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Does Adolescent Family Structure Predict Military Enlistment? A Comparison of Post-High School Activities

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Abstract

This paper investigates the link between adolescent family structure and the likelihood of military enlistment in young adulthood, as compared to alternative post-high school activities. We use data from the National Longitudinal Study of Adolescent Health and multinomial logistic regression analyses to compare the odds of military enlistment with college attendance or labor force involvement. We find that alternative family structures predict enlistment relative to college attendance. Living in a single-parent household during adolescence increased odds of military enlistment, but the effect is accounted for by socioeconomic status and early feelings of social isolation. Living with a stepparent or with neither biological parent more than doubles the odds of enlistment, independent of socioeconomic status, characteristics of parent-child relationships, or feelings of social isolation. Although college attendance is widely promoted as a valued post-high school activity, military service may offer a route to independence and a greater sense of belonging.

Keywords

FAMILY STRUCTURE; MILITARY; TRANSITION TO ADULTHOOD; SOCIAL ISOLATION; ADD HEALTH

INTRODUCTION

Growing up in an alternative family (i.e., with a single parent, stepparent, or non-biological parent(s); Cavanagh 2008; Sun and Li 2011) has manifold implications for the transition to adulthood. Family structure has been linked to a wide range of adolescent and young adult outcomes including: behavioral and academic problems in secondary school (Manning and Lamb 2003; Sun 2003), educational aspirations (Sun 2003), high school completion/dropout (Astone and McLanahan 1991; McLanahan and Sandefur 1994), post-secondary school enrollment (Aquilino 1996), financial contributions toward college (Turley and Desmond 2011), and early home leaving (Mitchell, Wister, and Burch, 1989). These factors relate to

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the likelihood that a young person will attend college, join the labor force, or enlist in the military.

A wealth of research has focused on understanding college going, with less attention to which groups of young people enlist in the military after high school. Like college enrollment, military enlistment relies on bidirectional selectivity wherein individuals and institutions express preferences and criteria for selection (Bachmann, Segal, Freedman-Doan, and O'Malley 2000). While college enrollment is socially valued and currently the modal experience of young Americans, military enlistees are unique among college non-enrollees (Bozick and DeLuca 2011). They tend to express 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 enroll in college out of high school (Elder, Wang, Spence, Adkins, and Brown 2010). Thus, military requirements and individual backgrounds often select young people with possibilities and aspirations for college attendance, leaving questions about the circumstances in which young people enlist.

Since the discontinuation of the draft in 1973, the U.S. military must direct recruitment strategies toward concerns of young people in order to compete with post-high school alternatives for enlistees (Korb and Segal 2011; Moskos, Williams, and Segal, 2000). 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, support for families, and a role associated with strength, pride, and camaraderie. Such efforts target factors important to most young people. However, these factors may motivate groups of young people differentially, depending upon their orientation toward college, family, and career and perceived opportunities for achieving related goals.

Adolescent family structure may importantly differentiate young people in terms of orientations, goals, and opportunities key in the transition to adulthood. As such, the military may differentially appeal to groups of young people according to adolescent family experiences. Alternative family structures are found to be associated with military enlistment (Bachman, Segal, Freedman-Doan, and O'Malley 2000; Elder, Wang, Spence, Adkins, and Brown 2010; Goldscheider and Goldscheider 1998). However, an understanding of the mechanisms linking family and military enlistment is lacking. Existing research on other young adult outcomes provides directions for investigation. First, single parent families tend to be poorer than two parent families (DeNavas-Walt, Proctor, and Smith 2007), and divorced and remarried parents contribute less toward their children's college costs (Turley and Desmond 2011). These socioeconomic factors may make military benefits, including college tuition assistance, attractive to young adults raised in alternative families. Family structure also affects parental involvement and time investments in children, which can differentially shape adolescent experiences and transitions into adulthood (Astone and McLanahan 1991; Demuth and Brown 2004; Fronstin, Greenberg, and Robins 2001). Finally, family structure is associated with family support, feelings of belonging, and residential mobility (Amato 1987; McLanahan and Sandefur 1994; South, Crowder, and Trent 1998), which may influence military enlistment via appeals to being a member of core social group (i.e., promoting camaraderie and the military as one big "family") within a stable environment.

