

# DESAR

Disability Evaluation System  
Analysis and Research

## 2019 Annual Report

Key Metrics  
Disability Evaluations  
FY2013-2018



# Disability Evaluation Systems Analysis and Research Annual Report 2019

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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's Mission and Objectives

Since 2009, DESAR has utilized epidemiological research and analytics to optimize retention of military Service Members. Using historical perspective and subject matter expertise, we assess and measure the impact of exposure, disease, and injury on military service and disability. Our work provides critical information and knowledge to assist decisions by DoD level stakeholders and policy makers.



## Mission

Inform DoD retention and disability policy decisions to improve readiness and lethality by reducing attrition, streamlining the Warfighter's disability evaluation process, and decreasing replacement time and cost.

## Objectives

- Examination of tri-service disability evaluation systems using existing DESAR databases
- Evaluation and description of certain aspects of the military disability evaluation systems
- Design and execution of epidemiologic studies to identify risk factors associated with disability retirement from the military

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# Results at a Glance



DESAR FY 2019  
Annual Report

FY 2013-2018  
Disability  
Evaluation Metrics

## Database Overview

UNIQUE RECORDS  
472,711

EVALUATIONS  
219,174

SERVICE MEMBERS  
189,746

## DES STATS

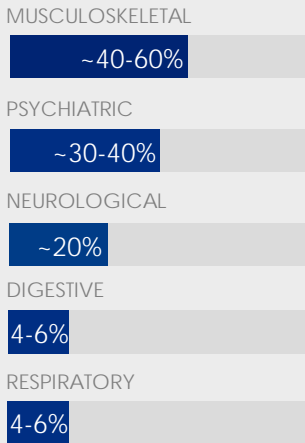
In 2018, rates of evaluation ranged from ~9 per 1,000 service members (Navy, Air Force) to 20 per 1,000 Service members (Army).



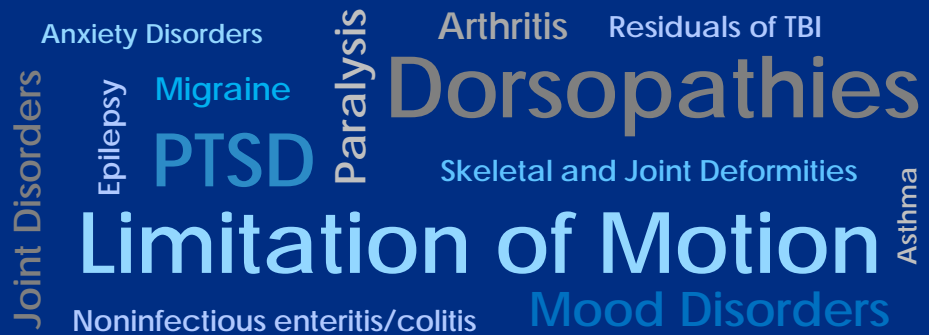
## Rates Higher For:

- Enlisted  
2-4 times rate of officers
- Active Duty  
4-7 times rate of Reserve/Guard
- Female  
~2 times rate of males
- 'Other' race  
~3 times rate of white or black race

## Most Common Body Systems



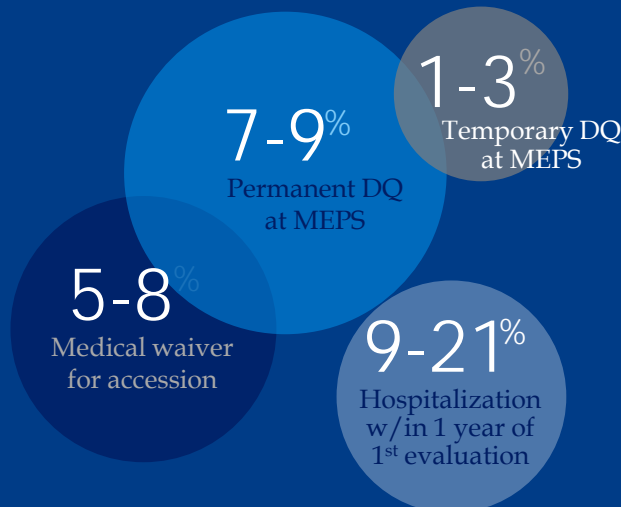
## MOST COMMON DISABILITY CONDITIONS



## FY18 Most Common Dispositions

- ARMY  
Permanent Disability Retirement (53%)
- NAVY  
Temporary Disability Retirement (29%)
- MARINE CORPS  
Separated with Severance Pay (40%)
- AIR FORCE  
Permanent Disability Retirement (52%)

## MEDICAL HISTORY



*Little to no concordance* was observed between medical DQs/waivers and reason for disability discharge

*Some concordance* was observed between reason for hospitalization and disability discharge

## Executive Summary

The Accession Medical Standards Analysis and Research Activity (AMSARA) has provided the Department of Defense (DoD) with evidence-based evaluations of accession medical standards since 1996. In fiscal year (FY) 2009, AMSARA's mission was expanded to include audits and studies of the Disability Evaluation System (DES) per the request of the Office of Assistant Secretary of Defense, Health Affairs, and the Disability Evaluation System Research and Analysis (DESAR) team was established. As part of this ongoing research activity, data are collected from each Service's DES, processed and analyzed. This report provides a description of characteristics of the disability dataset as well as demographic, Service and medical characteristics of Service members evaluated for disability from FY 2013 through the end of FY 2018. Key findings are as follows:

### Characteristics of Disability Evaluations and Population (Tables 3-5)

From FY 2013 through FY 2018, data were collected on approximately 219,000 disability evaluations of 189,746 Service members. Most Service members receive their final disability disposition and rating during the first evaluation.

- Temporal Trend in Disability Evaluations:
  - For the Navy and Air Force, the highest number of disability evaluations occurred in FY 2018; the previous peak was in FY 2015, when all services experienced an increase in the number of disability evaluations.
  - The number of disability evaluations slightly decreased in the Marine Corps in FY 2018 as compared to FY 2017.
- Demographic and Service-related Characteristics of Boarded Service Members:
  - The predominant characteristics among personnel who undergo disability evaluation were active duty, enlisted component, male, white, and 20-34 years old at the time of disability evaluation; these characteristics are also the most common in the military population.
  - Rates of disability evaluation per 1,000 Service members tend to be higher among females and other race.
    - For the Army, the rate increases as age increases. For all other services, the rates mostly peak at ages 30-34.

### Dispositions and Ratings (Tables 6-7)

For this report, the dispositions and ratings from the Service member's most recent record were analyzed.

- The most commonly assigned dispositions varied by Service and time period.
  - Army and Air Force - Placement on the permanent disability retirement list (PDRL) was the most common in both time periods.
  - Navy - Placement on the PDRL was the most commonly assigned in FY 2013-2017 while placement on the temporary disability retirement list (TDRL) was the most common in FY 2018.
    - This is expected as Service members in the FY 2013-2017 cohort likely have a longer follow-up time and are, therefore, more likely to be assigned a final disposition. Prior research has found that the majority (>80%) of Service members placed on the TDRL later receive a disposition of PDRL [1].
  - Marine Corps - Separated with severance pay was the most commonly assigned disposition in both time periods, followed by placement on the PDRL.
- Disability ratings greater than or equal to 30% (qualifying threshold for disability retirement) accounted for over 50% of Marine Corps disability ratings, and over 70% of ratings in the Army, Navy and Air Force in FY 2018.

### Leading Disability Body System Categories and Conditions (Tables 8-10)

For this report, specific unfitting conditions, ascertained using Veterans Affairs Schedule for Rating Disabilities (VASRD), were categorized into general body systems. The most commonly evaluated body system categories in all services in both time periods were musculoskeletal, psychiatric and neurological.

- Musculoskeletal:
  - Over 60% of Soldiers and over 50% of Marines were evaluated for a musculoskeletal condition in both time periods.
  - In all services, the percentage of Service members evaluated for a musculoskeletal condition was slightly lower in FY 2018 compared to the previous five-year period.
  - Dorsopathies, limitation of motion, arthritis and joint disorders were among the most common musculoskeletal conditions in all services.
- Psychiatric:
  - In FY 2018, there was a substantial increase in psychiatric conditions at disability discharge compared to the previous five-year period in the Navy and Air Force, leading to psychiatric disorders becoming more prevalent than musculoskeletal conditions in both services.
  - Posttraumatic stress disorder (PTSD) was the most commonly diagnosed psychiatric disorder for the Army, Marine Corps and Air Force, while mood disorder was the most commonly diagnosed psychiatric disorder in the Navy.
- Neurological:
  - Neurological conditions were the third most commonly evaluated body system category for all services.
  - In FY 2018, the most common neurological conditions were paralysis for the Army, Marine Corps and Air Force, and migraine for the Navy.
- All Body Systems:
  - When including all body system categories, the ten most common VASRD categories were related to musculoskeletal, psychiatric and neurological categories, with the exception of non-infectious enteritis/colitis in the Navy (FY 2013-17) and asthma in the Air Force.

