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Clinton Farris '93

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Differences in Military Enlistment Characteristics of Minorities and Whites: 1981-83

Abstract
Virtually every group in America is represented in this country's military. However, this does not mean that each of these groups is equally represented. One persistent difference between the personnel of today's military and the members of the civilian population is the overrepresentation of racial minorities in the military. Several questions arise out of this disparity between the racial composition of the military compared to its civilian counterpart. The most debated question is whether or not it is fair for minorities to bear a proportionally greater burden in defending their country than that which their numbers in society dictate.
Differences in Military Enlistment
Characteristics of Minorities and Whites: 1981-1983
by Clinton Farris

I. Background

Virtually every group in America is represented in this country's military. However, this does not mean that each of these groups is equally represented. One persistent difference between the personnel of today's military and the members of the civilian population is the overrepresentation of racial minorities in the military. Several questions arise out of this disparity between the racial composition of the military compared to its civilian counterpart. The most debated question is whether or not it is fair for minorities to bear a proportionally greater burden in defending their country than that which their numbers in society dictate. For example, during the Gulf War blacks accounted for 30% of all U.S. soldiers fighting in the Middle East, while they accounted for only 12% of the general U.S. population (Donaldson, p.173).

The issue has been extensively debated in the economic, political and social arenas since the beginning of the All Volunteer Force (AVF) in 1973 when the Vietnam-Era draft ended. Some researchers and policy-makers argue that the unequal burden on minorities is unfair only if their enlistments are not voluntary, informed choices (Berryman, p.82). Such an assertion, however, is subject to much criticism. Is a person's enlistment always a voluntary decision, or are there other forces involved? When answering this question, it is important to consider the reason behind the enlistees "voluntary" decision, and exactly what alternatives were available to the enlistee. For a disproportionate number of the minority enlistees, the alternative is unemployment. Berryman argues that such enlistments are not voluntary, but rather that they represent economic conscription. These servicemen enlist because they have no other economic alternatives. The New Pittsburgh Courier wrote near the beginning of the Gulf Conflict, "Where would [the black soldier] be if not in the Saudi Arabian desert? Very possibly unemployed!" (Donaldson, p.143). The fact that the choice is voluntary does not necessarily mean that any resulting inequality of representation is therefore fair and justified. Other factors, such as alternatives in the civilian labor market, must be taken into consideration.

In addition to concern for the equitable treatment of individuals and subgroups of the population, the composition of the military is of concern to the society as a whole. During the Civil War special fighting regiments were formed which consisted entirely of black soldiers, yet were led by white commanders. Approximately 100 years later the Armed Forces banned racial segregation. However, more recently in the Gulf War overwhelming
numbers of minority combat forces were again being led into battle by white officers. Minorities were once again fighting and dying for a democracy which they could not fully enjoy. Not only is this morally wrong, it is dangerous. When a country's military significantly misrepresents the broader society which it must protect, the legitimacy of that country's government can become questionable.

This paper looks at the enlistment characteristics and backgrounds of minority and white enlistees age 18 to 22, from 1981 to 1983. It provides an analysis of differences between minority and white enlistees during this period. The objective is to determine the effects of the recession and the changing enlistment criteria on the accession of minorities relative to whites in terms of their respective socioeconomic backgrounds. The results are looked at in terms of the increase in the overall quality of recruits.

II• Literature Review –

There is a significant body of research available on the racial composition of the All Volunteer Force, including articles by such well-known economists as John Kenneth Galbraith and Milton Friedman. Several studies exist on how changes in economic conditions and the business cycle effect the number and quality of enlistees, as well as research on changes in minority enlistment over time. My literature search failed to locate any prior work which bridges these two areas of research and analyzes differences in the characteristics of minority and white enlistees in terms of the recessionary effects of the early 1980's.

