

5-31-2012

# Military as Welfare State: Conditions Leading to the Adoption of the National Guard Youth ChalleNGe Program

Madisen B. Drury  
*Utah State University*

Follow this and additional works at: <http://digitalcommons.usu.edu/etd>

 Part of the [Sociology Commons](#)

---

## Recommended Citation

Drury, Madisen B., "Military as Welfare State: Conditions Leading to the Adoption of the National Guard Youth ChalleNGe Program" (2012). *All Graduate Theses and Dissertations*. Paper 1270.

This Thesis is brought to you for free and open access by the Graduate Studies at DigitalCommons@USU. It has been accepted for inclusion in All Graduate Theses and Dissertations by an authorized administrator of DigitalCommons@USU. For more information, please contact [dylan.burns@usu.edu](mailto:dylan.burns@usu.edu).



MILITARY AS WELFARE STATE: CONDITIONS LEADING TO THE ADOPTION  
OF THE NATIONAL GUARD YOUTH CHALLENGE PROGRAM

by

Madisen B. Drury

A thesis submitted in partial fulfillment  
of the requirements for the degree

of

MASTER OF SCIENCE

in

Sociology

Approved:

---

Amy K. Bailey  
Major Professor

---

Reed Geertsen  
Committee Member

---

Jason Leiker  
Committee Member

---

Mark R. McLellen  
Vice President for Research and  
Dean of the School of Graduate Studies

UTAH STATE UNIVERSITY  
Logan, Utah

2012

Copyright © Madisen Blair Drury

All Rights Reserved

## ABSTRACT

Military as Welfare State: Conditions Leading to the Adoption of the  
National Guard Youth Challenge Program

by

Madisen B. Drury, Master of Science

Utah State University, 2012

Major Professor: Amy K. Bailey  
Department: Sociology

Since its inception in 1993, nearly 90,000 high school dropouts have completed the National Guard Youth Challenge Program, a youth diversion program for unemployed high school dropouts. As of 2008, 27 states have partnered with the military to implement this residential program for at-risk youth. There is limited research on this new social welfare program despite its representing a dynamic military-state-welfare relationship. This study examines state-level conditions and looks to answer three research questions: 1) Under what conditions do states start a Challenge program?; 2) What role do time-varying social and economic factors have in influencing states to initially adopt the program?; and 3) To what extent does the racial composition of program sites reflect the racial composition of its host state's young high school dropouts? I examined state-level social and economic conditions using data from a variety of federal agencies and public opinion surveys.

I examined social and economic circumstances that may have influenced state-level participation. Due to the nature of time-dependent variables and states' launching programs at various times since 1993, I used an event history analysis to predict the timing of initiation of a ChalleNGe program. The results of this research indicate that high unemployment rates and low high school graduation rates increase the likelihood that a state will create a ChalleNGe program. The results from this study provide insight into the creation and expansion of the ChalleNGe program as well as the changing role of military as a part of the welfare state.

(72 pages)

## PUBLIC ABSTRACT

Military as Welfare State: Conditions Leading to the Adoption of the  
National Guard Youth Challenge Program

by

Madisen B. Drury

Since its inception in 1993, nearly 90,000 high school dropouts have completed the National Guard Youth Challenge Program. The Challenge program is a youth diversion program for unemployed high school dropouts. As of 2008, 27 states have partnered with the military to implement this residential program for at-risk youth. This study examines characteristics that predict whether a state will create a Challenge program. Since the Civil War, the military has been a social welfare provider, acting as a safety net for veterans and their families. With the creation of the Challenge program in 1993, the military has expanded its welfare orientation beyond military service members and their families by reaching out to communities and intervening in the lives of at-risk youth. There are many economic and social reasons why a state may elect to partner with the National Guard. The Challenge program is a cost sharing program, with the Department of Defense covering seventy percent and the state covering the remaining thirty percent. The state has few responsibilities with the Challenge program. The state only covers one-third of operational costs, has few staffing obligations, and has limited operational duties. Why then do only half of the states elect to participate in a program for at-risk youth that poses few costs?

This study aims to answer the above question by focusing on the social and economic context within each state. There is limited research on this new social welfare program despite its dynamic military-state-welfare relationship. This study asks whether there are underlying social and economic factors that lead states to launch a Challenge program while other opt out. I examine state-level social and economic conditions using data from a variety of federal agencies and public opinion surveys. I performed an event history analysis over sixteen years to identify possible social and economic factors that would influence a state creating a Challenge program.

My results indicate that the state-level social and economic context is critical in understanding the creation and expansion of the National Guard Youth Challenge program. I consistently found that states with high unemployment and low high school completion rates are more likely to launch a Challenge program than are other states. These findings add to our knowledge about the conditions that lead states to turn to various social programs. This research also provides insight to the changing role of the military as a social welfare provider.

## ACKNOWLEDGMENTS

I would like to thank Dr. Amy Bailey for her guidance during the past two years. With your support I have achieved more than I could have imagined. Special thanks to my family, from whom I learned to approach life passionately. Your excitement and encouragement is what keeps me going. I could not have done this without you.

Madisen B. Drury

## CONTENTS

	Page
ABSTRACT .....	iii
PUBLIC ABSTRACT .....	v
ACKNOWLEDGMENTS .....	vi
LIST OF TABLES .....	viii
LIST OF FIGURES .....	ix
CHAPTER	
I.    INTRODUCTION.....	1
II.   LITERATURE REVIEW .....	4
Civil-Military Relations and the History of ChalleNGe Program.....	4
Youth Military Programs .....	6
The State, Military, and Welfare .....	7
Military as a Welfare Provider .....	10
Social Policies and Racial Inequality.....	12
III.  DATA DESCRIPTION .....	17
IV.  METHODS .....	23
V.   RESULTS .....	29
VI.  DISCUSSION .....	39
VII. CONCLUSION.....	45
REFERENCES.....	50
APPENDICES.....	54
APPENDIX A BASELINE SURVIVAL AND HAZARD GRAPHS .....	55
APPENDIX B MODEL 3 SURVIVAL AND HAZARD GRAPHS .....	58



APPENDIX C CHALLENGE PROGRAM LOCATIONS AND  
YEAR INITIATED BY STATES.....61

## LIST OF TABLES

Table		Page
1	ChalleNGe Racial Composition Comparison with High School Dropouts, 2005 & 2007.....	30
2	Comparison Between States With or Without ChalleNGe Programs, 1992 & 2008 .....	32
3	Hazard Ratios from Nested Event History Analysis.....	34

LIST OF FIGURES

Figures	Page
1 ChalleNGe Causal Model for Event History Analysis .....	22
2 Model 3 Smoothed Hazard Function .....	36

## CHAPTER I

### INTRODUCTION

Since its inception in 1993, nearly 90,000 high school dropouts have completed the National Guard Youth ChalleNGe Program (NGYCP).<sup>1</sup> The program aims to give high school dropouts a second chance to earn a high school diploma or GED. Participants engage in a twenty-two week residential phase of the program where they work toward academic credentials while providing community service and improving life skills. Participation in NGYCP program is voluntary. To be eligible for the program, applicants must be between the ages 16-18, have dropped out of school, and be unemployed. Traditionally, youth diversion programs are not seen as normal function of the military. The military is often characterized as an institution of centralized coercive power. The military is also a welfare institution providing soldiers and their families with a safety net while they are on active duty, and after service in the form of GI Bills. Through the ChalleNGe program, the military has expanded its welfare orientation beyond military service members and their families by reaching out to communities and intervening in the lives of at-risk youth.

Funding for the ChalleNGe program is provided from Congress to the Department of Defense to allow The National Guard to operate these programs. As of 2010, there were 32 programs in twenty-seven states.<sup>2</sup> See Appendix C for a detailed table of ChalleNGe program locations and the year they launched the youth program. There are

---

<sup>1</sup> A capitalization of NG in the ChalleNGe program is the official spelling and indicates the involvement of the National Guard.

<sup>2</sup>As of 2010, there are 32 programs located in the United States, District of Columbia, and Puerto Rico. The following states have more than one program site: California, South Carolina, Louisiana, and Georgia. Some states have dropped programs since 2008. These states include Alabama, dropped its first program in 2008, and South Carolina, which dropped one of its programs in 2010.

many economic and social reasons why a state may elect to partner with the National Guard. The ChalleNGe program is a cost sharing program, with the federal government covering seventy percent and the state covering the remaining thirty percent. The state has few responsibilities with the ChalleNGe program. The state only covers one-third of operational cost, has few staffing obligations, and has limited operational duties. National Guard staff is responsible for daily operation of these programs.

The National Guard Bureau (2009) provides evidence that suggests the cost per participant in the ChalleNGe is lower than the cost of possible alternatives that a disengaged youth may undertake, such as criminal activity. The ChalleNGe program argues that disengaged youth leave the program with skills and education that will positively affect a state's economy. Most of the ChalleNGe graduates leave the two-year program with high school credentials that increase their chances for successful outcomes in education and the labor market (Millenky et al. 2011). ChalleNGe graduates are more likely to be employed and have a higher wage than their peers who did not enter the program (Millenky et al. 2011). Graduates appear to be in an advantageous position in their local economy and/or to enter into higher education – both which would benefit the state and national economy. Why then do only half of the states elect to participate in a beneficial program that poses few costs? This paper examines this question by comparing the social and economic conditions of states with at least one ChalleNGe program to those in states without a program.

There is limited research on this new military-linked juvenile diversion program. The research that has been done examines micro-level outcomes of individuals' placement decision at the completion of the program. This will be the first analysis

examining state-level variables and exploring the conditions that influence a state to adopt the ChalleNGe program. This study examines the following questions: 1) Under what conditions do states start a ChalleNGe program?; 2) What role do time-varying social and economic factors have in influencing states to initially adopt the program?; and 3) To what extent does the racial composition of program sites reflect the host state's racial composition of the eligible adolescent high school dropout population? By exploring these questions, we can gain some understanding of this dynamic state-military-civil connection through the use of a quasi-military youth program. This youth diversion program signifies a change in the civil-military relationship that can shape future social policies.

## CHAPTER II

### LITERATURE REVIEW

#### *Civil-Military Relations and the History of ChalleNGe Program*

The Vietnam War brought many changes to American military policies. One of the greatest change in U.S. civil-military relationship occurred in the early 1970s. In 1973, the military recruitment policy of conscription was replaced with the adoption of the All-Volunteer Force. The practice of conscription had led to unfair selection procedures, a disproportionate number of casualties among racial and ethnic minorities, and a disproportionate number of casualties among poor and working class Americans (Appy 1993; Kagan 2006). Changes in the recruitment methods were in response to the social injustices experienced by those who were drafted during the war. The Vietnam War created fear and distrust in the military and political institutions and resulted in the citizenry wanting less military involvement in young people's lives (Price 2007). The distrust that once existed in the 1970s had dissipated by the early 1990s and the military regained legitimacy. Political leaders during the 1990s hoped to use the military as an ally in their attempts to respond to domestic social issues (Price 2007).

