Military Service and Entry into First Marriage: Comparing Service Members to Civilians

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The military can act an important turning point for young adults. While enlisting in the armed forces was positively associated with entry into marriage during the first fifteen years of the all-volunteer force, the relationship between military service and entry into marriage among subsequent generations of young adults is unexplored. Using the National Longitudinal Survey of Youth 1997, this study examines the influence of enlistment on entry into a first marriage for a contemporary cohort of young men aged 18 to 27. A specific focus is to consider whether the race/ethnic gap in marriage that exists among civilians also persists for enlistees. Event-history analyses reveal that young men who served were significantly more likely to marry than their civilian counterparts. Furthermore, Whites, Blacks, and Hispanics who enlisted experienced similar odds of entry into marriage during young adulthood. These findings offer insights into pathways to marriage for social groups who are disadvantaged in the marriage market.

Marriage rates in the United States have declined and remained at a 40-year low point since 2010 (Wu 2015). This retreat from marriage has been accompanied by a historic highpoint in the age of entry into marital unions (Anderson and Payne, 2016). Changing socioeconomic opportunities are a key reason for the decline and delay in marriage. Improved socioeconomic circumstances make for more attractive marriage partners, accelerating entry into marriage (Qian 2014). Reduced economic opportunities, on the other hand, prevent disadvantaged group members (minority racial and ethnic groups, and those with less education) from securing the prerequisites to contemporary marriage, and are less likely to marry (Cherlin 2004).

One pathway to improved economic circumstances that is available to those from more disadvantaged backgrounds is military service. Military service during the first decades of the all-volunteer era (1973 – present) has served as a "springboard" to improve socioeconomic attainment because servicemen are presented with a unique set of opportunities that comparable civilians may otherwise be unable to access (Teachman 2007a; Angrist 1998). These opportunities include various health, employment, and housing benefits, which present enlistees with greater social capital and attractive partners, as access to these benefits often extends to family members (Hogan and Seifert 2010). In fact, military service has been linked to earlier entry into marriage among men in the first cohorts of the all-volunteer era (primarily through the use of the NLSY-79 dataset) (e.g. Teachman 2007b; Lundquist 2004; Sweeney 2002).

To date no research has examined the role of military service among a recent cohort of young men. Over 2.7 million young adults have served since the turn of the century and disproportionate levels of military service are experienced by Blacks (in 2015 about 17% of active duty members were Black, compared to about 13% of 18 to 44 year old civilians), while Hispanics have contributed to a growing proportion of the military over the past decade (Kelty,

Kleykamp, and Segal 2010; Military Community and Family Policy 2015; Parker, Cilluffo, and Stepler 2017; U.S. Census Bureau 2014; Wenger, O'Connell, and Cottrell 2018). A contemporary analysis of the influence military service has on entry into marriage is important as numerous shifts have occurred in the economic climate and in marriage trends since the first half of the 1980s, when the NLSY-79 reached its peak years of respondents on active duty. Furthermore, the majority of current active duty service members – and a substantial proportion of today's veterans – enlisted after 9/11, presenting this population with a set of service experiences and benefits that differ from those experienced by previous generations of service members. Such changes call into question the relevance that the previously established relationship between military service and entry into marriage has among more current enlistees and their counterparts who have not served.

Using the National Longitudinal Survey of Youth 1997 (NLSY-97), the present study aims to examine the association between military service and entry into marriage during young adulthood among a contemporary population of active duty service members and civilians. The NLSY-97's longitudinal design permits controls for selectivity into the military and into marriage, reducing the likelihood that these results are due to pre-existing characteristics. Furthermore, the NLSY-97 consists of an oversample of Blacks and Hispanics, allowing for an empirical test of the "springboard" effect, as the military provides an economic basis for marriage among young adults in disadvantaged minority groups.

The present study will expand the literature in three ways. First, I distinguish the influence of serving in a combat zone. Although previous studies have examined the consequences of service in a combat zone on marital stability (e.g. Ruger, Wilson, and Waddoups 2002), few have considered the ways in which this type of service experience

influences the likelihood and timing of marriage entry. Second, previous studies do not consider the ways in which enlisting can influence subsequent life course outcomes among the growing population of Hispanics in the United States. Military service could influence entry into marriage differently for this group compared to non-Hispanic Whites and non-Hispanic Blacks due to Hispanics' younger median age at first marriage (Payne 2012). Third, this study focuses on a contemporary cohort of young men. The labor market, marriage market, and military experiences of contemporary young adults vary from those of older generations, implying that enlistment may no longer influence marriage patterns in the same fashion as it has in the past.

Background

Military Service and Entry into Marriage across Eras

The influence of enlisting in the military on marital timing varies according to one's era of service. During eras in which enlistment was determined through the draft, such as World War II and the Korean War, military service largely delayed entry into marriage as it disrupted the lives of its service members. Young men's traditional sequencing of life events during these eras was interrupted for several years among those who were selected to serve, resulting in enlistees marrying later than those with no service experience (Kelty, Kleykamp, and Segal 2010; Elder 1986; Hogan 1981).

