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Status Configurations, Military Service and Higher Education

# Status Configurations, Military Service and Higher Education

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The U.S. Armed Forces offer educational and training benefits as incentives for service. This study investigates the influence of status configurations on military enlistment and their link to greater educational opportunity. Three statuses (socioeconomic status of origin, cognitive ability and academic performance) have particular relevance for life course options. We hypothesize that young men with inconsistent statuses are more likely to enlist than men with consistent status profiles, and that military service improves access to college for certain configurations. Analyses of the National Longitudinal Study of Adolescent Health (Add Health) show (1. that several status configurations markedly increased the likelihood of military enlistment and (2. within status configurations, recruits were generally more likely to enroll in higher education than nonveterans, with associate degrees being more likely.

## Introduction

Historically, the American military has been viewed as a bridge to greater opportunity (Browning et al. 1973; Sampson and Laub 1996). In this all-volunteer era, the military recruits through the dynamics of the labor market, competing with

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college and employment. Contemporary young adults choose to enlist for the job training and educational benefits offered by the military (an occupational model), in addition to the traditional institutional values of patriotism, dignity and fidelity (Moskos 1977; Eighmey 2006; Woodruff, Kely and Segal 2006). Such motivations point to military service as a means of self-advancement in society, especially for young people with social and personal disadvantages (National Research Council 2004).

In this study, we focus on the occupational model (Moskos 1977) and propose that distinctive status configurations channel young people toward military service and its access to higher education within a framework of social mobility. The concept of status configuration shifts research from individual variables to a person-centered model (Bergman and Andersson 2010) that considers how status profiles shape the pathways of young people and their correlated orientation toward adult roles. We selected three statuses for their established relevance to the young adult transition and status attainment: socioeconomic origin, cognitive ability and academic performance in high school. Using data from the National Longitudinal Study of Adolescent Health (Add Health), the interrelation of these variables as median splits generates configurations of both status consistency and inconsistency with differing motivational implications for military service and college.

This study is framed by an understanding of status inconsistency theory, which incorporates individual characteristics that are especially salient in a society where higher education has become a normative path to adulthood and life achievement. We hypothesize that (1. young men with inconsistent statuses are most likely to be attracted to military service to overcome barriers to higher education and greater life opportunity, and (2. they are more likely to benefit from military service through increased access to higher education. An example of status inconsistency is provided by a pattern of underachievement featuring cognitive ability without corresponding grades and a low family income. A modest financial background coupled with above-average grades and cognitive test scores represents another example of relevant status inconsistency. By contrast, the consistently high group is likely to serve for reasons other than occupational gains, while the group that ranks low on each of the three statuses may have difficulties qualifying for military service because of ability, physical fitness and completion of high school.

Data for this study come from three waves of Add Health that have measured relevant status and background factors from adolescence through young adulthood. By the latest wave of the study, 7 percent of the total Add Health sample had service experience, a figure consistent with population estimates (U.S. Census Bureau, 2012). Twelve percent of the sample of Add Health young men had experienced military service. The sample is limited to young men because the relatively small proportion of Add Health women who report military service (less than 3%) complicates their assignment to status configurations. The focus on young men will enrich our limited understanding of how status configurations influence the trajectories they follow through military service and higher education. The role of military service in the lives of young Americans represents an important area of inquiry for life course research.

## Background

Ever since the end of the draft in 1973, the U.S. military has been reliant on labor market dynamics and the enlistment of relatively disadvantaged young people (Korb and Segal 2011; Segal 1989). This shift to an all-volunteer force has raised questions about the circumstances and characteristics of young people that are associated with enlistment. At the same time, military recruitment efforts in high schools around the country and via television and print campaigns, among other strategies, seek to highlight college tuition assistance, skills training for valuable careers, and a role associated with strength, pride and camaraderie. Such efforts target factors important to most young people. Indeed, they are among the primary motivations for enlistment among young people (Bachman et al. 2000; Eighmey 2006; Woodruff, Kelty and Segal 2006). However, these factors may motivate groups of young people differentially, depending upon their orientation toward college and career and perceived opportunities for achieving related goals. In particular, questions arise about the context of relative disadvantage that may limit or disrupt the normative, or expected, life course transition from high school through young adult status attainment.

A wealth of research has focused on understanding college going and degree attainment, as college education has become a common expectation among young people in the United States. Indeed, college enrollment is socially valued and currently represents the modal experience of young Americans (Bozick and DeLuca 2011). However, college enrollment relies on bidirectional selectivity, wherein individuals and institutions express preferences and criteria for selection. Moreover, college tuition and the expenses associated with delaying full-time employment place additional burdens on young people seeking to earn college degrees. Thus, to achieve socially and economically valued positions in society, young people must meet selection criteria and be able to financially afford the costs of college enrollment. Alternatively, they may seek alternative pathways with a delayed entry into college education or less conventional routes to skill and career development.

Despite the role of the military as a potential bridge to attainment of a college degree, limited research attention has been devoted to understanding the circumstances in which young people enlist and thereby gain access to higher education. Available evidence suggests that military enlistees are unique among college nonenrollees (Bozick and DeLuca 2011). They tend to hold college aspirations, earn relatively high grades and standardized test scores, and have parents who went to college (Bozick and DeLuca 2011), although less so than youth who enter college out of high school (Elder et al. 2010). Like college enrollment, military enlistment relies on bidirectional selectivity (Bachman et al. 2000). Thus, military requirements and individual backgrounds often select young people with possibilities and aspirations for college attendance. This raises questions about the circumstances and characteristics that lead young men into the military, rather than to a more direct path to college.

Motivation to enlist in the military is particularly relevant for young people who aspire to a brighter future but are constrained by status inconsistency and

a delinquent past. Delinquent behavior in adolescence is particularly relevant to a problematic academic record and impaired life chances (Greenbaum and Dedrick 1996). The strict moral standards of the Armed Forces can prevent young men with a criminal record from entering the service, with moral wavers infrequently issued. However, for delinquent histories that do not violate moral standards and exclude young people from military service, the military's ability to transform young people through a structured environment makes it more forgiving toward those with a record of aggressive tendencies. As such the military can be perceived as a unique and otherwise unavailable opportunity for the social advancement of some delinquent young men where delinquency does not match criteria for exclusion from the Armed Forces. Elder and colleagues (2010) found that young people with a history of physical fighting to be more likely than other youth to join the military. Therefore, status inconsistent young people with a delinquent past may be more likely to enlist for the opportunity to improve their life chances through access to advanced training and education.

