

**College, Jobs or the Military?
Enlistment During a Time of War***

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ABSTRACT

Objective: This paper questions what factors are associated with joining the military after high school rather than attending college, joining the civilian labor force or doing some other activity. Three areas of influence on military enlistment are highlighted: educational goals, the institutional presence of the military in communities and race and socioeconomic status.

Method: The analysis uses data from a recent cohort of high school graduates from the state of Texas in 2002, when the U.S. is at war, and employs multinomial logistic regression to model the correlates of post-high school choice of activity in this cohort.

Results: Results confirm the hypothesis that a higher military institutional presence increases the odds of enlisting in the military relative to enrolling in college, becoming employed, or doing some other activity after high school. Additionally, college aspirations are clearly associated with the decision to enroll in college versus enlist and also increase the odds of joining the military rather than the civilian labor market, or remaining idle. Unlike previous studies, few racial and ethnic differences are found.

Conclusion: Voluntary military enlistment during wartime is associated college aspirations, lower socioeconomic status and living in an area with a high military presence.

INTRODUCTION

The study of the military has contributed to an understanding of major social changes in America. After the Second World War, GI Bill recipients crowded into our colleges and universities, re-focusing attention on access to and the benefits of higher education in America. Following the Vietnam War, the All-Volunteer Force (AVF) evolved partly from the public perception that the disproportionately black and poor conscripts fighting and dying in an unpopular war were precisely those citizens who had least enjoyed the American dream. Within a decade some, though not all, social scientists suggested that the All-Volunteer Force provided opportunity and social mobility, especially for minorities (Angrist, 1998; Bryant et al., 1993; Mare & Winship, 1984; Moskos & Butler, 1996; Seeborg, 1994). Given this rich history, sociological research on the military and military enlistment has been surprisingly limited since Vietnam, particularly in the past decade, though this is changing (see Segal and Segal, 2004, National Research Council, 2003 for examples of recent work on the enlistment process). Instead, most research has focused attention on the two other major paths youth follow in the transition to adulthood, college and the labor market, omitting the military from most analyses¹.

Nonetheless, the military remains a major institution in lives of many American youth, with nearly 200,000 individuals entering the ranks for the first time each year (Department of Defense, 2004, Segal and Segal, 2004). The military is an especially important institution for minorities, particularly African Americans. Several studies have suggested that the military may provide a source of social mobility for disadvantaged minorities during service because of the less discriminatory environment, steady employment that provides numerous benefits and compensation over civilian-equivalent jobs and especially because of the GI Bill benefits which can fund post-service college education (Angrist, 1998; Bryant et al., 1993; Mare & Winship, 1984; Moskos & Butler, 1996; Seeborg, 1994; Binkin & Eitelberg, 1982, Butler, 1992, Kilburn & Asch, 2003; Segal, 1989), though several others suggest that voluntary military service does not offer positive benefits (Phillips et al., 1992, Laurence and Ramsberger, 1991, nay sayers cites). That black men enlist at higher rates and choose to remain in the military for a career at higher rates than their white peers strongly supports the claim that military service is more appealing than prospects in the civilian labor market. Though prior research is inconclusive, if military service does offer socio-economic

advantages, particularly to minorities, it is even more important to understand who chooses to serve and why, and to maintain a sharp focus on the differences across ethno-racial groups.²

In this paper I seek to understand what factors are associated with joining the military after high school rather than attending college, joining the civilian labor force or doing some other activity. In particular, I focus on three complementary areas of influence on military enlistment: educational goals, the institutional presence of the military in communities and race and socioeconomic status. This analysis uses data from a recent cohort of high school graduates from the state of Texas in 2002, and reflects the notable changes in the recruiting environment not captured by the most recent detailed studies on youth enlistment behavior that employ data from the early 1990's (Kilburn & Klerman, 1999, National Research Council, 2003). These data are also unique in providing a sufficient number of cases to study voluntary military enlistment during wartime.

Changes in the recruiting environment have altered the trade-offs between college, the labor market, and the military for all youth, and may have had a particular impact on those youth suffering from racial or economic disadvantage. Among the factors that may have changed the military-college-labor decision making environment are the increased number of military deployments and the danger involved, changes in college costs, and changes in the likelihood of youth coming into contact with the military (Hosek & Totten, 1998, 2002; Orvis et al., 2001; Reed & Segal, 2000, National Center for Public Policy and Higher Education, 2002, Achatz et al., 2000; Segal et al., 1999; Wilson et al., 2000, Segal and Segal, 2004, National Research Council, 2003).