The ChalleNGe program was the product of various political and social events. In the 1980s, public funding for social welfare programs declined, as greater emphasis was placed on military programs and national defense (Kagan 2006). Social welfare programs were left crippled from a lack of funding, and disadvantaged communities were left with limited options. President Reagan responded to social issues with the implementation of the War on Drugs, which led to increases in economic inequalities in

many already disadvantaged neighborhoods (Western and Pettit 2002). During 1992, debates surrounding issues of race, class, and social justice were ongoing in many neighborhoods and communities that experienced negative effects of the War on Drugs (Collins 2008). Due to the drug policies, incarceration of poor, under-educated minorities increased exponentially, leading to dilapidated communities and broken families (Western 2006). Society faced poor social and economic conditions and was looking for avenues to improve these conditions. Many turned to education as a possible vehicle for addressing social issues.

During the 1992 Presidential campaign, both candidates gave possible solutions for the ongoing concerns over race and class. Both presidential candidates turned to the military for possible solutions for social issues. President Bush proposed the expansion of Junior Reserve Officers' Training Corp (JROTC) programs into urban areas, a policy that President Clinton adopted once elected into office. When President Clinton entered into office he tried to address the nation's education system that many believed was fostering social inequalities (Goldson, Lavalett, and McKenchnie 2002). President Clinton turned to the National Guard to address racial and educational issues once he was elected in office. Clinton found it politically advantageous to embrace the military as a viable way to expand the provision of social services. In 1993, with the passage of the National Defense Appropriations Act, we saw the expansion of JROTC and the funding for 10-site program to be operated by the National Guard. The JROTC increased its number of participants and expanded into areas that would reach urban schools to help at-risk high school students (Collin 2008).



### *Youth Military Programs*

The National Guard Youth ChalleNGe Program is not the first military program created for youth. The military created the JROTC program during 1916. JROTC and the ChalleNGe program have many similarities including their targeted population and the use of military values to guide their program. The creation of the JROTC program in the early 1900s was a response to the perceptions of social decay on issues of citizenship and problems in youth education (Barlett and Lutz 1998). The current expansion of JROTC and the creation of the National Guard Youth ChalleNGe program in the 1990s could be viewed as a continuous form of social control through disciplining social and racial differences and unifying participants through standardized uniforms and haircuts. Some researchers argue that these types of programs allow society to construct our perceptions of deviants and good citizens (Bartlett and Lutz 1998; Collin 2008).

While ChalleNGe and JROTC are both quasi-military programs and share many similarities, they are also fundamentally different. The NGYCP specifically targets disconnected youth that are not engaged in school or the workplace, and is modeled after juvenile welfare programs. JROTC is seen as an extra-curricular school activity for youth interested in community and school involvement. As stated by National Guard Bureau (2009:9), “The National Guard Youth ChalleNGe programs throughout the country target a specific subset of at-risk youth, thereby securing a niche among youth intervention and development programs.” The ChalleNGe program consists of a rigorous twenty-two week residential program followed by twelve month post-residential phase where the youth returns to his or her home community. With the help of a mentor, once

they are back home, graduates are expected to navigate the workplace with skills and knowledge gained in the ChalleNGe program.

### *The State, Military, and Welfare*

Weber argued that one of the main features of the modern state is the ability to exercise “the monopoly of the legitimate use of physical force within a given territory” (Weber 1946). The authority is contingent on the legitimacy of the state. Weber argues that the organization of a state bureaucracy and implementation of laws provide a state with a centralized power over its citizenry (Weber 1946). The state is an amalgamation of institutions, organizations, and individuals who are responsible for maintaining integration and cohesion of society. Jessop (1990) argues that defining the state should include state discourse and projects. The role of the state, state interest, and the extent of its power can be identified through state projects. Jessop (1990) argues that the form of projects in capitalist states like the U.S. is restricted by politics and economics. State projects are contingent on legitimating ideology from political leaders and a public belief that state projects are for the common good. These projects expand state power and help define state governance. During poor economic times, citizens turn to the state to maintain or restore capital accumulation through the economy; the state has to respond in order to keep legitimacy among the public.

The creation of the ChalleNGe program can be viewed as a project that redefines the state-military-society relationship. ChalleNGe was created in a time when the public was fearful of increasing crime and poor economy. The state, in order to retain legitimacy, responded with a program that sought to put unemployed high school

dropouts on a path that would increase capital accumulation for the state by providing education and vocational training. What is unique about the ChalleNGe program is that the state has called upon the military to deal with these social issues as a part of the welfare institution.

The traditional role of the military seeks to secure national borders as well as maintain social order domestically. Weber saw the military as a powerful coercive extension of the state's power apparatus. The involvement of the United States in numerous wars can characterize the military as a forceful, aggressive, and powerful institution. Wars increase and centralize power to the state and state officials (Goldsmith 2007). The U.S. constitution increases power delegated to state and military officials during the time of war in the interest of protecting our national security. I argue that even though the military has war-making characteristics, the military can also be an extension of state power through its welfare orientation as a way to maintain domestic order.

The welfare state maintains domestic order by the state intervening to offset or alter social and market forces that can be destructive to individuals and families (Orloff 1993). The potential destructive effects of the market are counteracted by state assistance through welfare policies. These policies also seek to maintain social control through surveillance of welfare recipients. A society that is perceived as healthy also provides legitimacy among political and business elites. How welfare is distributed varies by the relationship between the state, market, and family (Esping-Andersen 1990). With a strong market orientation in the United States, the state intervenes with assistance only after the market has failed. Access to welfare state benefits is means-tested and individuals must demonstrate that the private market was unsuccessful and that the state

needs to respond to provide brief assistance. Means-tested assistance leads to increased stigma against welfare recipients (Esping-Andersen 1990). Welfare policies, even though they are ideologically thought to reduce inequality, are simultaneously producers of inequality themselves. The welfare structure helps define social relations as well as defines the conditions in which the state's intervention is worthy and legitimate (Esping-Andersen 1990).

During poor economic and social conditions, the citizenry has turned to the government to intervene and provide solutions to repair the perceived problems. Welfare policies in the U.S. began after the Civil War, as the state tried to extend veteran benefits. Here, the developing nation was mostly unsuccessful in providing pensions and benefits for veterans and their widows (Skocpol 1992). Veterans and their widows were seen as worthy of state assistance, but many business elites and members of the middle class did not support these social programs. The United States did not have the capacity after the Civil War to implement a strong welfare state. This lack of state power allowed for the market to provide solutions (Skocpol 1992). Even though the state did not have the collective will to start an effective welfare program, it set the stage for future governmental welfare programs and allowed for political efforts outside of the government to be established.

In addition to economic explanations for the development of the welfare state, some scholars argue that there are racial explanations in understanding the expansion of welfare policies in United States. The modern welfare state began with the New Deal during the Roosevelt administration to help America recover from the poor social and economic conditions characterized by the Great Depression. During this time, the market

failed many Americans and the state intervened by implementing a variety of New Deal policies, including the Social Security Act of 1935. These policies widened government control by expanding welfare benefits. These social policies included old-age insurance, unemployment compensation, and the implementation of the GI Bill available for veterans (Katznelson 2005; Quadagno 1996). These benefits expanded governmental oversight of the nation's wellbeing. During this time, the military also increased its role as an institution that offers welfare type benefits.

### *Military as a Welfare Provider*

The military has been one of the main welfare institutions by offering benefits to members of the U.S. military and, more recently, their families. Through the GI Bills, the state provides former service members with benefits including housing, education, and healthcare. These benefits were implemented to incentivize citizens to join the U.S. military and offset possible negative effects of military service. Recently, Congress implemented the Post-9/11 GI Bill that has increased housing and educational benefits. The Post-9/11 GI Bill has expanded its benefits by increasing eligibility use to 10-15 years and allows transfer of educational benefits to dependents or spouses of service members (Simon, Negrusa, and Wagner 2010). This bill has expanded the reach of the military welfare orientation beyond just service members.

In addition to GI Bill, many welfare type benefits are provided for families and dependents of service members (Gifford 2006). Many scholars have characterized the U.S. welfare state as liberal and market-oriented (Esping-Andersen 1990; Orloff 1993). Liberal welfare states are tied to market conditions and welfare recipients are means-

tested to demonstrate need (Esping-Andersen 1990; Orloff 1993). The military offers benefits to the families that are separate from market forces. The military offers universal healthcare (Tricare), housing with free utilities, subsidies for childcare, and monthly household allowances to offset additional costs of service members' deployment (Gifford 2006). These benefits are not means-test and are separate from market forces. The type and amount of benefits are provided based on family type and need. These military benefits do not fluctuate based on wage or income level making the military a unique provider of welfare state benefits in the United States (Gifford 2006).

The military has emerged as a prominent actor in the U.S. welfare state with many individuals and families receiving benefits (Gifford 2006). With the creation of the National Guard Youth ChalleNGe program, the state uses the military not as a war-making institution but to expand the welfare safety net. The ChalleNGe program is innovative among military programs in that it provides welfare benefits that are not tied to military service, rather providing welfare type benefits for youth who are potential enlistees. The NGYCP was created as a way to develop new strategies to combat issues surrounding high school dropouts (Millenky et al. 2011). These programs were created to re-engage disaffected youth in hopes that it would reduce levels of unemployment, crime, and increase educational attainment, while reducing spending on alternative social programs. The use of the military to provide welfare services to non-military service members has increased state power and has expanded the responsibilities of the military. Despite possible structural limitations of the Department of Defense in operating youth programs, the National Guard Youth ChalleNGe program seems to be successful and has continued to experience growth. With the creation of this new social welfare program,

the military is put in a unique position within states. I will investigate the presence of the military in states leading up to creation of a ChalleNGe program as part of the social and economic atmosphere.

### *Social Policies and Racial Inequality*

Social policies in the United States are restricted by the nation's past history as well as its current institutional context. The military has expanded its role in the provision of welfare benefits through the ChalleNGe program. The state is extending its strength to provide social assistance through the military institution to non-military youth and families. Social policies and programs have historically been constructed on a foundation based on racial inequality and class differences (Quadagno 1996). During the early 1900s, the increase in completion from black workers within the industrial sector created unease among white and European workers which led to racist economic policies, such as exclusion of black membership in labor unions (Massey and Denton 1993; Quadagno 1996). During the mid-1950s, racialized social policy was institutionalized through the Home Owners' Loan Corporation and the Federal Housing Administration. Risk assessments, such as redlining, created a situation where segregation and discrimination were facilitated through the housing market (Massey and Denton 1993; Quadagno 1996). Social policies have historically been unequally distributed based on race. Collins (2008) argues that racial and class tensions during the early 1990s led to the expansion of JROTC programs in urban areas. Based on this prior research I believe that race is an important part of the ChalleNGe story. Therefore, I will examine whether the

racial composition of ChalleNGe programs reflects the racial composition of the state's eligible young adult high school dropout population.

Regional differences and local control have historically allowed for racial inequality to be sustained through social policy, and state control of benefit distribution has led to variation of social policy outcomes based on race (Katznelson 2005). A state-level analysis will identify social and economic conditions that are spatially confined. Many policies in the New Deal, for example, were distributed differentially due to written language in the policies that facilitated regional discrimination and allowed for the exclusion of minorities. The Selective Service Readjustment Act GI Bill included benefits for housing, additional training, education, and job placement assistance. The GI Bill was unique among New Deal policies because benefits were to be universally available to military service members. Federal money was given to local organizations to distribute. Due to the racial discrimination in the southern region, many African Americans were not able to access the benefits they were promised through the GI Bill (Katznelson 2005). Racial discrimination and local control of benefits allowed for regional differences in distribution of welfare benefits in housing, education, and worker protections. For example, the Social Security Act of 1935 excluded benefits for agricultural workers and domestic servants, which are occupational categories that included the vast majority of black men and women (Katznelson 2005; Quadagno 1996). Housing segregation was able to persist through the lack of reporting and enforcement capabilities of local authorities (Massey and Denton 1996; Quadagno 1996).

