

AMSARA

Accession Medical Standards
Analysis & Research Activity

Annual Report 2017



Attrition & Morbidity Data for 2016 Accessions



Accession Medical Standards Analysis & Research Activity 2017 Annual Report

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Executive Summary

EXECUTIVE SUMMARY

The Accession Medical Standards Analysis and Research Activity (AMSARA) has completed its twenty-first year of providing the Department of Defense (DoD) with evidence-based evaluations of accession medical standards. AMSARA evaluates medical standards and retention programs to improve military readiness by maximizing both the accession and retention of motivated and capable recruits. This report provides findings from selected special studies and descriptive statistics for fiscal year (FY) 2011-2016 applicants and accessions. By convention, the annual report is dated for the first complete year after enlistment (FY 2017). Comparisons can be made both between services and between enlisted components (active, reserve, National Guard).

Section 1 of this report, Special Studies, is comprised of collection brief reports on selected research conducted at AMSARA. Based on previous findings and current level of priority to The Accession Medical Standards Working Group (AMSWG), specific medical disqualifications were chosen to be examined more thoroughly among enlisted active component applicants. Conditions selected for analysis in this year's special studies include: disorders of refraction and accommodation, ear and hearing conditions, and knee and shoulder musculoskeletal injuries. For each condition, the medical waiver application and approval percentage as well as accession rate is calculated for disqualified applicants and compared to the corresponding rate among fully medically qualified applicants by year of Military Entrance Processing Station (MEPS) physical exam.

Section 2 of this report includes the descriptive statistics AMSARA compiles and publishes annually for historical and reference value. The AMSARA Annual Report has been restructured from previous publications in order to present information in a more actionable format. The new format examines medical standards across the continuum of a service member's life cycle, rather than analyzing accession medical standards in isolation. This is the first AMSARA Annual Report publication to reflect the recent transition.

Under the new annual report framework, Section 2 is divided into two parts. Part I of Section 2 assesses disqualifications, waiver applications and approvals, and one-year early discharges by year and demographics among a single pool of 2011-2016 applicants. This fundamental change in reporting allows for a more valid evaluation of current standards, processes, and policies.

Key findings from Section 2, Part I are as listed:

Overall Rates of Applications and Accessions (Table 2.1)

- 1,635,558 active, reserve, and National Guard enlisted applicants were examined for medical fitness at MEPS between 2011 and 2016
 - Approximately 268,000 were examined in 2016, which is similar to the approximately 274,000 per year average from 2011 to 2015
 - Most applicants in 2016 were white (59%-74%), high school graduates (55%-70%), male (74%-80%), or between the ages of 17 and 20 years old (61%-69%) in all three components
 - Of the 2016 applicants, approximately 80% were fully medically qualified for service, whereas around 14% received a permanent medical disqualification (PDQ) and 6% were temporarily disqualified
 - Most applicants (about 71%) accessed
 - The percentage of female applicants and accessions in 2016 was slightly higher than the previous five year aggregate

Rates of Waiver Applications/Approvals, Accessions and Early Discharge among Permanent Disqualifications (Tables 2.1-2.16)

- The majority of disqualifications were due to having either current or history of a medical condition, which, according to Department of Defense Instruction 6130.03, is permanently disqualifying and requires a medical waiver for accession (*Tables 2.2 and 2.4*)
- 60% of active and 50% of reserve component applicants with a permanent disqualification (PDQ) applied for a medical waiver (*Tables 2.2 and 2.4*)

- Waiver approval rate for active and reserve component applicants with a PDQ was approximately 70% (Tables 2.3 and 2.5)
 - Waiver approval rate for PDQ applicants in the active and reserve components tends to be higher among younger, white applicants, with higher education levels and AFQT scores
 - Waiver approval rate in the active component also tends to be higher among men, while there was no difference by sex for the reserve component
- Accession rate for PDQ applicants with an approved waiver was 80% for active duty and 65% for reserves (Tables 2.2 and 2.4)
 - Applicants with a PDQ are considerably less likely to access than their fully qualified counterparts in all three components (Tables 2.8, 2.10 and 2.12)
- The overall rate of early discharge (separation within the first year of service) was slightly higher among 2011-2015 applicants who accessed with a PDQ compared to those who were fully qualified in the active (14% vs 11%) and reserve (6% vs 4.5%) components, regardless of waiver status (Tables 2.8 and 2.10)
 - The most common reason for early discharge in active and reserve components was medical/behavioral attrition, excluding disability discharge and discharge related to a condition that existed prior to accession (~85%) (Tables 2.9 and 2.11)
 - Early discharge rates in the reserve component and National Guard are significantly underestimated due to the high prevalence of interservice separation codes (ISC) indicating an unknown reason for discharge

Leading Medical Conditions for PDQs (Tables 2.17-2.19)

- Due to the use of both ICD-9 and ICD-10 codes during this time period, AMSARA categorized medical disqualifications into clinically meaningful categories using Clinical Classifications Software (CCS) codes in order to examine the leading medical conditions (current or history of) for which applicants were disqualified in 2016 compared to aggregate data from the previous five years
- Leading medical conditions for PDQs in 2016
 - Nutritional, endocrine, and metabolic disorders, a category that is mainly comprised of weight-related conditions (i.e obesity), were the most frequent PDQs for all components
 - Vision defects, a category that is mainly comprised of disorders of refraction and accommodation, was the second most frequent category in all components
 - Third most common were allergic reactions in reserve and National Guard, while substance-related disorders surpassed allergic reactions in active duty component
 - The most common allergic reactions in the reserve and National Guard were anaphylactic shock (unspecified or due to adverse food reaction) and contact dermatitis
 - The top three DQ conditions in 2016 are consistent with the previous 5-year period in reserve and National Guard

Accession Medical Waivers (Tables 2.20-2.33)

- In total, about 32,000 medical waivers were considered in the Army, Navy and Air Force in 2016
 - Army waivers remained stable from 2011-2016, with a slight decrease in 2015
 - In the Navy, the number of waiver considerations has been steadily increasing since 2011
- Accordingly, the conditions most frequently considered for a waiver (Tables 2.22 and 2.25) closely reflect the most common permanently disqualifying conditions (Tables 2.17 and 2.19)
 - The waiver approval rate varies substantially by the medical condition being considered (e.g., 86% for vision defects versus 37% for asthma in Army), by service (e.g., vision defects waiver approval rate is 86% for Army versus 68% for Air Force), and by time period (e.g., Navy asthma approval rate was 17% in 2016 versus 35% for FY11-15) (Tables 2.26 and 2.29)

Part II of Section 2 shows an in-depth examination of all enlisted accessions that initially entered the military between 2011 and 2016. The primary outcome of interest in Part II is early discharge from service. Early discharge is further classified into three separate endpoints: adverse attrition (medical, behavioral, administrative), disability discharge, and discharge for conditions that existed prior to service (EPTS discharge), which are then described among accessions in each component separately. In this report, all-cause attrition is described after 70, 365, 730, and 1095 days by demographic characteristics for all three components separately. Disability discharge within the first year of service is ascertained by presence of disability evaluation record with a disposition date within one

year of the accession date. Discharges of recent enlistees for medical conditions that existed prior to service (EPTS) may be costly problem for all branches of the military. Documentation of EPTS discharges is requested from each Initial Entry Training (IET) site by US Military Entrance Processing Command (USMEPCOM) but this reporting is not required by service regulations. The total numbers of reported discharges have varied substantially over time and by training base. Unfortunately, EPTS discharge data was underreported in 2014 and not reported in 2015 and 2016. Therefore, with no new EPTS data, refer to the 2016 AMSARA Annual Report for the most recent descriptive statistics on this discharge type.

Key findings by discharge type are as follows:

All-Cause Attrition (Tables 2.34-2.37)

- The majority of attrition during the first 3 years post-accession occurs within the first 365 days of service
 - Overall attrition after 3 years was approximately 16% and 6% in the active and reserve components, respectively
- Active component attrition in the first 70 days of service was highest in the Navy (7%) and lowest in the Marines and Air Force (4%)
 - By the end of 3 years, the Army had the highest percent attrition (21%) which was almost twice that of the Marine Corps, which had the lowest (11%)
- For reserves, the Marine Corps and the Navy had the highest and lowest cumulative attrition percentages at all follow-up points, respectively
- Fully qualified accessions had the lowest percent attrition at all points of follow-up in both active and reserve components

Disability Discharge in First Year of Service (Tables 2.38-2.47)

- Disability discharge is infrequent among new enlistees, with less than 1% of enlistees being considered for such a discharge within the first year of service
- Disability discharge rates generally decreased from 2011 to 2016 (Tables 2.38, 2.40, 2.42)
- Most common disability conditions for all services were diseases of the spine, skull, limbs, and extremities (Tables 2.44-2.47)
 - Other common conditions included prosthetic implants and diseases of the musculoskeletal system, psychiatric, and neurologic disorders
 - Conditions at discharge were not compared to pre-accession disqualification or waivers in this report
- Risk of evaluation for disability discharge in the first year was highest in the Army for active duty and lowest in the Navy for both active duty and reserves (Tables 2.39)
 - For reserves, Marines had more than five times the risk for disability discharge in the first year of service compared to Army accessions (Tables 2.41)
- Characteristics significantly associated with increased risk of disability discharge in all three components include females, older age and having any pre-existing medical condition resulting in a medical disqualification prior to enlistment (Tables 2.39, 2.41, 2.43)

AMSARA is committed to further development of evidence-based medical standards to enable the DoD to enlist the highest quality applicants, thereby ensuring a healthy, fit, and effective force. The following programmatic recommendations are based on nearly 20 years of research:

1. Various databases must be improved. For example, waiver data do not provide sufficient clinical detail such as severity, duration and prognosis to allow analyses of waiver decision criteria. Similarly, discharge data do not provide medical diagnoses for adverse attrition related to medical reasons and ISC codes are unreliable.
2. EPTS classification and reporting from the IET sites to USMEPCOM, which is still passive, should be mandated and standardized by DoD/service regulations. Analysis would be enhanced with conversion from paper to digital records.
3. Rather than study accession medical standards in isolation, medical standards across the continuum of a service member's lifecycle, including medical standards for retention and deployment, should be analyzed using evidence-based principles.

Introduction to the Accession Medical Standards Analysis & Research Activity

INTRODUCTION

The Medical-Personnel Executive Steering Committee (MEDPERS) was established by the Under Secretary of Defense (Personnel and Readiness) to integrate the medical and personnel communities so they could provide policy guidance and establish standards for accession requirements. These standards would stem from evidence-based information provided by analysis and research. The committee is co-chaired by the Deputy Assistant Secretary of Defense (Military Personnel Policy) and the Principal Deputy Assistant Secretary of Defense (Health Affairs) and comprises representatives from the Office of the Assistant Secretary of Defense (Health Readiness Policy and Oversight), Office of the Assistant Secretary of Defense (Health Services Policy and Oversight), Office of the Assistant Secretary of Defense (Reserve and Manpower Personnel), Office of the Assistant Secretary of Defense (Civilian Personnel Policy), Offices of the Service Surgeons General, Offices of the Service Deputy Chiefs of Staff for Personnel, and Health and Safety Directorate (Department of Homeland Security, U.S. Coast Guard).

The Accession Medical Standards Working Group (AMSWG) is a subordinate working group that reviews accession medical policy issues contained in Department of Defense (DoD) Instruction 6130.03, entitled “Medical Standards for Appointment, Enlistment, or Induction in the Armed Forces.” This group is composed of representatives from each of the offices listed above.

AMSARA was established in 1996 within the Division of Preventive Medicine at Walter Reed Army Institute of Research. AMSARA supports the efforts of MEDPERS and AMSWG. The mission of AMSARA is to support the development of evidence-based medical standards by guiding the improvement of medical and administrative databases, conducting epidemiologic analyses, and integrating relevant operational, clinical, and economic considerations into policy recommendations. AMSARA has the following seven key objectives:

1. Validate current and proposed standards utilizing existing databases (e.g., should asthma as a child be disqualifying?);
2. Provide knowledge products to help inform selected standards (e.g., are body weight standards adequate measures of fitness?);
3. Validate assessment techniques (e.g., improve current screening tools);
4. Perform quality assurance (e.g., monitor geographic variation);
5. Optimize assessment techniques (e.g., develop attrition and morbidity prediction models);
6. Track impact of policies, procedures, and waivers;
7. Recommend changes to enhance readiness, protect health, and save money.

Military staffing within the WRAIR Preventive Medicine Branch that supported this effort includes LTC Jan Maby, Division Director, LTC Paul Kwon, Former Division Director, LTC William Washington, Chief, Department of Epidemiology, and MAJ Teresa Pearce, Former Chief, Department of Epidemiology.

AMSARA is augmented with contract support through ManTech Health. Staff in 2016 included Dr. David N. Cowan, Program Manager; Amanda Kelley, Principal Public Health Analyst; Cordie Campbell, Public Health Analyst; Xiaoshu Feng, Statistician; Daniel Gedeon, Public Health Analyst; Megan Multack, Public Health Analyst; Christine Toolin, Public Health Analyst; Faith Umoh, Public Health Analyst; Camille Wada, Public Health Analyst; and Janice Gary, Senior Task Supervisor.

SECTION 1: Special Studies

Background

Pre-enlistment screening to determine eligibility for U.S. military service includes a comprehensive battery of physical, medical, and aptitude testing. Military applicants who fail to meet medical accession standards established in Department of Defense Instruction 6130.03 are considered medically disqualified for service. However, applicants who received a permanent disqualification due to history of or a current condition may seek an accession medical waiver. If a service-specific waiver authority determines that the disqualifying condition is unlikely to influence operational readiness or impede military performance, a waiver may be granted to qualify the applicant for service.

Each year, approximately 18-20% of military applicants are medically disqualified for service due to history of or a current medical condition identified during their pre-enlistment medical examination at the Military Entrance Processing Station (MEPS).[1] Recent research found an association between specific pre-existing conditions and subsequent disability discharge from service [2]. Studies have also examined the relationship between specific pre-enlistment medical conditions and medical attrition [3-6]. Early discharge from military service is extremely costly to the Department of Defense (DoD) and the strength of our armed forces. Therefore, more current analyses of all separation outcomes among applicants with specific pre-existing conditions are necessary to best inform policy.

The following disqualifying medical conditions are of particular interest to the Accessions Medical Standards Working Group (AMSWG) and were therefore examined as part of this year's special studies: 1) disorders of refraction and accommodation (DRA); 2) ear and hearing disorders; 3) musculoskeletal injuries of the shoulder; and, 4) musculoskeletal injuries of the knee.

Methods

The study population included all first-time active duty applicants for enlisted service in the Army, Navy, Marine Corps, or Air Force with an initial MEPS medical examination between fiscal year (FY) 2011 and 2015. Applicants who later accessed as officers were excluded. Due to lack of follow-up time, those who accessed after 30 September 2015 were excluded from odds ratio (OR) and 95% confidence interval calculations, but included in descriptive analyses.

These analyses examine patterns and trends in individuals applying to the military between FY 2011 and 2015 who received a medical disqualification related to one of the conditions listed above. Individuals are followed from their initial medical examination at MEPS until the completion of their first year of service. The primary outcome, early discharge, includes disability discharge, EPTS discharge, and other forms of medical/behavioral attrition taking place within the first 365 days of service. Frequencies and percentages are used to describe disqualified applicants at various stages of the application and accession processes by year and demographics to identify characteristics that may contribute to disqualification, waiver status, accession, and/or separation. Multivariate logistic regression models were utilized to calculate ORs and 95% CIs that estimate the risk for early discharge among accessions with specific DQs compared to those with no disqualifying medical conditions (fully qualified). Models were developed using forward selection of potential covariates and estimates are adjusted for sex, age, race, education, and AFQT score category.

Individuals with an existing or history of a condition for which they were medically disqualified at their initial MEPS medical examination were identified by International Classification of Diseases, 9th revision (ICD-9) codes. Objective medical finding (OMF) codes can also be used to indicate a DQ for those entering the military through the Delayed Entry Program. Therefore, wherever possible, the presence of either an OMF or ICD-9 code identified applicants with the given DQ. However, for conditions too specific to be accurately identified by the broad grouping scheme of OMF codes, applicants were identified by ICD-9 codes alone. However, the vast majority of individuals with an OMF DQ have a corresponding ICD-9 code. Regardless of the number or type of condition-specific DQ codes documented, each individual was only counted once per condition.

Disorders of Refraction and Accommodation

Individuals were classified as having a DQ for disorders of refraction and accommodation (DRA) if the ICD-9 code 367 was present. For this study, those individuals with an OMF code corresponding to disorders of refraction (62) or accommodation (65) were also counted.

Ear and Hearing Disorders

Individuals were classified as having a DQ for a current or prior ear/hearing disorder if any clinical or procedural ear/hearing ICD-9 codes (clinical: 380-389, procedural: 18-20) were present. For this study, those individuals with an OMF code corresponding to ear or hearing disorders (71, 21, and 22) were also counted.

Injury-related musculoskeletal conditions of the shoulder

Individuals were classified as having a DQ for a current or prior shoulder musculoskeletal injury (MSI) if any ICD 9 clinical or procedural codes corresponding to a shoulder MSI (clinical: 716.11, 719.01, 719.11, 719.41, 726.0-726.2, 718.01, 718.11, 718.81, 718.91, 727.61-727.62, 718.31, procedural: 78, 80, and 83) were present. Because OMF codes only classify MSI by upper or lower extremities, OMF codes were not considered when identifying shoulder MSI among the study population. This should have little to no effect on the sample size as the vast majority of OMF codes have a corresponding ICD-9 code.

Injury-related musculoskeletal conditions of the knee

Individuals were classified as having a DQ for a current or prior knee musculoskeletal injury (MSI) if any ICD 9 clinical or procedural codes corresponding to a knee MSI (clinical: 716.16, 717.7, 719.06, 719.16, 719.46, 726.5, 718.05, 718.15, 718.85, 718.95, 733.14-733.15, 733.96-733.98, 727.65, 718.35) were present. Because OMF codes only classify MSI by upper or lower extremities, OMF codes were not considered when identifying knee MSI among the study population.

Results

In total, there were 941,492 active component applicants for enlisted service from 2011 through 2015. Almost 12% of fully qualified accessions were discharged (disability or EPTS discharge, or medical/behavioral attrition) within the first 365 days of service. After adjusting for sex, race, education, and AFQT score, those with an ear or hearing DQ were at a 44% increased risk of early discharge by 365 days when compared to those who were fully qualified (OR: 1.44, 95%CI: 1.28, 1.63). Disqualifications for disorders of refraction and accommodation were associated with a 24% increased risk (OR: 1.24, 95%CI: 1.18, 1.30), or for musculoskeletal injuries of the knee increased were associated with a 15% increased risk (OR: 1.15; 95%CI: 1.04, 1.38). Disqualifications for shoulder MSI also increased risk for early discharge by 15%, but the finding was not significant (OR: 1.15; 95%CI: 0.99, 1.35).

TABLE 1.1: DISCHARGE WITHIN THE FIRST YEAR OF SERVICE AMONG FY 2011-2015 ACTIVE COMPONENT APPLICANTS FOR ENLISTED SERVICE WHO ACCESSED BY CONDITION-SPECIFIC DISQUALIFICATION *

DQ Condition	Total Accessions (N)	Early Discharge		OR‡	95% CI‡
		(n)	(%)		
Fully medically qualified	576,756	66,285	11.49	REF	-
DRA	13,155	1,784	13.56	1.24	1.18 - 1.30
Ear/Hearing conditions	1,968	302	15.35	1.44	1.28 - 1.63
Shoulder MSI	1,564	184	11.76	1.15	0.99 - 1.35
Knee MSI	3,214	400	12.45	1.15	1.04 - 1.38

FY: Fiscal Year; DQ: Disqualification; DRA: Disorders of refraction and accommodation; MSI: Musculoskeletal injury; OR: Odds Ratio; 95%CI: 95% Confidence Interval

*All accessions taking place between 2011 and 2015 are included, regardless of waiver status

‡Estimates adjusted for sex, race, age, education, and AFQT score

Disorders of Refraction and Accommodation

The percentage of applicants disqualified for current or history of DRA has remained constant over the five year period from 2011 to 2015 (Table 1.2). Overall, approximately 3% of applicants are medically disqualified for DRA (n=26,154), of which 72% (n=18,743) applied for an accession medical waiver. Waiver applications among applicants with a DRA DQ increased from 2011 (73%) to 2012 (77%), but have generally remained at around 70% from 2013 to 2015. Overall, the majority of waiver applications are approved for those with a DRA DQ (80%) and approval percentages have been consistent among applicants over the five year period. Among waiver grantees, 82% of applicants with a DRA DQ ultimately accessed into the active component overall. Approximately 14% of applicants with a pre-existing refraction and accommodation disorder who accessed with a waiver were subsequently discharged within their first year of service, both yearly and overall.

The percentage of DQs for DRA did not vary by sex (Table 1.3). However, females with DRA were slightly more likely to apply for a waiver (76%) than males (71%). Applicants older than 25 years had a similar disqualification rate (4%) than those 25 years old or younger (3%), but were more likely to apply for a waiver (78% vs. 71%). Disqualifications for DRA and subsequent waiver applications were similar among the three race categories. Applicants with the highest education level (at least a Bachelor’s degree) had the highest percentage of DRA DQs (4%) and those with the lowest education level had the lowest DRA DQ percentage (2%). Among those disqualified for DRA, high school seniors (53%) had the smallest percentage of waiver applicants, whereas those with some college education had the highest (80%). Disqualification for DRA did not vary by AFQT score. However, those with the highest scores were the most likely to apply for a waiver (78%) and those with the lowest scores were least likely (24%).

Among applicants disqualified for DRA who applied for an accession medical waiver, men were slightly more likely to be approved (81%) and, given waiver approval, more likely to access (83%) compared to women (77% and 78%, respectively). Among the three age groups, the youngest applicants (between 17 and 20 years) were most likely to be granted a waiver (82%) and the oldest applicants (older than 25 years) were least likely (76%). The accession percentage for approved applicants followed the same age pattern. Whites had the highest waiver approval rate (83%) and blacks had the lowest (73%). However, the percent of waived applicants who accessed was no different for blacks and whites. Those with at least a high school diploma or equivalent degree were the most likely to be granted a waiver (82%) and waiver approval was least likely for those with less than a high school senior education level (60%). Accessions among waived applicants followed an expected trend as accession percentages generally rose with increasing AFQT scores.

TABLE 1.2: WAIVERS, ACCESSIONS, AND EARLY DISCHARGE AMONG FY 2011-2015 ENLISTED ACTIVE COMPONENT APPLICANTS WITH MEDICALLY DISQUALIFYING DISORDERS OF REFRACTION AND ACCOMMODATION: ALL SERVICES*

Application FY	Total Applicants (n)	DRA DQ		Applied for Waiver ^{‡§}		Waiver Approved ^{‡§}		Accessions ^{‡§}		Early Discharge ^{‡†}	
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
2011	193,256	4,926	2.55	3,569	72.45	2,863	80.22	2,312	80.75	333	14.40
2012	192,156	4,902	2.55	3,793	77.38	3,062	80.73	2,570	83.93	360	14.01
2013	197,611	5,483	2.77	3,932	71.71	3,198	81.33	2,667	83.40	368	13.80
2014	171,293	5,122	2.99	3,584	69.97	2,856	79.69	2,323	81.34	333	14.33
2015	187,176	5,721	3.06	3,865	67.56	3,070	79.43	2,496	81.30	347	13.90
Total	941,492	26,154	2.78	18,743	71.66	15,049	80.29	12,368	82.18	1,741	14.08

FY: Fiscal Year; DRA: Disorders of refraction and accommodation; DQ: Disqualification

*Statistics reported in each column are derived from the corresponding number of individuals in the preceding column.

‡Underestimated due to missing Marine Corps waiver records from FY 2011 and 2014-2015. Data use/sharing agreements with MRMC are pending.

§Underestimated for FY 2015 applicants due to incomplete follow-up.

†Includes disability discharge, EPTS discharge and other attrition taking place within the first year of service; underestimated due to unavailable EPTS data (FY 2014-2015) and incomplete follow-up for FY 2014-2015 applicants.

TABLE 1.3: WAIVER APPLICATIONS, APPROVALS, AND ACCESSIONS AMONG FY 2011-2015 ENLISTED ACTIVE COMPONENT APPLICANTS WITH A DISQUALIFICATION FOR CURRENT OR HISTORY OF **DISORDERS OF REFRACTION AND ACCOMMODATION BY DEMOGRAPHIC CHARACTERISTICS**

	Total Applicants N	DRA DQ N %		Applied for a Waiver				Waiver Status				Accessions N %	
				Yes		No		Approved		Not Approved			
				N	%	N	%	N	%	N	%		
Sex[§]													
Male	768,975	21,284	2.77	15,059	70.75	6,225	29.25	12,208	81.07	2,851	18.93	10,161	83.23
Female	172,304	4,863	2.82	3,683	75.74	1,180	24.26	2,841	77.14	842	22.86	2,207	77.68
Age Group at MEPS[§]													
17-20	666,803	17,110	2.57	11,868	69.36	5,242	30.64	9,696	81.70	2,172	18.30	8,075	83.28
21-25	219,316	6,895	3.14	5,198	75.39	1,697	24.61	4,082	78.53	1,116	21.47	3,330	81.58
>25	55,347	2,147	3.88	1,675	78.02	472	21.98	1,270	75.82	405	24.18	963	75.83
Race[§]													
White	680,455	17,771	2.61	12,438	69.99	5,333	30.01	10,349	83.20	2,089	16.80	8,604	83.14
Black	171,458	4,921	2.87	3,710	75.39	1,211	24.61	2,721	73.34	989	26.66	2,245	82.51
Other	89,579	3,462	3.86	2,595	74.96	867	25.04	1,979	76.26	616	23.74	1,519	76.76
Education[§]													
<HS Senior [†]	3,058	74	2.42	48	64.86	26	35.14	29	60.42	19	39.58	14	48.28
HS Senior	109,920	3,014	2.74	1,605	53.25	1,409	46.75	1,059	65.98	546	34.02	687	64.87
HS Diploma	719,715	19,219	2.67	14,108	73.41	5,111	26.59	11,555	81.90	2,553	18.10	9,741	84.30
Some College	58,263	1,900	3.26	1,524	80.21	376	19.79	1,240	81.36	284	18.64	1,012	81.61
≥Bachelor's	50,536	1,947	3.85	1,458	74.88	489	25.12	1,166	79.97	292	20.03	914	78.39
AFQT Score^{§‡}													
93-99	62,741	2,077	3.31	1,616	77.80	461	22.20	1,296	80.20	320	19.80	1,091	84.18
65-92	371,673	10,120	2.72	7,399	73.11	2,721	26.89	5,903	79.78	1,496	20.22	4,874	82.57
50-64	269,333	7,341	2.73	5,247	71.48	2,094	28.52	4,196	79.97	1,051	20.03	3,470	82.70
30-49	225,821	6,259	2.77	4,424	70.68	1,835	29.32	3,610	81.60	814	18.40	2,920	80.89
11-29	8,388	221	2.63	54	24.43	167	75.57	42	77.78	12	22.22	12	28.57
Missing/Unsure	3,387	132	3.90	3	2.27	129	97.73	2	66.67	1	33.33	1	50.00
Total (N)	941,492	26,154	2.78	18,743	71.66	7,411	28.34	15,049	80.29	3,694	19.71	12,368	82.18

MEPS: Military Entrance Processing Station; HS: High School; AFQT: Armed Forces Qualification Test; DRA: Disorders of refraction and accommodation; DQ: Disqualification

§ Individuals with missing values for demographic variables are included in the total.