Using data from the National Longitudinal Study of Adolescent Health (Add Health), we compare the likelihood of military enlistment relative to college enrollment and labor force involvement across the more traditional two-parent (biological or adoptive) family structure to commonly considered alternative family structures (stepparent, single parent, and non-biological parent families). Although college attendance/graduation is highly valued and

promoted, the military offers young people a steady income, training, and college tuition assistance, among other benefits not afforded by many entry level jobs in the civilian labor force (Segal, Burns, Falk, Silver, and Sharda 1998). Unlike the typical college experience wherein most young people remain dependent on their parents for financial support and/or seasonal housing, enlisting in the military and living on/near a military base may be perceived as a route to achieving independence from parents/guardians (cf. Goldscheider and Goldscheider 1998). It is therefore important to examine military enlistment as a possible route taken by young people in the transition to adulthood (Kleykamp 2006).

BACKGROUND

Military Enlistment as a Post-High School Activity

For earlier cohorts of American service members, the military has been described as a “bridge” or “turning point” for disadvantaged young people (Browning, Lopreato, and Poston 1973; MacLean and Elder 2007; National Research Council, 2004; Sampson and Laub 1996). These earlier cohorts entered military service during an historical period in which conscription (i.e., “the draft”) was in place, while contemporary cohorts enlist on a voluntary basis. To encourage enlistment, the military promotes a wide range of benefits associated with military service. These benefits, including housing assistance, health care, consumer subsidies, child care, and household maintenance allowances, among others, have been described as “the camouflaged safety net”, or a substitute welfare program (Gifford 2006; Segal 1989). Other important career benefits center on skill development and college tuition assistance through the G.I. Bill. Though military salaries may be comparable to civilian jobs, the breadth of military benefits frequently represent better compensation than most civilian jobs (National Research Council 2003). For young people with limited or perceived limited employment opportunities, the benefits package may serve as an important draw. Enlistees increasingly come from social groups, including racial/ethnic minorities and non-high school graduates, that face relative disadvantages in the labor market, and recruitment of high-quality military personnel is easier during economic recession and high unemployment rates (Korb and Segal 2011). Moreover, these factors may differentially appeal to young people seeking to make transitions to adulthood and independence earlier than college attendance or available labor force opportunities typically allow.

In addition to more tangible benefits associated with military enlistment, Eighmey (2006) finds that intangible benefits, such as fidelity and dignity, consistently emerge in analysis of Department of Defense Youth Polls on military service related goals. The construct of fidelity includes goals of “developing self-discipline”, “working with people you respect”, and “doing something you can be proud of”, while dignity includes goals of being mentally challenged and working in a non-discriminatory environment. The military environment also provides structure, stability and comradeship in a regimented lifestyle that situates young people within a reliable social group. As with tangible military benefits, perceptions about intangible benefits may also make military enlistment more appealing for some groups of young people than others.

Though developed in other contexts, the “belongingness hypothesis” advanced by Baumeister and colleagues (Baumeister and Leary 1995; Baumeister, Dale, Muravan 2000) may help elucidate processes of military enlistment. According to this hypothesis, people desire stable and positive interactions with a relatively small group of people (e.g., a military squad), and this desire translates into relationship seeking behavior. Those who feel socially isolated or lonely may be more apt to seek a stable group of individuals to provide a support system. This may be one way in which military enlistment may be perceived as differentially beneficial according to goals and perceptions for attaining them.

Military recruitment efforts attempt to appeal to young people through a variety of means, such as promoting a sense of strength and pride (e.g., “Army Strong” and “The few, the proud, the Marines”) and publicizing benefits of service including college tuition assistance and skills training. A recent issue of the *Recruiter Journal* of the United States Army Recruiting Command focuses on families, with a front cover showing a staff sergeant with his wife and two young children and the caption “Army Strong Recruiting Families” (United States Army Recruiting Command 2011). The issue describes family-related benefits (e.g., college tuition assistance for qualifying Army spouses, childcare assistance), discusses the family as centrally important to providing a sense of belonging, and refers to the Army as a “family.” This particular recruitment angle may have important implications for young people from some alternative family structures where socioeconomic independence and a sense of belonging are intersecting goals.

Linking Family Structure and Military Service

Available evidence suggests a relationship between family structure and military service. For example, Elder and colleagues (2010) find living with a step-parent during adolescence associated with a greater likelihood of entering the military compared to college. Others find highest rates of military enlistment among those in single parent families with the lowest rates among young people with two parents, though these relationships are mediated by a propensity (as represented by self-reported likelihood of enlistment during high school) to enlist (Bachman, Segal, Freedman-Doan, and O’Malley 2000). In other research, it appears that living with a stepparent after age 12 is marginally associated with higher odds of leaving home to join the military and with significantly decreased odds of leaving to attend school (Goldscheider and Goldscheider 1998). Drawing on existing research, we expect that adolescent family structure will predict military enlistment relative to college enrollment or labor force involvement such that those in alternative families will be more likely to enlist in the military than those in two-parent intact families. The mechanisms, however, have been largely understudied. Family structure may relate to military enlistment by influencing socioeconomic status of the family, shaping parent-child relationships, and/or by creating feelings of social isolation.

