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JAN 79 S A LEISEY, B M VITOLA
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**CHARACTERISTICS OF AIR FORCE ACCESSIONS:
JANUARY 1975 TO JUNE 1977**

By
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Bart M. Vitola**

**PERSONNEL RESEARCH DIVISION
Brooks Air Force Base, Texas 78235**

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This final report was submitted by Personnel Research Division, under project DALs, with HQ Air Force Human Resources Laboratory (AFSC), Brooks Air Force Base, Texas 78235. Sandra A. Leisey was the Principal Investigator for the Laboratory.

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Regions 4 and 5 (Middle and Far West) demonstrate higher Mechanical and Electronics aptitudes, and those from Region 1 (Northeast) generally show higher General and Administrative aptitudes.

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PREFACE

The work reported in this study was accomplished under Project DAL5, Air Force Personnel System Development on Selection, Assignment, Evaluation, Quality Control, Retention, Promotion, and Utilization; Task DAL5 10, Air Force Systems Command Directed Special Efforts.

Special appreciation is expressed to MSgt Fred Brown and A1C Emmett Kadri for their assistance in providing data needed to accomplish analyses for this project.

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CHARACTERISTICS OF AIR FORCE ACCESSIONS: JANUARY 1975 TO JUNE 1977

I. INTRODUCTION

Since January 1973, the United States Armed Services have been an all-volunteer force. Draft pressure is no longer a motivator for young men to enlist in the military. Although the first-term personnel needs of the Air Force have never been filled by conscription, draft pressure did account for a significant percentage of Air Force enlistments. Survey data indicate that a certain portion of the voluntary enlistments into the Air Force occurred to avoid mandatory enlistment into other branches of the military.

Prior to the implementation of the volunteer force, there was some question as to the number and qualifications of personnel who would join the military in the zero-draft environment. Consequently, several studies were done to predict the characteristics and the supply of men most likely to enlist in an all-volunteer military force (Cook, 1970; Hause & Fischer, 1968; Saber Volunteer, 1971; Vitola & Brokaw, 1973; Vitola & Valentine, 1971). These studies investigated the need for enlistment incentives, the possible difficulty in attracting high-aptitude recruits, and the potential erosion of enlistment of these high-aptitude personnel.

A specific area of interest was the racial composition of the volunteer force. A Presidential Commission, the Gates Commission, was tasked to study the impact of an all-volunteer concept on force structure. The findings of the Commission indicated that ending conscription would not change the racial composition of the Armed Forces and further that an all-volunteer force would not be all Black nor even have a disproportionate number of Blacks (Gates, 1970). Research done by Vitola, Mullins, and Brokaw (1974), which characterized the 1973 first-term accessions, supported the racial composition projections made by the Gates Commission.

Another topic of interest related to the volunteer force concept was the expanded utilization of women in traditionally male career fields. In 1973, a study was done to compare male and female performance on Air Force selection measures (Vitola, Mullins, & Weeks, 1974). The primary purpose was to determine whether women could be fully utilized in career fields predominantly occupied by men, and the results indicated that a higher percentage of women could be assigned to the mechanical and electronics career fields. By 1974, 50% of the women entering the Air Force were assigned to mechanical and electronics jobs: 25% to the mechanical area and 25% to the electronics area. These percentages decreased in 1975 when more stringent enlistment standards were introduced; however, the percentages began rising again in 1976. In the first 6 months of 1977, 41% of the female accessions were assigned to mechanical and electronics career fields: 26% to mechanical jobs and 15% to electronics jobs. As of 1 July 1978, there are only three specialties, combat related, to which women are not assigned.

The purpose of the study reported here is to assess the characteristics and qualifications of men and women enlisting in the volunteer Air Force during the January 1975 through June 1977 period. Data are presented across the dimensions of sex, racial/ethnic group, age, geographical area of enlistment, education, mental ability, and aptitude.

II. METHOD

Data were gathered on male and female non-prior-service basic trainees who entered the Air Force in 1975 (females: N = 9,560, males: N = 66,484); 1976 (females: N = 9,714, males: N = 62,983) and the first 6 months of 1977 (females: N = 5,046, males: N = 31,452). The data were derived from the Processing and

Classification of Enlistees (PACE) files sent to the Computational Sciences Division of the Air Force Human Resources Laboratory by the Air Training Command. Data gathered on enlistees included date of birth, educational level, geographical area of enlistment and racial/ethnic group, Armed Services Vocational Aptitude Battery (ASVAB) aptitude index scores, Armed Forces Qualification Test (AFQT) scores, and mental category.

Means and standard deviations were computed on the four ASVAB composites and the AFQT scores for the 3-year groups. Educational data were divided into four levels: 16 or more years of school completed, 13 through 15 years completed, 12 years completed (including GED certificates), and 11 or fewer years completed. Each year-group was separated by sex and divided into six racial/ethnic subgroups: White (not of Hispanic origin); Black (not of Hispanic origin); Oriental (Chinese, Japanese, Korean, Asian, Filipino); Hispanic (Puerto Rican, Mexican-American, Cuban-American); Indian (American Indian, Eskimo, Aleut); and Other (including missing or invalid data). Although the past research concerning Air Force accessions has reported racial data in terms of "Black" and "Non-Black," this report reflects the six official racial and ethnic classifications defined by the Office of Management and Budget for use in reports published by Federal agencies. In addition, various distributional comparisons were made on aptitude level, age, education completed, and geographical area of enlistment.

III. RESULTS AND DISCUSSION

Accessions by Racial/Ethnic Subgroup

Prior to the enactment of the all-volunteer force, some legislators and members of the Black community voiced three different concerns regarding the enlistment of Blacks in an all-volunteer force: (a) the all-volunteer force would be predominantly one of racial minorities, especially Blacks; (b) if the economic barometer continued to drop and the number of unemployed continued to rise, the military would select only highly qualified Blacks, leaving the lower potential people as a manpower pool for Black employment in the civilian sector; or (c) the percentage of Blacks being selected for the all-volunteer force would drop significantly below the percentage that they represent in the population-at-large. These concerns were voiced regardless of the findings of the Gates Commission (Gates, 1970), which indicated that an all-volunteer force would not be comprised primarily of Blacks and other minorities. The Commission's data indicated that there would be about a 15% Black complement. A study analyzing the volunteer force for the first 2 years supported the Gates Commission forecast (Vitola, Guinn, & Magness, 1976). The actual proportion of Blacks enlisting in the Air Force during 1973 and 1974 was 15% and 18%, respectively. These percentages were, in fact, greater than the proportion of Blacks represented in the population-at-large.

The data in Table 1 show that the Air Force enlisted Blacks in proportion to the percentage they represent in the population-at-large. Although these data show a decrease in the percentage of incoming Black accessions, as compared with the 1973 and 1974 data, a Black enlistment rate of 10% to 13% is expected to maintain a 15% Black representation of the overall enlisted force. It should be noted that previous accession studies which divided racial subgroups into only Black and non-Black categories make comparisons with the current percentage data on the new racial/ethnic subgroups difficult. However, according to the data presented in Table 1, the Air Force has been, and continues to be, an equal opportunity employer with appropriate proportions of minority representation.

ASVAB Performance

The ASVAB yields four aptitude composite scores: Mechanical, Administrative, General, and Electronics (M,A,G,E). These composite scores are primarily used to determine eligibility to enter the Air Force and to ascertain qualification for classification in a specific career field. Further, the scores are related to the probability of success in technical school.

Table 1. Distribution of Air Force Enlistees by Racial/Ethnic Subgroup and Sex 1975 to 1977

Enlistment Year	Number and Percent ^a for Racial/Ethnic Subgroup													
	White		Black		Oriental		Hispanic		Indian		Other		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Males														
1975	56,443	85	6,631	10	209	<1	577	1	110	<1	2,514	4	66,484	100
1976	52,170	83	6,266	10	400	1	1,180	2	118	<1	2,849	4	62,983	100
1977 ^b	26,783	85	3,424	11	65	<1	137	<1	12	<1	1,031	3	31,452	100
Total	135,396	84	16,321	10	674	<1	1,894	1	240	<1	6,394	4	160,919	100
Females														
1975	7,731	81	1,325	14	31	<1	64	1	19	<1	390	4	9,560	100
1976	8,089	83	977	10	46	1	133	1	49	1	420	4	9,714	100
1977 ^b	4,307	85	588	12	13	<1	13	<1	2	<1	123	2	5,046	100
Total	20,127	83	2,890	12	90	<1	210	1	70	<1	933	4	24,320	100
Total Accessions														
1975	64,174	84	7,956	10	240	<1	641	1	129	<1	2,904	4	76,044	100
1976	60,259	83	7,243	10	446	1	1,313	2	167	<1	3,269	4	72,697	100
1977 ^b	31,090	85	4,012	11	78	<1	150	<1	14	<1	1,154	3	36,498	100
Total	155,523	84	19,211	10	764	<1	2,104	1	310	<1	7,327	4	185,239	100

^aPercentages have been rounded to nearest whole number.