Although there is no single previous study which serves as a control for my work or upon which this project explicitly builds, I have found a significant amount of literature providing useful information about enlistment rates and characteristics of enlistees. One of these sources is the 1989 publication of the U.S. Congressional Budget Office (CBO) entitled Social Representation in the U.S. Military. The document contains a study which follows a group of enlistees from 1980 to 1987. It also studies general enlistment trends in terms of the geographic diversity of enlistees, their race and socioeconomic background. The study, however, does not address the role of the economy and business cycle so much as it does changes in the recruiting practices and enlistment standards of the armed forces.

Additional work in this area includes William Bowman's 1986 book entitled The All-Volunteer Force After a Decade, and Sue Berryman's book Who Serves? The Persistent Myth of the Underclass, published in 1988. Dr. Berryman's work contains an analysis of enlistment characteristics within minority groups. The book's primary focus is on the political implications of the All Volunteer Force and the issues of effectiveness and loyalty with racially unrepresentative forces. One section, however,
addresses the concept of the AVF as an extension of the welfare state. That is, do the armed forces act as a federally funded program for people suffering from economic hardship? Such a question directly relates to the recessionary focus of my own paper. I have located additional literature dealing with the role of minorities in the military, but most of this is either policy oriented or provides a more historical perspective of enlistments prior to the beginning of the AVF.

III. Theoretical Framework

The great majority of research in the field of military enlistment has its underlying framework in supply and demand theory. The reasoning is straightforward. The composition of the military (in a volunteer environment) is determined by two factors:

1) Those who are willing to serve.
2) Those whom the services are willing to accept.

There are numerous things which influence these supply and demand factors. On the supply side, elements directly affecting an individual’s decision to enlist include employment status, military pay levels, benefits and opportunities for additional education and/or training. In addition to these environmental and economic factors, recruiting practices such as advertising expenditures, the number of recruiters and enlistment bonuses may influence the number of youths willing to serve. During the period of this study, the supply of potential enlistees increased as the recession worsened and more youths saw enlistment as a viable alternative to employment in the civilian labor market.

On the demand side, the Department of Defense (DOD) sets the recruiting quotas for the services, which are then submitted to Congress for approval and (usually) modification. In addition to this targeted minimum number of enlistees, there are also qualitative standards the military attempts to meet. Examples include the percentage of enlistees who have received a high school diploma and a certain percentage of enlistees in the higher-scoring categories of the Armed Forces Qualification Test (AFQT).

Although this study is based upon supply and demand theory, there are also elements of human capital theory. The reasoning for this is that three of the four independent variables used in the model involve how investment in education is related to the decision to enlist.

Based on the above theoretical framework, I propose the following hypotheses:

1) Minorities and whites from higher socioeconomic background were more likely to enlist in 1983 than in 1981.
2) A high socioeconomic background was a better predictor of enlistment for minorities than for whites in 1983 compared to
As the recession deepened from 1981 to 1983, employment opportunities in the civilian labor market became more scarce. As a result, youths from more advantaged and higher socioeconomic backgrounds who would not have normally considered enlisting in the military now saw this as an option, as opportunities in the private sector were harder to come by. As the supply of enlistees increased, the military— from the demand-side standpoint—was able to be more selective. The second hypothesis states that the minorities who met these higher standards and enlisted were more likely to come from higher socioeconomic backgrounds than were the whites who enlisted.

I am using a secondary source of data, called the National Longitudinal Survey (NLS)—Youth Cohort. The survey consists of 12,686 young men and women who were first interviewed in 1979 and who have been interviewed in each subsequent year. The results from these surveys, for each year up through 1990, are available on a CD-ROM disk, allowing for (relatively) easy access to a large amount of data. Although the survey as I have described it would be an excellent source, it is even better because the NLS includes a subsample of 5,295 youths designed to oversample racial minorities and those economically disadvantaged.

IV. Empirical Model

A cross-sectional and time-series regression equation was used for testing the hypotheses. The equation took the following form:

\[ \text{ENLIST}_{\text{race}} = B_1 + B_{\text{MOTHED}} + B_{\text{FATHED}} + B_{\text{DIPL}} + B_{\text{POVT}}. \]

Expected Sign (- = Slightly)

1981 1983

ENLIST\(_{\text{race}}\) Dummy dependent variable for whether or not the respondent enlisted in the military during the year of the survey.