† Encompasses the following: 1) those pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) those not attending high school and who are neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

‡ Individuals scoring in the 10 percentile or lower are prohibited from applying, therefore, the observed accessions most likely reflect data capture errors and are not reported, but are included in the total.

Ear and Hearing Conditions

The percentage of applicants disqualified for current or history of ear and hearing conditions has remained relatively constant over the five year period from 2011 to 2015 (Table 1.4). Overall, approximately 1% of applicants are medically disqualified for ear/hearing disorders (n=8,535), of which 62% (n=5,328) went on to apply for an accession medical waiver. Waiver applications among applicants with an ear/hearing DQ increased slightly from 2011 (64%) to 2012 (66%), but have been declining ever since, with only 57% of 2015 applicants applying for a waiver. Waiver approvals among disqualified applicants have also decreased from 36% in 2011 to 20% in 2015. Among those granted a waiver, more than 80% of applicants with an ear/hearing DQ ultimately accessed to the active component overall, with a high of 85% among 2012 applicants. Discharge within the first year of service was more common among 2013 and 2015 applicants with pre-existing ear or hearing conditions (18%) than overall (14%).

TABLE 1.4: WAIVERS, ACCESSIONS, AND EARLY DISCHARGE AMONG FY 2011-2015 ENLISTED ACTIVE COMPONENT APPLICANTS WITH MEDICALLY DISQUALIFYING EAR/HEARING CONDITIONS: ALL SERVICES*

Application FY	Total Applicants (n)	Ear/Hearing DQ		Applied for Waiver ^{‡§}		Waiver Approved ^{‡§}		Accessions ^{‡§}		Early Discharge ^{††}	
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
2011	193,256	1,975	1.02	1,256	63.59	449	35.75	348	77.51	43	12.36
2012	192,156	1,672	0.87	1,101	65.85	352	31.97	298	84.66	33	11.07
2013	197,611	1,717	0.87	1,088	63.37	357	32.81	294	82.35	52	17.69
2014	171,293	1,489	0.87	926	62.19	214	23.11	167	78.04	20	11.98
2015	187,176	1,682	0.90	957	56.90	190	19.85	150	78.95	27	18.00
Total	941,492	8,535	0.91	5,328	62.43	1,562	29.32	1,257	80.47	175	13.92

FY: Fiscal Year; DQ: Disqualification

*Statistics reported in each column are derived from the corresponding number of individuals in the preceding column.

‡Underestimated due to missing Marine Corps waiver records from FY 2011 and 2014-2015. Data use/sharing agreements are pending.

§Underestimated for FY 2015 applicants due to incomplete follow-up.

†Includes disability discharge, EPTS discharge and other attrition taking place within the first year of service; underestimated due to unavailable EPTS data (FY 2014-2015) and incomplete follow-up for FY 2014-2015 applicants.

The percentage of disqualifications and waiver applications for ear/hearing disorders did not substantially vary by sex (Table 1.5). Applicants older than 25 years had a similar percentage of DQs (2%) than those 25 years and younger (1%), but were more likely to apply for a waiver (74% vs. 61%). The percentage of applicants disqualified for ear/hearing conditions was the same across racial categories, but whites were slightly less likely to apply for a waiver (61%) compared to blacks (65%) and those of other racial categories (66%). However, white applicants who did apply for a waiver had the highest approval rate (33%), followed by blacks (21%). Ear/hearing DQs were relatively consistent across education levels with the exception of the lowest level of education (less than a high school senior), which had the highest DQ percentage (1.5%). Waiver application percentages varied substantially by education level among disqualified applicants. Only 49% of high school seniors with ear/hearing DQs applied for a waiver, whereas 70-71% of those with at least some college education applied. There was no difference in the percentage of applicants with ear/hearing DQs across AFQT score categories, but for those who were disqualified, the highest scoring individuals applied for a waiver most frequently (68%), while the majority of those in the lowest score category did not apply for a waiver.

Among applicants disqualified for ear/hearing conditions who applied for an accession medical waiver, men and women had similar rates of approval, yet men were more likely to access after waiver approval (81%) compared to women (76%). Among the three age groups, the youngest applicants (between 17 and 20 years) were most likely to be granted a waiver (31%) and the oldest applicants (older than 25 years) were least likely (25%). The accession percentage for approved applicants followed the same age pattern. Among waived applicants with ear/hearing DQs, whites had the highest accession percentage (81%) and those of other non-black racial categories had the lowest (75%). Out of the waiver applicants with ear/hearing DQs, high school seniors had the lowest percentage of approvals (16%) and among those who were waived, the lowest accession rate (63%). The waiver approval percentage was highest among those with some college education (34%), but among the waiver grantees, high school graduates accessed more frequently than those with any college education (83% vs. 76%). For the most part, waiver approval percentages decrease with descending AFQT scores and the same trend is observed for accessions among those who received a waiver.

TABLE 1.5: WAIVER APPLICATIONS, APPROVALS, AND ACCESSIONS AMONG FY 2011-2015 ENLISTED ACTIVE COMPONENT APPLICANTS WITH A DISQUALIFICATION FOR EAR AND HEARING CONDITIONS BY DEMOGRAPHIC CHARACTERISTICS

	Total Applicants	Ear/Hearing DQ		Applied for a Waiver				Waiver Status				Accessions	
				Yes		No		Approved		Not Approved			
				N	%	N	%	N	%	N	%		
Sex[§]													
Male	768,975	7,492	0.97	4,687	62.56	2,805	37.44	1,390	29.66	3,297	70.34	1,127	81.08
Female	172,304	1,036	0.60	634	61.20	402	38.80	172	27.13	462	72.87	130	75.58
Age Group at MEPS[§]													
17-20	666,803	5,383	0.81	3,171	58.91	2,212	41.09	980	30.91	2,191	69.09	799	81.53
21-25	219,316	2,271	1.04	1,505	66.27	766	33.73	420	27.91	1,085	72.09	340	80.95
>25	55,347	881	1.59	652	74.01	229	25.99	162	24.85	490	75.15	118	72.84
Race[§]													
White	680,455	6,344	0.93	3,894	61.38	2,450	38.62	1,270	32.61	2,624	67.39	1,031	81.18
Black	171,458	1,168	0.68	759	64.98	409	35.02	156	20.55	603	79.45	124	79.49
Other	89,579	1,023	1.14	675	65.98	348	34.02	136	20.15	539	79.85	102	75.00
Education[§]													
<HS Senior [†]	3,058	47	1.54	31	65.96	16	34.04	6	19.35	25	80.65	4	66.67
HS Senior	109,920	1,382	1.26	679	49.13	703	50.87	112	16.49	567	83.51	71	63.39
HS Diploma	719,715	6,044	0.84	3,870	64.03	2,174	35.97	1,207	31.19	2,663	68.81	1,001	82.93
Some College	58,263	546	0.94	389	71.25	157	28.75	131	33.68	258	66.32	99	75.57
≥Bachelor's	50,536	516	1.02	359	69.57	157	30.43	106	29.53	253	70.47	82	77.36
AFQT Score^{§‡}													
93-99	62,741	501	0.80	341	68.06	160	31.94	104	30.50	237	69.50	88	84.62
65-92	371,673	3,116	0.84	1,942	62.32	1,174	37.68	595	30.64	1,347	69.36	490	82.35
50-64	269,333	2,514	0.93	1,573	62.57	941	37.43	452	28.73	1,121	71.27	355	78.54
30-49	225,821	2,251	1.00	1,419	63.04	832	36.96	398	28.05	1,021	71.95	320	80.40
11-29	8,388	120	1.43	49	40.83	71	59.17	12	24.49	37	75.51	4	33.33
Missing/Unsure	3,387	30	0.89	3	10.00	27	90.00	1	33.33	2	66.67	-	-
Total (N)	941,492	8,535	0.91	5,328	62.43	3,207	37.57	1,562	29.32	3,766	70.68	1,257	80.47

MEPS: Military Entrance Processing Station; HS: High School; AFQT: Armed Forces Qualification Test; DQ: Disqualification

§ Individuals with missing values for demographic variables are included in the total.

† Encompasses the following: 1) those pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) those not attending high school and who are neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

‡ Individuals scoring in the 10 percentile or lower are prohibited from applying, therefore, the observed accessions most likely reflect data capture errors and are not reported, but are included in the total.

Musculoskeletal injuries of the shoulder

The percentage of applicants disqualified for current or history of musculoskeletal injuries (MSI) of the shoulder generally remained stable over the time period (Table 1.6). Overall 2,718 applicants were medically disqualified for shoulder MSIs, of which 78% (n=2,119) went on to apply for an accession medical waiver overall. Waiver applications also slightly increased among 2012 applicants with a shoulder MSI DQ (78%) compared to 2011 applicants (72%). The yearly waiver application percentage fluctuated from a low of 72% in 2011 to a high of 83% among those who initially applied in 2014. Waiver approvals were mostly on a minor downward trend for applicants from 2011 (85%) through 2015 (81%). Accessions among those granted a waiver were most common for 2011 and 2013 applicants (85%) and least common for 2015 applicants (81%). Among those who accessed with a pre-existing shoulder MSI and an approved waiver, 2012 applicants had the highest early discharge percentage (13%) and the lowest early discharge percentage was for waived 2015 applicants who accessed (9%).

TABLE 1.6: WAIVERS, ACCESSIONS, AND EARLY DISCHARGE AMONG FY 2011-2015 ENLISTED ACTIVE COMPONENT APPLICANTS WITH MEDICALLY DISQUALIFYING MUSCULOSKELETAL INJURIES OF THE SHOULDER ALL SERVICES*

Application FY	Total Applicants (n)	Shoulder MSI DQ		Applied for Waiver ^{‡§}		Waiver Approved ^{‡§}		Accessions ^{‡§}		Early Discharge ^{‡†}	
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
2011	193,256	455	0.24	329	72.31	278	84.89	236	84.89	28	11.86
2012	192,156	558	0.29	435	77.96	385	82.60	318	82.60	42	13.21
2013	197,611	530	0.27	401	75.66	362	84.53	306	84.53	33	10.78
2014	171,293	570	0.33	472	82.81	407	82.56	336	82.56	42	12.50
2015	187,176	605	0.32	482	79.67	432	80.79	349	80.79	32	9.17
Total	941,492	2,718	0.29	2,119	77.96	1,864	82.89	1,545	82.89	177	11.46

FY: Fiscal Year; MSI: Musculoskeletal injury; DQ: Disqualification

*Statistics reported in each column are derived from the corresponding number of individuals in the preceding column.

‡Underestimated due to missing Marine Corps waiver records from FY 2011 and 2014-2015. Data use/sharing agreements with MRMC are pending.

§Underestimated for FY 2015 applicants due to incomplete follow-up.

†Includes disability discharge, EPTS discharge and other attrition taking place within the first year of service; underestimated due to unavailable EPTS data (FY 2014-2015) and incomplete follow-up for FY 2014-2015 applicants.

Overall, 2,512 men (0.3%) and 206 women (0.1%) were initially disqualified for history of or a current shoulder MSI (Table 1.7). The percentage of disqualified applicants who applied for a MSI waiver, were approved for a waiver, and subsequently accessed did not substantially vary by sex. DQs for a shoulder MSI were least common among applicants between 17 and 20 years (0.3%). Waiver application percentages did not significantly vary among age groups (77-79%). The percentage of applicants with a shoulder MSI DQ was similar across racial categories. Among those disqualified, whites were slightly less likely to apply for a waiver (77%) than blacks (80%) or other race (86%), and the waiver approval rate ranged from 82% (other) to 89% (white). Shoulder MSIs were most common among those with a Bachelor's degree and above (0.7%). The percent of applicants with a shoulder MSI DQ was 0.1% for those in the lowest AFQT score category (11-29) and increased modestly with increasing scores. Among all the disqualified applicants, approximately 80% of those scoring in the 50th AFQT percentile or above applied for a waiver and overall, 88% of those who applied, were approved (with the exception of the single waiver applicant who scored below the 30th percentile).

Among applicants with a shoulder MSI DQ who applied for an accession medical waiver, approximately 91% of individuals 25 years and older were granted the waiver compared to 87-88% of younger applicants. However, accession was most common for individuals between 17 and 20 years (85%) and least common for those 25 years and older (73%). Blacks had the highest accession percentage among waiver grantees (85%), followed by whites (83%). Waiver approval percentages generally increase with increasing level of education, but accession was highest among high school graduates (85%). Among waiver grantees scoring in the 50th AFQT score percentile or higher, those with the highest scores (93-99) were slightly less likely to access (80%) and those with the lowest scores (50-64) had the highest accession percentage (85%).

TABLE 1.7: WAIVER APPLICATIONS, APPROVALS, AND ACCESSIONS AMONG FY 2011-2015 ENLISTED ACTIVE COMPONENT APPLICANTS WITH A DISQUALIFICATION FOR MUSCULOSKELETAL INJURIES OF THE SHOULDER BY DEMOGRAPHIC CHARACTERISTICS

	Total Applicants	Shoulder MSI DQ		Applied for a Waiver				Waiver Status				Accessions	
				Yes		No		Approved		Not Approved			
				N	%	N	%	N	%	N	%		
Sex[§]													
Male	768,975	2,512	0.33	1,959	77.99	553	22.01	1,730	88.31	229	11.69	1,439	83.18
Female	172,304	206	0.12	160	77.67	46	22.33	134	83.75	26	16.25	106	79.10
Age Group at MEPS[§]													
17-20	666,803	1,664	0.25	1,286	77.28	378	22.72	1,124	87.40	162	12.60	960	85.41
21-25	219,316	852	0.39	675	79.23	177	20.77	597	88.44	78	11.56	481	80.57
>25	55,347	202	0.36	158	78.22	44	21.78	143	90.51	15	9.49	104	72.73
Race[§]													
White	680,455	2,249	0.33	1,732	77.01	517	22.99	1,533	88.51	199	11.49	1,270	82.84
Black	171,458	291	0.17	234	80.41	57	19.59	206	88.03	28	11.97	176	85.44
Other	89,579	178	0.20	153	85.96	25	14.04	125	81.70	28	18.30	99	79.20
Education[§]													
<HS Senior [†]	3,058	8	0.26	3	37.50	5	62.50	2	66.67	1	33.33	1	50.00
HS Senior	109,920	223	0.20	127	56.95	96	43.05	88	69.29	39	30.71	56	63.64
HS Diploma	719,715	1,971	0.27	1,579	80.11	392	19.89	1,401	88.73	178	11.27	1,193	85.15
Some College	58,263	189	0.32	155	82.01	34	17.99	143	92.26	12	7.74	116	81.12
≥Bachelor's	50,536	327	0.65	255	77.98	72	22.02	230	90.20	25	9.80	179	77.83
AFQT Score^{§‡}													
93-99	62,741	269	0.43	214	79.55	55	20.45	188	87.85	26	12.15	150	79.79
65-92	371,673	1,259	0.34	1,002	79.59	257	20.41	883	88.12	119	11.88	731	82.79
50-64	269,333	683	0.25	544	79.65	139	20.35	479	88.05	65	11.95	409	85.39
30-49	225,821	464	0.21	355	76.51	109	23.49	312	87.89	43	12.11	255	81.73
11-29	8,388	10	0.12	2	20.00	8	80.00	1	50.00	1	50.00	-	-
Missing/Unsure	3,387	33	0.97	2	6.06	31	93.94	1	50.00	1	50.00	-	-
Total (N)	941,492	2,718	0.29	2,119	77.96	599	22.04	1,864	87.97	255	12.03	1,545	82.89

MSI: Musculoskeletal injury; MEPS: Military Entrance Processing Station; HS: High School; AFQT: Armed Forces Qualification Test; DQ: Disqualification

§ Individuals with missing values for demographic variables are included in the total.

† Encompasses the following: 1) those pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) those not attending high school and who are neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

‡ Individuals scoring in the 10 percentile or lower are prohibited from applying, therefore, the observed accessions most likely reflect data capture errors and are not reported, but are included in the total.

Musculoskeletal injuries of the knee

The percentage of applicants disqualified for current or history of musculoskeletal injuries (MSI) of the knee has generally remained stable over time (Table 1.8). Overall, approximately 0.6% of applicants were disqualified for musculoskeletal injuries (MSI) of the knee between 2011 and 2015, of which, about 70% applied for an accession medical waiver. Disqualified applicants from 2013 had the highest waiver approval percentage (85%) among all waiver applicants and those who initially applied in 2014 had the lowest (79%). The accession percent for those with a knee MSI who were granted a waiver ranges from 84% among those who applied in 2011 and 2014 to 86% for 2012 applicants. Overall, 12% of applicants who accessed with an approved waiver for a knee MSI were discharged within the first 365 days, with the highest rate of early discharge occurring in 2012 and 2014 (14%).

TABLE 1.8: WAIVERS, ACCESSIONS, AND EARLY DISCHARGE AMONG FY 2011-2015 ENLISTED ACTIVE COMPONENT APPLICANTS WITH MEDICALLY DISQUALIFYING MUSCULOSKELETAL INJURIES OF THE KNEE ALL SERVICES*

Application FY	Total Applicants (n)	Knee MSI DQ		Applied for Waiver ^{‡§}		Waiver Approved ^{‡§}		Accessions ^{‡§}		Early Discharge ^{†‡}	
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
2011	193,256	1,004	0.52	681	67.83	559	82.09	472	84.44	56	11.86
2012	192,156	1,142	0.59	819	71.72	673	82.17	576	85.59	81	14.06
2013	197,611	1,303	0.66	914	70.15	780	85.34	660	84.62	79	11.97
2014	171,293	1,186	0.69	863	72.77	686	79.49	576	83.97	79	13.72
2015	187,176	1,198	0.64	831	69.37	677	81.47	578	85.38	54	9.34
Total	941,492	5,833	0.62	4,108	70.43	3,375	82.16	2,862	84.80	349	12.19

FY: Fiscal Year; MSI: Musculoskeletal injury; DQ: Disqualification

*Statistics reported in each column are derived from the corresponding number of individuals in the preceding column.

‡Underestimated due to missing Marine Corps waiver records from FY 2011 and 2014-2015. Data use/sharing agreements with MRMC are pending.

§Underestimated for FY 2015 applicants due to incomplete follow-up.

†Includes disability discharge, EPTS discharge and other attrition taking place within the first year of service; underestimated due to unavailable EPTS data (FY 2014-2015) and incomplete follow-up for FY 2014-2015 applicants.

Overall, 4,920 men (0.6%) and 910 women (0.5%) were initially disqualified for a knee MSI (Table 1.9). Disqualified women were marginally more likely than men to apply for a waiver (73% vs. 70%). However, among those who applied for a knee MSI waiver, men were slightly more likely than women to be granted the waiver (83% vs. 78%) and to access (85% vs. 81%) DQs for a knee MSI were least common among applicants between 17 and 20 years (0.6%) and most common for those between 21 and 25 years (0.8%). Waiver application was most common among those 25 years or older (75%). Whites had the highest knee MSI DQ percentage (0.7%) and blacks had the lowest (0.4%). As education increases, the percent of applicants disqualified for a knee MSI generally increases, with more than 1% of those with a Bachelor’s degree or above receiving a knee MSI DQ and the same trend is seen with AFQT scores. Disqualified applicants with some college education were the most likely to apply for a waiver (78%) and high school seniors were least likely (55%). Among applicants with a knee MSI, the waiver application and approval percentages increase with increasing AFQT score.

Disqualified applicants between 21 and 25 years had the highest percentage of approved waivers (84%) (Table 1.9). Among those granted a waiver, the percent that accessed was greatest for 17 to 20 year-olds (87%). While the percent of applicants disqualified for a knee MSI who applied for a waiver was the same among blacks and whites (70%), 83% of white waiver applicants were granted the waiver compared to 78% of blacks. Waiver applicants with a high school diploma and above had a much higher approval percentage (82-84%) than those without (59-60%). The accession percentage among waived applicants was highest for high school graduates (87%), and lowest among high school seniors (71%). Among waived applicants, the accession percentages were similar in all categories above the 30th percentile.

TABLE 1.9: WAIVER APPLICATIONS, APPROVALS, AND ACCESSIONS AMONG FY 2011-2015 ENLISTED ACTIVE COMPONENT APPLICANTS WITH A DISQUALIFICATION FOR MUSCULOSKELETAL INJURIES OF THE KNEE BY DEMOGRAPHIC CHARACTERISTICS

	Total Applicants	Knee MSI DQ		Applied for a Waiver				Waiver Status				Accessions	
				Yes		No		Approved		Not Approved			
				N	%	N	%	N	%	N	%		
Sex[§]													
Male	768,975	4,920	0.64	3,445	70.02	1,475	29.98	2,860	83.02	585	16.98	2,443	85.42
Female	172,304	910	0.53	661	72.64	249	27.36	515	77.91	146	22.09	419	81.36
Age Group at MEPS[§]													
17-20	666,803	3,763	0.56	2,589	68.80	1,174	31.20	2,119	81.85	470	18.15	1,837	86.69
21-25	219,316	1,665	0.76	1,216	73.03	449	26.97	1,015	83.47	201	16.53	846	83.35
>25	55,347	405	0.73	303	74.81	102	25.19	241	79.54	62	20.46	179	74.27
Race[§]													
White	680,455	4,631	0.68	3,257	70.33	1,374	29.67	2,702	82.96	555	17.04	2,308	85.42
Black	171,458	743	0.43	519	69.85	224	30.15	407	78.42	112	21.58	343	84.28
Other	89,579	459	0.51	332	72.33	127	27.67	266	80.12	66	19.88	211	79.32
Education[§]													
<HS Senior [†]	3,058	16	0.52	10	62.50	6	37.50	6	60.00	4	40.00	5	83.33
HS Senior	109,920	529	0.48	290	54.82	239	45.18	170	58.62	120	41.38	120	70.59
HS Diploma	719,715	4,280	0.59	3,062	71.54	1,218	28.46	2,578	84.19	484	15.81	2,236	86.73
Some College	58,263	425	0.73	331	77.88	94	22.12	272	82.18	59	17.82	228	83.82
≥Bachelor's	50,536	583	1.15	415	71.18	168	28.82	349	84.10	66	15.90	273	78.22
AFQT Score^{§‡}													
93-99	62,741	560	0.89	429	76.61	131	23.39	357	83.22	72	16.78	297	83.19
65-92	371,673	2,529	0.68	1,822	72.04	707	27.96	1,512	82.99	310	17.01	1,290	85.32
50-64	269,333	1,611	0.60	1,130	70.14	481	29.86	922	81.59	208	18.41	789	85.57
30-49	225,821	1,058	0.47	718	67.86	340	32.14	578	80.50	140	19.50	485	83.91
11-29	8,388	26	0.31	5	19.23	21	80.77	5	100.00	-	-	1	20.00
Missing/Unsure	3,387	49	1.45	4	8.16	45	91.84	1	25.00	3	75.00	-	-
Total (N)	941,492	5,833	0.62	4,108	70.43	1,725	29.57	3,375	82.16	733	17.84	2,862	84.80

MSI: Musculoskeletal injury; MEPS: Military Entrance Processing Station; HS: High School; AFQT: Armed Forces Qualification Test; DQ: Disqualification

§ Individuals with missing values for demographic variables are included in the total.

† Encompasses the following: 1) those pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) those not attending high school and who are neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

‡ Individuals scoring in the 10 percentile or lower are prohibited from applying, therefore, the observed accessions most likely reflect data capture errors and are not reported, but are included in the total.

Discussion

Attrition, disability discharge, and EPTS discharge within the first year of service all have substantial direct and indirect costs across the DoD. Limited data exists on the exact amount, but estimates suggest that the average aggregate cost to recruit, pay, equip, feed, house, and train one individual through the end of basic training is in excess of \$73,000[7]. After controlling for sex, age, race, education, and AFQT score percentile, applicants who accessed with a DRA, knee MSI or ear/hearing medical disqualification were at a significantly increased risk of discharge within the first year of service when compared to fully qualified accessions (Table 1.1).

While interpreting the current findings, it is important to note that relative risk estimates (ORs) reported in Table 1.1 were calculated among all accessions, regardless of waiver status. Alternatively, in Tables 1.2-1.9 the descriptive statistics portraying accession and early discharge only consider applicants who were granted an accession medical waiver. Because the waiver approval process is designed to regulate the accession of applicants with conditions that are likely to be exacerbated by military service or could lead to further injury and/or early discharge, all accessions with a PDQ should have a valid and approved waiver record. Therefore, in theory, the percentage of permanently disqualified applicants who access overall should be no different from the percentage of permanently disqualified applicants who access with an approved waiver. However, these studies found a sizable amount of disqualified applicants to have accessed without a record of approval from the service-specific waiver authority. A sub-analysis comparing early discharge among accessions with each condition to fully qualified accessions, separately for those with an approved waiver and those with a missing waiver record was conducted to further investigate the phenomenon. Results are presented in Table 1.10 and Figure 1.1.