Today we continue to see that social policy affects racial groups differently. For instance, the War on Drugs resulted in the incarceration of many young blacks (Western



2006). Even though the rate of drug use among black and white youth was similar, we have seen an enormous growth in black imprisonment. Western (2006) find that black high school students are three to four times more likely than white students to be arrested for drug offenses. Racial inequalities are apparent in every step of the criminal justice system. Poorly educated minorities experience increased rates of arrest and conviction as well as longer prison sentences compared to whites (Reiman 2007). The juvenile justice system is historically welfare oriented by offering rehabilitative services to youth and families. Juvenile justice policies, even with increased rehabilitative services, can sustain race and class inequalities. Minority offenders are more likely to be held in detention during arrests and during the court process than is true for white youth (Wordes, Bynum, and Corely 1994). Kempf (1992) found that black teenagers are more likely to be detained and more likely to be waived to adult court for serious crime. Many probation officers are guided by negative scripts such as Latinos being gang members, which affect the racial fairness of the juvenile court system (Harris 2009).

Criminal justice policies often increase social disadvantage among the poor and under-educated rather than serving as mechanisms of upward mobility. Research indicates that involvement in the criminal justice system has a negative impact on an individual's economic mobility. For adults, a felony on their criminal record negatively affects their economic situation, making it difficult to obtain and sustain employment (Pager 2003). When inmates are released from jail or prison, they often reenter deteriorating communities, and have to deal with negative social stigmas, repairing broken social ties, and securing a job in neighborhoods with poor economic conditions (Leverentz 2010; Travis 2005; Western and Pettit 2002).

Changes in the U.S. labor market have placed more significance on having high school credentials, with major implications for future employment and wages. High school dropouts are not likely to enter college and are less likely than high school graduates to have sustained employment over a three year period (Finn 2006). High school dropouts are also more likely than graduates to be incarcerated, and face negative family and economic outcomes (Western 2006). High school dropouts are five times more likely to go to prison than high school graduates (Western 2006). Western (2006) also finds that nearly one-third of black non-college men have been to prison. High school credentials lead to more choices in the labor market outcomes and decreases the likelihood of imprisonment.

As of 2008, the ChalleNGe program was present in twenty-seven states, the District of Columbia, and Puerto Rico, although these states launched their programs at various times across 15 years (see Appendix C for more detail). The ChalleNGe program seems to be regionally clustered. Most of the Southern, Eastern and Western States have ChalleNGe programs while many of the Inter-Mountain West and Mid-West states have not started a program. This indicates that there may be important conditions that influence the creation of these quasi-youth diversion program in various regions. Prior research on regional differences of the implementation of social policies, as well as state-level administration of ChalleNGe programs, provided evidence that states are the appropriate level of analysis for my study.

Examining characteristics of individual states allows the identification of local social and economic conditions that seem to influence the creation of a ChalleNGe program. The scant research on the ChalleNGe program is limited in that it examines

individual-level outcomes that do not address contextual factors. Examining state-level factors and accounting for changes in social and economic context over time, identifies the conditions that lead to implementation of this type of social policy. The use of the military to run a residential program for unemployed high school dropouts is opening a new realm of welfare policy provided by the government. The expansion of the ChalleNGe program in the last fifteen years shows the overlap among institutions such as military, government, criminal justice, and education. It also signifies an acceptance among individual states of a military-run welfare program. With 27 states currently having a program, there are still many states that have not joined in partnership with the National Guard in implementing this program. The results of this study will allow us to have a clearer understanding the state-level conditions that favor adoption of this type of military program.

## CHAPTER III

### DATA DESCRIPTION

The state was the unit analysis for this study. I created separate observations for each state for each year between 1992-2008, and utilized various data sources to investigate my research questions. Each state-year observation was linked with the corresponding year of data. The data were analyzed to help answer the following questions: 1) Under what conditions do states start a ChalleNGe program?; 2) What role do time-varying social and economic factors have in influencing states to initially adopt having the program?; and 3) To what extent does the racial composition of program sites reflect the host state's racial composition of eligible high school dropout population? I used data from the National Guard, aggregated Census data, American Community Survey (ACS), Department of Defense, National Center of Educational Statistics (NCES), American National Election Survey (ANES), Current Population Survey (CPS) and Uniform Crime Reports (UCR). I combined variables including unemployment, high school graduation, enlistment rates, and crime rates to define the social and economic conditions of any given state. I examined the 50 states and the District of Columbia's social and economic conditions across 1992-2008.<sup>3</sup>

The first data source is a series of annual summary reports of the ChalleNGe program prepared by the National Guard Bureau. These reports are a compilation of individual program site statistics and are publicly available.<sup>4</sup> Each program annually reports statistics on its program to the national office. Data on racial composition of each

---

<sup>3</sup> Puerto Rico was not included in this study due to lack of information in my data sources.

<sup>4</sup> Annual Performance and Accountability reports are available on the National Guard Youth ChalleNGe website at <https://www.ngycp.org>.

program site were taken from these annual reports. Racial composition of individual programs was taken from numbers reported in these annual reports in years 2005 and 2007, the only years in which racial composition information is provided on each program site.

The Common Core Data from the National Center of Educational Statistics was used as an indicator of educational attainment in each state. The National Center of Educational Statistics is the primary federal source of collecting data from public elementary and secondary educational institutions around the nation. Educational institutions report annual summary statistics to NCES where this data is compiled. I used aggregated state-level racial data on the number of high school dropouts between grades 9 & 12. Dropout is defined as individuals who were enrolled in school during the previous school year but were not enrolled at the beginning of the current school year and had not graduated from high school. I used these numbers to compare the racial composition of high school dropouts to the racial composition of ChalleNGe program participants.

I also used NCES Common Core of Data aggregated state-level data to create the Basic Completion Rate for each state in every year from 1992-2008. I used NCES Common Core of Data to create the Basic Completion Rate. This Basic Completion Rate equation is as follows:

$$\text{BCR} = \frac{\text{High School Completers}_{\text{Spring of Academic Year X}}}{\text{9}^{\text{th}} \text{ Grade Enrollment}_{\text{Fall of Academic Year X-3}}}$$

The BCR allowed me to capture a clearer picture of the educational system for high school completers and dropouts.<sup>5</sup> It takes into account the length and progression of high school enrollment by including the enrollment of 9<sup>th</sup> graders and their expected graduation three years prior. The Basic Completion Rate does not include measures for migration or grade retention. Though this is an acknowledged limitation, the BCR is a better measure than the rate of high school diploma recipients than are alternative measures. The BCR is an indicator of the educational situation within each state. It reflects the social and economic context that may lead states to launch a ChalleNGe program.

Aggregated Census data were used to determine population size. Every ten years the Census Bureau gathers information on U.S. population and housing and is intended to collect data on the entire population. The Census was used to define populations to find enlistment and crime rates for years 1992-2008. Since the Census is only performed once every ten years I found the mean annual growth rate between 1990-2000 and 2000-2010. This allowed me to account for continuous growth within a state's population each year rather than using the population count for a decade. Assessing continuous growth within a state provides more accurate measures of arrest and enlistment rates.

---

<sup>5</sup> There are discrepancies between the reported dropout rates and the actual dropout rate. These variations are mostly a methodical artifact but have real consequences in our understanding of the dropout phenomenon. Dropout rates vary depending on the database used (Warren and Halpern-Manners 2009). The two main data bases used to compile dropout rates are the Current Population Survey and the Common Core Data (NCES). Warren and Halpern-Manners (2009) argue that the NCES Common Core Data measures reflect a more accurate picture of high school graduates and dropouts than the CPS. This difference stems from two characteristics of the CPS: 1) CPS reflects self-reporting bias in respondents reporting high school graduation and 2) CPS data includes other types of graduation degrees such as GEDs. The NCES data is reported by state agencies to the Department of Education and more closely reflect high school graduation and dropouts than CPS data (Warren and Halpern-Manners 2009). This study defines a high school completer as an individual who receive a high school diploma from a public institution. It does not include private school or GEDs.

To obtain a crime measure, I used data in the Uniform Crime Reports. Every year, law enforcement agencies report their criminal offense statistics to the Department of Justice. I used aggregated state-level arrest information in this study. The UCR reports on arrest any known offense to law enforcement. I included annual arrest statistics from agencies that voluntarily sent arrest information to the national office for each year between 1992 and 2008. Uniform Crime Reports did not have arrest data available for 2000. For this year I use the 1999 arrest data in the analysis. I calculated arrest rates by first summing up arrest data for each state. Then I divided the summations by the state-level population estimates to create arrest rates for each year. Crime measures were used as one of the indicators of state's social wellbeing.

Unemployment rates were taken from annual reports by the Bureau of Labor Statistics for years 1992 through 2008. The Current Population Survey (CPS) published these reports and included the employment status of the civilian non-institutionalized population 16 years of age and over by state. The Current Population Survey is a nationally representative sample survey of about 60,000 households conducted monthly for the Bureau of Labor Statistics. I used the aggregated annual state-level unemployment rates of residents 16 years and older for 1992-2008. Unemployment rates were used in the event history analysis to identify the economic situation of each state.

Military enlistment rates were calculated for each state for the years 1990, 1995, 2000, and 2005, to identify the military presence in each state. I aggregated zip code level data from the Department of Defense. Rates were created by using American Community Survey state populations age 18-24 – the age at which many individuals enlist. I used the five-year enlistment rates for the years between the next estimate. For

example, I used 1995 enlistment rates for the years 1995, 1996, 1997, 1998, and 1999.

This data was used to assess the possible influence of military enlistment on the likelihood of a state's having the ChalleNGe program.

I used the American National Election Survey (ANES) to measure public opinion in each state. This random survey is performed through an interview every other year to gauge public opinion and public support of political figures. I used six questions that were present on surveys 1992-2008. The six questions asked respondents to rate on a scale of 0-100 how they felt towards the military, welfare, federal government, and views of people of different races (white, black, and Hispanic). Due to the lack of observations in some states, I took averages across the seven measures from years 1992-1998 and again from 2000-2008. I used the averages in each of the corresponding years. The ANES is a national survey that does not necessarily represent state public opinion. ANES also missed data from certain states which made adjustments in my statistical analysis.<sup>6</sup>

My measure of unemployment, race, military enlistment, high school completion, crime, and public opinion enabled an examination of the relationship between social and economic conditions of the 50 states and DC and the initiation of a ChalleNGe program. Using states as my unit of analysis allowed me to uncover ways in which variation in social and economic factors could affect the likelihood of a specific state's adoption of a ChalleNGe program. Figure 1 below diagrams my causal model.