\(\sim+\) + MOTHED= Years of formal education completed by respondent's mother.

\(\sim+\) + FATHED= Years of formal education completed by respondent's father.

\(+\) + DIPL= Whether or not respondent received a high school diploma.

\(+\) - POVT= Poverty status of respondent in year of enlistment.

The analysis is concerned not so much with the sign and level of significance in 1981 as it is with the relative change and level of significance by 1983 for minorities compared to whites. For the first two independent variables, MOTHED and FATHED, the signs were expected to be slightly positive in 1981. The justification for this is that the initial effects of the
recession will just be starting to be visible. However, by 1983 the signs on both of these variables were expected to be positive and strongly significant as the recession peaked and the military could be most selective.

I expected the third independent variable, DIPL, to behave in a similar manner to that of the other two education-related variables: slightly positive in 1981 and increasing to a high level of significance by 1983. I thought the fourth variable, POVT, would also be slightly positive in 1981. By 1983, however, I expected that fewer youths from impoverished backgrounds would meet the stricter enlistment criteria and therefore that poverty would be negatively related to enlistment.

The following section presents descriptive statistics of the variables as well as the regression results.

V. Results

The data provided 207 enlistees for 1981 and 168 enlistees for 1983. The crosstabular and means calculations showed three of the variables to be supportive of both of the hypotheses. These were the variables testing the level of the mother's and father's education, and the variable concerning the enlistees poverty status. From 1981 to 1983 the percentage of minority enlistees living in poverty decreased from 49.7% to 19.2%. Within the group of white enlistees there was also a decrease, from 32.6% to 16.7% (See Graph I). These figures support the first hypothesis, that the military was able to select "better" recruits in 1983 than in 1981. During the same period minorities went from being 63.8% of the total number of enlistees living in poverty to 50% of the total number of enlistees living in poverty. Correspondingly, the total number of enlistees living in poverty that were white increased from 36.2% to 50% of all enlistees. This supports the second hypothesis, that the improvement was more evident for minorities than for whites. The much greater magnitude of the decrease for minorities relative to whites, as shown in Graph I, also provides strong support for the second hypothesis.

**Table I**

<table>
<thead>
<tr>
<th>Percentage of Enlistees Whose Mother's had Completed at least some College Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
</tr>
<tr>
<td>1983</td>
</tr>
<tr>
<td>Minorities 6.1% ..................... 14.3 %</td>
</tr>
<tr>
<td>Whites 11.8% ..................... 12.5 %</td>
</tr>
</tbody>
</table>

**Table II**

Illinois Wesleyan University
Percentage of Enlistees Whose Father’s had Completed at least an Undergraduate Education

<table>
<thead>
<tr>
<th></th>
<th>1981</th>
<th>1983</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minorities</td>
<td>26.3 %</td>
<td>33.8 %</td>
</tr>
<tr>
<td>Whites</td>
<td>30.1%</td>
<td>26.1%</td>
</tr>
</tbody>
</table>

**GRAPH I**
Poverty Status of Enlistee

**GRAPH II**
Racial Composition of Enlistees

However, one must be careful in looking at such figures. The NLS Survey is weighted to sample a disproportionally large
number of minorities. In 1981 the percentage of white enlistees to minority enlistees was 44.9% to 55.1%. By 1983 the ratio had reversed, and 55.3% of enlistees were white and 46.7% were minority (See Graph II). Such a shift suggests that, as the recession deepened from 81' to 83' and the economy worsened, more whites viewed the military as an attractive alternative. It also provides reason to expect the percentage of enlistees with impoverished backgrounds who were white to increase, as more enlistees were white.

