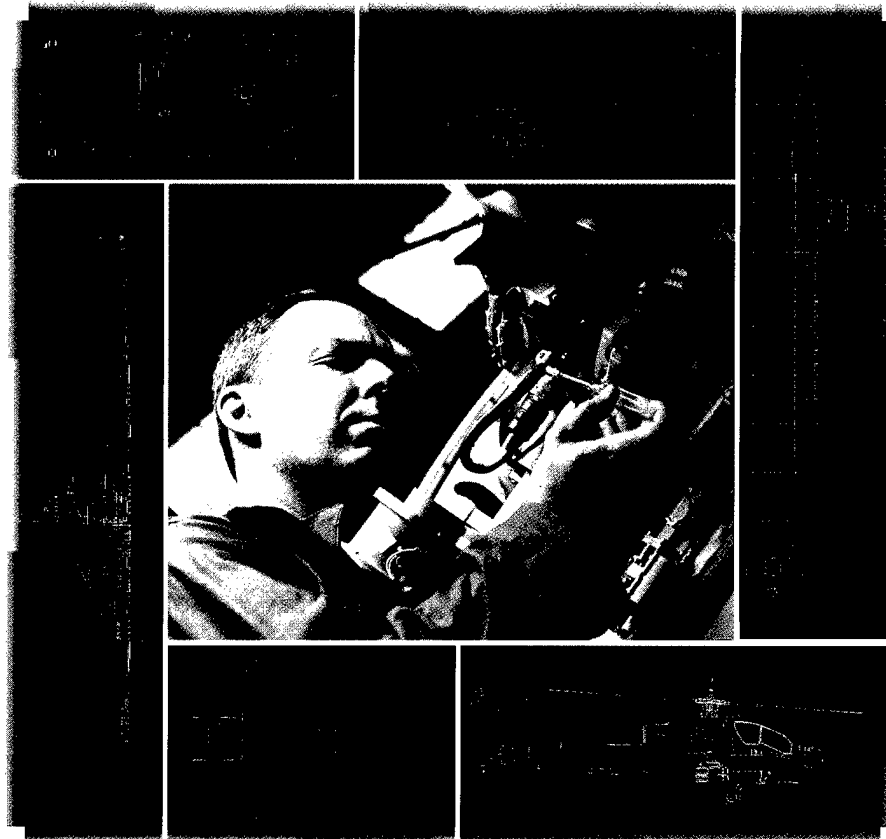


# Characterizing the Maintenance Work Force Fiscal Years 1991 – 1995

LG518RD1



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June 1996

William Hand  
Adam Peck  
Dennis Wightman

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## CHAPTER 1

# Introduction

In his national security strategy, President Clinton emphasized that, even with the Cold War over, our nation must maintain military forces that are sufficient to deter diverse threats and, when necessary, to fight and win against our adversaries. While many factors ultimately contribute to our nation's safety and well-being, no single component is more important than the men and women who wear America's uniform and stand sentry over our security. Their skill, service, and dedication constitute the core of our defenses.<sup>1</sup>

The national military strategy, derived from the national security strategy, is one of flexible and selective engagement required to support our nation's interests. The strategy calls for a force structure that can fight and win two nearly simultaneous major regional conflicts and conduct a wide range of other military options.<sup>2</sup>

The national military strategy further stresses that maintaining the high readiness of our forces is a prerequisite to deterring aggression and responding to crises. Our work force must be sufficiently ready — manned, equipped, trained, and sustainable — to meet the deployment requirements our strategy demands and to provide a hedge against uncertainty.<sup>3</sup> The maintenance work force, which comprises active duty and selected reserve military maintainers in consonance with their Department of Defense (DoD) civilian counterparts, plays a significant role in sustaining this ready force. This report focuses on the maintenance work force but should also be viewed in the context of the entire DoD work force.

The DoD conducted a Bottom-Up Review (BUR) to determine the appropriate force structure and concluded that a smaller force structure could carry out the national military strategy. The draw down of forces to the level called for by the strategy will be nearly complete by the end of fiscal year (FY) 1996. At that time, DoD will have reduced active military personnel strength by more than 30 percent since the Berlin Wall fell in 1990.

By 1999 active military end strength will level off at about 1,445,000, about 33 percent below its FY87 post-Vietnam peak of 2,174,200. In FY98 selected reserve end strength will hit its goal of 893,000, about 22 percent below the FY87 level of 1,150,900. The BUR strategy calls for increased use of the National Guard and the Reserve forces in this period of declining resources. In fact, the selected reserve will comprise nearly 40 percent of the Total Force by FY98, higher than at any point in the Cold War. DoD civilian end strength will decline

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<sup>1</sup> A National Security Strategy of Engagement and Enlargement, July 1994.

<sup>2</sup> National Military Strategy of the United States of America 1995.

<sup>3</sup> Ibid.

to 728,000 in FY01, almost 36 percent below FY87 (1,133,100).<sup>4</sup> DoD employs about 40 percent of the full time Federal civilian white-collar workers and approximately 75 percent of the blue-collar workers.

From FY91 through FY95, the period covered by this study, the active duty work force decreased by 23.6 percent, the selected reserve decreased by 19.1 percent, and the DoD civilian work force decreased by 16.9 percent. Since the draw down began, quality and diversity have actually increased substantially and produced a more effective force.

The proportion of active duty enlisted personnel in the upper aptitude categories has increased from 56 percent in 1987, when the draw down began, to 65.3 percent in 1995. Those in the lowest acceptable aptitude category decreased from 11 percent of the force in 1987 to just 5.6 percent in 1995.

Diversity is greater today than in 1987. The percentage of women in active service has increased from 10 percent to 12.6 percent in 1995. There was concern that the drawdown would have an adverse impact on minority members of the armed forces. However, total minority representation in the active force has actually increased from 27.4 percent to 30.3 percent. Similar results are found in the selected reserves. The percentage of women among civilian DoD employees held steady. Although the relative percentage of women in blue-collar occupations fell slightly, the percentage of mid-grade and high-grade white-collar positions filled by women increased. The relative percentage of minorities in the work force rose in all general schedule (GS) categories.<sup>5</sup>

Cognizant of the changes occurring in the overall DoD work force, the Deputy Under Secretary of Defense for Logistics asked the Logistics Management Institute (LMI) to identify the specific changes, both in size and characteristics, that have occurred in the DoD maintenance work force as a result of downsizing and privatization of non-core functions. With this information about significant trends, the Office of the Secretary of Defense (OSD) can identify the potential impact of strategy, force structure, maintenance policy changes, and business decisions on the maintenance work force.

## Methodology

As the basis for its study of the DoD maintenance work force, LMI used data (approximately 4,500,000 file records) from the Defense Manpower Data Center (DMDC). The Institute analyzed trends for a five-year period, FY91 through FY95, for a broad range of characteristics — age, years of service, retirement eligibility, quality as measured by the Armed Forces Qualification Test (AFQT) and level of formal education, skills, gender, and ethnicity. In addition, DMDC provided data for the period for the total DoD work force for the same

<sup>4</sup>Prepared statement of Secretary of Defense William J. Perry to the House National Security Committee, Washington D.C. , February 8, 1995.

<sup>5</sup>National Technical Information Service, "Occupations of Federal White-Collar and Blue-Collar Workers. Federal Civilian Workforce Statistics as of September 1993."

characteristics; these data were used to compare the overall DoD work force to the maintenance work force.

For this study, LMI used the *Occupational Conversion Index* (DoD 1312.1-I, September 1993) to define the DoD maintenance work force. The Index is a compilation of DoD officer and enlisted specialties and civil service "white-collar" and "blue-collar" occupations under two similar occupational grouping structures. The first structure contains enlisted occupations, certain occupations in the general schedule series, and most wage grade occupations. The second structure contains commissioned and warrant officer occupations, the remainder of the GS occupations, and a few wage grade occupations. Within each category, similar occupational skills are aggregated into well-defined categories. All maintenance jobs in the active Services, selective reserve, and DoD agencies for both military and civilian personnel are included in these categories.

The personnel identified as maintainers in the analysis were responsible for the maintenance, repair, rebuild, and refurbishment of DoD equipment. We did not include personnel primarily concerned with the maintenance and repair of facilities. We drew the majority of the maintainers from occupations that fell within a broad category (e.g., electronic equipment repairman). However, since the Services list some maintenance specialties outside these broad categories, we reviewed individual occupations to determine if the occupation fit the maintenance definition. Biomedical equipment repairers, which were listed under the health care specialist category, are an example of this individual review.

The DoD enlisted and blue-collar maintenance work force comprises personnel in electronic equipment repair, electrical and mechanical equipment repair, and crafts. Officer maintainers and their civilian white-collar counterparts are those personnel with occupations in the DoD occupational group encompassing engineering and maintenance officers.

## Summary of Findings

From FY91 through FY95, the years covered in this study, the size of the maintenance work force decreased 21.0 percent as compared to a 20.4 percent decrease in the overall DoD work force. Table 1-1 shows the sizes of the individual segments of the maintenance work force during the survey period. The decreases in those segments varied from 8.8 percent to 28.3 percent.

Table 1-2 highlights the significant changes that occurred in the characteristics of the maintenance work force from FY91 through FY95. In general the maintenance work force changes paralleled the overall DoD work force. The proportion of personnel with greater than 10 years' service increased while the number of maintainers with fewer than 10 years' service decreased, resulting in a more experienced work force with a greater percentage of personnel eligible to retire. The quality of the work force continued to improve as indicated by higher AFQT scores and higher levels of formal education. Finally, the work force is

becoming more diversified with a large proportion of women and ethnic minorities in the maintenance population.

**Table 1-1.**  
*Size of DoD Maintenance Work Force by Segment (thousands)*

Segment	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Active duty enlisted	557.7	505.3	475.0	448.4	415.3	– 25.5
Active duty warrant officers	6.0	5.5	5.1	4.8	4.3	– 28.3
Active duty commissioned officers	19.9	18.8	17.5	16.8	16.3	– 18.1
Selected reserve enlisted	210.7	221.9	211.3	198.6	192.6	– 8.6
Selected reserve warrant officers	3.3	3.2	3.2	2.9	2.7	– 17.3
Selected reserve commissioned officers	8.0	7.9	8.0	7.3	7.3	– 8.8
Civilian blue-collar	143.1	140.0	128.8	119.5	109.0	– 23.9
Civilian white-collar	48.0	47.3	43.9	41.1	39.6	– 17.3
Total	996.7	949.9	892.8	839.4	787.1	– 21.0
Total DoD population	4,122.2	3,892.6	3,671.1	3,471.2	3,279.3	– 20.4
Maintainers as percent of total	24.2	24.4	24.3	24.2	24.0	

**Table 1-2.**  
*Summary of Changes in Maintenance Work Force Characteristics*

Characteristic	Change
Age	Average age increased in all segments except active duty commissioned officers.
Years of service	Generally, proportion of individuals with 10 or fewer years of service decreased; proportion with more than 10 years increased.
Retirement eligibility	Retirement eligibility increased in all segments except civilian blue-collar and active duty commissioned officers. Active duty enlisted and white-collar civilians remained relatively stable; warrant officers experienced the largest increase.
AFQT score	Proportion of active duty enlisted with the highest scores increased; selected reserve enlisted decreased. Proportion of enlisted with the lowest score decreased.
Education	Proportion of officers with at least a college degree, except for active duty commissioned, and enlisted and blue-collar civilians with at least a high school diploma, increased.
Skills	Although some minor variations in skill subcategories occurred, distribution of individuals among skill categories remained relatively constant.
Gender	Proportion of female enlisted and officers and white-collar females increased. Proportion of blue-collar females decreased slightly.
Ethnicity	Proportion of minorities increased in all segments.

# Report Organization

In chapters 2 through 4, we discuss, in detail, the changes in size and characteristics that occurred from FY91 through FY95 in each major segment of the maintenance work force — active duty, selected reserve, and civilian. We subdivided the chapters concerning the military maintainer populations (active duty and selected reserve) into enlisted personnel, warrant officers, and commissioned officers and the chapter on DoD civilian maintainers into blue-collar and white-collar personnel. Appendix A includes tables showing the sizes of the populations of each segment for each characteristic considered. The data shown are from our analyses of the DMDC maintenance work force data base. In Appendix B, we discuss the characteristics used to describe the maintenance work force. Appendix C includes the definitions of the occupational categories used to characterize the skills of the maintenance work force.



## CHAPTER 2

# Active Duty Military Maintainers

Active duty (AD) military maintainers permeate the operational forces, accounting for 29 percent of all active duty personnel. They are stationed principally at military installations throughout the continental United States and at numerous overseas locations. They provide field-level (organizational and intermediate) service to weapon systems and equipment used by the operating forces. A small number of active duty maintenance personnel work in depot facilities.

The total number of AD maintainers (enlisted and officers) decreased by 25.3 percent from FY91 to FY95 (Table 2-1). By the end of FY95, the number of AD maintainers totaled about 436,000 personnel, or about 55 percent of the total DoD maintenance work force as defined for this profile (787,000 personnel). The decrease in the population of active duty maintainers was slightly higher than the overall downsizing of the total active duty force, which decreased 23.6 percent during that period.

**Table 2-1.**

*Number of Active Duty Maintainers, FY91 – FY95 (thousands)*

Segment	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Enlisted	557.7	505.3	475.0	448.4	415.3	– 25.5
Warrant officers	6.0	5.5	5.1	4.8	4.3	– 28.3
Commissioned officers	19.9	18.8	17.5	16.8	16.3	– 19.1
Total	583.6	529.6	497.6	470.0	435.9	– 25.3
Total active duty	1,971.4	1,793.3	1,692.6	1,596.6	1,505.3	– 23.6
Maintainers as percent of total	29.6	29.5	29.4	29.4	29.0	

This chapter characterizes the AD enlisted maintainers and the AD officer maintainers, including both commissioned and warrant officers. In certain instances, we compare the characteristics of the active duty maintainers to those of the total DoD active duty, enlisted or officer populations.

## ACTIVE DUTY ENLISTED MAINTAINERS

In general, DoD active duty enlisted personnel enter the maintenance occupations either upon completion of basic training and technical school or through cross training from another service specialty. The enlisted work force is characterized by a high proportion of personnel with low tenure and a high rate of turnover. Consequently, a constant flow of relatively large numbers of recruits is needed to produce the requisite numbers of technicians, journeymen, and mid- or senior-level supervisors.

The active duty enlisted maintainers have consistently constituted about 95 percent of the total AD maintenance work force as compared to only 84 percent of the total AD work force being enlisted. From FY91 through FY95, the population decreased by about 142,500 personnel, or 25.5 percent, as shown in Table 2-2. The total AD enlisted work force decreased 24.6 percent during the same period. Active duty enlisted maintainers have consistently constituted about 33 percent of the total AD enlisted population. The relative proportion of the AD enlisted maintainer population in each military service remained fairly constant over the study period. For FY95, those proportions were as follows:

- ◆ Army — 21 percent
- ◆ Navy — 42 percent
- ◆ Marine Corps — 9 percent
- ◆ Air Force — 28 percent.

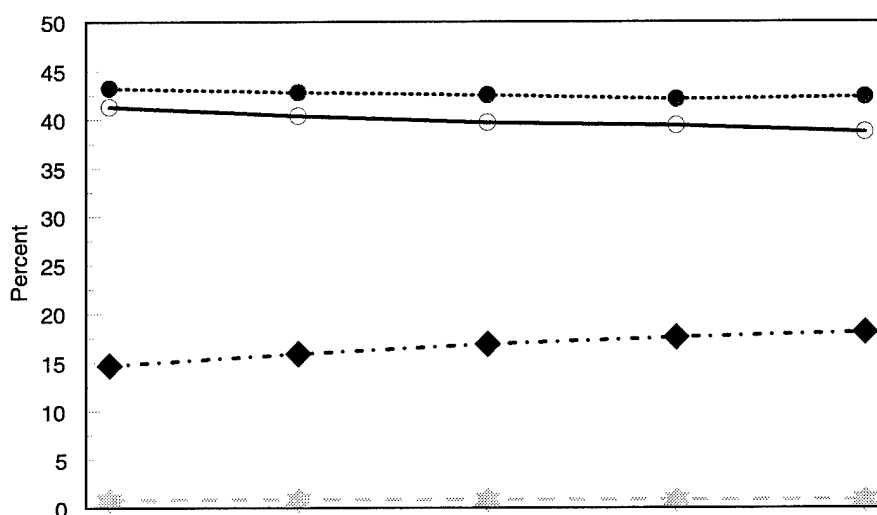
**Table 2-2.**

*Number of Active Duty Enlisted Maintainers by Service, FY95 – FY95  
(thousands)*

Service	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Maintainers						
Army	114.3	91.6	92.3	90.9	87.9	– 23.1
Navy	243.8	232.2	211.6	192.2	173.0	– 29.0
Marine Corps	45.5	41.8	38.2	37.3	37.6	– 17.4
Air Force	154.1	139.7	132.9	128.0	116.8	– 24.2
Total	557.7	505.3	475.0	448.4	415.3	– 25.5
Total active duty enlisted	1,680.5	1,519.8	1,435.4	1,350.7	1,267.2	– 24.6
Maintainers as percent of total	33.1	33.2	33.1	33.2	32.8	

## Age

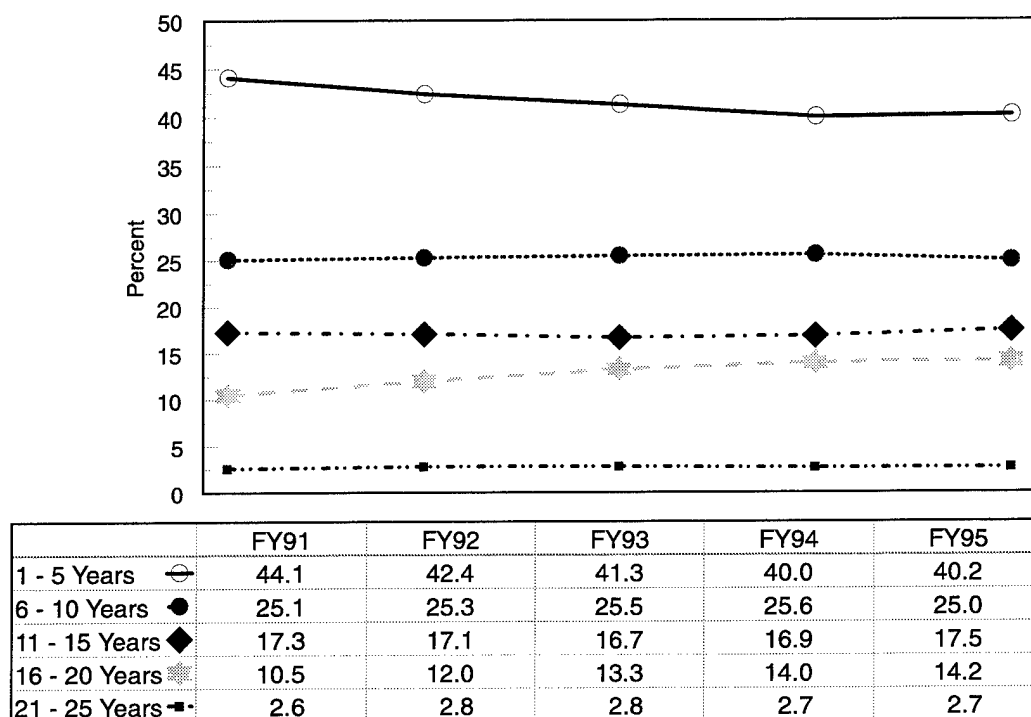
The average age of the active duty enlisted maintainer population increased steadily from 27.3 years in FY91 to 28.0 years in FY95. Figure 2-1 shows the number of AD enlisted maintainers by age group. The size of the 17-to-24 age group decreased from FY91 to FY95. The size of the largest group, the 25-to-34 age group, also decreased slightly over that period. However, the 35-to-44 age group increased from 14.7 percent to 18.1 percent. Forty-four percent of the total enlisted AD population was in the 17-to-24 age group, but only 38.7 percent of the enlisted maintenance population was in that age group.



**Figure 2-1.**  
*Distribution of Active Duty Enlisted Maintainers by Age Group,  
FY91 – FY95*

## Years of Service

In FY95, AD enlisted maintainers had an average of 8.7 years of service (YOS), an increase of 0.6 years since FY91. Among AD enlisted maintainers, 40.2 percent had five or fewer YOS in FY95, down from 44.1 percent in FY91. Among the total enlisted forces, 46.8 percent had 5 or fewer YOS in FY95. While most AD enlisted maintainer YOS groups have declined substantially in absolute size over the study period, the 16-to-20 YOS group actually increased in size from 58,346 in FY91 to 58,808 in FY95. Figure 2-2 shows the percentage of AD enlisted maintainers in each YOS group over the study period.

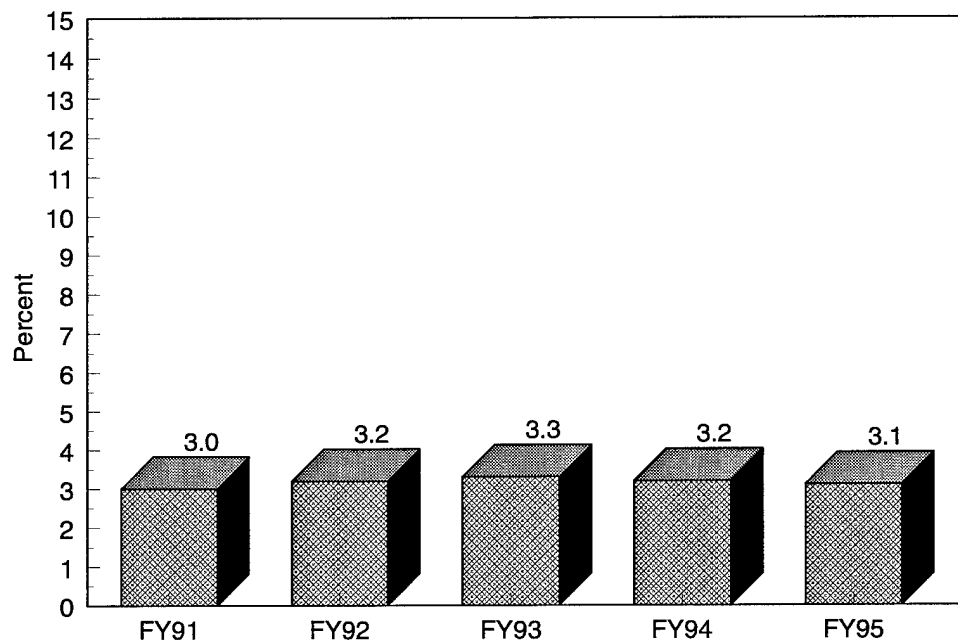


**Note:** Approximately 0.5% of the active duty enlisted maintenance work force has 26 + years of service.

**Figure 2-2.**  
*Distribution of Active Duty Enlisted Maintainers by Years of Service, FY91 – FY95*

## Retirement Eligibility

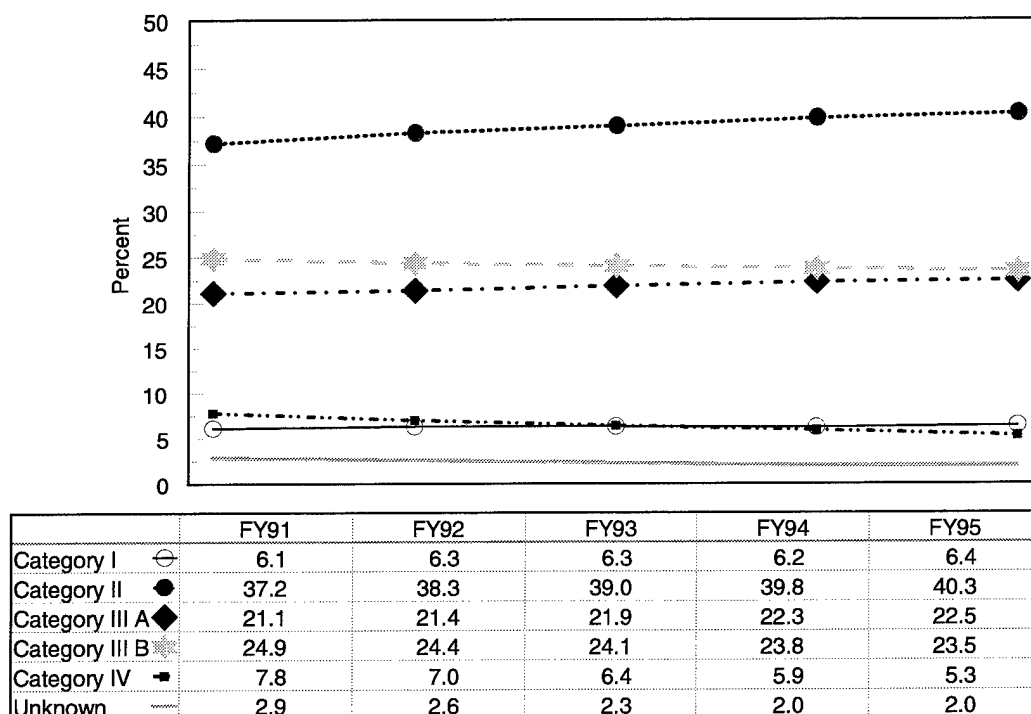
The proportion of retirement-eligible AD enlisted maintainers remained stable (about 3.2 percent) throughout the report period, as shown in Figure 2-3. This percentage is consistent with the YOS analysis and is about the same as the total active enlisted force (3.4 percent). Although the 16-to-20 age group increased, these mid-level managers do not appear to be staying past 20 years of service. This factor is especially evident in the Army; only 1.1 percent of the Army's AD enlisted maintainers were retirement eligible in FY95.



**Figure 2-3.**  
*Percentage of Active Duty Maintainners Eligible to Retire, FY91 – FY95*

## AFQT Score

As measured by AFQT scores, the quality of AD enlisted maintainers increased slightly over the study period. Figure 2-4 indicates that the percentage of maintainers in AFQT Categories I and II (the highest categories) increased steadily from 43.3 percent of the population in FY91 to 46.7 percent of the population in FY95, as compared to 40.7 percent of the total AD enlisted population. At the same time, the proportion of enlisted maintainers in Categories IIIB and IV steadily decreased. These trends may be a result of the increased emphasis on quality by the Military Services' recruiting commands. This effect could also be a reflection of the availability of entry-level jobs in the private sector coupled with reduced recruiting requirements.



**Figure 2-4.**  
*Distribution of Active Duty Enlisted Maintainers by AFQT Score,  
FY91 – FY95*

## Education

In FY95, almost 99 percent of the AD enlisted maintainers had at least a high school education, which was the same proportion of personnel with at least a high school education in the total AD enlisted work force. The educational level of AD enlisted maintainers compared favorably with the U.S. civilian labor force

in which only about 75 percent of American youth, ages 18 to 23, had a high school education in 1995.<sup>1</sup>

Over the survey period, changes in the educational level of AD enlisted maintainers were apparent in two areas, as shown in Table 2-3. First, the proportion of individuals who had not graduated from high school decreased from 2.1 percent in FY91 to 1.1 percent in FY95. Second, the proportion of enlisted maintainers with a college education increased from 1.7 percent to 2.2 percent. These data compare to 3.3 percent of the total AD enlisted force having a college education in FY95. The percentage of AD enlisted maintainers with some college credit was on an upward trend, but we cannot determine the extent of this trend because the Air Force changed its methodology for reporting "some college" in FY94.

**Table 2-3.**  
*Distribution of Active Duty Enlisted Maintainers by Educational Level, FY91 – FY95 (percent)*

Level	FY91	FY92	FY93	FY94	FY95
Some high school	2.1	1.8	1.5	1.3	1.1
High school graduate	92.2	91.9	91.4	72.0	71.9
Some college	3.8	4.4	4.7	24.5	24.6
College graduate	1.7	1.8	1.9	2.1	2.2

**Note:** Unknown (not more than 0.5 percent) not included in calculations.

The percentage of "some college" greatly increased in FY94 with a corresponding decrease in the percentage of high school graduates that same year because the Air Force changed its method for reporting some college. Before FY94, some college equated to at least one year of college completed. This definition was consistent with the other Services. Effective with the FY94 report, airmen with at least six hours of college credit were classified as having some college.

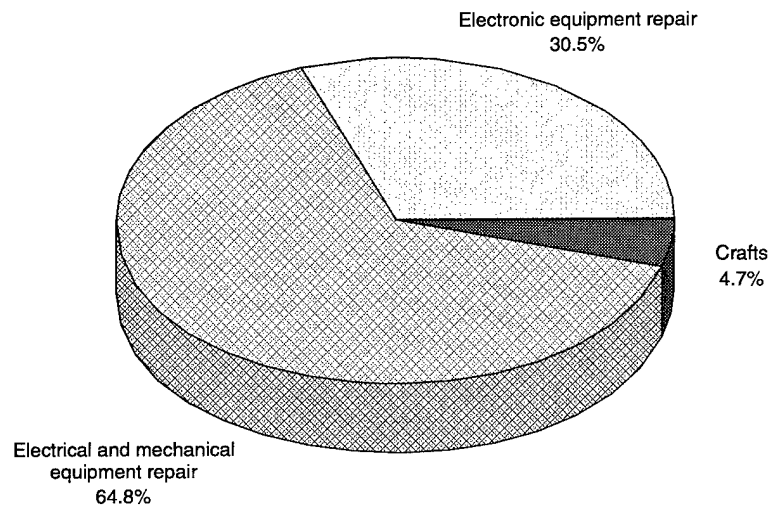
## Skills

We used the DoD *Occupational Conversion Index* and the defense personnel occupational codes to categorize the skills of the AD enlisted maintainer work force. We divided that work force into three principal skill categories — electronic equipment repair, electrical and mechanical equipment repair, and crafts — and 23 subcategories.

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<sup>1</sup>Prepared statement of the Honorable Frederick Pang, Assistant Secretary of Defense (Force Management and Policy) to the House of Appropriations Subcommittee on Defense, March 7, 1995.

Figure 2-5 shows the relative sizes of the three principal skill areas for the AD enlisted maintainer population in FY95. Nearly two-thirds of all AD enlisted maintainers worked in electrical and mechanical equipment repair, slightly less than a third worked in electronic equipment repair, and only about five percent worked in crafts. Despite the large reduction in the size of the total AD enlisted maintainer work force, the overall skills composition of the work force, as characterized by the three major skill areas, did not change significantly over the study period.



**Figure 2-5.**  
*Distribution of Active Duty Enlisted Maintainers by Skill Category, FY95*

Electrical and mechanical equipment repair, the skill category accounting for about 65 percent of the AD enlisted maintainer population, includes specialists in maintaining and repairing electrical, mechanical, hydraulic, pneumatic, and nuclear equipment. Twelve subcategories for that occupational area exist — aircraft and aircraft related, armament and munitions, automotive, missile mechanical and electrical, biomedical, forward area equipment, maintenance records and scheduling, other mechanical and electrical, power generation, precision equipment, shipboard propulsion, and wire communications.

Electronic equipment repair, constituting about 30 percent of the AD enlisted maintainer population in FY95, includes specialists in maintaining and repairing various types of electronic and allied equipment such as radios, radar, navigation systems, electronic countermeasures, weapons, and computers. Eight subcategories exist in this skill area — ADP computers; fire control electronic systems; missile guidance, control, and checkout; nuclear weapons; other electronic; radio and radar; sonar; and teletype and cryptographic.

Crafts, the skill category for about five percent of the AD enlisted maintainer work force, include the formation, fabrication, and installation of structures and



components; the installation and maintenance of tactical utilities; and related trades and crafts. Three subcategories exist in this occupational area — fabric, leather, and rubber; metalworking; and other crafts.

Table 2-4 shows the number of AD enlisted maintainers in each skill category and subcategory over the study period. The populations in electronic equipment repair and electrical and mechanical equipment repair declined approximately 26 percent. However, the number of individuals in the crafts category decreased only 21 percent over the study period.

All subcategories of electronic equipment repair experienced population declines over the study period. In fact, all subcategories except one decreased more than 26 percent; the teletype and cryptographic subcategory declined the most — 63 percent. The subcategory with the smallest decline ( 11 percent) was radio and radar.

All subcategories of electrical and mechanical equipment repair also experienced population declines over the study period. Those declines ranged from 6 percent (biomedical) to 52 percent (missile mechanical and electrical). The declines in five of the subcategories — automotive, missile mechanical and electrical, power generation, shipboard propulsion, and wire communications — exceeded 26 percent. Electrical and mechanical equipment repair was the largest major occupational area with a population of more than 269,000 AD enlisted maintainers in FY95, down from over 362,500 in FY91.

The number of individuals in crafts decreased during the study period but at a lower rate when compared to the other two categories. The percentage of decrease in two of the three craft subcategories was below the overall AD enlisted maintainer decline of 26 percent — metalworking, 16 percent; and fabric, leather, and rubber, 18 percent.

**Table 2-4.**  
***Number of Active Duty Enlisted Maintainers by Skill Category,***  
***FY91 – FY95***

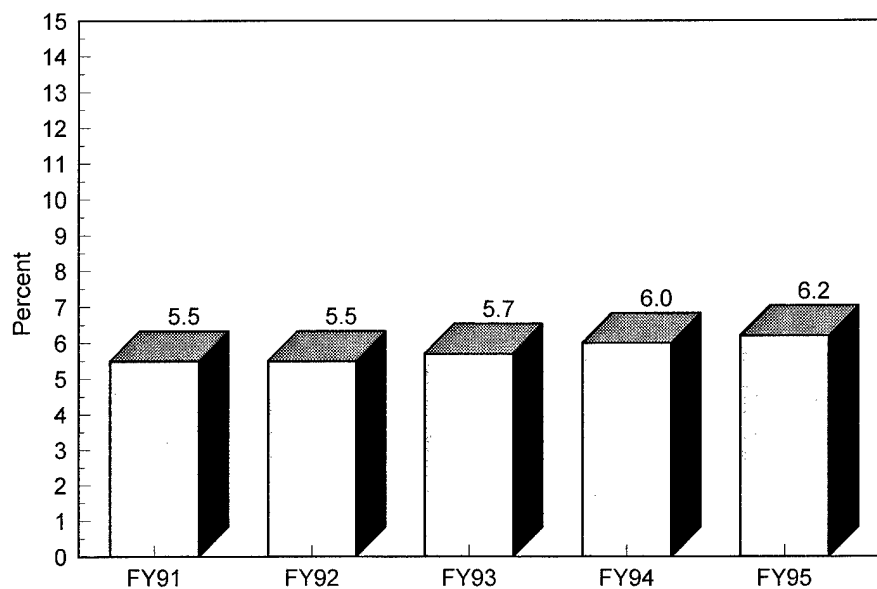
Category	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Electronic equipment repair						
ADP computers	8,277	7,289	6,640	6,283	5,764	-30.4
Fire control electronics systems	7,376	7,080	6,522	5,147	4,599	-37.6
Missile guidance, control, and checkout	33,583	29,438	26,132	25,493	22,781	-32.2
Nuclear weapons	1,199	1,154	1,149	1,049	867	-27.7
Other electronic	21,096	19,953	19,152	15,838	14,132	-33.0
Radio and radar	74,691	69,267	68,836	65,968	66,632	-10.8
Sonar	10,921	10,108	8,881	7,852	6,919	-36.6
Teletype and cryptographic	13,580	10,511	8,094	6,604	4,973	-63.4
Subtotal	170,723	154,800	145,406	134,234	126,667	-25.8
Electronic and mechanical equipment repair						
Aircraft and aircraft related	136,721	124,821	117,705	114,906	106,343	-22.2
Armament and munitions	41,940	37,702	35,611	34,846	32,286	-23.0
Automotive	55,369	45,237	44,178	42,920	39,833	-28.1
Biomedical	1,794	1,782	1,875	1,785	1,694	-5.6
Forward area equipment	6,709	6,539	6,297	6,335	5,919	-11.8
Maintenance records and scheduling	7,687	7,205	6,640	6,533	6,292	-18.1
Missile mechanical and electrical	4,818	3,859	3,100	2,675	2,315	-52.0
Other mechanical and electrical	10,826	10,261	10,139	9,994	9,498	-12.3
Power generation	37,393	34,401	31,715	29,092	26,283	-29.7
Precision equipment	2,367	2,359	2,266	2,093	1,933	-18.3
Shipboard propulsion	40,277	38,754	34,619	29,852	25,438	-36.8
Wire communications	16,725	13,744	12,760	11,921	11,405	-31.8
Subtotal	362,626	326,664	306,905	292,952	269,239	-25.8

Category	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Crafts						
Fabric, leather, and rubber	1,937	1,782	1,682	1,614	1,579	-18.5
Metalworking	12,946	12,694	12,134	11,057	10,846	-16.2
Other crafts	9,529	9,378	8,910	8,542	6,963	-26.9
Subtotal	24,412	23,854	22,726	21,213	19,388	-20.6
Total	557,761	505,318	475,037	448,399	415,294	-25.5

**Note:** ADP = automated data processing

## Gender

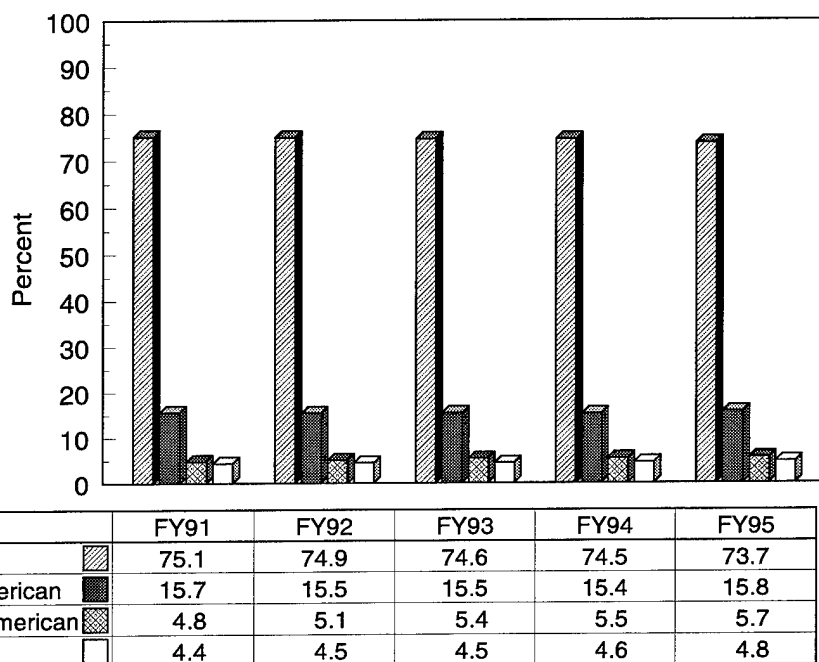
The proportion of females in the AD enlisted maintainer population in FY95 was 6.2 percent, somewhat lower than the proportion in the total AD enlisted force (12.6 percent). Over the study period, the proportion of female AD enlisted maintainers rose slightly as shown in Figure 2-6.