This analysis also incorporates the concept of 'military institutional presence' into the study of voluntary enlistment among youth, representing a novel contribution to the study of military enlistment. The concept captures the notion that military enlistment decisions may be affected by exposure to the institution of the military and those who serve on active duty. Because of the significant number of base closings and the reduced size of the military, this exposure has decreased since the early 1990s (Segal and Segal, 2004).

In short, these changes have altered the propensity of youth to join the armed forces by changing the relative attractiveness of the military compared with other alternatives. In the following sections I first review previous literature on voluntary military enlistment and discuss the concept of institutional presence

in greater detail. The literature review is followed by a description of the data and empirical strategy employed. Following a presentation of my results, I offer some concluding remarks and suggest directions for future research.

PREVIOUS RESEARCH ON ENLISTMENT DECISION MAKING

Educational Goals and Enlistment

Research on educational aspirations consistently shows that large shares of high school students report plans to attend college, and even larger shares aspire to do so. Rising college enrollments, driven by increased access to higher education by minorities and the rising returns to a college degree, have contributed to the growing military recruiting difficulties in the 1990's by drawing large numbers of the valued "high-quality" recruits away from military enlistment and into both two- and four-year colleges (Bachman et al., 2001).

Though enrollments have been increasing over the past decade, the cost of attending college has risen dramatically. Between 1992 and 2001, tuition at a four-year public college rose faster than family income in 41 states (National Center for Public Policy and Higher Education, 2002). Financial aid in the form of grants has not kept pace with the increases in tuition, and students are taking on a greater debt load to attend college.

Despite high college aspirations, many students may fear taking on a great debt burden to finance a college education if they are uncertain about their ability to pay back large loans. Such students may seek alternate means of paying for college, such as the Montgomery GI Bill offered by the military. So, while the military may be competing with colleges for young adults, the military may also serve as a pathway to college for many others (Bachman et al., 2001; National Research Council, 2003).

While it is clear that students with high educational aspirations are more likely to go on to college than to enlist in the military after high school graduation (Bachman et al., 2001; National Research Council, 2003), it is likely that college goals also influence decisions between non-college alternatives. These kinds of educational benefits are not available through employers in the civilian labor market, plus individuals earn money and develop additional skills during their service and in some cases, military training itself can

be counted towards a college degree.³ Thus, I expect that high educational aspirations also increase the likelihood of enlistment compared with work or other activities.

Institutional Presence of the Military

Decisions to join the military are not just strategic economic calculations. Families and communities are a major source of transmission of information and norms and values regarding military service. Several studies have noted the strong effect of having a parent serve in the military on enlistment: children of current and former military members are more likely to serve themselves, and once enlisted, are more likely than other enlistees to serve a career in the military (Faris, 1981, 1984; Kilburn & Klerman, 1999; Segal and Segal, 2004). It is unclear whether this is because of a transmission of values or norms of service, or if exposure to the family member's military experience provides information not readily available to peers without exposure to the military.

Prior studies have shown the impact key "influencers" like family and friends have on enlistment decisions, while lamenting the declining military service among influencers, suggesting this may contribute to declining propensity among youth (Cites here?). But the question still remains whether there are broader community effects on enlistment decision making. How has social and cultural isolation of the military institution in American life influenced the desire to serve among youth? In a recent paper, Burk (2001) developed the concept of the institutional presence of the military in society, and a typology for understanding the conditions under which this might vary. I use this concept of the military institutional presence to capture the influence of the community military presence on enlistment decisions.

There is a growing literature on the political consequences of the public's contact gap with the military (see Feaver and Kohn (2001) for a thorough treatment of these issues), and on the relationship between the military institutional presence and labor market outcomes. Booth and colleagues find that women living in areas with a high military presence face lower earnings and higher rates of unemployment than their peers in non-military locales (Booth, 2003; Booth et al., 2000). However, it appears that no studies have examined the effect of the institutional presence on actual enlistment behavior. This shortcoming is significant, because the institutional presence of the military is likely associated with enlistment propensity and enlistment behavior. One could argue that low military presence, as measured by the concentration of military members (current or former), would be associated with less social contact with the institution, and

that diminished contact with military culture results in little or no knowledge about the reality of military life. With little knowledge, individuals should be less likely to enlist, especially if their only understanding of the military stems from television and movies, which often depict the military in less than flattering terms (Harper, 2001; Wiegand & Paletz, 2001). In turn, I expect that lower military presence in a community reduces the propensity to enlist.

