)90026-G](https://doi.org/10.1016/1062-9769(93)90026-G)
- Bureau of Labor Statistics. (2018). Alternative measures of labor under utilization for states, second quarter of 2017 through the first quarter of 2018. Retrieved from <https://www.bls.gov/lau/stalt.htm>
- Canfield, J. (2014). Traumatic stress and affect management in military families. *Social Work in Mental Health*, 12(5-6), 544–559. <http://doi.org/10.1080/15332985.2014.899296>
- Card, D & DiNardo, J.E. (2002). Skill biased technological change and rising wage inequality. (NO. 8769). National Bureau of Economic Research. Retrieved from <http://www.nber.org/papers/w8769>.
- Coleman, J. S. (1988). Social capital in the creation of human capital. *The American Journal of Sociology* 94(s1), 95-120. <http://dx.doi.org/10.1086/228943>
- Cooney Jr., R.T., Segal, M.W., Segal, D.R., & Falk, W.W. Racial differences in the impact of military service on the socio-economic status of women veterans. (2003). *Armed Forces and Society*, 30(1), 53-83. Retrieved from: <http://journals.sagepub.com.ezproxy.cul.columbia.edu/doi/pdf/10.1177/0095327X0303000103>

- Crenshaw, K. (2016). *On intersectionality : essential writings*. S.I.: New Press.
- CRS. (2014). Employment for veterans: Trends and programs. Retrieved from <https://www.fas.org/sgp/crs/misc/R42790.pdf>.
- Curry Hall, K., Harrell, M. C., Bicksler, B., Stewart, R., & Fisher, M. P. (2014). Veteran employment. Retrieved from http://www.rand.org/pubs/research_reports/RR836.html
- Daywalt, T. (2014). The reality of veteran Unemployment: The National Guard and Federal Reserve. *Career Planning and Adult Development Journal*, 30(3), 114–122. Retrieved from <http://search.proquest.com.ezproxy.cul.columbia.edu/docview/1609375167/abstract>
- Desrosiers, S. P. (2013). *Veteran Unemployment of Transitioning Marines* (No. DAB-2013-U-005997-FINAL). Center for Naval Analyses Alexandria, VA. Retrieved from <http://www.dtic.mil/docs/citations/ADA591199>
- Detray, D. (1982). Veteran status as a screening devise. *American Economic Association*, 72(10), 133-142.
- Disabled American Veterans, (2014). Women veterans: The long journey home. Retrieved from <https://www.dav.org/wp-content/uploads/women-veterans-study.pdf>
- Elder, G. H. (1986.) Military times and turning points in men’s lives. *Developmental Psychology* 22(2), 233-245. Retrieved from <http://dx.doi.org.ezproxy.cul.columbia.edu/10.1037/0012-1649.22.2.233>
- Faberman, R. & Foster, T. (2013). Unemployment among recent veterans during the Great Recession. *Economic Perspectives*, 37 (1), 1-20.
- Fallows, J. (2015, February). The Tragedy of the American Military. *The Atlantic*. Retrieved from <https://www.theatlantic.com/magazine/archive/2015/01/the-tragedy-of-the-american-military/383516/>

- Federal Information and News Dispatch, Inc. (2013). Dozens of veterans, service providers; Employers participate in Garamendi's roundtable conversation on Veteran unemployment. Lanham, United States. Retrieved from <http://search.proquest.com.ezproxy.cul.columbia.edu/docview/1400217369/abstract/4E0491D1B82F4D09PQ/1>
- Feng, S., & Hu, Y. (2013). Misclassification Errors and the Underestimation of the US Unemployment Rate. *The American Economic Review*, 103(2), 1054–1070. Retrieved from <http://www.jstor.org/stable/23469691>
- Fredland, J. & Little, R. (1980). Long term returns to vocational training: evidence from military sources. *The Journal of Human Resources*, 15, 49-66.
- Fredland, J. & Little, R. (1985). Socioeconomic status of World War II veterans by race: an empirical test of the bridging hypothesis. *Social Science Quarterly*, 66, 533-551.
- Frydl, K.J. (2009). *The G.I. Bill*. Cambridge University Press: New York
- Furbish, D. S. (2014). A review of career development for transitioning veterans. *Journal of Employment Counseling*, 51(1), 44–46. <http://doi.org/10.1002/j.2161-1920.2014.00040.x>
- Gati, I., Ryzhik, T., & Vertsberger, D. (2013). Preparing young veterans for civilian life: The effects of a workshop on career decision-making difficulties and self-efficacy. *Journal of Vocational Behavior*, 83(3), 373–385. <http://doi.org/10.1016/j.jvb.2013.06.001>
- Greengard, S. Fighting for Employment: Veterans in the '40s and Today. (2012, February 22). Retrieved from <http://www.workforce.com/2012/02/22/fighting-for-employment-veterans-in-the-40s-and-today/>
- Harrell, M.C. & Berglass, N. (2012). Employing America's veterans: Perspectives from business. Center for a New American Security.

