Black-White Wealth Accumulation: Does Veteran Status Matter?

Judy Ann Loveless-Morris

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Reading Committee:

Dr. Barbara F. Reskin, Chair

Dr. Lowell Hargens

Dr. Alexes Harris

Dr. Marieka Klawitter

Program Authorized to Offer Degree:

Sociology

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University of Washington

Abstract

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Judy Ann Loveless-Morris

Chair of the Supervisory Committee:
Professor Barbara F. Reskin
Sociology

Previous research has demonstrated that institutions can diminish or increase access to resources and opportunities that contribute to wealth outcomes. In this dissertation, I investigate the effects of having served in the military on the accumulation of wealth, with a focus on black and white men. To date, the potential effects of veteran status on wealth have largely been ignored. I use data from the Panel Study of Income Dynamics (PSID) and apply logistic and OLS regressions to examine the relationships between race, veteran status, and wealth from 1983 to 2007. Taken together, the empirical chapters demonstrate that the effect of veteran status on wealth and some of the factors that influence wealth, namely income, saving levels, homeownership and home equity varied by race and era. Specifically, veteran status was shown to have a positive effect on the total wealth of black and white pre-Vietnam veterans and white AVF veterans. In contrast, military service was associated with a negative effect on the wealth outcomes of black and white Vietnam veterans and black AVF veterans. Only one other study has examined the effects of military service on wealth accumulation and found veteran status was associated with a negative effect on wealth. By conducting separating analyses on the effect of veteran status on wealth and many of its determinants, I show that whether or not veterans gain advantages in their ability to build wealth over nonveterans is dependent on their race and their military era of service.

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Preface

Growing up as a "military brat" had many benefits. Every few years I had the opportunity to live in a new state or country, so I was frequently exposed to foreign languages and cultures. I lived in 10 different cities by the time I was 12 years old, and had the opportunity to live abroad in Germany three different times. I constantly met and made new friends—some American and some not. Moving regularly was a common part of military life, and it seemed like an adventure to me. However, it wasn't until I became a graduate student in sociology that I considered how both my stepfather and biological father benefited from their military service.

As a child, I did not understand the impact that military service had on both my fathers' lives because I was not aware that starting points can constrain or expand a person's subsequent options later in life. For example, where individuals live can affect where they will go to school and their level of education can determine where they might work, and if they work at all. Furthermore, all of these junctures in life can increase or decrease a person's ability to accumulate wealth.

As southern, high-school educated, black men from low-income and impoverished households, my fathers' employment, earnings, and savings opportunities might have been limited (Oliver and Shapiro 1995; Wilson 1987). In fact, as black men with less than a college education, my fathers were even at risk for incarceration (Pettit and Western 2004). Instead, the military increased my fathers' access to opportunities and resources that might not have existed for them otherwise. The fact that military service can broaden employment and economic opportunities and therefore enhance life prospects for those from

disadvantaged groups is sociologically important—especially when racial wealth outcomes are considered.

Most research on the black-white wealth gap accepts that it exists, has grown, and appears to be intractable; few researchers have elaborated scenarios whereby the black-white wealth gap might be reduced. Although the black-white wealth gap probably also exists for servicemen, there are reasons to expect it to be smaller than the black-white wealth gap among civilian men because the U.S. military reduces many black-white inequities (Moskos and Butler 1996; Teachman 2004; Teachman 2005; Teachman 2008; Teachman and Tedrow 2004; Usdansky, London, and Wilmoth 2009). This is not to say that race is not a factor in the military. Nonetheless, the race-blind nature of military policies and procedures should lessen the disparities between some of the factors that contribute to black-white wealth differences (Teachman 2007: 392).

For example, my stepfather was a Command Sergeant Major for 20 of the 31 years that he served in the Army. He also worked, under then General Colin Powell, in Frankfurt, Germany, from 1986 to 1987. My stepfather had command over thousands of soldiers from every racial background. As Moskos and Butler point out, in the military "whites are routinely bossed around by blacks" (1996:3). While this is a common occurrence in the Army, it is rare in the civilian workforce (Elliot and Smith 2004; Smith 2002).

My father's career provides another example. He became a small business owner before he was 40 years old. Even though my father served less than 20 years, the length of service required to receive key military benefits, in the Army, he was able to save enough money to be debt-free and start his own business without bank financing as a result of his military service. Both of my fathers had stable careers while in the military and both were

homeowners prior to completing their military service. My point is not that my fathers' experiences are typical of similarly situated men, but rather that the military can reduce some of the disadvantages that black men face in multiple markets, including employment, business, and real estate.

Unlike other studies that augment extant findings regarding persistence and growth of the racial wealth gap, this dissertation examines a context in which the wealth of blacks and whites might be expected to converge. Thus, this dissertation examines the mechanisms that affect wealth accumulation, and under what institutional conditions the black-white wealth gap might decline.

In chapter one, I summarize why military service might mitigate black-white wealth disparities. I then situate my dissertation within the cumulative advantage/disadvantage theoretical framework, which provides a model for how racial disparities can increase—or shrink—over time. Then I review some of the factors that contribute to the black-white wealth gap, and examine the consequences of military service for each of these factors' impact on racial wealth.

Chapter two describes the longitudinal dataset that I analyze, my variables, and the methods that I use to investigate the impact of military service on black-white wealth outcomes. Chapters three, four, and five are the analytical chapters of my dissertation. They compare wealth outcomes by race and veteran status examining the effect of military service on income, savings, home ownership, home equity, and overall wealth. I summarize my findings and discuss some of the implications of my study in chapter six.

CHAPTER 1: INTRODUCTION and RESEARCH FOUNDATIONS

Introduction

Addressing the black-white wealth gap is critical for reducing overall racial inequality because it has the potential to improve the immediate and long-term social and economic well-being of black families. For example, wealth enables families to survive economic hardships such as unemployment and illness (Conley 1999). In addition, compared to children from families with little to no wealth, children from wealthier families have a greater chance of attending college, purchasing a home, and starting a business (Conley 1999). The large and growing black-white wealth gap means that not only will the current generation of blacks fare worse than whites, but that the economic security and mobility of future generations of blacks will continue to fall behind that of whites. The implications are bleak.

The wealth gap between blacks and whites, rather than shrinking over time, has increased dramatically, with no indication of declining in the near future. To illustrate, in 1983 the median wealth for white households was $94,100 compared to $6,300 for black households (Economic Policy Institute 2011). Thus the median wealth of whites was 15 times larger than that of blacks. By 2007, white median wealth grew modestly to $97,900, while black median wealth fell to $2,200 (Economic Policy Institute 2011). During this same year, the average median wealth of white households was 45 times greater than that of blacks.

Black-white differences in access to markets, such as credit and labor markets, and societal institutions, such as universities, account for some of the racial wealth gap. For example, the black-white wealth gap is smaller when blacks and whites both own homes, and

have similar amounts of schooling and income (Altonji, Doraszelksi, and Segal 2000; Gittleman and Wolff 2000; Oliver and Shapiro 1995; Shapiro et al. 2010). Thus markets and societal institutions affect wealth accumulation and can expand, maintain, or reduce racial wealth inequality.

The military may be another societal institution critical for mitigating racial wealth disparities. Although researchers have addressed the impact of military service on racial inequality, only one study specifically examined the consequences of military service for wealth inequality (see Kelly G. Fitzgerald 2006). Disadvantaged groups, particularly blacks, have benefited from time spent in the military, at least since the military's racial integration (Teachman 2007). Accordingly, time spent in the military might mitigate disadvantages blacks incur in other arenas. For example, the positive effect of military service on education is greater for black veterans[1] compared to white veterans and black military personnel earn higher wages than nonveteran blacks (Teachman 2007). These two factors could partially explain why black and white veterans have similar marriage rates (Teachman 2007, Usdansky et al. 2009). All of these factors could reduce the gap in income and savings for black and white veterans and reduce black-white differences in home ownership for veterans. Significantly, the positive effects of the military's race-blind policies and procedures persist after blacks leave the military (Teachman 2007: 392). This military advantage, similar to that associated with college graduation, affects black men's opportunities and resources for wealth-building in the short run and over time. As a result, some of the critical disparities that contribute to the racial wealth gap may be reduced.

[1] In this dissertation, I use the term "veteran" to denote current or previous service in the military. Thus, the term refers to men with any military exposure, and nonveterans are men that have never served in the armed forces.

The goal of this dissertation is to examine whether and to what extent military service impacts wealth accumulation, either indirectly or directly through its effect on factors such as income, savings, home ownership, home equity, and total wealth. I draw on cumulative advantage/disadvantage theory to examine whether, how and for whom military service transmits wealth advantages. Since cumulative advantage/disadvantage processes play out over time, I apply regression models to the Panel Study of Income Dynamics, to examine wealth from 1983 to 2007. In the PSID and therefore my dissertation, wealth is comprised of eight asset components: (1) home equity, (2) other real estate, (3) private business/farm, (4) vehicles, (5) transaction accounts, (6) corporate equities, (7) annuities/IRAs, and (8) other savings. The data provide information on veteran status, as well as economic indicators such as savings, home ownership, home value, and total wealth.

Specifically, I ask the following questions: How does the wealth of white and black veterans compare to the wealth of white and black nonveterans? Does the effect of military service on wealth vary by race, education level, era served, or branch of service? What indirect effects, if any, does military service have on black and white wealth outcomes? I examine whether military service increases the income of black and white households and the ability of black and white servicemen to own homes, as well the effect of military service on the savings levels and home equities of black and white veterans compared to their civilian counterparts, and how the effect of military service on the aforementioned factors vary by race and the era in which individuals served. Finally, I examine the total effect of military service on wealth outcomes and how it compares for blacks and whites.

Military service has the potential to positively affect the life-course trajectories and outcomes for individuals and groups of all backgrounds. But military service may be

especially beneficial for those from disadvantaged backgrounds because it increases access to opportunities and resources that were initially blocked. And because civilian blacks face greater disadvantages in the wealth accumulation process compared to their white counterparts, military service may improve the wealth outcomes for black servicemen more than it does for white servicemen. In addition, the advantages that whites usually acquire over the life course may be reduced in the military. As a result, the overall wealth holdings of blacks and whites with military exposure may be more similar than those of their civilian counterparts. To date, researchers have not examined the impact of veteran service on the black-white wealth gap. Because the racial wealth gap is staggering (Oliver and Shapiro 1995: 8), this omission is notable.

Theoretical Framework

Cumulative advantage or disadvantage (CA/CD) offers a useful framework for understanding how initial disparities in resources or opportunities can be magnified over time. From a CA/CD perspective, parental wealth affects the neighborhood in which a child grows up, and the school he or she attends. These in turn can affect later life experiences such as college attendance, employment and earnings, ability to marry, ability to buy a home, and so on. The experience at each of the aforementioned junctures can limit or expand access to opportunities or resources gained at the next step. In addition, the relative advantage or disadvantage gained or lost at each juncture can exacerbate or reduce overall disparity.

Overall, CA/CD provides a model for how group differences in some outcome can worsen over time. If the processes that affect wealth outcomes operate differently for blacks and whites, then over time the accumulation of advantages for the more favored group and

disadvantages for the less favored group leads to a growing or shrinking disparity between these two groups.

Robert Merton was one of the first sociologists to discuss the concept of cumulative advantage/disadvantage. Referring to the gospel of Matthew 25:29, "For to everyone who has will more be given, and he will have an abundance," Merton originally used the concept of CA/CD to describe the divergent paths of young scientists. He argued that when young scientists achieved exceptional performance early in their careers, this disproportionately increased their opportunities to acquire additional resources—resources that would help them to continue high performance (Merton 1968). A central tenet of Merton's argument is that early advantages have a direct impact on subsequent ability to obtain more resources that maintain initial advantages (DiPrete and Eirich 2006).

Blau and Duncan (1967) also applied the concept of cumulative advantage/disadvantage, showing that blacks experienced cumulative disadvantages in education relative to whites. Their analysis demonstrated that after controlling for education for those with more than a high school education, blacks received lower returns for their efforts relative to comparably educated whites. Wealth is determined by the operation of a set of systems, including educational attainment, the matching of workers to jobs, acquisition of property, and inheritance and taxation, among others. Race can exert a differential impact within these systems upon the factors that influence wealth outcomes. If these differences compound over time, the results are widening wealth disparities. Together, the work of these researchers implies the following CA/CD processes: more comes to those who are already advantaged; groups receive differential returns on their investments based on their status; and advantages and disadvantages between groups can increase through a set of discrete events.

Cumulative Advantage and Disadvantage in Wealth Accumulation

CA/CD theory lends itself to simple illustrations of how wealth differences can emerge and be exacerbated. In the first example, two individuals have money to invest, but one has $5,000 and the other $10,000. Because the second investor has more money, she is given access to a program that accrues interest at a rate of ten percent. The first investor does not have enough money to qualify for this program, and is offered a five percent return on her investment. Given compounding interest, in this example, both investors' early ability to acquire a good interest rate influences their current amount of wealth. At the end of five years, the second investor will have a $3,750 advantage over the first investor. In this example, the investor who is already ahead gets further ahead.

Cumulative advantage and disadvantage can also operate even when initial levels of resources are the same, but where differential access to institutions or their benefits exist. For example, two different women's groups want to invest the organization's money. Both groups have one thousand dollars to invest, but live in very different parts of the city, affecting the banks they can access. The first women's group has access to a bank that offers a 5 percent return on investments, compared to a bank that offers a 10 percent return, to which the second group has access. After five years, the group with access to the better bank will have a $250 advantage over its counterpart. In this situation, there is no starting difference between the investors' assets. The source of the inequality between the two groups is the type of bank they have their money in: banks that offer different returns despite both groups having the same investment. The wealth disparity in both examples grows because of different returns to investments, and those wealth differences then grow exponentially.

In both examples, CA/CD theory provides a model of how early inequalities between groups can compound over time (Ferraro and Kelley-Moore 2003). The advantaged group has greater access to some key resource or reward in the stratification process, which has a direct influence on future levels of accumulation (Diprete and Eirich 2006). This process may be particularly important for understanding black and white wealth divergence because it highlights how even small differences in starting points can have large effects over the life span and across generations, irrespective of whether there is continuing discrimination (DiPrete and Eirich 2006). Of course, continuing discrimination exacerbates the divergence caused by the cumulation of advantages or disadvantages.

In my dissertation the CA/CD framework highlights how early wealth advantages lead to later wealth advantages, and how these differences may stem directly from race and from race-differential returns on investments. Compared to whites, blacks in our society experience enduring disadvantage with respect to education, labor market experiences, and the credit and housing markets—all of which are important for wealth accumulation (Oliver and Shapiro 1995). Figure 1.1 provides a heuristic model of the potential effects of race and military service on the process of wealth accumulation.

CA/CD theory assumes that prior resources and opportunities affect subsequent resources and opportunities to acquire more wealth, and focuses on the multiple contexts over the life course that affect wealth outcomes. The disadvantages that blacks face relative to whites in each of these contexts determines lifetime differences in these groups' accumulation of wealth. CA/CD processes also illuminate how it becomes difficult for individuals or groups that are behind at one point to catch up.

Sources of the Black-White Wealth Gap

The wealth gap between blacks and whites stems from a set of cumulative processes that tend to advantage whites compared to blacks. Black-white differences in education, income, savings, home ownership, marriage, and intergenerational income transfers contribute to black-white wealth inequality (Conley 1999; Gittleman and Wolff 2010; Kesiter 2005; Oliver and Shapiro 1995; Shapiro, Meschede, and Sullivan 2010). Below I review the influence of three potential areas where military service may indirectly affect black-white wealth outcomes: income, savings, and housing-related wealth.

INCOME

Since the income of whites is higher than blacks', it is assumed to be a key contributor to black-white wealth disparities. Studies that examine the relationship between income, race, and wealth, however, demonstrate mixed results. On one hand, it is assumed that households use a portion of their incomes to build wealth; and the higher the income, the more money families have to devote to wealth accumulation (Altonji et al. 2000; Gutter and Fontes 2006; Keister and Moller 2000). In fact, Altonji and Doraszelski (2005) used regression decomposition and were able to explain 74 percent of the black-white wealth gap using the coefficients for whites, and 49 percent of the gap using the regression coefficients in the black models. The authors concluded that racial income differences explained most of the racial wealth disparity.

On the other hand, Altonji and Dorazelski's (2005) findings suggest that income is a better predictor of white than black wealth. For example, Campbell and Kaufman (2006) found that whites received a larger wealth payoff for income than blacks. To put it another way, blacks and whites with similar incomes did not have similar amounts of wealth.

Others also found that the majority of the wealth gap remained unaccounted for after controlling for income (Altonji et al. 2000; Oliver and Shapiro 1995). Despite the inability of income alone to explain the racial wealth gap, or even to operate similarly across race, income remains one of the most widely studied determinants of wealth for blacks and whites.

SAVINGS

Savings outcomes also exemplify CA/CD processes. Interest rate differences can create a system where advantages and disadvantages accumulate exponentially. Due to compounding interest, early savers or those with greater initial sums of money reap differential rewards, making it difficult for the non- or late-savers to catch up.

The black-white savings gap is critical for explaining black-white wealth differences because blacks and whites usually save at dissimilar rates (Kesiter 2000; Oliver and Shapiro 1995). In general, white households are more likely to have a savings account (Kochhar, Fry, and Taylor 2011) and save at higher rates than black households (Oliver and Shapiro 1995).

It is unclear why household savings behavior differs by race. Empirical evidence indicates that differences in income by race can only explain some of the racial differences in savings (see Oliver and Shapiro 1995). For example, at poverty level, white households are nearly eight times more likely to save proportionally to their income than black households (Oliver and Shapiro 1995:107). Yet the proportion of assets households allocate to a savings account are nearly identical for black and white high-income households at 10.4 percent and 11.3 percent, respectively (Oliver and Shapiro 1995: 108). No discernible pattern for income and savings exists for white households, whereas the proportion allocated to savings increases as income increases for black households.

Others have suggested that dissimilarities in consumption patterns explain racial differences in savings behavior (Lawrence 1991). This argument suggests that blacks are less likely to postpone consumption, or are more likely to allocate their incomes to assets that depreciate, such as cars. But accounting for income levels suggests that this argument does not universally apply. Although homes and vehicles make up over 90 percent of the assets held by poor black households, they make up only 62 percent of the assets held by higher income blacks (Oliver and Shapiro 1995: 107).[2] Thus, as black households' incomes rise, their assets also become more diverse.

The differential rates at which blacks and whites save can also be attributed to racial differences in marital status and childbearing behavior. Compared to blacks, whites have marriage and fertility patterns that are more closely associated with elevated savings and investment behaviors: higher rates of marriage and fewer children (Altonji and Doraszelkski 2005; Gittleman and Wolff 2000). Being married can increase wealth because it tends to increase the number of earners in a household, and smaller families may have more expendable income to accumulate since they have fewer members to financially support (Oliver and Shapiro 1995).

Although racial differences in households' ability to save are partially due to black-white differences in marriage, childbearing, and financial decisions, they are exacerbated by public policies as well. For example, tax cuts on investment income and inheritances, and tax deductions for home mortgages, retirement accounts, and college savings all disproportionately benefit higher-income families (Shapiro et al. 2010). These public

[2] Oliver and Shapiro do not discuss or show these findings for white households.

policies increase the amount of inheritance one generation can bequeath to the next or the amount of capital needed to acquire more wealth (Shapiro et al. 2010), thus maintaining advantages for the wealthy, and assisting families that are more likely to save in the first place (for a more detailed discussion see Shapiro et al. 2010). Historically and contemporarily, these policies are more likely to protect and augment white wealth compared to black wealth (Conley 1999; Kesiter 2000; Oliver and Shapiro 1995; Shapiro et al. 2010).

HOME OWNERSHIP

Historical policies have also advantaged whites over blacks in the wealth accumulation process through their effect on home ownership. The Federal Housing Act of 1934 and the G.I. Bill of 1944 made home ownership possible for many first-time homeowners through low-interest, long-term mortgages (Massey and Denton 1993; Oliver and Shapiro 1995). Since home ownership constitutes the largest share of household wealth for most Americans, it is a critical advantage whites have had relative to blacks in the wealth-building process (Krivo and Kaufman 2004; Oliver and Shapiro 1995). While the policies that enabled home ownership were not targeted specifically towards whites, the programs they created tolerated race discrimination through unofficial, unwritten policy. Despite the absence of these policies today, black home ownership continues to lag behind that of whites. For example, one study showed that the black home ownership rate was 26.7 percentage points below that of whites (Issacs 2007).

The aforementioned policies disproportionality gave whites nearly a 75-year head start on wealth accumulation through their homes. This head start on home ownership opened unprecedented pathways to the middle class for an entire generation and their families, many of whom went on to enjoy economic prosperity for years to come.

Home ownership demonstrates CA/CD processes whereby early advantages or disadvantages can lead to growing disparities. To some extent, available data quantifies the financial benefit of purchasing a single-family, Federal Housing Administration (FHA)-financed home in 1949. Kain and Quigley (1972) present the following example:

> The average house purchased with an FHA 203 mortgage in 1949 had a value of $8,286 and a mortgage of $7,101. Assuming that this house was purchased with a twenty-year mortgage by a thirty-year-old household head, the owner of this unit would have saved more than $7,000 and would own his home free and clear by his fiftieth birthday. Thus if his home neither appreciated nor depreciated he would own assets worth at least $8,000 (273).

The authors go on to explain that single-family homes, in the twenty years following 1949, appreciated at a rate exceeding the 100% increase according to the Boeck composite cost index for small residential structures (273). They maintain that in using a conservative 100% increase in value, the home of the FHA-financed homeowner in the above example would have appreciated to at least $16,000, all a result of the purchase of the home in 1949 (273). Kain and Quigley's research shows that a black family prevented from purchasing a home in 1949 would have to pay more than double for the same home in 1970. Thus whites' early home ownership advantage results in lost wealth for blacks—wealth which could have compounded and transferred to future generations.

Although the previous example was specific to an FHA financed home, the same principle applies to homes financed by VA loans. Katzneslon (2005: 164) showed that by 1984, when many GI Bill guaranteed mortgages had matured, the median white household had a net worth of $39,135, while the comparable figure for blacks was $3,397.

Credit and real estate markets also exemplify CA/CD processes. Even today, blacks are disadvantaged compared to whites in each step of the home buying process (Oliver and Shapiro 2006), exacerbating the black-white divergence caused by the initial home

ownership disadvantages of blacks. For example, during the house-hunting process blacks may be shown limited viewings, a process called racial steering (Reskin 2012; Ross and Turner 2005). Then, when applying for a mortgage, particularly in the past, black applicants were disproportionately denied financing or restricted from home ownership opportunities through redlining practices (Massey and Denton 1993; Reskin 2012).

The Fair Housing Act, the Equal Credit Opportunity Act, and the Community Reinvestment Act were created to address historical and current discrimination in housing and lending practices. However, these laws have had little impact (Adams 2008). For instance, even though the Community Reinvestment Act was created over 30 years ago, Adams (2008) argues that its focus on income-disadvantaged groups, instead of race, results in continued race-based discrimination in the housing and credit markets. As recently as 2010, blacks were twice as likely to receive high-cost mortgages (Shapiro et al. 2010).[3] Policies and practices such as racial steering, redlining, and discriminatory lending practices have reinforced racial segregation, a phenomenon that contributes to the lower value of black homes relative to white homes (Krivo and Kaufman 2004; Massey and Denton 1993; Oliver and Shapiro 1995).

In sum, compared to whites, blacks face disadvantages in acquiring a home and accumulating wealth in that home. As a result of not being able to benefit from policies that historically facilitated home ownership, or through racially discriminatory practices, blacks were excluded from one of the largest wealth-building opportunities in American history. In general, blacks are less able to secure and pass on wealth via their home ownership because

[3]This study does not account for credit scores, which were an important determinant of mortgage eligibility, except in the 1990s when lenders were giving "no-documentation" mortgages.

they are less likely to own homes and to amass value in or have paid off their homes (Smith 1995).

The Potential Effects of Military Service on the Black-White Wealth Gap

The military is noted for minimizing the significance for future life chances of pre-existing differences across people of varying socioeconomic attainment, class standing, and race (Moskos and Butler 1996; Teachman 2007). This is an important feature of the military, given that these differences, particularly race, have been shown to negatively affect many of the social outcomes that contribute to racial disparities in wealth (Conley 1999; Massey and Denton 1993; Oliver and Shapiro 1995). I argue that military service should mitigate some of the cumulative disadvantages blacks face in opportunities and markets that affect wealth outcomes relative to whites. Moreover, some of the benefits of military service should persist for blacks even after leaving the military, narrowing the overall black-white veteran wealth gap. Since I suspect the military's racial and social policies diminish black-white disparities in the wealth accumulation process, I begin this section by briefly summarizing them. I conclude with a brief overview of how taking military service into account should better specify some of the mechanisms for reducing racial disparities in wealth.

The Military as a Matter of Racial and Social Policy

Historically the military's racially discriminatory policies and practices produced both an underrepresentation of blacks in the military and unequal returns to their service. Prior to the 1950s the military was racially segregated, and both individuals from the south and blacks were disproportionately denied entry into the military on the basis of their race or origin of residence (Bailey 2008; Moskos and Butler 1996; Oi 1996). Although racial segregation in the military persisted until the late 1940s, the number of blacks in the military

increased during World War II (WWII). But blacks were less likely to benefit from their military service relative to whites. For instance, eligible black veterans were unfairly denied their GI benefits (Katznelson 2006; Moskos and Butler 1995).

The military's response to race has been a matter of public military policy and that policy has varied over time. Despite its previous policies and practices that discriminated on the basis of race, the military has led the way in racial integration—even before the U.S. Supreme Court ruled racial segregation of public schools unconstitutional. On July 26, 1948, Truman integrated all segments of the military. At that time, the military began to emphasize equality of treatment and opportunity (Moskso and Butler 1996; Teachman 2007). Thus, the military's response to race has been a matter of public, military policy and that policy has varied over time.

In addition to minimizing racial inequalities, the military also reduced economic stratification with its redistributive policies (Bailey 2008). The military acts as a social welfare institution by providing employment that is unparalleled in terms of job security and pay for people who might otherwise have difficulty finding employment, occupational training, access to health care, and a generous pension after 20 years of service (Bailey 2008; Moskos and Butler 1996; Teachman 2007). The military also comes with benefits such as access to educational and home loans, and sometimes preference in public employment. Through its policy on race and provision of early career opportunities and other benefits, the military can help minimize some of the disadvantages that minorities, and blacks in particular, accumulate in society, thereby reducing blacks' wealth disadvantage relative to whites.

There are additional reasons for expecting military service to affect the black-white wealth gap. For one, because race is less of a determinant of pay and promotion in the military (Moskos and Butler 1996), military service may reduce the income disadvantages that blacks normally experience relative to their white counterparts. Subsequently, a smaller black-white income gap may also attenuate racial disparities in savings. Finally, the diminished black-white gap in income and savings, in addition to other benefits of military service, such as veterans' education benefits, may also help reduce disparities in black-white home ownership and home value.

In the next section, I briefly outline how military service may affect the racial wealth gap by mediating black-white differences in savings, home ownership, and home equity—factors that contribute to racial differences in wealth. I also discuss how my theoretical and empirical perspectives lead to my final research questions. Figure 1.2 depicts the expected effects of military service on wealth accumulation.

I begin this section by elaborating the possible effects of military service on black and white wealth disparity through its effect on income. Then I consider the effect of veteran status on the racial savings gap. Lastly, I explain how the black-white home ownership gap is likely to be lowered by the same factors that affect rates of savings. I draw from extant literature to address the full array of factors that might help account for the racial wealth gap, though a complete accounting of the disparity (e.g., earnings, marriage, and health) is beyond the scope of the study.

INCOME

Extant research shows mixed effects of military service on income, and differences by era of service. The earliest research focused on World War II and demonstrated

considerable income benefit to serving in the military (Fredland and Little 1980). Later research found little to no positive effect of military service on income for both Vietnam and All Volunteer Force (AVF) eras (Teachman 2004, Teachman and Tedrow 2007). Enlistment subsequent to World War II, especially during the Vietnam War, is associated with a negative impact on the income of veterans. For instance, Angrist (1990) finds that white male Vietnam War veterans earned 15% less than comparable non-veterans in the early 1980s. In short, having served during the Vietnam and AVF eras was associated with declines in post-military incomes in the civilian labor market.

SAVINGS

In general, white households amass more savings than black households and this disparity contributes to wealth differences by race (Altonji and Doraszelski 2005; Chiteji and Strafford 1999; Oliver and Shapiro 2006). Military service lowers the black-white savings gap through its effects on earnings, marriage, health, and through the military savings plan. I detail each below.

Earnings

The first way that military service may reduce black-white savings disparities is through its effect on earnings.[4] Black-white earnings inequality contributes to the racial savings disparity because black households have less money to allocate to savings.

