Veterans' Migration Patterns and Population Redistribution in the United States, 1960 - 2000¹

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The literature on the effects of the U.S. military – as an institution – on broad trends in population movement is scant. At the individual level, we know that active duty military personnel (Miller 1969, Segal and Segal 2004) and working-age veterans (Bailey 2008) have higher rates of migration than do people with no history of military employment. Evidence also suggests that elderly veterans may have higher rates of spatial mobility than elderly nonveterans, and that destination selection for veterans and nonveterans follows divergent patterns (Barnes and Roseman 1981, Cowper et. al. 2000).² Markusen and colleagues (Ellis et. al. 1993, Markusen et. al. 1991) have identified the role that military research and development hubs have played in attracting highly-skilled *civilian* employees to emerging population centers in the south and west. With the exception of widespread Post-War suburbanization facilitated by VA home loans (Chevan 1989, Glenn 1973, Skocpol 1997), however, the question of how the elevated rates of spatial mobility – particularly among *working age veterans* – might influence population redistribution within the United States remains largely unexplored.³

In a broad sense, differences between veterans' and nonveterans' spatial mobility patterns may point to a potential policy lever on the process of population redistribution. Because the paper I propose focuses on prime working-age men, the aggregate patterning I identify may have implications for the labor markets and human capital pools of the various states. This paper will use five decades of population-level census data - PUMS files for 1960, 1970, 1980, 1990, and 2000 - to identify the way in which elevated rates of veterans' migration have affected statelevel population gains and losses. These effects may be substantial, given that my dissertation research identified consistent and statistically significant differences in the predicted probability of having migrated within the past five-year interval among prime age black and white men (see Figures 1 and 2). Holding all other variables constant, the likelihood that the "average" white veteran has recently migrated is higher than for the "average" white non-veteran in all decades. The "veteran advantage" for black men does not emerge until 1980 – a delay that may be linked to the greater access to migrant social networks among blacks during the Great Migration. While the differences are not large in the *absolute* sense – typically between 1.5 and 3 percentage points per decade – they do represent an impressive *relative* difference. Veterans are between 10- and 29-percent more likely to have moved in every decade than are similar same-race nonveterans whose characteristics are *identical* on all other measures included in the model. Additionally, as presented in Figure 3 and Figure 4, the elevated rates of veterans' mobility appear to persist across the life course.⁴ This suggests that the cumulative effects could be quite large, since higher rates of migration among veterans are not restricted to the delaying of early adult life course events that frequently spur migration, such as family formation or the pursuit of post-secondary education. Veterans continue to move throughout their civilian labor force careers.

² Note, however, that the work of Cowper and colleagues compares migration trends of veterans – 95% of whom are male – to those of *all nonveterans*, thereby confounding the effects of gender with those of veteran status. ³ Exceptions are Barnes and Roseman (1981), who explored the clustering of military retirees close to military

bases, and Serow (1976), who looked at the cumulative effects of migration among active duty personnel on population redistribution between states. ⁴ These figures examine the differential rates of recent migration by veteran status for three cohorts of men across

⁴ These figures examine the differential rates of recent migration by veteran status for three cohorts of men across the life course, from early adulthood through retirement ages: Cohort 1, who were age 26 - 35 in 1960; Cohort 2, who were age 26 - 35 in 1970; and Cohort 3, who were age 26 - 35 in 1980.

However, the focus of my previous analysis focuses specifically on the *fact* of spatial mobility, and not the contours of the movement it entails. The degree to which veterans and nonveterans differentially participate in various migration streams, combined with the unequal likelihood that young adults from the various states join the military, may result in their being distributed unequally throughout the country. The paper I propose will first describe overall trends in population redistribution, comparing the general interstate migration patterns for veterans and nonveterans. I will present these descriptive analyses for the entire native-born male, working-age population, as well as disaggregated by major racial categories and age structures. Next, I will estimate how the distribution of the U.S. population *would have been* distributed in 2000 if the migration trajectories for veterans and nonveterans were identical across the late 20th century. In these simulations, I will constrain the migration rates and patterns of each group – by race and age category – to reflect first the prevailing trends among veterans, and then those of nonveterans. I will cumulate the effects of veteran status for each decade, and develop estimates of each state's overall population count, age structure, and racial composition under each counterfactual scenarios.

Table 1 presents the distributions by state of the percentage of all men of prime working age who are veterans and who live in the state. As this table demonstrates, the states that had a higher-than-average percentage of their prime working age men who were veterans tended to be clustered in the west and in New England. Those states with below-average concentration of prime working-age veterans were typically in the south, or in "rust belt" and Great Plains states with declining agricultural or industrial sectors. Additionally, there appears to be a fair amount of overlap between states that experienced relatively large population growth and those that had high concentrations of veterans. My intent with this paper is to identify the degree to which these trends are linked, and how significant they are.

Finally, I will identify the degree to which prime working age veterans remain clustered around military bases, and the level of influence the retentive power of military installations may have not only on population redistribution, but also on population *composition*. I will use county-level data and spatial lags to measure how large a role military base location has on local veteran concentration, as well as on changes over time in local labor market racial composition and age structures. For example, do veterans appear to remain in base communities immediately following discharge from the military – yielding a local labor market age structure with a bulge in the young adult years? Do they leave the base community to pursue educational or occupational opportunities in other areas? And if they return, at what stage do they do so, and how might the length of delay be contingent upon other local labor market characteristics, such as average wages, the level of government employment, or human capital profiles? Because there may be dispersed effects over areas adjacent to base communities, I will include a distance decay measure to specify the spatial extent of these effects.

