Community Origins and Individual Characteristics of New Military Enlistees, 1990 - 2008

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Introduction

Since the 1973 transition to the All Volunteer Force (AVF), the demographics of active duty personnel have become more racially and ethnically diverse, and an increasing proportion of soldiers are now women. Enlistment has also become more spatially concentrated, with rural communities and small towns sending a disproportionate share of their young adults into the military. These trends have implications for the life trajectories of the adolescents who choose to join the military, as well as the communities that produced them. The paper I propose will exploit a unique data set, described below, to tease out the interactions between these two processes. Specifically, I will identify: 1) the demographic and human capital characteristics of the men and women who join the United States military, as well as their spatial distribution; 2) the social and economic characteristics of communities that send a disproportionate number of their young adults into the armed forces; and 3) the relationship between these micro- and mezzo-level characteristics. This paper seeks to move the discussion beyond the current focus on individual-level predictors of military enlistment, or on broad generalities about the geographic origins of active duty personnel, to a more synthetic appreciation for the contributions of individual and community features. If we know that the characteristics of young adults most likely to join the military have changed, are there further distinctions based on the kind of community they "come from?" Do we find evidence that in some community contexts, the military appears to "cream" the most promising young people, while in others, adolescents appear to regard the military as an employer of last resort? And how do shifts in community-level social and economic profiles affect the calculus of decision-making, rendering the military a more or less attractive option for young people transitioning to adulthood?

Changing Demographic Characteristics of Military Personnel

The military is the nation's largest employer, and represents a key institutional site of state leverage on processes of stratification and inequality. The armed forces represent the main axis of state intrusion into the transition to adulthood for a sizable minority of the American population, and may have significant social mobility consequences across the life course. For low-skilled young workers who are at elevated risk of unemployment, the military can provide stable employment, access to health care, and occupational training. Veterans also represent a key group of recipients of redistributive social policy, including VA home loans, preferences in public employment, GI Bill educational benefits, and the provision of health care for the indigent or those who have injuries or medical conditions related to their time in the military.

Changes in the prevalence of exposure to the military, as an institution, or in the kinds of people who are employed by the military can highlight the change in opportunities for the state to equalize educational and occupational outcomes. African Americans and working class whites are over-represented among today's active duty military personnel (Fernandez 1996, Segal and Segal 2004), suggesting that the effects of institutional participation are now concentrated among specific groups. This demographic shift occurred against a backdrop of rising levels of human capital (Asch et. al. 2001, Day and Bauman 2000) and a shrinking proportion of the general population who have prior military experience (Segal and Segal 2004). To the degree that the armed forces are able to provide experience, training, and benefits that will help these young adults overcome disadvantages they face in the civilian labor market, it may then serve as a consequential "social leveler" for the individuals who join the institution.

Communities of Origin

American states and communities are not represented in the armed forces in the same proportions they are among the civilian U.S. population. That is to say, some states send more than their "fair share" of young adults into the military, while others have relatively few former residents in uniform. Southern states tend to be over-represented among active duty personnel, as do rural states in the West. In general, the Northeast and Midwest supply a smaller percentage of military personnel than would be expected. Rural communities also provide a disproportionate share of military staff. Although only one in five U.S. adults lives in a rural community, an estimated 45% of armed forces personnel are from rural areas, as are 26% of casualties in that have occurred during the current US military operations in Iraq and Afghanistan (Halseth 2007; O'Hare and Bishop 2007; Tyson 2005).

In addition to disparities based on state of residence and rural status, the spatial concentration of recruits likely results from variation in adolescents' prior exposure to someone with military experience and its effects on propensity to enlist in the military (Brown and Rana 2005). The social context in which adolescents decide to join the armed forces, then, has implications for the distribution of geographic origins of military personnel. For example, young men whose fathers had military careers are more likely to enlist than are the sons of other men (Faris 1981). The same is true for adolescents from communities with a larger military presence, as measured by the share of active duty military personnel among a county's workers, although the effect of military presence varies by race and ethnicity (Kleykamp 2006). Higher enlistment rates among young adults from the South may be related to the concentration of military installations in Southern states, or to the large share of veterans who live in that region. Evidence further suggests that the targeted location of recruiters and recruitment programs also may influence the spatial distribution of new military accessions. For example, the concentration of Junior Reserve Officer Training Corps (JROTC) programs in inner city high schools (Coumbe et. al. 2008), combined with the higher enlistment rates among students who participate in JROTC programs (Pema and Mehay 2009) likely means that specific urban areas are also disproportionately represented among those in uniform.

Many of these geographic disparities in "sending communities" also appear to be linked to the economic prospects of the young adults who live there: states and communities with declining economic profiles send more people into the armed forces, and places where non-military opportunities are plentiful typically send fewer (Brown 1985). The economic logic associated with spatial variation in enlistment rates is supported by temporal fluctuations in recruitment patterns: both the number and qualifications of new military applicants are generally tied to economic conditions, including the young adult unemployment rate and comparison between civilian and military pay rates (Asch et. al. 2009; Dale and Gilroy 1984).