In considering the effect of the military presence in a community, it is particularly important to control for numerous other community level measures to ensure any identified effects are not merely proxying other factors. Past research has found enlistments to be sensitive to the various recruitment strategies used by the military (Hosek & Peterson, 1985; Kilburn & Klerman, 1999). Research has also found that levels of unemployment and other macroeconomic conditions influence enlistments (Dale & Gilroy, 1984, 1985). Other measures of labor market conditions and demographic composition have also been included in analyses of enlistment as controls to better characterize labor market opportunities among subpopulations.

Race, Socioeconomic Status and Enlistment

Since the AVF was created the proportion of the military made up by blacks rose from about 11% in 1972 (roughly the same proportion in the general population) to about 30% by the mid 1980's, and fell to roughly 22% by 2002 (Department of Defense, 2004; Segal and Segal, 2004). Analysts have proposed a number of reasons for black over-representation, among them that blacks face fewer job and educational opportunities than whites (Binkin & Eitelberg, 1986; Hosek & Peterson, 1985; Phillips et al., 1992), and that the military is perceived to be a more tolerant, meritocratic environment, with less racial discrimination compared with the civilian labor market or educational system (Moskos & Butler, 1996; Segal, 1989). Controlling for a host of demographic, socioeconomic, attitudinal and other characteristics, virtually all studies have concluded that blacks are more likely than whites to enlist in the military (Bachman et al., 2000; Bachman et al., 1998; Dale & Gilroy, 1984; Hosek & Peterson, 1985; Kilburn, 1992; Kilburn & Klerman, 1999; Mare & Winship, 1984; Murray & McDonald, 1999; Teachman et al., 1993).

Hispanics are under-represented in the armed forces, making up about 10% of the active duty enlisted force, and about 14% of the 18-24 civilian population in 2002 (Department of Defense, 2004; Segal and Segal, 2004). The black overrepresentation explanations would seem to hold for Hispanics as well. Given Hispanics' disadvantaged positioning in the labor market and education system (Bean & Tienda, 1987;

Hoffman et al., 2003; Llagas, 2003), we would expect that they too would be over-represented in the military, yet Hispanics are less likely to serve than whites or blacks. Though few studies examine Hispanics, those that do generally find that Hispanics are less likely than whites or blacks to enlist (Hosek & Peterson, 1985; Kilburn & Klerman, 1999). Hispanic under-representation is especially puzzling because they have shown the highest levels of interest in military service, leading to the possibility that many interested Hispanics are being screened out at application for various reasons, most likely high school graduation (Segal et al., 1999).

It appears that the race/ethnic composition of the military and the relationship between race and enlistment is changing. Black enlistment and representation among new accessions has notably declined since 2001, while Hispanic representation is increasing (Department of Defense, 2004; Segal and Segal, 2004). Additionally, interest in military service, often referred to as “propensity to serve,” among blacks and Hispanics is declining faster than among white youth, which may portend changes in future enlistment patterns (Segal et al., 1999).

An individual’s socioeconomic position, independent of the effects of race, also influences enlistment. Previous studies show that those with lower family incomes, larger family sizes (more sharing of scarce resources), and less educated parents are more likely to join the military (Asch et al., 1999; Kilburn & Asch, 2003; Kilburn & Klerman, 1999). There is little reason to suspect that the previously observed association between socioeconomic background and enlistment has changed.

While the socio-economically disadvantaged are more likely to enlist, the military does not simply fill its ranks from the bottom rungs of society. Prior studies have found that high-ability individuals, measured by AFQT, other test scores, grades or high school rank, are less likely to join the military than go to college, but that they are more likely to enlist than work or do another activity (Kilburn & Klerman, 1999).

Given the declining propensity among blacks and the recent sharp decline in black enlistments, I expect that racial differences in enlistment are trivial. I expect blacks to be equally likely to enlist as their white or Hispanic peers, and perhaps to be even less likely to do so now. High levels of propensity among Hispanics combined with the rising representation of Hispanics in the military suggest they too are as likely as their white and black peers to join the military, net of other factors.