Socioeconomic status—As suggested by an economic hardship, or resource deprivation, perspective (e.g., McLanahan 1985; Sun and Li 2011), differential pathways in young adulthood may relate to differences in resources across family types. Growing up in single and step parent families, compared to two-biological parents, is associated with lower high school graduation and college attendance rates (Astone and McLanahan 1991; Downey 1995; Ermisch and Francesconi 2001). These differences may be accounted for by differences in resources and/or the distribution of resources. Family income accounts for a meaningful proportion of the risk of high school dropout among those in single parent families (Sandefur, McLanahan, and Wojtkiewicz 1992). Single parent families tend to be poor or experience income insecurity (DeNavas-Walt, Proctor, and Smith 2007; Duncan and Hoffman 1985), and divorced and remarried parents contribute less toward their children’s college costs (Turley and Desmond 2011). Young people in no biological parent families also tend to fare worse in academic performance and have lower educational aspirations, which is accounted for by differences in family resources (Sun 2003). The SES of alternative families has been offered as an explanation for young adult outcomes, in part because offspring may be thrust into the labor market relatively early by the need to obtain full time employment (Fronstin, Greenberg, and Robins 2001). The financial costs of going to college and a need to help support one’s family are oft-cited reasons for not enrolling in college after high school given by many non-enrollees and those who join the military (Bozick and Deluca 2011).

Though scarce, research also links socioeconomic status of the family of origin to military enlistment: the likelihood of enlistment is greater among those from socioeconomically disadvantaged backgrounds (Kleykamp 2006). In particular, parent's education is inversely associated with military enlistment (Bachman, Segal, Freedman-Doan, O'Malley 2000; Teachman, Call, and Segal 1993). However, there is some evidence that those with least educated parents are less likely to enlist (Bachman, Segal, Freedman-Doan, and O'Malley 2000; Elder, Wang, Spence, Adkins, and Brown 2010). Taken together, socioeconomic status explanations lead us to expect that socioeconomic status of the family of origin may account for family structure differences in enlistment because the military may attract young people from alternative families where socioeconomic resources are less available to promote college enrollment.

Parent-child relationships—In addition to socioeconomic explanations, the instability-stress perspective and a social control hypothesis (e.g., Sun and Li 2011; Wu and Martinson 1993) suggest that time investments and emotional connections may be important in shaping young adult outcomes. These factors may be demonstrated in the form of a parent's presence in their child's life, the monitoring of offspring behavior, and involvement of the parent in the child's activities. For example, lower levels of parental involvement and monitoring have been cited as an explanation for negative outcomes among young people raised in single parent families (Astone and McLanahan 1991; Demuth and Brown 2004).

Parental involvement and monitoring are a primary form of social control to keep children from problem behaviors and dropping out of school (Coleman, 1988; Hill, Yeung, and Duncan 2001). However, single parents may have less time to supervise children and non-biological parents may have less influence over children because of poor quality or poorly defined relationships. Young people in single parent families report less father control and stepfathers appear to have less control relative to those in two-parent intact families (Amato 1987). Time investments in children may also mean that parents are serving as role models and imparting knowledge (Fronstin, Greenberg, and Robins 2001) that can improve young people's chances for college, while alternative families may undermine college chances through conflict or lack of closeness (Astone and McLanahan 1991).

Parental involvement and monitoring may link family structure to military enlistment through diminished chances for college enrollment after high school and/or through the appeal of intangible military benefits. Goals associated with military enlistment according to youth polls include developing self-discipline and leadership skills, controlling how work is done, and having personal freedom (Eighmey 2006). Overall, existing evidence and insights from the instability-stress and social control perspectives suggest differences in parental presence, monitoring, and involvement may account for family structure differences in enlistment because the military may attract young people from alternative families where family processes are less likely to promote post-high school college enrollment.

Social isolation, belongingness, stability—Family structure may be linked to the decision to join the military through feelings of social isolation, a heightened need for belonging, or desire for a stable lifestyle that may arise from feelings of loneliness, perceptions about social acceptance and support, or residential mobility. Adolescents in alternative families report higher levels of depressive symptoms than those in two parent intact families, but feelings of family closeness and parent-child relationships attenuate much of this relationship (Cavanagh 2008). Still, children in single and step parent families tend to report lower levels of social support (Amato 1987; McLanahan and Sandefur 1994), and those in single parent families report less family cohesion (Amato 1987). These factors may link alternative family structures to military enlistment since lower levels of social support are associated with greater odds of military enlistment relative to college enrollment

(Elder, Wang, Spence, Adkins, and Brown 2010). Overall, feeling a lack of connection to or support from one's family may make the military's recruitment campaigns appeal to young people seeking a sense of belonging and support.