Given the selection and financial demands associated with college enrollment, cognitive ability, performance in high school, and socioeconomic background are implicated as key status dimensions that may directly influence the likelihood of college enrollment and the salience of military service benefits. Young people with a relatively high level of cognitive ability, grade point average in high school and family income have a consistency of status that promotes college enrollment and degree attainment. For this *status consistent* group, the likelihood of military enlistment tends to differ from those who are relatively disadvantaged in one or more of these statuses. In particular, certain configurations of *status inconsistency* may heighten the attractiveness of the benefits of military service. For example, young people with relatively high-cognitive ability and academic success from socioeconomically disadvantaged backgrounds may seek tuition assistance to obtain a college education. Thus, while family socioeconomic status (SES), cognitive ability and performance in high school may individually affect one's life chances, young men with consistent or inconsistent status configurations may differentially favor military enlistment and the possibility of capitalizing on military service benefits to achieve higher education.

## Theoretical Framework

Unique profiles of consistent and inconsistent statuses entail different challenges and opportunities for individual achievement. An understanding of the status profiles for social advancement thus requires a holistic-interactionist approach in which the individual is treated as "an organized whole with elements operating together to achieve a functioning system" (Bergman and Andersson 2010:157). One such approach is based on "status inconsistency," configurations in which a person occupies statuses of different ranks or at noncomparable levels (Jackson 1962). Status inconsistency theory regards the configurations of multiple dimensions as individual characteristics and focuses on the within-person relation of the statuses. Status inconsistent individuals are likely to have aspirations in line with their highest status (Jackson 1962; Lenski 1966), but their attainment

may be undermined by the lowest occupied status (Jackson 1962). For example, despite high levels of cognitive ability, access to higher education may be ruled out by a mediocre school record and marginal family income. This underachievement profile may limit opportunities and/or lead to less conventional pathways to achieving such valued goals as higher education.

Aspirations and motivation for achievement likely stem from processes of social comparison (Festinger 1954). In the case of inconsistent status profiles, young people may select the reference group according to a high-ranking status (Jackson 1962; Lenski 1966). Such comparisons foster self-enhancement and a positive self-evaluation (Suls, Martin and Wheeler 2002), as observed among middle-class youth in hard-pressed families during the Great Depression (Elder, chap. 6, 1999). However, disadvantages in other status dimensions may represent relative deprivation, given notions about entitlement for opportunity (Runciman 1966; Walker and Smith 2001), which may include a college education. Relative deprivation has important consequences for behavior and decision making, stemming from the discrepancy between self-identified membership in a more privileged group and the realities of a personal deficiency (Hyman and Singer 1968). Thus, status inconsistency represents both a disadvantage and a motivator. The negative consequences of status inconsistency might prompt an “adaptive or stress-reducing response” (Hornung 1977:624; see also House and Harkins 1975) that leads to advancement through a less conventional path to status equilibrium (Hope 1975; Hendrickx et al. 1993).

Adaptive responses and less conventional paths to achievement have been central to strain theories. Merton (1938) has suggested that members of lower social classes may experience “strain” from aspirations for achievement and limited access to conventional means for achieving goals. Strain theory is commonly used in research on delinquency, crime and other forms of deviance (Cloward and Ohlin 1960). Indeed, delinquency in adolescence may represent a deviant adaptation to relative deprivation (Merton 1968) that further hinders future success. However, the general proposition of strain theory, that members of relatively disadvantaged groups face incongruity in goals and access to conventional means to achieve goals, may apply more broadly. Indeed, Merton has been criticized for overemphasis on structural factors and wealth as the primary cultural goal along with ideas about the importance of college degree completion as an important factor for contemporary young Americans (Farnworth and Leiber 1989). Additionally, a focus on deviance as “innovation” among those who accept the goals but experience blocked means may be extended to include socially sanctioned but nonconventional (i.e., innovative) responses (such as military enlistment).

For status inconsistent young people, the goal of attaining a college degree may be hindered by college admissions criteria and/or the financial and opportunity costs associated with going to college. Having a low high school grade point average and/or relatively poor SES may represent structural barriers to achieving the goal, while limited cognitive ability may represent an individual-level impediment to achievement of culturally sanctioned goals. When goals are not matched by access to valued means, the resulting discontent is likely

to encourage young people with inconsistent statuses to pursue an alternative life path to achievement, such as military service. Young adults could minimize the consequences of status inconsistency by taking advantage of opportunities for the occupational and educational advances provided by military service, as well as honor and respect. Indeed, the perceived benefits (tangible and intangible) of service in the military appear among the major incentives for enlistment (Eighmey 2006; Woodruff, Kelty and Segal 2006).

Other studies on earlier cohorts of veterans demonstrate educational attainment disadvantages associated with military service (Cohen, Warner and Segal 1995; Teachman 2005; Teachman 2007). However, Segal and Segal (2004) conclude from the literature on enlistment propensity that “one of the major motivations for young people to enlist is to earn educational benefits to use during service or after they leave the service.”(8) In other research, Bachman and colleagues (2001) suggest that military service and college entrance do not cancel each other out in terms of achievement possibilities. We examine whether serving in the military offers a way to circumvent the impediments to higher education that are associated with types of status inconsistency.

## Data and Methods

### Data

To investigate the influence of status inconsistency on military enlistment and of military enlistment on programs of higher education for status inconsistent groups, we use data from Waves I (1994-1995), III (2001-2002) and IV (2008-2009) of the Add Health. Add Health is a nationally representative, school-based sample of 20,745 adolescents in grades 7-12 surveyed during the 1994-1995 academic year. The sampling frame comprised all high schools in the United States. A total of 80 high schools were selected with probabilities proportional to size. The overall sample is representative of schools with respect to region of the country, urbanicity, school type (e.g., public, parochial, private nonreligious) and school size. Members of ethnic minority groups were oversampled. Further details are available at <http://www.cpc.unc.edu/projects/addhealth>.