TABLE 1.10: EARLY DISCHARGE AMONG DISQUALIFIED VS. FULLY QUALIFIED FY 2011-2015 ACCESSIONS BY DISQUALIFYING CONDITION AND WAIVER STATUS

DQ Condition*	DQ, Approved waiver			DQ, Missing waiver		
	Accessions (N)	OR ₁ ‡	95% CI‡	Accessions (N)	OR ₂ ‡	95% CI‡
DRA	10,928	1.31	1.24 - 1.38	2,227	0.91	0.80 - 1.05
Ear/Hearing conditions	1,157	1.21	1.02 - 1.44	811	1.79	1.50 - 2.14
Shoulder MSI	1,377	1.12	0.95 - 1.32	187	1.42	0.93 - 2.18
Knee MSI	2,558	1.19	1.06 - 1.33	656	1.01	0.79 - 1.30

FY: Fiscal Year; DQ: Disqualification; DRA: Disorders of refraction and accommodation; MSI: Musculoskeletal injury; OR: Odds Ratio; 95% CI: 95% Confidence Interval

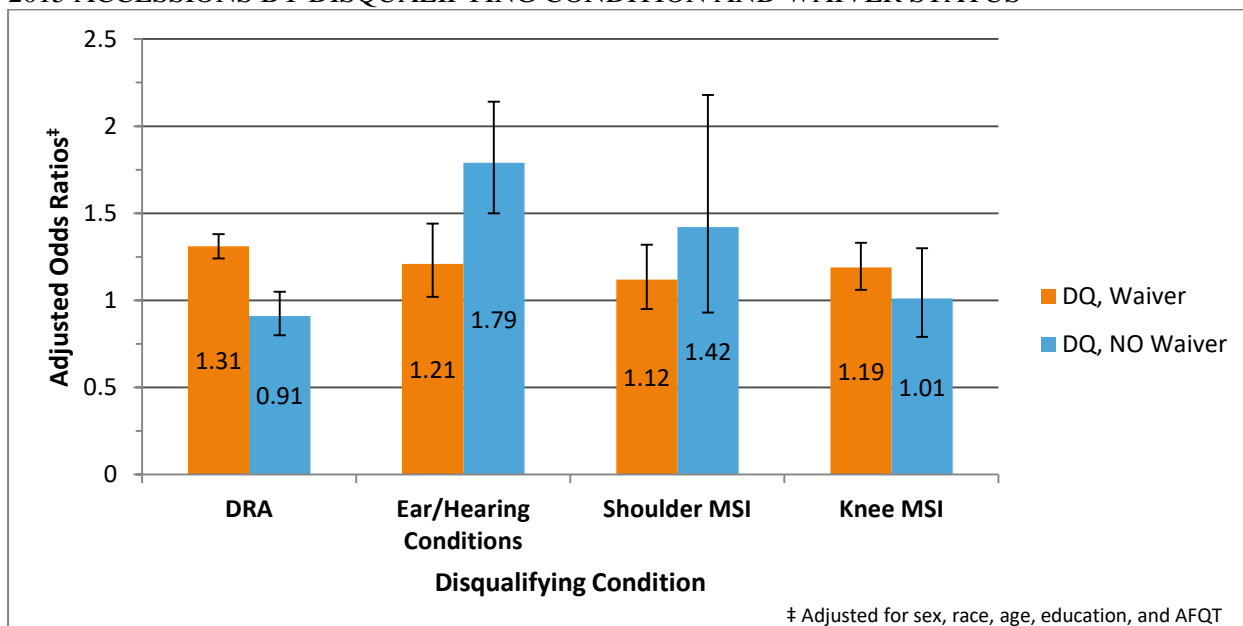
*For each DQ condition, accessions are compared to fully qualified accessions as a reference group

‡Estimates adjusted for sex, race, age, education, and AFQT score

Results from the sub-analysis show that among applicants initially disqualified for certain conditions, those granted an accession medical waiver before enlisting may have different early discharge outcomes than those who have no record of an approved waiver. The differences observed are dependent on the DQ condition. Most notably, those with a DQ for ear/hearing conditions who access without record of an approved waiver have a 79% increased risk of early discharge by 365 days compared to their fully qualified counterparts (OR: 1.79; 95% CI: 1.50, 2.14). Those who are granted a waiver and access with an ear/hearing DQ are still more likely than fully qualified accessions to be dropped from service before 365 days (OR: 1.21; 95% CI: 1.02, 1.44), but such individuals contribute far less to the overall early discharge risk than those who access without a waiver record.

On the contrary, accessions with a DQ for DRA who were granted a waiver have a 31% increased risk for early discharge compared to fully qualified accessions, whereas no significant risk for discharge by 365 days was observed among those without a waiver record. Similarly, the risk for early discharge among individuals disqualified for a knee MSI who accessed without record of an approved waiver was not significantly different from that of fully qualified accessions, whereas those who had an approved waiver had a 20% increased risk. For accessions initially disqualified for a shoulder MSI, no significant association was found among those with an approved waiver record or those without.

FIGURE 1.1: EARLY DISCHARGE AMONG DISQUALIFIED VS. FULLY QUALIFIED FY 2011-2015 ACCESSIONS BY DISQUALIFYING CONDITION AND WAIVER STATUS



There are several limitations to these studies. First, analyses did not account for deployment, which may occur within the first year of service and has been associated with outcomes such as disability discharge and attrition. However, more often than not, deployment does not take place in the first 365 days of service, which is when the bulk of attrition takes place. Other limitations to these studies include failure to stratify outcome by specific type of loss (disability discharge, EPTS discharge, and other medical/behavioral attrition). It has been established that early discharge is comprised mainly of attrition, while disability discharge is rare within the first 365 days of service. Additionally, EPTS discharges are, by definition, a result of conditions that existed, but were unknown or undisclosed prior to service. Therefore, inclusion of individuals who were EPTS discharged may have resulted in differential misclassification of the exposure. However, EPTS discharged individuals were included for the purpose of measuring total losses within the first year of service. Although, EPTS data was underreported in 2014 and not reported in 2015, which may actually have resulted in underestimation of the true associations.

Conclusion

The primary finding from these special studies indicate that pre-existing ear and hearing conditions are a significant risk factor for early discharge from military service, and those who access with an ear/hearing DQ with no record of an accession medical waiver are significantly more likely to be lost from service in their first year than those who were granted an approved waiver for the DQ. In order to implement the most effective accession medical standards that both maximize operational readiness and minimize financial losses, it is essential to examine any potential association between known pre-existing medical conditions and early discharge from service. Furthermore, the evaluation of all processes and systems designed to limit the accession of applicants with pre-existing conditions that pose more than a minimal risk for adverse service outcome must be prioritized to ensure they are functioning as intended.

In conclusion, more research must be done to better understand the risks posed by specific pre-existing medical conditions within the context of the complicated military application and waiver processes, as well as at different points within a Service member’s career. Various aspects to consider for future studies include assessing whether the condition waived is related to conditions at discharge, stratification by sex and/or branch of service, classification of type of loss, adjusting for time in service, accounting for deployment and other service-related exposures, as well as hospitalization and other service outcomes.

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SECTION 2: Descriptive Statistics for Enlisted Service

The characteristics of the population of applicants for enlisted service in the Army, Navy, Marine Corps, and Air Force in the active, reserve or National Guard components from fiscal year (FY) 2011 to 2016 are described in Part I of Section 2. Part II of Section 2 describes various early discharge endpoints among the accessed population, which is comprised of all first-time enlisted accessions to any service of the active, reserve or National Guard components during the period from 2011 to 2016. Therefore, “Accessions” in Part II include those who may have applied for service prior to 2011, whereas “Accessions” in Part I refer only to accessions taking place among 2011-2016 applicants. Individuals identified as having prior service in any U.S. military component are excluded from all estimates in Section 2. Applicants for enlisted service who subsequently accessed as officers (as indicated by a pay grade of O01-06), were also excluded. An *applicant* is the individual who presents to a Military Entrance Processing Station (MEPS) for evaluation for acceptance into military service. An enlistee *accession* is the individual who has signed his or her oath of enlistment.

Except where otherwise noted, the following conventions apply:

- All references to year refer to fiscal year (FY).
- Only data through FY 2016 are included in Section 2. Therefore, numbers and percentages for accessions refer only to those accessed through September 30, 2016.
- To derive percentages and rates, data sets were merged at the individual level by Social Security Number (SSN).
- Applicants are considered disqualified if they had an International Classification of Diseases, 9th or 10th revision (ICD-9/10) or objective medical finding (OMF) code listed in their US Military Entrance Processing Command Integrated Resource System (USMIRS) application record.
- Temporary medical disqualifications are for conditions that can be corrected, such as being overweight or recent use of marijuana; these individuals may enter the military without a waiver after the condition is corrected. Permanent medical disqualifications (PDQ) are for all other disqualifying conditions described in DoD Instruction 6130.03.
- Descriptive statistics are shown separately for each component. Within each component, each applicant is only counted once, but applicants to more than one component may appear in more than one component’s tables.
- In the Summary Statistics for Part I, Section II, waiver applicants and approvals were counted among all permanently disqualified applicants who have ever applied for or been approved for a waiver.
- In Part I, Section II, “Accessions” refer only to applicants who applied for service between FY 2011 and 2016 and accessed. For example, “Accessions” for FY 2016 are summarizing accessions among individuals who applied for service in FY 2016. Notation is made when complete follow-up is not available.
- In Part II, Section II, “Accessions” refers to all first-time enlisted accessions to any service between FY 2011 and 2016. Unlike in Part I, the “Accession” in Part II may include Service members who applied for enlisted service prior to FY 2011.

- In Part I, Section II, all discharges within the first year of service that meet AMSARA’s definition for disability discharge, discharge for conditions that existed prior to service (EPTS discharge), or medical/behavioral attrition are counted as early discharge.
 - Disability Discharge: Includes all discharges with a disability evaluation resulting in one of the following dispositions: Temporary disability retirement list, Permanent disability retirement list, or Separation with severance pay.
 - EPTS Discharge: Includes all discharges due to a condition that was verified to have existed before the recruit began service and when complications leading to discharge arose no more than 180 days after the recruit began duty.
 - Medical/behavioral Attrition: (see Table 2.34)
- In Part II, Section II, attrition refers only to AMSARA’s definition of medical/behavioral attrition (see Table 2.34). Due to lack of follow-up time, attrition after 730 days is underestimated for 2014 accessions and not calculated for 2015-2016 accessions. Similarly, attrition after 365 days is underestimated for 2015 accessions and not calculated for 2016 accessions. All attrition estimates that are calculated for 2016 accessions should be considered underestimates.
- In Part I, education level and age were obtained at the time of MEPS application because MEPS data are the only source of these variables for applicants. Under the Delayed Entry Program, the application process can occur up to 2 years before the actual accession takes place.
- In Part II, Section II, age, education level, and Armed Forces Qualification Test (AFQT) score at time of accession are used.

Part I-A: Applicants for Enlisted Service - Summary

Statistics

Table 2.1 describes the population of applicants who received a medical examination and subsequently accessed into enlisted service in the Army, Navy, Marine Corps, or Air Force within the active and reserve components or National Guard. Descriptive statistics for fiscal years (FY) 2011 through 2016 applicants are reported separately for each component. It is important to note that the National Guard is comprised of only the Army and Air Force. Individuals were counted once, either in the component and service in which they access, or for applicants who did not access, in the service and component applied to on their most recent date of application. Applicants for enlisted service who subsequently accessed as officers (as indicated by a pay grade of O01-06), were excluded. Demographic characteristics (taken at time of application) and accession rates for 2016 applicants can be compared to aggregate statistics from the previous five years.

Primary Findings (Table 2.1):

- Most applicants in 2016 were white (59%-74%), high school graduates (55%-70%), male (74%-80%), or between the ages of 17 and 20 years old (61%-69%) in all three components.
- Approximately 80% of 2016 applicants were fully medically qualified for service, whereas around 14% received a permanent medical disqualification (PDQ) and 6% were temporarily disqualified.
- The percentage of female applicants and accessions in 2016 was slightly higher than the previous five year aggregate for all components.
- In 2016, an increase in applicants without a high school diploma took place in all three components.
- In the **active duty** component, most demographic characteristics of 2016 applicants and accessions were similar to the previous 5-year period. Notable changes include:
 - While the proportion of applicants without a diploma increased in 2016, the proportion of accessions without a diploma decreased from 9% in 2011-2015 to 3% in 2016.
 - The proportion of applicants scoring in the 50th percentile or higher slightly decreased in 2016 (71%) from the previous five year period (75%).
- In the **reserve** component, most demographic characteristics of 2016 applicants and accessions were similar to the previous 5-year period. Notable changes include:
 - Similar to active duty, there was a slight increase in applicants without a high school diploma (23% vs. 20%)
 - In 2016, 59% of reserve component applicants were white, a decrease from the previous five years is (68%).
 - The percentage of applicants over the age of 25 years increased in 2016 (16%) compared to the previous five years (11%).
- In the **National Guard**, most demographic characteristics of 2016 applicants and accessions were similar to the previous 5-year period. Notable changes include:
 - AFQT scores in or above the 50th percentile marginally decreased among applicants in 2016 (60%) vs. 2011-2015 (63%).

TABLE 2.1: DEMOGRAPHIC CHARACTERISTICS OF ENLISTED APPLICANTS WHO RECEIVED A MEDICAL EXAMINATION IN FY 2011-2015 VS. 2016 FOR ACTIVE, RESERVE AND NATIONAL GUARD COMPONENTS OF THE MILITARY: ALL SERVICES

	ACTIVE DUTY				RESERVE				NATIONAL GUARD			
	2011-2015		2016		2011-2015		2016		2011-2015		2016	
	Applicants	Accessions	Applicants	Accessions	Applicants	Accessions	Applicants	Accessions	Applicants	Accessions	Applicants	Accessions
	%	%	%	%	%	%	%	%	%	%	%	%
Sex[§]												
Male	81.7	82.8	80.2	81.5	76.6	77.4	74.7	74.0	76.4	77.2	73.8	74.4
Female	18.3	17.2	19.8	18.5	23.4	22.6	25.3	26.0	23.6	22.8	26.2	25.6
Age Group at MEPS[§]												
17-20	70.8	71.8	69.7	70.5	66.8	68.9	61.4	62.5	67.8	69.8	69.4	72.1
21-25	23.3	23.0	23.4	24.0	22.2	21.3	22.6	22.2	21.8	20.9	20.1	18.9
>25	5.9	5.3	6.9	5.5	10.9	9.7	16.0	15.4	10.4	9.3	10.5	9.1
Race[§]												
White	72.3	72.7	70.9	72.3	68.1	69.1	59.2	59.2	74.9	76.7	73.5	75.3
Black	18.2	18.4	18.0	20.0	22.8	22.3	23.7	24.1	19.8	19.1	20.9	19.7
Other	9.5	9.0	11.1	7.7	9.2	8.6	17.1	16.7	5.3	4.3	5.6	4.9
Education[§]												
<HS Senior [†]	0.3	0.2	0.7	0.1	3.3	4.1	3.4	4.8	7.9	8.8	8.4	9.4
HS Senior	11.7	8.8	17.3	3.8	16.8	18.4	19.4	19.8	19.8	21.8	24.9	26.9
HS Diploma	76.4	79.6	69.3	85.4	64.1	62.9	57.2	55.1	59.6	57.4	55.4	53.4
Some College	6.2	6.3	5.2	5.8	8.2	8.0	7.0	7.3	6.4	6.3	4.7	4.4
≥Bachelor's	5.4	5.1	7.6	5.0	7.6	6.6	12.9	13.0	6.2	5.7	6.5	5.8
AFQT Score^{§‡}												
93-99	6.7	6.9	6.2	6.0	6.1	6.1	7.1	7.2	5.9	6.1	6.2	6.4
65-92	39.6	40.5	37.3	37.3	37.4	38.6	37.7	38.9	33.3	35.1	32.1	34.0
50-64	28.7	29.1	27.7	27.5	26.1	26.3	24.8	25.0	23.6	24.2	22.0	22.9
30-49	24.1	23.3	27.3	28.8	28.9	28.7	28.7	28.8	32.5	32.4	33.2	34.2
11-29	0.9	0.2	1.4	0.3	1.5	0.4	1.7	0.1	4.7	2.2	6.5	2.5
Missing/Unsure	0.4	0.2	3.8	0.8	0.7	0.1	0.6	0.1	0.4	0.1	0.5	0.2
Medical Status												
Fully Qualified	80.4	86.6	80.8	88.3	79.3	86.5	81.3	88.8	76.8	84.9	79.4	87.4
Permanent DQ	15.2	10.3	14.7	8.9	15.8	9.9	14.1	8.0	15.6	9.4	13.3	7.6
Temporary DQ	4.4	3.1	4.5	2.8	4.9	3.6	4.6	3.2	7.7	5.7	7.3	5.0
Total (N)	941,492	730,354	192,893	84,791	174,336	118,639	33,620	20,065	252,221	184,199	40,996	29,877

MEPS: Military Entrance Processing Station; HS: High School; AFQT: Armed Forces Qualification Test; DQ: Disqualification

§ Individuals with missing values for demographic variables are included in the total.

† Encompasses the following: 1) those pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) those not attending high school and who are neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

‡ Individuals scoring in the 10 percentile or lower are prohibited from applying, therefore, the observed accessions most likely reflect data capture errors and are not reported, but are included in the total.

Individuals with a permanent medical disqualification (PDQ) must apply and be approved for an accession medical waiver from the service-specific waiver authority in order to enlist in that branch of the military. In tables 2.2-2.6 applicants with a PDQ are followed from their Military Entrance Processing Station (MEPS) physical exam (the primary point of data collection for all military applicants) through accession and until completion of their first year of service.

The total number of 2011-2016 applicants is reported by year for the active, reserve and National Guard components in Tables 2.2, 2.4 and 2.6, respectively. These tables also show the number and percent of applicants who are medically disqualified, and among the disqualified applicants, the number and percent with a PDQ, requiring a waiver to access. Furthermore, the number and percent of permanently disqualified applicants who apply for a waiver, the waiver approval percent, and the accession percentage among those with approved waivers are reported. Tables 2.3, 2.5, and 2.7 provide almost all of the same descriptive statistics for the active, reserve and National Guard components, respectively, but statistics in these tables are reported by demographic characteristics for all 2011-2016 applicants combined.

In Tables 2.2, 2.4 and 2.6, early discharge rates are also calculated for applicants who are granted a waiver for a PDQ and subsequently access to the active, reserve, or National Guard components, respectively. All early discharge estimates in Part I of Section 2 refer military separation within the first year of service. All discharges meeting the AMSARA definition for disability discharge, discharges for conditions that existed prior to service (EPTS) or adverse attrition are counted. While the majority of applicants access within one year of their MEPS physical exam, the exam is valid for two years. At the time of publication, data was only available through FY 2016. Therefore, a full year of follow-up is only available for those who access by 2015. For this reason, no discharge statistics were calculated for 2016 applicants and all discharge estimates are underestimated for 2014 and 2015 applicants. Additionally, accession rates may be underestimated for 2015 and 2016 applicants. Likewise, waiver data may be incomplete for 2015 and 2016 applicants who may not have applied or been approved for a waiver by the time of publication.

Primary Findings: Active Component (Table 2.2)

- Of the 1,134,385 enlisted active component applicants, approximately 20% were medically disqualified for service.
- The majority of disqualifications (77%) were due to permanently disqualifying medical conditions, which require an accession medical waiver for accession.
 - Approximately 60% of permanently disqualified applicants applied for a waiver from the service-specific waiver authority.
- Over 68% of waivers applied for by PDQ applicants were approved and 79% of those granted an accession medical waiver accessed.
- Among the accessions with a PDQ (and a MEPS medical examination between 2011 and 2015) who were granted a waiver, approximately 14% were discharged within their first year of service.

TABLE 2.2: DISQUALIFICATIONS, WAIVERS, ACCESSIONS, AND EARLY DISCHARGE AMONG FY 2011-2016 ENLISTED ACTIVE COMPONENT APPLICANTS WITH MEDICALLY DISQUALIFYING CONDITIONS: ALL SERVICES*

Application FY	Total Applicants (n)	Medically Disqualified		PDQ		Applied for a Waiver ^{‡§}		Waiver Approved ^{‡§}		Accessions ^{‡§}		Early Discharge ^{‡†}	
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
2011	193,256	36,532	18.9	26,966	73.8	16,881	62.6	11,287	66.9	9,168	81.2	1,252	13.7
2012	192,156	36,221	18.8	27,960	77.2	18,644	66.7	13,031	69.9	11,016	84.5	1,469	13.3
2013	197,611	40,089	20.3	31,728	79.1	20,266	63.9	14,732	72.7	12,332	83.7	1,681	13.6
2014	171,293	34,806	20.3	27,559	79.2	17,291	62.7	11,560	66.9	9,584	82.9	1,357	14.2
2015	187,176	37,235	19.9	29,100	78.2	16,837	57.9	11,201	66.5	9,237	82.5	1,213	13.1
2016	192,893	36,991	19.2	28,283	76.5	13,979	49.4	9,224	66.0	4,828	52.3	-	-
Total	1,134,385	221,874	19.6	171,596	77.3	103,898	60.5	71,035	68.4	56,165	79.1	6,972	13.6

PDQ: Permanent Disqualification

*Statistics reported in each column are derived from the corresponding number of individuals in the preceding column.

‡Underestimated due to missing Marine Corps waiver records from FY 2011 and 2014-2016. Data use/sharing agreements with MRMC are pending.

§Underestimated for FY 2015 and 2016 applicants due to incomplete follow-up.

†Includes disability discharge, EPTS discharge and other attrition taking place within the first year of service; underestimated due to unavailable EPTS data (FY 2015-2016) and incomplete follow-up for FY 2014-2015 applicants; FY 2016 applicants excluded.

Primary Findings: Active Component (Table 2.3)

- Overall, about 15% of the total number of enlisted active component applicants received a PDQ.
 - Increasing age and AFQT score correspond to an increased proportion of permanently disqualified applicants.
 - For educational level, the proportion of PDQ applicants ranged from 15% (high school diploma) to 19% (bachelor’s degree or higher).
 - Black applicants (13%) had a slightly lower proportion of PDQs than white applicants (16%) or other non-black race applicants (16%).
- Overall, 61% of those with PDQ applied for a waiver.
 - Increasing age and AFQT score correspond to an increased proportion of PDQ applicants applying for a waiver.
 - Other race applicants with a PDQ had the highest proportion of waiver applications (65%).
- Overall, 68% of waivers were approved.
 - Men had a slightly higher approval rate than women (69% vs. 67%).
 - Although black applicants were more likely to apply for a waiver, they had a lower approval rate than white applicants (64% vs. 70%).
 - Applicants still in high school were much less likely to be approved (<50%) compared with high school graduates and above (>70%).
 - Applicants with higher AFQT scores are more likely to be approved.
- 79% of those with an approved waiver accessed into the military overall.
 - Men accessed at a higher rate than women (80% vs. 74%).
 - Although older applicants were more likely to apply for a waiver, applicants in the youngest age group (17-20 yrs) were more likely to access than those over 25 years old (81% vs. 71%).
 - Applicants still in high school were much less likely to access (<60%) compared with high school graduates and above (>70%).

TABLE 2.3: WAIVER APPLICATIONS, APPROVALS AND ACCESSIONS AMONG FY 2011-2016 ENLISTED ACTIVE COMPONENT APPLICANTS BY DEMOGRAPHICS: ALL SERVICES*

	Total Applicants N	PDQ Applicants N %		Applied for a Waiver						Waiver Approved		Accession N %	
				Yes		No		Yes		No			
				N	%	N	%	N	%	N	%		
Sex[§]													
Male	923,495	139,133	15.1	84,333	60.6	54,800	39.4	58,218	69.0	26,115	31.0	46,667	80.2
Female	210,484	32,366	15.4	19,529	60.3	12,837	39.7	12,809	65.6	6,720	34.4	9,498	74.2
Age Group at MEPS[§]													
17-20	801,267	115,527	14.4	67,408	58.3	48,119	41.7	46,316	68.7	21,092	31.3	37,294	80.5
21-25	264,453	43,278	16.4	28,073	64.9	15,205	35.1	19,237	68.5	8,836	31.5	14,988	77.9
>25	68,638	12,786	18.6	8,414	65.8	4,372	34.2	5,481	65.1	2,933	34.9	3,883	70.8
Race[§]													
White	817,120	126,908	15.5	75,523	59.5	51,385	40.5	52,994	70.2	22,529	29.8	42,490	80.2
Black	206,232	27,472	13.3	17,157	62.5	10,315	37.5	10,993	64.1	6,164	35.9	8,658	78.8
Other	111,033	17,216	15.5	11,218	65.2	5,998	34.8	7,048	62.8	4,170	37.2	5,017	71.2
Education[§]													
<HS Senior [†]	4,375	723	16.5	426	58.9	297	41.1	190	44.6	236	55.4	111	58.4
HS Senior	143,201	23,643	16.5	10,526	44.5	13,117	55.5	4,998	47.5	5,528	52.5	2,803	56.1
HS Diploma	853,297	124,197	14.6	78,108	62.9	46,089	37.1	55,105	70.5	23,003	29.5	45,114	81.9
Some College	68,220	10,914	16.0	7,523	68.9	3,391	31.1	5,374	71.4	2,149	28.6	4,238	78.9
≥Bachelor's	65,292	12,119	18.6	7,315	60.4	4,804	39.6	5,368	73.4	1,947	26.6	3,899	72.6
AFQT Score^{§‡}													
93-99	74,263	12,788	17.2	8,911	69.7	3,877	30.3	6,373	71.5	2,538	28.5	5,032	79.0
65-92	440,942	68,094	15.4	42,950	63.1	25,144	36.9	29,678	69.1	13,272	30.9	23,593	79.5
50-64	320,724	47,709	14.9	28,929	60.6	18,780	39.4	19,591	67.7	9,338	32.3	15,638	79.8
30-49	276,572	39,119	14.1	22,688	58.0	16,431	42.0	15,176	66.9	7,512	33.1	11,838	78.0
11-29	11,052	1,498	13.6	375	25.0	1,123	75.0	198	52.8	177	47.2	57	28.8
Missing/Unsure	10,640	2,370	22.3	41	1.7	2,329	98.3	17	41.5	24	58.5	5	29.4
Total (N)	1,134,385	171,596	15.1	103,898	60.5	67,698	39.5	71,035	68.4	32,863	31.6	56,165	79.1

MEPS: Military Entrance Processing Station; HS: High School; AFQT: Armed Forces Qualification Test; DQ: Disqualification; PDQ: Permanent Disqualification

*PDQ applicants are derived from total MEPS applicants; waiver applications are derived from PDQ applicants; waiver approvals are derived from waiver applicants; accessions are derived from waiver approvals; waiver and accession rates underestimated for FY 2015-2016 applicants due to incomplete follow-up.

§ Individuals with missing values for demographic variables are included in the total.

† Encompasses the following: 1) those pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) those not attending high school and who are neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

‡ Individuals scoring in the 10 percentile or lower are prohibited from applying, therefore, the observed accessions most likely reflect data capture errors and are not reported, but are included in the total.

Primary Findings: Reserve Component (Table 2.4)

- Approximately 20% of enlisted reserve component applicants were medically disqualified for service.
- Most DQs (76%) were due to permanently disqualifying medical conditions, which require an accession medical waiver for accession.
- Only 52% of PDQ applicants applied for a waiver from the service-specific waiver authority.
- Close to 71% of waivers for PDQ applicants were approved.
- About 65% of those granted an accession medical waiver accessed.
- Among the accessions with a PDQ (and a MEPS medical examination between 2011 and 2015) who were granted a waiver, approximately 4% were discharged (EPTS discharge, disability discharge, or other attrition) within their first year of service.

TABLE 2.4: DISQUALIFICATIONS, WAIVERS, ACCESSIONS, AND EARLY DISCHARGE AMONG FY 2011-2016 ENLISTED RESERVE COMPONENT APPLICANTS WITH MEDICALLY DISQUALIFYING CONDITIONS: ALL SERVICES*

Application FY	Total Applicants (n)	Medically Disqualified		PDQ		Applied for a Waiver ^{‡§}		Waiver Approved ^{‡§}		Accessions ^{‡§}		Early Discharge ^{‡†}	
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
2011	37,868	7,617	20.1	5,471	71.8	2,905	53.1	2,005	69.0	1,306	65.1	59	4.5
2012	34,135	7,003	20.5	5,332	76.1	3,010	56.5	2,111	70.1	1,241	58.8	59	4.8
2013	34,923	7,570	21.7	5,936	78.4	3,202	53.9	2,385	74.5	1,524	63.9	81	5.3
2014	33,775	7,108	21.0	5,551	78.1	2,865	51.6	1,988	69.4	1,425	71.7	53	3.7
2015	33,635	6,751	20.1	5,241	77.6	2,526	48.2	1,796	71.1	1,231	68.5	23	1.9
2016	33,620	6,286	18.7	4,732	75.3	2,112	44.6	1,439	68.1	928	64.5	-	-
Total	207,956	42,335	20.4	32,263	76.2	16,620	51.5	11,724	70.5	7,655	65.3	275	4.1

PDQ: Permanent Disqualification

*Statistics reported in each column are derived from the corresponding number of individuals in the preceding column.