- Hancock, A. (2007). Intersectionality as a normative and empirical paradigm. *Politics and Gender* 3(2), 248-54
- Heaton, P., & Krull, H. (2012). Unemployment Among Post-9/11 Veterans and Military Spouses After the Economic Downturn [Product Page]. Retrieved from https://www.rand.org/pubs/occasional_papers/OP376.html
- Hellevik, O. (2007). Linear versus logistic regression when the dependent variable is a dichotomy. *Quality & Quantity*, 43(10), 59-74. Retrieved from <http://folk.uio.no/stvoh1/Q%26Q%20Linear%20vs%20logisitic%20regression.pdf>
- History.com Staff. (2010). *The G.I. Bill-World War II*. Retrieved from <http://www.history.com/topics/world-war-ii/gi-bill>
- Holland, J. M., Malott, J., & Currier, J. M. (2014). Meaning made of stress among veterans transitioning to college: Examining unique associations with suicide risk and life-threatening behavior. *Suicide and Life-Threatening Behavior*, 44(2), 218–231. <http://doi.org/10.1111/sltb.12061>
- Humensky, J. L., Jordan, N., Stroupe, K. T., & Hynes, D. M. (2013). How Are Iraq/Afghanistan-Era Veterans Faring in the Labor Market? *Armed Forces & Society*, 39(1), 158–183. <https://doi.org/10.1177/0095327X12449433>
- Humes, E. (2006). How the GI Bill shunted Blacks into vocational training. *The Journal of Blacks in Higher Education*, (53), 92–104. Retrieved from <http://www.jstor.org/stable/25073543>
- Iverson, K. M., Huang, K., Wells, S. Y., Wright, J. D., Gerber, M. R., & Wiltsey-Stirman, S. (2014). Women veterans' preferences for intimate partner violence screening and response procedures within the Veterans Health Administration. *Research in Nursing &*

- Health*. <https://doi.org/10.1002/nur.21602>
- Junger, S. (2016). *Tribe: Homecoming and Belonging*. Hachelle Book Group: New York.
- Katznelson, I. (2006). *When Affirmative Action was White: An Untold History of Racial Inequality in 20th Century America*. W.W. Norton: New York.
- Kilbourne, B., England, P., & Beron, K. (1994). Effects of individual, occupational, and industrial characteristics on earnings: Intersections of race and gender. *Social Forces*, 72(4), 1149–1176. <https://doi.org/10.2307/2580296>
- Kleykamp, M. (2009). A great place to start? The effect of prior military service on hiring. *Armed Forces & Society*, 35(2), 266–285. <https://doi.org/10.1177/0095327X07308631>
- Kleykamp, M. (2010). Where did the soldiers go? The effects of military downsizing on college enrollment and employment. *Social Science Research*, 39(3), 477–490. <https://doi.org/10.1016/j.ssresearch.2009.09.001>
- Kleykamp, M. (2013). Unemployment, earnings and enrollment among post 9/11 veterans. *Social Science Research*, 42(3), 836–851. <https://doi.org/10.1016/j.ssresearch.2012.12.017>
- Kleykamp, M. A. (2007). *Military service and minority opportunity* (Ph.D.). Princeton University, United States -- New Jersey. Retrieved from: <http://search.proquest.com.ezproxy.cul.columbia.edu/docview/304823284/abstract/6808CC8984734E18PQ/1>
- Lamont, M. & Lareau, A. (1988). Cultural capital: Allusions, gaps, and glissandos in recent theoretical developments. *Sociological Theory*, 6(2), pp153-168.
- Lepinard, E. (2014). Doing intersectionality. *Gender & Society*, 28(6), 877-897.
- Longnecker, M.T. & Ott, R.L. (2016). *An Introduction to Statistical Methods & Data Analysis*.

Cengage Learning: Boston.

Loughran, D. S. (2002). Wage growth in the civilian careers of military retirees [Product Page].

Retrieved from http://www.rand.org/pubs/monograph_reports/MR1363.html

Loughran, D. S. (2014). Why Is veteran unemployment So High? [Product Page]. Retrieved

January 14, 2016, from http://www.rand.org/pubs/research_reports/RR284.html

MacLean, A., & Kleykamp, M. (2016). Income inequality and the veteran experience. *The*

ANNALS of the American Academy of Political and Social Science, 663(1), 99–116.

