

Defense Manpower for the Future: Demographic, Minority, and
Social Issues

by

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Abstract

This study is based on a review of census data, both past and present, for non-Hispanic Whites, Hispanics, and Blacks in the United States. The purpose is to form accurate projections of the availabilities and military service participation rates of these populations, by sex, during the next 30 years. Particular emphasis is directed to the decade of the 1990's because the entry-level age cohort of the general population will be sharply reduced from recent levels during the 1990's. In forming estimates it has been assumed that current service manning levels and retention rates will remain constant, and that mental qualification rates for each population category will be unchanged. General population dynamics, continuing effects of the post-World War II baby boom, Hispanic population growth, the movement of women into the labor force, and several social issues are examined. Some manpower policy issues are noted. The general conclusions are that the largest untapped population segment consists of non-Hispanic White women, that non-Hispanic White men are likely to continue to furnish the substantial majority of service members, and that the population growth and participation rates of both Hispanics and Blacks preclude the possibility of substantial increases in their proportions in the armed services. Meanwhile, expanding opportunities in the civilian work force will make accession of a sufficient number of volunteers highly unlikely without significant policy changes. Some version of a draft may become necessary.

Defense Manpower for the Future: Demographic, Minority, and Social Issues

Introduction

Planning for adequate levels of military manpower requires that many factors and contingencies be taken into account.¹ Of primary importance, of course, is a clear understanding of current and projected population data. In addition to knowing the "raw numbers" of future population age cohorts, however, it is also vital to know a good deal about the composition of the population. Additionally, one must take into account service eligibility rates among population segments. And, in an all-volunteer environment, economic conditions, major social trends, cultural and social changes, and political realities of the times all become important. Many variables must be understood in formulating workable policies and programs for the maintenance of needed manpower levels in the armed forces.

It is possible, of course, to simply accept readily available data on current and projected numbers of persons in certain age categories (age cohorts), and plan in terms of the predicted increases or decreases in these target populations. But such an approach is too simplistic because it ignores many known effects and logical implications of demographic structures of whole populations and the effects of population dynamics. Both the demographic structure of the population in the present and near future and the general processes of population change are major influences on society as a whole. Hence, a more thoughtful planner should have some sound understandings of what both demographic factors and several other related and intertwined social factors are likely to mean. One must be aware that present personnel policies have strikingly different implications for different sectors of the population.

To illustrate: If the current sex, race, and minority "mix" of the armed services were to remain unchanged, by the year 1995 it will be necessary to enlist nearly 90 percent of all eligible Black males who reach the age of 18 each year, but less than 3 out of 100 non-minority White females of the same age. It seems likely that such a discrepancy in the ratio of accessions required from these categories is both unintended and unsustainable.

The overall aim of this paper is to examine U.S. population structure and dynamics in the recent past, present, and near-term future in order to determine major implications for defense manpower. Four important trends or conditions are seen as having predictable and lasting influence: the "baby boom" and its continuing ripple effects, the massive movement of women into the labor force since 1960, the high level of Hispanic

immigration, and the fundamental redefinition of appropriate family size in America.

General Population Data and Overall Military Manpower

In 1990, the total population of the United States is predicted to reach 250 million. By the year 2000 the projection is for a total of 268 million, and by 2020 to rise to 297 million.

The most straightforward and uncomplicated way of looking at total potential military manpower during the 1990-2020 time frame is to note the total number of persons 18-24 years old during selected years of that period. The major assumption, of course, is that a very sizable fraction of this age cohort could be drawn into the armed services if necessary. Table 1, below, displays data on the size of the total population, the 18-24 age cohort,

Table 1

Population and Selected Age Cohort Data for the U.S., 1960-2020

<u>Year</u>	<u>Total Population (millions)</u>	<u>Cohort Aged 18-19 (millions)</u>	<u>Cohort Aged 18-24 (millions)</u>	<u>Cohort Aged 65 & over (millions)</u>
1960	180.7	4.6	16.1	16.7
1970	205.1	7.5	24.7	20.1
1980	227.7	7.2	30.3	25.7
1990	249.7	7.0	25.0	31.7
1995	258.0	6.3	22.8	33.0
2000	268.0	7.1	23.6	34.9
2005	274.6	7.6	25.9	36.1
2010	283.2	7.5	26.6	39.2
2020	296.6	6.8	24.2	50.7

