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# Annual Report

Disability Evaluation System  
Analysis and Research (DESAR)



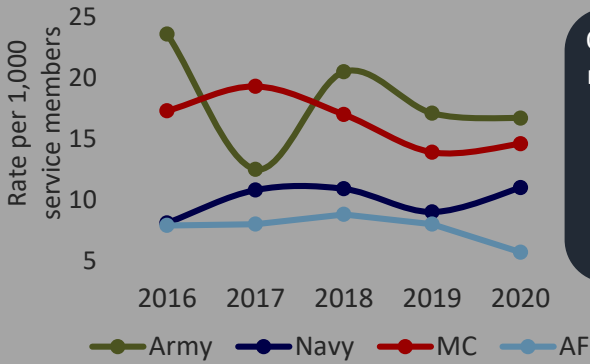


# Report at a Glance

## FY2016-2020 Disability Evaluation Metrics

Evaluation Metrics

### Evaluation Rate Trend



### Rates Higher For:

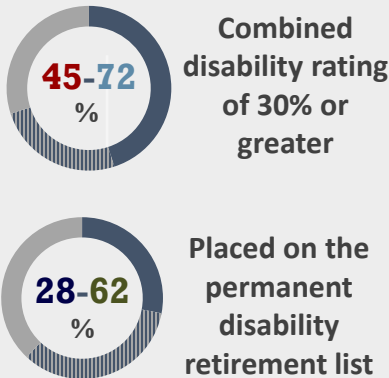
- **Enlisted**  
2-3x higher than Officers
- **Active Duty**  
4-7x higher than Reserve
- **Females**  
18% to 2x higher than males
- **Other race**  
14% to 3x higher than White or Black race

Discharge Metrics

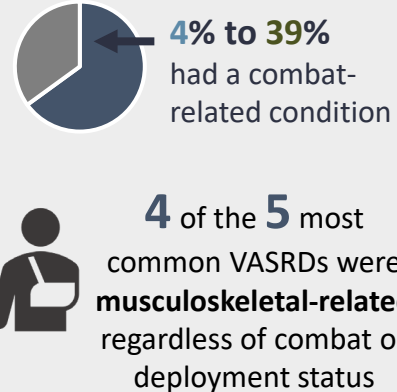
### Most Common VASRDs

- Musculoskeletal 36-65%**  
Dorsopathies  
Limitation of Motion
- Psychiatric 24-39%**  
PTSD  
Mood Disorders
- Neurological 19-27%**  
Paralysis  
Migraine

### Ratings and Dispositions



### Combat and Deployment



Medical History

### Medical DQs/Waivers

**6-8%**  
with history of pre-accession medical DQ or waiver - similar proportion to all FY16-20 accessions

### Hospitalization within 1 Year

4 out of 5 leading dxs were **psychiatric disorders**

- Mood disorders
- Anxiety disorders
- Substance abuse
- Schizophrenia spectrum

*Little to no concordance between DQ/waiver and reason for disability discharge (<2%).  
More concordance observed with primary diagnosis at hospitalization, particularly among psychiatric-related disability discharges (9-22%).*



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Material has been reviewed by the Walter Reed Army Institute of Research. There is no objection to its publication. The opinions or assertions contained herein are the private views of the authors, and are not to be construed as official, or as reflecting true views of the Department of the Army or the Department of Defense. The investigators have adhered to the policies for protection of human subjects as prescribed in AR 70-25.



# DESAR MISSION

## **BACKGROUND**

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Since 2009, DESAR has utilized epidemiological research and analytics to optimize retention of service members by assessing and measuring the impact of exposure, disease, and injury on military service and disability. Our work provides important information and knowledge to assist decisions by DOD level stakeholders and policymakers.

## **MISSION**

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Execute advanced analytics and epidemiological research to inform DOD retention and disability policy decisions to improve readiness and lethality by reducing attrition, streamlining the disability evaluation process, and decreasing replacement time and cost.

## **OBJECTIVES**

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- Provide key metrics on disability evaluations and discharges
- Evaluate and describe certain aspects of the military disability evaluation systems
- Design and execute epidemiologic studies to identify risk factors associated with disability retirement from the military

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# EXECUTIVE SUMMARY

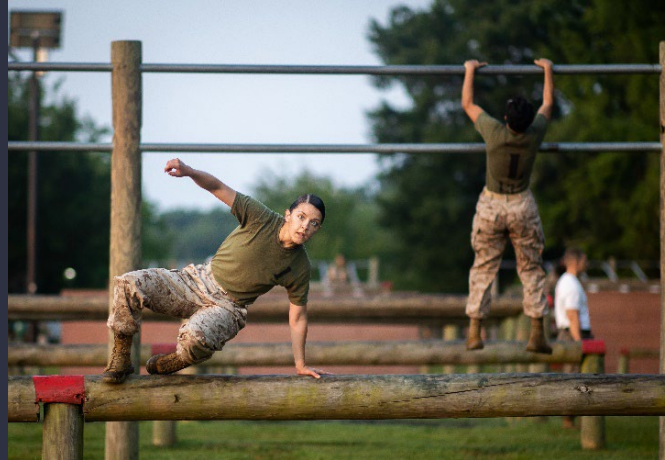
At the request of the Assistant Secretary of Defense (Health Affairs), the Disability Evaluation System Research and Analysis (DESAR) team was established to provide audits and studies of the Disability Evaluation System. Since 2009, DESAR has employed epidemiological research and advanced analytics to inform DOD retention and disability policy decisions aimed at improving readiness and lethality of warfighters.

This report describes demographic, service and medical characteristics of service members evaluated for disability discharge by each service-specific Physical Evaluation Board between FY 2016 to 2020. Section 1 of this report provides metrics on *disability evaluated* service members, including rates and yearly trends by demographic characteristic, disposition, unfitting condition, and rating. Section 2 describes medical history, including pre-accession medical disqualifications, accession medical waivers, and hospitalizations within one year prior to disability evaluation among *disability discharged* service members.

This year, DESAR made two noteworthy changes to the report:

1. Added a section describing combat-related disability discharges and evaluating its interconnection with deployment.
2. Updated reporting of pre-accession disqualifications and waiver considerations to directly align with DoDI 6130.03, Volume 1.

Key findings are as follows:



# KEY FINDINGS

## Section 1: Disability Evaluation Metrics

From the fiscal year 2016 to 2020, nearly 140,000 service members were evaluated for disability discharge from the Army, Navy, Marine Corps, and Air Force. All results from the Army should be interpreted as an underestimate due to a large number of missing records among data received by DESAR for the fiscal year 2017.

### RATES AND TRENDS OF DISABILITY EVALUATIONS (FIGURE 2)

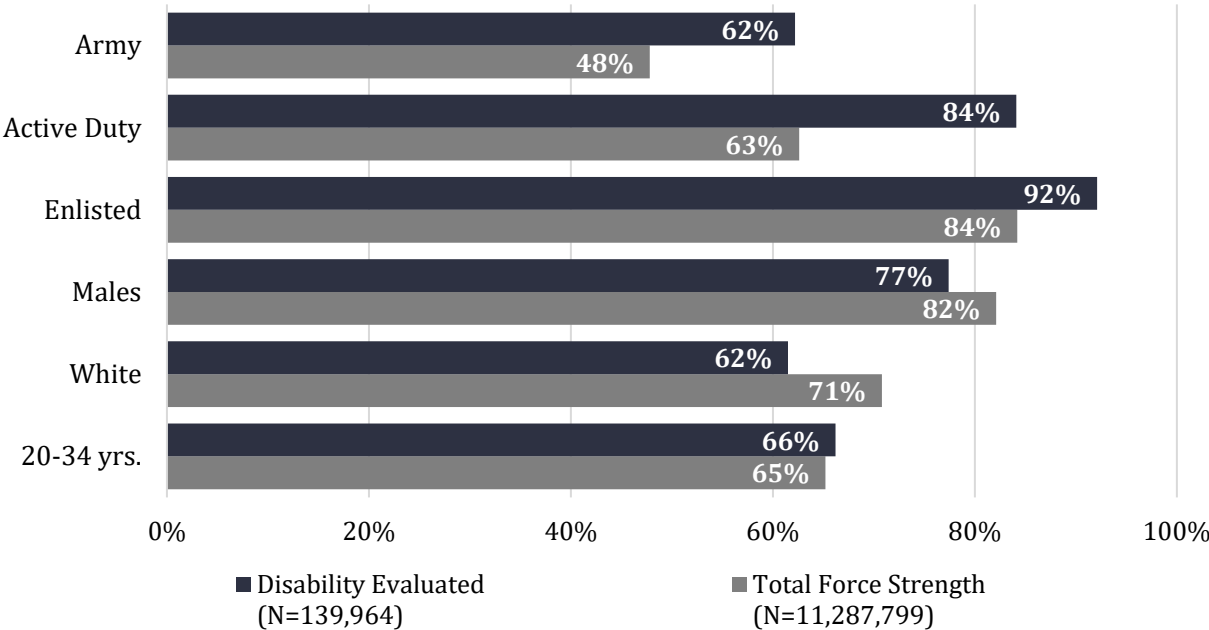
Overall rates of disability evaluation (per 1,000 service members) varied by service and year; trends in disability evaluation rates may correspond to changes in the DoD policies and operations.

- The overall rate of disability evaluation was higher in the Army (18.1) and Marine Corps (16.4) compared to the Navy (10.0) and Air Force (7.7).
- Over the five years, there appears to be a slight downward trend in the rate of disability evaluation for the Army, Marine Corps, and Air Force, and a slight upward trend for the Navy.

### DEMOGRAPHIC AND SERVICE-RELATED CHARACTERISTICS (TABLES 4-5, FIGURES 3-5)

Some demographic and service-related characteristics among service members evaluated for disability were typically similar to the total force strength between FY 2016 to 2020.

*Comparison of Most Common Characteristics of DES Population vs. Total Force Strength from FY2016-2020*



However, some characteristics were associated with higher frequencies and rates of disability evaluation.

- For all services throughout the study time period, rates of disability evaluation were generally higher among active-duty service members and enlisted components.
- The rates of disability evaluation for sex and race varied over time and by service.
  - Among Soldiers and Marines, the rate for other race (non-White and non-Black) was up to four times higher than the rate of White Soldiers or Marines.
  - The disability evaluation rate for female Sailors, Marines, and Airmen was about two times higher than males, and had an upward trend over the five year period.
- For the Army, the rate of disability evaluation increased as age increased, while for all other services, the rate peaked between the ages of 20-34 years.

### DISABILITY RATING AND DISPOSITION (TABLES 6-7, FIGURES 6-7)

Disability disposition and combined rating reflect the level of impairment and eligibility for DoD disability benefits.

- Although the most commonly assigned combined disability rating differed by service, on average, approximately 45-70% of boarded service members received a rating of 30% or greater, qualifying for disability retirement.
- Placement on the permanent disability retirement list (PDRL) was the most commonly assigned disposition among Soldiers (62%), Sailors (28%), and Airmen (58%), while separated with severance pay (SWSP) was most common among Marines (44%).
  - Over the surveillance period, there appears to be a downward trend in the proportion of Soldiers and Marines placed on the PDRL, and in the proportion of Sailors and Marines assigned Fit/Limited Duty.

Service	Most Common Disposition	Most Common Rating	Percent with ≥30% Rating	Notable Trends
Army	PDRL	70%	71%	Downward trend for PDRL (12 percentage point (pp) decrease between FY16 and FY20).
Navy	PDRL	Unrated	57%	Downward trend for Fit/Limited Duty (16 pp decrease from FY16 to FY20). Upward trend of assignment of 70% rating (4% in FY16 vs. 14% in FY20).
Marine Corps	SWSP	10%	45%	Downward trend for PDRL (13 pp decrease between FY16 and FY20) and Fit/Limited Duty (7 pp decrease).
Air Force	PDRL	30%	72%	Downward trend in 0-20% ratings with corresponding downward trend of SWSP (21 pp decrease over time).



## **UNFITTING CONDITIONS (TABLES 8-9, FIGURES 8-9)**

The ten most commonly assigned unfitting condition categories fell within the musculoskeletal, psychiatric, and neurological body systems, with the following exceptions: noninfectious enteritis and colitis in the Navy, and asthma in the Air Force.

- Musculoskeletal:
  - Among disability discharges, 65% of Soldiers, 59% of Marines, 48% of Airmen, and 36% of Sailors had a musculoskeletal disability.
  - For all services, the most common musculoskeletal unfitting condition categories were dorsopathies (e.g., vertebral fracture, sacroiliac injury, lumbosacral strain, and degenerative arthritis), limitation of motion, joint disorders or inflammation, and arthritis.
  - There was a notable downward trend in the proportion of service members discharged with a musculoskeletal condition for the Navy and Air Force over the five year period.
- Psychiatric:
  - 24% (Marine Corps) to 39% (Army) of disability discharged service members had an unfitting psychiatric disorder.
  - There was a notable upward trend in psychiatric disability in the Navy and Air Force over the surveillance period, and by FY19, psychiatric disorders were the most common reason for disability discharge in both services.
  - Between 15% (Navy) and 30% (Army) of all disability discharged service members had service-connected post-traumatic stress disorder (PTSD). Mood disorders were also a common reason for disability discharge in all services, ranging from 6% (Marine Corps) to 17% (Navy).
- Neurological:
  - 19% (Marine Corps) to 27% (Army, Air Force) of disability discharged service members had an unfitting neurologic disorder.
  - The most common neurological condition in the Army, Marine Corps, and Air Force was paralysis, whereas migraine was the most common among Sailors.

## **COMBAT-RELATED DETERMINATION AND DEPLOYMENT (TABLES 10-11, FIGURE 10)**

Unfitting conditions may be considered combat-related if sustained as a direct result of armed combat, while in engaged in hazardous service, or during war-simulating conditions.

- Among all disability discharges, nearly 40% of Soldiers, 19% of Marines, 6% of Sailors, and less than 4% of Airmen were determined to have a combat-related condition.
  - Among those with a history of deployment, 55% of Soldiers, 35% of Marines, 9% of Sailors, and 6% of Airmen were determined to have a combat-related condition.
- The five most common unfitting condition categories did not widely vary when stratified by both combat-related determination and deployment status, with the exception of mood disorders, which were common only in those with no history of deployment with conditions unrelated to combat.
- Four of the five most common unfitting condition categories were musculoskeletal-related, regardless of combat-related determination and deployment status.

## Section 2: Medical History among Disability Discharged Service Members

Section 2 describes the medical history of disability discharged service members and evaluates concordance between medical history and reason for disability discharge. Medical history encompasses the following three data points: (1) history of a medical disqualification identified during the pre-accession physical examination at Military Entrance Processing Station (MEPS); (2) history of an accession medical waiver; and (3) hospitalization at any military treatment facility (MTF) within one year prior to first disability evaluation.

### **PRE-ACCESSION MEDICAL DISQUALIFICATIONS (DQs) AND WAIVERS (TABLES 12-15, FIGURES 11-12)**

- Approximately 6% (Marine Corps) to 8% (Army) of service members disability discharged between FY 2016-2020 had history of a pre-accession medical DQ/waiver, which is similar to the proportion of medical DQ among all enlisted military accessions who applied for service between FY 2016-2019 (6-9%) [11].
- In general, the five most common DQs and waivers among disability discharged service members (eye, vision, miscellaneous conditions of the extremities, psychiatric conditions, and conditions of the lower extremities) were consistent with highly prevalent DQs/waivers among all accessions [11].
- Little to no concordance (<2%) was observed between pre-accession DQs or waivers and reason for disability evaluation for the most common disability body systems.

### **HOSPITALIZATIONS WITHIN ONE YEAR OF DISABILITY EVALUATION (TABLES 16-17, FIGURE 13)**

- Overall, 8% (Air Force) to 19% (Navy) of disability discharged service members had been hospitalized within one year prior to their first disability evaluation.
- Four of the five most common reasons for hospitalizations occurring within 1 year of disability evaluation were psychiatric disorders (mood disorders, anxiety and stress-related disorders, substance use, schizophrenia spectrum/other psychotic disorders).
  - Psychiatric disorders, particularly adjustment disorders, alcohol dependence, major depressive disorder, and PTSD, are also common reasons for hospitalizations among all active duty service members [12].
- More concordance was observed between the reason for hospitalization and reason for disability discharge than was observed with pre-accession DQs or accession medical waivers.
  - 9% (Air Force) to 22% (Navy) of psychiatric-related disability discharges had been hospitalized for a psychiatric disorder within one year prior to their first disability evaluation.

# METHODS

## DES DATA SOURCES

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Data on disability discharge considerations are compiled separately for each service at its disability agency:

- U.S. Army Physical Disability Agency (PDA) provides data on Army disability evaluations
- Air Force Personnel Center (AFPC) provides data on Air Force disability evaluations
- Secretary of the Navy Council of Review Board (CORB) provides disability evaluation data for the Navy and Marine Corps

## DES DATABASE CHARACTERISTICS

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**Table 1** shows the characteristics of the Disability Evaluation System (DES) data received by DESAR for each service. Disability evaluation is administered at the service level with each branch of service responsible for evaluating disability in its members; therefore, variability exists in the structure of the data received by DESAR. For example, while the Navy sends all Physical Evaluation Board (PEB) evaluation records per service member per year, the Army sends PEB evaluation records for unfitting conditions only, and the Air Force sends only the most recent evaluation record per service member per year. In addition, the Navy (all years) and Army (FY 2013-2020) PEBs sent both condition-specific disability ratings and the combined rating, while the Air Force sent the combined rating only.

To create the analytic files for this report, service-specific datasets were restricted to unique records with a final disposition date between October 1, 2015 and September 30, 2020. All ranks and components per service were included in these analyses. When service members were the unit of analysis, the last record per Social Security Number (SSN) was retained; when disability evaluations were the unit of analysis, multiple records were used per SSN. Since, unique evaluations were defined by SSN and the date of final disposition, a service member may appear more than once in the source population when evaluations were the unit of analysis.

**TABLE 1: DES Database Characteristics by Service**

	Army	Navy/Marine Corps	Air Force
<b>Years received*</b>	1990-2020	2000-2020	1995-2020
<b>Types of evaluation included</b>	All PEB	All PEB	1995-2006: PEB for discharges only (PDRL, TDRL, SWSP) 2007-2017: All PEB excluding TDRL re-evaluations 2018-2020: All PEB
<b>Conditions Included</b>	All Unfitting Conditions	All Evaluated Conditions	Up to 3 Unfitting Conditions
<b>Ranks included</b>	Enlisted, Officer	Enlisted, Officer	Enlisted, Officer
<b>Components included</b>	Active Duty, Reserve	Active Duty, Reserve	Active Duty, Reserve
<b>Multiple evaluations per person/year</b>	Yes	Yes	No - one evaluation per year

PEB: Physical Evaluation Board; TDRL: Temporary Disability Retirement List; PDRL: Permanent Disability Retirement List; SWSP: Separated with Severance Pay

## KEY DES ELEMENTS

**Table 2** shows the key data elements included in each DES dataset received by DESAR. Additional data elements may have been included in each service's database but were not presented in this report. A check mark (✓) denotes that data were received in all years in which the data were available. If a data element was not available for all years, those years for which the data were available are listed. An X mark denotes that data has never been received by DESAR.

**TABLE 2:** DES Key Variables

	Army	Navy/Marine Corps	Air Force
<b>Demographic and Service-Related Characteristic</b>			
Age	FY 1990-2016	✓	FY 2017-2020
Sex/Gender	✓	✓	FY 2014-2020
Race	✓	✓	X
Rank	✓	✓	✓
Component	✓	✓	✓
MOS	✓	FY 2010-2020	FY 2017-2020
<b>PEB</b>			
Board type	X	✓	✓
Date of PEB Evaluation	FY 1990-2012, 2017-2020	✓	✓
VASRD	✓	✓	✓
VASRD Analog	✓	✓	✓
Percent Rating	FY 2013-2020	✓	X
Disposition	✓	✓	✓
Disposition Date	✓	✓	✓
Combined Rating	✓	✓	✓
<b>Combat</b>			
Combat Related	✓ <sup>1</sup>	✓	FY 2010-2020
Armed Conflict	X	✓	FY 2010-2020
Instrumentality of War	X	✓	FY 2010-2020

MOS: Military Occupational Specialty; PEB: Physical Examination Board; VASRD: Veterans Affairs Schedule for Rating Disabilities  
 1. The Army data includes only a combat-related determination, which is assigned when the unfitting conditions were incurred in combat, were the result of armed conflict, or were caused by an instrumentality of war [1].

## Demographic and Service-Related Characteristics

Information on demographic variables (i.e., age, sex, race) and service-related characteristics (i.e., MOS, rank, component) received by DESAR varied by service and year. For demographic variables missing in the DES dataset, DESAR utilized other military databases, such as Defense Manpower Data Center (DMDC) personnel records and Military Entrance Processing Station (MEPS) application records, to obtain additional information on available demographic characteristics (i.e., date of birth, race, sex).

Military component assessed in this report included active duty, reserve, and National Guard. The Army and Air Force National Guard components were categorized within the reserve component. Military rank assessed in this report were enlisted personnel and officers, which included both warrant officers and commissioned officers.

## PEB

All service-specific PEB datasets contained several key data elements regarding the Physical Evaluation Board (PEB) evaluation, including board type, date of PEB, Veterans Affairs Schedule for Rating Disabilities (VASRD) and analogous codes, combined disability rating, disposition, and disposition date.

VASRD codes are not diagnostic codes but are derived from the MEB diagnosis [2], and specify criteria associated with disability ratings. In cases where the true disabling condition had no directly associated VASRD code, service members were assigned the analogous code that best approximates the functional impairment rendered by a medical condition. Service members may be evaluated for multiple unfitting conditions; therefore, disability evaluation records may have multiple VASRD codes. The number of



VASRD codes provided to DESAR varied by service, which may explain some inter-service differences in this report's results. Due to large number of individual VASRD codes, DESAR reports disabling conditions based on body system categories listed in 38 CFR Book C, Schedule for Rating Disabilities, as well as broad VASRD categories (e.g., limitation of motion) [3] **(Table 2B)**.

**TABLE 2B: Body System Categories by VASRD Codes**

<b>VASRD Code</b>	<b>Body System Category</b>
5000-5331	Musculoskeletal System
6000-6092	Eyes and Vision
6200-6260	Impairment of Auditory Acuity
6275-6276	Other Sensory
6300-6354	Infectious Diseases, Immune Disorders and Nutritional Deficiencies
6502-6847	Respiratory System
7000-7123	Cardiovascular System
7200-7354	Digestive System
7500-7542	Genitourinary System
7610-7632	Gynecological Conditions and Disorders of the Breast
7700-7725	Hematologic and Lymphatic Systems
7800-7833	Dermatologic System
7900-7919	Endocrine System
8000-8914	Neurological Conditions and Convulsive Disorders
9201-9521	Psychiatric Disorders
9900-9918	Dental and Oral Conditions

To account for inter-service differences in disposition types, DESAR grouped dispositions into the following seven (7) categories. For definitions on DoD or service-specific dispositions, please refer to DoD Instruction 1332.18 [2], Army Regulation 635.40 [1], SECNAV M-1850 [4], or Air Force Instruction 36-3212 [5].

1. **Fit/Limited Duty:** The ‘Fit/Limited Duty’ category encompasses all service members allowed to continue service, and includes the following dispositions: fit, limited duty, continuation on active duty, and physically qualified to continue reserve status.
2. **Separation with Severance Pay (SWSP):** This DoD disposition is assigned when at least one condition is found to be unfitting, the combined disability rating is less than 30 percent, and the service member has less than 20 years of service [2].
3. **Separated without DoD Disability Benefits (SWODDB):** The category ‘Separated without DoD Disability Benefits’ encompasses all separations for which the service member is not entitled to disability benefits from the DoD. This category includes the following dispositions: separated without entitlement to benefits, discharge pursuant to other than Chapter 61 of Reference, revert to retired status without disability benefits, nonduty unfit, not physically qualified (NPQ), miscellaneous administrative removal, and administrative removal off the TDRL.