**Figure 2-6.**  
*Percentage of Females in Active Duty Enlisted Maintainer Population,  
FY91 – FY95*

## Ethnicity

In FY95, 26.3 percent of the AD enlisted maintainers were categorized as ethnic minorities, compared to 33 percent of the total active duty enlisted force. The proportion of ethnic minorities in the AD enlisted maintainer work force increased over the study period from 24.9 percent in FY91 to 26.3 percent in FY95. Figure 2-7 depicts the percentage of AD maintainers in major ethnic categories. The AD enlisted maintainer population characterized as Hispanic American, which had the largest relative increase in the AD enlisted maintainer population, increased 0.9 percentage points during the study period.



**Figure 2-7.**  
*Distribution of Active Duty Enlisted Maintainers by Ethnicity,  
FY91 – FY95*

## Summary

The AD enlisted maintainers comprise the largest population of maintenance personnel and are the core of the DoD maintenance program; they provide weapon systems and equipment support at the organizational and intermediate levels of maintenance. Throughout the study period, the AD enlisted maintainer population decreased in numbers consistent with the reduction in the size of the total AD enlisted force. However, when compared to the total AD enlisted population, smaller percentages of ethnic minorities,

females, and college graduates were in the AD maintainer force, although a higher percentage of maintainers were in the two top mental categories. In addition, the proportion of AD enlisted maintainers with 1-to-5 years of service who are in the 17-to-24 age group was less than the total AD enlisted force.

Over the study period, several significant changes in the AD enlisted maintainer population occurred. According to AFQT scores and educational levels, the quality of AD enlisted maintainers improved. The number of Hispanic Americans increased, and other ethnic minorities also increased their proportional representation in the AD enlisted maintainer population. In addition, the percentage of female AD enlisted maintainers increased slightly.

The most significant changes observed over the study period were in years of service and age. The historical composition of the work force continues to shift. The average years of service and average age of the AD enlisted maintainers both increased. The largest increases were noted in the 16-to-20 years of service group and the 35-to-44 age group. Conversely, the largest decreases were noted in the 1-to-5 years of service group and the 17-to-24 age group.

Although the AD enlisted maintenance work force is a higher quality, more diversified, older, more tenured force, Defense Department officials worry about the impact of downsizing. The Services are still experiencing shortages in high-tech skills such as electronics, aircraft maintenance, and nuclear power; military personnel are being lured away from these fields by higher paying civilian jobs at a time when unemployment in the civilian sector is particularly low.<sup>2</sup>

## ACTIVE DUTY WARRANT OFFICER MAINTAINERS

The respective Service Secretaries appoint DoD active duty maintenance warrant officers by warrant after they have demonstrated a sound level of technical competence over several years of enlisted service. The Warrant Officer is a highly skilled technician who fills those positions above the enlisted level that are too specialized in scope to permit the effective development and continued use of broadly-trained, branch-qualified commissioned officers.<sup>3</sup> Warrant officers are appointed in all Services except the Air Force. The Army has the largest share (almost 57 percent) of the AD maintenance warrant officer force.

In FY95, DoD had 4,337 AD warrant officer maintainers. AD warrant officer maintainers constituted only about one percent of the total active duty maintenance work force but constituted almost 21 percent of the AD maintenance officer work force. In FY95, the AD warrant officer maintainers constituted about 26 percent of the total AD warrant officer corps, as compared

<sup>2</sup>Los Angeles Times, "U.S. Military Highly Rated, but Strains Begin to Show," March 19, 1996, page 1.

<sup>3</sup>Department of the Army Pamphlet 600-11, "Warrant Officer Professional Development," August 21, 1989.

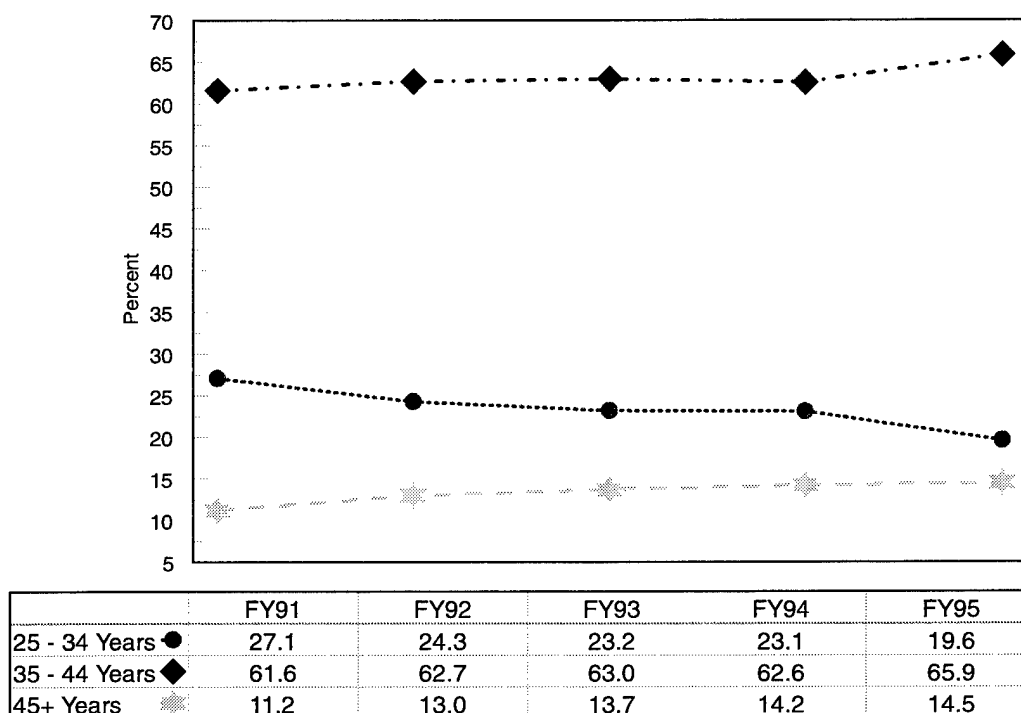
to 30 percent in FY91, as shown in Table 2-5. Over that same period, the size of the AD warrant officer maintainer population decreased by about 28 percent while the total AD warrant officer population decreased only 16 percent. The largest decrease was in the Army AD warrant officer maintainer population. The Marine Corps actually increased from 598 warrant officer maintainers in FY91 to 636 in FY95.

**Table 2-5.**  
*Number of Active Duty Warrant Officer Maintainers by Service,  
FY91 – FY95 (thousands)*

Service	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Maintainers						
Army	3.8	3.4	3.0	2.9	2.5	– 34.2
Navy	1.6	1.6	1.4	1.3	1.2	– 25.0
Marine Corps	0.6	0.6	0.7	0.6	0.6	0.0
Total	6.0	5.6	5.1	4.8	4.3	– 28.3
Total active duty warrant officers	19.8	18.3	17.8	17.2	16.6	– 16.2
Maintainers as percent of total	30.3	30.6	28.1	27.9	25.9	

## Age

Figure 2-8 shows the relative size of each age group for the AD warrant officer maintainer population over the study period. During that period, the average age of the AD warrant officer maintainer population increased from 38.1 years old to 38.8 years old. The increase was driven by a decrease in the population younger than 35 and increases in the 35-to-44 and over 45 age groups. The total AD warrant officer population had a much higher percentage of warrant officers in the 34 and under age group, but we can attribute these data to the large percentage of warrant officer aviators, who normally receive their warrants much earlier in their careers, in the total population.

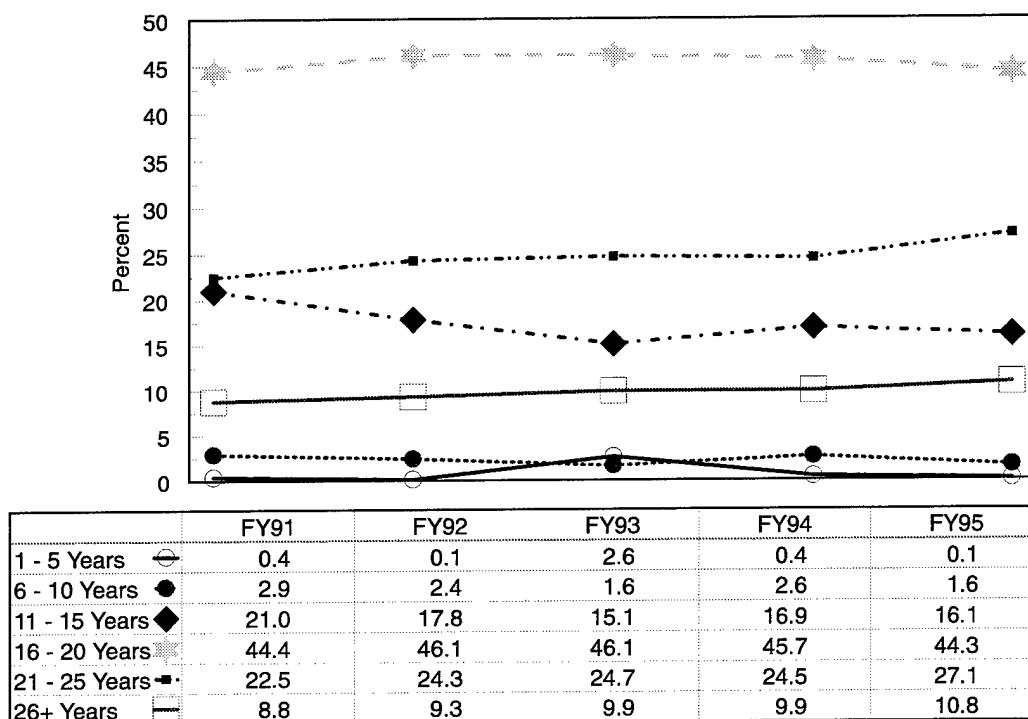


**Note:** The percentage of unknown in a fiscal year is 0.1 percent or less.

**Figure 2-8.**  
*Distribution of Active Duty Warrant Officer Maintainers by Age Group, FY91 – FY95*

## Years of Service

Figure 2-9 shows the proportion of active duty warrant officer maintainers in each YOS group over the study period. The average years of service for that population increased 4.4 percent from 18.8 years in FY91 to 19.6 years in FY95. The percentage of AD warrant officer maintainers with less than 20 years of service decreased from 68.7 percent of the force to 62.1 percent during the study period. The total AD warrant officer force also experienced a decrease in the under 20 years of service category from 75 percent of the force in FY91 to 73.5 percent in FY95.

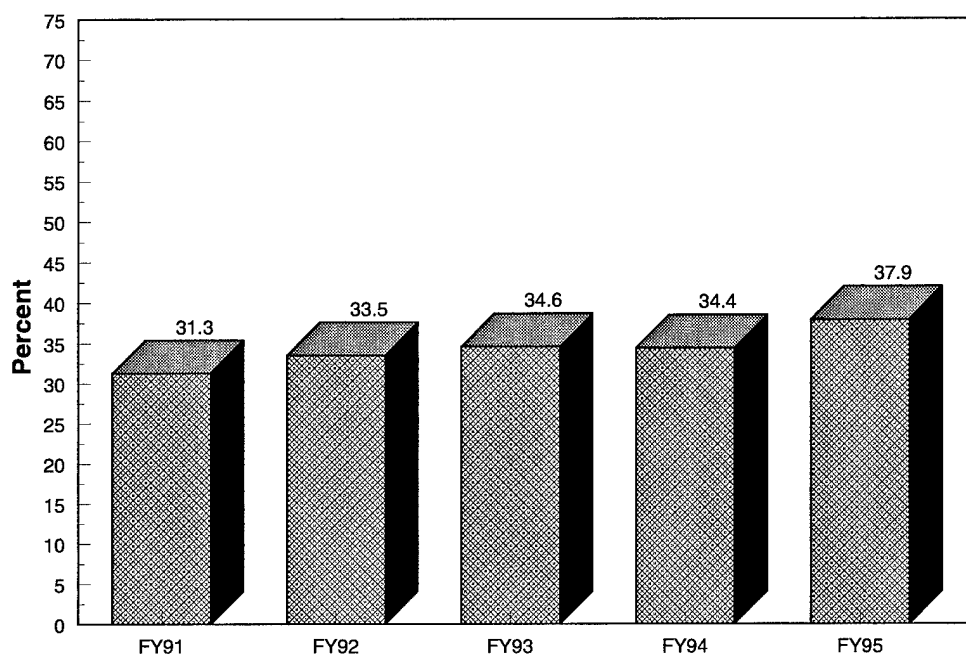


**Figure 2-9.**  
*Distribution of Active Duty Warrant Officer Maintainers by Years of Service, FY91 – FY95*



## Retirement Eligibility

As shown in Figure 2-10, the percentage of AD warrant officer maintainers eligible to retire has steadily increased from 31.3 percent of the force in FY91 to almost 38 percent of the force in FY95. In comparison, the total AD warrant officer force eligible to retire increased from 25 percent to 26.5 percent during the same time. Each of the Services experienced the same proportional gain in AD warrant officer maintainers eligible to retire. The Navy had 55.4 percent of its AD warrant officer maintainers eligible; the Army had 33.9 percent; and the Marine Corps had 19.7 percent.



**Figure 2-10.**  
*Percentage of Active Duty Warrant Officer Maintainers Eligible to Retire, FY91 – FY95*

## Education

The AD warrant officer maintainer cadre was less formally educated than AD warrant officer personnel overall. However, we cannot objectively evaluate the data since we do not know the formal education level of up to 68 percent of the Navy warrant officers and 24 percent of the Army warrant officers in a fiscal year. Table 2-6 depicts the educational attainment of the AD warrant officer maintainer population. In FY95, only about 14 percent of the AD warrant officer maintainers had at least a college degree; 23 percent of the total AD warrant officer population had obtained a college degree.

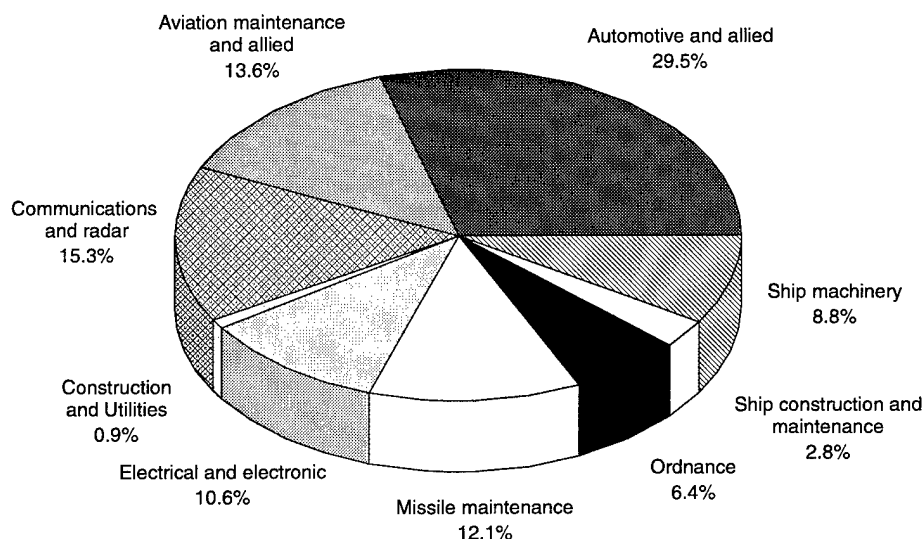
**Table 2-6.**  
*Distribution of Active Duty Warrant Officer Maintainers by Education Level, FY91 – FY95 (percent)*

Level	FY91	FY92	FY93	FY94	FY95
High school graduate	26.3	27.5	29.1	24.9	32.1
Some college	30.6	32.0	29.9	30.9	30.8
College graduate	10.0	10.5	10.7	11.5	13.4
Unknown	33.1	29.9	30.2	32.6	23.7

## Skills

As we did for enlisted maintainers, we used the *Occupational Conversion Index* and the defense personnel occupational codes to characterize the skills of AD warrant officer maintainers. Generally, our characterization closely relates to the types of equipment being repaired and to the resources dedicated to managing the work. We used nine principal occupational groups to describe the AD warrant officer maintainer population — automotive and allied, aviation maintenance and allied, communications and radar, construction and utilities, electrical and electronic, missile maintenance, ordnance, ship construction and maintenance, and ship machinery.

Figure 2-11 shows the distribution of the FY95 AD warrant officer maintainer population among these nine occupational groups. Almost 30 percent of AD officer maintainers worked in the automotive and allied occupational group, which is also the largest occupational group of Army (44 percent) and Marine Corps (30 percent) AD warrant officer maintainers. The largest percentage of Navy AD warrant officer maintainers are in the ship machinery (27 percent) and aviation maintenance and allied (25 percent) occupational groups.



**Figure 2-11.**  
*Distribution of Active Duty Warrant Officers Maintainers by Skill Category, FY95*

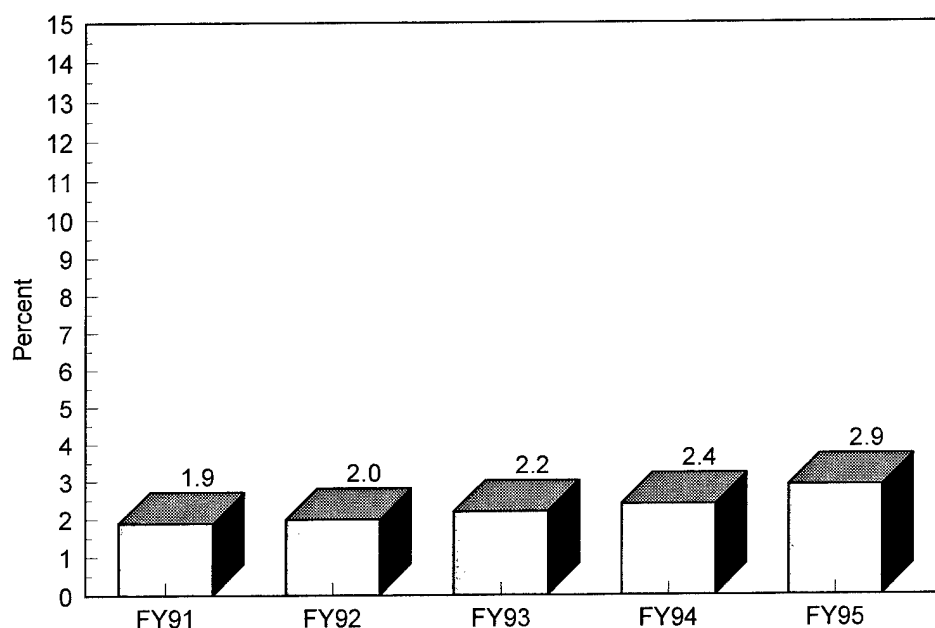
Table 2-7 shows the population of each occupational group over the entire study period. While the total population of the AD warrant officer maintainer work force declined over the study period by about 27 percent, three skill groups — communications and radar, missile maintenance, and ordnance — decreased in size by more than 35 percent. The ordnance occupational group experienced the largest decrease — 48 percent. The electrical and electronic skill area actually increased 38 percent.

**Table 2-7.**  
*Number of Active Duty Warrant Officer Maintainers by Skill Category, FY 91 – FY95*

Category	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Automotive and allied	1,620	1,459	1,409	1,387	1,279	-21.0
Aviation maintenance and allied	770	752	676	633	590	-23.4
Communications and radar	1,062	1,002	995	955	665	-37.4
Construction and utilities	53	44	41	36	38	-28.3
Electrical and electronic	333	327	295	284	460	38.1
Missile maintenance	870	859	670	622	526	-39.5
Ordnance	532	433	368	310	276	-48.1
Ship construction and maintenance	176	167	165	146	121	-31.3
Ship machinery	545	520	490	464	382	-29.9
Total	5,961	5,563	5,109	4,837	4,337	-27.2

## Gender

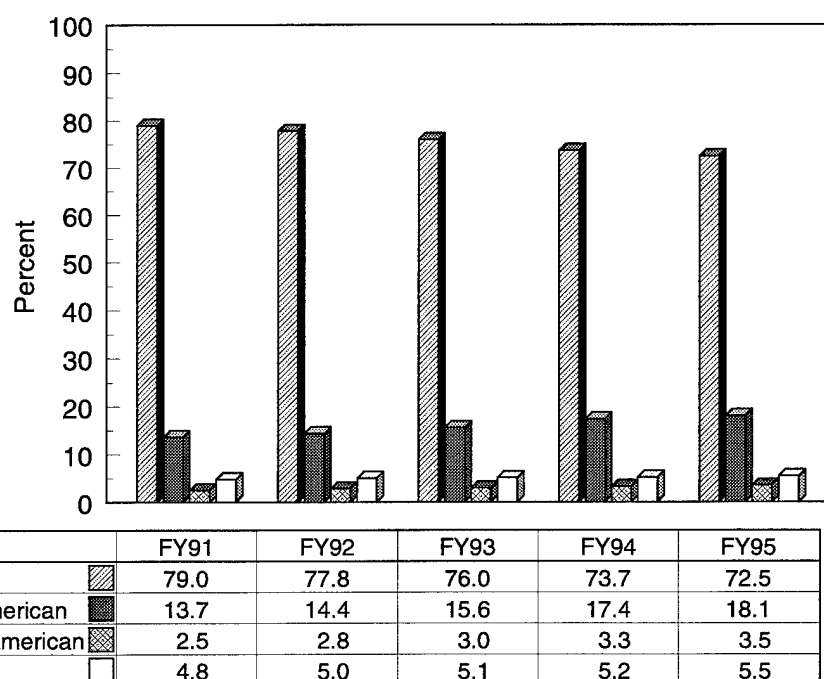
The proportion of females in the AD warrant officer maintainer population was 2.9 percent in FY95, which was lower than the proportion of females in the total AD warrant officer cadre (5.3 percent). However, the number of female AD warrant officer maintainers increased from 1.9 percent of the AD warrant officer maintenance cadre in FY91 to 2.9 percent in FY95, as shown in Figure 2-12. The number of female maintainers actually increased slightly from 115 to 124 during the study period; the number of their male counterparts decreased from 5,846 to 4,212.



**Figure 2-12.**  
*Percentage of Females in Active Duty Warrant Officer Maintainer Population, FY91 – FY95*

## Ethnicity

The proportion of ethnic minorities in the AD warrant officer maintainer population was 27 percent in FY95, which was 6 percent higher than the proportion of ethnic minorities in the total AD warrant officer population. During the period of this study, the relative proportion of ethnic minorities increased by nearly 7 percentage points. The largest percentage increase was in African American warrant officer maintainers, which constituted 13.7 percent of the population in FY91 but constituted 18.1 percent of the population in FY95. As can be seen in Figure 2-13, all the major ethnic minority groups in the AD warrant officer maintainer population increased over the study period as a percentage of the AD warrant officer maintainer population.



**Note:** The percentage of unknowns are 0.4 percent or less.

**Figure 2-13.**  
*Distribution of Active Duty Warrant Officer Maintainers by Ethnicity, FY91 – FY95*

## Summary

The active duty warrant officer maintainer force continues to downsize at a faster rate than the total AD warrant officer force. It consists predominately of white males but has experienced increasing proportions of females (lower than the total AD warrant officer force) and ethnic minorities (higher than the total AD warrant officer force) during the report period. The proportion of AD warrant officer maintainers with college degrees is increasing but still lags

behind the total AD warrant officer corps. In addition, the AD warrant officer maintainer cadre continued to age with an increasing proportion eligible to retire.

## ACTIVE DUTY COMMISSIONED OFFICER MAINTAINERS

Commissioned officers enter the maintenance career fields either upon initial entry to active duty or after they have gained experience in another field. Regardless of the source, commissioned officer maintainers usually complete specialized training and spend some time in a developmental status before they become fully qualified.

In FY95, DoD had more than 16,000 AD commissioned officer maintainers. AD commissioned officer maintainers have consistently constituted about 3.5 percent of the total active duty maintenance work force. In FY95, the AD officer maintainers constituted about 7.4 percent of the total AD commissioned officer corps as shown in Table 2-8. Over the report period, the size of the AD commissioned officer maintainer population decreased by about 18 percent, which is the same as the total AD commissioned officer population. The Air Force commissioned officer maintainers experienced the largest decrease of the four Services — almost 24 percent. The other Services had population decreases below the average.

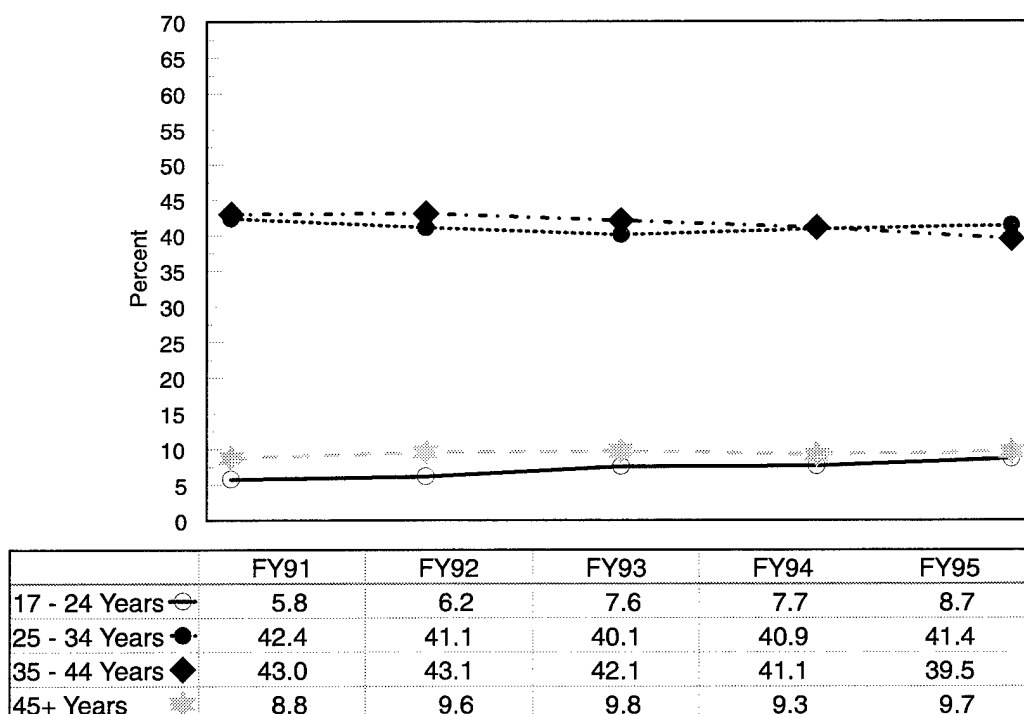
**Table 2-8.**

*Number of Active Duty Commissioned Officer Maintainers by Service, FY91 – FY95 (thousands)*

Service	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Maintainers						
Army	5.7	5.6	5.4	5.1	5	– 12.3
Navy	3.3	3.2	3.1	3.1	2.9	– 12.1
Marine Corps	1.2	1.1	1.0	1.0	1.0	– 16.7
Air Force	9.7	8.9	8.0	7.6	7.4	– 23.7
Total	19.9	18.8	17.5	16.8	16.3	– 18.1
Total active duty commissioned officers	271.1	255.2	239.4	228.7	221.5	– 18.3
Maintainers as percent of total	7.3	7.4	7.3	7.3	7.4	

## Age

Figure 2-14 shows the size of each age group for the AD commissioned officer maintainer population over the study period. The average age of the AD commissioned officer maintainer population decreased moderately from 35 years old to 34.3 years old. The decrease was driven by an increase in the number of maintainers younger than 25 and a decrease in the number of maintainers from 25 to 44 years of age. In fact, all of the Services, except the Marine Corps, actually increased the number of commissioned officer maintainers in the 17-to-24 age group from FY91 (5.8 percent) to FY95 (8.7 percent). During the same period the proportion of total AD commissioned officers in the 17-to-24 age category remained constant at about 9 percent.

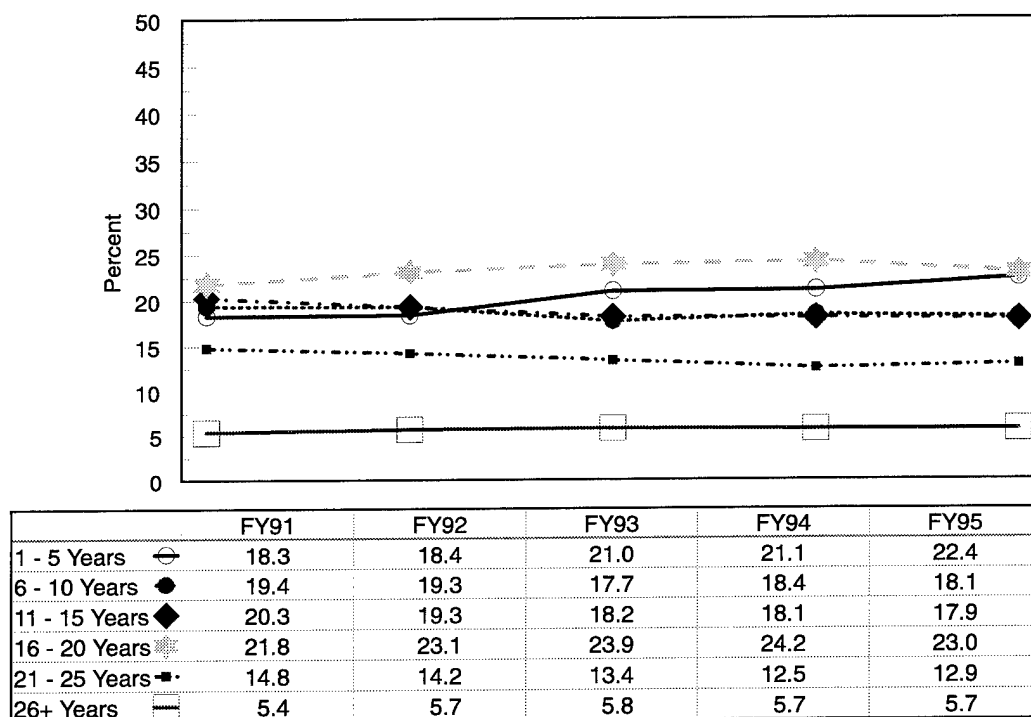


**Note:** The percentage of unknown in a fiscal year is 1.0 percent or less.

**Figure 2-14.**  
*Distribution of Active Duty Commissioned Officer Maintainers by Age Group, FY91 – FY95*

## Years of Service

Figure 2-15 shows the proportion of active duty commissioned officer maintainers in each YOS group over the study period. The average years of service for that population decreased from 13.6 years in FY91 to 13.1 in FY95 primarily because the Air Force increased its active duty population with 1 to 5 years of service 17 percent during that time. The largest decreases were from 6 to 15 years of service and 21 to 25 years of service. The total AD commissioned officer force had a higher percentage of officers in the 1 to 5 years of service category (27 percent versus 22.4 percent) but also experienced a 1.5 percent decrease in that category during the study period.

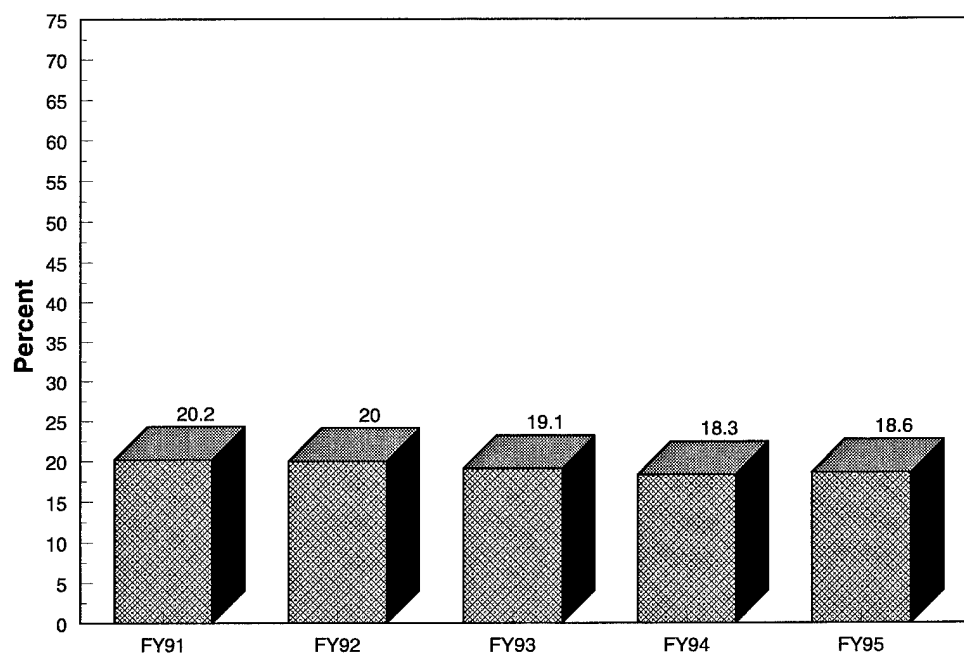


**Figure 2-15.**  
*Distribution of Active Duty Commissioned Officer Maintainers by Years of Service, FY91 – FY95*



## Retirement Eligibility

As shown in Figure 2-16, the percentage of AD commissioned officer maintainers eligible to retire decreased from 20.2 percent in FY91 to 18.6 percent in FY95. The total active commissioned officer force experienced a similar decline; however, the percentage eligible to retire is considerably less than the maintainers — 12.2 percent.



**Figure 2-16.**

*Percentage of Active Duty Commissioned Officer Maintainers Eligible to Retire, FY91 – FY95*

## Education

It appears that a smaller percentage of the AD commissioned officer maintainer cadre (84.5 percent) had a college degree in FY95 when compared to all active commissioned officers (93.6 percent). However, the percentage of unknown was as high as 10 percent in a fiscal year, and the Navy's unknowns were greater than 50 percent in FY94. Thus, we cannot make any definitive overall conclusions on education. Table 2-9 shows the percentage distribution of AD commissioned officer maintainers by education level.