The military and its racial neutral procedures reduce promotion and pay differences for racial minorities (Booth and Segal 2005). As a result, the pay gap between blacks and whites in the military is smaller than the same pay gap for black and white civilians (Cooney,

[4] In this dissertation, monies earned from employment are considered earnings. Income, on the other hand, can be a combination of earnings, income from investments and businesses, and other earners in the household.

Segal, Segal, and Falk 2003; Teachman 2004; Teachman and Tedrow 2007). In addition, earnings advantages associated with military service persist even after blacks leave the military. Several studies show that, among blacks, veterans earn more than non-veterans over the life course (Angrist 1998; Teachman 2004; Teachman & Tedrow 2004). A smaller pay gap might translate to a smaller savings gap for black and white veterans because black veterans may save more of their earnings and for a longer period of time compared to their civilian counterparts.

Marriage

The association of military service with a reduction in the black-white savings may be attributable to less obvious sources, such as the black-white marriage gap. Previous studies demonstrate that military service is associated with increased marriage (Teachman 2007; Usdansky, London, and Wilmoth 2009). For example, junior enlisted military men eighteen to twenty-four years of age are nearly twice as likely to be married as civilians of the same age groups in 2002, irrespective of race (Alder-Baedar, Pittman, Taylor, and Pasley 2005; Segal and Segal 2004). In addition, the black-white gap in marriage observed among civilians is almost non-existent for active military persons (Lundquist 2004; Teachman 2007; Usdansky et al. 2009).

Increased marriage rates are important for savings outcomes because they are associated with higher household incomes, and savings and income are closely linked (Keister and Moller 2000). Marriage has a positive effect on income because it has the potential to add another earner to the household. Marriage also has a general positive effect on savings and wealth (Altonji and Doraszelkski 2005; Gittleman and Wolff 2000). Although this dissertation does not seek to substantively explain the indirect effects of

military service on the wealth accumulation of whites and blacks through its effect on marriage, I include it in my heuristic model and analyses.

Health

Though also beyond the scope of this study, the third way that military service might affect black-white differences in savings is through its effect on health. Because the military has a selective health screening process (Bailey 2008), veterans should be healthier than nonveterans. In addition, military service may be associated with greater health benefits over the life course because military employees are eligible for health benefits after service, depending on the length of their service (Fitzgerald 2005). [5]

Moreover, those that retire from the military (those that serve 20 years or more) have access to health care during and after military service for their lifetime and may save more in health care costs over the life course as well as avoid the loss of wealth during times of illness, thereby increasing opportunities for wealth accumulation.[6]

The link between health and savings can be illustrated by comparing two men who begin working at the age of 18 with similar lifetime earnings. One serves in the military long enough to be eligible for military retirement health benefits while the other retires from a job that does not offer post-employment health benefits. Without adequate health care, the non-veteran might use his savings, end up in debt, and even lose his house due to illness. In contrast, the veteran might receive health care at minimal personal cost.

[5] Health care benefits extend throughout a service person's lifetime and that of their spouse after 20 years of service. Otherwise, military personnel and their dependents are given health care benefits while the individual is active at least part-time (http://www.military.com/money/retirement/military-retirement/healthcare-choices-for-military-retirement.html).

[6] In fact, Maroto (2012) has shown that serious illness is an important cause of bankruptcy.

On the other hand, research has shown that military service is associated with health disadvantages. Military service is linked to tobacco and alcohol abuse (Bedard and Deschenes 2006), and combat can lead to PTSD and other negative health outcomes (Dobkin and Shabani 2007). Therefore, military service could decrease the savings potential of veterans, thereby decreasing their wealth building opportunities. Veterans may lose income and savings if physical or mental impairments related to their service prohibit them from staying in the military or acquiring and retaining full civilian employment afterwards. Unfortunately, we lack research on the consequences of military-related health impairment.

In sum, it is unclear whether the effect of military service on health facilitates or impairs veterans' savings. Previous studies on the effect of military service on health have focused primarily on combat veterans (Bedard and Deschenes 2006; Dobkin and Shabani 2007), but less is known about the health outcomes of noncombat veterans compared to their nonveteran peers.

Military Savings Plans

Finally, military service may affect whether or not people save and the amount they amass through savings programs. The military has two savings plans: the thrift savings plan (TSP) and the savings deposit program (SDP) (Defense Finance and Accounting Service 2013). The TSP is available to everyone in the military, while the SDP is available only to those serving in designated combat zones.

The TSP is a retirement savings and investment program that was limited to civilian employees of the United States government until 2001, when it was made available to members of the uniformed service. Soldiers can contribute up to $17,000 of their annual earnings into a TSP, with taxes deferred. In addition, members who serve on active duty for

six years are eligible for matching contributions during their six-year service. TSP contributions are matched dollar-for-dollar on the first three percent, and 50 cents on the dollar for the next two percent of pay (Defense Finance and Accounting Service 2013). Finally, these funds can be rolled over into a Roth IRA.

The SDP is available only to military members deployed in combat zones, and has been available to servicemen since the Vietnam War. Deployed military soldiers can contribute up to $10,000 into their SDP account. Interest accrues on the account at an annual rate of ten percent—difficult to match in the civilian sector—after a soldier is deployed for at least 30 days. Military savings plans offer higher rates of return for savings investments than non- military savings plans. These features of the TSP and the SDP represent an opportunity not available to most civilian employees, and may encourage military personnel to save.

The TSP and the SDP may be particularly advantageous for blacks in the military since the military disproportionately draws people from disadvantaged backgrounds, such as low-income individuals and blacks (Bailey 2008). One study found that matched savings programs are successful in assisting low-income households to develop a savings habit (Fry, Russell, and Brooks 2008). Another study found that low-income families are more likely to save when the goals are short term (Klawitter, Anderson, and Gugerty 2012), as would apply to veterans, whose average length of service is 12 months (military.com). Generally, the savings programs offered by the military may increase the number of veterans from low-income households that save. Thus, military savings programs may positively affect whether and what amount military personnel save, at least since the Vietnam War for combat veterans and 2001 for all military employees.

While the equal pay policy and savings plans offered by the military may reduce the black-white wealth gap through its effect on savings, relative to whites, blacks in the military may be hindered from saving by the greater financial needs of family members. Massey and Charles's (2006) study of students at elite colleges found that black students were far more likely than whites to give economic assistance to their families. Economic inequality in the wider community might thereby disadvantage black servicemen compared to white servicemen, despite the equal pay and increased opportunities to save found in the military. My analyses do not account for this possibility, however.

On balance, as a result of increased earnings and likelihood of marriage, and possibly better health, black veterans can probably save more than their nonveteran peers. The savings programs offered by the military may increase the likelihood that veterans have savings accounts, increased levels of savings, and greater returns to their savings investments compared to nonveterans. Military service represents a period in which black veterans can save at levels that are closer to white veterans. In sum, my second set of questions concern whether military service affects the likelihood that veterans will have saved, and how this outcome varies by race and the era in which a veteran served.

The role played by military service in wealth accumulation depends on its effect on the probability of marrying and saving, and pay rates. Since the advantages that whites normally have over blacks in terms of earnings and even family formation are potentially moderated in the military, the savings of black and white veterans should converge, thereby reducing racial wealth disparity as well. If there is a smaller wage and income disparity for black and white veterans because military pay and promotion practices reduce racial disparities in the earnings of servicemen (Lundquist 2004; 2008), as well as increased

marriages and savings opportunities for service members, the black-white wealth gap should be smaller among veterans than non-veterans. The increased opportunities for blacks and whites to save could be an extremely important and unexplored benefit of military service.

HOME OWNERSHIP

For many Americans, the capital necessary for home ownership is dependent on a lengthy formula that includes past income size and stream, ability to save out of the current income stream, the rate at which savings/wealth is compounded, and the influence of inheritance (Terrell 1971). VA home loans may assist veterans in acquiring homes by helping them to circumvent the lengthy and sometimes infeasible process of saving for home ownership.

Veterans have access to home loan benefits after serving at least 90 days during wartime or 181 days during peacetime (Department of Veterans Affairs 2012). After serving a relatively short time, veterans have access to a loan that in many cases requires little or no down-payment, is low-interest, and does not require mortgage insurance (Department of Veterans Affairs 2012). These features of the VA home loan may reduce the black-white home ownership gap among veterans, and thereby mitigate racial wealth disparities.

Down-Payment Constraints

VA home loans may improve veterans', particularly black veterans' abilities to buy homes relative to their nonveteran peers by eliminating some of the financial obstacles that can prevent all individuals from buying homes. For example, Di and Liu (2005) found that those who receive a gift or loan of a down payment often become homeowners sooner than

those who lack such assistance.[7] Blacks are more constrained than their white counterparts in generating the large up-front costs, such as down payments, associated with home ownership for two reasons. First, blacks have less wealth than their white counterparts irrespective of income level (Oliver and Shapiro 1995). Second, compared to whites, blacks are less able to rely on their families and others in their network for financial assistance or gifts (Charles and Hurst 2000). VA loans require anywhere from 0 to 3% down; this minimal obligation may be a critical factor in reducing black-white home ownership disparities by making home loans more obtainable for blacks, who are more likely to face down payment constraints compared to their white counterparts.

Mortgage Terms

VA mortgage terms are also more favorable than conventional loans in ways other than affordable down-payment options. For example, like VA home loans, some conventional loans also offer down payment options that are as little as 3%. But home borrowers who put less than 20% down on their loans are required to take out mortgage premium insurance (mpi), a nontrivial expense. VA home loan borrowers, however, never have to take out mpis, even if they put 0% down. Eliminating mpis could advantage veterans over non-veterans in the home repayment process by reducing the amount of monthly income that has to go towards mortgage payments. For instance, if a non-veteran and veteran buy a $200,000 home, put 3% towards a down payment, and receive a 5% interest rate, the non-veteran would have to pay an estimated additional $81 per month towards mpi.[8]

[7] Although 0% down-payment loan options recently rose in popularity for the wider public, they still remain only a small fraction of the loans taken out by home buyers (Charles and Hurst 2000).
[8] Mpi is estimated at 0.5 percent and would have to be paid until only 80% of the loan balance remains—approximately 114 months of consecutive payments.

Black veterans who use their VA home loan benefits may also avoid the high-cost mortgages that their civilian peers are likely to receive (Shapiro et al. 2010) and may be less likely than their non-veteran peers to receive loans with unfavorable terms such as balloon payments or varying interest rates. VA home loans guarantee fixed interest rates, which provide insurance against rising housing costs. When a homeowner is locked into a monthly payment over a substantial number of years, he is better able to budget, and save or invest his income.

Housing Appreciation

Residential segregation contributes to black-white differences in investment returns from home ownership. Military service may help black veteran homeowners overcome this structural barrier. It is already documented that active duty military persons have higher rates of residential mobility than non-military groups (Segal and Segal 2004). As a result of this spatial mobility, black veterans may also be more likely than black civilians to settle and buy homes in less racially segregated areas, thereby overcoming some of the difficulty in accumulating wealth held in a home in segregated areas (Reskin 2012).

In sum, VA home loans may mitigate some of the financial barriers and discrimination blacks face in credit and real estate markets. These benefits may be particularly important for blacks, who are disadvantaged relative to whites in acquiring mortgage loans (Oliver and Shapiro 1995; Reskin 2012).

The favorable mortgage terms of the VA loan may also have implications for the home appreciation/home equity process. For example, the features of the VA home loan may enable black veteran homeowners to buy homes earlier in the life course compared to their non-veteran counterparts because they can reduce the length of time they have to save for

down payments. The earlier a person buys a home, the sooner they can start accumulating equity in that home. In addition, the absence of mpis may free up more money for black veteran households to allocate to living costs and wealth building.

The research on the effect of veteran status on home ownership suggests my third set of questions: Does military service positively affect veterans' home ownership and home value outcomes over the life course? Do these outcomes vary by race?

The possible increased income, savings, home loan and other benefits of military service during and after service may have an overall positive influence on wealth in general, and the wealth accumulated through homes, specifically. My final research question explores the total effects of military service on the accumulation of wealth by race, and whether it varies by era.

BRANCH AND ERA OF SERVICE

For servicemen, the costs and benefits affecting wealth holdings could vary not only by race but by the branches of the military they enlist in, as well as historical period in which they serve. Thus, this dissertation also considers how the effect of military service on wealth varies by branch of service and era.

Branch of Service

Certain institutional features may disproportionately assist blacks—as compared to whites—in the wealth accumulation process. As I discussed earlier in my dissertation the military has been touted as a "model of racial integration" (Teachman and Tedrow 2008:1031) that has committed to equal opportunities to all qualified applicants (Lundquist 2006). Teachman and Tedrow also note, however, that "strong differences" between branches may also exist (2008:1032); therefore, the dissimilarities between the branches of

the military may affect black-white socio-economic disparities differently based on the variations I discuss below.

The effect of military service on wealth may vary based on the racial composition of the branch. For example, the Army has had a higher proportion of blacks over the past 50 years (Teachman and Tedrow 2008). Several researchers have argued that blacks are more likely to reenlist and achieve higher ranks in the Army, partly because of the high number of blacks that serve in the Army (Lundquist 2006; Moskos and Butler 1996; Teachman and Tedrow 2008). Racial composition as well as the number of blacks with senior enlisted ranks in the Army may increase the likelihood that blacks in the Army stay longer, get promoted, and even retire from the military compared to branches that have fewer blacks and blacks in high ranking positions. The PSID asked veterans to identify the branch of the military they served in, but only in 1994. As a result, branch of service is identified only for a small number of men. Although I do not consider how the affect of veteran status on wealth varies by branch of service throughout my dissertation, I examine the effect of veteran status on the black-white wealth gap in Chapter 3.

Benefits Associated with Military Service

The potential costs or benefits associated with era may be explained by two differences: the demographic differences of those who served in each era and the differential benefits associated with each era as well. Those who served during WWII are considered one of the most selective groups of veterans compared to veterans of other eras. Particularly in the Vietnam and AVF era, servicemen are more likely to come from lower socioeconomic backgrounds than WWII veterans (Bailey 2008). One of the primary reasons WWII veterans differ from other conscript eras is due to the change in deferment options. Educational

deferments were first introduced during the Korean Conflict (Bound and Turner 2002). Prior to the Korean conflict, the primary reason for deferment was physical or mental disability (Bound and Turner 2002). Thus the composition of those selected for war probably shifted during the Korean Conflict and continued to shift through the Vietnam War (Bound and Turner 2002). As a result of the educational deferment, selection into the military changed from the upper to the lower tiers of the socioeconomic population.

WWII veterans also differ from veterans of other eras because they had access to one of the most generous GI Bills in history (Teachman 2007). The GI Bill of the Second World War garnered some of the widest political and financial support compared to bills of other eras because WWII was the largest conscript war in U.S. history. The manpower demands it entailed brought together a total of 16 million military personnel between 1940 and 1945 (Bound and Turner 2002), 10 million of whome were drafted (Angrist 1994). In comparison, 5.7 million served in the Korean conflict, 8.7 million served in the Vietnam conflict (Bound and Turner 2002), and 5.1 million served during the Gulf War (2011 American Community Survey). As the number of soldiers drafted in each era declined, the economic value of service-related benefits also declined. As a consequence of declining benefits associated with military service, three trends emerge when comparing the socio-economic outcomes of veterans across eras. First, male WWII and Korean Conflict-era veterans tend to fare better in general relative to non-veterans of the same age, than veterans of other cohorts (Cooney, Segal, Segal, Falk 2003). Second, for male veterans of the Vietnam era, the effect of military service on educational and economic outcomes varies. In some cases, veterans of the Vietnam era seem to incur a cost associated with military service (Cooney, Segal, Segal, Falk 2003), but others argue that the negative effect of serving during this era diminishes when

observing these veterans over longer periods (Teachman 2004). Third, AVF-era men are in general advantaged less by military service. Others, however, have found that white men acquired an earnings disadvantage relative to non-veteran counterparts, while the earnings of black male veterans were neither advantaged nor disadvantaged when compared to their non-veteran peers (Phillips, Burns, Mueser, Linkins, Rosenheck, Drake and Herr 2001).

Table 1 compares the educational benefits of each era. WWII veterans were eligible for $500 in tuition a year for up to 48 months, more than enough to cover the cost and living expenses at Harvard University during this time period (Mason 1999). In addition, WWII veterans were paid $75 a month for a living stipend; $105 if they were married. As Table 1.1 demonstrates, the value of the tuition payments fell with each subsequent era until the Vietnam era, after which they remained stable.

While the total economic value of the GI Bills declined after WWII, the eligibility requirements to receive benefits increased. For example, WWII and Korean veterans had to serve a minimum of 90 days to be eligible for benefits. In contrast, to be eligible for benefits, Vietnam-era veterans had to serve twice as long, 181 days, and AVF-era veterans had to serve at least 24 continuous months. In addition to the increased minimum length of service required for eligibility, veterans also had to serve longer to receive their maximum benefits. For example, to receive the maximum 48 months of education benefits, WWII soldiers had to serve a minimum of 3 years – a typical service period for veterans of that war (Bound and Turner 2002). To receive maximum benefits Vietnam veterans had to serve a full 36 months, even though Vietnam-era veterans typically served an average of two years (Teachman 2004). Moreover, Vietnam era veterans could not receive their maximum amount of benefits ($376 per month) until 17 years of service. AVF veterans could receive their maximum

benefits after three years, but only if they had made contributions. Soldiers who served during the AVF era saw the greatest reduction in the availability and value of the GI Bill compared to veterans of other eras. For example, whereas veterans of WWII, Korea, and Vietnam earned benefits based solely on their service, AVF-era veterans were offered a voluntary program that they must contribute to while actively serving. Thus, benefits such as educational benefits accrue only if an AVF veteran decides to participate while on active duty (Teachman 2007).

The value of post-WWII and Korean Conflict GI Bills may have declined in other ways as well. For example, the value of educational and home buying benefits may have fallen once educational grants and loans and 30-year mortgages became more available to the general public in the 1950s (Cooney, Segal, Segal, Falk 2003). Although education and home ownership may have become more accessible to the broader population after the Korean Conflict, there are still unique features associated with the home loan programs offered by the GI Bill that make education and home ownership even more accessible to disadvantaged groups. For instance, the home loans offered to servicemen require neither down-payment nor mortgage premium insurance, and feature regulated closing costs, reducing the overall cost of home-buying and making it more obtainable for veterans who use their military home loan program.

To date, the combined relationship between race, veteran status, home equity, wealth, and era remains unexplored, a gap this study aims to address.

Conclusion

I argue that military service may reduce the income, savings, and home ownership disadvantages that black civilians experience. Although racial discrimination is not absent in

the military, racial inequalities are reduced because "the daily work life of service members is not segregated and differentiated by race as it is in civilian life" (Teachman 2008: 1030).

Military service may affect black-white disparities in the wealth accumulation process, thereby reducing the wealth gap between black and white veterans. If as a group blacks experience disadvantages in the form of employment and earnings, this can affect their ability to obtain resources in credit and housing markets, and these disadvantages could persist over time, producing wealth differences by race. Cumulative advantage or disadvantage processes suggest that initial advantages, especially if they remain constant, are critical for understanding how the magnitude of the advantage or disadvantage grows over time. Since wealth accumulation follows a CA/CD process, the military may constrain some of the advantages that whites have over blacks in the wealth accumulation process.

Figure 1.1 Heuristic Model of the Potential Effects of Race and Military Service on Wealth.

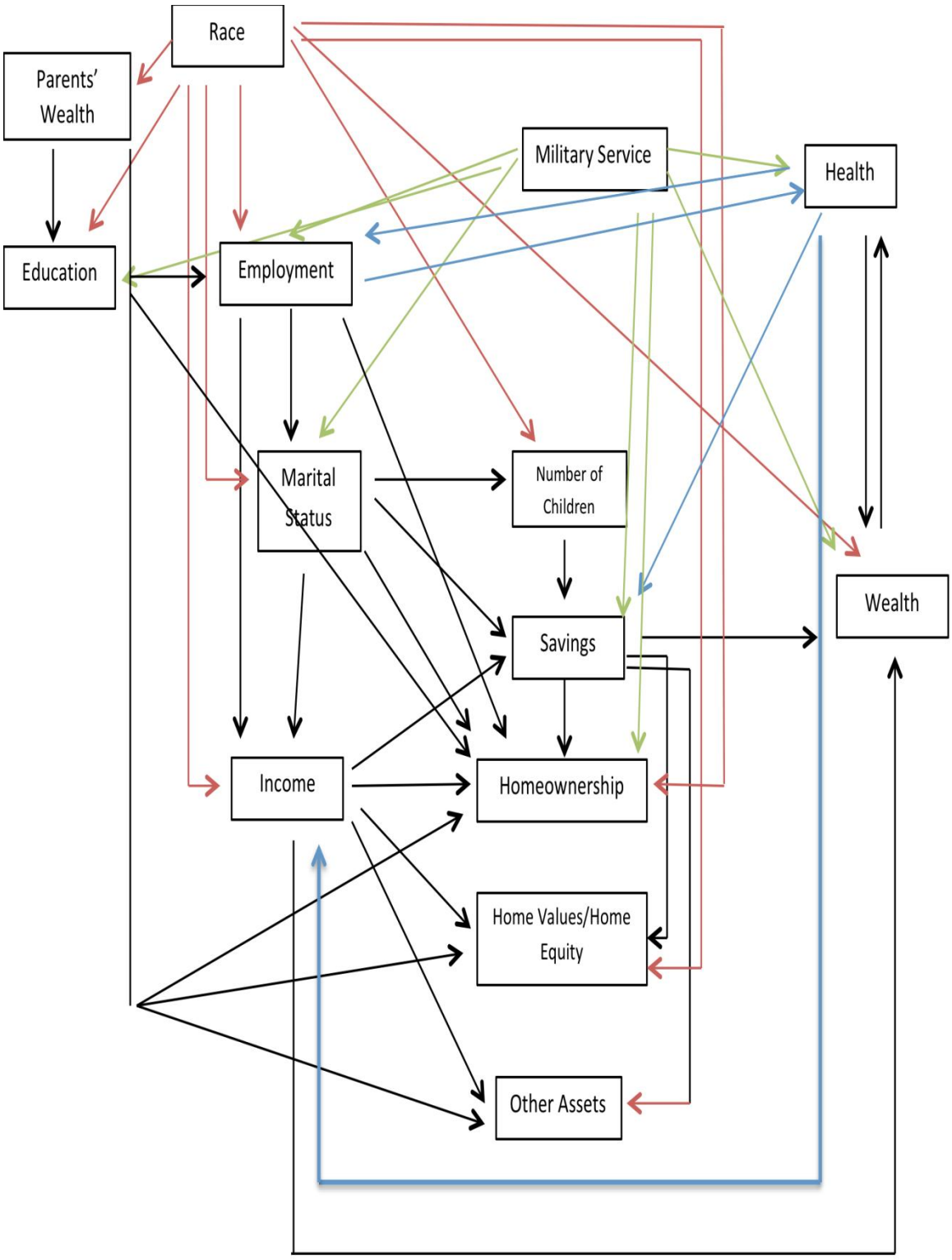
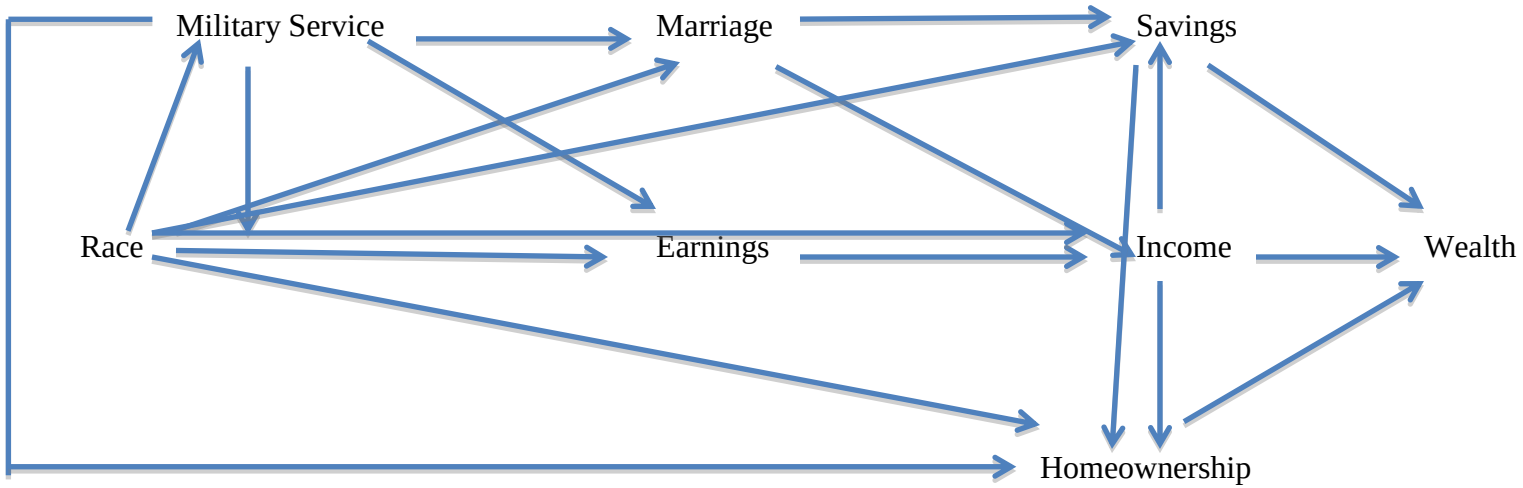


Figure 1.2 Predicted Effects of Military Service on Wealth Accumulation



Military service positively contributes to wealth accumulation as follows:

- Mediating some of the effects of race on outcomes such as earnings, marriage, income, savings, and homeownership.
- Increasing wealth through its effects on income via increased earnings and marriage.
- Increasing wealth through its indirect effects on savings via increased income and marriage.
- Increasing wealth through its direct effect on homeownership via its access to home loan programs, and its indirect effect on homeownership via increased income and savings.

Table 1 Economic Value of the GI Bills from WWII through the All-Volunteer Force

Era	Public law no.	Monthly living allowance	Tuition	No. mos. benefits provided	% Tuition Covered*
WWII	PL 346	$75/$105	$500	48	100%+
Korea	PL 550	None	$110	36	51%
Vietnam	PL 358	None	$100-$376	36	40%
AVF	PL 98-525	None	$536	36	40%

CHAPTER 2: DATA AND METHODS

Chapter 2 describes the data I use to analyze the impact of military service on the black-white wealth gap. After discussing the Panel Study of Income Dynamics (PSID), I reflect on the strength and limitations of my data. I describe the measures I use throughout my dissertation as well as my analytical models.

Data

Few datasets contain detailed, longitudinal wealth data, and even fewer contain data on military service. Because the wealth accumulation process occurs over time, my dissertation requires data that contains longitudinal wealth outcomes, as well as information on military service, human capital characteristics, and homeownership. The PSID meets these criteria.

Panel Study of Income Dynamics

The PSID is a longitudinal survey of families and individuals that has been conducted since 1968. The original PSID sample consisted of a nationally representative sample of 3,000 families and an over-sample of 2,000 low-income families. Over time, the original sample has been supplemented by what the PSID refers to as split-offs, children of the original sample members and their spouses who have divorced and formed new families. As a result, in 2007 the PSID consisted of more than 8,000 households and 65,000 individuals (Chiteji and Stafford 2003).

In addition to asking respondents about their employment, income, family dynamics and other demographic information since its inception, the PSID has also asked respondents about their wealth since 1984. To date, the PSID has collected wealth data at nine time

points between 1984 and 2009. Since its introduction and until 1999 (the 1984, 1989, and 1994 waves), the supplemental wealth module has been conducted on a periodic basis. Since 1999, the PSID survey has been conducted biennially, and the wealth questions have been included in each wave (1999, 2001, 2003, 2005, 2007, and 2009).

The PSID includes respondents born in a wide range of years and contains measures such as veteran status, education, income, marital status, number of children, and wealth, making the data well-matched to this study. However, the PSID data have some limitations. One of these is that very few women were asked about their military service. Unfortunately, only "heads" of families were asked about their military service. If a male was present, the PSID considered him the head. The low number of women who were asked about their past military service requires that I restrict my analyses to men. Since age restrictions (discussed below) on the sample mean that no respondents served in the military prior to World War II, my analyses are restricted to men who were alive from 1984 to 2007 and who served in WWII and after.

Another limitation of the PSID is that details about respondents' military service are limited. First, because of the way that the PSID asks respondents about military service, I cannot differentiate whether a respondent has served in the military in the past or currently serves[9]. Second, length of service, branch of service, and rank in the military are asked only in one wave (1994) of the data.

The virtues of the PSID outweigh its shortcomings, however. For example, since there is a shortage of reliable data that includes details about wealth (Oliver and Shapiro

[9] This will be discussed in further detail in the Independent Variable section.

2006:53), the advantages of having measures of both military service and longitudinal measures of wealth are significant.

Measures

Dependent Variables

My dependent variables are total wealth, household income, household savings, and amount of home equity. In some analyses, income, household savings, and homeownership are also independent variables.