Race and Institutional Presence of the Military

Race and ethnic differences in past military participation rates show that the experience of military service is more common among blacks than among Hispanics, Asians and to some extent whites. For groups with low rates of military participation, the influence of a military presence in their community is likely to exert a stronger impact on the likelihood of enlistment. That is, exposure to the military in one's community should exert a greater influence among those groups who might not be exposed to the institution through their own family and friendship networks. A simple test of this hypothesis implies an interaction between race/ethnicity and military institutional presence.

DATA SOURCES

The data for this analysis come from several sources: The Texas Higher Educational Opportunity Project (THEOP) survey data, the Woods and Poole database, the Texas Workforce Commission, and the Defense Manpower Data Center. The primary data source is the Texas Higher Educational Opportunity Project survey, a representative survey of seniors and sophomores enrolled in Texas public high schools during the spring of 2002. The survey is based on a stratified random sample of 98 schools (from a sample of 105), representing a school cooperation rate of 93 percent. A total of 13,803 seniors (and 19,969 sophomores, not included in the current analysis) completed the survey, which asked respondents about their educational experiences, expectations, extra-curricular activities, as well as their post-high school plans. A random subset of roughly 5,800 was re-interviewed approximately one year later. This follow-up data records respondents' primary activity after high school. In addition to defining the dependent variable, the follow-up data were also used to complete any missing information from the initial survey, if the same information was available from the follow-up survey.⁴ Restricting the data to males with non-missing information on both the dependent and all independent variables of interest leaves a total of 2,074 cases for analysis of the 2,468 males in the re-surveyed sample. Though more and more women are entering the military, service in the armed forces remains a relatively rare event for most young women. Consequently, there are too few cases to examine enlistment among young women in Texas. Thus, this analysis is only generalizable to the roughly 85% of military members who are male, and their decision making process.

The individual level data are supplemented with several county level measures, including county unemployment rate, the percent of the population female, black and Hispanic, the county average per capita income, and the proportion of county employment from active duty military.⁵ These data come from the

Woods and Poole database⁶. Additional data on unemployment in Texas counties comes from the Texas Workforce Commission's Labor Market Information Department.⁷

A fourth source of data is from the Defense Manpower Data Center, which provides the number of 'production recruiters' assigned to a county. Production recruiters are assigned to recruit individuals into the military. I include a measure of recruiter density, a measure of the intensity of military recruiting efforts and resource allocation in a community, calculated as the number of production recruiters divided by the 18-24 year old population.

Texas as a Strategic Research Site

Texas is a particularly fruitful location to examine military enlistment and the effects of the institutional presence of the military because of the large military presence across the state. Texas was the second largest source of new enlistments (10% of total) in the U.S. in 2001 while ranking third in the total number of active duty military members living in the state (113,665). In 2001, military expenditures in Texas totaled 18.4 billion dollars. Texas had 17 active duty military stations in 2002, second to California.

The demography of Texas also makes it a compelling place to study race/ethnic variation in many different outcomes. Texas has experienced dramatic population growth in the last decade, which has further diversified the racial and ethnic composition of the state. Texas is now a majority minority state among the school age population, and is rapidly approaching so in the general population. Nearly 40% of Texas school-aged children are Hispanic, while about 43% are white, 14% are black and 3% are of some other race/ethnic origin. Because much of the population growth in Texas has come from natural increase, Texas has a large youth population; there were roughly 1.3 million high school aged individuals in Texas in 2000.

MEASURES

Post-high school activity is measured as a four category variable indicating military service, two- or four-year college enrollment, employment or some other activity (including idleness/unemployment in the "other" activity measure).⁸ Because many youth combine work and school, as well as military service and education, the measure of actual post-high school activity reflects one's major activity. Respondents classified as serving in the armed forces are serving on active duty, not serving as a cadet or in the National Guard or Reserves.

High school graduates not serving on active duty who are enrolled in a two-year, four-year or vocational training school are classified as enrolled in post-secondary training. Respondents who are working, but not on active duty, nor enrolled in a degree granting program, are defined as employed. Any other individual not working, not in the military, nor enrolled in college is defined as doing some other activity.