^bRepresents data from January through June 1977.

The data presented in Tables A1 and A2 in Appendix A depict average aptitude scores of the four ASVAB aptitude index composites by age, race/ethnic group, and year of enlistment for the 1975 to 1977 time period. The data suggest that the Air Force is not selecting just the most talented applicants for enlistment. The majority of enlistees are young, 17 to 20 years old for men and 18 to 20 years old for women, and if these enlistees, regardless of race or sex, had remained in the civilian labor market they would have offered relatively less skill and have a higher unemployment rate than the older more experienced workers (Department of Labor, 1976). Tables A1 and A2 show that, generally speaking, the younger the enlistee, the lower the average ASVAB aptitude score. Summarily, the Air Force is not drawing large numbers of highly qualified young men and women away from the civilian sector of the manpower pool. On the contrary, the Air Force is recruiting relatively unskilled men and women and, after an enlistment commitment, returns over 50% of them to the civilian manpower pool as personnel trained in over 200 job types.

An inspection of the data in Table 2 shows that, in every instance and on every measure, the mean aptitude potential of all of the male racial/ethnic subgroups has significantly and consistently risen during this 3-year time period.

Table 3 shows the data for women and lead to the general conclusion that female aptitude means have tended to increase over this same time frame, although there is some racial/ethnic subgroup variance. The Oriental, Hispanic, and Indian subgroups of women have experienced a decrease in average performance; the 1977 average aptitude scores of these ethnic groups are lower than their scores of 1975. It is possible, however, that the extremely small numbers in these subpopulations may account for the decrease, since the aptitude means of the total 1977 female group have risen.

Table 2. Descriptive Statistics of ASVAB Scores for Male Enlistees by Racial/Ethnic Subgroup 1975 to 1977

ASVAB Indexes	Mean and SD on Selection Measures ^a					
	1975 N = 66,484		1976 N = 62,983		1977 ^b N = 31,452	
	Mean	SD	Mean	SD	Mean	SD
White						
M	65	19	69	19	72	18
A	57	19	61	19	66	19
G	70	15	73	15	76	15
E	70	17	73	17	75	16
Black						
M	43	16	46	18	48	19
A	49	18	56	18	59	18
G	62	14	65	14	67	14
E	58	16	60	17	63	17
Oriental						
M	52	22	55	21	58	20
A	57	18	62	19	68	18
G	66	16	67	16	66	15
E	66	16	70	16	72	18
Hispanic						
M	51	19	54	20	58	20
A	53	19	57	18	64	18
G	63	15	65	14	70	14
E	64	16	66	17	69	17
Indian						
M	64	17	64	19	65	23
A	51	19	60	16	62	17
G	63	14	68	15	74	15
E	66	15	69	17	74	16
Other/Invalid						
M	54	21	58	21	59	21
A	54	19	58	19	63	19
G	67	15	69	15	68	15
E	65	18	68	17	71	16
Total Sample						
M	62	20	66	20	69	20
A	56	19	60	19	65	19
G	69	15	72	15	75	15
E	68	17	71	17	74	17

^aMeans and standard deviations (SD) have been rounded to the nearest whole number.

^bRepresents data from January through June 1977.

Table 3. Descriptive Statistics of ASVAB Scores for Female Enlistees by Racial/Ethnic Subgroup 1975 to 1977

ASVAB Indexes	Mean and SD on Selection Measures ^a					
	1975 N = 9,560		1976 N = 9,714		1977 ^b N = 5,046	
	Mean	SD	Mean	SD	Mean	SD
White						
M	32	16	36	17	40	17
A	71	17	73	16	74	16
G	73	15	75	15	77	14
E	60	18	62	18	64	18
Black						
M	21	15	23	15	25	15
A	66	17	71	15	71	17
G	67	14	68	14	69	13
E	48	16	50	16	51	18
Oriental						
M	25	13	29	15	20	15
A	70	15	76	15	67	15
G	73	15	73	16	69	9
E	53	14	60	18	52	11
Hispanic						
M	24	16	26	14	24	15
A	65	18	68	15	67	11
G	64	13	68	13	66	15
E	51	16	54	14	54	15
Indian						
M	34	16	32	15	40	5
A	70	14	63	17	53	8
G	68	14	73	15	55	0
E	54	18	57	15	45	10
Other/Invalid						
M	26	15	30	17	30	16
A	68	17	71	16	73	16
G	69	15	73	14	73	13
E	53	17	57	19	61	18
Total Sample						
M	30	16	35	17	38	18
A	70	17	73	16	74	16
G	72	15	74	15	76	14
E	58	18	61	18	62	19

^aMeans and standard deviations (SD) have been rounded to the nearest whole number.

^bRepresents data from January through June 1977.

The Air Force is concerned with the value of expanded utilization of women in previously male-oriented career fields. Females are being recruited for the Mechanical and Electronics aptitude areas, thus going beyond jobs traditionally held by women. As shown by the total sample in Tables 2 and 3, men display higher aptitude potential in the Electronics and Mechanical areas than do women. However, there is evidence that women are increasing their aptitude potential in these areas. Women, on the other hand, exhibit a higher aptitude potential in the Administrative area and slightly higher potential in the General area than do men. Average male aptitude scores in these areas have improved over this 3-year time period.

Table 4 shows the percentages for ASVAB centile scores for men and women. The extent of the increase of male and female aptitude levels may be inferred from this table. The data concerning male

Table 4. Percentage at Each ASVAB Aptitude Level for Air Force Enlistees
1975 to 1977

ASVAB Centile	Aptitude Composite Percentage by Year and Sex ^a											
	1975				1976				1977 ^b			
	M %	A %	G %	E %	M %	A %	G %	E %	M %	A %	G %	E %
	Males											
	(N = 66,484)				(N = 62,983)				(N = 31,452)			
95	6	3	8	9	7	5	10	9	9	7	11	9
90	7	2	7	7	10	5	12	12	12	8	16	17
85	8	4	9	9	9	5	9	10	10	7	10	11
80	5	3	8	11	9	7	8	12	11	10	10	13
75	7	7	8	8	7	7	9	8	8	7	10	8
70	6	10	9	9	7	10	10	9	8	9	9	8
65	8	6	14	9	8	8	12	9	7	9	9	8
60	11	11	10	11	9	11	10	8	7	10	9	7
55	10	9	9	8	8	9	8	7	6	9	8	6
50	7	11	9	6	6	8	6	4	5	6	4	3
45	6	10	9	5	4	7	6	3	3	5	4	2
40	5	8	0	5	4	6	0	4	4	4	0	3
Below 40 ^c	14	16	0	3	12	12	0	5	10	9	0	5
	Females											
	(N = 9,560)				(N = 9,714)				(N = 5,046)			
95	<1	10	12	2	<1	12	12	2	<1	13	11	2
90	<1	7	9	3	<1	10	14	5	<1	12	16	7
85	<1	10	10	5	1	10	9	6	1	10	11	7
80	<1	7	8	8	1	10	10	10	1	13	11	10
75	1	13	8	5	1	10	10	7	2	8	10	8
70	1	14	11	7	2	13	10	8	2	11	10	9
65	1	8	13	9	2	8	12	9	3	8	10	10
60	2	10	10	11	4	9	9	11	5	8	9	11
55	4	6	7	10	6	6	7	10	6	6	6	9
50	5	6	6	9	7	5	4	7	9	3	3	5
45	5	4	6	8	5	3	4	6	5	3	3	5
40	7	3	0	11	9	2	0	9	10	2	0	7
Below 40 ^c	73	2	0	12	62	2	0	10	56	3	0	10

^aPercentages have been rounded to nearest whole number.

^bRepresents data from January through June 1977.

^cBelow 40 also includes missing data.

accessions indicate an increase in the percentage falling into ASVAB centile levels between 75 and 95 in the Mechanical, Administrative, General, and Electronics areas during the 1975 to 1977 time period. Due to this increased number of higher aptitude scores, the percentages of men in ASVAB centile scores below 60 in all four aptitude areas have decreased, with the exception of the percentage having Electronics scores below 40. The data also show that women display a general increase in the percentage scoring above 40 in the Mechanical and Electronics areas, as well as an increase in the percentage scoring above 80 in the Administrative and General areas during the 1975 to 1977 time period.