The wealth supplement is comprised of eight asset components: (1) home equity, (2) other real estate, (3) private business/farm, (4) vehicles, (5) transaction accounts, (6) corporate equities, (7) annuities/IRAs, and (8) other savings. Wealth is the gross value of all of these assets less any debt. Thus, the measure also includes negative values. This variable is adjusted to constant 2007 dollars using the Consumer Price Index, and is operationalized as total net assets.

Due to the presence of negative values, I follow prior studies of wealth by not logging the dependent variable. This also eases interpretation of the regression results (e.g., see Keister 2008). In addition, I follow prior studies on wealth by deleting extreme cases—values above $1,000,000—for black wealth (see Gouskova and Stafford 2009).[10]

My second dependent variable—household income—is the focus of the PSID. Income is measured as any taxable income, including, earnings, interest, and dividends. Total income is reported by the respondent and also includes income from the respondent's spouse (if the spouse is living in the household). This variable is a continuous non-logged variable, which I have adjusted to constant 2007 dollars using the Consumer Price Index, and

[10] I also ran preliminary analysis without this constraint and it did not noticeably change the outcome.

includes negative values. Negative values indicate a net loss of income, according to the PSID. These losses usually occur as a result of business or farm losses.

I examine the third dependent variable, household savings, from a PSID question that asks, "If you added up all the checking and savings accounts for all of your family, about how much would they amount to right now?" This variable is measured in two ways. The first measurement is a dichotomous measure—whether or not a respondent owned a savings account (0 = did not own a savings account, 1 = owned a saving account). The second measure is continuous, non-logged, and adjusted to 2007 dollars

Similarly, in Chapter 4, I measure homeownership in two ways. The first measurement indicates whether a respondent is a homeowner (0 = did not own a home, 1 = owned a home). For those respondents who own homes, I also analyze the equity held in their homes. This measure defines home equity as the gross value of a home less any remaining mortgage. This variable is a continuous non-logged variable and is adjusted to constant 2007 dollars using the Consumer Price Index. A negative value for home equity means that the respondent owes more on their home than it is worth.

Although the data for all of my dependent variables are available from 1984 to 2009, I restrict my analyses from 1984 to 2007. As shown in Figure 2.1, the median wealth reported by blacks and whites declined sharply in 2009. Median household equity reported by blacks and whites also fell in 2009 (not shown). It is likely that the lowered median wealth and median equity held by PSID respondents in 2009 reflect the negative impact on wealth of the collapse of the "housing bubble" that began in 2007.

Independent Variables

Veteran Status

The PSID first asked heads of households if the head was a veteran in 1968. Beginning with the 1985 survey, the PSID began asking the question slightly differently. Since that year, all respondents were asked, "Have you ever been in the United States military service," which, in addition to capturing individuals who had completed their service, also captured those who were still serving.[11] I construct this variable into a dichotomous variable (0 = no, 1 = yes) .[12] Veteran status is recorded as a "1" when respondents answered that they serve or had served in the military and I maintain that status for the individual, so that it cannot change.

Era

Another limitation of this study is not specific to the dataset that I use, but to the population that I am studying. Nearly all veteran studies have been plagued by the problem of selection bias (see Teachman, Call, and Segal 1993). Veterans and nonveterans may differ in important, unobserved ways (Teachman 2007; Teachman et al. 1993). Those who serve in the military cannot have felony convictions, and they must meet physical, mental, and educational standards for enlistment (Bailey 2008; Teachman 2007). Because education, health, and criminal record likely affect one's chances to become wealthy, men who served in the military may be less disadvantaged compared to their civilian peers in their opportunity

[11] In contrast, the way the question was asked in 1968 only reveals past military service.
[12] In 1994 the PSID asked new household heads and their wives about their veteran status. However, the information for this variable was not re-asked unless the family acquired a new head, and the old information was not brought forward in this year. I followed the PSID's website for bringing this item forward (if a respondent indicated that they had served in the military prior to 1994 that status was repeated for 1994). See http://psidonline.isr.umich.edu/Guide/FAQ.aspx?Type=5#175

to build wealth. Thus, it is impossible to demonstrate that any apparent wealth effects are due to military service. There are, however, certain ways to ameliorate this problem.

Some researchers have reduced the selectivity problem inherent in military studies by assessing veterans from the Vietnam era, when the draft was based on a lottery, which was more likely to have a random influence on who served in the military (e.g., Angrist 1990; Conley and Heerwig 2011).

I also attempt to reduce selectivity issues by examining the effects of military service on my outcomes of interest by era. I assess the impact of three different eras: WWII—one of the largest conscript eras in U.S. history—along with the Vietnam and All-Volunteer-Force eras.

I measure era of service for servicemen using respondents' birth dates. I break down era of service into three categories: "Pre-Vietnam", "Vietnam," or "All-Volunteer Force" (AVF). In order to use era as an independent variable, I assigned nonveterans to the military era in which they would have served had they been in the military. I follow prior studies and assign men who were born between 1920 thru 1939 to the Pre-Vietnam era (see Bound and Turner 2002). The birth range for this group includes men eligible for WWII and the "Korean Conflict"[13] in this age range. I group these men together because both wars drafted large numbers of men, and men who had not been drafted for WW II were at a high risk of being drafted into the Korean Conflict. In addition, the military benefits were similar for men who served in WWII and the Korean Conflict. Men born between 1948 and 1952 were assigned to the Vietnam era (See Conley and Heerwig 2001; Teachman 2004), and men born

[13] The Korean Conflict was never officially declared a war, thus it is considered a conflict rather than a war.

after 1955 were assigned to the All-Volunteer Force, which came about with the elimination of the draft.

Branch of Service

In 1994, veterans were asked what branch of military they had served in. I include a variable for the branches (0 = not reported, 1 = Army, 2 = Navy, 3 = Coast Guard, 4 = Marines, 5 = Air Force, and 6 = other). Because the branch of service a veteran reported serving in was identified only for a small number of men, I cannot control for this variable in all of my analyses. Thus I consider how the effect of veteran status on black and white wealth varies by branch of service only in Chapter 3. I selected the remaining independent and control variables because of their reported importance in past research and their centrality to the wealth determination process, and thus their potential for explaining differences between blacks' and whites' wealth holdings.

Race

I include a dummy variable for race (0 = black, 1= white). Because data collection in the PSID for other racial and ethnic groups has been inconsistent, I conduct analyses only for blacks and whites. For example, data for Hispanics were not collected in the early years of the PSID. Moreover, due to budgetary constraints, Hispanics were dropped from the data in later years. Although the wealth outcomes for racial and ethnic groups other than blacks and whites are important, the data do not allow for their careful consideration.

Education, Marital Status, Family Characteristics, and Age

Following prior work on wealth using the PSID (Oliver and Shapiro 1995) and other data (Conley 1999; Keister 2005; 2008), I include controls for education, marital status, family characteristics, and age. Education is measured in years of schooling. The highest

value for education, as recorded by the PSID, is 17, which indicates at least some post-graduate work. I treat marital status with dummy variables for married, separated, divorced or widowed. Finally, a continuous variable reflects number of children, which is the total number of children that a respondent reported as living with them at the time of the PSID interview.[14]

The respondent's age is included as a continuous variable. Initially, I also included age-squared in my models to accommodate non-linear effects in which wealth accumulates more slowly as respondents age. Since age-squared did not prove significant in any of the models, and did not change my results, I leave it out. I limit my analyses to respondents between the ages of 25 and 70 in 2007. I chose this age range to include men who have had the opportunity to begin accumulating wealth and may still be in the labor force.

Age and era have a negative correlation, as demonstrated in the correlation matrix (Table 2.1). The Pearson correlation between era and age is -.689. The p-value is .000, indicating there is sufficient evidence that the correlation is not 0.

With the exception of branch of service, the data for all of my independent and control variables are available from 1984 to 2007.

Final Sample Size

My dissertation results pertain to black and white men who served, or could have served, in the military during WWII and after. After restricting my data to men from aged 25 through 70, the sample size for this period includes 31,585 respondents, with a total of 138,153 person-years, an average of 4.37 observations per respondents over a 23-year period.

[14] The children may be biological, adopted, or stepchildren. Whether a child is biological or not does not mitigate the demands of having a child present at home. This variable is measured as a continuous variable.

Men who served during the WWII era but were older than 70 in 2007 were not included in my sample.

Characteristics of the Men in my Sample and Descriptive Statistics

Characteristics of Servicemen

The characteristics of male veterans within my dataset resemble those in national datasets. For example, according to the 2007 Department of Veteran's Affairs (DVA), 39.7 percent of male veterans have completed high school and 15 percent have a bachelor's degree. Similarly, 38.6 percent of the veterans in the PSID data had completed high school and 13.1 percent had bachelor's degrees by 2007. The data from the U.S. Department of Defense (DOD 2011) and the PSID show similar marriage rates for veterans as well. For instance, servicemen 35 years old and above had marriage rates above 80 percent in the data provided by the DOD (2011).[15] Veterans of the same age in the PSID have a marriage rate of 88 percent. The annual median salary for male veterans in the DVA data and my data were also comparable: $51,230 and $55,046, respectively. In addition, the 2009 American Community Survey[16] reported that male veterans earned about $5,400 more than their civilian counterparts (Department of Veterans Affairs 2009). This finding is broadly consistent with my data, in which veterans out earned non-veterans by $8,810 in 2007.

Given that servicemen—particularly during the All-Volunteer Force (AVF) era — disproportionally come from groups with limited resources, such as working class families, blacks, and rural and southern communities (Bailey 2008; Segal and Segal 2004), the earnings difference between veterans and nonveterans is noteworthy. For disadvantaged

[15] Marriage captures anyone who is married at the time of the survey.
[16] The American Community Survey, which has replaced the census, provides most of the data previously reported by the U.S. Census Bureau.

groups that enlist in the military, particularly blacks and men of both races with less than a high school education, the impacts of military service on outcomes such as educational attainment and earnings are greater than for black and white men who enlist with at least a high school education (Angrist 1990; Bound and Turner 2002; Teachman 2004). Thus military service may have the greatest effect on socio-economic outcomes for men with the *greatest* disadvantages. The ranges for the dependent variables are listed in Table 2.1. The descriptive statistics for select variables, covering the years from 1984 to 2007, appear in Table 2.2.

The wealth differences in my table are consistent with prior research using the PSID data (see Gouskova and Stafford 2009:10). Wealth holdings of both white veterans and nonveterans are approximately 2.5 times greater than that of their black counterparts. The remaining variables are generally in line with expectations based on previous research. Blacks, veteran and civilian, have less income, savings, and lower rates of homeownership and home equity than all whites. The one exception to this pattern is education—black veterans have slightly more education than white nonveterans.

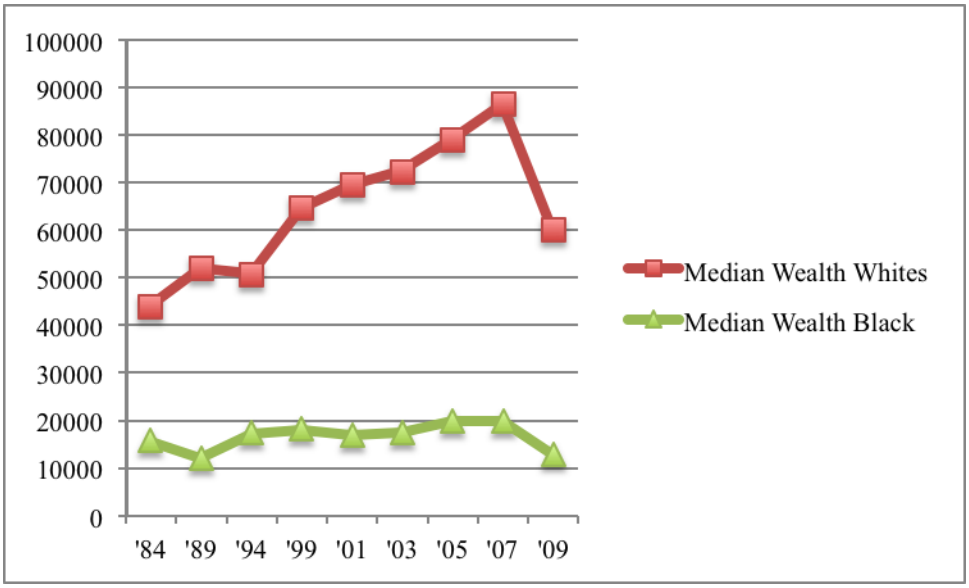
Data Analyses

This study assesses the following research questions: (1) How does the wealth of blacks and whites compare by veteran status?; (2) Do wealth holdings differ for black and white veterans and non-veterans by era, education level, and branch served?; (3) How do the income, savings, likelihood of homeownership, and home equity outcomes differ by veteran status?; (4) Is military service an important factor associated with income, savings, and home equity accumulation? (5) What is the total effect of military service on wealth? To answer these research questions, I perform descriptive and multivariate analyses.

In descriptive analyses, medians were calculated for the continuous variables (i.e., wealth, income, savings, and home equity accumulation). I also provide ratios for ease of comparing wealth, savings, and home equity.

In multivariate analyses, two statistical methods are employed: logistic regression and Ordinary Least Squares (OLS) regression analyses. I employ logistic regression analyses to investigate factors that influence the likelihood of owning a home. To determine significant predictors of levels of income, savings, home equity, and total wealth, I utilize the OLS method..

Figure 2.1. Median Wealth of Black and White Men, aged 25-70, from 1984 to 2009



Source: PSID
Notes: All wealth converted to 2007 dollars

Table 2.1 Correlation Matrix of Era and Age

		Era	age
era	Pearson Correlation	1	-.689**
	Sig. (2-tailed)		.000
	N	63891	63891
age	Pearson Correlation	-.689**	1
	Sig. (2-tailed)	.000	
	N	63891	80229

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2.2 Ranges for Dependent Variables for Men Ages 25 through 70, by Veteran Status and Race, 1984-2007

Whites

Non-Veterans				Veterans			
	Minimum	Maximum	N		Minimum	Maximum	N
Income	-72,620	3,471,422	13,958	Income	-72,220	6,041,749	22,940
Savings	0	2,422,778	16,542	Savings	0	4,845,556	31,335
Home Equity	-1,169,265	6,001,267	16,542	Home Equity	1,669,581	3,104,103	31,335
Wealth	-364,058	20,211,034	11,153	Wealth	-1,156,581	52,099,420	20,823

Blacks

Non-Veterans				Veterans			
	Minimum	Maximum	N		Minimum	Maximum	N
Income	-48,674	6,041,749	6,573	Income	-37,544	593,581	4,371
Savings	0	686,177	10,598	Savings	0	2,332,431	8,137
Home Equity	156,928	1,032,421	10,598	Home Equity	-289,524	1,428,050	8,137
Wealth	-398,755	1,000,000	4,918	Wealth	-1,349,320	1,000,00	3,501

Source: PSID
Note: All dependent variables converted to 2007 dollars.

Table. 2.3. Descriptive Statistics for Dependent Variables and Select Independent Variables for Men Ages 25 through 70, by Veteran Status and Race, 1968-2007
(Standard deviations are in parentheses)

Characteristics	Whites				Blacks			
	Nonveterans		Veterans		Nonveterans		Veterans	
	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Dependent Variables								
Income*	$72,224	$54,346	$78,152	$60,224	$57,681	$42,536	$63,217	$46,142
	($82,153)		($51,856)		($105,260)		($44,840)	
Savings*	$26,505	$4,336	$28,979	$5,162	$5,743	$17	$9,363	$865
	($85,809)		($25,080)		($110,718)		($47,958)	
Home equity*	$101,178	$51,509	$101,053	$48,456	$29,264	$9,50	$37,152	$7,238
	($183,084))		($57,665)		($161,691)		($72,497)	
Wealth*	$213,824	$55,299	$253,364	$63,744	$91,510	$17,301	$78,428	$15,482
	($656,892)		($193,445)		($1,087,388)		($171,977)	
Independent Variables								
Education (in years)	12.80		13.40		12		13	
	(3.00)		(2.30)		(2.80)		(2.30)	
Age	43		43		42		42	
	(12.0)		(11.9)		(11.5)		(11.5)	
Number of Children	1.06		0.99		1.26		1.17	
	(1.24)		(1.20)		(1.50)		(1.40)	
Married								
Owns a home	0.76		0.79		0.57		0.63	
	(0.43)		(0.41)		(0.50)		(0.48)	
Owns a savings account	0.86		0.90		0.58		0.74	
	(0.34)		(0.30)		(0.49)		(0.44)	
Number of person years	20,063		33,738		15,941		14,288	

Source: PSID *This variable is calculated in 2007 dollars

Chapter 3: Comparisons of the Black-White Wealth Gap by Veteran Status, Education, Military Era, and Branch of Service

I report descriptive results for black and white wealth outcomes by veteran status, educational attainment, and era and branch of service in which individuals served in Tables 3.1 through 3.4. Collectively, these results address my first two research questions: does military service have the potential to reduce the black-white wealth gap and how do wealth outcomes compare by educational attainment, era, and branch of service?

The results are largely consistent across the first three descriptive comparisons. I discuss the results from each table below. In general, the comparisons from these tables did not support my expectation that the black-white wealth gap would be smaller for veterans compared to the nonveteran racial wealth gap.

Veteran Status

Table 3.1 compares the wealth of black and white men in the Panel Study of Income Dynamics (PSID) by veteran status. The well known black-white wealth disparity is clearly depicted for non-veterans and veterans. Contrary to my expectations, the racial wealth gap for veterans is actually *larger* than the non-veteran gap. In fact, the black-white veteran wealth gap is 24 percent greater than the non-veteran racial wealth gap. According to t-tests (not shown), racial differences in wealth are statistically significant.[17]

[17] The mean wealth difference between veterans and nonveterans (i.e., not distinguisehed by race) is significant at .00 (t= -10.008). Looking at whites alone, the mean wealth difference by veteran status is significant at .00 (t= 2.865) Similarly, looking at blacks alone, the mean wealth difference for veteran status is significant at .004 (t= -4.984).

An examination of wealth in constant 2007 dollars, by veteran status and race for each year[18] wealth was reported in the PSID, shows three trends (Figure 3.1). For most of this time period, the black-white wealth gap for veterans was larger than the same gap for non-veterans, with the exception of 1984, when the the black-white wealth gap for veterans was smaller. Second, the black-white wealth gap is wide irrespective of whether or not one serves or served in the military. Finally, veteran status had no impact on the growing racial wealth gap from 1984 to 2007.

Figure 3.1 demonstrates that the wealth of white veterans diverged from that of white non-veterans during this 23-year time period, growing from $6,150 in 1984 to $16,969 in 2007. Simultaneously, levels of wealth possessed by black veterans and black non-veterans remained remarkably comparable, with black non-veterans holding slightly more wealth. Specifically, the wealth difference between black veterans and non-veterans during this 23-year span was $2,788 and $2,069.[19] While the wealth of all four groups (black and white veterans and non-veterans) has grown during this time period, it has grown at different rates. Among white non-veterans and veterans, wealth almost doubled during this time period; in comparison, the slope for black non-veterans and veterans increased only by 1.1 and 1.4 times, respectively.

Education

A comparison of men's wealth in the PSID, by educational level, race, and veteran status (Table 3.2) illustrates that for the most part, the wealth gap does not converge for

[18] Wealth was reported in the following years—1984, 1989, 1994, 199, 2001, 2003, 2005, and 2007.

[19] From 1984 to 2007, white veteran wealth grew from $41,341 to $91,571;, and white non-veteran wealth from $47,491 to $74,602. Over the same time period, glack veteran wealth went from $16,519 to $18,625, and black non-veteran wealth from $13,731 to $20,694.

blacks and whites with similar educational levels. More importantly, the black and white wealth disparity is larger for veterans than it is for nonveterans for every educational group except for those educated beyond a bachelor's degree. Black veterans with more than a bachelor's degree possessed 44 percent of the median wealth of similarly educated whites. Black civilians at the same educational level, however, had only 22 percent of the median wealth of similarly educated whites. For back veterans, those whose education surpasses a bachelor's degree fare better in terms of wealth than black men at any other education level, they still possess less wealth than whites (veteran or not) who lack a high school diploma.

Era

In Table 3.3 I examine wealth outcomes for blacks and whites by veteran status and era served. The size of the black-white gap differs among veterans and non-veterans across the three eras observed. Amongst non-veterans, the wealth gap grew from the Pre-Vietnam era to the Vietnam era, and then declined.[20] In contrast, the black-white wealth gap for veterans decreased with each subsequent era. In sum, among the civilian population, the black-white wealth gap shrank with each subsequent era, while the racial gap grew among veterans over the three eras. Overall, white veterans have the most wealth compared to white non-veterans, black non-veterans, and black veterans for every era observed. Since the relationship between the effects of race, military service, and era on wealth outcomes vary by era and race, I will investigate this dynamic in further detail in Chapter 5 of this dissertation.

[20] Nonveterans are distinguished by the era they would have served in, had they been in the military.

Branch of Service

In the final Table (3.4), I look at the median wealth holdings of blacks and whites by veteran status, branch of service in which veterans served,[21] and proportion black within each branch. In comparison to the civilian black-white wealth gap, racial wealth disparity among members of the Navy is 5% smaller, and within the Army, it is 20% smaller.

Interestingly, the median wealth holdings of blacks directly parallel their numerical representation in their respective branches (as shown in Column 1,Table 3.4). To illustrate, blacks constitute the greatest proportion of the Army, then the Navy, followed by the Air Force and Marine Corps. Likewise, their median wealth holdings are $36,005, $22,316, $14,041, and $6,057, correspondingly. Another noteworthy observation is that the branch with the smallest black-white wealth gap, the Army, has the highest proportion of black officers when compared to the other branches.

Because branch of service was only asked in one year of the PSID (1994), data exists for a small number of respondents. As such, these findings have to be interpreted with caution, but the patterns here support Teachman and Tedrow's assertion that the benefits of military service may differ by branch and that the Army arguably has greater influence on black outcomes of all the branches (2008:1032). Historically, the Army has enlisted a large number of blacks relative to their composition in the United States (Teachman and Tedrow 2008). Additionally, blacks in the Army are also more likely to achieve senior enlisted ranks compared to blacks in the other branches as shown in Table 3.4. The high proportion of blacks in the Army and their likelihood to achieve senior enlisted ranks in the Army are

[21] Branch of service applies only to veterans.

likely a reflection of the Army's strong commitment to race-based policies (Lundquist 2006). My results here indicate that that the policy and structure of an institution is an important factor in shaping racial wealth outcomes. I discuss this in further detail in the section below.

Discussion and Conclusion

I investigate whether the well-documented black-white wealth gap is smaller for veterans compared to non-veterans. My findings indicate that racial wealth inequality among veterans is exacerbated relative to that of civilians. While researchers have found that military service is beneficial for the income, education, and employment outcomes of disadvantaged groups (Bailey 2008; Teachman 2007), my comparisons suggest that the benefits of military service may not consistently generalize to the wealth outcomes of blacks. That is, the results in Table 3.3 suggest that the relationship between veteran status, race, and wealth may differ by era.

The larger black-white wealth gap for veterans over non-veterans persisted, however, even when I compared wealth outcomes by education levels and era served. The first exception relates to attaining education beyond a bachelor's degree, suggesting that advanced education and military service may work together to limit black-white wealth inequalities, albeit for a small selection of men. The second exception relates to serving in the Army and Navy, and may have important implications about the importance of an institution's strong commitment to race-based policies and the racial compositions of institutions in shaping wealth outcomes.

With the exception of the Navy and the Marines, white men who served in the military had greater wealth than their civilian peers (Table 3.4). Like many other institutions (such as schools) that provide whites with cumulative wealth advantages, it appears that

military service augments the wealth of white men, irrespective of the branch in which they serve.

I now address factors that affect racial disparity among veterans. The Army and the Navy are the only branches where the wealth of blacks and whites converged, with the gap smallest amongst Army servicemen. Understanding the institutional features of the Army that may reduce the cumulative wealth disadvantages that blacks face may help researchers better understand the mechanisms that can reduce the persistent wealth disparities by race.

The Army may mitigate the black-white wealth gap, in part, because it offers a career with mobility for blacks. The Army is beneficial for all workers from disadvantaged backgrounds because it both offers stable employment and sorts individuals into better paying jobs compared to the pay they may receive in the civilian labor market (Bailey 2008; Teachman 2008). But other aspects of the Army may disproportionately assist black wealth accumulation. For example, blacks in the Army are more likely to hold senior enlisted positions and be officers compared to blacks in other branches (Department of the Army 2010). Although all branches of the military have similar pay structures, since blacks are more likely to fill the top three enlisted ranks[22] and to occupy officer positions in the Army more so than any other branch (Teachman 2008), blacks in the Army may also be more likely to enjoy higher pay, on average, compared to blacks in other military branches. Moreover, if

[22] The top three enlisted ranks in the Army are Sergeant Major of the Army, Command Sergeant Major, and Sergeant Major (see http://www.defense.gov/about/insignias/enlisted.aspx.)

officer rank lengthens men's time in service, it may also give them more time to benefit from their high military earnings. [23]

Since the career prospects of black are highest in the Army, this branch is, more likely to attract and retain blacks compared to other branches (Teachman 2008; U.S. Department of Defense 2011). As a result of the racial composition of the Army—blacks constitute 35% of the Army (militaryonesource.com 2007) — the Army may have a better record of enacting and enforcing the race-blind policies to which all branches ascribe (Moskos and Butler 1996; Teachman 2008). This in turn may facilitate the conditions necessary for blacks to achieve wealth parity with whites. In some ways, the Army may disproportionately offer the benefits of a government social program to blacks without the stigma.

Although my findings show a smaller racial wealth gap relative to civilians only for servicemen with high levels of education and for men in the Army and Navy, the possibility of the military reducing the black-white wealth gap should be researched further. My data have several limitations that may be important for exploring the impact of military service on black wealth outcomes. For example, individual pre-service characteristics may matter more for black veteran wealth than it does for white veteran wealth. I cannot discern the temporal order of important events, such as education, with these data. Furthermore, I do not know how long men served in the military or their rank—both of which may be important for the wealth accumulation of blacks. In fact, the racial wealth gap for men who served in the

[23] Although not disaggregated by rank in the military, Phillips, Andrisani, and Daymont (1992:354) constructed the earnings profiles of military and non-military blacks and whites over an eight-year time span and found that blacks and whites in the military out-earned their civilian peers.

Army may be smaller than the civilian gap due to at least two of these reasons—blacks are likely to stay in the Army longer and achieve higher ranks compared to blacks in any other branch (Teachman 2008; Department of the Army 2010). Accordingly, future research should examine how institutions affect the black-white wealth gap under conditions in which stability, position, and promotion are less tied to race.

Table 3.1 Median Wealth* of Nonveterans and Veterans, Aged 25-70**, by race, in 2007 dollars..**

	Whites	Blacks	Ratio Across Race***
Non-Veterans	$55,299	$17,301	.31
Veterans	$63,744	$15,482	.24
Ratio Across Veteran Status	.87	.90	

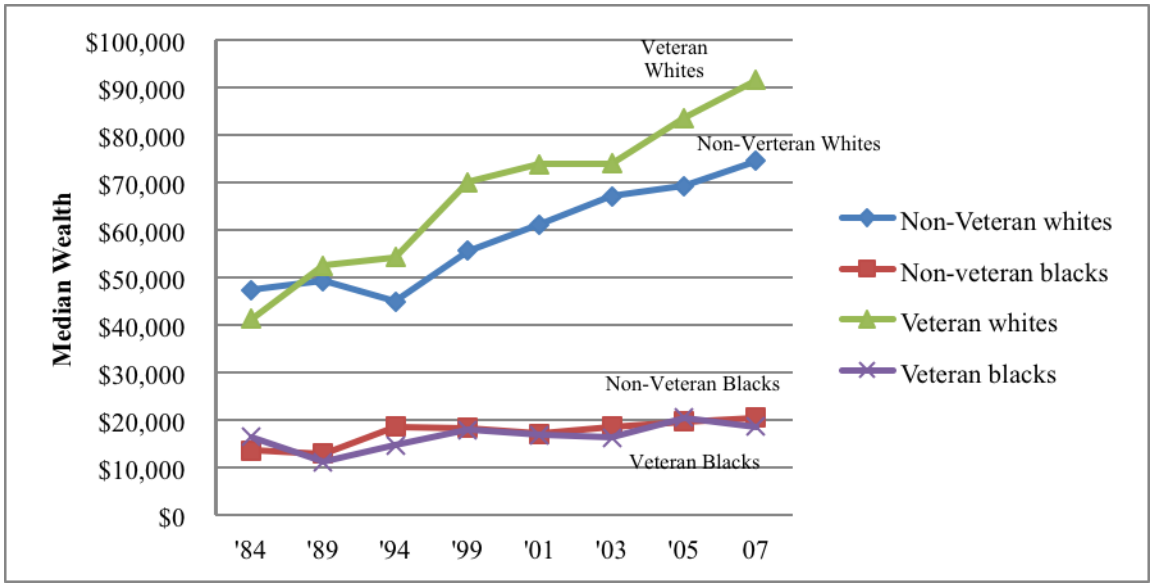
Note: Median wealth is based on the wealth of respondents who answered the wealth question at least twice between 1984 and 2007, and includes the median wealth of the last reported wealth of a respondent. For example, respondent A may have reported wealth in 1994 and 2003, so his wealth is reported for 2007. In contrast, respondent B may have reported his wealth holdings in every measured year, so his wealth is also reported for 2007.