4. **Permanent Disability Retirement List (PDRL):** This DoD disposition is assigned when the service member is found unfit with a condition that is considered stable (unlikely to change within three years), has a combined disability rating of 30 percent or higher, or has a length of service greater than 20 years.
5. **Temporary Disability Retirement List (TDRL):** A service member is placed on the temporary disability retirement list when determined to be unfit for continued service due to a temporary or unstable condition (i.e., may improve or worsen within three years), with a combined disability rating of 30 percent or higher. Service members on the TDRL are re-evaluated every 6-18 months for up to three years. A re-evaluation may result in a service member returning to duty, converting to another disposition, or in cases when the condition remains unstable, retained on the TDRL. For this report, TDRL is categorized into two groups, **placement on the TDRL and retained on the TDRL**.

Since approximately 90% of service members placed on the TDRL convert to the PDRL [6, 7], service members placed or retained on the TDRL are included in the 'disability discharged' population within this report's 'Medical History' section.

Prior to 31 December 2016, a service member could be on the TDRL for up to five years following initial placement on the TDRL. Beginning on 1 January 2017, the maximum length of time allowable on the TDRL was shortened to 36 months [8, 9]. This change may increase the rate of retirements and separations both overall and by condition through 2021.

6. **Other:** The 'other' disposition category includes transfer to retired reserve, revert to retired status, no action, reboard, deceased, and dual-action term.

## Combat Determination

Data received by DESAR from the Army, Navy, Marine Corps, and Air Force include up to three variables regarding combat, the values of which are described in the Department of Defense Instruction (DoDI) 1332.18 [2]. Since combat variables received by DESAR differ between each service's DES, a disability discharge was categorized as combat-related if an unfitting condition was incurred from armed conflict, combat-related activities, or an instrumentality of war.



# OTHER DATA SOURCES AND VARIABLES

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## **Application for Military Service**

DESAR receives data on all applicants who undergo an accession medical examination at any of the 65 MEPS sites. These data, provided by US Military Entrance Processing Command (USMEPCOM) Headquarters (North Chicago, IL), contains several hundred demographic, medical, and administrative elements on enlisted applicants for each applicable component (active duty, reserve, National Guard) of the Air Force, Army, Marine Corps, and Navy. Although the data also include records on a relatively small number of officer recruit applicants and other non-applicants receiving periodic physical examinations, DESAR included only military application records for enlisted service. The MEPS records provide extensive medical examination information, including date of examination, screening test results, medical qualification status, and, when applicable, medical disqualifications observed by or reported to physicians.

A military applicant's disqualification status is determined during the physical examination at MEPS per DoD Instruction 6130.03 [10]. Disqualifications are recorded as International Classification of Diseases, 9th or 10th revision (ICD-9/10) codes listed in US Military Entrance Processing Command Integrated Resource System (USMIRS) application record. Disqualified service members require an accession medical waiver in order to access into the military.

## **Accession Medical Waiver**

DESAR receives data on all applicants considered for an accession medical waiver (i.e., applicants who received a medical disqualification at MEPS and sought a medical waiver for that disqualification). Each service is responsible for its own waiver decisions, and information on these decisions is provided by the service's medical waiver review authority. DESAR receives accession medical waiver data from the Air Education Training Command (AETC, Lackland AFB, TX) for the Air Force; US Army Recruiting Command (USAREC, Fort Knox, KY) for the Army; Marine Corps Recruiting Command (MCMR, Quantico, VA) for the Marine Corps via WebWave; the Office of the Commander, US Navy Recruiting Command (NRC, Millington, TN) for the Navy via WebWave.

## **Accession, Discharge, and Deployment Records**

The Defense Manpower Data Center (DMDC) provides data annually on individuals entering military service (gain or accession), service members discharged from military service (loss or discharged), and service members deployed in support of Overseas Contingency Operations.

## Hospitalization

DESAR receives Military Health System (MHS) direct care hospitalization data annually from the MHS data repository (MDR). Information includes admissions of active-duty officers and enlisted personnel, and medically eligible reserve component personnel to any military hospital. Only the primary diagnosis listed in a service member's hospitalization record was evaluated for the purposes of this report. Due to the large number of diagnosis codes, specific diagnoses were grouped into broader diagnosis categories (e.g., mood disorders).



# DESCRIPTIVE STATISTICS: DISABILITY EVALUATIONS

## I. DES DATA METRICS

**Table 3** presents metrics of DES evaluations which occurred between fiscal years (FY) 2016 and 2020. Throughout this report, an evaluation as a service member’s unique encounter with the Physical Evaluation Board (PEB), defined by identifier (e.g., SSN) and disposition date. Service members may have more than one disability evaluation, particularly if placed and/or retained on the TDRL.

### Table 3 Key Findings

- From FY 2016-2020, approximately 158,663 disability evaluations were completed on 139,964 service members.
- On average, service members placed on TDRL received their final disposition at their second evaluation.
- The average number of VASRD codes assigned per evaluation was higher in Army (2.3) than the other services (Navy 1.4; Marine Corps 1.5; Air Force 1.6).

**TABLE 3:** DES Evaluation Metrics, FY 2016-2020

	Army <sup>1</sup>	Navy	Marine Corps	Air Force
<b>Total SMs</b>	<b>87,013</b>	<b>18,034</b>	<b>17,761</b>	<b>17,156</b>
<b>Total evaluations</b>	97,751	20,519	20,684	19,709
<b>Average # of evaluation/SM</b>	1.1	1.1	1.2	1.1
<b>Non-TDRL</b>	1.0	1.0	1.0	1.0
<b>TDRL<sup>2</sup></b>	2.0	2.1	2.1	2.1
<b>Average # of VASRDs/evaluation<sup>3</sup></b>	2.3	1.4	1.5	1.6

SM: Service member; VASRD: Veterans Administration Schedule for Rating Disabilities; TDRL: Temporary Disability Retirement List

1. Values are underestimated due to missing or incomplete FY 2017 Disability Evaluation System data for the Army.

2. Average number of evaluations is inclusive of service members with a TDRL disposition, and a final disposition resulting in their removal from the temporary disability retirement list.

3. The average number of VASRDS per evaluations counts the number of unique VASRDS per evaluation.

**Discussion of Results – Table 3:** Inter-service differences in the disability evaluation process may account for the observed differences in the total number of service members and evaluations per service. The Air Force and Army have a pre-Medical Evaluation Board (MEB) process that may screen out those likely to be returned to duty, which may explain the lower number of evaluations overall. Prior to December 2020, the Navy and Marine Corps did not have a pre-MEB process which may result in more service members being directly processed into the DES and a higher number of evaluations.

Observed differences may also be due to differences in the type of evaluations each PEB sends to DESAR. The Army and Navy send data on all PEB evaluations completed per year. While the Air Force sends only one evaluation per Airman and year, which may underestimate the number of evaluations per Airman.

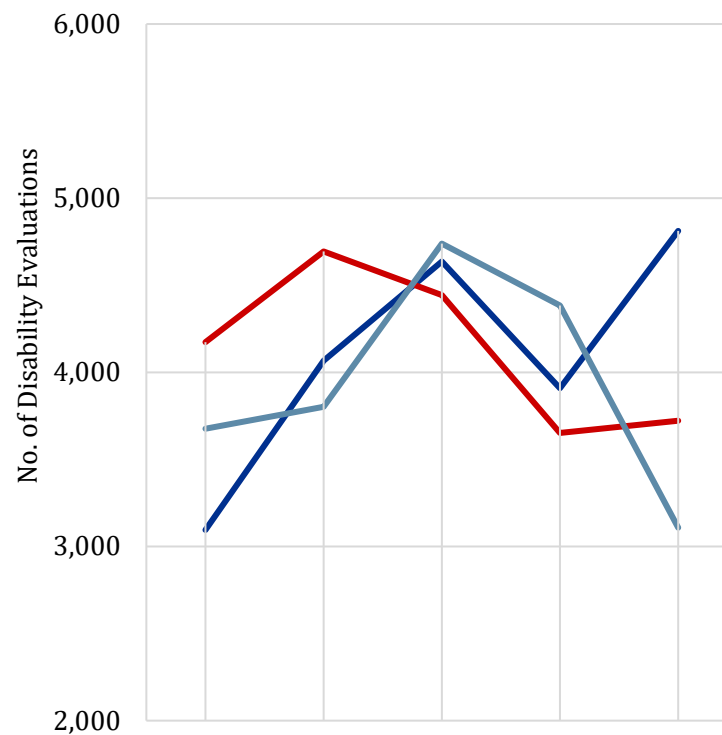
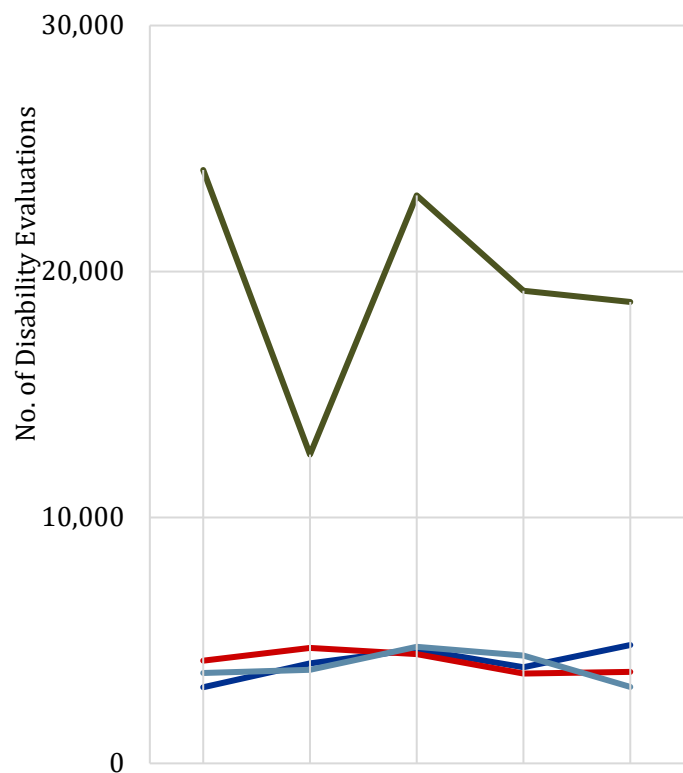
**Figure 1** presents the number of DES evaluation by service and fiscal year. Service members may be counted more than once in this table due to TDRL re-evaluations.

### Figure 1 Key Findings

- The number of disability evaluations per service fluctuated over the five years (FY2016-2020).
- During the surveillance period, the highest number of disability evaluations occurred in FY2018 for the Army, FY2020 for the Navy, FY2017 for the Marine Corps, and FY2018 for the Air Force.



**FIGURE 1: Total DES Evaluations by Service and Year: FY 2016-2020**



	2016	2017	2018	2019	2020	TOTAL
Army <sup>1</sup>	24,126	12,556	23,093	19,218	18,758	97,751

	2016	2017	2018	2019	2020	TOTAL
Navy	3,095	4,067	4,636	3,909	4,812	20,519
Marine Corps	4,173	4,694	4,443	3,652	3,722	20,684
Air Force	3,676	3,802	4,739	4,384	3,108	19,709

1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

## II. RATE AND TRENDS OF DISABILITY EVALUATIONS

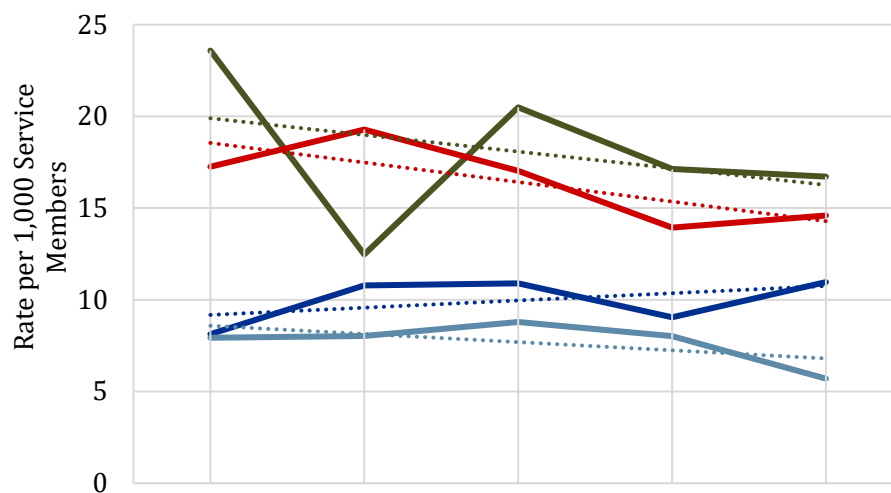
The figures presented in this section of the report describe the rate of disability evaluation per fiscal year (solid lines) and the linear trend (dotted lines). Temporal trends of the rate of disability evaluation were calculated per 1,000 service members per service (**Figure 2**). Rates are based on total service population, using data from Defense Manpower Data Center (DMDC) and represents the total number of service members as of 30 September of the fiscal year in question.

*Rate calculations throughout the report were based on the fiscal year of the service member's most recent disability evaluation.*

### Figure 2 Key Finding

- Overall, the Army had the highest rate of disability discharge (18 per 1,000 Soldiers) and the Air Force had the lowest rate (8 per 1,000 Airmen).
- Over the five-year period, the Army, Marine Corps, and Air Force had a downward trend in the rate of disability evaluations; however, there was a slight upward trend for the Navy.

**FIGURE 2:** Rate (per 1,000) of Service Members Evaluated for Disability Discharge by Service and FY of Disability Evaluation



	2016	2017	2018	2019	2020	TOTAL
Army <sup>1</sup>	23.6	12.5	20.5	17.1	16.7	18.1
Navy	8.1	10.8	10.9	9.0	11.0	10.0
Marine Corps	17.3	19.3	17.0	13.9	14.6	16.4
Air Force	7.9	8.0	8.8	8.0	5.7	7.7

1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

### III. DEMOGRAPHIC AND SERVICE-RELATED CHARACTERISTICS

The distribution and rates (per 1,000 service members) of service-related and demographic characteristics among service members evaluated for a disability discharge are presented in **Tables 4 and 5**. Service-specific temporal trends of disability discharge rates by military component/rank, sex and race, are shown in **Figures 3A-D, 4A-D, and 5A-D**, respectively.

Rates were based on total service population and represents the total number of service members with each service-related or demographic characteristic as of 30 September of the fiscal year in question. Demographic characteristics (e.g., race, date of birth) unavailable from disability evaluation data were supplemented through data collected from the service member’s application, accession, or separation records. The service member’s age was calculated at the time of the most recent disability evaluation.

#### Table 4 & Figures 3A-D Key Findings

- Across all services, rates of disability evaluation were highest among enlisted (2 to 3 times the rate of Officers) and active duty (4 to 7 times the rate of reserve/guard components) service members.
- The Army and Air Force had a higher number of disability evaluations among Reservists than the other services, likely due to the inclusion of the National Guard not present in the Navy or Marine Corps.
- Trends over the five years for rank and component fluctuated by service.

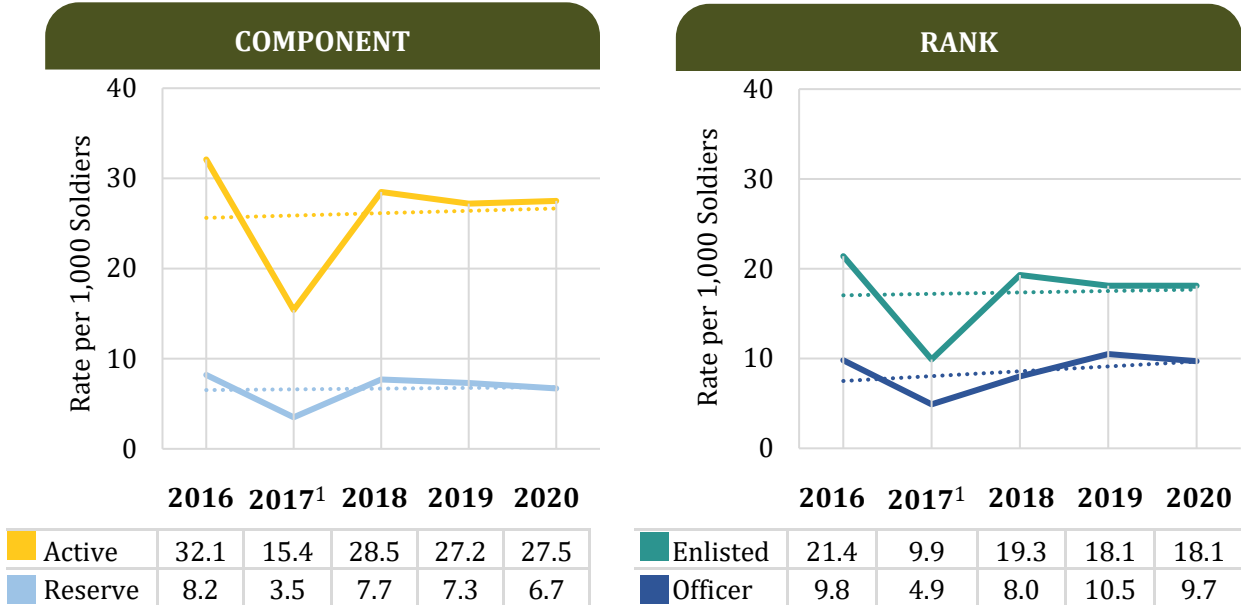
**TABLE 4:** Distribution and Rate (per 1,000) of Service-Related Characteristics of Service Members Evaluated for Disability Discharge by Service, FY 2016-2020

Characteristic	Army <sup>1</sup> (n=87,013)			Navy (n=18,034)			Marine Corps (n=17,761)			Air Force (n=17,156)		
	n	%	Rate	n	%	Rate	n	%	Rate	n	%	Rate
<b>Rank</b>												
Enlisted	79,296	91.1	17.4	16,745	92.9	9.8	17,159	96.6	15.2	15,705	91.5	7.4
Officer	7,346	8.4	8.7	1,288	7.1	3.7	602	3.4	4.5	1,341	7.8	2.9
Missing	371	0.4	-	1	0.0	-	0	0.0	-	110	0.6	-
<b>Component</b>												
Active Duty	68,099	78.3	26.3	17,336	96.1	9.9	17,207	96.9	16.4	15,096	88.0	9.0
Reserve/NG	18,905	21.7	6.7	698	3.9	2.3	554	3.1	2.6	2,060	12.0	2.3
Missing	9	0.0	-	0	0.0	-	0	0.0	-	0	0.0	-

1. Values are underestimated due to missing or incomplete Disability Evaluation System data for the Army in FY 2017

# ARMY

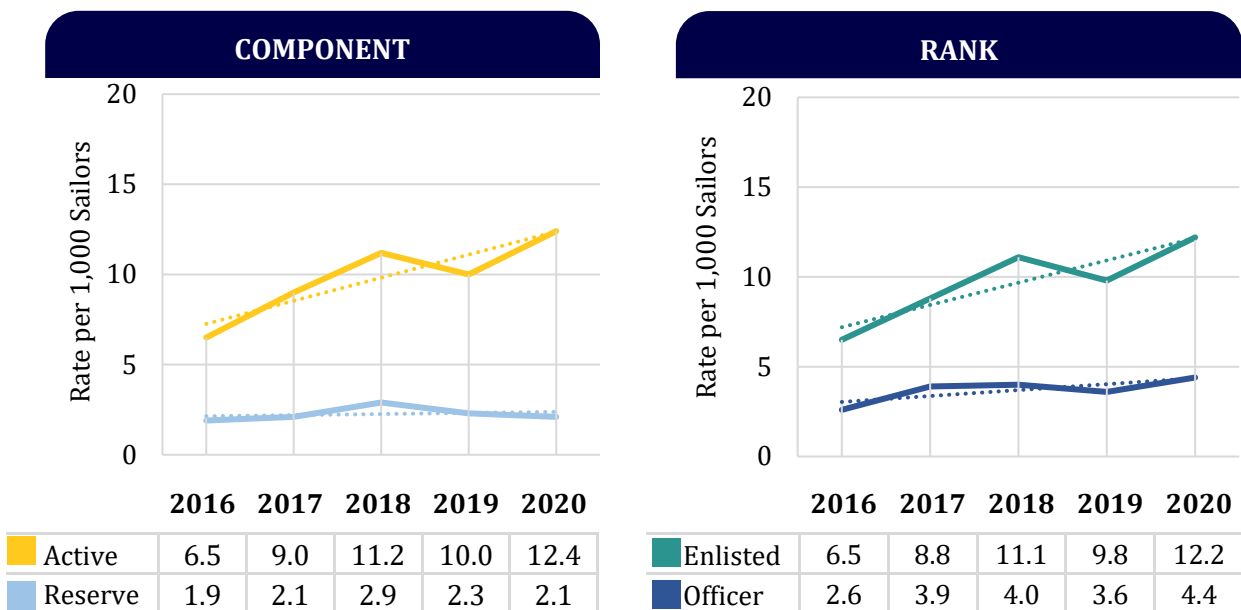
**FIGURE 3A:** Temporal Trend of the Rate (per 1,000 Soldiers) of Disability Evaluation by Component and Rank: Army FY 2016-2020



1. Values are underestimated due to missing or incomplete Disability Evaluation System data for the Army in FY 2017.

# NAVY

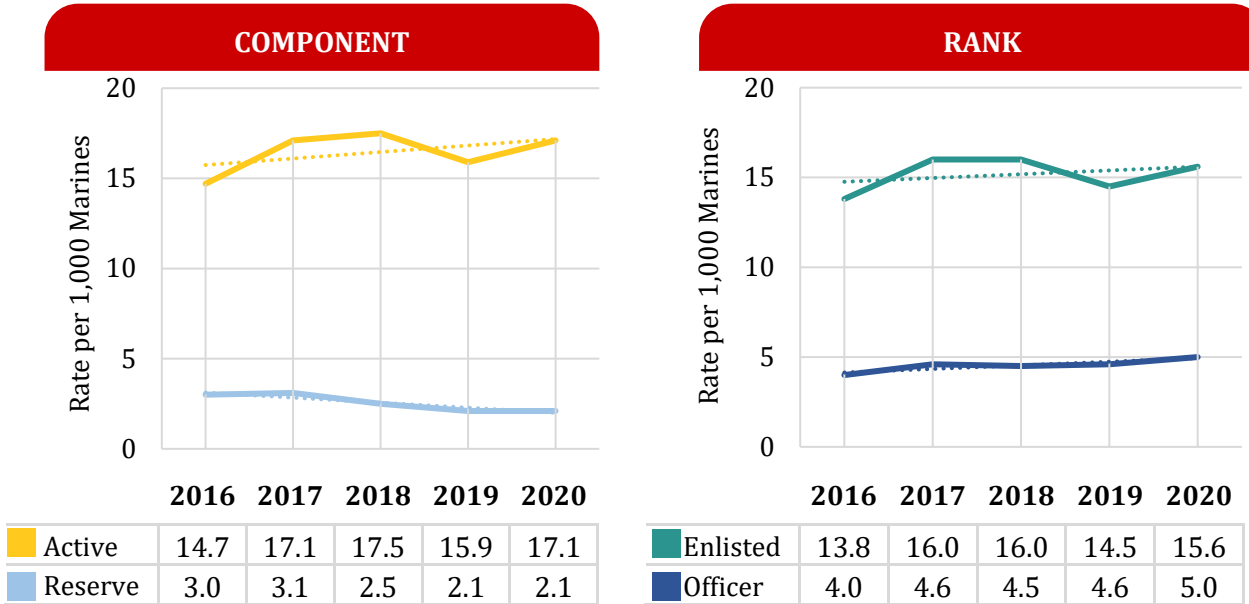
**FIGURE 3B:** Temporal Trend of the Rate (per 1,000 Sailors) of Disability Evaluation by Component and Rank: Navy FY 2016-2020





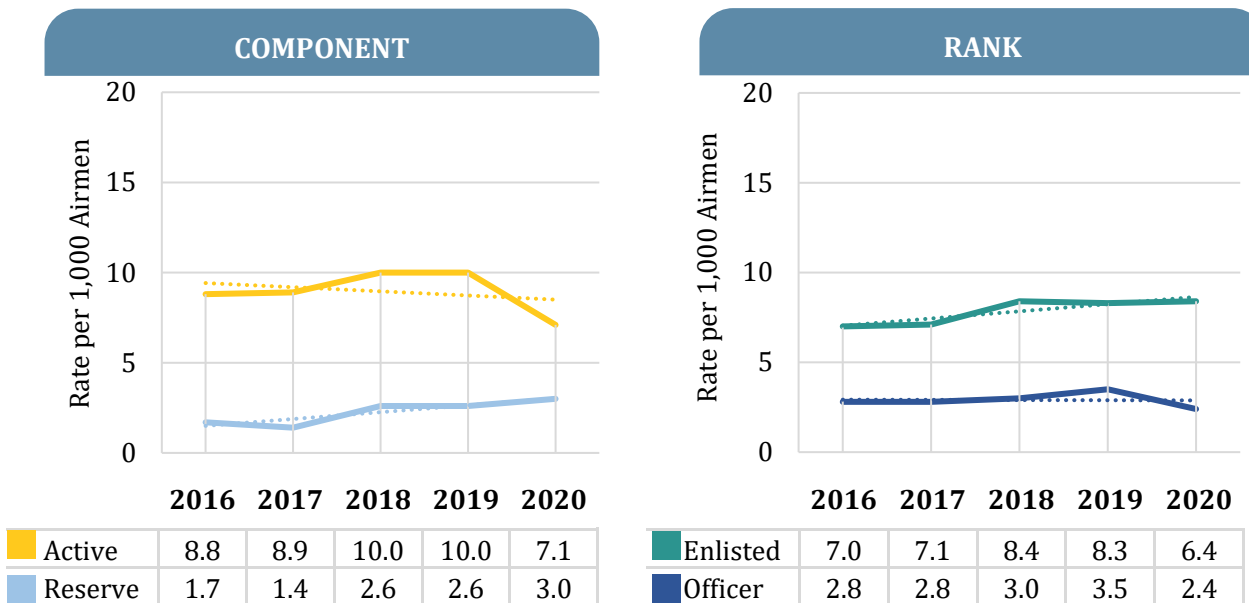
# MARINE CORPS

**FIGURE 3C:** Temporal Trend of the Rate (per 1,000 Marines) of Disability Evaluation by Component and Rank: Marine Corps FY 2016-2020



# AIR FORCE

**FIGURE 3D:** Temporal Trend of the Rate (per 1,000 Airmen) of Disability Evaluation by Component and Rank: Air Force FY 2016-2020



### Table 5, Figures 4A-D & Figures 5A-D Key Findings

- Most service members evaluated for a disability were male (67-84%), aged 20-34 years (60-85%), or identified as White (53-71%).
- The disability evaluation rate for female service members was 18% (Army) to 2.3 times (Marine Corps) higher than males and trended upward over the past five years for the Army, Navy, and Marine Corps.
- The disability evaluation rate for Soldiers and Marines identifying as “Other” race was up to 4 times higher than those who identified as White or Black race.
- For the Army, disability rates were highest among Soldiers aged 35 years or older. For the other services, higher rates were seen among those aged 20-34 years.