The data from Table 5 show the cumulative percentages of men and women on the four aptitude composites of the ASVAB. Summarily, the data suggest that the Air Force is not experiencing a drop in

Table 5. Cumulative Percentages of ASVAB Aptitude Index Levels for Air Force Enlistees 1975 to 1977

ASVAB Aptitude Index	Percentage ^a in Score Range on ASVAB Composites					
	Males			Females		
	1975 %	1976 %	1977 ^b %	1975 %	1976 %	1977 ^b %
Mechanical						
80 and above	27	36	43	1	2	2
60 and above	59	67	72	6	11	14
40 and above	87	89	90	28	38	45
Administrative						
80 and above	12	22	31	33	42	49
60 and above	46	57	66	78	82	84
40 and above	84	88	89	96	97	97
General						
80 and above	32	39	47	39	45	49
60 and above	73	79	84	81	86	88
40 and above	100	100	100	100	100	100
Electronics						
80 and above	36	43	51	18	22	25
60 and above	73	78	82	51	58	62
40 and above	97	97	96	88	89	89

^aPercentages have been rounded to nearest whole number.

^bRepresents data from January through June 1977.

quality among first-term accessions. Even though the stringent enlistment standards implemented in 1975 have disqualified a larger proportion of the available manpower pool, there has been an increase in the numbers of both men and women who qualify for possible assignment into career fields requiring high aptitude index levels. Most significant has been the rise in the proportion of women demonstrating aptitude potential in various levels of the Mechanical and Electronics areas. The utilization of women in these "non-traditional" career fields has been expanding, and the data imply that in the 1975 to 1977 time period a concerted effort was made by recruiters to enlist women who qualify for these job areas.

AFQT Performance

Individuals wishing to enlist in the military service must demonstrate a proficiency on the AFQT, as required by the Department of Defense. This test yields a centile score (01, 02, 03, . . . 99) which is then converted into a mental ability level designated Category I (93-99), Category II (65-92), Category III (31-64), and Category IV (10-30). Table 6 represents percentage distributions of AFQT categories for male and female enlistees during the 1975 to 1977 time period. In general, the male data indicate an increase in the Category I population and a decrease in the Categories III and IV population. It appears that 1976 was an exceptionally favorable year for enlisting higher mental ability personnel. However, in 1976 and the first 6 months of 1977, over half of the men enlisting in the Air Force were of the Mental Categories I and II.

Table 6. Distribution of AFQT Mental Categories for Air Force Enlistees 1975 to 1977

Mental Ability Category	Range of Scores	1975		1976		1977 ^a	
		N	%	N	%	N	%
Males							
I	93-99	2,540	4	5,644	9	2,746	9
II	65-92	28,015	42	31,597	50	13,184	42
III	31-64	35,025	53	23,898	38	13,791	44
IV	10-30	331	<1	208	<1	20	<1
Incomplete Data		573	1	1,636	3	1,711	5
Total		66,484	100	62,983	100	31,452	100
Females							
I	93-99	458	5	881	9	365	7
II	65-92	3,739	39	4,770	49	2,322	46
III	31-64	5,217	55	3,833	40	2,075	41
IV	10-30	16	<1	12	<1	1	<1
Incomplete Data		130	1	218	2	283	6
Total		9,560	100	9,714	100	5,046	100

^aRepresents data from January through June 1977.

The data for women appear to be similar to the data for men. Categories I and II show a population increase, again with over half the female enlistees being in these two categories during 1976 and 1977. As with the men, 1976 proved to be a favorable year for enlisting higher mental ability women. Table 6 also shows a decrease in the female population of Category III, and Category IV remains consistently low during these 3 years. Incomplete files at the time data were retrieved may account for the high percentage of male and female incomplete data in 1977. It may be assumed, however, that these incomplete data would be distributed as were the four mental ability categories and would not materially affect the percentages reported.

Accessions by Educational Level

The number of years of formal education completed, or educational level, is a valid predictor of the capability to be trained and the degree of adaptability to Air Force life. When the number of high school non-graduates increases, there is also an increase in the attrition rate in training and on-the-job. Table 7 displays the distributions of educational levels of male and female enlistees for 1975 to 1977. An inspection of the data for this 3-year period shows a slightly downward shift in the percentage of male enlistees in the levels of education beyond high school. However, there is also an upward shift in the percent of male

Table 7. Distribution of Educational Levels for Air Force Enlistees 1975 to 1977

Years of Schooling Completed	Number and Percent ^a for Educational Level					
	1975		1976		1977 ^b	
	N	%	N	%	N	%
Males						
16 or more	800	1	881	2	442	1
13-15	3,070	5	2,067	3	906	3
12	58,683	88	56,002	89	28,448	91
11 or less	3,924	6	3,927	6	1,606	5
Incomplete Data	7	<1	106	<1	50	<1
Total	66,484	100	62,983	100	31,452	100
Females						
16 or more	279	3	339	3	155	3
13-15	521	5	508	5	240	5
12	8,421	88	8,506	88	4,473	89
11 or less	338	4	351	4	163	3
Incomplete Data	1	<1	10	<1	15	<1
Total	9,560	100	9,714	100	5,046	100
Total Accessions						
16 or more	1,079	1	1,220	2	597	2
13-15	3,591	5	2,575	3	1,146	3
12	67,104	88	64,508	89	32,921	90
11 or less	4,262	6	4,278	6	1,769	5
Incomplete Data	8	<1	116	<1	65	<1
Total	76,044	100	72,697	100	36,498	100

^aPercentages have been rounded to nearest whole number.

^bRepresents data from January through June 1977.

accessions with 12 years of schooling completed. In general, the percentages of high school graduates (including GED certificates) and of men having attended or completed college have remained fairly consistent. The data for women (Table 7) show a consistent pattern for each educational level during the 3 years. While the percentage of women in the educational level beyond high school is slightly greater than for men in those categories, the high school educational level (12 years of schooling completed, including GED certificates) percentages are comparable to male percentages in that category. Women also show a smaller percentage in the lower educational level (11 years or less of schooling completed) than do men.

It is apparent that the Air Force recruits its personnel from the mid-range of the educational level spectrum. In the 1975 to 1977 period, a sufficient number of qualified men and women with a high school education in the job market pool selected the United States Air Force as their vocational choice. However, according to the United States Bureau of Census projections, the manpower pool of 17- to 21-year-old men and women will shrink in the 1980's. It may then be necessary to re-examine the current educational requirements for Air Force enlistment.

Geographical Area of Enlistment

As is true for any large corporation, the Air Force needs to know the size of the labor pool from which it will draw its prospective employees. Further, knowledge of the geographic location, density of

population within that geographic area, potential for future performance, and average educational level is also necessary. With this knowledge, the Air Force has developed a systems approach to establishing enlistment standards and determining enlistment quotas for each area of the United States. A basic assumption of the Air Force selection system is that those young men and women who enlist have an aptitude potential that is representative of their contemporaries in the population-at-large.

Tables 8 to 11 indicate the geographic sources of input for men and women for 1975 through 1977. The data in Tables 9 to 11 show the ASVAB means for male and female accessions by year and by geographic area of enlistment. Tables B1 to B6 in Appendix B show ASVAB means within racial/ethnic subgroups by geographic area of enlistment, sex, and year of enlistment. Insufficient numbers in some of the racial/ethnic subgroups made comparisons with their contemporaries in the population-at-large impossible. Therefore, these data have been included in the appendix for information only.

Table 8. Air Force Enlistment Regions

Each area (1 to 6) corresponds to an Air Force recruiting group. The geographic areas are designated as follows:

- Area 1. Maine, New Hampshire, Vermont, Connecticut, Rhode Island, Pennsylvania, New York, New Jersey, Delaware, Massachusetts.
 - Area 2. Florida, Georgia, Alabama, North Carolina, South Carolina, Mississippi, Tennessee, Virginia, District of Columbia, Maryland, Kentucky, West Virginia, Louisiana.^a
 - Area 3. Oklahoma, Arkansas, Texas, Kansas, North Dakota, South Dakota, Missouri, Iowa, Minnesota, Nebraska, Louisiana.^a
 - Area 4. Wisconsin, Illinois, Indiana, Michigan, Ohio.
 - Area 5. Arizona, Utah, Wyoming, Colorado, New Mexico, Nevada, California, Oregon, Idaho, Montana, Washington, Alaska, Hawaii.
 - Area 6. Other than areas 1 through 5, including invalid and missing data.
-

^aLouisiana's enlistment population is randomly divided where 49% of the total population is represented in Area 2 and the remaining 51% is represented in Area 3.

Tables 9 to 11 display average scores on ASVAB composites by enlistment region. During the 1975 through 1977 time period, male enlistees from Areas 4 and 5 generally demonstrated a higher aptitude ability in the Mechanical and Electronics areas. Male enlistees from Area 1 scored higher in the General and Administrative aptitude areas than did subjects from any other region, with the exception of 1975 where accessions from all regions showed only a 1-point difference in average scores. Aptitude index scores have risen across the recruiting areas during this 3-year time period, with the exception of Mechanical and General aptitude scores for Area 6 in 1976. Generally, Area 2 male enlistees scored consistently low across all aptitude indexes.