*All wealth is adjusted to 2007 dollars.

**The age restriction reflects the age of the respondents in 2007.

***Ratio across race is calculated as black median wealth/white median wealth. Ratio across veteran status is calculated as veteran median wealth/non-veteran median wealth and non-veteran median wealth/veteran median wealth.

Figure 3.1 Median Wealth of Black and White Men in the PSID, Aged 25-70, by Veteran Status, 1984-2007



Source: PSID
Note: All wealth is adjusted to 2007 dollars.

Table 3.2 Median Wealth of Black and White Men[24], Aged 25-70, by Veteran Status and Educational Level, 2007

	Whites (1)	Blacks (2)	Ratio
Nonveterans			
Less than HS	$43,599	$14,425	.33
High School	$57,170	$21,501	.38
College	$65,037	$19,799	.30
Post B.A.	$63,655	$14,062	.22
Veterans			
Less than HS	$61,809	$15,571	.25
High School	$61,524	$18,512	.30
College	$71,915	$12,416	.17
Post B.A.	$70,181	$30,782	.44

Source: PSID
Note: All wealth is adjusted to 2007 dollars.

[24] The Ns are as follows: White non-veterans= 2,747 (less than high school); 4,932 (high school); 4,878 (college); 1,296 (post-B.A.); White veterans= 3,557 (less than high school); 9,911 (high school); 9,902 (college); 2,330 (post-B.A.); Black non-veterans= 1,982 (less than high school); 2,468 (high school); 1,438 (college); 150 (post-B.A.); White veterans= 911 (less than high school); 1,853 (high school); 1,463 (college); 170 (post-B.A.).

Table 3.3 Median Wealth of White and Black Men[25], Aged 25-70, by Veteran Status and Era Served*, 2007

		Whites	Blacks	Ratio
Non-Veterans				
	Pre-Vietnam	$55,373	$13,841	.25
	Vietnam	$57,943	$20,697	.36
	AVF	$54,513	$17,371	.32
Veterans				
	Pre-Vietnam	$59,352	$17,371	.29
	Vietnam	$63,616	$17,227	.27
	AVF	$64,824	$14,610	.23

Source: PSID
Note: All values are in 2007 constant dollars.
Ratio is calculated as black median wealth/white median wealth.
*Nonveterans are distinguished by the era they would have served in, had they been in the military

[25] The Ns are as follows: White non-veterans= 1,159 (Pre-Vietnam); 1,280 (Vietnam); 6,149 (AVF); White veterans= 2,456 (Pre-Vietnam); 3,294 (Vietnam); 10,811 (AVF); Black non-veterans= 488 (Pre-Vietnam); 569 (Vietnam); 2,932 (AVF); Black veterans= 276 (Pre-Vietnam); 559 (Vietnam); 2,100 (AVF).

Table 3.4 2007 Median Wealth of Men[26] Aged 25-70, by Proportion Black within Branch, Race, Veteran Status, and Branch of Service

	% Black[27]		Veterans	Veterans	
	Officers	Enlisted	White***	Black****	Ratio
Branch			(1)	(2)	(2)/(1)
Army	13%	22%	$78,500	$36,005	.46
Navy	8%	19%	$72,906	$22,316	.31
Coast Guard	--	--	$80,218	$14,041	.18
Marines	6%	11%	$73,270	$3,678	.05
Air Force	6%	17%	$100,830	$6,057	.06
Other			$105,594	$6,531	.06

	Nonveterans	Non-Veterans	
	White**	Black***	Difference
	(1)	(2)	(2)/(1)
	$74,033	$20,694	.28

Source: PSID
Note: All wealth adjusted to 2007 dollars.

[26] The Ns for Whites are as follows: Army=2,974; Navy=1,002; Coast Guard=94; Marines=507; Air Force=910; Other=151; Non-Veterans=2,590. The Ns for Blacks are as follows: Army=355; Navy=180; Coast Guard=4; Marines=101; Air Force=147; Other=29; Non-Veterans=913.

[27] Coast Guard data are not available. Taken from Table 2.19 at: http://www.militaryonesource.mil/12038/MOS/Reports/2007%20Demographics.pdf.

Chapter 4: The Indirect Effect of Military Service on Wealth through Income and the Saving Levels of Black and White Men

In Chapter 3, I report bivariate relationships between veteran status and wealth by era of service, educational attainment, and branch for black and white men. In Chapters 4 and 5, I report multivariate analyses to investigate whether the observed relationships between race, military service, and wealth are a product of accumulation of advantage or disadvantage. My analytic strategy in this chapter and the following one is to examine the series of outcomes through which military service might affect the wealth of white and black veterans, thereby influencing the black-white wealth gap.

In this chapter I examine the net effect of military service on income[28] and then on savings (net of income)—two factors that typically intervene between military service and wealth. My results in Chapter 3 demonstrate that the benefits of having served in the military varied by the era in which men served. Thus, my analysis controls for "era" in which male veterans served: —pre-Vietnam, Vietnam, and the All-Volunteer Force. I do this —by estimating separate regressions for men who served and their civilian as well as those who did not serve but were the age peers of those who did serve, during each of those eras. Finally, I report pooled OLS results for 2007 income and savings with interaction effects in the appendix of this chapter.

Following prior studies, I control for several characteristics found to be important predictors of wealth (Conley 1999; Keister 2005; Oliver and Shapiro 1995). For each era I control for years of education, marital status, and number of children. I control for marital

[28] My analysis measures the effect of military service on household income rather than individual earnings, given that Oliver and Shapiro (1995) have shown the importance of household income in black and white wealth outcomes.

status with two dummy variables, never married and divorced or widowed (divorced and widowed are one category), in contrast to married, the omitted category. I also control for age in my analyses, but only with respect to the Vietnam and AVF eras, because the ages of the pre-Vietnam era men only range from 68 to 70. Finally, I test for any statistically significant differences in the effects of veteran status as well as the control variables on income and savings.

I also test whether veteran status increases savings indirectly. I do so by running OLS regressions in several steps. In the first set of analyses separated by race, I run the OLS regression for savings without income (not shown) for each era. Then, I repeat the OLS regression for savings with income (Tables 4.2a through 4.2c) for each era. I report, compare, and discuss the coefficient for veterans for these analyses at the end of this chapter.

The Effect of Veteran Status on Black and White Men's 2007 Income

Pre-Vietnam Era

As Table 4.1a shows, white veterans who served pre-Vietnam had significantly higher 2007 income than white nonveterans from the same era, net of control variables. In contrast, black pre-Vietnam veterans' incomes were not significantly higher than their nonveteran counterparts. Although negative, the coefficient for black veterans—(-$804) did not differ significantly from zero. The effects of service differed significantly for blacks and whites (see column 5 of Table 4.1a), demonstrating a dramatic racial disparity in the income payoff of having served in the military in the pre-Vietnam era.

Although pre-Vietnam-era veteran status failed to show an independent effect for blacks, blacks and whites, regardless of their veteran status, enjoyed an income premium for their education. The size of these payoffs did not differ significantly for blacks and whites as

indicated by column 5, Table 4.1a. Finally, number of children was associated with an income penalty for men, regardless of race and veteran status, net of other controls.

Vietnam Era

Like Table 4.1a, Table 4.1b also addresses the effect of veteran status on income, but for black and white veterans from the Vietnam era as well as same-aged men who did not serve in the military (i.e., nonveterans). Among white men, the effect of veteran status on income was positive during the pre-Vietnam era and negative during the Vietnam era. Although the effect of veteran status was negative for whites that served during the Vietnam era (-$351), the coefficient for veteran status was not statistically significant. The effect of veteran for blacks is also negative, and the statistical reliability of the coefficient indicates that black veterans from the Vietnam era had significantly less income than their civilian peers. To be specific, black veterans had $11,028 less in income than their nonveteran counterparts, on average, net of the control variables.

This race difference is substantively important. White veterans from the Vietnam era did not enjoy the income bonus that pre-Vietnam-era veterans enjoyed, but having served did not significantly lower their income. Black Vietnam veterans, in contrast, incurred a large annual income penalty relative to their annual income compared to their civilian peers from the same era.

The coefficient for education for whites ($1,278) exceeds that for blacks ($687), but notice that only white men earned a *significantly* larger income for each year of education. The race difference is not statistically reliable. Never having been married had a negative effect on the incomes of white and black men, but the effect was statistically reliable only for blacks.

All-Volunteer Force

The impacts of military service on income during the era of the All-Volunteer Force (1973 to present) shows the greatest black-white disparity (see Table 4.1c). Having served in the AVF raised white men's income by $5,800 on average net of the controls compared to their nonveteran counterparts. In contrast, the average income of black veterans, net of control variables, was lower than that of black nonveterans by almost the same amount ($5,500).[29] As the fifth column in the table shows, this finding is statistically reliable: the probability that a difference this large resulted from chance is less than one in one hundred.

We also see from Table 4.1c that white men from this era received almost $2,500 more in income for each year of additional education—a statistically significant payoff. However, additional schooling clearly failed to increase black men's income. The coefficient for years of education for this group of black men is negative. Although this coefficient (-868) is too small relative to its standard error (851) to permit me to conclude that the effect of schooling is actually negative, there is no evidence that black men's education was rewarded by higher income. White men's income rose with veteran status, age, education, and being married. In contrast, black men's income was independent of all of these except veteran status, for which they apparently lost income.

In sum, with the exception of the Vietnam War (which had no discernible effect on income), having served in their country's military increased white men's income. In sharp contrast, black men's income never rose in response to military service, and service during the pre-Vietnam era and the AVF era was associated with significantly lower income relative to black civilian status. These findings raise two questions.

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[29] Note, however, that this coefficient is significant only at the .1 level.

First, what was it about the Vietnam War that prevented white veterans from capitalizing on their service and caused black men to receive an income penalty for serving during this era? One potential explanation for the lack of income premium for white veterans and an income penalty for black veterans is the widespread exposure to combat and drugs servicemen experienced during the Vietnam War. One study found that Vietnam-era veterans were more likely than their pre-Vietnam or AVF counterparts to report negative health effects as a consequence of going to war (Dohrenwend, Turner, Turse, Lewis-Fernandez, and Yager 2008). The economic cost imposed by adverse health effects associated with this era may account for the absence of an income payoff for white veterans. In addition, it also may explain why black veterans of this era demonstrate a loss of income compared to black nonveterans. The same study found that black and Hispanic Vietnam veterans had more severe combat exposure in the Vietnam War and higher rates of resultant PTSD than did their white peers. As a result, Vietnam-era generation minority veterans had a greater prevalence of substance-abuse disorders than nonveterans (Dohrenwend et al. 2008). The negative effect of veteran status on blacks 2007 income during this era could reflect the increased likelihood of PTSD and substance abuse among black Vietnam veterans compared to blacks who did not serve during this era, as well as compared to white veterans.

Another plausible explanation for the effect of veteran status on the incomes of black and white Vietnam-era veterans is that veterans of this era were more socioeconomically disadvantaged than equivalently aged nonveterans of this era. After educational deferments were introduced during the Korean Conflict, selection into the military shifted from the upper tiers to lower tiers of the socioeconomic population (see Bound and Turner 2002). As a result, blacks and impoverished whites were more likely than middle-class or college-

enrolled white men to be drafted into the Vietnam War (Angrist 1990). As such, Vietnam draftees were probably more constrained in their opportunities to increase their incomes because of their limited prospects for obtaining post-secondary education and employment, compared to men who avoided or were not selected for the Vietnam draft.

The second question is why white but not black veterans benefitted financially from pre-Vietnam and AVF service. The explanations for racial differences in income payoff to military service likely differ by era, thus I consider the pre-Vietnam era first. Black servicemen may not have benefitted financially from their service because of the racism and segregation practices that were prevalent in the U.S. and its military prior to the Vietnam era (Moskos and Butler 1996). For example, segregated living facilities for black officers prevented their assignment to some bases, thereby limiting their military advancement and careers (McGuire 1983). In addition, black officers never led units with white soldiers, and white officers often led black units. As a result, less than one percent (.04) of blacks in the Army were officers prior to the Vietnam era (McGuire 1983:35). Furthermore, jobs in the military were segregated by race, and black soldiers were often relegated to labor and service in military units, such as digging ditches, laying roads, working on cleaning crews, or working as cooks, stewards, or dishwashers (McGuire 1983). Because of the limited career advancements and opportunities for black pre-Vietnam enlisted men, the skills that they obtained in the military may have only translated to low-paying civilian jobs. Thus, the dearth of opportunities for black men for better pay and training, compared to white servicemen of this era, would have reduced their income potential, as well as their post-military income generating opportunities.

In the All-Volunteer era, the racial difference may be due to the differences in enlistees. In this era, black enlistees were socioeconomically better off than their non-enlisted peers, while white enlistees became more disadvantaged compared to their peers (Greenberg and Rosenheck 2007; Moskos 1986). Researchers have found a positive effect of military service on income in the AVF era, but only for disadvantaged groups (Kogut, Short, and Wall 2010; Teachman 2004; Teachman and Tedrow 2007).[30] Thus, military service during the AVF era may positively affect the income of only white men because they are more likely to be recruited from economically disadvantaged backgrounds compared to their civilian peers, but black veterans are less advantaged than their non-serving counterparts, resulting in an absence of income payoff for their military service.

The Effect of Veteran Status on White and Black Men's 2007 Savings

I follow the same modeling strategy used in Tables 4.1a through 4.1c to test the effect of veteran status on 2007 savings, net of income, by race and era. I discuss the results below.

Pre-Vietnam Era

The results from Table 4.2a show that for white men, the coefficient for veteran status net of 2007 income was positive ($8,340), but it did not differ significantly from zero. Likewise, the coefficient for veteran status for black pre-Vietnam veterans ($2,627) was also positive, but did not demonstrate a significant effect on black 2007 saving levels. Moreover, the effect of veteran status on savings did not differ for blacks and whites, as depicted by the non-significant interaction effect (see column 5 of Table 4.2a).

[30] In the studies of Kogut et.al 2010; Teachman 2004; and Teachman and Tedrow 2007, disadvantage was operationalized as poverty and lower educational levels.

White and black men, regardless of their veteran status, experienced an increase in savings net of their income from their education. The effect of education on white men's savings, however, was almost 8 times greater than its effect on black men's savings, a statistically significant difference. The sharp difference in the effect of education on 2007 savings is reflected in the fact that this effect differed significantly for blacks and whites (see column 5 of Table 4.2a).

Conversely, the effect of children on savings was negative, irrespective of race. Although the presence of children was associated with a negative effect on white and black savings, the negative effect for whites ($-21,039) exceeded that of blacks (-$2,070) more than 11 times. The race difference for this coefficient is not statistically reliable, however.

Vietnam Era

Table 4.2b replicates the analysis in Table 4.2a, but the results are reported for white and black veterans who served, or would have served, had they been veterans during the Vietnam era. The results in Table 4.2b show that veterans have significantly more 2007 savings than their civilian counterparts, regardless of race. In fact, the effect for white veterans ($8,809) and black veterans ($4,898) are both statistically significant, net of the control variables. The test for a race interaction for this coefficient, however, indicates that the race difference is not statistically reliable.

White and black men, regardless of veteran status, saved significantly more money, on average, for each year of education. The coefficient for whites ($6,754) far exceeds that of blacks ($829), but the difference is not statistically reliable. Thus white men had a greater savings payoff than black men for additional schooling. Finally, married black men had significantly higher savings than their never married, widowed, or divorced counterparts.

AVF

The effect of veteran status on 2007 savings for AVF-era men differed by race. Compared to being a white civilian, military service during the AVF era reduced white men's savings by $1,139. The effect of veteran status on white men's savings was not statistically significant, however. Yet, the effect of veteran status on black men's savings was statistically reliable and was associated with a $1,663 increase in savings over nonveterans. However, the differential effect of veteran status by race may be due to chance as indicated by the absence of a significant interaction effect in column 5 of Table 4.2c.

Also evident in Table 4.2c is the statistically significant payoff for education and being married for men regardless of race and veteran status—although the effect of education was significantly stronger for white men than black men. In contrast, only white men's 2007 savings were positively impacted for each year of age. In addition, although the presence of children had a negative effect on 2007 savings, regardless of race, the effect was statistically reliable only for white men.

Overall, with the exception of the Vietnam era, white men received neither a savings penalty nor a premium for their military service. In contrast, having served in the military increased the savings of black men who served during the Vietnam and AVF eras. These results raise two questions.

First, why is that whites and blacks who served during the Vietnam era experienced an income loss compared to their same-aged civilian peers, but simultaneously demonstrated higher saving levels? One possible explanation for the higher savings of veterans compared to nonveterans during this era could be due to the Savings Deposit Program (SDP). Available since the Vietnam War and only to military members deployed in combat zones, the SDP

accrues interest at 10%. A savings account with this interest rate is unmatched in the civilian credit market. Although some men who served during the AVF era in my sample may have also been eligible for the SDP, it is likely that more Vietnam-era men than AVF-era men in my sample were deployed in combat zones.[31] To my knowledge no data are available on the usage of SDP. The second question is: does the accumulation of savings follow a CA/CD process, and does military service affect this process? I explore this question more fully below.

Cumulative Advantage/Disadvantage, Veteran Status, Race, and Savings

In analyses not shown, I replicated my models in Tables 4.2a through 4.2c without income. I ran the OLS regression for savings in two steps to test the cumulative advantage/disadvantage theory. If veterans are accumulating advantages with each new independent variable, the direct effect of veteran status should decline, because the direct effect of veteran status is largely operating through the intervening variable (in this case income). I report the coefficients in Table 4.3.

The fact that military service is associated with higher incomes for whites, but does not translate to increased savings, is not surprising. According to Oliver and Shapiro (1995:108), no discernible pattern for income and savings exist for whites. In contrast, the authors found that as income increased for black households, so did the amount that they allocated to savings. However, as seen in Tables 4.1a through 4.1c, the 2007 incomes of black households have not increased as a result of military service.

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[31] Using birth years I selected men who had a high likelihood of being drafted for the Vietnam War (see Chapter 2). In contrast, soldiers volunteer for enlistment in the AVF era. Although some may have been deployed in a combat zone, the proportion that was deployed during the AVF era compared to the Vietnam era may be lower.

Perhaps this is because military service may increase the savings of black men through its effect on other mechanisms (also affected by military service), such as marriage. In fact, black veterans are more likely than their civilian peers to be married (Teachman 2007; Usdanksy et al. 2009), and marriage is associated with increased savings (Altonji and Doraszelkski 2005; Oliver and Shapiro 1995). As shown in Tables 4.2b and 4.2c, being married has a positive effect on the savings of black veterans of the Vietnam and AVF eras.

Discussion

This chapter has sought to test the effect of veteran status on the income and savings outcomes of black and white men. Although veteran status has previously been shown to be an important factor in increasing the earnings of black and white men that served during certain eras (e.g., Cooney, Segal, Segal, and Falk 2003; Teachman 2004; Teachman and Tedrow 2007), prior work has largely ignored the relationships between military service, race, household income, and savings.

I expected that military exposure would increase income and savings irrespective of race. My results in this chapter provide some support for my expectation, but the effect of military service on income and savings is not consistent across the races. As shown in Tables 4.1a through 4.1c, military service was associated with higher income only for white men who served during the pre-Vietnam and AVF eras. In contrast, military service was associated with a loss of income for blacks in the same eras. In addition, the results in Tables 4.2a through 4.2c demonstrate that military service has no effect on the savings of white veterans, but a positive effect on the savings of black veterans at least since the Pre-Vietnam era. Generally speaking, although veteran status raises the income of white veterans, it does

not result in increased savings. Conversely, although veteran status does *not* improve the income of black veterans, it increases the amount that they save.

While my analysis establishes a relationship between veteran status, race, income, and savings, I cannot determine the specific mechanisms behind the relationships. Despite this limitation, by controlling for other factors, particularly my consideration for potential differences by era, I was able to show that veteran status had an impact on the 2007 income of white veterans and the 2007 savings of black veterans, net of these other controls.

More generally, my findings suggest that military service may expand veterans' ability to build their wealth through income and savings, depending on their race and the era in which they served. Veteran status may confer labor market and income-generating advantages for white men or it can expand the savings opportunities and abilities of black men as it has done in select eras. At minimum, my research makes a case for further exploration in this area.

My data impose limitations that impede my ability to specify the mechanisms by which veteran status improves income and savings. First, it is possible that the outcomes measured in this chapter could vary by length of service. That is, both black and white men might demonstrate an income and savings payoff to military service, once tenure in the military is controlled for. In addition, without measures of pre-service characteristics (i.e., educational level) it is difficult to disentangle the impact of military service on income and savings. Finally, controlling for branch of service veterans served in, their ranks, and their combat exposure, could also validate these results.

On one hand, the relationships between race, military service, and income suggest that military service may contribute to black-white wealth inequalities by increasing the 2007

incomes of whites, but not blacks. On the other hand, the patterns associated between the impact of race, military service, and savings indicate that military service constrains black-white wealth differences by increasing the 2007 savings of blacks, but not whites. To further investigate the effect of military service on the black-white wealth gap, I examine the effect of military service on other components of wealth, such as homeownership and home equity, as well as total wealth, in my next set of analyses in Chapter 5.

Table 4.1a OLS Results of Effect of Veteran Status on 2007 Income for Pre-Vietnam-Era Men (Aged 68 to 70),

	Whites			Blacks			
	Parameter estimate β		Standard error	Parameter estimate β		Standard error	Significant Race Interaction
Veteran	10,840	***	3,002	-804		1,833	✓*
Education in Years	1,504	**	494	783	**	273	--
Never Married [a]	-16,908		12,957	243		5,483	--
Divorced/Widowed [a]	5,662		6,810	-1,239		3,103	--
Number of Children	-4,393	***	909	-2,434	***	344	--
Intercept	60,438	***	2,494	48,061	***	1,650	--
Adjusted R^2	0.010			0.039			
N	8,004			2,640			

Source: PSID
Notes: All Amounts adjusted to 2007 dollars.
*p<.05; **p<.01; ***p<.000; +p<.10
The following variables are mean centered: Education and Number of Children.
[a]Married is the omitted category.

Table 4.1b OLS Results of Effect of Veteran Status on 2007 Income for Vietnam-Era Men Aged (55 to 59)

	Whites			Blacks			
	Parameter estimate β		Standard error	Parameter estimate β		Standard Error	Significant Race Interaction
Veteran	-351		3,457	-11,028	**	3,192	--
Age	1,278		291	687	**	260	--
Education in Years	912	***	650	346		759	--
Never Married [a]	-13,200		12,302	-10,514	+	6,106	--
Divorced/Widowed [a]	1,214		6,796	-8,766		5,343	--
Number of Children	-1,486		1,721	1,161		1,378	--
Intercept	71,088	***	3,357	58,314	***	2,600	
Adjusted R^2	0.008			0.022			
N	6,820			2,555			

Source: PSID
Notes: All Amounts adjusted to 2007 dollars.
*p<.05; **p<.01; ***p<.000; +p<.10
The following variables are mean centered: Age, Education, and Number of Children.
[a]Married is the omitted category.

Table 4.1c OLS Results of Effect of Veteran Status on 2007 Income for AVF-Era Men Aged 25 to 52

	Whites			Blacks			
	Parameter estimate β		Standard error	Parameter estimate β		Standard error	Significant Race Interaction
Veteran	5,802	***	1,816	-5,518	+	3,178	✓**
Age	639	***	128	225		236	--
Education in Years	2,474	***	391	-868		851	✓**
Never Married [a]	-15,136	***	3,941	597		4,998	✓*
Divorced/Widowed [a]	-10,451	**	3,939	9,011		5,627	✓**
Number of Children	-4,643	***	770	-884		1,299	✓*
Intercept	82,617	***	1,706	57,331	***	2,796	
Adjusted R^2	0.007			0.001			
N	26,962			11,555			

Source: PSID
Notes: All Amounts adjusted to 2007 dollars.
*p<.05; **p<.01; ***p<.000; +p<.10
The following variables are mean centered: Age, Education, and Number of Children.
[a]Married is the omitted category.

Table 4.2a OLS Results of Effect of Veteran Status on 2007 Savings for Pre-Vietnam-Era Men Aged 68 to 70

	Whites			Blacks			
	Parameter estimate β		Standard error	Parameter estimate β		Standard error	Significant Race Interaction
Veteran	8,340		9,563	2,627		1,794	--
Education in Years	11,272	***	1,641	1,371	***	284	✓*
Income (In thousands)	-28		30	-3		18	--
Never Married [a]	1,066		46,581	-4,362		5,206	--
Divorced/Widowed [a]	-4,361		16,602	3,335		2,440	--
Number of Children	-21,039	*	9,314	-2,070	*	843	--
Intercept	41,093	**	12,241	8,201	***	1,576	
Adjusted R^2	0.021			0.063			
N	8,004			2,640			

Source: PSID
Notes: All Amounts adjusted to 2007 dollars.
*p<.05; **p<.01; ***p<.000; +p<.10
The following variables are mean centered: Education, Income, and Number of Children.
[a]Married is the omitted category.

Table 4.2b OLS Results of Effect of Veteran Status on 2007 Savings for Vietnam-Era Men Aged 55 to 59

	Whites			Blacks			
	Parameter estimate β		Standard error	Parameter estimate B		Standard error	Significant Race Interaction
Veteran	8,809	*	3,851	4,898	**	1,740	--
Age	606	+	318	131		141	--
Education in Years	6,754	***	756	829	*	411	--
Income (In thousands)	-3		18	29	+	18	--
Never Married [a]	-3,485		13,827	-9,938	**	3,308	--
Divorced/Widowed [a]	-21,128	*	7,485	-4,869	+	2,894	--
Number of Children	-1,679		1,921	-1,184		746	✓+
Intercept	16,746	***	3,840	8,197	***	1,422	
Adjusted R^2	0.033			0.028			
N	6,820			2,555			

Source: PSID
Notes: All Amounts adjusted to 2007 dollars.
*p<.05; **p<.01; ***p<.000; +p<.10
The following variables are mean centered: Age, Education, Income, and Number of Children.
[a]Married is the omitted category.

Table 4.2c OLS Results of Effect of Veteran Status on 2007 Savings for AVF-Era Men Aged 25 to 52

	Whites			Blacks			
	Parameter estimate β		Standard error	Parameter estimate β		Standard error	Significant Race Interaction
Veteran	-1,139		1,032	1,663	**	889	--
Age	935	***	72	174		66	✓***
Education in Years	3,781	***	226	1,193	*	238	✓***
Income (in thousands)	-2		4	-3	+	4	--
Never Married [a]	-8,289	***	2,255	-2,855	**	1,399	--
Divorced/Widowed [a]	-6,350	**	2,223	-3,739	+	1,574	--
Number of Children	-1,517	**	437	-468		363	--
Intercept	23,395	***	968	8,153	***	783	
Adjusted R^2	0.033			0.011			
N	26,962			11,555			

Source: PSID
Notes: All Amounts adjusted to 2007 dollars.
*p<.05; **p<.01; ***p<.000; +p<.10
The following variables are mean centered: Age, Education, and Number of Children.
[a]Married is the omitted category.

Table 4.3 Coefficient for the Effect of Veteran Status on 2007 Savings With and Without Income, by Era and Race

	Pre-Vietnam Era, Men aged 68 to 70				
	Whites			Blacks	
	Parameter estimate β		Standard error	Parameter estimate β	Standard error
Without Income	5,021		7,098	4,134 **	1,350
With Income	8,340		9,563	2,627	1,794

	Vietnam Era, Men Aged 55 to 59				
	Whites			Blacks	
	Parameter estimate β		Standard error	Parameter estimate β	Standard error
Without Income	4,446		3,524	4,347 **	1,106
With Income	8,809	*	3,851	4,898 **	1,740

	AVF Era, Men Aged 25 to 52				
	Whites			Blacks	
	Parameter estimate β		Standard error	Parameter estimate β	Standard error
Without Income	-327		872	6,875 **	882
With Income	-1,139		1,032	1,663 ***	889

Source: PSID
Note: All values are in 2007 constant dollars.