---

<sup>6</sup> For the year 1990-1998 estimates, the following states have missing data: ME, RI, VT, DE, ID, KY, MT, AK, ND. The following states have low observations: SD, MS, SC, HI, and NV. In the next subsequent years 2000-2008 states with missing observations only include AK and HI. Montana and Nebraska have low observations for the years 2000-2008. This amount of missing data creates a validity issue. Due to this I estimated event history models without ANES data using the full population of states, and with ANES data.



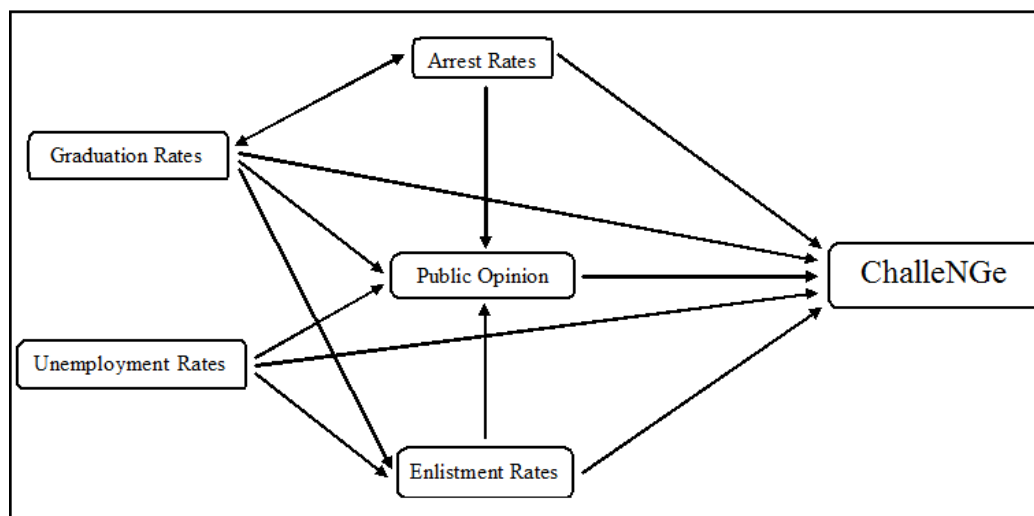


FIGURE 1: Causal Model for Event History Analysis

Based on prior research, I expected that states with poor economic and social conditions would be more likely to create a new youth social welfare program. Conversely, lower unemployment and crime were expected to decrease the likelihood of a state creating a program. States with higher high school completion rates were expected to be less likely to launch a ChalleNGe program. A higher military enlistment rate was expected to make it more likely for a state to create a ChalleNGe program. Increased military enlistment reflects that the military has a strong presence in the social and economic conditions of the given state. I expected to see public opinion vary by state. States with more positive public opinions toward welfare, military, government were expected to more likely to have a program. I would expect that a state is more likely to have a ChalleNGe program where public attitudes view minorities more negatively.

## CHAPTER IV

### METHODS

I used multiple statistical methods to investigate my research questions. First, I compared the racial composition of each state's high school dropout population with the state ChalleNGe program's racial composition for the years for which I have the data. I used National Guard reports for the year 2005 and 2007 with NCES data, and compare the racial composition of the two groups. The National Guard Performance and Accountability reports provided detail on racial composition for the years 2005 and 2007. The racial categories consisted of white, black, and Hispanic. I used a t-test to look at whether the proportional differences, if any, were statistically significant. I hypothesized that ChalleNGe programs would have a more racially diverse population than high school dropouts generally due to the ChalleNGe program requirements.

For this research study I examined data from years 1992-2008. Event history analysis is beneficial for this type of data. Event history analysis captures events that take place across time period. Unlike many other types of statistical models, such as logistic regression, event history accounts for variation on data that includes time-varying covariates. Many variables that I included in the analysis were connected with the specific social and economic context in which it was measured. For example, public opinion was expected to vary depending on the time-specific context in which people were asked their opinion. The event history analysis is beneficial because it accounts for variation of time-dependent variables (Cleves, Gould, and Gutierrez 2004). Event history

analysis examines time-to-event data where the area of interests is the occurrence of an event at a discrete time.

I used an event history analysis to find underlying patterns in the social and economic characteristics of states that created a ChalleNGe program, compared to those that did not, across time. My outcome variable was a dichotomous coded variable whether each state, from 1993-2008, experienced the given event; the event being the creation of a National Guard ChalleNGe program. I organized my data by each state and by each year. States were censored once they experienced the event. States that have not started a program by 2008 were also censored during the analysis. These censored states provide information about the survival function of the event history analysis. I had a high number of observations (517) on my subjects ( $n=51$ ) in my event history analysis. This was due to how the data is constructed in the event history analysis.

I predicted that the unemployment and high school dropout rates, and the level of military enlistment and arrest rates would influence my outcome variable. I also controlled for enlistment by race and public opinion toward race, military, and welfare. I used nested models to show the influence a series of covariates added to the models. These models have a shared frailty since there is expected correlation between each of 50 states and the District of Columbia. For this reason, each model was clustered by state for the event history analysis. The group frailty is represented below by  $\alpha_j$ . The outcome variable was the hazard of launching a ChalleNGe program for each states-year variable. The outcome of main interest is the hazard ratio of the variables which are represented by exponentiated coefficients ( $\beta$ ).

In the Cox Proportional Hazard Model there is not an intercept as with traditional regression models. Instead, it uses the baseline hazard,  $h_0(t)$ , which does not make assumptions about the shape of the hazard (Cleves et al. 2004). The baseline hazard could be constant, decreasing, increasing at any time of the analysis. The event history analysis does well with complex data that deals with time. The equations for my models are written out below.

Nested Model 1:

$$\text{Hazard}(t|\text{state}_j) = h_0(t)\alpha_j * \exp(\text{state}_j + \beta_{\text{Unemploy}} + \beta_{\text{BCR}} + \beta_{\text{arrest}} + \beta_{\text{enlist}})$$

Nested Model 2:

$$\text{Hazard}(t|\text{state}_j) = h_0(t)\alpha_j * \exp(\text{state}_j + \beta_{\text{Unemploy}} + \beta_{\text{BCR}} + \beta_{\text{arrest}} + \beta_{\text{enlist}} + \beta_{\text{blkenlist}} + \beta_{\text{whitenlist}} + \beta_{\text{hisenlist}} + \beta_{\text{thermblk}} + \beta_{\text{thermwht}} + \beta_{\text{thermhis}})$$

Full Model 3:

$$\text{Hazard}(t|\text{state}_j) = h_0(t)\alpha_j * \exp(\text{state}_j + \beta_{\text{Unemploy}} + \beta_{\text{BCR}} + \beta_{\text{arrest}} + \beta_{\text{enlist}} + \beta_{\text{blkenlist}} + \beta_{\text{whitenlist}} + \beta_{\text{hisenlist}} + \beta_{\text{thermblk}} + \beta_{\text{thermwht}} + \beta_{\text{thermhis}} + \beta_{\text{thermwelf}} + \beta_{\text{thermgov}} + \beta_{\text{thermmil}})$$

Model one includes a simple model with my predictor variable. Model two includes race-specific military and public attitudes toward race. Lastly, model three includes prior variables and adds variables that address public opinion towards welfare, federal government, and the military. Each of these models builds on the others, earlier models are nested in the subsequent models. Estimating the event history models using

nested groups of variables allows for two important insights on the impact of race-specific and public opinion variables. A nested model allows for identification of confounding variables or spurious relationships. Appendix C displays states with ChalleNGe program and the year that they launched.

The event examined in this study was the tipping point at which a state started a National Guard Youth ChalleNGe program. During 1993-2008, twenty-seven states and District of Columbia started a program. The ChalleNGe program started in 1993, so this is the time at which all states entered into risk of experiencing the event and launching a ChalleNGe program. For each year beginning in 1993, every state had a probability of having experience the event. Event history analysis gives two outputs that deal with time, the hazard and the survival functions. The probability of the event occurring is noted by the hazard, which represents the risk of having the event at time  $T$  given that it has not had the event (survived) prior to time  $T$  (Yamaguchi 1991). Hazard rates measure the rate at which risk has been accumulated. The greater the hazard rate, the more likely the event of interest will occur. Cumulative hazards are the sum of hazard rate in a given time. Cumulative hazard also tells us the number of times we would expect to observe an event over a given time (Cleves et al. 2004). Each hazard rate takes into account the survival function. The time prior to the event for each observation is the survival function. The survival function tells us the probability of surviving beyond time  $T$ .

At the point of time when a state creates the ChalleNGe program, it has experienced the event of interest, so is no longer at risk and exits the population at risk. After a state creates a ChalleNGe program, it drops out of the event history analysis. At

the end of my analysis in 2008, not all states will have experienced the event. States that have not experienced the event of interest are referred to as censored. Censoring occurs when a subject “fails” or when the subject never experiences the event (Cleves et al. 2004). By 2008, 28 states had experienced the event with the remaining twenty-three states been censored. These censored observations, or partial observations, provide information about the survival function of states that have not experienced the event, but they do not provide insight into the hazard function which is why they are referred to as partial.

The terms used in event history analysis may seem to be counter-intuitive. In this study survival means that the state did not experience ChalleNGe program, hence when a state “fails” it has launched a ChalleNGe program. Hazard ratios examine the amount of risk of “failure” that states experience. These hazard ratios can be described as affecting the likelihood that a state would start a ChalleNGe program. The event history analysis provides insight to my research questions. It allows for a sophisticated statistical understanding of time through censoring and time-discrete data. Logistic or linear regression cannot capture variance across time. Censoring in these types of models would lead to lost data. Using complex data, event history analysis provides a way to examine conditions leading up to events and the occurrence of an event across time. I am examining the social and economic conditions that affect the likelihood that each state will start a ChalleNGe program. The event history analysis allows me to investigate the state’s conditions which lead them to start a ChalleNGe program, and allows for time and time-varying covariates to be at the core of an event occurrence and at the center of my research questions.

In order to create time-to-event data I made separate observations for each state, in each year, using all of my covariates. I censored all the states that did not start a program by 2008. Once a state had started a ChalleNGe program they were excluded for the remainder of the analysis. This gave me 517 observations through the 16 years that I examine, with each observation representing a specific state and year. My basic predicting variables in Model one include state-level unemployment, arrest rates, Basic Completion Rate, and military enlistment. Model two and three include race-specific and public opinion variables that may influence whether a state will launch a program.

## CHAPTER V

## RESULTS

For 2005 and 2007, the racial composition of ChalleNGe programs does not accurately represent the high school dropout population in their host states. Table 1 illustrates that the majority of state's National Guard Youth ChalleNGe programs does not reflect the high dropout population, which is the population from which the ChalleNGe program draws participants. There are few states that had no statistically significant differences in racial composition between ChalleNGe participants and the youth adult dropout population. Table 1 displays variation in racial composition between high school dropouts and ChalleNGe program participants which allows for an examination of the extent that the ChalleNGe program participants reflect the population in which they draw from.

No racial patterning is apparent in the comparison of means t-test. According to the results in Table 1, whites are over-represented in ChalleNGe program in twelve states in 2005, with under-representation in nine programs. This gap widens in 2007 with whites being over-represented in sixteen ChalleNGe programs and only under-represented in seven. For both years analyzed, blacks are under-represented in many ChalleNGe programs. They are under-represented in nine programs in 2005 and twelve programs in 2007.