Family structure changes are associated with residential mobility (South, Crowder, and Trent 1998), and such change tends to predict higher risks of dropping out of high school among those in single and step parent families (Astone and McLanahan 1994). Residential mobility during adolescence may mean a loss of social capital through change of schools and/or the loss of ties to a core social group, with potential implications for occupational choices. Young people with 2 or more residential moves during adolescents appear more likely to have their first job in an occupation characterized as: *realistic*, *enterprising*, *social*, and *conventional* (Richardson 2009: 94). According to this classification scheme, occupations combining the aforementioned characteristics are associated with preferences for routine, demand for conformity and reliability, and requirements of meeting predictable or well-specified standards (Holland 1997). Military service, as an occupational choice conforming to this description, may be chosen by those who experience residential mobility during adolescents. Considered together, research on feelings of belonging and support and residential mobility suggest that a heightened need for belonging and stability may account for family structure differences in enlistment.

DATA AND METHODS

We use data from Waves I and III of the National Longitudinal Study of Adolescent Health (Add Health). Add Health began in 1994–1995 as a nationally representative, school-based sample of 20,745 adolescents in 7th – 12th grades. The adolescents were followed up for the third time in 2001–2002. The overall sample is representative of United States schools with respect to region of the country, urbanicity, school type (e.g., public, parochial, private non-religious, etc.), and school size. Members of ethnic minority groups were over-sampled. Further details regarding the sample are available at <http://www.cpc.unc.edu/projects/adhealth/>.

From the full Wave I sample, we exclude 1,805 cases that are missing sample weights. Another 108 observations were deleted because the respondent was still in high school and therefore could not have a valid value on our dependent variable. We also exclude approximately 5,400 cases whose status on the dependent variable is unknown due to attrition by Wave III; however, we include 187 Wave III non-respondents who were on active military service. Missing values on independent variables are handled using casewise deletion. The final analytic sample consists of 12,980 young men and women.

There are two major advantages of using Add Health for a study of military enlistment. First, the data cover a relatively long period following high school graduation (the respondents' ages range from 18 to 27 in wave III). Previous studies have tended to focus only on enlistment behavior right after high school graduation. However, enlistment occurs at various life stages. Add Health's wider age coverage enables us to generalize findings to a broader population. Second, Add Health also includes measures of family history, socioeconomic status of the family of origin, family processes, residential mobility, and feelings of social isolation, among other factors. The longitudinal data collection allows us to situate adolescent experiences and feelings prior to the outcome, without concern of recall bias or improper temporal ordering. Wave III of Add Health permits an examination of enlistment prior to the recent wars. Finally, many military studies exclude women, but the Add Health data permit their inclusion.

Measures

The dependent variable, post-high school activity, was constructed from Wave III data. We first assigned respondents to the military category if they had ever been in the full-time active-duty forces, the Reserves-National Guard, or both (N=803). Respondents who had no military experience were assigned to the college category if they reported at least some college (whether in college, a drop-out of college, or a college graduate, N=7,539). The remainder were assigned to the labor force involvement category - they were either working or temporarily idle (N=4,638). Between high school graduation and Wave III of Add Health, it was possible for the study members to be involved in more than one of these activities. Indeed, about half of the military enlistees who were interviewed in Wave III had some college experience. Using available information, preliminary analyses suggest that these respondents entered the military before college or at approximately the same time as they entered college (e.g., ROTC, military academies). Only 6 respondents were identified as entering the military as an officer after attaining a Bachelor's degree.

We gave priority to military enlistment because it is the central focus of the study. Therefore, the military category includes all who have enlisted, regardless of their other activities. However, exploratory analyses show no significant differences in the main effects of interest (family structure) among those in the military who have some college experience and those who do not. We also recognize a hierarchical tendency in the level of qualification/selection requirements for these post-high school activities, with college being the most selective, and labor force involvement being the least. With this point in mind, we categorized non-military respondents according to the most selective activity in which they have participated.

The primary independent variable of interest, family structure, is measured at Wave I using a series of dummy variables. Respondents may be in a 1) two- parent family with both biological parents or adoptive parents (ref), 2) single parent family, 3) step parent family, or 4) no biological parent family. Preliminary analyses show similar results for single mother (21%) and single father (3%) families, as well as mother and step father (13%) and father and step mother families (3%). Therefore, these categories are combined. Each family structure category has sufficient distribution across categories of the dependent variable to support analyses. The smallest cell is for those in no biological parent families that served in the military (n=35).