Covariates of post-graduate activity status include individual and county level measures. Race/ethnicity, socioeconomic status measured by home ownership, and educational aspirations indexed by desired level of educational attainment are the primary individual level characteristics that predict post-graduation activity. Controls for other important correlates of enlistment include: ability as measured by high school rank, mother's education, citizenship status, average weekly hours employed in senior year, and whether a parent currently serves in the military (we cannot identify whether a parent *ever* served in the military). The primary county level variable of interest is the military institutional presence, measured as the percent of county employment from active duty military members.⁹ Additional controls for local labor market conditions and other county level factors influencing enlistment include a measure of the unemployment rate, the percent of the population female, black and Hispanic, the average per capita income in the county, and a measure of recruiter density, operationalized as the number of production recruiters assigned to a county divided by the 18-24 year old population.

Table 1 presents descriptive statistics for the variables used in the present analysis. Because the baseline survey is based on a clustered rather than a simple random sample, reported frequencies, means and standard deviations are weighted to the population, while the number of observations reported is the unweighted number of observations.

(TABLE 1 HERE)

MODELLING STRATEGY

Previous analyses have often modeled the enlistment decision as a binary choice of enlisting versus not enlisting in the military, which is sensible for understanding the simple question of who chooses to join the military. However, this strategy informs only the enlist versus not enlist decision, and does not address the substantial heterogeneity among the non-military alternatives available to youth. For both substantive and methodological reasons, a richer analysis contrasts enlistment with each of the available non-military

alternatives of college, work and other activities. Three choice models measuring enlistment, college attendance and work have been used previously to examine the determinants of military enlistment (Kilburn & Klerman, 1999). A multinomial choice approach improves upon the binary choice models in recognizing the distinctions between college attendance and working among non-enlistees. Although college has the most selective entrance criteria on average, the military also imposes entry standards for mental and physical ability and criminal background. More than half of youth would not meet enlistment eligibility standards today (Boehemer et al., 2003). Because the military is more selective than many entry-level employers, binary choice models cannot detect opposing effects of covariates that discriminate between enlistment, employment, and college or other activities.

I model the correlates of post-high school activity choice using a multinomial logistic regression model for 2,074 young men, who resided in 37 different Texas counties and graduated from high school in 2002.^{10,11} I first estimate a model that includes race, socioeconomic status, educational aspirations and military presence as well as several controls to ensure any identified effects are not spurious. The full model adds an interaction between military presence and each of the ethnic dummies, to test whether the effect of military presence differs by race.

Regression results are presented in the form of relative risk ratios (RRRs), which are the exponentiated coefficients from the multinomial logistic regression model. These RRRs are interpreted in the same way that odds ratios are in the binary logistic regression model. Here, enlistment serves as the reference category with each of the other three outcomes being compared against enlistment. Ratios higher than one indicate a positive association between the independent variable of interest and the odds of pursuing a given post high school activity versus enlistment, while those less than one indicate a negative association.

RESULTS

Unlike prior research, results reported in Table 2 suggest that educational aspirations exert a significant influence on the decision to join the labor force versus enlist in the armed forces. Young men who aspired to a four-year college degree were roughly half as likely to go to work than to join the military compared with their counterparts who were satisfied with a high school diploma. While college aspirations decrease the odds of choosing the military over college, they increase the odds of choosing the military over work. As with the work versus military contrast, educational goals influence the odds of doing some other activity

relative to joining the military. Aspiring to a four-year college degree decreases the odds of pursuing an activity besides work or college relative to military enlistment by more than 50%.

(TABLE 2 HERE)

In addition to educational goals, military presence also strongly influences the choice between college or military enlistment. For a one percentage point increase in the county share of military employment, we would expect to find a decrease in the odds of going to college relative to joining the military of roughly 25% (Model 1). Once an interaction between race/ethnicity and military presence is included (Model 2), we see significant effects for white and Hispanic young men and those from other ethnic origins, though not for Blacks.

Military presence also influences the decision to work or join the military. A one percentage point increase in the share of county military employment decreases the odds of going to work rather than the military by roughly 25%. Model 2, which includes the race-military presence interaction, reveals that this effect is largely concentrated among Hispanics, for whom the odds of working versus enlisting drops an additional 26% over and above the 12% lower odds of whites of whites. Military presence does increase the odds of enlisting compared with doing some other activity, but results from the interaction model (Model 2) show this effect seemingly is concentrated among those of other race/ethnic origin. This likely results from the low rates of pursuing other activities by Hispanics. Though there is a high correlation between having a parent serving on active duty and living in a county with a high military presence, the results for military presence are significant net of the influence of having a parent currently serving on active duty, strengthening the finding that military presence is significantly associated with military enlistment among youth.