Add Health provides a unique opportunity to study contemporary military enlistment and young adult status attainment. Because of the large sample size and long-term follow-up period, Add Health includes an appropriately sizable sample of young men with military service experience. Moreover, the initiation of data collection in adolescence through high school provides prospective measurement of status dimensions and a wealth of important control variables. The latest wave, Wave IV, interviewed 15,701 young adults aged 24-35 years, whose experiences address the transition to adulthood and young adult status attainment. Appendix A shows that most respondents in the Add health sample entered the military service before September 11. Thus, we assume their enlistment decision was not motivated by the more generous 2008 G.I. Bill.

Our analytic sample includes 6,832 non-Hispanic white, black, Asian, and Hispanic young men. We excluded females ( $n = 8,349$ ) from the sample because of their relatively low representation in the military (2.8% of young women

enlisted by Wave IV). The sample also excludes a small number of Native Americans and cases with race-ethnicity unknown ( $n = 106$ ), as well as cases with missing values on sample weights ( $n = 414$ ).

## Measures

The dependent variables—military enlistment and educational attainment—come from Wave IV. This timing maximizes the chance that the sample includes all military enlistees and college entrants. *Military enlistment*, the primary dependent variable, is a binary indicator of whether or not the respondent was currently in the military or had previously served in the armed forces. We consider respondents to have served in the military if they have ever been in either full-time active-duty or the reserves, or both. *Educational attainment* is a trinomial dependent variable. The first category is high school diploma and below. We also include those with vocation/technical education in this category because (1) vocational/technical programs are more about job skills than developing/applying the academic skills, and (2) vocational/technical education do not offer as significant gains in social status as college does. The second category includes respondents with an associate's degree, some college, including those who were studying in college at Wave IV and those who attended college previously but did not complete a degree by Wave IV. The last category is bachelor's degree or higher.

Our approach to trichotomizing educational attainment represents an improvement to dichotomous approaches (such as college/noncollege) by addressing important differences between respondents who attend community colleges and those who obtain a bachelor's degree from a 4-year college or university. Given the growth of community college attendance (Lawson 2011), ignoring the major differences between the two types of colleges would conceal important differences in education-based credentials and life opportunities. Analyses that distinguish between those two types of educational institutions provide richer information on pathways to socioeconomic achievements in the United States (e.g., Perna and Titus 2005).

The focal independent variable is an eight-category status configuration measure. The status profiles are based on three dimensions: SES of origin, cognitive ability and academic performance in high school. Socioeconomic status of origin is measured as all sources of household income in the previous year derived from the Wave I survey of young men's parent(s). Cognitive ability is measured by standardized scores from the Add Health picture vocabulary test in Wave I. Finally, academic performance in high school is measured as cumulative high school grade point average (GPA) from school transcript data in Wave III. Although each of these measures indicates a unique aspect of young people's overall social status, the items are significantly correlated with one another.

We combine these three measures in a person-centered approach (Magnusson and Cairns 1996) rather than examining each status dimension independently. This method groups individuals into clusters to address the interdependence among multiple statuses without relying on complex interactions. Status configurations in this study are defined by dividing respondents into "high" and "low"

groups according to representation above or below the median, respectively. The resulting eight clusters reflect the heterogeneity of status configurations among individuals. We identify two status consistent groups: the Most privileged with consistently high statuses and the Highly disadvantaged with low statuses on all three variables. The remaining six status configurations—well-off strivers, well-off underachievers, strivers, underachievers, model students, and well-off inept students—represent types of status inconsistency with combinations of high and low across the three status dimensions. These eight groups are described in detail below.

Our analyses of military enlistment control for three levels of *high school graduation status*: high school diploma (eligible for enlistment), General Educational Development (GED) or certificate of attendance or completion (limited to about 8% of all Department of Defense recruits), and no diploma, GED or certificate (rarely recruited). We also control for *involvement in physical fights*. This dichotomous variable is based on whether or not the respondent has ever involved in any of the following: (1 gets into a serious physical fight, (2 hurts someone badly enough to need bandages or care from a doctor or nurse, and (3 takes part in a fight where a group was against another group in the past 12 months.

Previous research has identified additional individual-level characteristics as correlates or predictors of military enlistment (Elder 1986; MacLean and Elder 2007; Sampson and Laub 1996). To be confident of our findings regarding possible status variations in military enlistment, we include statistical adjustments for these potentially confounding factors: school grade at Wave I (to control for cohort), race/ethnicity (non-Hispanic white, non-Hispanic black, Asian and Hispanic), and physical fitness proxied by body mass index (BMI) at Wave I.

## Methods

The analyses follow three stages. In the first stage, we impute missing information on independent variables using Royston's ICE procedure in Stata (Royston 2005). ICE is a fully conditional specification (FCS) method that performs multiple imputation by "chained equations" (van Buuren et al. 1999). We chose FCS over multivariate normal imputation (MVNI, also known as NORM) because it may perform better with non-normal or categorical data. The NORM algorithm is based on Markov chain Monte Carlo (MCMC) sampling and so is more theoretically founded, but assumes that the data are multivariate normal. Despite the potential advantage of FCS over NORM in working with non-normal distribution, such regression-based imputation is still affected by extreme outliers that exhibit a large degree of influence on parameter estimates (Bergman et al. 2003). Twenty sets of data were imputed and the average values were used in our data analysis. Appendix B shows descriptive statistics for study variable before imputation.

After imputation, each of the three status variables was divided along the median (household income: \$38k; picture vocabulary test: 101; high school GPA: 2.4) to construct eight status configurations: two status consistent and six status inconsistent groups. The two status consistent groups represent about

the half of the total sample. Guided by literature and theory, we believe this is the best way to obtain optimal profiles that represent people with different status configurations. The eight-cluster solution yields conceptually meaningful groups without minimizing status diversity. The method balances the need to reduce heterogeneity within each group and preserve distinctions among the groups. Other clustering techniques, such as k-means and latent class analysis, are demanding of the data, as they require the existence of natural clusters with clear separation for optimal performance. The purpose of this study is not to detect natural clusters but to examine profiles that reflect theoretically relevant status configurations with hypothesized relevance for military enlistment and educational attainment.