<https://doi.org/10.1177/0002716215596964>

Mangum, S.C. & Ball, D.E. (1989). The transferability of military provided occupational training

in the post-draft era. *ILR Review*, 42(2), pp. 230-245.

Martindale, M. & Poston, D. (1979). Variations in veteran/non veteran earning patterns

among WWI, Korean, and Vietnam war cohorts. *Armed Forces and Society*, 5, 219-243.

Mattila, J.P. (1978). G.I. Bill benefits and enrollments: How did the Vietnam Veterans Fare?

Social Science Quarterly, 59(3), 535-545.

McBride, A., Hebson, G., & Holgate, J. (2015). Intersectionality: are we taking enough notice in

the field of work and employment relations? *Work, Employment and Society*, 29(2), 331–

341. <https://doi.org/10.1177/0950017014538337>

McCall, L. (2005). The complexity of intersectionality. *Signs*, 30(3), 1771–1800.

<https://doi.org/10.1086/426800>

McEnaney, L. (2011). Veterans' Welfare, the GI Bill and American Demobilization. *The Journal*

of Law, Medicine & Ethics, 39(1), 41–47. [https://doi.org/10.1111/j.1748-](https://doi.org/10.1111/j.1748-720X.2011.00547.x)

[720X.2011.00547.x](https://doi.org/10.1111/j.1748-720X.2011.00547.x)

Mettler, S. (2005). Policy feedback effects for collective action: Lessons from veteran programs.

- In Meyer, D., Jenness, V., and Ingram, H. (Eds.), *Routing the Opposition* (pp. 211-235). Minneapolis: University of Minnesota Press.
- Meyer, D., Jenness, V., & Ingram, H. (2005). *Routing the opposition*. Minneapolis: University of Minnesota Press.
- Mincer, J. (1974). School, experience, and earnings. Human behavior and social institutions. No.2. NBER: New York.
- Moskos, C.C. & Butler, J.S. (1996). *All that we can be*. New York: Basics Books.
- Nagel, J., & Kleykamp, M. (2007). Introduction: Race, gender, class, sexuality, and war. *Race, Gender & Class*, 14(3/4), 4–9. Retrieved from <http://www.jstor.org/stable/41675286>
- Organization of Economic Cooperation and Development. (2018). The OEC gender data portal. Retrieved from <http://www.oecd.org/gender/data/balancingpaidworkunpaidworkandleisure.htm>
- Office of the Under Secretary of Defense for Personnel and Readiness. (2014). *Population representation in the Military Services: Fiscal year 2014 survey report*. Retrieved April 4, 2017: <http://www.people.mil/Portals/56/Documents/2014%20Summary.pdf?ver=2016-09-14-154051-563>
- Parsons, R. A. (2013). A question of bias in the US unemployment Numbers. *Applied Economics Letters*, 20(10-12), 1003–1007. <https://doi.org/http://www.tandfonline.com/loi/rael20>
- Patten, E. (2016). Racial, gender wage gaps persist in US despite some progress. Retrieved from <http://www.pewresearch.org/fact-tank/2016/07/01/racial-gender-wage-gaps-persist-in-u-s-despite-some-progress/>
- Portes, A. (2000). The two meanings of social capital. *Sociological Forum*, 15(1), pp1-17.

- Prudential (2012). Veterans' Employment Challenges Perceptions and Experiences of Transitioning from Military Life. Retrieved from <http://www.prudential.com/veterans>
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon & Schuster.
- Rocheffort, D.A. & Cobb, R.W. (1994). *The Politics of Problem Definition: Shaping the Policy Agenda*. Kansas: Lawrence University Press.
- Rausch, M. A. (2014). Contextual career counseling for transitioning military veterans. *Journal of Employment Counseling*, 51(2), 89–96. <http://doi.org/10.1002/j.2161-1920.2014.00044.x>
- Reid-Pharr, R.F. (2016). *Archives of the Flesh*. New York Press: New York.
- Rosenbaum, P.R. & Rubin, D.B. (1983). The central role of propensity scores in observational studies for causal effects. *Biometrika*, 70(1), 41-55.
- Ruggles, S., Genadek, K., Goeken, R., Grover, J. & Sobek, R. Integrated Public Use Microdata Series: Version 6.0 [Machine-readable database]. Minneapolis: University of Minnesota, 2015.
- Savych, B., Klerman, J. A., & Loughran, D. S. (2008). Recent trends in veteran unemployment as measured in the Current Population Survey and the American Community Survey [Product Page]. Retrieved from http://www.rand.org/pubs/technical_reports/TR485.html
- Schwartzkopf, H.N. (1992). *It Doesn't Take a Hero*. New York: Bantam Press.
- Schulker, D. (2016). The recent occupation and industry employment patterns of American veterans. *Armed Forces & Society*, 0095327X16659875. <https://doi.org/10.1177/0095327X16659875>
- Smith, D. L. (2014). The relationship between employment and veteran status, disability and