The comparison between college enrollment and military enlistment reveals few race and ethnic differences, with the notable exception that youth from the “other” race category are more likely to enroll in college than join the armed forces.

Turning to the second contrast, examining the predictors of going to work relative to joining the military reveals differences compared with the college enrollment versus military enlistment contrast. Hispanic young men are nearly twice as likely as their white peers to join the labor market rather than enlist, and this result is accentuated when the interaction between ethnicity and military presence is

included. The final comparison between doing some other activity (including being unemployed or looking for work) and military enlistment finds few race/ethnic difference that are robust to different model specifications.

Consistent with expectations, youth with lower socioeconomic status backgrounds were nearly half as likely to enroll in college rather than enlist in the military as their peers from more advantaged backgrounds. Unlike the college contrast, parental home ownership does not appear to exert an influence on the decision between work and the military. This makes sense; college is the only alternative requiring a financial investment upfront. Thus it is less likely that family wealth would influence a son's non-college alternatives. While high school rank discriminates between the college versus military choice, it does not appear to influence the work versus military contrast (full model results are not reported but are available from the author). This suggests that military ability standards may be less important as a discriminator between enlistment and employment, although other unmeasured enlistment standards such as health or criminal behavior may explain this result, since both are important criteria for military eligibility.

CONCLUSIONS

Sociologists who do not consider the military in studies of youth transitions to adulthood potentially miss an important route to a college education and possibly to upward mobility. The results of this analysis find that educational goals play a substantial role in the decision to enlist in the military. Military service provides a means for the non-college population with high educational aspirations to attain their goals; young men who aspire to attend college are more likely to join the military than work or pursue some other activity one year after high school graduation. In the words of one respondent, the military is the "next best thing to college."

I also show that military presence influences enlistment decisions, especially among populations that typically do not serve in large numbers, although the likelihood of serving in the military depended on the contrast considered. Further research is needed to better understand how military presence influences enlistment decisions, such as through the demonstration or contagion processes whereby exposure to the institution increases awareness and interest. It is conceivable that the military presence indicator captures whether an individual had a parent *ever* serve in the military, something these data do not measure. This

may be possible if veterans tend to live in communities near military bases to take advantage of services available on those bases.

Another important finding from this analysis is that blacks no longer appear more likely to enlist than their white peers. More research is needed to understand why this reversal of historical trends has occurred.

The findings that the military institutional presence influences enlistment should also be of interest to policymakers. A new round of base realignment and closure decisions is scheduled for 2005-2006. Given the association between enlistment and military presence, policymakers should weigh the potential costs of reducing the presence of the military in certain areas where bases are proposed for closure on recruiting. These findings suggest that as the location of military bases becomes more concentrated in rural, south and west locations, so too will the origin of many new enlistees. Finally, because educational benefits appear to be a key draw to enlistment, any possible policies altering GI Bill benefits must consider the effects on recruiting. The strong link between educational goals and enlistment could also provide an opportunity for recruiting policy, by possibly offering a free college education to those who agreed to join needed specialties, and who agree to serve for longer tenures than the usual three or four year enlistment.

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Table 1: Descriptive Statistics for Variables Included in Analysis (percents or mean values)

	Mean	(S.D.)	N
Dependent Variable			
College	52.59%	--	1,108
Work	26.94%	--	524
Other	11.90%	--	266
Military	8.56%	--	176
Independent Variables of Primary Interest			
<i>Race/Ethnicity</i>			
White	50.73%	--	884
Black	12.56%	--	319
Hispanic	29.13%	--	684
Other	7.58%	--	187
<i>Desired Educational Attainment</i>			
Less than 2 Years College	9.40%	--	169
2 or More Years College	8.96%	--	185
Finish 4-year College	72.75%	--	1,575
Missing	8.89%	--	145
<i>Does Family Own Home?</i>			
Own Home	84.45%	--	1,701
Rent Home	12.77%	--	308
Don't Know if Own or Rent	2.77%	--	65
<i>Military Institutional Presence</i>			
Percent County Employment from Military	0.97	(1.20)	
Individual Level Variables-Controls			
<i>U.S. Citizen?</i>			
No	5.44%	--	145
Yes	94.56%	--	1,929
<i>Is a Parent Currently in the Military?</i>			
No	99.89%	--	2,058
Yes	1.11%	--	16
<i>Is Mother a College Graduate?</i>			
No	42.85%	--	935
Yes	57.15%	--	1,139
Hours per Week Employed	14.49	(14.78)	
High School Rank	40.51	(23.52)	
County Level Variables-Controls			
Unemployment Rate	6.05	(1.79)	
Per Capita Income	25033.30	(6135.96)	
Percent Pop. Female	50.41	(1.42)	
Percent Pop. Black	10.67	(7.66)	
Percent Pop. Hispanic	34.40	(23.72)	
Recruiter Density	0.51	(0.32)	
Sample Size			
Individuals	2,074		
Counties	37		