Following the Korean conflict, the military revised its policies regarding income and benefits to attract new recruits and incentivize current service members to stay in the armed forces, in order to maintain a large peacetime army of volunteer enlistees during the Cold War. These changes included the extension of health care benefits to active duty dependents, housing for service members' families, and increased pay for enlistees with dependents, which promoted partnerships among service members, and by 1960 military family members outnumbered

service members (Albano 1994; Dolfini-Reed and Jebo 2000). With the termination of the draft in 1973, the military continued to provide these pro-family benefits to service members as an increasing portion of married individuals enlisted in the armed forces (Albano 1994; Kelty, Kleykamp, and Segal 2010).

Current literature on military service during the first decades of the all-volunteer era points to these unique benefits as an explanation for the positive association between enlisting in the military and the odds of entry into marriage (Teachman 2007b; Lundquist 2004). Through these benefits, service members achieved levels of financial stability and employment that would have otherwise been inaccessible to these individuals, had they not enlisted (Angrist 1998). As economic stability and the accumulation of wealth have been associated with greater likelihood of entry into marriage (e.g. Cherlin 2004; Schneider 2011; Sweeney 2002), military service presented enlistees of the all-volunteer force (AVF) with the means to achieve the prerequisites to marriage. However, Teachman (2007b) presents evidence that serving on active duty at the beginning of the AVF remained significantly related to entry into marriage net of controls for income and economic stability, suggesting that other factors stimulated entry into marriage during the early decades of this service era.

Researchers have highlighted non-economic opportunities for service members of the AVF that may provide incentives to marry. Married service members, for example, are sometimes housed in an independent household with their spouse, instead of barracks or dormitories where unmarried enlistees typically reside (Kelty, Kleykamp, and Segal 2010). Qualitative reports of service member's motivations to marry reveal that residence outside of the barracks and improved living circumstances, such as living in an apartment or house, encouraged enlistees to marry (Lundquist and Xu 2014). Furthermore, pro-family programs have helped to

reduce enlistees' burden of balancing the competing roles of being a service member and a marriage partner. As both the military and marriage have been labeled *greedy institutions* (institutions which demand a large amount of time and energy from its members), those in one such institution may have previously been unable to enter into another (Segal 1986). The inclusion of programs such as free day care centers and military spouse support services, however, reduce the role incompatibility between marriage and military service, promoting entry into marriage among service members of the AVF (Teachman 2007b).

Additional factors that have been used to explain service member's higher propensity to marry include deployments, relocations, and the pro-family culture of the military. Lundquist and Xu (2014) report that some enlistees choose to marry before deployment as a way of ensuring they maintain emotional connections during times of separation from those at home. This is particularly relevant for deployments into war zones as the stressors associated with deployment into such an area are heightened. Relocations can also spur service member's entry into marriage as couples may marry to in order to stay together; especially as relocation expenses for spouses of are paid for by the military. Military policies providing benefits to the family members of those who serve, as well as the inclusion of support groups for these family members, highlights the general pro-family culture of the military. These pro-family programs can help to mediate the negative consequences associated with employment in a stressful environment, by ensuring that service members retain emotional bonds with their family members throughout their active duty period (Lundquist and Xu 2014).

Service during the first decades of the AVF was especially favorable for entry into marriage among Blacks. Within the general United States population, Blacks exhibited – and continue to experience – lower odds of marriage than comparable Whites (Lundquist 2004;

Manning and Smock 1995; Qian 2014). The marriage gap between Whites and Blacks has been partially explained by differences in economic opportunities experienced among these groups. Scholars argue that labor market stratification and Black men's greater likelihood of living in poverty reduces their marriage rates when compared to those of Whites (Lichter, LeClere, and McLaughlin 1991; Lundquist 2004; Manning and Smock 1995). Empirical evidence also suggests that Blacks place greater value on economic stability before entering marriage, exacerbating the marriage gap between Whites and Blacks (Bulcroft and Bulcroft 1993).

The institution of the military, however, presented enlistees with a vastly different environment than that of civilian life. Teachman (2007b) and Lundquist (2004) argue the military is a predominately race-blind environment, wherein service members during the first decades of the AVF holding minority race or ethnic statuses were less influenced by negative outcomes due to racial discrimination or segregation that were – and remain – prevalent outside of the armed forces. This is a result of the military's hierarchical and bureaucratic structure, where pay is determined by rank and where race does not have a strong influence on one's chances of upward mobility within the institution (Daula, Smith, and Nord 1990; Teachman 2007b). Life-course scholars refer to the military as a "bridging environment" for minority or economically disadvantaged groups, as enlistees could benefit from education, training, and resources that would not have been accessible to them in a civilian setting (Wilmoth and London 2013). Such opportunities would "springboard" disadvantaged enlistees to improved socioeconomic circumstances, and thus increase their chances of entering into marriage. Usdansky, Wilmoth, and London (2009) find support for this notion among a sample of economically disadvantaged veteran fathers at the turn of the 21st century. Specifically the BlackWhite marriage gap that is present among civilians was nonexistent for veterans who had experienced a birth before marriage.

Hispanic civilians experience levels of economic disadvantage that are comparable to those of Blacks, yet their marriage patterns are more similar to those of Whites. An explanation for such a trend is the high share of first or second generation immigrants that make up the Hispanic population, as more recent immigrants may hold cultural values that promote early entry into marriage, although empirical support for this explanation remains limited (Raley, Sweeney, and Wondra 2015). Other studies point to the early school completion and family background characteristics of Mexican Americans that favor early marriage as an explanation for their higher propensity to marry during young adulthood (Raley, Durden, and Wildsmith 2004). However, whether military service increases the odds of a first marriage among Hispanics remains unexplored in the current literature.