‡Underestimated due to missing Marine Corps waiver records from FY 2011 and 2014-2016. Data use/sharing agreements with MRMC are pending.

§Underestimated for FY 2015 and 2016 applicants due to incomplete follow-up.

†Includes disability discharge, EPTS discharge and other attrition taking place within the first year of service; underestimated due to unavailable EPTS data (FY 2015-2016) and incomplete follow-up for FY 2014-2015 applicants; FY 2016 applicants excluded.

Primary Findings: Reserve Component (Table 2.5)

- Overall, about 16% of enlisted reserve component applicants received a PDQ.
- Increasing age, education and AFQT score all correspond to an increased proportion of permanently disqualified applicants.
- Among PDQ applicants, the waiver application and approval rate was slightly higher among whites and younger individuals (17-20 yrs).
- Of those granted a waiver, whites also accessed at a slightly higher rate than blacks (66% vs. 64%) and younger applicants were marginally more likely to access than older applicants (67% vs. 64%).
- Of the permanently disqualified applicants, those with the lowest education level applied for waivers at a much higher rate than those with at least some college education (69% vs. 50%), but were approved at a slightly lower rate (70% vs. 73%).
 - 90% of those with the least education who were granted a waiver ultimately accessed to the reserve component, whereas only 62% of high school graduates, 64% of those with some college education, and 63% of those with at least a bachelor’s degree who received a waiver accessed.

- AFQT score shows a positive linear relationship to the waiver approval rate for those with a PDQ. However, the accession rate among approved waiver applicants does not vary significantly by AFQT score with the exception of those in the lowest category (11-29) of which approximately 30% accessed.

TABLE 2.5: WAIVER APPLICATIONS, APPROVALS AND ACCESSIONS AMONG FY 2011-2016 ENLISTED RESERVE COMPONENT APPLICANTS BY DEMOGRAPHICS: ALL SERVICES*

	Total Applicants N	PDQ Applicants N %		Apply for Waiver				Waiver Approved				Accession N %	
				Yes		No		Yes		No			
				N	%	N	%	N	%	N	%		
Sex[§]													
Male	158,508	24,315	15.3	12,519	51.5	11,796	48.5	8,861	70.8	3,658	29.2	5,755	64.9
Female	49,384	7,928	16.1	4,098	51.7	3,830	48.3	2,863	69.9	1,235	30.1	1,900	66.4
Age Group at MEPS[§]													
17-20	137,185	20,139	14.7	10,502	52.1	9,637	47.9	7,460	71.0	3,042	29.0	4,958	66.5
21-25	46,355	7,477	16.1	3,790	50.7	3,687	49.3	2,690	71.0	1,100	29.0	1,683	62.6
>25	24,409	4,647	19.0	2,328	50.1	2,319	49.9	1,574	67.6	754	32.4	1,014	64.4
Race[§]													
White	138,570	21,926	15.8	11,269	51.4	10,657	48.6	8,097	71.9	3,172	28.1	5,344	66.0
Black	47,649	6,792	14.3	3,348	49.3	3,444	50.7	2,254	67.3	1,094	32.7	1,447	64.2
Other	21,737	3,545	16.3	2,003	56.5	1,542	43.5	1,373	68.5	630	31.5	864	62.9
Education[§]													
<HS Senior [†]	6,909	751	10.9	516	68.7	235	31.3	362	70.2	154	29.8	327	90.3
HS Senior	35,833	4,748	13.3	2,444	51.5	2,304	48.5	1,646	67.3	798	32.7	1,280	77.8
HS Diploma	131,055	20,695	15.8	10,615	51.3	10,080	48.7	7,486	70.5	3,129	29.5	4,635	61.9
Some College	16,579	2,774	16.7	1,385	49.9	1,389	50.1	1,009	72.9	376	27.1	650	64.4
≥Bachelor's	17,580	3,295	18.7	1,660	50.4	1,635	49.6	1,221	73.6	439	26.4	763	62.5
AFQT Score^{§‡}													
93-99	12,936	2,280	17.6	1,166	51.1	1,114	48.9	867	74.4	299	25.6	535	61.7
65-92	77,250	12,437	16.1	6,444	51.8	5,993	48.2	4,586	71.2	1,858	28.8	3,072	67.0
50-64	53,358	8,121	15.2	4,263	52.5	3,858	47.5	2,992	70.2	1,271	29.8	1,923	64.3
30-49	59,612	8,619	14.5	4,654	54.0	3,965	46.0	3,219	69.2	1,435	30.8	2,106	65.4
11-29	3,234	411	12.7	81	19.7	330	80.3	57	70.4	24	29.6	17	29.8
Missing/Unsure	1,441	385	26.7	8	2.1	377	97.9	2	25.0	6	75.0	1	50.0
Total (N)	207,956	32,263	15.5	16,620	51.5	15,643	48.5	11,724	70.5	4,896	29.5	7,655	65.3

MEPS: Military Entrance Processing Station; HS: High School; AFQT: Armed Forces Qualification Test; DQ: Disqualification; PDQ: Permanent Disqualification

*PDQ applicants are derived from total MEPS applicants; waiver applications are derived from PDQ applicants; waiver approvals are derived from waiver applicants; accessions are derived from waiver approvals; waiver and accession rates underestimated for FY 2015-2016 applicants due to incomplete follow-up.

§ Individuals with missing values for demographic variables are included in the total.

† Encompasses the following: 1) those pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) those not attending high school and who are neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

‡ Individuals scoring in the 10 percentile or lower are prohibited from applying, therefore, the observed accessions most likely reflect data capture errors and are not reported, but are included in the total.

Primary Findings: National Guard (Table 2.6) - *NOTE: Waiver data is incomplete for the National Guard and therefore all calculations involving waiver applicants/approvals should be considered significant underestimates.

- Approximately 23% of enlisted National Guard applicants were medically disqualified for service.
- Most DQ (67%) were due to permanently disqualifying medical conditions, which require an accession medical waiver for accession.
- Only 12% of permanently disqualified applicants applied for a waiver from the service-specific waiver authority.
- Approximately 41% of waivers by applicants with a PDQ were approved and 22% of those who were granted an accession medical waiver accessed.
- Among the accessions with a PDQ (and a MEPS medical examination between 2011 and 2015) who were granted a waiver, approximately 1% were discharged (EPTS discharge, disability discharge, or other attrition) within their first year of service.

TABLE 2.6: DISQUALIFICATIONS, WAIVERS, ACCESSIONS, AND EARLY DISCHARGE AMONG FY 2011-2016 ENLISTED NATIONAL GUARD APPLICANTS WITH MEDICALLY DISQUALIFYING CONDITIONS: ALL SERVICES*

Application FY	Total Applicants (n)	Medically Disqualified		PDQ		Applied for a Waiver ^{‡§}		Waiver Approved ^{‡§}		Accessions ^{‡§}		Early Discharge ^{‡†}	
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
2011	46,689	10,829	18.9	6,871	63.4	1,055	15.4	464	44.0	108	23.3	4	3.7
2012	52,111	11,745	22.5	7,772	66.2	1,014	13.0	405	39.9	84	20.7	-	-
2013	54,326	13,263	24.4	9,174	69.2	1,020	11.1	466	45.7	87	18.7	1	1.1
2014	52,383	12,220	23.3	8,392	68.7	969	11.5	388	40.0	94	24.2	-	-
2015	46,712	10,516	22.5	7,051	67.1	717	10.2	278	38.8	67	24.1	-	-
2016	40,996	8,464	20.6	5,458	64.5	370	6.8	127	34.3	33	26.0	-	-
Total	293,217	67,037	22.9	44,718	66.7	5,145	11.5	2,128	41.4	473	22.2	5	1.1

PDQ: Permanent Disqualification

*Statistics reported in each column are derived from the corresponding number of individuals in the preceding column.

‡ Underestimated due to missing Marine Corps waiver records from FY 2011 and 2014-2016. Data use/sharing agreements with MRMC are pending.

§ Underestimated for FY 2015 and 2016 applicants due to incomplete follow-up.

† Includes disability discharge, EPTS discharge and other attrition taking place within the first year of service; underestimated due to unavailable EPTS data (FY 2015-2016) and incomplete follow-up for FY 2014-2015 applicants; FY 2016 applicants excluded.

Primary Findings: National Guard (Table 2.7) - *NOTE: Waiver data is incomplete for the National Guard and therefore all calculations involving waiver applicants/approvals should be considered significant underestimates.

- Overall, about 15% of enlisted National Guard applicants received a PDQ.
- The rate at which males and females were permanently disqualified shows no difference, but males were more likely to apply for a waiver for the condition than females (12% vs. 9%), and males granted a waiver were more likely to access than females (23% vs. 18%).
- Increasing age, education and AFQT score all correspond to an increased proportion of PDQs among National Guard applicants.
- White applicants had a higher proportion of PDQs and were more likely to access with an approved waiver than black applicants.
- Among PDQ applicants, waiver application and approval rates were similar across all age groups.
 - Older applicants (>25 yrs) had higher accession rates.
- The waiver approval rate among PDQ applicants was highest among those with higher education levels. However, of the applicants with a PDQ who were granted a waiver, those with the lowest level of education were most likely to access.

- There were only 38 waiver application records for PDQ applicants in the lowest AFQT score category (2%). However, those with the lowest AFQT scores had the highest waiver approval rates, and among those granted a waiver, the accession rate was highest among the lowest AFQT score category.

TABLE 2.7: WAIVER APPLICATIONS, APPROVALS AND ACCESSIONS AMONG FY 2011-2016 ENLISTED NATIONAL GUARD APPLICANTS BY DEMOGRAPHICS: ALL SERVICES*

	Total Applicants N	PDQ Applicants N %		Applied for a Waiver				Waiver Approved				Accession N %	
				Yes		No		Yes		No			
				N	%	N	%	N	%	N	%		
Sex[§]													
Male	223,003	33,969	15.2	4,213	12.4	29,756	87.6	1,745	41.4	2,468	58.6	406	23.3
Female	70,151	10,742	15.3	931	8.7	9,811	91.3	382	41.0	549	59.0	67	17.5
Age Group at MEPS[§]													
17-20	199,334	27,758	13.9	3,164	11.4	24,594	88.6	1,322	41.8	1,842	58.2	242	18.3
21-25	63,335	10,641	16.8	1,276	12.0	9,365	88.0	509	39.9	767	60.1	143	28.1
>25	30,543	6,319	20.7	705	11.2	5,614	88.8	297	42.1	408	57.9	88	29.6
Race[§]													
White	219,086	33,566	15.3	3,795	11.3	29,771	88.7	1,606	42.3	2,189	57.7	406	25.3
Black	58,501	8,057	13.8	938	11.6	7,119	88.4	371	39.6	567	60.4	53	14.3
Other	15,630	3,095	19.8	412	13.3	2,683	86.7	151	36.7	261	63.3	14	9.3
Education[§]													
<HS Senior [†]	23,447	2,490	10.6	70	2.8	2,420	97.2	26	37.1	44	62.9	16	61.5
HS Senior	60,193	7,411	12.3	438	5.9	6,973	94.1	148	33.8	290	66.2	51	34.5
HS Diploma	173,152	27,811	16.1	3,606	13.0	24,205	87.0	1,482	41.1	2,124	58.9	289	19.5
Some College	18,160	3,322	18.3	570	17.2	2,752	82.8	262	46.0	308	54.0	58	22.1
≥Bachelor's	18,265	3,684	20.2	461	12.5	3,223	87.5	210	45.6	251	54.4	59	28.1
AFQT Score^{§‡}													
93-99	17,241	3,010	17.5	348	11.6	2,662	88.4	160	46.0	188	54.0	41	25.6
65-92	96,759	15,148	15.7	1,807	11.9	13,341	88.1	732	40.5	1,075	59.5	187	25.5
50-64	68,212	10,478	15.4	1,415	13.5	9,063	86.5	564	39.9	851	60.1	121	21.5
30-49	95,138	13,738	14.4	1,532	11.2	12,206	88.8	649	42.4	883	57.6	116	17.9
11-29	14,370	1,908	13.3	38	2.0	1,870	98.0	22	57.9	16	42.1	8	36.4
Missing/Unsure	1,300	425	32.7	5	1.2	420	98.8	1	20.0	4	80.0	-	-
Total (N)	293,217	44,718	15.3	5,145	11.5	39,573	88.5	2,128	41.4	3,017	58.6	473	22.2

MEPS: Military Entrance Processing Station; HS: High School; AFQT: Armed Forces Qualification Test; DQ: Disqualification; PDQ: Permanent Disqualification

*PDQ applicants are derived from total MEPS applicants; waiver applications are derived from PDQ applicants; waiver approvals are derived from waiver applicants; accessions are derived from waiver approvals; waiver and accession rates underestimated for FY 2015-2016 applicants due to incomplete follow-up.

§ Individuals with missing values for demographic variables are included in the total.

† Encompasses the following: 1) those pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) those not attending high school and who are neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

‡ Individuals scoring in the 10 percentile or lower are prohibited from applying, therefore, the observed accessions most likely reflect data capture errors and are not reported, but are included in the total.

Tables 2.8, 2.10 and 2.12 compare the accession and early discharge rates between permanently disqualified (PDQ) applicants and fully qualified (FQ) applicants for the active, reserve and National Guard components by application year, respectively. Accessions in these tables refer to all accessions among permanently disqualified applicants, regardless of waiver status. Early discharge encompasses EPTS discharge, disability discharge, and other medical/behavioral attrition within the first year of service. No early discharge estimates were calculated for 2016 applicants due to incomplete follow-up. Similarly, early discharge among 2014 and 2015 applicants were underestimated due to incomplete follow-up and missing EPTS data from 2014-2016.

Early discharges in the first year of service are further classified as EPTS discharge, disability discharge, or other medical/behavioral attrition among 2011-2015 permanently disqualified applicants who accessed. The number and proportion of early discharges in each discharge category are reported by application year for the active and reserve components and National Guard in Tables 2.9, 2.11 and 2.13, respectively.

Primary Findings: Active Component (Table 2.8-2.9)

- Approximately 48% of PDQ applicants accessed to the active component compared to the 78% of FQ applicants who ultimately accessed, regardless of waiver status.
- From 2011-2015, PDQ applicants were more slightly likely to experience early discharge than fully qualified applicants (14% vs. 11%).
- Most early discharges among accessed PDQ applicants were due to non-EPTS, non-disability, medical/behavioral attrition.
- Overall, among those who accessed with a PDQ, less than 1% were disability discharged and less than 2% were EPTS discharged within the first year of service.

TABLE 2.8: COMPARING RATES OF ACCESSION AND EARLY DISCHARGE AMONG PERMANENTLY DISQUALIFIED AND FULLY QUALIFIED FY 2011-2016 ENLISTED ACTIVE COMPONENT APPLICANTS: ALL SERVICES

Application FY	Permanent Disqualification*						Fully Qualified*					
	PDQ Applicants		Accessions [§]		Early Discharge [†]		FQ Applicants*		Accessions [§]		Early Discharge [†]	
	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
2011	26,966	14.0	13,305	49.3	2,028	15.2	156,724	81.1	129,167	82.4	14,719	11.4
2012	27,960	14.6	14,772	52.8	2,223	15.0	155,935	81.2	131,276	84.2	14,749	11.2
2013	31,728	16.1	17,323	54.6	2,498	14.4	157,522	79.7	133,274	84.6	15,020	11.3
2014	27,559	16.1	14,896	54.1	2,168	14.6	136,487	79.7	114,093	83.6	13,215	11.6
2015	29,100	15.5	15,075	51.8	1,925	12.8	149,941	80.1	124,317	82.9	14,415	11.6
2016	28,283	14.7	7,562	26.7	-	-	155,902	80.8	74,837	48.0	-	-
Total	171,596	15.1	82,933	48.3	10,842	14.4	912,511	80.4	706,964	77.5	72,118	11.4

PDQ: Permanent Disqualification; FQ: Fully Qualified

*Applicants are derived from total MEPS applicants; accessions are derived from applicants regardless of waiver status; early discharges are derived from accessions.

[§]Underestimated for FY 2015 and 2016 applicants due to incomplete follow-up.

[†]Includes EPTS discharge, disability discharge and other attrition taking place within the first year of service; underestimated due to unavailable EPTS data (FY 2015-2016) and incomplete follow-up for FY 2014-2015 applicants; FY 2016 applicants excluded.

TABLE 2.9: REASON FOR EARLY DISCHARGE AMONG FY 2011-2015 ENLISTED ACTIVE COMPONENT APPLICANTS DISQUALIFIED FOR A PERMANENT MEDICAL CONDITION WHO ACCESSED: ALL SERVICES*

Application FY	Total Early Discharge ^{§†‡}		EPTS Discharge ^{†‡}		Disability Discharge [†]		Other Medical/Behavioral Attrition [†]	
	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
2011	2,028		540	26.6	41	2.0	1,448	71.4
2012	2,223		410	18.4	61	2.7	1,752	78.8
2013	2,498		234	9.4	66	2.6	2,198	88.0
2014	2,168		43	2.0	49	2.3	2,076	95.8
2015	1,925		-	-	22	1.1	1,903	98.9
Total	10,842		1,227	11.3	239	2.2	9,377	86.5

PDQ: Permanent Disqualification; EPTS: Existed Prior to Service

*Underestimated for FY 2014-2015 applicants due incomplete follow-up; FY 2016 applicants excluded.

§Among accessions with a PDQ regardless of waiver status; includes EPTS discharge, disability discharge and other attrition taking place within the first year of service.

†Within the first year of service (derived from total early discharges) regardless of whether the condition at discharge was related to the PDQ condition.

‡Underestimated due to unavailable EPTS data for FY 2015-2016.

Primary Findings: Reserve Component (Table 2.10-2.11)

- About 41% of PDQ applicants accessed to the reserve component compared to the 73% of accessed FQ applicants, regardless of waiver status.
- Among accession, those with a PDQ were only marginally more likely to experience early discharge than FQ applicants (6% vs. 5%).
- Non-EPTS, non-disability, medical/behavioral attrition accounted for the majority (86%) of early discharges among 2011-2015 PDQ applicants. EPTS discharge and disability discharge accounted for approximately 12% and 2% of the early discharges, respectively.
- In the reserve component, close to 16% of 2011-2015 PDQ applicants with an early discharge had an ISC code that was unknown or invalid. These 1,840 individuals were not included in the total number of early discharges.

TABLE 2.10: COMPARING RATES OF ACCESSION AND EARLY DISCHARGE AMONG PERMANENTLY DISQUALIFIED AND FULLY QUALIFIED FY 2011-2016 ENLISTED RESERVE COMPONENT APPLICANTS: ALL SERVICES

Application FY	Permanent Disqualification*					Fully Qualified*						
	PDQ Applicants		Accessions [§]		Early Discharge [†]		FQ Applicants*		Accessions [§]		Early Discharge [†]	
	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
2011	5,471	14.4	2,212	40.4	155	7.0	30,251	79.9	23,319	77.1	1,145	4.9
2012	5,332	15.6	2,000	37.5	105	5.3	27,132	79.5	18,800	69.3	752	4.0
2013	5,936	17.0	2,522	42.5	184	7.3	27,353	78.3	19,028	69.6	999	5.3
2014	5,551	16.4	2,616	47.1	163	6.2	26,667	79.0	20,666	77.5	1,013	4.9
2015	5,241	15.6	2,357	45.0	84	3.6	26,884	79.9	20,861	77.6	751	3.6
2016	4,732	14.1	1,602	33.9	-	-	27,334	81.3	17,822	65.2	-	-
Total	32,263	15.5	13,309	41.3	691	5.9	165,621	79.6	120,496	72.8	4,660	4.5

*Applicants are derived from total MEPS applicants; accessions are derived from applicants regardless of waiver status; early discharges are derived from accessions.

§Underestimated for FY 2015 and 2016 applicants due to incomplete follow-up.

†Includes EPTS discharge, disability discharge and other attrition taking place within the first year of service; underestimated due to unavailable EPTS data (FY 2015-2016) and incomplete follow-up for FY 2014-2015 applicants; FY 2016 applicants excluded.

TABLE 2.11: REASON FOR EARLY DISCHARGE AMONG FY 2011-2015 ENLISTED RESERVE COMPONENT APPLICANTS DISQUALIFIED FOR A PERMANENT MEDICAL CONDITION WHO ACCESSED: ALL SERVICES*

Application FY	Total Early Discharge ^{§†‡}	EPTS Discharge ^{†‡}		Disability Discharge [†]		Other Medical/Behavioral Attrition [†]		Loss with Unknown/Invalid ISC [†]	
	(n)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
2011	155	42	27.1	4	2.6	109	70.3	247	11.2
2012	105	10	9.5	2	1.9	93	88.6	313	15.7
2013	184	25	13.6	3	1.6	156	84.8	454	18.0
2014	163	7	4.3	5	3.1	151	92.6	475	18.2
2015	84	-	-	2	2.4	82	97.6	351	14.9
Total	691	84	12.2	16	2.3	591	85.5	1,840	15.7

PDQ: Permanent Disqualification; EPTS: Existed Prior to Service

*Underestimated for FY 2014-2015 applicants due incomplete follow-up; FY 2016 applicants excluded.

§Among accessions with a PDQ regardless of waiver status; Includes EPTS discharge, disability discharge and other attrition taking place within the first year of service.

† Within the first year of service (derived from total early discharges) regardless of whether the condition at discharge was related to the PDQ condition.

‡Underestimated due to unavailable EPTS data for FY 2015.

Primary Findings: National Guard (Table 2.12-2.13) - *NOTE: Waiver data is incomplete for the National Guard and therefore all calculations involving waiver applicants/approvals should be considered significant underestimates.

- About 44% of PDQ applicants accessed to the National Guard compared to the 81% of accessed FQ applicants, regardless of waiver status.
- Among accessed FY 2011-2015 applicants, FQ and PDQ applicants experienced early discharge at relatively the same rate.
- There were only 141 discharges counted within the first year of service for National Guard applicants who accessed with a PDQ.
 - EPTS discharge accounted for the majority (61%), despite missing EPTS data from 2015.
 - Only 9 individuals were disability discharged and 46 were discharged for other medical/behavioral reasons.
 - Over 17% of accessed 2011-2015 PDQ applicants with an early discharge had an ISC code that is unknown or invalid. These 2,980 individuals were not included in the total number of early discharges.

TABLE 2.12: COMPARING RATES OF ACCESSION AND EARLY DISCHARGE AMONG PERMANENTLY DISQUALIFIED AND FULLY QUALIFIED FY 2011-2016 ENLISTED NATIONAL GUARD APPLICANTS: ALL SERVICES

Application FY	Permanent Disqualification*						Fully Qualified*					
	PDQ Applicants		Accessions [§]		Early Discharge [†]		FQ Applicants*		Accessions [§]		Early Discharge [†]	
	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
2011	6,871	14.7	3,016	43.9	55	1.8	35,860	76.8	30,918	86.2	477	1.5
2012	7,772	14.9	3,020	38.9	32	1.1	40,366	77.5	33,785	83.7	247	0.7
2013	9,174	16.9	3,746	40.8	26	0.7	41,063	75.6	24,700	60.2	165	0.7
2014	8,392	16.0	4,177	49.8	19	0.5	40,163	76.7	35,484	88.3	126	0.4
2015	7,051	15.1	3,355	47.6	9	0.3	36,196	77.5	31,575	87.2	83	0.3
2016	5,458	13.3	2,263	41.5	-	-	32,532	79.4	26,120	80.3	-	-
Total	44,718	15.3	19,577	43.8	141	0.8	226,180	77.1	182,582	80.7	1,098	0.7

PDQ: Permanent Disqualification; FQ: Fully Qualified

*Applicants are derived from total MEPS applicants; accessions are derived from applicants regardless of waiver status; early discharges are derived from accessions.

§Underestimated for FY 2015 and 2016 applicants due to incomplete follow-up.

†Includes EPTS discharge, disability discharge and other attrition taking place within the first year of service; underestimated due to unavailable EPTS data (FY 2015-2016) and incomplete follow-up for FY 2014-2015 applicants; FY 2016 applicants excluded.

TABLE 2.13: REASON FOR EARLY DISCHARGE AMONG FY 2011-2015 ENLISTED NATIONAL GUARD APPLICANTS DISQUALIFIED FOR A PERMANENT MEDICAL CONDITION WHO ACCESSED: ALL SERVICES*

Application FY	Total Early Discharge ^{§†‡} (n)	EPTS Discharge ^{†‡}		Disability Discharge [†]		Other Medical/Behavioral Attrition [†]		Loss with Unknown/Invalid ISC [†]	
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
2011	55	52	94.5	-	-	3	5.5	594	19.7
2012	32	24	75.0	1	3.1	7	21.9	498	16.5
2013	26	9	34.6	4	15.4	13	50.0	584	15.6
2014	19	1	5.3	3	15.8	15	78.9	733	17.5
2015	9	-	-	1	11.1	8	88.9	571	17.0
Total	141	86	61.0	9	6.4	46	32.6	2,980	17.2

PDQ: Permanent Disqualification; EPTS: Existed Prior to Service

*Underestimated for FY 2014-2015 applicants due to incomplete follow-up; FY 2016 applicants excluded.

§Among accessions with a PDQ regardless of waiver status; Includes EPTS discharge, disability discharge and other attrition taking place within the first year of service.

†Within the first year of service; derived from total early discharges.

‡Underestimated due to unavailable EPTS data for FY 2015.

In Tables 2.14-2.16, the number and percent of accessions who were granted a waiver and the number and percent of accessions who either had a denied or missing waiver among PDQ applicants are presented by application year for the active, reserve and National Guard components, respectively. Additionally, the rate of early discharge (discharge within the first year of service), which encompasses EPTS discharge, disability discharge, and other medical/behavioral attrition, is compared between the PDQ accessions with an approved waiver versus PDQ accession with no record of an approved waiver.

Primary Findings: Active Component (Table 2.14)

- Of accessed PDQ applicants, 68% of PDQ applicants were granted an accession medical waiver, and approximately 32% accessed with a missing waiver record.
- The rate of early discharge for 2011-2015 PDQ applicants varied depending on waiver status.
 - Those who accessed with no record of an approved waiver had a slightly higher rate of early discharge compared to those granted a waiver for their permanently disqualifying condition (16% vs. 14%).