Table 4.4 Pooled OLS Results of Effect of Veteran Status on 2007 Income for Men, by Era, Aged 25 to 70

	Pre-Vietnam			Vietnam			AVF		
	Parameter estimate β		Standard error	Parameter estimate β		Standard error	Parameter estimate β		Standard error
Veteran	10,840	**	2,681	-351		3,186	5,802	**	1,795
Age				1,278	***	268	639	***	126
Education in Years	1,504	*	441	912		599	2,474	***	386
Never Married [a]	-16,908		11,571	-13,200		11,338	-15,136	***	3,894
Divorced/Widowed [a]	5,662		6,082	1,214		6,263	-10,451	**	3,892
Number of Children	-4,393	***	811	1,486		1,586	-4,643	***	761
Black	-12,377	*	5,093	-12,774	**	5,734	-25,285	***	3,373
Black*Vet	-11,644	*	5,752	-10,677		6,730	-11,319	**	3,776
Black*Age	--		--	-591		553	-414		278
Black*Edu	-721		877	-566		1,531	-3,342	**	970
Black*Single	17,151		19,122	2,685		16,034	15,733	*	6,516
Black*Divorced	-6,901		10,546	-9,980		11,732	19,462	**	7,053
Black*Kids	1,960		1,253	2,647		3,011	3,759	*	1,557
Intercept	60,438	***	2,227	71,088	***	3,094	55,650	***	4,749
Adjusted R^2	.022			.022			.017		
N	10,664			9,375			38,517		

Source: PSID
Notes: All Amounts adjusted to 2007 dollars.
*p<.05; **p<.01; ***p<.000; +p<.10
The following variables are mean centered: Age, Education, and Number of Children.
[a]Married is the omitted category.

Table 4.5 Pooled OLS Results of Effect of Veteran Status on 2007 Savings for Men, by Era, Aged 25 to 70

	Pre-Vietnam			Vietnam			AVF		
	Parameter estimate β		Standard error	Parameter estimate β		Standard error	Parameter estimate β		Standard error
Veteran	8,340		8,667	8,809		3,461	-1,139		937
Age	--		--	606		286	935	***	65
Education in Years	11,272	***	1,487	6,754	*	680	3,781	***	205
Income	-.028		.027	-.003		.016	-.002		.004
Never Married [a]	1,066		42,216	-3,485		12,429	-8,289	***	2,047
Divorced/Widowed [a]	-4,361		15,047	-21,128		6,729	-6,350	**	2,018
Number of Children	-21,039	*	8,442	-1,679	***	1,727	-1,517	***	396
Black	-32,893	+	19,281	-8,548	**	6,188	-15,242	***	1,732
Black*Vet	-5,713		19,937	-3,912		7,172	2,802		1,936
Black*Age	--		--	-475		595	-761	***	142
Black*Edu	-9,901	**	3,210	-5,925		1,631	-2,588	***	497
Black*Income	25		19	32		66	-1		.009
Black*Single	-5,428		67,062	-6,453		17,239	5,435		3,361
Black*Divorced	-7,696		268,687	16,259		12,430	2,611		3,615
Black*Kids	18,969		11,937	495	+	3,201	1,049		798
Intercept	41,093	***	11,094	16,746	***	3,099	23,395	***	879
Adjusted R^2	0.031			0.036			0.037		
N	10,664			9,375			38,517		

Source: PSID
Notes: All Amounts adjusted to 2007 dollars.
*p<.05; **p<.01; ***p<.000; +p<.10
The following variables are mean centered: Age, Education, and Number of Children.
[a]Married is the omitted category.

Chapter 5: The Effect of Veteran Status on Home Ownership, Home Equity, and Total Wealth of Black and White Men

My final empirical chapter examines a second proposed pathway of wealth accumulation that may be facilitated by veteran status, which is whether military service affects both the likelihood of home ownership and the amount of home equity accumulated in that home. In my last analyses of this chapter, I also test whether veteran status is associated with increased total wealth.

To test the effects of veteran status on rates of home ownership, I utilize logistic regression models. For home equity and total wealth outcomes, I follow the analytic strategy in the previous chapter of using OLS regressions. I control for the same characteristics (education, dummy variables for marital status—never having been married, and divorced or widowed, with married as the reference category— number of children, and age).[32] In the models predicting home ownership and home equity, I also add include region because others have identified region as an important predictor of these outcomes (Oliver and Shapiro 1995).

I report separate models by race and era for all of the analyses in this chapter. In addition, I report the pooled logistic and OLS results with race interactions in the appendix of this chapter. Finally, I also show the analyses for the effects of veteran status on home equity and total wealth in several stages to determine whether veterans are accumulating advantages to wealth through the indirect effects of military service.

[32] Once again, I control for age only in the Vietnam and AVF era because the age range for Pre-Vietnam era men spans only from 68 to 70.

My results from the previous chapter show that white pre-Vietnam and AVF veterans enjoy an income payoff for their military service. In contrast, black Vietnam and AVF veterans demonstrate an income penalty for their military service. Interestingly, the income payoffs for whites did not translate into increased savings levels. In fact, among white servicemen, only Vietnam veterans demonstrated a positive return to savings for their military service. Black veterans, on the other hand, had significantly more savings then their civilian counterparts with the exception of those who served during the pre-Vietnam era.

Based on these findings, I expect that the effect of veteran status on the chances of owning a home, the amount of home equity amassed in that home, and respondents' total wealth will also vary by era and race. I begin this chapter by examining the factors affecting the likelihood of owning a home by 2007 for veterans and their same-aged peers.

The Effect of Veteran Status on Black and White Men's Likelihood of 2007 Home Ownership

Table 5.1 shows the mean home ownership rates (in percent) of black and white men by veteran status and the era in which they served. These descriptive statistics demonstrate that veterans have higher rates of home ownership than their nonveteran counterparts, irrespective of race. Furthermore the black-white home ownership gap for veterans grew from the pre-Vietnam to the AVF era by 20 percentage points. In contrast, the black-white home ownership gap for nonveterans remained fairly stable, shrinking by only one percentage point during the same time frame. Taken together these findings suggest that veteran status may increase the chances of home ownership, while also constraining the black-white homeownership gap.

To further explore the possibility of the positive relationship between having served in the military and the ability of veterans to own homes by 2007, I use logistic regressions. I control for factors shown to be important in the home acquisition process: education, income, the presence of children in the home, region of residence, and marital status. I report my findings for the effect of military service on the likelihood of home ownership for whites and blacks in the sections below.

Pre-Vietnam Era

As shown in Table 5.1a, white veterans of the pre-Vietnam era were more likely to own a home than their nonveteran peers. The odds ratio shows that white veterans were more likely than their nonveteran counterparts to own a home and this effect was statistically reliable. In contrast, military service did not have a statistically significant effect on the home ownership rates of blacks. It is important to note that the effect of veteran status on home ownership is stronger for whites than blacks, as shown in column of 7 of Table 5.1a.

The finding that white, but not black, pre-Vietnam-era veterans enjoyed increased chances of home ownership is well documented. Nationally, nearly 2.5 million home loans were given under the VA home loan administration between 1944 and 1952 (Cohen 2003). As a result, forty-two percent of veterans became homeowners by 1956, compared to 34 percent of nonveterans of comparable age (Cohen 2003:197). It is difficult, however, to determine how many of these loans were given to blacks, since race data were not collected (Cohen 2003). One analysis, however, showed that Mississippi issued more than 3,000 VA home loans to veterans in the summer of 1947; only two of those loans—or less than one percent—went to black veterans (Humes 2006:226-227).

While we cannot generalize from deep-south Mississippi in 1947, another analysis showed that by the mid 1970s, 11 million Americans had purchased homes through FHA/VA financing, but less than two percent of black households were financed or insured by these programs (Hatcher 2006:171). Overall, after completing their military service, black pre-Vietnam-era soldiers faced several barriers to using their VA home loan benefits, such as residential segregation, redlining, and overt discrimination. Thus very few black veterans of this era were able to use their home loan benefits.

Table 5.1a also demonstrates that the chances of owning a home increased with each year of education, income, and married status compared to never being married, divorced, or widowed for both black and white men from the pre-Vietnam era. The size of the payoffs for education was significantly greater for whites than blacks, however (see column 7, Table 5.1a). In addition, white and black childless households were more likely to own a home than their same-raced counterparts with children in the home. The probability that the racial difference in the effect of children on the likelihood of home ownership resulted from chance is less than one in ten (column 7 Table 5.1a).

Vietnam Era

While military service during the *pre-Vietnam era* increased the likelihood of 2007 home ownership for whites, but had no effect for blacks, Table 5.1b shows that this pattern reversed during the Vietnam era. Specifically, white Vietnam veterans were less likely than their counterparts of the same race to own a home by 2007. The effect of veteran status on the likelihood of home ownership for blacks, on the other hand, was positive and statistically significant at the .01 level. Specifically, black Vietnam veterans were more likely than their same-aged non-veteran peers to own a home. As shown in column 7 of Table 5.1b, the

differential effect of military service on homeownership for blacks versus whites is statistically and substantively significant.

Among the remaining variables, age, education, and marriage significantly affected the likelihood of home ownership among white and black men of this era. The effect of being divorced or widowed differed by race, however (see column 7, Table 5.1b).

AVF Era

Table 5.1c examines the likelihood of 2007 homeownership for white and black AVF-era servicemen and civilian age peers. Although the coefficient for veteran status was positive for both races, only the coefficient for whites was large enough to be statistically reliable in this era. The difference in the coefficients for whites and blacks is too small to allow me to conclude that veteran status helped whites, but not blacks, become homeowners by 2007 (see column 5 of Table 5.1c).

The coefficients for age, education, and marriage demonstrates independent and positive effects on the likelihood of home ownership for whites and blacks, irrespective of veteran status. Of these variables the effect of being married (compared to never having been married, divorced, or widowed) was stronger for blacks than whites. The effect of age, however, was stronger for whites than blacks. The effect of these variables differed by race (see column 7 of Table 5.1c). Finally, the presence of children was statistically significant only in predicting the likelihood of home ownership for whites.

Summary

Considering the effect of military service on the chances of home ownership across the three eras shows that the impact of veteran status differed for whites and blacks in each era, but in an inconsistent way. Veteran status either had no effect on the likelihood of home

ownership or increased the chances of owning a home for white and black men, but was never associated with a lowered chance of owning a home. Service during the pre-Vietnam and AVF eras was associated with an increased chance of home ownership for whites, and service during the Vietnam era was associated with an increased chance of home ownership for blacks. The Vietnam era is substantively important; it is the only era that military service did not increase the likelihood of home ownership for whites, but did so for blacks.

When comparing home ownership for white and black veterans using the 2005 American Community Survey data, Conley and Heerwig (2011) found that veteran status reduced the likelihood of home ownership for whites, but had no effect on the chances of home ownership for blacks (see Table 2:353). Similarly, I also found that the effect of veteran status on the likelihood of homeownership is negative. Military service is associated with a positive effect on the likelihood of homeownership for blacks, however. The fact that military service during the Vietnam era was associated with an increased likelihood of home ownership for blacks but not whites in my sample is puzzling. A possible explanation for the race-differentiated effect of veteran status on the chances of owning a home for Vietnam veterans is selectivity. Blacks of all socioeconomic groups and impoverished whites were more likely than middle-class or college-enrolled whites to have served in the Vietnam War (Angrist 1990). As such, it is also possible that white Vietnam veterans compared to black Vietnam veterans faced greater barriers in acquiring the resources required for home ownership.

The findings on the effect of veteran status on the chances of homeownership for men who served during the Vietnam era and their same-aged peers also raise an important question—why didn't the increased chances of owning a home for black Vietnam veterans

extend to their AVF veteran peers? One possible explanation is that black AVF veterans are less likely than both white AVF veterans and black Vietnam veterans to use the VA home loan program. For example, Lang (2013) notes widespread errors in payroll and benefit claims for AVF veterans due to errors in eligibility determinations and the backlog of requests for veteran-related benefits. If these obstacles disproportionately affect blacks compared to whites, as many social processes do, then black AVF veterans may be less likely than veterans of other races and eras to be able to use these benefits.

Another possible explanation is that blacks who have served in the military during the AVF era are more likely to have used base housing while active. Blacks are more likely to live in economically disadvantaged neighborhoods than whites (Massey and Denton 1993). If base housing provides opportunities for housing in neighborhoods that are safer and with better schools than the neighborhoods blacks would likely live in, then black veterans may prolong buying a house. To my knowledge, no data exist to support this claim, however.

The Effect of Veteran Status on the Amount of 2007 Equity Held in the Homes of Black and White Men

Table 5.2 shows the median equity held by white and black men in their homes by era and veteran status. The descriptive findings suggest that white veterans who served during the pre-Vietnam era and blacks who served during the pre-Vietnam and Vietnam eras had more equity than their same-aged civilian peers by 2007. Notice too, that veteran men from the pre-Vietnam era reported more home equity than men of any other era, irrespective of race and veteran status. In my sample, however, the men from this era were from 68 to 70 years old, thus this group also had the opportunity to own their homes for a much longer time compared to men of the other two eras.

I use OLS regressions to test whether veteran status impacted the amount of equity whites and blacks accumulated in their homes by 2007, but only for men who reported owning a home. I control for factors shown to be important in the process of accumulating home equity—namely, education, income, savings, and marital status and region of residence. I report my findings for the effect of military service on the amount of home equity held by whites and blacks, by era, below. At the end of the section, I also report the effects of veteran status on home equity in several stages to determine whether veterans are accumulating advantages to wealth via the indirect effects of military service.

Pre-Vietnam Era

As Table 5.2a shows, military service during the pre-Vietnam era had no effect on the amount of equity accumulated in whites' and blacks' homes by 2007. The coefficient for veteran status for both racial groups did not differ significantly from zero.

Although both white and black men accumulated equity in their homes for each additional year of schooling, as with most social processes, white men received greater returns than blacks for their educational investment. Specifically, whites' return for each additional year of education on home equity accumulation was 5 times greater than that of blacks. As shown by column 5 of Table 5.2a, the race difference for this coefficient is statistically reliable. In contrast, blacks garnered greater returns for their savings efforts, compared to whites. Notice that savings resulted in a home equity payoff for blacks that was nearly 8 times greater than the payoff for whites. The differential home equity payoff for savings is reflected in the fact that the effects of military service differed significantly for blacks and whites (see column 5 of Table 5.2a). This finding may reflect the fact that the

relationship between savings, home equity, and wealth outcomes, such as home equity, are weaker for whites relative to blacks (Oliver and Shapiro 1995).

White men also saw significant home equity gains for each incremental increase in income, while income changes failed to affect the amount of home equity accumulated by blacks. Not having been married reduced home equity for whites and blacks. For whites, having children in the home was associated with reduced home equity, while for blacks, having been divorced or widowed had the same effect

Vietnam Era

In contrast to the effect of military service during the pre-Vietnam era on the amount of home equity accumulated by 2007, the effect of veteran status is negative for whites and positive for blacks who served during the Vietnam era. As shown in Table 5.2b, military service resulted in a loss of home equity that averaged $25,211 for white Vietnam-era veterans relative to their nonveteran peers. The probability that a difference this large resulted from chance is not likely given the p value (.000). In contrast, the average amount of equity held by black veterans, net of income and savings, was higher than that of black nonveterans by almost the same amount ($29,860). The marked difference in the effect of veteran status by race on home equity is statistically significant (see column 5, Table 5.2). That veteran status reduced the amount of 2007 home equity accumulated by whites, but enhanced the amount of 2007 home equity gained by blacks is substantively important and is explored further at the end of this section.

Men of both races also saw significant increases to the amount of home equity for each additional year of schooling, and as their household savings increased. The effect of age and education on home equity for whites exceeded that of blacks, while the effect of savings

for blacks exceeded that of whites. As column 5 of Table 5.2b shows, it is not likely that the racial differences in the effect of these variables on 2007 home equity are due to chance.

The effect of having been married and the presence of children on the accumulation of home equity differed for whites and blacks. For example, white married men fared better in terms of home equity compared to their peers who had never been married, or were divorced or widowed. Never married blacks, on the other hand, demonstrate a substantial and significant payoff to home equity compared to their married peers of the same race. The test for a race interaction for these variables indicates that the race differences are statistically reliable.

Finally, the presence of children in the home exhibited a positive effect on the amount of home equity accumulated in the home by 2007, but the effect failed to show an independent effect for blacks.

AVF Era

As Table 5.2c shows, men who served during the AVF era report higher 2007 home equity levels than their civilian peers of the same age, irrespective of race, though these effects are only significant at the .1 level. In fact, the effect for white veterans ($4,569) and black veterans ($2,696) are both statistically significant, net of income and savings controls. Both whites and blacks also enjoyed increases in the amount of equity held in their homes by 2007 as they aged, for each year of schooling, and as the amount of money they saved increased. As with most socio-economic outcomes, however, whites saw a greater boost in their home equity with aging and for their investments than blacks. For example, whites built up more home equity for their returns in age ($5,242), and education ($8,965), and savings ($4,730), compared to blacks at $1,343; $3,514; and $2,790, respectively. The race

differences are statistically reliable (see Column 5, Table 5.2c). The effects of marital status and the presence of children on home equity differed by race. Specifically, white married men fared better in terms of 2007 home equity compared to white men who had never been married, or were divorced or widowed. In contrast, divorced or widowed black men fared worse in terms of 2007 home equity compared to their married peers, but experienced no difference in the effect of having been married or never married. Finally, the presence of children had a positive and significant effect on the home equity reported by whites, but it failed to demonstrate an independent effect for blacks.

Summary

In sum, having served in the military had no effect on the amount of 2007 home equity accumulated by pre-Vietnam veterans of either race. In contrast, having served in the military during the Vietnam era had a negative impact on the home equity of whites, but a positive impact on the 2007 home equity of blacks. Black and white men who served during the AVF era also demonstrated positive gains to their 2007 home equity compared to men who served during the Vietnam era. These findings raise two questions.

First, what is it about the Vietnam War that prevented white veterans from having a positive return to their home equity for their service? Service during the Vietnam era has consistently shown either no return or a negative impact on the outcomes measured for whites in this dissertation. In contrast, the effect of service during the Vietnam era on the income, savings, home ownership, and home equity outcomes of blacks has varied. At least some of the differential impact of serving during the Vietnam era on the aforementioned outcomes of white veterans may be a reflection of selectivity. That is, white Vietnam veterans may be more socioeconomically disadvantaged compared to both white and black

pre-Vietnam veterans who were drafted from all socioeconomic strata of the population, and AVF veterans who voluntarily enlisted. On the contrary, college-educated and well-to-do whites were less likely to serve during the Vietnam era (Bound and Turner 2002). Thus, whites who served in Vietnam may have been more limited in their ability to expand their wealth-related opportunities because they were more socio-economically disadvantaged to begin with compared to white veterans who served in other eras.

The second question is why black veterans (at least for those that served during the Vietnam and AVF eras), were able to accumulate more 2007 home equity than their civilian counterparts compared to pre-Vietnam black veterans and white Vietnam veterans? One possible explanation is a mechanism that is not measured in my dissertation, but directly affected by a military career: geographic mobility. Service in the military is associated with more frequent geographic relocations compared to civilian migration patterns (Bailey 2008).

Military service may indirectly affect the home equity of black Vietnam and AVF veterans by increasing their probability of buying a home in a neighborhood that differs from the soldier's home of origin. Compared to black homeowners who never served, if black veterans are more likely to purchase homes in racially mixed or less impoverished neighborhoods, then the amount of equity accumulated in their homes may also be higher as a result. This may also explain why black pre-Vietnam veterans who faced obstacles to home-buying in general because of overtly discriminatory laws during this era—such as Jim Crow Laws, housing covenants, and redlining that limited where they could buy home— did not experience a boost in home equity compared to black nonveterans of this time period. Put another way, despite the possible greater geographic mobility of black veterans compared

to black nonveterans, the likelihood of buying a home in a racially mixed neighborhood—and hence more subject to appreciation—may have been invariant for black men of this era.

Cumulative Advantage/Disadvantage, Veteran Status, Race, and Home Equity

To test the direct effect of veteran status on the amount of home equity held in the homes of white and black men, I compare the net effect of veteran status in several stages. I follow my prior modeling strategy in Tables 5.2a through 5.2c. In the first step, however, I run my analyses with veteran status, while controlling for education, the dummy variables for marital status (with married being the omitted category), the number of children present in the home, and regional variables (with the central region being the omitted variable). In the second stage, I replicate the same modeling strategy, but also control for income. In the final model I add in controls for income and savings.

By comparing the net effect of veteran status in several stages, I attempt to see if veterans are accumulating advantages with each new independent variable. If a process of cumulative advantage is evident for veterans, then I expect that the direct effect of veteran status should decline after each independent variable is added because the effect of veteran status is largely operating through the intervening variable, i.e., and indirect effect. I report the coefficients in Table 5.3.

A comparison of the coefficient for veteran status by race and era demonstrates that black pre-Vietnam veterans as well as whites and blacks who served during the AVF era accumulated advantages in the wealth-building process as a result of serving in the military. For black pre-Vietnam veterans the effect of veteran status on the amount of equity amassed in a home was completely explained by adding savings into the model. Thus military service increased the amount of home equity held in the homes of pre-Vietnam veterans partly

indirectly. For white and black AVF veterans, the effect of veteran status declined once income and savings were added in my models, but the effect of veteran status was not completely diminished. This pattern suggests that having served during the AVF era had a direct effect on the amount of home equity built up in a home, net of income and savings.

Looking at the coefficient for veteran status indicates that serving in the military did not increase the equity held by white pre-Vietnam era veterans and white and black Vietnam veterans. In fact as shown in Table 5.3, not accounting for income and savings suppresses the effect of having been in the military for whites who served during the pre-Vietnam era and white and black men who served during the Vietnam era.

These findings preclude me from making broad and definitive statements about the process of cumulative advantage for veterans compared to similarly aged nonveterans in terms of home equity. Taken together, these findings suggest that the era under which one serves, and not just having served in the military in and of itself, affect the wealth-building process. Furthermore, income and savings are only two of the possible routes by which military service may increase home equity. Due to data limitations, this dissertation cannot assess the effects of other mechanisms that may also increase equity as a result of military service, such as pensions. While I do not possess the data to specify with certainty mechanisms by which military service influences racial inequality, my findings show that societal institutions, rather than simply individual choices, can contribute to racial differences in opportunities for increasing wealth.

Finally, the findings from Tables 5.2a through 5.2c, as well as Table 5.3 show that inequality is not simply about returns to investments, but differential returns by race. For example, education had a positive effect on home equity, irrespective of race, but the returns

for whites were greater than the returns for blacks. The fact that the sizes of the effect of veteran status on these outcomes differ demonstrates that whites are more likely to benefit from the process of cumulative advantage in terms of wealth.

The Effect of Veteran Status on the 2007 Total Wealth of Black and White Men by Era

This final section addresses the question of whether having served in the U.S. military increased the wealth of veterans compared nonveterans. In the PSID and therefore my dissertation, wealth is comprised of eight asset components: (1) home equity, (2) other real estate, (3) private business/farm, (4) vehicles, (5) transaction accounts, (6) corporate equities, (7) annuities/IRAs, and (8) other savings. Median wealth by race, veteran status, and era in which one served (or for nonveterans, would have served) is depicted in Table 5.4.

The descriptive depiction demonstrates that white veterans who served during the Vietnam and AVF era had more wealth than their civilian age peers. White Vietnam veterans, however, had only $18 more than their white nonveteran counterparts. In contrast, only black men who served during the pre-Vietnam era reported more wealth than their nonveteran peers. White men who served during the pre-Vietnam era reported less wealth than their civilian counterparts. Although men who served during the pre-Vietnam era (aged 68 to 70) were much older compared to men who served during the Vietnam (aged 55 to 59) and AVF eras (aged 25 to 52), they did not report the highest amount of wealth among men across all eras.

While only descriptive, these figures suggest that veterans had greater wealth than nonveterans in only three of the six comparisons: whites and blacks who served during the pre-Vietnam, Vietnam, and AVF eras and white and black nonveterans from each of these aforementioned eras. The multivariate analysis in the following section attempts to

elucidate the degree to which military service affects wealth accumulation by race. Specifically, I report (Columns 1 and 3 in Tables 5.4a through 5.4c) the effects of having served in the military on wealth, as it varies by race. Although my modeling strategy within these tables is similar to the modeling strategy that I use in Tables 5.2a though 5.2c, I do not include home ownership status, home equity, and savings in the models because all three variables are components of wealth, my dependent variable.

Pre-Vietnam Era

Columns 1 through 4 in Table 5.4a show that veteran status for men who served during the pre-Vietnam era is statistically significant at the .1 level and positively associated with wealth for veterans of both races. White veterans average slightly more than 90 thousand dollars of wealththan their civilian counterparts, and black veterans have $30, 839 of wealth more than their civilian peers. The effect of veteran status on total wealth did not significantly differ by race significantly (column of 5 of Table 5.4a).

In addition, white and black men also saw their wealth increase as their income increased. Neither white nor black men who served or would have served during the pre-Vietnam era demonstrated significant returns to their wealth for their investments in education, having been married, or having had children.

Vietnam Era

Unlike men who served during the pre-Vietnam era, white and black men who served during the Vietnam era had less wealth than their same-aged nonveteran peers. The coefficient for veteran status was significant and negative for men of both races. For example, the coefficient for veteran status for whites and blacks showed that veterans had $45,172 and $31,785 less wealth, respectively, than their same-aged civilian peers.

The effect of veteran status on wealth was negative for white and black Vietnam veterans compared to the positive effect of veteran status on wealth for white and black who served in the previous era. Neither white men nor black men enjoyed the increases in total wealth associated with military service that their same-raced counterparts of the previous era enjoyed.

White and black men did, however, experience gains in their wealth for increases in income. Only black men saw positive returns to wealth for their age. The coefficient for white Vietnam veterans ($3,610) is too small relative to its standard error ($1,175) for me to conclude that the effect of age is actually positive. Thus whites who served during the Vietnam era did not see the negative effect of military service diminish with age, as did black Vietnam veterans. In contrast, having never been married had a negative and statistically significant effect on the wealth of only white men. Finally, having never been married also had a negative effect on the wealth of black men, but the effect failed to have an independent effect.

AVF Era

During the AVF era, the effect of veteran status on total wealth differed by race. For whites, the effect of veteran status on wealth was statistically reliable and positive ($36,264), while the effect for blacks was statistically reliable and negative ($10,422). These results show that the negative effect of Vietnam-era military service on wealth does not persist for white AVF veterans, but does so for black AVF veterans.

The effects of income and having never been married had a significant and positive effect on white and black wealth during the AVF era. Specifically, the coefficient for income for whites and blacks were 4.013 and 0.577 respectively. White men who were never

married averaged $204,049 more wealth than white men who were married and black men of the same marital status had $23,634 more in wealth than black married men.

Summary

Overall the findings show that having served in their country's military during the pre-Vietnam era boosted the wealth of both white and black men. However, service during the Vietnam era reduced the total wealth of both races. During the AVF era, military service ceased having a negative effect on the wealth of white men, but persisted in depressing wealth for blacks.

The finding that pre-Vietnam veterans have fared better than their non-veteran peers in terms of wealth is consistent with previous research that showed considerable socioeconomic benefits to serving in the military at that time. Most of the research, however, focused on the effect of military service on education and income (Fredland and Little 1980; Teachman and Tedrow 2004).

The effects of veteran status on income and educational outcomes vary across races, but also within race by era (see Teachman 2004; Teachman 2005; and Teachman & Tedrow 2007). Similarly, the effects of military service on wealth accumulation in my study also vary by race and era.

Vietnam veterans, regardless of race, have less wealth compared to nonveteran age peers of the same era. As discussed in Chapter 4, veterans who served during this era are socioeconomically disadvantaged compared to their civilian peers (Angrist 1990), or may have greater health issues after serving in the Vietnam War (Dohrendwend, Turner, Turse, Lewis-Fernandez, and Yager 2008). As a result, if men who served during the Vietnam era are more likely than their nonveteran peers of comparable age to experience health

disadvantages that reduce their time in the labor market, or their ability to build wealth, or both, military service would have had negative consequences for total wealth for servicemen of this era.

During the AVF era, the negative effect of military service on wealth is no longer apparent for white men who served. Despite a positive return to military service for savings and home equity—two important components of wealth—during this era, the effect of veteran status on wealth is negative for blacks. A possible explanation for this finding is that the effect of other wealth-related variables are stronger than savings and home equity in the wealth accumulation of blacks, such as stock investments (see Keister 2008 for a discussion of the racial differences in stock portfolios). Stock investments may have been limited among the general population for men who served during the pre-Vietnam and Vietnam eras, compared to men who served during the AVF era. Since online trading became available to the general public, stock investments may have come to play a bigger role in black-white wealth disparities.

Cumulative Advantage/Disadvantage, Veteran Status, Race, and Total Wealth

To examine whether white and black veterans accumulate advantages in the wealth accumulation process, I provide the coefficient for veteran status in a model with only controls, then I repeat the modeling strategy, but add income. I ran supplementary analyses including home ownership, but it was not significant in any of the models. In addition, I also excluded home equity and savings since they are values included in wealth. This allows me to discuss whether military service has an indirect effect on the wealth of white and black veterans through each intervening variable. If that is the case, I would expect the partial

coefficient for having been a veteran to decline as I control for more factors that influence wealth.