The accession data (Tables 9 to 11) indicate that Area 5 female enlistees tended to score higher in the Mechanical and Electronics aptitude indexes than did enlistees from any other recruiting area. Area 1 female accessions demonstrated higher Administrative scores than other regions in 1976 and 1977. The general aptitude scores for Areas 1 and 5 were higher than the remaining regions. These two latter trends were also evident in the male data; however, unlike the male accessions, female enlistees from any particular area did not demonstrate consistently low scores across all aptitude indexes. As noted with the men, the aptitude index scores for women have also risen across the recruiting areas during the 1975 to 1977 time period. Identical to the male population, Mechanical and General aptitude scores for Area 6 in 1976 were the exception.

Table 9. Descriptive Statistics of ASVAB Composites for Male and Female Enlistees by Enlistment Region for 1975

Enlistment Region ^a	N	Mean Aptitude Index ^b for Enlistment Region							
		Mechanical		Administrative		General		Electronics	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Males									
1	12,509	60	21	55	19	70	16	69	17
2	12,845	59	20	56	19	68	15	66	17
3	10,232	63	20	56	19	68	15	68	17
4	10,855	65	20	55	19	69	15	70	17
5	11,317	65	19	56	18	69	15	70	17
6	8,726	62	20	55	18	69	15	68	17
Total	66,484	62	20	56	19	69	15	68	17
Females									
1	1,877	29	16	70	17	74	15	58	19
2	1,924	29	17	70	17	71	15	57	18
3	1,503	30	16	69	17	71	15	58	18
4	1,399	30	16	70	16	72	15	58	18
5	1,645	33	16	70	16	73	15	60	18
6	1,212	30	15	70	17	72	15	58	17
Total	9,560	30	16	70	17	72	15	58	18

^aRegions are defined in Table 8.

^bMeans and standard deviations (SD) have been rounded to nearest whole number.

Table 10. Descriptive Statistics of ASVAB Composites for Male and Female Enlistees by Enlistment Region for 1976

Enlistment Region ^a	N	Mean Aptitude Index ^b for Enlistment Region							
		Mechanical		Administrative		General		Electronics	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Males									
1	15,409	64	21	62	19	73	15	71	17
2	12,978	63	20	59	19	70	15	69	17
3	10,375	68	19	60	19	71	15	71	17
4	12,156	68	20	61	19	72	15	72	17
5	11,688	70	19	60	19	72	15	73	17
6	377	58	22	57	19	68	15	70	17
Total	62,983	66	20	60	19	72	15	71	17
Females									
1	2,382	32	17	74	16	75	15	60	19
2	1,979	34	17	72	16	74	15	60	18
3	1,664	35	17	73	16	73	15	61	18
4	1,668	35	17	73	16	74	14	61	18
5	1,980	38	18	71	16	75	14	62	18
6	41	26	13	71	15	71	13	58	17
Total	9,714	35	17	73	16	74	15	61	18

^aRegions are defined in Table 8.

^bMeans and standard deviations (SD) have been rounded to nearest whole number.

Table 11. Descriptive Statistics of ASVAB Composites for Male and Female Enlistees by Enlistment Region for 1977

Enlistment Region ^a	N	Mean Aptitude Index ^b for Enlistment Region							
		Mechanical		Administrative		General		Electronics	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Males									
1	5,851	66	21	68	19	76	15	74	17
2	5,802	67	20	63	19	73	15	72	17
3	4,980	70	19	63	19	74	15	74	17
4	4,554	70	20	65	19	75	15	75	16
5	5,041	72	19	64	19	75	15	75	16
6	5,224	69	20	65	19	75	15	74	16
Total	31,452	69	20	65	19	75	15	74	17
Females									
1	989	35	18	77	15	76	14	61	19
2	879	36	18	73	16	75	14	61	19
3	692	38	17	74	17	74	14	63	18
4	687	37	17	74	16	75	14	62	19
5	925	41	18	73	17	77	14	64	18
6	874	39	18	74	17	76	14	63	18
Total	5,046	38	18	74	16	76	14	62	19

^aRegions are defined in Table 8.

^bMeans and standard deviations have been rounded to nearest whole number and represent data from January through June 1977.

IV. CONCLUSION

The purpose of this study was to assess the characteristics of men and women enlisting in the Air Force during the January 1975 to June 1977 time period, as well as to determine the quality of personnel entering the all-volunteer force during that time frame. Accession data were obtained across the dimensions of sex, racial/ethnic group, age, education, mental ability, aptitude, and geographic area of enlistment. An analysis of the data of this study resulted in the following conclusions:

1. The Air Force continues to be an equal opportunity employer, enlisting Blacks at a proportion comparable to the percentage they represent in the population-at-large.
2. Regardless of sex or racial/ethnic group, the majority of Air Force enlistees are 17 to 20 years old. Generally, this age group offers relatively less skill to the labor market and has a higher unemployment rate than do older, more experienced workers. This suggests that the Air Force is not drawing large numbers of highly qualified young men and women away from the civilian sector of the manpower pool. On the contrary, after the Air Force recruits these young people and they serve a period of enlistment, they return to the civilian manpower pool as skilled personnel in over 200 job types.
3. The Air Force is not experiencing a drop in quality among first-term accessions. On every measure (M,A,G,E average scores), the aptitude potential of men and women has risen consistently from 1975 to 1977. Although men display a higher aptitude potential than women in the Electronics and Mechanical areas, women exhibit the higher aptitude potential in the Administrative and General areas. Even with the

more stringent enlistment standards implemented in 1975, an increasing number of men and women qualify for possible career fields and assignments at the upper aptitude index levels. The utilization of women in "non-traditional" career fields has been expanding due to an increase of female enlistees demonstrating aptitude potential in the Electronics and Mechanical areas.

4. The distribution of educational levels for the total accessions in 1975 to 1977 indicates a moderate gain in terms of a greater percentage having completed at least a high school education. During these 3 years, the data show a decrease in the percentage of men who completed more than 12 years of education, while the percentage for women at this level has remained consistent and slightly greater than the percentage for men.

5. The geographic pattern of aptitudes during 1975 to 1977 shows similar trends for men and women in that accessions from Enlistment Regions 4 and 5 (Middle and Far West) show a higher aptitude ability in the Mechanical and Electronics areas, and accessions from Enlistment Region 1 (Northeast) generally demonstrate a higher aptitude ability in the General and Administrative areas.

REFERENCES

- Cook, A.A., Jr. *The cost implications of reducing draft calls on the number of airmen volunteers and the quality of airmen recruits*. WN-7133-PR. Santa Monica, CA: Rand Corporation, November 1970.
- Department of Labor, Bureau of Labor Statistics. *Handbook of labor statistics*. Washington, D.C., 1976.
- Gates, T.S. (Chairman). *The report of the President's commission on an all-volunteer armed force*. New York: Macmillan Co., 1970.
- Hause, J., & Fischer, A. *The supply of first-term enlisted personnel in the absence of the draft*. Study S-293, AD-691 185. Arlington, VA: Institute for Defense Analysis, April 1968.
- Saber Volunteer. *An analysis of problems associated with the establishment of an all-volunteer force for the United States*. Washington: United States Air Force, Assistant Chief of Staff, Studies and Analysis, December 1971.
- Vitola, B.M., & Brokaw, L.D. *Comparison of 1970 and 1971 Air Force enlistees by draft-vulnerability category*. AFHRL-TR-72-49, AD-760 537. Lackland AFB, TX: Personnel Research Division, Air Force Human Resources Laboratory, March 1973.
- Vitola, B.M., Guinn, N., & Magness, P.J. *Comparison of enlisted Air Force accessions 1972-1974*. AFHRL-TR-76-7, AD-A025 850. Lackland AFB, TX: Personnel Research Division, Air Force Human Resources Laboratory, May 1976.
- Vitola, B.M., Mullins, C.J., & Brokaw, L.D. *Quality of the all-volunteer Air Force - 1973*. AFHRL-TR-74-35, AD-781 755. Lackland AFB, TX: Personnel Research Division, Air Force Human Resources Laboratory, April 1974.
- Vitola, B.M., Mullins, C.J., & Weeks, J. *Characteristics of women in the Air Force 1970 through 1973*. AFHRL-TR-74-59, AD-A000 049. Lackland AFB, TX: Personnel Research Division, Air Force Human Resources Laboratory, July 1974.
- Vitola, B.M., & Valentine, L.D., Jr. *Characteristics of Air Force enlistees related to draft vulnerability*. AFHRL-TR-71-29, AD-730 593. Lackland AFB, TX: Personnel Research Division, Air Force Human Resources Laboratory, June 1971.