TABLE 2.14: WAIVER APPROVALS AND EARLY DISCHARGE AMONG PERMANENTLY DISQUALIFIED FY 2011-2016 ENLISTED ACTIVE COMPONENT APPLICANTS WHO ACCESSED BY WAIVER STATUS: ALL SERVICES

Application FY	PDQ Accessions*§ (n)	Approved Waiver**				Early Discharge†			
		Yes		No		Approved Waiver‡		Missing Waiver	
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
2011	13,305	9,168	68.9	4,137	31.1	1,252	13.7	776	18.8
2012	14,772	11,016	74.6	3,756	25.4	1,469	13.3	754	20.1
2013	17,323	12,332	71.2	4,991	28.8	1,681	13.6	817	16.4
2014	14,896	9,584	64.3	5,312	35.7	1,357	14.2	811	15.3
2015	15,075	9,237	61.3	5,838	38.7	1,213	13.1	712	12.2
2016	7,562	4,828	63.8	2,734	36.2	-	-	-	-
Total	82,933	56,165	67.7	26,768	32.3	6,972	13.6	3,870	16.1

PDQ: Permanent Disqualification

§Among applicants with a PDQ regardless of waiver status

*Underestimated for 2015-2016 applicants due to incomplete follow-up.

‡Underestimated due to missing Marine Corps waiver records from FY 2011 and 2014-2016. Data use/sharing agreements with MRMC are pending.

†Includes disability discharge, EPTS discharge and other attrition taking place within the first year of service; underestimated due to unavailable EPTS data (FY 2015-2016) and incomplete follow-up for FY 2014-2015 applicants; FY 2016 applicants excluded.

Primary Findings: Reserve Component (Table 2.15)

- Among accessed PDQ reserve applicants, 58% were granted an accession medical waiver and 43% accessed without record of an approved waiver.
- The rate of early discharge for 2011-2015 PDQ applicants varied depending on waiver status.
 - Over 8% of PDQ applicants who accessed with no record of an approved waiver were discharged within their first year of service, which is more than twice the early discharge rate of those who were granted a waiver for their PDQ (4%).

TABLE 2.15: WAIVER APPROVALS AND EARLY DISCHARGE FOR PERMANENTLY DISQUALIFIED FY 2011-2016 ENLISTED RESERVE COMPONENT APPLICANTS WHO ACCESSED BY WAIVER STATUS: ALL SERVICES

Application FY	PDQ Accessions** (n)	Approved Waiver**‡				Early Discharge†			
		Yes		No		Approved Waiver‡		Missing Waiver	
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
2011	2,212	1,306	59.0	906	41.0	59	4.5	96	10.6
2012	2,000	1,241	62.1	759	38.0	59	4.8	46	6.1
2013	2,522	1,524	60.4	998	39.6	81	5.3	103	10.3
2014	2,616	1,425	54.5	1,191	45.5	53	3.7	110	9.2
2015	2,357	1,231	52.2	1,126	47.8	23	1.9	61	5.4
2016	1,602	928	57.9	674	42.1
Total	13,309	7,655	57.5	5,654	42.5	275	4.1	416	8.4

PDQ: Permanent Disqualification

§Among applicants with a PDQ regardless of waiver status.

*Underestimated for 2015-2016 applicants due to incomplete follow-up.

‡Underestimated due to missing Marine Corps waiver records from FY 2011 and 2014-2016. Data use/sharing agreements with MRMC are pending.

†Includes disability discharge, EPTS discharge and other attrition taking place within the first year of service; underestimated due to unavailable EPTS data (FY 2015-2016) and incomplete follow-up for FY 2014-2015 applicants; FY 2016 applicants excluded.

Primary Findings: National Guard (Table 2.16) - *NOTE: Waiver data is incomplete for the National Guard and therefore all calculations involving waiver applicants/approvals should be considered significant underestimates.

- Among accessed PDQ National Guard applicants, only 2% had record of an approved accession medical waiver.
- This is likely due to incomplete National Guard waiver data. Therefore, no conclusions can be made about the rate of early discharge among this population.

TABLE 2.16: WAIVER APPROVALS AND EARLY DISCHARGE FOR PERMANENTLY DISQUALIFIED FY 2011-2016 ENLISTED NATIONAL GUARD APPLICANTS WHO ACCESSED BY WAIVER STATUS: ALL SERVICES

Application FY	PDQ Accessions* (n)	Approved Waiver**‡				Early Discharge†			
		Yes		No		Approved Waiver‡		Missing Waiver	
		(n)	(%)	(n)	(%)	(n)	(%)	(n)	(%)
2011	3,016	108	3.6	2,908	96.4	4	3.7	51	1.8
2012	3,020	84	2.8	2,936	97.2	-	-	32	1.1
2013	3,746	87	2.3	3,659	97.7	1	1.1	25	0.7
2014	4,177	94	2.3	4,083	97.7	-	-	19	0.5
2015	3,355	67	2.0	3,288	98.0	-	-	9	0.3
2016	2,263	33	1.5	2,230	98.5	-	-	-	-
Total	19,577	473	2.4	19,104	97.6	5	1.1	136	0.8

PDQ: Permanent Disqualification

§Among applicants with a PDQ regardless of waiver status

*Underestimated for 2015-2016 applicants due to incomplete follow-up.

†Includes disability discharge, EPTS discharge and other attrition taking place within the first year of service; underestimated due to unavailable EPTS data (FY 2015-2016) and incomplete follow-up for FY 2014-2015 applicants; FY 2016 applicants excluded.

Part I-B: Applicants for Enlisted Service - Disqualifications

DISQUALIFICATIONS

The following tables (Tables 2.17-2.18) list the most common medical disqualifications (DQ) among enlisted applicants for 2011 to 2015 in aggregate, and separately for 2016 applicants for the active, reserve, and National Guard components, respectively. Within the following tables, the number of DQs for a specific DQ is provided, along with the proportion of disqualified applicants with the specific DQ and the prevalence rate of the DQ per 100,000 applicants. DQ conditions are listed in order of descending frequency according to the number of DQs in 2016. Individuals are only counted once per DQ condition, but some disqualified individuals may have more than one disqualifying condition and will therefore be included in more than one DQ condition category. Please note that DQs are not medical diagnoses; therefore, individuals may have either current, suspected or history of the disqualifying condition.

In previous years, DQ conditions were reported by International Classification of Diseases, 9th revision (ICD-9) codes. United States Military Entrance Processing Command (USMEPCOM) transitioned from ICD-9 to ICD-10 codes effective fiscal year (FY) 2016 (starting 01 Oct 2015). Therefore, this is the first Accession Medical Standards Analysis and Research Activity (AMSARA) Annual Report that must account for the fact that individuals who had a physical exam prior to 01 October 2015 may still have ICD-9 codes in their record. Because Military Entrance Processing Station (MEPS) physical examinations are valid for 2 years, a mixture of ICD-9 and ICD-10 codes is expected to persist in our database through FY 2018. To allow for comparisons over the transition period, AMSARA utilized alternative coding, known as the Clinical Classifications Software (CCS) codes, developed at the Agency for Healthcare Research and Quality (AHRQ). CCS codes were formerly known as the Clinical Classifications for Health Policy Research (CCHPR). Both ICD-9 and ICD-10 codes can be mapped to the CCS coding scheme, which collapses diagnosis and procedure codes into clinically meaningful categories. AMSARA will continue to report CCS codes in lieu of the mixture of ICD-9 and ICD-10 codes until the full transition has been completed for the sake of simplicity and comprehension.

Primary Findings: Active Component (Table 2.17)

- Permanent DQs (requires a medical waiver for accession)
 - Vision defects were the most common permanent DQ and the second most common overall DQ category in 2016.
 - This category is primarily comprised of disorders of refraction and accommodation.
 - The prevalence rate was marginally higher in 2016 (2,844 per 100,000 applicants) compared to applicants in the previous five years (2,683 per 100,000 applicants).
 - DQs for allergic reactions were the second most common permanent DQ both in 2016 and in the previous 5-year period.
 - The most common allergic reactions were anaphylactic shock (unspecified or due to adverse food reaction) and contact dermatitis.
 - The third most common DQ was history of an attention-deficit, conduct and disruptive behavior disorder, which substantially increased in prevalence in 2016 (808 per 100,000 applicants) when compared to 2011-2015 (31 per 100,000 applicants).
- Temporary DQs
 - In 2016, the most frequent medical DQ overall and for temporary DQs was for nutritional, endocrine and metabolic disorders, a category made up primarily of weight-related conditions (i.e. obesity).
 - Rates remained relatively consistent to the last five years (18%).
 - The third most frequent DQ overall was substance-related disorders.
 - The proportions of DQs were similar between 2016 (6%) and the previous five years (5%).
 - The prevalence rate rose slightly in 2016 (1,215 per 100,000 applicants) compared to the rate among applicants in the previous five years (933 per 100,000 applicants).

TABLE 2.17: MEDICAL DISQUALIFICATIONS OF FIRST-TIME ENLISTED ACTIVE COMPONENT APPLICANTS BY ALL CCS CODES IN 2011-2015 VS. 2016: ALL SERVICES

DQ Condition (Current or History of) [†]	2011-2015			2016		
	n	% of DQ apps [‡]	Rate [§]	n	% of DQ apps [‡]	Rate [§]
Other nutritional; endocrine; and metabolic disorders	32,353	17.5	3,436	6,670	18.0	3,458
Vision defects	25,256	13.7	2,683	5,485	14.8	2,844
Substance-related disorders	8,782	4.8	933	2,343	6.3	1,215
Allergic reactions	17,522	9.5	1,861	2,236	6.0	1,159
Residual codes; unclassified	4,771	2.6	507	1,735	4.7	899
Attention-deficit conduct and disruptive behavior disorders	288	0.2	31	1,559	4.2	808
Other non-traumatic joint disorders	7,028	3.8	746	1,450	3.9	752
Joint disorders and dislocations; trauma-related	6,508	3.5	691	1,422	3.8	737
Other ear and sense organ disorders	6,969	3.8	740	1,275	3.4	661
Other injuries and conditions due to external causes	1,911	1.0	203	1,215	3.3	630
Total applicants at MEPS	941,492			192,893		
Total of disqualified applicants	184,883			36,991		

DQ: Disqualification; CCS Codes: Clinical Classifications Software codes; MEPS: Military Entrance Processing Station

[†]Conditions for disqualifications and waiver applications/approvals may be current or history of.

[‡] Indicates the percentage of medically disqualified MEPS applicants with the specified condition.

[§] Indicates the number of individuals with the specified condition for every 100,000 applicants screened at MEPS.

Primary Findings: Reserve Component (Table 2.18)

- Permanent DQs (requires a medical waiver for accession)
 - Vision defects were the second most common DQ overall in 2016.
 - This category is made up primarily of disorders of refraction and accommodation.
 - Vision defects made a notable increase from the previous five years (18% vs. 15%) in the proportion of DQs.
 - The prevalence rate in 2016 (3,284 per 100,000 applicants) was similar to the previous five years (3,019 per 100,000 applicants).
 - The third most common disqualification was for allergies.
 - Allergies represent a much smaller proportion of disqualifications in 2016 (6%) than the previous five years (10%).
 - The prevalence of allergy disqualifications has also decreased by nearly 50%.
 - The most common allergic reactions were anaphylactic shock (unspecified or due to adverse food reaction) and contact dermatitis.
- Temporary DQs
 - In 2016, the most frequent medical DQ overall was for nutritional, endocrine and metabolic disorders, a category made up primarily of weight-related conditions (i.e obesity).
 - The prevalence rate in 2016 for this category was similar to the previous 5 year period.

TABLE 2.18: MEDICAL DISQUALIFICATIONS OF FIRST-TIME ENLISTED RESERVE COMPONENT APPLICANTS BY ALL CCS CODES IN 2011-2015 VS. 2016: ALL SERVICES

DQ Condition (Current or History of) [†]	2011-2015			2016		
	n	% of DQ apps [‡]	Rate [§]	n	% of DQ apps [‡]	Rate [§]
Other nutritional; endocrine; and metabolic disorders	7,422	20.6	4,257	1,277	20.3	3,798
Vision defects	5,264	14.6	3,019	1,104	17.6	3,284
Allergic reactions	3,661	10.2	2,100	405	6.4	1,205
Residual codes; unclassified	787	2.2	451	289	4.6	860
Substance-related disorders	1,203	3.3	690	248	3.9	738
Other ear and sense organ disorders	1,329	3.7	762	247	3.9	735
Joint disorders and dislocations; trauma-related	1,120	3.1	642	206	3.3	613
Other non-traumatic joint disorders	1,200	3.3	688	196	3.1	583
Other eye disorders	990	2.7	568	181	2.9	538
Other injuries and conditions due to external causes	366	1.0	210	156	2.5	464
Total applicants at MEPS	174,336			33,620		
Total of disqualified applicants	36,049			6,286		

DQ: Disqualification; CCS Codes: Clinical Classifications Software codes; MEPS: Military Entrance Processing Station

[†]Conditions for disqualifications and waiver applications/approvals may be current or history of.

[‡] Indicates the percentage of medically disqualified MEPS applicants with the specified condition.

[§] Indicates the number of individuals with the specified condition for every 100,000 applicants screened at MEPS.

Primary Findings: National Guard (Table 2.19)

- Permanent DQs (requires a medical waiver for accession)
 - Vision defects were the second most common disqualifications in 2016.
 - This category is made up primarily of disorders of refraction and accommodation.
 - The proportion of all DQs and prevalence rate increased only slightly in 2016 when compared to the previous five years.
 - The third most common disqualification was for allergies.
 - Allergies represent a slightly smaller proportion of disqualifications in 2016 (6%) than the previous five years (9%).
 - The prevalence of allergy disqualifications also decreased by nearly 50%.
- Temporary DQs
 - The most frequent medical disqualification in 2016 was for nutritional, endocrine and metabolic disorders, a category made up primarily of weight-related conditions (i.e., obesity).
 - This DQ category has a similar proportion in 2016 compared to the last five years (27% vs. 26%).
 - However, the prevalence rate of these disqualifications decreased in 2016.

TABLE 2.19: MEDICAL DISQUALIFICATIONS OF FIRST-TIME ENLISTED NATIONAL GUARD APPLICANTS BY ALL CCS CODES IN 2011-2015 VS. 2016: ALL SERVICES

DQ Condition (Current or History of) [†]	2011-2015			2016		
	n	% of DQ apps [‡]	Rate [§]	n	% of DQ apps [‡]	Rate [§]
Other nutritional; endocrine; and metabolic disorders	15,007	25.6	5,950	2,323	27.4	5,666
Vision defects	6,739	11.5	2,672	1,085	12.8	2,647
Allergic reactions	5,425	9.3	2,151	484	5.7	1,181
Other ear and sense organ disorders	2,582	4.4	1,024	338	4.0	824
Substance-related disorders	2,374	4.1	941	318	3.8	776
Other non-traumatic joint disorders	1,868	3.2	741	307	3.6	749
Residual codes; unclassified	1,117	1.9	443	285	3.4	695
Joint disorders and dislocations; trauma-related	1,685	2.9	668	256	3.0	624
Other injuries and conditions due to external causes	555	0.9	220	226	2.7	551
Other eye disorders	1,405	2.4	557	207	2.4	505
Total applicants at MEPS	252,221			40,996		
Total of disqualified applicants	58,573			8,464		

DQ: Disqualification; CCS Codes: Clinical Classifications Software codes; MEPS: Military Entrance Processing Station

[†]Conditions for disqualifications and waiver applications/approvals may be current or history of.

[‡] Indicates the percentage of medically disqualified MEPS applicants with the specified condition.

[§] Indicates the number of individuals with the specified condition for every 100,000 applicants screened at MEPS.

Part I-C: Applicants for Enlisted Service - Accession

Medical Waivers

Applicants who receive a permanent medical disqualification (PDQ) at the Military Entrance Processing Station (MEPS) may be granted an accession medical waiver for the disqualifying condition(s) from the waiver authority specific to the service to which the individual is applying. Alternatively, disqualifications (DQ) for conditions that can be remediated by the applicant, such as being overweight, are considered temporary DQs and do not require an accession medical waiver. This section summarizes all PDQ waiver considerations that occurred between fiscal years (FY) 2011 to 2016. Marine Corps waiver data were incomplete in 2011 and 2014 and not reported for 2015-2016, so Marine Corps numbers in all tables should be considered underestimates. Data sharing/use agreements for receipt of Marine Corps waiver data are pending.

Tables 2.20-2.29 examine all waiver considerations for waiver applicants, regardless of whether the applicant had a corresponding Defense Manpower Data Center (DMDC) accession record. Because waivers are granted prior to accession by each service, no distinction between active and reserve components is made at the time of waiver application. Some waiver applicants with prior military service but no prior approved medical waiver may also be included in these tables. Multiple waiver considerations to the same waiver authority most frequently reflect resubmissions for the same condition, perhaps with additional information. Multiple waiver records are counted in each year and in each service in which they were considered. Individuals applying to multiple waiver authorities may appear more than once. Thus, these tables address the spectrum of waiver applications seen by each waiver authority.

Tables 2.30-2.33 examine waiver approvals among the same 2011-2016 applicant cohort examined in previous Part I, Section 2 tables. Therefore, individuals are counted once in each component to which they applied, in the most recent year of waiver consideration for all services combined. Only applicants with a MEPS physical examination record indicating no prior service were included and applicants for enlisted service who subsequently accessed as officers (as indicated by a pay grade of O01-06) were excluded.

Tables 2.30 and 2.31 show the number of enlisted applicants who were granted accession medical waivers and their accession rate by year of waiver consideration separately for their accession component (active or reserve). Demographic characteristics of the waived individuals are examined separately for the active and reserve components in Tables 2.32 and 2.33 and comparisons can be made between approved waiver applicants in 2016 and those from the previous five year period.

Spectrum of waiver applications seen by each service's waiver authority:

Table 2.20 shows the number of active and reserve component waiver considerations and approval percentages by branch of service and year of waiver decision for 2011-2016. Approval percentages represent the proportion of total waivers considered by each service that year, listed in the table as "Consider", who had a waiver approved, listed in the table as "Approved", in each service by 2016.

Primary Findings: (Table 2.20)

- Waiver considerations and approval rates in the Army remained relatively stable, with the exception of 2015.
 - In 2015, Army waiver considerations dropped to a six-year low (21% drop from the previous 4 year average), but the approval rate was similar to the previous year. The reason for the significant drop remains unclear, but is likely due to normal fluctuations in the data over time.
- In the Navy, number of waiver considerations has steadily increased from 2011 through 2016. The waiver approval rate remained stable between 2011 and 2013, then dropped significantly in 2014 to a six-year low. The approval rate has since increased steadily, but remains notably lower than pre-2014 rates.
- Marine Corps waiver data were incomplete in 2011 and 2014 and unavailable for 2015 through 2016. There was a slight increase in Marine Corps waiver considerations and a minor decrease in the approval rate from 2012 to 2013.
- Waiver approval rates among Air Force waivers have generally been on the decline since 2011 and reached a six-year low in 2016. The number of waiver considerations in the Air Force nearly tripled from 2015 to 2016. Such a drastic increase in waiver considerations may explain the relatively lower approval rate.

TABLE 2.20: ACTIVE AND RESERVE COMPONENT WAIVER CONSIDERATIONS BY YEAR AND SERVICE:* 2011-2016

Year	Army			Navy			Marine Corps‡			Air Force		
	Consider (n)	Approved (n)	Approved (%)	Consider (n)	Approved (n)	Approved (%)	Consider (n)	Approved (n)	Approved (%)	Consider (n)	Approved (n)	Approved (%)
2011	14,887	8,381	56.3	5,171	3,084	59.6	805	591	73.4	2,892	1,793	62.0
2012	14,255	7,853	55.1	6,101	3,503	57.4	2,365	2,082	88.0	4,060	2,281	56.2
2013	15,620	9,640	61.7	7,681	4,694	61.1	2,424	2,107	86.9	3,630	2,179	60.0
2014	15,336	9,491	61.9	9,204	3,898	42.4	142	122	85.9	3,758	2,054	54.7
2015	11,795	7,082	60.0	10,066	4,509	44.8	-	-	-	4,005	1,871	46.7
2016	14,728	8,864	60.2	10,434	4,812	46.1	-	-	-	7,045	3,053	43.3
Total	86,621	51,311	59.2	48,657	24,500	50.4	5,736	4,902	85.5	25,390	13,231	52.1

*Applicants may be counted more than once per year and in multiple services.

‡Value undercounted due to missing or incomplete Marine waiver records in 2011 and 2014-2016.

Table 2.21 describes active and reserve component waiver considerations by service, including the number of considerations per applicant and the frequency with which considerations have multiple conditions.

Primary Findings: (Table 2.21)

- The Army had the highest number of waiver considerations and applicants in the period from 2011 to 2016 (86,621 considerations, 78,132 applicants) followed by the Navy (48,657 considerations, 47,921 applicants).
- On average, most waiver applicants did not apply for waivers more than once within a given service.
- Most considerations (58-83%) had a single condition, regardless of service.
- The highest percentage of considerations with more than one condition was found in the Air Force (29%).

TABLE 2.21: ACTIVE AND RESERVE COMPONENT WAIVER CONSIDERATION COUNTS*:
2011-2016

	Army	Navy	Marine Corps [‡]	Air Force
All waiver considerations	86,621	48,657	5,736	25,390
Individuals	78,132	47,921	5,584	24,996
Average number of considerations per applicant	1.11	1.02	1.03	1.02
Applicants with a single condition	68,851 (79.5%)	28,254 (58.1%)	4,772 (83.2%)	17,676 (69.6%)
Applicants with multiple conditions	16,562 (19.1%)	7,413 (15.2%)	952 (16.6%)	7,241 (28.5%)
Applicants with missing conditions	1,208 (1.4%)	12,990 26.7%	12 (0.2%)	473 (1.9%)

*Applicants may be counted more than once per year and in multiple services.

‡Value undercounted due to missing or incomplete Marine waiver records in 2011 and 2014-2016. Data sharing/use agreements with MRMC are pending.

Tables 2.22 through 2.25 show, by service, medical conditions (current or history of) for which waivers were most frequently applied, the percent of approved waivers by condition, and the approval rate for each conditions from 2011-2016. Waiver considerations from the fiscal years 2011 to 2015 are shown in aggregate to facilitate the comparison of waivers in 2016 to previous years. Conditions are ranked according to the number of waiver applications in 2016.

Primary Findings: Army (Table 2.22)

- Vision defects, a CCS code category comprised mainly of disorders of refraction and accommodation, remained the most common medical disqualification for which waivers were sought from 2011 to 2016.
 - The percentage of applicants for waivers for vision-related disorders in 2016 (20%) was similar to the previous five year period (17%).
 - The percentage of approved vision defects waivers out of all approved waivers increased slightly from 24% to 28%.
 - The waiver approval rate among those who applied for a vision defects waiver remained constant over the time period (86%).
- Allergies were the second most common waiver applications in 2016 (8%), which was a marginal decrease from the previous five year period (11%).
 - The frequency and percentage of approved waivers also decreased in 2016.
- The third leading waiver application type in 2016 was for ear and sense organ disorders (7%).
 - Of those who applied for an ear and sense organ disorder waiver, the approval rate decreased from 29% in 2011-2015 to 11% in 2016.

TABLE 2.22: LEADING CONDITIONS FOR ACTIVE AND RESERVE COMPONENT ACCESSION WAIVERS CONSIDERED IN 2011-2015 VS. 2016: ARMY

Condition [†]	2011-2015					2016				
	Applied		Approved			Applied		Approved		
	n	%‡	n	%§	%§§	n	%‡	n	%§	%§§
Vision defects	11,927	16.6	10,209	24.1	85.6	2,921	19.8	2,510	28.3	85.9
Allergic reactions	8,086	11.2	6,490	15.3	80.3	1,199	8.1	929	10.5	77.5
Other ear and sense organ disorders	4,402	6.1	1,281	3.0	29.1	951	6.5	100	1.1	10.5
Attention-deficit, conduct, and disruptive behavior disorders	5,133	7.1	2,443	5.8	47.6	891	6.0	459	5.2	51.5
Joint disorders and dislocations; trauma-related	3,568	5.0	2,481	5.8	69.5	865	5.9	600	6.8	69.4
Other eye disorders	2,717	3.8	1,430	3.4	52.6	707	4.8	421	4.7	59.5
Other non-traumatic joint disorders	3,769	5.2	2,620	6.2	69.5	648	4.4	423	4.8	65.3
Asthma	2,735	3.8	1,038	2.4	38.0	588	4.0	176	2.0	29.9
Other injuries and conditions due to external causes	463	0.6	265	0.6	57.2	548	3.7	400	4.5	73.0
Residual codes; unclassified	1,515	2.1	827	1.9	54.6	514	3.5	299	3.4	58.2
Other acquired deformities	1,882	2.6	1,408	3.3	74.8	433	2.9	259	2.9	59.8
Total considerations[¥]	71,893					14,728				
Total approved considerations[¥]	42,447					8,864				

† Conditions for disqualification and waiver applications/approval may be current or history of.
 ‡ Indicates the percentage of waiver applicants for the specified condition category among total waivers considered.
 § Indicates the percentage of approved waiver applicants for the specified condition category among total approved waivers.
 §§ Indicates the percentage of approved waiver applicants among those that applied for a waiver for each specified condition category
 ¥ This category includes waiver applicants with missing condition values.

Primary Findings: Navy (Table 2.23)

- Vision defects, a CCS code category comprised mainly of disorders of refraction and accommodation, remained the most common medical disqualification for which waivers were sought from 2011 to 2016.
 - The percentage of applicants for waivers for vision-related disorders decreased in 2016 (11%) compared to the previous five year period (17%).
- Allergies were the second most common waiver application category (6%) in 2016.
 - The percentage of applications for these waivers decreased considerably compared to the previous five year period (12%), yet the percentage of waiver approvals for allergies decreased from 72% to 51%.
- The third leading waiver application type in 2016 was for history of an attention-deficit, conduct, and disruptive behavior disorder, which decreased in prevalence (3% vs. 5%), frequency among all approved waivers (17% to 8%), and waiver approval rate (41% to 32%) from the previous five-year period.

TABLE 2.23: LEADING CONDITIONS FOR ACTIVE AND RESERVE COMPONENT ACCESSION WAIVERS CONSIDERED IN 2011-2015 VS. 2016: NAVY

Condition [†]	2011-2015					2016				
	Applied		Approved			Applied		Approved		
	n	%‡	n	%§	%§§	n	%‡	n	%§	%§§
Vision defects	6,334	16.6	4,232	21.5	66.8	1,149	11.0	816	17.0	71.0
Allergic reactions	4,716	12.3	3,370	17.1	71.5	668	6.4	377	7.8	56.4
Attention-deficit, conduct, and disruptive behavior disorders	1,960	5.1	808	4.1	41.2	351	3.4	113	2.3	32.2
Joint disorders and dislocations; trauma-related	1,753	4.6	1,370	7.0	78.2	328	3.1	240	5.0	73.2
Unspecified nonpsychotic mental disorder, including suicide and intentional self-inflicted injury	877	2.3	255	1.3	29.1	276	2.6	28	0.6	10.1
Other ear and sense organ disorders	1,606	4.2	202	1.0	12.6	229	2.2	18	0.4	7.9
Other eye disorders	1,002	2.6	429	2.2	42.8	208	2.0	76	1.6	36.5
Other non-traumatic joint disorders	826	2.2	648	3.3	78.5	205	2.0	160	3.3	78.0
Asthma	1,176	3.1	414	2.1	35.2	200	1.9	34	0.7	17.0
Other bone disease and musculoskeletal deformities	641	1.7	426	2.2	66.5	167	1.6	99	2.1	59.3
Other congenital anomalies	1,024	2.7	477	2.4	46.6	163	1.6	69	1.4	42.3
Total considerations[¥]	38,223					10,434				
Total of approved applicants[¥]	19,688					4,812				

[†]Conditions for disqualification and waiver applications/approval may be current or history of.