Source: U.S. Bureau of the Census, Current Population Reports, Series P-20 and P-25, various numbers.

and for later comparison purposes, the numbers in the 18-19 year-old cohort and the cohort aged 65 and older. Those 65 and older have little to do with military manpower directly, but are important to a better understanding of the nation's population structure. The 18-24 age cohort also furnishes most new entrants

into the civilian labor force, a fact which will become increasingly important to military planners during the 1990's.

As is evident from Table 1, the 18-24 year-old age cohort seems to be of sufficient size so that a very large military force could be drawn from it if the necessity arose. That age group nearly doubled in size between 1960 and 1980, having increased from 16.1 million to 30.3 million. There is also little reason to doubt the availability of sufficient numbers of appropriately-aged potential military personnel anytime in the foreseeable future. At no time in the next 30 years does the size of the 18-24 year-old age group fall below 22,800,000. Nor does it decline by more than 10 percent from its present level (Census Bureau, 1985).

The seeming availability of such large numbers may, however, provide an unwarranted degree of confidence for military manpower planners. Other societal forces, and more specific demographic processes, happen to coincide during the 1990's in ways that will raise serious problems for accession and retention of needed numbers. The explanation will require some further background, but at this juncture the reader should note that by 1995 the number of 18-19 year-olds will have fallen some 13 percent from its 1980 high of 7.2 million. The size of the 18-24 age cohort decreases nearly 24 percent over the same time period.

Note also that population projections concerning the size of these age groups are not conjectures. The children who will form these age cohorts until almost the year 2010 have already been born. Further, death rates for all age groups are highly predictable, so that projections for total population size, the number aged 65 and over, and the like are highly accurate within the time frame presented here (i.e., until 2020).

Population Dynamics

Changes in population size are accomplished in only three ways: births, deaths, and migrations. The population of the United States is in most ways similar to that of other Western industrialized nations. Death rates are low, whether computed for the society as a whole or any segment of it.

Birth rates for the society as a whole are low, but vary considerably among major ethnic and racial categories. American women are projected to have, on the average, 1,900 children per 1,000 women. This birthrate results in a rate of natural increase of about 7/10 of one percent annually because there are presently relatively large numbers of women of childbearing age. Somewhat more than 2,100 live births per 1,000 women would be needed for population maintenance (without immigration) in the long run; thus the total population of the United States is projected to level off and begin a slow decline during the middle of the 21st century (Census Bureau, 1988).

Immigration is the third major variable determining population size and change. A very brief recapitulation of the history of U.S. immigration offers some clarification of present issues in military manpower procurement. Throughout most of our history, up until the 1920's, immigration rates were a very significant force in increasing our population. Migration was initially predominantly from Great Britain and western Europe, shifting to northern Europe, then to eastern and southern Europe with a relatively few people coming from Asian nations. The passage of extremely restrictive immigration laws in the 1920's (the National Origins Act of 1924) reduced immigration to a trickle, largely because quotas of new immigrants from specific nations were proportional to the fraction of Americans of that national origin or descent present in the U.S. in 1920. Moreover, immigration was restricted to a total of 150,000 Whites annually. Asian immigration was shut off entirely. Quotas for European countries were frequently unfilled as previous "push" factors in these nations were not strong after 1920. Immigration barriers were not lowered, even for refugees before, during, and after World War II (Weyr, 1988).

There was a very significant exception to the above restrictions, however. Immigration from countries in the Western Hemisphere was not limited in any way until 1965.