The military also likely plays a role in redistributing young adults throughout the country, by virtue of the concentration of training facilities and bases in specific Southern and Western states (Barnes and Roseman 1981; Office of the Deputy Under Secretary of Defense, Installations and Environment 2008). For example, while 775 young adults from Montana joined the military in 2008 (DOD Data), only about 3,000 military jobs were located there (U.S. Census Bureau 2009). Assuming that these Montanans each remain in the military for the average six-year term of service, we can expect 4,650 men and women from Montana are in the active forces at any given time. Arithmetically, even if we assume that all of the military personnel stationed in Montana are from that state – a clearly erroneous assumption – the

remaining 1,650 young Montanans on active duty must have moved out of that state, roughly one-third of all military personnel from Big Sky Country, or one-percent of the population of Montanans who were aged 18-29 in 2008. To the extent that the military "creams" the most capable young adults form these communities, it may be facilitating an internal "brain drain."

Following separation from the military, unmarried personnel are likely to move back in with their parents, reflecting that for many, the relocation associated with being in the armed forces is viewed as temporary (DaVanzo and Goldscheider 1990, White and Lacy 1997). In recent years, as increasing shares of military personnel are exposed to overseas deployment and combat, these returning soldiers, airmen, and marines are likely to bring with them physical, cognitive, and psychological scars, meaning that the identification of communities with high rates of institutional sending is critical in location selection for provision of adequate services for these men and women as they return from battle.

Data and Planned Analysis

I will pursue questions related to the individual characteristics and community origins of new enlistees with a unique set of data I obtained from the Pentagon's Office of the Secretary of Defense and Joint Staff. These data include a variety of individual-level characteristics for all new active duty military enlistees in 1990, 1995, 2000, 2005, and 2008, including the state, city, and ZIP code for their hometown of record. These micro-level records consist of the month and year of each individual's accession to the military, the term of their initial enlistment contract, and the service branch they entered. It also includes their date of birth, gender, race, ethnicity, number of dependents, and marital and citizenship status. Finally, each new enlistee's level of educational attainment, their score on the Armed Forces Qualifying Test (AFQT) – the standardized test used to both screen applicants and assign individuals accepted into the military to their initial occupational specialty – and whether their admission required a waiver of standard entrance guidelines, is detailed. A brief summary of selected demographic and human capital characteristics over the two decades included in this dataset is presented in Table 1.

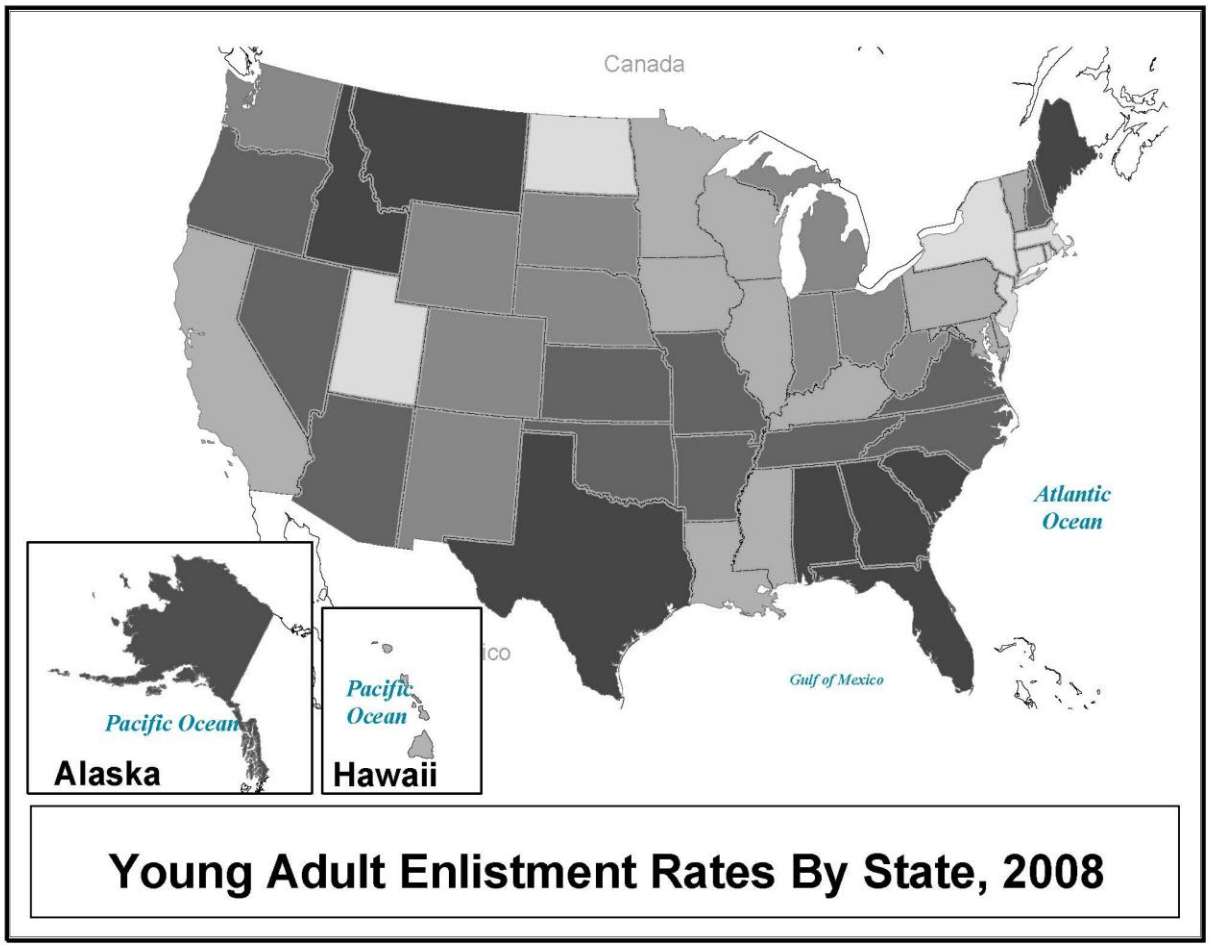
Table 1. Select Characteristics of New Military Enlistees, 1990 – 2008

