Being All They Can Be?
U.S. Military Experience and
Current Earnings of Male Immigrants

Catherine N. Barry[1]
University of California, Berkeley

An analysis of the 2006 American Communities Survey (ACS) examines the earnings of adult immigrants 25 to 50 with previous military experience (immigrant veterans) and those without (immigrant non-veterans). The study finds no support for the human capital predictions from military sociology and limited support for segmented assimilation theory. Veteran status does not confer any added benefit or harm to current earnings of immigrants, taking into account demographic factors such as race/ethnicity, human capital and occupation. A comparison with the general U.S. population also shows no earnings differential for veterans for any racial/ethnic group.

In the wake of the current Iraq war, Operation Iraqi Freedom, the passage Armed Forces Naturalization Act of 2003 emphasized the contributions of the thousands of non-citizen immigrants who serve in the U.S. military each year. This act shortened the waiting period for service member applicants from three years to just one and removed associated fees, affecting over 37,000 non-citizen active service members eligible in 2003 (Congressional Research Service 2003). Many policymakers and organizations hailed this Act as a step forward for non-citizens and as recognition for the sacrifices of thousands of immigrants who have served in the military since the Revolutionary War, including over 700 Congressional Medal of Honor

---

recipients (U.S. Congress 1999). Though not recognized by this act, naturalized citizens also have a long history of military service, numbering over 35,000 of active duty service members in 2006; foreign-born service members constituted 5% of the force that same year (Migration Policy Institute 2007).

The U.S. military has long been touted as a transformative experience for individuals, cultivating disciplined and productive citizens. The educational opportunities opened up to millions of World War II veterans through the G.I. Bill raised aggregate levels of education in the U.S., revolutionizing the American workforce. Do opportunities from military service translate to better labor market outcomes for citizen and non-citizen immigrant veterans?

In order to explore this question, I examine cross-sectional data from the American Community Survey (ACS) 2006, one of the most currently available surveys of the U.S. population. To the author's knowledge, this is the first current empirical research examining the unique immigrant veteran experience and its effect on labor market outcomes. This is also one of the first studies to examine Asians and Asian-Americans, groups ignored by previous military sociological literature. This research explores a relationship between two distinct literatures, military sociology and immigrant incorporation literature, and their predictions for the outcomes of immigrant veterans.

THEORETICAL PERSPECTIVES

Immigrants have played important roles in the U.S. armed forces as well as the French, Australian and British militaries. However, little work focuses on labor market outcomes of immigrants exposed to military institutions. Historical research on French and British colonial

soldiers from Africa and elsewhere find upward social mobility in the country of origin

(Echenberg 1990) and within the colonial context (Young 1982). Eugen Weber's study *Peasants*

into Frenchman shows that French military veterans at the end of the 19th century replaced their

focus from regional concerns to participation in national French politics, acquired French

language skills at a time when regional dialects prevailed, and gained employment opportunities

upon discharge (1976). Though not a study of immigrants per se, this account demonstrates the

possible transformative effects of military service on the labor market outcomes of persons

without a previous national allegiance to the country they served. The historical research strongly

suggests that military experience leads to greater labor market outcomes for immigrants.

MILITARY SOCIOLOGY

Theories of military sociology demonstrate the importance of race/ethnicity and class

background on socio-economic outcomes of service-members and veterans. Empirical results

show distinct earnings profiles for minority versus white veterans when comparing each group to

their co-ethnic, non-veteran peers (Browning, Lopreato and Poston 1973; Little and Fredland

1979; Hirsch and Mehay 2003; Martindale and Poston 1979; Phillips et al. 1992; Cutright 1974).

Theorists do not agree on the mechanisms behind these differences, but two main themes emerge

from the literature. First, veterans exhibit human capital gains, penalties, or neither, as measured

by their earnings relative to non-veteran peers, depending on racial/ethnic group membership and

often according to war cohort. Compositional differences between veterans and non-veterans

may also play a role in explaining earnings differences. Several theorists propose both

alternatives as possible explanations for their findings.

3

MINORITY VETERANS VS MINORITY NON-VETERANS

Human capital gains for Black and Hispanic minority group veterans center on experiences during military service. Browning, Lopreato and Poston (1973) propose that a 'bridging effect' from the educational opportunities, skills training, exposure to the mainstream majority, and the experience of navigating a large bureaucracy bestow advantages that minority veterans translate into higher earnings. Hirsch and Mehay (2003) emphasize the role of high returns to training for Black veterans who volunteered for service; Angrist (1998) proposes that non-whites serving in the military during the recessions of the early 1980s were buffered from the high unemployment and disjointed work trajectories of coethnic non-veterans. Notable exceptions find that earnings for Black Vietnam War veterans (Schwartz 1986) and Black draftees from the 1950s (Cutright 1974) do not differ from non-veterans, indicating that Black veterans may fail to realize human capital benefits from military experience.   Empirical studies generally indicate that minority veterans either display equivalent earnings or a slight advantage over minority non-veterans. Unfortunately, Asian-Americans have been ignored in these studies due to their small proportions in the military and general population.

Human capital gains and compositional arguments are often offered simultaneously as plausible explanations for the minority veteran versus non-veteran earnings differences. Martindale and Poston (1979) posit, along with the human capital argument, that Black veterans may earn more than non-veterans because Black veterans come from higher income and education backgrounds than non-veterans before joining the military; Little and Fredland (1979) mirror this argument to also extend to Mexican Americans.

4

WHITE VETERANS VS WHITE NON-VETERANS (NON-LATINO)

Explanations for human capital penalties or lack of effects for white veterans focus on their lack of experience in the civilian workforce compared to white non-veterans. Fewer years in the civilian labor market, interruption of civilian work experience, and inability to transfer military job skills, such as those learned for infantry positions contribute to lower human capital achievement, and subsequently lower earnings for white veterans (Browning, Lopreato, Poston 1979). Hirsch and Mehay (2003) and Angrist (1998), find no significant earnings differences for veterans of the post-1974 All-Volunteer Force (AVF), indicating a lack of human capital gains for white veterans over their non-veteran peers. White veterans of the Vietnam War era specifically seemed to suffer earnings penalties (Martindale and Poston 1979; Schwartz 1986), especially draftees (Hirsch and Mehay 2003; Cutright 1974). Exceptions demonstrate higher earnings for World War Ii veterans (Little and Fredland 1979; Martindale and Poston 1979) and Korean War veterans (Martindale and Poston 1979), much of this possibly due to educational gains. White veterans have been found to exhibit earnings no different, higher, or lower than non-veterans, with more recent studies showing a lack of effect.