We examine three sets of mediating variables: socioeconomic status, parent-child relationships or family processes, and social isolation. All models also control for sociodemographics, aptitude (PVT), physical fitness (BMI) and grade point average (GPA). Aptitude is measured using scores from the Add Health picture vocabulary test, and physical fitness is measured as body mass index. Table 1 provides a brief description of these measures along with descriptive statistics.

Methods

We use multinomial logistic regression to model the respondents' major post-high school activity (i.e. military enlistment, college or civilian labor force; Kleykamp 2006), with military enlistment serving as the reference category. Coefficients were exponentiated to produce odds ratios for more intuitive interpretation. We present the odds of military service relative to each of the other two outcomes. Ratios higher than 1.00 indicate a positive association between the independent variable and the odds of enlistment relative to college enrollment or labor force involvement, while those less than 1.00 indicate a negative association. All analyses are conducted using the survey correction techniques that allow for

adjustments of error terms to account for the stratified sampling design and oversampling of certain groups (Chantala and Tabor 1999).

RESULTS

Table 1 presents descriptive statistics for all study variables. The majority of respondents enroll in college with no military experience (58 percent), while six percent enlisted in the military during the period of study. More than half of all study respondents lived in intact two-parent families and almost one-fourth lived in a single parent household. Fifteen and four percent lived in step and no biological parent households, respectively.

Tables 2 show odds ratios (e^b) of military service relative to college enrollment and labor force involvement. Model 1 is the baseline model, reporting the effects of family structure controlling only for sociodemographics, aptitude, and physical fitness. Models 2 through 4 add sets of proposed mediators, and Model 5 presents the results from a full model with all covariates. Table 2 shows significant differences between the likelihood of college enrollment without military experience relative to military enlistment.

Model 1 of Table 2 shows family structure effects on the odds of military enlistment relative to college enrollment without military experience. In reference to two-parent families, youth from all types of alternative families are more likely to enlist in the military than enroll in college. Model 2 shows partial support for the expectation that socioeconomic status accounts for the increased likelihood that young people from alternative families will join the military. Specifically, the association between living in a single parent family in adolescence and military enlistment is significantly explained by socioeconomic status. However, socioeconomic status attenuates but does not fully account for the effects of stepparent and non-biological parent families. In addition to the mediating role of socioeconomic status, parental education and family income have significant, negative effects on the odds of military enlistment. Welfare status also appears negatively associated, but the result is not statistically significant.

Although parental presence and involvement (Model 3) are independently associated a military enlistment relative to college enrollment, these factors do not successfully mediate the relationship between family structure and post-high school activities as we expected. With regard to social isolation, Model 4 shows lower levels of social acceptance and residential mobility to be associated with increased odds of military enlistment. Furthermore, these variables account for the difference between single parent families and two-parent families in the likelihood of military enlistment relative to college enrollment. In the full model, Model 5 of Table 2, we find robust effects of living with step parents and non-biological parents during adolescence. These two family types increase the likelihood that young people enlist.

Personal characteristics serving as control variables in these models produce rather consistent results. Young women are only about 25 percent as likely as males to enlist in the military. Each additional year of age increases the likelihood of military enlistment. We do not find net race effects when family structure is taken into account. Finally, higher GPA is associated with lower odds of enlistment relative to college enrollment.

Unlike the results in Table 2, Table 3 fails to demonstrate a relationship between military enlistment and labor force involvement, with only marginally significant effects of step parent families when controlling for SES. Socioeconomic status of the family of origin, however, does differentiate the likelihood military enlistment versus labor force involvement. Higher parental education is associated with greater odds of enlisting relative to labor force participation, while being on welfare reduces the odds of entering the military

over the labor force. These results support the notion of a hierarchy wherein the most disadvantaged enter the civilian labor force.

Finally, Table 3 shows that personal characteristics predict military enlistment over labor force involvement. Young women are much less likely to enlist, and each additional year of age increases the odds that a young person will enlist. Unlike the results comparing enlistment to college enrollment, there are race differences in who enlists with black youth about two and a half times more likely to enlist relative to labor force involvement. BMI is predictive of labor force involvement over military enlistment: higher BMI reduces the likelihood of enlistment. Also, those who had higher PVT scores and GPAs are more likely to enlist in the military relative to labor force involvement.