[‡]Indicates the percentage of waiver applicants for the specified condition category, among total waivers considered.

[§]Indicates the percentage of approved waiver applicants for the specified condition category, among total approved waivers.

^{§§} Indicates the percentage of approved waiver applicants among those that applied for a waiver for each specified condition category

[¥]This category includes waiver applicants with missing condition values.

Primary Findings: Marine Corps (Table 2.24)

- Marine Corps waiver data was incomplete for 2011 and 2014 and not reported for 2015-2016. Data sharing/use agreements with MRMC are pending.
- Vision defects, a CCS code category comprised mainly of disorders of refraction and accommodation, was the most common medical disqualification (23%) for which waivers were sought from 2011 to 2014.
- The second most common waiver application from 2011 to 2014 was for other injuries and conditions due to external causes (18%), a CCS category largely comprised of the ICD-9 code for other nonspecific abnormal findings.
- The third most common waiver application from 2011 to 2014 was for allergic reactions (16%).

TABLE 2.24: LEADING CONDITIONS FOR ACTIVE AND RESERVE COMPONENT ACCESSION WAIVERS CONSIDERED IN 2011-2014: MARINE CORPS

Condition [†]	2011-2014 [‡]					2016 [‡]			
	Applied		Approved			Applied		Approved	
	n	% [‡]	n	% [§]	% ^{§§}	n	% [‡]	n	% [§]
Vision defects	1,313	22.9	1,197	24.4	91.2	-	-	-	-
Other injuries and conditions due to external causes	1,036	18.1	866	17.7	83.6	-	-	-	-
Allergic reactions	901	15.7	854	17.4	94.8	-	-	-	-
Attention-deficit, conduct, and disruptive behavior disorders	365	6.4	313	6.4	85.8	-	-	-	-
Asthma	343	6.0	291	5.9	84.8	-	-	-	-
Anxiety disorders	280	4.9	247	5.0	88.2	-	-	-	-
Other ear and sense organ disorders	190	3.3	88	1.8	46.3	-	-	-	-
Other congenital anomalies	169	2.9	139	2.8	82.2	-	-	-	-
Fracture of lower limb	169	2.9	159	3.2	94.1	-	-	-	-
Other bone disease and musculoskeletal deformities	143	2.5	121	2.5	84.6	-	-	-	-
Other skin disorders	120	2.1	95	1.9	79.2	-	-	-	-
Total considerations[¥]	5,736					-			
Total of approved applicants[¥]	4,902					-			

[†] Conditions for disqualification and waiver applications/approval may be current or history of.

[‡] Indicates the percentage of waiver applicants for the specified condition category, among total waivers considered.

[§] Indicates the percentage of approved waiver applicants for the specified condition category, among total approved waivers.

[¥] This category includes waiver applicants with missing condition values.

^{§§} Indicates the percentage of approved waiver applicants among those that applied for a waiver for each specified condition category.

[‡] Waiver data were underreported by the Marine Corp for 2011 and 2014 and not reported for 2015-2016. Data sharing/use agreements with MRMC are pending.

Primary Findings: Air Force (Table 2.25)

- Vision defects, a CCS code category comprised mainly of disorders of refraction and accommodation, remained the most common medical disqualification for which waivers were sought from 2011 to 2016.
 - In 2016, the prevalence of these waiver applications among all waiver applications decreased slightly from 16% to 13% in the previous five year period. The frequency of waiver approvals also slightly decreased from 68% in 2011-2015 to 65% in 2016.
- The second most common waiver application in 2016 was for history of an attention-deficit, conduct, and disruptive behavior disorder.
 - Only 38% of waiver applications were approved in 2016, which is less than the previous five year period (53%).
- The third leading waiver application type in 2016 was for allergies, which decreased in prevalence (14% to 11%), frequency among all approved waivers (14% to 9%), and waiver approval rate (56% to 37%) from the previous five-year period.

TABLE 2.25: LEADING CONDITIONS FOR ACTIVE AND RESERVE COMPONENT ACCESSION WAIVERS CONSIDERED IN 2011-2015 VS. 2016: AIR FORCE

Condition [†]	2011-2015					2016				
	Applied		Approved			Applied		Approved		
	n	%‡	n	%§	%§§	n	%‡	n	%§	%§§
Vision defects	2,895	15.8	1,972	19.4	68.1	929	13.2	608	19.9	65.4
Attention-deficit, conduct, and disruptive behavior disorders	1,737	9.5	921	9.0	53.0	793	11.3	297	9.7	37.5
Allergic reactions	2,487	13.6	1,403	13.8	56.4	768	10.9	282	9.2	36.7
Asthma	1,155	6.3	422	4.1	36.5	522	7.4	107	3.5	20.5
Anxiety disorders	806	4.4	389	3.8	48.3	411	5.8	60	2.0	14.6
Mood disorders	900	4.9	317	3.1	35.2	389	5.5	64	2.1	16.5
Joint disorders and dislocations; trauma-related	882	4.8	627	6.2	71.1	346	4.9	202	6.6	58.4
Other eye disorders	579	3.2	257	2.5	44.4	234	3.3	90	2.9	38.5
Other non-traumatic joint disorders	849	4.6	590	5.8	69.5	228	3.2	132	4.3	57.9
Other ear and sense organ disorders	587	3.2	97	1.0	16.5	221	3.1	24	0.8	10.9
Other acquired deformities	414	2.3	102	1.0	24.6	196	2.8	38	1.2	19.4
Total considerations[¶]	18,345					7,045				
Total of approved applicants[¶]	10,178					3,053				

[†]Conditions for disqualifications and waiver applications/approvals may be current or history of.

[‡]Indicates the percentage of waiver applicants for the specified condition category, among total waivers considered.

[§]Indicates the percentage of approved waiver applicants for the specified condition category, among total approved waivers.

^{§§} Indicates the percentage of approved waiver applicants among those that applied for a waiver for each specified condition category.

[¶]This category includes waiver applicants with missing condition values.

Tables 2.26-2.29 show the ten most frequently approved waiver conditions ranked by the waiver approval percentage for 2016. The same population of considerations was used as in Tables 2.22-2.25. Note that all conditions are not mutually exclusive and in individual may appear in the table in more than one condition category.

Primary Findings: Army (Table 2.26)

- Waivers for vision-related disorders had the highest proportion of approved applicants overall and in both time periods (86%).
- Allergies were the second most frequently approved condition among 2016 waiver applicants (78%).
 - The approval rate for allergic reaction waiver applications decreased slightly from the previous five year period (80%).
- The approval percentage of trauma-related joint disorders and dislocations, the third highest proportion of approved applicants in 2016 (69%), was relatively unchanged from the previous five years.

TABLE 2.26: CONDITION-SPECIFIC CATEGORIES FOR THOSE ACCESSION MEDICAL WAIVERS WITH THE HIGHEST PROPORTION OF APPROVED APPLICATIONS AMONG ACTIVE AND RESERVE COMPONENT ARMY ENLISTEES: 2011-2015 VS. 2016

Condition [†]	Total		2011-2015		2016	
	n	%*	n	%*	n	%*
Vision defects	14,848	85.7	11,927	85.6	2,921	85.9
Allergic reactions	9,285	79.9	8,086	80.3	1,199	77.5
Joint disorders and dislocations; trauma-related	4,433	69.5	3,568	69.5	865	69.4
Other bone disease and musculoskeletal deformities	1,857	71.7	1,554	72.8	303	65.7
Other non-traumatic joint disorders	4,417	68.9	3,769	69.5	648	65.3
Other acquired deformities	2,315	72.0	1,882	74.8	433	59.8
Other eye disorders	3,424	54.1	2,717	52.6	707	59.5
Attention-deficit, conduct, and disruptive behavior disorders	6,024	48.2	5,133	47.6	891	51.5
Asthma	3,323	36.5	2,735	38.0	588	29.9
Other ear and sense organ disorders	5,353	25.8	4,402	29.1	951	10.5

*Indicates the percent of waivers approved among all waivers applied.

† Conditions for disqualification and waiver applications/approval may be current or history of.

Primary Findings: Navy (Table 2.27)

- Waivers for non-traumatic joint disorders had the highest proportion of approved applicants in 2016 (78%) and overall.
- In 2016, the second most commonly approved waiver was for trauma-related joint disorders and dislocations.
 - The approval rate for these waivers (73%) was slightly lower than the previous five year period (78%).
- Vision-related disorders, the third highest proportion of approved waiver applicants, marginally increased in 2016 (71%) from the previous five year period (67%).
- The proportions of approved applicants for allergies and asthma decreased in 2016 compared to the previous five year period.

TABLE 2.27: CONDITION-SPECIFIC CATEGORIES FOR THOSE ACCESSION MEDICAL WAIVERS WITH THE HIGHEST PROPORTION OF APPROVED APPLICATIONS AMONG ACTIVE AND RESERVE COMPONENT NAVY ENLISTEES: 2011-2015 VS. 2016

Condition [†]	Total		2011-2015		2016	
	n	%*	n	%*	n	%*
Other non-traumatic joint disorders	1,031	78.4	826	78.5	205	78.0
Joint disorders and dislocations; trauma-related	2,081	77.4	1,753	78.2	328	73.2
Vision defects	7,483	67.5	6,334	66.8	1,149	71.0
Superficial injury; contusion	1,182	61.9	1,103	61.8	79	63.3
Other bone disease and musculoskeletal deformities	808	65.0	641	66.5	167	59.3
Allergic reactions	5,384	69.6	4,716	71.5	668	56.4
Other congenital anomalies	1,187	46.0	1,024	46.6	163	42.3
Other eye disorders	1,210	41.7	1,002	42.8	208	36.5
Attention-deficit, conduct, and disruptive behavior disorders	2,311	39.9	1,960	41.2	351	32.2
Asthma	1,376	32.6	1,176	35.2	200	17.0

*Indicates the percent of waivers approved among all waivers applied.

† Conditions for disqualification and waiver applications/approval may be current or history of.

Primary Findings: Marine Corps (Table 2.28)

- Waivers for allergic reactions had the highest proportion of approved applicants in the period from 2011 to 2014 (95%), followed by lower limb fractures (94%).

TABLE 2.28: CONDITION-SPECIFIC CATEGORIES FOR THOSE ACCESSION MEDICAL WAIVERS WITH THE HIGHEST PROPORTION OF APPROVED APPLICATIONS AMONG ACTIVE AND RESERVE COMPONENT MARINE CORPS ENLISTEES: 2011-2014

Condition [†]	Total		2011-2014 [¥]		2016 [¥]	
	n	%*	n	%*	n	%*
Allergic reactions	901	94.8	901	94.8	-	-
Fracture of lower limb	169	94.1	169	94.1	-	-
Vision defects	1,313	91.2	1,313	91.2	-	-
History of anxiety disorder(s)	280	88.2	280	88.2	-	-
Pathological fracture	111	87.4	111	87.4	-	-
Attention-deficit, conduct, and disruptive behavior disorders	365	85.8	365	85.8	-	-
Asthma	343	84.8	343	84.8	-	-
Other bone disease and musculoskeletal deformities	143	84.6	143	84.6	-	-
Other injuries and conditions due to external causes	1,036	83.6	1,036	83.6	-	-
Other congenital anomalies	169	82.2	169	82.2	-	-

*Indicates the percent of waivers approved among all waivers applied.

† Conditions for disqualification and waiver applications/approval may be current or history of.

¥ Waiver data were underreported by the Marine Corp for 2011 and 2014 and not reported for 2015-2016. Data sharing/use agreements with MRMC are pending.

Primary Findings: Air Force (Table 2.29)

- The approval rates for the 10 most commonly approved conditions all decreased in 2016 when compared to rates from the previous 5 year period.
- Waivers for vision-related disorders had the highest proportion of approved waiver applications in 2016 (65%), which was a slight decrease from the previous five year period (68%).
- Trauma-related joint disorders and dislocations were the next most commonly waived conditions (58%) in 2016 – a considerable drop from the previous five year period (71%).
- In 2016, other non-traumatic joint disorder waivers were the third most commonly granted waivers (58%). The approval rate for these types of waivers also decreased from the previous five years (70%).

TABLE 2.29: CONDITION-SPECIFIC CATEGORIES FOR THOSE ACCESSION MEDICAL WAIVERS WITH THE HIGHEST PROPORTION OF APPROVED APPLICATIONS AMONG ACTIVE AND RESERVE COMPONENT AIR FORCE ENLISTEES: 2011-2015 VS. 2016

Condition [†]	Total		2011-2015		2016	
	n	%*	n	%*	n	%*
Vision defects	3,824	67.5	2,895	68.1	929	65.4
Joint disorders and dislocations; trauma-related	1,228	67.5	882	71.1	346	58.4
Other non-traumatic joint disorders	1,077	67.0	849	69.5	228	57.9
Other congenital anomalies	721	46.9	562	49.1	159	39.0
Other eye disorders	813	42.7	579	44.4	234	38.5
Attention-deficit, conduct, and disruptive behavior disorders	2,530	48.1	1,737	53.0	793	37.5
Allergic reactions	3,255	51.8	2,487	56.4	768	36.7
Asthma	1,677	31.5	1,155	36.5	522	20.5
Mood disorders	1,289	29.6	900	35.2	389	16.5
Anxiety disorders	1,217	36.9	806	48.3	411	14.6

*Indicates the percent of waivers approved among all waivers applied.

†Conditions for disqualification and waiver applications/approval may be current or history of.

Waiver approvals and accessions among first-time enlisted FY 2011-2016 applicants:

Tables 2.30 and 2.31 show the number of enlisted applicants that were granted accession medical waivers and their accession rate by year of waiver consideration for all services combined in the active and reserve components, respectively. Because Marine Corps waiver data was incomplete for 2011 and 2014 and not reported for 2015-2016, reported numbers for 2011, 2014, 2015 and 2016 are all underestimates. Individuals are counted as accessions only in the component to which they accessed. For example, an enlistee who applied for both active and reserve components but enlisted into the active component is only considered an accession when examining waived applicants in the active component. Among reserve component applicants with an approved waiver, this individual would only be considered an applicant.

Demographics of the waived population of applicants for the active and reserve components are examined in Tables 2.32 and 2.33, respectively. Comparisons can be made between approved waiver applicants in 2016 and those from the previous five year period. Due to missing Marine Corps waiver data, all numbers and percentages may be significantly underestimated.

Primary Findings: Active Component (Table 2.30)

- The rate of 2011-2016 active component applicants granted waivers who subsequently accessed has varied from 59% to 85% during the period between 2011 and 2016.
 - The lowest rate of accessions occurred in 2016. This is likely an underestimate due to the lack of follow-up time as those granted waivers in 2016 may have accessed after the end of the study period.
- The number of applicants granted a waiver was much lower in 2011 compared to 2012, likely due to missing Marine Corps waiver data. In 2013, there were approximately 3,000 more applicants with approved waivers than 2012. Numbers fell again in 2014, which is probably also a reflection of missing waiver records from the Marine Corps.
- The number of waived applicants continued decreasing in 2015, but the rate of accession increased slightly.

TABLE 2.30: ACTIVE COMPONENT ACCESSIONS FOR ENLISTED APPLICANTS WHO RECEIVED A WAIVER IN 2011-2016[†] BY YEAR: ALL SERVICES

Year of waiver consideration	Applicants with waivers granted	Accessions	
		n	%
2011 [§]	8,353	6,864	82.2
2012	12,142	10,304	84.9
2013	14,867	12,667	85.2
2014 [§]	12,424	10,363	83.4
2015 [§]	10,764	9,172	85.2
2016 [§]	13,148	7,816	59.4

[†]Considers accessions among FY 2011-2016 enlisted active component applicants with a MEPS physical examination indicating no prior service and an approved waiver.

[§]Value undercounted due to missing Marine Corps waiver records.

Primary Findings: Reserve Component (Table 2.31)

- The rate of 2011-2016 reserve component applicants granted waivers who subsequently accessed has varied from 63% to 75% during the period between 2011 and 2016. The lowest rate of accessions occurred in 2013, which was the year with the most waived applicants.
- The accession rate for reserve applicants was consistently lower compared to active component applicants 2011-2015, but higher in 2016.
- Similarly to the active component, comparisons across years are difficult due to missing Marine Corps waivers.

TABLE 2.31: RESERVE COMPONENT ACCESSIONS FOR ENLISTED APPLICANTS WHO RECEIVED A WAIVER IN 2011-2016[†] BY YEAR: ALL SERVICES

Year of waiver consideration	Applicants with waivers granted	Accessions	
		n	%
2011 [§]	1,376	1,028	74.7
2012	1,878	1,203	64.1
2013	2,271	1,433	63.1
2014 [§]	2,066	1,505	72.8
2015 [§]	1,678	1,193	71.1
2016 [§]	1,959	1,253	64.0

[†]Considers accessions among FY 2011-2016 enlisted reserve component applicants with a MEPS physical examination indicating no prior service and an approved waiver.

[§]Value undercounted due to missing Marine Corps waiver records.

Primary Findings: Active Component (Table 2.32)

- Most waiver applicants who were granted a waiver in 2016 were male (82%), aged 17-20 years (61%), and white (71%).
- Individuals who were granted a waiver and subsequently accessed were relatively similar to the overall population of individuals who were granted a waiver with respect to sex, age, race, AFQT score, and disqualification status.
- There was a spike in the percentage of fully qualified waiver applicants and accessions in 2016 compared to the previous five years.
- The percentage of waiver applicants and accessions with AFQT scores in 50th or higher slightly decreased in 2016 compared to the previous five years.

TABLE 2.32: DEMOGRAPHIC CHARACTERISTICS OF ACTIVE COMPONENT ENLISTED APPLICANTS WHO RECEIVED AN ACCESSION MEDICAL WAIVER COMPARED TO ACTIVE COMPONENT ACCESSIONS 2011-2015 VS. 2016: ALL SERVICES

	2011-2015				2016			
	All waivers		Accessed only		All waivers		Accessed only	
	n	%	n	%	n	%	n	%
Sex[§]								
Male	48,763	82.1	41,298	83.1	11,028	81.5	6,555	82.5
Female	10,642	17.9	8,397	16.9	2,501	18.5	1,389	17.5
Age at Waiver[§]								
17 – 20	37,713	63.5	32,090	64.6	8,296	61.3	4,904	61.7
21 – 25	16,952	28.5	14,030	28.2	4,051	29.9	2,415	30.4
> 25	4,744	8.0	3,575	7.2	1,187	8.8	625	7.9
Race[§]								
White	44,660	75.2	37,604	75.7	9,619	71.1	5,843	73.6
Black	8,896	15.0	7,415	14.9	2,283	16.9	1,429	18.0
Other	5,853	9.9	4,676	9.4	1,632	12.1	672	8.5
Education Level[§]								
Below HS senior [†]	135	0.2	96	0.2	58	0.4	18	0.2
HS senior	4,079	6.9	2,736	5.5	1,153	8.5	195	2.5
HS diploma	46,164	77.7	39,597	79.7	10,373	76.6	6,683	84.1
Some college	4,568	7.7	3,781	7.6	885	6.5	517	6.5
Bachelor's and higher	4,463	7.5	3,485	7.0	1,065	7.9	531	6.7
AFQT Score[§]								
93-99	5,387	9.1	4,537	9.1	1,180	8.7	630	7.9
65-92	25,162	42.4	21,240	42.7	5,531	40.9	3,115	39.2
50-64	16,463	27.7	13,880	27.9	3,623	26.8	2,150	27.1
30-49	12,237	20.6	9,982	20.1	3,142	23.2	2,039	25.7
11-29	153	0.3	51	0.1	45	0.3	7	0.1
<11	2	0.0	2	0.0	-	-	-	-
Medical Status								
Fully Qualified	917	1.5	815	1.6	1,096	8.1	690	8.7
Permanent DQ	58,363	98.2	48,764	98.1	12,353	91.3	7,201	90.6
Temporary DQ	129	0.2	116	0.2	85	0.6	53	0.7
Total	59,409		49,695		13,354		7,944	

HS: High School; AFQT: Armed Forces Qualification Test; DQ: Disqualification

§ Individuals with missing values for demographic variables are included in the total.

† Encompasses the following: 1) those pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) those not attending high school and who are neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

Primary Findings: Reserve Component (Table 2.33)

- The distribution of age and race was different in individuals who accessed with waivers in 2016 compared to the previous five years, however, this is likely due to missing Marine Corps waiver records.
- Most reserve component applicants who were granted a waiver in 2016 were male (73%), aged 17-20 (54%), white (58%), with a high school level education (59%).
- Applicants and accessions in 2016 appeared to be older and more diverse compared to the previous five year period, with a larger proportion over the age of 25 and belonging to non-white racial groups.
- The proportion of applicants and accessions with a bachelor’s degree or higher increased significantly in 2016 compared to the previous five years.

TABLE 2.33: DEMOGRAPHIC CHARACTERISTICS OF RESERVE COMPONENT ENLISTED APPLICANTS WHO RECEIVED AN ACCESSION MEDICAL WAIVER COMPARED TO RESERVE COMPONENT ACCESSIONS 2011-2015 VS. 2016: ALL SERVICES

	2011-2015				2016			
	All waivers		Accessed only		All waivers		Accessed only	
	n	%	n	%	n	%	n	%
Sex[§]								
Male	7,403	76.1	4,847	75.5	1,506	72.7	942	73.6
Female	2,320	23.9	1,576	24.5	566	27.3	338	26.4
Age at Waiver[§]								
17 – 20	6,080	62.5	4,151	64.6	1,127	54.4	702	54.8
21 – 25	2,403	24.7	1,461	22.7	566	27.3	343	26.8
> 25	1,240	12.8	811	12.6	379	18.3	235	18.4
Race[§]								
White	6,928	71.3	4,620	71.9	1,202	58.0	743	58.0
Black	1,832	18.8	1,205	18.8	438	21.1	257	20.1
Other	963	9.9	598	9.3	432	20.8	280	21.9
Education Level[§]								
Below HS senior [†]	316	3.3	284	4.4	51	2.5	48	3.8
HS senior	1,361	14.0	1,073	16.7	305	14.7	227	17.7
HS diploma	6,313	64.9	3,968	61.8	1,229	59.3	694	54.2
Some college	849	8.7	548	8.5	160	7.7	100	7.8
Bachelor's and higher	884	9.1	550	8.6	327	15.8	211	16.5
AFQT Score[§]								
93-99	696	7.2	440	6.9	171	8.3	95	7.4
65-92	3,809	39.2	2,566	40.0	801	38.7	524	40.9
50-64	2,507	25.8	1,627	25.3	511	24.7	308	24.1
30-49	2,657	27.3	1,774	27.6	582	28.1	350	27.3
11-29	51	0.5	14	0.2	7	0.3	3	0.2
<11	1	0.0	1	0.0
Medical Status								
Fully Qualified	57	0.6	35	0.5	47	2.3	21	1.6
Permanent DQ	9,633	99.1	6,362	99.1	2,018	97.4	1,253	97.9
Temporary DQ	33	0.3	26	0.4	7	0.3	6	0.5
Total	59,409		49,695		13,354		7,944	

HS: High School; AFQT: Armed Forces Qualification Test; DQ: Disqualification

§ Individuals with missing values for demographic variables are included in the total.

† Encompasses the following: 1) those pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) those not attending high school and who are neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

Part II-A: Accessions and Endpoints - Attrition

Attrition is one of the key outcomes of interest to AMSARA. This section describes attrition among first-time active duty, reserve, and National Guard enlisted accessions into the Army, Navy, Marines, and Air Force from fiscal year (FY) 2011 to 2016. Tables 2.35-2.37 display the period-specific and cumulative probability of attrition at 70, 365, 730, and 1,095 days following accession by service, year of accession, specific demographic characteristics, AFQT percentile score at accession, and medical disqualification status for the active and reserve components and National Guard, respectively. Censoring may result from a lack of follow-up time or from certain DMDC transactions that result in the generation of a loss date but are not considered adverse events. The most common cause of non-attrition loss was expiration of term of service (1001), followed by disability discharge with severance pay (1011) and other early releases (1008). Loss records generated for these events, noted in Table 2.34 were not counted among the attritions reported in Tables 2.35-2.37.

TABLE 2.34: INTERSERVICE SEPARATION CODE LOSS CATEGORIES EXCLUDED FROM ATTRITION

ISC Code	Description	ISC Code	Description
1000	Unknown or Invalid	1033	Death, NS
1001	Expiration of Term of Service	1040	Officer Commissioning Program
1010	Condition Existed Prior to Service (EPTS)	1041	Warrant Officer Program
1011	Disability - Severance Pay	1042	Military Service Academy
1012	Permanent Disability - Retired	1050	Retirement, 20-30 yrs of Service
1013	Temporary Disability - Retired	1051	Retirement, Over 30 yrs of Service
1014	Disability - Non EPTS - No Severance Pay	1052	Retirement, Other Categories
1015	Disability - Title 10 Retirement	1100	Immediate Reenlistment
1030	Death, Battle Casualty	1103	Record Correction
1031	Death, Non-Battle - Disease	1104	Dropped from Strength as MIA/POW
1032	Death, Non-battle - Other	1105	Dropped from Strength, Other

ISC: Interservice Separation Code; RIF: Reduction in force; VSI: voluntary separation initiative; SSB: special separation benefit; MIA: missing in action; POW: prisoner of war

ATTRITION

Primary Findings: Active Component (Table 2.35)

- Overall attrition by three years among enlisted active component accessions was about 16%.
 - More than half of the attrition that occurs during the first three years of service takes place by the end of the first year.
 - Around 51% of attritions within the first year occur in the first 70 days.
- Attrition in the first 70 days of service was the highest in the Navy (7%) and lowest in the Air Force and the Marine Corps (4%).
 - At two years, patterns of cumulative attrition percent are similar to the patterns observed after one year.
- By the end of the third year of service, the Marine Corps has the lowest percent attrition (11%) while the Army has the highest (21%).
- When examined by year of accession, attrition in the first 70 days of service was lowest among those who accessed in 2011 and increased for each subsequent year's accessions. Cumulative attrition in the first and second years of service was similar across all accession years with complete follow-up.
 - Three years of complete follow-up time was not available for all 2014-2016 accessions. Therefore, figures are underestimated for 2014 accessions after two years. Attrition was not calculated after two years for 2015 accessions and is underestimated after one year. Attrition is underestimated for all 2016 accessions and not calculated after one year.
- The proportion of accessions lost to attrition was significantly higher at all follow-up points for females relative to males and among 17-20 year olds.
- Whites had the highest percent attrition in the first 70 days (5.3%) and blacks had the lowest (4.4%).
 - The proportion of accessions lost during the remainder of the first year decreased for whites and increased for blacks resulting in approximately the same cumulative attrition percent for blacks and whites in the first and second years of service.
 - By the third year, blacks had a slightly higher cumulative attrition percent than whites (18% vs. 17%).
- Those with at least a bachelor's degree consistently had the lowest proportion of losses among accessions at all points of follow-up.
- Attrition by AFQT percentile scores generally followed a similar pattern to education. The proportion of accessions lost at all follow-up points was lowest for the highest percentile score group (93-99).
- At all points of follow-up by medical status, fully qualified accessions had the lowest percent attrition.