Year	Pct. Female	Pct. Black	Pct. Hispanic	Median AFQT	Pct. Non-Citizen
1990 (N=231,535)	13.11	20.66	6.83	58	2.80
1995 (N=173,637)	17.37	18.53	8.80	59	3.56
2000 (N=188,720)	18.53	20.20	10.87	56	4.43
2005 (N=160,771)	15.28	12.56	13.80	60	3.66
2008 (N=188,123)	15.76	14.27	14.25	57	3.28

As Table 1 demonstrates, the composition of new entrants to the armed forces has shifted fairly dramatically over time. The relative shares of women and blacks in uniform have fluctuated, although women now represent a larger proportion, and blacks a smaller proportion, of all new enlistees than was true two decades ago. Hispanic representation has monotonically increased, and Hispanics are now represented in the same relative shares as are blacks.

Combined, these groups provide close to one-third of all new military personnel. While military experiences were once the purview of young white men, the institution now plays an important role in the transitions to adulthood for an increasingly diverse group of young adults. Given the persistence of high levels residential segregation by race and ethnicity throughout the United States, these descriptive statistics also suggest that the burden of institutionally-linked out-migration may be concentrated among particular kinds of "sending" communities.

The inequality in spatial distribution of enlistment is presented in extremely broad strokes in Figure 1. This figure depicts the rate of military enlistment by state in 2008, calculated as the number of new accessions divided by the total population of young adults aged 18 – 30.[1] It shows that states with the highest enlistment rates are concentrated in the south and west. Indeed, with the exceptions of Maine and Missouri – two states with largely rural populations – all 15 of the states with the highest rates of enlistment are in these two regions.



With this project, I plan to first identify significant changes in demographic and human capital characteristics of military personnel. I will then use Summary Tape Files (and Summary

[1] Note that military staffing policy currently allows new enlistments up to age 42. However, given the relatively small number of these older adults who join the armed forces for the first time, I use a more restricted population base in the denominator.

Files) produced by the United States Census Bureau, linked using each individual's home ZIP code, and calculate overall and race- and gender-specific enlistment rates for all U.S. ZIP codes, to specify community characteristics of high- and low-enlistment communities. These aggregated features will include the poverty rate and median income, human capital characteristics of the adult population, and the racial, gender, and age composition of the population. Beginning with 2000 data, I will employ the Census Bureau's Zip Code Tabulation Areas (ZCTA) to approximate the characteristics of ZIP codes. For 1990 and 1995 data, I will use the Missouri Census Data Center's online crosswalk which identifies all census tracts contained within a ZIP code, including weighted population indicators for census tracts that cross ZIP code boundaries (http://mcdc2.missouri.edu/websas/geocorr90.shtml). Note that there will be some geographic "slippage" because census tracts, and ZCTAs, do not have perfect spatial correspondence to ZIP codes adhered to by the U.S. Postal service and used in administrative data. However, the effect of this lack of precision is anticipated to be relatively minor, as most ZCTAs correspond to ZIP code boundaries (see http://www.census.gov/geo/ZCTA/zcta.html for additional information). Additionally, the 1990 data will be weighted to allocate community-level characteristics based on the share of a census tract residing in each ZIP code.

I will use regression analyses to predict which community-level social and economic indicators are linked to high and low levels of military enlistment in each decade. These will include lagged effects to identify, for example, whether recent increases or declines in the local unemployment rate affect military enlistment. Finally, with a multilevel modeling approach, I will identify whether the contextual effects on enlistment behavior have changed over time, and how community characteristics might differentially impact enlistment probabilities for adolescents and young adults with specific demographic or human capital profiles.

Concluding Thoughts

In the All-Volunteer Force era, these questions have implications not only for the individuals and families who are directly affected, and for the communities that serve as population reservoirs for this institution, but for broader patterns of social inequality. Today's military barracks are largely occupied by African Americans, young adults from Southern states and rural areas, and those without a college degree – and for many of these young people, joining the armed forces represents an intentional effort at upward socioeconomic mobility. The degree to which the military facilitates – or fails to facilitate – this process is consequential for us all.

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