Other explanations echo the compositional argument; white veterans and white non-veterans come from different socio-economic backgrounds and post-service earnings reflect this initial difference, rather than, or possibly in addition to, a treatment effect of military service (Little and Fredland 1979; Hirsch and Mehay 2003; Cutright 1974).

MORE ON COMPOSITIONAL CHARACTERISTICS

5

The effects of self-selection variables, when applied, often play a crucial role in explaining away some discrepancies in the findings of military sociology. Self-selection refers to observed and unobserved characteristics, such as education and motivation, which influences one's propensity, or likelihood, to participate in a certain group. For instance, the propensity to self-select into military service is influenced by individual characteristics such as racial/ethnic group status (Binkin and Eitelberg 1986; Nelson 1986; Berryman 1984; Dorn 1990; Moskos 1982), socioeconomic strata and educational attainment group (Segal 1989; Orvis and Gahart 1990; Sackett and Mavor 2003; Moskos 1982), parental socioeconomic and educational attainment (Sackett and Mavor 2003), and college aspirations combined with low socioeconomic status (Orvis and Gahart 1990). U.S. Southern and rural residence, both contextual characteristics, are associated with higher propensities for military enlistment (Sackett and Mavor 2003). Higher unemployment rates in the late 1970s improved military accession rates across all racial/ethnic groups, demonstrating the importance of economic context in the likelihood of enlistment (Nelson and Hunter 1982). It may be the self-selective characteristics of veterans that drive the results of earnings, rather than the military experience and veteran status. However, since most self-selective questions involve knowledge of childhood background, attitudes, and education before military enlistment which are unavailable in this survey, I cannot examine many self-selection characteristics.

IMMIGRANT INCORPORATION THEORY

The current study examines immigrants, a group who could receive unique benefits or losses from experience in the U.S. military institution. Current debates in immigrant

incorporation literature centering on race/ethnic group status include the 'new' assimilation theory (Alba and Nee 2003; Kasinitz 2008), the segmented assimilation theory (Portes and Zhou 1993; Zhou and Bankston 1994; Portes and Rumbaut 2006) and segmented assimilation critiques (Neckerman, Carter, Lee 1999; Waldinger et al. 2007). Immigrant characteristics and their responses to surrounding class and racial landscapes also contribute to explanations regarding integration options and outcomes.

MINORITY IMMIGRANTS

Segmented assimilation theorists outline two main integration options for minority immigrants and their children: achieve upward social mobility by maintaining ethnic ties and cultural identity or experience downward social mobility by absorbing minority urban expectations and by severing ethnic bonds (Portes and Zhou 1993; Zhou and Bankston 1994; Rumbaut 2008; Zhou et al. 2008). Ethnic relationships, a form of social capital, foster gains in human capital through higher educational achievement. This protects immigrants and their children from the influence of underclass cultures of socio-economic disadvantage. On the other hand, loosening or broken ethnic ties can lead to low levels of socio-economic achievement if immigrants integrate instead lower-achieving urban minority subcultures. In addition, compositional characteristics of immigrants and their children, such as parental education and family structure, intertwine with race and class identities and contribute significantly to incorporation outcomes (Zhou and Bankston 1994; Rumbaut 2008; Zhou et al. 2008). A diversity in the socio-economic backgrounds of today's immigrants mean that immigrants may initiate their place in the class structure at different points, rather than from the bottom of the

7

hierarchy as in the past. Immigrant mobility is not limited to horizontal and upward movement;

mobility may also fall downward.

'New' assimilation theorists and critics of segmented assimilation propose other

alternative paths of integration. Paralleling human capital arguments, 'new' assimilationists

assert that immigrants and their children who gain capital in the form of knowledge, experience,

and habits of the mainstream white society will enjoy higher socio-economic success than those

who fail to acquire them. Alba and Nee (2003) also argue that the assimilation process engages

immigrants and their children in shifting mainstream cultures and institutions, making them more

inclusive of new groups, such as the past 'whitening' of Jews, Italians, and other groups

considered non-white. Minority immigrants and their children leverage policies and institutions

meant for native minorities, such as diversity admissions in higher education, in order to get

ahead (Kasinitz 2008). Critiques of segmented assimilation assert that the theory ignores the

existence of a minority middle class and the coping strategies in which upwardly mobile

minority group members engage in the United States. Waldinger et al. (2007) propose an

alternative avenue of assimilation utilized by Italian and Polish immigrants at the beginning of

the twenties century: entry into the working class. Immigrants and their offspring are often

relegated jobs near the bottom of the hour-glass economy, but unlike the underclass, employment

rates are high. Neckerman et al. (1999) argue that 'minority cultures of mobility' provide

minorities with a set of tools to interact with the white mainstream and disadvantaged members

of their own community, allowing minorities to navigate across race and class lines. Critics of

segmented assimilation assert that minority immigrants and their children are not given a

dichotomous choice of outcomes; instead they contend with race and class in the U.S. by

following the footsteps of disadvantaged minorities ahead of them.

WHITE IMMIGRANTS (NON-LATINO)

Incorporation literature focuses on minorities, largely ignoring white, non-Latino

immigrants because of their small proportion in the post-1965 migration flows. However, the

theories imply that because white, non-Latino immigrants sit at the top of the racial hierarchy

and often come from higher socio-economic status backgrounds than other groups, they are

likely to follow a more traditional trajectory of assimilation into the white, middle-class

mainstream. However, segmented assimilation theory also points to another possibility: white

immigrants who are surrounded by lower-achieving groups, though buffered by their status in the

race hierarchy, can still experience downward mobility by adopting expectations from

subcultures of lower achievement.

INTERACTION: IMMIGRANT INCORPORATION AND MILITARY SOCIOLOGY

Race/ethnic group matters when assessing the relative outcomes of veterans versus non-

veterans. Minority group veterans can uniquely benefit from their experiences within the

military because of their exposure to mainstream (white) society and its values, which may be

advantageous in the civilian job market. White veterans may not receive any 'value-added' from

military service because they are already familiar with mainstream society; instead, time spent in

the military may hinder them from acquiring civilian experience and knowledge at the same rate

as their civilian peers. Youth background characteristics may also play an important role in

earnings differences. Though white and minority veterans come from similar socio-economic

backgrounds, minority veterans generally come from higher socio-economic backgrounds than

their non-veteran peers while white veterans are from more modest socio-economic brackets than

their peers (Berryman 1984).