To summarize, this paper will first identify spatial distribution of prime working age men by veteran status. It will then impose migration rates and patterns – disaggregated by race and age structure – of veterans and nonveterans on the entire adult male population to identify how late-20th century population distribution would "look different" if veterans and nonveterans' migration patterns were identical. Finally, the paper will explore the effects of military base location on local labor market composition, and identify the spatial "catchment area" impacted by base location.

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Figure 1. Predicted Probabilities of Recent Migration by Veteran Status, White Men Age 30 - 64, 1960 - 2000



Figure 2. Predicted Probabilities of Recent Migration by Veteran Status, Black Men Age 30 – 64, 1960 - 2000



Figure 3. Recent Migration by Veteran Status, Cohort and Decade, White Men



Figure 4. Recent Migration by Veteran Status, Cohort and Decade, Black Men

	Percent Veterans			Perce	Percent Population		
State	1960	1980	2000	1960	1980	2000	
National Average	48.05	39.40	25.21				
Alabama	39.89	35.49	26.33	1.86	1.81	1.79	
Alaska	57.79	42.30	32.15	0.08	0.19	0.26	
Arizona	50.42	40.99	28.46	0.70	1.23	1.65	
Arkansas	37.91	35.19	27.41	1.03	0.94	1.08	
California	55.81	42.49	24.61	8.44	9.89	8.64	
Colorado	50.56	41.20	26.14	0.96	1.41	1.64	
Connecticut	54.70	41.90	23.79	1.38	1.30	1.18	
Delaware	49.53	42.01	28.87	0.25	0.28	0.29	
D.C.	51.00	32.15	19.74	0.42	0.30	0.21	
Florida	50.07	44.09	29.81	2.64	3.95	4.99	
Georgia	40.41	35.49	25.49	2.22	2.47	3.12	
Hawaii	47.84	38.32	28.72	0.22	0.37	0.39	
Idaho	46.32	40.50	27.75	0.39	0.44	0.50	
Illinois	48.82	39.14	22.26	5.71	5.04	4.41	
Indiana	46.19	38.53	24.58	2.77	2.51	2.47	
Iowa	43.41	37.47	25.03	1.64	1.23	1.18	
Kansas	47.65	39.23	25.57	1.27	1.13	1.01	
Kentucky	40.14	34.00	22.89	1.74	1.57	1.70	
Louisiana	40.98	34.91	22.42	1.83	1.93	1.75	
Maine	48.16	42.42	29.84	0.52	0.51	0.55	
Maryland	49.68	40.02	26.40	1.8	1.92	1.90	
Massachusetts	54.79	40.13	23.43	2.75	2.31	2.24	
Michigan	47.53	38.04	23.74	4.37	4.42	3.98	
Minnesota	47.56	39.18	25.35	1.96	1.72	2.04	
Mississippi	35.95	31.42	22.76	1.18	1.09	1.13	
Missouri	46.29	40.35	26.01	2.53	2.34	2.27	
Montana	49.48	41.38	29.91	0.38	0.35	0.4	
Nebraska	45.86	38.39	26.02	0.81	0.66	0.67	
Nevada	57.41	46.22	33.19	0.16	0.4	0.69	
New Hampshire	53.41	44.57	27.33	0.33	0.36	0.52	
New Jersey	54.26	41.81	22.21	3.34	3.12	2.66	
New Mexico	48.14	38.87	27.56	0.52	0.54	0.55	
New York	52.72	38.83	21.55	8.43	6.99	5.99	
North Carolina	38.15	35.60	24.85	2.63	2.78	3.14	
North Dakota	37.18	34.14	23.56	0.37	0.19	0.26	
Ohio	49.11	40.18	23.78	5.64	5.05	4.63	
Oklahoma	44.65	39.48	28.37	1.35	1.4	1.37	
Oregon	51.26	42.59	29.28	1.04	1.29	1.32	
Pennsylvania	48.86	40.76	24.56	6.71	5.62	4.95	
Rhode Island	55.90	44.20	27.93	0.44	0.29	0.36	
South Carolina	38.76	35.22	27.92	1.29	1.47	1.60	

Table 1. Changes in State-Level Concentration of Native-Born Male Veterans, age 30 – 65, and the Percent of the National Population Residing in Each State in 1960, 1980, and 2000.

South Dakota	39.88	37.56	27.09	0.40	0.32	0.30
Tennessee	41.23	35.78	24.91	2.09	2.13	2.34
Texas	46.05	38.64	24.64	5.32	6.34	6.71
Utah	51.05	35.56	21.18	0.48	0.64	0.82
Vermont	47.66	36.03	27.23	0.22	0.25	0.26
Virginia	44.36	39.41	29.08	2.20	2.39	2.63
Washington	52.68	44.30	29.91	1.59	1.96	2.21
West Virginia	42.53	37.80	24.99	1.10	0.79	0.77
Wisconsin	44.70	37.61	24.30	2.29	2.19	2.29
Wyomong	48.93	43.21	28.53	0.20	0.20	0.21