### Accession Medical Disqualifications (DQ) and Waivers (Tables 12-18)

The most common pre-accession DQs and waiver considerations in the disability population were similar to the most common disqualifications and waivers in the full military population[2]. Less than 10% of Service members evaluated for disability had a permanent medical DQ found during the Military Entrance Processing Station (MEPS) medical examination. The most common DQs (permanent or temporary) were unmet DoD weight and body fat standards and vision defects. Vision defects were the most common DQs considered for a medical waiver for the Army, Navy and Air Force, while injuries and conditions due to external causes were the most common for the Marine Corps. Little (<3%) to no concordance was observed between the pre-accession disqualification or waiver considerations and the reason for disability evaluation within the three most common disability body systems.

### Hospitalizations (Tables 19-21)

In all services, the leading reasons for hospitalizations occurring within one year prior to first disability evaluation were psychiatric disorders (e.g. mood disorders, adjustment disorders, anxiety disorders). In general, more concordance (1%-28%) was observed between the reason for hospitalization and the reason for disability discharge than was observed with either medical disqualifications or waivers.

### Programmatic Recommendations

Based on the data presented in this report and the variability observed in disability evaluation system data, we present the following programmatic recommendations:

1. Include Medical Evaluation Board (MEB) International Classification of Disease (ICD) diagnosis codes in all disability evaluation records from every service, allowing for more in-depth analyses of the specific medical conditions that result in disability evaluation, separation, and retirement.
2. Include laboratory and diagnostic information on the medical condition or injury that precipitated the disability evaluation so the severity of disability conditions can be objectively assessed.
3. Include variables to indicate date of onset of symptoms or injury and date of initial diagnosis in Service members evaluated for disability.
4. Expand the VASRD codes, particularly musculoskeletal codes, to reduce the utilization of analogous codes and provide more complete information on disability conditions.

## Methods

### Disability Data Sources

Data on disability discharge considerations are compiled separately for each Service at its disability agency. The U.S. Army Physical Disability Agency provides data on Army disability evaluations, while the Air Force Personnel Center provides data on Air Force disability evaluations. Data is received from the Secretary of the Navy Council of Review Board (CORB) for the Navy and Marine Corps.

### Database Characteristics

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 the evaluation of disability in its members; therefore, variability exists in the structure and type of disability data collected by DESAR. For example, while the Navy sends all Physical Evaluation Board (PEB) evaluation records per Service member per year, the Army sends all PEB evaluation records for unfitting conditions only and the Air Force sends one evaluation record per Service member per year. In addition, the Navy (all years) and Army (FY 2013-2018) sends disability ratings for each unfitting condition and a combined rating, while the Air Force sends the combined rating only.

To create analytic files for this report, Service-specific databases were restricted to unique records with a final disposition date between October 1, 2012 and September 30, 2018. 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. Unique evaluations were defined by SSN and date of final disposition. Therefore, 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>	1990-2018	2000-2018	1995-2018
<b>Type of evaluations included</b>	All PEB with unfitting conditions only	All PEB with all conditions evaluated	1995-2006: PEB for discharges only (PDRL, TDRL, SWSP) 2007-2017: All PEB excluding TDRL re-evaluations 2018: All PEB
<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 individual/year?</b>	Yes	Yes	No - one evaluation per year

\*In order to report DoD-level information, DESAR harmonizes data from all services into one standardized dataset. Due to different data structures between services, some data were excluded from DESAR's database, including 2000 Marine Corps and Navy disability data and 1995-2006 Air Force disability data.

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

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## Variables Received

Table 2 shows the key variables included in each DES dataset received by DESAR. Additional variables 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 were listed.

**TABLE 2: DES KEY VARIABLES**

Variables	Army	Navy/Marine Corps	Air Force
<b>Demographic Characteristic</b>			
Age/Date of Birth	FY 1990-2016	✓	FY 2017-2018
Sex	✓	✓	FY 2014-2018
Race	✓	✓	
Rank	✓	✓	✓
Component	✓	✓	✓
MOS	✓	FY 2010-2018	FY 2017-2018
<b>PEB</b>			
Board type		✓	✓
Date of PEB Evaluation	FY 1990-2012, 2017-2018	✓	✓
VASRD	✓	✓	✓
VASRD Analog	✓	✓	✓
Percent Rating	FY 2013-2018	✓	
Disposition	✓	✓	✓
Disposition Date	✓	✓	✓
Combined Rating	✓	✓	✓
<b>Combat</b>			
Combat Related	✓	✓	FY 2010-2018
Armed Conflict		✓	FY 2010-2018
Instrumentality of War		✓	FY 2010-2018

MOS: Military Occupational Specialty; PEB: Physical Examination Board; VASRD: Veterans Affairs Schedule for Rating Disabilities

## *Demographic Characteristics*

Information on demographic variables (i.e. age, date of birth, sex, race) 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 certain constant demographic characteristics (i.e. date of birth, race, sex).

## *PEB variables*

All DESAR datasets contain several key variables regarding the PEB evaluation including: board type, date of PEB, Veterans Affairs Schedule for Rating Disabilities (VASRD) and analogous codes, percent rating, disposition, and disposition date. VASRD codes are not diagnostic codes, but are derived from the MEB diagnosis, and specify criteria associated with disability ratings and determine disability compensation. Analogous codes are used when there is no specific VASRD 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 could account for differences in this report's results.

There are two general disposition types for members determined unfit for duty:

1. Separation: Can be further classified as separated with severance pay and separated without benefits.
  - Severance pay is given when a Service member's condition is found to be unfitting and assigned a disability rating between 0 and 20 percent.
  - Separation without benefits occurs when a Service member is found unfit for duty, but the condition is determined to have occurred as a result of misconduct, negligence, or if the Service member has less than eight years of Service and the condition is the result of a medical condition that existed prior to service.
2. Disability retirements: Can be classified as either permanent disability retirement or temporary disability retirement.
  - Permanent disability is assigned when the Service member is found unfit, and either has a length of Service greater than 20 years or has a disability rating that is 30 percent or higher, and the condition is considered stable for rating.
  - Temporary disability is assigned when a Service member is deemed unfit for continued Service and either has a length of Service greater than 20 years or has a disability percent rating of 30 percent or higher, with a condition that was determined to be temporary or unstable. Service members placed on the temporary disability retirement list (TDRL) are re-evaluated every 6-18 months. Once the unfitting condition is considered stable for purposes of rating by the PEB, the case is assigned a percent rating and final disposition. Therefore, a re-evaluation may result in a Service member returning to duty or converting to another disposition, though most (>80%) placed on the TDRL convert to the permanent disability retirement list [1,8]. Prior to 23 December 2016, a Service member could be on the TDRL for up to five years following initial placement on the TDRL. Beginning on 24 December 2016, a Service member may remain on the TDRL for up to 36 months. This change may result in increases in the rate of retirements and separations both overall and by condition until approximately 2021.

## *Combat Variables*

Data received by DESAR from the Army, Navy, and Marine Corps include variables regarding combat; the values of which are described in the Department of Defense Instruction (DoDI) 1332.18 [4]. Though the Air Force data includes similar variables, these variables are not well populated and are unreliable for research purposes. Combat variables are used as a part of the percent rating determination taking into account if the disability was caused by, exacerbated by, or had no relation to combat experiences.

*Combat related* is the standard that covers those injuries and diseases attributable to the special dangers associated with armed conflict or the preparation or training for armed conflict [4].

*Armed conflict* is assigned if the disease or injury incurred in the line of duty as a direct result of armed conflict. There must be a definite causal relationship between the armed conflict and the resulting unfitting disability. Armed conflict includes a war, expedition, occupation of an area or territory, battle, skirmish, raid, invasion, rebellion, insurrection, guerrilla action, riot, or any other action in which Service members are engaged with a hostile or belligerent nation, faction, force, or terrorists. Armed conflict may also include such situations as related to prisoner of war or detained status [4].

*Instrumentality of war* is described as a vehicle, vessel, or device designed primarily for military Service and intended for use in such Service at the time of the occurrence of the injury. There must be a direct causal relationship between the use of the instrumentality of war and the disability, and the disability must be incurred incident to a hazard or risk of the Service [4].

## **Other Data Sources**

### *Applications 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 (regular, reserve, National Guard) of each Service (Air Force, Army, Marine Corps, and Navy). The dataset also includes records on a relatively small number of officer recruit applicants and other non-applicants receiving periodic physical examinations.

### *Accession Medical Waivers*

DESAR receives records on all recruits considered for an accession medical waiver. Each Service is responsible for its own waiver decisions about applicants, and information on these decisions is generated and provided to DESAR by each Service's waiver authority. Specifically, DESAR receives medical waiver data annually from 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 on individuals entering military Service, on Service members discharged from military service, and on Service members deployed in support of Overseas Contingency Operations.

### *Hospitalizations*

DESAR receives Military Health System (MHS) direct care hospitalization data annually from the MHS data repository. Information includes admissions of active duty officers and enlisted personnel as well as medically eligible reserve component personnel to any military hospital.