If veterans are accumulating advantages, the direct effect of veteran status should decline because with each new variable that is implicated in wealth acquisition, the direct effect of veteran status is largely operating through the intervening variable. I report the coefficients for veteran status net of income and home ownership in Table 5.5.

The summary in Table 5.5 suggests that veteran status can either affect the accumulation of advantage or disadvantage in the wealth-building processes of white and black men. On one hand, a process indicative of cumulative advantage was apparent for the wealth of white and black men who had served during the pre-Vietnam eras, and white men who served during the AVF era. For these men, military service increased wealth partly through its effect on income. Furthermore, the effect of veteran status remains substantial indicating that veteran status is also affecting wealth through variables not measured in my dissertation. On the other hand, having served in the military during the Vietnam era resulted in a loss of wealth for men of both races. Having served during the AVF era also resulted in a loss of wealth for black men compared to similarly aged black nonveterans. Interestingly, adding income and home ownership status mitigated the loss of wealth associated with military service for white Vietnam veterans and black Vietnam and AVF veterans. Finally, an unmeasured variable related to military service may explain why white Vietnam veterans have less wealth on average than their civilian peers. For example, for white and black men who served during the Vietnam era, the high likelihood of having been in combat and the negative health effects associated with war, such as Post Traumatic Stress Disorder, may have limited their ability to build wealth.

Discussion

In this chapter I investigated the relationships between military service, race, and wealth and two of its determinants—home ownership and home equity. With the exception of Fitzgerald (2006), researchers have not considered the effect of military service on the wealth-building process. Using data from the first wave of the Health and Retirement study, Fitzgerald analyzed the relationship between the length of time spent on active military duty and net worth for 5,800 men. The author found that "each additional year of military service was associated with an expected decrease of $11,260 in total net worth," (2006: 74). Fitzgerald's results also showed, however, that extended military service (i.e., greater than 20 years) may positively affect net worth. Fitzgerald's analyses did not control for era, however. Because my analyses are the first to consider the effect of veteran status on wealth by race and era, there are no studies with which to compare my results.

My first set of analyses in Tables 5.1a through 5.1c show that, overall, military service during the pre-Vietnam and AVF eras either increased or had no effect on the chances of home ownership for white and black men. Specifically, military service is associated with an increased likelihood of home ownership for whites who served during the pre-Vietnam and AVF eras and blacks who served during the Vietnam era. In contrast, military service had no obvious negative effects on the likelihood of home ownership for white Vietnam veterans and black pre-Vietnam- and AVF-era veterans. This is an important finding concerning the racially disparate effects of institutions on a variety of outcomes. For example, prison, an institution disproportionately experienced by blacks, can limit one's ability to build wealth (Pettit & Western 2004). The fact that military service, in certain

conditions, appears to help the chances of home ownership contributes to our understanding of how societal institutions affect the wealth-building process for whites and blacks.

My findings suggest that military service may help men who served during certain eras to buy homes, but that this effect does not always translate into increased home equity among those owning homes. Regarding the amount of home equity accumulated, military service during the AVF eras had a positive effect on the home equity held by whites, and military service during the Vietnam and AVF eras had a positive effect on the amount of equity held by blacks. Vietnam veterans of both races, however, had less wealth than their civilian age peers.

The effects of military service on total wealth also varied by era and race. Military service had a positive and significant effect on the wealth of men, irrespective of race, who served during the pre-Vietnam era, and white men who served during the AVF era. In contrast, military service had a negative effect on the wealth of both black and white men who served during the Vietnam era, and black men who served during the AVF era. In the case of home equity and total wealth, military service *can actually negatively impact* these outcomes.

On one hand, the results from my analyses provide some hope for reducing the overall black-white wealth gap. Blacks are less likely to own homes and their homes have lower values compared to those of whites (Smith 1995). Both of these factors contribute to black-white wealth disparities. The findings presented in this chapter show that in certain eras blacks' ability to build their wealth may be increased by the effects of military service on two important determinants of wealth—home ownership and home equity. Additionally, military service either increased or had no discernible effect on the chances of home

ownership and the amount of equity held by blacks, but did not have a negative impact on these outcomes.

Despite the ability of military service to positively affect two important components in the wealth-building process, the effect of veteran status on wealth is negative for blacks who served during the Vietnam and AVF eras. Some factors (beyond the scope of this study) that may be affected by military service and impact wealth include health, frequent relocation, and military pensions. For example, veterans with combat exposure are probably more likely to experience adverse health effects that impede their ability to accumulate wealth relative to comparably aged nonveterans. Earlier I speculated that the migratory patterns of black veterans might have contributed to their increased home equity compared to black nonveterans, through their ability to avoid segregated neighborhoods. However, it is also possible that frequent relocation and the availability of base housing may serve to delay opportunities to build wealth for veterans of both races. For example, veterans may buy homes much later compared to nonveterans. Since the timing of when one buys a home affects the ability and opportunity to build equity in that home, timing may be important for accounting for wealth differences between veterans and nonveterans. Finally, military pensions may be an important factor in the wealth accumulation of veterans. It is possible that men who serve for 20 years or more (the time it takes to retire from the military with a pension) are more likely to see a wealth payoff for military service than men who do not retire from the military. In fact, Fitzgerald's (2006) study suggests that extended time in the military may positively affect wealth. Unfortunately, my data do not include length of service, nor distinguish pensions earned from military service from pensions earned from other employers.

Interestingly, although previous researchers have noted the importance of home ownership in accounting for black-white wealth differences (Conley 1999; Oliver and Shapiro 1995; Krivo and Kaufman 2004), the fact that military service can increase the likelihood of home ownership for blacks and the amount of equity held in their homes, but not their total wealth, suggests that although home ownership may be an important part of the puzzle, other mechanisms, timing of events like education and homeownership, branch of service one served in, how long they served, their rank while in the military, and health are at least as important.

Although military service does not appear to increase the overall wealth of blacks, with the exception of blacks who served during the pre-Vietnam era, the findings from this chapter provide some support for the expectation that military service could alter the black-white wealth gap. As it stands, however, military service actually contributes to the black-white wealth gap by facilitating the wealth of white veterans (with the exception of white Vietnam veterans), but constraining the wealth of black veterans (with the exception of pre-Vietnam veterans).

Table 5.1 Home Ownership Rates (percent) for White and Black Men[33], Aged 25-70, by Veteran Status and Era Served*, 2007.

		Whites	Blacks	Ratio
Non-Veterans				
	Pre-Vietnam**	.80	.54	.88
	Vietnam	.84	.62	.74
	AVF	.71	.48	.68
Veterans				
	Pre-Vietnam**	.86	.61	.71
	Vietnam	.84	.68	.79
	AVF	.72	.52	.72

Source: PSID

Note: All values are in 2007 constant dollars.

Ratio is calculated as black home ownership/white home ownership.

*Nonveterans are distinguished by the era they would have served in, had they been in the military.

**Pre-Vietnam category includes those who served in WWII and the Korean Conflict.

[33] The Ns are as follows: White non-veterans= 3,008 (Pre-Vietnam); 2,084 (Vietnam); 9,972 (AVF); White veterans= 4,916 (Pre-Vietnam); 4,736 (Vietnam); 16,990 (AVF); Black non-veterans= 1,672 (Pre-Vietnam); 1,266 (Vietnam); 6,552(AVF); Black veterans= 967 (Pre-Vietnam); 1,289 (Vietnam); 5,002 (AVF).

Table 5.1a Logisitc Regression Predicting Home Ownership for Pre-Vietnam Era Men Aged 68 to 70, by Race and Veteran Status, 2007

	Whites				Blacks				
	Parameter estimate β		Standard Error	Odds Ratio	Parameter estimate β		Standard Error	Odds Ratio	Significant Race Interaction
Veteran	.294	***	.080	1.342	.091		.122	1.096	✓+
Education in Years	.107	***	.013	1.113	.074	***	.019	1.077	✓*
Income (in Thousands)	.004	***	.001	1.004	.005	**	.002	1.077	--
Never Married [a]	-2.079	***	.269	.125	-.906	**	.376	.404	--
Divorced/Widowed [a]	-1.512	***	.148	.221	-1.636	***	.237	.195	--
Number of Children	-.193	***	.023	.825	-.089	***	.025	.915	✓+
South [b]	.432	***	.121	1.540	1.934	***	.177	6.917	--
East [b]	-.076		.147	.927	-.286		.320	.752	--
West [b]	.403	*	.170	1.496	-.298		.452	.742	--
Intercept	1.640	***	.073	5.155	.247	+	.134	1.280	✓***
Log Likelihood	4,342				1,761				
Chi Square	401				300				
N	7,924				2,639				

Source: PSID
Notes: All Amounts adjusted to 2007 dollars.
*p<.05; **p<.01; ***p<.000; +p<.10
The following variables are mean centered: Education, Income, and Number of Children.
[a]Married is the omitted category.
[b]Central region is the omitted category.

Table 5.1b Logisitc Regression Predicting Homeownership for Vietnam Era Men Aged 55 to 59, by Race and Veteran Status, 2007

	Whites				Blacks				
	Parameter estimate β		Standard Error	Odds Ratio	Parameter estimate β		Standard Error	Odds Ratio	Significant Race Interaction
Veteran	-.003		.115	.997	.356	**	.166	1.427	✓+
Age	.066	***	.010	1.068	.083	***	.014	1.087	--
Education in Years	.131	***	.021	1.140	.208	***	.042	1.231	--
Income (In Thousands)	.000		.001	1.000	.003		.002	1.003	--
Never Married [a]	-2.215	***	.276	.109	-1.801	***	.300	.165	--
Divorced/Widowed [a]	-2.323	***	.157	.098	-1.752	***	.255	.174	✓+
Number of Children	.037		.056	1.038	.032		.068	1.032	--
South [b]	-.193		.130	.824	.173		.215	1.189	--
East [b]	-.336	**	.152	.714	-.255		.338	.775	--
West [b]	.006		.153	1.006	-.522		.398	.594	--
Intercept	1.231	***	.132	6.394	.743	***	.215	2.102	--
Log Likelihood	2,586				986				
Chi Square	377				185				
N	6,820				2,555				

Source: PSID

Notes: All Amounts adjusted to 2007 dollars.

*p<.05; **p<.01; ***p<.000; +p<.10

The following variables are mean centered: Age, Education, Income, and Number of Children.

[a]Married is the omitted category.

[b]Central region is the omitted category.

Table 5.1c Logisitc Regression Predicting Homeownership for AVF Era Men Aged 25-52, by Race and Veteran Status, 2007

	Whites				Blacks				
	Parameter estimate β		Standard Error	Odds Ratio	Parameter estimate β		Standard Error	Odds Ratio	Significant Race Interaction
Veteran	.082	*	.041	1.086	.034		.067	1.035	--
Age	.084	***	.003	1.087	.068	***	.005	1.071	✓**
Education in Years	.146	***	.009	1.158	.161	***	.019	1.175	--
Income (in Thousands)	.000		.000	1.000	-.001		.001	.999	✓+
Never Married [a]	-1.651	***	.081	.192	-1.707	***	.126	.181	--
Divorced/Widowed [a]	-1.475	***	.079	.229	-1.156	***	.122	.315	✓*
Number of Children	.126	***	.018	1.134	-.024		.027	.977	✓***
South [b]	-.050		.051	.952	.227	**	.088	1.255	--
East [b]	-.289	***	.060	.749	-.604	***	.142	.546	--
West [b]	-.502	***	.056	.606	-.971	***	.153	.379	--
Intercept	1.907	***	.054	6.732	.702	***	.095	2.017	✓***
Log Likelihood	15,593				5229.39				
Chi Square	2,273				780				
N	26,962				11,554				

Source: PSID

Notes: All Amounts adjusted to 2007 dollars.

*p<.05; **p<.01; ***p<.000; +p<.10

The following variables are mean centered: Age, Education, Income, and Number of Children.

[a]Married is the omitted category.

[b]Central region is the omitted category.

Table 5.2 Median Equity Held by White and Black Men[34] in Their Homes, Aged 25-70, by Veteran Status and Era Served*, 2007.

		Whites	Blacks	Ratio
Non-Veterans				
	Pre-Vietnam**	$103,019	$28,952	.28
	Vietnam	$86,507	$17,301	.20
	AVF	$32,193	$0	.0
Veterans				
	Pre-Vietnam**	$106,742	$41,252	.39
	Vietnam	$75,367	$27,862	.26
	AVF	$29,659	$0	.0

Source: PSID

Note: All values are in 2007 constant dollars.

Ratio is calculated as black median equity/white median equity.

*Nonveterans are distinguished by the era they would have served in, had they been in the military.

**Pre-Vietnam category includes those who served in WWII and the Korean Conflict.

[34] The Ns are as follows: White non-veterans= 1,598 (Pre-Vietnam); 1,911 (Vietnam); 9,276 (AVF); White veterans= 3,488 (Pre-Vietnam); 4,705 (Vietnam); 16,935 (AVF); Black non-veterans= 989 (Pre-Vietnam); 1,263 (Vietnam); 6,533 (AVF); Black veterans= 602 (Pre-Vietnam); 1,288 (Vietnam); 5,001 (AVF).

Table 5.2a OLS Results of Effect of Veteran Status on Home Equity for Pre-Vietnam Era Men Aged 68 to 70, 2007

	Whites			Blacks			
	Parameter estimate β		Standard error	Parameter estimate β		Standard error	Significant Race Interaction
Veteran	5,299		7,433	2,081		5,492	--
Education in Years	15,624	***	1,298	2,860	**	908	✓***
Income (in Thousands)	88	***	24	.962		57	--
Savings (in Thousands)	190	***	16	1,457	***	134	✓**
Never Married [a]	-63,036	+	36,184	-14,024		15,935	--
Divorced/Widowed [a]	-46,027	***	12,903	-17,545	*	7,516	--
Number of Children	-12,781	+	7,244	-2,827		2,620	--
South [b]	3,760		8,479	26,954	**	6,631	--
East [b]	81,186	***	9,818	-19,002	+	10,345	--
West [b]	80,450	***	10,114	60,636	***	13,644	--
Intercept	104,732	***	10,743	59,467	***	7,208	✓***
Adjusted R2	.189			.261			
N	5,086			1,591			

Source: PSID

Notes: All Amounts adjusted to 2007 dollars.

*p<.05; **p<.01; ***p<.000; +p<.10

The following variables are mean centered: Education, Income, Savings, and Number of Children.

[a]Married is the omitted category.

[b]Central region is the omitted category.

Table 5.2b OLS Results of Effect of Veteran Status on Home Equity for Vietnam Era Men Aged 55 to 59, 2007

	Whites			Blacks			
	Parameter estimate β		Standard error	Parameter estimate β		Standard error	Significant Race Interaction
Veteran	-25,211	***	6,173	29,860	**	7,286	✓***
Age	6,012	***	510	3,694	***	587	✓*
Education in Years	15,553	***	1,225	2,586		1,734	✓***
Income (in Thousands)	6		28	130		73	--
Savings (in Thousands)	293	***	26	503	**	135	--
Never Married [a]	-74,650	**	22,121	54,120	***	13,869	✓***
Divorced/Widowed [a]	-73,371	***	11,984	-18,146		12,065	✓***
Number of Children	12,775	***	3,076	5,017		3,104	--
South [b]	3,278		6,837	-766		9,514	--
East [b]	77,461	***	8,176	1,825		14,581	--
West [b]	58,158	***	7,764	21,122		18,578	--
Intercept	78,645	***	7,167	27,239	***	9,796	✓***
Adjusted R2	.167			.10			
N	6,616			2,551			

Source: PSID

Notes: All Amounts adjusted to 2007 dollars.

*p<.05; **p<.01; ***p<.000; +p<.10

The following variables are mean centered: Age, Education, Income, Savings, and Number of Children.

[a]Married is the omitted category.

[b]Central region is the omitted category

Table 5.2c OLS Results of Effect of Veteran Status on Home Equity for AVF Era Men Aged 25 to 52, 2007

	Whites			Blacks			
	Parameter estimate β		Standard error	Parameter estimate β		Standard error	Significant Race Interaction
Veteran	4,569	+	2,351	2,696	+	1,546	--
Age	5,242	***	164	1,343	***	115	✓***
Education in Years	8,965	***	520	3,514	***	416	✓***
Income (in Thousands)	715		10	122		7.36	--
Savings (in Thousands)	473	***	19	279	***	26	✓**
Never Married [a]	-15,849	**	5,120	-13,377		2,439	--
Divorced/Widowed [a]	-33,456	***	5,047	-9,358	*	2,738	✓**
Number of Children	5,464	**	993	-677		632	✓***
South [b]	8,166	**	2,857	5,011		2,027	--
East [b]	56,761	***	3,323	11,158	***	3,201	--
West [b]	45,013	***	3,224	21,099	***	3,296	--
Intercept	85,305	***	2,803	33,665	***	2,177	--
Adjusted R2	.174			.104			
N	26,211			11,534			

Source: PSID

Notes: All Amounts adjusted to 2007 dollars.

*p<.05; **p<.01; ***p<.000; +p<.10

The following variables are mean centered: Age, Education, Income, Savings, and Number of Children.

[a]Married is the omitted category.

[b]Central region is the omitted category

Table 5.3 Coefficient for Veteran Status via Indirect Effect(s) of Veteran Status on Home Equity, by Era and Race, 2007

	Pre-Vietnam Era, Men aged 68 to 70					
	Whites			Blacks		
	Parameter estimate		Standard error	Parameter estimate		Standard error
Model Includes	β			β		
Control Vars	-229		6,025	13,667	*	5,870
Adding Income	6,603		7,649	5,783		6,064
Adding Savings	5,299		7,433	2,081		5,492

* These models do not include age

	Vietnam Era, Men aged 55 to 59					
	Whites			Blacks		
	Parameter estimate		Standard error	Parameter estimate		Standard error
	β			β		
Control Vars	-20,140	***	5,060	23,804	***	6,056
Adding Income	-22,696	***	6,270	32,398	***	7,303
Adding Savings	-25,211	***	6,173	29,860	***	7,286

	AVF Era, Men aged 25 to 52					
	Whites			Blacks		
	Parameter estimate		Standard error	Parameter estimate		Standard error
	β			β		
Control Vars	5,736	**	1,881	3,084	**	1,058
Adding Income	4,149	+	2,401	3,172	+	1,565
Adding Savings	4,569	+	2,351	2,695	***	1,546

Source: PSID

Note: All values are in 2007 constant dollars.

Table 5.4 Median Wealth of White and Black Men[35], Aged 25-70, by Veteran Status and Era Served*, 2007

		Whites	Blacks	Ratio
Non-Veterans				
	Pre-Vietnam**	$67,908	$11,278	.17
	Vietnam	$72,287	$15,924	.22
	AVF	$55,474	$17,993	.32
Veterans				
	Pre-Vietnam**	$66,962	$27,682	.41
	Vietnam	$72,305	$10,336	.14
	AVF	$65,042	$15,380	.24

Source: PSID
Note: All values are in 2007 constant dollars.
Ratio is calculated as black median wealth/white median wealth.
*Nonveterans are distinguished by the era they would have served in WWII and the Korean Conflict.

[35] The Ns are as follows: White non-veterans= 1,159 (Pre-Vietnam); 1,280 (Vietnam); 6,149 (AVF); White veterans= 2,456 (Pre-Vietnam); 3,294 (Vietnam); 10,811 (AVF); Black non-veterans= 488 (Pre-Vietnam); 569 (Vietnam); 2,932 (AVF); Black veterans= 276 (Pre-Vietnam); 559 (Vietnam); 2,100 (AVF).

Table 5.4a OLS Results of Effect of Veteran Status on Total Wealth for Pre-Vietnam Era Men Aged 68 to 70, 2007

	White			Black			
	Parameter estimate β		Standard error	Parameter estimate β		Standard error	Significant Race Interaction
Veteran	90,755	+	50,720	30,839	+	16,821	--
Education in Years	12,796		8,750	-1,639		2,719	--
Income (in Thousands)	2,554	***	160	1,797	***	174	--
Never Married	-129,163		246,362	-3,446		48,130	--
Divorced/Widowed	29,030		87,858	-31,883		22,968	--
Number of Children	-27,982		49,612	-10,758		7,913	--
South [b]	33,111		57,846	1,810		20,272	--
East [b]	37,234		66,958	172,025	***	31,616	--
West [b]	69,690		69,090	-26,784		45,677	--
Intercept	129,117	+	73,372	78,400	***	21,344	
Adjusted R2	.098			.242			
N	3,615			764			

Source: PSID

Notes: All Amounts adjusted to 2007 dollars.

*p<.05; **p<.01; ***p<.000; +p<.10

The following variables are mean centered: Education, Income, and Number of Children.

[a]Married is the omitted category.

[b]Central region is the omitted category.

Table 5.4b OLS Results of Effect of Veteran Status on Total Wealth for Vietnam Era Men Aged 55 to 59, 2007

	White			Black			
	Parameter estimate β		Standard error	Parameter estimate β		Standard error	Significant Race Interaction
Veteran	-45,172	*	16,988	-31,785	**	10,317	--
Age	3,610		1,175	2,695	**	826	--
Education in Years	-6,233		3,728	3,287		2,452	--
Income (in Thousands)	2,289	***	112	2,056	***	103	--
Never Married	-19,454	***	36,976	-15,753		19,655	--
Divorced/Widowed	24,694		36,476	16,434		17,095	--
Number of Children	13,118		7,170	-6,882		4,502	--
South [b]	-34,214		20,655	19,123		13,500	--
East [b]	105,278	*	24,001	-352		20,550	--
West [b]	-14,213		23,286	15,329		26,792	--
Intercept	231,896	***	28,507	106,840	***	13,671	
Adjusted R2	.110			.334			
N	4,574			1,128			

Source: PSID

Notes: All Amounts adjusted to 2007 dollars.

*p<.05; **p<.01; ***p<.000; +p<.10

The following variables are mean centered: Age, Education, Income, and Number of Children.

[a]Married is the omitted category.

[b]Central region is the omitted category.

Table 5.4c OLS Results of Effect of Veteran Status on Total Wealth for Vietnam Era Men Aged 25 to 52, 2007

	White			Black			
	Parameter estimate β		Standard error	Parameter estimate β		Standard error	Significant Race Interaction
Veteran	36,264	*	16,988	-10,422	+	5,584	--
Age	-856		1,175	535		414	--
Education in Years	253		3,728	753		1,491	--
Income (in Thousands)	4,013	***	74	577	***	26	✓***
Never Married	204,049	***	36,976	23,634	**	8,822	✓**
Divorced/Widowed	-4,636		36,476	-20,187	*	9,958	--
Number of Children	-569		7,170	-3,207		2,282	--
South	21,026		20,655	8,919		7,356	--
East	49,459	*	24,001	16,275		11,517	--
West	112,454		23,286	41,529	**	12,120	--
Intercept	122,677	**	20,251	95,765	***	7,795	
Adjusted R2	.171			0.108			
N	16,960			5,032			

Source: PSID
Notes: All Amounts adjusted to 2007 dollars.
*p<.05; **p<.01; ***p<.000; +p<.10
The following variables are mean centered: Age, Education, Income, and Number of Children.
[a]Married is the omitted category.
[b]Central region is the omitted category

Table 5.5 Coefficient for Veteran Status via Indirect Effect(s) of Veteran Status on Total Wealth, by Era and Race, 2007

	Pre-Vietnam Era, Men aged 68 to 70					
	Whites*			Blacks*		
	Parameter estimate		Standard error	Parameter estimate		Standard error
Model Includes	β			β		
Control Vars	124,820	*	52,012	30,472	+	17,895
Adding Income	90,755	+	50,720	30,839	+	16,821

* These models do not include age

	Vietnam Era, Men aged 55 to 59					
	Whites			Blacks		
	Parameter estimate		Standard error	Parameter estimate		Standard error
	β			β		
Control Vars	-47,259	+	25,527	-52,019	***	11,808
Adding Income	-45,172	+	24,495	-31,785	**	10,317

	AVF Era, Men aged 25 to 52					
	Whites			Blacks		
	Parameter estimate		Standard error	Parameter estimate		Standard error
	β			β		
Control Vars	53,787	**	18,365	-11,333	*	5,790
Adding Income	36,264	*	16,988	-10,422	+	5,584

Source: PSID

Notes: All Amounts adjusted to 2007 dollars.

Table 5.6 Pooled Logistic Regression for the Effect of Veteran Status on Homeownership for Men, by Era, 2007

	Pre-Vietnam				Vietnam				AVF			
	Parameter estimate β		Standard Error	Odds Ratio	Parameter estimate β		Standard Error	Odds Ratio	Parameter estimate β		Standard Error	Odds Ratio
Veteran	.294	***	.080	1.342	-.003		.115	.997	.082	*	.041	1.085
Age	--		--	--	.066	***	.010	1.069	.084	***	.003	1.088
Education in Years	.109	***	.013	1.115	.130	***	.021	1.139	.147	***	.009	1.158
Income (in Thousands)	.004	***	.000	1.004	.000		.001	1.000	.000		.000	1.000
Never Married a	-2.113	***	.275	.121	-2.203	***	.276	.110	-1.649	***	.081	.192
Divorced/Widowed [a]	-1.594	***	.149	.203	-2.325	***	.157	.098	-1.483	***	.079	.227
Number of Children	-1.740		.022	.841	.041		.056	1.042	.129	***	.018	1.137
South	1.025	***	.103	2.788	-.073		.112	.929	.054		.044	1.056
East	-.071		.131	.932	-.317	*	.138	.729	-.330	***	.055	.719
West	.385	*	.154	1.47	-.031		.141	.969	-.541	***	.052	.582
Black	-1.143	***	.137	.319	-.942	***	.170	.390	-1.147	***	.076	.317
Black*Vet	-.251	+	.143	.778	.379	+	.201	1.461	-.046		.078	.955
Black*Age	--		--	--	.018		.017	1.018	-.018	**	.006	.983
Black*Edu	-.036		.022	.965	.065		.046	1.067	.005		0.02	1.005
Black*Income	.000		.000	1.000	.000		.000	1.000	.000	+	.000	1.000
Black*Never Married	1.25	**	.447	3.49	.353		.404	1.423	-.070		.149	.933
Black*Div/Widowed	.283		.257	1.327	.559	+	.298	1.749	.331	*	.145	1.392
Black*Kids	.054	+	.032	1.056	-.015		.088	.985	-.156	***	.032	.855
Intercept	1.579	***	.072	4.851	1.82	***	.126	6.173	1.899	***	.052	6.677
Log Likelihood	1,413				702				3894			
Chi Square	5,979				3,579				20,937			
N	10,563				9,375				38,516			

Source: PSID Notes: All Amounts adjusted to 2007 dollars. *p<.05; **p<.01; ***p<.000; +p<.10. The following variables are mean centered: Age, Education, and Number of Children. [a]Married is the omitted category. [b]Central region is the omitted category.