Overall, past research largely supports the notion that military service was positively related with entry into marriage during the first several decades of the AVF. The economic and non-economic benefits associated with enlisting in the military permitted and encouraged young adults to marry. Finally, these benefits were especially advantageous for Black and less educated men, as enlistment provided resources that their civilian counterparts could not attain.

Selection into the Institutions of Marriage and the Military

Although the link between military service and entry into marriage has been well established among prior generations and service eras, marriage trends and behaviors have shifted over the past decades. Marriage rates, for example, decreased over 50% between 1970 and 2010 (Author 2016). Furthermore, the median age of men who do marry has risen more than 4 years over this period, and continues to increase (Anderson and Payne 2016). These trends are explained by the

notion that marriage among contemporary young adults has been denoted as a marker of prestige that can only be attained after having completed an education, maintaining a steady employment, and having accumulated enough wealth (Cherlin 2004). Family scholars have emphasized young adults' increasing difficulty in reaching these prerequisites as a central reason for the retreat from marriage experienced over the past decades (Manning, Brown, and Payne 2014; Sironi and Furstenberg 2012).

Such a trend is particularly detrimental for entry into marriage among those coming from disadvantaged backgrounds. Manning, Brown, and Payne (2014) document that the decline in the proportion of women who ever married was greatest among Blacks, whereas Whites and Hispanics experienced much more modest declines. Similar trends were observed regarding women's educational attainment, as the share with a college degree or more who married did not change between 1988 and 2006-2010, whereas marriage among women with lower levels of education became less common. Earnings have also become more important for entry into marriage among recent cohorts of women, and have remain a significant predictor among men (Sweeney 2002). Finally, marriage patterns continue to be influenced by geographic region of residence, as men and women who grew up in rural areas and in the South are more likely to marry at younger ages than those who did not (Uecker and Stokes 2008). All of these factors indicate that entry into marriage after the turn of the 21st century has become selective on advantaged characteristics.

The range of education, aptitude, health, and personality standards that are necessary to enlist into the armed forces also make service members a select group. Department of Defense guidelines dictate that at least 90% of new enlistees must have a high school diploma, and that at least 60% score in the top 50th percentile (categories I-IIIA) on the Armed Forces Qualifications

Test (AFQT). Those who score in the bottom 10% of AFQT scores (category V) are unable to enlist (National Research Council 2003). Furthermore, applicants must be mentally and physically healthy, have no dependents under the age of 18 if they are not married, and cannot be under any form of judicial restraint such as probation or parole (National Research Council 2003). These benchmarks for enlistees have contributed to the recruitment of mainly persons who do not hold high levels of socioeconomic status, but who also are not from the lowest income groups (Segal and Segal 2004).

Although these enlistment standards remained relatively stable, several important factors have influenced the selection of men and women who are accepted into the armed forces. An error in the scoring techniques of the AFQT in the late 1970s, for example, placed recruits who scored between the 10th and 30th percentile (category IV) of the AFQT into the 31st to 50th percentile (category IIIB). As a result, the military accepted a large number of applicants who would not otherwise have been permitted to serve because of legislative restrictions on the number of low-scoring enlistees accepted each year (Angrist 1993; Han 2017). Additionally, the quality of recruits is highly dependent on the quantity of enlistment applications each year. Following the 2001 terrorist attacks, the military was able to raise the quality of their recruits due to increases in the number of men and women who wanted to enlist, and entry into the military became more selective on higher aptitude (Kapp 2013).

Current Investigation

Changes in marriage trends, paired with changes in the selection of those who are eligible to serve on active duty over the past several decades bring into question whether findings regarding the marriage patterns of servicemen in the early years of the AVF remain relevant among more recent cohorts. However, I expect that the today's military service members continue to be

presented with a unique set of opportunities that will promote access to the precursors of contemporary marriage. Those accepted into the armed forces, for example, are inherently employed in a work force that provides steady wages. Additionally, opportunities for upward mobility in the military offer young adults the chance to establish careers in the armed forces. Enlistees are also presented with access to various benefits that are conducive to one's transition into adulthood. These include educational and housing benefits, allowing young adults to accumulate wealth and improve their socioeconomic position. All in all, many of the mechanisms that contributed to increased risk of entry into marriage among enlistees during the first decades of the AVF continue to be relevant – if not more relevant – among contemporary enlistees. Therefore, I expect that contemporary men who served on active duty will be more likely to enter into a first marriage than their civilian counterparts.

Consistent with prior literature, I also expect these mechanisms to be more salient for young adults from disadvantaged backgrounds. Young adults holding racial/ethnic minority statuses will benefit more from enlisting than their White counterparts as minorities have, on average, more difficulty attaining the socioeconomic precursors to marriage. The military being a less stratified and discriminatory environment than that of civilian life, however, alleviates the barriers that racial/ethnic minorities face when attempting to achieve the prerequisites to contemporary marriage. As a result, I predict that among men who served on active duty, the association between active military service and the odds of first marrying will be greatest among Black and Hispanic men. However, among those serving on active duty, I expect there to be no race/ethnic differences in the odds of entry into first marriage.