**APPENDIX A: ASVAB APTITUDE INDEXES FOR ENLISTEES BY
AGE AND RACIAL/ETHNIC SUBGROUP**

Table A1. Average ASVAB Aptitude Indexes for Male Enlistees by Age and Racial/Ethnic Subgroup 1975 to 1977

Age	Months	Proportion and Aptitude Indexes for Racial/Ethnic Subgroups ^a																													
		White				Black				Oriental				Hispanic				Indian				Other (Invalid)									
		%	M	A	E	%	M	A	E	%	M	A	E	%	M	A	E	%	M	A	E	%	M	A	E						
1975																															
17	(0-5)	2	61	51	67	68	1	41	49	62	59	<1	25	45	40	40	2	42	45	60	59	3	57	43	60	55	2	49	45	59	62
17	(6-12)	8	62	55	68	68	7	42	51	62	57	4	58	61	76	78	4	53	47	57	57	4	76	56	68	84	4	54	54	64	65
17	Total	10	62	55	68	68	8	42	50	62	57	4	54	59	72	74	6	49	46	58	58	7	69	51	65	73	6	52	51	62	64
18		35	63	56	68	69	30	41	50	61	56	22	53	54	63	66	26	50	53	62	62	34	64	50	59	63	27	53	54	65	63
19		22	65	55	68	69	22	42	47	61	57	27	53	58	64	62	24	49	53	63	64	24	64	50	63	63	24	56	53	67	65
20		13	67	57	71	71	14	43	48	63	59	9	59	64	70	72	17	50	50	62	63	13	64	47	64	71	15	54	54	66	65
21		8	69	59	73	72	10	44	49	64	59	10	53	59	66	66	12	57	53	66	69	11	64	57	68	68	10	55	54	67	66
22		5	69	61	75	74	6	43	49	64	59	10	52	56	65	66	6	53	53	65	61	5	49	58	73	69	7	55	56	70	67
23		3	70	63	77	75	4	45	50	67	60	2	76	55	81	83	6	59	58	68	68	3	48	43	55	60	4	53	56	72	70
24+		4	71	63	78	76	6	47	50	66	61	16	41	55	66	63	5	47	56	65	69	3	85	55	80	72	7	54	57	71	68
Total		100	65	57	70	70	100	43	49	62	58	100	52	57	66	66	100	51	53	63	64	100	64	51	63	66	100	54	54	67	65
1976																															
17	(0-5)	2	68	57	72	73	2	45	55	66	63	2	48	63	65	68	2	52	60	68	68	3	68	53	73	80	2	56	58	70	67
17	(6-12)	8	66	59	70	71	8	44	56	63	59	6	54	58	63	71	8	53	58	63	64	8	74	68	73	82	6	55	60	67	65
17	Total	10	67	59	71	71	10	44	56	64	60	8	53	59	63	71	10	53	58	64	65	11	72	64	73	82	8	55	60	68	65
18		37	67	60	71	71	31	45	55	63	58	28	60	62	65	68	29	53	58	64	63	34	61	56	63	64	31	58	59	68	68
19		22	69	60	71	72	19	45	56	64	60	18	54	62	68	71	26	54	56	65	65	20	57	60	69	68	22	59	56	68	68
20		12	71	63	75	74	13	47	55	66	60	13	54	62	69	72	13	55	55	65	68	12	74	64	70	74	14	58	58	69	67
21		7	73	64	77	76	9	48	57	67	62	8	54	64	68	70	9	56	54	66	69	12	64	63	72	71	8	59	57	71	68
22		5	73	66	78	76	7	49	57	69	62	7	54	62	69	72	6	59	60	69	70	5	75	58	78	80	6	57	60	72	69
23		3	75	67	80	78	4	49	59	70	62	6	54	72	70	72	2	55	55	69	67	3	60	55	68	53	4	62	59	75	73
24+		4	75	68	82	79	7	48	59	72	62	12	48	61	69	71	5	56	56	69	70	3	57	62	73	70	7	57	63	74	70
Total		100	69	61	73	73	100	46	56	65	60	100	55	62	67	70	100	54	57	65	66	100	64	60	68	69	100	58	58	69	68
1977 ^b																															
17	(0-5)	3	70	60	73	74	1	52	59	68	61	2	85	90	85	90	2	63	58	73	85	8	60	60	60	80	2	66	62	75	71
17	(6-12)	8	70	64	73	74	6	46	60	65	59	20	64	66	66	68	8	61	52	69	72	17	80	65	83	80	9	59	63	64	69
17	Total	11	70	63	73	74	7	47	60	66	59	22	65	68	67	69	10	62	53	69	74	25	73	63	75	80	11	60	63	67	69
18		30	70	64	74	74	24	47	58	64	61	29	54	57	60	70	33	56	67	71	67	33	59	60	73	64	26	59	61	67	71
19		24	71	65	75	75	21	47	58	65	63	16	54	75	72	76	12	61	66	61	73	17	60	60	78	80	22	58	61	65	69
20		13	74	67	78	77	15	49	60	68	64	9	57	75	68	69	13	55	63	71	66	0	0	0	0	0	0	12	58	65	68
21		8	75	69	80	78	10	49	59	69	63	6	59	74	69	71	11	58	62	72	64	8	85	80	95	90	10	64	62	69	75
22		5	76	70	81	78	8	50	61	70	64	6	50	74	63	73	4	58	70	69	68	17	58	57	60	73	5	57	67	72	70
23		4	76	70	82	79	6	50	62	71	65	3	83	93	93	88	8	67	61	76	79	0	0	0	0	0	4	62	66	70	73
24+		5	77	72	84	81	9	51	60	73	65	9	57	65	63	82	9	57	66	71	70	0	0	0	0	0	10	54	66	71	73
Total		100	72	66	76	75	100	48	59	67	63	100	58	68	66	72	100	58	64	70	69	100	65	62	74	74	100	59	63	68	71

^aMeans have been rounded to nearest whole number.

^bRepresents data from January through June 1977.

**APPENDIX B: ASVAB COMPOSITES FOR ENLISTMENT REGIONS
BY RACIAL/ETHNIC SUBGROUP**

Table B1. Descriptive Statistics of ASVAB Composites for Male Enlistees by Racial/Ethnic Subgroup and Enlistment Region (1975)^a

Enlistment Region ^b	White			Black			Oriental			Hispanic			Indian			Other			Total		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Mechanical																					
1	10,735	63	20	1,111	40	17	11	52	18	88	43	20	11	64	20	553	55	22	12,509	60	21
2	10,094	63	19	2,253	42	16	22	55	18	37	50	20	19	70	14	420	51	21	12,845	59	20
3	8,844	66	19	991	44	16	12	59	22	132	51	17	26	58	15	227	55	21	10,232	63	20
4	9,495	67	19	966	44	17	12	66	24	32	48	18	11	72	14	339	56	22	10,855	65	20
5	9,829	67	18	462	46	16	122	49	23	189	58	18	35	62	15	680	54	20	11,317	65	19
6	7,446	65	19	848	43	16	30	53	20	99	47	19	8	62	23	295	54	21	8,726	62	20
Total	56,443	65	19	6,631	43	16	209	52	22	577	51	19	110	64	17	2,514	54	21	66,484	62	20
Administrative																					
1	10,735	57	19	1,111	47	17	11	73	13	88	46	19	11	52	16	553	52	19	12,509	55	19
2	10,094	58	19	2,253	49	18	22	58	19	37	58	20	19	46	21	420	53	19	12,845	56	19
3	8,844	57	19	991	49	19	12	61	16	132	52	18	26	56	19	227	54	19	10,232	56	19
4	9,495	56	18	966	49	19	12	52	19	32	54	19	11	49	24	339	55	18	10,855	55	19
5	9,829	56	18	462	51	18	122	57	18	189	53	18	35	53	16	680	56	19	11,317	56	18
6	7,446	56	18	848	49	17	30	53	18	99	56	17	8	42	20	295	54	20	8,726	55	18
Total	56,443	57	19	6,631	49	18	209	57	18	577	53	19	110	51	19	2,514	54	19	66,484	56	19
General																					
1	10,735	71	16	1,111	65	15	11	69	20	88	63	14	11	62	14	553	70	16	12,509	70	16
2	10,094	69	15	2,253	61	13	22	68	16	37	66	16	19	65	12	420	64	15	12,845	68	15
3	8,844	69	15	991	62	14	12	64	16	132	61	13	26	68	14	227	65	15	10,232	68	15
4	9,495	69	15	966	63	14	12	64	12	32	63	16	11	58	6	339	68	15	10,855	69	15
5	9,829	70	15	492	62	14	122	67	16	189	64	15	35	61	13	680	66	15	11,317	69	15
6	7,446	69	15	848	62	14	30	59	14	99	62	14	8	65	19	295	67	15	8,726	69	15
Total	56,443	70	15	6,631	62	14	209	66	16	577	63	15	110	63	14	2,514	67	15	66,484	69	15
Electronics																					
1	10,735	70	17	1,111	59	16	11	72	17	88	61	15	11	66	15	553	67	18	12,509	69	17
2	10,094	69	17	2,253	56	15	22	72	17	37	66	17	19	68	15	420	62	18	12,845	66	17
3	8,844	70	17	991	56	15	12	72	17	132	62	14	26	66	15	227	63	18	10,232	68	17
4	9,495	71	17	966	60	17	12	67	13	32	62	19	11	68	14	339	66	18	10,855	70	17
5	9,829	71	17	462	58	17	122	64	16	189	65	16	35	64	14	680	66	17	11,317	70	17
6	7,446	70	17	848	58	16	30	63	13	99	64	16	8	64	18	295	65	18	8,726	68	17
Total	56,443	70	17	6,631	58	16	209	66	16	577	64	16	110	66	15	2,514	65	18	66,484	68	17