## Descriptive Statistics for All Disability Evaluations

Service-specific characteristics of Disability Evaluation System (DES) records are shown in Table 3. For the purpose of these analyses and throughout this report, records are defined as units of a dataset (e.g. lines of data) and evaluations represent an individual's unique encounter with the Physical Evaluation Board (PEB), defined using SSN and disposition date. Therefore, each individual in this report may have more than one evaluation if they had multiple encounters for disability evaluation (e.g. TDRL re-evaluations).

### Table 3 Key Findings:

- Service members had, on average, 1.1 to 1.2 evaluations for disability.
- The Navy (2.8) and Marine Corps (3.3) had the highest average number of records per evaluation.

### Discussion of Key Findings:

Interservice differences in the disability process may partially account for the observed differences in the number of records, Service members, and evaluations per Service. The Army refers a Soldier to the DES only when the Soldier develops a condition that permanently impairs required functional activities (such as carrying a weapon, wearing Mission Oriented Protective Posture (MOPP), carrying a ruck, or deploying) or does not meet retention standards described in AR 40-501. The Air Force has a pre-MEB process to screen out cases that would likely be returned to duty, which may account for the lower number of evaluations. The Navy and Marine Corps may have higher number of records due to: (1) the Navy considers placement on Limited Duty an MEB; and, (2) Navy MEBs are completed in the clinics, so the Navy PEB has a much greater role in reviewing records than the Army and Air Force PEBs.

Observed differences may also due to the manner in which records are received by DESAR from each Service. Disability data received by DESAR from the Air Force contain multiple conditions per record; in Army, Navy and Marine Corps data, the number of records is representative of the number of conditions adjudicated, resulting in a higher average number of records per evaluation. The Air Force sends only one evaluation per year, which may cause the average evaluations per individual to be underestimated. While the Army and Air Force send data only on those with unfitting conditions who were evaluated by the PEB, Navy/Marine Corps sends data on any individual evaluated by the PEB inclusive of those without any unfitting conditions.

**TABLE 3: CHARACTERISTICS OF DES RECORDS: FY 2013-2018**

	Army <sup>1</sup>	Navy	Marine Corps	Air Force
<b>Total records</b>	295,225	65,681	86,810	24,995
<b>Total Service members</b>	125,363	19,978	21,286	23,119
<b>Total evaluations</b>	144,504	23,346	26,535	24,789
<b>Average records/evaluation</b>	2.0	2.8	3.3	1.0
<b>Average evaluations/individual</b>	1.2	1.2	1.2	1.1
<b>Non-TDRL</b>	1.0	1.0	1.0	-
<b>TDRL<sup>2</sup></b>	1.7	1.4	1.8	-

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 those with their most recent disposition of placement on the TDRL.

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Table 4 presents the number of DES evaluations by Service and FY. Service members may be counted more than once in this table due to TDRL re-evaluations.

### Table 4 Key Findings:

- The Navy and Air Force had their greatest number of disability evaluations in FY 2018, the previous peak was in FY 2015, when all services experienced an increase in disability evaluations.

**TABLE 4: TOTAL DES EVALUATIONS BY SERVICE AND FISCAL YEAR: FY 2013-2018**

	Army <sup>1</sup>		Navy		Marine Corps		Air Force	
	n	%	N	%	n	%	n	%
<b>2013</b>	23,945	16.6	3,357	14.4	4,173	15.7	3,626	14.6
<b>2014</b>	27,167	18.8	3,895	16.7	4,460	16.8	4,380	17.7
<b>2015</b>	33,963	23.5	4,296	18.4	4,592	17.3	4,578	18.5
<b>2016</b>	24,120	16.7	3,095	13.3	4,173	15.7	3,676	14.8
<b>2017</b>	12,403	8.6	4,067	17.4	4,694	17.7	3,801	15.3
<b>2018</b>	22,906	15.9	4,636	19.9	4,443	16.7	4,728	19.1
<b>Total</b>	<b>144,504</b>		<b>23,346</b>		<b>26,535</b>		<b>24,789</b>	

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

The distribution of demographic and service-related characteristics among Service members evaluated for disability discharge, as well as rates of disability evaluation (per 1,000 Service members) for the total military population (FY 2013–2018) are shown in Table 5. Demographic characteristics (e.g. race, date of birth) unavailable from disability evaluation data have been supplemented through data collected from application, accession, and loss files. Age was calculated at the time of the MEB evaluation. Because MEB evaluation dates were unavailable for a large percentage of Army disability evaluations, rates presented by age may be underestimated for the Army.

### Table 5 Key Findings:

- The overall rate of disability evaluation per 1,000 Service members was highest in the Army and Marine Corps during both time periods.
- Comparing FY2013-2017 to FY 2018, the overall rate of disability evaluation (per 1,000 Service members) increased slightly for the Navy (8 vs. 11) and Marine Corps (14 vs. 17), while the overall rate for the Army (20 vs. 20) and Air Force (8 vs. 9) remained relatively stable.
- No substantial changes in the distribution of service-related and demographic characteristics were observed in FY 2018 relative to the previous five years, in any service.
- Service-related characteristics:
  - Army and Air Force had higher percentages of reserve component disability evaluations compared to other services, likely due to the inclusion of National Guard Service members not present in the Navy and Marine Corps reserve components.
  - Rates of disability evaluation were highest among enlisted (2.4-4.3 times the rate of officers) and active duty (3.4-6.6 times the rate of reserve/guard components) Service members across all services and time periods.

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- Demographic characteristics:
  - Most Service members evaluated for disability were male (67-87%), age 20-34 at the time of disability evaluation (55-86%), or white (59-73%), in all services and time periods, yet the highest rate of disability evaluation per 1,000 Service members were generally seen in females and other race.
  - Rates of disability evaluation were similar between males and females in the Army (20 vs. 20) for FY 2013-2017; however, the rate for females was 27% higher than males in FY 2018.
  - Rates of disability evaluation for other race were approximately three times higher than the rate for white or black race in the Army and Marine Corps.
  - For the Army, the rate of disability increased as age increased; for the Navy, Marine Corps and Air Force, the highest rates were seen in those between the ages of 25-34.

**TABLE 5: DISTRIBUTION AND RATE<sup>1</sup> (PER 1,000 SERVICE MEMBERS) OF DEMOGRAPHIC<sup>2</sup> AND SERVICE-RELATED CHARACTERISTICS OF SERVICE MEMBERS EVALUATED FOR DISABILITY DISCHARGE: FY 2013-2017 VS. FY 2018**

	2013-2017								2018							
	Army <sup>3</sup> (n=102,474)		Navy (n=15,391)		Marine Corps (n=16,895)		Air Force (n=18,391)		Army (n=22,889)		Navy (n=4,587)		Marine Corps (n=4,391)		Air Force (n=4,728)	
	%	Rate <sup>1</sup>	%	Rate <sup>1</sup>	%	Rate <sup>1</sup>	%	Rate <sup>1</sup>	%	Rate <sup>1</sup>	%	Rate <sup>1</sup>	%	Rate <sup>1</sup>	%	Rate <sup>1</sup>
<b>Sex</b>																
Male	83.4	19.7	71.3	7.1	87.3	13.6	69.5	6.7	78.6	19.4	66.8	9.0	83.0	15.2	69.6	7.8
Female	16.6	19.7	28.6	12.2	12.6	25.4	30.1	11.3	21.4	24.7	33.0	17.4	16.4	35.0	30.4	12.5
Missing	<0.1	-	0.1	-	0.1	-	0.5	-	0	-	0.3	-	0.6	-	0	-
<b>Age</b>																
<20	0.4	0.9	1.0	1.3	2.8	2.6	1.1	1.9	1.4	2.3	1.2	1.3	3.6	2.9	1.3	1.5
20-24	13.4	9.6	23.2	6.5	36.1	11.3	20.8	6.8	19.0	14.0	24.3	9.3	39.6	15.1	21.0	7.9
25-29	23.6	21.2	28.7	9.7	32.5	25.4	26.1	8.5	19.5	18.8	28.8	13.7	27.6	28.8	26.0	10.3
30-34	22.0	28.2	20.3	10.2	17.3	26.7	20.0	8.2	16.0	22.3	22.5	15.1	17.4	34.1	22.1	10.8
35-39	14.1	26.7	13.1	9.0	7.1	17.4	12.3	7.1	11.9	22.6	11.8	10.9	7.4	22.9	14.7	9.3
≥ 40	24.8	30.7	12.8	8.0	4.0	11.7	12.9	5.7	17.7	25.5	9.8	8.9	4.0	15.4	14.9	8.5
Missing	1.6	-	0.9	-	0.4	-	6.8	-	14.5	-	1.5	-	0.4	-	0	-
<b>Race</b>																
White	62.7	17.4	60.1	7.5	66.5	12.6	73.1	7.6	59.1	16.9	60.5	10.5	71.3	14.9	70.4	8.4
Black	16.3	17.3	16.2	7.8	8.1	9.2	14.9	8.0	21.3	21.8	18.0	11.4	9.2	14.8	16.0	10.1
Other	18.8	55.8	23.4	12.7	25.3	51.6	9.6	9.1	18.9	60.0	20.3	13.6	19.0	53.5	11.5	11.2
Missing	2.1	-	0.2	-	0.1	-	2.4	-	0.7	-	1.2	-	0.4	-	2.1	-
<b>Rank</b>																
Enlisted	93.7	22.0	92.8	9.1	96.8	15.7	91.6	8.6	90.2	21.9	92.7	12.0	96.8	18.2	92.7	9.9
Officer	6.2	7.6	7.0	3.2	2.7	3.6	7.8	3.2	7.4	9.3	7.3	4.6	3.2	5.3	7.2	3.6
Missing	0.1	-	0.2	-	0.5	-	0.6	-	2.4	-	<0.1	-	-	-	<0.1	-
<b>Component</b>																
Active Duty	77.0	31.7	95.2	9.1	95.7	16.6	86.1	10.1	79.0	33.5	95.6	12.2	96.8	19.8	87.8	11.8
Reserve/NG	22.9	8.7	4.8	2.6	4.3	3.6	13.9	3.0	21.0	8.2	4.4	3.1	3.2	3.0	12.2	3.1
Missing	0.1	-	0	-	0	-	0.1	-	<0.1	-	0	-	0	-	0	-
<b>Total</b>		<b>19.7</b>		<b>8.1</b>		<b>14.4</b>		<b>7.6</b>		<b>20.3</b>		<b>10.8</b>		<b>16.8</b>		<b>8.8</b>