- gender from 2004–2011 Behavioral Risk Factor Surveillance System (BRFSS). *Work: Journal of Prevention, Assessment & Rehabilitation*, 49(2), 325–334
- Spencer, J. (2015). *The military's real problem: Fewer Americans are joining*. Politico. <https://www.politico.com/agenda/the-militarys-real-problem-fewer-americans-are-joining-000005>
- Steinberg, S. (1985). "Human Capital: A Critique." *Review of Black Political Economy*. 14(1), 67-74. <https://doi.org/10.1007/BF02902610>.
- Stone, C., & Stone, D. L. (2015). Factors affecting hiring decisions about veterans. *Human Resource Management Review*, 25(1), 68–79. <http://doi.org/10.1016/j.hrmr.2014.06.003>
- Strong, J., Ray, K., Findley, P. A., Torres, R., Pickett, L., & Byrne, R. J. (2014). Psychosocial concerns of veterans of Operation Enduring Freedom/Operation Iraqi Freedom. *Health & Social Work*, 39(1), 17–24. Retrieved from <http://doi.org/10.1093/hsw/hlu002>
- Teachman, J., & Tedrow, L. (2007). Joining up: Did military service in the early all volunteer era affect subsequent civilian income? *Social Science Research*, 36(4), 1447–1474. <https://doi.org/10.1016/j.ssresearch.2007.03.002>
- Teachman, J., & Tedrow, L. M. (2004). Wages, earnings, and occupational status: did World War II veterans receive a premium? *Social Science Research*, 33(4), 581–605. <https://doi.org/10.1016/j.ssresearch.2003.09.007>
- U.S. Census Bureau. (2018). History: American Community Survey. Retrieved from https://www.census.gov/history/www/programs/demographic/american_community_survey.html
- U.S. Department of Veteran Affairs. (2015). History and timeline: Education and training. Retrieved April 6, 2017 at <http://www.benefits.va.gov/gibill/history.asp>.

U.S. Department of Veteran Affairs. (2017). The veteran population projection model 2016.

Retrieved from

http://www.va.gov/vetdata/docs/Demographics/New_Vetpop_Model/Vetpop_Infographic_Final31.pdf

Villemez, W. J., & Kasarda, J. D. (1976). Veteran Status and Socioeconomic Attainment. *Armed Forces & Society*, 2(3), 407–420. <https://doi.org/10.1177/0095327X7600200306>

Washington, D. L., Bean-Mayberry, B., Hamilton, A. B., Cordasco, K. M., & Yano, E. M. (2013). Women veterans' healthcare delivery preferences and use by military service era: Findings from the National Survey of Women Veterans. *Journal of General Internal Medicine*, 28(Suppl 2), S571–S576. <https://doi.org/10.1007/s11606-012-2323-y>

Weissmann, J. (2017, January 24). Donald Trump thinks the unemployment rate is “fiction.” Fine. Here's what he should track instead. *Slate*. Retrieved from http://www.slate.com/blogs/moneybox/2017/01/24/the_one_jobs_stat_donald_trump_should_follow.html

Weissman, W. H. (2014). The OFCCP's new veterans' regulations fail to address what veterans really need. *Employee Relations Law Journal*, 40(1), 31–55. Retrieved from <http://search.proquest.com.ezproxy.cul.columbia.edu/docview/1524844439/abstract/427B21734A5C44C4PQ/1>

Wilcox, S. L., Oh, H., Redmond, S. A., Chicas, J., Hassan, A. M., Lee, P.-J., & Ell, K. (2015). A scope of the problem: Post-deployment reintegration challenges in a National Guard Unit. *Work: Journal of Prevention, Assessment & Rehabilitation*, 50(1), 73–83.

Williams, G. T., Barrett, M. B., & Graham, C. H. (2014). Career counseling and developmental pathways across the lifespan in the military. In G. T. Eliason, T. Eliason, J. L. Samide, J.

Patrick, G. T. (Ed) Eliason, T. (Ed) Eliason, J. (Ed). *Career development across the lifespan: Counseling for community, schools, higher education, and beyond*. (pp. 713–728). Charlotte, NC, US: IAP Information Age Publishing.

Yan, G. W., McAndrew, L., D'Andrea, E. A., Lange, G., Santos, S. L., Engel, C. C., & Quigley, K. S. (2013). Self-Reported Stressors of National Guard Women Veterans Before and After Deployment: The Relevance of Interpersonal Relationships. *Journal of General Internal Medicine*, 28(2), 549–555. <https://doi.org/10.1007/s11606-012-2247-6>