Predictions for Immigrant Veterans

H_1: *Minority immigrant veterans obtain human capital gains from military service, measured by higher earnings than minority immigrant non-veterans.*

Minorities can benefit from military service for several reasons. First, service members

receive formal and informal skills and job training. During their tenure in the military, members

are instructed and trained in English, possibly giving them greater English skills than their non-

veteran counterparts. Service members become intimately involved in the culture, hierarchy and

bureaucracy of the military, which requires extreme punctuality, unquestioned obedience,

compliance, English skills, and familiarity with forms and paperwork, all factors that are valued

by U.S. employers. These skills may be particularly helpful in the job search, both in finding

new job openings and accessing occupations unavailable in ethnic enclaves, which could lead to

divergent earnings trajectories.   In addition, the military institution helps groups in both

maintaining status and as a springboard for upward social mobility. Educational benefits are

available to most service members during service and upon discharge, reducing the need for and

size of educational loans which may be difficult for minority immigrants to otherwise obtain.

Middle-class African-Americans, who have higher propensities to join the military than the

white middle-class, join the military because they perceive it to be beneficial for social mobility

(Sackett and Mavor 2003). Military experiences and benefits will assist minority immigrants to

succeed in the labor market.

> *H$_2$: White immigrant veterans will not gain human capital from military services,*
>
> *as measured by earnings.*

White immigrants, who generally come from higher socio-economic and English-

speaking, Western backgrounds than minority immigrants, will not exhibit a gain from military

experience. They also receive formal and informal skills, job training and access to educational

benefits but as is the case for white U.S. natives, they are also positioned in an institution filled

with persons from the lower middle-class, which is below their own class backgrounds

(Berryman 1984). White immigrant veterans may adopt lower-expectations, leading to lower

labor market outcomes, or receive fewer gains from military service than their non-veteran peers

receive in the civilian work force during their initial entry into the labor market.

DATA AND METHODS

I use the 2006 American Communities Survey (ACS) public-use micro-sample (PUMS)

data, a 1 in 100 national random sample of the population that includes approximately 2,970,000

individuals living in households and group quarters. This dataset is created and administered

yearly since 2000 by the U.S. Census.

This study examines the logged wage and salary earning of 1,719 male veterans and

48,723 male non-veterans, aged 25-50 with a high school degree or GED in models 1 and 2. I

then compare these models with two models that include both native-born persons and

immigrants, reflecting a traditional approach in military sociology literature that ignores immigrants. Immigrants refer to persons born as non-citizens in a foreign country; U.S. citizens born abroad and residents of the following U.S. territories are not categorized as immigrants: American Samoa, Puerto Rico, Guam, and the U.S. Virgin Islands. I restrict the sample in several ways to make appropriate comparisons between immigrant veterans and immigrant non-veterans. First, only persons aged 25 to 50 were included in the analysis in order to assess the effects of working aged persons who have completed much of their formal schooling. Usually working persons are considered from age 25 up to age 64, but I restrict my sample to age 50 in order to remove veterans who were drafted into the military. Conscripts often have different characteristics than service members who joined voluntarily and including them may confound effects of being a draftee with veteran status. Since the draft was ended in mid-1973, persons aged 50 and younger in 2006 were 17 years old or younger in 1973 and ineligible for the draft. I also remove persons who arrived in the U.S. after age 35; before expanding age opportunities in 2006, most military branches did not allow persons to enlist after age 35. The sample is also restricted to persons who migrated in 1965 or later, a period of migration recognized by immigration scholars to have demographic characteristics very different from previous migration streams; theories of 'new' assimilation and segmented assimilation focus specifically on post-1965 migration. Although citizenship status is surveyed, the legal status of non-citizens cannot be gauged and therefore undocumented persons cannot be removed from the study. This means that the non-veteran group may not be matched well with the veteran group, because only legally documented persons are able to enlist in the U.S. military. Undocumented persons may skew the results because they average lower earnings than legally admitted immigrants (Borjas 1999).

However, the total estimated undocumented population in 2006 was over 11.5 persons, with over 55% born in Mexico and no other country representing more than 5% of the rest of the undocumented population (Hoefer, Rytina and Campbell 2007). Because over 70% of undocumented persons coming from Latin America, including Mexico, do not have a high school education, restricting the analysis to high school graduates eliminates much of the undocumented sample and the corresponding bias (Borjas 1999). Because of their tenuous legal status, many undocumented immigrants may avoid surveys, especially government surveys, and they may be undercounted in the survey, reducing further the bias they present when comparing veterans, who must be legally documented, to non-veterans. In order to remove much of the undocumented sample, persons who have not earned a high school diploma or a General Education Degree (GED) were also removed. Also, having a high school diploma or a GED is a general prerequisite for joining the military; less than 15% of recruits of the all-volunteer force join without one or the other. Finally, I restrict the sample to males only; over 85% of the immigrant veterans are males while the non-veteran sample contains approximately 50% females; male and female patterns of earnings differ and veteran status and gender may interact in ways that this paper will not explore. Persons who identified as 'other' for race/ethnic group were omitted due to the small size of the group, which includes Native Americans and mixed race persons. After these restrictions, 1,719 immigrant veterans and 50,442 immigrant non-veterans remain in the sample. Please see Table 2 in the appendix for sample removals for the immigrant sample at each step mentioned above.

The survey does not allow me to control for self-selective characteristics that influence military enlistment, which in turn may affect earnings, such as parent's socio-economic

background and region of residence during childhood. However, the American Community Survey is a large sample that does measure human capital and other characteristics that may affect earnings, such as education and possession of U.S. citizenship. Below I discuss the variable selection and models.

Variable Selection

Dependent Variable:

The logged wage income variable is constructed in the following manner: $100 was added to each respondent in order to take the log-transform of persons with $0 earnings. Information about the coding of each variable is available in the appendix.

Independent Variables:

Veteran Status:

The main variable of analysis is veteran status; this includes all males who served in the active-duty military currently and in the past. Non-veterans have never served on active duty in the military. Veteran status is treated as a measure of human capital.