I also consider variation in the odds of entry into marriage among servicemen based on experiences in the military and enlistment status. Veterans, for example, receive different

benefits after their service period from those received on active duty. Additionally, they reside in a civilian context, and must allocate funds to costs such as housing and food that were previously paid for during their time in the military. Veterans must also readjust to civilian life after service. This can involve relocations, beginning a new job or enrolling in school, and re-establishing social networks (Teachman, Tedrow, and Anderson 2015). Such transitions could have a negative influence on entry into marriage, especially considering that 44% of post-9/11 veterans reported re-entry into civilian life was difficult for them (Morin 2011). For this reason, I expect marriage will be less likely after service (when men are veterans) than during active duty service.

Finally, the various types of occupations and destinations for deployment in the armed forces present enlistees with differing experiences during their time in the military. In the present study, I consider how service in a combat zone alters the odds of entry into marriage. Men who serve in a combat zone reside on military bases where they are cut off from marriage markets. Furthermore, although not all men who serve in such a zone experience combat, deployment in a combat zone is associated with greater odds of mental health discharge (Bell et al. 2011). The emotional and behavioral complications associated service in combat zones could make young less successful in the marriage market. Service in a combat zone is also linked to a more difficult transition back into civilian life, extending the negative effects of service in such a zone to veterans (Morin 2011). I therefore predict service in a combat zone will reduce the odds of a first marriage among those who served.

Data and Methods

Data

To investigate the relationship between military enlistment and entry into marriage, I utilize the National Longitudinal Survey of Youth 1997 (NLSY-97). Sponsored by the Bureau of Labor

Statistics, the NLSY-97 is comprised of a sample of 6,748 nationally representative young men and women, and an oversample of 2,236 Blacks and Hispanics – resulting in a final sample size of 8,984 respondents (Bureau of Labor Statistics 2014). The first survey round was conducted in 1997, during which respondents were between the ages of 12 and 18 at the time of the interview, and yearly rounds have been administered through 2011. After 2011, the survey follows a biennial design. Because of the lack of information between 2011 and 2013, my analyses are restricted to the first 15 rounds of annual surveys (1997-2011). Although some attrition is present in the data, the NLSY-97 retains over 80% of originally sampled respondents throughout the first 15 rounds of the survey. Analyses are limited to young men as only 112 women reported ever entering into the armed forces between 1997 and 2011. Furthermore, the sample of men is restricted to respondents who were not missing for more than three consecutive interviews. *Variables*

My primary dependent variable is a dichotomous measure of entry into a first marriage, based on respondents' date (month and year) of first marriage. Respondents are coded as 0 for each survey month prior to this date to signify being "never married". Once their date of first marriage is reached, respondents are coded as a 1 to signify entry into marriage.

A time-varying measure of active duty service is created using weekly employment histories to serve as my primary independent variable. Respondents are coded as a 1 if they were enlisted during any number of weeks in a given month, otherwise 0. In my sample, 239 (or about 13% percent) of men reported serving in the armed forces at some point between 1997 and 2011. Among the sampled men who enlisted, 139 were White (58%), 51 were Black (21%), and the remaining 49 were Hispanic (21%).

Once participants transition from active duty to any other employment status, they are considered to be a veteran. If men left the military for a period of time and returned in a later month – in which case they would simultaneously be on active duty and a veteran – they are coded as active duty status during the person-months in which they returned in order to maintain mutually exclusive categories. When they once again report any employment other than active duty, they are considered veterans. A time-varying measure representing the total number of months respondents were on active duty was created to account for differences between career service members and those who only enlisted once. To examine the influence of serving in a combat zone during one's enlistment period, I make use of a question asking all veterans and active duty members if they ever served in a combat zone.

A set of co-variables are included to reduce the odds of spurious results. These controls include a measure of the respondents' age in months; dichotomous measures of respondents' race and ethnicity; educational attainment; school enrollment status; respondents' Armed Services Vocational Aptitude Battery (ASVAB) score distribution percentile; whether the respondent reported it was *likely* or *very likely* they would join the military in the future; income (adjusted to 1997 dollars); whether the respondent lived with both of their parents at age 12; whether the lived in a rural area at age 12; and an indicator of residence in the South at age 12. *Methods*

The data are converted to person-months to conduct discrete-time event-history analyses assessing the odds of entry into a first marriage. Starting at age 18, respondents are observed until they marry, reach their 27th birthday, reach the 15th survey round, or attrite from the survey. Of the original 4,599 men in the NLSY-97, 764 are lost to attrition and 6 were dropped from the analytical sample because they married prior to their 18th birthday. Men in the "other/mixed"

race/ethnic category are also dropped because of insufficient number who reported ever enlisting (n = 34). To address issues of selection into the military and ensure the sample of civilians is comparable to those who enlist, I restrict civilians to men who scored above the 15th percentile of ASVAB scores (enlistees are required to score above the top 10 percentile AFQT score, a subset of ASVAB tests), rated their health as *good*, *very good*, or *excellent* at age 18, and who never experienced an arrest prior to, or during, the analysis period. Finally, analyses are restricted to the remaining 1,840 men who reported on how likely they are to join the military and on their experiences at age 12.