However, the United States was rapidly growing in affluence, power, and prestige during the post-World War II years. At the same time the political unrest, economic ills, and sharply rising populations of Mexico, Cuba, Puerto Rico, and other Central and South American nations were helping generate reasons for migration. Thus both "push" and "pull" factors were operating to encourage the migration of Hispanics to the United States. By 1960, both legal and illegal Hispanic immigration had risen to significant levels. Immigration from Asian countries also increased sharply during the 1970's and 1980's, although the numbers were large only in contrast to previous Asian migration and not to total U.S. immigration (Cafferty and McReady, 1985).

Hispanic Population Growth in the United States

Hispanics are, and have been for two decades at least, the fastest-growing segment of the American population. As such, it is important to be able to estimate the future size of this portion, to know how military participation rates of Hispanics have compared with other segments of the population, and to understand important unique features of Hispanics as a category.

The total number of Hispanics in the United States was about 19.4 million in 1988, or about 8.1 percent of the total population of the country. The total number of Hispanics represented an increase of about 4.8 million, or 34 percent, since the 1980 census. The non-Hispanic population growth during the same time frame (1980-1988) was, in contrast, only 7 percent.

To further illustrate the rapidity of Hispanic population growth in the U.S., in 1970 Hispanics numbered 9.1 million, or 4.5 percent of the total population. Since 1980, about half of the population growth of Hispanics in the U.S. is due to immigration, and half due to natural increase (births minus deaths) (Census Bureau, 1988).

In discussing the Hispanic population of the U.S., at least two acknowledgements should be articulated. First, the term "Hispanic" is used throughout this paper in the same way as by the U.S. Bureau of the Census. To be classified (counted) as Hispanic a person must identify himself/herself as an immigrant from Mexico, Cuba, Puerto Rico, Spain, or any South American or Central American country; or as having such ancestry. Other definitions or methods of enumerating, such as use of Spanish language or having a Spanish surname, result in varying Hispanic population counts. Cafferty and McCready (1985) and many others have detailed the issues in obtaining highly accurate census information for Hispanics.

Second, as is already evident, Hispanics constitute a widely diverse category of subgroups which have, in some cases, strikingly dissimilar characteristics. In 1987, 62.6 percent of Hispanics were of Mexican origin, while 12.2 percent were Puerto Rican, 5.4 percent were Cuban, 11.4 percent Central and South American, and 8.5 percent were included in an "Other" category (Census Bureau, 1988). Cubans, for example, have about the same average age and educational level as the non-Hispanic majority population. In contrast, only 44 percent of those from Mexican origin are high school graduates and 6.4 percent of those 25 years old and older have 4 or more years of college while for the total U.S. population these figures are 76 percent and 23.6 percent respectively (Census Bureau, 1988). Puerto Ricans are U.S. citizens by birth, which is not true of other persons classified as Hispanic.

In terms of residence, Hispanics are heavily concentrated in the Southwest, with 55 percent living in either California or Texas and 8 percent more in Arizona, New Mexico, and Colorado. Four other states, New York, Florida, Illinois, and New Jersey have 26 percent of all Hispanics. Further, the Hispanic population is much more urbanized than the remainder of the U.S. population. Typically then, but with significant exceptions, Hispanics are likely to be of Mexican origin or ancestry, to live in an urban area of the Southwest, and to rank lower than the general population on many quality of life indicators.

It should also be pointed out that Hispanic immigrants are, as a whole, probably better educated on the average than any previous immigrant category and have typically shown relatively rapid progress in the assimilation and acculturation process.

Table 2, below, displays projections of the total Hispanic population, how it might be expected to grow, the total numbers of males and females aged 18 and 19, and the number of males reaching age 18 each year. The table is constructed using data

Table 2

Hispanic Population Size and Growth

	<u>Total Hispanics (millions)</u>	<u>Assumed Growth Rate (percent)</u>	<u>Total Ages 18-19</u>	<u>Average # Males Age 18 Each Year</u>
1970	9.1	4.0	318,000	79,000
1980	14.6	3.8	511,000	127,000
1988	19.4	3.7	679,000	169,000
1990	20.7	3.7	730,000	182,000
1995	24.8	3.5	867,000	216,000
2000	29.1	3.3	1,020,000	255,000
2005	34.0	3.1	1,188,000	297,000
2010	39.2	2.9	1,371,000	342,000
2015	44.7	2.7	1,566,000	391,000
2020	50.6	2.5	1,772,000	443,000

Source: Census Bureau publications, various series and numbers.

available through 1980, Census Bureau projections through 1988, and two assumptions requiring brief explanation.