Table 5.7 Pooled OLS Results of Effect of Veteran Status on Home Equity for Men, by Era, Aged 25 to 70, 2007

	Pre-Vietnam			Vietnam			AVF		
	Parameter estimate β		Standard error	Parameter estimate β		Standard error	Parameter estimate β		Standard error
Veteran	5,595		6,850	-24,883	***	5,800	4,408	+	2,107
Age	--		--	6,007	***	479	5,258	***	147
Education in Years	15,741	***	1,195	15,577	***	1,151	9,049	***	466
Income (in Thousands)	90	***	22	6		26	1.210		9
Savings (in Thousands)	193	***	15	292	***	25	475	***	17
Never Married [a]	-64,377	+	33,345	-74,312	***	20,788	-15,603	**	4,592
Divorced/Widowed [a]	-46,715	***	11,891	-73,125	***	11,261	-33,721	***	4,527
Number of Children	-12,570	+	6,676	12,831	***	2,890	5,491	***	890
South	9,819		7,090	4,888		5,794	9,189	***	2,261
East	72,150	***	8,562	68,215	***	7,226	51,162	***	2,786
West	79,148	***	8,972	52,671	***	7,019	42,253	***	2,720
Black	-75,811	***	15,647	-2,345	***	10,661	-56,424	***	4,008
Black*Vet	-3,726		15,768	53,671	***	12,026	-1,471		4,344
Black*Age	--		--	-2,345	*	979	-3,943	***	319
Black*Edu	-14,647	***	2,592	-14,212	***	2,747	-5,942	***	1,120
Black*Income	-167		.48	129		110	-10		20
Black*Saving	1.215	***	.345	.186		.199	-.203	**	.067
Black*Never Married	58,779		52,971	123,477	***	28,886	422		7,536
Black*Div/Widowed	37,035		22,693	58,306	***	20,817	23,574	**	8,109
Black*Kids	12,245		9,469	-8,454		5,355	-6,510	***	1,789
Intercept	104,711	***	9,760	79,921	***	6,614	86,713	***	2,437
Adjusted R^2	0.228			0.189			0.192		
N	6,677			9,167			37,745		

Source: PSID Notes: All Amounts adjusted to 2007 dollars. *p<.05; **p<.01; ***p<.000; +p<.10. The following variables are mean centered: Age, Education, and Number of Children. [a]Married is the omitted category. [b]Central region is the omitted category

Table 5.8 Pooled OLS Results of Effect of Veteran Status on Total Wealth for Men, by Era, Aged 25 to 70, 2007

	Pre-Vietnam			Vietnam			AVF		
	Parameter estimate β		Standard error	Parameter estimate β		Standard error	Parameter estimate β		Standard error
Veteran	90,115	+	46,163	-44,548	*	25,051	35,800	**	15,034
Age	--		--	3,608	*	1,818	-840		1,094
Education in Years	12,739		7,958	-6,323		4,327	308		3,372
Income (in Thousands)	2,551	***	146	2,291	***	100	4,014	***	65
Never Married [a]	-128,078		224,222	-19,805		79,518	204,295	***	33,428
Divorced/Widowed [a]	30,129		79,965	25,169		42,805	-4,729		32,749
Number of Children	-27,911		45,155	13,346		11,018	-513		6,362
South	26,278		47,863	-21,245		22,035	20,694		16,190
East	48,944		57,731	93,063	**	27,522	45,246	*	20,129
West	65,571		60,811	-11,248		26,713	104,979	***	19,694
Black	-51,225		104,515	-100,102		40,191	-44,939		258,197
Black*Vet	-60,046		107,309	9,640		46,144	-45,745		31,193
Black*Age	--		--	-1,028		3,730	1,282		2,349
Black*Edu	-11,395		17,246	6,530		10,482	-197		8,109
Black*Income	-655		1005	-232		420	-3441	***	144
Black*Never Married	108,755		356,173	-4,662		110,878	-183,635	**	55,423
Black*Div/Widowed	-71,180		154,027	-1,825		79,773	-16,572		59.220
Black*Kids	12,481		63,870	-22,501		20,891	-2,898		12,844
Intercept	130,262	*	65,865	229,048	***	25,216	125,357	***	51,548
Adjusted R^2	0.101			0.121			0.174		
N	4,379			5,702			21,992		

Source: PSID Notes: All Amounts adjusted to 2007 dollars. *p<.05; **p<.01; ***p<.000; +p<.10. The following variables are mean centered: Age, Education, and Number of Children. [a]Married is the omitted category. [b]Central region is the omitted category.

CHAPTER 6: CONCLUSION

Institutions, not just individual decisions, play a role in black-white wealth disparities. For example, financial institutions are more likely to reject qualified blacks for home mortgages or to give them considerably higher interest rates than whites, even when white and black families have similar credit standings (Oliver and Shapiro 2006: 141-147). Through their effect on the likelihood of homeownership or the amount of equity that black families amass in their homes—both important components of wealth—financial institutions can inhibit the ability of black families to accumulate wealth compared to white families.[36] In sum, financial institutions can variously offer opportunities and resources to create and build wealth, or slow down, hinder, or even block wealth-building opportunities for certain groups.

In this dissertation, I set out to explore an institution that may impact how white and black men accumulate wealth—the military. Previous research on the relationships between military, race, and socio-economic outcomes yielded two important findings. First, military service provides opportunity and social mobility for disadvantaged groups, especially for blacks (Angrist 1998; Bailey 2008; Moskos and Butler 1996; Oi 1996; Teachman 2007). Second, blacks and whites are equally likely to enlist into the military (Kleykamp 2006: 287). Overall, blacks and whites have similar access to the military as employees. Moreover, blacks seem to benefit from U.S. military service more than whites in terms of educational obtainment, pay, promotion, and even family formation

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[36] Interest rates can affect the amount of home equity accumulated in a home because they affect how much of the payment goes to principle and how much is paid towards interest. Payments towards mortgages with lower interest rates reduce the principle balance more quickly than payments towards high-interest mortgages—enabling families with lower interest rate mortgages to accumulate wealth in their homes faster than families with high-interest mortgages.

and stability (Lundquist 2008; Teachman 2008). Despite the military's role in reducing many black-white socioeconomic gaps, only one study has looked at the impact of military service on wealth outcomes (see Fitzgerald 2006).

Although Fitzgerald's 2006 study, "The Effect of Military Service on Wealth Accumulation," found that having served in the military had a negative effect on wealth, the study did not account for how the impact of military service could vary by race or the era in which one served.[37] I build on Fitzgerald's findings by controlling for race and era. This project investigates four ways that being a veteran can potentially affect wealth outcomes and how they compare by race and era: increasing household income, the amounts that families save, their ability to own homes, and the amount of equity families accumulate in their homes. Since wealth accumulation is a process that plays out over time and is affected by initial starting points, I have drawn on cumulative advantage/disadvantage theory to examine whether, how, and for whom military service transmits wealth advantages. My examination of wealth outcomes as a result of veteran and nonveteran status provides an analysis of white and black men who served or could have served during three different military eras—pre-Vietnam, Vietnam, and the All Volunteer Force (AVF).[38] For all of my analyses, I used the Panel Study of Income Dynamics (PSID) data from 1983 to 2007.

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[37] Fitzgerald's (2006) findings also showed no discernible effect of military service on wealth for men that served for more than 20 years. That is, the negative effect of military service on wealth disappeared for men who served for at least 20 years.

[38] The "pre-Vietnam" era includes men who served or could have served during WWII or the Korean Conflict. The ages of these men in 2007 were as follows: pre-Vietnam-era men (68 to 70); Vietnam-era men (55 to 59); AVF-era men (25 to 52).

FINDINGS

First, I explored whether the black-white wealth gap was smaller for veterans compared to nonveterans, and whether the relationship between veteran status, race, and wealth outcomes was consistent across educational levels, era, and branch of service. I found that the racial wealth gap among veterans was actually *larger* than the black-white civilian wealth gap. Of the four groups (white and black veterans and white and black nonveterans), white veterans had the most wealth by 2007, followed by white nonveterans. With the exception of black pre-Vietnam veterans, black nonveterans reported more wealth by 2007 than their veteran counterparts. Overall, the findings in Chapter 3 suggested that whites, but not blacks, who served in the military were accumulating advantages in the wealth accumulation process, and these advantages exacerbated the racial wealth gap.

For the most part, the disproportionate payoff to military service for whites persisted when I compared the wealth outcomes of white and black veterans and nonveterans by educational level and era. There were two exceptions, however. Black and white veterans with education beyond a bachelor's degree, as well as black and white veterans that served in the Army and Navy, exhibited smaller racial wealth gaps compared to the black-white civilian wealth gap. The education-related finding suggests that a process of cumulative advantage is at work for black men with educational levels beyond a bachelor's degree. These highly educated men, who have more advantages in terms of opportunities to acquire wealth through their higher earnings, better employment opportunities, and the like, than their less educated peers may gain further advantages (for example higher promotional trajectories, longer careers, etc.) in the military, thus

increasing the wealth disparities among blacks of different education levels. Put more simply, an initial advantage, in this case education, leads to further advantages that increase the wealth disparity between black veterans and nonveterans. The second finding regarding black-white wealth differences by branch of service in which one served speaks to the importance of institutional features in shaping wealth outcomes for whites and blacks, which I will discuss below.

Although my findings in Chapter 3 did not support my expectation that military service would reduce the overall black-white wealth gap, they suggested that military service impacted wealth outcomes, but that its effects varied both by era of service—pre-Vietnam, Vietnam, and AVF—and by race (see Table 3.3). Therefore, I conducted my analyses in the subsequent chapters separately by era and race.[39] I summarize the direct and indirect effects of military service on all of the outcomes I examined—income, savings, the chances of owning a home, home equity, and total wealth appear in Figures 6.1 through 6.6. After comparing wealth holdings by veteran status and race, I examined whether and how having served in the military affected two factors that hypothetically intervene between military service and wealth: household income and savings. Based on OLS regression analyses, I found that white men who served in the pre-Vietnam and AVF eras had significantly more income than their same-race nonveteran peers, controlling for other factors. In contrast, black men who served in the Vietnam and AVF eras had significantly *less* income than their black civilian counterparts. Finally, veteran status had no discernible effect on the incomes of white Vietnam veterans or black pre-Vietnam veterans.

[39] I also provide full models with race-veteran interaction effects for each analysis.

An analysis of the effects of military service on financial outcomes is equivocal. On one hand, findings from previous studies show that black men are more likely than white men to benefit from their time in the military in terms of earnings (Lundquist 2004; 2008). On the other hand, in my study the income of black veterans did not differ significantly from that of nonveterans, irrespective of era. This seems like a plausible finding, given that earnings are only one component of income. Income in the PSID also includes any earnings from a spouse, as well as business and investment income. Thus, military service was probably less likely to affect black household income in my dissertation because military service only affects one component of income—earnings. Military service, however, does not affect the other factors of income, such as spousal earnings and possibly investment annuities. In fact, previous studies have shown that blacks are less likely than whites to own stock investments (Keister 2000).

Military service had entirely different effects on income compared to savings. For instance, military service was associated with higher levels of savings for white men who served during the Vietnam era and black men who served during the Vietnam and AVF eras compared to their nonveteran age peers. There was no significant difference between the savings of white pre-Vietnam and AVF veterans and black pre-Vietnam veterans and their similarly aged civilian peers.

The fact that Vietnam veterans, irrespective of race, were more likely than their nonveteran counterparts to report significantly more savings is interesting. In many ways, this group of veterans compared to their civilian counterparts had higher rates of health related issues, such as Post Traumatic Stress Disorder (PTSD) and increased drug abuse that could have compromised their ability to stay in the workforce or maintain a

stable residence, such as owning a home (Dohrenwend, Turner, Turse, Lewis-Fernandez, and Yager 2008). Despite the aforementioned health disadvantages associated with serving in a combat zone, positive effects of combat exposure have also been identified for Vietnam veterans. For example, veterans with combat exposures also reported increased camaraderie and resilience (MacLean and Elder 2007: 182). Additionally, the results from my project indicate that combat exposure during the Vietnam era is also linked to increased savings. Vietnam veterans compared to pre-Vietnam veterans of both races and white AVF veterans may have been able to save more than their civilian peers because of the military's savings plan offered only to men who served in combat (for a full discussion on the military associated savings plans for men who serve in combat see Chapter 1). I discuss this in further detail in the next section. The effects of military service on income and savings were not consistent by race or era. Specifically, veteran status was associated with a positive effect on either income or savings (but never both), regardless of the era in which whites and blacks served, with the exception of black men who served during the pre-Vietnam era for whom military service was not associated with increased income or savings.

In the second part of my investigation, I addressed whether veterans were more likely to own a home, broken down by race and era, using logistic regression. I also examined the effect of military service on home equity and overall wealth, using multiple regression. Only white men who served during the pre-Vietnam and AVF eras and black men who served during the Vietnam era were more likely than nonveterans of similar ages to own a home. Interestingly, military service during the Vietnam era not only increased home ownership for blacks, but increased the likelihood of their possessing

significantly more home equity by 2007 relative to their non-veteran peers. Finally, both black and white men who served during the AVF era also reported significantly more home equity than their civilian counterparts.

For the final analyses in my dissertation—the effect of veteran status on wealth—the military proves a significant institutional source of variability in wealth amassment. Veteran status consistently had a significant effect on wealth across all three eras and for men of both races, although the direction of the effect varied.[40] For example, whites and blacks who served during the pre-Vietnam era and whites who served during the AVF era reported significantly more wealth than nonveterans of comparable age, net of other controls. The direct effect of veteran status on wealth persisted after controlling for income, savings, home ownership, and home equity (see Figures 6.1, 6.2, and 6.5), suggesting that the importance of unmeasured factors associated with military service that enhance veterans' wealth, such as pensions earned after 20 years of service or achieving office status may also affect wealth accumulation. Unfortunately, my data do not allow me to account for length of service or rank in investigating the relationship between military service, race, and wealth.

Additionally, military service does not always correlate with increased wealth. For example, white and black men who served during the Vietnam era and black men who served during the AVF era (see Figures 6.3, 6.4, and 6.6) reported significantly less wealth than their nonveteran peers.

[40] In my models examining the effect of military service on wealth, I did not estimate the effects of owning a home and the amount of home equity on wealth because they are included in my final measures of wealth.

Overall, the results from my dissertation demonstrate that military service affects whites' and blacks' wealth directly and indirectly—indirectly, through its positive effects on factors that affect wealth, such as income, savings, likelihood of home ownership, and home equity. Taken together, my findings on the impact of military service on components of wealth, as well as total wealth, provide some support for a model of cumulative advantage, although the effects of military service on the outcomes measured in this dissertation vary by race and era.

Cumulative Advantage/Disadvantage

Despite the military's negative effect on the wealth of whites and blacks who served during the Vietnam era and black men who served during the AVF era, military service was still associated with advantages in the wealth accumulation process for these men. That is, military service also affected the wealth of whites and blacks indirectly. For example, as shown in Figure 6.3, white men who served during the Vietnam era reported significantly more savings than their nonveteran peers. Veteran status was also associated with a positive effect on savings, likelihood of owning a home, and home equity for black men who served during the Vietnam era. Finally, having served in the military is associated with increased savings and home equity for black men who served in the AVF era. Even though the direct effect of military service on wealth (see Figures 6.3, 6.4, and 6.6) was bigger (and negative) than the indirect effect of military service on the aforementioned components of wealth (that were positive), my results show that white and black Vietnam and black AVF veterans still gained advantages in the wealth accumulation process.

In fact, as Figures 6.4 and 6.6 demonstrate, the patterns of cumulative advantage in the wealth accumulation process are shown clearly for black men who served in the Vietnam and AVF eras. For example, black Vietnam and AVF veterans reported significantly more savings than their civilian counterparts, even after controlling for other factors. They also reported increased home equity—an effect partly explained by the military's effect on savings—showing that, in terms of wealth accumulation, an advantage in one area can translate into advantage in another. The results I have discussed in this section show that in some instances military service had a positive effect on some component(s) of wealth (e.g., savings or home equity), but not on total wealth. Although a process of cumulative advantage in terms of wealth is at work for black men who served in the Vietnam and AVF eras, my findings demonstrate that initial advantages *don't always* lead to further advantages. In other words, the advantages that military service conferred to black Vietnam and AVF veterans in the wealth building process did not correlate to a final wealth advantage above their civilian counterparts.

Military Service as an Added Wealth Advantage for White Veterans

Table 6.1 shows the means for each component of wealth (savings, equity, and "other assets")[41] for veterans and nonveterans by race and the era in which they served or would have served. The findings in Table 6.1 suggests that whether military service exacerbates or ameliorates wealth inequality between whites and blacks largely depends on the combination of assets a household owns and time period in which blacks and whites served while employed in the armed forces.

[41] According to the PSID, other assets include assets from owning other real estate, private business/farm, vehicles, corporate equities, annuities/IRAs, and other investments.

On one hand, military service reduced black-white disparities in wealth during the pre-Vietnam era when primary residence and savings were the largest components of household wealth (Keister and Moller 2000). Household wealth portfolios usually include a combination of wealth related to owning a home (Krivo and Kaufman 2004; Oliver and Shapiro 1995), income (Altonji and Doraszelski 2005), savings (Conley 2001; Gittleman and Wolff 2004), stock investments, inheritances and retirement packages (Keister and Moller 2000). Of the aforementioned six components—military service likely affects only three: income, saving levels, home ownership/home equity. Military service likely has a positive effect on income because of its documented positive effects on earnings (depending on the race and era that an individual served) (Teachman 2007). In addition, previous studies have also shown that military service reduces black-white differences in marriage (Usdansky et al. 2009). Taken together, the positive effect of veteran status on earnings and marriage can increase the amount of money veterans save and all the aforementioned factors can increase an individual's chances of home ownership and the amount of equity they accumulate in their homes. Thus, military service positively impacted total wealth for white and black pre-Vietnam era veterans because it affected the primary determinants of wealth for this group—savings and housing related wealth.

On the other hand, the results in Table 6.1 suggest that military service can also exacerbate wealth differences between whites and blacks, particularly during time periods when primary residence and savings are not the principle determinants of wealth. For example, white AVF veterans who had a greater share of their wealth in "other assets" compared to their nonveteran counterparts (see Table 6.1) reported significantly more wealth than their nonveteran peers (see Table 5.4c). Conversely, primary residence

and savings comprised a larger component of household wealth than "other assets" for black AVF veterans, and they reported significantly less wealth than their nonveteran counterparts. Among the men who served or would have served during the AVF era, the positive effects of military service on total wealth are most noticeable among those who had more wealth in "other assets" relative to their respective group (see Table 6.1). According to Keister and Moller, since the 1990s wealthier Americans were more likely to invest in stocks and stock-based mutual funds and the non-wealthy were more likely to hold their wealth in savings accounts and in their homes (2000:71). Thus, during the AVF era, military service might be more likely to benefit whites, compared to blacks in the wealth accumulation process because, on average, military service benefits whites, but not blacks in obtaining "other assets" or other sources of wealth beyond savings and home equity. Thus, any additional wealth advantages whites gain through their military service beyond "other assets" may exacerbate any wealth advantages that white households have over black households, resulting in a wealth gap that continues to widen.

CONTRIBUTIONS

Although my dissertation focuses primarily on the relationship between military service, race, and wealth, it also has implications for the importance of institutions for wealth outcomes. Despite some indication that men who serve in the military may gain advantages in the wealth accumulation process—for example, in terms of income, savings, likelihood of homeownership, and home equity (depending on era and race)—in many cases the advantages accrued by veterans did not translate into increased wealth (i.e., for blacks and whites who served during the Vietnam era and black men who served

during the AVF era). Nonetheless, my dissertation highlights that under certain conditions military service may affect the wealth accumulation process for white and black men.

The Importance of Branch of Service for Black-White Wealth Accumulation

For example, the military's effect on wealth outcomes may largely depend on its unique institutional features. I showed that the black-white wealth gap was smaller for men who served in the Army and Navy compared to the racial wealth gap for civilians (see Chapter 3). Although data by branch of service were available for only a small fraction of the men in my sample, the expectation that branch of service could make a difference on the wealth patterns of black and white men seems plausible. For example, MacLean (2008) found that veterans who serve as officers are more likely to benefit from military service compared to those that do not achieve officer ranking. Likewise, my findings demonstrate that black servicemen in the Army and Navy are more likely to become officers than blacks who serve in other branches (See Table 3.4). Additionally, others have noted that the Army is more likely to employ and enforce race-neutral policies that can reduce the disadvantages that blacks usually face in institutions (for example, earnings and promotion) or constrain the advantages whites usually have (Bailey 2008; Moskos and Butler 1996; Teachman 2008). Thus institutions that not only have, but also enforce race-neutral policies may narrow racial wealth disparities by reducing racially differential returns to wealth.

The Effect of Military-Related Benefits (Savings Programs) for Black-White Wealth Accumulation

My results also suggest that benefits associated with military employment, such as the savings plans and the military's home loan programs, have implications for the ability of veterans to accumulate advantages in the wealth process. This idea is supported by two key observations. First, I found that serving during the pre-Vietnam era was associated with increased wealth, irrespective of race. WWII and Korean Conflict veterans are said to have enjoyed the most generous military benefits compared to men who served in subsequent eras (Teachman 2007). Not surprisingly, these men also reported more wealth than their civilian peers, irrespective of race. Although my dissertation does not specify the service-related mechanisms associated with increased wealth for men who served during the pre-Vietnam era, my findings suggest that military employment during this era conferred benefits above and beyond income, savings, likelihood of home ownership, and increased home equity.

Second, in my dissertation I found that military service during the Vietnam era had a positive effect on the amounts that white and black men saved. These findings increase my confidence that institutional features can influence the advantages gained in the wealth accumulation process. Although both Vietnam and AVF veterans who served in a combat zone are eligible to participate in the military's savings programs that offer an interest rate of 10 percent, unparalleled in the civilian investment market, it is likely that Vietnam-era veterans were more likely to be in combat assignments than AVF veterans because the former had a higher likelihood of being drafted, while the latter group enlisted voluntarily. For example, men who were drafted (i.e., the pre-Vietnam

and Vietnam eras) were more likely to experience combat than those that volunteered for service (MacLean 2005a). Additionally, MacLean and Elder found that Vietnam veterans had greater exposure to combat than both WWII and Korean veterans (2007:182). Therefore, among the three eras that I studied, Vietnam veterans were more likely than pre-Vietnam and AVF veterans to receive combat assignments. The higher proportion of Vietnam veterans compared to AVF veterans who experienced combat is probably why military service has a positive effect on savings for men who served during the Vietnam era and the positive effect of military service persists for both races.

In general, studies show that military service has negatively affected the earnings, educational attainment, and the chances of home ownership for Vietnam veterans (Conely and Heerwig 2011; Conley and Heerwig 2012; MacLean and Elder 2007). Overall, the effects of combat exposure are usually negative regardless of the era one served in (MacLean 2005b). Yet serving in the military during the Vietnam era may be associated with more negative effects than service in other eras because Vietnam veterans had greater exposure to combat than veterans who served during WWII, the Korean Conflict, and the AVF era (MacLean and Elder 2007:182, Conley and Heerwig 2012); and the negative effects of PTSD have been shown to persist up to 40 years after service for men who served during the Vietnam era (MacLean and Elder 2007). Thus it is interesting that military service was associated with increased saving levels for white and black men who served during the Vietnam era.

Furthermore, the prevalence of PTSD and substance abuse were higher among black Vietnam veterans relative to white Vietnam veterans (Dohrenwend, Turner, Turse, Lewis-Fernandez, and Yager 2008). Therefore, the fact that black Vietnam veterans also

had significantly more savings than their nonveteran peers is notable despite the fact that disadvantages associated with service during the Vietnam era may have been worse for blacks compared to whites. I interpret the finding that military service was associated with increased levels of savings for white and black Vietnam veterans despite their increased likelihood of PTSD and drug use compared to nonveterans to suggest that institutional features can assist in mitigating racial differences in economic outcomes, *even* for the most disadvantaged groups. Notice too that military service had no effect on the savings of white and black men who served during the pre-Vietnam era (see Figures 6.1 and 6.2), when there was no savings plan offered as a military benefit. Finally, even though the impact of military service varied for white and black men who served in the AVF era (the effect was negative for white men and positive for black men), it is likely that black AVF veterans were more likely to be eligible for the savings benefits compared to white AVF veterans because they were also more likely to deploy in a combat zone (MacLean 2005b: 580). Thus, savings benefits offered by the military may account for the positive effect of veteran status on savings for blacks, but not whites in the AVF era.

The Effect of Combat for Black-White Wealth Accumulation

One distinction between eras is whether a nation is at war or at peace—and whether a nation is at war or peace also determines the likelihood that a solider will be exposed to combat. In general, since the pre-Vietnam era, the effects of combat exposure on socio-economic outcomes have generally been negative regardless of the outcomes measured and irrespective of pre-service characteristics (MacLean 2005a; MacLean 2005b; MacLean and Elder 2007).

My findings suggest that combat exposure, however, may have negatively impacted the wealth outcomes of black veterans more than it did for the wealth of white veterans. For example, military service has a positive effect on black wealth in the pre-Vietnam era (see Figure 6.2). Interestingly, blacks were also excluded from combat units in the pre-Vietnam era because of segregation laws (MacLean 2005b: 280). Yet military service had a negative effect on black wealth for those that served during the Vietnam and AVF eras (as shown in Figures 6.4 and 6.6). Subsequently, blacks were just as likely as whites to receive combat assignments in the Vietnam era (MacLean and Elder 2007) and were more likely to be exposed to combat in the AVF era relative to their white peers (MacLean 2005b: 580). White pre-Vietnam veterans, on the other hand, still reported significantly more wealth than their nonveteran peers despite the high numbers of white soldiers who were exposed to combat (MacLean 2005b). These findings suggest that combat may contribute to cumulative disadvantages for the wealth accumulation of black veterans, but not white veterans because the wealth of all soldiers was not influenced by combat in the same fashion. That is, military service was associated with positive wealth outcomes even when men were likely to be exposed to combat, such as for white men who served during the pre-Vietnam era. In contrast, military service was associated with positive wealth outcomes only in the era when black men were less likely to experience combat—for example, black men who served in the pre-Vietnam era. When black men were equally likely (Vietnam era, for example) or more likely to serve in combat (AVF era, for example) than whites, the effect of veteran status on total wealth was negative. The effect of military service on savings was also negative for white Vietnam veterans, however. Still, combat exposure may have increased black-white wealth inequalities.

Put another way, combat affected veteran wealth accumulation differently based on the racial background of the solider. In sum, the effect of military service on wealth varies by the branch of service one served in, the availability of military related benefits—such as savings programs—the likelihood of combat exposure, and the race of the soldier.

Researchers interested in racial wealth inequalities have analyzed the roles of institutions such as universities and financial institutions (Shapiro, Meschede, Osoro 2013), and even labor unions (Agnone 2010) in the wealth accumulation process. Little attention, however, has been paid to the role of the military in the creation of opportunities and resources that help groups, particularly blacks, gain advantages in accumulating wealth. The results provided in my dissertation suggest that the military, specifically, and institutions in general, can reduce racial wealth gaps. Specifically, the military's effect on the black-white wealth gap for men who served in the Army and Navy (see Table 3.4) and pre-Vietnam era veterans compared to the wealth gap for their nonveteran counterparts (see Table 3.3 and the positive effect of military service on the wealth of white and black pre-Vietnam era veterans shown in Figures 6.1 and 6.2) illuminate the conditions necessary for the black-white veteran wealth gap to be smaller than the black-white nonveteran wealth gap. First, racial wealth gaps are reduced when branches of the armed forces demonstrate a strong commitment to race-neutral policies (resulting in an increased number of blacks employed by an institution, and reduced pay and promotion gaps between blacks and whites) and when non-wage benefits are tied to employment (e.g., educational and home-loan benefits). Second, the racial wealth gaps are mitigated when blacks gain parity with whites in management positions. For example, blacks in the Army are more likely to achieve officer rank compared to blacks

in any other branch (Moskos and Butler 1996, Teachman and Tedrow 2008). In general, men benefit from military service in terms of earnings and health if they serve as officers (MacLean 2008). Overall, the military can affect the process of cumulative advantage and thus reduce wealth inequalities between groups depending on the institutional features of the branches individuals serve in. It can, however, also widen the racial wealth gap by magnifying racial differences in advantages/disadvantages in the wealth accumulation process, as it does in differentially affecting the ability of whites and blacks to increase their wealth related resources beyond home equity and savings, and through its effect on combat exposure on wealth.

In sum, whether or not military service has a positive or negative effect on wealth depends on the branches that men served in, the era in which they served, and whether or not veterans saw combat, utilized benefits, and their race. In addition, the effect of military service on wealth outcomes may also be affected by military-related variables not measured in my dissertation, including length of service and whether or not veterans served as officers.

Taken together, my results indicate the importance of examining the role of the military as an institution in the development of wealth. Specifically, I have made the case that the effects of veteran status on wealth vary by race and era and do not always favor whites over blacks in terms of the wealth advantages it confers. By controlling for era,[42]

[42] As explained in Chapter 2, I followed Angrist and Krueger 1994 by using birth dates to distinguish the eras in which men served or would have served and used the eras to differentiate men who were likely drafted (pre-Vietnam and Vietnam eras) and those who voluntarily enlisted (AVF eras). Doing so controls the effects of selection into the military, revealing the true effects of being a veteran. In addition, by comparing the effects of military service on wealth and its determinants by era, I was also able to examine how the effects of military service on wealth and its components varied under

I also established that veteran status, not just selection, affects wealth. Understanding institutions, their policies and benefits, as well as the mechanisms that can help blacks accumulate wealth contributes to our knowledge of the conditions under which white and black wealth might converge.

LIMITATIONS

My dissertation has a number of limitations that prevent me from making any broad statements about the impact of military service on wealth accumulation. One of the shortcomings of my data is the inability to control for the sequencing of military employment, educational attainment, and the purchase of a home. The timing of when a person completes their higher education and buys a home is important in the wealth accumulation process. For example, if the completion of post-secondary education or the purchase of a home is delayed by time spent in the military, having served in the military could inhibit or negatively affect wealth accumulation. In addition, the timing of the life event can shorten the length of time one accumulates wealth. That is, completing higher education and buying a home earlier in life can have wealth effects that exponentially differ compared to obtaining post-secondary degrees or buying a home later in life. The event and timing of attaining higher levels of education and buying a home exemplify the process of cumulative advantages in terms of wealth.

Perhaps most importantly, I cannot account for possible differences in the relationship between military service and branches of the military, rank, and length of service. All of these military-related variables can contribute to whether one completes their service—not doing so could possibly have long-term negative consequences on

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differential military staffing policies, veterans' related benefits, risks of combat, and different levels of racial segregation outside of the military.

employment and earnings. These variables also affect whether men enlist multiple times, which results in a stable career, higher earnings and career trajectories, and even signing bonuses.[43] Finally, they are also consequential for veterans' post-military employment outcomes and how well they fare economically at retirement. These factors have implications for an individual's ability to obtain resources and access to opportunities that affect wealth.