Other Human Capital Variables

I examine other measures of human capital study by looking at five variables to assess their effects on the earnings: educational attainment, possession of U.S. citizenship, years lived in the U.S., current work disability status, and current enrollment in school. Level of education completed is a traditional measure of human capital. Immigrants do not have to be U.S. citizens in order to serve in the U.S. military, but being a citizen is required for certain military and government positions; citizenship status opens access to jobs and industries. Greater numbers of

years in the U.S. may bring greater U.S. job experience and experience with U.S. working

conditions. Most veterans have access to educational benefits; younger veterans may be enrolled

in school at later ages and in greater percentages than non-veteran counterparts which may also

affect earnings. Current work disability refers to whether the respondents self-reported a mental

or physical condition that limited their ability to work, made working difficult, or prevented them

from working for 6 months or more. This did not include temporary health conditions such as

broken bones or pregnancy. Controlling for these variables captures the effect of veteran status

independent of these other human capital factors.

Race/Ethnicity

Military sociology, segmented assimilation and its critiques all recognize the salience of

race/ethnicity in socio-economic outcomes. The following race/ethnicity variables are included:

Asians/Pacific Islander, Black, Latino/Hispanic and White. In this analysis, 'Latino/Hispanic',

which I will refer to only as Latino from here on, is coded as a mutually exclusive category;

persons of any race who responded as being Latino are excluded from other categories.

Immigrant Generation Variables

Segmented assimilation also points out that generation may have an effect on immigrant

outcomes; second and 1.5 generation immigrants can do better or worse than first generation

immigrants. Age at arrival proxies the generational status of the immigrants in the study.

Following the suggestion of Rumbaut (1991), the immigrants are broken into three categories.

First generation includes immigrants who arrived at age 13 or later; much of their formative

years and schooling was spent in another country. The 1.5 generation are those immigrant who

arrived between ages 5 and 12; this group's experiences differ from the first generation because

15

they spent more time and gained more schooling in the U.S. during their earlier childhood years.

No true second generation immigrants are included in this study, since parent's place of birth is

not asked; however, immigrants who arrived shortly after their birth to age 4 are coded as second

generation here. All of their formal schooling from kindergarten onwards would have taken place

in the U.S., just as it would for persons born in the U.S. of immigrant parents.

Interaction Cross-Product Variables

The presence of interaction variables in a model tests if the size or direction of the effect

of one variable is dependent upon another variable. For instance, White immigrant veterans may

assimilate into the white mainstream while Black immigrant veterans experience upward or

downward mobility; examining effects of being minority or being a veteran separately may not

demonstrate the magnitude of the effect of these two experiences together. These cross-products

include: Asian/Pacific Islander Veterans; Black Veterans, Latino Veterans and White Veterans.

Control Variables

Age, marital status, logged usual hours worked per week, logged number of weeks

worked in the past twelve months, and current region of U.S. residence are also included and

examined in the basic model. Economic analyses finds that these variables are correlated with

earnings and employment. As persons age, they generally gain more labor market experience

and are likely to earn more and be employed. Married men have greater economic

responsibilities, which may be reflected in their earnings and employment profiles. The U.S.

economy includes distinct regional economies which create different costs of living and stress

different industries and occupations, influencing employment and earnings; regions were divided

into a binary South/non-South variable.

Occupation Variables

Current military employment is included because the military pay scale is strictly managed and does not follow a civilian pay scale.

Occupation variables are included in the logged earnings analysis because job type is highly correlated with earnings. If veterans and non-veterans have distinctly different occupations, then this control reduces the conflation of earnings differences associated with that difference. Technical and administration occupations serve as the baseline, but also included are the following: professional, sales and retail, hospitality and private services, protective services, agricultural and farm work, mechanics and repairers, and operators and laborers. Occupations 'unknown' and 'unemployed' are included in the ACS06 occupation classification and are controlled for, but not reported, in the regressions to conserve space.

Government/public employment includes working for the federal government. This includes public administrators, mail carriers and other positions. Government pay scale and employment opportunities are more directly controlled and regulated than pay and opportunities in the civilian world and may influence earnings. Veterans' preference and a higher rate of employment in the federal government may also mediate the effect of earnings, so it is included.

Self-employed persons include persons both those who worked for wage and salary income and those who relied solely on self-employment for income. Veterans are half as likely to be self-employed as non-veterans, and occupational choices and earnings profiles of persons

who work in full- or part-time self-employment may otherwise differ from general wage-and-salary workers.

Comparison to Traditional Military Sociological Models

Models 3 and 4 serve to generate findings and compare results to previous military sociological literature, which has ignored immigrant status but focused on race/ethnicity and other factors. Immigrant status and variables associated with migration, including age at arrival, years lived in the U.S., and citizenship are not included in the mode.

DESCRIPTIVE STATISTICS

Descriptive statistics are presented in Table 1 in the appendix. The ACS 2006 provides a person-weight variable to execute to obtain representative statistics; the weight has been applied to the data. Though earnings are similar at $41,945 for veterans and $43,084 for non-veterans, there are important differences in human capital and demographic characteristics. Veterans are only slightly older than non-veterans, but they are more likely to have arrived in the U.S. by the age of 12 and they have been in the U.S. for an average of 8.5 years longer than their non-veteran counterparts. Veterans have much higher rates of 'some college completed' and are two times more likely to be currently enrolled in school at the time of the study than non-veterans. On the other hand, non-veteran immigrants have almost 2.5 times the rate of post-graduate degree training of veterans. Seventy-eight percent of veterans in the sample are citizens while less than half of the non-veterans are citizens. Asians and Pacific Islanders, 30-32% of the veteran and non-veteran samples and Whites at 17-19% of the two samples, are represented similarly.

However, Latinos represent a slightly higher proportion of the non-veteran sample at 42%

compared to the veteran sample at 35%, while Black veterans represent 16% of all immigrant

veterans but only 9% of non-veterans. The percentage of veterans, not including persons

currently working for the military, working in the federal government sector is approximately 13

times higher than the proportion of non-veterans working in the government at 17% compared to

1.8%. Veterans are almost 7 times more likely than non-veterans to be employed in protective

services, such as the police force, though similar numbers of both groups are involved in sales

and retail. Non-veterans are more than 2 times more involved in hospitality and private service

occupations than non-veterans; this is also the case for operators and laborers. 32% of veterans

work in the technical and administrative occupations compared to 15% of non-veterans; .57% of

veterans and 2.46% of non-veterans are employed in agricultural and farm occupations. Though

mean earnings look similar for the two groups, veterans and non-veterans have divergent patterns

of employment, citizenship acquisition, ages at arrival, time spent in the U.S. and current school

enrollment.