The percent figures in the column headed "Assumed Growth Rate" are approximations derived by assuming that the rate of natural increase for Hispanics will remain at the same level it was during 1980-88, or about 1.76 percent annually. Immigration is assumed to remain at 300,000 annually, again the average level during 1980-88. Year-by-year computations were made, and the "growth rate" is an approximation of the rate required for the 5-year period following the year for which it appears, in order to reach the population for the next year appearing in the table.

Obviously, either the rate of natural increase or the number of immigrants could change. The rate of natural increase tends to be a very stable percentage in a given population, but in the case of U.S. immigrant populations it is likely to trend downward. The number of immigrants each year will probably

represent a balance between continuation of the "push" and "pull" factors referred to above, the legal restrictions on numbers of legal immigrants from countries with Hispanic populations, and popular and political sentiment in the U.S. to discourage the rapid growth of the Hispanic minority.

Oddly enough, the relatively rapid growth of the Hispanic population does not significantly affect overall manpower availability in the decade of the 1990's, and has only minor significance in projections of the ethnic mix found in the military services. Hispanics males, to judge from current levels of participation in armed forces, are neither more nor less likely than non-minority White males to volunteer for military service. Their service eligibility rates are higher than for Black males but lower than for non-minority White males (Eitelberg, 1988). The net effect of these two factors is found in military representation rates lower, but not much lower, than one would predict from previous and current population proportions of Hispanics.

The military participation rates of Hispanic females, however, is somewhat lower than that of non-Hispanic White females. In 1988, only 1.7 percent of eligible 18-year-old Hispanic females entered the armed forces, while about 2.2 percent of eligible non-minority White females elected military service. Black women are much more likely to enter the service than either Hispanic or non-Hispanic White women. Contrasts in service eligibility rates and rates of participation for both minority and non-minority men and women will be detailed in a later section of this paper.

Somewhat speculatively, the low rates of participation in the armed services by non-Hispanic White women and by Hispanic women are attributable to different causes. For non-Hispanic women, the economic and educational opportunity structure is favorable enough so that military service is not an attractive alternative. Hispanic women are like Black women in terms of being the victims of dual minority statuses (female and minority), so that the statutory and regulatory male/female equality and the economic opportunity of the military services "should" seem an attractive career alternative. However, Hispanic women come from a subculture, and often a family, which is supportive of early marriage, large families, women in the home rather than the workplace, and a sharp differential in male and female statuses. Hispanic males, including those who are members of the military services, are less likely than non-Hispanic men to favor women in the services, especially Hispanic women.

Baby Boom: History and Lasting Effects

Most Americans are familiar with the term "Baby Boom," and know that it refers to the large increase in the number of children born following World War II. Beyond that, however, the

phenomenon and its lasting effects are often not well understood, partly because the topic is seldom presented in any systematic fashion by the popular media.

The magnitude of the Baby Boom was remarkable, and unprecedented, in the demographic history of the United States. To illustrate: In 1955, before any children of the Baby Boom were part of it, the age cohort 18-24 numbered less than 15 million, while in 1980, when those born during 1956-1962 formed this cohort, the number had increased to slightly more than 30 million. In terms of population dynamics, the virtual doubling of birthrates in a short period of time is very unusual. Nevertheless, in comparing the Baby Boom years (1945-1960) with the period 1930-1944 this was what happened. A brief explanation for this unusual demographic phenomenon is informative both in terms of historical events and in terms of population dynamics as well.

Following a decade or more of economic prosperity and peace in the 1920's, the Great Depression lasted through nearly all of the 1930's. High unemployment, business and industrial decline, widespread drought in agricultural areas, and general economic stagnation exacted a heavy toll. One outcome of the economic pinch was that many Americans of marriageable age postponed marriage, or married but postponed or limited childbearing. On the heels of the Depression came first the threat and then the reality of World War II. With the war, the first truly global conflict, birth rates remained as low or lower than during the 1930's. Many married couples endured long periods of separation, and marriages that might have occurred in peacetime were delayed.