Race/ethnic differences in the influence of military service are tested with interaction terms. Analyses among the subsample of men who reported active duty during the analytical period are also conducted, and include measures of service experiences (e.g. veteran status, length of service, and service in a combat zone) to examine differences in the odds of marriage based on experiences in the military.

Results

Descriptive Results

Table 1 presents the weighted descriptive statistics of men at ages of 18 and 27, indicating as to how the characteristics of the analytical sample changes over time. It should be noted that these estimates represent never married men because respondents are omitted after entry into marriage. Therefore, the sample size decreases from age 18 to 27, and estimates of time-invariant descriptive statistics may not be consistent across ages due to the omission of men as they married.

In the first analytical month, 0.06% of the men married. By their 27th birthday, the share of men who had married grew to 35% for the sample as a whole. However, this share varied by

military enlistment status, as more than half of men who served at some point between 1997 and 2011 had married by age 27, compared less than one third of those who never served.

Among men who enlisted after 1997, about 6% were on active duty at the age of 18, and 38% reported being on active duty during the month they turned 27. The average age of enlistment for this cohort of men was 22 (not shown). Slightly over one-third of ever enlisted men born between 1980 and 1984 served in a combat zone. Those who served spent on average 3 years on active duty by their 27th birthday.

The majority of the sample is non-Hispanic White, and similar shares reported being non-Hispanic Black and Hispanic. The Hispanic sample was about 60% Mexican, 12% Puerto Rican, and 2% Cuban, with the remaining quarter being of other Latin American or Hispanic descent (not shown). Most men had less than a high school education at the age of 18. By the time they reached the age of 27 however, the modal educational group was at least a four years of college (41%). On their 18th birthday, 72% of men were enrolled in school, and by age 27, enrollment declined to about 12%. More than half of enlistees and civilians reported living with both parents at the age of 12. Furthermore, about one quarter of these men lived in a rural area and about three in ten lived in a Southern state at the age of 12.

** Table 1 about here **

Figure 1 presents the proportion of men who married between the ages of 18 and 27, by enlistment status and race/ethnicity. A greater proportion of service members in each race/ethnic group married between these ages, compared to civilians. Black civilians had the smallest shares of entry into marriage, followed by civilian Whites and Hispanics, who experience similar shares of entry into the institution. Among those who enlisted, Hispanics had the greatest share of men

entering marriage by age 27, whereas White and Black service men experience similar patterns of entry into marriage.

** Figure 1 about here **

Multivariate Results

Discrete-time event history models predicting entry into marriage among men born between 1980 and 1984 are presented in Table 2. Interpretations of the multivariate results follow the recommendation of Benjamin et al. (2017) and use p < 0.005 as the threshold for significance concerning associations that have not been established by prior literature (particularly for findings surrounding the effect of military service on the odds of marriage for Hispanics); otherwise p < 0.05 is used. Model 1 uses a quadratic function of age (in month) and active military service to model the odds of entry into marriage, and suggests that men who are in the military experience odds of a first marriage that are [(2.64-1)*100] = 164% greater than men who are not serving, when only age is included as a control. Model 2 adds the remaining controls. The odds ratio of active military service remains statistically significant, suggesting that men who are in the military are 128% more likely to marry than men who are not, net of other covariates. Supplementary analyses were conducted to examine a scenario in which young men marry in anticipation of (i.e. shortly before) enlisting in the armed forces, and yields similar results to those presented in Table 2.

** Table 2 about here **

Interaction terms between active military service and racial/ethnic status are added in Model 3 of Table 2. Active military service increases the odds of marriage for Whites by 98%. Altering the race/ethnic group used as the reference category in this model reveals the influence of active military service on the odds of marriage for different groups. These odds ratios are

presented in Figure 2. The association between enlistment and marriage is greatest among Hispanics, who experience odds of entry into marriage that are 334% greater than Hispanic civilians. Similarly, the odds of a first marriage among Black men are 166% greater for those in the military than Blacks who are not enlisted. The influence of active military is smallest among White men, although these men are nearly twice as likely to experience a first marriage if they are in the military, net of socioeconomic and demographic factors.

** Figure 2 about here **

Figure 3 uses Model 3 of Table 2 to compare the predicted probabilities of entry into a first marriage by age 27 for men who never serve in the military and those who spend four of their young adult years on active duty. In calculating these probabilities, values for controls are held at their mean. The predicted probabilities of experiencing a first marriage by age 27 for Whites and Hispanics with no service experience are 30% and 29%, respectively. Among Blacks with no service experience, on the other hand, there is a 22% chance they will have been married by the age of 27. Among each of these groups, the predicted probability of marriage is greater for men who served for four years. Based on this model, there is a 35% chance that White men who served in the military will have married by their 27th birthday, and 29% chance that Black men who served will have married by this age. Hispanic men who served on active duty for four years have the greatest predicted probability, with a 46% chance of experiencing a first marriage by age 27.