**TABLE 5:** Distribution and Rate (per 1,000) of Demographic<sup>1</sup> Characteristics of Service Members Evaluated for Disability Discharge by Service, FY 2016-2020

Characteristic	Army <sup>2</sup> (n=87,013)			Navy (n=18,034)			Marine Corps (n=17,761)			Air Force (n=17,156)		
	n	%	Rate	n	%	Rate	n	%	Rate	n	%	Rate
<b>Sex</b>												
Male	69,405	79.8	15.6	12,125	67.2	7.4	14,836	83.5	12.7	11,987	69.9	5.9
Female	17,608	20.2	18.4	5,871	32.6	14.0	2,879	16.2	29.0	5,169	30.1	9.4
Missing	0	0.0	-	38	0.2	-	46	0.3	-	0	0.0	-
<b>Age</b>												
<20	613	0.7	1.0	142	0.8	0.8	403	2.3	1.6	116	0.7	0.6
20-24	15,623	18.0	10.3	3,930	21.8	6.7	6,839	38.5	12.0	3,266	19.0	5.3
25-29	20,049	23.0	17.5	5,241	29.1	11.1	5,029	28.3	24.1	4,544	26.5	7.9
30-34	17,083	19.6	21.8	4,053	22.5	12.3	3,220	18.1	30.3	3,782	22.0	8.3
35-39	13,113	15.1	23.1	2,489	13.8	10.4	1,473	8.3	21.4	2,644	15.4	7.5
≥40	19,932	22.9	26.7	2,143	11.9	8.8	769	4.3	14.1	2,594	15.1	6.7
Missing	570	0.7	-	36	0.2	-	28	0.2	-	210	1.2	-
<b>Race</b>												
White	50,755	58.3	13.3	10,676	59.2	8.0	12,327	69.4	12.7	12,333	71.9	6.6
Black	18,927	21.8	18.7	3,332	18.5	9.6	1,670	9.4	10.5	2,771	16.2	7.4
Other	16,761	19.3	42.4	3,898	22.1	14.2	3,754	21.1	40.9	1,742	10.2	7.4
Missing	371	0.7	-	37	0.2	-	10	0.1	-	310	1.8	-

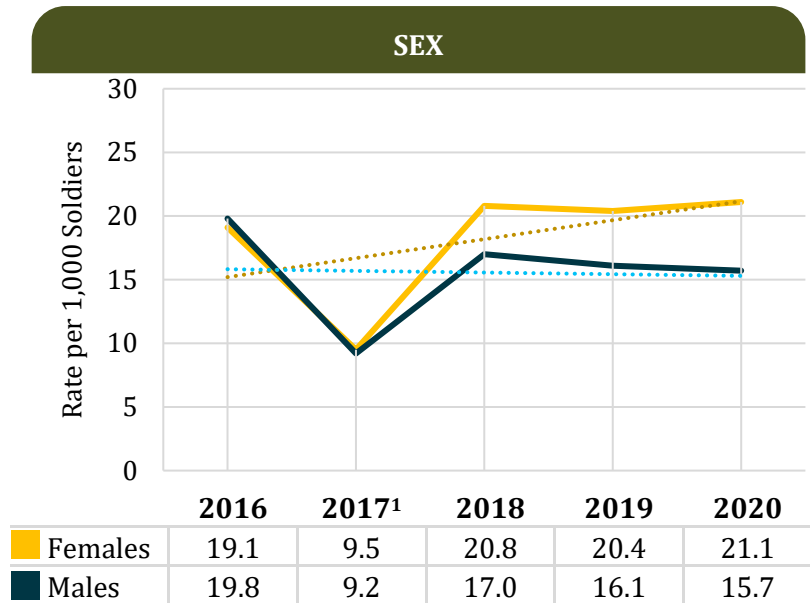
1. Demographic information not included in disability evaluation data has been supplemented using data collected from application, accession, and loss databases.

2. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

**Figures 4A-D** present the rates of disability evaluation over the five-year period by sex stratified by service. **Figures 5A-D** show the distribution of race per year and service among service members evaluated for disability discharge.

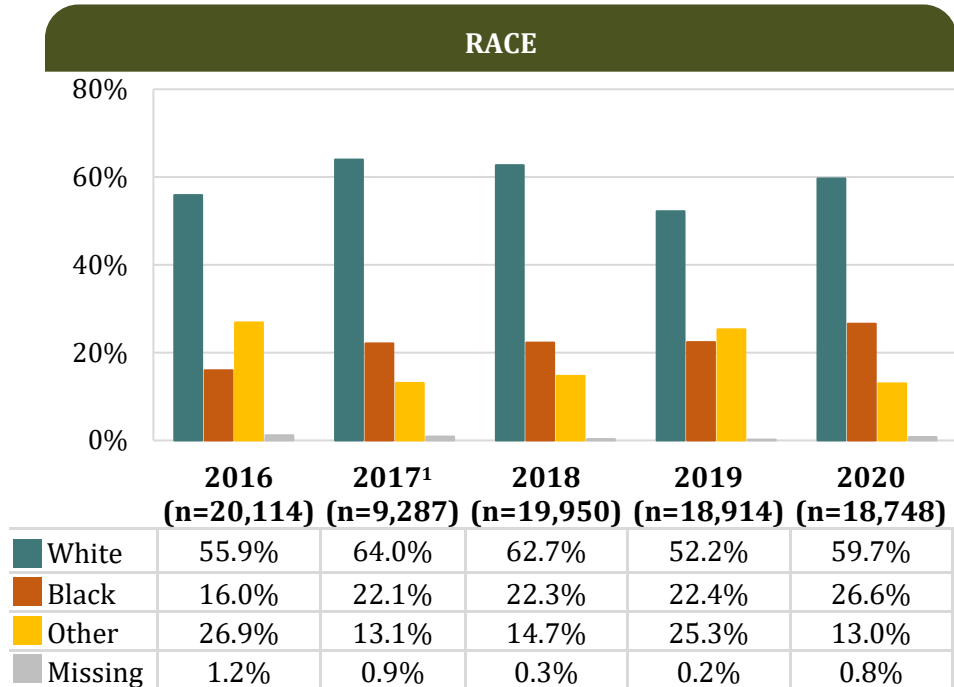
# ARMY

**FIGURE 4A:** Temporal Trend of the Disability Evaluation Rate (per 1,000 Soldiers) by Sex: Army FY 2016-2020



1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

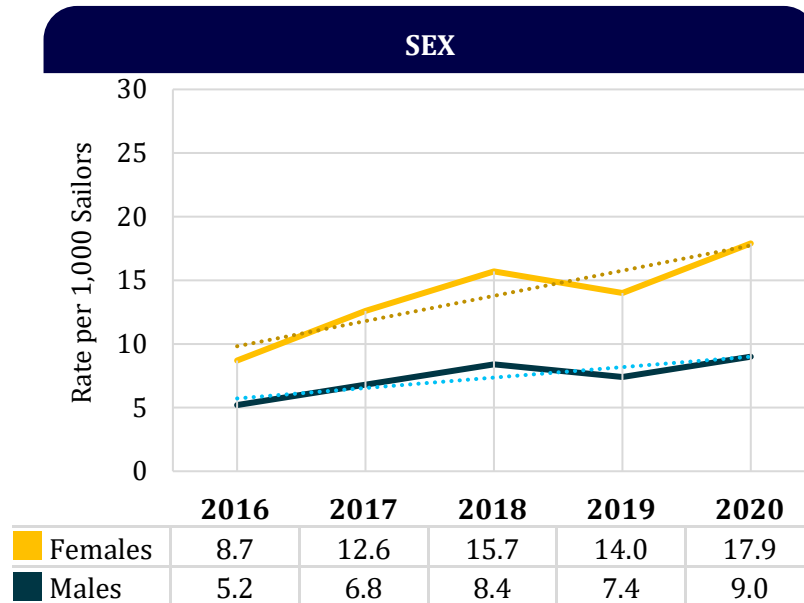
**FIGURE 5A:** Distribution of Race among Soldiers Evaluated for Disability Discharge: FY 2016-2020



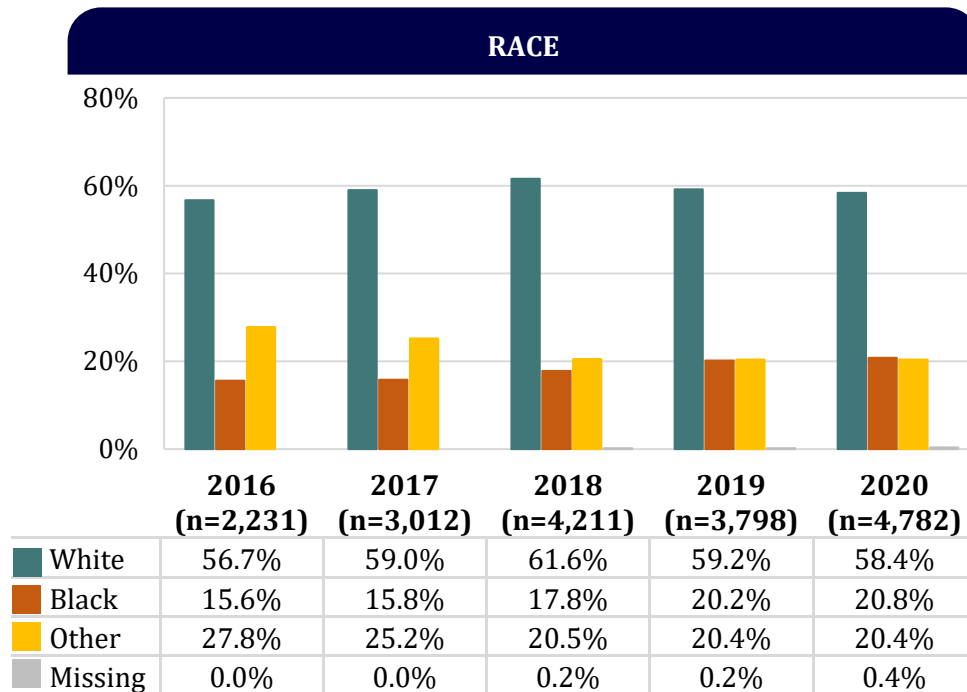
1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

# NAVY

**FIGURE 4B:** Temporal Trend of the Rate of Disability Evaluation (per 1,000 Sailors) by Sex: Navy FY 2016-2020

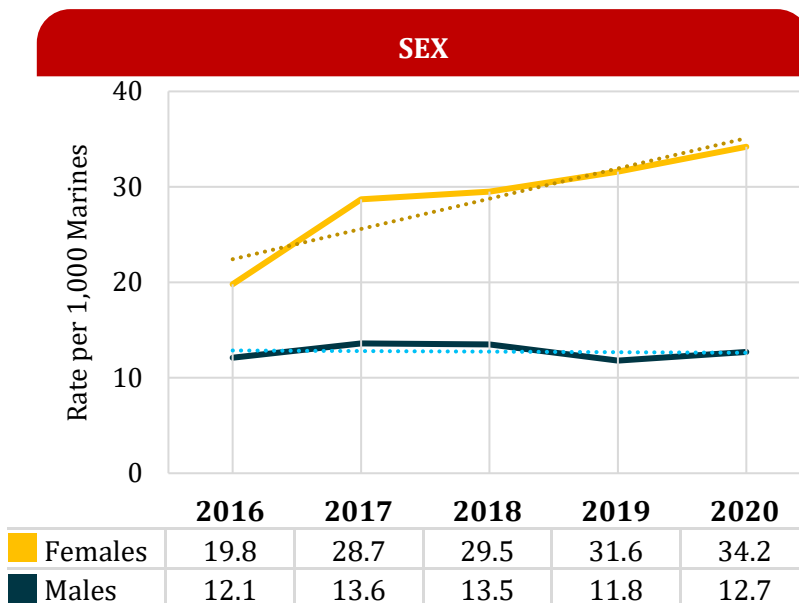


**FIGURE 5B:** Distribution of Race among Sailors Evaluated for Disability Discharge: FY 2016-2020

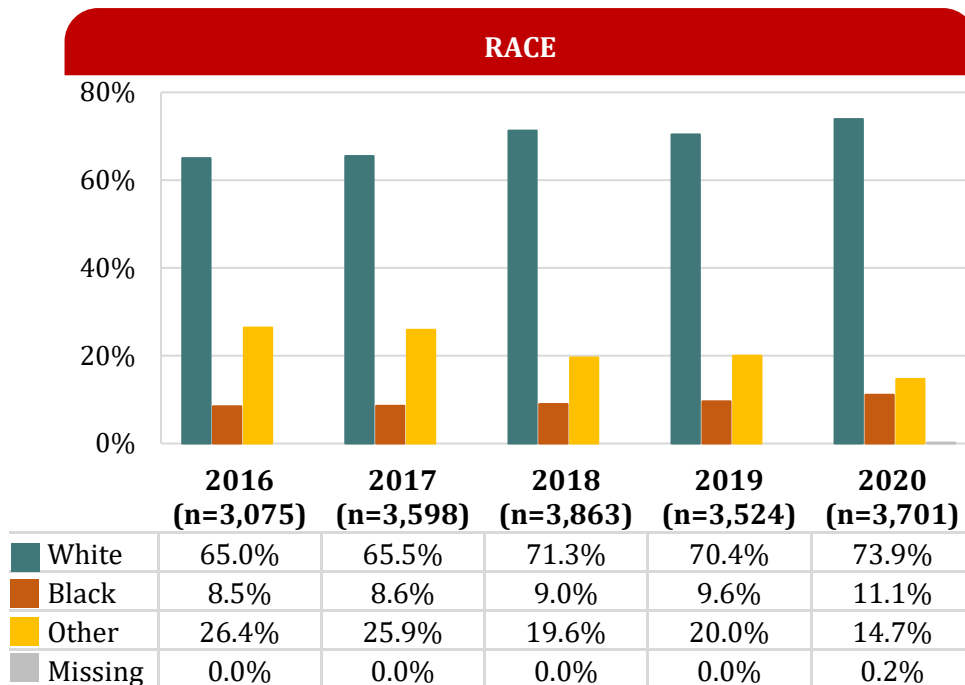


# MARINE CORPS

**FIGURE 4C:** Temporal Trend of the Rate of Disability Evaluation (per 1,000 Marines) by Sex: Marine Corps FY 2016-2020

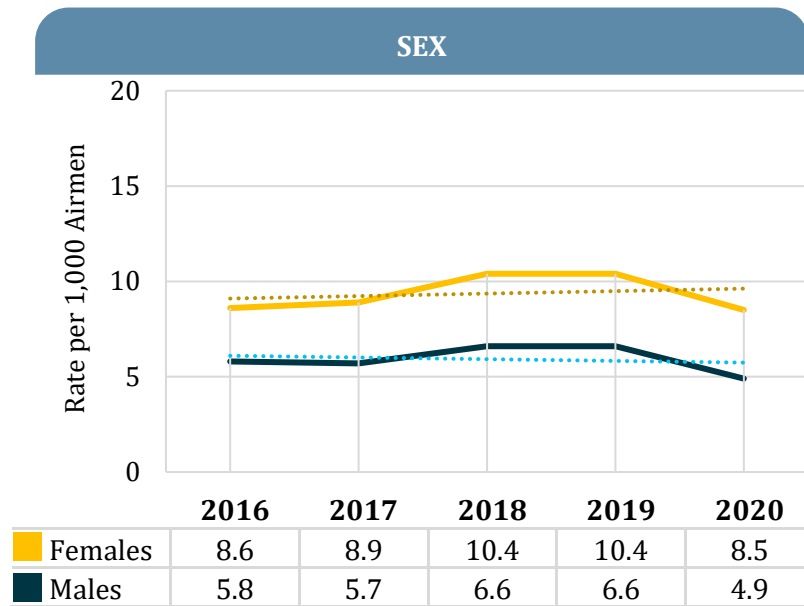


**FIGURE 5C:** Distribution of Race among Marines Evaluated for Disability Discharge: FY 2016-2020

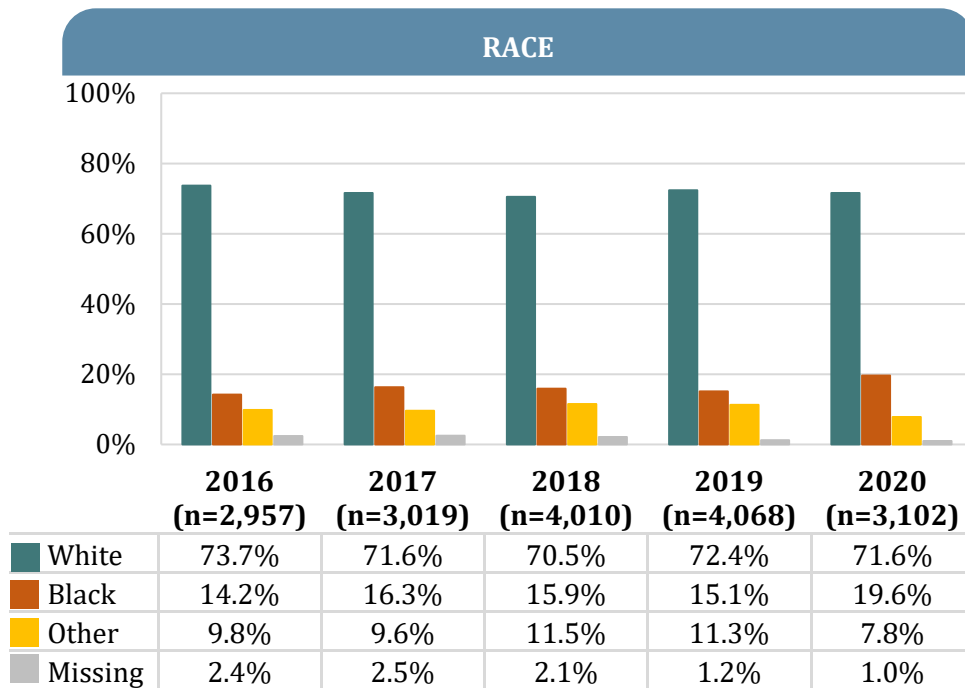


# AIR FORCE

**FIGURE 4D:** Temporal Trend of the Rate of Disability Evaluation (per 1,000 Airmen) by Sex: Air Force FY 2016-2020



**FIGURE 5D:** Distribution of Race among Airmen Evaluated for Disability Discharge: FY 2016-2020



## IV. DISABILITY RATING & DISPOSITION

**DISABILITY RATING:** Tables 6A-D provide service-specific comparisons of the distribution and ranking of the most recent combined disability rating among service members evaluated for disability from FY 2016-2020. Service-specific temporal trends of combined disability ratings categorized by severity (unrated, low, moderate, severe) are shown in Figures 6A-D.

### Tables 6A-D & Figures 6A-D Key Findings

- During FY2016-2020, the most commonly assigned combined disability ratings were 70% in the Army, Unrated in the Navy, 10% in the Marine Corps, and 30% in the Air Force.
  - The proportion of Airmen assigned a 70% disability rating steadily increased over time ranging from 6% (FY2016) to 20% (FY2020), while there was a downward trend in assigned ratings of 10% and 20%.
- Over 70% of Soldiers and Airmen, over half of Sailors, and about 45% of Marines received a combined disability rating of  $\geq 30\%$  or greater, qualifying them for permanent disability retirement.
- The most common disability rating severity category was 60-100% (severe) for the Army, 30-50% (moderate) for the Air Force and Navy, and 0-20% (low) for the Marine Corps.
- Over the five years, there has been an upward trend in the percentage of ratings under the severe category for the Navy, Marine Corps and Air Force.
  - This upward trend was most noteworthy for the Navy and Air Force. The proportion assigned a rating in the severe category was two times higher among service members evaluated in FY2020 than those evaluated in FY2016.