The effects of World War II on the populations of several nations were profound, though different. Germany and the Soviet Union each lost many millions of men, and a great many women and children as well. Military manpower losses to the U.S. were not very high (less than 700,000 deaths), but by early 1945 more than 12 million Americans (97 percent men) were in uniform, drawn from a total population of less than 140 million. A comparable figure for the present population of the U.S. would be more than 21 million people in the armed services, or more than the total of all physically qualified males between 18 and 32! Unsurprisingly, the level of military commitment during WWII had a major depressing effect on birthrates.

The last half of the 1940's brought massive demobilization, a resurgence of economic prosperity, a considerable degree of inflation, and a vast relief from the tandem strains of depression and war. Millions of young men and women felt free to marry, and faced a far brighter future than had been apparent during the 15-year period from 1930 to 1944. One result was the Baby Boom, which has had profound effects on our society and will continue to do so well into the future. The inflated birthrates of the Baby Boom lasted from 1945 until 1960.

The decline in birthrates after 1960 was slower than the increase in the middle 1940's, and did not result in a return to the low birthrates of the 1930's. The end of the Baby Boom was brought about largely by three factors: the reduced numbers of people in childbearing years (themselves the children of the Depression), the increasing proportions of married women entering the civilian labor force, and the society-wide redefinition of appropriate family size during the 1960's and 1970's. Couples were much more likely to have one, two, or three children rather than the three, four, or five their parents had produced.

The "ripple" effects of the Baby Boom were many. Initially, as millions of new families were formed, there was a heavy demand for new housing. Shortly thereafter the size and number of schools needed increased, rippling upward from primary schools in the 1950's to rapidly growing colleges and universities in the 1960's. Beginning in the middle 1960's the job market came under pressure as the earliest children of the Baby Boom entered the labor force. Inflationary pressures increased from a rapidly rising demand for consumer goods, and the number of marriages increased. Soon after the surge in marriages, divorces also increased, as had also happened following WWII, two decades before.

Another "ripple" effect in the population that has a significant effect, especially on the 1990's, is due not to the Baby Boom but to the reduced birthrates of the Depression/WWII era that preceded the Baby Boom. "Generations" really are about 30-35 years apart. The (fewer) children born between 1930 and 1945 had their children between 1960 and 1980, with the lowest ebb in total numbers of births coming in the early 1970's. These are the people who are presently, or will be during the early 1990's, reaching college and service entry age. That is, the current and near-future manpower pool is made up of the grandchildren of persons born during the Depression and WWII.

The Baby Boom and the preceding and following lower levels of births would be, by themselves, important population issues. When their impact is magnified by other social trends, the influence on available military manpower is highly significant.

Women in the Labor Force

It is generally understood that women have greatly increased their participation in the labor force. To illustrate, in 1950 only 23.8 percent of all married women were in the labor force, while in 1986 more than 54 percent worked outside of the home. The most striking increase in labor force participation has been that shown by married women with children under the age of six. In 1950 only 11.9 percent of these women worked, while by 1986 nearly 54 percent were employed. By 1986, more than two thirds (68.4 percent) of married women with children aged 6-17 were employed. Rates of employment for divorced, separated, and single women are even higher (Schaefer, 1989).

There are several reasons for the sharply increased rates of female participation in the labor force. First, the average educational level of women has increased substantially, and is now virtually identical to that of men. Second, the "women's liberation movement," which represents several basic changes in social values and beliefs in U.S. society, has had some influence. Traditional sex and gender roles have been called into question, re-evaluated, and changed.

Third, the average number of children per family has decreased, shortening the childbearing and childrearing stages of family life, while general health and especially longevity has increased. Thus a far longer period of women's lives are without the responsibility of child care. Fourth, and perhaps as important as any of the previous reasons, economic changes have "driven" many women into the work force. After decades of rising real wages, and accompanying rising expectations, the late 1960's marked the end of that upward trend. The gap between earnings and expectations began to widen for families with only one wage earner, effectively driving married women into the work force.