The last phase of the research involves multivariate analyses of military enlistment and educational attainment to examine differences among the eight status profiles, net of other important considerations. Analysis of military enlistment uses binary logistic regression, and we use multinomial logistic regression to model three levels of educational attainment: high school or less, some college or associate's degree, and bachelor's degree or more.

## Results

### *Status Profiles*

Table 1 describes the eight profiles according to the three status dimensions, supplemented by their high school graduation status, college aspiration/expectation and physical fighting. Table 1 presents the eight status profiles as contrasting pairs.

### ***Most Privileged (n = 1,721) and Highly Disadvantaged (n = 1,664)***

The first pair represents the *status consistent* groups: the most privileged and highly disadvantaged. The young men who fit the profile of Most privileged rank high on all three indicators of status, and over 99 percent of this group graduated from high school with a diploma. The Most privileged group also has the highest college aspirations/expectation (measured as how much they want and are likely to go to college) and the lowest level of physical fighting (only 35% reported fighting once or more).

The highly disadvantaged group is consistently low on household income, cognitive ability and academic performance. Only 60% have a high school diploma. Another 19% received a GED (in a few cases, Certificate of Attendance or Completion). The group ranks lowest on college aspirations and majority of the young men (61%) have been involved in one or more physical fights. well-off strivers (N = 595) and well-off underachievers (N = 583).

The second pair includes those from relatively high SES backgrounds who demonstrate inconsistency in cognitive ability and school performance with well-off strivers having relatively high GPAs despite low cognitive ability and well-off underachievers having relatively low GPAs with high cognitive ability. Ninety-nine percent of well-off strivers graduated with a high school diploma,

**Table 1: Means (SD) or Percentages for Selected Variables for Full Sample and Status Profiles, Add Health**

	Pair #1			Pair #2			Pair #3			Pair #4	
	Full Sample (N = 6832)	Most Privileged (N = 1721)	Highly Disadvantaged (N = 1664)	Well-off Strivers (N = 595)	Well-off Underachievers (N = 583)	Strivers (N = 512)	Underachievers (N = 599)	Model Students (N = 588)	Well-off Inept Students (N = 570)		
<i>Status variables<sup>a</sup></i>											
Family Income	44.45(41.56)	71.11(58.00)	21.10(9.39)	60.57(27.35)	58.25(26.26)	24.58(9.41)	23.78(9.47)	24.92(9.76)	60.94(53.54)		
PVT <sup>b</sup>	100.61(14.49)	113.49(7.51)	87.06(10.58)	92.19(7.71)	110.16(6.66)	88.60(10.63)	109.44(6.50)	111.61(7.40)	90.44(8.20)		
GPA	2.35(.80)	3.10(.44)	1.61(.54)	2.89(.37)	1.89(.41)	2.79(.34)	1.71(.50)	2.96(.44)	1.82(.47)		
<i>High school graduation status</i>											
H.S. Diploma	83.06%	99.36%	59.56%	98.99%	82.33%	96.88%	63.27%	97.28%	80.35%		
GED/ certificate	9.56%	.64%	19.23%	.84%	13.38%	1.76%	27.55%	2.04%	9.30%		
Not completed	7.38%	.00%	21.21%	.17%	4.29%	1.37%	9.18%	.68%	10.35%		
<i>College aspirations</i>											
College desirability <sup>c</sup>	4.34(1.11)	4.73(.71)	3.94(1.33)	4.58(.89)	4.21(1.12)	4.36(1.08)	4.09(1.22)	4.59(.85)	4.18(1.19)		

College likelihood <sup>e</sup>	4.02(1.20)	4.61(.77)	3.47(1.33)	4.34(.98)	3.88(1.16)	4.00(1.15)	3.61(1.27)	4.33(.97)	3.75(1.29)
Physical Fighting <sup>d</sup>	49%	35.21%	61.00%	39.50%	62.09%	43.55%	59.77%	41.84%	58.42%

Notes: <sup>a</sup>Shading indicates that the corresponding cluster is above medium for the status(es) highlighted. <sup>b</sup>Picture vocabulary test, standardized score. <sup>c</sup>College aspirations are measured on a 5-category scale ranging from low to high. <sup>d</sup>Dichotomized measure of violent physical fighting.

compared with 82% of well-off underachievers. well-off strivers also have higher college aspirations/expectations and lower percentages involved in fighting compared with well-off underachievers.

### Strivers (N = 512) and Underachievers (N = 599)

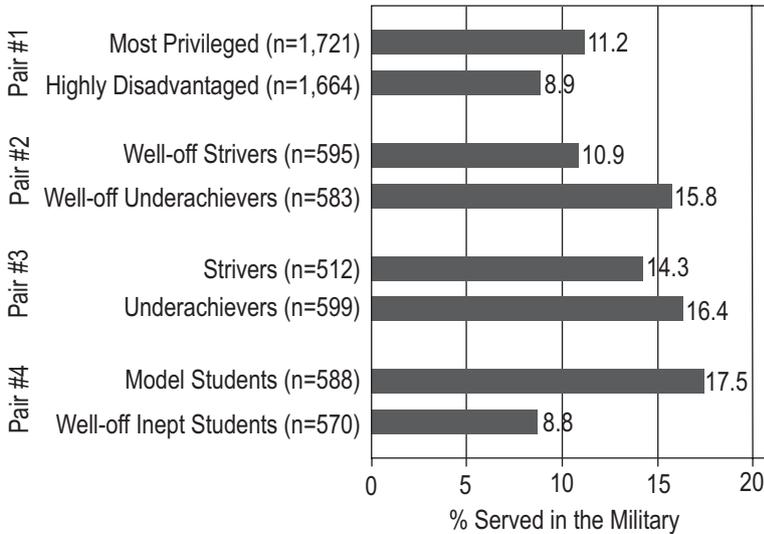
The third pair, strivers and underachievers, is similar to the second pair except these groups are from relatively low SES backgrounds. A comparison of these two status profiles shows the same general patterns as seen with their higher SES counterparts. Nearly all strivers have a high school diploma (96%). They score relatively high on college aspirations and relatively low on involvement in physical fights (44%). By contrast, only 63% of the underachievers, who scored high on cognitive ability but low on academic achievement, earned high school diplomas. Their low college aspirations are coupled with a tendency to engage in physical fighting.