TABLE 2.35: ATTRITION AMONG FIRST TIME ENLISTED ACTIVE COMPONENT ACCESSIONS IN 2011-2016 BY DAYS SINCE ACCESSION: ALL SERVICES

	Accessed (n)	Attrition (0-70 Days)			Attrition (71-365 Days)			Attrition (366-730 Days)			Attrition (731-1095 Days)		
		n	Period (%)	Cumul (%)	n	Period (%)	Cumul (%)	n	Period (%)	Cumul (%)	n	Period (%)	Cumul (%)
Service													
Army	357,333	16,802	4.7	4.7	25,826	7.2	11.9	16,872	4.7	16.7	16,025	4.5	21.1
Navy	212,595	15,409	7.2	7.2	7,838	3.7	10.9	5,347	2.5	13.4	4,946	2.3	15.8
Marine Corps	180,382	7,333	4.1	4.1	5,609	3.1	7.2	3,865	2.1	9.3	3,593	2.0	11.3
Air Force	163,836	6,640	4.1	4.1	6,522	4.0	8.0	3,893	2.4	10.4	3,753	2.3	12.7
FY of Accession													
2011	152,691	5,361	3.5	3.5	7,509	4.9	8.4	6,975	4.6	13.0	8,075	5.3	18.3
2012	155,701	7,280	4.7	4.7	7,605	4.9	9.6	6,520	4.2	13.7	8,008	5.1	18.9
2013	165,975	8,000	4.8	4.8	9,219	5.6	10.4	7,443	4.5	14.9	8,577	5.2	20.0
2014 [†]	140,024	7,670	5.5	5.5	7,795	5.6	11.0	6,142	4.4	15.4	3,657	2.6	18.0
2015 [†]	146,571	8,773	6.0	6.0	8,710	5.9	11.9	2,897	2.0	13.9	-	-	-
2016 [†]	153,184	9,100	5.9	5.9	4,957	3.2	9.2	-	-	-	-	-	-
Sex*													
Male	756,337	34,855	4.6	4.6	34,735	4.6	9.2	24,261	3.2	12.4	22,786	3.0	15.4
Female	157,809	11,329	7.2	7.2	11,060	7.0	14.2	5,716	3.6	17.8	5,531	3.5	21.3
Age at Accession*													
17-20	609,639	31,610	5.2	5.2	32,901	5.4	10.6	21,642	3.5	14.1	19,023	3.1	17.3
21-25	245,276	11,941	4.9	4.9	10,542	4.3	9.2	6,912	2.8	12.0	7,501	3.1	15.0
>25	59,221	2,630	4.4	4.4	2,352	4.0	8.4	1,423	2.4	10.8	1,791	3.0	13.8
Race*													
White	666,707	35,104	5.3	5.3	33,789	5.1	10.3	21,164	3.2	13.5	20,057	3.0	16.5
Black	165,677	7,306	4.4	4.4	8,916	5.4	9.8	6,677	4.0	13.8	6,326	3.8	17.6
Other	81,762	3,774	4.6	4.6	3,090	3.8	8.4	2,136	2.6	11.0	1,934	2.4	13.4
Education*													
<HS Graduate	175	11	6.3	6.3	10	5.7	12.0	1	0.6	12.6	1	0.6	13.1
HS Diploma	797,304	41,483	5.2	5.2	41,234	5.2	10.4	27,015	3.4	13.8	24,942	3.1	16.9
Some College	63,291	2,991	4.7	4.7	3,113	4.9	9.6	2,081	3.3	12.9	2,428	3.8	16.8
≥Bachelor's Degree	53,244	1,680	3.2	3.2	1,418	2.7	5.8	880	1.7	7.5	944	1.8	9.2
AFQT Score*													
93-99	63,146	2,445	3.9	3.9	2,178	3.4	7.3	1,430	2.3	9.6	1,311	2.1	11.7
65-92	365,827	17,370	4.7	4.7	15,913	4.3	9.1	10,358	2.8	11.9	10,012	2.7	14.7
50-64	260,695	14,165	5.4	5.4	13,599	5.2	10.6	8,946	3.4	14.1	8,392	3.2	17.3
30-49	214,516	11,688	5.4	5.4	13,881	6.5	11.9	9,171	4.3	16.2	8,534	4.0	20.2
11-29	1,816	76	4.2	4.2	136	7.5	11.7	48	2.6	14.3	62	3.4	17.7
Medical Status													
Fully Qualified	791,117	38,560	4.9	4.9	38,615	4.9	9.8	25,912	3.3	13.0	24,305	3.1	16.1
Permanent DQ	93,201	5,843	6.3	6.3	5,191	5.6	11.8	2,810	3.0	14.9	2,689	2.9	17.7
Temporary DQ	29,828	1,781	6.0	6.0	1,989	6.7	12.6	1,255	4.2	16.8	1,323	4.4	21.3
Total[†]	914,146	46,184	5.1	5.1	45,795	5.0	10.1	29,977	3.3	13.3	28,317	3.1	16.4

FY: Fiscal Year; HS: High School; AFQT: Armed Forces Qualification Test; DQ: Disqualification; Cumul: Cumulative

[†] Attrition is not counted after 730 days for 2014 accessions or 365 days for 2015-2016 accessions and is underestimated for all 2016 accessions due to lack of sufficient follow-up time.

*Individuals with missing values for demographic variables are included in the total.

Primary Findings: Reserve Component (Table 2.36)

- Overall cumulative attrition by three years among enlisted reserve component accessions was about 6%.
 - Almost 45% of the attrition that occurs during the first three years of service takes place by the end of the first year (4%).
- Cumulative attrition at all follow-up points was highest in the Marine Corps (14% overall) and lowest in the Navy (1% overall).
- When examined by year of accession, cumulative attrition did not vary substantially across accession years.
 - Three years of complete follow-up time was not available for all 2014-2016 accessions. Therefore, figures are underestimated for 2014 accessions after two years. Attrition was not calculated after two years for 2015 accessions and is underestimated after one year. Attrition is underestimated for all 2016 accessions and not calculated after one year.
- The proportion of accessions lost was higher for females relative to males after the first 70 days of service, but by the end of the third year of service, males and females have the same cumulative attrition percent.
- Attrition percentages were similar for reserve enlistees in the 17-20 and 21-25 age groups and consistently lowest among reserve enlistees over the age of 25.
- Attrition was comparable among black and white enlisted reserve accessions. Individuals within other race categories had the lowest cumulative attrition percent regardless of time in service.
- After the first year in service, attrition is highest for those with a high school diploma. Those without a high school diploma had the lowest cumulative attrition at all follow-up points, including individuals with at least a bachelor’s degree.
- After the first year of service, the cumulative attrition percent essentially shows an inverse relationship with AFQT percentile score where higher scores consistently have the lowest attrition.
- At all points of follow-up by medical status, fully qualified accessions had the lowest percent attrition.

Primary Findings: National Guard (Table 2.37)

- A relatively small number of personnel met AMSARA criteria for attrition in the first three years of service - less than 1% of the total National Guard population regardless of time period. Therefore no conclusions can be drawn with respect to attrition among National Guard Service members.

TABLE 2.36: ATTRITION AMONG FIRST TIME ENLISTED RESERVE COMPONENT ACCESSIONS IN 2011-2016 BY DAYS SINCE ACCESSION: ALL SERVICES

	Accessed (n)	Attrition (0-70 Days)			Attrition (71-365 Days)			Attrition (366-730 Days)			Attrition (731-1095 Days)		
		n	Period (%)	Cumul (%)	n	Period (%)	Cumul (%)	n	Period (%)	Cumul (%)	n	Period (%)	Cumul (%)
Service													
Army	83,732	106	0.1	0.1	2,268	2.7	2.8	257	0.3	3.1	4	0.0	3.1
Navy	17,486	9	0.1	0.1	3	0.0	0.1	59	0.3	0.4	103	0.6	1.0
Marine Corps	31,736	1,456	4.6	4.6	766	2.4	7.0	914	2.9	9.9	1,291	4.1	13.9
Air Force	19,545	73	0.4	0.4	1,194	6.1	6.5	521	2.7	9.1	427	2.2	11.3
FY of Accession													
2011	30,489	253	0.8	0.8	836	2.7	3.6	391	1.3	4.9	664	2.2	7.0
2012	24,325	234	1.0	1.0	730	3.0	4.0	454	1.9	5.8	564	2.3	8.1
2013	21,295	238	1.1	1.1	749	3.5	4.6	385	1.8	6.4	393	1.8	8.3
2014 [†]	24,680	352	1.4	1.4	890	3.6	5.0	374	1.5	6.5	204	0.8	7.4
2015 [†]	24,942	305	1.2	1.2	699	2.8	4.0	147	0.6	4.6	-	-	-
2016 [†]	26,768	262	1.0	1.0	327	1.2	2.2	-	-	-	-	-	-
Sex*													
Male	117,880	1,508	1.3	1.3	2,762	2.3	3.6	1,388	1.2	4.8	1,655	1.4	6.2
Female	34,618	136	0.4	0.4	1,468	4.2	4.6	363	1.0	5.7	170	0.5	6.2
Age at Accession*													
17-20	97,339	1,061	1.1	1.1	2,838	2.9	4.0	1,225	1.3	5.3	1,313	1.3	6.6
21-25	35,081	432	1.2	1.2	970	2.8	4.0	409	1.2	5.2	406	1.2	6.3
>25	20,067	151	0.8	0.8	422	2.1	2.9	117	0.6	3.4	106	0.5	4.0
Race*													
White	103,609	1,329	1.3	1.3	2,938	2.8	4.1	1,253	1.2	5.3	1,381	1.3	6.7
Black	33,678	231	0.7	0.7	1,080	3.2	3.9	384	1.1	5.0	350	1.0	6.1
Other	15,212	84	0.6	0.6	213	1.4	2.0	114	0.7	2.7	94	0.6	3.3
Education*													
<HS Graduate	5,655	4	0.1	0.1	111	2.0	2.0	35	0.6	2.7	1	0.0	2.7
HS Diploma	120,548	1,372	1.1	1.1	3,489	2.9	4.0	1,515	1.3	5.3	1,638	1.4	6.6
Some College	13,902	101	0.7	0.7	442	3.2	3.9	140	1.0	4.9	134	1.0	5.9
≥Bachelor's Degree	12,373	166	1.3	1.3	189	1.5	2.9	61	0.5	3.4	52	0.4	3.8
AFQT Score*													
93-99	9,526	84	0.9	0.9	139	1.5	2.3	95	1.0	3.3	76	0.8	4.1
65-92	58,542	674	1.2	1.2	1,338	2.3	3.4	614	1.0	4.5	682	1.2	5.7
50-64	39,432	402	1.0	1.0	1,108	2.8	3.8	511	1.3	5.1	551	1.4	6.5
30-49	43,016	386	0.9	0.9	1,599	3.7	4.6	521	1.2	5.8	509	1.2	7.0
11-29	609	1	0.2	0.2	35	5.7	5.9	1	0.2	6.1	1	0.2	6.2
Medical Status													
Fully Qualified	132,146	1,308	1.0	1.0	3,565	2.7	3.7	1,548	1.2	4.9	1,600	1.2	6.1
Permanent DQ	14,700	264	1.8	1.8	477	3.2	5.0	133	0.9	5.9	128	0.9	6.8
Temporary DQ	5,653	72	1.3	1.3	189	3.3	4.6	70	1.2	5.9	97	1.7	7.6
Total[†]	152,499	1,644	1.1	1.1	4,231	2.8	3.9	1,751	1.1	5.0	1,825	1.2	6.2

FY: Fiscal Year; HS: High School; AFQT: Armed Forces Qualification Test; DQ: Disqualification; Cumul: Cumulative

[†] Attrition is not counted after 730 days for 2014 accessions or 365 days for 2015-2016 accessions and is underestimated for all 2016 accessions due to lack of sufficient follow-up time.

*Individuals with missing values for demographic variables are included in the total.

TABLE 2.37: ATTRITION AMONG FIRST TIME ENLISTED NATIONAL GUARD ACCESSIONS IN 2011-2016 BY DAYS SINCE ACCESSION: ARMY & AIR FORCE

	Accessed (n)	Attrition (0-70 Days)			Attrition (71-365 Days)			Attrition (366-730 Days)			Attrition (731-1095 Days)		
		n	Period (%)	Cumul (%)	n	Period (%)	Cumul (%)	n	Period (%)	Cumul (%)	n	Period (%)	Cumul (%)
Service													
Army	197,498	2	0.0	0.0	15	0.0	0.0	3	0.0	0.0	0	-	0.0
Air Force	28,809	5	0.0	0.0	501	1.7	1.8	862	3.0	4.7	359	1.2	6.0
FY of Accession													
2011	40,260	2	0.0	0.0	110	0.3	0.3	141	0.4	0.6	88	0.2	0.8
2012	42,135	2	0.0	0.0	88	0.2	0.2	199	0.5	0.7	132	0.3	1.0
2013	28,696	1	0.0	0.0	85	0.3	0.3	238	0.8	1.1	109	0.4	1.5
2014†	43,387	1	0.0	0.0	121	0.3	0.3	242	0.6	0.8	30	0.1	0.9
2015†	38,405	1	0.0	0.0	110	0.3	0.3	45	0.1	0.4	-	-	-
2016†	33,424	-	-	-	2	0.0		-	-	-	-	-	-
Sex*													
Male	174,437	4	0.0	0.0	350	0.2	0.2	590	0.3	0.5	270	0.2	0.7
Female	51,870	3	0.0	0.0	166	0.3	0.3	275	0.5	0.9	89	0.2	1.0
Age at Accession*													
17-20	153,698	3	0.0	0.0	301	0.2	0.2	454	0.3	0.5	206	0.1	0.6
21-25	48,188	2	0.0	0.0	133	0.3	0.3	261	0.5	0.8	98	0.2	1.0
>25	24,400	2	0.0	0.0	82	0.3	0.3	150	0.6	1.0	55	0.2	1.2
Race*													
White	173,297	7	0.0	0.0	425	0.2	0.2	691	0.4	0.6	266	0.2	0.8
Black	42,567	0	-	-	68	0.2	0.2	137	0.3	0.50	74	0.2	0.6
Other	10,443	0	-	-	23	0.2	0.2	37	0.4	0.58	19	0.2	0.7
Education*													
<HS Graduate‡	18,349	0	-	-	1	0.0	0.0	3	0.0	0.02	2	0.0	0.03
HS Diploma	162,790	5	0.0	0.0	421	0.3	0.3	679	0.4	0.7	300	0.2	0.9
Some College	30,912	1	0.0	0.0	61	0.2	0.2	113	0.4	0.6	40	0.1	0.7
≥Bachelor's Degree	14,072	1	0.0	0.0	32	0.2	0.2	67	0.5	0.7	17	0.1	0.8
AFQT Score*													
93-99	14,086	0	-	-	29	0.2	0.2	47	0.3	0.5	24	0.2	0.7
65-92	79,285	4	0.0	0.0	190	0.2	0.2	356	0.4	0.7	128	0.2	0.9
50-64	54,183	0	-	-	151	0.3	0.3	211	0.4	0.7	97	0.2	0.8
30-49	72,893	3	0.0	0.0	145	0.2	0.2	241	0.3	0.5	107	0.1	0.7
11-29	4,997	0	-	-	0	-	-	1	0.0	0.0	0	-	0.0
Medical Status													
Fully Qualified	192,631	6	0.0	0.0	438	0.2	0.2	720	0.4	0.6	306	0.2	0.8
Permanent DQ	20,913	1	0.0	0.0	49	0.2	0.2	100	0.5	0.7	37	0.2	0.9
Temporary DQ	12,763	0	-	-	29	0.2	0.2	45	0.4	0.6-	16	0.1	0.7
Total†	226,307	7	0.0	0.0	516	0.2	0.2	865	0.4	0.6	359	0.2	0.8

FY: Fiscal Year; HS: High School; AFQT: Armed Forces Qualification Test; DQ: Disqualification; Cumul: Cumulative

† Attrition is not counted after 730 days for 2014 accessions or 365 days for 2015-2016 accessions and is underestimated for all 2016 accessions due to lack of sufficient follow-up time.

*Individuals with missing values for demographic variables are included in the total.

‡Encompasses the following three cases: 1) one who is pursuing completion of the GED or other test based high school equivalency diploma, vocational school, or secondary school, etc.; 2) one who is not attending high school and who is neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school but is not yet a senior.

Part II-B: Accessions and Endpoints - EPTS Discharge

Discharges for medical conditions Existing Prior to Service (EPTS) are of vital interest to AMSARA. A discharge can be classified as EPTS if the condition was verified to have existed before the recruit began service and if the complications leading to discharge arose no more than 180 days after the recruit began duty. EPTS data reporting has varied by site and over time – see “Data Sources” section for details.

Please see the 2016 AMSARA Annual Report for the most up-to-date EPTS discharge statistics. EPTS discharge data was underreported in 2014 and not reported for 2015 and 2016. As there was no new data to analyze, all descriptive statistics for EPTS discharges remain unchanged from last year’s AMSARA Annual Report.

EPTS DISCHARGES

Part II-C: Accessions and Endpoints - Disability Discharge

Tables 2.38 through 2.47 describe disability discharges within the first year of military service among enlisted Army, Navy, Marine Corps, and Air Force personnel who accessed during fiscal year (FY) 2011 through 2016. Disability discharges were ascertained by the presence of a disability evaluation record which resulted in one of the following dispositions: temporary disability retirement list, permanent disability retirement list, or separation with severance pay. Relative risks are used to compare the likelihood of having a disability discharge among demographic groups. The baseline group chosen for each comparison depends on the factor being considered. For factors with some inherent order (e.g. age group which ranges from younger to older) it is first or last group in that order as appropriate. Otherwise, the baseline group is generally the largest group. Disability discharge was counted in the component to which the individual accessed for the first-time, even if the discharge was from a different component.

Tables 2.38, 2.40, and 2.42 present the number of disability discharges reported among individuals that enlisted in the Army, Navy, Marine Corps and Air Force during 2011 through 2016. Results are shown by year of accession for the active, reserve, and National Guard components, respectively.

In Tables 2.39, 2.41, and 2.43 the percentage of enlisted accessions who are disability discharged in the first year of service is shown by demographic characteristics and the relative risks and 95% confidence intervals for disability discharge is reported for the active, reserve, and National Guard components, respectively.

Primary Findings: Active Component (Tables 2.38-2.39)

- Among active component enlistees, the highest rate of disability discharges (3 per 10,000) occurred in 2011.
- Rates of disability discharge in the first year of service have been inconsistent, but have generally decreased over time.
- Those in the Army had the highest likelihood of disability discharge.
- Females were nearly three times more likely to be disability discharged than males.
- Risk of disability discharge increased significantly with increasing age.
- Being a non-white race showed decreased risk of disability discharge.
- Personnel with some college education were 23% more likely to be disability discharged compared to individuals with a high school diploma.
- Those with any type of medical disqualification were at significantly higher risk of disability discharge in the first year of service relative to those who were fully qualified.

TABLE 2.38: DISABILITY DISCHARGES WITHIN THE FIRST YEAR OF SERVICE AMONG 2011-2016 ACTIVE COMPONENT ACCESSIONS: ALL SERVICES

Year of accession	Accessed (n)	Discharged within one year of accession	
		n	Rate§§
2011	152,691	456	30
2012	155,701	385	25
2013	165,975	480	29
2014	140,024	376	27
2015	146,571	248	17
2016*	153,184	41	3

*The rate of disability evaluation is underestimated due to lack of follow up data on individuals accessed in 2016.

§§Per 10,000 service members

TABLE 2.39: DISABILITY DISCHARGES WITHIN THE FIRST YEAR OF SERVICE AMONG 2011-2016 ACTIVE COMPONENT ACCESSIONS BY DEMOGRAPHICS: ALL SERVICES

	Accessions (n)	Disability Discharged n	Rate ^{§§}	Crude RR	95% CI
Service					
Army (REF)	357,333	1,087	30	1.00	-
Navy	212,595	144	7	0.22	(0.19 , 0.26)
Marine Corps	180,382	433	24	0.79	(0.71 , 0.88)
Air Force	163,836	319	19	0.64	(0.57 , 0.73)
Sex[§]					
Male (REF)	756,337	1,282	17	1.00	-
Female	157,809	701	44	2.62	(2.39 , 2.87)
Age at Accession[§]					
17 – 20 (REF)	609,639	1,230	20	1.00	-
21 – 25	245,276	564	23	1.14	(1.03 , 1.26)
> 25	59,221	189	32	1.58	(1.36 , 1.84)
Race[§]					
White (REF)	666,707	1,614	24	1.00	-
Black	165,677	281	17	0.70	(0.62 , 0.80)
Other	81,762	88	11	0.44	(0.36 , 0.55)
Education Level[§]					
Below HS graduate [†]	175	0	-	0.00	-
HS diploma (REF)	797,304	1,697	21	1.00	-
Some college	63,291	182	29	1.23	(1.06 , 1.44)
Bachelor's or higher	53,244	104	20	0.92	(0.75 , 1.12)
AFQT Score[§]					
93 – 99 (REF)	63,146	129	20	1.00	-
65 – 92	365,827	841	23	1.13	(0.94 , 1.35)
50 – 64	260,695	564	22	1.06	(0.87 , 1.28)
30 – 49	214,516	444	21	1.01	(0.83 , 1.23)
11 – 29	1,816	2	11	0.54	(0.13 , 2.18)
Medical Status					
Fully Qualified (REF)	791,117	1,610	20	1.00	-
Temporary DQ	51,792	170	33	1.61	(1.38 , 1.89)
Permanent DQ	71,237	203	28	1.40	(1.21 , 1.62)
Total	914,146	1,983	22		

RR: Relative Risk; CI: Confidence Interval; HS: High School; AFQT: Armed Forces Qualification Test; DQ: Disqualification; REF: Referent Group

§ Individuals with missing values for demographic variables are included in the total.

§§ Per 10,000 service members

† Encompasses the following: 1) those pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) those not attending high school and who are neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

Primary Findings: Reserve Component (Tables 2.40-2.41)

- The highest rates of disability discharges (14 per 10,000 service members) occurred in 2011 and 2013.
- Rates of disability discharge have been inconsistent in the years following 2011, decreasing in 2012 (8 per 10,000) and then increasing in 2013 (14 per 10,000).
- Relative to the Army, disability discharge was significantly more likely among enlistees from the Marine Corps and Air Force.
 - The risk of discharge among Marines was more than five times that of the risk in the Army.
- Females were 58% more likely to be disability discharged compared to males.
- Reserve personnel who accessed between the ages of 21 and 25 were 28% more likely to have a disability discharge relative to personnel who accessed between the ages of 17 and 20 years.

TABLE 2.40: DISABILITY DISCHARGES WITHIN THE FIRST YEAR OF SERVICE AMONG 2011-2016 RESERVE COMPONENT ACCESSIONS BY DEMOGRAPHICS: ALL SERVICES

Year of accession	Accessed	Discharged within one year of accession	
	n	n	Rate§§
2011	30,489	43	0.14
2012	24,325	20	0.08
2013	21,295	30	0.14
2014	24,680	29	0.12
2015	24,942	17	0.07
2016*	26,768	6	0.02

*The rate of disability evaluation is underestimated due to lack of follow up data on individuals accessed in 2016.

§§ Per 10,000 service members

TABLE 2.41: DISABILITY DISCHARGES WITHIN THE FIRST YEAR OF SERVICE AMONG 2011-2016 RESERVE COMPONENT ACCESSIONS BY DEMOGRAPHICS: ALL SERVICES

	Accessions (n)	Disability Discharged		Crude RR	95% CI
		n	Rate§§		
Service					
Army (REF)	83,732	67	8	1.00	-
Navy	17,486	3	2	0.21	(0.07 , 0.68)
Marine Corps	31,736	138	43	5.43	(4.06 , 7.28)
Air Force	19,545	37	19	2.37	(1.58 , 3.53)
Sex[§]					
Male (REF)	117,880	99	8	1.00	-
Female	34,618	46	13	1.58	(1.12 , 2.24)
Age at Accession[§]					
17 – 20 (REF)	97,349	87	9	1.00	-
21 – 25	35,081	40	11	1.28	(0.87 , 1.86)
> 25	20,067	18	9	1.00	(0.60 , 1.67)
Race[§]					
White (REF)	103,609	109	11	1.00	-
Black	33,678	28	8	0.79	(0.52 , 1.20)
Other	15,212	8	5	0.50	(0.24 , 1.02)
Education Level[§]					
Below HS graduate	5655	0	-	0.00	-
HS diploma (REF)	120,548	116	10	1.00	-
Some college	13,902	19	14	1.42	(0.87 , 2.31)
Bachelor's or higher	12,373	10	8	0.84	(0.44 , 1.60)
AFQT Score[§]					
93 – 99 (REF)	9,526	9	9	1.00	-
65 – 92	58,542	66	11	1.19	(0.59 , 2.39)
50 – 64	39,432	32	8	0.86	(0.41 , 1.80)
30 – 49	43,016	38	9	0.94	(0.45 , 1.93)
11 – 29	609	0	-	0.00	-
Medical Status					
Fully Qualified (REF)	132,146	118	9	1.00	-
Temporary DQ	8,588	9	10	1.17	(0.60 , 2.31)
Permanent DQ	11,765	18	15	1.71	(1.04 , 2.81)
Total	152,499	145	10		

RR: Relative Risk; CI: Confidence Interval; HS: High School; AFQT: Armed Forces Qualification Test; DQ: Disqualification;

REF: Referent Group

§ Individuals with missing values for demographic variables are included in the total.

§§ Per 10,000 service members

Primary Findings: National Guard (Tables 2.42-2.43)

- The highest rates of disability discharges (12-13 per 10,000 service members) occurred in 2011 and 2013, respectively.
- Rates of disability discharges have been inconsistent over the time period.
- Disability discharge was significantly less likely among enlistees from the Air Force.
- Females were nearly three times more likely to be disability discharged compared to males.
- Enlistees at least 25 years old at accession were 4 times more likely to have a disability discharge.
- Risk of disability discharge was 62% more likely among enlistees with an AFQT score in the 50th to 64th percentile than the 93rd-99th percentile.