Two observations concerning the unprecedented work force participation of women are especially salient for military manpower issues. One, the likelihood of female participation in the work force, which could include some period of military service, is now nearly as high as that for males. This means that as a society we are nearing the "saturation point" of female work force participation, and only a relatively few additional percentage points of increase can be expected (Johnston & Packer, 1987).

Two, the growth of the civilian job market has been sufficient over the past three decades to absorb both the flood of Baby Boomers and the additional influx of a sharply rising proportion of employed women. In 1960 the labor force total was 69.6 million, and now exceeds 120 million, an increase of over 75 percent in three decades (Johnston & Packer, 1987). When the supply of entry-level-aged males for the work force "flattened out" and began to decline in the early 1970's, the rate of increase for women entrants went up. That is, there was a greater increase in female work force participants between 1975 and 1985 than was observed between 1965 and 1975.

Since in the 1990's neither of these sources for increasing numbers of workers is available, logic dictates that the civilian sector will be competing fiercely with the military for the occupational services of both men and women. This does not auger well for recruitment, since the civilian sector can respond (e.g., with wage and salary increases) more rapidly and with fewer limitations than can the military.

An Additional Availability Factor: Qualification Rates

Earlier in this paper it was noted that the proportion of those qualified for entry into military service varies from one segment of the population to another. Here the point is expanded, but with two limitations. Data are presented only on mental qualification (specifically, the proportions meeting minimum entry-level standards on the Armed Forces Qualification Test [AFQT]) and only by sex for three categories of individuals: non-Hispanic Whites, Hispanics, and Blacks.

Obviously, in noting variable qualification rates the author does not intend any overall evaluative comment. Almost certainly these differential qualification rates are attributable to differences in living conditions, opportunities, and educational preparation for majority and minority group members in U.S. society as a whole. Discriminatory treatment in society still exists, and helps explain the outcomes in qualification rates. Nonetheless, the impact on military manpower is a fact, and must be dealt with.

Tables 3 and 4, below, are derived from data presented by Eitelberg (1988), and should sharply revise downward any optimistic estimates of available manpower. Note that about 80 percent of non-Hispanic Whites, both male and female, are mentally eligible for military service; eligibility rates for both the Hispanic and Black minorities fall far below that level. The range for minority service eligibilities falls as low as 21.3 percent (1 in 5) for Black males for the Air Force, and the highest eligibility rate for a minority category is the 52.8 percent rate for Hispanic male eligibility for the Army. Eitelberg also presents data illustrating that in some Military Occupational Specialty areas there are almost no members of selected minority groups qualified. Broadly speaking, only one out of three Blacks and one out of two Hispanics are eligible to join any service, while four out of five non-Hispanic Whites are mentally eligible.

The Marine Corps was excluded from computation of average eligibility rates because of its small (relative) size and its high ratio of combat to noncombat (or support) personnel. Eligibility rates for males in the Marine Corps are similar to the other services, but are lower for females.

To be noted, as well, is that the rates in Table 3 do not reflect additional ineligibilities because of physical disabilities, criminal records, or substance abuse. Each of these exclusionary conditions is slightly more frequent in minority groups, but not to significant degrees.

TABLE 3: Percentages Eligible for Enlistment in each Service, by Sex, Race, and Ethnic Categories

	<u>ARMY</u>	<u>NAVY</u>	<u>AIR FORCE</u>	<u>MARINES</u>	<u>Army/ Navy/AF AVERAGE*</u>
W/N-H Males	83.9	82.3	71.3	76.0	79.2
Black Males	40.7	41.4	21.3	32.2	34.5
Hispanic Males	52.8	51.3	37.5	45.0	47.2
W/N-H Females	86.0	85.3	69.6	54.4	80.3
Black Females	45.5	48.1	21.7	13.1	38.4
Hispanic Females	52.5	51.2	27.9	18.1	43.9

Source: Eitelberg (1988), and author's computations.