1. Rates are based on total service population, using data from Defense Manpower Data Center (DMDC) and represents the total number of Service members with each demographic as of 30 September of the fiscal year in question. This data does not include the number of Service members who have missing demographic data.

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

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

Table 6 shows a comparison of the distribution and rate (per 10,000 Service members) of disability dispositions between FY 2018 and the previous five-year period in aggregate. For this table, disposition was taken from the Service member's record with the most recent disposition date. Therefore, Service members with a disposition of placement on the temporary disability retirement list (TDRL) may not yet have been assigned a final disability disposition. However, prior DESAR research found that the majority of Service members placed on the TDRL are eventually placed on the permanent disability retirement list (PDRL)[1].

### Table 6 Key Findings:

- Across both time periods, the most commonly assigned disposition in the Army and Air Force was placement on the PDRL, while separated with severance pay (SWSP) was the most common in the Marine Corps.
  - Rates (per 10,000 Service members) of PDRL decreased in FY 2018 for the Army (127 vs. 107) and Marine Corps (55 vs. 45), while rates of PDRL increased in the Air Force (41 vs. 45).
- In the Navy, the most commonly assigned disposition changed from placement on the PDRL in FY 2013-2017 to placement on the TDRL in FY 2018.
  - This is expected as Service members in the FY 2013-2017 cohort likely have a longer follow-up time and are, therefore, more likely to be assigned a final disposition.
- The proportion of Service members separated with severance pay (SWSP) decreased across all services in FY 2018.
  - The most notable decrease was in the Air Force (24% vs. 14%).
- The proportion and rates of Service members who were found fit or were returned to duty remained relatively stable across all services.
- For the Air Force, the rate of retained on the TDRL dispositions increased in FY 2018 compared to the previous five-year period. This may be due to a change in types of evaluations DESAR receives from the Air Force. Prior to FY 2018, re-evaluation records were not available. Air Force evaluations which resulted in a disposition of retained on TDRL from FY 2013-2017 reflect data received in FY 2018, related to evaluations which occurred in FY 2017.

**TABLE 6: DISTRIBUTION AND RATES (PER 10,000 SERVICE MEMBERS) FOR MOST RECENTLY ASSIGNED DISPOSITION BY SERVICE: FY 2013-2017 vs. FY 2018**

	2013-2017								2018							
	Army <sup>1</sup> (n=102,442)		Navy (n=15,391)		Marine Corps (n=16,895)		Air Force (n=18,391)		Army (n=22,889)		Navy (n=4,587)		Marine Corps (n=4,391)		Air Force (n=4,728)	
	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate	%	Rate
<b>Placement on PDRL</b>	64.4	126.9	32.7	26.4	38.0	54.9	54.1	41.3	52.8	107.3	24.7	26.7	26.8	45.1	51.5	45.2
<b>Separated without Benefits</b>	0.5	1.0	1.7	1.4	1.3	1.8	1.6	1.3	0.7	1.4	1.3	1.4	1.2	2.1	0.7	0.6
<b>Separated with Severance Pay</b>	27.3	53.8	24.6	19.9	41.1	59.3	24.3	18.6	23.3	47.3	20.6	22.2	39.5	66.4	14.1	12.4
<b>Fit/Return to Duty</b>	0.1	0.2	15.9	12.8	6.7	9.7	3.9	3.0	0.6	1.1	16.4	17.7	6.8	11.4	3.3	2.9
<b>Placement on TDRL</b>	5.7	11.2	17.9	14.4	7.2	10.4	13.6	10.3	20.8	42.2	28.7	30.9	17.3	29.1	22.2	19.5
<b>Retained on TDRL</b>	0.2	0.4	1.3	1.0	1.5	2.2	<0.1	<0.1	0.4	0.8	1.2	1.3	1.5	2.5	4.3	3.7
<b>Other<sup>2</sup></b>	1.7	3.4	6.0	4.9	4.1	6.0	2.4	1.8	1.5	3.1	7.0	7.5	6.9	11.7	4.0	3.5

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

2. Including, but not limited to, Service members with dispositions of no action, limited duty, administrative termination, or administrative removal from TDRL.

Table 7 shows a comparison of the distribution and rate per 10,000 Service members for the most recent combined disability ratings by Service for Service members evaluated for disability in FY 2018 as compared to those evaluated in the previous five years in aggregate.

### Table 7 Key Findings:

- In FY 2018, the most frequently assigned disability ratings were 50% in the Army, Unrated in the Navy, 10% in the Marine Corps and 70% in the Air Force.
  - In the previous time period (FY 2013-2017), the most frequently assigned disability ratings were 10% in the Army, Unrated in the Navy, 10% in the Marine Corps, and 30% in the Air Force.
- In FY 2018, over 50% of the Marines and over 70% of the Soldiers, Sailors and Airmen had disability ratings of 30% or greater, qualifying for disability retirement.
  - Comparing FY 2018 to FY 2013-2017 in aggregate, the proportion of Service members with a combined rating of 30% or greater increased in the Navy (68% vs. 73%) and Air Force (72% vs. 83%).
- In FY 2018, 16% of Airmen, 14% of Soldiers, 9% of Sailors and 5% of Marines received a combined disability ratings of 80% or greater.
  - Comparing FY 2018 to FY 2013-2017 in aggregate, the proportion of Service members with a combined disability rating of 80% or greater increased in Air Force (11% vs 16%), but remained relatively stable in the other services.
- The rate of Unrated conditions was higher in FY 2018 than the previous five-year period for the Navy (14 vs. 19 per 10,000 Service members) and Marine Corps (12 vs. 14).

**TABLE 7: DISTRIBUTION AND RATES (PER 10,000 SERVICE MEMBERS) OF MOST RECENT COMBINED RATING BY SERVICE: FY 2013-2017 vs. FY 2018**

Rating	2013-2017												2018											
	Army <sup>1</sup> (n=102,474)			Navy (n=15,391)			Marine Corps (n=16,895)			Air Force (n=18,391)			Army (n=22,889)			Navy (n=4,587)			Marine Corps (n=4,391)			Air Force (n=4,728)		
	%	CP	Rate	%	CP	Rate	%	CP	Rate	%	CP	Rate	%	CP	Rate	%	CP	Rate	%	CP	Rate	%	CP	Rate
<b>0</b>	2.0	2.0	3.9	3.2	4.0	2.6	5.5	6.0	8.0	3.6	3.9	2.8	1.8	1.8	3.6	2.3	2.9	2.5	4.2	4.6	7.0	2.2	2.4	1.9
<b>10</b>	14.7	17.0	28.9	13.6	20.8	11.0	22.7	30.9	32.8	13.3	18.1	10.2	14.0	16.0	28.4	11.3	16.9	12.2	23.8	30.7	40.1	7.8	10.8	6.8
<b>20</b>	11.6	29.0	22.9	8.9	31.8	7.2	14.0	46.3	20.3	9.3	28.0	7.1	12.6	28.8	25.5	8.1	26.9	8.7	14.4	46.5	24.3	5.7	17.0	5.0
<b>30</b>	11.0	40.3	21.7	16.1	51.8	13.1	14.4	62.0	20.8	16.1	45.1	12.2	9.8	38.7	19.8	14.8	45.4	16.0	13.1	60.8	22.0	15.0	33.2	13.2
<b>40</b>	10.4	50.9	20.5	9.2	63.2	7.4	10.5	73.5	15.1	11.9	57.8	9.1	9.0	47.8	18.3	9.4	57.1	10.2	10.0	71.7	16.8	9.0	42.9	7.9
<b>50</b>	11.8	63.0	23.1	11.9	78.0	9.7	9.4	83.8	13.6	12.3	70.8	9.4	15.1	63.2	30.6	13.6	74.0	14.7	9.2	81.8	15.4	15.2	59.4	13.4
<b>60</b>	9.6	72.8	18.9	4.4	83.4	3.6	4.8	89.1	6.9	8.1	79.5	6.2	8.3	71.6	16.8	4.3	79.3	4.6	5.4	87.7	9.1	7.5	67.5	6.5
<b>70</b>	11.9	85.0	23.5	6.7	91.7	5.4	5.2	94.8	7.5	9.0	89.1	6.9	14.2	86.0	28.8	9.3	90.8	10.0	6.5	94.8	10.9	15.5	84.2	13.6
<b>80</b>	6.9	92.0	13.5	1.4	93.5	1.1	1.6	96.5	2.3	3.3	92.6	2.5	6.7	92.8	13.5	1.8	93.1	2.0	1.8	96.8	3.0	5.3	90.0	4.7
<b>90</b>	3.0	95.1	5.9	0.4	93.9	0.3	0.5	97.1	0.7	1.3	94.0	1.0	2.4	95.2	4.9	0.5	93.7	0.6	0.3	97.1	0.6	2.3	92.5	2.1
<b>100</b>	4.8	100	9.4	4.9	100	4.0	2.7	100	3.9	5.7	100	4.3	4.7	100	9.5	5.1	100	5.5	2.6	100	4.4	6.9	100	6.1
<b>UR</b>	1.0	-	2.0	17.5	-	14.2	8.0	-	11.6	5.6	-	4.3	0.9	-	1.9	17.7	-	19.1	8.0	-	13.5	3.7	-	3.2
<b>Miss</b>	1.4	-	2.7	1.8	-	1.4	0.7	-	1.0	1.0	-	0.7	0.7	-	1.5	1.8	-	1.9	0.7	-	1.1	3.8	-	3.3