# ARMY

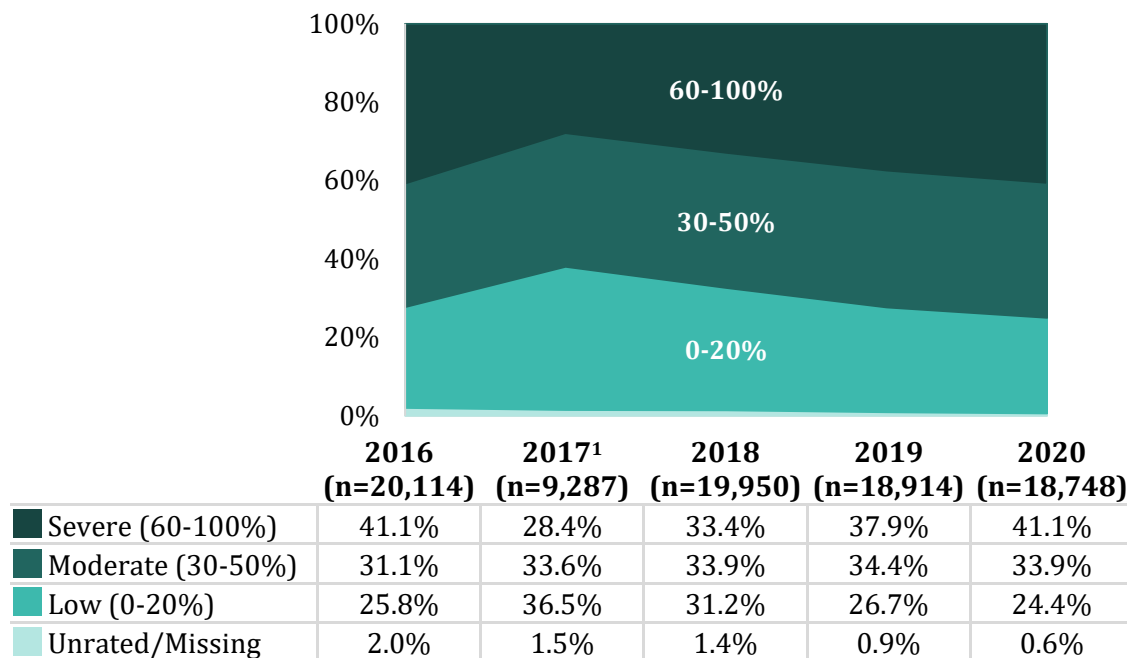
**TABLE 6A:** Distribution and Ranking of Most Recent Combined Rating by FY: Army FY2016-2020

Combined Rating	2016 (n=20,114)		2017 <sup>1</sup> (n=9,287)		2018 (n=19,950)		2019 (n=18,914)		2020 (n=18,748)		Total (N=87,013)	
	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
<b>0</b>	2.3	11	3.3	10	1.9	11	1.8	11	1.6	11	2.1	11
<b>10</b>	13.3	2	17.5	1	15.5	1	13.3	3	12.0	3	14.0	2
<b>20</b>	10.2	4	15.7	2	13.8	2	11.6	4	10.7	4	12.0	4
<b>30</b>	9.8	5	12.1	3	11.4	5	10.4	5	9.9	5	10.6	5
<b>40</b>	9.0	7	11.6	4	10.3	6	8.9	6	8.8	6	9.5	6
<b>50</b>	12.3	3	9.9	5	12.3	4	15.2	2	15.1	2	13.3	3
<b>60</b>	9.2	6	7.4	7	7.7	7	7.7	7	7.8	7	8.0	7
<b>70</b>	14.8	1	9.9	5	12.5	3	15.8	1	17.5	1	14.6	1
<b>80</b>	8.4	8	4.6	8	5.9	8	6.9	8	7.4	8	6.9	8
<b>90</b>	3.5	10	2.3	11	2.3	10	2.7	10	3.0	10	2.8	10
<b>100</b>	5.1	9	4.1	9	4.9	9	4.9	9	5.5	9	5.0	9
<b>UR</b>	0.8	13	1.1	12	1.1	12	0.8	12	0.4	12	0.8	12
<b>MISS</b>	1.3	12	0.3	13	0.3	13	0.1	13	0.2	13	0.5	13

UR: Unrated, Miss: Missing

1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

**FIGURE 6A:** Temporal Trend of Ratings Category: Army FY 2016-2020



1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.



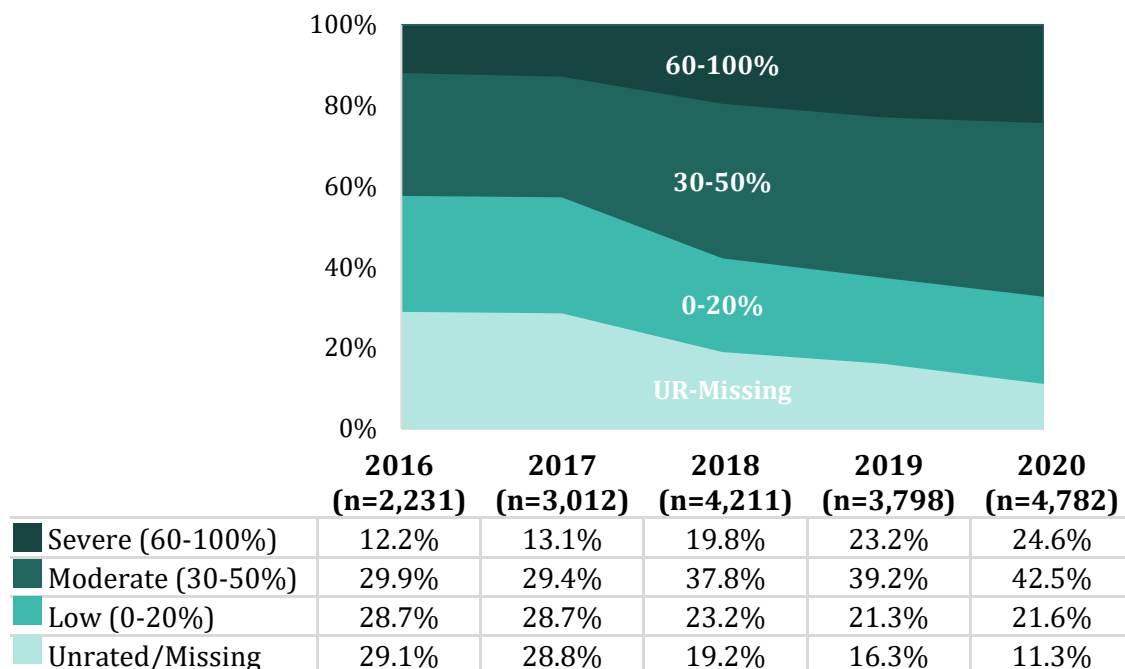
# NAVY

**TABLE 6B:** Distribution and Ranking of Most Recent Combined Rating by FY: Navy FY2016-2020

Combined Rating	2016 (n=2,231)		2017 (n=3,012)		2018 (n=4,211)		2019 (n=3,798)		2020 (n=4,782)		Total (N=18,034)	
	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
0	4.4	7	3.4	9	2.3	10	2.6	10	2.3	10	2.8	10
10	15.9	2	15.4	2	12.2	4	11.2	5	11.0	4	12.7	4
20	8.4	5	10.0	4	8.7	6	7.5	7	8.3	7	8.5	6
30	13.0	3	12.9	3	15.1	2	14.9	3	15.7	2	14.6	2
40	7.5	6	7.2	6	9.6	5	8.2	6	8.5	6	8.3	7
50	9.4	4	9.3	5	13.2	3	16.1	1	18.3	1	14.0	3
60	3.5	9	3.1	10	4.2	9	4.0	9	4.0	9	3.8	9
70	4.4	7	4.8	7	8.6	7	12.8	4	13.9	3	9.7	5
80	0.9	12	1.0	11	1.8	11	1.6	11	1.8	11	1.5	11
90	0.3	13	0.3	13	0.5	12	0.2	13	0.5	13	0.4	13
100	3.0	10	3.9	8	4.7	8	4.6	8	4.3	8	4.3	8
UR	28.1	1	27.7	1	18.8	1	15.9	2	10.5	5	18.6	1
MISS	1.0	11	1.0	11	0.4	13	0.4	12	0.9	12	0.7	12

UR: Unrated, Miss: Missing

**FIGURE 6B:** Temporal Trend of Ratings Category: Navy FY 2016-2020



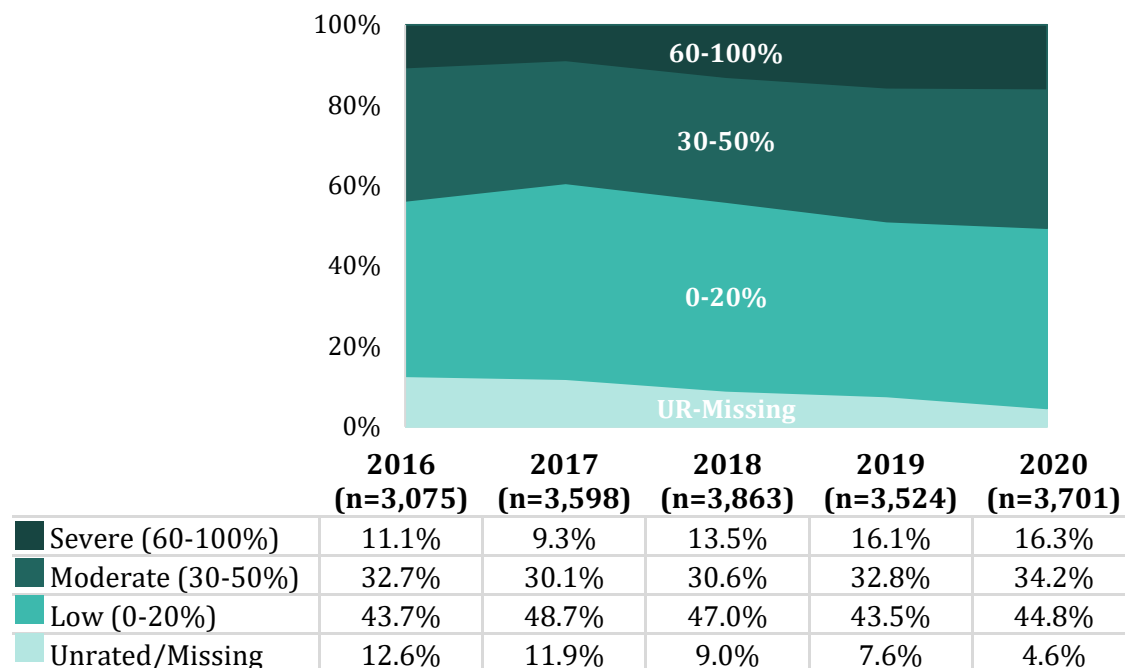
# MARINE CORPS

**TABLE 6C:** Distribution and Ranking of Most Recent Combined Rating by FY: Marine Corps FY2016-2020

Combined Rating	2016 (n=3,075)		2017 (n=3,598)		2018 (n=3,863)		2019 (n=3,524)		2020 (n=3,701)		Total (N=17,761)	
	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
0	5.7	7	6.1	7	3.6	9	3.9	9	3.3	9	4.5	8
10	23.9	1	25.4	1	27.0	1	23.7	1	24.4	1	24.9	1
20	14.1	3	17.3	2	16.3	2	15.9	2	17.1	2	16.2	2
30	15.5	2	13.1	3	13.0	3	13.8	3	15.2	3	14.1	3
40	8.5	6	8.0	6	9.2	4	9.5	4	10.6	4	9.2	4
50	8.7	5	9.0	5	8.4	5	9.4	5	8.4	5	8.8	5
60	4.2	8	3.4	8	4.9	7	4.8	8	4.3	7	4.3	9
70	4.0	9	3.3	9	4.9	7	7.0	7	7.7	6	5.4	7
80	1.2	11	0.9	11	1.6	11	1.6	11	1.3	11	1.3	11
90	0.3	13	0.2	13	0.3	13	0.3	13	0.3	13	0.3	13
100	1.4	10	1.5	10	1.8	10	2.5	10	2.8	10	2.0	10
UR	11.7	4	11.2	4	8.4	5	7.2	6	4.3	7	8.5	6
MISS	0.9	12	0.7	12	0.5	12	0.4	12	0.4	12	0.6	12

UR: Unrated, Miss: Missing

**FIGURE 6C:** Temporal Trend of Ratings Category: Marine Corps FY 2016-2020



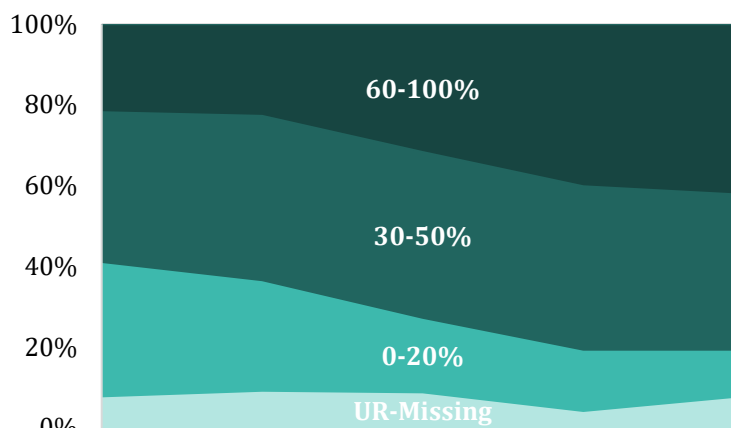
# AIR FORCE

**TABLE 6D:** Distribution and Ranking of Most Recent Combined Rating by FY: Air Force FY2016-2020

Combined Rating	2016 (n=2,957)		2017 (n=3,019)		2018 (n=4,010)		2019 (n=4,068)		2020 (n=3,102)		Total (N=17,156)	
	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank
0	4.3	10	3.6	10	2.6	11	1.9	12	1.4	13	2.7	11
10	16.7	1	13.5	3	9.2	5	7.0	7	5.5	8	10.1	5
20	12.2	3	10.2	4	6.7	8	6.3	8	4.5	10	7.8	6
30	14.9	2	16.3	1	16.9	1	14.5	3	12.1	3	15.0	1
40	12.1	4	14.4	2	10.3	4	8.9	4	7.5	4	10.5	4
50	10.0	5	10.0	5	13.8	2	17.0	2	18.8	2	14.2	2
60	6.9	7	8.2	7	7.2	7	7.6	5	7.3	5	7.4	7
70	6.4	8	6.2	8	12.4	3	17.7	1	19.6	1	12.8	3
80	2.7	11	2.8	11	4.3	10	5.1	9	5.8	7	4.2	10
90	1.1	12	1.5	12	2.0	12	2.5	11	2.3	12	1.9	12
100	4.9	9	4.1	9	5.8	9	7.3	6	7.3	5	6.0	9
UR	7.2	6	8.7	6	8.3	6	3.7	10	2.6	11	6.0	8
MISS	0.6	13	0.5	13	0.5	13	0.5	13	5.3	9	1.4	13

UR: Unrated, Miss: Missing

**FIGURE 6D:** Temporal Trend of Ratings Category: Air Force FY 2016-2020



	2016 (n=2,957)	2017 (n=3,019)	2018 (n=4,010)	2019 (n=4,068)	2020 (n=3,102)
Severe (60-100%)	21.8%	22.7%	31.7%	40.2%	42.3%
Moderate (30-50%)	37.1%	40.7%	41.1%	40.5%	38.4%
Low (0-20%)	33.3%	27.4%	18.5%	15.2%	11.5%
Unrated/Missing	7.8%	9.2%	8.8%	4.2%	7.9%

**DISABILITY DISPOSITION:** Table 7 compares the distribution and rates (per 10,000 service members) of disability dispositions among service members evaluated for disability from FY 2016-2020. Service-specific temporal trends of selected dispositions are shown in Figures 7A-D. Rates are based on total service population, using data from DMDC, and represents the total number of service members as of 30 September of the fiscal year in question. Disability dispositions were captured from the service member’s most recent disability evaluation.

### Table 7 & Figure 7A-D Key Findings

- Placement on PDRL was the most commonly assigned disposition for the Army (62%), Navy (28%), and Air Force (58%), while separated with severance pay (SWSP) was the most common for the Marine Corps (44%).
- During the five years, the proportion of Soldiers, Sailors, and Marines with a disposition of PDRL decreased; however, in the Air Force, the trend remained stable.
  - There was a downward trend across all dispositions in the Navy, with a slight increase for PDRL in FY2020. Among Marines, SWSP and PDRL disposition have been the most common dispositions across all 5-years.
- In the Navy and Marine Corps, the proportion of service members assigned Fit/Limited Duty was higher than the other services; however, assignment of this disposition became less common over time. Unlike the Army and Air Force, the Navy did not have a pre-MEB process designed to screen out those likely to be returned to duty, potentially resulting in a higher number of Sailors and Marines found Fit.

**TABLE 7:** Distribution and Rate (per 10,000 Service Members) for Disposition by Service, FY 2016-2020

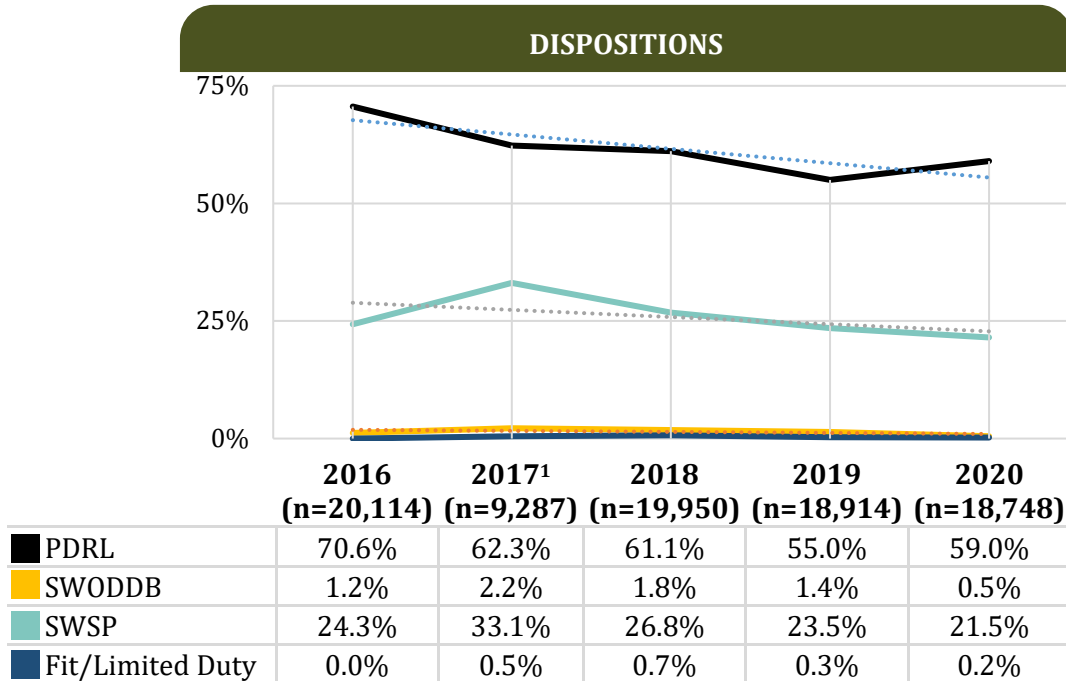
Dispositions	Army <sup>1</sup> (n=87,013)		Navy (n=18,034)		Marine Corps (n=17,761)		Air Force (n=17,156)	
	%	Rate	%	Rate	%	Rate	%	Rate
Placement on PDRL	61.6	99.3	27.7	24.3	30.6	43.0	57.6	38.4
Separated without DoD Disability Benefits	1.4	2.2	4.4	3.9	2.1	3.0	2.4	1.6
Separated with Severance Pay	25.0	40.4	22.9	20.1	43.8	61.5	18.8	12.6
Fit/Limited Duty	0.3	0.5	16.6	14.6	7.1	10.0	3.9	2.6
Placement on TDRL	10.8	17.3	25.9	22.7	11.8	16.6	14.3	9.6
Retained on TDRL	0.1	0.2	0.4	0.3	0.2	0.3	1.6	1.1
Other <sup>2</sup>	0.7	1.2	2.2	1.9	4.4	6.1	1.4	0.9

1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

2. Including, but not limited to, service members with dispositions of no action, revert to retired status, transfer to retired reserve, dual action term, and reboard.

# ARMY

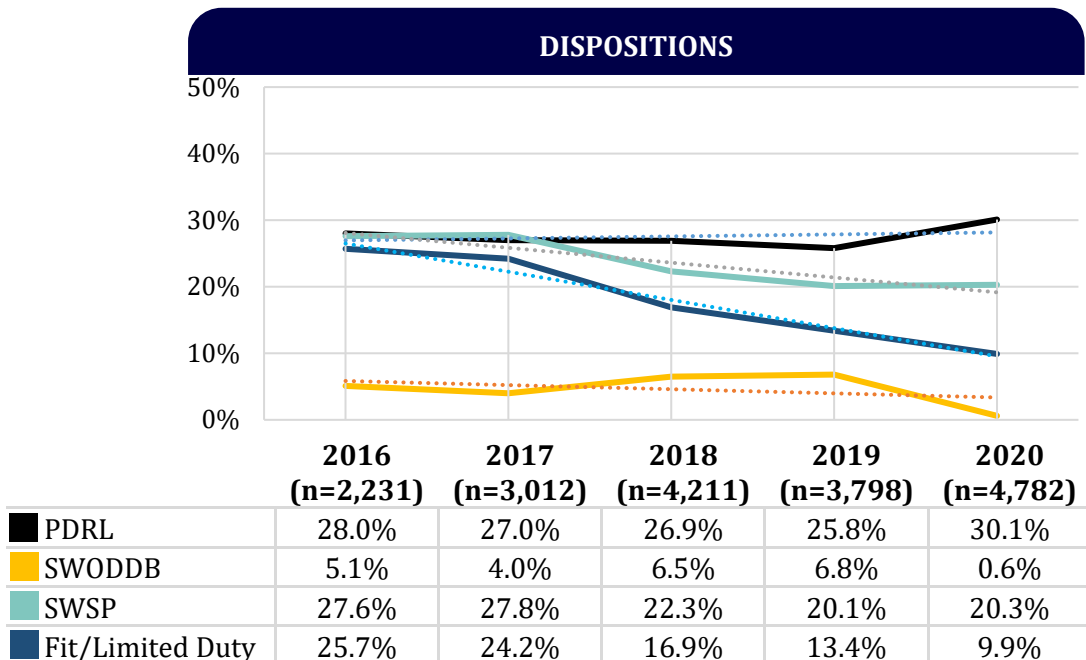
**FIGURE 7A:** Temporal Trend of Selected Dispositions Assigned to Soldiers Disability Evaluated between FY 2016-2020



1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

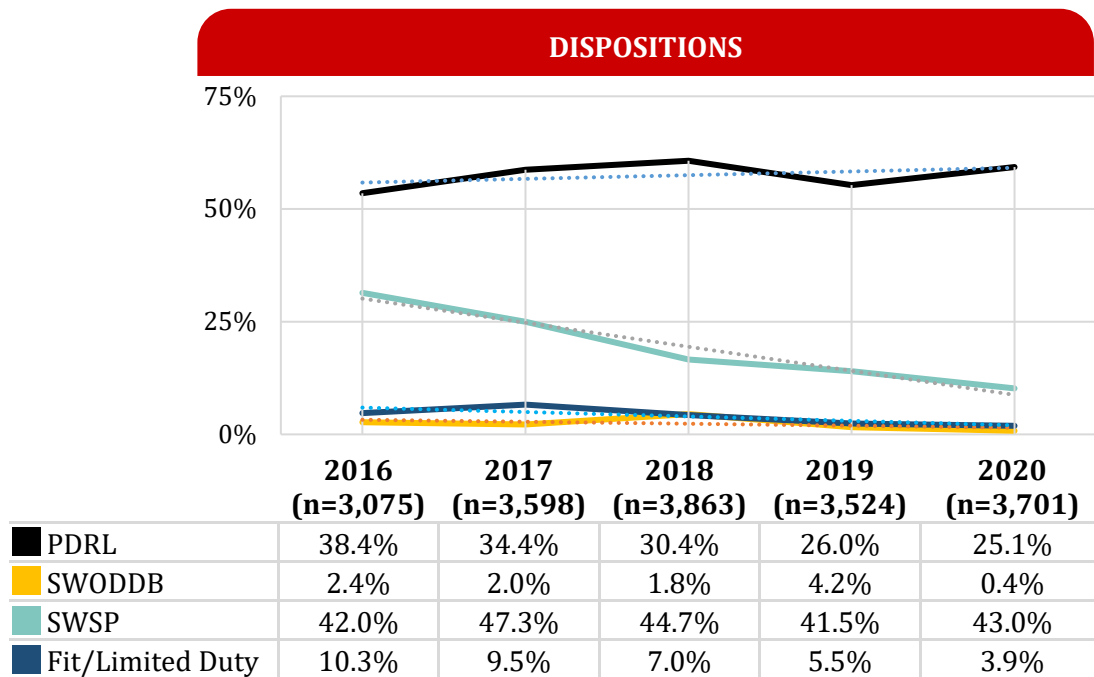
# NAVY

**FIGURE 7B:** Temporal Trend of Selected Dispositions Assigned to Sailors Disability Evaluated between FY 2016-2020



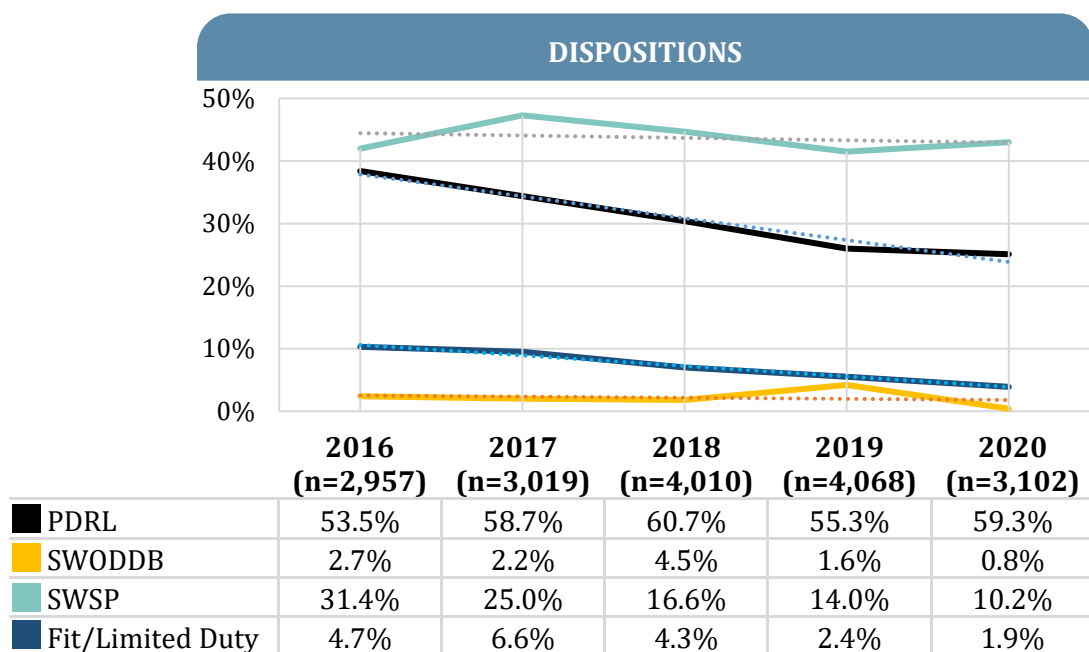
# MARINE CORPS

**FIGURE 7C:** Temporal Trend of Selected Dispositions Assigned to Marines Disability Evaluated between FY 2016-2020



# AIR FORCE

**FIGURE 7D:** Temporal Trend of Selected Dispositions Assigned to Airmen Disability Evaluated between FY 2016-2020



## V. UNFITTING CONDITIONS

This section is focused on describing the unfitting conditions associated with disability discharge (fit/limited duty and separated without DOD disability benefits dispositions were excluded).