*Unweighted by service manning level. Weighting results in no change larger than one percent.

Table 4, following, is largely self-explanatory. Assumed in the table is that the overall "new supply" of eligibles effectively consists of the number turning 18 in a particular year (in this case, 1988). Also to be noted is that, again, "eligible" includes all those who are mentally eligible and is not adjusted for other types of ineligibilities.

Observe in Table 4 that the total eligible numbers for minority group members fall sharply from the overall totals. The second column (Total Eligibles) was computed by multiplying the totals of those age 18 by the average eligibility proportions shown in Table 3, above.

Table 4: Percentages of Eligibles "Recruited" - 1988

<u>Category</u>	<u>Total Age 18</u>	<u>Total Eligible</u>	<u>Number Recruited</u>	<u>Percent Eligible Recruited</u>
W/N-H Males	1,366,500	1,082,268	225,665	20.9
Black Males	276,500	95,565	57,720	60.4
Hispanic Males	164,500	77,644	13,187	17.0
W/N-H Females	1,366,500	1,097,300	23,787	2.2
Black Females	276,000	106,176	11,820	11.1
Hispanic Females	164,500	72,216	1,251	1.7

Source: Eitelberg, 1988, Census Bureau, 1988, and author's computations.

In order to further clarify what appears from analysis to be a coming crisis in (voluntary) military accessions, Table 5 has been constructed. In order to construct the table, it has been assumed that present rates of retention will remain unchanged, that present manning levels will not change, and that present rates of eligibility (by AFQT scores) will remain constant. The bracketed percentages on the far right represent the percentage of "mental" eligibles needed if we assume that 25 percent of these (eligible by AFQT) are not eligible by reason of physical disqualification, substance abuse, criminal record, or other disqualifying condition. The author has no data on which to base such an assumption, but it seems reasonable to assume that at least 1/4 of potential recruits might be disqualified for such reasons.

Table 5: Percentages of Eligibles Needed in 1995

<u>Category</u>	<u>Total 18 yrs old</u>	<u>Total Eligible</u>	<u>Number to Recruit</u>	<u>Percent of Elig.</u>
W/N-H Males	1,117,250	884,862	225,665	25.5 (34)
Black Males	244,500	84,353	57,720	68.4 (91)
Hispanic Males	216,250	102,070	13,187	12.9 (20)
W/N-H Females	1,117,250	897,152	23,787	2.7 (4)
Black Females	244,500	93,888	11,820	12.6 (19)
Hispanic Females	216,250	94,934	1,251	1.3 (2)

Source: Eitelberg, 1988, Census Bureau, 1988, and author's computations.

In comparing the percentages of individuals from each category needed to maintain present manning levels in 1995 (Table 5) with the corresponding percentages obtained in 1988 (Table 4), it appears that the task of recruitment, or accession generally, is likely to become extremely difficult. Roughly two thirds of all military manpower is derived from the male non-Hispanic White segment of the population. Accessions from this category would be required to rise by 22 percent over present levels (from 20.9 percent to 25.5 percent of those mentally qualified, or about 34 percent of those qualified in every respect). More than 90 percent of all fully-qualified Black males would need to volunteer. Other recruitment needs may be seen from the tables. Present levels of recruitment/volunteerism, if unchanged, can be calculated to produce accession shortfalls of more than 60,000 per year. Clearly, such shortfalls could not be allowed to happen if continued manning at current levels is required.

In sharp contrast, today's personnel "mix" can be sustained by the enlistment of tiny fractions of Hispanic and non-Hispanic White females.

Quite clearly, a number of social forces are combining during the 1990's in such ways as to require several policy decisions with respect to manpower.

Observations Concerning Policy Issues

Among the factors to be considered in policy decisions concerning manpower at least the following seem salient.

1) In the increasingly popular preoccupation with America's growing minority populations, it should not be overlooked that there are, and will be for the next 15 years or more, at least six times as many service-eligible non-Hispanic Whites as there are service-eligible Black and Hispanics combined.