DISCUSSION

Despite important links between family structure and numerous young adult outcomes, limited attention has been given to the association between families and military service. Existing evidence suggests a link but considers mechanisms implicated by studies on other outcomes to a limited extent. We attempt to address this limitation by examining the relationship between adolescent family structure and military service relative to college and labor force involvement and by exploring the potential mediating roles of theoretically relevant factors, including socioeconomic origins, parent-child relationships, and social isolation. Our findings lend support for our initial expectation that alternative family structures would be predictive of military enlistment. This is general finding is consistent with available evidence (Bachman, Segal, Freedman-Doan, and O'Malley 2000; Elder, Wang, Spence, Adkins, and Brown 2010; Goldscheider and Goldscheider 1998). However, our more comprehensive attention to the mechanisms linking family structure to military enlistment produces novel findings.

Bachmann and colleagues (2000) find initially higher odds of military enlistment among those in single parent families but are able to account for this with propensity to enlist in the military. We are not able to measure propensity for military enlistment, but we find that the effect of living in a single parent family is accounted for by SES and social isolation. Thus it appears that the circumstances of life for those in single parent families, rather than parental presence, serves to link this family structure to a greater odds of military enlistment relative to college enrollment. Because the Add Health data did not collect information related to the propensity for military enlistment, we cannot know the extent to which enlistment propensity, found to explain the single parent effect by Bachmann and colleagues (2000), may be a proxy for the explanatory factors demonstrated in our analysis, namely SES and social isolation. Nonetheless, this study suggests that the financial and social-psychological incentives offered by the military may effectively attract enlistees from a burgeoning segment of the population who grow up in a single parent context.

We also find that growing up in a stepparent family can increase the likelihood that a young adult will enlist in the military. With a focus on the process of leaving home as a young adult, Goldscheider and Goldscheider's (1998) analysis shows that leaving home to attend college is less likely among those who lived in alternative family structures as adolescents, with preliminary evidence that adolescent stepparent families increase the likelihood of military enlistment. We examined potential mechanisms to understand the link between stepparent families and military enlistment given that stepparent families may invest less in college for their children (Turley and Desmond 2011) despite being socioeconomically similar to two-parent intact families and that stepparents may have poorer quality or poorly defined relationships that affect involvement and monitoring of youth. However, we were

unable to account for the greater odds of military enlistment relative to college enrollment among young people from stepparent families.

We were also unable to account for greater odds of military enlistment relative to college enrollment among those from no biological parent families. In a recent study using the Add Health data, Elder and colleagues (2010) show the effect of this “other” category on military enlistment reduced to statistical insignificance after their broader range of study considerations. Since a principle objective of this paper is to investigate theoretically motivated explanations specific to family structure effects, we do not include all of the same covariates as Elder and colleagues did. The difference in significance for this family structure effect appears to relate more to statistical matters than substantive ones. No biological parent families are the least common among Add Health respondents (particularly who have enlisted in the military; $n=35$) and combine a range of possible relationships. This, coupled with a broader range of covariates, may explain this difference between the findings of Elder et al. (2010) and our findings. A substantive understanding of the post-high school pathways of this group may be more difficult to identify given variation in experiences.

In analyses not shown, we also examined the potential mediating roles of perceived social support, the experience of multiple family structure transitions, conflict and closeness within the family, and adolescent mental health. These factors did not successfully mediate the effects of living in a step or non-biological parent family during adolescence. Future research should attempt to better address stress and alternative explanations for these persistent effects.

Family stress explanations argue that family disruptions can encourage young people to leave home and assume adult roles (McLanahan 1988; White and Booth 1985; Wu and Martinson 1993). Indeed, those from stepparent families are more likely to leave home early compared to those in two biological parent families (Mitchell, Wister, and Burch 1989). The military may be viewed, by these young people, as a route to independent adult living as it provides regular income, housing, and other benefits that promote self-sufficiency more than college enrollment or low-skilled jobs in the contemporary labor market. Therefore, stress explanations may account for the increased likelihood of entering the military compared to going to college among those from stepparent and non-biological parent families.

We found no reliable differences in the effects of family structure when comparing military enlistment to employment or other activities where the young person may also be independent of parents. This suggests that young people from non-traditional family backgrounds may be more inclined to take independent roles, rather than semi-autonomous roles like college student. Young people with pressure or demand to achieve independence from the family of origin and those whose goals and opportunities (perceived or experienced) for their futures are addressed by military recruitment efforts may be more likely to enlist. Because adolescent family structure has documented influences on these factors, research findings like ours point to another important realm of young adult outcomes that has been previously understudied.