UR: Unrated, Miss: Missing, CP: Cumulative Percent, excluding missing and unrated

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

Due to the high number of VASRD codes, unfitting conditions were categorized into body systems. Classification of a Service member's unfitting conditions into body system categories is not mutually exclusive. Service members may be included in more than one body system category if evaluated for multiple conditions. However, Service members were only counted once per body system, if more than one condition was categorized into the same body system.

Tables 8A through 8D show the most common body system categories by service. Counts presented in each table represent the number of Service members evaluated for one or more conditions in a given body system. Percentages represent the percent of Service members that had a disability condition in a given body system among all Service members discharged with a service-connected disability and may exceed 100% as Service members may have conditions in multiple body systems.

### Tables 8A-D Key Findings:

- Among disability discharges, over 60% of Soldiers and more than half of Marines were disability discharged due to a musculoskeletal condition across both time periods.
- The proportion of Service members with a psychiatric related disability discharge increased across all services in FY 2018.
  - Increases in psychiatric disability were most notable in the Navy (34% vs. 43%) and Air Force (29% vs. 43%).
  - Psychiatric conditions surpassed musculoskeletal conditions as the leading reason for disability for both the Navy and Air Force in FY 2018.
    - Although increasing psychiatric related disability in the Navy has been noted in previous DESAR reports, the increase in psychiatric related disability in the Air Force is relatively new.
- The proportions of disability related to all other body system categories were generally similar between the two time periods for all services.

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**TABLE 8A:** DISTRIBUTION OF UNFITTING CONDITIONS BY BODY SYSTEM CATEGORY AMONG SERVICE MEMBERS WITH A DISABILITY DISCHARGE: **ARMY**, FY 2013-2017 vs. FY 2018

Body System Category	2013-2017 <sup>1</sup> (n=101,886)			2018 (n=22,607)		
	% <sup>2</sup>	Rate <sup>3</sup>	Rank <sup>4</sup>	% <sup>2</sup>	Rate <sup>3</sup>	Rank <sup>4</sup>
Musculoskeletal	69.9	136.9	1	63.1	126.6	1
Psychiatric	40.4	79.1	2	43.0	86.3	2
Neurological	24.0	47.0	3	23.1	46.4	3
Respiratory	3.7	7.2	4	2.9	5.8	4
Endocrine	1.9	3.7	8	2.3	4.6	5
Cardiovascular	2.3	4.5	6	2.2	4.3	6
Digestive	2.4	4.7	5	2.1	4.3	7
Dermatologic	2.2	4.2	7	1.8	3.6	8
Genitourinary	1.5	2.8	9	1.3	2.6	9
Ears/Hearing	1.3	2.5	10	0.9	1.8	10
Eyes/Vision	0.9	1.8	11	0.8	1.6	11
Hemic/Lymphatic	0.5	0.9	12	0.6	1.1	12
Infectious Disease	0.3	0.6	14	0.4	0.8	13
Gynecologic	0.4	0.7	13	0.3	0.6	14
Dental/Oral	0.2	0.3	15	0.1	0.2	15
Other Sensory Disorders	<0.1	0.1	16	<0.1	0.1	16

1. Values are underestimated due to missing or incomplete Disability Evaluation System data for the Army in FY 2017.
2. Percent of Service members who have at least one condition within the specified body system category. Service members may be included in more than one body system category, if an individual was evaluated for more than one condition.
3. Rate of disability discharge related to each body system per 10,000 Service members.
4. Rank of body system category in order of most frequent to least frequent.

**TABLE 8B:** DISTRIBUTION OF UNFITTING CONDITIONS BY BODY SYSTEM CATEGORY AMONG SERVICE MEMBERS WITH A DISABILITY DISCHARGE: **NAVY**, FY 2013-2017 vs. FY 2018

Body System Category	2013-2017 (n=12,559)			2018 (n=3,726)		
	% <sup>1</sup>	Rate <sup>2</sup>	Rank <sup>3</sup>	% <sup>1</sup>	Rate <sup>2</sup>	Rank <sup>3</sup>
Psychiatric	33.6	22.2	2	42.5	37.2	1
Musculoskeletal	40.8	26.9	1	36.3	31.8	2
Neurological	18.9	12.5	3	19.8	17.3	3
Digestive	5.6	3.7	4	4.6	4.0	4
Endocrine	2.1	1.4	7	2.5	2.2	5
Cardiovascular	2.5	1.6	6	1.7	1.5	6
Respiratory	2.5	1.7	5	1.5	1.3	7
Genitourinary	2.1	1.4	8	1.4	1.3	8
Dermatologic	1.4	1.0	9	1.2	1.1	9
Eyes and Vision	1.3	0.9	10	1.1	1.0	10
Hemic/Lymphatic	1.1	0.7	11	0.8	0.7	11
Ears and Hearing	0.8	0.5	12	0.7	0.6	12
Infectious Disease	0.7	0.5	13	0.7	0.6	13
Gynecologic	0.6	0.4	14	0.6	0.5	14
Dental/Oral	0.2	0.1	15	0.1	0.1	15
Other Sensory Disorders	<0.1	<0.1	16	<0.1	<0.1	16

1. Percent of Service members who have at least one condition within the specified body system category. Service members may be included in more than one body system category, if a service member was evaluated for more than one condition.
2. Rate of disability discharge related to each body system per 10,000 Service members.
3. Rank of body system category in order of most frequent to least frequent.

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**TABLE 8C:** DISTRIBUTION OF UNFITTING CONDITIONS BY BODY SYSTEM CATEGORY AMONG SERVICE MEMBERS WITH A DISABILITY DISCHARGE: **MARINE CORPS**, FY 2013-2017 vs. FY 2018

Body System Category	2013-2017 (n=15,519)			2018 (n=4,015)		
	% <sup>1</sup>	Rate <sup>2</sup>	Rank <sup>3</sup>	% <sup>1</sup>	Rate <sup>2</sup>	Rank <sup>3</sup>
Musculoskeletal	59.4	78.7	1	56.7	87.3	1
Psychiatric	27.5	36.5	2	29.4	45.2	2
Neurological	19.1	25.3	3	16.6	25.5	3
Digestive	3.3	4.4	4	3.2	5.0	4
Respiratory	2.9	3.8	5	2.6	4.0	5
Cardiovascular	1.5	2.0	7	1.5	2.3	6
Endocrine	0.9	1.2	10	1.3	2.0	7
Genitourinary	1.6	2.1	6	1.3	2.0	8
Dermatologic	1.4	1.8	8	0.9	1.4	9
Eyes and Vision	1.1	1.5	9	0.8	1.2	10
Ears and Hearing	0.9	1.2	11	0.5	0.8	11
Infectious Disease	0.3	0.4	13	0.5	0.7	12
Hemic/Lymphatic	0.5	0.6	12	0.4	0.7	13
Gynecologic	0.2	0.3	14	0.1	0.2	14
Dental/Oral	0.1	0.2	15	0.1	0.2	15
Other Sensory Disorders	<0.1	<0.1	16	-	-	16

1. Percent of Service members who have at least one condition within the specified body system category. Service members may be included in more than one body system category, if a Service member was evaluated for more than one condition.