2) The only major untapped population segment for military service is that of non-Hispanic White women. However, they are only about one-tenth as likely as non-Hispanic White males to enter military service. Given more opportunities in the services, further societal redefinition of appropriate roles for women, and an active recruitment effort, this population segment may come to make up a sizeable proportion of the services.

3) In contrast to #2, however, there is ample reason to predict that women will not fill the coming accessions gap. The services may not be worse than the civilian job sector in terms of sexual harassment of females, but recent studies suggest that sexual harassment is still commonplace (U.S. Merit Systems Protection Board, 1988; Department of Defense, 1988; Popovich, 1988).

Perhaps of greater direct impact is the fact that as the civilian job market improves for entry-level people, non-Hispanic White women will find opportunities improving almost as rapidly as non-Hispanic White men. As the best-qualified "minority" in this society, non-Hispanic White women have progressed far more rapidly than other minorities and are likely to benefit more (or sooner) than other minorities in the coming decade. Importantly, no additional changes in societal norms are necessary for their entry into civilian occupations. The services are moving in the direction of attempting to attract more women into the service (Air Force Times, 1989), and may enjoy some success, but gains will likely be quite modest.

4) Hispanic men, though perhaps not women, may come to see the statutory equality of opportunity and pay in the military services as attractive as have Black men and women, both of whom have volunteered in far greater proportions than their White counterparts. Even so, the net gain in military accessions from this source would not be large, and certainly not sufficient to negate net losses due to a decline in the population pool of non-Hispanic White males.

5) Non-Hispanic White males make up just over two thirds of the total personnel presently in the armed forces, a condition brought about by a combination of a high probability of volunteering (2nd only to Black males), a high level of qualification for military career fields (2nd to no other category), and a high proportion (40 percent) of the total population (matched only by that of non-Hispanic White females).

Policy makers would do well to keep in mind that every other segment of the nation's population falls drastically short of non-Hispanic White males on one or more of the factors of

numbers, probability of volunteering, and qualifications. Logically, any policy change that reduces non-Hispanic White male motivation to volunteer would be extremely counterproductive, and any policy to increase their likelihood of volunteering a most efficient method of maintaining strength.

6) Lowering mental and/or physical standards for enlistment might well attract additional volunteers, and these volunteers would be somewhat disproportionately from the Black and Hispanic minorities. Such policies, of course, have a number of very serious drawbacks.

7) Increased retention rates could partially or wholly offset needs for higher rates of recruitment. Policies with respect to retirement benefits, duty assignments, career management, career field switching, age limitations, up-or-out promotion and evaluations, incentive pay, and a host of other factors affecting retention all bear re-examination.

Summary

It appears that, first, there is no overall shortage now or in the future of young men and women potentially available for military service. Whether or not they can be induced to voluntarily enter the services is much more of an open question. Voluntary participation rates now vary widely by race, sex, and ethnic group, as do mental qualification rates. Among those eligible for military service, Black males are three times more likely than non-Hispanic White males to volunteer. In turn, the latter enter military service at a slightly higher rate than Hispanic males, and at about twice the rate for Black women. Only tiny percentages of eligible non-Hispanic White females and Hispanic females currently enter military service.

Neither the moderate growth rate of the nation's Black minority nor the vigorous growth of the Hispanic minority are thus likely to materially affect manpower needs.

The civilian labor market will suffer major shortfalls of available entry-age-level workers during the 1990's, a condition that will very likely make recruitment increasingly difficult. Non-Hispanic White women, who constitute a major source of service-eligible personnel, will be in great demand in the civilian sector of the economy. Coupled with existing social norms and concerns about possible sexual harassment, it appears unlikely that their rates of enlistment will offset enlistment declines from other population segments.

On balance, a reasonable prediction appears to be for some form of nonvoluntary military service to become necessary for the maintenance of existing manning levels by the mid-1990's.

Footnote

¹The author's intent is to avoid sexist terminology throughout this paper. Conventionally generic terms, such as "manpower," are occasionally used to preclude cumbersome language, but are to be understood as gender-neutral.

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