^aMeans and standard deviations have been rounded to nearest whole number.

^bRegions are defined in Table 8.

Table B2. Descriptive Statistics of ASVAB Composites for Female Enlistees by Racial/Ethnic Subgroup and Enlistment Region (1975)^a

Enlistment Region ^b	White			Black			Oriental			Hispanic			Indian			Other			Total		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Mechanical																					
1	1,531	30	16	246	19	12	6	26	10	5	30	19	4	35	4	85	24	15	1,877	29	16
2	1,386	31	16	457	22	17	1	5	0	11	17	11	2	43	13	67	23	15	1,924	29	17
3	1,263	32	15	175	22	15	0	0	0	11	24	8	7	31	18	47	30	16	1,503	30	16
4	1,191	32	16	163	20	14	3	27	10	3	18	5	2	30	5	37	24	13	1,399	30	16
5	1,381	35	15	114	24	15	16	26	12	26	30	19	3	23	5	105	26	14	1,645	33	16
6	979	32	15	170	20	13	5	28	14	8	16	13	1	70	0	49	28	18	1,212	30	15
Total	7,731	32	16	1,325	21	15	31	25	13	64	24	16	19	34	16	390	26	15	9,560	30	16
Administrative																					
1	1,531	71	17	246	66	16	6	63	13	5	49	13	4	69	7	85	68	18	1,877	70	17
2	1,386	71	16	457	67	17	1	60	0	11	65	15	2	93	3	67	68	17	1,924	70	17
3	1,263	70	17	175	64	18	0	0	0	11	63	13	7	73	12	47	64	18	1,503	69	17
4	1,191	71	16	163	66	17	3	72	6	3	55	29	2	63	8	37	70	16	1,399	70	16
5	1,381	70	16	114	67	17	16	75	16	26	67	19	3	53	9	105	69	16	1,645	70	16
6	979	70	17	170	67	17	5	62	8	8	71	18	1	75	0	49	68	19	1,212	70	17
Total	7,731	71	17	1,325	66	17	31	70	15	64	65	18	19	70	14	390	68	17	9,560	70	17
General																					
1	1,531	74	15	246	70	14	6	83	10	5	62	15	4	64	15	85	71	15	1,877	74	15
2	1,386	73	15	457	66	13	1	70	0	11	68	12	2	83	8	67	66	14	1,924	71	15
3	1,263	72	15	175	65	13	0	0	0	11	62	12	7	62	12	47	71	14	1,503	71	15
4	1,191	73	15	163	69	14	3	70	4	3	58	5	2	70	10	37	70	14	1,399	72	15
5	1,381	74	15	114	66	14	16	74	17	26	66	13	3	75	11	105	68	16	1,645	73	15
6	979	73	15	170	67	14	5	61	6	8	59	14	1	75	0	49	67	16	1,212	72	15
Total	7,731	73	15	1,325	67	14	31	73	15	64	64	13	19	68	14	390	69	15	9,560	72	15
Electronics																					
1	1,531	59	18	246	49	17	6	65	6	5	47	17	4	51	15	85	52	18	1,877	58	19
2	1,386	59	18	457	47	15	1	35	0	11	53	15	2	80	5	67	50	16	1,924	57	18
3	1,263	59	18	175	47	15	0	0	0	11	52	15	7	44	9	47	56	19	1,503	58	18
4	1,191	60	18	163	49	18	3	48	2	3	37	9	2	33	3	37	52	16	1,399	58	18
5	1,381	61	18	114	48	16	16	51	17	26	54	16	3	67	9	105	55	17	1,645	60	18
6	979	60	17	170	49	15	5	53	8	8	45	12	1	80	0	49	54	18	1,212	58	17
Total	7,731	60	18	1,325	48	16	31	53	14	64	51	16	19	54	18	390	53	17	9,560	58	18

^aMeans and standard deviations have been rounded to nearest whole number.

^bRegions are defined in Table 8.

Table B3. Descriptive Statistics of ASVAB Composites for Male Enlistees by Racial/Ethnic Subgroup and Enlistment Region (1976)^a

Enlistment Region ^b	White			Black			Oriental			Hispanic			Indian			Other			Total		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Mechanical																					
1	12,454	67	20	1,531	44	19	25	49	17	181	46	20	10	63	20	1,208	57	22	15,409	64	21
2	10,443	67	19	2,282	45	17	17	48	18	57	52	18	10	61	22	169	51	21	12,978	63	20
3	8,905	71	18	865	46	18	15	56	25	340	54	19	31	66	20	219	58	19	10,375	68	19
4	10,492	70	18	1,049	49	19	24	56	21	74	57	19	20	59	18	497	60	22	12,156	68	20
5	9,659	72	18	513	50	19	311	56	22	461	59	20	46	66	17	698	61	20	11,688	70	19
6	217	64	20	26	45	21	8	51	12	67	50	20	1	60	0	58	52	22	377	58	22
Total	52,170	69	19	6,266	46	18	400	55	21	1,180	54	20	118	64	19	2,849	58	21	62,983	66	20
Administrative																					
1	12,454	63	19	1,531	57	19	25	62	16	181	57	20	10	57	19	1,208	57	19	15,409	62	19
2	10,443	60	19	2,282	54	18	17	59	21	57	56	18	10	57	16	169	57	19	12,978	59	19
3	8,905	61	19	865	56	18	15	61	17	340	56	17	31	62	15	219	61	19	10,375	60	19
4	10,492	61	19	1,049	58	18	24	67	13	74	59	18	20	63	14	497	60	19	12,156	61	19
5	9,659	60	19	513	57	18	311	63	19	461	56	17	46	58	17	698	59	19	11,688	60	19
6	217	57	19	26	53	16	8	49	17	67	59	17	1	75	0	58	52	17	377	57	19
Total	52,170	61	19	6,266	56	18	400	62	19	1,180	57	18	118	60	16	2,849	58	19	62,983	60	19
General																					
1	12,454	74	15	1,531	68	14	25	67	14	181	67	15	10	70	17	1,208	71	15	15,409	73	15
2	10,443	72	15	2,282	63	13	17	71	11	57	68	14	10	73	13	169	67	15	12,978	70	15
3	8,905	72	15	865	64	13	15	72	16	340	63	13	31	68	16	219	67	14	10,375	71	15
4	10,492	73	15	1,049	67	14	24	72	16	74	69	15	20	69	14	497	71	15	12,156	72	15
5	9,659	73	15	513	66	14	311	67	16	461	66	14	46	67	14	698	67	15	11,688	72	15
6	217	72	15	26	67	10	8	50	7	67	63	14	1	65	0	58	66	15	377	68	15
Total	52,170	73	15	6,266	65	14	400	67	16	1,180	65	14	118	68	15	2,849	69	15	62,983	72	15
Electronics																					
1	12,454	72	17	1,531	61	17	25	67	13	181	64	17	10	65	24	1,208	68	18	15,409	71	17
2	10,443	71	17	2,282	59	16	17	77	14	57	66	16	10	69	21	169	65	18	12,978	69	17
3	8,905	73	17	865	59	17	15	68	17	340	64	17	31	69	19	219	68	16	10,375	71	17
4	10,492	73	17	1,049	62	17	24	74	17	74	67	15	20	67	16	497	70	18	12,156	72	17
5	9,659	74	17	513	60	18	311	70	16	461	66	17	46	72	14	698	67	17	11,688	73	17
6	217	72	16	26	64	15	8	58	10	67	72	17	1	65	0	58	67	17	377	70	17
Total	52,170	73	17	6,266	60	17	400	70	16	1,180	66	17	118	69	17	2,849	68	17	62,983	71	17

^aMeans and standard deviations have been rounded to nearest whole number.