Despite documented positive effects of military enlistment for the social and economic pathways of earlier cohorts of Americans (Browning, Lopreato, and Poston 1973; MacLean and Elder 2007; Sampson and Laub 1996), questions remain regarding whether contemporary cohorts of young people will benefit as did veterans of earlier times. Anecdotally, news and talk shows report experiences of economic hardship among military service members and recent veterans. However, Teachman and Tedrow (2007) find higher incomes among service members relative to civilians from disadvantaged backgrounds using a cohort of young people in the late 1970s-early 1980s. Moreover, the G.I. Bill allows for

college tuition assistance that may promote the educational attainment of service members. Still, it remains unclear whether contemporary military enlistment will provide a bridge to adult achievement via the benefits offered to encourage recruitment and retention. In the context of extended military involvement abroad and economic recession, the long-term consequences of contemporary military service will remain a rich area of inquiry.

This study looks at enlistment prior to wartime. Following the attacks of September 11, 2001, the risks associated with military enlistment may have become clearer as the U.S. led wars in Iraq and Afghanistan. Our sample enlisted in the military without prior knowledge of impending war. Some may have done so for the benefits offered with less consideration for the risks involved. Future research directed at understanding whether social selection into the all-volunteer force differs with the explicit threat of combat deployment would shed light on the processes in which young people make decisions to join.

This study fills important gaps by examining theoretically motivated explanations for the relationship between family structure and post-high school activities, but it is not without limitation. Importantly, our measure of family structure was taken at one point in the life course. Evidence points to significant variation in family structure across the life course (Bumpass and Lu 2000), and some research examining life course changes suggests that family structure during adolescence remains an important predictor of outcomes such as later emotional distress (Cavanagh 2008). Our approach allowed for comparability with past studies, though future research would benefit from an examination of whether this is the life course stage that is most important in shaping young adult outcomes like military enlistment. Relatedly, the data do not allow for a systematic treatment of the timing and sequencing of post-high school experiences for respondents who may have enlisted in the military, enrolled in college, and/or been involved in the civilian labor force.

As David Segal and colleagues (1998: 409) state, “The long-standing antipathy among many sociologists toward studying the military has led to a relatively small base of knowledge about this important institution.” We contribute to this gap in knowledge and suggest that studying military enlistment aids in understandings of post-high school and labor market experiences of young people. The ways in which family of origin shape young adult pathways represents a fruitful area of inquiry into the interrelation of key social institutions. Beyond academic interests in the interrelations of social institutions, information on antecedents of military enlistment may be used to support or modify armed forces recruitment policies and procedures. Knowledge of the relationship between family structure and young adult pathways out of high school has implications for family policies, which are a central part of public policy concern (Mathematica 2011). The extent to which military service will represent a positive turning point for contemporary cohorts, and thus represent a gainful pathway for young people from alternative families, remains to be substantiated. In any case, building strong families to reduce social group differentiation across opportunities in the developing life course is of well-recognized merit.

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Table 1

Proportions, Means and Standard Deviations for Post-High School Activity, Adolescent Family Structure, Socioeconomic Status, Parent-Child Relationships, Social Isolation, and Personal Characteristics

Variable	Description	Prop. , M	SD
Post-High School Activity (Dependent Variable)			
Military Enlistment	=1, otherwise=0; reference category	.062	
College Attendance	=1, otherwise=0	.581	
Employment	=1, otherwise=0	.357	
Adolescent Family Structure			
Two Parents, biological/adoptive	=1, otherwise=0; reference category	.571	
Step Parent	=1, otherwise=0	.155	
Single Parent	=1, otherwise=0	.234	
Non-Biological Parent(s)	=1, otherwise=0	.040	
Socioeconomic Status			
Parental Education	Mean of residential parents' highest grade completed (0–16)	12.056	3.121
Log of Family Income	Natural log of household income from all sources in 1994 (0–6.91)	3.603	.770
Welfare Status	= 1 if any resident parent receives public assistance, otherwise=0	.084	
Parent-Child Relationships			
Parental Presence	Number of daily occasions (i.e. go to school, return from school, eat dinner, go to bed) for which a parent is present (0–4)	2.590	.785
Parental Involvement	Average # of activities engage in with mother and father in last four weeks (0–9)	4.100	1.972
Parental Monitoring	Number of areas (i.e. food, bedtime, television) in R.'s life about which R. is allowed to make decisions (0–7)	1.822	1.553
Social Isolation			
Loneliness	How often in the past week R felt lonely (0=Never, 3=Most of the Time)	.471	.709
Social Acceptance	R feels socially accepted (1=Strongly Agree, 5=Strongly Disagree)	1.921	.762
Residential Mobility	=1 if R has lived in current residence less than two years, otherwise=0	.186	
Personal Characteristics			
Age	Age at Wave I, in continuous years (11–21)	16.102	1.682
Race/Ethnicity			
White, non-Hispanic	=1, otherwise=0	.557	
Black, non-Hispanic	=1, otherwise=0	.210	
Hispanic	=1, otherwise=0	.160	
Other	=1, otherwise=0	.113	
PVT	Picture Vocabulary Test, 14–139	101.080	14.255
GPA	Grade Point Average, 0–4.0	2.582	.737
BMI	Body Mass Index, 11–50	22.574	4.464