**Table 2-9.**

*Distribution of Active Duty Commissioned Officer Maintainers by Educational Level, FY91 – FY95 (percent)*

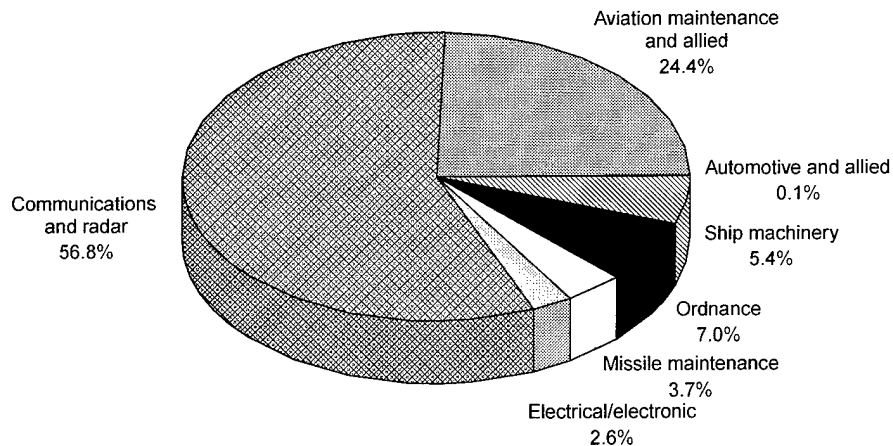
Level	FY91	FY92	FY93	FY94	FY95
High school graduate	4.9	4.6	4.4	3.9	5.5
Some college	2.0	2.0	1.9	1.9	2.0
College graduate	50.1	48.9	49.1	48.9	49.6
Graduate degree	34.6	35.4	35.2	35.2	34.9

**Note:** Unknown (up to 10 percent in a fiscal year) not shown.

## Skills

We used seven principal occupational groups to describe the AD commissioned officer maintainer population — automotive and allied, aviation maintenance and allied, communications and radar, electrical and electronic, missile maintenance, ordnance, and ship machinery.

Figure 2-17 shows the distribution of the FY95 AD commissioned officer maintainer population among those seven occupational groups. Almost 57 percent of AD commissioned officer maintainers worked in the communications and radar occupational group, and another 24 percent worked in the aviation maintenance and allied occupational group. In general, the AD commissioned officer maintainer occupational group composition for FY95 was typical of the population for the entire five years of the study.



**Figure 2-17.**

*Distribution of Active Duty Commissioned Officer Maintainers by Skill Category, FY95*

The population of each occupational group is shown in Table 2-10. Three skill groups — automotive and allied, aviation maintenance and allied, and missile maintenance — exceeded the 18 percent average decline for the AD commissioned officer maintainer work force. Ordnance actually increased 16 percent because of a 31 percent increase in ordnance commissioned maintainers in the Army.

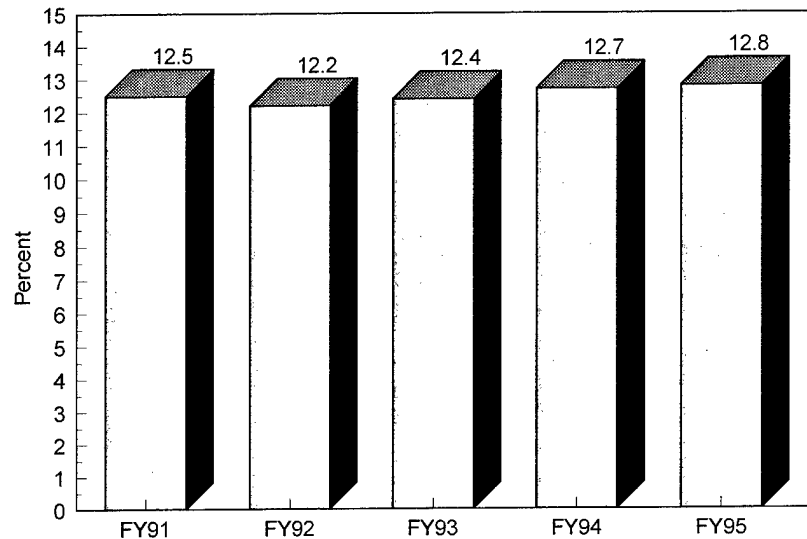
**Table 2-10.**

*Number of Active Duty Commissioned Officer Maintainers by Skill Category, FY91 – FY95*

Category	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Automotive and allied	69	41	32	20	17	-75.4
Aviation maintenance and allied	5,255	4,805	4,282	4,086	3,972	-24.4
Communications and radar	11,359	10,792	9,916	9,453	9,242	-18.6
Electrical and electronic	466	448	441	454	419	-10.1
Missile maintenance	775	684	625	614	597	-23.0
Ordnance	981	1,059	1,243	1,231	1,141	16.3
Ship machinery	1,024	985	968	954	876	-14.5
Total	19,929	18,814	17,507	16,812	16,264	-18.4

## Gender

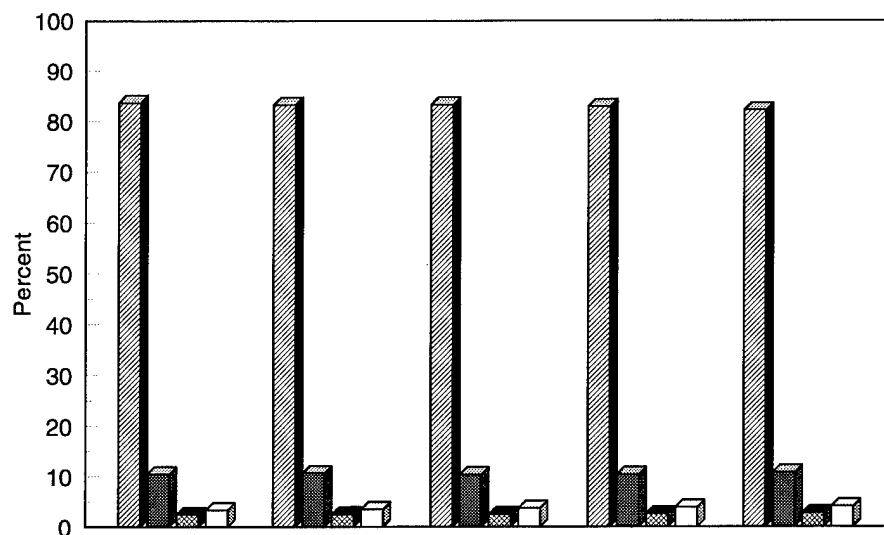
As shown in Figure 2-18, the proportion of females in the AD commissioned officer maintainer population increased slightly from 12.5 percent in FY91 to 12.8 percent in FY95; the total AD commissioned officer population increased from 12.4 percent to 13.8 percent during the study period. In FY95, the Army had the highest proportion of female AD commissioned officer maintainers (16.8 percent); the Navy had the lowest (5.2 percent).



**Figure 2-18.**  
*Percentage of Females in Active Duty Commissioned Officer Maintainer Population, FY91 – FY95*

## Ethnicity

Both the AD commissioned officer maintainer population and the total AD officer cadre became more ethnically diversified during the study period. The proportion of AD commissioned officer maintainers that were ethnic minorities increased to almost 18 percent in FY95, as can be seen in Figure 2-19. This increase compares to the total AD commissioned officer population, which comprised 14 percent ethnic minorities in FY95. With 24.7 percent of its AD commissioned officer maintainers ethnic minorities, the Army has the most diversified work force. The Marine Corps was the least diversified; 11.5 percent of its AD commissioned officer force belong to ethnic minorities.



**Note:** The percentage of unknown in a fiscal year is 0.2 percent or less.

**Figure 2-19.**  
*Distribution of Active Duty Commissioned Officer Maintainers by Ethnicity, FY91 – FY95*

## Summary

The cadre of active duty commissioned officer maintainers continued to become more ethnically diversified with a larger percentage of female officers during the study period. Differing from the AD enlisted and warrant officer maintenance populations, which continued to age, the AD commissioned officer maintainer cadre has actually become younger, as indicated by the decrease in average age and average years of service. In addition, the proportion of those on active duty who are retirement eligible has decreased steadily. While these changes were characteristic of the total active duty commissioned officer corps, the changes were of a greater magnitude in the AD commissioned officer maintainer corps.

## CHAPTER 3

# Selected Reserve Maintainers

The selected reserve (SR) component of the ready reserve consisted of about 946,000 personnel in FY95. Of that population, 21.4 percent, or approximately 203,000 personnel, can be characterized as maintainers. The United States' total force policy assigns a number of key missions completely or largely to the Reserves; therefore, anytime the U.S. conducts a significant operation, the Reserves will be used to round out the forces.<sup>1</sup> Selected reserve maintainers are assigned to maintenance positions in the reserve military units with which they train each year. When activated, the reserve units augment active duty units. Only about 15 percent of the total SR component have full-time positions with the selected reserve.<sup>2</sup> The majority of SR personnel usually have full-time civilian jobs when they do not have active duty status. Personnel in government positions generally can be members of the reserves, but those in key or critical government positions may be excluded.

The SR maintainers (enlisted, warrant officers, and commissioned officers) constituted about 26 percent of the entire DoD maintenance work force. The population of the SR maintainers in FY95 decreased only 8.7 percent from FY91 levels, as shown in Table 3-1. Over the same period, the population of the total selective reserve decreased by 18.1 percent.

In this chapter, we discuss the characteristics of the SR maintainers. In certain instances, they are compared with those of active duty maintainers. Also, like the AD officer maintainers, the SR officer corps consists of both warrant and commissioned officers.

**Table 3-1.**  
*Number of Selected Reserve Maintainers, FY91 – FY95 (thousands)*

Segment	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Enlisted	210.7	221.9	211.3	198.6	192.6	– 8.6
Warrant officers	3.3	3.1	3.2	2.9	2.7	– 17.3
Commissioned officers	8.0	7.9	8.0	7.3	7.3	– 8.8
Total	222.0	232.9	222.5	208.8	202.6	– 8.7
Total selective reserve	1,154.6	1,114.9	1,057.7	998.3	945.9	– 18.1
Maintainers as percent of total	19.2	20.9	21.0	20.9	21.4	

<sup>1</sup>Prepared statement of the Honorable Deborah R. Lee, Assistant Secretary of Defense for Reserve Affairs to the House Military Personnel Subcommittee, March 23, 1995.

<sup>2</sup>Brauner and Gatz, *Manning Full-Time Positions in Support of the Selected Reserve*, Rand National Defense Institute, R-4034-RA, 1991, p. 1.

## SELECTED RESERVE ENLISTED MAINTAINERS

As shown in Table 3-2, the number of SR enlisted maintainers in FY95 was 8.6 percent lower than in FY91. In contrast, the total SR enlisted force decreased 18.8 percent. Both these decreases are substantially smaller than the decreases experienced by the active duty enlisted maintenance work force and by the active duty force respectively during the same period. The Army National Guard components of the SR enlisted maintainer population actually increased from FY91 levels. The proportion of SR enlisted maintainers as part of the total enlisted force increased to more than 24 percent of the total SR enlisted work force during the study period.

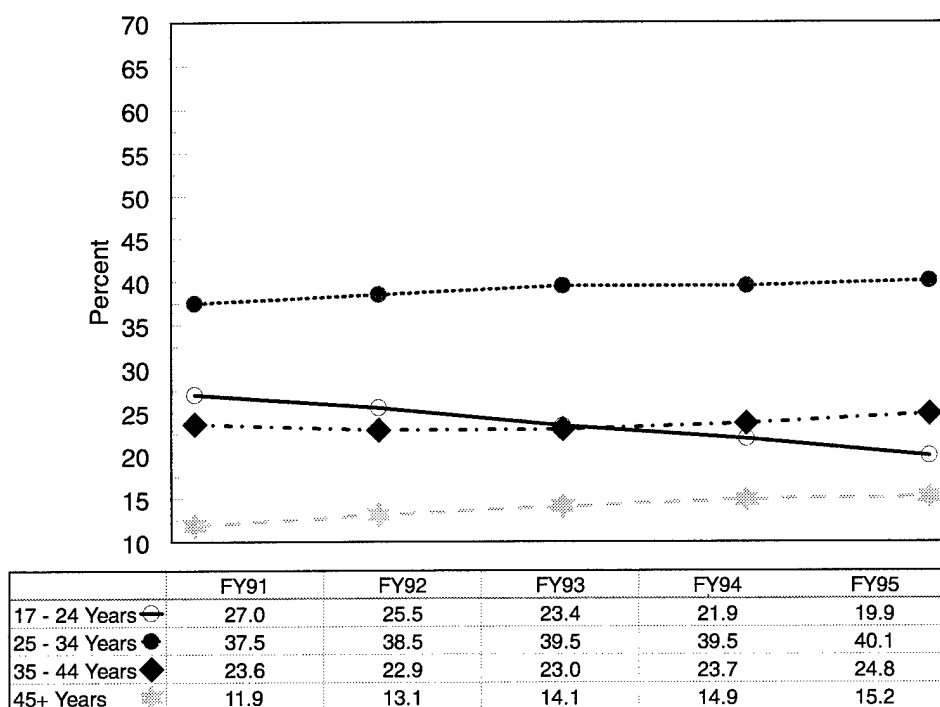
**Table 3-2.**

*Number of Selected Reserve Enlisted Maintainers by Service, FY91 – FY95 (thousands)*

Service	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Maintainers						
Army National Guard	53.5	68.1	62.7	59.0	62.1	16.1
Army Reserve	33.1	31.8	30.9	31.5	27.6	– 16.5
Navy Reserve	43.5	41.9	38.2	30.6	28.2	– 35.2
Marine Corps Reserve	7.9	7.5	7.3	6.9	6.5	– 17.5
Air National Guard	47.2	47.6	47.4	46.4	44.6	– 5.6
Air Force Reserve	25.4	25.0	24.8	24.2	23.5	– 7.5
Total	210.7	221.9	211.3	198.6	192.6	– 8.6
Total selected reserve enlisted	982.1	948.7	893.9	844.5	797.7	– 18.8
Maintainers as percent of total	21.5	23.4	23.6	23.5	24.1	

## Age

In FY95, the average age of SR enlisted maintainers was 33.3 years. In contrast, the average age of AD enlisted maintainers was 28.0 years. The average age of SR enlisted maintainers increased by 1.3 years over the report period. SR enlisted maintainers in the 17-to-24 age group comprised 27 percent of the SR maintainer work force in FY91 but only 20 percent of the work force in FY95. (Figure 3-1). The total SR enlisted force also aged during the report period; however, 27 percent of the total SR enlisted force was under 25 years of age in FY95, which was down from 35 percent of the total SR enlisted force in FY91.

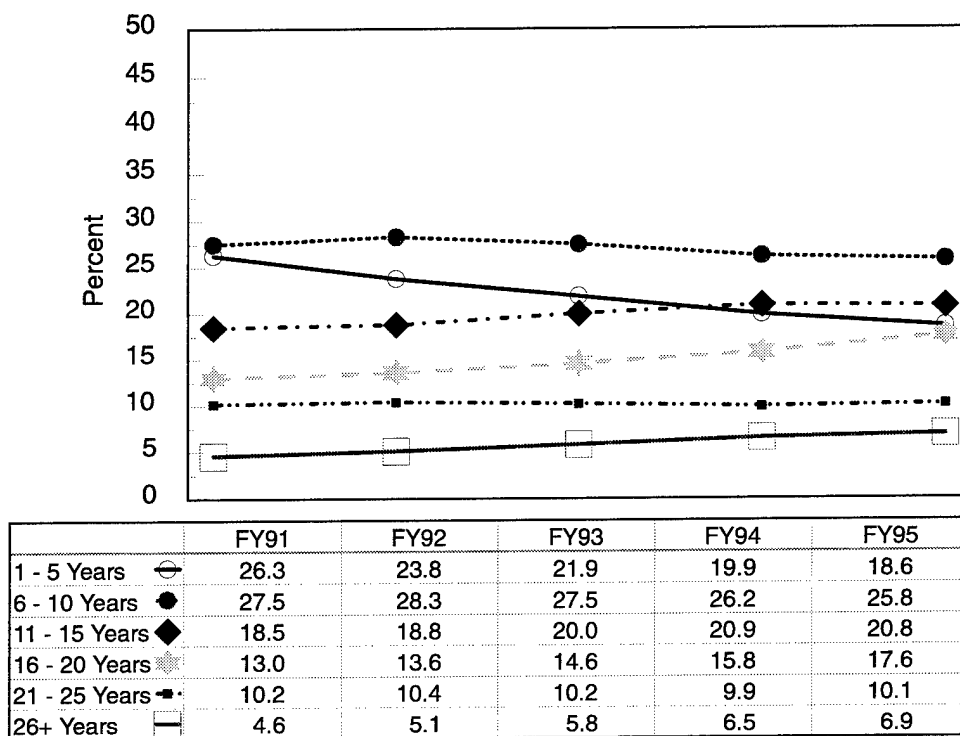


**Figure 3-1.**  
*Distribution of Selected Reserve Enlisted Maintainers by Age Group,  
FY91 – FY95*



## Years of Service

For the selected reserve, the YOS characteristic represents the total years of active service (regardless of whether obtained on active duty or in the reserves) completed as differentiated from years of active duty or years for retirement. About 19 percent of the SR enlisted maintainers had 5 or fewer YOS in FY95 as compared to 32 percent of the total SR enlisted force. Figure 3-2 depicts the percentage of SR enlisted maintainers in each YOS group. In FY95, SR enlisted maintainers averaged about 11.9 YOS, up 14 percent over FY91. In contrast, about 40 percent of the AD enlisted maintainers had 5 or fewer years of service in FY95. The AD enlisted maintainer population averaged 8.7 YOS.

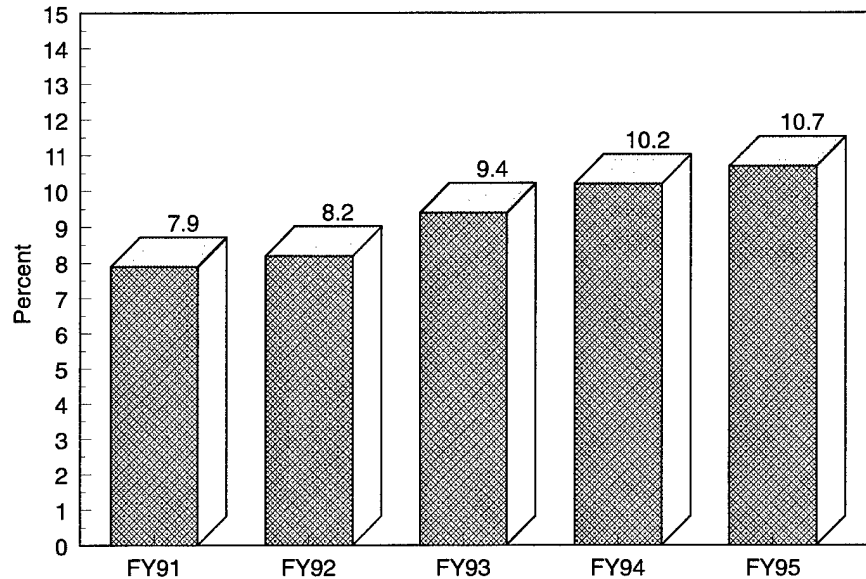


**Note:** The percentage of unknown in a fiscal year is 0.8 percent or less.

**Figure 3-2.**  
*Distribution of Selected Reserve Enlisted Maintainers by Years of Service, FY91 – FY95*

## Retirement Eligibility

Retirement-eligible SR enlisted maintainers comprised 10.7 percent of the SR maintainer force in FY95, as compared to 7.8 percent of the total SR enlisted force. For maintainers, this figure represents an increase of about 3 percentage points over FY91. Figure 3-3 shows the percentage of retirement-eligible SR enlisted maintainers for the study period. The retirement eligibility of SR enlisted maintainers was more than three times that of the AD enlisted maintainers.

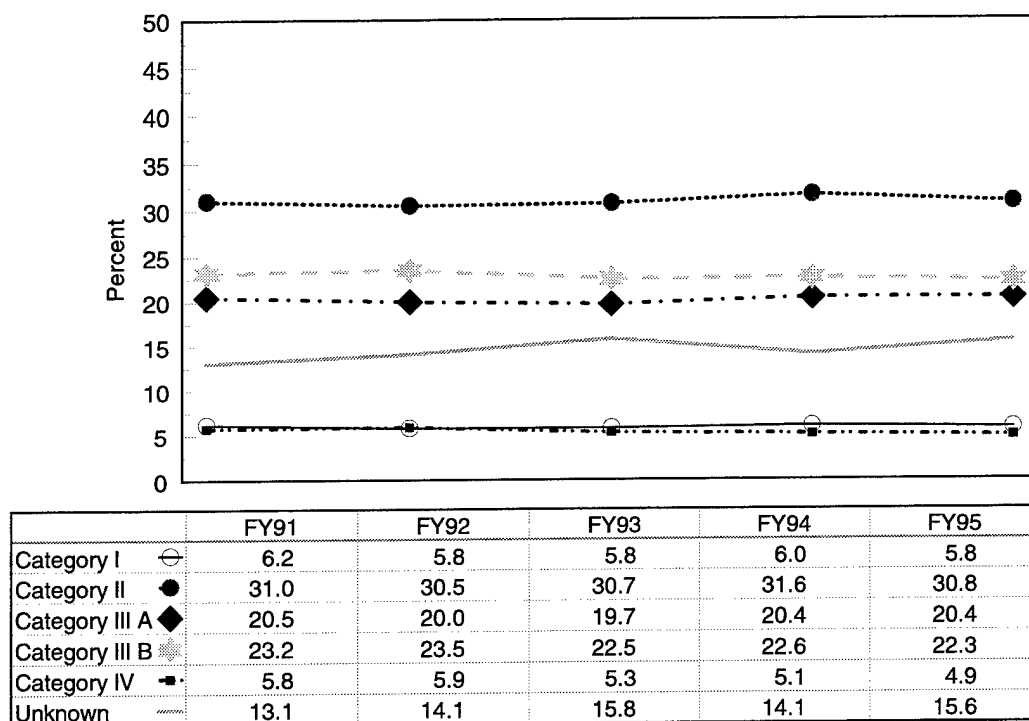


**Note:** The percentage of unknown in a fiscal year is 8.5 percent or less.

**Figure 3-3.**  
*Percentage of Selected Reserve Enlisted Maintainers Eligible to Retire,  
FY91 – FY95*

## AFQT Score

The quality of the SR enlisted maintainers, as indicated by their AFQT scores, showed a slight decrease over the study period. As depicted in Figure 3-4, 37.2 percent of the SR enlisted maintainers were in Categories I and II in FY91. In FY95, that proportion was 36.6 percent, about the same as the total SR enlisted cadre but still well below the 46.7 percent of AD enlisted maintainers in Categories I and II. We can attribute some of that difference to the large percentage of the SR enlisted population whose AFQT scores were unknown. In FY95, about 16 percent of SR enlisted maintainers' AFQT scores were unknown.



**Figure 3-4.**  
*Distribution of Selected Reserve Enlisted Maintainers by AFQT Score, FY91 – FY95*

## Education

Table 3-3 shows the educational levels of the SR enlisted population during the study period. Overall, the educational level of these maintainers improved. The proportion of SR enlisted maintainers who are at least high school graduates increased from 95.4 percent in FY91 to 97.1 percent in FY95. This increase compares to almost 99 percent of the AD enlisted maintainer force and 95 percent of the total SR enlisted force that have at least a high school equivalency in FY95. The apparent decrease in the proportion of SR enlisted maintainers categorized as having a college degree is the result of an FY92 change in reporting criteria and does not necessarily reflect any shift in demographics.

**Table 3-3.**

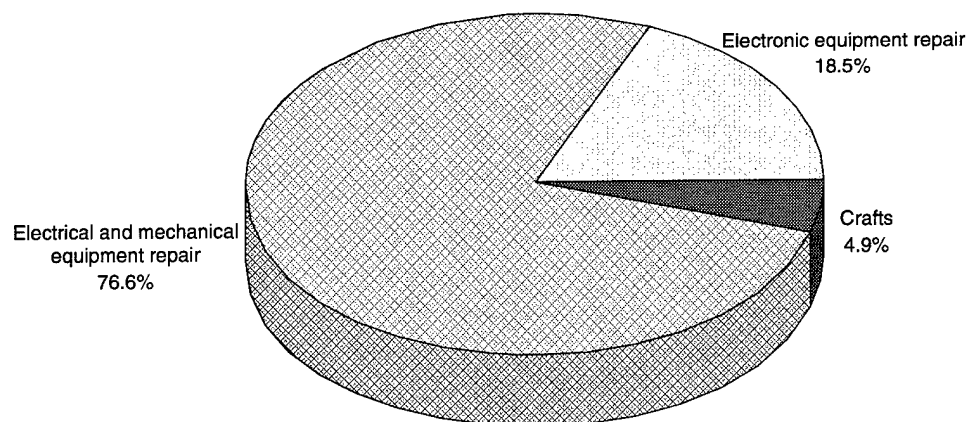
*Distribution of Selected Reserve Enlisted Maintainers by Educational Level, FY91 – FY95 (percent)*

Level	FY91	FY92	FY93	FY94	FY95
Some high school	4.0	3.6	3.2	2.9	2.4
High school graduate	81.2	84.6	84.5	85.0	85.0
Some college	3.7	3.6	3.7	3.9	4.0
College graduate	10.5	7.7	8.0	7.8	8.1

**Note:** The percentage of unknown in a fiscal year is 0.6 percent or less.

## Skills

As we did for the active duty enlisted maintainers, we used the *Occupational Conversion Index* and the defense personnel occupational codes to divide selected reserve enlisted maintainers into three principal skill areas — electronic equipment repair, electrical and mechanical equipment repair, and crafts — and 20 skill subcategories. Figure 3-5 shows the relative sizes of the three major skill areas for the SR enlisted maintainer population.



**Figure 3-5.**  
*Distribution of Selected Reserve Enlisted Maintainers by Skill Category, FY95*

In FY95, more than 75 percent of all SR enlisted maintainers worked in electrical and mechanical equipment repair; slightly less than 20 percent worked in electronic equipment repair, and about 5 percent worked in crafts. Over the study period, the number of maintainers in electrical and mechanical equipment repair declined 6.8 percent, which is below the 8.6 percent decline in the total SR enlisted population. The number of SR enlisted maintainers in electronic equipment repair and crafts declined 11.3 percent and 22.4 percent respectively. The population of SR enlisted maintainers is similar in occupational composition to the AD enlisted maintainers, although the concentration of electrical and mechanical workers is heavier and the concentration of electronic equipment repairers is lighter in the SR enlisted maintainer work force.

Table 3-4 shows the number of SR enlisted maintainers in each skill category and subcategory.

The population changes in electronic equipment repair subcategories ranged from a 49 percent decline to a 98 percent increase. The four subcategories experiencing the most significant population changes were

- ◆ fire control electronic systems, which declined 49 percent;
- ◆ missile guidance, control, and checkout, which declined 34 percent;

- ◆ sonar, which declined 32 percent, and;
- ◆ teletype and cryptographic, which increased 98 percent (increase was all in the Army Reserve).

In the electrical and mechanical equipment repair category, the following three subcategories changed significantly:

- ◆ automotive increased 20 percent;
- ◆ precision equipment decreased 36 percent, and;
- ◆ shipboard propulsion decreased 39 percent.

The only subcategory to change significantly in the crafts category was other craftsman, which decreased 33 percent.

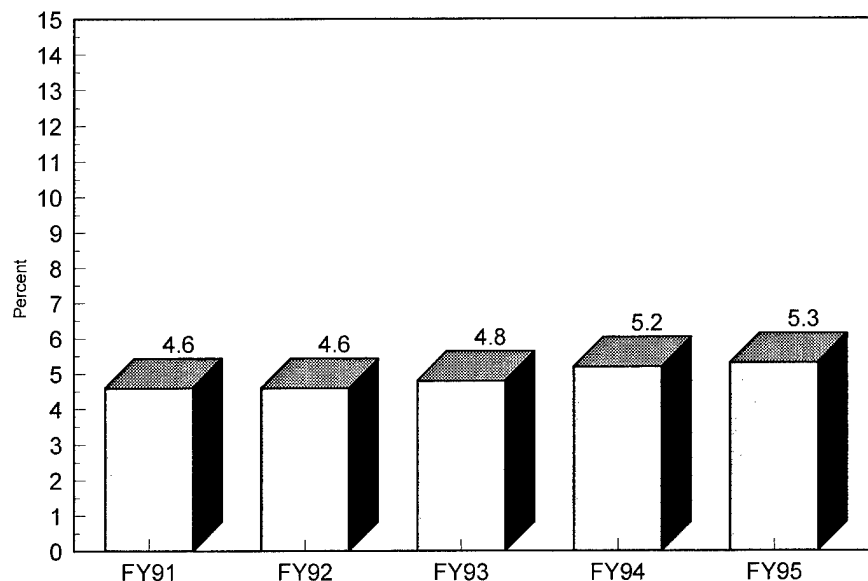
Electrical and mechanical equipment repair remains the largest major skill area with a population of nearly 147,700 SR enlisted maintainers in FY95, down from about 158,500 in FY91.

**Table 3-4.*****Number of Selected Reserve Enlisted Maintainers by Skill Category, FY91 – FY95***

Category	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Electronic equipment repair						
ADP computers	1,248	1,228	1,217	1,128	1,063	– 14.8
Fire control electronic systems	883	729	594	234	451	– 48.9
Missile guidance, control, and check-out	4,287	3,967	3,703	3,020	2,813	– 34.4
Nuclear weapons	54	55	48	42	52	– 3.7
Other electronic equipment	4,291	4,552	4,863	3,429	3,169	– 26.1
Radio and radar	26,070	25,644	24,185	21,854	22,805	– 12.5
Sonar	984	929	841	715	666	– 32.3
Teletype and cryptographic	2,311	2,190	1,969	1,684	4,571	97.8
Subtotal	40,128	39,294	37,420	32,106	35,590	– 11.3
Electrical and mechanical equipment repair						
Aircraft and aircraft related	56,864	56,693	54,875	52,685	50,234	– 11.7
Armament and munitions	16,550	16,196	15,789	15,036	13,896	– 16.0
Automotive	39,157	54,278	51,076	49,441	46,985	20.0
Biomedical	741	725	700	670	743	0.0
Forward area equipment	2,175	2,217	2,184	2,068	1,983	– 8.8
Maintenance records and scheduling	2,527	2,437	2,324	2,286	1,925	– 23.8
Missile mechanical and electrical	391	395	340	364	327	– 16.4
Other mechanical and electrical	14,054	13,400	12,835	12,388	11,980	– 14.8
Power generation	11,627	11,279	10,664	10,195	9,476	– 18.5
Precision equipment	407	396	370	287	262	– 35.6
Shipboard propulsion	5,862	5,414	4,732	3,853	3,554	– 39.4
Wire communications	8,118	7,625	7,131	7,098	6,303	– 22.4
Subtotal	158,473	171,055	163,020	156,371	147,668	– 6.8
Crafts						
Fabric, leather, and rubber	1,912	1,897	1,886	1,890	1,782	– 6.8
Metalworking	7,314	6,991	6,544	6,187	5,686	– 22.3
Other crafts	2,851	2,705	2,425	2,092	1,906	– 33.1
Subtotal	12,077	11,593	10,855	10,169	9,374	– 11.3
Total	210,678	221,942	211,295	198,646	192,632	– 8.6

## Gender

Like the AD enlisted maintainers, SR enlisted maintainers are predominantly male. In fact, almost 95 percent of the SR enlisted population was male in FY95. This proportion is slightly less than the AD enlisted maintainer population and much less than the total SR enlisted work force that was almost 14 percent female. The number of female SR enlisted maintainers did, however, increase over the study period from about 9,700 in FY91 to about 10,200 in FY95. By FY95, females constituted 5.3 percent of the population versus 4.6 percent in FY91. Figure 3-6 shows the percentage of female SR enlisted maintainers by fiscal year over the report period.

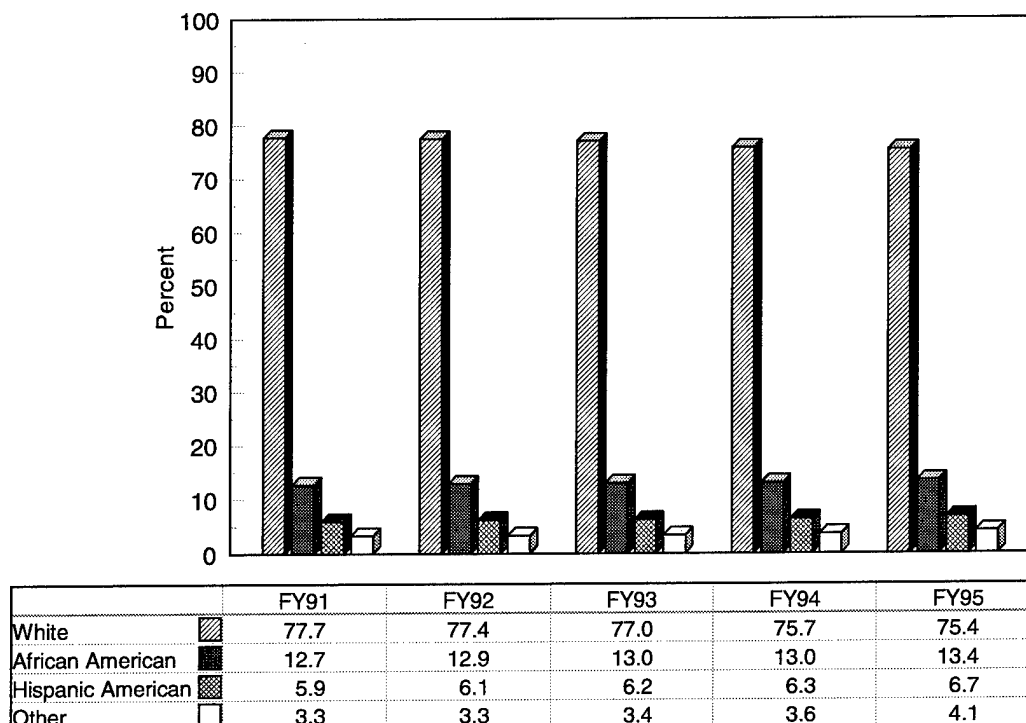


**Figure 3-6.**  
*Percentage of Females in Selected Reserve Enlisted Maintainer Population, FY91 – FY95*

## Ethnicity

In FY95, about 25 percent of the SR enlisted maintainers were ethnic minorities, compared to about 26 percent of AD enlisted maintainers and 30 percent of the total SR enlisted force. Figure 3-7 shows that the proportion of African Americans remained constant at about 13 percent throughout the study period. For comparison, the proportions of African Americans in the AD enlisted maintainer work force and the total SR enlisted force were slightly higher — about 15.8 percent and 18 percent respectively. The absolute number of individuals categorized as Hispanic and “other” in the SR enlisted maintainer population increased throughout the report period.





**Note:** The percentage of unknown in a fiscal year is 1.4 percent or less.

**Figure 3-7.**  
*Distribution of Selected Reserve Maintainers by Ethnicity, FY 91 – FY 95*

## Summary

The SR maintainers are the primary backup to the AD enlisted maintainers and generally reflect the characteristics of the AD enlisted maintainer work force. While the AD enlisted maintainer population decreased 25.5 percent over the study period, the SR enlisted maintainer population only decreased 8.6 percent. In terms of longevity, the SR enlisted maintainers are a more senior and experienced work force; the average years of service increased 1.5 years over the study period. In addition, the retirement eligibility of SR enlisted maintainers was more than three times that of the AD enlisted maintainers. In terms of quality, as expressed by AFQT categories and educational levels, the SR enlisted maintainers do not appear to be quite as well qualified as AD enlisted maintainers. However, the AFQT category included a large number of unknowns. In other characteristics, such as ethnic and female composition, the SR enlisted maintenance work force is slightly less diverse than the active force and the total SR enlisted force.

## SELECTED RESERVE WARRANT OFFICER MAINTAINERS

The number of SR warrant officer maintainers in FY95 totaled about 2,700 which was 17.3 percent less than in FY91. The total SR warrant officer force decreased only about 11.4 percent during the same period. This figure compares to a 28 percent decrease in AD warrant officer maintainers and a 16 percent decrease in the total AD warrant officer force. The total number of SR warrant officer maintainers declined steadily over the study period; the number of warrant officer maintainers in the Army Reserve decreased the most. SR warrant officer maintainers comprised almost 21 percent of the total SR warrant officer cadre; this figure compares with almost 26 percent of the AD warrant officer cadre who were maintainers in FY95. Table 3-5 shows the populations of each SR warrant officer maintainer component over the study period and compares the totals to the total SR warrant officer population.