** Figure 3 about here **

Although active military service increases the odds of marriage for each race/ethnic group considered, I also consider whether the influence of active military service significantly differs across racial/ethnic groups. I replicate Model 3 from Table 2, but reverse code the

dichotomous measure of active military service to represent civilian status, such that 1 = not on active service and 0 = active service (not shown). Including this measure alters the reference group for the influence of military service, and the coefficients for Blacks and Hispanics now indicate whether racial/ethnic minorities in the military experience odds of marriage that are different from those of White servicemen. These coefficients are presented in Figure 4. Relative to Whites on active duty, Blacks who are also serving experience nearly identical odds of marriage. Likewise, Hispanic servicemen, experience odds of marriage that are not statistically different from those of White and Black servicemen.

** Figure 4 about here **

Table 3 presents the odds ratios of entry into marriage among the subsample of young men who enlisted. Model 1 indicates that the risk of entry into marriage is significantly lower before men's active duty period when no controls are included in the model. Model 2 adds a dichotomous indicator of service in a combat zone. This variable does not reach statistical significance, suggesting that serving in such a zone is not associated with the odds of entry into marriage. The remaining control variables are introduced in Model 3. Net of these covariates, the odds of marriage are about 52% lower prior to enlistment, and no different as a veteran. When only service members are considered, Blacks do not experience significantly different odds of marriage than Whites. Hispanic men who enlisted experience odds of marriage that are 67% greater than those of Whites, although this estimate should be interpreted with caution as it has not been established by prior literature and does not reach the p < 0.005 significance threshold (Benjamin et al. 2017).

** Table 3 about here **

Concerning the predictions, results from Table 2 support my expectation that men on active duty will be more likely to marry than their civilian counterparts as the association between of active military service and entry into marriage is significant and positive for each racial/ethnic status. My prediction that there will be no race/ethnic marriage gap among those who enlist is also supported as the odds of experiencing a first marriage do not statistically differ for enlisted White, Black, and Hispanic men. My third prediction that veterans will be less likely to enter into a first marriage than men on active duty is not supported through these analyses, as those with veteran status experienced odds of marriage that were similar to those currently serving. Finally, service in a combat zone does not significantly alter the odds of entry into marriage, providing no support for my fourth prediction.

Discussion

Prior research finds that military service was positively associated with entry into marriage among the first generations of the All-Volunteer Force. The event history analytical approach used to examine this relationship among later cohorts of service members provides evidence that military service continues to be linked to higher odds of a first marriage among young adult men. In a contemporary context where marriage is restricted to those with the economic means to enter the institution (Cherlin 2004), and young adults experience greater difficulty in attaining financial independence than prior generations (Sironi and Furstenberg 2012), these results indicate that enlistment in the armed forces is a pathway conducive to transitioning into adulthood. Given that civilian marriages have become more select among recent generations of young adults, but that the benefits associated with enlistment have remained consistent, military service may promote marriage more today than it did for those who enlisted during the first

decades of the AVF. Examining whether there are cohort differences in the association between military service and the odds of marriage should be considered by future research.

Consistent with prior work (e.g. Lundquist 2004; Usdansky et al. 2009), the analyses conducted in the present study also indicate that the military remains an environment where the marriage gap between Whites and Blacks is nonexistent. The current study extends prior research on the marriage gap in the armed forces, by finding no significant race/ethnic difference in the odds of a first marriage for Hispanic men who enlist between the ages of 18 and 27. Taken together, the results support the notion that military service remains an institution that can "springboard" racial/ethnic minorities to increased levels of entry into marriage.

The increased odds of a first marriage experienced by young men who enlisted are most relevant during periods of active duty and as veterans. With the exception of age, none of the socioeconomic and demographic factors that significantly influenced the odds of a first marriage among the sample of enlistees and civilians (e.g. income and school enrollment) altered the likelihood of marriage among the subsample of only men who served. Such a finding could reflect egalitarian treatment of recruits by the institution, regardless of prior characteristics that may contribute to disadvantaged outcomes in a civilian context. For this reason, the military is a pathway to adulthood that is most salient among men from vulnerable populations. The high prevalence of Blacks, and the growing population of Hispanics, on active duty is indicative that young men holding minority group statuses take advantage of the opportunities provided by enlisting, and achieve certain markers of adulthood (e.g. obtaining employment, financial independence, and forming a union) more quickly than their civilian counterparts (Parker, Cilluffo, and Stepler 2017).

It is possible that the nonsignificant effect of service in a combat zone is a result of two influences that operate in opposite directions. On one hand, previous work suggests that enlistees are more likely to marry when they find out they are getting deployed (Lundquist and Xu 2014). On the other, service in a combat zone is lengthy and can cut off servicemen from potential partners in the marriage market. However, due to the time-invariant nature of the measure, analyses can not to distinguish between these opposing effects. Additionally, the measure only asked if respondents ever served in a combat zone or warzone, and does not indicate whether service members experienced combat. Therefore, the combat measure may not yield significant findings as it does not adequately distinguish those who faced exposure to serious combat from those who did not. A question allowing researchers to make this distinction would be a valuable addition for research on the influence of military service experiences on later life outcomes.