**Tables 8A-D** describe the prevalence and rate of unfitting conditions for each service. Service members may be included in more than one body system category if evaluated for more than one condition across different categories. However, service members were only counted once per body system. **Figures 8A-D** present temporal trends for the three most common body system categories. Counts presented in each table represent the number of service members evaluated for one or more conditions in a given body system.



### Tables 8A-D & Figures 8A-D Key Findings

- Consistent with previous DESAR reports, the most common unfitting conditions among disability discharged service members were within the musculoskeletal, psychiatric, and neurological body systems.
- About 36% (Navy) to 65% (Army) of disability discharged service members had an unfitting musculoskeletal condition.
  - The prevalence of musculoskeletal discharges had a downward trend among the Army, Navy, and Air Force; however, the trend stayed constant for the Marine Corps.
- 24% (Marine Corps) to 39% (Army) of disability discharged service members had an unfitting psychiatric disorder.
  - Over the five years, there was an upward trend in the proportion of psychiatric-related disability discharges in the Navy and Air Force. By FY2019, more Sailors and Airmen were discharged due to a psychiatric disorder than a musculoskeletal condition.
- All other body system categories remained relatively stable over time (results not shown).

# ARMY

**TABLE 8A:** Distribution and Rate (per 10,000 Soldiers) of Disability Body System Categories among Disability Discharged Soldiers, FY 2016-2020

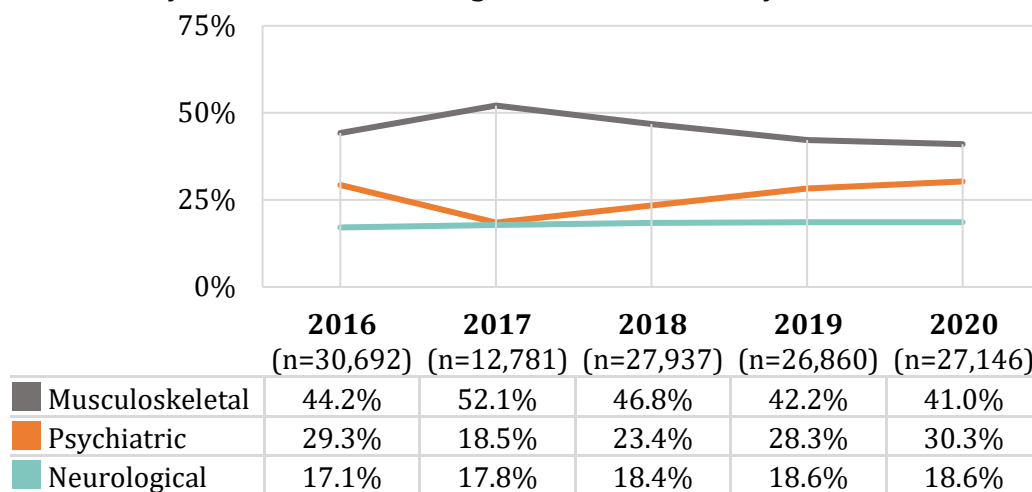
ARMY <sup>1</sup> (n=85,556)		
Body System Category	% <sup>2</sup>	Rate <sup>3</sup>
Musculoskeletal	65.2	103.3
Psychiatric	39.4	62.4
Neurological	26.5	42.0
Respiratory	3.0	4.8
Cardiovascular	2.3	3.7
Digestive	2.3	3.6
Endocrine	2.0	3.2
Dermatologic	1.8	2.8
Genitourinary	1.4	2.2
Eyes/Vision	0.8	1.3
Impairment of Auditory Acuity	0.6	0.9
Hemic/Lymphatic	0.5	0.8
Gynecologic	0.4	0.6
Infectious Disease	0.3	0.5
Dental and Oral	0.1	0.2
Other Sense Organs	0.0	0.0

1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

2. Percent of Soldiers who have at least one condition within the specified body system category. Soldiers may be included in more than one body system category, if the Soldier was evaluated for more than one condition.

3. Rate of disability discharge related to each body system per 10,000 Soldiers.

**FIGURE 8A:** Temporal Trend of the Percentage of Disability Discharges Related to Musculoskeletal, Psychiatric, and Neurological Conditions: Army FY 2016-2020<sup>1</sup>





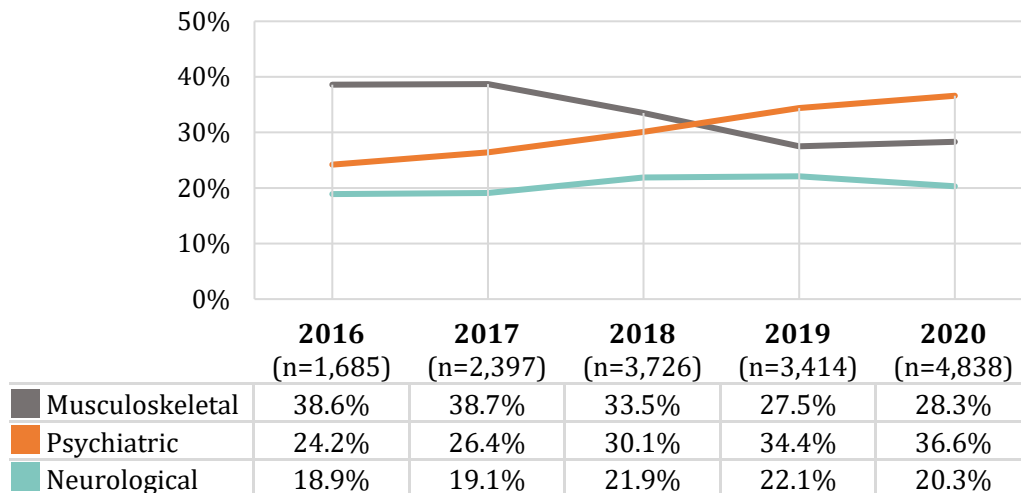
# NAVY

**TABLE 8B:** Distribution and Rate (per 10,000 Sailors) of Disability Body System Categories among Disability Discharged Sailors, FY 2016-2020

NAVY (n=14,244)		
Body System Category	% <sup>1</sup>	Rate <sup>2</sup>
Musculoskeletal	36.0	25.0
Psychiatric	35.9	24.9
Neurological	23.4	16.2
Digestive	4.5	3.1
Endocrine	2.1	1.5
Cardiovascular	2.1	1.5
Respiratory	2.0	1.4
Genitourinary	1.6	1.1
Dermatologic	1.3	0.9
Eyes/Vision	1.2	0.9
Hemic/Lymphatic	0.7	0.5
Impairment of Auditory Acuity	0.7	0.5
Infectious Disease	0.6	0.4
Gynecologic	0.5	0.4
Dental and Oral	0.1	0.1
Other Sense Organs	0.0	0.0

1. Percent of Sailors who have at least one condition within the specified body system category. Sailors may be included in more than one body system category, if the Sailor was evaluated for more than one condition.
2. Rate of disability discharge related to each body system per 10,000 Sailors.

**FIGURE 8B:** Temporal Trend of the Percentage of Disability Discharges Related to Musculoskeletal, Psychiatric, and Neurological Conditions: Navy FY 2016-2020



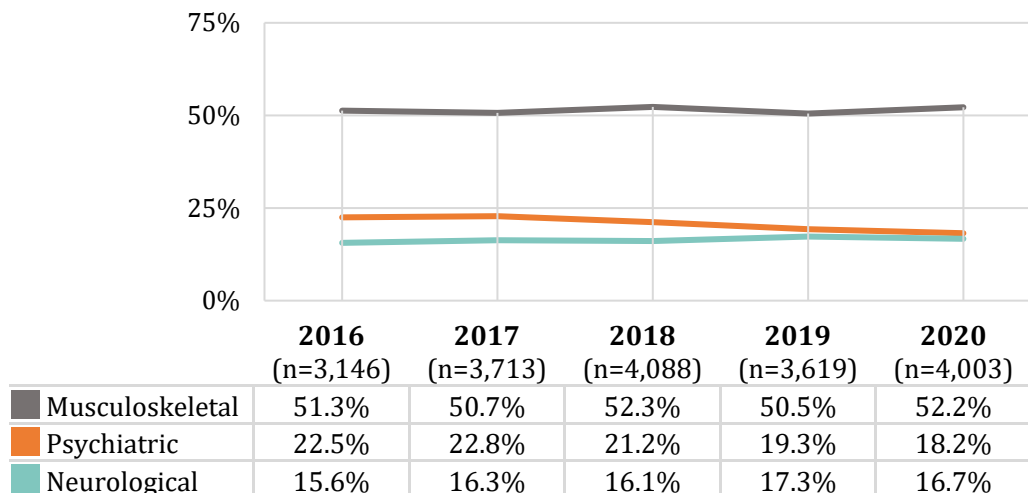
# MARINE CORPS

**TABLE 8C:** Distribution and Rate (per 10,000 Marines) of Disability Body System Categories among Disability Discharged Marines, FY 2016-2020

<b>MARINE CORPS (n=16,114)</b>		
<b>Body System Category</b>	<b>%<sup>1</sup></b>	<b>Rate<sup>2</sup></b>
Musculoskeletal	59.3%	75.6
Psychiatric	23.9%	30.5
Neurological	18.9%	24.1
Digestive	3.1%	4.0
Endocrine	2.9%	3.8
Cardiovascular	1.5%	1.9
Respiratory	1.2%	1.6
Genitourinary	1.2%	1.5
Dermatologic	1.0%	1.3
Eyes/Vision	0.8%	1.0
Hemic/Lymphatic	0.5%	0.6
Impairment of Auditory Acuity	0.3%	0.4
Infectious Disease	0.3%	0.4
Gynecologic	0.2%	0.3
Dental and Oral	0.1%	0.1
Other Sense Organs	0.0%	0.0

1. Percent of Marines who have at least one condition within the specified body system category. Marines may be included in more than one body system category, if the Marine was evaluated for more than one condition.  
 2. Rate of disability discharge related to each body system per 10,000 Marines.

**FIGURE 8C:** Temporal Trend of the Percentage of Disability Discharges Related to Musculoskeletal, Psychiatric, and Neurological Conditions: Marine Corps FY 2016-2020



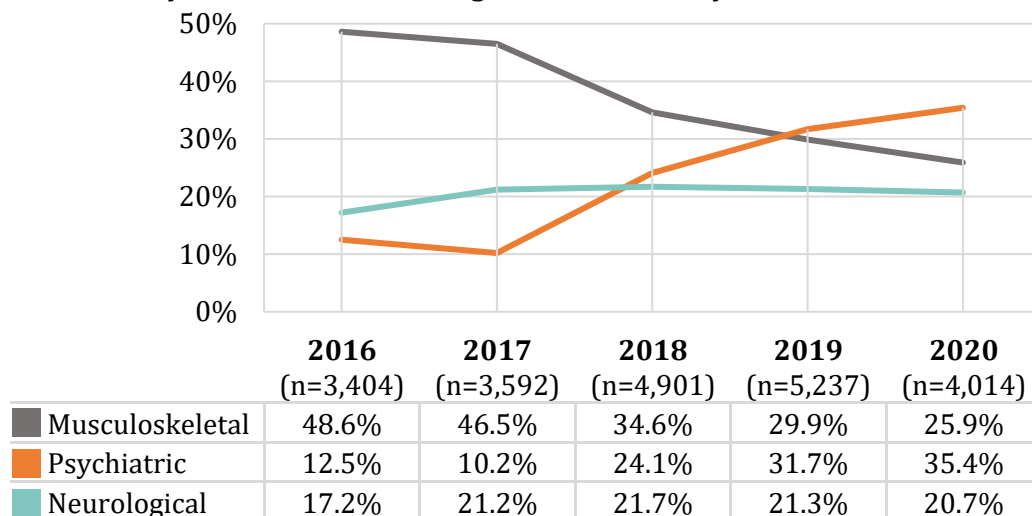
# AIR FORCE

**TABLE 8D:** Distribution and Rate (per 10,000 Airmen) of Disability Body System Categories among Disability Discharged Airmen, FY 2016-2020

AIR FORCE (n=16,079)		
Body System Category	% <sup>1</sup>	Rate <sup>2</sup>
Musculoskeletal	47.4	29.7
Psychiatric	31.4	19.7
Neurological	27.1	16.9
Respiratory	7.1	4.5
Digestive	4.3	2.7
Cardiovascular	3.7	2.3
Dermatologic	2.4	1.5
Endocrine	2.0	1.3
Genitourinary	1.5	0.9
Impairment of Auditory Acuity	1.0	0.6
Eyes/Vision	1.0	0.6
Infectious Disease	1.0	0.6
Hemic/Lymphatic	0.8	0.5
Gynecologic	0.6	0.4
Dental and Oral	0.1	0.1
Other Sense Organs	0.0	0.0

1. Percent of Airmen who have at least one condition within the specified body system category. Airmen may be included in more than one body system category, if the Airman was evaluated for more than one condition.  
 2. Rate of disability discharge related to each body system per 10,000 Airmen.

**FIGURE 8D:** Temporal Trend of the Percentage of Disability Discharges Related to Musculoskeletal, Psychiatric, and Neurological Conditions by FY 2016-2020



**Tables 9A-D** describe the prevalence and rate of the ten most common VASRD categories, for which service members were disability discharged between FY 2016-2020. Due to the high number of VASRD codes, unfitting conditions were categorized according to pathology. **Figures 9A-D** present the temporal trend for the five most common VASRD categories for each service as of FY2020. Service members were only counted once per category; however, service members may be included in more than one category if evaluated for multiple conditions. Percentages represent the number of service members in each VASRD category among all service members discharged with a service-connected disability.

### **Table 9A-D & Figure 9A-D Key Findings**

- The ten most common VASRD categories among disability discharged service members were related to the musculoskeletal, psychiatric, and neurological systems, except for asthma in the Air Force and noninfectious enteritis and colitis in the Navy.
- *Musculoskeletal conditions* - Dorsopathies (e.g., vertebral fracture, sacroiliac injury, lumbosacral strain, and degenerative arthritis), limitation of motion, joint disorders/inflammation and arthritis were among the most common unfitting conditions for all services.
- *Psychiatric disorders* – Between 15% (Navy) and 30% (Army) of all disability discharged service members had service-connected PTSD. Mood disorders were also a common reason for disability discharge in all services, ranging from 6% (Marine Corps) to 17% (Navy). Anxiety disorders were more prevalent among Sailors (5%) and Airmen (4%).
  - The prevalence of PTSD-related disability discharge among Airmen sharply increased from FY 2017 to FY 2018, then continued to have an upward trend to FY2020. There was also an upward trend in prevalence of mood disorder-related disability discharge among Airmen, rising from 7% in FY 2016 to 14% in FY 2020.
  - Similarly, there was also an upward trend in prevalence of PTSD and mood disorders among disability discharged Sailors, and by FY2018, PTSD and mood disorders became the two most common VASRD categories.
  - PTSD-related disability discharges remained stable over the time period for the Army, but the prevalence among Marines steadily decreased by approximately two to four percentage points each year.
- *Neurological conditions* - Paralysis (4-11%) and migraine (3-5%) were among ten leading reasons for disability discharge for all services. Residuals of traumatic brain injury (TBI) was common among disability discharged Soldiers (5%) and Marines (4%).

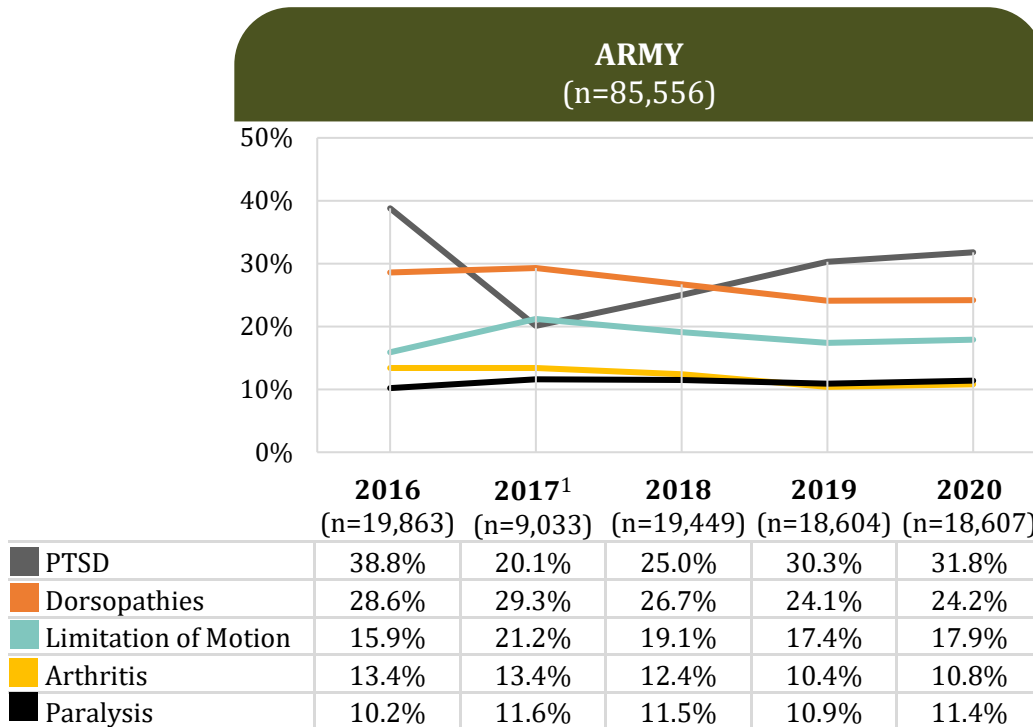
# ARMY

**TABLE 9A:** Ten Most Common VASRD Categories among Disability Discharged Soldiers: FY 2016-2020

ARMY <sup>1</sup> (n=85,556)			
VASRD Category	n	%	Rate <sup>2</sup>
PTSD	25,936	30.3	48.0
Dorsopathies	22,100	25.8	40.9
Limitation of Motion	15,347	17.9	28.4
Arthritis	10,225	12.0	18.9
Paralysis	9,475	11.1	17.5
Mood Disorders	5,483	6.4	10.2
Joint Disorders or Inflammation	4,828	5.6	8.9
Residuals of TBI	4,223	4.9	7.8
Migraine	3,182	3.7	5.9
Skeletal and Joint Deformities	2,045	2.4	3.8

1. Values are underestimated due to missing or incomplete DES data for the army in FY 2017 received by DESAR.  
2. Rate per 10,000 Soldiers

**FIGURE 9A:** Temporal Trend of the Top 5 VASRD Categories among Disability Discharged Soldiers: FY2016-2020



1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

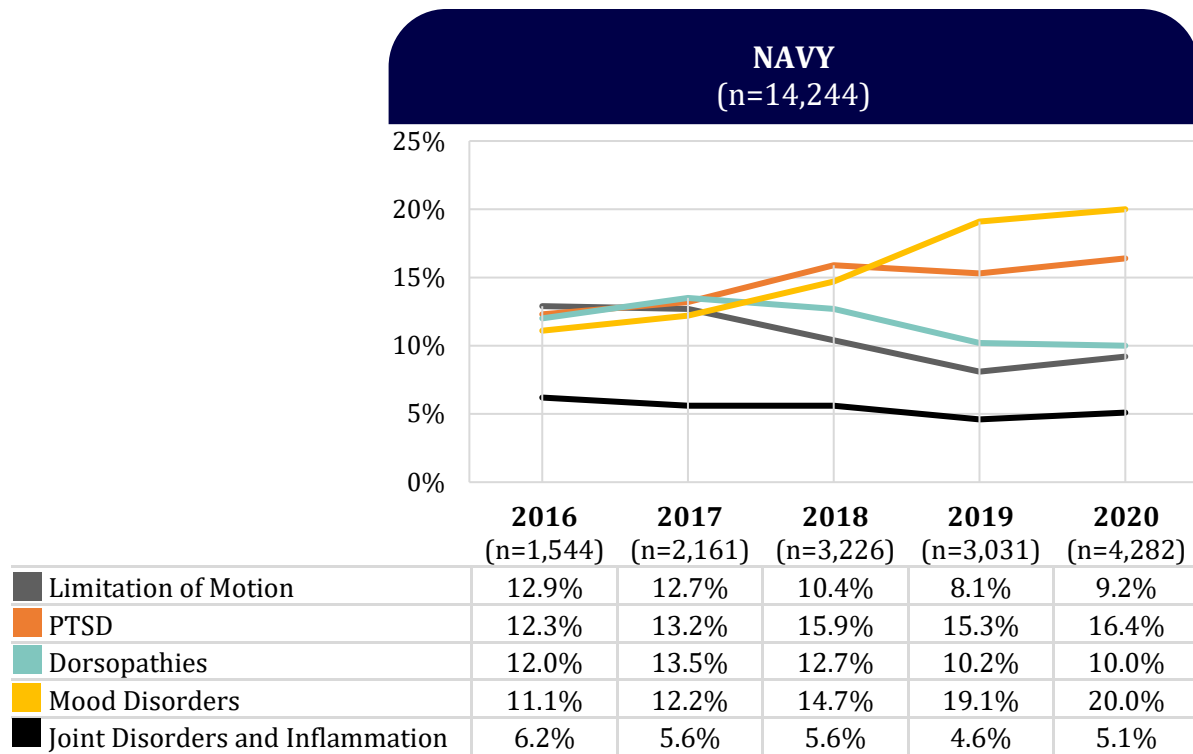
# NAVY

**TABLE 9B:** Ten Most Common VASRD Categories among Disability Discharged Sailors: FY2016-2020

NAVY (n=14,244)			
VASRD Categories	n	%	Rate <sup>1</sup>
Mood Disorders	2,345	16.5	11.4
PTSD	2,154	15.1	10.5
Dorsopathies	1,629	11.4	7.9
Limitation of Motion	1,448	10.2	7.0
Arthritis	850	6.0	4.1
Joint Disorders or Inflammation	754	5.3	3.7
Anxiety Disorder	640	4.5	3.1
Migraine	588	4.1	2.9
Paralysis	543	3.8	2.6
Noninfectious enteritis and colitis	434	3.0	2.1