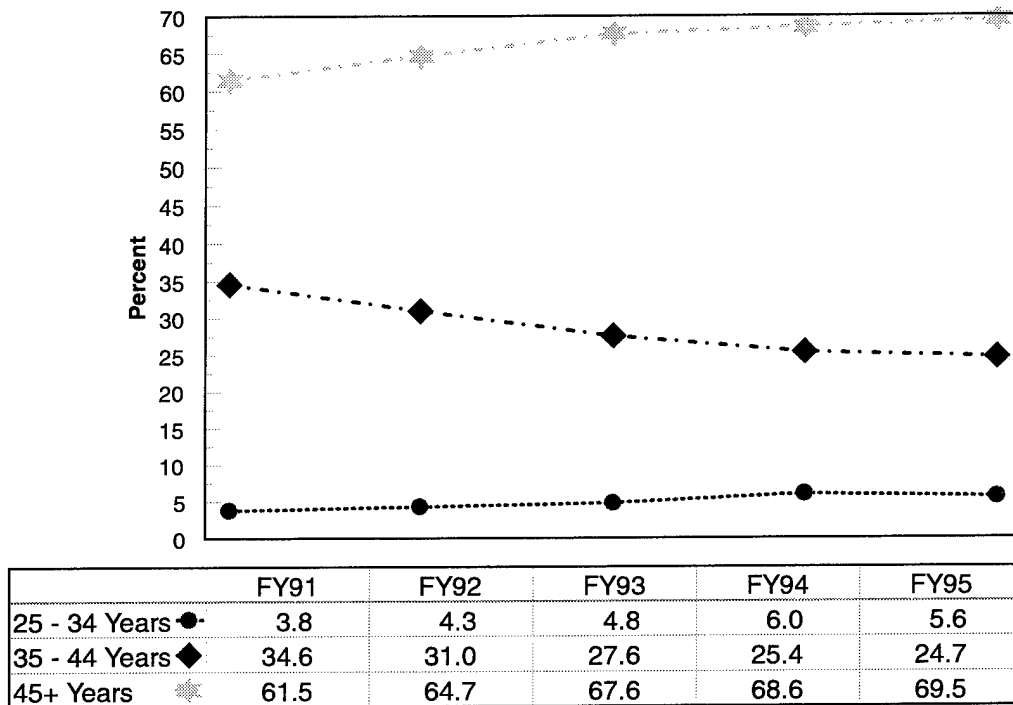
**Table 3-5.**

*Number of Selected Reserve Warrant Officer Maintainers by Service, FY91 – FY95 (thousands)*

Service	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Maintainers						
Army National Guard	1.91	1.81	1.89	1.73	1.63	– 14.6
Army Reserve	1.03	1.00	1.02	0.84	0.78	– 24.7
Navy Reserve	0.18	0.16	0.16	0.15	0.16	– 12.2
Marine Corps Reserve	0.17	0.18	0.17	0.15	0.15	– 11.5
Total	3.29	3.15	3.24	2.87	2.72	– 17.3
Total selected reserve warrant officers	14.88	14.36	14.39	13.86	13.18	– 11.4
Maintainers as percent of total	22.1	21.9	22.5	20.7	20.6	

## Age

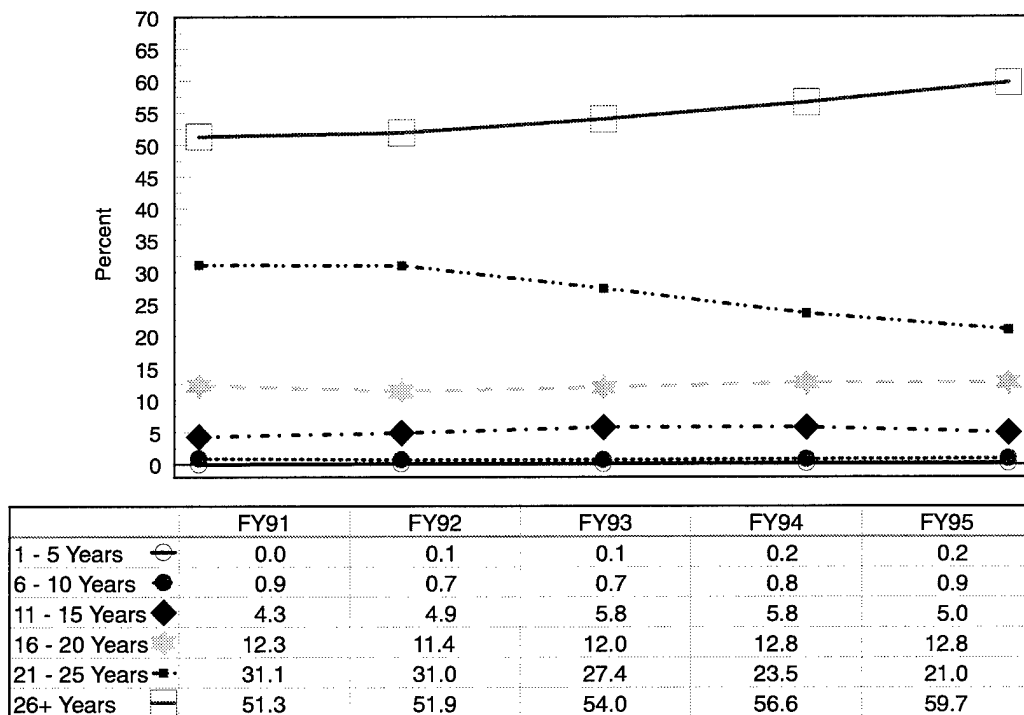
The average age of the SR warrant officer maintainers increased slightly from about 47.1 years old in FY91 to 47.4 years old in FY95. Figure 3-8 shows the respective populations of each of the age groups over the study period. Since FY91, the largest population, the over 45 age group, increased 13 percent. Conversely, the 35-to-44 age group decreased more than 28 percent. The over 45+ age group constituted almost 70 percent of the FY95 warrant officer maintenance population but only 58 percent of the total SR warrant officer work force.



**Figure 3-8.**  
*Distribution of Selected Reserve Warrant Officer Maintainers by Age Group, FY91 – FY95*

## Years of Service

Selected reserve warrant officer maintainers have significantly more tenure than their AD officer counterparts. In FY95, SR warrant officer maintainers averaged 25.8 years of service compared to 19.6 for AD warrant officer maintainers. About 60 percent of the SR warrant officer maintainers had completed 25 or more YOS, compared to 11 percent of the AD warrant officer maintainers and 39 percent of the total SR warrant officer work force. Only 6 percent of SR warrant officer maintainers had 15 or fewer YOS. Figure 3-9 depicts the number of SR warrant officer maintainers in each YOS group over the study period.

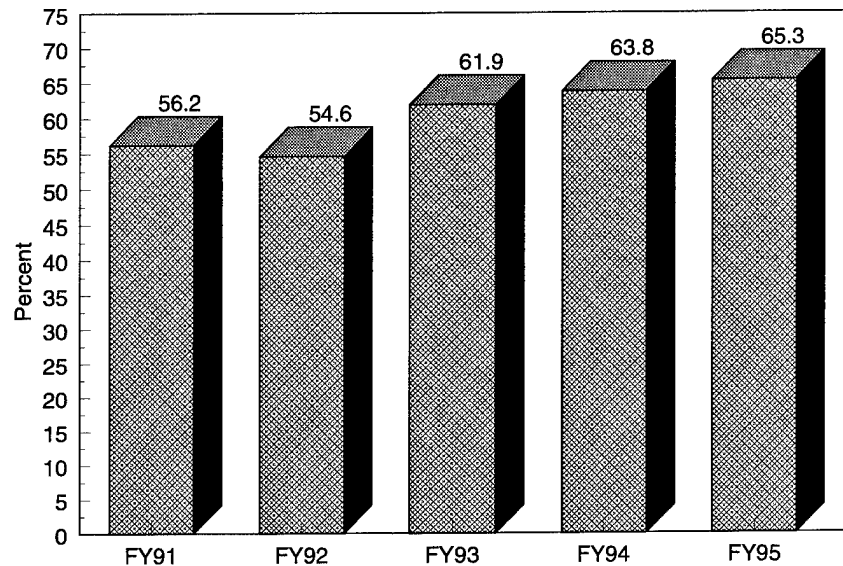


**Note:** The percentage of unknown in a fiscal year is 0.5 percent or less.

**Figure 3-9.**  
*Distribution of Selected Reserve Warrant Officer Maintainers by Years of Service, FY91 – FY95*

## Retirement Eligibility

As shown in Figure 3-10, 65.3 percent of SR warrant officer maintainers were eligible to retire in FY95, an increase from 56.2 percent in FY91. This figure is much higher than the 49.6 percent of the total SR warrant officer cadre eligible to retire and higher still than the 37.9 percent of the AD warrant officer maintainers eligible to retire. However, these data included a large percentage of unknowns in FY91 and FY92.



**Note:** The percentage of unknown is 7.3 percent in FY91 and 9.4 in FY92; the percentage of unknown in the other fiscal years was 4 percent or less.

**Figure 3-10.**  
*Percentage of Selected Reserve Warrant Officer Maintainers Eligible to Retire, FY91 – FY95*

## Education

Table 3-6 depicts the educational attainment of the SR warrant officer maintainers. In FY95, about 21 percent of that group had at least a college degree. This proportion is up from 18.5 percent in FY91 but is significantly less than the 37 percent of the total SR warrant officer maintainers with college degrees. A comparison cannot be made with the AD warrant officer maintainers because of the large number of unknowns in the active data base.

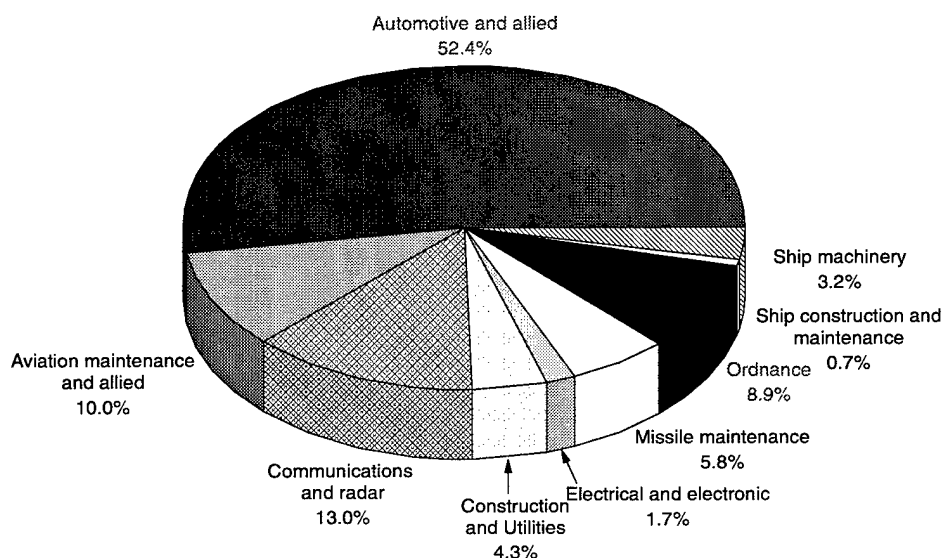
**Table 3-6.**  
*Distribution of Selected Reserve Warrant Officer Maintainers  
 by Educational Level, FY91 – FY95 (percent)*

Level	FY91	FY92	FY93	FY94	FY95
High school graduate	49.5	65.2	63.5	59.1	58.2
Some college	28.7	11.1	12.3	14.5	15.7
College graduate	18.5	19.6	20.2	21.3	21.1
Unknown	3.3	4.1	4.0	5.1	5.0

## Skills

We used the same nine occupational groups to characterize the skills of the SR warrant officer maintainer population as we used for the AD warrant officer maintainer population. As with the AD warrant officer maintainer population, SR warrant officer maintainers have a wide range of functional capabilities and expertise.

Figure 3-11 shows the FY95 distribution of SR warrant officer maintainers among the nine occupational groups. More than half of the SR warrant officer maintainers worked in automotive and allied; another 13 percent worked in communications and radar. In comparison, only 29 percent of the AD warrant officer maintainers worked in automotive and allied, and the percentage of AD warrants working in the other skills was correspondingly higher.



**Figure 3-11.**  
*Distribution of Selected Reserve Warrant Officer Maintainers by Skill  
 Category, FY95*

Table 3-7 shows that the populations of the majority of occupational groups had a larger decline than the 17.3 percent decline in the total SR warrant officer maintainer work force. The most popular occupational group, automotive and allied, declined 22 percent. Two of the occupational groups — communications and radar and ship certification and maintenance — decreased more than 30 percent, and the number of SR warrant officer maintainers in missile maintenance increased 21.5 percent.

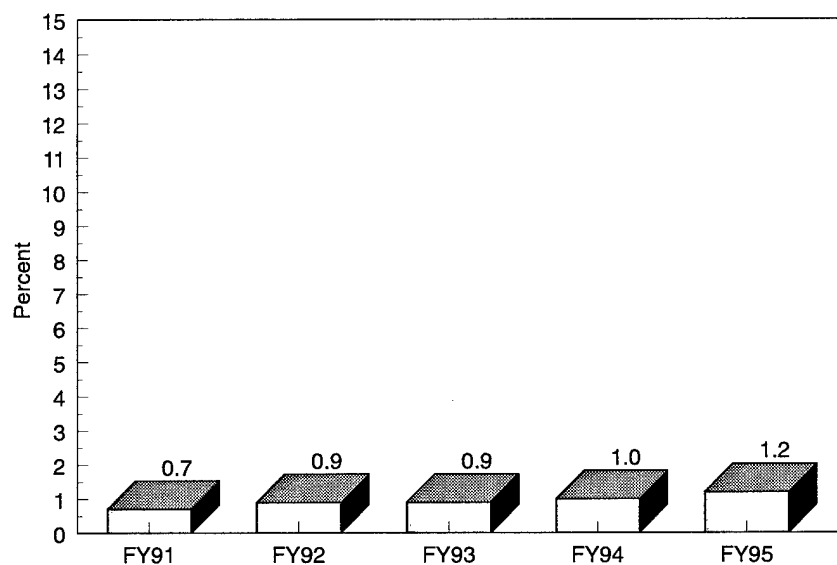
**Table 3-7.**  
*Number of Selected Reserve Warrant Officer Maintainers by Skill Category, FY91 – FY95*

Category	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Automotive and allied	1,827	1,731	1,667	1,519	1,425	– 22.0
Aviation maintenance and allied	303	299	296	284	272	– 10.2
Communications and radar	539	530	526	502	355	– 34.1
Construction and utilities	0	0	143	0	116	unknown
Electrical and electronic	63	51	50	46	47	– 25.4
Missile maintenance	130	142	155	153	158	21.5
Ordnance	313	279	287	271	242	– 22.7
Ship construction and maintenance	27	25	22	13	18	– 33.3
Ship machinery	94	89	90	82	88	– 6.4
Total	3,296	3,146	3,236	2,870	2,721	– 17.3

**Note:** There is an irreconcilable error in the data for the construction and utilities category.

## Gender

Only 1.2 percent of the SR warrant officer maintainers were females in FY95, as shown in Figure 3-12. That proportion is one percent lower than the proportion of female AD warrant officer maintainers but is four percent lower than the proportion of female officers in the total SR warrant officer population. The number of female SR warrant officer maintainers increased over the survey period from 23 in FY91 to 33 in FY95.

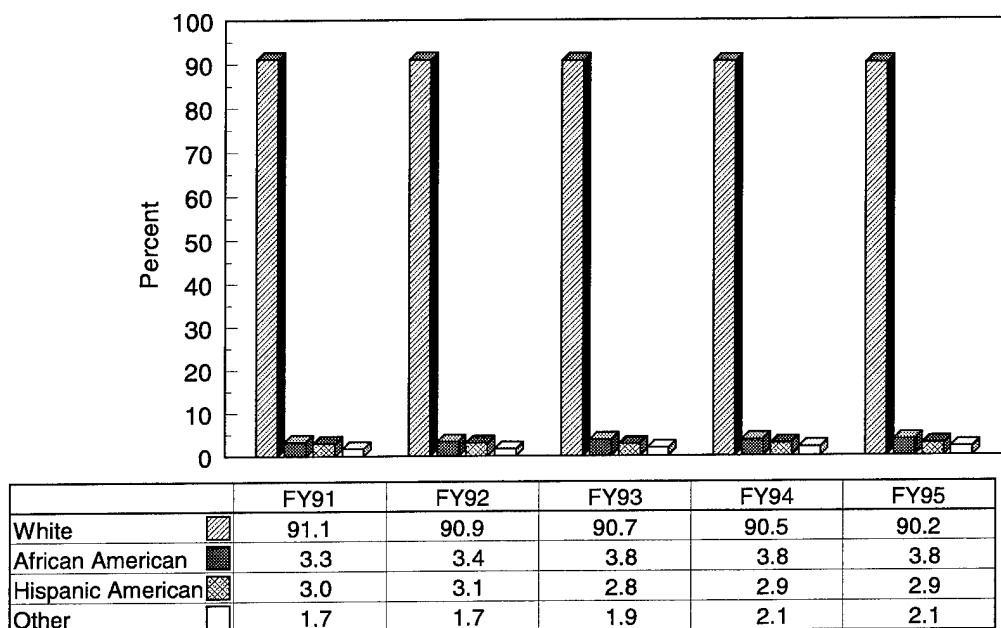


**Figure 3-12.**  
*Percentage of Females in Selected Reserve Warrant Officer Maintainer Population, FY91 – FY95*



## Ethnicity

Figure 3-13 shows that the proportion of minority SR warrant officer maintainers increased from 8.0 percent in FY91 to 8.8 percent in FY95, which is slightly higher than the increase in total SR warrant officer population. However, the proportion of minority SR warrant officer maintainers is much less than that in the AD warrant officer maintenance cadre, which included 27.5 percent minority personnel in FY95.



**Note:** The percentage of unknowns in a fiscal year is 0.9 percent or less.

**Figure 3-13.**  
*Distribution of Selected Reserve Warrant Officer Maintainers by Ethnicity, FY91 – FY95*

## Summary

The SR warrant officer maintainer population decreased 17.3 percent over the study period, a modest decrease when compared to the 28.3 percent decrease in the AD warrant officer maintainers but significantly more than the 11.4 percent decrease in the total SR warrant officer population. SR warrant officer maintainers were considerably older, had more years of service, and far more were eligible to retire in FY95 when compared to their active duty counterparts. Only 8.8 percent were ethnic minorities compared to more than 27 percent of the AD warrant officer maintainers.

## SELECTED RESERVE COMMISSIONED OFFICER MAINTAINERS

The number of SR commissioned officer maintainers in FY95 totaled about 7,300, which was 8.8 percent less than in FY91. The total SR commissioned officer force decreased more than 14 percent during the same period. While the total number of SR commissioned officers and SR commissioned officer maintainers declined steadily over the study period, the number of commissioned officer maintainers in the Marine Corps Reserve increased. Table 3-8 shows the populations of each SR commissioned officer maintainer component over the study period.

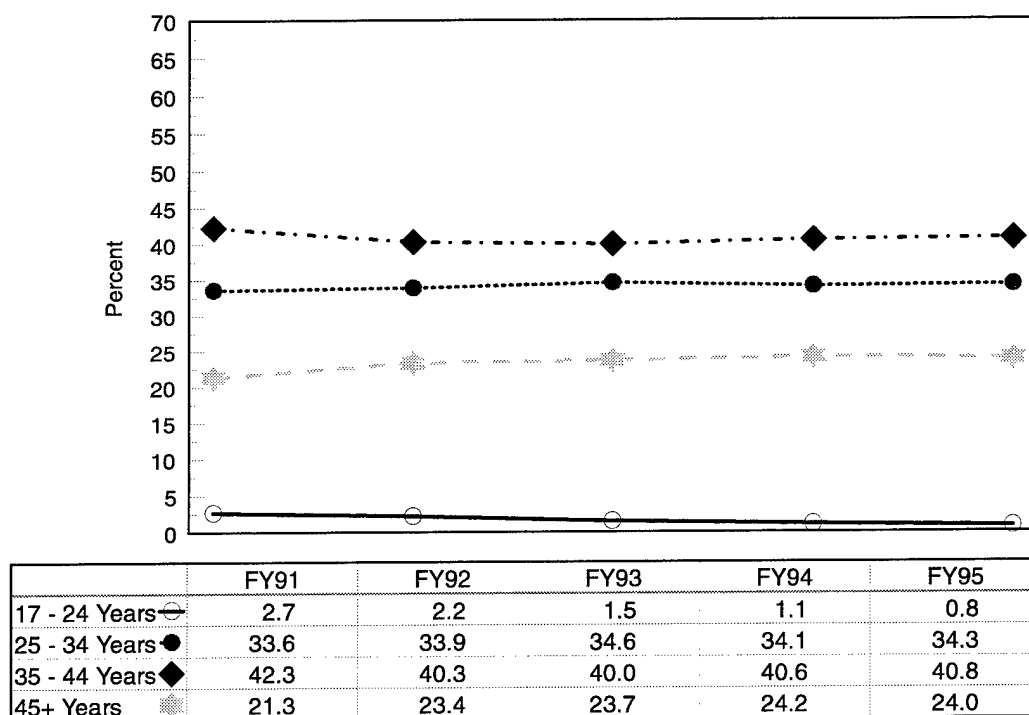
**Table 3-8.**

*Number of Selected Reserve Commissioned Officer Maintainers by Service, FY91 – FY95 (thousands)*

Service	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Maintainers						
Army National Guard	2.38	2.33	2.44	2.19	2.24	– 5.9
Army Reserve	2.59	2.60	2.62	2.25	2.25	– 13.1
Navy Reserve	0.53	0.57	0.60	0.50	0.48	– 9.4
Marine Corps Reserve	0.17	0.18	0.19	0.20	0.25	47.1
Air National Guard	1.35	1.35	1.34	1.30	1.25	– 6.7
Air Force Reserve	0.95	0.89	0.84	0.83	0.80	– 15.8
Total	7.97	7.92	8.03	7.27	7.27	– 8.8
Total selected reserve commissioned officers	157.60	151.85	149.43	139.95	134.98	– 14.4
Maintainers as percent of total	5.1	5.2	5.4	5.5	5.4	

## Age

The SR commissioned officer maintainers average age in FY95 was 38.3 years, an increase of 0.6 years from FY91. The respective populations of each of the age groups are shown in Figure 3-14. Since FY91, the 17-to-24 age group of SR commissioned officer maintainers declined nearly 71 percent. Conversely, the 45 and over age group grew almost 13 percent during the study period and constituted 24 percent of the SR commissioned officer maintainer population. This demographic is similar to the demographics of the total commissioned officer population force; more than 27 percent of its members were over 45 years of age in FY95.



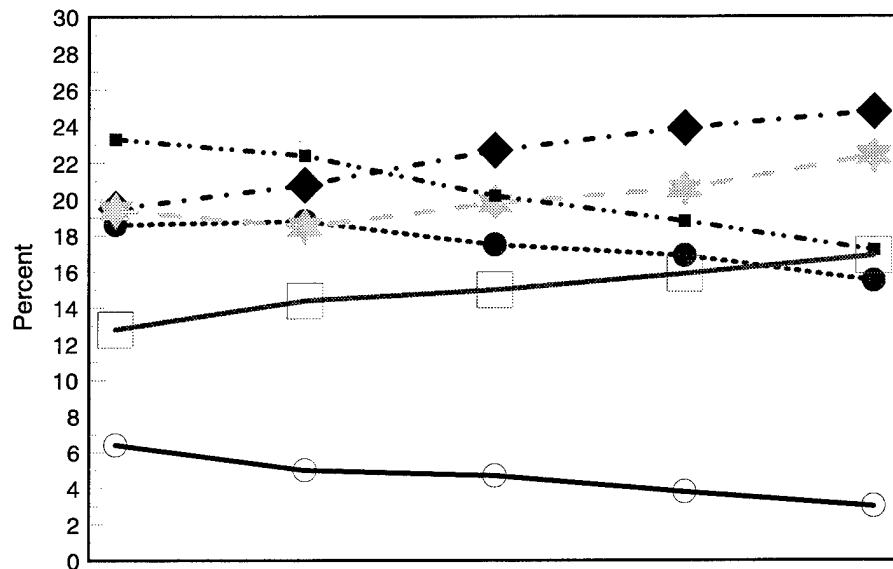
**Note:** The percentage of unknown in a fiscal year is 0.2 or less.

**Figure 3-14**  
*Distribution of Selected Reserve Commissioned Officer Maintainners by Age Group, FY91 – FY95*

## Years of Service

Similar to the selected reserve warrant officer maintainers, selected reserve commissioned officer maintainers have significantly more tenure than their AD commissioned officer counterparts. SR commissioned officer maintainers averaged 16.5 years of service compared to 13.1 for AD commissioned officer maintainers in FY95. Only 18.5 percent of SR commissioned officer maintainers had

fewer than 10 YOS at the end of the study period; 30.4 percent of the total SR commissioned officer work force had fewer than 10 YOS. The number of SR commissioned officer maintainers in each YOS group over the study period is depicted in Figure 3-15.



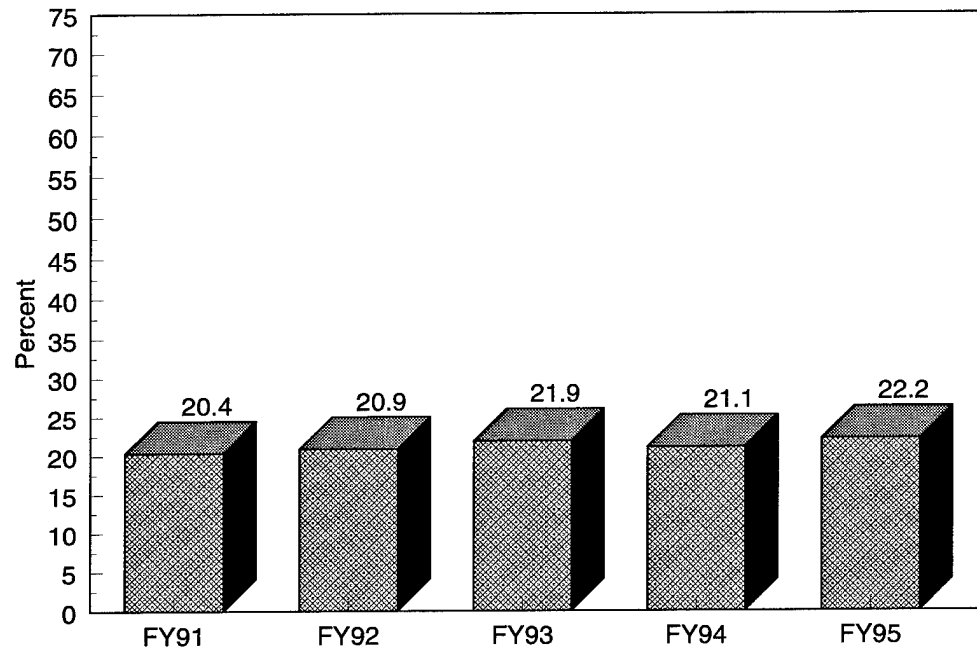
	FY91	FY92	FY93	FY94	FY95
1 - 5 Years	6.4	5.0	4.7	3.8	3.0
6 - 10 Years	18.6	18.8	17.5	16.9	15.5
11 - 15 Years	19.5	20.8	22.7	23.9	24.8
16 - 20 Years	19.4	18.5	19.8	20.6	22.4
21 - 25 Years	23.3	22.4	20.2	18.8	17.2
26+ Years	12.8	14.4	15.0	15.9	16.9

**Note:** The percentage of unknown in a fiscal year is 0.2 or less.

**Figure 3-15.**  
*Distribution of Selected Reserve Commissioned Officer Maintainers by Years of Service, FY91 – FY95*

## Retirement Eligibility

In FY95, 22.2 percent of SR commissioned officer maintainers were eligible to retire. As can be seen in Figure 3-16, the percent of SR officer maintainers who are eligible to retire has steadily increased. This increase coincides with the increasing average age and average YOS of this maintainer population. In contrast, in FY95, only 18.6 percent of AD commissioned officer maintainers and 20.1 percent of the total SR commissioned officer cadre were eligible to retire.



**Note:** The percentage of unknown in any fiscal year is 3.1 percent or less.

**Figure 3-16.**  
*Percentage of Selected Reserve Commissioned Officer Maintainers  
Eligible to Retire, FY91 – FY95*

## Education

In FY95, more than 85 percent of the SR commissioned officer maintainers had earned at least a college degree. This percentage compares to 77 percent of the total SR commissioned officer population with at least a college degree. Table 3-9 depicts the educational attainment of the SR commissioned officer maintainers. As is the case for AD commissioned officer maintainers, the large decrease from FY91 to FY92 in the proportion of SR commissioned officer maintainers with "some college" can be attributed to a change in reporting criteria. In addition, we cannot compare this statistic with the AD commissioned officer maintainers because of the large number of unknowns in the active data base.

**Table 3-9.**

*Distribution of Selected Reserve Commissioned Officer Maintainers by Educational Level, FY91 – FY95 (percent)*

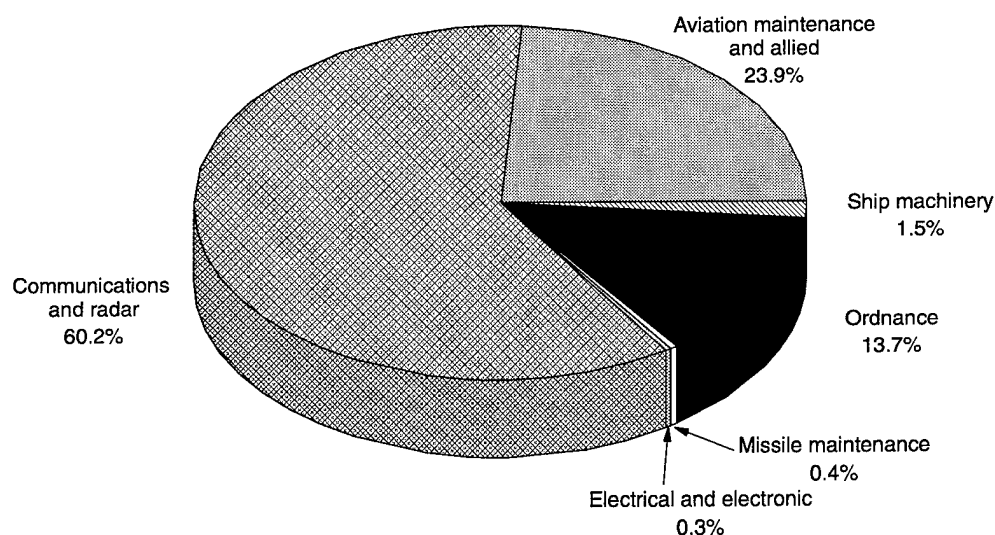
Level	FY91	FY92	FY93	FY94	FY95
High school graduate	4.2	13.2	12.1	9.7	8.9
Some college	14.2	3.1	2.8	2.3	2.3
College graduate	55.5	56.7	58.7	57.7	61.5
Graduate degree	23.7	23.7	22.9	25.6	23.6

**Note:** Unknown (up to 5 percent in a fiscal year) not shown.

## Skills

In FY95 seven occupational groups characterized the skills of the AD commissioned officer maintainer population, but only six occupational groups characterized the skills of the SR commissioned officer maintainers. Automotive and allied maintainers comprised 0.1 percent of the AD commissioned officer maintainer population but were not found in the SR commissioned officer population.

Figure 3-17 shows the FY95 distribution of SR commissioned officer maintainers among the six occupational groups. More than 60 percent of SR commissioned officer maintainers worked in communications and radar; another 24 percent worked in aviation maintenance and allied. Those proportions approximate the AD officer work force. However, a larger percentage of Ordnance maintainers were in the SR commissioned officer work force, primarily in the Army National Guard and the Army Reserve.



**Figure 3-17.**  
*Distribution of Selected Reserve Commissioned Officer Maintainers by Skill Category, FY95*

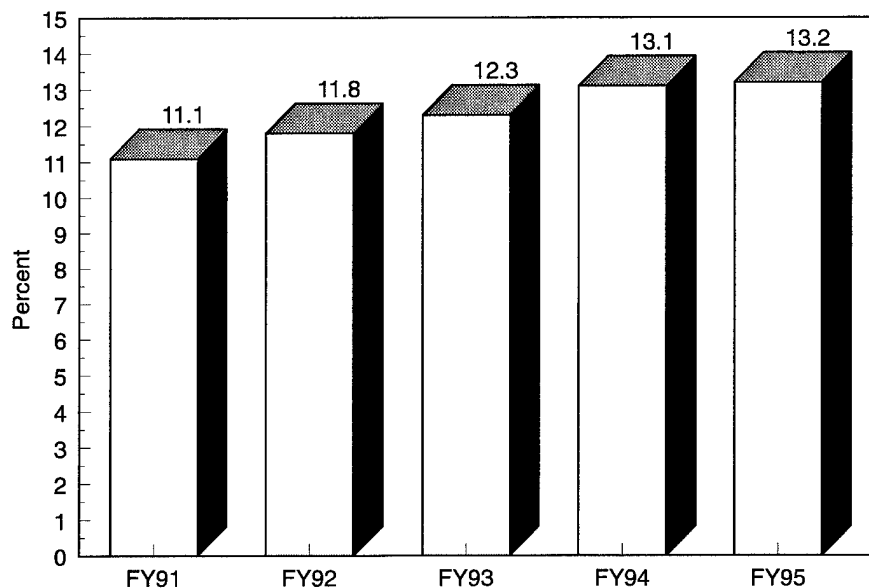
Table 3-10 shows that the populations of most occupational groups varied significantly from the 8.8 percent decline of the total SR commissioned officer maintainer work force. Two of the smaller occupational groups, electrical and electronic and missile maintenance, had the largest decreases; the number of SR commissioned officer maintainers in ship machinery increased 23 percent.

**Table 3-10.**  
*Number of Selected Reserve Commissioned Officer Maintainers by Skill Category, FY91 – FY95*

Category	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Automotive and allied	0	1	0	0	0	0
Aviation maintenance and allied	1,715	1,732	1,962	1,558	1,738	0
Communications and radar	4,623	4,658	4,753	4,533	4,372	– 5.4
Electrical and electronic	38	35	29	25	23	– 39.5
Missile maintenance	197	201	51	28	29	– 85.3
Ordnance	1,308	1,201	1,128	1,014	998	– 23.7
Ship machinery	86	90	110	108	106	23.3
Total	7,967	7,918	8,033	7,266	7,266	– 8.8

## Gender

Females constituted 13.2 percent of the SR commissioned officer population in FY95 as shown in Figure 3-18. That proportion is about the same as the proportion of the female AD commissioned officer maintainer work force but is noticeably lower than the 17.2 percent of female officers in the total SR commissioned officer work force. The increase was the result of a 19 percent increase in the number of SR female commissioned officer maintainers over the study period, combined with a 2.4 percent decrease in the number of male SR commissioned officer maintainers over the same time frame.

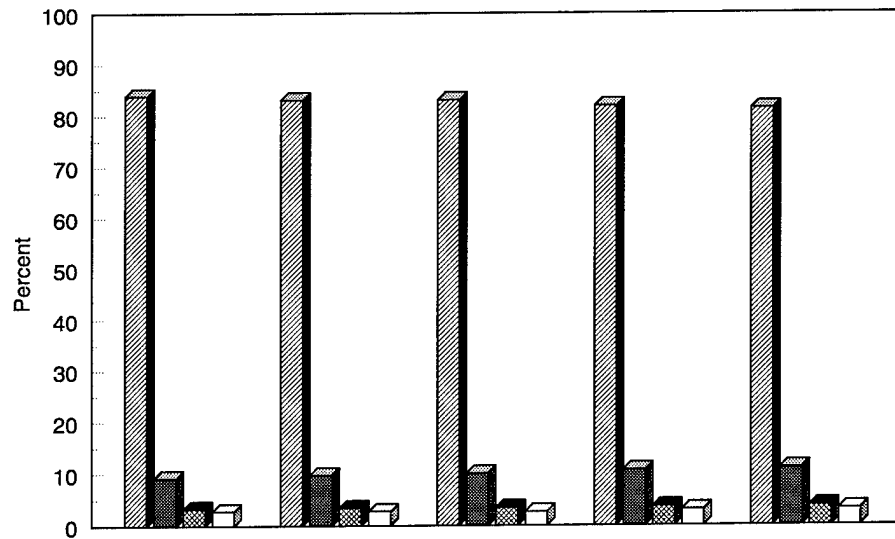






**Figure 3-18.**  
*Percentage of Females in Selected Reserve Commissioned Officer Maintainer Population, FY91 – FY95*

## Ethnicity

The proportion of minority SR commissioned officer maintainers increased from 15.3 percent in FY91 to 18.1 percent in FY95. The FY95 proportion exceeds the 15.3 percent minority figure for the total SR commissioned officer population but is commensurate with the 17.6 percent minority representation in the AD commissioned officer maintainer population. Figure 3-19 shows the proportion of minority SR commissioned officer maintainers over the study period.





		FY91	FY92	FY93	FY94	FY95
White		83.9	83.1	83.1	81.9	81.4
African American		9.2	9.8	10.1	10.7	11.1
Hispanic American		3.3	3.4	3.5	3.7	3.8
Other		2.8	2.8	2.7	3.1	3.2

**Note:** The percentage of unknowns in a fiscal year is 0.9 percent or less.

**Figure 3-19.**

*Distribution of Selected Reserve Commissioned Officer Maintainers by Ethnicity, FY91 – FY95*

## Summary

SR commissioned officer maintainers had a smaller proportion of female officers but had a larger proportion of ethnic minorities when compared to the total SR commissioned officer population. Over the study period, the changes in the SR commissioned officer maintainer population mirrored those in the AD commissioned officer maintainer population except in the following three characteristics:

- ◆ *Work force size.* The number of SR commissioned officer maintainers decreased 9 percent while that of AD commissioned officer maintainers decreased 18 percent.
- ◆ *Age.* The average age of both populations increased, but the SR commissioned officer maintainers were an average of four years older than the AD commissioned officer maintainers in FY95.
- ◆ *Years of Service.* With an average of 16.5 years of service, SR commissioned officer maintainers had 3.4 more years of tenure than their AD commissioned counterparts.