2. Rate of disability discharge related to each body system per 10,000 Service members.

3. Rank of body system category in order of most frequent to least frequent.

**TABLE 8D:** DISTRIBUTION OF UNFITTING CONDITIONS BY BODY SYSTEM CATEGORY AMONG SERVICE MEMBERS WITH A DISABILITY DISCHARGE: **AIR FORCE**, FY 2013-2017 vs. FY 2018

Body System Category	2013-2017 (n=17,388)			2018 (n=4,540)		
	% <sup>1</sup>	Rate <sup>2</sup>	Rank <sup>3</sup>	% <sup>1</sup>	Rate <sup>2</sup>	Rank <sup>3</sup>
Psychiatric	28.5	20.5	2	43.0	36.2	1
Musculoskeletal	51.8	37.3	1	41.9	35.3	2
Neurological	21.8	15.7	3	23.6	19.9	3
Respiratory	8.8	6.4	4	7.8	6.6	4
Digestive	5.0	3.6	5	3.6	3.0	5
Cardiovascular	3.8	2.7	6	3.4	2.9	6
Dermatologic	2.1	1.5	8	2.3	1.9	7
Endocrine	2.4	1.7	7	1.9	1.6	8
Genitourinary	1.6	1.2	9	1.5	1.3	9
Infectious Disease	0.9	0.7	12	1.3	1.1	10
Ears and Hearing	1.1	0.8	11	1.0	0.9	11
Hemic/Lymphatic	1.0	0.7	13	0.9	0.8	12
Eyes and Vision	1.2	0.9	10	0.9	0.7	13
Gynecologic	0.7	0.5	14	0.5	0.4	14
Dental and Oral	0.1	0.1	15	0.1	0.1	15
Other Sensory Disorders	<0.1	<0.1	16	<0.1	<0.1	16

1. Percent of Service members who have at least one condition within the specified body system category. Service members may be included in more than one body system category, if a Service member was evaluated for more than one condition.

2. Rate of disability discharge related to each body system per 10,000 Service members.

3. Rank of body system category in order of most frequent to least frequent.

The leading VASRD categories (excluding unspecific analogous codes) within the most common disability body system categories are shown in Tables 9A through 9D. Classification of a Service member's conditions into body system categories is not mutually exclusive and Service member may be included in more than one body system category in cases of multiple conditions. Similar to the body system categories, VASRD categories within a body system are not mutually exclusive and a Service member may be represented in multiple VASRD categories if he/she has more than one VASRD code. Therefore, percentages associated with VASRD categories within each body system can be interpreted as the percent of Service members in a VASRD category among all Service members with a condition in the body system.

### Tables 9A-D Key Findings:

- Musculoskeletal conditions:
  - Limitation of motion was the most common musculoskeletal condition in the Navy and Marine Corps across both time periods, while dorsopathies (e.g. vertebral fracture, sacroiliac injury, lumbosacral strain, degenerative arthritis) was the most common category in the Air Force.
  - The most common musculoskeletal disability conditions were similar across all services and time periods.
- Psychiatric disorders:
  - Posttraumatic stress disorder (PTSD) was the most commonly diagnosed psychiatric disorder in the Army, Marine Corps and Air Force across both time periods.
    - In FY 2018, PTSD was present in more than half of Service members disability discharged with a psychiatric condition in the Army, Marine Corps and Air Force.
  - Mood disorder was the most common psychiatric disorder in the Navy across both time periods.
- Neurological conditions:
  - Paralysis was the most common neurological disability condition in the Army and Air Force across both time periods.
  - In FY 2018, the proportion of Service members with migraine increased in the Navy (21% vs. 27%) surpassing paralysis to become the most common neurological condition in the Navy, and paralysis increased in the Marine Corps (26% vs. 31%) surpassing residuals of TBI to become the most common neurological condition in the Marine Corps.
  - Other common neurological disability conditions include residuals of TBI in the Army and Marine Corps, and epilepsy in the Navy and Air Force.

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**TABLE 9A: MOST PREVALENT CONDITIONS WITHIN LEADING BODY SYSTEM CATEGORIES AMONG SERVICE MEMBERS WITH A DISABILITY DISCHARGE: ARMY, FY 2013-2017 vs. FY 2018**

2013-2017 <sup>1</sup>				2018			
	n	% <sup>2</sup>	Rate <sup>3</sup>		n	% <sup>2</sup>	Rate <sup>3</sup>
<b>Musculoskeletal</b>	<b>71,252</b>			<b>Musculoskeletal</b>	<b>14,271</b>		
Dorsopathies	40,414	56.7	77.7	Limitation of motion	7,869	55.1	69.8
Limitation of motion	36,941	51.8	71.0	Dorsopathies	7,461	52.3	66.2
Arthritis	14,019	19.7	26.9	Arthritis	2,623	18.4	23.3
<b>Psychiatric</b>	<b>41,159</b>			<b>Psychiatric</b>	<b>9,728</b>		
PTSD	30,526	74.2	58.7	PTSD	6,719	69.1	59.6
Mood disorder	8,096	19.7	15.6	Mood disorder	2,216	22.8	19.7
Anxiety disorder	3,161	7.7	6.1	Anxiety disorder	632	6.5	5.6
<b>Neurological</b>	<b>24,444</b>			<b>Neurological</b>	<b>5,233</b>		
Paralysis	10,190	41.7	19.6	Paralysis	2,639	50.4	23.4
Migraine	6,314	25.8	12.1	Residuals of TBI	1,265	24.2	11.2
Residuals of TBI	5,662	23.2	10.9	Migraine	1,200	22.9	10.6

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

2. Percent includes Service members who have at least one condition within the specified body system/VASRD category. Service members may be included in more than one body system/VASRD category if evaluated for more than one condition.

3. Rate of each type of disability discharge per 10,000 total Service members.

**TABLE 9B: MOST PREVALENT CONDITIONS WITHIN LEADING BODY SYSTEM CATEGORIES AMONG SERVICE MEMBERS WITH A DISABILITY DISCHARGE: NAVY, FY 2013-2017 vs. FY 2018**

2013-2017				2018			
	n	% <sup>1</sup>	Rate <sup>2</sup>		n	% <sup>1</sup>	Rate <sup>2</sup>
<b>Psychiatric</b>	<b>4,219</b>			<b>Psychiatric</b>	<b>1,582</b>		
Mood disorder	1,869	44.3	9.8	Mood disorder	658	41.6	15.5
PTSD	1,449	34.3	7.6	PTSD	622	39.3	14.6
Anxiety disorder	463	11.0	2.4	Anxiety disorder	184	11.6	4.3
<b>Musculoskeletal</b>	<b>5,120</b>			<b>Musculoskeletal</b>	<b>1,353</b>		
Limitation of motion	2,481	48.5	13.0	Limitation of motion	648	47.9	15.2
Dorsopathies	1,908	37.3	10.0	Dorsopathies	530	39.2	12.5
Arthritis	967	18.9	5.1	Arthritis	220	16.3	5.2
<b>Neurological</b>	<b>2,372</b>			<b>Neurological</b>	<b>736</b>		
Paralysis	556	23.4	2.9	Migraine	202	27.4	4.7
Migraine	489	20.6	2.6	Paralysis	180	24.5	4.2
Epilepsy	474	20.0	2.5	Epilepsy	158	21.5	3.7

1. Percent includes Service members who have at least one condition within the specified body system/VASRD category. Service members may be included in more than one body system/VASRD category if evaluated for more than one condition.

2. Rate of each type of disability discharge per 10,000 total Service members.

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**TABLE 9C: MOST PREVALENT CONDITIONS WITHIN LEADING BODY SYSTEM CATEGORIES AMONG SERVICE MEMBERS WITH A DISABILITY DISCHARGE: MARINE CORPS, FY 2013-2017 vs. FY 2018**

2013-2017				2018			
	n	% <sup>1</sup>	Rate <sup>2</sup>		n	% <sup>1</sup>	Rate <sup>2</sup>
<b>Musculoskeletal</b>	<b>9,213</b>			<b>Musculoskeletal</b>	<b>2,278</b>		
Limitation of motion	5,354	58.1	45.7	Limitation of motion	1,365	59.9	52.3
Dorsopathies	3,129	34.0	26.7	Dorsopathies	799	35.1	30.6
Arthritis	1,341	14.6	11.5	Joint disorders	268	11.8	10.3
<b>Psychiatric</b>	<b>4,267</b>			<b>Psychiatric</b>	<b>1,180</b>		
PTSD	2,934	68.8	25.1	PTSD	735	62.3	28.2
Mood disorder	1,022	24.0	8.7	Mood disorder	310	26.3	11.9
Anxiety disorder	239	5.6	2.0	Anxiety disorder	80	6.8	3.1
<b>Neurological</b>	<b>2,963</b>			<b>Neurological</b>	<b>666</b>		
Residuals of TBI	868	29.3	7.4	Paralysis	203	30.5	7.8
Paralysis	762	25.7	6.5	Residuals of TBI	167	25.1	6.4
Migraine	534	18.0	4.6	Migraine	159	23.9	6.1

1. Percent includes Service members who have at least one condition within the specified body system/VASRD category. Service members may be included in more than one body system/VASRD category if evaluated for more than one condition.