Figures 6.1 through 6.6 show that military service has direct and indirect effects on wealth. The direct effect of military service on wealth suggests that military service affects wealth through another or several mechanisms not accounted for in my dissertation. For example, the consequences of military service on health may be an important mechanism whereby veteran status impacts wealth.

Finally, the current project is limited in that its findings reflect only differences between the veteran and nonveteran populations of white and black men. My dissertation excludes other racial groups as well as women. The PSID collects data at the household-level and only surveys the household heads. Therefore, women were asked about their veteran status only if no male was present, resulting in a low number of women that reported on their veteran status. In addition, prior to the AVF era, the vast majority of military personnel were men (Conley and Heerwig 2012), which also contributes to the low number of female veterans in the PSID. Likewise, with the exceptions of whites and blacks, the races of other survey respondents either were not recorded consistently or at

[43] Military bonuses can range anywhere from $2,000 to $72,700 and can be obtained by soldiers for such events as receiving high AVSVAB scores (the military's standardized test for entry), arriving at the first assigned permanent duty station, after successful completion of training (basic and special), after reaching certain career milestones, at re-enlistment, for completing college credits, for deployment in a war zone, and towards student loan repayment. See Military.com/recruiting/bonus-center for full details.

all in several years of the PSID, limiting my analyses to whites and blacks.[44] The economic well-being of women and racial groups other than blacks and whites is important to our broader understanding of wealth inequality.

In sum, survey researchers interested in specifying the mechanisms through which military service affects wealth need to collect measurements on the timing of events, such as educational attainment and the purchase of a home. In addition, those interested in how military service may affect wealth differences between groups need data that consist of details about respondents' military service, such as, length of service, branch of service and financial holdings. Analyses with these variables would more clearly specify the relationships between military service, race, and wealth

FUTURE DIRECTIONS

Studying the effect of military service on those that serve during the AVF era has great relevance today. During a staffing policy when enlistments are voluntary and the job risks include going to war, the military should be able to demonstrate payoffs to service. Interestingly, the effects of military service on total wealth were positive for men who served during the pre-Vietnam era, irrespective of race, and negative for men who served during the Vietnam era, irrespective of race. In contrast, the effects of military service on net wealth varied for white (positive) and black (negative) men who served in the AVF era. During this era white and black men experienced differential returns to wealth for their time spent in the military, unlike white and black men of previous eras who similarly incurred either positive or negative returns for their service.

[44] For example, of the 65,444 respondents who reported that they were veterans in the PSID, less than 3 percent (2.9 percent) or 1,921 women reported being a veteran. In addition, among the 330,907 respondents in the PSID, less than one percent (.6 percent) or 3,909 respondents identified as Hispanic.

Blacks and working-class whites are more likely than well-to-do whites to enlist in the AVF military (Segal and Segal 2004). Blacks and working-class whites likely face similar disadvantages in the wealth-building process. Why is it then that military service has increased white but not black veteran wealth in the AVF era? Has the military more recently been less successful in employing race-neutral policies? Do white servicemen disproportionately benefit from military-associated benefits during the AVF era compared to black servicemen? These questions are worthy of scholarly attention.

A second area for future research is the extent to which geographic mobility may be a mechanism whereby military service increases wealth. Black veterans may be more likely than their nonveteran peers to buy a home in a neighborhood that is less segregated or a neighborhood that is economically stronger than the neighborhoods they came from prior to enlisting in the military. Since residential segregation negatively affects home values, military service may increase wealth for blacks through its indirect effect on home equity by increasing their chances of buying a home in a racially integrated neighborhood. Conversely, although military service may impact the likelihood of black men buying in racially mixed neighborhoods, military employment may also delay when white and black men buy their homes compared to their nonveteran counterparts, thereby stalling or decreasing their wealth. The results from my dissertation, however, show that military service is associated with increased home equity for black men in the Vietnam and AVF eras. These results are also consistent with Bailey's (2008:204) findings that for blacks, "the veteran migration advantage… only emerges in 1980." The sum of these findings increase my confidence that geographic mobility is a mechanism that benefits black wealth through the military's indirect effect on home equity since the Vietnam era.

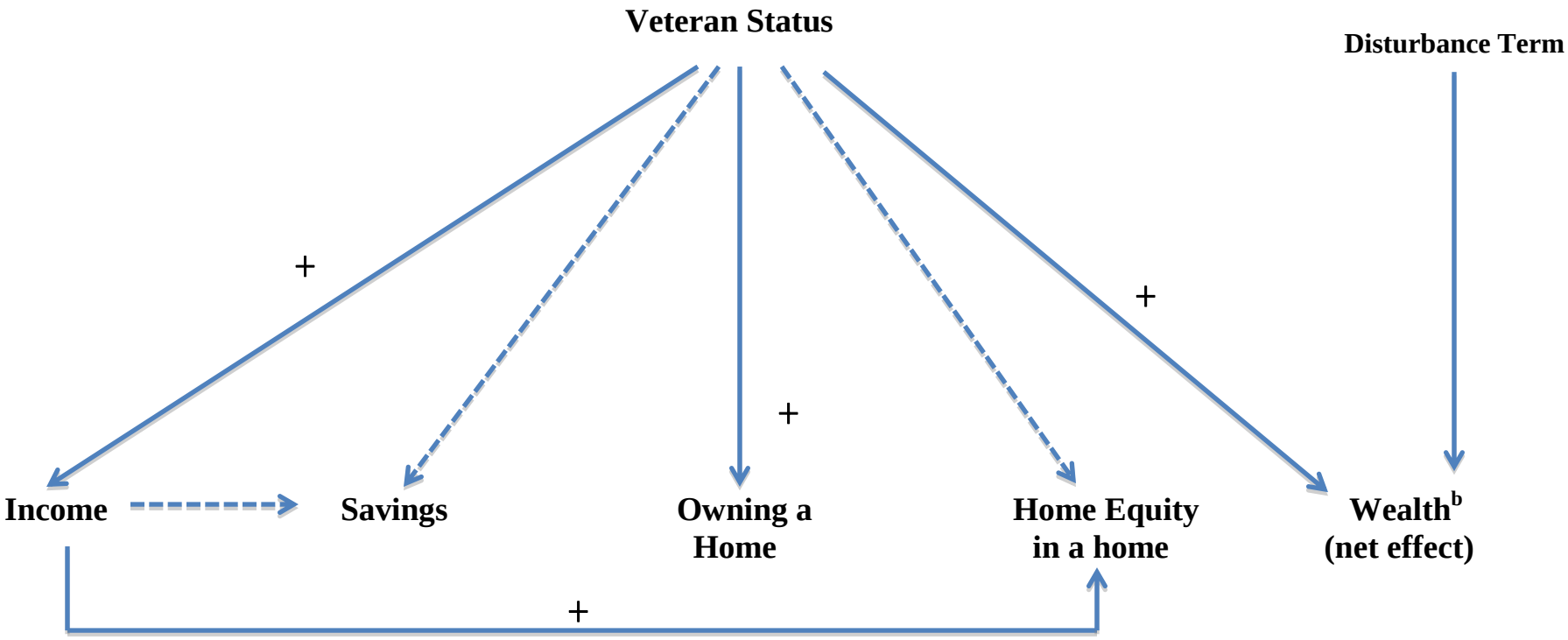
Supplemental files are available for the PSID that allow researchers to identify the census tracts in which respondents live. Data from the PSID Geocode files would allow researchers to analyze whether black veterans are more likely to buy homes in neighborhoods with lower segregation indexes compared to black nonveterans and whether the aforementioned variables account for the positive effect of military service on the home equity of black men who served in the Vietnam and AVF eras. This type of analysis would specify *how* military service impacts wealth through its effect on home equity.

Fitzgerald's (2006) research is the only other study to explore the relationship between military service and wealth, and the author found that military service negatively affected wealth. My approach of conducting separate analyses on the impact of military service on wealth by race and era suggests that the conditions under which one serves are important for wealth outcomes. Although I found that the effects of military service on wealth and its determinants vary by race and era, military service positively affected some of the factors that influence wealth depending on the race of the individual and the era in which he served.

There are several features of the military that make it promising institution to redress racial wealth gaps. First, societal support for the provision of benefits for veterans has wide public support (Bailey 2008). Second, men can gain from these benefits without incurring social stigma. Additionally, the military is still one of the single largest employers of black men (Angrist 1998), and blacks and whites have near equal access to the military as employees (Kleykamp 2006). Thus the military can affect the economic livelihood of a good proportion of working blacks. Hopefully, the results

presented in this dissertation, combined with increased scholarly attention to the mechanisms underlying the relationship between military service, race, and wealth, will help us to identify the specific institutional pathways by which military service might reduce the ever-widening black-white wealth gap.

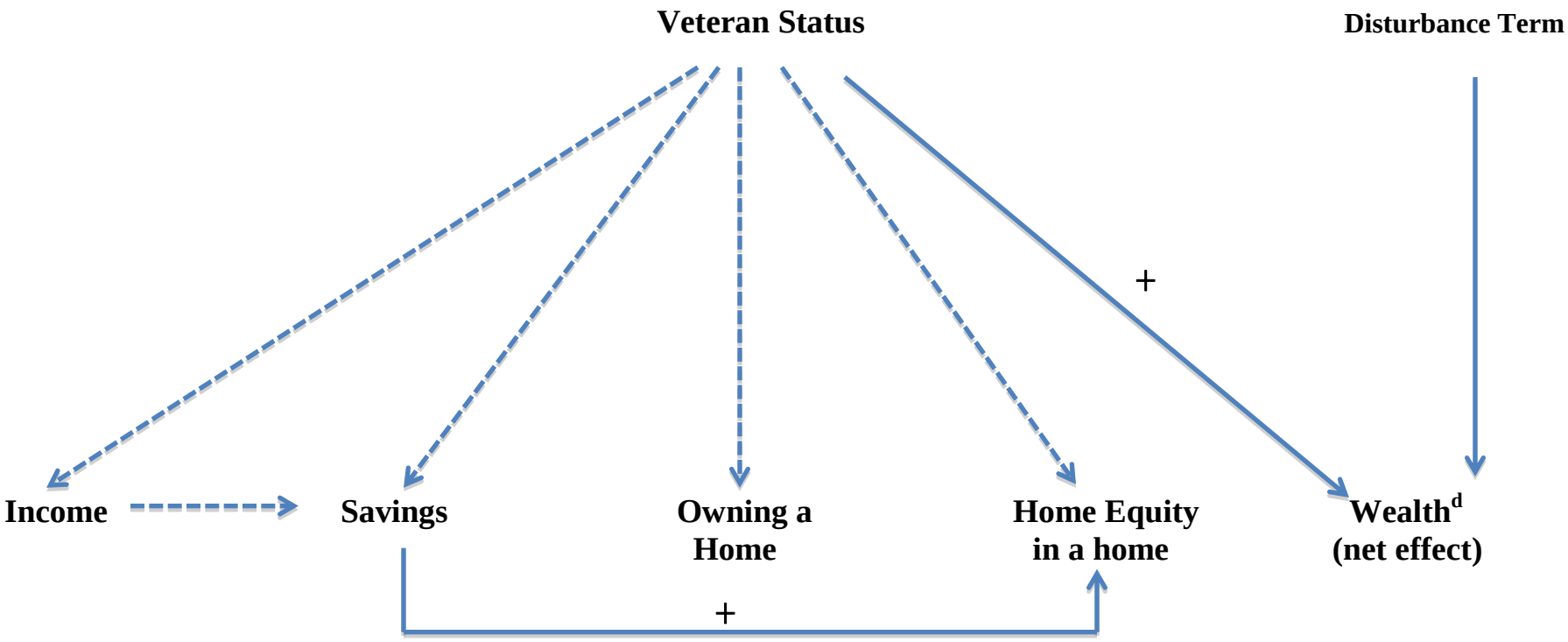
Figure 6.1 Effects of Military Service on Wealth in 2007 for White Pre-Vietnam-Era Men[a]



--------- (Dashed lines) indicates that the effect was not significant
——— (Solid lines) indicates a significant effect

[a] Ages 68 to 70
[b] I do not statistically estimate the "effects" of owning a home and the amount of equity held in a home on wealth because my measurement for total wealth includes home equity.

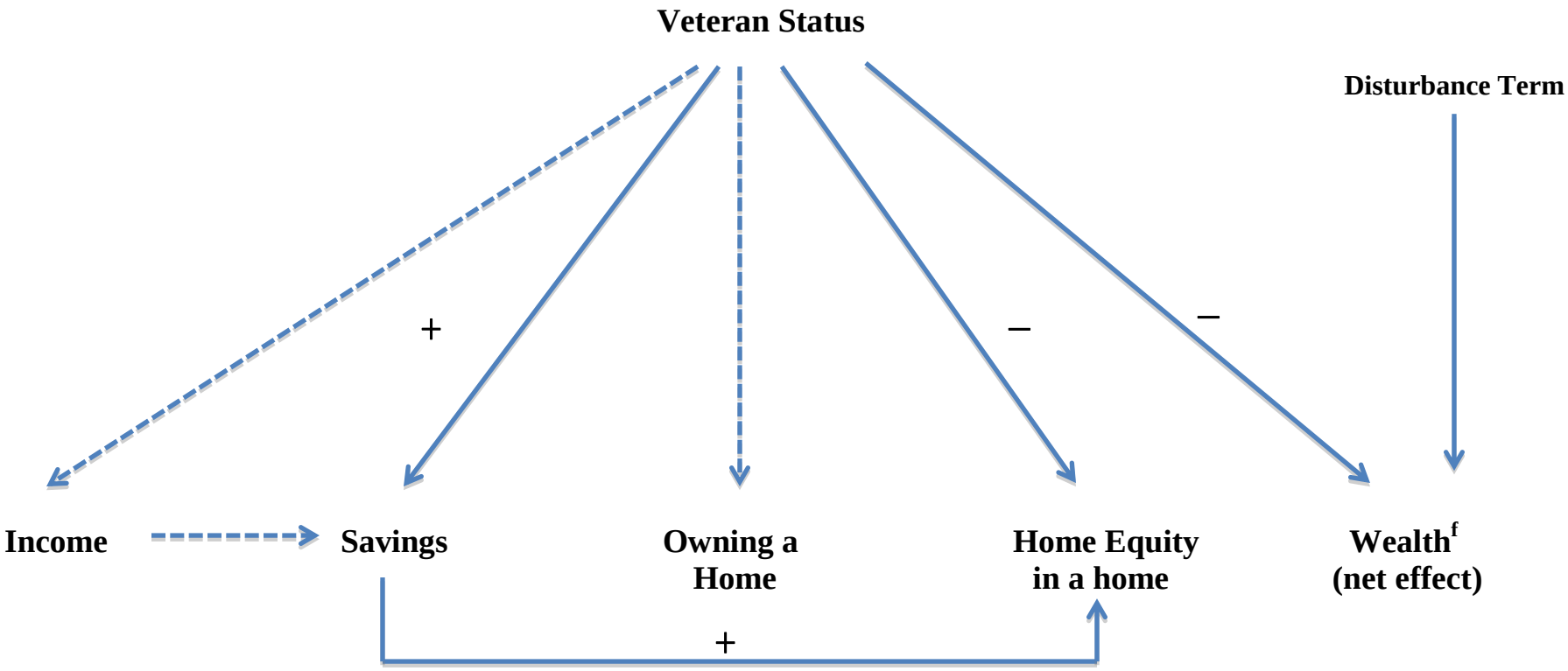
Figure 6.2 Effects of Military Service on Wealth in 2007 for Black Pre-Vietnam-Era Men[c]



---------(Dashed lines) indicates that the effect was not significant
_____(Solid lines) indicates a significant effect

[c] Ages 68 to 70
[d] I do not statistically estimate the "effects" of owning a home and the amount of equity held in a home on wealth because my measurement for total wealth includes home ownership and equity.

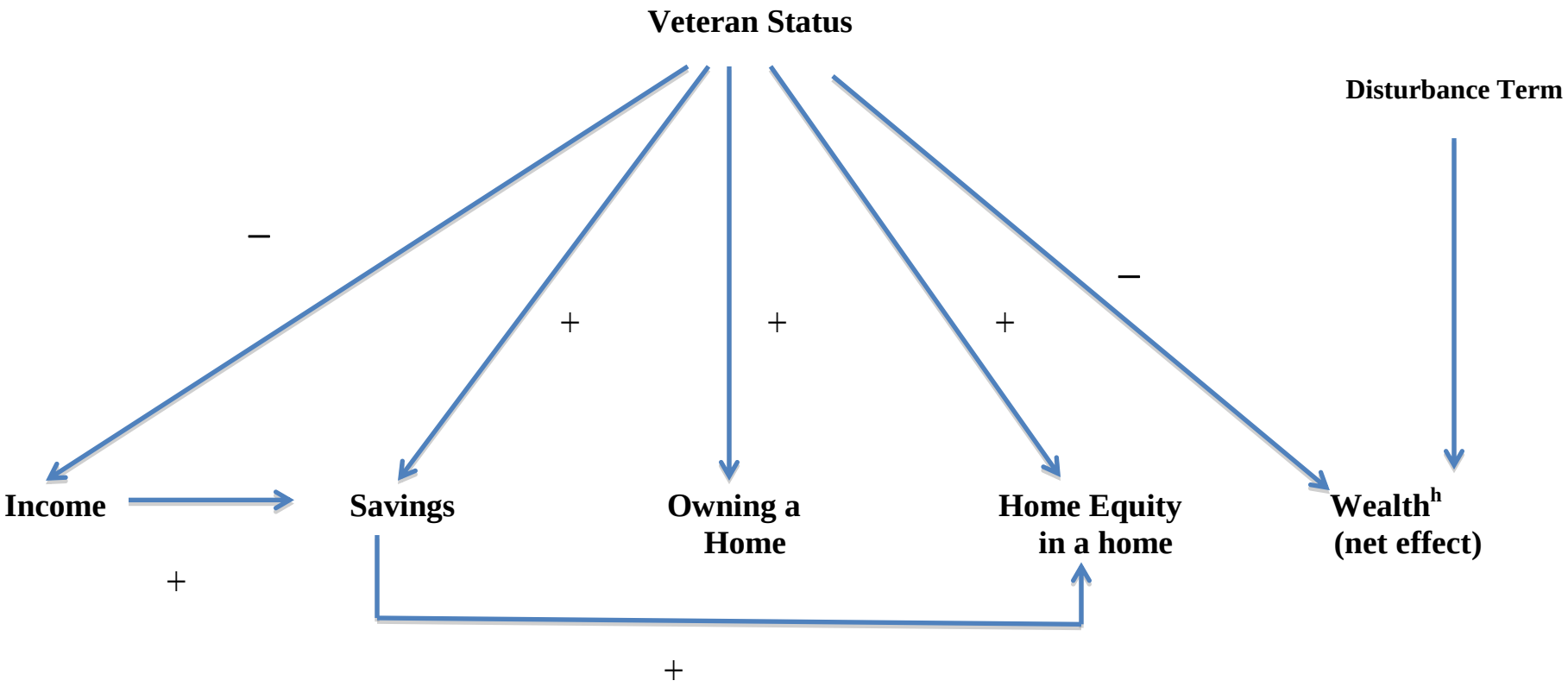
Figure 6.3 Effects of Military Service on Wealth in 2007 for White Vietnam-Era Men[e]



--------- (Dashed lines) indicates that the effect was not significant
——— (Solid lines) indicates a significant effect

[e] Ages 55 to 59
[f] I do not statistically estimate the "effects" of owning a home and the amount of equity held in a home on wealth because my measurement for total wealth includes home ownership and equity.

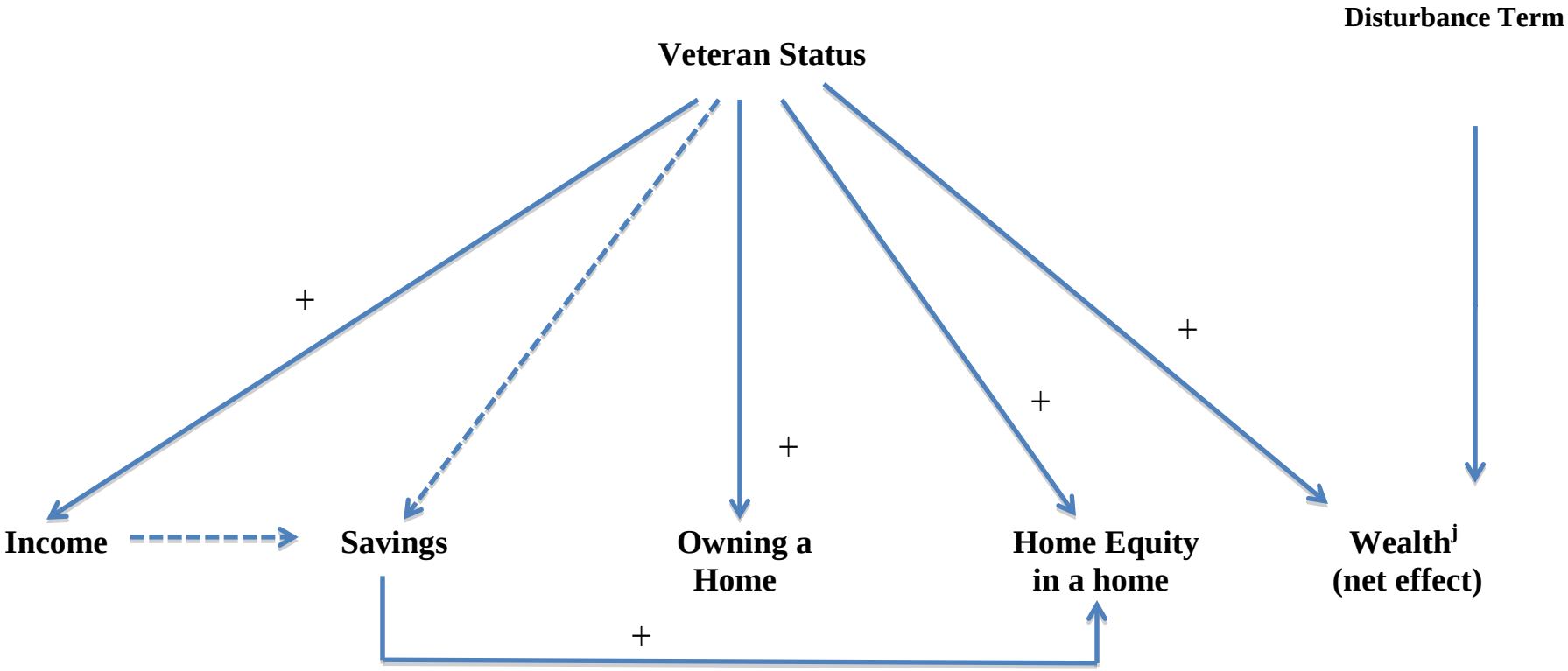
Figure 6.4 Effects of Military Service on Wealth in 2007 for Black Vietnam-Era Men[g]



--------- (Dashed lines) indicates that the effect was not significant
——— (Solid lines) indicates a significant effect

[g] Ages 55 to 59
[h] I do not statistically estimate the "effects" of owning a home and the amount of equity held in a home on wealth because my measurement for total wealth includes home ownership and equity.

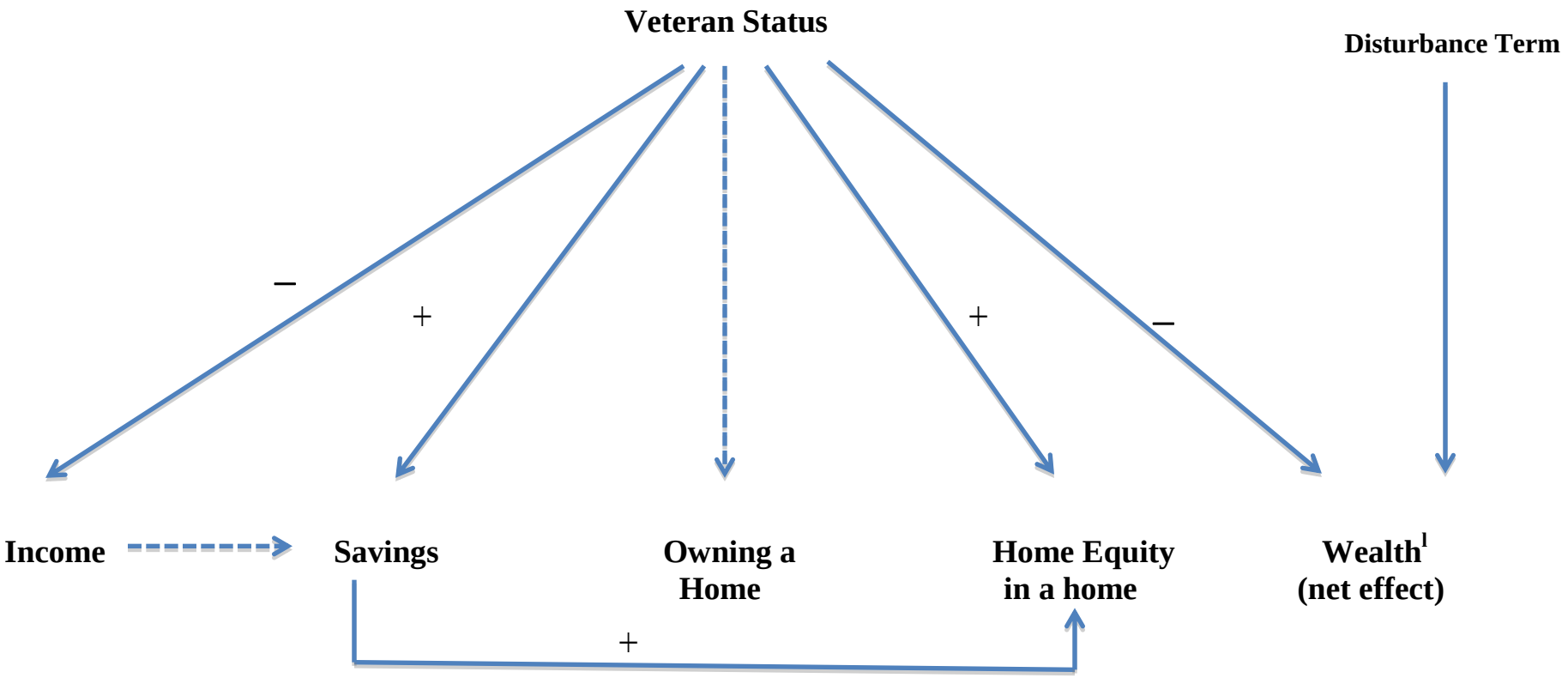
Figure 6.5 Effects of Military Service on Wealth in 2007 for White AVF-Era Men[i]



--------- (Dashed lines) indicates that the effect was not significant
——— (Solid lines) indicates a significant effect

[i] Ages 25 to 52
[j] I do not statistically estimate the "effects" of owning a home and the amount of equity held in a home on wealth because my measurement for total wealth includes home ownership and equity.

Figure 6.6 Effects of Military Service on Wealth in 2007 for Black AVF-Era Men[k]



--------- (Dashed lines) indicates that the effect was not significant
——— (Solid lines) indicates a significant effect

[k] Ages 25 to 52
[l] I do not statistically estimate the "effects" of owning a home and the amount of equity held in a home on wealth because my measurement for total wealth includes home ownership and equity.

Table 6.1 Percentage[a] of 2007 Gross Household Assets Held in Various Wealth Categories by Veteran Status and Era

Pre-Vietnam Era	Whites		Blacks	
	Non-Vets	Veterans	Non-Vets	Veterans
Savings	18	21	6	10
Equity	43	55	54	66
Other Assets	39	24	40	24
Total Assets	100	100	100	100
Mean Wealth[b]	$167,339	$271,133	$71,846	$93,912
Vietnam Era	Whites		Blacks	
	Non-Vets	Veterans	Non-Vets	Veterans
Savings	12	14	8	14
Equity	55	54	37	66
Other Assets	33	32	55	20
Total Assets	100	100	100	100
Mean wealth	$242,384	$225,975	$98,564	$65,912
AVF Era	Whites		Blacks	
	Non-Vets	Veterans	Non-Vets	Veterans
Savings	8	7	6	10
Equity	34	29	24	34
Other Assets	58	64	70	56
Total Assets	100	100	100	100
Mean Wealth	$217,237	$265,529	$93,945	$82,177

Source: PSID. Wealth calculated in 2007 dollars. Other Assets can include assets from other real estate, private business/farm, vehicles, corporate equities, annuities/IRAs, and other investments.

[a] My own calculations based on the means for each component of wealth by era served and veteran status for white and black respondents in the PSID.
[b] Mean wealth calculated in 2007 dollars.

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