## CHAPTER 4

# Civilian Maintainers

Civilian maintainers in DoD constituted about 18 percent of the FY95 DoD civilian work force and about 19 percent of the total DoD maintenance work force. The Assistant Secretary of Defense (Force Management and Policy), Frederick Pang, stated that the civilian work force is a crucial link in our national defense in his March 7, 1995, testimony before the House Appropriations Subcommittee on Defense.<sup>1</sup> The majority of civilian maintainers work at military service depots, although a small percentage are employed at field installations in the continental United States and overseas. In this report, DoD civilians are classified as blue-collar or white-collar, the distinction generally based on the system under which the person is paid; that is, wage grade workers are counted as blue-collar, and general schedule workers and senior executive service personnel are counted as white-collar.

As shown in Table 4-1, the combined blue- and white-collar DoD maintainer population declined about 22 percent from FY91 to FY95. That decline is much greater than the 17 percent decline in the total DoD civilian work force during the same time period.

**Table 4-1.**

*Number of DoD Civilian Maintainers, FY91 – FY95 (thousands)*

Segment	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Blue-collar	143.1	140.0	128.8	119.5	109.0	– 23.9
White-collar	48.0	47.3	43.9	41.1	39.6	– 17.3
Total	191.1	187.3	172.7	160.6	148.6	– 22.2
Total DoD civilian population	996.2	984.4	920.8	876.3	828.2	– 16.9
Maintainers as percent of total	19.2	19.0	18.8	18.3	17.9	

The population of DoD civilian maintainers is predominantly blue-collar. In addition, the proportion of blue-collar workers in the civilian maintainer work force is larger than that in the total DoD civilian work force. In FY95, blue-collar

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<sup>1</sup>Prepared statement of the Honorable Frederick Pang, Assistant Secretary of Defense (Force Management and Policy) to the House Appropriations Subcommittee on Defense March 7, 1995.

workers accounted for 73 percent of the DoD maintainer population but only 13 percent of all DoD civilian personnel.

This chapter provides insight into the characteristics of the DoD blue- and white-collar maintainer work forces and, where appropriate, compares those work forces with the total DoD blue- and white-collar work forces.

## DoD BLUE-COLLAR MAINTAINERS

The DoD blue-collar maintainer population decreased 24 percent from FY91 to FY95, compared to a 25 percent decrease in the total DoD blue-collar civilian work force since FY91. Throughout the study period, DoD blue-collar civilian maintainers constituted about 51 percent of all DoD blue-collar workers.

Table 4-2 shows the number of civilian blue-collar maintainers by Military Service for the five-year study period. The Navy's civilian blue-collar maintainer population declined the most, 38 percent, followed by the Army with a 22 percent decrease. The Marine Corps, the Defense Logistics Agency, and other DoD agencies actually increased in size.

**Table 4-2.**

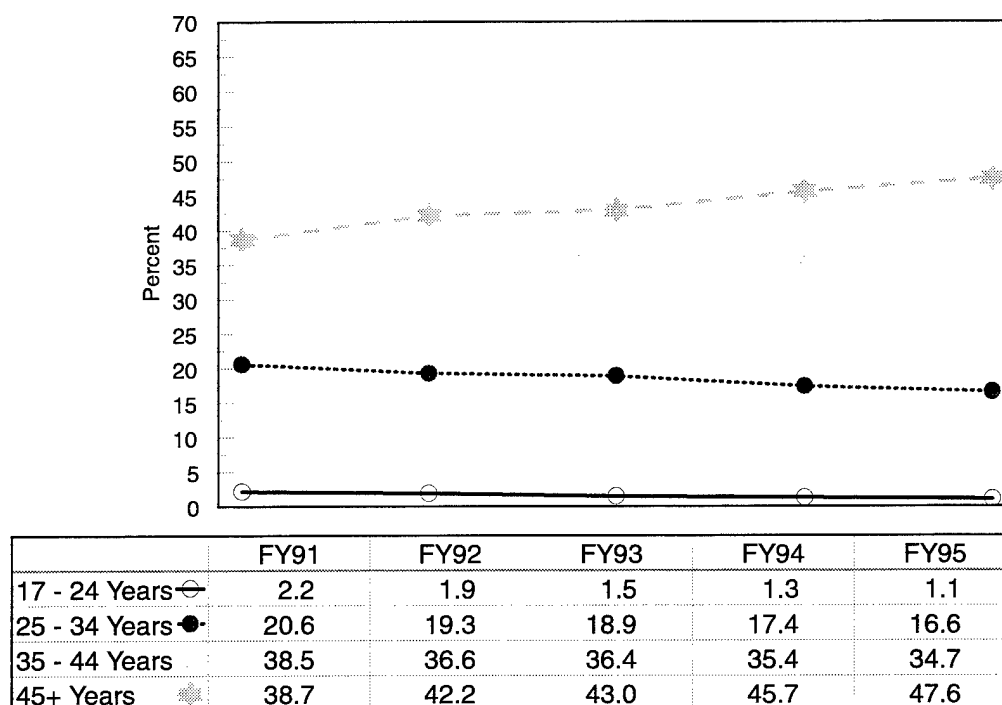
*Number of DoD Blue-Collar Maintainners by Service, FY91 – FY95 (thousands)*

Service	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Maintainers						
Army	41.59	40.18	36.26	34.02	32.39	– 22.1
Navy	46.85	45.11	40.26	35.36	29.01	– 38.1
Marine Corps	2.04	2.32	2.35	2.25	2.26	10.8
Air Force	51.19	50.51	48.22	46.12	43.66	– 14.7
DLA	1.26	1.68	1.57	1.58	1.45	15.1
Other DoD	0.16	0.17	0.18	1.21	0.19	18.8
Total	143.09	139.97	128.84	120.54	108.96	– 23.9
Total DoD blue-collar civilians	282.62	277.17	251.74	232.84	211.50	– 25.2
Maintainers as percent of total	50.6	50.5	51.2	51.3	51.5	

**Note:** DLA = Defense Logistics Agency.

## Age

From FY91 to FY95, the average age of DoD blue-collar civilian maintainers rose by 0.6 years to 43.5 years old. The increase was driven by a significant increase in the population over 45 years of age and a corresponding decrease in the age groups below 45 years old. Almost 48 percent of the blue-collar maintainers were over 45 in FY95; only about 39 percent were over 45 years of age in FY91. The total DoD blue-collar force had almost the same percentage of workers over 45 years of age in FY95. Figure 4-1 depicts the changes in the populations of the various age groups during the study period.

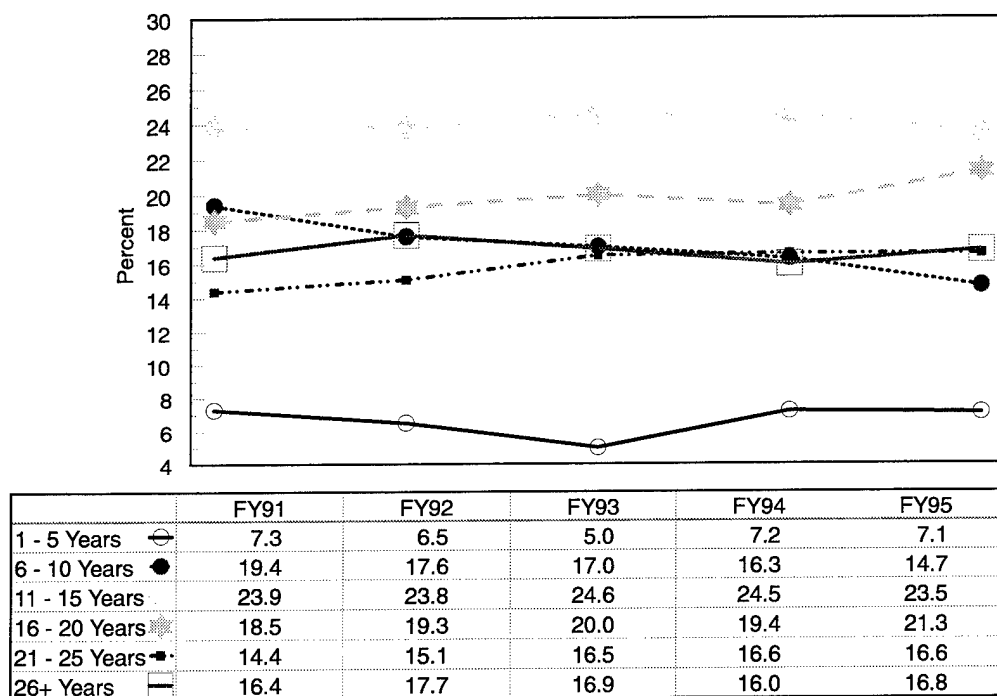


**Note:** The percentage of unknown in a fiscal year is 0.2 percent or less.

**Figure 4-1.**  
*Number of DoD Blue-Collar Maintainers by Age Group, FY91 – FY95*

## Years of Service

For FY95, the blue-collar civilian maintainer population averaged about 16.1 YOS, an increase of more than 4 percent from the FY91 average of 15.5 YOS. Among the more significant changes occurring during the study period were a 24 percent reduction in the number of civilian blue-collar maintainers with 6 to 10 YOS and a 15 percent increase in populations with 15 to 20 YOS and 21 to 25 YOS. In FY95 28.5 percent of the total DoD blue-collar population had 10 or fewer years of service; only 22.8 percent of the blue-collar maintainers had 10 or fewer years of service. Figure 4-2 shows the change in the years of service categories from FY91 to FY95.

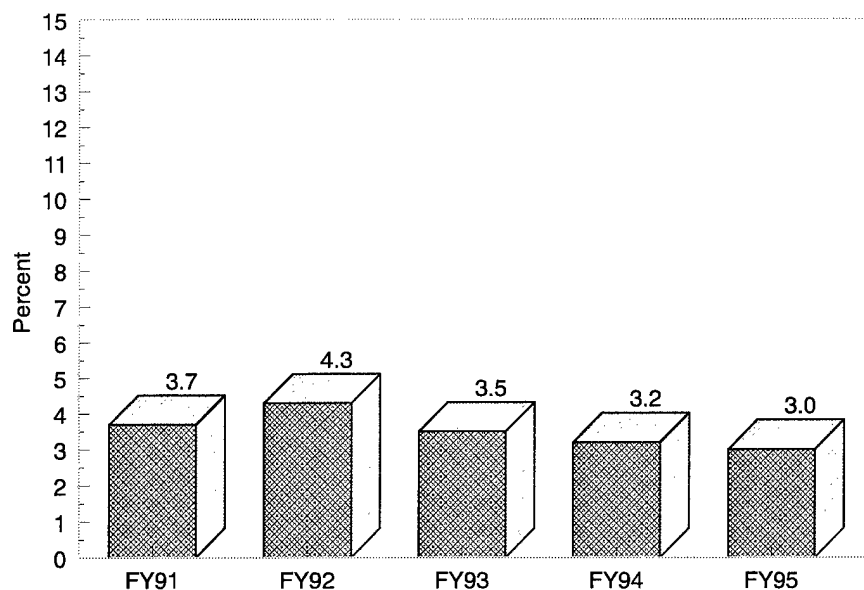


**Note:** The percentage of unknown in FY91 was 0.1 percent.

**Figure 4-2.**  
*Distribution of DoD Blue-Collar Maintainers by Years of Service, FY91 – FY95*

## Retirement Eligibility

As shown in Figure 4-3, the proportion of DoD blue-collar maintainers eligible for retirement has declined from 3.7 percent in FY91 to 3 percent in FY95. This statistic compares to the overall DoD blue-collar work force where 5.6 percent of the population was eligible to retire in FY95.



**Figure 4-3.**  
*Percentage of DoD Blue-Collar Maintainers Eligible to Retire,  
 FY91 - FY95*

## Education

The proportion of DoD blue-collar maintainers with only some high school declined substantially over the study period; the percentage with at least some college increased, as shown in Table 4-3. In FY95, only 5.1 percent of the population had not graduated from high school, and 34 percent had at least some college-level education. Not only were blue-collar civilian maintainers better educated in FY95 than they were in FY91, they also were slightly better educated than the total DoD blue-collar population.

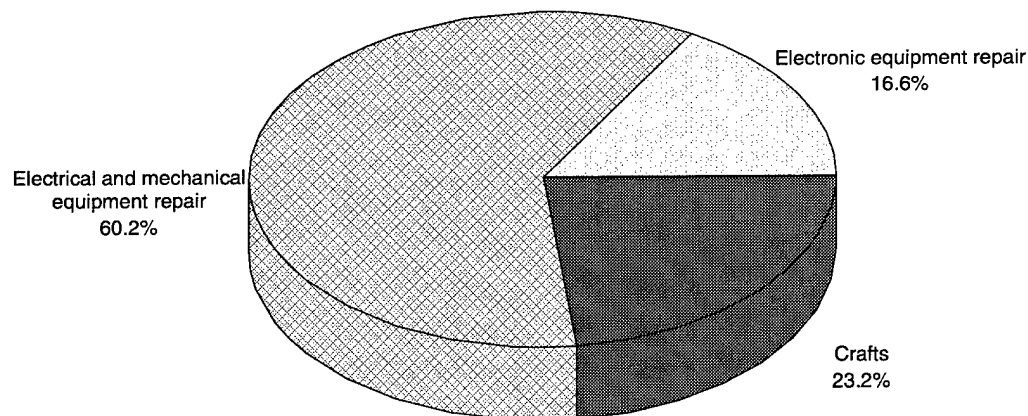
**Table 4-3.**  
*Distribution of DoD Blue-Collar Maintainers by Educational Level,  
 FY91 - FY95 (percent)*

Level	FY91	FY92	FY93	FY94	FY95
Some high school	7.1	6.8	6.2	5.7	5.1
High school graduate	61.2	61.2	60.5	61.0	60.7
Some college	29.0	29.3	30.4	30.3	31.0
College graduate	2.7	2.8	2.9	3.0	3.1

## Skills

The basic occupational structure of the DoD civilian blue-collar maintainer work force is similar to that of the AD enlisted maintainer work force, which is discussed in Chapter 2. The three major occupational categories of the two work forces are identical; however, the civilian blue-collar maintainer work force is subdivided into only 15 occupational subcategories; the AD enlisted maintainer work force is subdivided into 23 subcategories. The populations of some of the major occupational areas and occupational subcategories also differ substantially. For example, about 23 percent of the civilian blue-collar maintainer population is in crafts, and only about 5 percent of AD enlisted maintainers work in that area. In addition, 17 percent of the AD civilian blue-collar maintainers are dedicated to electronic equipment repair, and almost 31 percent of the AD enlisted maintainers are in that field.

Figure 4-4 shows the relative sizes of the blue-collar civilian maintainer populations in the three principal skill categories. Overall, more than 60 percent of blue-collar civilian maintainers work in electrical and mechanical equipment repair. Despite the significant reduction in the total size of the work force, the distribution of blue-collar civilian maintainers among skill categories remained about the same throughout the report period.



**Figure 4-4.**  
*Distribution of DoD Blue-Collar Maintainers by Skill Category, FY95*

Electrical and mechanical equipment repair was the largest blue-collar maintainer category in FY95 and included specialists in the maintenance and repair of electrical, mechanical, hydraulic, and pneumatic equipment. It had ten subcategories — aircraft and aircraft related, armament and munitions, automotive, forward area equipment, missile mechanical and electrical, other mechanical and electrical, power generation, precision equipment, production control, and wire communications.

About 23 percent of the blue-collar civilian maintainer work force was characterized as craftsmen in FY95. That occupational area includes the formation, fabrication, and installation of structures and components and related trades and crafts. Three subcategories exist in the crafts area — fabric, leather, and rubber; metalworking; and other crafts.

The third major skill group, electronic equipment repair, includes specialists in maintaining and repairing various types of electronic and allied equipment, including radio, radar, navigation, weapons, and computers, among others. The electronic equipment repair group is divided into two subcategories — ADP computers and other electronic equipment.

Table 4-4 shows the number of blue-collar civilian maintainers in each skill category and subcategory over the report period. The population in electronic equipment repair and crafts declined 24 percent, and that population in electrical and mechanical equipment repair declined 21 percent. Within those major categories, the populations of all but two subcategories declined, and the declines in six — forward area equipment; other mechanical and electrical; precision equipment; production control; fabric, leather, and rubber; and metalworking — exceeded 25 percent. The two exceptions were ADP computers, which increased 52 percent, and missile mechanical and electrical, which increased 109 percent; both of these categories are relatively small.

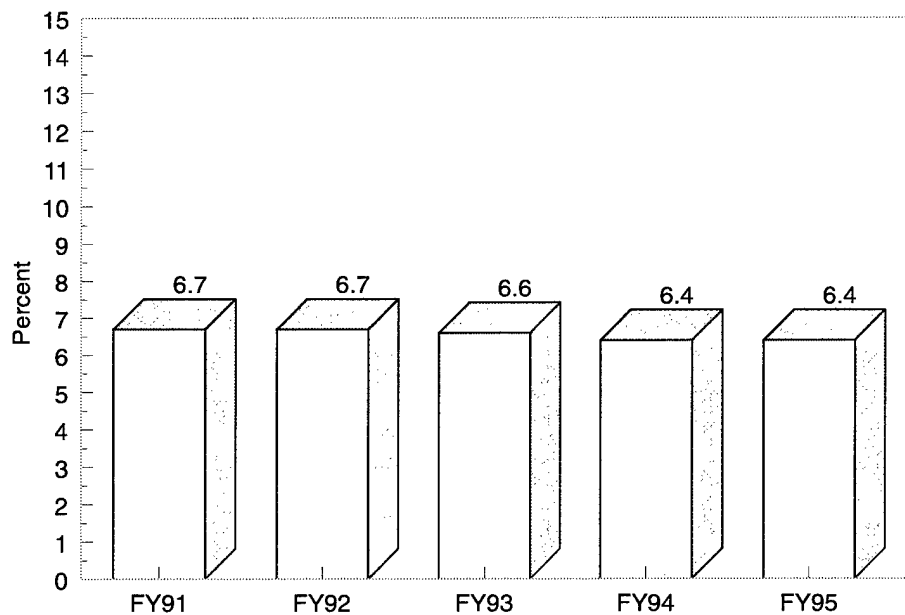


**Table 4-4.*****Number of DoD Blue-Collar Maintainers by Skill Category, FY91 – FY95***

Category	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 - FY95
Electronic equipment repair						
ADP computers	360	399	424	428	546	51.7
Other electronic	23,221	22,791	21,013	19,504	17,487	- 24.7
Subtotal	23,581	23,190	21,527	18,033	18,033	- 23.5
Electrical and mechanical equipment repair						
Aircraft and aircraft related	25,090	24,927	24,204	23,123	21,839	- 13.0
Armament and munitions	7,728	7,595	6,714	6,145	5,806	- 24.9
Automotive	19,368	19,224	18,054	17,116	16,331	- 15.7
Forward area equipment	31	25	17	14	10	- 67.7
Missile mechanical and electrical	11	10	8	8	23	109.0
Other mechanical and electrical	21,434	20,698	18,588	17,094	14,890	- 30.5
Power generation	116	112	107	93	92	- 20.7
Precision equipment	3,673	3,353	2,686	2,364	2,168	- 41.0
Production control	4,999	4,901	4,377	3,926	3,723	- 25.5
Wire communications	909	866	782	789	749	- 17.6
Subtotal	83,359	81,711	75,537	70,672	65,361	- 21.3
Crafts						
Fabric, leather, and rubber	3,061	2,754	2,449	2,276	2,158	- 29.5
Metalworking	32,011	31,223	28,414	25,709	22,278	- 30.4
Other crafts	1,087	1,100	1,005	950	855	- 21.3
Subtotal	36,159	35,077	31,868	28,935	25,291	- 30.1
Total	143,099	139,978	128,842	119,539	108,955	- 23.9

## Gender

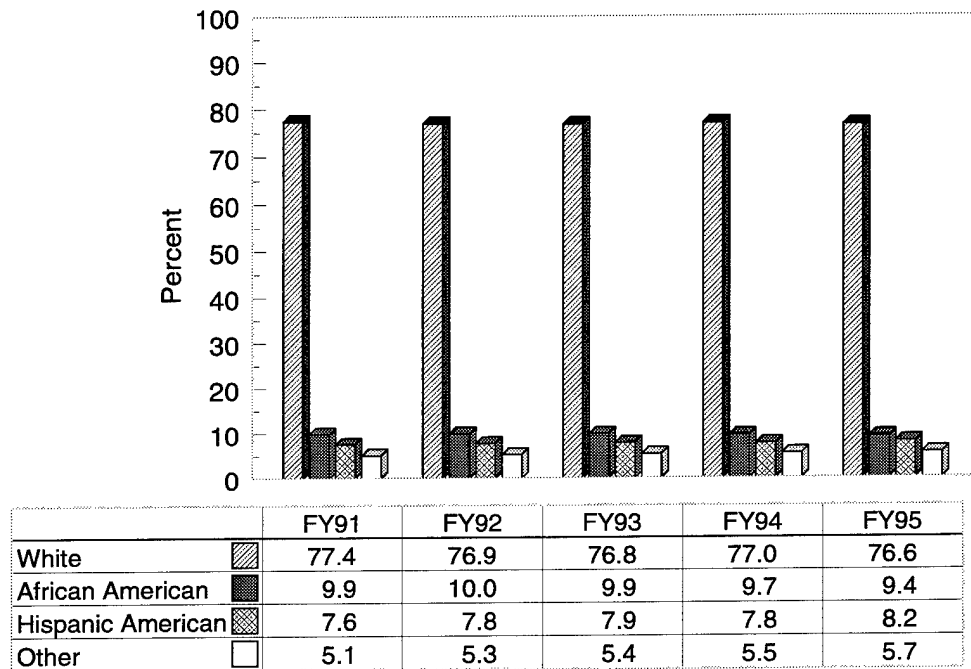
The percentage of females in the blue-collar civilian maintainer population declined from 6.7 percent in FY91 to 6.4 percent in FY95. While the percentage of females in the total DoD blue-collar population experienced a greater reduction during the study period, the total DoD blue-collar work force was 8.2 percent female in FY95. The proportion of females in the blue-collar work force is shown in Figure 4-5.



**Figure 4-5.**  
*Percentage of Females in DoD Blue-Collar Maintainer Population,  
FY91 – FY95*

## Ethnicity

The ethnic composition of the blue-collar civilian maintainer population remained virtually the same over the study period with Whites and African Americans experiencing small decreases and Hispanic Americans and personnel with other ethnic backgrounds experiencing small increases. When compared to the total blue-collar work force, blue-collar maintainers have almost 8 percent less minority representation, primarily because of a much smaller percentage of African Americans. Figure 4-6 shows the population by ethnicity.



**Figure 4-6.**

*Distribution of DoD Blue-Collar Maintainers by Ethnicity, FY91 – FY95*

## Summary

The DoD blue-collar civilian maintainer work force decreased in size by about 24 percent over the five-year report period. In FY95, the average DoD blue-collar maintainer was older (43.5 years old) and had more government service (16.1 years) than the average FY91 blue-collar maintainer. The percentage of personnel who were eligible for retirement decreased slightly.

## DoD WHITE-COLLAR MAINTAINERS

The DoD white-collar maintainer population declined during the study period by about 17 percent, which is greater than the 13.6 percent reduction in the total DoD white-collar population. The Marine Corps and other DoD agencies experienced a 20 percent increase in their white-collar maintainer work force. DoD white-collar maintainers constituted 6.4 percent of all DoD white-collar personnel in FY95, down 0.3 percentage points from FY91.

Table 4-5 shows that the size of all major DoD white-collar maintainer populations (Army, Navy, and Air Force) declined over the report period. Navy white-collar maintainers, who constituted 52 percent of the total white-collar maintenance population in FY91, declined to 47 percent of the population in FY95.

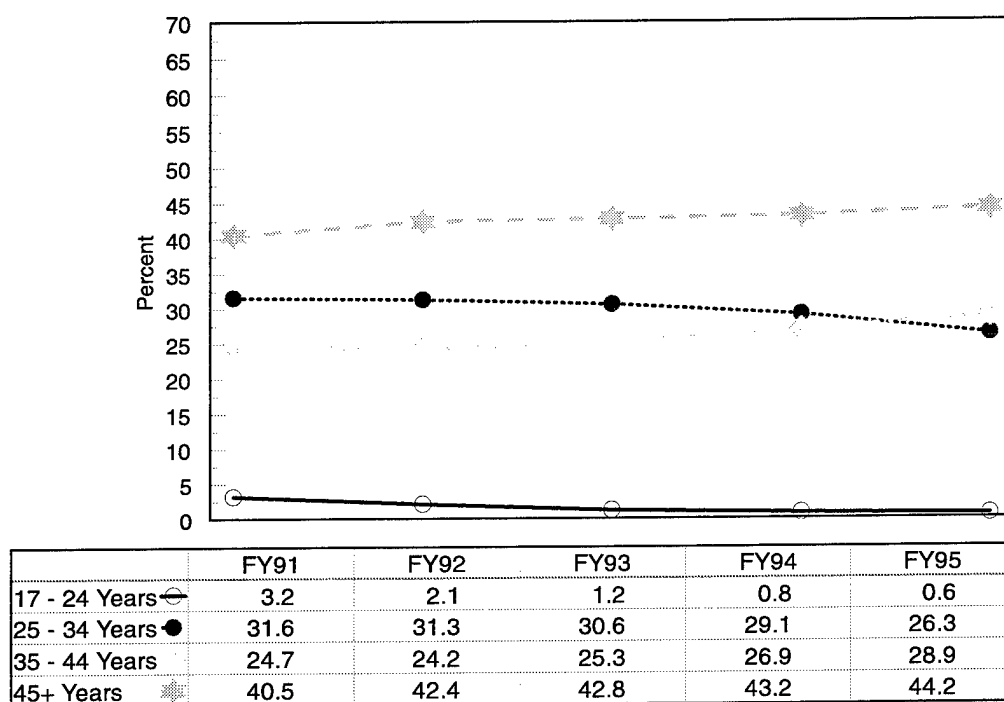
**Table 4-5.**  
*Number of DoD White-Collar Maintainers by Service,  
FY91 – FY95 (thousands)*

Service	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Maintainers						
Army	9.93	9.62	9.03	8.87	8.69	– 12.5
Navy	24.92	24.57	21.91	19.52	18.61	– 25.3
Marine Corps	0.25	0.25	0.27	0.30	0.30	20.0
Air Force	10.91	10.90	10.61	10.42	9.98	– 8.5
DLA	0.97	1.03	1.02	0.93	0.87	– 10.3
Other DoD Agencies	0.98	0.94	1.06	1.09	1.18	20.4
Total	47.96	47.31	43.90	41.13	39.64	– 17.3
Total DoD white-collar civilians	713.61	707.25	669.02	643.46	616.65	– 13.6
Maintainers as percent of total	6.7	6.7	6.6	6.4	6.4	

## Age

The average age of DoD white-collar maintainers increased by 1.5 years to 42.8 years old during the study period. The white-collar maintainers were somewhat younger than the DoD blue-collar maintainers.

In FY95, about 27 percent of the white-collar maintainers were below 35 years of age, compared to 35 percent in FY91 as depicted in Figure 4-7. The largest change in the white-collar maintainer population was the substantial decline in the 17-to-24 age group. When compared to the total DoD civilian white-collar population in FY95, 27 percent of the white-collar maintainers were younger than 35 years of age; under 20 percent of the total white-collar work force was under 35.



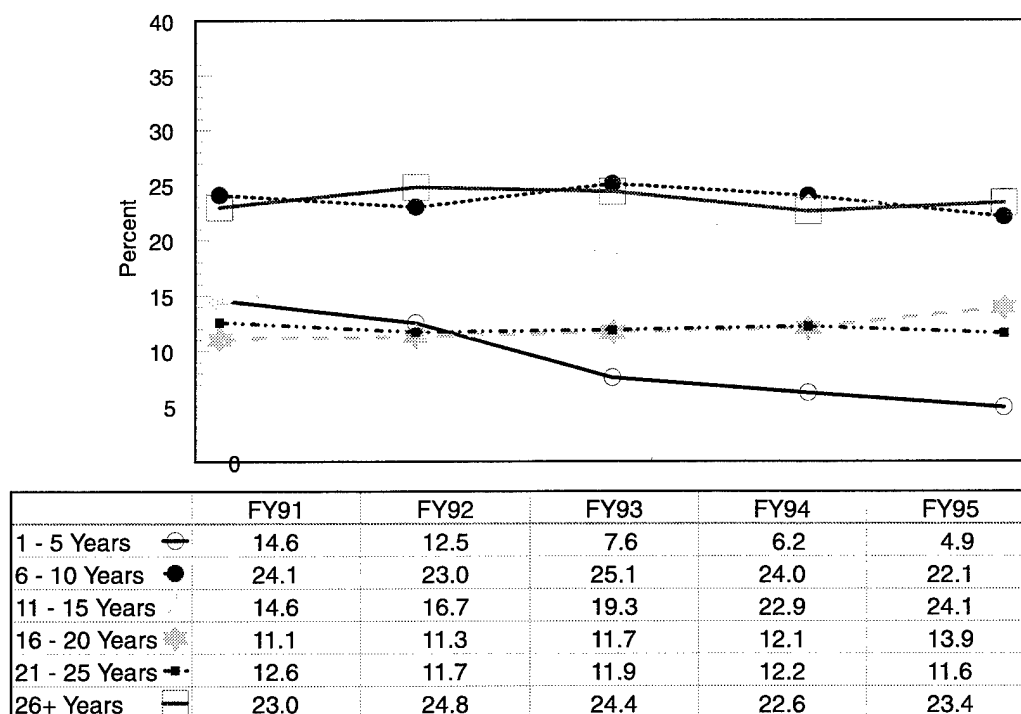
**Note:** The percentage of unknown in FY94 was 0.1 percent.

**Figure 4-7.**  
*Distribution of DoD White-Collar Maintainers by Age Group,  
FY91 – FY95*

## Years of Service

In FY95, DoD white-collar maintainers averaged 16.5 YOS. That average represents an increase of 1.2 years over FY91 and is higher than the average for blue-collar maintainers.

Figure 4-8 depicts the population of each YOS group over the study period. In FY91, the 1- 5 YOS group constituted 14.6 percent of the white-collar maintainer population, but by FY95 that group only constituted 4.9 percent of the population. In addition, the 11 to 15 YOS group represented 14.6 percent of the white-collar maintenance work force in FY91 but increased to more than 24 percent of the work force in FY95. More than 23 percent of the white-collar maintenance population had greater than 25 years of service in FY95; however, only 14.6 percent of the total DoD white-collar maintainer population had accumulated more than 25 YOS.

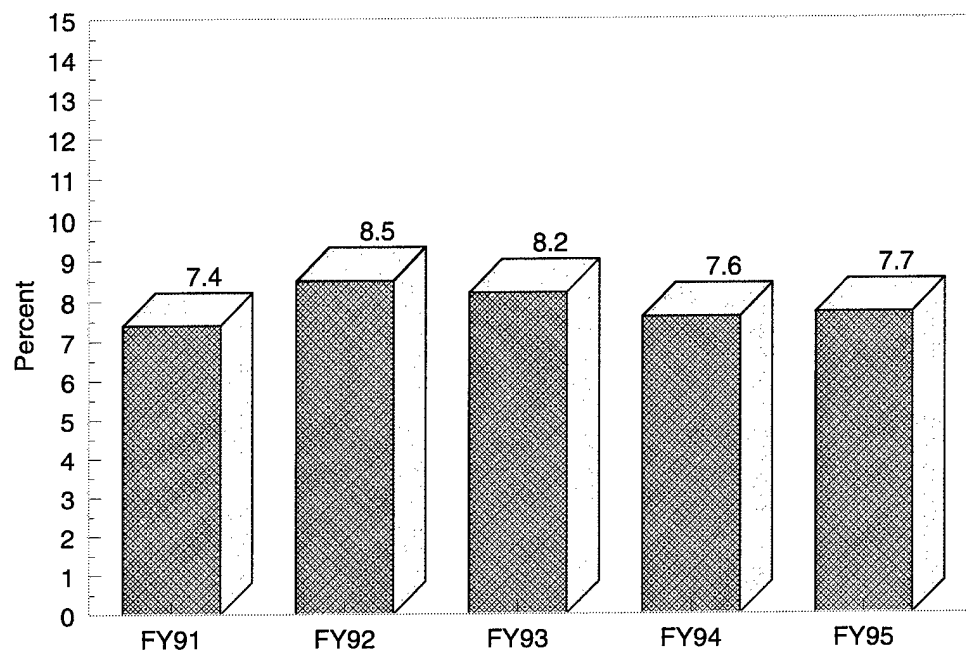


**Note:** Virtually none of the population had less than one year of service in any fiscal year.

**Figure 4-8.**  
*Distribution of DoD White-Collar Maintainers by Years of Service, FY91 – FY95*

## Retirement Eligibility

The proportion of white-collar maintainers eligible to retire fluctuated during the study period and was 7.7 percent in FY95, as shown in Figure 4-9. The total DoD white-collar work force showed a steady increase in the percentage of personnel eligible for retirement and was 7.6 percent in FY95.



**Figure 4-9.**  
*Percentage of DoD White-Collar Maintainers Eligible to Retire,  
FY91 – FY95*

## Education

The average level of education of DoD white-collar maintainers increased over the study period. In FY91, about 71 percent of white-collar maintainers were college graduates, which included almost 15 percent of the population possessing a graduate degree. In FY95, more than 71 percent were college graduates; however, 19 percent of the white-collar maintainers had earned a graduate degree. Table 4-6 shows the percentages of civilian maintainers in each of four educational groupings. The educational level of civilian maintainers is much higher than the level for the total DoD white-collar population where only 39 percent were college graduates in FY95; included in this figure are 12 percent of the population with graduate degrees.

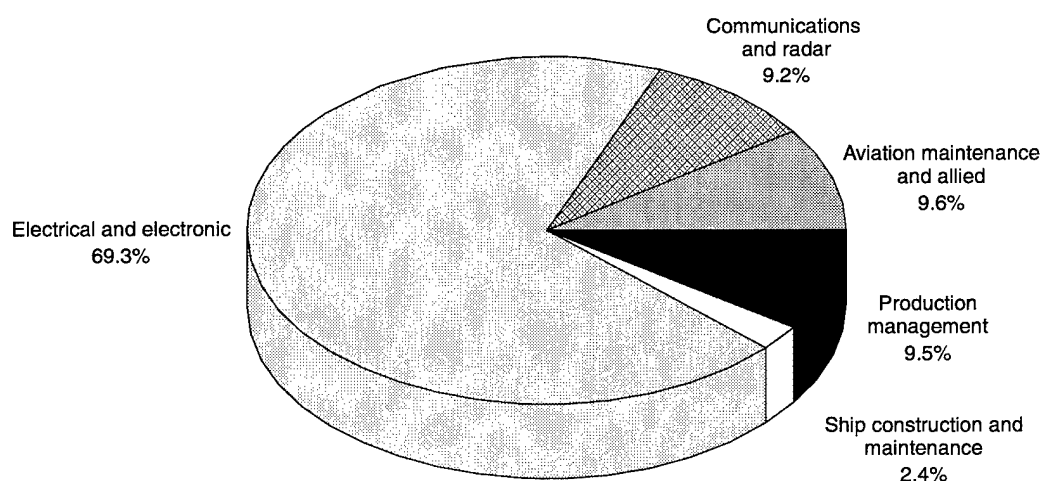
**Table 4-6.**  
*Distribution of DoD White-Collar Maintainers by Educational Level,  
 FY91 – FY95 (percent)*

Level	FY91	FY92	FY93	FY94	FY95
High school graduate	13.6	13.4	13.3	12.9	13.1
Some college	15.0	14.9	14.9	14.7	14.8
College graduate	55.9	55.4	54.1	53.2	52.2
Graduate degree	14.8	15.7	17.1	18.5	19.2

**Note:** Less than 1 percent of the population was characterized as not being high school graduates; those data are not shown.

## Skills

We used the *Occupational Conversion Index* and the defense personnel occupational codes to categorize the skills of white-collar maintainers. Five of those categories apply — aviation maintenance and allied, communications and radar, electrical and electronic, production management, and ship construction and maintenance. Figure 4-10 depicts the distribution of the FY95 white-collar maintainers among those skill groups. Most of that population is in the electrical and electronic occupational group. Although the proportion in that group, 69 percent, was down slightly from FY91, the proportion in the communications and radar group was up 2 percent. The skill makeup of the white-collar maintainer population remained substantially the same over the report period.