REGRESSIONS

Restricted Model: $\ln(W_i) = \beta_0 + \beta_1 D_{1i} + \beta_2 D_{2i} + \beta_3 X_i + \mu_i$ (Models 1 & 3)

Full Model: $\ln(W_i) = \beta_0 + \beta_1 D_{1i} + \beta_2 D_{2i} + \beta_3 X_i + \beta_5(D_{1i} * D_{2i}) + \mu_i$ (Models 2 & 4)

Ln(W_i) denotes the logged earnings; β_0 represents the constant and μ_i is the random error

term, with an assumption of normal distribution. D_{1i}, and D_{2i}, represent vectors containing

veteran status and race/ethnic group, respectively. X_i denotes a vector containing other socio-

demographic, human capital, and occupation characteristics. $D_{1i} * D_{2i}$ denotes the interaction

terms between veteran status, race/ethnic group, and generation. Models 2 and 4 include the

interaction variable.

Regression Results

Logged Wage and Salary Income Ordinary Least Squares Regression

The ACS06 provides 80 replicate weights to be used with a jackknife survey weight

procedure to execute hypothesis testing; this method has been applied to the data.

Model 1- Immigrants Only, Restricted

Veterans earn 3% less in logged earnings than non-veterans, but the coefficient is not

significant, showing no support for a difference in earnings between veterans and non-veterans in

the immigrant sample. Current service in the military is associated with lower earnings, but

again, the variable is not statistically significant and does not show support for an earnings

difference. Black and Latino immigrants earn 23% and 26% less logged earnings than White

immigrants, respectively, significant at the .05 and .01 levels. Other significant variables

associated with lower earnings include current school enrollment, self-employed persons, current

residence in the South and the following occupations: hospitality and private services,

agricultural and farm work, mechanics and repairers, and operators and laborers. Significant

variables associated with higher earnings include bachelor's degrees and postgraduate training,

years lived in the U.S., logged usual number of hours worked, logged number of weeks worked

in the past 12 months, being married and working as managers and supervisors. Federal

government workers are not shown to have different earnings than those who do not work for the

federal government.

Model 2 Immigrants Only, Full

This model adds the interaction between race/ethnicity and veteran status. Again, veterans show 3% lower logged earnings but is not statistically significant. Black and Latino immigrants again earn 23% and 26% less logged earnings than White immigrants and are significant at the .05 and .01 levels. The interaction variables show 3-4% greater logged earnings for Black and Latino immigrants and a 5% deficit for Asian/Pacific Islander veterans compared to White veterans, but these variables are not statistically significant and show a lack of support for the existence of a separate effect for race/ethnicity and veteran status. All other variables reflect the same trends as model 1.

Model 3 All respondents, Restricted

Model 3 shows a 2.5% earnings deficit for veterans, but the effect is not statistically significant. This model includes both immigrants and the native-born, with no differentiation between the two, and Blacks and Latinos still earn less than Whites, but the earnings difference is smaller at 14.7% and 13.9%, respectively, significant at the .01 level. Current military work is again associated with lower, but not statistically significant, logged earnings. Unlike the first two models, federal government employees exhibit 9.6% greater logged earnings than non-government employees, and those with a work disability are associated with a 27% deficit in earnings, both significant at the .01 levels. Persons with some college have 16.5% higher earnings than those with a high school degree or GED in this model. Other positive and significant variables include age 35-44, age 45-50, bachelor's degree, postgraduate training, logged hours worked, logged weeks worked, manager and supervisory occupations and married persons. Other negative and significant variables include current school enrollment, self-

employed persons, current residence in the South, and the same occupations with lower earnings in models 1 and 2: hospitality and private services, agricultural and farm workers, mechanics and repairers, and operators and laborers.

Model 4 All respondents, Full

This final model includes interactions between veteran status and race/ethnicity but finds no statistically significant interactions, demonstrating no separate effect for veterans by race. The model shows a greater earnings deficit for veterans at 4.6%, but again the variable is not statistically significant.   All other variables have the same magnitude and follow the same direction as in model 3.

ANALYSIS

This study finds no support for the human capital hypothesis or the new assimilation theory for immigrants with military experience, while it shows limited support for the segmented assimilation theory in the immigrant-only models. Neither possession of U.S. citizenship, which requires English skills and navigation of the bureaucracy in charge of naturalizations, nor military experience, which exposes immigrants to a large bureaucracy and skills training, are found to have an effect on immigrant earnings. The models indicate that no interaction exists between race/ethnicity, and veteran status as might be expected from a synthesis of the human capital and new assimilation theories. Because veteran status has no separate effect on earnings, and the interaction terms demonstrate no differential effects, this demonstrates that minority and white immigrant veterans do not reap benefits from military service in terms of earnings. Minority veterans and their co-ethnic peers have similar earnings, which lag far behind those of

white immigrants. Ethnic/racial discrimination may swamp an effect of veteran status for immigrants, especially minority immigrants. Similarly, veteran status it not shown to have an effect on earnings in the general model that reflects traditional military sociological tests for an earnings difference, showing no support for human capital gains for veterans in the general population separately or by race/ethnicity.

Interestingly, though immigrant veterans concentrate in different occupations than non-veterans, such as technical and administrative jobs, no earnings difference exists between veterans and non-veterans. However, these occupational choices may provide other benefits for immigrant veterans not tested here, such as better working conditions, more stable employment, and better health and other benefits. Veterans may deem these characteristics as more important than higher earnings when they are choosing among job options after separation from the military.

In addition, immigrant veterans may not expect to have to negotiate for higher pay or promotions, or they may be at a disadvantage when negotiating because of less experience than non-veterans, resulting in the lack of pay differentials between the groups. The pay and promotional structure of the military is generally fixed and interdependent. When military personnel are promoted, they receive higher pay. However, this structure does not exist as strictly in the civilian workplace. The military also tends to pay less than the civilian workforce for comparative jobs, so recently separated veterans may have a lower earnings threshold to accept a job. Lower initial earnings can have negative long-term effects on earnings. Veteran status may also serve as a symbol to potential employers that helps veterans get hired, but is not taken into consideration when pay is discussed.