Source: National Longitudinal Study of Adolescent Health, (Add Health) (N=12,980)

Table 2

The Effect of Adolescent Family Structure on Military Enlistment versus College Enrollment without Enlistment: Odds Ratios from Multinomial Logistic Regression Models (Add Health: n=12,980)

	(1)	(2)	(3)	(4)	(5)
Adolescent Family Structure					
Two Parents, biological/adoptive (ref)	1.00	1.00	1.00	1.00	1.00
Step Parent	2.25 ^{***}	2.18 ^{***}	2.27 ^{***}	2.14 ^{***}	2.12 ^{***}
Single Parent	1.35 [*]	1.15	1.40 [*]	1.28	1.15
Non-Biological Parent(s)	2.51 ^{***}	2.15 ^{***}	2.51 ^{***}	2.28 ^{**}	1.99 ^{**}
Socioeconomic Status					
Parental Education		.96 [*]			.96 [†]
Log of Family Income		.70 ^{***}			.72 ^{***}
Welfare Status		.84			.78
Parent-Child Relationships					
Parental Presence			1.19 [*]		1.17 [*]
Parental Involvement			.97 [*]		.96
Parental Monitoring			1.03		1.02
Social Isolation					
Loneliness				.98	.99
Social Acceptance				1.21 [*]	1.19 [*]
Residential Mobility				1.37 [*]	1.35 [*]
Personal Characteristics					
Female	0.24 ^{***}	0.24 ^{***}	0.25 ^{***}	0.23 ^{***}	0.24 ^{***}
Age	1.07 [*]	1.08 [*]	1.08 [*]	1.08 [*]	1.09 [*]
Race (ref= Non-Hispanic white)					
Black	1.22	1.16	1.22	1.25	1.20
Hispanic	1.02	0.92	1.01	1.01	0.91
Other	1.09	1.06	1.08	1.08	1.04
Picture Vocabulary Test	1.00	1.00	1.00	1.00	1.00

	(1)	(2)	(3)	(4)	(5)
Grade Point Average	0.45 ^{***}	0.46 ^{***}	0.46 ^{***}	0.46 ^{***}	0.48 ^{***}
Body Mass Index	0.98	0.98 ⁺	0.98	0.98	0.98 ⁺

⁺ p<.10

* p<.05

** p<.01

*** p<.001 (two-tailed test)

Table 3

The Effect of Adolescent Family Structure on Military Enlistment versus Civilian Labor Force Involvement: Odds Ratios from Multinomial Logistic Regression Models (Add Health: n=12,980)

	(1)	(2)	(3)	(4)	(5)
Adolescent Family Structure					
Two Parents, biological/adoptive (ref)	1.00	1.00	1.00	1.00	1.00
Step Parent	0.85	1.26+	1.23	1.19	1.27+
Single Parent	1.01	.99	.91	.86	1.03
Non-Biological Parent(s)	0.77	.88	.78	.75	.78
Socioeconomic Status					
Parental Education		1.04*			1.04*
Log of Family Income		1.10			1.10
Welfare Status		.53*			.51*
Parent-Child Relationships					
Parental Presence			1.04		1.08
Parental Involvement			1.06*		1.05+
Parental Monitoring			.99		1.00
Social Isolation					
Loneliness				.96	.96
Social Acceptance				1.01	1.04
Residential Mobility				1.09	1.12
Personal Characteristics					
Female	0.28***	0.28***	0.28***	0.28***	0.27***
Age	1.13***	1.12***	1.13***	1.13***	1.13***
Race (ref=Non-Hispanic white)					
Black	2.47***	2.59***	2.46***	2.48***	2.59***
Hispanic	1.30	1.42+	1.30	1.30	1.42+
Other	1.58+	1.63+	1.59+	1.60+	1.65+
Picture Vocabulary Test	1.05***	1.04***	1.05***	1.05***	1.04***
Grade Point Average	1.96***	1.93***	1.94***	1.97***	1.92***

	(1)	(2)	(3)	(4)	(5)
Body Mass Index	0.96***	0.96***	0.96***	0.96***	0.96***

* p<.05

** p<.01

*** p<.001 (two-tailed test)