**Figure 4-10.**  
*Distribution of DoD White-Collar Maintainers by Skill Category, FY95*



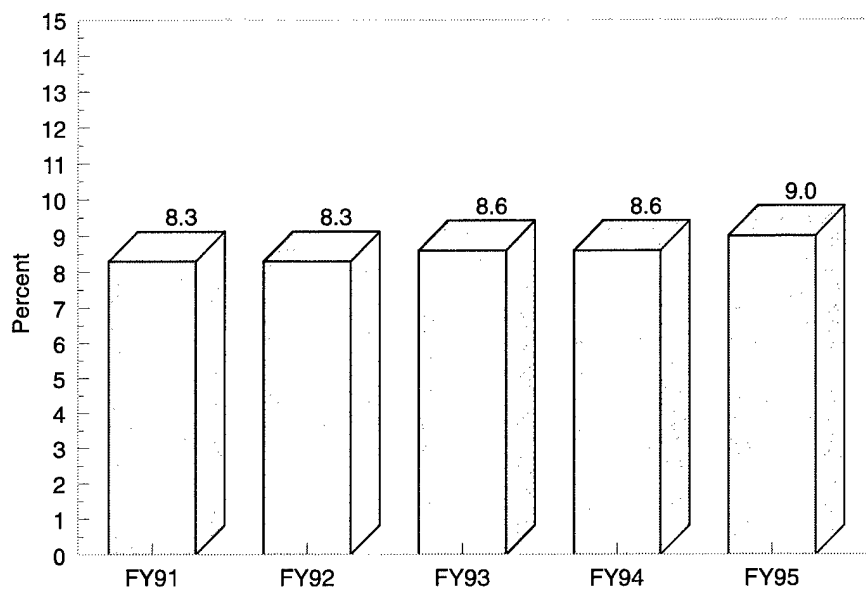
Table 4-7 shows the population of each white-collar maintainer skill group since FY91. Two groups, production management and ship construction and maintenance, each declined more than 20 percent from FY91 to FY95. The dominant occupational group, electrical and electronic, declined by about 19 percent during the study period.

**Table 4-7.**  
*Number of DoD White-Collar Maintainers by Skill Category,  
FY91 – FY95*

Category	FY91	FY92	FY93	FY94	FY95	Percentage change FY91 – FY95
Aviation maintenance and allied	4,559	4,389	4,145	3,976	3,813	– 16.4
Communications and radar	3,564	3,481	3,576	3,473	3,625	1.7
Electrical and electronic	33,881	33,630	30,924	28,824	27,478	– 18.9
Production management	4,736	4,611	4,137	3,823	3,776	– 20.3
Ship construction and maintenance	1,219	1,201	1,119	1,035	952	– 21.1
Total	47,959	47,312	43,901	41,131	39,644	– 17.3

## Gender

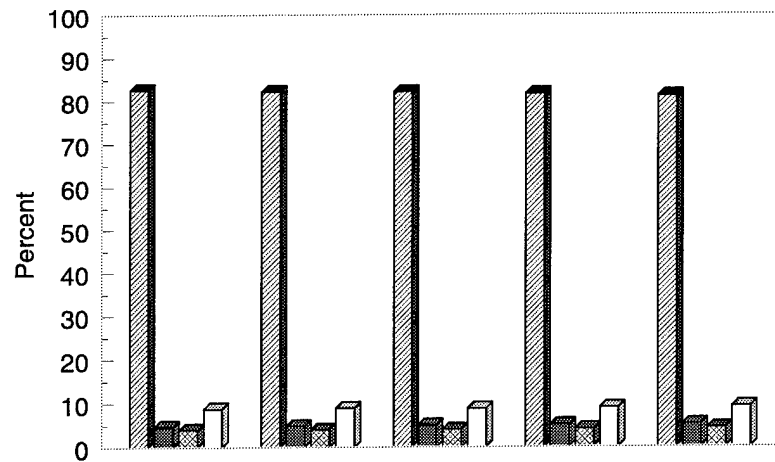
While the proportion of females in the blue-collar maintainer work force declined during the study period, the proportion of white-collar maintainers increased from 8.3 percent in FY91 to 9 percent in FY95, as shown in Figure 4-11. This percentage was still substantially lower than the total DoD white-collar population, which was almost 48 percent female in FY95.



**Figure 4-11.**  
*Percentage of Females in DoD White-Collar Maintainer Population, FY91 – FY95*

## Ethnicity

Figure 4-12 shows the population trends over the study period for the major ethnic categories. The proportion of minorities in the DoD white-collar maintainer population increased slightly from 17.4 percent in FY91 to 18.8 percent in FY95. In fact, the percentage of all ethnic minorities increased over the study period. However, like its blue-collar maintainer counterpart, the white-collar maintainer work force is not as ethnically diversified as the total white-collar population, which was more than 25 percent minority in FY95.



	FY91	FY92	FY93	FY94	FY95
White	82.6	82.2	82.2	81.7	81.2
African American	4.7	4.8	5.0	5.1	5.2
Hispanic American	4.0	4.0	4.0	4.1	4.3
Other	8.7	8.9	8.8	9.0	9.2

**Figure 4-12.**  
*Distribution of DoD White-Collar Maintainers by Ethnicity,  
FY91 – FY95*

## Summary

The size of the white-collar maintainer population decreased about 17 percent from FY91 to FY95. In particular, the number of workers with five or fewer YOS declined substantially, and the proportion of workers eligible for retirement increased marginally. As a result, by FY95, the average DoD white-collar maintainer was older, 42.8 years of age, and had more tenure, 16.5 years of government service, than the average white-collar maintainer in FY91. The white-collar maintainer's educational level increased to the highest it has ever been and continued to be higher than the total DoD white-collar population. The proportion of females increased throughout the study period but was still far behind the total DoD proportion of 48 percent in FY95. The proportion of ethnic minorities also increased, but it also lagged behind the ethnic diversity of the total white-collar population.

## APPENDIX A

# Work Force Data Tables

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# Work Force Data Tables

**Table A-1.**  
*Age — Active Duty Enlisted Maintainers*

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	17 – 24	53,157	42,840	44,891	44,691	41,282
	25 – 34	47,642	37,016	36,031	35,211	36,514
	35 – 44	12,779	11,040	10,691	10,387	9,646
	45 +	708	605	546	505	426
	Unknown	40	81	146	73	39
	Total	114,326	91,582	92,305	90,867	87,907
Navy	17 – 24	108,073	99,537	85,142	74,185	62,893
	25 – 34	99,612	95,557	89,109	81,592	74,824
	35 – 44	33,923	34,822	35,050	34,424	33,326
	45 +	2,129	2,305	2,270	2,039	1,957
	Unknown	46	9	1	1	5
	Total	243,783	232,230	211,572	192,241	173,005
Marine Corps	17 – 24	24,041	21,678	19,933	20,086	20,864
	25 – 34	16,738	15,372	13,385	12,237	11,628
	35 – 44	4,546	4,553	4,675	4,700	4,855
	45+	188	236	261	264	263
	Total	45,513	41,839	38,254	37,287	37,610
Air Force	17 – 24	45,304	40,271	38,680	37,546	35,428
	25 – 34	76,615	68,230	63,214	59,797	52,784
	35 – 44	30,982	29,909	29,722	29,449	27,404
	45+	1,238	1,257	1,290	1,212	1,156
	Total	154,139	139,667	132,906	128,004	116,772



**Table A-2.**  
***Years of Service — Active Duty Enlisted Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	1 – 5	60,128	48,151	50,506	47,772	46,081
	6 – 10	29,023	23,460	22,005	22,527	22,939
	11 – 15	14,637	10,252	10,506	10,708	11,481
	16 – 20	9,038	8,531	8,299	7,573	6,409
	21 – 25	1,323	1,063	913	1,023	934
	26+	150	88	49	41	36
	Unknown	27	37	27	1,223	27
	Total	114,326	91,582	92,305	90,867	87,907
Navy	1 – 5	115,382	104,327	86,101	73,553	63,221
	6 – 10	59,938	59,071	57,296	52,944	46,803
	11 – 15	38,480	37,099	35,521	33,345	32,057
	16 – 20	23,279	24,658	26,376	27,131	26,081
	21 – 25	5,573	6,026	5,317	4,522	4,168
	26+	1,131	1,049	961	746	675
	Total	243,783	232,230	211,572	192,241	173,005
Marine Corps	1 – 5	23,770	21,070	19,650	19,651	20,751
	6 – 10	10,141	9,524	7,896	7,156	6,537
	11 – 15	6,677	6,095	5,367	5,062	4,855
	16 – 20	3,850	4,105	4,204	4,297	4,391
	21 – 25	902	862	929	906	856
	26+	173	183	208	215	220
	Total	45,513	41,839	38,254	37,287	37,610
Air Force	1 – 5	46,851	40,756	39,950	38,493	36,808
	6 – 10	40,688	35,633	33,958	32,344	27,641
	11 – 15	36,725	33,049	27,680	26,500	24,299
	16 – 20	22,179	23,246	24,249	23,902	21,927
	21 – 25	6,506	5,954	6,046	5,830	5,301
	26+	1,190	1,029	1,023	935	796
	Total	154,139	139,667	132,906	128,004	116,772

**Table A-3.**  
***Retirement Eligibility — Active Duty Enlisted Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Eligible	1,473	1,151	962	1,064	970
	Ineligible	112,826	90,394	91,316	88,580	86,910
	Unknown	27	37	27	1,223	27
	Total	114,326	91,582	92,305	90,867	87,907
Navy	Eligible	6,704	7,075	6,278	5,268	4,843
	Ineligible	237,079	225,155	205,294	186,973	168,162
	Total	243,783	232,230	211,572	192,241	173,005
Marine Corps	Eligible	1,075	1,045	1,137	1,121	1,076
	Ineligible	44,438	40,794	37,117	36,166	36,534
	Total	45,513	41,839	38,254	37,287	37,610
Air Force	Eligible	7,696	6,983	7,069	6,765	6,097
	Ineligible	146,443	132,684	125,837	121,239	110,675
	Total	154,139	139,667	132,906	128,004	116,772

**Table A-4.**  
**AFQT Score— Active Duty Enlisted Maintainers**

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Category I	3,489	3,055	2,998	3,009	2,994
	Category II	31,974	26,921	27,951	28,556	28,245
	Category III A	25,797	21,652	22,711	22,961	22,531
	Category III B	36,680	28,660	28,477	27,405	25,547
	Category IV	15,438	10,626	9,638	8,546	7,214
	Unknown	948	668	530	390	1,376
	Total	114,326	91,582	92,305	90,867	87,907
Navy	Category I	18,412	17,760	16,553	15,298	14,481
	Category II	94,627	91,034	84,485	77,769	71,092
	Category III A	44,403	42,600	39,153	36,107	32,543
	Category III B	55,339	53,243	48,160	43,815	39,216
	Category IV	21,066	18,830	15,850	13,336	10,953
	Unknown	9,936	8,763	7,371	5,916	4,720
	Total	243,783	232,230	211,572	192,241	173,005
Marine Corps	Category I	2,279	2,046	1,810	1,775	1,827
	Category II	18,845	17,512	16,361	16,414	16,415
	Category III A	11,269	10,730	10,037	9,805	9,742
	Category III B	10,347	9,238	8,102	7,666	7,802
	Category IV	1,529	1,338	1,146	1,024	872
	Unknown	1,244	975	798	603	952
	Total	45,513	41,839	38,254	37,287	37,610
Air Force	Category I	9,902	8,960	8,384	7,931	7,383
	Category II	62,095	58,000	56,459	55,662	51,631
	Category III A	35,882	33,119	31,987	31,002	28,717
	Category III B	36,703	31,922	29,543	27,855	24,993
	Category IV	5,615	4,410	3,721	3,353	2,843
	Unknown	3,942	3,256	2,812	2,201	1,205
	Total	154,139	139,667	132,906	128,004	116,772

**Table A-5.**  
**Education — Active Duty Enlisted Maintainers**

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Some high school	1,796	661	474	444	339
	High school graduate	107,100	85,947	86,662	85,074	81,815
	Some college	3,904	3,629	3,803	3,842	3,969
	College graduate	1,488	1,289	1,310	1,429	1,524
	Unknown	38	56	56	78	260
	Total	114,326	91,582	92,305	90,867	87,907
Navy	Some high school	9,875	8,169	6,468	5,270	4,294
	High school graduate	225,558	215,744	197,126	179,370	161,443
	Some college	3,825	3,828	3,673	3,499	3,332
	College graduate	3,639	3,728	3,629	3,492	3,357
	Unknown	886	761	676	610	579
	Total	243,783	232,230	211,572	192,241	173,005
Marine Corps	Some high school	164	112	62	46	37
	High school graduate	44,153	40,589	37,125	36,161	36,482
	Some college	785	739	670	684	692
	College graduate	402	395	397	396	399
	Unknown	9	4	0	0	0
	Total	45,513	41,839	38,254	37,287	37,610
Air Force	Some high school	25	11	10	5	14
	High school graduate	137,659	121,949	113,209	22,185	18,771
	Some college	12,645	13,966	14,354	101,695	94,131
	College graduate	3,805	3,619	3,637	3,913	3,756
	Unknown	5	122	1,696	206	100
	Total	154,139	139,667	132,906	128,004	116,772

**Note:** The Air Force changed its methodology for reporting "some college" in FY94. Before FY94 some college equated to at least one year of college completed. This definition was consistent with the other Services. Effective with the FY94 report, airman with at least six hours of college credit were classified as some college.

**Table A-6.**  
***Skills — Active Duty Enlisted Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	ADP computers	924	661	536	508	465
	Aircraft and aircraft related	14,188	12,038	11,933	12,548	11,831
	Armament and munitions	8,323	7,126	7,233	6,973	6,163
	Automotive	42,230	33,217	32,930	31,776	28,601
	Biomedical	699	710	810	787	722
	Fabric, leather, and rubber	210	210	213	217	185
	Fire control electronic systems	279	241	299	327	305
	Forward area equipment	1,432	1,499	1,522	1,712	1,641
	Metalworking	1,605	1,341	1,334	1,315	1,212
	Missile guidance, control, and checkout	2,834	2,519	2,232	2,264	1,939
	Missile mechanical and electrical	2,848	1,890	1,140	942	796
	Other electronic	1,516	1,432	1,380	1,268	996
	Other mechanical and electrical	2,489	1,907	1,957	1,836	1,672
	Power generation	8,569	6,842	6,334	5,867	5,142
	Radio and radar	17,242	13,476	16,533	17,019	22,802
	Shipboard propulsion	416	395	397	390	370
	Teletype and cryptographic	2,699	2,170	2,070	1,815	491
	Wire communications	5,823	3,908	3,452	3,303	2,574
	Total	114,326	91,582	92,305	90,867	87,907
Navy	ADP computers	4,039	3,590	3,127	2,708	2,189
	Aircraft and aircraft related	46,587	44,635	41,909	39,114	35,712
	Armament and munitions	9,059	8,410	7,171	6,665	6,218
	Automotive	1,290	1,285	1,248	1,159	1,009
	Biomedical	536	527	531	498	460
	Fire control electronic systems	5,946	6,014	5,658	4,820	4,294
	Forward area equipment	1,918	1,770	1,776	1,724	1,473
	Maintenance records and scheduling	2,805	2,640	2,439	2,490	2,469
	Metalworking	8,123	8,405	8,073	7,035	7,197
	Missile guidance, control, and checkout	25,586	22,013	19,408	19,272	17,361
	Other craftsman	9,529	9,378	8,910	8,542	6,963
	Other electronic	6,259	6,234	5,644	4,318	4,242
	Other mechanical and electrical	6,295	6,360	6,196	6,237	5,919
	Power generation	26,917	25,810	23,764	21,726	19,812
	Precision equipment	2,065	2,028	1,935	1,731	1,524
	Radio and radar	24,087	25,339	23,860	21,684	18,856
	Shipboard propulsion	39,835	38,336	34,199	29,441	25,050
	Sonar	10,921	10,108	8,881	7,852	6,919
	Teletype and cryptographic	7,219	5,131	3,145	2,058	2,034
	Wire communications	4,767	4,217	3,698	3,167	3,304
	Total	243,783	232,230	211,572	192,241	173,005

**Table A-6.**  
**Skills — Active Duty Enlisted Maintainers (Continued)**

Service	Category	FY91	FY92	FY93	FY94	FY95
Marine Corps	ADP computers	494	450	436	513	533
	Aircraft and aircraft related	11,103	9,867	8,784	8,449	8,336
	Armament and munitions	5,563	5,277	4,937	4,839	4,897
	Automotive	8,481	7,646	7,007	7,035	7,468
	Fabric, leather, and rubber	112	84	76	94	102
	Forward area equipment	1,050	1,107	1,012	977	857
	Maintenance records and scheduling	2,094	1,996	1,861	1,889	1,844
	Metalworking	594	508	449	460	465
	Missile guidance, control, and checkout	2,440	2,290	1,911	1,678	1,585
	Other electronic	479	450	372	375	421
	Other mechanical and electrical	2,042	1,994	1,986	1,921	1,907
	Precision equipment	302	331	331	362	409
	Radio and radar	7,902	7,376	6,663	6,373	6,122
	Teletype and cryptographic	352	362	343	361	409
	Wire communications	2,505	2,101	2,086	1,961	2,255
	Total	45,513	41,839	38,254	37,287	37,610
Air Force	ADP computers	2,820	2,588	2,541	2,554	2,577
	Aircraft and aircraft related	64,843	58,281	55,079	54,795	50,464
	Armament and munitions	18,995	16,889	16,270	16,369	15,008
	Automotive	3,368	3,089	2,993	2,950	2,755
	Biomedical	559	545	534	500	512
	Fabric, leather, and rubber	1,615	1,488	1,393	1,303	1,292
	Fire control electronic systems	1,151	825	565	0	0
	Forward area equipment	2,309	2,163	1,987	1,922	1,948
	Maintenance records and scheduling	2,788	2,569	2,340	2,154	1,979
	Metalworking	2,624	2,440	2,278	2,247	1,972
	Missile guidance, control, and checkout	2,723	2,616	2,581	2,279	1,896
	Missile mechanical and electrical	1,970	1,969	1,960	1,733	1,519
	Nuclear weapons	1,199	1,154	1,149	1,049	867
	Other electronic	12,842	11,837	11,756	9,877	8,473
	Power generation	1,907	1,749	1,617	1,499	1,329
	Radio and radar	25,460	23,076	21,780	20,892	18,852
	Shipboard propulsion	26	23	23	21	18
	Teletype and cryptographic	3,310	2,848	2,536	2,370	2,039
	Wire communications	3,630	3,518	3,524	3,490	3,272
	Total	154,139	139,667	132,906	128,004	116,772

**Note:** The Air Force integrated its fire control electronic systems occupations into other electronic equipment repair subcategories in FY93.

**Table A-7.**  
***Gender — Active Duty Enlisted Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Female	6,503	5,433	6,183	6,914	7,225
	Male	107,806	86,132	86,104	83,919	80,633
	Unknown	17	17	18	34	49
	Total	114,326	91,582	92,305	90,867	87,907
Navy	Female	13,560	13,152	12,384	11,581	10,669
	Male	230,223	219,078	199,188	180,660	162,336
	Total	243,783	232,230	211,572	192,241	173,005
Marine Corps	Female	1,567	1,354	1,235	1,204	1,329
	Male	43,945	40,485	37,019	36,083	36,281
	Unknown	1	0	0	0	0
	Total	45,513	41,839	38,254	37,287	37,610
Air Force	Female	8,833	7,846	7,370	7,282	6,532
	Male	145,306	131,821	125,536	120,722	110,240
	Total	154,139	139,667	132,906	128,004	116,772

**Table A-8.**  
***Ethnicity — Active Duty Enlisted Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	White	73,741	58,510	58,737	57,942	54,727
	African American	30,296	24,272	24,145	23,218	23,131
	Hispanic American	4,432	3,790	4,321	4,518	4,547
	Other	5,837	4,990	5,077	5,178	5,450
	Unknown	20	20	25	11	52
	Total	114,326	91,582	92,305	90,867	87,907
Navy	White	185,669	174,636	157,739	142,859	127,596
	African American	31,477	30,696	28,226	25,744	23,733
	Hispanic American	14,139	14,527	13,940	12,863	11,803
	Other	12,464	12,340	11,636	10,744	9,843
	Unknown	34	31	31	31	30
	Total	243,783	232,230	211,572	192,241	173,005
Marine Corps	White	34,582	31,760	28,921	28,252	28,212
	African American	6,899	6,228	5,561	5,128	5,089
	Hispanic American	2,784	2,645	2,603	2,743	3,083
	Other	1,241	1,206	1,169	1,164	1,224
	Unknown	7	0	0	0	2
	Total	45,513	41,839	38,254	37,287	37,610
Air Force	White	125,112	113,735	108,786	104,966	95,503
	African American	18,981	16,912	15,696	14,902	13,640
	Hispanic American	5,416	4,863	4,583	4,471	4,228
	Other	4,629	4,157	3,841	3,665	3,401
	Unknown	1	0	0	0	0
	Total	154,139	139,667	132,906	128,004	116,772



**Table A-9.**  
**Age — Active Duty Warrant Officer Maintainers**

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	17 – 24	2	1	0	3	0
	25 – 34	1,152	929	797	774	556
	35 – 44	2,237	2,033	1,829	1,720	1,538
	45+	384	411	383	395	381
	Unknown	3	2	9	0	1
	Total	3,778	3,376	3,018	2,892	2,476
Navy	25 – 34	159	135	122	108	85
	35 – 44	1,162	1,140	1,047	969	936
	45+	264	286	275	251	204
	Total	1,585	1,561	1,444	1,328	1,225
Marine Corps	25 – 34	304	286	267	237	208
	35 – 44	273	312	340	337	385
	45+	21	28	40	43	43
	Total	598	626	647	617	636

**Table A-10.***Years of Service — Active Duty Warrant Officer Maintainers*

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	1 – 5	14	6	128	16	4
	6 – 10	161	123	78	122	67
	11 – 15	930	703	543	624	535
	16 – 20	1,668	1,573	1,413	1,303	1,029
	21 – 25	774	737	620	590	587
	26+	231	232	235	235	252
	Unknown	0	2	1	2	2
	Total	3,778	3,376	3,018	2,892	2,476
Navy	1 – 5	11	2	2	1	0
	6 – 10	1	2	1	0	0
	11 – 15	65	52	31	29	20
	16 – 20	732	700	612	567	526
	21 – 25	501	540	549	511	491
	26+	275	264	249	220	188
	Unknown	0	1	0	0	0
	Total	1,585	1,561	1,444	1,328	1,225
Marine Corps	1 – 5	0	0	1	0	0
	6 – 10	9	9	2	4	3
	11 – 15	258	233	197	164	141
	16 – 20	248	291	330	340	367
	21 – 25	66	75	94	84	95
	26+	17	18	23	25	30
	Total	598	626	647	617	636

**Table A-11.*****Retirement Eligibility — Active Duty Warrant Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Eligible	1,005	969	855	825	839
	Ineligible	2,773	2,405	2,162	2,065	1,635
	Unknown	0	2	1	2	2
	Total	3,778	3,376	3,018	2,892	2,476
Navy	Eligible	776	804	798	731	679
	Ineligible	809	756	646	597	546
	Unknown	0	1	0	0	0
	Total	1,585	1,561	1,444	1,328	1,225
Marine Corps	Eligible	83	93	117	109	125
	Ineligible	515	533	530	508	511
	Total	598	626	647	617	636

**Table A-12.*****Education — Active Duty Warrant Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Some high school	0	3	2	0	0
	High school graduate	801	785	754	530	487
	Some college	1,645	1,600	1,361	1,355	1,181
	College graduate	441	414	385	404	398
	Unknown	891	574	516	603	410
	Total	3,778	3,376	3,018	2,892	2,476
Navy	High school graduate	291	256	226	181	400
	Some college	113	107	94	76	88
	College graduate	99	107	96	95	120
	Unknown	1,082	1,091	1,028	976	617
	Total	1,585	1,561	1,444	1,328	1,225
Marine Corps	High school graduate	475	489	506	492	505
	Some college	69	73	73	66	66
	College graduate	54	64	68	59	65
	Total	598	626	647	617	636

**Table A-13.**  
***Skills — Active Duty Warrant Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Automotive and allied	1,493	1,320	1,230	1,192	1,087
	Aviation maintenance and allied	309	275	235	226	179
	Communications and radar	841	772	770	757	463
	Construction and utilities	53	44	41	36	38
	Electrical and electronic	39	36	33	35	222
	Missile maintenance	575	560	403	376	304
	Ordnance	387	281	213	170	135
	Ship machinery	81	88	93	100	48
	Total	3,778	3,376	3,018	2,892	2,476
Navy	Aviation maintenance and allied	335	351	324	307	309
	Communications and radar	92	95	99	92	87
	Electrical and electronic	198	192	162	149	134
	Missile maintenance	280	287	260	237	212
	Ordnance	40	37	37	33	28
	Ship construction and maintenance	176	167	165	146	121
	Ship machinery	464	432	397	364	334
	Total	1,585	1,561	1,444	1,328	1,225
Marine Corps	Automotive and allied	127	139	179	195	192
	Aviation maintenance and allied	126	126	117	100	102
	Communications and radar	129	135	126	106	115
	Electrical and electronic	96	99	100	100	104
	Missile maintenance	15	12	7	9	10
	Ordnance	105	115	118	107	113
	Total	598	626	647	617	636

**Table A-14.**  
**Gender — Active Duty Warrant Officer Maintainers**

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Female	87	80	78	81	78
	Male	3,691	3,296	2,936	2,811	2,397
	Unknown	0	0	4	0	1
	Total	3,778	3,376	3,018	2,892	2,476
Navy	Female	15	17	19	22	28
	Male	1,570	1,544	1,425	1,306	1,197
	Total	1,585	1,561	1,444	1,328	1,225
Marine Corps	Female	13	15	16	15	18
	Male	585	611	631	602	618
	Total	598	626	647	617	636

**Table A-15.**  
**Ethnicity — Active Duty Warrant Officer Maintainers**

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	White	2,858	2,480	2,129	1,967	1,629
	African American	635	614	603	637	578
	Hispanic American	105	112	111	115	106
	Other	179	170	159	170	160
	Unknown	1	0	16	3	3
	Total	3,778	3,376	3,018	2,892	2,476
Navy	White	1,321	1,298	1,190	1,065	977
	African American	136	138	139	149	146
	Hispanic American	25	24	21	21	18
	Other	102	100	93	75	69
	Unknown	1	1	1	18	15
	Total	1,585	1,561	1,444	1,328	1,225
Marine Corps	White	529	551	562	533	540
	African American	43	47	54	54	59
	Hispanic American	18	19	22	22	27
	Other	8	9	9	8	10
	Total	598	626	647	617	636

**Table A-16.*****Age — Active Duty Commissioned Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	17 – 24	543	547	717	690	601
	25 – 34	3,008	2,863	2,700	2,580	2,563
	35 – 44	1,781	1,786	1,591	1,481	1,428
	45+	368	405	363	355	364
	Unknown	2	1	1	2	7
	Total	5,702	5,602	5,372	5,108	4,963
Navy	17 – 24	18	19	13	31	37
	25 – 34	877	793	743	736	652
	35 – 44	1,915	1,861	1,842	1,817	1,783
	45+	528	565	546	513	472
	Unknown	0	0	0	1	0
	Total	3,338	3,238	3,144	3,098	2,944
Marine Corps	17 – 24	67	57	50	33	46
	25 – 34	515	470	435	404	382
	35 – 44	572	511	474	485	429
	45+	72	77	81	81	93
	Total	1,226	1,115	1,040	1,003	950
Air Force	17 – 24	529	548	552	543	735
	25 – 34	4,046	3,611	3,138	3,159	3,129
	35 – 44	4,032	3,945	3,454	3,122	2,778
	45+	783	755	725	620	654
	Unknown	3	0	82	159	111
	Total	9,663	8,859	7,951	7,603	7,407

**Table A-17.*****Years of Service — Active Duty Commissioned Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	1 – 5	1,665	1,568	1,795	1,672	1,495
	6 – 10	1,520	1,507	1,319	1,304	1,311
	11 – 15	975	930	858	811	855
	16 – 20	870	944	844	781	753
	21 – 25	508	483	434	402	394
	26+	164	170	122	138	155
	Total	5,702	5,602	5,372	5,108	4,963
Navy	1 – 5	94	88	64	70	68
	6 – 10	120	123	129	122	107
	11 – 15	641	549	501	533	497
	16 – 20	1,076	1,097	1,150	1,163	1,130
	21 – 25	910	883	801	722	724
	26+	497	495	498	487	417
	Unknown	0	3	1	1	1
	Total	3,338	3,238	3,144	3,098	2,944
Marine Corps	1 – 5	252	226	205	169	161
	6 – 10	201	190	188	179	177
	11 – 15	182	161	137	141	141
	16 – 20	325	282	258	260	235
	21 – 25	208	194	190	185	165
	26+	58	62	62	69	71
	Total	1,226	1,115	1,040	1,003	950
Air Force	1 – 5	1,641	1,576	1,603	1,631	1,921
	6 – 10	2,022	1,802	1,470	1,486	1,346
	11 – 15	2,243	1,991	1,696	1,557	1,424
	16 – 20	2,074	2,018	1,934	1,858	1,619
	21 – 25	1,328	1,119	913	800	812
	26+	354	353	331	270	283
	Unknown	1	0	4	1	2
	Total	9,663	8,859	7,951	7,603	7,407

**Table A-18.*****Retirement Eligibility — Active Duty Commissioned Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Eligible	672	653	556	540	549
	Ineligible	5,030	4,949	4,816	4,568	4,414
	Total	5,702	5,602	5,372	5,108	4,963
Navy	Eligible	1,407	1,378	1,299	1,209	1,141
	Ineligible	1,931	1,857	1,844	1,888	1,802
	Unknown	0	3	1	1	1
	Total	3,338	3,238	3,144	3,098	2,944
Marine Corps	Eligible	266	256	252	254	236
	Ineligible	960	859	788	749	714
	Total	1,226	1,115	1,040	1,003	950
Air Force	Eligible	1,682	1,472	1,244	1,070	1,095
	Ineligible	7,980	7,387	6,703	6,532	6,310
	Unknown	1	0	4	1	2
	Total	9,663	8,859	7,951	7,603	7,407



**Table A-19.*****Education — Active Duty Commissioned Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Some high school	1	9	4	0	0
	High school graduate	19	24	32	20	20
	Some college	35	30	20	33	40
	College graduate	4,045	3,829	3,826	3,655	3,484
	Graduate degree	1,355	1,446	1,309	1,266	1,249
	Unknown	247	264	181	134	170
	Total	5,702	5,602	5,372	5,108	4,963
Navy	High school graduate	671	599	523	445	709
	Some college	324	301	269	235	223
	College graduate	736	700	682	660	604
	Graduate degree	173	192	192	206	266
	Unknown	1,434	1,446	1,478	1,552	1,142
	Total	3,338	3,238	3,144	3,098	2,944
Marine Corps	High school graduate	274	232	197	196	162
	Some college	42	37	34	31	30
	College graduate	755	701	676	630	607
	Graduate degree	153	143	132	146	149
	Unknown	2	2	1	0	2
	Total	1,226	1,115	1,040	1,003	950
Air Force	High school graduate	1	4	10	0	0
	Some college	1	0	1	16	24
	College graduate	4,441	3,972	3,408	3,281	3,361
	Graduate degree	5,211	4,877	4,526	4,293	4,017
	Unknown	9	6	6	13	5
	Total	9,663	8,859	7,951	7,603	7,407

**Table A-20.**  
***Skills — Active Duty Commissioned Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Aviation maintenance and allied	447	293	235	179	154
	Communications and radar	4,434	4,441	4,073	3,882	3,845
	Missile maintenance	99	57	40	31	16
	Ordnance	722	811	1,024	1,016	948
	Total	5,702	5,602	5,372	5,138	4,963
Navy	Aviation maintenance and allied	1,135	1,107	1,065	1,049	1,011
	Communications and radar	260	256	246	218	213
	Electrical and electronic	419	407	403	412	384
	Missile maintenance	333	325	320	328	333
	Ordnance	167	158	142	137	127
	Ship machinery	1,024	985	968	954	876
	Total	3,338	3,238	3,144	3,098	2,944
Marine Corps	Automotive and allied	69	41	32	20	17
	Aviation maintenance and allied	275	255	239	241	231
	Communications and radar	743	688	654	622	601
	Electrical and electronic	47	41	38	42	35
	Ordnance	92	90	77	78	66
	Total	1,226	1,115	1,040	1,003	950
Air Force	Aviation maintenance and allied	3,398	3,150	2,743	2,617	2,576
	Communications and radar	5,922	5,407	4,943	4,731	4,583
	Missile maintenance	343	302	265	255	248
	Total	9,663	8,859	7,951	7,603	7,407

**Table A-21.**  
***Gender — Active Duty Commissioned Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Female	975	896	856	845	837
	Male	4,727	4,706	4,516	4,263	4,126
	Total	5,702	5,602	5,372	5,108	4,963
Navy	Female	121	131	144	150	153
	Male	3,217	3,107	3,000	2,948	2,791
	Total	3,338	3,238	3,144	3,098	2,944
Marine Corps	Female	66	59	56	56	54
	Male	1,160	1,056	984	947	896
	Total	1,226	1,115	1,040	1,003	950
Air Force	Female	1,321	1,200	1,112	1,089	1,036
	Male	8,342	7,659	6,839	6,514	6,371
	Total	9,663	8,859	7,951	7,603	7,407

**Table A-22.*****Ethnicity — Active Duty Commissioned Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	White	4,328	4,227	4,009	3,889	3,736
	African American	1,027	997	877	816	818
	Hispanic American	144	154	159	173	177
	Other	203	224	237	230	226
	Unknown	0	0	0	0	6
	Total	5,702	5,602	5,372	5,108	4,963
Navy	White	3,043	2,929	2,817	2,728	2,557
	African American	158	174	188	220	242
	Hispanic American	51	51	51	51	50
	Other	85	84	88	85	82
	Unknown	1	0	0	14	13
	Total	3,338	3,238	3,144	3,098	2,944
Marine Corps	White	1,099	1,001	938	904	841
	African American	75	66	56	55	60
	Hispanic American	26	25	23	25	27
	Other	25	23	22	19	22
	Unknown	1	0	1	0	0
	Total	1,226	1,115	1,040	1,003	950
Air Force	White	8,218	7,514	6,736	6,416	6,235
	African American	833	783	699	660	629
	Hispanic American	260	235	206	194	191
	Other	352	327	308	323	342
	Unknown	0	0	2	10	10
	Total	9,663	8,859	7,951	7,603	7,407

**Table A-23.***Age — Selected Reserve Enlisted Maintainers*

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	17 – 24	15,279	18,260	15,931	13,828	13,969
	25 – 34	18,204	24,121	22,815	21,926	23,335
	35 – 44	12,901	15,904	14,280	13,617	14,686
	45+	7,081	9,771	9,697	9,655	10,138
	Unknown	2	2	5	2	10
	Total	53,467	68,058	62,728	59,028	62,138
Army Reserve	17 – 24	12,784	11,521	11,030	11,661	9,060
	25 – 34	12,182	12,354	11,845	11,862	10,882
	35 – 44	5,877	5,572	5,427	5,454	5,361
	45+	2,229	2,354	2,546	2,521	2,303
	Unknown	51	31	26	38	41
	Total	33,123	31,832	30,874	31,536	27,647
Navy Reserve	17 – 24	12,609	11,848	8,869	5,703	4,535
	25 – 34	17,659	17,301	16,725	13,534	12,980
	35 – 44	9,886	9,378	9,318	8,357	8,024
	45+	3,278	3,283	3,220	2,892	2,665
	Unknown	82	87	114	77	24
	Total	43,514	41,897	38,246	30,563	28,218
Marine Corps Reserve	17 – 24	4,635	4,470	4,230	3,993	3,645
	25 – 34	2,491	2,344	2,366	2,297	2,260
	35 – 44	579	531	485	457	462
	45 +	187	181	176	155	138
	Unknown	0	0	1	2	2
	Total	7,892	7,526	7,258	6,904	6,507
Air National Guard	17 – 24	7,824	7,255	6,658	6,008	5,228
	25 – 34	17,748	18,643	18,901	18,474	17,730
	35 – 44	13,236	12,523	12,195	12,144	12,170
	45+	8,432	9,193	9,670	9,800	9,461
	Total	47,240	47,614	47,424	46,426	44,589
Air Force Reserve	17 – 24	3,810	3,293	2,784	2,255	1,792
	25 – 34	10,561	10,581	10,692	10,391	1,006
	35 – 44	7,201	6,978	6,847	6,950	7,145
	45+	3,870	4,163	4,442	4,593	4,590
	Total	25,442	25,015	24,765	24,189	23,533