This study includes 1,719 immigrant veterans and uses survey jackknife replications to test the hypotheses and obtain accurate standard errors. The standard errors for the interaction variables are high because of small numbers in the interaction cells, so the regression may not be able to pick up effects that could exist; however, the findings for immigrants are similar to the findings when comparing them to the general population. This cross-sectional study does not capture long-term effects of veteran status that may be present, nor do I examine the possible effects of country-of-origin on earnings outcomes. Country-of-origin variables may account for some of the self-selectivity due to the higher propensity of certain groups to enter the military, such as Filipinos in the U.S. Navy.

CONCLUSIONS

The U.S. military has a long history of recruiting and employing thousands of foreign-born U.S. residents each year with promises of skills and training that will benefit the life and socio-economic outcomes of the service-member. This study, one of the only empirical studies to examine the question, and include Asian immigrants and Asian-Americans, finds fails to find support for human capital gains in reference to earnings outcomes for male immigrant veterans aged 25-50 with high school/GED or greater education. Limited support for segmented assimilation theory shows that immigrant veteran earnings continue to be more influenced by race/ethnicity than by veteran status.

Further cross-sectional or longitudinal work can explore the relationship between occupations and earnings and the concentration of immigrant veterans working in the federal government. Separating the effect of generation and including the true second generation of

persons born in the U.S. to immigrant parents will also give more insight to the segmented

assimilation theory for immigrants with U.S. military experience.

Appendix

Table 1: Descriptive Statistics	Veterans	Non-veterans
Mean Age	37.2	36.2
Mean Income	$41,945	$43,084
Mean Years in U.S.	24.1	15.5
Current Age	*Weighted Percent*	*Weighted Percent*
25 to 34	38.56	43.87
35 to 44	42.32	40.83
45 to 50	19.12	15.3
Education		
High School/GED	22.09	37.24
Some College	47.53	23.84
Bachelor's Degree	23.23	21.69
Post-graduate education	7.15	17.23
Race/Ethnicity[b]		
Asian/Pacific Islander	31.99	30.05
African American	16.01	8.91
Latino/Hispanic	34.61	41.66
White	17.4	19.37
Citizenship		
Citizen	78.46	42.41
Non-citizen	21.54	57.59
Currently Enrolled in School		
	17.01	8.67
Employed in the Federal Government, not including current milita		
	18.01	1.37
Age at Arrival		
0 to 4	18.59	5.66
5 to 12	3.47	1.26
13	77.94	93.08
Occupation		
Technical, Administration	32.11	14.75
Managers, Supervisors	17.57	18.96
Professional	12.63	15.76
Sales, Retail	4.01	5.35
Hospitality, Private Services	4.89	10.35
Protective Services	7.63	1.16
Agricultural, Farm Workers	0.57	2.46
Mechanics, Repairers	11.65	14.14
Operators, Laborers	8.94	17.09
Self-Employed	6.19	11.74
Work Disability	2.69	1.83
Total	***1,719***	***48,723***

Table 2: Sample Selection (for Models 1 and 2)

Initial Full Sample:		
	All immigrants 18-64	= 247,48
	Keep if age>=25 & age<=50	= 163,487
	Keep if male	= 81,149
	Remove if Education: Less than high school	= 57,208
	Remove if Race/Ethnicity=Other/Unknown	= 56,258
	Remove if Migrated to U.S. Before 1965	= 55,254
	Remove if Migrated to U.S. after age 35	=50,442

Final Sample: 50,442 immigrants

Logged Wage/Salary Earnings, Ordinary Least Squares Regressions

	Immigrants Only: Models 1 & 2				Inclusive, Native-born + Immigrants: Models 3 & 4			
	Model 1	Std Err[a]	Model 2	Std Err[a]	Model 3	Std Err[a]	Model 4	Std Err[a]
Veteran	-0.031	0.154	-0.033	0.369	-0.024	0.029	-0.046	0.034
Current Age (25-34 omitted)								
35-44	0.071	0.067	0.071	0.067	0.201 **	0.021	0.201 **	0.021
45-54	-0.002	0.129	-0.002	0.129	0.251 **	0.029	0.250 **	0.029
Education (High School/GED omitted)								
Some Coll	0.123	0.071	0.123	0.071	0.165 **	0.024	0.164 **	0.024
Bachelor	0.359 **	0.102	0.359 **	0.102	0.432 **	0.030	0.431 **	0.030
Postgrad	0.651 **	0.116	0.650 **	0.116	0.672 **	0.044	0.672 **	0.044
Race/Ethnicity (White, Non-Latino omitted)								
Asian/PI	-0.136	0.090	-0.134	0.093	-0.048	0.045	-0.052	0.048
Black	-0.234 *	0.107	-0.236 *	0.109	-0.147 **	0.030	-0.160 **	0.036
Latino	-0.261 **	0.080	-0.262 **	0.082	-0.139 **	0.025	-0.148 **	0.026
Age at Arrival (13+ omitted)								
Age 0-4	-0.159	0.161	-0.160	0.161				
Age 5-12	-0.088	0.110	-0.089	0.110				
Work Disab	-0.233	0.199	-0.233	0.199	-0.274 **	0.071	-0.274 **	0.071
U.S. Citizen	0.085	0.068	0.085	0.068				
Yrs in U.S.	0.013 *	0.006	0.013 *	0.006				
Current School	-0.202 *	0.080	-0.203 *	0.080	-0.190 **	0.031	-0.190 **	0.031
Self-Employed	-3.290 **	0.187	-3.290 **	0.187	-3.235 **	0.075	-3.236 **	0.075
Ln(WeeksWk)	0.849 **	0.088	0.849 **	0.088	0.869 **	0.030	0.869 **	0.030
Ln(HrsWk)	0.735 **	0.130	0.735 **	0.130	0.832 **	0.043	0.832 **	0.043
Occupations (Technical, Administration omitted)								
Mgr, Spvsr	0.220 *	0.101	0.220 *	0.101	0.242 **	0.030	0.242 **	0.031
Professional	0.080	0.080	0.080	0.080	0.076 *	0.034	0.076 *	0.034
Sales, Retail	-0.118	0.138	-0.117	0.138	0.082	0.052	0.081	0.052
Hosp, PrivSvcs	-0.385 **	0.093	-0.384 **	0.093	-0.327 **	0.037	-0.326 **	0.037
ProtectSvcs	-0.073	0.162	-0.074	0.162	0.064	0.038	0.064	0.038
Agric,Farm	-0.502 **	0.170	-0.501 **	0.170	-0.448 **	0.086	-0.447 **	0.086
Mech, Repair	-0.225 *	0.102	-0.224 *	0.102	-0.106 **	0.034	-0.106 **	0.034
Oper, Labor	-0.294 **	0.087	-0.293 **	0.087	-0.170 **	0.033	-0.170 **	0.033
Current Military	-0.088	0.199	-0.081	0.205	-0.097	0.051	-0.095	0.050
Curr Fed Gov Wk	0.023	0.095	0.024	0.094	0.096 **	0.027	0.094 **	0.027
Married	0.126 *	0.052	0.126 *	0.052	0.242 **	0.021	0.242 **	0.021
Lives in South	-0.187 *	0.090	-0.187 *	0.090	-0.138 **	0.029	-0.138 **	0.029
Interaction Variables (White Vet omitted)								
Asian/PI Vet			-0.054	0.426			0.048	0.162
Black Vet			0.039	0.461			0.081	0.075
Latino Vet			0.032	0.389			0.103	0.082
Constant	4.194 *	0.562	4.194 **	0.560	3.652 **	0.192	3.657 **	0.191
R²	0.529		0.529		0.526		0.526	