### Model Students (N = 588) and Well-off Inept Students (N = 570)

The last pair represents *status inconsistent* profiles in which SES may benefit or hinder young people who are otherwise consistently high (model students) or consistently low (well-off inept students) on cognitive ability and school performance. Model students come from families with below median incomes, but they possess a high level of cognitive ability and perform well in high school. Nearly all of the model students graduate from high school with a diploma, compared with only four out of five of the well-off inept students. Young people in the well-off inept students group are well-positioned in family income, but score low on cognitive ability and high school grades. The contrast between these two groups is also reflected in the high college aspirations and low fighting behavior of the model students and the opposite pattern for the well-off inept students.

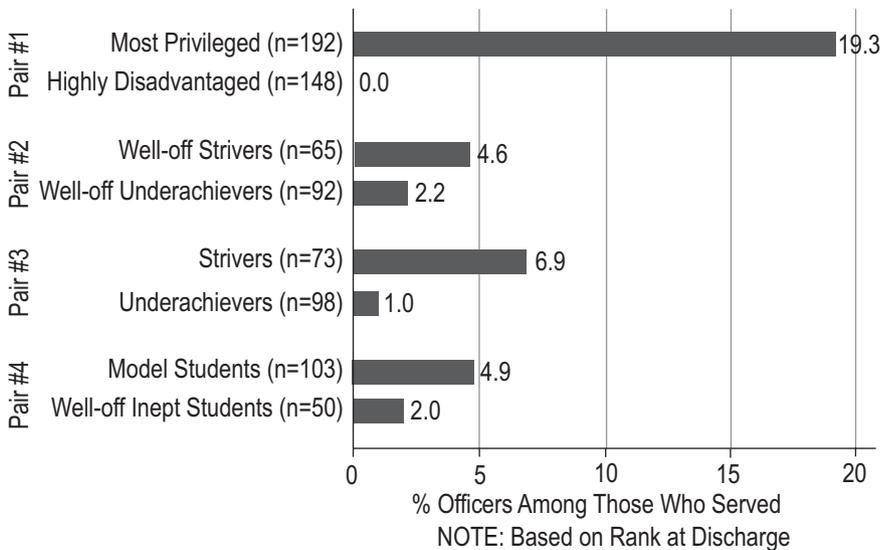
### Bivariate Results

Figure 1 shows the percentage served in the military by status profile. Twelve percent of all young men in the sample joined the military. However, the percentage of recruits varies substantially by status profile. Four status inconsistent groups – model students, underachievers, well-off underachievers and strivers – show the highest enlistment

**Figure 1. Military Service by Status Profiles**

rates, 17.5 percent, 16.4 percent, 15.8 percent and 14.3 percent, respectively. Compared with all other status configurations, they represent an important source of military recruits. However, despite the greater desire of the disadvantaged to serve in the military and take advantage of the G.I. Benefits, enlistment is a “two-party decision” (Bachman et al. 2000). The low enlistment rate for the highly disadvantaged (8.9%) and the well-off inept students (8.8%) is likely a result of their failure to meet the minimum requirements for military service such as a high school diploma and satisfactory Armed Forces Qualification Test score. Finally, the enlistment rate of the Most privileged is just below average at 11.2 percent. This group may enter the military under very different circumstances. Upon further investigation (see Figure 2), we find that the Most privileged have the highest percentage of officers. One out of five were officers, while all other groups range from 0-7 percent. Institutional motivations such as family heritage, patriotism, prestige and future political capital are more likely than occupational motivations such as tuition benefits, skills and training to have motivated men in this group.

Up to this point, we have shown military enlistment rates vary by status profiles. Those who have something to gain from the service (e.g., the well-off underachievers, strivers and underachievers, as well as the model students) were more likely to follow a trajectory to the military. However, does entry into the service increase access to higher education? According to the National Center for Education Statistics, the most popular type of higher education is the community or occupational college with a 2-year program (Lawson 2011). In 2007-8, the percentage of servicemen attending a community college was double those attending 4-year colleges of public education. Veterans report an easier time fitting in with the older student body of these colleges (Cook and Kim 2009). In

**Figure 2. Percentage of Officers by Status Profiles**

addition, we expect their flexible course schedule matches well with work and family life.

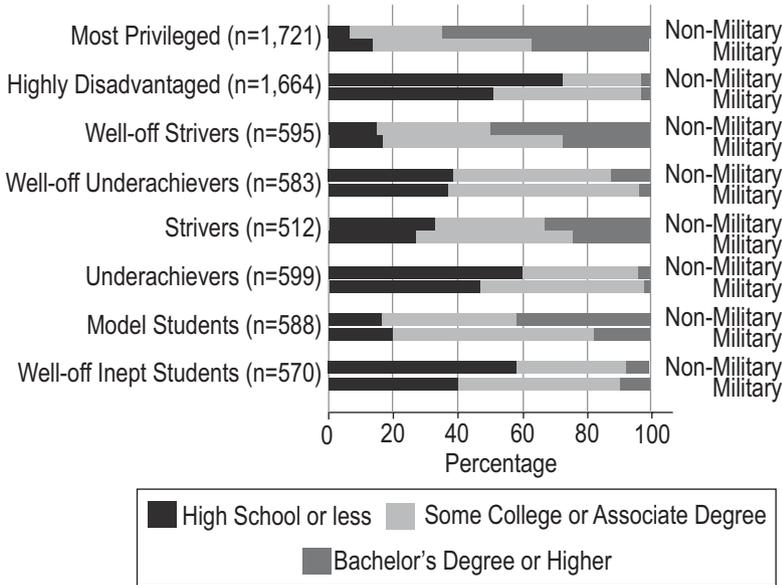
This preference for the community college is well documented by our data. Figure 3 compares the educational level of the men who served with those who did not serve by status profile. Three levels of education are specified: (1 high school degree and below, (2 some college or an associate's degree and (3 a bachelor's degree or higher. According to Figure 3, members of the highly disadvantaged, the underachievers and the well-off inept students have gained better access to higher education by serving in the military. However, only servicemen from the well-off inept students enjoyed a slightly higher rate of achieving a bachelor's degree than their civilian counterparts. Members of other groups, despite achieving increased access to associate's degrees or some college as a result of military service, obtain a bachelor's degree at a lower rate *if they had served in the military*. Overall, by improving access to associate's degrees and some college, military service provided a unique path to higher education that would not have been available for many of the men who did not serve, one that provided access to the educational benefits of the GI Bill. This is especially true for the highly disadvantaged.