Table 2: Multinomial Logistic Regression Results Predicting Post-High School Activity Relative to Enlisting in the Military (in Relative Risk Ratios)

	Enroll		Work		Other	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Desire 2+ Years College	2.320 (0.976) *	2.440 (1.027) *	0.728 (0.285)	0.753 (0.294)	0.411 (0.181) *	0.443 (0.196)
Desire 4 Yr. College Degree	3.612 (1.273) ***	3.714 (1.304) ***	0.498 (0.164) *	0.512 (0.168) *	0.435 (0.146) *	0.444 (0.150) *
Missing Educational Desires	1.784 (0.725)	1.887 (0.756)	0.768 (0.274)	0.812 (0.287)	0.576 (0.234)	0.61 (0.251)
Rent Home	0.608 (0.139) *	0.586 (0.134) *	0.808 (0.187)	0.778 (0.184)	0.967 (0.236)	0.942 (0.234)
Don't Know if Own/Rent Home	1.122 (0.647)	1.120 (0.686)	1.693 (1.032)	1.728 (1.084)	1.228 (0.757)	1.251 (-0.895)
Black	1.860 (0.516) *	1.836 (0.623)	1.751 (0.508)	1.581 (0.550)	1.848 (0.657)	1.382 (0.592)
Hispanic	0.956 (0.232)	1.350 (0.422)	1.803 (0.362) **	2.626 (0.622) ***	1.247 (0.315)	1.46 (0.521)
Other	1.652 (0.754)	6.430 (4.459) **	1.428 (0.696)	4.126 (2.718) *	1.997 (1.118)	8.914 (6.667) **
% County Employment from Military	0.714 (0.053) ***	0.857 (0.066) *	0.743 (0.049) ***	0.885 (0.065)	0.789 (0.073) *	0.821 (0.090)
Black * % Employment from Military		1.093 (0.416)		1.247 (0.479)		1.576 (0.583)
Hispanic * % Employment form Military		0.775 (0.069) **		0.760 (0.069) **		0.94 (0.100)
Other * % Employment from Military		0.402 (0.107) **		0.589 (0.160) *		0.298 (0.099) **
H.S. Rank	0.976 (0.003) ***	0.977 (0.003) ***	1.001 (0.003)	1.001 (0.003)	0.999 (0.004)	0.999 (0.004)
Mother has B.A. or higher	1.431	1.432	0.969	0.973	1.131	1.135

	(0.350)	(0.351)	(0.225)	(0.227)	(0.305)	(0.308)
U.S. Citizen (Yes)	0.507	0.589	0.504	0.582	0.353	0.406
	(0.236)	(0.265)	(0.253)	(0.279)	(0.196)	(0.219)
Hours Employed per Week	0.979	0.980	0.998	0.998	0.969	0.97
	(0.005) ***	(0.005) ***	(0.005)	(0.005)	(0.005) ***	(0.006) ***
Is Either Parent Currently in Military?	0.675	0.623	0.520	0.403	0.509	0.382
	(0.366)	(0.372)	(0.289)	(0.240)	(0.502)	(0.384)
County Unemployment Rate	0.938	0.946	0.889	0.898	1.012	1.021
	(0.063)	(0.065)	(0.049) *	(0.051)	(0.067)	(0.069)
Percent of County Female	1.004	1.014	0.977	0.987	0.957	0.964
	(0.070)	(0.071)	(0.062)	(0.062)	(0.068)	(0.070)
Percent of County Black	0.972	0.973	0.969	0.970	0.968	0.968
	(0.017)	(0.017)	(0.014) *	(0.014) *	(0.016)	(0.017)
Percent of County Hispanic	1.001	1.006	0.996	0.996	1.001	0.999
	(0.007)	(0.007)	(0.006)	(0.006)	(0.006)	(0.006)
Per Capita Income in County	1.000	1.000	1.000	1.000	1.000	1.000
	(0.000) *	(0.000) *	(0.000)	(0.000)	(0.000)	(0.000)
Recruiter Density in County	0.738	0.795	0.720	0.771	0.750	0.767
	(0.296)	(0.314)	(0.239)	(0.258)	(0.284)	(0.304)