**Table A-24.**  
***Years of Service — Selected Reserve Enlisted Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	1 – 5	15,099	17,256	14,748	11,952	12,204
	6 – 10	13,059	17,505	16,362	15,872	16,300
	11 – 15	9,789	12,614	11,882	11,427	11,727
	16 – 20	7,226	9,570	9,237	9,549	11,038
	21 – 25	5,858	7,720	6,894	6,327	6,510
	26+	2,436	3,393	3,605	3,901	4,359
	Total	53,467	68,058	62,728	59,028	62,138
Army Reserve	1 – 5	12,172	10,940	10,331	10,190	8,364
	6 – 10	9,786	9,770	9,148	8,436	7,977
	11 – 15	4,847	4,783	4,821	4,744	4,223
	16 – 20	3,174	3,224	3,419	3,532	3,560
	21 – 25	2,619	2,552	2,342	2,169	2,069
	26+	496	563	738	867	834
	Unknown	29	0	75	1,598	620
	Total	33,123	31,832	30,874	31,536	27,647
Navy Reserve	1 – 5	11,779	10,151	8,056	5,537	4,494
	6 – 10	14,034	14,426	12,567	9,082	8,553
	11 – 15	7,965	7,635	7,916	7,204	6,787
	16 – 20	5,430	5,630	5,793	5,423	5,396
	21 – 25	3,667	3,389	3,206	2,684	2,463
	26+	635	666	706	631	524
	Unknown	4	0	2	2	1
	Total	43,514	41,897	38,246	30,563	28,218

**Table A-24.*****Years of Service — Selected Reserve Enlisted Maintainers (Continued)***

Service	Category	FY91	FY92	FY93	FY94	FY95
Marine Corps Reserve	1 – 5	4,166	3,942	3,631	3,518	3,493
	6 – 10	2,278	2,200	2,233	2,051	1,727
	11 – 15	791	731	739	735	673
	16 – 20	371	391	444	424	420
	21 – 25	234	200	154	123	144
	26+	52	62	57	52	50
	Unknown	0	0	0	1	0
	Total	7,892	7,526	7,258	6,904	6,507
Air National Guard	1 – 5	7,903	7,146	6,681	5,982	5,303
	6 – 10	12,110	12,319	11,745	10,805	9,876
	11 – 15	9,481	9,916	10,463	10,955	10,483
	16 – 20	7,190	7,216	7,443	7,820	8,397
	21 – 25	6,270	6,353	6,037	5,565	5,316
	26+	4,286	4,664	5,055	5,299	5,214
	Total	47,240	47,614	47,424	46,426	44,589
Air Force Reserve	1 – 5	4,213	3,438	2,834	2,289	1,913
	6 – 10	6,699	6,539	6,149	5,747	5,263
	11 – 15	6,018	6,084	6,446	6,520	6,131
	16 – 20	3,919	4,160	4,416	4,614	5,067
	21 – 25	2,853	2,925	2,936	2,866	2,919
	26+	1,740	1,869	1,984	2,153	2,240
	Total	25,442	25,015	24,765	24,189	23,533

**Table A-25.*****Retirement Eligibility — Selected Reserve Enlisted Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	Eligible	3,730	4,863	5,960	6,077	6,531
	Ineligible	48,439	61,583	54,062	52,322	54,813
	Unknown	1,298	1,612	2,706	629	794
	Total	53,467	68,058	62,728	59,028	62,138
Army Reserve	Eligible	872	847	989	1,053	1,020
	Ineligible	31,746	30,530	29,376	28,948	25,701
	Unknown	505	455	509	1,535	926
	Total	33,123	31,832	30,874	31,536	27,647
Navy Reserve	Eligible	1,462	1,265	1,034	876	985
	Ineligible	27,708	25,779	22,661	18,236	17,673
	Unknown	14,344	14,853	14,551	11,451	9,560
	Total	43,514	41,897	38,246	30,563	28,218
Marine Corps Reserve	Eligible	79	97	86	69	81
	Ineligible	7,812	7,429	7,172	6,835	6,426
	Unknown	1	0	0	0	0
	Total	7,892	7,526	7,258	6,904	6,507
Air National Guard	Eligible	7,534	8,046	8,440	8,521	8,210
	Ineligible	39,688	39,548	38,962	37,883	36,357
	Unknown	18	20	22	22	22
	Total	47,240	47,614	47,424	46,426	44,589
Air Force Reserve	Eligible	2,964	3,172	3,389	3,564	3,693
	Ineligible	22,470	21,836	21,369	20,620	19,827
	Unknown	8	7	7	5	13
	Total	25,442	25,015	24,765	24,189	23,533



**Table A-26.**  
**AFQT Score — Selected Reserve Enlisted Maintainers**

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	Category I	1,994	2,123	1,871	1,728	1,745
	Category II	14,015	16,104	14,552	13,511	13,804
	Category III A	9,667	11,859	11,051	10,456	10,999
	Category III B	14,807	19,000	16,873	15,598	16,110
	Category IV	4,061	5,788	5,083	4,500	4,380
	Category V	27	44	37	28	29
	Unknown	8,896	13,140	13,261	13,207	15,071
	Total	53,467	68,058	62,728	59,028	62,138
Army Reserve	Category I	2,764	2,455	2,342	2,448	2,141
	Category II	8,652	8,332	8,201	8,498	7,062
	Category III A	6,677	6,536	6,336	6,889	5,947
	Category III B	8,918	8,791	8,340	8,221	7,019
	Category IV	4,148	3,694	3,205	2,934	2,683
	Category V	2	4	5	8	9
	Unknown	1,962	2,020	2,445	2,538	2,786
	Total	33,123	31,832	30,874	31,536	27,647
Navy Reserve	Category I	1,449	1,331	1,205	1,036	725
	Category II	10,272	9,612	8,294	7,256	5,590
	Category III A	10,128	8,383	6,587	6,026	5,937
	Category III B	8,133	6,990	5,286	4,852	4,179
	Category IV	2,335	1,963	1,316	1,167	1,011
	Category V	51	38	23	13	15
	Unknown	11,146	13,580	15,535	10,213	10,761
	Total	43,514	41,897	38,246	30,563	28,218

**Table A-26.*****AFQT Score — Selected Reserve Enlisted Maintainers (Continued)***

Service	Category	FY91	FY92	FY93	FY94	FY95
Marine Corps Reserve	Category I	367	394	411	432	451
	Category II	2,720	2,740	2,822	2,823	2,754
	Category III A	1,445	1,489	1,476	1,408	1,338
	Category III B	1,195	1,120	1,077	1,008	971
	Category IV	54	35	29	21	19
	Category V	2	0	0	0	0
	Unknown	2,109	1,748	1,443	1,212	974
	Total	7,892	7,526	7,258	6,904	6,507
Air National Guard	Category I	4,857	5,043	4,875	4,781	4,427
	Category II	19,416	21,038	21,224	21,196	20,672
	Category III A	9,912	10,746	10,792	10,468	10,058
	Category III B	9,269	9,823	9,616	9,136	8,675
	Category IV	699	709	687	628	583
	Category V	216	197	179	172	148
	Unknown	2,871	58	51	45	26
	Total	47,240	47,614	47,424	46,426	44,589
Air Force Reserve	Category I	1,712	1,623	1,573	1,533	1,662
	Category II	10,137	9,856	9,750	9,534	9,415
	Category III A	5,359	5,353	5,296	5,180	5,091
	Category III B	6,566	6,409	6,367	6,164	6,020
	Category IV	845	825	853	852	823
	Category V	199	200	187	181	169
	Unknown	624	749	739	745	353
	Total	25,442	25,015	24,765	24,189	23,533

**Table A-27.**  
**Education — Selected Reserve Enlisted Maintainers**

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	Some high school	4,303	4,974	3,688	3,024	2,729
	High school graduate	41,027	59,891	55,982	52,983	56,015
	Some college	1,346	1,483	1,382	1,365	1,576
	College graduate	6,791	1,710	1,676	1,656	1,818
	Total	53,467	68,058	62,728	59,028	62,138
Army Reserve	Some high school	2,672	2,029	2,265	2,019	1,342
	High school graduate	27,502	27,078	25,927	26,869	23,590
	Some college	902	889	871	833	782
	College graduate	1,592	1,445	1,360	1,389	1,457
	Unknown	455	391	451	426	476
	Total	33,123	31,832	30,874	31,536	27,647
Navy Reserve	Some high school	990	820	651	497	410
	High school graduate	31,297	30,303	27,057	21,430	19,506
	Some college	2,052	1,950	1,977	1,735	1,682
	College graduate	8,371	7,974	7,760	6,439	6,249
	Unknown	804	850	801	462	371
	Total	43,514	41,897	38,246	30,563	28,218
Marine Corps Reserve	Some high school	51	44	36	24	20
	High school graduate	7,265	6,967	6,691	6,350	5,971
	Some college	224	211	205	218	207
	College graduate	340	299	308	299	303
	Unknown	12	5	18	13	6
	Total	7,892	7,526	7,258	6,904	6,507
Air National Guard	Some high school	227	126	97	81	78
	High school graduate	42,195	42,261	41,915	40,906	39,180
	Some college	1,939	1,966	2,000	2,066	2,018
	College graduate	2,879	3,261	3,411	3,372	3,303
	Unknown	0	0	1	1	10
	Total	47,240	47,614	47,424	46,426	44,589
Air Force Reserve	Some high school	121	48	36	24	17
	High school graduate	21,727	21,161	20,901	20,276	19,565
	Some college	1,422	1,422	1,426	1,488	1,505
	College graduate	2,172	2,384	2,399	2,397	2,447
	Unknown	0	0	3	4	4
	Total	25,442	25,015	24,765	24,189	23,533

**Table A-28.**  
***Skills — Selected Reserve Enlisted Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	ADP computers	216	193	165	97	50
	Aircraft and aircraft related	9,455	9,038	8,622	8,274	7,298
	Armament and munitions	3,922	3,781	3,595	3,440	3,232
	Automotive	18,627	34,643	33,030	31,687	30,470
	Biomedical	117	125	127	125	182
	Fabric, leather, and rubber	341	292	266	237	229
	Fire control electronic systems	102	86	105	110	120
	Forward area equipment	154	186	218	205	177
	Metalworking	1,892	1,710	1,533	1,391	1,231
	Missile guidance, control, and checkout	606	666	644	616	607
	Missile mechanical and electrical	217	225	218	236	212
	Other electronic	253	238	230	214	137
	Other mechanical and electrical	3,007	2,756	2,650	2,474	2,565
	Power generation	4,945	4,860	4,671	4,591	4,296
	Radio and radar	6,501	6,399	3,984	2,629	8,509
	Shipboard propulsion	106	109	86	78	48
	Teletype and cryptographic	463	460	427	429	229
	Wire communications	2,543	2,291	2,157	2,195	1,916
	Total	53,467	68,058	62,728	59,028	62,138
Army Reserve	ADP computers	109	93	91	74	3
	Aircraft and aircraft related	2,426	2,404	2,212	2,229	1,785
	Armament and munitions	2,521	2,327	2,264	2,381	2,089
	Automotive	14,625	14,013	12,735	12,763	11,640
	Biomedical	342	323	297	312	343
	Fabric, leather, and rubber	380	375	382	437	368
	Fire control electronic systems	67	24	33	41	254
	Forward area equipment	443	440	369	331	263
	Metalworking	916	818	665	632	538
	Missile guidance, control, and checkout	137	115	97	93	68
	Missile mechanical and electrical	87	89	54	43	22
	Other electronic	180	150	132	114	69
	Other mechanical and electrical	2,742	2,603	2,436	2,568	2,289
	Power generation	3,157	3,076	2,809	2,818	2,569
	Radio and radar	2,761	2,731	4,327	4,533	416
	Shipboard propulsion	269	274	249	223	206
	Teletype and cryptographic	441	496	449	415	3,498
	Wire communications	1,520	1,481	1,273	1,529	1,227
	Total	33,123	31,832	30,874	31,536	27,647

**Table A-28.**  
**Skills — Selected Reserve Enlisted Maintainers (Continued)**

Service	Category	FY91	FY92	FY93	FY94	FY95
Navy Reserve	ADP computers	373	372	357	298	297
	Aircraft and aircraft related	11,510	11,470	10,312	8,292	7,498
	Armament and munitions	1,911	1,933	1,795	1,284	1,134
	Automotive	2,139	1,998	1,846	1,671	1,599
	Biomedical	122	122	115	81	64
	Fabric, leather, and rubber	6	6	13	12	12
	Fire control electronic systems	114	141	131	82	77
	Forward area equipment	376	385	369	286	258
	Maintenance records and scheduling	1,186	1,074	960	772	720
	Metalworking	2,142	2,132	2,098	1,808	1,695
	Missile guidance, control, and checkout	3,084	2,747	2,496	1,830	1,690
	Other craftsman	2,851	2,705	2,425	2,092	1,906
	Other electronic	264	303	358	193	214
	Other mechanical and electrical	2,220	2,035	1,803	1,550	1,471
	Power generation	2,156	2,063	1,932	1,531	1,446
	Precision Equipment	339	335	308	236	209
	Radio and radar	4,825	4,933	4,662	3,655	3,380
	Shipboard propulsion	5,487	5,031	4,397	3,552	3,300
	Sonar	984	929	841	715	666
	Teletype and cryptographic	485	353	252	35	66
	Wire communications	940	830	776	588	516
	Total	43,514	41,897	38,246	30,563	28,218
Marine Corps Reserve	ADP computers	63	50	52	43	30
	Aircraft and aircraft related	1,122	1,026	996	940	897
	Armament and munitions	1,177	1,098	1,050	1,040	956
	Automotive	2,306	2,213	2,056	1,928	1,887
	Fabric, leather, and rubber	21	28	23	23	25
	Forward area equipment	162	156	170	169	183
	Maintenance records and scheduling	99	119	144	114	79
	Metalworking	138	129	96	98	72
	Missile guidance, control, and checkout	339	328	364	391	334
	Other electronic	26	27	30	30	32
	Other mechanical and electrical	449	437	444	416	417
	Precision equipment	68	61	62	51	53
	Radio and radar	1,000	979	937	875	810
	Teletype and cryptographic	57	65	59	49	40
	Wire communications	865	810	775	737	692
	Total	7,892	7,526	7,258	6,904	6,507

**Table A-28.**  
**Skills — Selected Reserve Enlisted Maintainers (Continued)**

Service	Category	FY91	FY92	FY93	FY94	FY95
Air National Guard	ADP computers	417	447	485	530	587
	Aircraft and aircraft related	17,835	18,456	18,554	18,868	18,342
	Armament and munitions	5,173	5,250	5,266	5,169	4,838
	Automotive	1,057	1,024	1,033	999	1,000
	Biomedical	77	81	89	84	85
	Fabric, leather, and rubber	790	823	838	809	789
	Fire control electronic systems	458	371	251	0	0
	Forward area equipment	753	759	767	761	767
	Maintenance records and scheduling	842	858	842	1,010	762
	Metalworking	1,699	1,670	1,642	1,689	1,595
	Missile guidance, control, and checkout	62	56	45	45	59
	Missile mechanical and electrical	42	39	28	38	44
	Nuclear weapons	29	33	30	28	31
	Other electronic	2,708	2,918	3,201	2,295	2,205
	Other mechanical and electrical	3,447	3,429	3,398	3,326	3,260
	Power generation	1,032	964	941	939	856
	Radio and radar	8,060	7,741	7,411	7,339	6,977
	Teletype and cryptographic	660	628	595	575	553
	Wire communications	2,099	2,067	2,008	1,922	1,839
	Total	47,240	47,614	47,424	46,426	44,589
Air Force Reserve	ADP computers	70	73	67	86	96
	Aircraft and aircraft related	14,516	14,299	14,179	14,082	13,784
	Armament and munitions	1,846	1,807	1,819	1,722	1,647
	Automotive	403	387	376	393	389
	Biomedical	83	74	72	68	69
	Fabric, leather, and rubber	374	373	364	372	359
	Fire control electronic systems	142	107	74	1	0
	Forward area equipment	287	291	291	316	335
	Maintenance records and scheduling	400	386	378	390	364
	Metalworking	527	532	510	569	555
	Missile guidance, control, and checkout	59	55	57	45	55
	Missile mechanical and electrical	45	42	40	47	49
	Nuclear weapons	25	22	18	14	21
	Other electronic	860	916	912	583	512
	Other mechanical and electrical	2,189	2,140	2,104	2,054	1,978
	Power generation	337	316	311	316	309
	Radio and radar	2,923	2,861	2,864	2,823	2,713
	Teletype and cryptographic	205	188	187	181	185
	Wire communications	151	146	142	127	113
	Total	25,442	25,015	24,765	24,189	23,533

**Table A-29.**  
***Gender — Selected Reserve Enlisted Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	Female	1,357	1,773	1,732	1,775	2,094
	Male	52,110	66,284	60,995	57,253	60,044
	Unknown	0	1	1	0	0
	Total	53,467	68,058	62,728	59,028	62,138
Army Reserve	Female	2,024	2,132	2,352	2,730	2,458
	Male	31,099	29,700	28,522	28,806	25,189
	Total	33,123	31,832	30,874	31,536	27,647
Navy Reserve	Female	2,384	2,353	2,322	2,003	1,998
	Male	41,130	39,543	35,921	28,559	26,220
	Unknown	0	1	3	1	0
	Total	43,514	41,897	38,246	30,563	28,218
Marine Corps Reserve	Female	148	147	155	141	105
	Male	7,744	7,378	7,103	6,763	6,402
	Unknown	0	1	0	0	0
	Total	7,892	7,526	7,258	6,904	6,507
Air National Guard	Female	1,940	1,989	1,999	2,066	1,958
	Male	45,300	45,625	45,425	44,360	42,630
	Unknown	0	0	0	0	1
	Total	47,240	47,614	47,424	46,426	44,589
Air Force Reserve	Female	1,841	1,734	1,665	1,646	1,570
	Male	23,601	23,281	23,100	22,543	21,963
	Total	25,442	25,015	24,765	24,189	23,533

**Table A-30.**  
***Ethnicity — Selected Reserve Enlisted Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	White	41,235	52,221	47,985	44,972	46,563
	African American	7,715	9,824	9,026	8,603	9,524
	Hispanic American	3,190	4,256	4,007	3,784	4,246
	Other	1,327	1,757	1,710	1,669	1,805
	Total	53,467	68,058	62,728	59,028	62,138
Army Reserve	White	21,054	19,934	18,976	18,081	16,353
	African American	7,504	7,543	7,534	7,113	6,464
	Hispanic American	3,154	3,031	3,048	2,928	2,834
	Other	1,233	1,180	1,172	1,219	1,936
	Unknown	178	144	144	2,195	60
	Total	33,123	31,832	30,874	31,536	27,647
Navy Reserve	White	35,257	33,736	30,668	24,131	21,845
	African American	4,183	4,111	3,767	3,118	3,074
	Hispanic American	1,993	2,081	1,936	1,625	1,659
	Other	1,531	1,482	1,306	1,112	1,066
	Unknown	550	487	569	577	574
	Total	43,514	41,897	38,246	30,563	28,218
Marine Corps Reserve	White	5,828	5,551	5,271	4,965	4,688
	African American	1,106	988	932	835	733
	Hispanic American	595	621	682	718	710
	Other	351	355	367	381	374
	Unknown	12	11	6	5	2
	Total	7,892	7,526	7,258	6,904	6,507
Air National Guard	White	40,674	40,887	40,586	39,445	37,698
	African American	2,856	2,928	2,924	2,961	2,829
	Hispanic American	2,028	2,095	2,179	2,209	2,207
	Other	1,682	1,580	1,734	1,810	1,854
	Unknown	0	124	1	1	1
	Total	47,240	47,614	47,424	46,426	44,589
Air Force Reserve	White	19,741	19,455	19,218	18,714	18,183
	African American	3,391	3,274	3,322	3,276	3,169
	Hispanic American	1,393	1,374	1,332	1,298	1,275
	Other	917	912	893	901	906
	Total	25,442	25,015	24,765	24,189	23,533



**Table A-31.***Age — Selective Reserve Warrant Officer Maintainers*

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	17 – 24	2	0	0	1	0
	25 – 34	66	70	83	94	79
	35 – 44	588	504	478	415	384
	45+	1,254	1,238	1,326	1,222	1,168
	Unknown	0	0	0	0	1
	Total	1,910	1,812	1,887	1,732	1,632
Army Reserve	25 – 34	33	36	43	42	41
	35 – 44	407	341	301	218	184
	45+	590	618	673	579	549
	Unknown	2	0	0	0	3
	Total	1,032	995	1,017	839	777
Navy Reserve	25 – 34	2	2	4	6	6
	35 – 44	70	61	56	49	54
	45+	108	97	104	90	98
	Total	180	160	164	145	158
Marine Corps Reserve	25 – 34	23	27	27	29	27
	35 – 44	76	68	58	46	51
	45+	75	84	83	79	76
	Total	174	179	168	154	154

**Table A-32.*****Years of Service — Selective Reserve Warrant Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	1 – 5	0	0	2	2	2
	6 – 10	21	14	14	15	13
	11 – 15	78	81	104	101	78
	16 – 20	202	171	188	181	194
	21 – 25	512	505	474	376	304
	26+	1,097	1,041	1,105	1,057	1,041
	Total	1,910	1,812	1,887	1,732	1,632
Army Reserve	1 – 5	1	2	1	4	2
	6 – 10	5	6	7	7	8
	11 – 15	36	47	58	41	35
	16 – 20	153	131	136	120	92
	21 – 25	386	355	313	217	182
	26+	446	454	498	440	445
	Unknown	5	0	4	10	13
	Total	1,032	995	1,017	839	777
Navy Reserve	11 – 15	0	0	1	2	3
	16 – 20	17	16	19	24	22
	21 – 25	65	55	51	46	53
	26+	98	89	93	73	80
	Total	180	160	164	145	158
Marine Corps Reserve	6 – 10	3	1	1	1	3
	11 – 15	27	27	23	21	20
	16 – 20	34	42	46	43	41
	21 – 25	61	60	47	34	31
	26+	49	49	51	55	59
	Total	174	179	168	154	154

**Table A-33.*****Retirement Eligibility — Selective Reserve Warrant Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	Eligible	1,159	1,057	1,306	1,221	1,155
	Ineligible	550	502	488	461	441
	Unknown	201	253	93	50	36
	Total	1,910	1,812	1,887	1,732	1,632
Army Reserve	Eligible	535	514	540	468	456
	Ineligible	467	448	443	341	292
		30	33	34	30	29
	Total	1,032	995	1,017	839	777
Navy Reserve	Eligible	98	81	89	80	101
	Ineligible	73	68	73	62	54
	Unknown	9	11	2	3	3
	Total	180	160	164	145	158
Marine Corps Reserve	Eligible	59	67	69	63	65
	Ineligible	115	112	99	91	89
	Total	174	179	168	154	154

**Table A-34.*****Education — Selective Reserve Warrant Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	Some high school	2	3	1	0	0
	High school graduate	954	1,394	1,405	1,260	1,154
	Some college	696	151	186	192	203
	College graduate	258	264	295	280	275
	Total	1,910	1,812	1,887	1,732	1,632
Army Reserve	Some high school	2	3	3	5	4
	High school graduate	587	564	564	366	358
	Some college	180	173	189	201	204
	College graduate	216	214	228	213	178
	Unknown	47	41	33	54	33
	Total	1,032	995	1,017	839	777
Navy Reserve	Some college	43	0	0	0	0
	College graduate	76	73	68	54	59
	Unknown	61	87	96	90	99
	Total	180	160	164	145	158
Marine Corps Reserve	High school graduate	89	90	84	68	72
	Some college	25	24	22	22	20
	College graduate	60	65	62	64	62
	Total	174	179	168	154	154

**Table A-35.**  
***Skills — Selected Reserve Warrant Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	Automotive and allied	1,153	1,083	1,054	1,013	931
	Aviation maintenance and allied	167	162	165	161	156
	Communications and radar	330	320	321	307	249
	Construction and utilities	0	0	90	0	65
	Electrical and electronic	16	9	9	8	6
	Missile maintenance	63	80	89	95	94
	Ordnance	173	149	150	140	127
	Ship machinery	8	9	9	8	4
	Total	1,910	1,812	1,887	1,732	1,632
Army Reserve	Automotive and allied	634	600	571	473	459
	Aviation maintenance and allied	61	71	72	66	59
	Communications and radar	165	160	156	149	60
	Construction and utilities	0	0	53	0	51
	Electrical and electronic	2	2	1	1	1
	Missile maintenance	19	17	17	12	20
	Ordnance	114	107	111	103	88
	Ship machinery	37	38	36	35	39
	Total	1,032	995	1,017	839	777
Navy Reserve	Aviation maintenance and allied	39	35	33	30	28
	Communications and radar	4	4	4	3	5
	Electrical and electronic	15	11	14	14	19
	Missile maintenance	45	42	46	45	42
	Ordnance	1	1	0	1	1
	Ship construction and maintenance	27	25	22	13	18
	Ship machinery	49	42	45	39	45
	Total	180	160	164	145	158
Marine Corps Reserve	Automotive and allied	40	48	42	33	35
	Aviation maintenance and allied	36	31	26	27	29
	Communications and radar	40	46	45	43	41
	Electrical and electronic	30	29	26	23	21
	Missile maintenance	3	3	3	1	2
	Ordnance	25	22	26	27	26
	Total	174	179	168	154	154

**Table A-36.*****Gender — Selective Reserve Warrant Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	Female	12	11	12	12	14
	Male	1,898	1,801	1,875	1,720	1,618
	Total	1,910	1,812	1,887	1,732	1,632
Army Reserve	Female	9	13	15	14	14
	Male	1,022	982	1,002	825	763
	Unknown	1	0	0	0	0
	Total	1,032	995	1,017	839	777
Navy Reserve	Female	2	2	2	1	3
	Male	178	158	162	144	155
	Total	180	160	164	145	158
Marine Corps Reserve	Female	0	1	1	1	2
	Male	174	178	167	153	152
	Total	174	179	168	154	154

**Table A-37.**  
***Ethnicity — Selective Reserve Warrant Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	White	1,779	1,682	1,757	1,598	1,502
	African American	42	40	42	44	44
	Hispanic American	57	60	54	57	54
	Other	32	30	34	33	32
	Total	1,910	1,812	1,887	1,732	1,632
Army Reserve	White	906	871	888	735	680
	African American	58	60	71	54	48
	Hispanic American	33	29	27	19	19
	Other	19	19	21	22	20
	Unknown	16	16	10	9	10
	Total	1,032	995	1,017	839	777
Navy Reserve	White	154	135	135	122	128
	African American	4	4	4	3	6
	Hispanic American	4	4	3	3	4
	Other	4	4	4	4	5
	Unknown	14	13	18	13	15
	Total	180	160	164	145	158
Marine Corps Reserve	White	162	170	156	141	145
	African American	5	4	6	7	6
	Hispanic American	5	4	5	5	3
	Other	2	1	1	1	0
	Total	174	179	168	154	154

**Table A-38.****Age — Selected Reserve Commissioned Officer Maintainers**

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	17 – 24	144	121	76	41	29
	25 – 34	1,011	1,032	1,163	1,038	1,045
	35 – 44	862	769	795	721	761
	45+	365	403	410	396	405
	Total	2,382	2,325	2,444	2,196	2,240
Army Reserve	17 – 24	66	45	39	36	25
	25 – 34	953	968	919	786	784
	35 – 44	1,069	1,011	992	842	856
	45 +	497	565	651	575	578
	Unknown	9	15	18	9	9
	Total	2,594	2,604	2,619	2,248	2,252
Navy Reserve	17 – 24	0	0	1	1	0
	25 – 34	112	96	99	75	59
	35 – 44	295	320	318	265	260
	45+	123	150	182	156	156
	Unknown	0	0	0	0	1
	Total	530	566	600	497	476
Marine Corps Reserve	25 – 34	77	87	89	100	106
	35 – 44	85	90	89	87	118
	45+	4	6	12	11	23
	Total	166	183	190	198	247
Air National Guard	17 – 24	2	8	3	3	2
	25 – 34	335	330	331	322	315
	35 – 44	608	585	605	598	578
	45 +	402	429	400	376	360
	Total	1,347	1,352	1,339	1,299	1,255
Air Force Reserve	17 – 24	1	1	0	0	1
	25 – 34	192	169	179	183	183
	35 – 44	451	418	414	397	388
	45+	304	300	248	248	224
	Total	948	888	841	828	796



**Table A-39.***Years of Service — Selected Reserve Commissioned Officer Maintainers*

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	1 – 5	246	208	181	128	86
	6 – 10	594	608	607	527	488
	11 – 15	442	487	615	590	648
	16 – 20	390	340	383	367	428
	21 – 25	466	433	390	330	291
	26+	244	249	268	254	299
	Total	2,382	2,325	2,444	2,196	2,240
Army Reserve	1 – 5	196	158	168	118	111
	6 – 10	568	586	493	418	399
	11 – 15	483	509	538	496	503
	16 – 20	460	455	490	421	468
	21 – 25	610	596	553	433	373
	26+	273	300	364	352	387
	Unknown	4	0	13	10	11
	Total	2,594	2,604	2,619	2,248	2,252
Navy Reserve	1 – 5	13	8	11	7	3
	6 – 10	42	39	38	33	31
	11 – 15	123	122	119	97	75
	16 – 20	143	148	172	146	136
	20 – 25	126	138	137	108	117
	26+	83	111	123	106	113
	Unknown	0	0	0	0	1
	Total	530	566	600	497	476

**Table A-39.***Years of Service — Selected Reserve Commissioned Officer Maintainers (Continued)*

Service	Category	FY91	FY92	FY93	FY94	FY95
Marine Corps Reserve	1 – 5	0	0	1	2	6
	6 – 10	40	37	32	34	34
	11 – 15	56	65	69	72	76
	16 – 20	37	45	52	59	79
	21 – 25	28	31	31	25	39
	26+	5	5	5	6	13
	Total	166	183	190	198	247
Air National Guard	1 – 5	39	21	9	16	9
	6 – 10	131	139	148	122	111
	11 – 15	254	270	282	297	293
	16 – 20	311	276	286	292	307
	21 – 25	360	365	335	309	267
	26+	252	281	279	263	268
	Total	1,347	1,352	1,339	1,299	1,256
Air Force Reserve	1 – 5	12	4	4	2	5
	6 – 10	108	82	90	97	61
	11 – 15	195	196	203	182	206
	16 – 20	204	199	205	210	209
	21 – 25	269	214	173	164	165
	26+	160	193	166	173	150
	Total	948	888	841	828	796

**Table A-40.*****Retirement Eligibility — Selected Reserve Commissioned Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	Eligible	399	376	464	426	433
	Ineligible	1,891	1,848	1,901	1,741	1,780
	Unknown	92	101	79	29	27
	Total	2,382	2,325	2,444	2,196	2,240
Army Reserve	Eligible	398	415	468	400	421
	Ineligible	2,156	2,138	2,107	1,806	1,767
	Unknown	40	51	44	42	64
	Total	2,594	2,604	2,619	2,248	2,252
Navy Reserve	Eligible	116	137	150	63	129
	Ineligible	352	366	369	384	293
	Unknown	62	63	81	50	54
	Total	530	566	600	497	476
Marine Corps Reserve	Eligible	5	14	14	10	19
	Ineligible	161	169	176	188	228
	Total	166	183	190	198	247
Air National Guard	Eligible	452	468	456	410	398
	Ineligible	865	858	849	852	812
	Unknown	30	26	34	37	45
	Total	1,347	1,352	1,339	1,299	1,255
Air Force Reserve	Eligible	257	247	207	226	211
	Ineligible	686	636	630	595	576
		5	5	4	7	9
	Total	948	888	841	828	796

**Table A-41.*****Education — Selected Reserve Commissioned Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	Some high school	0	1	0	0	0
	High school graduate	20	747	713	554	494
	Some college	953	138	143	111	96
	College graduate	1,124	1,136	1,286	1,243	1,350
	Graduate degree	285	303	302	288	300
	Total	2,382	2,325	2,444	2,196	2,240
Army Reserve	Some high school	4	3	2	4	2
	High school graduate	199	181	168	124	90
	Some college	69	63	54	46	48
	College graduate	1,573	1,621	1,650	1,333	1,420
	Graduate degree	666	648	632	533	561
	Unknown	83	88	113	208	131
	Total	2,594	2,604	2,619	2,248	2,252
Navy Reserve	High school graduate	2	1	0	0	0
	Some college	65	2	1	1	0
	College graduate	265	285	308	253	242
	Graduate degree	104	121	129	100	104
	Unknown	94	157	162	143	130
	Total	530	566	600	497	476
Marine Corps Reserve	High school graduate	3	3	3	2	2
	Some college	1	1	0	0	0
	College graduate	124	137	144	156	192
	Graduate degree	38	42	43	40	53
	Total	166	183	190	198	247
Air National Guard	High school graduate	105	109	85	67	60
	Some college	42	36	24	20	17
	College graduate	831	849	879	877	850
	Graduate degree	359	346	344	331	325
	Unknown	10	12	7	4	3
	Total	1,347	1,352	1,339	1,299	1,255
Air Force Reserve	High school graduate	8	5	2	2	1
	Some college	4	3	2	3	4
	College graduate	501	461	445	430	412
	Graduate degree	433	418	392	390	375
	Unknown	2	1	0	3	4
	Total	948	888	841	828	796

**Table A-42.**  
***Skills — Selected Reserve Commissioned Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	Aviation maintenance and allied	6	4	142	0	169
	Communications and radar	1,739	1,739	1,807	1,755	1,659
	Electrical and electronic	5	3	0	0	0
	Missile maintenance	51	58	22	2	2
	Ordnance	581	521	473	439	410
	Total	2,382	2,325	2,444	2,196	2,240
Army Reserve	Aviation maintenance and allied	0	0	133	0	105
	Communications and radar	1,755	1,815	1,838	1,679	1,565
	Missile maintenance	118	115	0	0	0
	Ordnance	721	674	648	569	582
	Total	2,594	2,604	2,619	2,248	2,252
Navy Reserve	Aviation maintenance and allied	371	403	418	327	310
	Communications and radar	12	11	11	11	10
	Electrical and electronic	33	32	29	25	23
	Missile maintenance	22	24	25	20	21
	Ordnance	6	6	7	6	6
	Ship Machinery	86	90	110	108	106
	Total	530	566	600	497	476
Marine Corps Reserve	Automotive and allied	0	1	0	0	0
	Aviation maintenance and allied	24	28	30	32	44
	Communications and radar	142	154	160	166	203
	Total	166	183	190	198	247
Air National Guard	Aviation maintenance and allied	673	689	671	650	601
	Communications and radar	674	663	668	648	653
	Missile Maintenance	0	0	0	1	1
	Total	1,347	1,352	1,339	1,299	1,255
Air Force Reserve	Aviation maintenance and allied	641	608	568	550	509
	Communications and radar	301	276	269	274	282
	Missile Maintenance	6	4	4	4	5
	Total	948	888	841	828	796

**Table A-43.*****Gender — Selected Reserve Commissioned Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	Female	265	270	295	282	295
	Male	2,117	2,055	2,149	1,914	1,945
	Total	2,382	23,258	2,444	2,196	2,240
Army Reserve	Female	339	376	389	362	364
	Male	2,253	2,219	2,228	1,884	1,886
	Unknown	2	9	2	2	2
	Total	2,594	2,604	2,619	2,248	2,252
Navy Reserve	Female	25	27	26	23	19
	Male	505	539	574	474	457
	Total	530	566	600	497	476
Marine Corps Reserve	Female	8	12	15	19	22
	Male	158	171	175	179	225
	Total	166	183	190	198	247
Air National Guard	Female	102	114	121	120	119
	Male	1,245	1,238	1,218	1,179	1,136
	Total	1,347	1,352	1,339	1,299	1,255
Air Force Reserve	Female	145	138	142	146	140
	Male	803	750	699	682	656
	Total	948	888	841	828	796

**Table A-44.**  
***Ethnicity — Selected Reserve Commissioned Officer Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army National Guard	White	2,008	1,941	2,047	1,796	1,828
	African American	235	244	255	263	267
	Hispanic American	98	97	96	91	94
	Other	41	43	46	46	51
	Total	2,382	2,325	2,444	2,196	2,240
Army Reserve	White	1,997	1,970	1,996	1,680	1,667
	African American	376	405	411	368	388
	Hispanic American	96	101	104	97	105
	Other	88	87	77	86	77
	Unknown	37	41	31	17	15
	Total	2,594	2,604	2,619	2,248	2,252
Navy Reserve	White	458	492	519	429	403
	African American	22	22	24	19	16
	Hispanic American	7	10	12	12	12
	Other	15	17	17	14	21
	Unknown	28	25	28	23	24
	Total	530	566	600	497	476
Marine Corps Reserve	White	144	159	170	171	221
	African American	12	14	13	17	18
	Hispanic American	6	7	4	5	4
	Other	4	3	3	5	3
	Unknown	0	0	0	0	1
	Total	166	183	190	198	247
Air National Guard	White	1,214	1,217	1,191	1,148	1,099
	African American	49	54	63	65	68
	Hispanic American	35	33	37	35	35
	Other	49	43	48	51	53
	Total	1,347	1,352	1,339	1,299	1,255
Air Force Reserve	White	863	801	750	727	694
	African American	35	39	41	47	47
	Hispanic American	21	23	25	29	26
	Other	29	25	25	25	28
	Unknown	0	0	0	0	1
	Total	948	888	841	828	796