TABLE 1: ChalleNGe Racial Composition Comparison with High School Dropouts, 2005 & 2007

State	White 2005 T-Score	White 2007 T-Score	Black 2005 T-Score	Black 2007 T-Score	Hisp. 2005 T-Score	Hisp. 2007 T-Score
Alabama		0.257		60.482 ***		10.608 ***
Alaska	-2.55 *	-3.491 ***	2.785 **	1.597	1.459	0.349
Arizona	-2.12 *	1.517	0.370	-0.694	4.390 ***	1.466
Arkansas	-4.95 ***	0.455	4.742 ***	4.200 ***	2.019 *	2.524 *
California	0.05	-7.688 ***	-0.306	1.025	0.297	-7.147 ***
DC		3.010 **		-15.465 ***		14.233 ***
Florida	-1.50	-3.521 ***	0.086	3.892 ***	3.337 ***	3.006 **
Georgia	3.56 ***	4.048 ***	-5.448 ***	-4.352 ***	8.648 ***	6.583 ***
Hawaii	5.08 ***	4.346 ***	-2.074 **	-0.343	-0.742	-0.962
Illinois	4.12 ***	3.672 ***	-6.948 ***	-6.271 ***	5.442 ***	4.774 ***
Kentucky	2.33 *	-0.423	-0.732	3.203 **	-1.253	0.309
Louisiana	-15.12 ***	-15.323 ***	18.978 ***	17.871 ***	-0.074	-0.175
Maryland	3.83 ***		-3.010 **		-0.021	
Michigan	-4.25 ***	-4.645 ***	6.682 ***	5.736 ***	1.230	-0.096
Mississippi	-14.28 ***	-12.712 ***	14.921 ***	12.489 ***	-0.427	1.100
Montana	-2.71 **	-2.721 **	-0.378	4.143 ***	-1.238	-0.487
New Jersey	3.08 **	5.811 ***	-3.805 ***	-2.634 **	2.526 **	-0.900
New Mexico	-7.05 ***	-0.338	3.275 *	-0.456	6.647 ***	0.745
North Carolina	3.45 ***	-12.344 ***	-4.181 ***	-14.092 ***	4.116 ***	-3.239 **
Oklahoma	-5.25 ***	-4.444 ***	3.686 ***	1.962 *	5.364 ***	6.064 ***
Oregon		-0.593		0.676		0.284
South Carolina	6.59 ***	4.818 ***	-7.655 ***	-4.945 ***	4.019 ***	3.886 ***
Texas	-5.83 ***	-8.656 ***	1.894	3.497 ***	5.245 ***	6.506 ***
Virginia	3.80 ***	5.235 ***	-5.768 ***	-4.716 ***	6.977 ***	1.602
West Virginia	-0.93	-2.083 *	4.475 ***	6.354 ***	4.916 ***	-0.679
Wisconsin	-8.93 ***	-9.883 ***	12.842 ***	11.757 ***	3.859 ***	10.323 **
Wyoming		-0.408		-0.658		2.112 *

Note. For 2005 Wyoming and Oregon had low observations in the ChalleNGe reports. For 2007, Maryland had incomplete observations in the ChalleNGe reports. Alabama and DC had not started a ChalleNGe program until after 2005, hence no observations.

\*p<.05 \*\*p<.01 \*\*\*p<.001

Hispanics, like blacks, seem to be underrepresented in many states with ChalleNGe programs. Hispanics are under-represented in fourteen programs in 2005 and eleven programs in 2007. Unlike white and black racial composition, there are many ChalleNGe programs that do represent their host state high school dropout Hispanic population. For the programs that have differences in Hispanic composition, we see that the majority of these significant results show that Hispanics are under-represented in ChalleNGe programs.

Table 2 displays mean comparison values of social and economic indicators between states with ChalleNGe programs and states without ChalleNGe program in 1992 and in 2008. States that have started a program from 1993-2008 were included as having a program for both years of the mean comparison. Table 2 shows that there are more statistically significant difference between states with and without ChalleNGe programs in 1992 compared to 2008. There are significant differences on arrest rate, juvenile arrest rate by race, the BCR, unemployment, and public opinion of blacks. The Basic Completion Rate ( $t=3.57$ ) indicates that states with the program have significantly lower percentages of students completing high school compared to states without the ChalleNGe program.

In 2008, many of differences between the two groups of states dropped below the threshold for statistical significances. The only persistent statistical significant difference between states with ChalleNGe programs and those without ChalleNGe programs was that of Basic Completion Rates. Again, we see that states with a ChalleNGe program have significantly lower rates of high school completion to those states without a program. Many of the differences that were present in 1992 were no longer statistically significant in 2008. For example in 1992 there were statistically significant differences between states with program to states with ChalleNGe programs that was not significant in 2008. The decrease in differences between states with ChalleNGe programs to states without programs cannot be attributed to the start of the program. But it does show that states with ChalleNGe program economic and social conditions more closely resembled the conditions of the states without programs.

Table 2 provides additional insight to the data. It shows that many covariates vary over time as shown by the changes in means from 1992 to 2008. For example, we can see drastic change in arrest rate and public opinion data from 1992 to 2008. This variance across time gives evidence that an event history model is the appropriate model to estimate. The event history model not only accounts for time, but places it at the center of the analysis.

TABLE 2: Comparison Between States With or Without ChalleNGe Programs, 1992 & 2008

Variables	Year 1992			Year 2008		
	Without Program	With Program	T-score	Without Program	With Program	T-score
	Mean	Mean		Mean	Mean	
Arrest	256.28	436.48	2.365*	300.821	373.0643	0.671
Juvenile Blk arrest	36.372	21.355	2.365*	25.065	31.086	0.671
Juvenile Wht arrest	36.377	21.357	2.366*	25.07	31.088	0.671
Juvenile His arrest	36.37	21.351	2.365*	25.064	31.084	0.671
Basic Completion Rate	0.798	0.724	3.57***	0.76	0.687	3.215**
Unemployment	6.217	7.275	2.47*	5.043	5.517	1.34
Military Enlistment	1.078	1.118	0.345	0.703	0.78	1.49
Enlistment Blk	1.815	1.72	0.4224	1.201	1.319	0.317
Enlistment Wht	1.056	1.058	0.017	0.675	0.755	1.339
Enlistment His	0.746	0.858	0.651	0.711	0.622	0.8
PO Welfare	42.536	46.266	1.003	58.333	61.474	1.569
PO Military	41.741	47.325	1.071	77.428	79.088	1.007
PO Federal Gov.	32.197	36.791	1.266	59.895	60.747	0.423
PO Black	66.182	69.467	2.01*	71.69	73.964	1.008
PO White	71.638	73.521	1.01	74.741	75.233	0.26
PO Hispanic	51.237	56.967	1.42	67.925	69.391	0.7607

\*Note. All variables are given at the state-level. Arrest and enlistment are state-level rates.

\*Without program (n=23) States with program (n=28)

\*N=51

\*p<.05 \*\*p<.01 \*\*\*p<.001

Table 3 displays the findings from the three nested models estimated using event history analysis. Table 3 includes hazard ratios and z-scores for each model. Hazard ratios are the exponentiated coefficients in event history analysis. They are interpreted as the changes in the hazard ratio for one-unit change in the corresponding variable (Cleves

et al. 2004). In estimating these models, the hazard ratios provide valuable information for understanding the influence of the predictive variables.

The average time of risk for a state to experience the event is a little over ten years.

The results presented in Table 3 indicate that the Basic Completion Rate and unemployment rate strongly influenced the odds of a state created a ChalleNGe program. For one unit change in BCR, the hazard is decreased by 3%. Having a higher Basic Completion Rate for a state decreases their proportion of hazard in starting a ChalleNGe program. Clearly stated, states with more high school graduates are less likely to launch the ChalleNGe program. These results are consistent across all three models. The effect of the unemployment rate approaches statistical significance in model one and exhibits a strong, positive effect on the likelihood of a state launching a ChalleNGe program. As unemployment increases so does the risk of experiencing the event. This pattern is found in all nested models. The rate of arrests and enlistments has no statistically significant influence on whether a state experienced the event.

Model one is nested in model two and includes race-specific enlistment rate as well as public opinion on racial categories.<sup>7</sup> Even with the addition of variables reflecting race-specific enlistment and public opinion about members of different racial categories, the Basic Completion Rate and unemployment rate continue to impact the likelihood of the occurrence of an event. In fact, by adding race-specific enlistment rates and public opinion of whites, blacks and Hispanics increase the strength of the

---

<sup>7</sup> Juvenile arrest by race was excluded from the event history analysis. The juvenile arrest rates were almost identical to overall arrest rates and caused multi-collinearity issues in the event history analysis. I estimated the event history analysis separately with overall arrest rate and juvenile arrest rates. The results from the juvenile arrest rates reflected results that did not vary greatly from the model that included arrest rates. Due to this I am only reporting on overall arrest rates. Overall enlistment and race-specific enlistment are different enough that I was able to keep them both in the event history analysis.

relationship between unemployment and high school graduation. The strength of unemployment ( $z=2.38$ ) has increased. For a one-unit increase in a state's unemployment rate (0-100 scale), increases their odds of having a ChalleNGe program by approximately 30%. This indicates that as unemployment increases in a state, the risk increases that the state will have created a ChalleNGe program.

Table 3 also shows that racial measures may play a role in defining the risk that a state may have experience the event. Black and Hispanic enlistment both statistically influence the risk of having a ChalleNGe program. Black military enlistment seems to have a strong positive influence on the proportion of risk. As black enlistment increases, so does the risk that the state will start a ChalleNGe program. Even though black enlistment has a strong influence on hazard risk, Hispanic enlistment seems to decrease the likelihood that a state experienced the event. How the public feels toward the current situation of Hispanics also seems to affect the risk of a state having a program.

TABLE 3: Hazard Ratio from Nested Event History Analysis

Variable	Model 1			Model 2			Model 3		
	Coefficients	Hazard Ratio ( $\beta$ )	Z-score	Coefficients	Hazard Ratio ( $\beta$ )	Z-score	Coefficients	Hazard Ratio( $\beta$ )	Z-score
Arrest Rate	0.0003	1.001	0.61	0.00004	1.00004	0.06	-0.0001	0.989	-0.11
BCR	-0.0331	0.967	-2.11 *	-0.0467	0.954	-2.78 *	-0.043	0.958	-2.47 *
Unemployment	0.2814	1.325	1.88	0.2629	1.3	2.38 *	0.259	1.29	2.16 *
Enlistment	0.3094	1.363	0.61	0.7421	2.1	0.42	0.2517	1.286	0.13
Wht Enlist				-0.9119	0.402	-0.62	-0.3695	0.691	-0.21
Blk Enlist				1.028	2.795	4.45 ***	1.076	2.933	4.75 ***
His Enlist				-1.585	0.205	-3.43 **	-1.812	0.163	-2.66 **
Therm Wht				0.0364	1.037	0.73	0.0418	1.043	0.75
Therm Blk				0.0032	1.003	0.06	0.0092	1.001	0.15
Therm His				0.1167	1.123	3.22 **	0.0753	1.078	1.22
ThermWelf							0.0314	1.032	0.49
ThermMilitary							0.0214	1.022	0.6
ThermFeds							-0.0022	0.998	-0.05

N=51

\* $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

The hazard risk increases as the public opinion becomes more favorable toward Hispanics. It is not clear the relationship between race and the expansion of the ChalleNGe program. Black enlistment demonstrates a strong positive influence on the odds of a state having a ChalleNGe program while Hispanic enlistment has a negative impact. These results are not clear and might point to a cultural explanation of military involvement that this study cannot address.