Future studies regarding the influence of military service on marriage behaviors should consider expanding this research in several more ways. One avenue for future literature is to examine the ways in which the presented findings are relevant among populations of female service members and those who reach beyond the age of 27. In 2011, about 15% of those on active duty were women (Clever and Segal 2013). However, the present study is unable to consider young adult women who enlisted due to an insufficient sample size. Additionally, the data in the current investigation are right censored, and men who were not married by age 27 could have married or enlisted in later years. There are also selection processes that can influence whether servicemen re-enlist in the military (Asch et al. 2009). The current analyses control for length of service but do not distinguish career service members from those who only serve one term, and the association between military service and entry into a first marriage could differ as men age into adulthood and reach higher ranks in the military. Furthermore, data limitations

prevented analyses from distinguishing men who served because of a call-up from the Reserves or National Guard. Prior literature suggests White men on Reserve duty during the first decades of the AVF experienced higher odds of marriage than their nonveteran counterparts. Likewise, White veterans who served during this time were also more likely to marry than their counterparts who never served (Teachman 2007b). Whether this continues to be true for more recent generations of veterans and Reserves or National Guard members should be considered by subsequent studies.

Another avenue for future research is to consider the specific factors that increase the odds of marriage among servicemen. Military service offers enlistees a variety of assets that are linked to marriage, such as employment, benefits (e.g. housing and health insurance), and a steady income. I expect all of these factors mediate the positive relationship between active duty and the risk of marriage, but the present study does not determine which assets contribute the most to service member's increased risk of marriage. Additionally, not all civilians experience the same pathways to adulthood. Some further their education by enrolling in universities, whereas others pursue non-military employment or are idle after high school. These various pathways have implications for the resources men and women gain throughout their young adult years, leading to differences in the timing and odds of entry into marriage. While I do not specifically consider the full range of pathways, I do include indicators that measure education, enrollment, income, and ASVAB scores of respondents, along with precursor characteristics such as family background. Examining how enlistment in the military influences the transition to adulthood relative to these various pathways, and by considering factors associated with each pathway (e.g. different types of benefits), could provide policy-makers with more insights to ways of influencing marriage patterns among non-military populations.

Finally, future research should consider the role of cohabitation. Prior literature highlights the growing presence of premarital cohabitation and its influence on men and women's decisions to marry. Although many cohabiting unions end in dissolution, cohabitation is positively associated with entry into marriage among those from advantaged backgrounds (Lichter, Qian, and Mellott 2006; Manning and Smock 1995; Oppenheimer 2003). Lemmon and colleagues (2009) find a positive relationship between military service and the odds that a cohabiting union will become a marital one within the following year among male enlistees, but like much of the prior research on military service and union formation, this study relies on a sample of men who transitioned to adulthood in the 1980s.

Overall, this study reinforces the claim that the military is a viable path to adulthood, especially among disadvantaged young men and women (Settersten 2012). By addressing the gaps discussed above, policy-makers can gain a better understanding of the effective pathways to adulthood for a generation of young men and women who have found it increasingly difficult to do so.

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Tables

Table 1. Weighted Descriptive Results of Unmarried Men at Select Ages

	Ci	vilians	Ever	Enlisted	Total Sample	
	Age 18	Age 27	Age 18	Age 27	Age 18	Age 27
TV Ever Married	0.07%	31.67%	0.00%	55.39%	0.06%	34.68%
TV Active Military Service	n/a	n/a	6.20%	38.37%	0.79%	3.38%
TV Veteran Status	n/a	n/a	0.71%	58.16%	0.01%	5.13%
TI Service in a Combat Zone	n/a	n/a	35.97%	37.45%	4.46%	3.30%
TV Length of Service (in months)	n/a	n/a	0.25	36.76	0.03	3.24
TI Will Likely to Join the Military	15.00%	14.66%	31.66%	25.22%	17.12%	15.59%
TI Race/Ethnicity						
White	78.52%	76.83%	73.66%	76.52%	77.90%	76.80%
Black	10.38%	11.64%	12.57%	15.60%	10.66%	11.99%
Hispanic	11.10%	11.53%	13.78%	7.88%	11.44%	11.21%
TV Education						
Less than High School	50.71%	11.55%	53.94%	7.12%	51.12%	11.17%
High School	47.92%	19.05%	45.13%	33.65%	47.57%	20.34%
Some College	1.36%	26.36%	0.94%	40.47%	1.31%	27.61%
4+ Years of College	0.00%	43.03%	0.00%	18.63%	0.00%	40.88%
TV School Enrollment	74.28%	11.44%	56.85%	15.25%	72.06%	11.77%
TI ASVAB Score	60353.98	60289.84	55439.29	54697.33	59729.65	59796.78
TV Income (adjusted to 1997 dollars)	\$2,447	\$21,713	\$3,019	\$22,458	\$2,519	\$21,779
TI Living with Both Parents at Age 12	60.53%	58.32%	52.78%	53.43%	59.54%	57.89%
TI Residence a Rural Area at Age 12	25.91%	24.18%	22.98%	25.59%	25.54%	24.30%
TV Residence in the South at Age 12	29.60%	29.58%	38.25%	36.97%	30.70%	30.23%
Unweighted N	1,601	1,119	239	110	1,840	1,229

Source: National Longitudinal Survey of Youth 1997

Note: TV = Time Variant; TI = Time Invariant; All estimates are weighted

Table 2. Odds Ratios from Discrete-Time Logistic Regression Models of Entry into Marriage