1. Rate per 10,000 Sailors

**FIGURE 9B:** Temporal Trend of the Top 5 VASRD Categories among Disability Discharged Sailors: FY 2016-2020



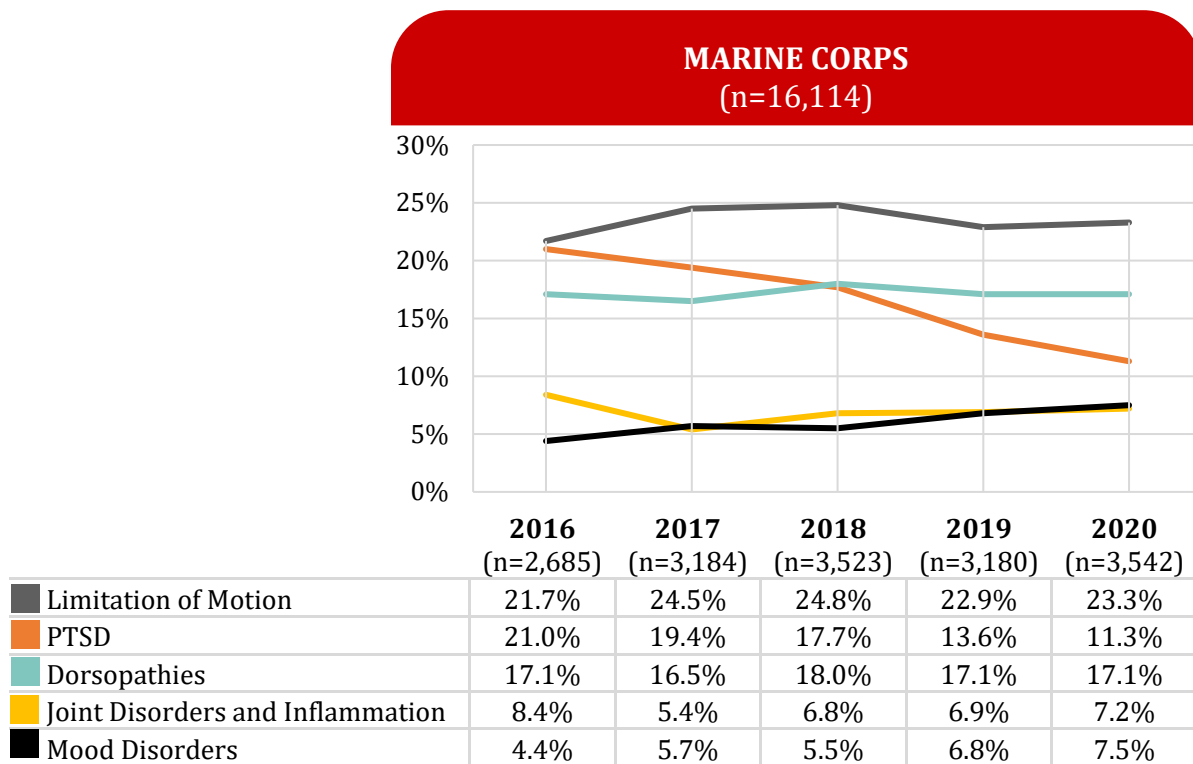
# MARINE CORPS

**TABLE 9C:** Ten Most Common VASRD Categories among Disability Discharged Marines: FY 2016-2020

MARINE CORPS (n=16,114)			
VASRD Categories	n	%	Rate <sup>1</sup>
Limitation of Motion	3,792	23.5	30.0
Dorsopathies	2,770	17.2	21.9
PTSD	2,642	16.4	20.9
Joint Disorders or Inflammation	1,111	6.9	8.8
Arthritis	1,004	6.2	7.9
Mood Disorder	973	6.0	7.7
Paralysis	702	4.4	5.6
Residuals of TBI	660	4.1	5.2
Migraine	468	2.9	3.7
Skeletal and Joint Deformities	468	2.9	3.7

1. Rate per 10,000 Marines

**FIGURE 9C:** Temporal Trend of the Top 5 VASRD Categories among Disability Discharged Marines: FY 2016-2020



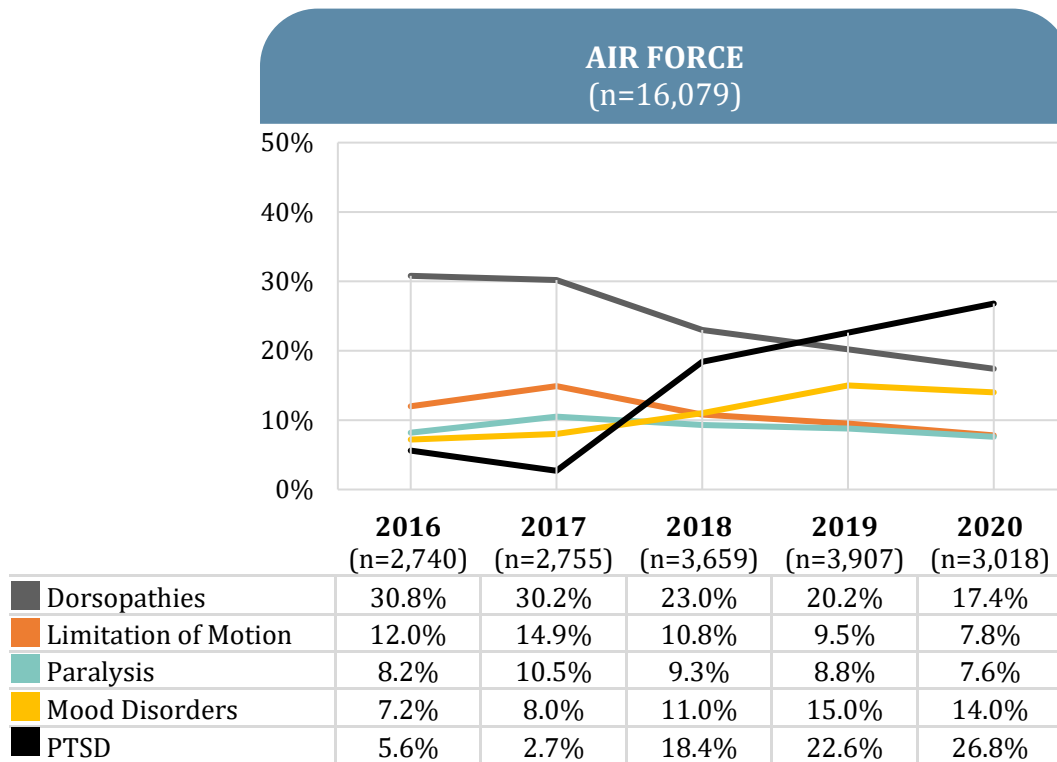
# AIR FORCE

**TABLE 9D:** Ten Most Common VASRD Categories among Disability Discharged Airmen: FY 2016-2020

AIR FORCE (n=16,079)			
VASRD Categories	n	%	Rate <sup>1</sup>
Dorsopathies	3,830	23.8	14.9
PTSD	2,589	16.1	10.1
Mood Disorders	1,830	11.4	7.1
Limitation of Motion	1,740	10.8	6.8
Paralysis	1,430	8.9	5.6
Joint Disorders or Inflammation	783	4.9	3.0
Migraine	748	4.7	2.9
Arthritis	718	4.5	2.8
Asthma	710	4.4	2.8
Anxiety Disorder	596	3.7	2.3

1. Rate per 10,000 Airmen

**FIGURE 9D:** Temporal Trend of the Top 5 VASRD Categories among Disability Discharged Airmen: FY 2016-2020





## VI. COMBAT-RELATED DETERMINATION & DEPLOYMENT HISTORY

Unfitting conditions are considered to be combat-related if sustained as a direct result of armed combat, while engaged in hazardous service, during war-simulating conditions or caused by an instrumentality of war. This section describes the interconnection between combat-related disability discharges and history of deployment. Only service members discharged with a service-connected disability were included in the tables (i.e., fit/limited duty and separated without DOD disability benefits dispositions were excluded). For service members with multiple deployment records, only information from the last deployment record was used in our analyses.

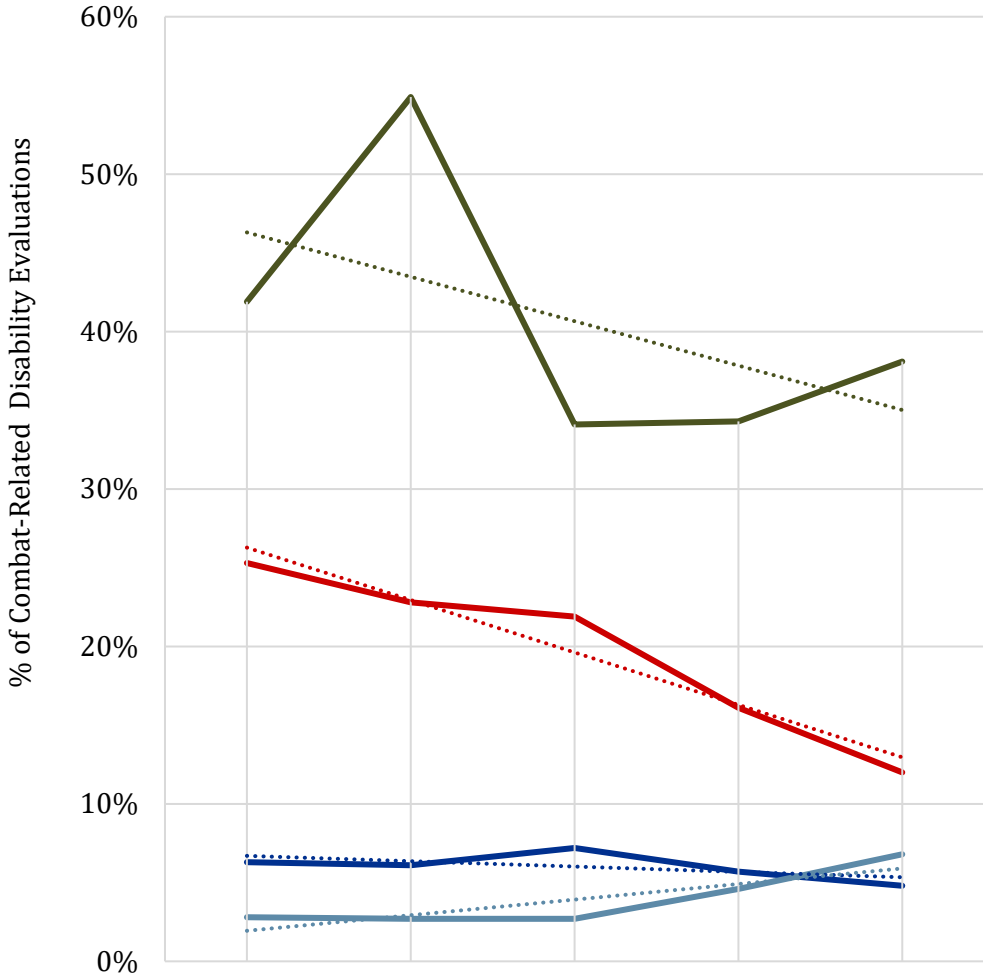


Temporal trends of the proportion of combat-related disability discharged service members are displayed in **Figure 10**.

### Figure 10 Key Findings

- The proportion of disability discharged service members with a combat-related condition varied by service and fiscal year, ranging from 3% (FY2017-2018 Air Force) to 55% (FY 2017 Army).
  - Over the time period, there appears to be downward trend in the proportion of combat-related disability discharges for the Army and Marine Corps. For the Army, the proportion of combat-related discharges decreased by 38% between FY2017-2018. For the Marine Corps, the proportion had a steady downward trend, ranging from 25% in FY2016 to 12% in FY2020.

**FIGURE 10:** Temporal Trend of Combat-Related Determination among Disability Discharged Service Members, by Service: FY 2016-2020



	2016	2017	2018	2019	2020
Army <sup>1</sup>	41.9%	54.9%	34.1%	34.3%	38.1%
Navy	6.3%	6.1%	7.2%	5.7%	4.8%
Marine Corps	25.3%	22.8%	21.9%	16.1%	12.0%
Air Force <sup>2</sup>	2.8%	2.7%	2.7%	4.6%	6.8%

1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

2. Values are underestimated due to missing or incomplete DES data for the Air Force in FY 2016 - FY 2019 received by DESAR.

**Tables 10A-D** present the proportion of service members who had combat-related disability determination by deployment status (deployed vs not deployed). **Tables 11A-D** depict the most frequently assigned VASRD categories assigned to service members per combat-related determination and deployment status.

### **Tables 10-11A-D Key Findings**

- The overall (full surveillance period) proportion of disability discharges with a combat-related conditions ranged from 4% (Air Force) to 39% (Army).
  - When stratified by deployment status, 6% (Air Force) to 55% (Army) of service members with history of deployment had a combat-related condition, while 1% (Air Force) to 11% (Army) of those with no record of deployment had a combat-related condition.
    - Air Force results should be considered as underestimated since 70% of disability discharge records were missing a combat-related determination.
- When assessing the VASRD categories stratified by both combat-related determination and deployment status, the five most common categories did not vary across the strata with the exception of mood disorders, which were common only in those with no history of deployment with conditions unrelated to combat.
  - In all four strata, four out of the five most common VASRD categories were musculoskeletal-related (limitation of motion, dorsopathies, paralysis, and arthritis) with proportions varying slightly across the strata.
  - For all services combined, the proportion of disability discharged service members with PTSD was highest among those with combat-related conditions and history of deployment (65%), while the proportion with PTSD in the other strata ranged from 9% to 15% (results for all services not shown, see below for service-specific results).

## ARMY

**TABLE 10A:** Distribution of Combat-Related Determination by Deployment Status among Disability Discharged Soldiers, FY 2016-2020

Combat Status	Deployed (n=54,253)		Not Deployed (n=31,303)		Total <sup>1</sup> (n=85,556)	
	n	%	n	%	n	%
Combat-related	30,020	55.3	3,366	10.8	33,386	39.0
Not Combat-related	24,225	44.7	27,928	89.2	52,153	61.0
Missing	8	<0.1	9	<0.1	17	<0.1

1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

**TABLE 11A:** Most Frequent VASRD Categories among Soldiers<sup>1</sup> by Deployment Status and Combat-Related Determination, FY 2016-2020

Combat-Related + Deployed (n=30,020)			Combat-Related + Not Deployed (n=3,366)		
VASRD Categories	n	%	VASRD Categories	n	%
PTSD	19,230	64.1	Limitation of Motion (Joints)	1,534	45.6
Dorsopathies	11,207	37.3	Dorsopathies	1,308	38.9
Limitation of Motion (Joints)	9,072	30.2	Paralysis	495	14.7
Arthritis	3,986	13.3	PTSD	477	14.2
Paralysis	3,626	12.1	Arthritis	397	11.8
Not Combat-Related + Deployed (n=24,225)			Not Combat-Related + Not Deployed (n=27,928)		
VASRD Categories	n	%	VASRD Categories	n	%
Dorsopathies	9,235	38.1	Limitation of Motion (Joints)	11,552	41.4
Limitation of Motion (Joints)	8,639	35.7	Dorsopathies	7,526	26.9
Paralysis	3,952	16.3	Mood Disorder	2,833	10.1
PTSD	3,770	15.6	Paralysis	2,687	9.6
Arthritis	3,566	14.7	PTSD	2,502	9.0

1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

## NAVY

**TABLE 10B:** Distribution of Combat-Related Determination by Deployment Status among Disability Discharged Sailors, FY 2016-2020

Combat Status <sup>1</sup>	Deployed (n=7,573)		Not Deployed (n=6,671)		Total (n=14,244)	
	n	%	n	%	n	%
Combat-related	702	9.3	135	2.0	837	5.9
Not Combat-related	6,838	90.3	6,518	97.7	13,356	93.8
Missing	33	0.4	18	0.3	51	0.4

**TABLE 11B:** Most Frequent VASRD Categories among Sailors by Deployment Status and Combat-Related Determination, FY 2016-2020

Combat-Related + Deployed (n=702)			Combat-Related + Not Deployed (n=135)		
VASRD Categories	n	%	VASRD Categories	n	%
PTSD	538	76.6	Limitation of Motion (Joints)	50	37.0
Limitation of Motion (Joints)	99	14.1	PTSD	37	27.4
Dorsopathies	97	13.8	Dorsopathies	17	12.6
Residuals TBI	89	12.7	Migraine	9	6.7
Migraine	59	8.4	Arthritis	7	5.2
Not Combat-Related + Deployed (n=6,838)			Not Combat-Related + Not Deployed (n=6,518)		
VASRD Categories	n	%	VASRD Categories	n	%
Mood Disorder	1,279	18.7	Limitation of Motion (Joints)	1,289	19.8
Limitation of Motion (Joints)	1,142	16.7	Mood Disorder	1,184	18.2
Dorsopathies	1,079	15.8	PTSD	733	11.2
PTSD	848	12.4	Dorsopathies	730	11.2
Arthritis	492	7.2	Joint Disorders/Inflammation	368	5.6

## MARINE CORPS

**TABLE 10C:** Distribution of Combat-Related Determination by Deployment Status among Disability Discharged Marines, FY 2016-2020

	Deployed (n=7,254)		Not Deployed (n=8,860)		Total (n=16,114)	
Combat Status	n	%	n	%	n	%
Combat-related	2,522	34.8	588	6.6	3,110	19.3
Not Combat-related	4,728	65.2	8,263	93.3	12,991	80.6
Missing	4	0.1	9	0.2	13	0.1

**TABLE 11C:** Most Frequent VASRD Categories among Marines by Deployment Status and Combat-Related Determination, FY 2016-2020

Combat-Related + Deployed (n=2,522)			Combat-Related + Not Deployed (n=588)		
VASRD Categories	n	%	VASRD Categories	n	%
PTSD	1,919	76.1	Limitation of Motion (Joints)	385	65.5
Limitation of Motion (Joints)	455	18.0	Dorsopathies	105	17.9
Dorsopathies	448	17.8	Joint Disorders/Inflammation	53	9.0
Residuals TBI	395	15.7	Paralysis	35	6.0
Migraine	214	8.5	Arthritis	31	5.3
Not Combat-Related + Deployed (n=4,728)			Not Combat-Related + Not Deployed (n=8,263)		
VASRD Categories	n	%	VASRD Categories	n	%
Limitation of Motion (Joints)	1,486	31.4	Limitation of Motion (Joints)	3,439	41.6
Dorsopathies	1,222	25.8	Dorsopathies	1,421	17.2
Mood Disorder	476	10.1	Joint Disorders/Inflammation	677	8.2
Arthritis	421	8.9	Mood Disorder	498	6.0
PTSD	418	8.8	Arthritis	401	4.9

## AIR FORCE

**TABLE 10D:** Distribution of Combat-Related Determination by Deployment Status among Disability Discharged Marines, FY 2016-2020

Combat Status	Deployed (n=9,803)		Not Deployed (n=6,276)		Total (n=16,079)	
	n	%	n	%	n	%
Combat-related	581	5.9	51	0.8	632	3.9
Not Combat-related	2,282	23.3	1,968	31.4	4,250	26.4
Missing	6,940	70.8	4,254	67.8	11,197	69.6

**TABLE 11D:** Most Frequent VASRD Categories among Airmen by Deployment Status and Combat-Related Determination, FY 2016-2020

Combat-Related + Deployed (n=581)			Combat-Related + Not Deployed (n=51)		
VASRD Categories	n	%	VASRD Categories	n	%
PTSD	378	65.1	Dorsopathies	23	45.1
Dorsopathies	211	36.3	Limitation of Motion (Joints)	14	27.5
Limitation of Motion (Joints)	78	13.4	PTSD	7	13.7
Migraine	70	12.0	Paralysis	6	11.8
Residual of TBI	68	11.7	Mood Disorder	4	7.8
Not Combat-Related + Deployed (n=2,282)			Not Combat-Related + Not Deployed (n=1,968)		
VASRD Categories	n	%	VASRD Categories	n	%
PTSD	584	25.6	Mood Disorder	446	22.7
Dorsopathies	573	25.1	PTSD	346	17.6
Limitation of Motion (Joints)	339	14.9	Dorsopathies	331	16.8
Mood Disorder	334	14.6	Limitation of Motion (Joints)	251	12.8
Paralysis	262	11.5	Paralysis	144	7.3

# MEDICAL HISTORY

## **History of Medical Disqualification, Medical Waiver, and Hospitalization among Disability Discharged Service Members**

DESAR receives data on service members throughout their military career, spanning from the pre-accession medical examination at a Military Entrance Processing Station (MEPS) to discharge. These data were merged with disability evaluation data to describe the medical history of the disability discharged population. Applicant data, collected at MEPS, are available for enlisted service members from all components. Information on service members who sought and were approved for an accession medical waiver was available for enlisted active duty and reserve service members only. Hospitalization data were only available for inpatient stays at military treatment facilities (MTF) for active duty service members and eligible reserves. Although medical history data sources may be limited by service, rank, and component, all disability discharged service members were included in these tables, as a service member may change rank during their military career.

Prior to the fiscal year (FY) 2016, medical disqualifications, medical waivers, and hospitalizations were reported by the International Classification of Diseases, 9th revision (ICD-9) codes. A mixture of ICD-9 and ICD-10 codes is expected to persist in our database through FY 2023 because the use of ICD-9 codes transitioned to ICD-10 codes effective FY 2016 (starting 01 Oct 2015) and MEPS medical examinations are valid for up to 2 years. To allow for comparisons over this transition period, DESAR converted ICD-9 codes into ICD-10 codes utilizing the Center for Medicare and Medicaid's (CMS) General Equivalence Mapping System (GEMS). For disqualification and medical waivers, ICD-10 codes were then categorized according to subsections listed in DoDI 6130.03, Volume 1 (e.g., upper extremities). In cases where the ICD code assigned was not explicitly listed in the DoDI 6130.03, Volume 1 reference table, the code was assigned to the most clinically meaningful subsection. For hospitalization diagnoses, specific ICD-10 codes were combined into clinically meaningful ICD-10 categories.



## I. PRE-ACCESSION DISQUALIFICATION

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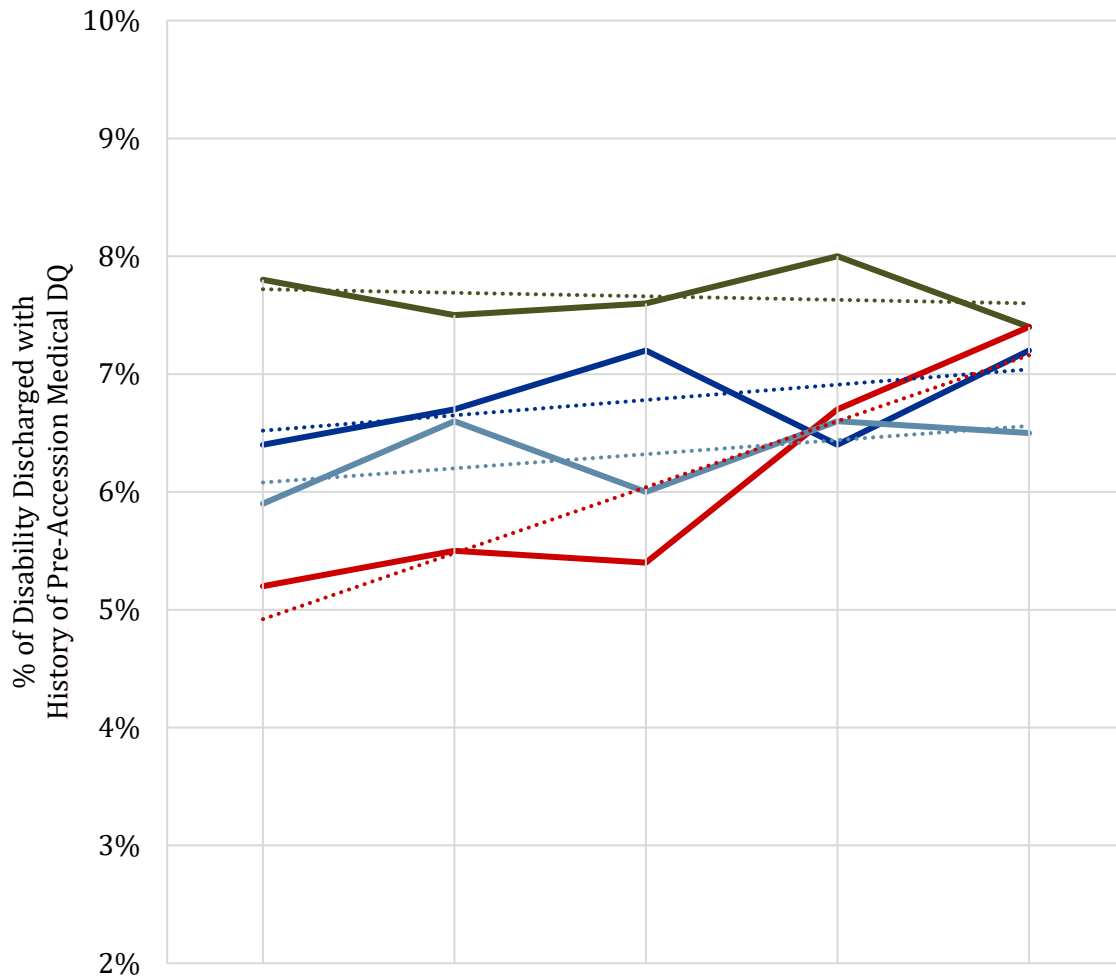
The U.S. Medical Entrance Processing Command (USMEPCOM) has provided DESAR with information from all pre-accession physical examinations conducted at any of the 65 Military Entrance Processing Stations (MEPS) since 1995. During the MEPS physical examination, an applicant is determined to be medically qualified or medically disqualified for accession. Applicants are considered medically qualified when found to be free of contagious diseases, medical conditions, and/or physical defects that may require excessive time lost from duty or separation from military service, and are medically capable of completing required training and initial period of contracted service [10]. Applicants are considered medically disqualified upon presence of a current or verified past medical history of a condition listed in the DoDI 6130.03 [10].