As shown in Table 3, Model 3 includes additional public opinion variables on the military, welfare, and the federal government. Respondents of the public opinion data were asked how they felt towards the military and national security, the welfare state, and the federal government. Again, unemployment and BCR continue to have statistical importance in the full model. Rates of black and Hispanic enlistment remain statistically significant in Model 3. States with higher rates of black enlistment have higher hazard rates while higher rates of Hispanic enlistment per state are associated with lower hazard risk. Public opinion does not have any statistically significant influence on the risk of a state experiencing the event – that is, launching a ChalleNGe program. Arrest, overall enlistment, and white enlistment is continued to have little influence on the odds of a state launching the ChalleNGe program.

The results from the event history analysis give us insight into the conditions that lead states to start a ChalleNGe program. Figure 2 represents the smoothed hazard function of Model 3 in the nested event history analysis. The smoothed hazard function describes the comparison of the estimated hazard for treatments and controls (Cleves et al. 2004). As it illustrates, the hazard function increases rapidly in the early years of the analysis. The hazard peaks between year 1997 and 1998. At this point the hazard rate

drops drastically and decreases as the time continues. This indicates that states were at the highest risk of experiencing the event shortly after the ChalleNGe program began. As time progresses, states have a reduced risk of launching a ChalleNGe program. Figure 2 has been smoothed for time using the standard Kernel smoothing. The unsmoothed hazard and survival function graphs are located in the Appendixes.

The survival function is graphed in Appendix A.1. This graph takes a step-like shape with the survival rate dropping fast, indicating that survival decreased rapidly for the first seven years of the analysis. After the first half of the analysis, the survival rate is relatively constant with few variations. The hazard rate (Appendix A.2) displays the same form of the survival rate, except inverse.

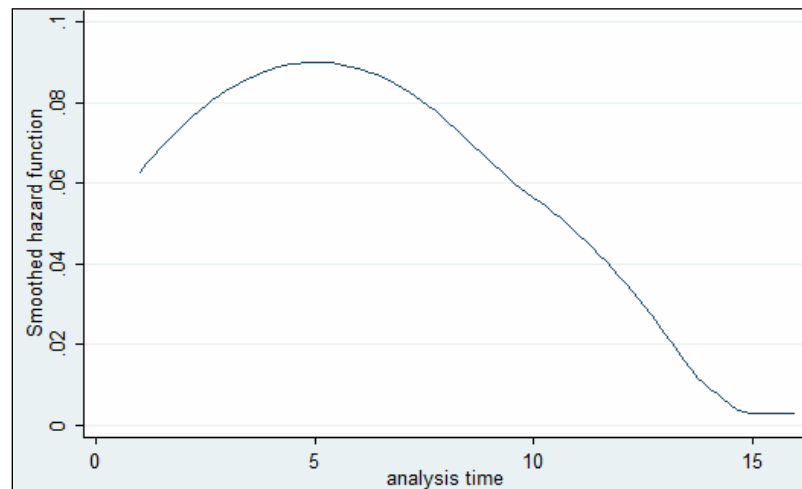


FIGURE 2: Smoothed Hazard Function for Model 3

The form of these graphs indicates that at the initiation of the ChalleNGe program, states experienced high hazard risk and rapidly declining survival rates. States are at a high risk to start a ChalleNGe program and have low probability of not launching a program, especially in the first seven years of the analysis. These graphs also illustrate

that over time, hazard and survival rates have periods where they are unstable but also experience lengths of time when they are consistent. See Appendix A for more details on these figures.

Model 3 includes all variables that were included in this study and represents our full model. Graphed survival and cumulative hazard for Model 3 can be found in Appendix B. These graphs show, like the baseline failure graphs, heightened risk during the first seven year of the analysis. The survival function found in Appendix B.2 illustrates that survival probability is high at the beginning of the analysis and reaches stability after seven years. The hazard function for Model 3 decreases in a step-like form until it reaches stability. So during the first years of the ChalleNGe program, states experienced heightened risk of launching a ChalleNGe program. The states that were censored by not starting a program (survived) reached stability in the survival and hazard rates; they did not face the same shaky field that other states experienced at the initiation of the ChalleNGe program in 1993.

I did not include state-level political party control variables due to the variation of program locations. As shown in Appendix C, ChalleNGe program site locations are across the United States. There seemed to be no political party affiliation patterning between states with programs. ChalleNGe programs are present in both predominately Democratic states such as California and Maryland as well as Republican states such as Wyoming and Alabama. There is no patterning of political party affiliation among states with ChalleNGe programs so I did not see it as necessary to include it in my analysis.

As demonstrated in the nested event history analysis, unemployment and the Basic Completion Rate affect the hazard ratio for each state. These results are robust and



persist despite the addition of variables. A higher unemployment rate and a lower Basic Completion Rate increases the hazard risk and therefore the likelihood that the state created a ChalleNGe program. These findings are clear and persistent in all of the event history models. Due to the persistence of these findings, it is reasonable to conclude that unemployment and high school completion rates are strong predictor of whether a state created a ChalleNGe program. Race-specific variables also seem to play a role. Black military enlisted seems to increase the likelihood that a state launched a ChalleNGe program whereas Hispanic enlistment seems to have decreased the risk that a state started a ChalleNGe program. Though these race-specific findings are not clear, they suggest that race may play a role in increasing or decreasing the risk of a state creating a ChalleNGe program.

## CHAPTER VI

## DISCUSSION

The ChalleNGe program is an innovative social welfare program that utilizes military staff and military values to reengage disconnected youth. Since 1993, each state has had the opportunity to implement a National Guard Youth ChalleNGe program. Twenty-seven states and the District of Columbia created a ChalleNGe program between 1993 and 2008, which leaves twenty-three states without a program. The findings of this study reveal important insights about the creation and expansion of this new social welfare program. As theorized, social and economic conditions influence whether a state creates a ChalleNGe program.

Many scholars argue that the welfare state expansion in capitalist economies is due to market failure (Esping-Andersen 1990). High unemployment reflects that states are experiencing market failure. When the private sector has failed youth then the public sector intervenes with the creation of a ChalleNGe program. High unemployment increases the risk that a state will create a ChalleNGe program. The event history analysis indicated that one-unit change (0-100 scale) in unemployment consistently increased the risk that a state with ChalleNGe program by 30 percent. Poor economic conditions are clearly connected with the expansion of the National Guard Youth ChalleNGe program. This follows the growth of various other welfare programs. So even though the ChalleNGe program is a new type of social welfare program, its growth reflects many of the same underlying conditions of other welfare programs.

In addition to unemployment, the Basic Completion Rate has proved to be a strong influence in the creation of ChalleNGe programs. I consistently found the higher the BCR, the less likely a state is to start a ChalleNGe program. All three event history models indicated that one-unit increase (0-100 scale) in the Basic Completion Rate decreased the hazard of a state creating a ChalleNGe program by 3-4 percent. High dropout rates suggest that there is a problem in society and educational institutions that needs to be fixed. It signifies that the educational system has failed these youth and a change needs to occur in the social system. As unemployment and high school dropout rates increase in a state, it creates the conditions that allow state officials to act and create this new social welfare program. Since these conditions vary across time, we would expect to see ChalleNGe programs continue to be created in areas that experience high unemployment and dropout rates. Crime and public opinion were not driving factors in the creation and expansion of the ChalleNGe program.

Race-specific military enlistment also seems to play a role in the creation of the ChalleNGe program. Though results for the effects of race-specific variables are not as strong as unemployment and high school dropouts, they persist in the event history models. The effect of black and Hispanic military enlistment on the hazard of a state creating a ChalleNGe program implies that the relationship between the military and race have a role to play in the ChalleNGe program. Higher rates of enlistment heighten military presence in states. I theorized that states with high enlistment rates may use the military to deal with community issues such as high school dropouts and unemployment. Surprisingly I found that public opinion toward the military did not have a significant effect on the outcome variable nor did the overall enlistment rate. I would have expected

the way the public viewed the military greatly affects whether that state turns to the military institution to assist in domestic social issues. Perhaps states that created a ChalleNGe program were not turning to the military directly for help, but the military was a byproduct of the program. States looking for resources from the federal government identified the ChalleNGe program not as military-run program, but a program funded through federal government that would help address state-wide unemployment and dropouts. Although these results are somewhat inconclusive, they do provide the groundwork for understanding the military's role in the ChalleNGe program.

Prior research has shown that race plays a role in social policy. The ChalleNGe program is essentially new social program and the exact role race plays is not clear. For the two years that this study examined, 2005 and 2007, I found that in many instances the racial composition of participants of the ChalleNGe program do not reflect their host state's high school dropout population. Past research has shown that race and regional control affects how a federal program is implemented (Katznelson 2005). Though effects were not consistent, the findings did suggest that white participants are over-represented in many of the ChalleNGe programs. Results also indicated that black and Hispanic participants were under-represented in some ChalleNGe programs. Social policies have historically been created and implemented for the benefit of the white majority (Katznelson 2005; Quadagno 1996). The reasons for this misrepresentation may be a result of the applicant acceptance process of ChalleNGe officials. Though this finding is interesting, it is beyond the scope of this study to explain the reasons behind the racial compositional difference. Future studies could investigate the advertisement strategies of the ChalleNGe program and examine which individuals see the program as attractive and

who seeks it out. There are also possible institutional controls that could be examined such as possible selection bias of ChalleNGe officials that could affect the characteristics of the individuals who enter the program. This would be an interesting study especially with past research indicating unequal access to federal benefits when programs are administered at the local level (Katznelson 2005).

### *Limitations*

This study examined the impact of social and economic circumstances of states across sixteen years in the launching of a ChalleNGe program. One of the largest challenges in this study was finding data that were consistently measured across the time analyzed. Due to this challenge I used an amalgamation of data sources, most of them federal sources. In the future, additional measures could be utilized to support the crime and public opinion data. The Uniform Crime Reports includes only crime reported to police agencies. Future studies could incorporate self-report measures, such as victimization surveys, in addition to UCR data. With the addition of self-report crime we would have a clear understanding of the nature and amount of crime in the various states. The public opinion data had missing values for some states and low observations for others. The American National Election Survey is a national level survey. Their sampling procedures are created to be representative of the nation, not necessarily states. For this reason, additional measures or perhaps the use of another public opinion database that looks at state-level opinion would provide a better measure of the public attitudes. If possible, state-wide public opinion surveys could better reflect the opinion of a state's population rather than using national level public sources.

Lastly, a state-level event history analysis is not immune to methodical concerns such as ecological fallacies. This study was the first to examine state-level factors of the creation and expansion of the ChalleNGe program. Since the National Guard Youth ChalleNGe program is a new youth social program, I used prior literature on social program expansion to formulate possible conditions that would influence states to launch this program. Specifically, I used state welfare literature in formulating conditions that would lead to the expansion of ChalleNGe program. I examined various social and economic factors that were based on past literature. Despite my efforts to account for factors that would lead to ChalleNGe programs, there is always a possibility that there is an outside factor that I did not account for. Possible spurious relationships or unstudied factors outside of my causal model (represented heuristically in Figure 1) could be effecting the creation and expansion of the ChalleNGe program.