These graphical presentations of military enlistment and educational attainment were not adjusted statistically for demographic factors and other controls in a multivariate analysis. We turn now to the results of such analysis.

### **Multivariate Results**

Table 2 reports odds ratios from logistic regressions of military enlistment. When compared with the highly disadvantaged in Model 1, the well-off underachievers,

**Figure 3. The Educational Effects**



underachievers and model students are all significantly more likely to serve in the military.

Model 2 adds high school graduation status to control for military enlistment standards. Compared with young men with a high school diploma, those with a GED are 55 percent less likely to enlist, and the odds of enlistment are quite low for those without a diploma or equivalent. This model also shows that once high school graduation status is controlled, the difference between the enlistment rate of the highly disadvantaged and other groups is much smaller. Only the underachievers remain significant.

Model 3 of Table 2 introduces race, cohort (measured by school grade at Wave I) and body mass index (BMI) to control for sociodemographics and physical fitness that has been previously implicated in the study of enlistment propensity (e.g., Bachman et al. 2000). Racial/ethnic differences are highlighted by the military’s recognition of the need to address issues related to racial disadvantages. However, evidence of racial differences in perceptions of equal opportunities in the military continues to raise questions about racial equality (Moore and Webb 2000). Young black men are more likely to join than non-Hispanic whites. They are also more likely to enter the service with occupational motivations (Moore 2006), reflecting their modest economic background and pragmatism.

The results indicate no significant cohort difference in the likelihood of military enlistment. The physically fit are more likely to have entered the service – increases in BMI are associated with lower odds of enlistment. Model 4 introduces physical fighting into the analysis and shows that this behavior actually increased the likelihood of entering the military by nearly a third. Models 3 and 4 show that the well-off underachievers, underachievers and model students differ

**Table 2: Entry to the U.S. Armed Forces by Status Profiles: Odds Ratios (N = 6,832)**

	Model 1	Model 2	Model 3	Model 4
<i>Cluster groups</i>				
Most privileged	1.26	.81	.91	.96
Highly disadvantaged	1	1	1	1
Well-off strivers	1.02	.65	.72	.76
Well-off underachievers	1.87**	1.38	1.58*	1.55*
Strivers	1.42	.93	.99	1.02
Underachievers	1.69**	1.51*	1.71**	1.70**
Model students	1.95***	1.28	1.47	1.53*
Well-off inept students	.83	.67	.72	.71
<i>High school graduation status</i>				
High school diploma		1	1	1
Ged or certificate		.45***	.45***	.44***
Not completed		.04***	.04***	.04***
<i>Control variables</i>				
School grade at Wave I			1.04	1.05
White (non-Hispanic)			1	1
Black			1.48**	1.47**
Asian			.59	.58
Hispanic			1.34	1.32
BMI at Wave I			.93***	.93***
Physical fighting				1.31*

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

significantly from the highly disadvantaged once sociodemographic, fitness and behavioral controls are added to the model.

The last phase of analysis examines the effect of military service on the likelihood of attaining a college education. Table 3 shows the results of trinomial logistic regressions of educational attainment. Estimates in the first set of three columns (Models 1a-3a) compare young men with some college or an associate's degree to those having a high school diploma or less (no college). The three columns to the right (Models 1b-3b) present the odds ratios of a bachelor's degree or above compared with no college. Models 1a and 1b establish a baseline model that compares status profiles to the reference category, the highly disadvantaged. This group has a relatively large sample size ( $n = 1,664$ ) and is significantly less likely to obtain a college education than all other groups, reflecting the disadvantage associated with ranking low on all three status dimensions.

Models 2a and 2b of Table 3 introduce social demographic controls and shows the effects of physical fighting and military service. Black and Hispanic young men are about 50 percent more likely than non-Hispanic whites to have

**Table 3: College Education by Status Profiles and Military Service: Odds Ratios (N = 6,832)**

	Some College or Associate's Degree (ref = High School)			Bachelor's Degree or Above (ref = High School)		
	Model 1a	Model 2a	Model 3a	Model 1b	Model 2b	Model 3b
<i>Cluster groups</i>						
Most privileged	12.4***	14.1***	15.74***	278.9***	398.8***	494.2***
Highly disadvantaged	1	1	1	1	1	1
Well-off strivers	7.47***	8.32***	8.91***	105.4***	134.4***	154.3***
Well-off underachievers	4.17***	4.89***	5.55***	10.66***	16.48***	20.04***
Strivers	3.75***	3.76***	3.75***	35.52***	39.79***	39.95***
Underachievers	1.96***	2.18***	2.07***	1.57	2.15*	2.31*
Model students	7.92***	8.59***	9.05***	57.10***	78.92***	90.92***
Well-off inept students	1.66***	1.86***	1.87***	3.84***	4.73***	4.89***
<i>Demographics</i>						
School grade at Wave I		1.02	1.02		1.04	1.04
White (non-Hispanic)		1	1		1	1
Black		1.54**	1.54**		2.90***	2.90***
Asian		1.57	1.56		2.88**	2.83**
Hispanic		1.50**	1.49**		1.41	1.40
Military		1.55*	2.17**		.38***	2.00
Physical fighting		.78**	.79**		.55***	.60***
Military * physical fighting		1.22			2.41*	

<i>Military * cluster interactions</i>	
Military * most privileged	.47
Military * well-off strivers	.54
Military * well-off underachievers	.43*
Military * strivers	1.17
Military * underachievers	1.31
Military * model students	.66
Military * well-off inept students	1.08
	1.06

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

some college or an associate’s degree relative to no college when status profiles, military enlistment and fighting behavior are controlled (Model 2a). Black and Asian young men are about 190 percent more likely than Whites to obtain a bachelor’s degree (Model 2b). This is similar to previous findings that Blacks are more likely to go to college than whites once social background and academic performance is controlled (Mangino 2010). Models 2a and 2b also provide evidence that that physical fighting reduces the likelihood of receiving a college education of any kind. Finally, Models 2a and 2b test the effect of military service on educational attainment. Model 2a shows that those who have served or are serving in the military are 55 percent more likely to obtain some college or an associate’s degree than just a high school education.