The following tables describe pre-accession disqualification status (i.e., medically qualified, medically disqualified) and disqualifications (DQs) for disability discharged service members (fit/limited duty and separated without DOD disability benefits dispositions were excluded) with history of MEPS examination. **Figure 11** shows the prevalence (solid line) and linear trend (dotted line) of history of pre-accession medical disqualification among disability discharged service members by year of disability discharge and service. For this year's report, DESAR updated the definition of medically disqualified service members to exclude those with administrative DQs, including unmet weight and failed drug screenings. Therefore, this report's results may show a lower percentage of medically disqualified service members compared to previous annual reports.

### Figure 11 Key Findings

- Among disability discharged service members with a history of a MEPS exam, 6-8% had a pre-accession medical DQ, while 92-94% were fully medically qualified at application.
  - The rate of pre-accession medical DQ among disability discharged service members was similar to the rate of pre-accession medical DQ among all enlisted service members who had received a MEPS exam between FY 2016-2019 (6-9%) [11].
- Over the surveillance period, the proportion of disability discharged Soldiers, Sailors, and Airmen with a medical DQ remained relatively stable, while there appears to be a slight upward trend in the proportion among disability discharged Marines.

**FIGURE 11:** Prevalence of Pre-Accession Medical Disqualifications (DQ) among Disability Discharged Service Members with a MEPS Exam by Service and FY 2016-2020



	2016	2017	2018	2019	2020	TOTAL
Army <sup>1</sup>	7.8%	7.5%	7.6%	8.0%	7.4%	7.7%
Navy	6.4%	6.7%	7.2%	6.4%	7.2%	6.9%
Marine Corps	5.2%	5.5%	5.4%	6.7%	7.4%	6.1%
Air Force	5.9%	6.6%	6.0%	6.6%	6.5%	6.3%

1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR. Approximately 85% of disability discharged service members had received a physical examination at MEPS prior to accession.

**Tables 12A-D** present the most common pre-accession DQs assigned during MEPS examinations among disability discharged service members. Service members may be included in more than one body system category in cases of multiple disability conditions. Similar to the disability body system categories, pre-accession DQ categories are not mutually exclusive and applicants disqualified under more than one DoDI 6130.03, Volume 1 subsection were counted once within each relevant DoDI subsection.

### Table 12A-D Key Findings

- In all services, the most common pre-accession disqualification categories included eyes, vision, miscellaneous conditions of the extremities, lower extremities conditions, and learning, psychiatric and behavioral disorders.
  - The most common pre-accession DQs in disability discharged service members were consistent with highly prevalent medical disqualifications in the general military applicant population [11].
  - Within DoDI 6130.03, Volume 1, there are several overlapping DQ codes between the eyes and vision subsections which, in part, could explain the similar high proportions for both categories [10].

**TABLE 12A:** Most Common Pre-Accession Disqualifications (DQ) Categories among Disability Discharged Soldiers: FY 2016-2020<sup>1</sup>

Army			
DQ Category	n	% with DQ <sup>2</sup>	% with Exam <sup>3</sup>
Eyes	852	15.8	1.2
Vision	740	13.7	1.0
Miscellaneous Conditions of the Extremities	678	12.5	1.0
Learning, Psychiatric, and Behavioral Disorders	530	9.8	0.8
Lower Extremity Conditions	475	8.8	0.7
<b>Total DES Cases with hx of DQ</b>	<b>5,408</b>		<b>7.7</b>
<b>Total DES Cases with Medical Exam Record</b>	<b>70,558</b>		

Hx: History; DOD: Department of Defense; DES: Disability Evaluation System; DQ: Disqualification

1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

2. Percent of disability discharged Soldiers within that specific DQ category among all DES cases with history of any DQ at MEPS.

3. Percent of disability discharged Soldiers within that specific DQ category among all DES cases with a medical exam record.

**TABLE 12B:** Most Common Pre-Accession Disqualifications (DQ) Categories among Disability Discharged Sailors: FY 2016-2020

Navy			
DQ Category	n	% with DQ <sup>1</sup>	% with Exam <sup>2</sup>
Eyes	148	16.6	1.1
Miscellaneous Conditions of the Extremities	134	15.0	1.0
Vision	133	14.9	1.0
Lower Extremity Conditions	106	11.9	0.8
Learning, Psychiatric, and Behavioral Disorders	75	8.4	0.6
<b>Total DES Cases with hx of DQ</b>	<b>891</b>		<b>6.9</b>
<b>Total DES Cases with Medical Exam Record</b>	<b>12,959</b>		

Hx: History; DOD: Department of Defense; DES: Disability Evaluation System; DQ: Disqualification

1. Percent of disability discharged Sailors within that specific DQ category among all DES cases with history of any DQ at MEPS.

2. Percent of disability discharged Sailors within that specific DQ category among all DES cases with a medical exam record.

**TABLE 12C:** Most Common Pre-Accession Disqualifications (DQ) Categories among Disability Discharged Marines: FY 2016-2020

Marine Corps			
DQ Category	n	% with DQ <sup>1</sup>	% with Exam <sup>2</sup>
Learning, Psychiatric, and Behavioral Disorders	148	15.7	1.0
Eyes	145	15.4	0.9
Vision	130	13.8	0.8
Miscellaneous Conditions of the Extremities	99	10.5	0.6
Lungs, Chest Wall, Pleura and Mediastinum	69	7.3	0.4
<b>Total DES Cases with hx of DQ</b>	<b>942</b>		<b>6.1</b>
<b>Total DES Cases with Medical Exam Record</b>	<b>15,469</b>		

Hx: History; DOD: Department of Defense; DES: Disability Evaluation System; DQ: Disqualification

1. Percent of disability discharged Marines within that specific DQ category among all DES cases with history of any DQ at MEPS.

2. Percent of disability discharged Marines within that specific DQ category among all DES cases with a medical exam record.

**TABLE 12D:** Most Common Pre-Accession Disqualifications (DQ) Categories among Disability Discharged Airmen: FY 2016-2020

Air Force			
DQ Category	n	% with DQ <sup>1</sup>	% with Exam <sup>2</sup>
Eyes	138	15.9	1.0
Vision	126	14.5	0.9
Learning, Psychiatric, and Behavioral Disorders	115	13.3	0.8
Miscellaneous Conditions of the Extremities	111	12.8	0.8
Lower Extremity Conditions	81	9.4	0.6
<b>Total DES Cases with hx of DQ</b>	<b>866</b>		<b>6.3</b>
<b>Total DES Cases with Medical Exam Record</b>	<b>13,704</b>		

Hx: History; DOD: Department of Defense; DES: Disability Evaluation System; DQ: Disqualification

1. Percent of disability discharged Airmen within that specific DQ category among all DES cases with history of any DQ at MEPS.

2. Percent of disability discharged Airmen within that specific DQ category among all DES cases with a medical exam record.

To evaluate concordance between pre-accession disqualifications and reason for disability discharge, DESAR assessed the most prevalent pre-accession DQ categories within each disability body system. Some DQ categories were combined due to the high prevalence of overlapping codes. **Tables 13A-D** present the most common pre-accession disqualification categories, both overall and within the 3 leading disability body systems (musculoskeletal, psychiatric, and neurological).

Service members may be included in more than one category in cases of multiple disability conditions. Similar to disability body system categories, pre-accession DQs are not mutually exclusive; a service member may be represented in multiple DQ categories if he/she had more than one type of DQ.

### Table 13A-D Key Findings

- As shown in **Figure 11**, the overall proportion of disability discharged service members with history of a pre-accession medical DQ ranged from 6.1% (Marine Corps) to 7.7% (Army).
  - When assessing the proportion by disability body system category, the results were similar to the overall proportion for all disability categories (results shown for 3 most common disability body system categories only).
- There was little to no concordance between pre-accession DQ and reason for disability discharge for the three most common disability body systems.
  - Less than 2% of disability discharges related to a musculoskeletal condition had a history of a pre-accession musculoskeletal DQ.
  - Less than 1% of disability discharges related to a psychiatric disorder had a history of a pre-accession psychiatric DQ.
  - Less than 1% of disability discharges related to a neurological condition had a history of a pre-accession neurological DQ.



# ARMY

**TABLE 13A: Most Prevalent Pre-accession Disqualifications (DQ) Categories at MEPS Medical Examination within Leading Disability Body System Categories: Army<sup>1</sup> FY 2016-2020**

ARMY		
	n	% <sup>2</sup>
<b>Total Disability Discharged with MEPS Exam</b>	<b>70,558</b>	
Musculoskeletal DQ	1,142	1.6
Eyes/Vision DQ	858	1.2
Systemic/Rheumatologic/Miscellaneous DQ	548	0.8
Any DQ	5,408	7.7
<b>Musculoskeletal Disability</b>	<b>55,767</b>	
Musculoskeletal DQ	746	1.3
Eyes/Vision DQ	501	0.9
Psychiatric DQ	281	0.5
Any DQ	2,609	4.7
<b>Psychiatric Disability</b>	<b>33,716</b>	
Musculoskeletal DQ	229	0.7
Eyes/Vision DQ	212	0.6
Psychiatric DQ	176	0.5
Any DQ	1,132	3.4
<b>Neurological Disability</b>	<b>22,684</b>	
Musculoskeletal DQ	206	0.9
Eyes/Vision DQ	142	0.6
Psychiatric DQ	106	0.5
Neurological DQ <sup>3</sup>	21	0.1
Any DQ	810	3.6

1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

2. Percentages associated with disqualification categories at MEPS examination within each body system should be interpreted as the percent of Soldiers discharged within the specific disability category who had the specific DQ type at MEPS.

3. In cases where the 3 most common DQ categories did not match the disability body system, the DQ category matching the disability category is listed in the 4<sup>th</sup> position regardless of ranking.

# NAVY

**TABLE 13B: Most Prevalent Pre-accession Disqualifications (DQ) Categories at MEPS Medical Examination within Leading Disability Body System Categories, Navy FY 2016-2020**

NAVY		
	n	% <sup>1</sup>
<b>Total Disability Discharged with MEPS Exam</b>	<b>12,959</b>	
Musculoskeletal DQ	212	1.6
Eyes/Vision DQ	150	1.2
Systemic/Rheumatologic/Miscellaneous DQ	97	0.7
Any DQ	891	6.9
<b>Musculoskeletal Disability</b>	<b>5,133</b>	
Musculoskeletal DQ	94	1.8
Eyes/Vision DQ	44	0.9
Psychiatric DQ	20	0.4
Any DQ	377	7.3
<b>Psychiatric Disability</b>	<b>5,110</b>	
Eyes/Vision DQ	56	1.1
Musculoskeletal DQ	43	0.8
Systemic/Rheumatologic/Miscellaneous DQ	30	0.6
Psychiatric DQ <sup>2</sup>	28	0.5
Any DQ	288	5.6
<b>Neurological Disability</b>	<b>3,331</b>	
Eyes/Vision DQ	35	1.1
Musculoskeletal DQ	35	1.1
Systemic/Rheumatologic/Miscellaneous DQ	23	0.7
Neurological DQ <sup>2</sup>	5	0.2
Any DQ	152	4.6

1. Percentages associated with disqualification categories at MEPS examination within each body system should be interpreted as the percent of Sailors discharged within the specific disability category who had the specific DQ type at MEPS.

2. In cases where the 3 most common DQ categories did not match the disability body system, the DQ category matching the disability category is listed in the 4th position regardless of ranking.

# MARINE CORPS

**TABLE 13C: Most Prevalent Pre-accession Disqualifications (DQ) Categories at MEPS Medical Examination within Leading Disability Body System Categories, Marine Corps FY 2016-2020**

MARINE CORPS		
	n	% <sup>1</sup>
<b>Total Disability Discharged with MEPS Exam</b>	<b>15,469</b>	
Musculoskeletal DQ	188	1.2
Psychiatric DQ	148	1.0
Eyes/Vision DQ	147	1.0
Any DQ	942	6.1
<b>Musculoskeletal Disability</b>	<b>9,550</b>	
Musculoskeletal DQ	109	1.1
Eyes/Vision DQ	85	0.9
Psychiatric DQ	67	0.7
Any DQ	437	4.6
<b>Psychiatric Disability</b>	<b>3,852</b>	
Psychiatric DQ	40	1.0
Musculoskeletal DQ	39	1.0
Eyes/Vision DQ	21	0.5
Any DQ	137	3.6
<b>Neurological Disability</b>	<b>3,048</b>	
Musculoskeletal DQ	30	1.0
Psychiatric DQ	26	0.9
Eyes/Vision DQ	16	0.5
Neurological DQ <sup>2</sup>	2	0.1
Any DQ	126	4.1

1. Percentages associated with disqualification categories at MEPS examination within each body system should be interpreted as the percent of Marines discharged within the specific disability category who had the specific DQ type at MEPS.

2. In cases where the 3 most common DQ categories did not match the disability body system, the DQ category matching the disability category is listed in the 4th position regardless of ranking.



# AIR FORCE

**TABLE 13D:** Most Prevalent Pre-accession Disqualifications (DQ) Categories at MEPS Medical Examination within Leading Disability Body System Categories, Air Force FY 2016-2020

AIR FORCE		
	n	% <sup>1</sup>
<b>Total Disability Discharged with MEPS Exam</b>	<b>13,704</b>	
Musculoskeletal DQ	188	1.4
Eye/Vision DQ	140	1.0
Psychiatric DQ	115	0.8
Any DQ	866	6.3
<b>Musculoskeletal Disability</b>	<b>7,626</b>	
Musculoskeletal DQ	94	1.2
Eyes/Vision DQ	58	0.8
Psychiatric DQ	34	0.4
Any DQ	316	4.1
<b>Psychiatric Disability</b>	<b>5,053</b>	
Psychiatric DQ	45	0.9
Eyes/Vision DQ	36	0.7
Musculoskeletal DQ	36	0.7
Any DQ	199	3.9
<b>Neurological Disability</b>	<b>4,354</b>	
Musculoskeletal DQ	36	0.8
Eyes/Vision DQ	32	0.7
Psychiatric DQ	29	0.7
Neurological DQ <sup>2</sup>	4	0.1
Any DQ	174	4.0

1. Percentages associated with disqualification categories at MEPS examination within each body system should be interpreted as the percent of Airmen discharged within the specific disability category who had the specific DQ type at MEPS.

2. In cases where the 3 most common DQ categories did not match the disability body system, the DQ category matching the disability category is listed in the 4th position regardless of ranking.

## II. ACCESSION MEDICAL WAIVER

Applicants who did not meet accession medical standards per DoDI 6130.03, Volume 1 [10] can submit a formal request to a Service Medical Waiver Review Authority (SMWRA) to be reconsidered suitable for military service. DESAR receives include information on all accession medical waivers considered by each SMWRA for enlisted applicants from 1995 to the most recently completed fiscal year. Service members are included regardless of rank at the time of disability evaluation, since they may change rank during their military career. For service members with multiple medical waiver records, only information from the last waiver record preceding their first accession record was used in our analyses. For this report, accession medical waiver considerations and approvals were counted among all medically disqualified applicants who had ever applied for or been approved for a medical waiver from any SMWRA.

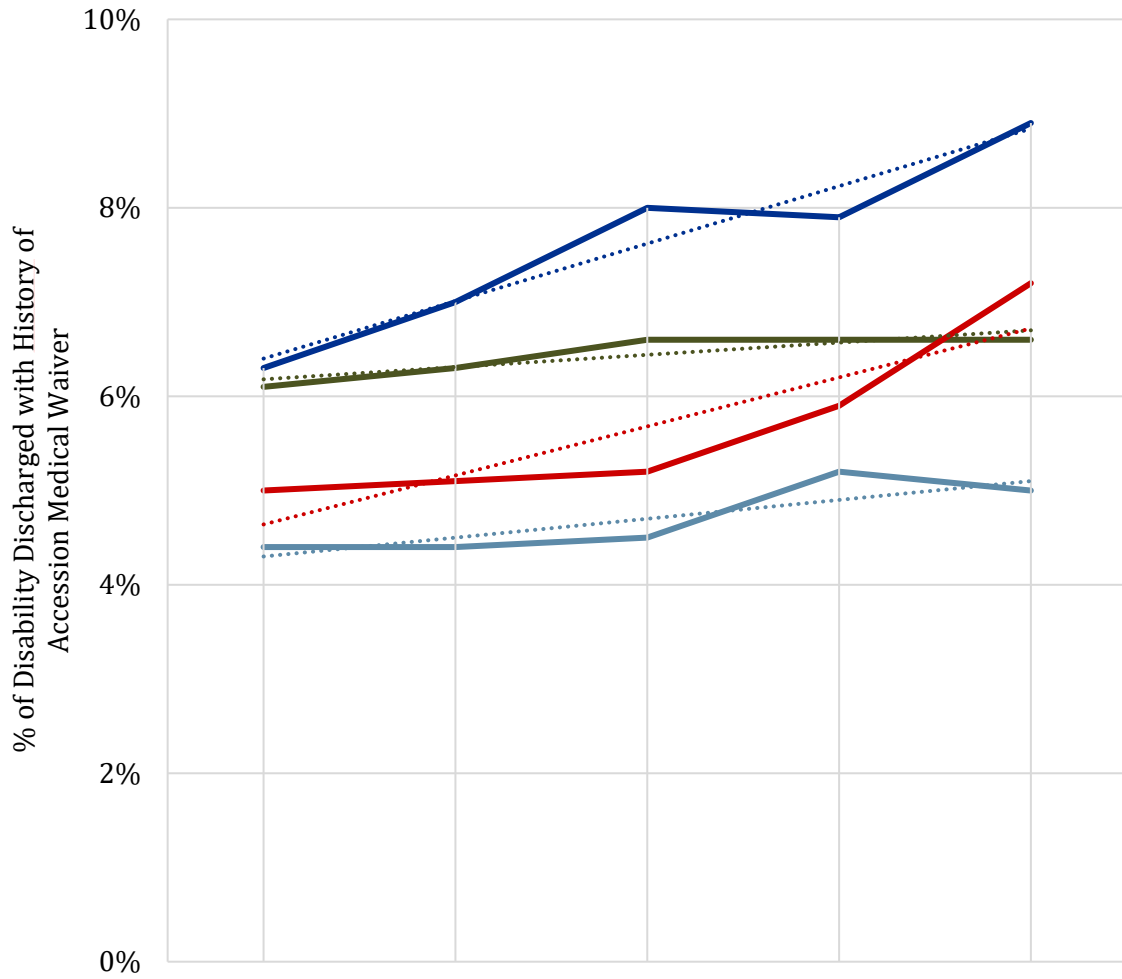
**Figure 12** shows the prevalence (solid line) and linear trend (dotted line) of history of accession medical waiver consideration among all disability discharged service members, regardless of rank or presence of a MEPS examination record, by year of disability discharge and service.

### Figure 12 Key Findings

- Among service members disability discharged between FY2016-2020, 4.7% (Air Force) to 7.9% (Navy) entered service with an accession medical waiver.
- In all services, there was an upward trend in the proportion of disability discharged service members with a history of an accession medical waiver over the five-year surveillance period.



**FIGURE 12:** Prevalence of Accession Medical Waivers among Disability Discharged Service Members by Service and FY 2016-2020



	2016	2017	2018	2019	2020	TOTAL
Army <sup>1</sup>	6.1%	6.3%	6.6%	6.6%	6.6%	6.4%
Navy	6.3%	7.0%	8.0%	7.9%	8.9%	7.9%
Marine Corps	5.0%	5.1%	5.2%	5.9%	7.2%	5.7%
Air Force	4.4%	4.4%	4.5%	5.2%	5.0%	4.7%

1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

**Tables 14A-D** presents the most commonly waived pre-accession medical disqualifications among disability discharged service members.

### Table 14A-D Key Findings

- Among disability discharged service members who entered service via an accession medical waiver, the most commonly waived DQs fell within the vision, eyes, and miscellaneous conditions of the extremities DoDI 6130.03, Volume 1 categories.
  - Eyes and vision DQs accounted for 28% (Navy) to 40% (Air Force) of the medical waiver applications. Please note that the eyes and vision categories within DoDI 6130.03, Volume 1 share the same DQ codes, which could explain the similar proportions.
  - Other common DQs considered for medical waivers included learning, psychiatric and behavioral disorders (Army, Marine Corps, Air Force), lower extremity conditions (Army, Air Force), and miscellaneous conditions (Navy, Marine Corps).

**TABLE 14A:** Most Common Disqualifications Considered for Accession Medical Waivers among Disability Discharged Soldiers<sup>1</sup>, FY2016-2020

ARMY		
Waiver Categories	n	%
Eyes	945	17.2
Vision	842	15.3
Miscellaneous Conditions of the Extremities	695	12.6
Lower Extremity Conditions	577	10.5
Learning, Psychiatric, and Behavioral Disorders	427	7.8
<b>Total Waiver Applications</b>	<b>5,507</b>	

1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

**TABLE 14B:** Most Common Disqualifications Considered for Accession Medical Waivers among Disability Discharged Sailors, FY2016-2020

NAVY		
Waiver Categories	n	%
Eyes	162	14.4
Vision	151	13.4
Miscellaneous Conditions of the Extremities	130	11.5
Systemic Conditions	124	11.0
Miscellaneous Conditions	120	10.6
<b>Total Waiver Applications</b>	<b>1,128</b>	

**TABLE 14C:** Five Most Common Disqualifications Considered for Accession Medical Waivers among Disability Discharged Marines: FY2016-2020

MARINE CORPS		
Waiver Categories	n	%
Eyes	159	17.2
Vision	146	15.8
Miscellaneous Conditions	136	14.8
Learning, Psychiatric, and Behavioral Disorders	126	13.7
Miscellaneous Conditions of the Extremities	108	11.7
<b>Total Waiver Applications</b>	<b>922</b>	

**TABLE 14D:** Five Most Common Disqualifications Considered for Accession Medical Waivers among Disability Discharged Airmen: FY2016-2020

AIR FORCE		
Waiver Categories	n	%
Eyes	155	20.4
Vision	146	19.2
Learning, Psychiatric, and Behavioral Disorders	101	13.3
Miscellaneous Conditions of the Extremities	86	11.3
Lower Extremity Conditions	71	9.3
<b>Total Waiver Applications</b>	<b>760</b>	

To evaluate the concordance between accession medical waivers and the reason for a disability discharge, DESAR assessed the most commonly waived DQ categories (approved waivers) within each disability body system. Some DQ categories were combined due to the high prevalence of overlapping codes. **Tables 15A-D** present the most common waived DQ categories overall and within the three (3) leading disability body systems (musculoskeletal, psychiatric, and neurological).

Disability body system categories are not mutually exclusive and service members with more than one disability conditions may be included in more than one body system. Similar to the disability body system categories, waiver types within each body system are not mutually exclusive and a service member can be represented in multiple waiver categories if they had more than one type of medical waiver. Therefore, percentages should be interpreted as the proportion of service members discharged with that specific waiver type within that specific disability body system.