TABLE 2.42: DISABILITY DISCHARGES WITHIN THE FIRST YEAR OF SERVICE AMONG 2011-2016 NATIONAL GUARD ACCESSIONS BY DEMOGRAPHICS: ALL SERVICES

Year of accession	Accessed	Discharged within one year of accession	
	n	n	Rate§§
2011	40,260	49	12
2012	42,135	24	6
2013	28,696	36	13
2014	43,387	35	8
2015	38,405	12	3
2016*	33,424	2	1

*The rate of disability evaluation is underestimated due to lack of follow up data on individuals accessed in 2016.

§§ Per 10,000 service members

TABLE 2.43: DISABILITY DISCHARGES WITHIN THE FIRST YEAR OF SERVICE AMONG 2011-2016 NATIONAL GUARD ACCESSIONS BY DEMOGRAPHICS: ALL SERVICES

	Accessions (n)	Disability Discharged		Crude RR	95% CI
		n	Rate§§		
Service					
Army (REF)	197,498	153	8	1.00	-
Air Force	28,809	5	2	0.22	(0.09 , 0.55)
Sex[§]					
Male (REF)	174,437	85	5	1.00	-
Female	51,870	73	14	2.89	(2.11 , 3.95)
Age at Accession[§]					
17 – 20 (REF)	153,719	71	5	1.00	-
21 – 25	48,188	41	9	1.84	(1.25 , 2.71)
> 25	24,400	46	19	4.08	(2.82 , 5.91)
Race[§]					
White (REF)	173,297	121	7	1.00	-
Black	42,567	32	8	1.08	(0.73 , 1.59)
Other	10,443	5	5	0.69	(0.28 , 1.68)
Education Level[§]					
Below HS graduate [†]	18349	3	2	0.23	(0.07 , 0.72)
HS diploma (REF)	162,790	117	7	1.00	-
Some college	30,912	27	9	1.22	(0.80 , 1.85)
Bachelor's or higher	14,072	11	8	1.09	(0.59 , 2.02)
AFQT Score[§]					
93 – 99 (REF)	14,086	8	6	1.00	-
65 – 92	79,285	54	7	1.20	(0.57 , 2.52)
50 – 64	54,183	50	9	1.62	(0.77 , 3.43)
30 – 49	72,893	45	6	1.09	(0.51 , 2.31)
11 – 29	4,997	0	-	0.00	-
Medical Status					
Fully Qualified (REF)	192,631	126	7	1.00	-
Temporary DQ	16,500	17	10	1.58	(0.95 , 2.61)
Permanent DQ	17,176	15	9	1.33	(0.78 , 2.28)
Total	226,307	158	7		

RR: Relative Risk; CI: Confidence Interval; HS: High School; AFQT: Armed Forces Qualification Test; DQ: Disqualification; REF: Referent Group

§ Individuals with missing values for demographic variables are included in the total.

§§ Per 10,000 service members

† Encompasses the following: 1) those pursuing completion of the GED or other test-based high school equivalency diploma, vocational school, or secondary school, etc; 2) those not attending high school and who are neither a high school graduate nor an alternative high school credential holder; 3) one who is attending high school and is not yet a senior.

In Tables 2.44-2.47, the top ten leading diagnoses for enlisted personnel who accessed from 2011 to 2016 and had a disability discharge within the first year of service are shown regardless of component for the Army, Navy, Marine Corps, and Air Force, respectively.

Primary Findings: All Services (Table 2.44-2.47)

- The majority of disability discharged Army enlistees were diagnosed with conditions falling into two musculoskeletal categories: impairment, limitation and ankylosis of the joint, spine, skull limbs and extremities (64%); and prosthetic implants and diseases of the musculoskeletal system (25%).
- Only 6% of Army disability discharges were for the third most common condition category: affective and non-psychotic mental disorders.
- Among Navy enlistees, the leading disability diagnosis was impairment, limitation and ankylosis of the joint, spine, skull, limbs and extremities (32%) followed by affective and non-psychotic mental disorders (19%).
- Approximately 11% of disability discharges in the Navy were related to the third leading disability category: diseases of the digestive system
- The largest diagnosis category among Marine Corps enlistees was impairment, limitation and ankylosis of the joints, spine, skull, limbs and extremities (54%). Prosthetic implants and diseases of the musculoskeletal system was the second leading category (9%), followed by convulsive disorders (7%).
- In the Air Force, the most common reason for disability discharge was the same as the other three services: impairment, limitation and ankylosis of the joints, spine, skull, limbs and extremities (34%) followed by prosthetic implants and diseases of the musculoskeletal system (15%).
- The third leading cause of disability in the first year of Air Force service was affective and non-psychotic mental disorders (11%).

TABLE 2.44: DIAGNOSIS CATEGORIES FOR DISABILITY DISCHARGES IN THE FIRST YEAR OF SERVICE AMONG FIRST-TIME ENLISTED 2011-2016 ACCESSIONS: ARMY

Diagnosis category	2011-2016	
	Count	% [§]
Impairment, limitation, ankylosis of joints, spine, skull, limbs, and extremities	828	64.04
Prosthetic implants and disease of the musculoskeletal system	328	25.37
Affective and nonpsychotic mental disorders	81	6.26
Diseases of the peripheral nerves	56	4.33
Miscellaneous neurological disorders	23	1.78
Diseases of the digestive system	22	1.70
Organic diseases of the central nervous system	22	1.70
Muscle injuries	21	1.62
Diseases of the endocrine system	20	1.55
Schizophrenia and other psychotic disorders	20	1.55
Total individuals	1,421	

[§]Represents the proportion of individuals evaluated for disability who were evaluated for each disability type.

TABLE 2.45: DIAGNOSIS CATEGORIES FOR DISABILITY DISCHARGES IN THE FIRST YEAR OF SERVICE AMONG FIRST-TIME ENLISTED 2011-2016 ACCESSIONS: NAVY

Diagnosis category	2011-2016	
	Count	% [§]
Impairment, limitation, ankylosis of joints, spine, skull, limbs, and extremities	30	31.91
Affective and nonpsychotic mental disorders	18	19.15
Diseases of the digestive system	10	10.64
Schizophrenia and other psychotic disorders	8	8.51
Convulsive disorders	7	7.45
Prosthetic implants and disease of the musculoskeletal system	7	7.45
Diseases of the peripheral nerves	5	5.32
Diseases of the skin	4	4.26
Diseases of the endocrine system	3	3.19
Diseases of the cranial nerves	2	2.13
Total individuals	94	

§Represents the proportion of individuals evaluated for disability who were evaluated for each disability type.

TABLE 2.46: DIAGNOSIS CATEGORIES FOR DISABILITY DISCHARGES IN THE FIRST YEAR OF SERVICE AMONG FIRST-TIME ENLISTED 2011-2016 ACCESSIONS: MARINE CORPS

Diagnosis category	2011-2016	
	Count	% [§]
Impairment, limitation, ankylosis of joints, spine, skull, limbs, and extremities	135	53.78
Prosthetic implants and disease of the musculoskeletal system	23	9.16
Convulsive disorders	17	6.77
Diseases of the digestive system	13	5.18
Diseases of the peripheral nerves	13	5.18
Schizophrenia and other psychotic disorders	13	5.18
Diseases of the endocrine system	11	4.38
Affective and nonpsychotic mental disorders	10	3.98
Diseases of the trachea and bronchi	8	3.19
Miscellaneous neurological disorders	6	2.39
Total individuals	249	

§Represents the proportion of individuals evaluated for disability who were evaluated for each disability type.

TABLE 2.47: DIAGNOSIS CATEGORIES FOR DISABILITY DISCHARGES IN THE FIRST YEAR OF SERVICE AMONG FIRST-TIME ENLISTED 2011-2016 ACCESSIONS: AIR FORCE

Diagnosis category	2011-2016	
	Count	% [§]
Impairment, limitation, ankylosis of joints, spine, skull, limbs, and extremities	114	34.13
Prosthetic implants and disease of the musculoskeletal system	51	15.27
Affective and nonpsychotic mental disorders	36	10.78
Schizophrenia and other psychotic disorders	32	9.58
Diseases of the trachea and bronchi	23	6.89
Convulsive disorders	17	5.09
Muscle injuries	16	4.79
Diseases of the digestive system	15	4.49
Diseases of the peripheral nerves	10	2.99
Miscellaneous neurological disorders	10	2.99
Total individuals	324	

[§]Represents the proportion of individuals evaluated for disability who were evaluated for each disability type.

SECTION 3: Data Sources

The Accession Medical Standards Analysis and Research Activity (AMSARA) requests and receives data from various sources, most of which are the primary collection agencies for the data they provide to AMSARA. Because data are seldom collected with the goal of epidemiologic research, AMSARA coordinates with the appropriate points of contact to ensure that the following major data sources needed for AMSARA studies are in an appropriate form for epidemiologic work.

As mentioned under “Charter and Supporting Documents,” AMSARA maintains strict confidentiality of all data it receives. No external access to the data is allowed, and internal access is limited to a small number of primary analysts on an as-necessary basis. Analysis and research results are provided only at the aggregate level, with no possibility of individual identification.

MEPS

AMSARA receives data on all applicants who undergo an accession medical examination at any of the 65 Military Entrance Processing Stations (MEPS) sites. These data, provided by US Military Entrance Processing Command (USMEPCOM), North Chicago, IL, contain several hundred demographic, medical, and administrative elements on recruit applicants for each applicable branch (regular enlisted, reserve, National Guard) of each service (Air Force, Army, Coast Guard, Marines, and Navy). These data also include records on a relatively small number of officer recruit applicants and other non-applicants receiving periodic physical examinations.

The MEPS records provide extensive medical examination information, including date of examination, medical qualification status, medical disqualification codes (where relevant), medical conditions observed by or reported to physicians, and any waiver requirements. Medical conditions among applicants fall into two categories, temporary (condition that can be remediated, e.g., being overweight) or permanent (condition that remains with the applicant, e.g., history of asthma). For those applicants with a permanent disqualification due to a permanent condition, an accession medical waiver from a service-specific waiver authority is required for the applicant to be eligible for accession into the service (see “Waiver”). Results of some specific tests are also extracted from the MEPS records including those for hearing/vision, alcohol/drug use, and measurements of height, weight, and blood pressure.

Gain and Loss Files

The Defense Manpower Data Center (DMDC) provides data on individuals entering military service (gain or accession) and on individuals exiting military service (loss or discharge). Gain and loss data, which are AMSARA’s primary sources of information about who is, or has been, in the military, include when an individual began duty and when or if an individual exited the military. From this information the length of service can be determined for any individual entering and leaving during the periods studied.

Gain data include approximately 50 variables. Of these, AMSARA has identified 25 of primary interest: personal identifiers (e.g., name and SSN) for linking with other data; demographics such as age, education, and Armed Forces Qualification Test (AFQT) score at the time of accession; and service information including date of entry, Unit Identification Code (UIC) of initially assigned unit, initially assigned Military Occupation Specialty code (MOS), and Initial Entry Training (IET) site. These data are combined with MEPS data to determine accession percentages among applicants by demographic and other variables. Also, as mentioned under “MEPS,” these linked data are used in epidemiologic investigations related to the military’s accession medical standards.

Loss data also include approximately 50 variables, many of which are the same as those found in the gain file, although they reflect the individual's status at the time of loss rather than at the time of gain. The variables of primary interest to AMSARA are personal identifiers for linking with other data, the loss date for computing length of service, the UIC and MOS for grouping service members by occupation, and the Inter-service Separation Code (ISC) as a secondary source of the reason for leaving the military. These data serve as the primary source of information on all-cause attrition from the service and are linked with the MEPS and gain data for studies of attrition.

Accession Medical Waiver

AMSARA receives records on all active and reserve component recruits who were considered for an accession medical waiver, i.e., those who received a permanent medical disqualification at the MEPS (see "MEPS") and sought a waiver for that disqualification. Each service is responsible for making waiver decisions about its applicants. Data on these waiver considerations are generated and provided to AMSARA by each service waiver authority. Although the specifics of these data vary by service, they generally contain identifiers (e.g., name and SSN) for linking with other data and information about the waiver consideration including the medical condition(s) for which an individual was seeking a waiver and the final decision of the waiver authority.

Air Force

Air Education and Training Command (Randolph Air Force Base, TX) transmits, upon request, data on active and reserve component officer and enlisted accession medical waivers. These data include SSN, name, action (e.g., approved, disapproved, other), and date of waiver consideration. In addition, ICD-9 codes are used to define the medically disqualifying condition(s) for which the waiver is being considered.

Army

The U.S. Army Recruiting Command (USAREC, Fort Knox, KY) has provided annual accession medical waiver data since January 1997. Each data record contains name, SSN, action (e.g., approved, disapproved, other), and date of waiver consideration. In addition, ICD-9 codes are used to define the medically disqualifying condition(s) for which the waiver is being considered.

Marine Corps

The U.S. Navy Bureau of Medicine and Surgery (BUMED) in Washington, DC, provides, on request, medical waiver data for enlisted personnel. Data include name, SSN, date of waiver consideration, and recommended action (e.g., approved, disapproved, other). In addition, the subset of ICD-9 codes listed in DoD Instruction (DoDI) 6130.03 is used to indicate the medically disqualifying condition(s) for which the waiver is being considered.

Navy

The Office of the Commander, U.S. Navy Recruiting Command (Millington, TN) provides accession medical waiver data on applicants for enlisted service in the Navy since May 2000. Medically disqualifying conditions reported within the Navy waiver data file are recorded using in-house codes indicating which section of the DoDI 6130.03 is the basis for disqualification and waiver.

EPTS Discharges

Discharges for conditions that existed prior to service (EPTS) medical conditions are of vital interest to AMSARA. A discharge for a medical condition can be classified as an EPTS discharge if the condition was verified to have existed before the recruit began service and if the complications leading to discharge arose no more than 180 days after the recruit began duty. USMEPCOM requests a copy of official paperwork on all EPTS discharges and records certain information about each. This information includes a general medical categorization (20 categories) of the reason(s) for discharge and a judgment on each discharge regarding why (i.e., concealment, waiver, or unawareness) the person was not rejected for service on the basis of the preexisting condition. Beginning in August 1996, this paperwork has been regularly forwarded by USMEPCOM to AMSARA for additional data extraction, including more specific coding of medical conditions leading to discharge.

The primary limitation of the EPTS discharge data is completeness. Table 3.1 summarizes the numbers of records provided to AMSARA across 2010-2014. The Marine Corps training site in San Diego has historically not provided EPTS discharge records since 2006, but has started as of 2014. In the Army, Ft. Jackson, Ft. Knox, and Fort Leonard Wood have provided 0 (or close to 0) EPTS records to AMSARA during FY 2012-2014. Overall, the numbers of records have been unstable and underreported over time for most IET sites. While some variability in numbers of EPTS records over time is expected, underreporting is clearly a major source of fluctuation.

TABLE 3.1: EPTS DISCHARGE DATA REPORTED TO USMEPCOM BY TRAINING SITE AND YEAR †

Service	Training Site	Fiscal Year of EPTS Discharge					Total
		2010	2011	2012	2013	2014	
Army	Fort Benning	520	866	885	781	227	3,279
	Fort Jackson	606	838	1	5	3	1,453
	Fort Knox	286	138	0	0	0	424
	Fort Leonard Wood	804	873	240	2	0	1,919
	Fort Sill	185	299	133	150	182	949
Navy	Great Lakes	1,530	1,504	1,863	399	3	5,299
Marine Corps	Parris Island	772	861	653	745	517	3,548
	San Diego	0	0	0	0	128	128
Air Force	Lackland AFB	680	655	409	602	738	3,084
Coast Guard	Cape May	165	220	131	88	115	719
Total		5,548	6,254	4,315	2,772	1,913	20,802

†Numbers may not sum to totals shown in Section 2 because information from specific training sites is incomplete and other requirements for records are different.

Disability Discharges in the First Year of Service

Data on disability discharge considerations are compiled separately for each service at its disability agency. The U.S. Army Physical Disability Agency has provided data on Army disability evaluations during 1995-2016 and continues to provide these data. The Air Force Personnel Center has provided data on the first evaluation for all individuals who received a final disposition of separation or retirement (i.e. fit dispositions, retained on the temporary disability retirement list not included) for the first time during the period of 1995–2010, but only provides data on all evaluations from the period of 2007-2016. Data from the Secretary of the Navy, Council of Review Boards, including all disability discharge considerations for the Navy and Marine Corps, are available from 2000 to 2016.

All disability agencies provide information on all disability cases considered, including personal identifiers (e.g., name and SSN), program (e.g., regular enlisted, academy, or officer), date of consideration, and disposition (e.g., permanent disability, separation with or without benefits, temporary disability, or return to duty as fit). For individuals receiving a disability discharge, medical condition codes and degree of disability (rating) are also included. The medical condition(s) involved in each case are described using the condition codes of the Veterans Affairs Schedule for Rating Disabilities (VASRD). This set is less comprehensive than the ICD-9 codes. In some cases the disabling condition has no associated code, so the code most closely resembling the true condition is used. AMSARA therefore only uses broad categories of disability condition codes, defined in Table 3.2, rather than attempting to interpret specific codes.

TABLE 3.2: VASRD CODE GROUPINGS

VASRD code	Conditions encompassed	VASRD code	Conditions encompassed
5000 - 5099	Prosthetic Implants and diseases of the musculoskeletal system	7300 - 7399	Diseases of the digestive system
5100 - 5199	Amputation or anatomical loss of upper and lower extremities	7500 - 7599	Diseases of the genitourinary system
5200 - 5299	Impairment, limitation, ankylosis of joints, spine, skull, limbs, and extremities	7600 - 7699	Gynecological conditions and disorders of the breast
5300 - 5399	Muscle injuries	7700 - 7799	The hemic and lymphatic systems
6000 - 6099	Diseases of the Eye or loss of vision	7800 - 7899	Diseases of the skin
6200 - 6269	Diseases of the Ear	7900 - 7999	Diseases of the endocrine system
6270 - 6279	Diseases of other sense organs (smell and taste)	8000 - 8099	Organic Diseases of the Central Nervous System
6280 - 6299	Other and unspecified disorders of the sensory organs	8100 - 8199	Miscellaneous neurological disorders
6300 - 6399	Infectious diseases, immune disorders, and nutritional deficiencies	8200 - 8499	Diseases of the cranial nerves
6500 - 6599	Diseases of the nose and throat	8500 - 8799	Diseases of the peripheral nerves
6600 - 6699	Diseases of the trachea and bronchi	8900 - 8999	Convulsive disorders
6700 - 6799	Tuberculosis	9200 - 9299	Schizophrenia and other psychotic disorders
6800 - 6899	Diseases of the respiratory system	9300 - 9399	Organic psychotic disorders
7000 - 7099	Diseases of the heart	9400 - 9599	Affective and nonpsychotic mental disorders
7100 - 7199	Diseases of the arteries and veins	9900 - 9999	Dental and oral conditions
7200 - 7299	Injury to the mouth, lips, tongue, and esophagus		

SECTION 4: Charter and Supporting Documents

HA Control #: NONE
Due Date: NONE

February 28, 1995

ASSISTANT SECRETARY OF DEFENSE
(HEALTH AFFAIRS)
EXECUTIVE SUMMARY/COVER BRIEF

MEMORANDUM FOR THE ASSISTANT SECRETARY OF DEFENSE
(HEALTH AFFAIRS)

THROUGH: *ym* Dr. Sue Bailey, DASD (CS)
FROM: Action Officer, Colonel Ed Miller
SUBJECT: Accession Medical Standards Analysis and Research
Activity (AMSARA)

PURPOSE: SIGNATURE--on request that the Assistant Surgeon
General of the Army (Research and Development)
establish an Accession Medical Standards Analysis
and Research Activity (AMSARA).

DISCUSSION:

The Accessions Medical Standards Working Group which met over the summer sponsored through MFIM funding completed a functional economic analysis of the medical accessions examination process. One of the critical recommendations made by the Group was to establish a research activity to provide the Medical Accessions Standards Council (also recommended) with an evidence-based analysis of DoD accessions medical standards. The memorandum tasks the Army with the responsibility of establishing the activity resourced under the Defense Health Program. This has already been staffed with the Assistant Surgeon General of the Army (Research and Development)

RECOMMENDATION:
Sign tasking memorandum to Army Surgeon General.

COORDINATION:
✓ Mr. Conte, PDUSD(P&R) _____
Mr. Maddy, HB&P: See attached memo
✓ Mr. Richards, EO: _____
Dr. Martin, PDASD: _____

CHARTER & DOCUMENTS

CHARTER AND SUPPORTING DOCUMENTS



THE ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D. C. 20307-1200

DEC 08 1995

MEMORANDUM FOR SURGEON GENERAL OF THE ARMY

SUBJECT: Military Medical Standards Analysis and Evaluation Data Set

The personnel community has asked OASD/HA to develop a fact based accessions policy to minimize medical attrition, quantitate risk in medical waivers, and to defend accession decisions when challenged.

The offices of Clinical Services and Military Personnel Policy have worked closely with epidemiologists at Walter Reed Army Institute of Research on the concept of a Military Medical Standard Analysis and Evaluation Data Set (MMSABDS) to apply quantitative analysis to a longitudinal data base.

The Army Center for Health Promotion and Preventive Medicine (CHPPM) maintains a data base of personnel, hospitalization, deployment and separation information for all Services. I would like WRAIR, in coordination with CHPPM, to serve as consultants to the Accession Medical Standard Steering Committee, modify and maintain the data base, and coordinate field research to answer specific questions germane to accession policy.

Therefore, I request that, by the end of December 1995, a proposal be submitted through you from WRAIR, outlining the consultant role and modifications needed to the data base. This should include funding requirements.

Edward D. Mattes /sr
Stephen C. Joseph, M.D., M.P.H.

cc:
Commander WRAIR

DEPARTMENT OF DEFENSE
ACCESSION MEDICAL STANDARDS
STEERING COMMITTEE

CHARTER

I. ESTABLISHMENT, PURPOSE AND SCOPE

A. ESTABLISHMENT

The Under Secretary of Defense (Personnel and Readiness) establishes a Department of Defense Accession Medical Standards Steering Committee (hereafter referred to as the "Committee".) The Committee shall operate under the joint guidance of the Assistant Secretaries of Defense (Force Management Policy and Health Affairs [FMP & HA].)

B. PURPOSE

The Committee's main objective is to ensure the appropriate use of military members with regard to medical/physical characteristics, assuring a cost-efficient force of healthy members in military service capable of completing initial training and maintaining worldwide deployability. The primary purposes of the Committee are: (1) integrating the medical and personnel communities in providing policy guidance and establishing standards for accession medical/physical requirements, and (2) establishing accession medical standards and policy based on evidence-based information provided by analysis and research.

C. SCOPE OF ACTIVITY

1. The Committee's responsibility involves:

- a. Providing policy oversight and guidance to the accession medical/physical standards setting process.
- b. Directing research and studies necessary to produce evidenced-based accession standards making the best use of resources.
- c. Ensuring medical and personnel coordination when formulating accession policy changes.
- d. Overseeing the common application of the accession medical standards as outlined in DoD Directive 6130.3, "Physical Standards for Appointment, Enlistment, and Induction."

e. Interfacing with other relevant Department of Defense and Department of Transportation organizations.

f. Recommending promulgation of new DoD directives as well as revisions to existing directives.

g. Recommending legislative proposals concerning accession medical/physical processing.

h. Reviewing, analyzing, formulating and implementing policy concerning the accession physical examination.

i. Issuing policy letters or memoranda providing interpretation of provisions of DoD directives.

j. Resolving conflicts of application of accession medical/physical standards and policies among the Military Services and other authorized agents.

k. Maintaining records and minutes of Committee meetings.

II. ORGANIZATION

A. The Committee will be co-chaired by the Deputy Assistant Secretary of Defense (Military Personnel Policy) and the Deputy Assistant Secretary of Defense (Clinical Services). This will facilitate tasking the Deputy Chiefs of Staff for Personnel and the Surgeons General to assign staffers to relevant working groups, and to ensure DCS/Personnel and Surgeon General personal involvement with the various issues. The Committee will convene semiannually, at a minimum, and at the discretion of the Chairpersons.

B. Committee members are appointed by the Under Secretary of Defense (Personnel and Readiness) and provide ongoing liaison with their respective organizations concerning matters of medical/physical accession policy.

C. The Committee shall be composed of representatives from the following:

Office of the Assistant Secretary of Defense (Force Management Policy)

Office of the Assistant Secretary of Defense (Health Affairs)

Office of the Assistant Secretary of Defense (Reserve Affairs)

Office of Service Surgeons General

Office of Service Deputy Chiefs of Staff for Personnel, and Chief of Personnel and Training, HQ U.S. Coast Guard.

e. Interfacing with other relevant Department of Defense and Department of Transportation organizations.

f. Recommending promulgation of new DoD directives as well as revisions to existing directives.

g. Recommending legislative proposals concerning accession medical/physical processing.

h. Reviewing, analyzing, formulating and implementing policy concerning the accession physical examination.

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Office of the Assistant Secretary of Defense (Health Affairs)

Office of the Assistant Secretary of Defense (Reserve Affairs)

Office of Service Surgeons General

Office of Service Deputy Chiefs of Staff for Personnel, and Chief of Personnel and Training, HQ U.S. Coast Guard.

D. Representatives from the Office of the Assistant Secretary of Defense (Force Management Policy) and the Office of the Assistant Secretary of Defense (Health Affairs) shall serve as executive secretaries for the Committee, and maintain a working group, composed of representatives from each of the offices mentioned above, to receive and review issues pertinent to accession policy.

E. The Commander, U.S. Military Entrance Processing Command, and the Director, DoD Medical Examination Review Board shall serve as advisors to the Committee.

F. The Committee may invite consultants (i.e., training, recruiting, epidemiology) at the discretion of the Chairpersons.

Approved: JAN 16 1996
Date



EDWIN DORN

Frequently Used Acronyms

AFQT	Armed Forces Qualification Test
AMSARA	Accession Medical Standards Analysis and Research Activity
AMSWG	Accession Medical Standards Working Group
BMI	Body Mass Index
BUMED	Navy Bureau of Medicine and Surgery
CCS	Clinical Classifications Software
DMDC	Defense Manpower Data Center
DoD	Department of Defense
DQ	Disqualification
EPTS	Existed Prior to Service
FY	Fiscal Year
IET	Initial Entry Training
ICD-9	<i>International Classification of Diseases, 9th Revision</i>
ICD-10	<i>International Classification of Diseases, 10th Revision</i>
ISC	Interservice Separation Code
MEPS	Military Entrance Processing Station
MOS	Military Occupation Specialty
OMF	Objective Medical Finding
PDQ	Permanent Disqualification
SSN	Social Security Number
USAREC	U.S. Army Recruiting Command
USMEDCOM	U.S. Medical Command
USMEPCOM	U.S. Military Entrance Processing Command
VASRD	Veterans Administration Schedule for Rating Disabilities
WRAIR	Walter Reed Army Institute of Research

ACRONYMS



Accession **M**edical **S**tandards **A**nalysis & **R**esearch **A**ctivity

Preventive Medicine Branch
Walter Reed Army Institute of Research
503 Robert Grant Avenue
Forest Glen Annex
Silver Spring, MD 20910

Usarmy.detrick.medcom-wrair.list.amsara@mail.mil