The event history analysis allows for an examination of an event across time. This methodical approach has proven to be very telling of state-level factors influencing ChalleNGe programs. It allowed me to examine the context which legitimated the creation and expansion of the ChalleNGe program. In addition to this state-level analysis we need more research at the community and individual level to fully understand the ChalleNGe program. This would identify factors that may influence the expansion of ChalleNGe programs that the current study was not able to address. I examined the year that states initially launched a ChalleNGe program; however, there are many states with two or more ChalleNGe program. In the future I could extend the event history analysis to allow for multiple observations for states that started more than one ChalleNGe program. This would provide a deeper examination of the expansion of ChalleNGe and

the conditions that lead states not only to initially launch a ChalleNGe program but to magnify the program's reach within the given state.

## CHAPTER VII

## CONCLUSION

The National Guard Youth ChalleNGe program has experienced immense growth since its inception in 1993. This study examined the conditions under which ChalleNGe programs are created in states. I have concluded that unemployment and high school graduation rates are both important factors in this programs' expansion. The social and economic context is important in understanding the reasons a state would launch a ChalleNGe program. My analysis looked across sixteen years of data from various sources and controlled for multiple covariates. I found that high unemployment and low levels of high school completion increase the risk of a state creating a ChalleNGe program. It is clear that the conditions under which ChalleNGe programs are created include poor economic and social conditions.

As a new type of social welfare program, ChalleNGe has commonalities with other welfare programs. The ChalleNGe program has been created in states where the market and public education have failed youth. As with other social welfare programs, race seems to play an important role of the ChalleNGe program as shown by the influence of black and Hispanic enlistment although this relationship needs to be investigated more fully. In some states, ChalleNGe programs are also disproportionately filled with white youth. Minorities are under-represented in some of these programs and are therefore excluded for the possible benefits gained from program completion such as high school credentials and/or vocational training.



These results are suggestive and I cannot make conclusive statements about a racial influence. More research needs to be done to explain the differences in racial compositional and the influence of black and Hispanic enlistment. Future research can examine possible selection bias of ChalleNGe officials in who is accepted into the ChalleNGe program or community-level opinion of military service in how the program is welcomed into communities. These institutional and cultural explanations might allow for more insight on the relationship between race and the ChalleNGe program. Another interesting future study could examine factors that attract ChalleNGe applicants such as ChalleNGe advertisement, institutional referrals, or micro-level referrals. Race seemed to be a part of the story, but this study did not find clear patterns or results.

There is scant literature on this new type of social welfare program. This study has added to this limited research by examining the creation of the ChalleNGe program and state-level conditions. Additional research needs to be done to examine the impact of a military-run welfare programs. There are many reasons why a military-run welfare program could benefit or damage society. This study has added to military and welfare research by identifying the social and economic conditions that have led some states to turn to the National Guard Youth ChalleNGe while other states opt out of participation.

In addition to insights for the theoretical welfare literature, this study has implications in the applied context. As a new social welfare policy, this youth diversion program has ushered in a new type of youth program that incorporates military values and organizational structure. The results from this study identify some of the conditions that have led to the creation and expansion of the ChalleNGe program. States experiencing poor economic and social conditions are looking for innovative programs to

maintain a perceived level of social well-being. States with high unemployment and high school dropouts are search for programs that incorporate vocational skills, education, and citizenship.

Surprisingly, crime does not increase the odds of a state having a ChalleNGe program. This is a youth diversion program, but little is known about the extent that the ChalleNGe program diverts youth delinquency and if it increases positive social behavior. What I have found is that states identify a negative economy and poor public education system as problematic for many youth. Rather than allowing unemployed high school youth to remain idle, they are reaching out to federal programs that can positively affect individuals and states as a whole. We have seen an enormous growth of ChalleNGe programs since its inception. Its continuous expansion indicates that states are grabbing hold of this type of military program. Future research could investigate the possible benefits and constraints of military involvement in youth programs such as ChalleNGe participants' future involvement in the military, or community reactions to an increased military presence.

These state-level results also provide insight to future examination of individual influences of ChalleNGe programs. As I have shown, high rates of unemployment and high school dropout increase the likelihood that the state will create a ChalleNGe program. Examining the outcome of placement decision of individuals graduate from the ChalleNGe program could provide more insight to the growth of this program. This programs growth indicates that many states endorse this type of program and seems to be a solution to state-level problems, but future work should examine whether the same success is experienced at an individual and community level. In future research, I would

like to examine the impacts of involvement in this program have on future life choices and outcome of ChalleNGe participant's and whether the local market conditions affect outcomes of these individuals? What impact does a military program have on ChalleNGe graduates enlisting in the military? Are graduates more likely to enter the military after a year of program saturation of military values and structure? It would be interesting to understand the role of communities in the success of ChalleNGe graduates. Are graduates returning to their home communities or entering different communities with better economic options? Understanding possible constraints due to neighborhood social and economic conditions could provide an interesting examination of the success of ChalleNGe graduates and the process of re-entry after a quasi-military residential program.

The National Guard Youth ChalleNGe program appears to be healthy and is spreading across America. The unique combination of the military and a youth diversion program seems to be a desirable mixture for states that are experiencing poor social and economic conditions. I have shown how the growth of this program is fueled by the conditions of a state. High rates of unemployment and high school dropouts create the context in which a ChalleNGe program would thrive. These social and economic conditions influence states to launch a ChalleNGe program. It is important to indicate, however, that the factors predicting growth of ChalleNGe program reflects the factor predicting growth of other welfare programs. What is still not understood are the long term outcomes of this type of program. Since it is a relatively new type of social program, there is little known about the individual and community-level impacts of the military playing a direct role in youth programs. With the inception of the National

Guard Youth ChalleNGe program we see a change in both youth welfare programs and the role of the military. The outcome of this grouping is yet to be fully understood without future research.

## REFERENCES

- Appy, Christian G. 1993. *Working-Class War: American Combat Soldiers and Vietnam*. Chapel Hill: The University of North Carolina Press.
- Bartlett, Lesley and Catherine Lutz. 1998. "Disciplining Social Difference: Some Cultural Politics of Military Training in Public High Schools." *The Urban Review* 30(2):119-36.
- Cleves, Mario A., William W. Gould, and Roberto G. Gutierrez. 2004. *An Introduction to Survival Analysis*. College Station, TX: STATA Corporation.
- Collin, Ross. 2008. "On the March: Social and Political Context of the Expansion of the Junior Reserve Officers' Training Corps." *Educational Policy* 22:457-82.
- Esping-Andersen, Gosta. 1990. *The Three Worlds of Welfare Capitalism*. Princeton, NJ: Princeton University Press.
- Finn, Jeremy D. 2006. "The Adult Lives of At-Risk Students: The Roles of Attainment and Engagement in High School." Edited by U.S. Department of Education: National Center for Education Statistics.
- Gifford, Brian. 2006. "The Camouflaged Safety Net: The U.S. Armed Forces as Welfare State Institution." *Social Politics* 13(3):372-99.
- Goldsmith, Jack. 2007. *The Terror Presidency: Law and Judgment Inside the Bush Administration*. New York: W. W. Norton & Company.
- Goldson, Barry, Michael Lavalette, and Jim McKechnie. 2002. *Children, Welfare, and the State*. London: SAGE Publications.

- Harris, Alexes. 2009. "Attributions and Institutional Processing: How Focal Concerns Guide Decision-Making in the Juvenile Court. " *Race and Social Problems* 1(4):243-56.
- Jessop, Bob. 1990. *State Theory: Putting the Capitalist State in Its Place*. University Park: Pennsylvania State University Press.
- Kagan, Frederick W. 2006. *Finding the Target: The Transformation of American Military Policy*. New York: Encounter Books.
- Katznelson, Ira. 2005. *When Affirmative Action Was White: An Untold History of Racial Inequality in Twentieth-Century America*. New York: W. W. Norton & Company.
- Kempf, Kimberly L. 1992. "The Role of Race in Juvenile Justice Processing in Pennsylvania." Shippensburg: Center for Juvenile Justice Research and Training.
- Leverentz, Andrea. 2010. "People, Places, and Things: How Female Ex-prisoners Negotiate Their Neighborhood Context." *Journal of Contemporary Ethnography* 39(6):646-81.
- Massey, Douglas and Nancy Denton. 1993. *American Apartheid: Segregation and the Making of the Underclass*. Cambridge: Harvard University Press.
- Millenky, Megan, Dan Bloom, Sara Muller-Ravett, and Joseph Broadus. 2011. "Staying the Course: Three-Year Results of the National Guard Youth Challenge Evaluation." New York City: Manpower Defense Research Center.
- National Guard Bureau. 2009. "Performance and Accountability Report." Edited by Department of Defense. Arlington.

- Pager, Devah. 2003. "The Mark of a Criminal Record." *American Journal of Sociology* 108(5):937-75.
- Price, Hugh B. 2007. "Demilitarizing What the Pentagon Knows About Developing Young People: A New Paradigm for Educated Students Who Are Struggling in School and in Life." Washington, DC: The Brookings Institute.
- Orloff, Ann. 1993. "Gender and the Social Right of Citizenship: The Comparative Analysis of Gender Relations and Welfare States." *American Sociological Review* 58(3):303-28.
- Quadagno, Jill. 1996. *The Color of Welfare: How Racism Undermined the War on Poverty*. New York: Oxford University Press.
- Reiman, Jeffrey. 2007. *The Rich Get Richer and the Poor Get Prison: Ideology, Class, and Criminal Justice*. Boston: Allyn & Bacon.
- Simon, Curtis J., Sebastain Negrusa, and John T. Warner. 2010. "Education Benefits and Military Service: An Analysis of Enlistment, Reenlistment, and Veterans' Benefit Usage 1991-2005." *Economic Inquiry* 48(4): 1008-1031.
- Skocpol, Theda. 1992. *Protecting Soldiers and Mothers: The Political Origins of Social Policy*. Cambridge, MA: The Belknap Press of Harvard University Press.
- Travis, Jeremy. 2005. *But They All Come Back: Facing the Challenges of Prisoner Reentry*. Washington, DC: The Urban Institute Press.
- Warren, John Roberts and Andrew Halpern-Manners. 2009. "Measuring High School Graduation Rates at the State Level." *Sociological Methods & Research* 38(1):3-37.

Weber, Max 1946. "Politics as a Vocation." in *From Max Weber: Essays in Sociology*, edited by Hans H. Gerth and C. Wright Mills. New York: Oxford University Press.

Western, Bruce and Becky Pettit. 2002. "Beyond Crime and Punishment: Prisons and Inequality." *Context* 1: 37-43.

Western, Bruce. 2006. *Punishment and Inequality in America*. New York: Russell Sage Foundation.

Wordes, Madeline, Timothy S. Bynum, and Charles J. Corley. 1994. "Locking Up Youth: The Impact of Race on Detention Decisions." *Journal of Research in Crime and Delinquency* 31:149-65.

Yamaguchi, Kazuo. 1991. *Event History Analysis*. Newbury Park, CA: Sage Publications.