Now for the variable of the enlistees' mother's education. From 1981 to 1983, the percentage of minority enlistees' mothers who had at least some college education increased, actually more than doubling, from 6.1% to 14.3%. For whites the corresponding increase was from 11.8% to 12.5% (See Table I). The results provide strong evidence for both hypotheses. The quality of enlistees, as measured by this variable, increased from 1981 to 1983. These figures also show that the increase was much more apparent for minorities than for whites. In 1981, 61.1% of those enlistees whose mothers had some college education were white, and the remaining 38.9% were minorities. By 1983 the percentages had evened out at 50% for minorities and 50% for whites. Again, this is evidence that the minority enlistees' backgrounds were improving relative to those of whites.

Results for the variable of enlistees' father's education were also supportive of both hypotheses, but they were not as robust as the results concerning the mother's education. The overall percentage of enlistees whose fathers had educational levels at least through the undergraduate level increased from 1981 to 1983, providing support for the hypothesis that the military was getting better recruits by 1983. For minorities, the percentage of enlistees whose fathers had completed at least an undergraduate education increased from 26.3% to 33.8%. Surprisingly, for whites there was a decrease from 30.1% to 26.1% (See Table II). Since overall enlistees' father's educational levels rose during the period, this decrease is rather unexpected. However, it is supportive of the hypothesis that minority enlistees backgrounds improved relative to whites.

The last variable tested was for whether or not the enlistee had received a high school diploma (See Graph III). As the results show, the percentage of enlistees who had earned a high school diploma increased from 1981 to 1983, both for minorities and for whites. While this supports the validity of the first hypothesis, little distinction can be made between the relative sizes of the increases for minorities as compared to whites.

Overall, the bivariate analysis provides support for both hypotheses, although the evidence is somewhat stronger for the first hypothesis than for the second. These results help to reinforce confidence in the trends which the regression analysis attempts to prove.

The regression results provided a certain degree of support for both hypotheses, but the evidence was not as strong as the
bivariate analysis would suggest. The regression results are shown in Tables III and IV.

### Table III
**Regression Results**

<table>
<thead>
<tr>
<th></th>
<th>Minorities</th>
<th>Whites</th>
<th>Non-racial</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mother's Education</strong></td>
<td>.0025</td>
<td>.0014</td>
<td>.0016</td>
</tr>
<tr>
<td></td>
<td>(1.02)</td>
<td>(0.54)</td>
<td>(0.94)</td>
</tr>
<tr>
<td><strong>Father's Education</strong></td>
<td>.0013</td>
<td>.0000</td>
<td>.0000</td>
</tr>
<tr>
<td></td>
<td>(0.57)</td>
<td>(0.04)</td>
<td>(0.25)</td>
</tr>
<tr>
<td><strong>High School Diploma</strong></td>
<td>.0267</td>
<td>.0220</td>
<td>.0243</td>
</tr>
<tr>
<td></td>
<td>(1.74)</td>
<td>(1.92)</td>
<td>(2.63)</td>
</tr>
<tr>
<td><strong>Poverty Status</strong></td>
<td>.0419</td>
<td>.0457</td>
<td>.0467</td>
</tr>
<tr>
<td></td>
<td>(2.84)</td>
<td>(3.64)</td>
<td>(4.92)</td>
</tr>
</tbody>
</table>

(T-statistics are shown in parentheses)

### Table IV
**1983 Regression Results**

<table>
<thead>
<tr>
<th></th>
<th>Minorities</th>
<th>Whites</th>
<th>Non-racial</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mother's Education</strong></td>
<td>-.0018</td>
<td>.0016</td>
<td>.0000</td>
</tr>
<tr>
<td></td>
<td>(-0.80)</td>
<td>(0.64)</td>
<td>(-.261)</td>
</tr>
<tr>
<td><strong>Father's Education</strong></td>
<td>.0013</td>
<td>-.0020</td>
<td>.0000</td>
</tr>
<tr>
<td></td>
<td>(1.93)</td>
<td>(-1.11)</td>
<td>(0.451)</td>
</tr>
<tr>
<td><strong>High School Diploma</strong></td>
<td>.0420</td>
<td>.0348</td>
<td>.0369</td>
</tr>
<tr>
<td></td>
<td>(2.97)</td>
<td>(3.06)</td>
<td>(4.19)</td>
</tr>
<tr>
<td><strong>Poverty Status</strong></td>
<td>-.0190</td>
<td>-.0149</td>
<td>-.0152</td>
</tr>
<tr>
<td></td>
<td>(-0.14)</td>
<td>(-1.27)</td>
<td>(- 1.74)</td>
</tr>
</tbody>
</table>