^a Standard errors are listed in parentheses, below relative risk ratios.

^b Reference category is: White, Own Home, Desires only HS Diploma, Mother Has less than College Degree, Not U.S. Citizen, Neither Parent in Military.

^c * p<0.05; ** p<0.01; *** p<0.001

ENDNOTES

¹ For an excellent discussion of the consequences of leaving the military out of most research on labor market outcomes see Booth, Bradford and David R. Segal. 2005. "Bringing the Soldiers Back In: Implications of Inclusion of Military Personnel for Labor Market Research on Race, Class and Gender." *Race, Gender & Class*. 12(1): 34-57.

² There is a continuing challenge in understanding the later-life consequences of military service, especially in a volunteer military, because of methodological problems in many analyses, most notably the bias imposed due to self-selection of enlistees into the military and the screening processes of the armed service that deny entry to many who apply. See Angrist, Joshua D. 1998. "Estimating the Labor Market Impact of Voluntary Military Service Using Social Security Data on Military Applicants." *Econometrica* 66(2):249-288.

³ For example, Air Force training for enlisted personnel to prepare them for their technical specialties can be applied towards an Associates Degree through the Air Force Community College, which is an accredited degree-granting institution. In other service branches, programs have been set up to allow servicemembers to gain college credits from their military training and experiences.

⁴ Information on race, high school rank and mother's education were used from the follow-up data if it was missing from the original survey data. While there is a potential that in the year between surveys, high school rank or mother's education may have changed, it is unlikely that this would be substantial enough to alter conclusions, especially since the original survey was conducted in the Spring of senior year when rank has largely been determined. In a few cases there were discrepancies between information provided in the initial and follow-up surveys. In these cases, we used information provided in the baseline survey.

⁵ Although official employment statistics from BLS do not include active duty military in either the numerator or denominator, the Woods and Poole data record active duty military as employment.

⁶ The Woods and Poole data for 2002 come from estimates based on 1999 and 2000 BEA and Census data. A detailed description of their estimation procedures can be found with the software. Short term projections from Woods and Poole are quite accurate when comparing past predicted figures against actual statistics.

⁷ See <http://hsc.state.tx.us/research/dssi/UnempData02.html>, originally accessed 9/11/03 for this data.

⁸ Identifying who is considered in the military is slightly complicated by several factors. Because of the large scale deployment of military service members, especially Army soldiers, a number of follow-up interviews were with a proxy, usually a close family member. Respondents attending a service academy (such as the US Military, Air Force or Naval Academy) or those enrolled in a civilian university on a ROTC scholarship are sworn into the military, and are technically members of the armed forces, however, cadets can leave a service commitment within two years of their enrollment. Because cadets had not passed this two year mark when the second wave data were collected they are classified as college students for the current analysis. Further, individuals in the National Guard or reserves serve part time, and often have other primary activities such as working or attending college. If respondents in the Guard or reserves have no other activity, then they are classified as enlisted. Defining military service in this fashion ensures that nearly all of those classified in the armed forces are in actuality enlisted service members and not officers-in-training or cadets, or part-time in the National Guard or reserve members.

⁹ In standard employment figures, active duty military members are not included in the civilian labor force, and are thus not included in employment statistics. For this measure, military service members are counted as employed (and are counted in both the numerator and denominator).

¹⁰ I also ran the models using the binary specification, confirming the expectation that heterogeneity in the non-military alternative resulted in the averaging over effects in opposite direction. Results are not presented but are available from the author.

¹¹ The non-independence of individuals within counties is adjusted for in all regression models. The THEOP data come from a stratified sample and by adjusting for the complex survey design, the clustering within county is effectively adjusted as well.