^bRegions are defined in Table 8.

Table B4. Descriptive Statistics of ASVAB Composites for Female Enlistees by Racial/Ethnic Subgroup and Enlistment Region (1976)^a

Enlistment Region ^b	White			Black			Oriental			Hispanic			Indian			Other			Total		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Mechanical																					
1	1,935	34	17	250	24	17	7	24	12	16	22	10	6	30	14	167	28	15	2,382	32	17
2	1,607	36	17	317	23	15	1	25	0	9	24	5	6	28	8	39	24	14	1,979	34	17
3	1,407	37	17	162	21	11	1	10	0	43	27	15	10	30	15	41	29	16	1,664	35	17
4	1,448	36	17	139	21	13	3	32	8	5	23	5	11	38	19	62	32	17	1,668	35	17
5	1,669	40	17	104	25	14	34	31	16	54	28	15	16	33	12	103	35	18	1,980	38	18
6	23	30	14	5	26	9	0	0	0	6	19	8	0	0	0	7	19	8	41	26	13
Total	8,089	36	17	977	23	15	46	29	15	133	26	14	49	32	15	420	30	17	9,714	35	17
Administrative																					
1	1,935	75	16	250	73	16	7	69	13	16	63	14	6	63	17	167	71	17	2,382	74	16
2	1,607	73	16	317	70	17	1	85	0	9	72	21	6	57	13	39	70	14	1,979	72	16
3	1,407	73	16	162	73	14	1	85	0	43	67	13	10	61	17	41	67	18	1,664	73	16
4	1,448	73	16	139	70	14	3	85	11	5	75	14	11	69	16	62	73	16	1,668	73	16
5	1,669	71	16	104	71	14	34	76	16	54	69	15	16	63	19	103	70	16	1,980	71	16
6	23	74	14	5	65	16	0	0	0	6	60	14	0	0	0	7	75	16	41	71	15
Total	8,089	73	16	977	71	15	46	76	15	133	68	15	49	63	17	420	71	16	9,714	73	16
General																					
1	1,935	75	15	250	72	14	7	65	5	16	63	10	6	69	10	167	73	14	2,382	75	15
2	1,607	75	15	317	67	13	1	80	0	9	68	11	6	67	11	39	71	16	1,979	74	15
3	1,407	75	15	162	67	13	1	95	0	43	69	12	10	67	12	41	69	14	1,664	73	15
4	1,448	75	15	139	68	13	3	83	13	5	69	9	11	85	11	62	74	14	1,668	74	14
5	1,669	76	14	104	66	13	34	73	16	54	70	15	16	71	16	103	74	15	1,980	75	14
6	23	72	13	5	69	13	0	0	0	6	63	13	0	0	0	7	80	8	41	71	13
Total	8,089	75	15	977	68	14	46	73	16	133	68	13	49	73	15	420	73	14	9,714	74	15
Electronics																					
1	1,935	61	18	250	50	17	7	42	13	16	47	14	6	56	16	167	54	18	2,382	60	19
2	1,607	62	18	317	50	16	1	65	0	9	49	8	6	53	12	39	60	17	1,979	60	18
3	1,407	62	18	162	51	16	1	65	0	43	54	14	10	50	14	41	55	19	1,664	61	18
4	1,448	62	18	139	50	16	3	60	14	5	63	9	11	66	14	62	58	17	1,668	61	18
5	1,669	63	18	104	50	16	34	63	18	54	56	14	16	58	15	103	61	20	1,980	62	18
6	23	60	19	5	60	4	0	0	0	6	52	9	0	0	0	7	56	21	41	58	17
Total	8,089	62	18	977	50	16	46	60	18	133	54	14	49	57	15	420	57	19	9,714	61	18

^aMeans and standard deviations have been rounded to nearest whole number.

^bRegions are defined in Table 8.

Table B5. Descriptive Statistics of ASVAB Composites for Male Enlistees by Racial/Ethnic Subgroup and Enlistment Region (1977)^a

Enlistment Region ^b	White			Black			Oriental			Hispanic			Indian			Other			Total		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Mechanical																					
1	4,991	70	20	705	46	20	2	73	18	15	42	19	2	68	18	136	57	21	5,851	66	21
2	4,757	71	18	1,000	48	19	3	58	21	5	62	34	2	50	30	35	52	21	5,802	67	20
3	4,407	72	18	419	48	17	2	53	3	36	62	18	2	55	20	114	56	20	4,980	70	19
4	3,997	73	18	475	50	19	1	80	0	7	59	18	0	0	0	74	60	23	4,554	70	20
5	4,234	75	17	239	53	20	49	58	19	54	63	18	5	79	10	460	61	21	5,041	72	19
6	4,397	73	18	589	47	19	8	51	28	20	51	19	1	35	0	212	59	20	5,224	69	20
Total	26,783	72	18	3,424	48	19	65	58	20	137	58	20	12	65	23	1,031	59	21	31,452	69	20
Administrative																					
1	4,991	69	19	705	63	18	2	60	30	15	67	17	2	73	8	136	64	19	5,851	68	19
2	4,757	64	19	1,000	57	18	3	72	13	5	64	22	2	50	15	35	65	18	5,802	63	19
3	4,407	64	19	419	57	18	2	95	0	36	63	19	2	65	0	114	62	19	4,980	63	19
4	3,997	66	19	475	61	19	1	60	0	7	70	11	0	0	0	74	64	20	4,554	65	19
5	4,234	65	19	239	60	17	49	67	16	54	64	18	5	69	14	460	63	18	5,041	64	19
6	4,397	66	19	589	58	19	8	68	24	20	64	13	1	25	0	212	63	19	5,224	65	19
Total	26,783	66	19	3,424	59	18	65	68	18	137	64	18	12	62	17	1,031	63	19	31,452	65	19
General																					
1	4,991	77	14	705	70	14	2	68	23	15	70	15	2	93	3	136	69	15	5,851	76	15
2	4,757	75	15	1,000	65	13	3	67	14	5	71	17	2	60	5	35	64	12	5,802	73	15
3	4,407	75	15	419	64	13	2	93	3	36	72	16	2	70	0	114	65	14	4,980	74	15
4	3,997	76	14	475	69	13	1	60	0	7	66	11	0	0	0	74	69	16	4,554	75	15
5	4,234	77	14	239	68	13	49	65	13	54	72	3	5	79	12	460	68	15	5,041	75	15
6	4,397	76	15	589	68	14	8	67	15	20	62	12	1	45	0	212	69	15	5,224	75	15
Total	26,783	76	15	3,424	67	14	65	66	15	137	70	14	12	74	15	1,031	68	15	31,452	75	15
Electronics																					
1	4,991	75	17	705	64	18	2	78	13	15	62	11	2	73	18	136	70	16	5,851	74	17
2	4,757	74	16	1,000	61	17	3	78	6	5	77	14	2	53	3	35	73	16	5,802	72	17
3	4,407	75	17	419	62	17	2	73	3	36	73	18	2	68	3	114	71	15	4,980	74	17
4	3,997	76	16	475	65	18	1	80	0	7	71	13	0	0	0	74	72	18	4,554	75	16
5	4,234	77	16	239	62	17	49	72	18	54	70	18	5	85	11	460	71	17	5,041	75	16
6	4,397	76	16	589	64	17	8	72	21	20	63	16	1	80	0	212	71	17	5,224	74	16
Total	26,783	75	16	3,424	63	17	65	72	18	137	69	17	12	74	16	1,031	71	16	31,452	74	17

^aMeans and standard deviations have been rounded to nearest whole number and represent data from January through June 1977.