2. Rate of each type of disability discharge per 10,000 total Service members.

**TABLE 9D: MOST PREVALENT CONDITIONS WITHIN LEADING BODY SYSTEM CATEGORIES AMONG SERVICE MEMBERS WITH A DISABILITY DISCHARGE: AIR FORCE, FY 2013-2017 vs. FY 2018**

2013-2017				2018			
	n	% <sup>1</sup>	Rate <sup>2</sup>		n	% <sup>1</sup>	Rate <sup>2</sup>
<b>Psychiatric</b>	<b>4,942</b>			<b>Psychiatric</b>	<b>1,950</b>		
PTSD	2,058	41.6	8.5	PTSD	1,047	53.7	19.4
Mood disorder	2,044	41.4	8.5	Mood disorder	708	36.3	13.1
Anxiety disorder	668	13.5	2.8	Anxiety disorder	190	9.7	3.5
<b>Musculoskeletal</b>	<b>9,001</b>			<b>Musculoskeletal</b>	<b>1,903</b>		
Dorsopathies	5,131	57.0	21.3	Dorsopathies	1,075	56.5	19.9
Limitation of motion	3,306	36.7	13.7	Limitation of motion	712	37.4	13.2
Arthritis	1,282	14.2	5.3	Joint disorders	202	10.6	3.7
<b>Neurological</b>	<b>3,780</b>			<b>Neurological</b>	<b>1,071</b>		
Paralysis	1,295	34.2	5.4	Paralysis	384	35.9	7.1
Migraine	853	22.6	3.5	Migraine	249	23.2	4.6
Epilepsy	471	12.5	2.0	Epilepsy	135	12.6	2.5

1. Percent includes Service members who have at least one condition within the specified body system/VASRD category. Service members may be included in more than one body system/VASRD category if evaluated for more than one condition.

2. Rate of each type of disability discharge per 10,000 total Service members.

Tables 10A-10D show the ten most common VASRD condition categories, regardless of body system category, present in Service members discharged with a disability in FY 2018 as compared to FY 2013-2017 in aggregate. Service members can only be counted once per category, but Service members may be included in more than one category, if they were evaluated for multiple conditions. Percentages may be interpreted as the percent of Service members in a VASRD category among all Service members discharged with a service-connected disability.

### Tables 10A-D Key Findings:

- When disregarding body system category, the ten most common VASRD categories were related to the musculoskeletal, psychiatric and neurological systems, with the exception of non-infectious enteritis/colitis in the Navy (FY 2013-2017) and asthma in the Air Force.
- In FY 2018, there were increases in PTSD and mood disorder in the Navy and Air Force.
  - Mood disorders surpassed limitation of motion and dorsopathies to become the most commonly assigned VASRD category among disability discharged Sailors.
  - The proportion of disability discharged Airmen with PTSD nearly doubled and PTSD surpassed limitation of motion to become the second most commonly assigned VASRD category.

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**TABLE 10A: TEN MOST COMMON VASRD CATEGORIES AMONG SERVICE MEMBERS WITH A DISABILITY DISCHARGE: ARMY, FY 2013-2017 vs. FY 2018**

2013-2017 <sup>1</sup> (n=101,886)				2018 (n=22,607)			
	n	% <sup>2</sup>	Rate <sup>3</sup>		n	% <sup>2</sup>	Rate <sup>3</sup>
Dorsopathies	40,414	39.7	77.7	Limitation of motion	7,869	34.8	69.8
Limitation of motion	36,941	36.3	71.0	Dorsopathies	7,461	33.0	66.2
PTSD	30,526	30.0	58.7	PTSD	6,719	29.7	59.6
Arthritis	14,019	13.8	26.9	Paralysis	2,639	11.7	23.4
Paralysis	10,190	10.0	19.6	Arthritis	2,623	11.6	23.3
Mood disorder	8,096	7.9	15.6	Mood disorder	2,216	9.8	19.7
Joint disorders	7,020	6.9	13.5	Joint disorders	1,270	5.6	11.3
Migraine	6,314	6.2	12.1	Residuals of TBI	1,265	5.6	11.2
Skeletal and joint deformities	5,795	5.7	11.1	Skeletal and joint deformities	1,238	5.5	11.0
Residuals of TBI	5,662	5.6	10.9	Migraine	1,200	5.3	10.6

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

2. Percent includes Service members who have at least one condition within the specified VASRD category. Service members may be included in more than one VASRD category if evaluated for more than one condition.

3. Rate of each type of disability per 10,000 Service members.

**TABLE 10B: TEN MOST COMMON VASRD CATEGORIES AMONG SERVICE MEMBERS WITH A DISABILITY DISCHARGE: NAVY, FY 2013-2017 vs. FY 2018**

2013-2017 (n=12,559)				2018 (n=3,726)			
	n	% <sup>1</sup>	Rate <sup>2</sup>		n	% <sup>1</sup>	Rate <sup>2</sup>
Limitation of motion	2,481	19.8	13.0	Mood disorder	658	17.7	15.5
Dorsopathies	1,908	15.2	10.0	Limitation of motion	648	17.4	15.2
Mood disorder	1,869	14.9	9.8	PTSD	622	16.7	14.6
PTSD	1,449	11.5	7.6	Dorsopathies	530	14.2	12.5
Arthritis	967	7.7	5.1	Arthritis	220	5.9	5.2
Joint disorders	737	5.9	3.9	Joint disorders	210	5.6	4.9
Paralysis	556	4.4	2.9	Migraine	202	5.4	4.7
Migraine	489	3.9	2.6	Anxiety disorder	184	4.9	4.3
Noninfectious enteritis and colitis	476	3.8	2.5	Paralysis	180	4.8	4.2
Epilepsy	474	3.8	2.5	Epilepsy	158	4.2	3.7

1. Percent includes Service members who have at least one condition within the specified VASRD category. Service members may be included in more than one VASRD category if evaluated for more than one condition.

2. Rate of each type of disability per 10,000 Service members.

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**TABLE 10C: TEN MOST COMMON VASRD CATEGORIES AMONG SERVICE MEMBERS WITH A DISABILITY DISCHARGE: MARINE CORPS, FY 2013-2017 vs. FY 2018**

	2013-2017 (n=15,519)			2018 (n=4,015)			
	n	% <sup>1</sup>	Rate <sup>2</sup>	n	% <sup>1</sup>	Rate <sup>2</sup>	
Limitation of motion	5,345	34.4	45.7	Limitation of motion	1,365	34.0	52.3
Dorsopathies	3,129	20.2	26.7	Dorsopathies	799	19.9	30.6
PTSD	2,934	18.9	25.1	PTSD	735	18.3	28.2
Arthritis	1,341	8.6	11.5	Mood disorder	310	7.7	11.9
Joint disorders	1,062	6.8	9.1	Joint disorders	268	6.7	10.3
Mood disorder	1,022	6.6	8.7	Arthritis	255	6.4	9.8
Residuals of TBI	868	5.6	7.4	Paralysis	203	5.1	7.8
Paralysis	762	4.9	6.5	Residuals of TBI	167	4.2	6.4
Migraine	534	3.4	4.6	Migraine	159	4.0	6.1
Skeletal and joint deformities	466	3.0	4.0	Skeletal and joint deformities	137	3.4	5.3

1. Percent includes Service members who have at least one condition within the specified VASRD category. Service members may be included in more than one VASRD category if evaluated for more than one condition.

2. Rate of each type of disability per 10,000 Service members.

**TABLE 10D: TEN MOST COMMON VASRD CATEGORIES AMONG SERVICE MEMBERS WITH A DISABILITY DISCHARGE: AIR FORCE, FY 2013-2017 vs. FY 2018**

	2013-2017 (n=17,368)			2018 (n=4,540)			
	n	% <sup>1</sup>	Rate <sup>2</sup>	n	% <sup>1</sup>	Rate <sup>2</sup>	
Dorsopathies	5,131	29.5	21.3	Dorsopathies	1,075	23.7	19.9
Limitation of motion	3,306	19.0	13.7	PTSD	1,047	23.1	19.4
PTSD	2,058	11.8	8.5	Limitation of motion	712	15.7	13.2
Mood disorder	2,044	11.8	8.5	Mood disorder	708	15.6	13.1
Paralysis	1,295	7.5	5.4	Paralysis	384	8.5	7.1
Arthritis	1,282	7.4	5.3	Migraine	249	5.5	4.6
Joint disorders	1,062	6.1	4.4	Asthma	231	5.1	4.3
Asthma	1,001	5.8	4.2	Joint disorders	202	4.4	3.7
Migraine	853	4.9	3.5	Anxiety disorder	190	4.2	3.5
Anxiety disorder	668	3.8	2.8	Arthritis	171	3.8	3.2

1. Percent includes Service members who have at least one condition within the specified VASRD category. Service members may be included in more than one VASRD category if evaluated for more than one condition.

2. Rate of each type of disability per 10,000 Service members.

## History of Medical Disqualification, Accession Medical Waiver, and Hospitalization among Service Members Evaluated for Disability

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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 in order to describe the medical history of the disability evaluated population. Applicant data, collected at MEPS, are available for enlisted service members from all components. Waiver data include enlisted active duty and reserve Service members only. Hospitalization data were only available for active duty and eligible reserves. Accession and discharge data were available for all ranks and components.