(T-statistics are shown in parentheses)

Mother's education was slightly positive but not significant in 1981. The hypotheses predicted that by 1983 the variable would be positive and strongly significant. As the results show, this did not happen. In fact, two of the categories—minorities and non-racial—actually became negative. Initially I expected that this could be caused by problems with the mother's and father's education variables correlating. Therefore, the regression was tried with one removed and the other still included, but this did not improve the results.
The variable for father's education had results in 1981 similar to those for mother's education. It was also expected to become positive and significant by 1983. Overall, this did not occur. However, the variable was positive and significant for minorities, which supports the second hypothesis that the effect was more pronounced for minorities than for whites. While it was expected that the value for minorities would be more significant than the value for whites, it is surprising that mother's education became negative for whites.

The high school diploma variable was positive and significant at the 10% level in 1981. Like the other education-related variables, I expected it to increase in significance by 1983. The increase did occur, as it became significant at the 5% level overall in 1983. The overall increase is supportive of the first hypothesis, but little can be found from this result to support the second hypothesis.

The final variable, that representing the poverty status of the enlistee, was positive and significant in 1981. It was not predicted to be significant in 1981, but this does not create a problem. The fact that it was significant indicates that in 1981 coming from an impoverished background was still positively related to enlistment in the military. What is important is the change from 1981 to 1983. The results show that the direction of this change was as predicted, but that it was not of the magnitude expected. The poverty variable did become negative by 1983, but it was not at a significant level. Even though it is not significant, it is still important to note that poverty was positively related to enlistment in 1981 and that this was no longer the case in 1983. The change in itself does, to a certain degree, serve as evidence for the first hypothesis. Although results for this variable do not seem to indicate much in terms of differences in the effect on minorities compared to whites, we already saw from the bivariate analysis that there is an underlying trend between minorities and whites which the regression failed to reveal in some ways (Graph I).

VI Conclusion

The last two variables, DIPL and POVT, provide some measure of support for the first hypothesis, while the variable for father's education is evidence for the second hypothesis. The variable for mother's education failed to be significant. Further refinement of the model is possible. Most importantly, using a probit regression model could help to alleviate the problems inherent in the use of a dummy dependent variable and lead to more robust results. It might also be worthwhile to use military manpower data to increase the number of enlistees, thus increasing the sample size and providing more confidence in the results. The data could also provide information on entrance exam scores (the Armed Forces Entrance Exam) for enlistees.

At the beginning of this paper I proposed the following hypotheses:
1) Minorities and whites from higher socioeconomic backgrounds were more likely to enlist in 1983 than in 1981.
2) A high socioeconomic background was a better predictor of enlistment for minorities than for whites in 1983 as compared to 1981.

When both the bivariate and regression results are considered, the overall outcome is generally favorable and supportive of the hypotheses. Both types of tests (bivariate and regression) provide evidence in support of the same variables for both hypotheses, and the bivariate analysis suggests that there is an underlying validity to the hypotheses. It is difficult to draw any conclusive policy suggestions without further evidence supporting differences in the backgrounds of minorities and whites. A recessionary period like that of the early 1980's is generally advantageous to the military in terms of the overall quality of recruits from which it has to choose. Nevertheless, it is difficult to advocate the military adopting a pro-recessionary stance based on this conclusion. One valid conclusion, however, is that the military needs to put fewer resources into recruiting efforts to maintain the quality of its recruits during such periods.

BIBLIOGRAPHY