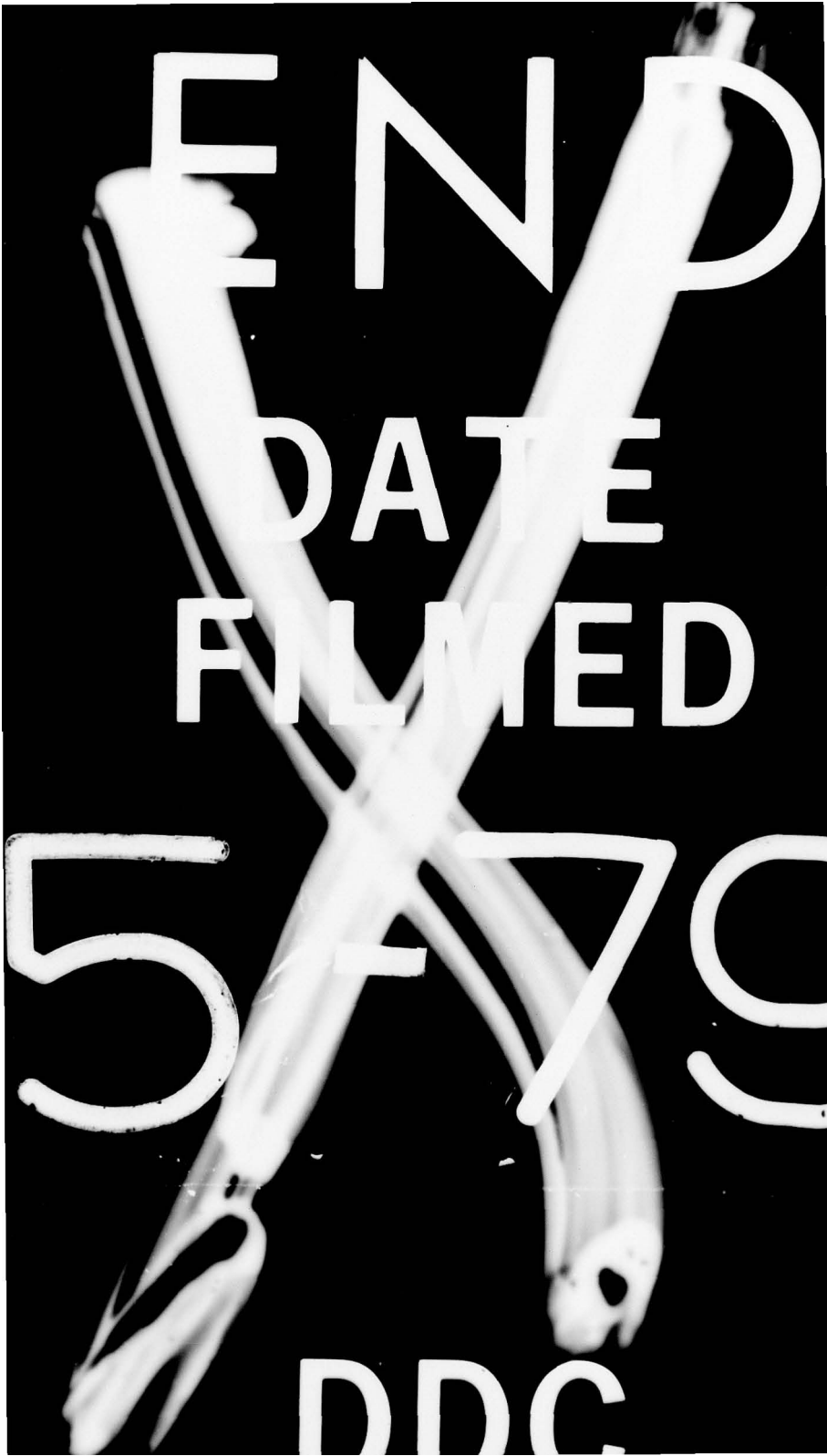
^bRegions are defined in Table 8.

Table B6. Descriptive Statistics of ASVAB Composites for Female Enlistees by Racial/Ethnic Subgroup and Enlistment Region (1977)^a

Enlistment Region ^b	White			Black			Oriental			Hispanic			Indian			Other			Total		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Mechanical																					
1	819	38	17	150	23	14	1	10	0	0	0	0	0	0	0	19	26	19	989	35	18
2	711	39	17	165	24	15	0	0	0	0	0	0	0	0	0	3	20	7	879	36	18
3	606	40	16	69	27	16	1	5	0	3	12	5	0	0	0	13	36	15	692	38	17
4	604	39	17	71	24	13	1	10	0	3	32	17	0	0	0	8	26	12	687	37	17
5	821	43	18	37	25	12	7	22	17	5	31	10	2	40	5	53	30	15	925	41	18
6	746	41	18	96	26	16	3	27	10	2	11	10	0	0	0	27	32	17	874	39	18
Total	4,307	40	17	588	25	15	13	20	15	13	24	15	2	40	5	123	30	16	5,046	38	18
Administrative																					
1	819	77	15	150	74	15	1	80	0	0	0	0	0	0	0	19	76	13	989	77	15
2	711	74	16	165	68	17	0	0	0	0	0	0	0	0	0	3	62	17	879	73	16
3	606	74	17	69	71	18	1	80	0	3	73	2	0	0	0	13	76	18	692	74	17
4	604	74	16	71	70	14	1	45	0	3	67	15	0	0	0	8	74	18	687	74	16
5	821	73	17	37	73	12	7	67	17	5	65	11	2	53	8	53	73	15	925	73	17
6	746	74	17	96	70	19	3	67	10	2	65	5	0	0	0	27	69	16	874	74	17
Total	4,307	74	16	588	71	17	13	67	15	13	67	11	2	53	8	123	73	16	5,046	74	16
General																					
1	819	77	13	150	70	13	1	60	0	0	0	0	0	0	0	19	76	14	989	76	14
2	711	76	14	165	69	13	0	0	0	0	0	0	0	0	0	3	72	12	879	75	14
3	606	75	14	69	69	12	1	60	0	3	50	4	0	0	0	13	72	16	692	74	14
4	604	76	14	71	66	12	1	60	0	3	62	13	0	0	0	8	71	16	687	75	14
5	821	77	14	37	71	12	7	69	10	5	79	10	2	55	0	53	73	11	925	77	14
6	746	77	13	96	70	14	3	77	2	2	65	5	0	0	0	27	73	13	874	76	14
Total	4,307	77	14	588	69	13	13	69	9	13	66	15	2	55	0	123	73	13	5,046	76	14
Electronics																					
1	819	63	18	150	49	18	1	35	0	0	0	0	0	0	0	19	62	18	989	61	19
2	711	63	18	165	52	17	0	0	0	0	0	0	0	0	0	3	72	2	879	61	19
3	606	65	17	69	51	20	1	40	0	3	53	9	0	0	0	13	57	22	692	63	18
4	604	63	18	71	49	16	1	55	0	3	43	12	0	0	0	8	51	21	687	62	19
5	821	64	18	37	53	20	7	57	10	5	66	13	2	45	10	53	62	18	925	64	18
6	746	65	18	96	52	18	3	50	11	2	43	8	0	0	0	27	59	16	874	63	18
Total	4,307	64	18	588	51	18	13	52	11	13	54	15	2	45	10	123	61	18	5,046	62	19

^aMeans and standard deviations have been rounded to nearest whole number and represent data from January through June 1977.

^bRegions are defined in Table 8.



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AIR FORCE HUMAN RESOURCES LAB BROOKS AFB TEX
CHARACTERISTICS OF AIR FORCE ACCESSIONS: JANUARY 1975 TO JUNE 1--ETC(U)
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AIR FORCE HUMAN RESOURCES LABORATORY
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Errata

Number	First Author	Title
AFHRL-TR-76-87 (AD-A037 522)	Jensen	Armed Services Vocational Aptitude Battery Development (ASVAB Forms 5, 6, and 7)
AFHRL-TR-77-28 (AD-A044 525)	Hunter	Validation of a Psychomotor/Perceptual Test Battery
AFHRL-TR-77-53 (AD-A048 120)	Mathews	Screening Test Battery for Dental Laboratory Specialist Course: Development and Validation
AFHRL-TR-77-74 (AD-A051 962)	Mathews	Analysis Aptitude Test for Selection of Airmen for the Radio Communications Analysis Specialist Course: Development and Validation
AFHRL-TR-78-10 (AD-A058 097)	DeVany	Supply Rate and Equilibrium Inventory of Air Force Enlisted Personnel: A Simultaneous Model of the Accession and Retention Markets Incorporating Force Level Constraints
AD-A066 659-AFHRL-TR-78-74 (AD-A066 659)	Leisey	Characteristics of Air Force Accessions: January 1975 to June 1977
AFHRL-TR-78-82 (AD-A063 656)	Mathews	Prediction of Reading Grade Levels of Service Applicants from Armed Services Vocational Aptitude Battery (ASVAB)
AFHRL-TR-79-29 (AD-A078 427)	Hendrix	Pre-Enlistment Person-Job Match System
AFHRL-TR-79-83 (AD-A090 499)	Gustafson	Recursive Forecasting System for Person-Job Match

Due to norming problems encountered with ASVAB Forms 5, 6, and 7, percentile scores derived from these test forms are in error. While the relative ranking of individuals by their percentile scores would not be affected by the norming errors, their absolute score values would be different. Therefore, descriptive statistics reported in the subject technical reports above are erroneous; other types of analyses in the report which use ASVAB percentile scores should be interpreted with caution.

NANCY GUINN, Technical Director
Manpower and Personnel Division