However, a significant interaction effect between military service and physical fighting for bachelor’s degree or higher (Model 2b) indicates differential effects of military service for those with a history of violence and those without. We calculate marginal effects as follows: Odds Ratio of Military\*Odds ratio of each interaction terms (e.g., Military\*Most privileged). The marginal effect (Brambor, Clark and Golder 2006) of military service for the young men *with* and *without a history of fighting* is .92 and .38, respectively. This indicates that while military service has a negative effect on attainment of a bachelor’s degree, this negative effect is smaller for those with a history of physical fighting.

Models 3a and 3b of Table 3 investigate the interaction effects of serving in the military and status profiles. Again, we present the conditional marginal effects to explain the interactions between military service and status profiles. In these models, the marginal effect of military service for the reference group – the highly disadvantaged – is the odds ratio associated with the variable “Military.” Specifically, the highly disadvantaged who have served in the military are 2.2 times more likely to have

obtained an associate's degree or some college (Model 3a), with no significant marginal effect of military service on bachelor's degree attainment for this group (Model 3b). Except for the well-off underachievers, each status profile is approximately 50 percent more likely to obtain an associate's degree or some college when they serve in the military relative to their civilian counterparts. The well-off underachievers have a .93 marginal effect of military service; well-off underachievers are 7 percent less likely to obtain an associate's degree or some college if they served in the military. On the other hand, military service shows a significant negative marginal effect on obtaining a bachelor's degree, but only among the Most privileged (.14) and the well-off underachievers (.14). That is, the Most privileged and the well-off underachievers are 86 percent less likely to obtain a bachelor's degree than their civilian counterparts if they have served in the military.

## Discussion

Historically, the military relies on institutional motives such as patriotism and honor, as well as the draft, to fulfill personnel requirements. In this era of an all-volunteer force, the military increasingly competes with colleges and universities for young men and women graduating from high school since higher education has become a common expectation for young people in the United States (Bozick and DeLuca 2011). However, college enrollment depends upon both individual and institutional selection processes, including the affordability of college tuition and the expenses associated with the delay of full-time employment. The military provides an indirect bridge to higher education by offering occupational incentives such as socioeconomic, skills training and, especially, college tuition benefits to attract quality recruits. The opportunity for such benefits opens up the prospect of upward mobility for those who are relatively disadvantaged in one or more domains of life.

This longitudinal study used a person-centered approach to investigate the relationship between relative disadvantage and military service, as well as the influence of military service on the social mobility of young men. More specifically, we employ a multidimensional approach in the conceptualization of status to determine whether and how distinctive status configurations orient young men toward the military and whether they benefit educationally from military service. Moving beyond a simple additive perspective, we distinguished between status consistent and inconsistent profiles. Three status dimensions were selected for their special relevance for adolescents and their life course options: SES of origin (Baker and Velez 1996), cognitive ability (Jencks 1979) and academic performance in secondary school (Persell, Catsambis, and Cookson 1992). Each status represents an important source of human and/or social capital that is consequential for socioeconomic attainment.

We hypothesized that status inconsistency would channel young people into the military as an adaptive response to overcome barriers from deficiencies in one or more key status and achieve future goals such as a college education. Social comparisons and relative deprivation theory aid the understanding of

underlying processes that prompt the preference for a military path to a brighter future among status inconsistent young men. Upward social comparisons and relative deprivation are plausible sources of motivation for young men to join the military to surmount the barriers of life history and social origin.

Our findings indicate that some status profiles are more likely to follow the military path to opportunity than others. However, different groups are likely to have enlisted for different reasons. Military service appears to be most likely among those with a pattern of underachievement. Regardless of socioeconomic background, those characterized as *underachievers* (with relatively high cognitive ability and relatively low high school GPAs) are likely to enlist for opportunities to fulfill their potential. On the other hand, the model students would be inclined to enlist to take advantage of tuition benefits in light of their modest socioeconomic backgrounds. Despite our focus on an occupational model of enlistment, traditional institutional motivations are equally important. Together with the occupational motivations, honor and patriotism are primary motives for enlistment cited by new recruits (Bachman et al. 2000). In the case of the Most privileged and possibly other well-off groups, institutional values might be their only motivation since they come from socioeconomically well-endowed backgrounds with less need for tuition assistance.

To investigate the educational implications of military service for recent cohorts of young men, we examined the proximal effect of military service on educational attainment. Overall, this effect is mixed. Relative to the Most privileged, who are relatively high on all three-status dimensions, status inconsistent groups were less likely to obtain a 4-year college education. The highly disadvantaged group has minimal access to higher education. Further, with the exception of well-off underachievers, military service offered young men better access to a college education, at least at the level of an associate's degree or some college. For most groups, even ones with lower enlistment rates, serving in the military increased the odds of attaining some college or an associate's degree.

The educational benefit of military service is much less evident for a bachelor's degree or higher. Indeed military service *does not* improve the chances of obtaining a bachelor's degree among various status profiles. Furthermore, well-off underachievers, who enter the military at a higher rate than average, are slightly less likely to obtain an associate's degree or some college and they are much less likely to obtain a bachelor's degree if they have served in the military. Finally, although military service improves the odds of attaining an associate's degree or some college for the Most privileged, it also reduces their chance for a bachelor's degree.

Overall, military service represents a strong pathway to higher education, but this only applies to the community college, associate's degree level. Military service enabled a significant number of young men in disadvantaged circumstances to obtain some college education. They would not have had this opportunity without military service.

Many veterans appear to benefit from service in attaining at least some college education or an associate's degree. Consistent with previous research (Snead and Baridon 2010), community colleges appear to represent a better fit for veterans

since they tend to be older than typical undergraduates at 4-year colleges and universities. Community college has developed from the academic responsibility of sending students to a 4-year college to also providing occupational training (Rosenbaum 2001). This form of higher education may be more feasible and practical for nontraditional college students (Sewall 2010) and thus warrants more study. For the well-off underachievers and the Most privileged, serving in the military appears to reduce the likelihood of completing a 4-year college education. These groups may be a source of career military men for the Armed Forces and/or the completion of a bachelor's degree may be deferred for greater time spent in military service.