### **Table 14A-D Key Findings**

- As shown in Figure 12, the overall proportion of disability discharged service members with a history of an accession medical waiver ranged from 4.7% (Air Force) to 7.9% (Navy). When assessing the proportion by disability body system category, the results were similar to the overall proportion for all disability categories (results shown for the 3 most common disability body system categories only).
- Similar to all pre-accession disqualifications, there was little to no concordance between waived pre-accession DQs and reason for disability evaluation for all body systems (only three most common shown).
  - Less than 2% of disability discharges related to a musculoskeletal condition had a history of an accession medical waiver for a musculoskeletal DQ.
  - Less than 1% of disability discharges related to a psychiatric disorder had a history of an accession medical waiver for a psychiatric DQ.
  - Less than 1% of disability discharges related to a neurological condition had a history of an accession medical waiver for a neurological DQ.

# ARMY

**TABLE 15A: Most Prevalent Accession Medical Waiver Categories within Leading Disability Body System Categories, Army<sup>1</sup> FY2016-2020**

ARMY		
	n	% <sup>2</sup>
<b>Total Disability Discharged</b>	<b>85,556</b>	
Musculoskeletal Waiver	1,119	1.3
Eyes/Vision Waiver	902	1.1
Psychiatric Waiver	410	0.5
Any Waiver	5,507	6.4
<b>Musculoskeletal Disability</b>	<b>55,767</b>	
Musculoskeletal Waiver	965	1.7
Eyes/Vision Waiver	626	1.1
Psychiatric Waiver	268	0.5
Any Waiver	3,025	5.4
<b>Psychiatric Disability</b>	<b>33,716</b>	
Musculoskeletal Waiver	332	1.0
Eyes/Vision Waiver	275	0.8
Psychiatric Waiver	148	0.4
Any Waiver	1,338	4.0
<b>Neurological Disability</b>	<b>22,684</b>	
Musculoskeletal Waiver	288	1.3
Eyes/Vision Waiver	204	0.9
Psychiatric Waiver	98	0.4
Neurological Waiver <sup>3</sup>	26	0.1
Any Waiver	1,020	4.5

1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

2. Percentages associated with waiver categories within each body system should be interpreted as the percent of Soldiers discharged with a specific disability type who had each specific waiver type.

3. In cases where none of the leading waiver categories matched the disability body system, the matching waiver category was also included.

# NAVY

**TABLE 15B: Most Prevalent Accession Medical Waiver Categories within Leading Disability Body System Categories: Navy FY2016-2020**

NAVY		
	n	% <sup>1</sup>
<b>Total Disability Discharged</b>	<b>14,244</b>	
Musculoskeletal Waiver	191	1.3
Eyes/Vision Waiver	156	1.1
Systemic/Rheumatologic/Miscellaneous Waiver	108	0.8
Any Waiver	1,128	7.9
<b>Musculoskeletal Disability</b>	<b>5,133</b>	
Musculoskeletal Waiver	118	2.3
Eyes/Vision Waiver	49	1.0
Systemic/Rheumatologic/Miscellaneous Waiver	45	0.9
Any Waiver	296	5.8
<b>Psychiatric Disability</b>	<b>5,110</b>	
Eyes/Vision Waiver	65	1.3
Musculoskeletal Waiver	51	1.0
Systemic/Rheumatologic/Miscellaneous Waiver	50	1.0
Psychiatric Waiver <sup>2</sup>	23	0.5
Any Waiver	259	5.1
<b>Neurological Disability</b>	<b>3,331</b>	
Musculoskeletal Waiver	47	1.4
Eyes/Vision Waiver	42	1.3
Systemic/Rheumatologic/Miscellaneous Waiver	31	0.9
Neurological Waiver <sup>2</sup>	5	0.2
Any Waiver	187	5.6

1. Percentages associated with waiver categories within each body system should be interpreted as the percent of Sailors discharged with a specific disability type who had each specific waiver type.

2. In cases where none of the leading waiver categories matched the disability body system, the matching waiver category was also included.



# MARINE CORPS

**TABLE 15C: Most Prevalent Accession Medical Waiver Categories within Leading Disability Body System Categories, Marine Corps FY 2016-2020**

MARINE CORPS		
	n	% <sup>1</sup>
<b>Total Disability Discharged</b>	<b>16,114</b>	
Musculoskeletal Waiver	186	1.2
Eyes/Vision Waiver	156	1.0
Psychiatric Waiver	123	0.8
Any Waiver	922	5.7
<b>Musculoskeletal Disability</b>	<b>9,550</b>	
Musculoskeletal Waiver	159	1.7
Eyes/Vision Waiver	102	1.1
Systemic/Rheumatologic/Miscellaneous Waiver	92	1.0
Any Waiver	544	5.7
<b>Psychiatric Disability</b>	<b>3,852</b>	
Musculoskeletal Waiver	45	1.2
Psychiatric Waiver	34	0.9
Eyes/Vision Waiver	23	0.6
Any Waiver	157	4.1
<b>Neurological Disability</b>	<b>3,048</b>	
Musculoskeletal Waiver	40	1.3
Systemic/Rheumatologic/Miscellaneous Waiver	29	1.0
Psychiatric Waiver	26	0.9
Neurological Waiver <sup>2</sup>	3	0.1
Any Waiver	165	5.4

1. Percentages associated with waiver categories within each body system should be interpreted as the percent of Marines discharged with a specific disability type who had each specific waiver type.

2. In cases where none of the leading waiver categories matched the disability body system, the matching waiver category was also included.

# AIR FORCE

**TABLE 15D: Most Prevalent Accession Medical Waiver Categories within Leading Disability Body System Categories: Air Force FY 2016-2020**

AIR FORCE		
	n	% <sup>1</sup>
<b>Total Disability Discharged</b>	<b>16,079</b>	
Eyes/Vision Waiver	148	0.9
Musculoskeletal Waiver	121	0.8
Psychiatric Waiver	98	0.6
Any Waiver	760	4.7
<b>Musculoskeletal Disability</b>	<b>7,626</b>	
Musculoskeletal Waiver	90	1.2
Eyes/Vision Waiver	70	0.9
Psychiatric Waiver	36	0.5
Any Waiver	285	3.7
<b>Psychiatric Disability</b>	<b>5,053</b>	
Eyes/Vision Waiver	55	1.1
Psychiatric Waiver	44	0.9
Musculoskeletal Waiver	34	0.7
Any Waiver	213	4.2
<b>Neurological Disability</b>	<b>4,354</b>	
Eyes/Vision Waiver	33	0.8
Musculoskeletal Waiver	33	0.8
Psychiatric Waiver	21	0.5
Neurological Waiver <sup>2</sup>	3	0.1
Any Waiver	147	3.4

1. Percentages associated with waiver categories within each body system should be interpreted as the percent of Airmen discharged with a specific disability type who had each specific waiver type.

2. In cases where none of the leading waiver categories matched the disability body system, the matching waiver category was also included.

### III. HOSPITALIZATION WITHIN 1 YEAR OF FIRST DISABILITY EVALUATION

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Hospitalization records received by DESAR include data on inpatient stays at military treatment facilities (MTF) for active duty service members and eligible reserves from 1995 through 2020. Although hospitalization records are limited by component, all service members were included regardless of the component at the time of disability evaluation, as service members may change service components during their military career.

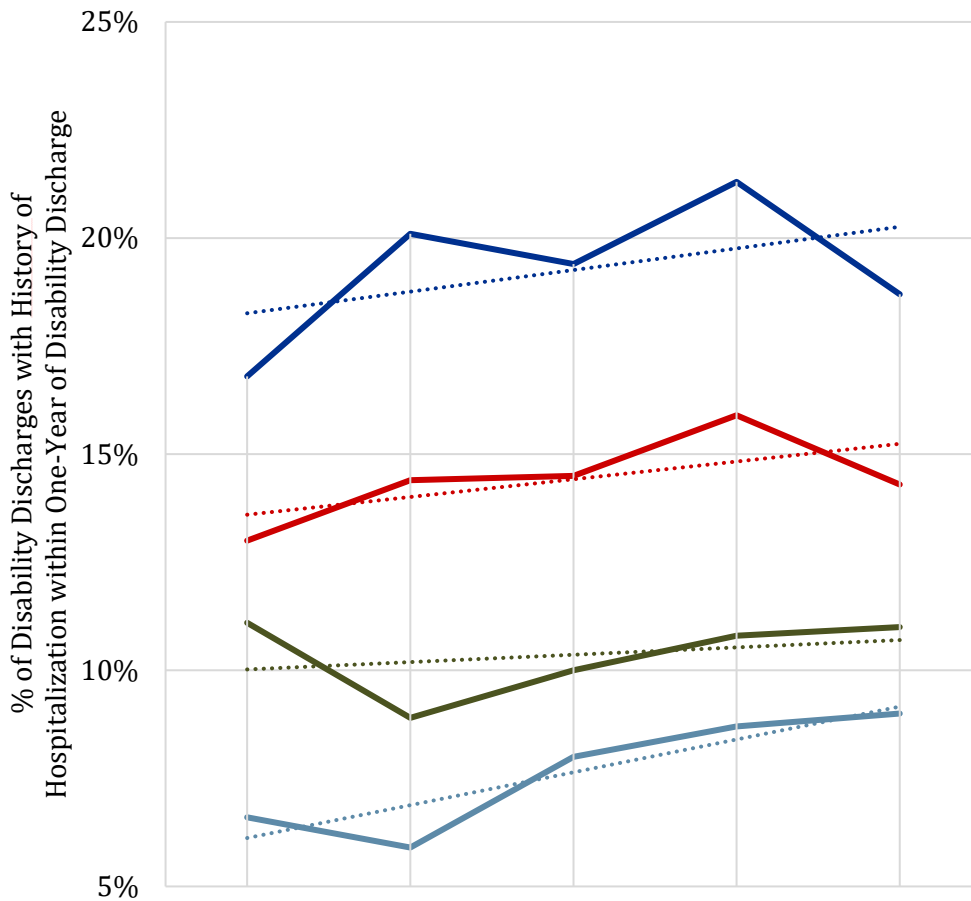
The following tables describe the prevalence of hospitalizations within one year of the first disability evaluation among disability discharged service members (fit/limited duty and separated without DOD benefits dispositions were excluded). Only the primary diagnoses were explored in these analyses. **Figure 13** shows the number and percentage of disability discharged service members with a hospitalization within one year prior to first evaluation for disability, by year of disability discharge and service.

#### Figure 13 Key Findings

- Overall, 7.8% (Air Force) to 19.4% (Navy) of disability discharged service members had been hospitalized at an MTF within one year prior to their first disability evaluation.
- Over the five-year period, there was an upward trend in hospitalizations within one year of first disability evaluation among Sailors, Marines and Airmen.



**FIGURE 13:** Prevalence of Hospitalization within One Year of Disability Evaluation among Disability Discharged Service Members by Service and Year of Disability Evaluation by FY 2016-2020



	2016	2017	2018	2019	2020	TOTAL
Army <sup>1</sup>	11.1%	8.9%	10.0%	10.8%	11.0%	10.5%
Navy	16.8%	20.1%	19.4%	21.4%	18.7%	19.4%
Marine Corps	13.0%	14.4%	14.5%	15.9%	14.3%	14.5%
Air Force	6.6%	5.9%	8.0%	8.7%	9.0%	7.8%

1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

**Tables 16A-D** present the most common diagnosis categories from hospitalizations which occurred within one year of the service member’s first disability evaluation, for each service.

### Table 16A-D Key Findings

- Four out of the five leading reasons for hospitalization among disability discharged Service members were psychiatric disorders.
  - Psychiatric disorders are also the most common reason for hospitalizations among all active duty service members [12].
  - Three of the four most commonly diagnosed psychiatric disorders (anxiety and stress-related, mood, and substance use disorders) were comparable to the most commonly diagnosed psychiatric disorders among active duty service members (adjustment disorders, alcohol dependence, major depressive disorder, PTSD) [12].

**TABLE 16A:** Most Common Primary Diagnoses in Hospitalizations (occurring within one-year of disability evaluation) among Disability Discharged Soldiers<sup>1</sup>, FY 2016-2020

ARMY		
Diagnosis Categories	n	%
Anxiety and stress-related disorders	2,452	27.2
Mood disorders	1,653	18.4
Substance use disorders	568	6.3
Dorsopathies	421	4.7
Schizophrenia spectrum and other psychotic disorders	310	3.4
<b>Total DES Hospitalized</b>	<b>8,999</b>	

1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

**TABLE 16B:** Most Common Primary Diagnoses in Hospitalizations (occurring within one-year of disability evaluation) among Disability Discharged Sailors, FY 2016-2020

NAVY		
Diagnosis Categories	n	%
Mood disorders	756	27.3
Anxiety and stress-related disorders	611	22.1
Schizophrenia spectrum and other psychotic disorders	194	7.0
Substance use disorders	170	6.1
Poisoning by, adverse effect of and under dosing of drugs, medicaments and biological substances	92	3.3
<b>Total DES Hospitalized</b>	<b>2,766</b>	

**TABLE 16C:** Most Common Primary Diagnoses in Hospitalizations (occurring within one-year of disability evaluation) among Disability Discharged Marines, FY2016-2020

MARINE CORPS		
Diagnosis Categories	n	%
Anxiety and stress-related disorders	434	18.6
Mood disorders	389	16.7
Schizophrenia spectrum and other psychotic disorders	126	5.4
Dorsopathies	115	4.9
Substance use disorders	111	4.8
<b>Total DES Hospitalized</b>	<b>2,333</b>	

**TABLE 16D:** Most Common Primary Diagnoses in Hospitalizations (occurring within one-year of disability evaluation) among Disability Discharged Airmen, FY2016-2020

AIR FORCE		
Diagnosis Categories	n	%
Mood disorders	290	23.3
Anxiety and stress-related disorders	207	16.6
Schizophrenia spectrum and other psychotic disorders	69	5.5
Substance use disorders	57	4.6
Dorsopathies	52	4.2
<b>Total DES Hospitalized</b>	<b>1,247</b>	

To evaluate the concordance between the hospitalization and reason for a disability discharge, DESAR examined the most prevalent primary diagnoses, categorized by body system, at hospitalization within each disability category. **Tables 17A-D** present the most common diagnosis categories overall and within the three (3) most common disability body systems (musculoskeletal, psychiatric, and neurological).

Service members may be included in more than one body system category in cases of multiple disability conditions. Similar to the disability categories, a service member may be represented in multiple body system categories if they had more than one type of medical diagnosis at hospitalization. Therefore, percentages associated with body system categories at hospitalization should be interpreted as the percent of service members with a hospitalization diagnosis within the specified disability body system (e.g., musculoskeletal disability).

### Table 17A-D Key Findings

- As shown in Figure 13, the overall proportion of disability discharged service members hospitalized within one year prior to first disability evaluation ranged from 7.8% (Air Force) to 19.4% (Navy). When assessing hospitalization by disability body system category, the results were similar to the overall proportion for all disability categories (results shown only for 3 most common disability body system categories), with the following exceptions:
  - Across all services, rates of hospitalization within one year of disability evaluation were higher among those disability discharged for a psychiatric disorder (12-28%) or a neurological condition (8-21%) and lower among those discharged with a musculoskeletal condition (4-9%).
- There was more concordance between the primary diagnosis at hospitalization and reason for disability discharge than was observed with pre-accession medical disqualifications (Tables 13A-D) or accession medical waivers (Tables 15A-D).
  - 9-22% of service members discharged for a psychiatric disorder had been hospitalized for a psychiatric disorder.
  - 1-5% of service members discharged for a neurological condition had been hospitalized for a neurological condition.
  - 1-4% of service members discharged for a musculoskeletal condition had been hospitalized for a musculoskeletal condition.
  - Approximately 26% of Marines disability discharged with an endocrine disorder had been hospitalized for an endocrine disorder within one year prior to their first disability evaluation (results not shown).

## ARMY

**TABLE 17A:** Most Prevalent Hospitalization Body System Categories within Leading Disability Body System Categories, Army<sup>1</sup> FY2016-2020

ARMY		
	n	% <sup>2</sup>
<b>Total Disability Discharged</b>	<b>85,556</b>	
Psychiatric Hospitalization	4,613	5.4
Musculoskeletal Hospitalization	1,044	1.2
Neurological Hospitalization	554	0.6
Any Hospitalization	8,999	10.5
<b>Musculoskeletal Disability</b>	<b>55,767</b>	
Psychiatric Hospitalization	1,358	2.4
Musculoskeletal Hospitalization	886	1.6
Neurological Hospitalization	240	0.4
Any Hospitalization	3,531	6.3
<b>Psychiatric Disability</b>	<b>33,716</b>	
Psychiatric Hospitalization	3,716	11.0
Musculoskeletal Hospitalization	316	0.9
Neurological Hospitalization	255	0.8
Any Hospitalization	5,059	15.0
<b>Neurological Disability</b>	<b>22,684</b>	
Psychiatric Hospitalization	1,105	4.9
Musculoskeletal Hospitalization	360	1.6
Neurological Hospitalization	320	1.4
Any Hospitalization	2,343	10.3

1. Values are underestimated due to missing or incomplete DES data for the Army in FY 2017 received by DESAR.

2. Percentages associated with body system category at hospitalization within each body system should be interpreted as the percent of Soldiers discharged with a specific disability type who had each specific primary diagnosis category at hospitalization.



## NAVY

**TABLE 17B:** Most Prevalent Hospitalization Body System Categories within Leading Disability Body System Categories, Navy FY2016-2020

NAVY		
	n	% <sup>1</sup>
<b>Total Disability Discharged</b>	<b>14,244</b>	
Psychiatric Hospitalization	1,597	11.2
Neurological Hospitalization	238	1.7
Musculoskeletal Hospitalization	187	1.3
Any Hospitalization	2,766	19.4
<b>Musculoskeletal Disability</b>	<b>5,133</b>	
Psychiatric Hospitalization	148	2.9
Musculoskeletal Hospitalization	116	2.3
Neurological Hospitalization	39	0.8
Any Hospitalization	437	8.5
<b>Psychiatric Disability</b>	<b>5,110</b>	
Psychiatric Hospitalization	1,145	22.4
Neurological Hospitalization	66	1.3
Musculoskeletal Hospitalization	45	0.9
Any Hospitalization	1,406	27.5
<b>Neurological Disability</b>	<b>3,331</b>	
Psychiatric Hospitalization	357	10.7
Neurological Hospitalization	156	4.7
Musculoskeletal Hospitalization	49	1.5
Any Hospitalization	693	20.8

1. Percentages associated with body system category at hospitalization within each body system should be interpreted as the percent of Soldiers discharged with a specific disability type who had each specific primary diagnosis category at hospitalization.

## MARINE CORPS

**TABLE 17C:** Most Prevalent Hospitalization Body System Categories within Leading Disability Body System Categories, Marine Corps FY2016-2020

MARINE CORPS		
	n	% <sup>1</sup>
<b>Total Disability Discharged</b>	<b>16,114</b>	
Psychiatric Hospitalization	993	6.2
Musculoskeletal Hospitalization	409	2.5
Neurological Hospitalization	198	1.2
Any Hospitalization	2,333	14.5
<b>Musculoskeletal Disability</b>	<b>9,550</b>	
Musculoskeletal Hospitalization	335	3.5
Psychiatric Hospitalization	202	2.1
Neurological Hospitalization	65	0.7
Any Hospitalization	792	8.3
<b>Psychiatric Disability</b>	<b>3,852</b>	
Psychiatric Hospitalization	633	16.4
Neurological Hospitalization	59	1.5
Musculoskeletal Hospitalization	58	1.5
Any Hospitalization	878	22.8
<b>Neurological Disability</b>	<b>3,048</b>	
Psychiatric Hospitalization	231	7.6
Neurological Hospitalization	96	3.1
Musculoskeletal Hospitalization	65	2.1
Any Hospitalization	498	16.3

1. Percentages associated with body system category at hospitalization within each body system should be interpreted as the percent of Soldiers discharged with a specific disability type who had each specific primary diagnosis category at hospitalization.

# AIR FORCE

**TABLE 17D:** Most Prevalent Hospitalization Body System Categories within Leading Disability Body System Categories, Air Force FY2016-2020

AIR FORCE		
	n	% <sup>1</sup>
<b>Total Disability Discharged</b>	<b>16,079</b>	
Psychiatric Hospitalization	558	3.7
Neurological Hospitalization	117	0.7
Musculoskeletal Hospitalization	111	0.7
Any Hospitalization	1,247	7.8
<b>Musculoskeletal Disability</b>	<b>7,626</b>	
Musculoskeletal Hospitalization	80	1.0
Psychiatric Hospitalization	77	1.0
Neurological Hospitalization	35	0.5
Any Hospitalization	306	4.0
<b>Psychiatric Disability</b>	<b>5,053</b>	
Psychiatric Hospitalization	440	8.7
Neurological Hospitalization	35	0.7
Musculoskeletal Hospitalization	26	0.5
Any Hospitalization	579	11.5
<b>Neurological Disability</b>	<b>4,354</b>	
Psychiatric Hospitalization	140	3.2
Neurological Hospitalization	81	1.9
Musculoskeletal Hospitalization	50	1.1
Any Hospitalization	366	8.4

1. Percentages associated with body system category at hospitalization within each body system should be interpreted as the percent of Soldiers discharged with a specific disability type who had each specific primary diagnosis category at hospitalization.

# LIMITATIONS

**The following limitations should be considered when interpreting the results of this report:**

1. Military Occupational Specialty (MOS) at disability evaluation is only complete for Army and Navy for the full study period. The Department of the Air Force collects information regarding MOS, but this variable was not available for the full study period, and therefore not presented. Occupational classification has been associated with disability in both civilian and military literature and is essential to understanding the specific risk factors associated with disability evaluation, separation, and retirement in the military.
2. Medical Evaluation Board (MEB) International Classification of Diseases, Version 9 and Version 10 (ICD-9/10) codes of the medical condition that precipitated the disability evaluation are not included in any of the service-specific disability datasets received by DESAR. Veterans Affairs Schedule for Rating Disabilities (VASRD) codes give an indication of the unfitting conditions referred to the Physical Evaluation Board (PEB), but do not contain the level of detail available when diagnoses are coded using ICD-9/10 codes.
3. For this report, FY 2017 Army disability data were unavailable or incomplete and, therefore, some rates are missing or underestimated.
4. Only hospitalizations occurring in a Military Treatment Facility (MTF) were included in this report. Service members may be treated at non-MTF hospitals however, these data were unavailable to DESAR at the time of this report, and therefore the overall number of hospitalization should be considered an underestimate.
5. Due to the use of both ICD-9 and ICD-10 codes during the time period of this report, DESAR utilized the General Equivalence Mappings (GEMS) code crosswalk to convert ICD-9 to ICD-10 codes. Due to increased specificity in the ICD-10 coding system compared to that of the ICD-9, single ICD-9 codes may convert to multiple ICD-10 codes. For this report, codes are reported within categories with one record per service member with a condition in each category; this should mitigate the complications caused by converting ICD-9 codes into multiple ICD-10 codes, as the resulting ICD-10 codes are likely to be within the same category.

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# ACRONYMS

AETC	Air Education Training Command
AMSARA	Accession Medical Standards Analysis and Research Activity
CMS	Center for Medicare & Medicaid Services
CTS	Contingency Tracking System (DMDC)
DES	Disability Evaluation System
DMDC	Defense Manpower Data Center
DoD	Department of Defense
DoDI	Department of Defense Instruction
DQ	Disqualification
FY	Fiscal Year
GEMS	General Equivalence Mappings
ICD-9	International Classification of Diseases, 9th Revision
ICD-10	International Classification of Diseases, 10th Revision
MCMR	Marine Corps Recruiting Command
MEB	Medical Evaluation Board
MEPS	Military Entrance Processing Station
MHS	Military Health System
MOS	Military Occupation Specialty
NRC	US Navy Recruiting Command
PEB	Physical Evaluation Board
PDQ	Permanent Disqualification
PDRL	Permanent Disability Retirement List
SSN	Social Security Number
SWODDB	Separated without DoD Disability Benefits
SWSP	Separated with Severance Pay
TDRL	Temporary Disability Retirement List
USAREC	U.S. Army Recruiting Command
USMEPCOM	US Military Entrance Processing Command
USMIRS	U.S. Military Entrance Processing Command Integrated Resource System
VASRD	Veterans Administration Schedule for Rating Disabilities
WRAIR	Walter Reed Army Institute of Research

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