	Model 1	Model 2	Model 3
Active Military Service	2.64 ***	2.28 ***	1.98 ***
How Likely to Join the Military		1.26 *	1.25 *
Race/Ethnicity (ref. = White)			
Black		0.73 **	0.72 **
Hispanic		1.10	0.99
Education (ref. = High School)			
Less than High School		0.89	0.90
Some College		0.90	0.90
4+ Years of College		0.92	0.91
School Enrollment		0.73 **	0.73 **
ASVAB		0.99	1.00
Income/1000		1.02 ***	1.02 ***
Living with Both Parents at Age 12		1.14	1.14
Residence a Rural Area at Age 12		1.20	1.19
Residence in the South at Age 12		1.12	1.12
AMS*Black			1.35
AMS*Hispanic			2.20 *
Age in Months	1.24 ***	1.24 ***	1.24 ***
Age in Months Squared	0.99 ***	0.99 ***	0.99 ***
Constant	0.00 ***	0.00 ***	0.00 ***

Unweighted N = 174,897 person-months

Source: National Longitudinal Survey of Youth 1997

AMS = Active Military Service *p<0.05; **p<0.01; ***p<0.005

Table 3. Odds Ratios from Discrete- Time Logistic Regression Models of Entry into Marriage among Men who Enlisted between 1997 and 2011

	Model 1	Model 2	Model 3
Military Service Sequence (ref. = Active Military Service)			
Before Service	0.51 *	0.45 *	0.48 *
Veteran Status	0.75	0.74	0.75
Service in a Combat Zone		0.77	0.82
Length of Service (in months)		0.99	1.00
Race (ref. = White)			
Black			0.75
Hispanic			1.67 **
Education (ref. = High School)			
Less than High School			1.19
Some College			1.10
4+ Years of College			1.36
School Enrollment			0.77
ASVAB			1.00
Income/1000			1.00
Living with Both Parents at Age 12			0.83
Residence a Rural Area at Age 12			0.99
Residence in the South at Age 12			1.11
Age in Months	1.22 **	1.22 **	1.21 **
Age in Months Squared	0.99 *	0.99 *	0.99 *
-			
Constant	0.00 ***	0.00 ***	0.00 ***

Unweighted N = 19,788 person-months

Source: National Longitudinal Survey of Youth 1997

AMS = Active Military Service *p<0.05; **p<0.01; ***p<0.005

Figures

Figure 1. Cumulative Proportion of Ever Married Men, by Race/Ethnicity and Enlistment Status

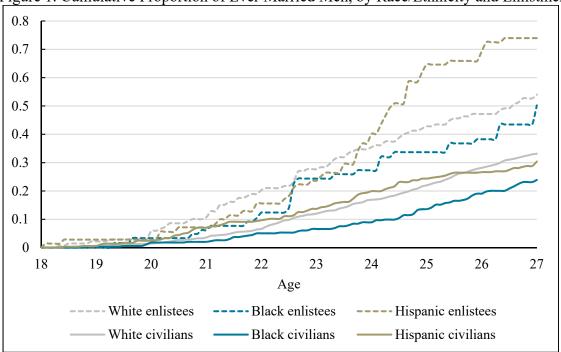
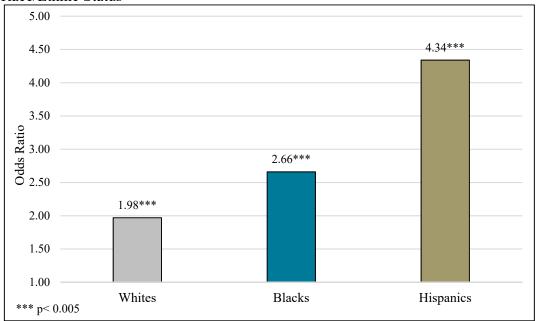
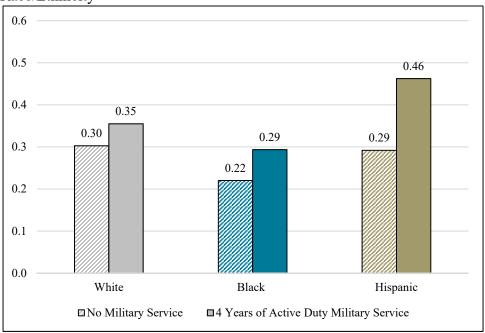


Figure 2. Effect of Military Service on the Odds of Entry into Marriage for Each Racial/Ethnic Group, Compared to Civilians with the same Race/Ethnic Status



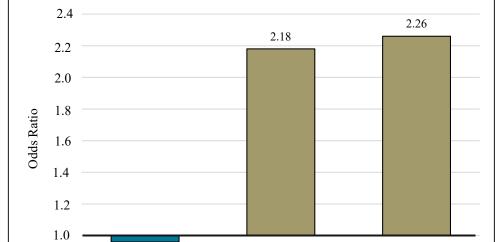
Based on Table 2, Model 3

Figure 3. Men's Predicted Probability of Entry into First Marriage before Age 27, by Active Military Service Status and Race/Ethnicity



Based on Table 2, Model 3

AMS = Active Military Service



0.96

■Blacks (ref. = Whites)

0.8

Figure 4. Effect of Being on Active Duty on the Odds of Marriage for Whites, Blacks, and Hispanics

Based on Table 2, Model 3; Reverse Coding of Active Military Service (described on p. 18)

■ Hispanics (ref. = Whites) ■ Hispanics (ref. = Blacks)