**Table A-45.**  
**Age — Civilian Blue-Collar Maintainers**

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	17 – 24	999	817	616	514	407
	25 – 34	7,796	7,141	6,385	5,725	5,273
	35 – 44	16,381	14,936	13,141	11,683	10,780
	45+	16,410	17,286	16,021	16,057	15,926
	Unknown	1	0	94	38	2
	Total	41,587	40,180	36,257	34,017	32,388
Navy	17 – 24	731	681	508	396	259
	25 – 34	8,356	7,056	5,848	4,282	3,062
	35 – 44	18,710	17,622	16,088	13,855	10,989
	45+	19,053	19,757	17,812	16,830	14,698
	Total	46,850	45,116	40,256	35,363	29,008
Marine Corps	17 – 24	13	84	92	62	41
	25 – 34	262	356	356	312	297
	35 – 44	773	788	752	687	684
	45 +	999	1,094	1,151	1,191	1,235
	Total	2,047	2,322	2,351	2,252	2,257
Air Force	17 – 24	1,394	929	716	541	445
	25 – 34	12,850	12,222	11,572	10,310	9,233
	35 – 44	18,628	17,278	16,256	15,507	14,800
	45+	18,315	20,035	19,576	19,656	19,184
	Unknown	0	42	104	103	0
	Total	51,187	50,506	48,224	46,117	43,662
DLA	17 – 24	13	18	13	5	1
	25 – 34	166	219	178	190	152
	35 – 44	500	616	580	565	487
	45+	583	831	801	819	814
	Total	1,262	1,684	1,572	1,579	1,454
Other DoD	17 – 24	2	2	1	1	1
	25 – 34	37	39	36	37	29
	35 – 44	62	58	66	73	61
	45+	65	71	79	100	95
	Total	166	170	182	211	186



**Table A-46.**  
***Years of Service — Civilian Blue-Collar Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	1 – 5	3,861	3,217	2,295	2,862	2,682
	6 – 10	8,604	7,655	6,529	5,313	4,712
	11 – 15	9,393	9,425	9,084	8,127	7,460
	16 – 20	7,159	7,097	6,569	6,284	6,607
	21 – 25	6,372	6,410	6,373	5,956	5,423
	26+	6,157	6,375	5,407	5,438	5,497
	Unknown	41	1	0	37	7
	Total	41,587	40,180	36,257	34,017	32,388
Navy	1 – 5	2,884	2,557	1,445	1,105	698
	6 – 10	7,584	6,368	5,670	4,093	2,944
	11 – 15	11,680	10,583	9,338	7,596	5,376
	16 – 20	10,488	10,563	9,738	9,056	7,831
	21 – 25	6,634	7,078	7,555	7,171	6,411
	26+	7,579	7,964	6,510	6,342	5,747
	Unknown	1	3	0	0	1
	Total	46,850	45,116	40,256	35,363	29,008
Marine Corps	1 – 5	105	308	325	255	215
	6 – 10	394	406	380	323	314
	11 – 15	513	542	547	508	476
	16 – 20	415	408	414	443	505
	21 – 25	275	310	326	345	358
	26+	345	348	359	378	389
	Total	2,047	2,322	2,351	2,252	2,257
Air Force	1 – 5	3,536	3,004	2,341	4,365	4,090
	6 – 10	10,906	9,860	9,011	9,486	7,832
	11 – 15	12,343	12,307	12,366	12,669	11,947
	16 – 20	8,236	8,590	8,647	7,029	7,842
	21 – 25	7,113	6,975	6,697	6,081	5,518
	26+	8,998	9,766	9,161	6,485	6,431
	Unknown	55	4	1	2	2
	Total	51,187	50,506	48,224	46,117	43,662

**Table A-46.*****Years of Service — Civilian Blue-Collar Maintainers (Continued)***

Service	Category	FY91	FY92	FY93	FY94	FY95
DLA	1 – 5	58	58	23	11	8
	6 – 10	232	278	232	211	162
	11 – 15	281	378	363	372	313
	16 – 20	211	297	338	380	391
	21 – 25	191	285	270	277	299
	26+	289	388	346	328	281
	Total	1,262	1,684	1,572	1,579	1,454
Other DoD	1 – 5	9	16	16	19	8
	6 – 10	38	42	38	39	29
	11 – 15	43	42	43	56	53
	16 – 20	28	30	35	38	42
	21 – 25	27	21	30	35	29
	26+	21	19	20	24	25
	Total	166	170	182	211	186

**Table A-47.**  
**Retirement Eligibility — Civilian Blue-Collar Maintainers**

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Eligible	1,531	1,665	1,146	1,038	977
	Ineligible	40,014	38,514	35,017	32,940	31,404
	Unknown	42	1	94	39	7
	Total	41,587	40,180	36,257	34,017	32,388
Navy	Eligible	1,961	2,189	1,510	1,308	1,105
	Ineligible	44,888	42,924	38,746	34,055	27,902
	Unknown	1	3	0	0	1
	Total	46,850	45,116	40,256	35,363	29,008
Marine Corps	Eligible	117	129	138	156	151
	Ineligible	1,930	2,193	2,213	2,096	2,106
	Total	2,047	2,322	2,351	2,252	2,257
Air Force	Eligible	1,602	1,954	1,619	1,212	1,014
	Ineligible	49,530	48,506	46,500	44,800	42,646
	Unknown	55	46	105	105	2
	Total	51,187	50,506	48,224	46,117	43,662
DLA	Eligible	80	99	75	55	39
	Ineligible	1,182	1,585	1,497	1,524	1,415
	Total	1,262	1,684	1,572	1,579	1,454
Other DoD	Eligible	6	7	6	9	7
	Ineligible	160	163	176	202	179
	Total	166	170	182	211	186

**Table A-48.**  
**Education — Civilian Blue-Collar Maintainers**

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Some high school	3,713	3,435	2,749	2,372	2,058
	High school graduate	26,842	26,228	23,688	22,634	21,430
	Some college	10,151	9,652	8,994	8,177	8,116
	College graduate	881	865	826	791	781
	Unknown	0	0	0	43	3
	Total	41,587	40,180	36,257	34,017	32,388
Navy	Some high school	3,857	3,539	2,895	2,454	1,839
	High school graduate	30,567	29,327	26,187	22,665	18,271
	Some college	11,286	11,129	10,122	9,278	8,067
	College graduate	1,140	1,121	1,052	957	826
	Unknown	0	0	0	9	5
	Total	46,850	45,116	40,256	35,363	29,008
Marine Corps	Some high school	227	253	246	228	211
	High school graduate	1,277	1,316	1,335	1,274	1,296
	Some college	501	704	717	698	698
	College graduate	42	49	53	52	52
	Total	2,047	2,322	2,351	2,252	2,257
Air Force	Some high school	2,283	2,118	1,797	1,553	1,368
	High school graduate	28,086	27,737	26,567	25,453	24,357
	Some college	19,062	18,886	18,117	17,381	16,274
	College graduate	1,756	1,765	1,743	1,728	1,661
	Unknown	0	0	0	2	2
	Total	51,187	50,506	48,224	46,117	43,662
DLA	Some high school	110	161	331	128	116
	High school graduate	670	944	29	810	742
	Some college	456	537	1,212	593	553
	College graduate	26	42	0	48	43
	Total	1,262	1,684	1,572	1,579	1,454
Other DoD	Some high school	21	20	20	23	19
	High school graduate	89	89	92	103	92
	Some college	43	45	55	64	59
	College graduate	13	16	15	21	16
	Total	166	170	182	211	186

**Table A-49.**  
**Skills — Civilian Blue-Collar Maintainers**

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	ADP computers	68	99	92	97	90
	Aircraft and aircraft related	3,906	3,827	3,667	3,574	3,351
	Armament and munitions	2,784	2,693	2,262	2,185	2,145
	Automotive	14,429	13,909	12,970	12,280	11,820
	Fabric, leather, and rubber	1,019	1,002	838	769	758
	Metalworking	5,712	5,426	4,728	4,328	4,021
	Other crafts	339	337	295	288	266
	Other electronic	7,093	7,046	6,456	5,824	5,539
	Other mechanical and electrical	4,034	3,817	3,293	3,095	2,873
	Power generation	41	38	34	33	36
	Precision equipment	895	787	639	579	546
	Production control	912	877	719	666	650
	Wire communications	355	322	264	299	293
	Total	41,587	40,180	36,257	34,017	32,388
Navy	ADP computers	58	66	60	54	47
	Aircraft and aircraft related	3,923	3,771	3,268	2,904	2,306
	Armament and munitions	2,681	2,576	2,084	1,783	1,647
	Automotive	1,656	1,646	1,588	1,510	1,381
	Fabric, leather, and rubber	934	899	803	743	644
	Forward area equipment	1	2	2	0	0
	Metalworking	17,113	16,628	15,034	13,234	10,428
	Other crafts	493	514	484	448	402
	Other electronic	6,046	5,736	5,063	4,445	3,698
	Other mechanical and electrical	10,966	10,529	9,547	8,245	6,657
	Power generation	13	18	16	12	13
	Precision equipment	1,205	1,122	945	822	751
	Production control	1,616	1,474	1,246	1,056	933
	Wire communications	145	135	116	107	101
	Total	46,850	45,116	40,256	35,363	29,008

**Table A-49.**  
**Skills — Civilian Blue-Collar Maintainers (Continued)**

Service	Category	FY91	FY92	FY93	FY94	FY95
Marine Corps	ADP computers	16	15	14	18	12
	Aircraft and aircraft related	9	9	8	8	8
	Armament and munitions	71	90	106	103	103
	Automotive	727	941	976	923	913
	Fabric, leather, and rubber	10	7	9	9	9
	Metalworking	295	350	356	363	362
	Other crafts	1	1	1	1	1
	Other electronic	439	424	396	362	340
	Other mechanical and electrical	318	323	317	306	333
	Power generation	3	2	3	3	4
	Precision equipment	69	76	75	70	70
	Production control	53	45	45	40	43
	Wire communications	36	39	45	46	59
	Total	2,047	2,322	2,351	2,252	2,257
Air Force	ADP computers	203	193	216	222	362
	Aircraft and aircraft related	17,246	17,312	17,256	16,634	16,171
	Armament and munitions	2,187	2,216	2,246	2,059	1,893
	Automotive	2,401	2,372	2,211	2,108	1,961
	Fabric, leather, and rubber	1,064	815	774	723	697
	Forward area equipment	26	19	14	13	10
	Metalworking	8,786	8,697	8,184	7,668	7,371
	Missile mechanical and electrical	11	10	8	8	23
	Other crafts	250	244	221	210	183
	Other electronic	9,454	9,339	8,856	8,620	7,683
	Other mechanical and electrical	5,350	5,160	4,589	4,561	4,221
	Power generation	45	36	34	30	25
	Precision equipment	1,474	1,327	988	866	776
	Production control	2,358	2,435	2,308	2,101	2,029
	Wire communications	332	331	319	294	257
	Total	51,187	50,506	48,224	46,117	43,662

**Table A-49.**  
***Skills — Civilian Blue-Collar Maintainers (Continued)***

Service	Category	FY91	FY92	FY93	FY94	FY95
DLA	ADP computers	0	16	25	25	27
	Aircraft and aircraft related	6	8	5	3	3
	Armament and munitions	5	20	16	15	18
	Automotive	153	353	304	284	245
	Fabric, leather, and rubber	33	30	24	31	50
	Forward area equipment	4	4	1	1	0
	Metalworking	79	99	90	93	75
	Other crafts	4	515	4	3	3
	Other electronic	142	196	184	165	147
	Other mechanical and electrical	740	846	821	862	787
	Power generation	14	18	20	15	14
	Precision equipment	3	14	10	13	13
	Production control	42	57	49	53	57
	Wire communications	37	19	19	16	15
	Total	1,262	1,684	1,572	1,579	1,454
Other DoD	ADP computers	15	10	17	12	8
	Automotive	2	3	5	11	11
	Fabric, leather, and rubber	1	1	1	1	0
	Metalworking	26	23	22	23	21
	Other electronic	47	50	58	88	80
	Other mechanical and electrical	26	23	21	25	19
	Precision equipment	27	27	29	14	12
	Production control	18	13	10	10	11
	Wire communications	4	20	19	27	24
	Total	166	170	182	211	186

**Table A-50.**  
**Gender — Civilian Blue-Collar Maintainers**

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Female	2,370	2,283	1,867	1,572	1,540
	Male	39,216	37,896	34,390	32,445	30,848
	Unknown	1	1	0	1	0
	Total	41,587	40,180	36,257	34,017	32,388
Navy	Female	3,419	3,299	2,992	2,473	2,085
	Male	43,341	41,817	37,264	32,890	26,923
	Total	46,850	45,116	40,256	35,363	29,008
Marine Corps	Female	61	66	69	73	83
	Male	1,986	2,256	2,282	2,179	2,174
	Total	2,047	2,322	2,351	2,252	2,257
Air Force	Female	3,632	3,587	3,468	3,338	3,090
	Male	47,555	46,877	44,652	42,676	40,572
	Unknown	0	42	104	103	0
	Total	51,187	50,506	48,224	46,117	43,662
DLA	Female	114	120	112	142	152
	Male	1,148	1,564	1,460	1,437	1,302
	Total	1,262	1,684	1,572	1,579	1,454
Other DoD	Female	23	21	18	21	20
	Male	143	149	164	190	166
	Total	166	170	182	211	186



**Table A-51.**  
***Ethnicity — Civilian Blue-Collar Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	White	33,644	32,357	29,391	27,547	26,102
	African American	3,607	3,579	3,139	2,915	2,786
	Hispanic American	3,117	3,064	2,693	2,585	2,528
	Other	1,219	1,180	1,034	970	972
	Total	41,587	40,180	36,257	34,017	32,388
Navy	White	33,952	32,265	28,609	25,061	20,270
	African American	6,723	6,554	5,786	4,983	3,953
	Hispanic American	1,684	1,714	1,555	1,378	1,196
	Other	4,490	4,574	4,305	3,940	3,588
	Unknown	1	9	1	1	1
	Total	46,850	45,116	40,256	35,363	29,008
Marine Corps	White	1,497	1,681	1,665	1,592	1,594
	African American	239	282	307	294	300
	Hispanic American	206	242	250	230	232
	Other	105	117	129	136	131
	Total	2,047	2,322	2,351	2,252	2,257
Air Force	White	40,588	39,931	37,987	36,449	34,267
	African American	3,393	3,354	3,233	3,172	3,004
	Hispanic American	5,786	5,768	5,556	5,074	4,927
	Other	1,420	1,453	1,448	1,422	1,464
	Total	51,187	50,506	48,224	46,117	43,662
DLA	White	984	1,303	1,209	1,217	1,113
	African American	193	233	221	224	218
	Hispanic American	50	93	90	86	73
	Other	35	55	52	52	50
	Total	1,262	1,684	1,572	1,579	1,454
Other DoD	White	129	132	142	152	133
	African American	32	33	34	37	32
	Hispanic American	2	2	3	17	17
	Other	3	3	3	5	4
	Total	166	170	182	211	186

**Table A-52.**  
**Age — Civilian White-Collar Maintainers**

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	17 – 24	255	162	90	49	38
	25 – 34	2,950	2,800	2,626	2,453	2,182
	35 – 44	2,394	2,328	2,276	2,298	2,460
	45+	4,330	4,329	4,036	4,029	4,011
	Unknown	0	0	0	37	1
	Total	9,929	9,619	9,028	8,866	8,692
Navy	17 – 24	1,023	633	291	184	144
	25 – 34	8,185	8,129	7,069	5,999	5,223
	35 – 44	6,196	5,878	5,452	5,207	5,306
	45+	9,515	9,935	9,103	8,133	7,938
	Total	24,919	24,575	21,915	19,523	18,611
Marine Corps	17 – 24	4	5	2	1	1
	25 – 34	26	28	30	31	32
	35 – 44	79	74	79	90	81
	45+	139	145	159	176	190
	Total	248	252	270	298	304
Air Force	17 – 24	230	156	127	74	47
	25 – 34	3,652	3,505	3,340	3,107	2,656
	35 – 44	2,651	2,658	2,810	2,940	3,098
	45+	4,375	4,581	4,329	4,300	4,182
	Unknown	0	1	1	3	0
	Total	10,908	10,901	10,607	10,424	9,983
DLA	17 – 24	17	13	5	1	0
	25 – 34	212	239	248	221	178
	35 – 44	240	243	236	235	231
	45+	507	534	534	476	463
	Total	976	1,029	1,023	933	872
Other DoD	17 – 24	14	12	5	4	3
	25 – 34	116	121	133	141	137
	35 – 44	272	248	270	277	300
	45+	577	555	650	665	742
	Total	979	936	1,058	1,087	1,182

**Table A-53.**  
***Years of Service — Civilian White-Collar Maintainers***

Service	Category	FY91	92	FY93	FY94	FY95
Army	1 – 5	1,382	1,192	629	496	384
	6 – 10	2,365	2,126	2,226	1,960	1,802
	11 – 15	1,571	1,727	1,876	2,088	2,136
	16 – 20	1,168	1,125	1,093	1,140	1,263
	21 – 25	1,215	1,153	1,125	1,129	1,083
	26+	2,228	2,296	2,078	2,045	2,022
	Unknown	0	0	1	8	2
	Total	9,929	9,619	9,028	8,866	8,692
Navy	1 – 5	3,808	3,179	1,700	985	658
	6 – 10	5,895	5,568	5,333	4,396	4,064
	11 – 15	3,354	3,857	3,985	4,371	4,155
	16 – 20	2,646	2,652	2,437	2,312	2,565
	21 – 25	3,217	2,902	2,583	2,399	2,143
	26+	5,998	6,416	5,876	5,059	5,025
	Unknown	1	1	1	1	1
	Total	24,919	24,575	21,915	19,523	18,611
Marine Corps	1 – 5	29	29	20	12	8
	6 – 10	34	34	40	46	46
	11 – 15	35	32	35	55	62
	16 – 20	43	38	50	56	48
	21 – 25	43	42	44	46	53
	26+	64	77	81	83	87
	Total	248	252	270	298	304
Air Force	1 – 5	1,563	1,322	850	895	756
	6 – 10	2,801	2,736	2,950	3,081	2,468
	11 – 15	1,753	1,949	2,159	2,483	2,726
	16 – 20	1,192	1,237	1,247	1,123	1,300
	21 – 25	1,264	1,163	1,174	1,156	1,033
	26+	2,330	2,494	2,227	1,686	1,700
	Unknown	5	0	0	0	0
	Total	10,908	10,901	10,607	10,424	9,983

**Table A-53.*****Years of Service — Civilian White-Collar Maintainers (Continued)***

Service	Category	FY91	FY92	FY93	FY94	FY95
DLA	1 – 5	121	119	76	63	24
	6 – 10	255	279	270	213	204
	11 – 15	147	180	221	251	238
	16 – 20	134	135	143	134	137
	21 – 25	127	126	133	126	128
	26+	192	190	180	146	141
	Total	976	1,029	1,023	933	872
Other DoD	1 – 5	82	76	69	69	91
	6 – 10	185	155	200	194	167
	11 – 15	156	165	175	168	223
	16 – 20	148	145	169	190	216
	21 – 25	169	153	156	171	176
	26+	239	242	289	295	309
	Total	979	936	1,058	1,087	1,182

**Table A-54.*****Retirement Eligibility — Civilian White-Collar Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Eligible	906	981	858	859	812
	Ineligible	9,023	8,638	8,169	7,969	7,878
	Unknown	0	0	1	38	2
	Total	9,929	9,619	9,028	8,866	8,692
Navy	Eligible	1,594	1,820	1,622	1,247	1,264
	Ineligible	23,234	22,754	20,292	18,275	17,346
	Unknown	1	1	1	1	1
	Total	24,919	24,575	21,915	19,523	18,611
Marine Corps	Eligible	21	22	26	28	27
	Ineligible	227	230	244	270	277
	Total	248	252	270	298	304
Air Force	Eligible	786	932	824	740	704
	Ineligible	10,117	9,968	9,782	9,681	9,279
	Unknown	5	1	1	3	0
	Total	10,908	10,901	10,607	10,424	9,983
DLA	Eligible	156	155	154	125	124
	Ineligible	820	874	869	808	748
	Total	976	1,029	1,023	933	872
Other DoD	Eligible	85	96	125	108	103
	Ineligible	894	840	933	979	1,079
	Total	979	936	1,058	1,087	1,182

**Table A-55.**  
**Education — Civilian White-Collar Maintainers**

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Some high school	76	72	59	56	58
	High school graduate	1,506	1,444	1,262	1,243	1,245
	Some college	1,605	1,544	1,361	1,307	1,305
	College graduate	5,312	5,015	4,623	4,494	4,364
	Graduate degree	1,430	1,544	1,723	1,709	1,719
	Unknown	0	0	0	57	1
	Total	9,929	9,619	9,028	8,866	8,692
Navy	Some high school	160	147	139	119	114
	High school graduate	3,605	3,597	3,290	2,816	2,643
	Some college	3,520	3,373	3,102	2,730	2,598
	College graduate	14,440	14,254	12,409	10,807	10,222
	Graduate degree	3,194	3,204	2,975	3,049	3,041
	Unknown	0	0	0	2	2
	Total	24,919	24,575	21,915	19,523	18,611
Marine Corps	Some high school	9	9	8	10	9
	High school graduate	74	63	65	76	79
	Some college	85	97	110	123	124
	College graduate	57	60	64	65	68
	Graduate degree	23	23	23	24	24
	Total	248	252	270	298	304
Air Force	Some high school	55	55	44	38	42
	High school graduate	1,054	1,018	975	939	967
	Some college	1,608	1,637	1,536	1,462	1,392
	College graduate	6,110	5,961	5,710	5,546	5,141
	Graduate degree	2,081	2,230	2,342	2,438	2,441
	Unknown	0	0	0	1	0
	Total	10,908	10,901	10,607	10,424	9,983
DLA	Some high school	4	3	2	2	3
	High school graduate	69	72	68	55	52
	Some college	150	167	167	148	145
	College graduate	584	610	619	573	524
	Graduate degree	169	177	167	155	148
	Total	976	1,029	1,023	933	872
Other DoD	Some high school	4	4	5	3	5
	High school graduate	203	167	180	161	218
	Some college	239	223	275	284	323
	College graduate	316	302	334	379	393
	Graduate degree	217	240	264	254	243
	Unknown	0	0	0	6	0
	Total	979	936	1,058	1,087	1,182

**Table A-56.**  
**Skills — Civilian White-Collar Maintainers**

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Aviation maintenance and allied	751	706	662	660	635
	Communications and radar	1,396	1,303	1,246	1,255	1,273
	Electrical and electronic	6,773	6,607	6,237	6,107	5,894
	Production management	980	973	855	816	861
	Ship construction and maintenance	29	30	28	28	29
	Total	9,929	9,619	9,028	8,866	8,692
Navy	Aviation maintenance and allied	1,860	1,795	1,682	1,581	1,552
	Communications and radar	783	788	790	661	655
	Electrical and electronic	18,771	18,583	16,303	14,415	13,719
	Production management	2,320	2,243	2,053	1,864	1,766
	Ship construction and maintenance	1,185	1,166	1,087	1,002	919
	Total	24,919	24,575	21,915	19,523	18,611
Marine Corps	Aviation maintenance and allied	1	1	1	1	1
	Communications and radar	34	32	26	26	29
	Electrical and electronic	162	170	184	208	203
	Production management	51	49	59	63	71
	Total	248	252	270	298	304
Air Force	Aviation maintenance and allied	1,785	1,737	1,643	1,589	1,484
	Communications and radar	811	851	888	915	955
	Electrical and electronic	6,974	7,024	6,961	6,890	6,525
	Production management	1,336	1,287	1,113	1,028	1,018
	Ship construction and maintenance	2	2	2	2	1
	Total	10,908	10,901	10,607	10,424	9,983
DLA	Aviation maintenance and allied	157	145	151	138	132
	Communications and radar	105	131	135	95	86
	Electrical and electronic	682	724	712	676	626
	Production management	31	28	25	23	27
	Ship construction and maintenance	1	1	0	1	1
	Total	976	1,029	1,023	933	872
Other DoD	Aviation maintenance and allied	5	5	6	7	9
	Communications and radar	435	376	491	521	627
	Electrical and electronic	519	522	527	528	511
	Production management	18	31	32	29	33
	Ship construction and maintenance	2	2	2	2	2
	Total	979	936	1,058	1,087	1,182

**Table A-57.**  
**Gender — Civilian White-Collar Maintainers**

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	Female	886	894	873	856	882
	Male	9,043	8,725	8,155	8,010	7,810
	Total	9,929	9,619	9,028	8,866	8,692
Navy	Female	1,864	1,861	1,708	1,563	1,504
	Male	23,055	22,714	20,207	17,960	17,107
	Total	24,919	24,575	21,915	19,523	18,611
Marine Corps	Female	19	19	20	20	21
	Male	229	233	250	278	283
	Total	248	252	270	298	304
Air Force	Female	974	972	933	916	904
	Male	9,934	9,928	9,673	9,505	9,079
	Unknown	0	1	1	3	0
	Total	10,908	10,901	10,607	10,424	9,983
DLA	Female	85	90	88	74	69
	Male	891	939	935	859	803
	Total	976	1,029	1,023	933	872
Other DoD	Female	143	113	159	119	175
	Male	836	823	899	968	1,007
	Total	979	936	1,058	1,087	1,182



**Table A-58.**  
***Ethnicity — Civilian White-Collar Maintainers***

Service	Category	FY91	FY92	FY93	FY94	FY95
Army	White	8,063	7,798	7,245	7,060	6,838
	African American	560	531	519	544	581
	Hispanic American	535	522	498	503	501
	Other	771	768	766	759	772
	Total	9,929	9,619	9,028	8,866	8,692
Navy	White	20,589	20,189	18,188	16,093	15,326
	African American	1,100	1,115	1,020	906	839
	Hispanic American	738	749	614	565	569
	Other	2,491	2,518	2,093	1,953	1,873
	Unknown	1	4	0	6	4
	Total	24,919	24,575	21,915	19,523	18,611
Marine Corps	White	203	204	216	242	240
	African American	10	11	12	19	21
	Hispanic American	8	10	11	8	11
	Other	27	27	31	29	32
	Total	248	252	270	298	304
Air Force	White	9,140	9,114	8,739	8,572	8,150
	African American	440	439	452	458	450
	Hispanic American	593	590	598	579	572
	Other	735	758	818	815	811
	Total	10,908	10,901	10,607	10,424	9,983
DLA	White	828	861	842	765	711
	African American	55	66	75	64	61
	Hispanic American	19	21	25	26	23
	Other	74	81	81	78	77
	Total	976	1,029	1,023	933	872
Other DoD	White	782	743	842	879	940
	African American	109	106	122	101	121
	Hispanic American	17	16	19	20	26
	Other	71	71	75	87	95
	Total	979	936	1,058	1,087	1,182

## APPENDIX B

# Work Force Characteristics

# Work Force Characteristics

The principal sources of data about the characteristics used to describe the maintenance work forces were the Defense Manpower Data Center (DMDC) data bases for military, selected reserve, and civilian personnel. The data in those repositories are provided to DMDC by each of the Military Services. We developed a single data base comprising the characteristics of interest and other information then queried that data base to provide the various descriptions of the respective work forces.

## AGE

Age is a discrete data element in the data base. Age groups were selected — e.g., 17-to-24 years and 25-to-34 years — that correspond to those normally used by DoD to characterize the work force. Those age groups are consistent with those used to describe general population work forces. Graphs and data on the age of the work force show the percentage of the work force that falls into each of the age range groups by fiscal year.

By using average age, we reduced the variations in proportion among age groups in a fiscal year to a single index. The use of a single index facilitated comparisons among work forces. Average age was computed as an average of the age of all members of the respective population in a given fiscal year.

## YEARS OF SERVICE

The years of service (YOS) characteristic provides an indication of the experience level and insight into the maturity of the maintenance work force. The YOS characteristic is affected by the structure of the military career profile, which features initial retirement eligibility at 20 years of service and a maximum service ceiling of 30 years for the vast majority of members.

Data on years of service for active duty personnel were based on years of active duty service derived from the Total Active Federal Military Service date.

Data on years of service for reserve personnel were based on the time the individual spent with the reserves and credit toward retirement. Reserve members transfer among reserve groups, for example, from the selected reserve to the individual ready reserve. Their status could also be active or inactive. During inactive periods, they do not participate in drill periods and do not earn points toward retirement. We used the creditable time for retirement to equate the time a reservist spent on duty as closely as possible with the tenure of active duty military and civilian personnel.

Data on civilian years of service were based on the years of Federal service, derived from the service computation date. That date indicates the number of years that a person has worked for the government, not necessarily how long the person has worked in DoD or in DoD maintenance. The service computation date is adjusted for breaks in service.

The YOS graphs show the percentage of the work force that falls within a particular range (e.g. 0 to 5 years or 6 to 10 years). Using average YOS, we reduced variations in proportion among YOS groups in a fiscal year to a single index. This facilitated comparisons among work forces. The average number of years of service was computed in the same fashion as average age. It is the average years of service of all members of a particular work force population.

## RETIREMENT ELIGIBILITY

For active duty military personnel, retirement eligibility was defined as having 20 or more years of active military service. Reserve personnel were considered eligible for retirement if they had 20 years of service and a retirement letter. Civilian personnel were classified based on their retirement eligibility code.

## AFQT SCORE

The Armed Forces Qualification Test (AFQT) is used to assess each recruit. Test results are scored as percentiles. Based on those AFQT scores, The Services group enlisted personnel into categories ranging from Category I (highest) to Category V (lowest). The distribution of personnel among categories is a common measure of the quality of the enlisted work force. The AFQT categories and scores are shown in Table B-1.

**Table B-1.**  
*AFQT Categories and Scores*

Category	Score
Category I	93 – 99
Category II	65 – 92
Category III A	50 – 64
Category III B	31 – 49
Category IV	10 – 30
Category V	01 – 09
Unknown	None

## EDUCATION

The education characteristic indicates the level of education achieved, e.g., high school graduate or college graduate. The personnel data bases (military, selected reserve, and civilian) treat educational data in different ways; some were more detailed than others. In some cases, the number of unknowns (i.e., no educational characteristic was provided) was significant; those instances are noted in the text.

## SKILLS

Occupational information was derived from the Defense Personnel Occupational Code field. The *DoD Occupational Conversion Index* divides the work force into officer (warrant officer and commissioned officer) and enlisted categories. All DoD military and civilian occupations are classified within these categories. Military occupations are based on the primary specialty, and civilian occupations are based on the series. Blue-collar civilian occupations are primarily found in the enlisted category. White-collar civilian occupations are primarily found in the officer category.

## GENDER

Data on the percentage of females were obtained from the appropriate data element in each data base.

## ETHNICITY

Data on ethnicity was obtained from a combination of data elements. The information was provided to the Military Services by the employee. Because the data were not equivalent among the data bases, we used combined categories: White, African American, Hispanic American, and Other. Hispanic American persons can be of any race. The "other" category includes American Indian or Alaskan Native, Asian or Pacific Islander and Hawaiian Asians, and Non-Hispanic in Puerto Rico.

## UNKNOWN

Unknown records were considered as a separate category within a characteristic. Unknowns were not included in the figures and tables unless the percentage was considered unusually high. The highest percentages of unknowns appeared in the education and ethnicity characteristics.

## APPENDIX C

# Occupational Categories

# Occupational Categories

This appendix provides definitions of the occupational categories used to characterize the skills of the enlisted, warrant officer, and commissioned officer maintainers as well as the DoD civilian maintainers. The source of these categories was the *DoD Occupational Conversion Index*, DoD 1312.1-I, September 1993.

## ENLISTED AND DoD BLUE-COLLAR MAINTAINERS

Enlisted and DoD blue-collar maintainers fall into three occupational areas: electronic equipment repair, electrical and mechanical equipment repair, and crafts. Those areas and the occupational groups that fall within them are described below:

- ◆ *Electronic equipment repair* — includes specialists in the maintenance and repair of various types of electronic and allied equipment, including computers, fire control, navigation, radio, radar, and sonar, among others.
  - ▶ *ADP computers* — includes all digital and analog computers.
  - ▶ *Fire control electronic systems* — includes the maintenance and repair of electronic fire control and bomb navigation equipment, but excludes missile and underwater fire control equipment.
  - ▶ *Missile guidance, control, and checkout* — includes specialists in guidance, control, and checkout equipment for guided and ballistic missiles.
  - ▶ *Nuclear weapons* — includes specialists in the maintenance and repair of nuclear weapons control and test equipment.
  - ▶ *Other electronic equipment* — includes training devices, inertial navigation systems, electronic instruments, and electronic countermeasure gear.
  - ▶ *Radio/radar* — includes fixed and mobile radio; air traffic and tracking radar; communication, and navigation.
  - ▶ *Sonar* — includes specialists in underwater detection and fire control systems, oceanographic equipment, and related antisubmarine gear.
  - ▶ *Teletype and cryptographic* — includes teletype and associated on- and off-line encryption devices.

- ◆ *Electrical and mechanical equipment repair* — includes specialists in the maintenance and repair of electrical, mechanical, hydraulic, and pneumatic equipment.
  - ▶ *Aircraft and aircraft related* — includes aircraft engines, electrical systems, structural components and surfaces, and launch equipment.
  - ▶ *Armament and munitions* — includes small arms, artillery, mines, bombs and associated mountings, nuclear weapons, and ammunition renovation.
  - ▶ *Automotive* — includes construction equipment and other wheeled and tracked vehicles.
  - ▶ *Biomedical* — includes maintenance and repair of medical and dental equipment.
  - ▶ *Forward area equipment* — includes air delivery and aircrew life support equipment.
  - ▶ *Maintenance records and scheduling* — includes specialists in aircraft and vehicle maintenance analysis and recordkeeping.
  - ▶ *Missile mechanical and electrical* — includes missiles and missile systems and related components.
  - ▶ *Other mechanical and electrical* — includes specialists in the maintenance and repair of mechanical and electrical equipment that is not readily classifiable in another group.
  - ▶ *Power generation* — includes nuclear power reactors and primary electric generating plants.
  - ▶ *Precision equipment* — includes optical and other precision instruments and office machines.
  - ▶ *Production control* — includes civilian supervisory positions in manufacturing or remanufacturing shops.
  - ▶ *Shipboard propulsion* — includes marine main engines, boilers, and auxiliary equipment.
  - ▶ *Wire communications* — includes specialists in the installation and maintenance of telephones, switchboards, and central office and related interior communications equipment.



- ◆ *Crafts* — includes the formation, fabrication, and installation of structures and components, the installation and maintenance of tactical utilities, and related trades and crafts.
  - ▶ *Fabric, leather, and rubber* — includes specialists in the maintenance and repair of leather, rubber, and fabric.
  - ▶ *Metalworking* — includes specialists in the machining, shaping, and forming of metal and in the fabrication of metal parts.
  - ▶ *Other crafts* — includes specialists in trades such as molding, camouflage, and plastic work, which are not readily classifiable elsewhere.

## OFFICER AND DoD WHITE-COLLAR MAINTAINERS

The term “officer” includes all military occupations and billet designators that require persons who are commissioned or warrant officers; all civilian occupations that are similar to the military occupations and billet designators are included here. All officer maintainers fall into the engineering and maintenance occupational areas, which includes design, development, production, and maintenance engineering. The occupational groups that fall within that area are described below:

- ◆ *Automotive and allied* — includes engineers and maintenance officers whose primary concern is with automotive and related equipment.
- ◆ *Aviation maintenance and allied* — includes aircraft maintenance officers and aeronautical engineers.
- ◆ *Communications and radar* — includes communications engineers and communications and radar design, installation, operation, and maintenance officers.
- ◆ *Electrical and electronic* — includes electrical and electronic engineers and equipment maintenance officers.
- ◆ *Missile maintenance* — includes guided and ballistic missile design, test, and maintenance officers and missile engineers.
- ◆ *Ordnance* — includes weapons engineering and maintenance officers, but excludes missile officers.
- ◆ *Production management* — includes civilian production and maintenance managers typically responsible for a large work force in a variety of trades and crafts.

- ◆ *Ship construction and maintenance* — includes officers concerned with design, development, construction, production, alteration, maintenance, and repair of ships and their equipment.
- ◆ *Ship machinery* — includes officers concerned with ships' main propulsion and auxiliary machinery; also includes officers involved in the operation of such machinery.

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