This study extends existing research on military service in several other ways. Add Health provides a nationally representative, longitudinal sample that follows adolescents over 15-years into young adulthood. Because enlistees typically enter the military within a year after high school and officers tend to do so after completing college (Segal and Segal 2004), panel data that spans the transition from adolescence to young adulthood enhances our understanding of differences in enlistment among diverse social groups. Moreover, these data also enable us to investigate the educational attainment implications of service for veterans.

In this study, we moved beyond predicting enlistment to investigate whether serving in the military benefited young men in terms of higher education. Prior studies of social mobility and the military typically focus on either enlistment behaviors (Eighmey 2006; Woodruff, Kelty and Segal 2006) or veterans' post-service well-being (Teachman 2005, 2007). However, selection processes on the part of the military and the individual pose a major challenge for research that aims to isolate the effects of military service (see MacLean and Elder, 2007). Studies that address only educational disparities between veterans and nonveterans are limited in their success in addressing selectivity concerns on who enters the military and goes on to obtain a college education (Teachman 2005, 2007). We tackled this challenge by employing a holistic approach that connects educational attainment with enlistment in a longitudinal dataset.

The four waves of Add Health data offer unique opportunities to investigate the correlates and consequences of military enlistment. However, other sources of data are needed to clarify gender and cohort influences on the relationships that we have investigated among young men who enlisted in the military from the mid-1900s through mid- to late 2000s. Our study focused on young men in the military for two reasons: (1) they represent approximately 85 percent of active duty military personnel (Segal and Segal, 2004), and (2) the percentage of young women in the Add Health cohort who have served/are serving in the military is too small to produce robust findings. A previous study showed that background characteristics and educational achievement and plans are less predictive of women's propensity and enlistment than men's (Segal et al. 1998; Bachman et al. 2000). Thus, studies with a larger sample of women enlistees are required to show how males and females with varied status patterns compare on enlistment decisions and educational attainment.

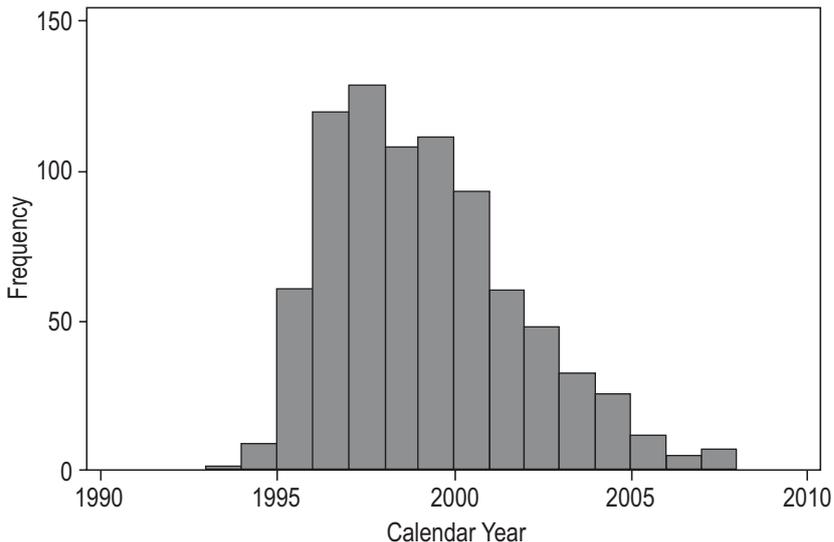
GI Bill benefits, which provide services and assistance to veterans across a range of needs, have been referred to as the "greatest long-term avenue of equal

opportunity in American society” (Moskos and Butler 1996:34). This study provides further evidence that young men from relatively disadvantaged backgrounds may enter the military to take advantage of the educational benefits portion of the G.I. Bill and improve their access to higher education to some extent. Historically the G.I. benefits have varied a lot over time. In 2008, a new post-9/11 GI Bill greatly improved educational benefits for individuals serving on active duty in the Armed Forces on or after September 11, 2001. As evidenced in Appendix A, many of our sample members served after September 11, 2001, and will be able to benefit from the more generous new G.I. Bill, even though they could not have been aware of the improved G.I. benefits at entry to the service. Thus, future data collection may show even greater educational attainment effects of military service as a result of the new G.I. Bill.

Our findings suggest that young people’s life choices are strongly influenced, if not constrained, by their status characteristics. However, within their social circumstances, they assess the costs (e.g., commitment and risks) and benefits of joining the military (e.g., a steady income, housing, health care, skill training and support for advanced education). This study suggests that young men’s enlistment decisions are likely made within such contexts to maximize life opportunities. Given the sheer number of Americans who are serving or who have served in the military, understanding their paths to socioeconomic achievement through military service is of growing importance for social science.

## Appendix A

Figure A1. First-Time Enlistments by Year



## Appendix B

**Table B1. Descriptive Analysis with Preimputation Data (N = 6,832)**

	N	Mean/%	SD	Min	Max
Military service	6,832	12.0%			
College education	6,832				
No college	2,550	37.3%			
Some college and associate's degree	2,357	34.5%			
Bachelor's degree	1,925	28.2%			
Status dimensions					
Household income	5,271	46.5	46.6	1	999
Standardized PVT score	6,470	100.6	14.8	9	137
High school overall GPA	4,508	2.4	0.8	0	4
<i>High school graduation status</i>	6,832				
High school diploma	5,675	83.1%			
GED or certificate	653	9.6%			
Not completed	504	7.4%			
<i>Control variables</i>					
School grade at Wave I	6,699	9.7	1.6	7	12
White (non-Hispanic)	3,872	56.7%			
Black	1,368	20.0%			
Asian	471	6.9%			
Hispanic	1,121	16.4%			
BMI at Wave I	6,749	22.8	4.5	11.2	63.5
Physical fighting	6,790	49.2%			

**Note:** SD = standard deviation.

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