APPENDCIES

APPENDIX A: BASELINE SURVIVAL AND HAZARD GRAPHS

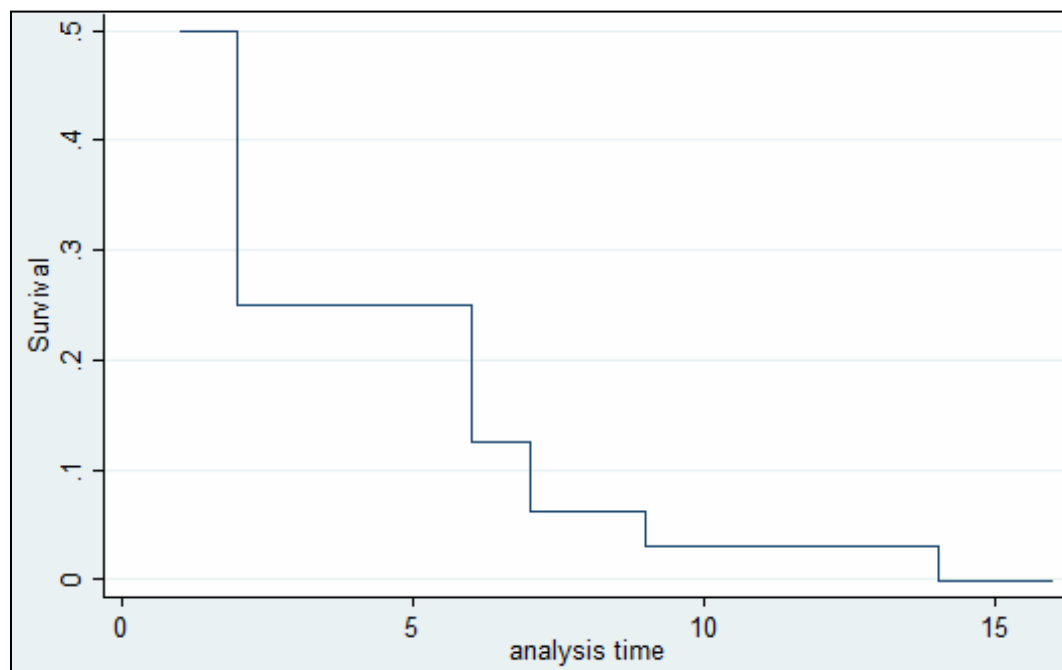


FIGURE A.1: Baseline Survival Function (Failure=0)

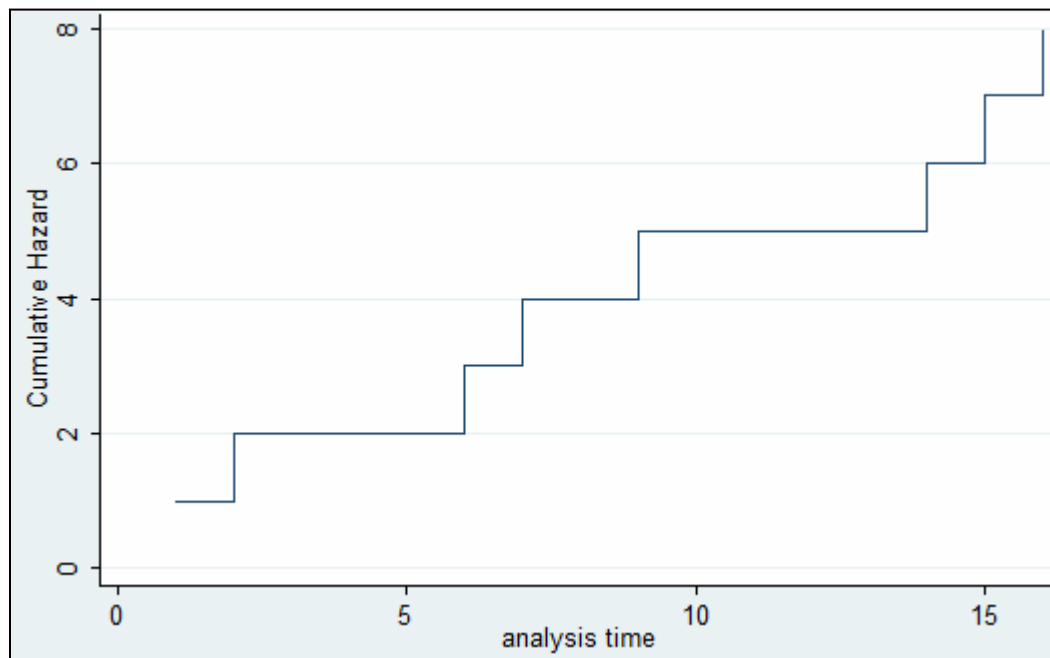


FIGURE A.2: Baseline Hazard Function

APPENDIX B: MODEL 3 HAZARD AND SURVIVAL GRAPHS

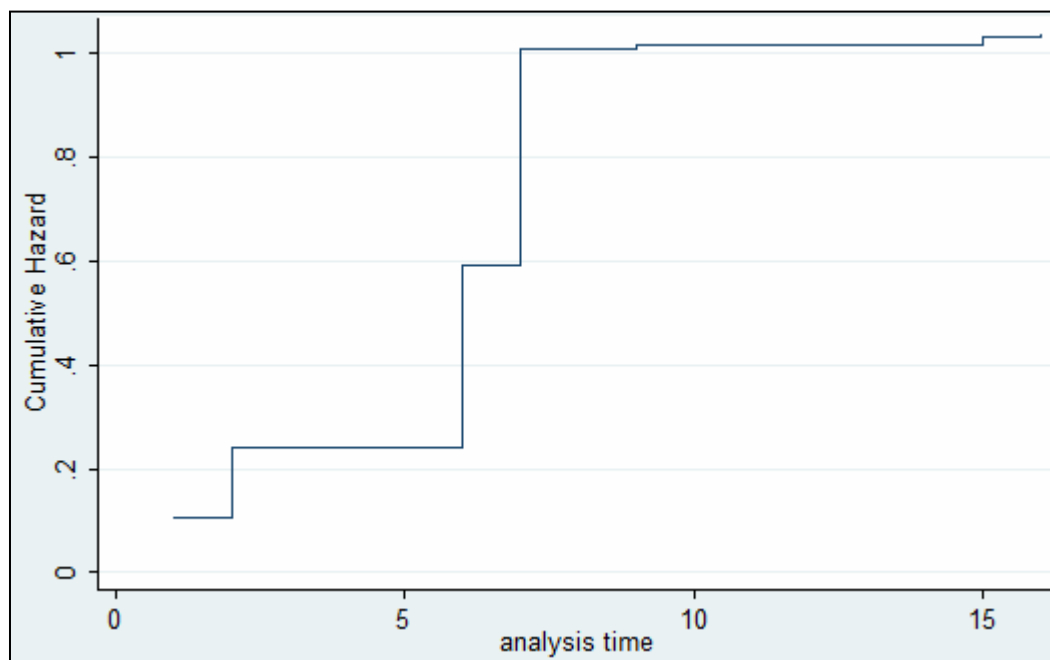


FIGURE B.1: Model 3 Cumulative Hazard Function

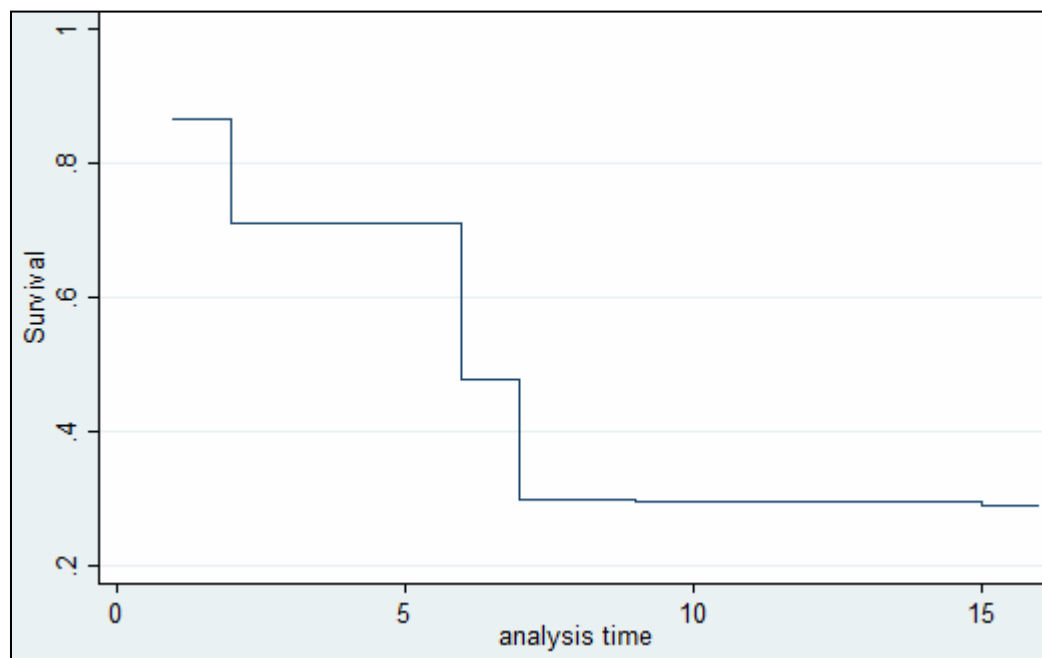


FIGURE B.2: Model 3 Survival Function

APPENDIX C  
CHALLENGE PROGRAM LOCATIONS AND YEAR INITIATED BY STATES



State	Program location	Year Joined
Alabama	Fort McCellan	2007
Alaska	Anchorage, Fort Richardson	1994
Arizona	Queen Creek	1993
Arkansas	N. Little Rock, Camp Robinson	1993
California	Los Alamitos	2008
California	Camp San Luis Obispo	1998
District Of Columbia	Aberdeen Proving Grounds	2007
Florida	Starke, Camp Blanding	2001
Georgia	Fort Gordon	2000
Georgia	Fort Stewart	1993
Hawaii	Kapolei	1994
Illinois	Rantoul	1993
Indiana	Edinburgh	2008
Kentucky	Fort Knox	1999
Louisiana	Pineville, Camp Beauregard	1993
Louisiana	Minden, Camp Minden	2002
Louisiana	Carville, Gillis Long	1999
Maryland	Aberdeen Proving Grounds	1993
Michigan	Battle Creek	1999
Mississippi	Camp Shelby	1994
Montana	Dillon	1999
Nevada	Los Alamitos, CA	2010
New Jersey	Fort Dix	1994
New Mexico	Roswell	2001
North Carolina	Salemburg	1994
Oklahoma	Pryor	1993
Oregon	Bend	1999
Puerto Rico	Juana Diaz, Fort Allen	1999
South Carolina	Aiken, Camp Long	2002
South Carolina	Columbia	1998
Texas	Galveston	1999
Virginia	Virginia Beach, Camp Pendleton	1994
Washington	Bremerton	2009
West Virginia	Camp Dawson	1993
Wisconsin	Fort McCoy	1998
Wyoming	Camp Guernsey	2006

Note. Alabama and South Carolina (Aiken) both dropped their programs after 2008.