** indicates p-value<.01; * p-value<.05 ; a: Jackknife standard error

Logged Earnings: Ln * (Incearn + 100) if incearn>0& weeks worked > 0
Incearn= Total salary/wage + self-employed business earnings (if applicable)

Veteran: 1 if previously served in U.S. military; no current service
                                   0 otherwise

Age (25-34 omitted)
    35-44:   1 if yes
                                   0 otherwise
    45-50:   1 if yes
                                   0 otherwise

Education (Only High School/GED omitted):
    Only some college: 1 if yes
                                   0 otherwise
    Bachelor's only: 1 if yes
                                   0 otherwise
    Any post-graduate education: 1 if yes
                                   0 otherwise

Race/Ethnicity (White, non-Hispanic omitted)
    Asian/Pacific Islander: 1 if yes (non-Hispanic response)
                                   0 otherwise
    Black: 1 if yes (non-Hispanic response)
                                   0 otherwise
    Hispanic   1 if yes (of any race/ethnicity)
                                   0 otherwise

Generation/Age at arrival (18 +, 1st generation omitted)
    Age 0 – 4 (2nd generation) 1 if yes
                                   0 otherwise
    Age 5-12 (1.5 generation)   1 if yes
                                   0 otherwise

Currently Enrolled in School: 1 if enrolled in any formal education, high school/above
                                   0 otherwise

Current Work Disability: 1 if yes, respondents self-reported a mental or physical
                                   condition that limited their ability to work, made working
                                   difficult, or prevented them from working for 6 months or
                                   more. This did not include temporary health conditions
                                   such as broken bones or pregnancy.
                                   0 otherwise

Years in the U.S. :   continuous 0-50

Citizenship Status: 1 if U.S. citizen
                                   0 otherwise

Usual Hours Worked per Week: Continuous variable, 1 +

Weeks Worked Last Year: Continuous variable, 1 to 52

Currently Employed in the Military 1 if yes
                                   0 otherwise

Government Employment: 1 if employed in federal government
                                   0 otherwise

Occupation (Technical and administration occupations omitted category):
        Managers, executives, supervisors: 1 if yes
                                              0 otherwise
        Professional specialty occupations: 1 if yes
                                              0 otherwise
        Sales and retail: 1 if yes
                                              0 otherwise
        Hospitality and private household services:
                                              1 if yes
                                              0 otherwise
        Protective Services: 1 if yes
                                              0 otherwise
        Mechanics, repair occupations: 1 if yes
                                              0 otherwise
        Operators and laborers: 1 if yes
                                              0 otherwise
        Agricultural and farm workers: 1 if yes
                                              0 otherwise
        Unemployed   1 if yes   *not included in regression
                                              0 otherwise
        Unknown   1 if yes   *not included in the regression
                                              0 otherwise

Married: 1 if married, spouse present or spouse absent
                                   0 otherwise

Current Region of Residence (non-South omitted):

30

South: 1 if yes
                                    0 otherwise

Race/ethnicity*Veteran Interaction (White, non-Latino Veteran omitted)
     Asian/Pacific Islander Veteran:
                                    1 if yes (non-Hispanic response)
                                    0 otherwise
     African American Veteran: 1 if yes (non-Hispanic response)
                                    0 otherwise
     Latino Veteran: 1 if yes (of any race/ethnicity)
                                    0 otherwise
     White Veteran: 1 if yes
                                    0 otherwise

Bibliography

Alba, Richard and Victor Nee. 2003. *Remaking the American Mainstream: Assimilation and Contemporary Immigration.* Cambridge, MA: Harvard University Press.

Angrist, Joshua D. 1990. "Lifetime Earnings and the Vietnam Era Draft Lottery: Evidence from Social Security Administrative Records." *The American Economic* Review 80(3):313-336.

Barker, Laura and Jeane Batalova. 2007. "The Foreign Born in the Armed Forces." Migration Policy Institute. Retrieved January 10, 2008 (http://www.migrationinformation.org/USF ocus/display.cfm?ID=572).

Berryman, Sue E. 1988. *Who Serves? The Persistent Myth of the Underclass Army*. Boulder & London: Westview Press.

Binkin, Martin, and Shirley J. Bach. 1977. *Women and the Military*. Washington, D.C.: The Brookings Institution.

Borjas, George J. 1999. *Heaven's Door: Immigration Policy and the American Economy*. Princeton, NJ: Princeton University Press.

Browning, Harley L., Sally C. Lopreato, and Poston, Dudley L., Jr. 1973. "Income and Veteran Status: Variations among Mexican Americans, Blacks and Anglos." *American Sociological Review* 38(1): 74-85.

Congressional Research Service Report for Congress: Expediting Citizenship Through Military Service: Policy and Issues. Updated September 30,2003. Retrieved March 29, 2009 (http://oai.dtic.mil/oai/oaiverb=getRecord&metadataPrefix=html&identifier=ADA463147).

Cutright, Phillips. 1974. "The Civilian Earnings of White and Black Draftees and Nonveterans." *American Sociological Review* 39(3):317-327.

Dorn, Edwin. 1990. "Race and the American Military: Past and Present." Pp. 89-122 in *Ethnic Armies: Polyethnic Armed Forces from the Time of the Habsburgs to the Age of the Superpowers*, edited by N. F. Driesziger. Ontario, Canada: Wilfrid Laurier University Press.

Echenberg, Myron. 1990. "Race, Ethnicity, and Social Class in the French Colonial Army: The Black African Tiraulleurs, 1857-1958." Pp.50-68 in *Ethnic Armies: Polyethnic Armed Forces from the Time of the Habsburgs to the Age of the Superpowers*, edited by N. F. Dreisziger. Ontario, Canada: Wilfrid Laurier University Press.

Hirsch, Barry T. and Stephen L. Mehay. 2003. "Evaluating the Labor Market Performance of Veterans Using a Matched Comparison Group Design." Discussion Paper Series; IZA DP no. 740.

Hoefer, Michael, Nancy Rytina and Christopher Campbell. 2007. "Esimates of Unauthorized Immigrant Population Residing in the United States: January 2006." Office of Immigration Statistics, Policy Directorate, U.S. Department of Homeland Security, http://www.dhs.gov/xlibrary/assets/statistics/publications/ill_pe_2006.pdf.

Kasinitz, Philip. 2008. "Becoming American, Becoming Minority, Getting Ahead: The Role of Racial and Ethnic Status in the Upward Mobility of the Children of Immigrants." *The Annals of the American Academy,* 620: 253-269.

Little, Roger D. and J. Eric Fredland. 1979. "Veteran Status, Earnings, and Race: Some Long Term Results." *Armed Forces & Society* 5:244-260.

Martindale, Melanie, and Poston, Dudley L., Jr. 1979. "Variations in Veteran/Nonveteran Earnings Patterns Among World War II, Korea and Vietnam War Cohorts." *Armed Forces & Society* 7(2): 187-208.

Moskos, Charles C., and Frank R. Wood, eds. 1989. *The Military: More than Just a Job?* Washington: Pergamon-Brassey's International Defense Publishers.

Neckerman, Kathryn M., Prudence Carter and Jennifer Lee. 1999. "Segmented Assimilation and Minority Cultures of Mobility." *Ethnic and Racial Studies* 22(6)945-965.

Nelson, Gary R. 1986. "The Supply and Quality of First-term Enlistees Under the All-volunteer Force." Pp. 23-51 in *The All-volunteer Force After a Decade: Retrospect and Prospect*, edited by William Bowman, Roger Little and G. Thomas Sicilia. Washington: Pergamon and Brassey's International Defense Publishers.

Office of Immigrant Statistics, U.S. Department of Homeland Security, Yearbook of Immigrant Statistics: 2005, Table 20: "Petitions for Naturalizations Filed, Persons Naturalized, and Petitions for Naturalizations Denied: Fiscal Years 1907 to 2005."

Orvis, Bruce R., Martin T. Gahart, and Karl F. Schutz. 1990. *Enlistment Among Applicants for Military Service: Determinants and Incentives.* Santa Monica, California: The RAND Corporation.

Phillips R. L., Andrisani P. J., Daymont T. N. and Gilroy C. L. (1992) 'The Economic Returns to Military Service: Race–Ethnic Differences', Social Science Quarterly 73(2): 340–359.

Portes, Alejandro, and Ruben G. Rumbaut. 2006. *Immigrant America: A Portrait*. Berkeley: University of California Press.

Portes, Alejandro, and Min Zhou. 1993. "The New Second Generation: Segmented Assimilation and its Variants." *Annals of the American Academy of Political and Social Science* 530(Interminority Affairs in the U.S.: Pluralism at the Crossroads): 74-96.

Rumbau, Ruben G. 2008. "The Coming of the Second Generation: Immigration and Ethnic Mobility in Southern California." *The Annals of the American Academy of Political and Social Science* 620:196-236.

Rumbaut, Ruben G. 1991. "The Agony of Exile: A Comparative Study of Indochinese Refugee Adults and Children." *Refugee Children: Theory, Research and Services*, ed. F.L. Ahearn and J.L. Athey Baltimore: Johns Hopkins University Press.

Sackett, Paul, and Anne Mavor, eds. 2003. *Attitudes, Aptitudes, and Aspirations of American Youth: Implications for military recruiting.* Washington, D.C.: The National Academies Press.

Segal, David R. 1989. *Recruiting for Uncle Sam: Citizenship and Military Manpower Policy*. Lawrence, Kansas: University Press of Kansas.

Steven Ruggles, Matthew Sobek, Trent Alexander, Catherine A. Fitch, Ronald Goeken, Patricia Kelly Hall, Miriam King, and Chad Ronnander. *Integrated Public Use Microdata Series: Version 3.0* [Machine-readable database]. Minneapolis, MN: Minnesota Population Center [producer and distributor], 2007.

U.S. Congress. 1999. Committee on the Judiciary.   *The Contribution of Immigrants to America's Armed Forces.* 106th Congress, 1st Session.

Waldinger, Roger; Nelson Lim and David Cort. 2007. "Bad Jobs, Good Jobs, No Jobs? The Employment Experience of the Mexican American Second Generation." *Journal of Ethnic and Migration Studies* 33(1):1-35.

Weber, Eugen. 1976. *Peasants into Frenchman: The Modernization of Rural France 1870-1914*. Stanford, California: Stanford University Press.

White House Fact Sheet: *Honoring Immigrant Members of America's Armed Forces*. July 24, 2006. Retrieved October 15, 2007 (http://whitehouse.gov/news/releases/2006/07/2006 0724-2.html).

Young, Warren L. 1982. *Minorities and the Military: A Cross-national Study in World Perspective*. Vol. Contributions in Ethnic Studies, Number 6. Westport, Connecticut: Greenwood Press.

Zhou, Min, and Carl L. Bankston, III. 1994. "Social Capital and the Adaptation of the Second Generation: The Case of Vietnamese Youth in New Orleans." *International Migration Review* 28(4): 821-845.