In previous years, medical disqualifications, medical waivers and hospitalizations were reported by International Classification of Diseases, 9<sup>th</sup> revision (ICD-9) codes. Use of ICD-9 codes transitioned to ICD-10 codes effective fiscal year (FY) 2016 (starting 01 Oct 2015). Because of this transition and that MEPS medical examinations are valid for up to 2 years, a mixture of ICD-9 and ICD-10 codes is expected to persist in our database through FY 2023. To allow for comparisons over the transition period, DESAR utilized alternative coding based on the Clinical Classifications Software (CCS) codes developed at the Agency for Healthcare Research and Quality, to collapse ICD-9 and ICD-10 diagnosis and procedure codes into clinically meaningful categories. DESAR will continue to report this new coding scheme in lieu of the mixture of ICD-9 and ICD-10 codes until the full transition has been completed for simplicity and comprehension.

Table 11 shows the distribution of Service members in the Disability Evaluation System (DES) who have records in other datasets received by DESAR.

### Table 11 Key Findings:

- Applicant and accession records were available for more than 80% of the disability population in all services.
  - Some missing applicant and accession data may represent applications or accessions prior to 1995, the first year complete data are available.
- 5% (Air Force) to 8% (Army) of enlisted Service members accessed with a medical waiver.
  - Over 94% of accession medical waivers were approved in this population.
- 9% (Air Force) to 21% (Navy) of the disability evaluated population had a record of hospitalization at a medical treatment facility (MTF) within a year prior to their first disability evaluation.
- The DESAR database includes loss records for 70-83% of those evaluated for disability between FY 2013 and FY 2018.
  - Missing loss records may represent those Service members who were returned to duty or have not yet received a final disability disposition.

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**TABLE 11: SERVICE MEMBERS EVALUATED FOR DISABILITY WITH RECORDS IN OTHER DESAR DATA SOURCES: FY 2013-2018**

	Army <sup>1</sup>		Navy		Marine Corps		Air Force	
	n	%	n	%	n	%	n	%
<b>Applicant record<sup>2</sup> (1995-2018)</b>	99,602	85.4	16,476	88.9	19,540	94.8	17,951	84.6
<b>Accession medical waiver record<sup>2</sup> (1995-2018)</b>	9,260	7.9	1,353	7.3	1,185	5.8	952	4.5
Approved	8,738	7.5	1,300	7.0	1,119	5.4	912	4.3
Recommendation to deny	522	0.4	48	0.3	29	0.1	40	0.2
<b>Accession record (1995-2018)</b>	105,152	83.9	19,082	95.5	20,823	97.8	20,113	87.0
<b>Hospitalization record<sup>3</sup> (1995-2018)</b>	12,072	12.4	4,001	21.0	3,221	15.8	1,780	8.9
<b>Discharge record (1995-2018)</b>	88,415	70.5	14,668	73.4	17,588	82.6	17,216	74.5
<b>Total Service members</b>	125,363		19,978		21,286		23,119	
<b>Total Enlisted</b>	116,697		18,527		20,602		21,226	
<b>Total Active Duty</b>	96,997		19,037		20,424		19,977	

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

2. Applicant and waiver datasets include only enlisted Service members. Therefore, percent for applicants and waiver were calculated using the total number of enlisted Service members as the denominator.

3. Hospitalization data includes active duty Service members and qualified reserves. Therefore, percent was calculated using the total number of active duty Service members as the denominator. Hospitalization records were limited to hospitalizations within one year prior to a Service member's first disability evaluation.

## Medical disqualifications among enlisted Service members evaluated for disability

Enlisted applicant records include data on medical examinations conducted at a MEPS from 1995 to present. MEPS medical examinations dated after the MEB date were excluded from the analyses. When Service members had more than one MEPS medical examination record, only the most recent record preceding the disability evaluation was used.

Table 12 shows the history of medical examination and application for military Service among Service members evaluated for disability by year of disability evaluation and service.

### Table 12 Key Findings:

- The proportions of applicant records in all services increased over time, a trend which is expected given the longer time frame for which electronic application records were available to DESAR.
- The Marine Corps had the highest percentage of Service members with a MEPS medical examination record both overall and for every individual year.

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**TABLE 12: RECORDS OF MEDICAL EXAMINATION AT MEPS AMONG ENLISTED SERVICE MEMBERS EVALUATED FOR DISABILITY BY YEAR OF DISABILITY EVALUATION: FY 2013-2018**

	Army <sup>1</sup>			Navy			Marine Corps			Air Force		
	App	Total <sup>2</sup>	% <sup>3</sup>	App	Total <sup>2</sup>	% <sup>3</sup>	App	Total <sup>2</sup>	% <sup>3</sup>	App	Total <sup>2</sup>	% <sup>3</sup>
<b>2013</b>	14,636	17,475	83.8	1,822	2,205	82.6	2,420	2,609	92.8	2,382	2,972	80.1
<b>2014</b>	16,831	20,430	82.4	2,449	2,895	84.6	2,949	3,183	92.6	3,110	3,816	81.5
<b>2015</b>	23,235	27,665	84.0	2,874	3,297	87.2	2,936	3,099	94.7	3,283	4,072	80.6
<b>2016</b>	16,953	19,728	85.9	2,122	2,356	90.1	3,038	3,197	95.0	2,410	2,743	87.9
<b>2017</b>	9,539	10,745	88.8	3,253	3,523	92.3	4,080	4,265	95.7	2,870	3,238	88.6
<b>2018</b>	18,408	20,654	89.1	3,956	4,251	93.1	4,122	4,249	97.0	3,896	4,385	88.8
<b>Total</b>	<b>99,602</b>	<b>116,697</b>	<b>85.4</b>	<b>16,476</b>	<b>18,527</b>	<b>88.9</b>	<b>19,545</b>	<b>20,602</b>	<b>94.9</b>	<b>17,951</b>	<b>21,226</b>	<b>84.6</b>

App: Applicants with MEPS medical examination record.

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

2. Total: Enlisted Service members evaluated for a disability

3. Percent of enlisted disability cases with a MEPS medical examination record.

Medical qualification status at time of application for enlisted Service members who underwent disability evaluation are shown in Tables 13A-13D. Service members evaluated for disability in FY 2018 are compared to those evaluated for disability in the previous five years (FY 2013-2017). For this report, applicants with disqualifications at MEPS which were later cleared by the Chief Medical Officer were considered to be fully qualified. In previous years, these Service members were classified as having a disqualification (DQ). Therefore, this report's results show a higher percentage of Service members evaluated for disability discharge who were fully qualified at MEPS than in previous reports.

### Tables 13A-D Key Findings:

- Across both time periods and all services, over 88% of enlisted Service members evaluated for disability had a fully qualified medical DQ status at the time of their MEPS application.
- Approximately 7% to 9% of disability evaluated Service members had a history of a permanent medical DQ, while 1% to 3% had history of a temporary DQ.
  - According to the FY 2019 AMSARA annual report, approximately 8% and 3% of all accessions had a history of a permanent or temporary DQ, respectively [2].
- Proportions of medical DQ status generally remained stable between the two time periods for all services.

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**TABLE 13A: PRE-ACCESSION MEDICAL QUALIFICATION STATUS AMONG ENLISTED SERVICE MEMBERS EVALUATED FOR DISABILITY: ARMY, FY 2013-2017 vs. FY 2018**

	2013-2017 <sup>1</sup>		2018	
	n	%	n	%
Fully Qualified	71,738	88.4	16,511	89.7
Permanently Disqualified	7,068	8.7	1,559	8.5
Temporarily Disqualified <sup>2</sup>	2,388	2.9	338	1.8
<b>Total DES Cases with Medical Exam Record</b>	<b>81,194</b>		<b>18,408</b>	

1. Values are underestimated due to missing or incomplete Disability Evaluation System data for the Army in FY 2017.  
 2. The majority of temporary disqualifications are due to failure to meet weight for height and body fat standards.

**TABLE 13B: PRE-ACCESSION MEDICAL QUALIFICATION STATUS AMONG ENLISTED SERVICE MEMBERS EVALUATED FOR DISABILITY: NAVY, FY 2013-2017 vs. FY 2018**

	2013-2017		2018	
	n	%	n	%
Fully Qualified	11,418	91.2	3,616	91.4
Permanently Disqualified	918	7.3	293	7.4
Temporarily Disqualified <sup>1</sup>	184	1.5	47	1.2
<b>Total DES Cases with Medical Exam Record</b>	<b>12,520</b>		<b>3,956</b>	

1. The majority of temporary disqualifications are due to failure to meet weight for height and body fat standards.

**TABLE 13C: PRE-ACCESSION MEDICAL QUALIFICATION STATUS AMONG ENLISTED SERVICE MEMBERS EVALUATED FOR DISABILITY: MARINE CORPS, FY 2013-2017 vs. FY 2018**

	2013-2017		2018	
	n	%	n	%
Fully Qualified	14,194	92.0	3,773	91.5
Permanently Disqualified	1,047	6.8	313	7.6
Temporarily Disqualified <sup>1</sup>	182	1.2	36	0.9
<b>Total DES Cases with Medical Exam Record</b>	<b>15,423</b>		<b>4,122</b>	

1. The majority of temporary disqualifications are due to failure to meet weight for height and body fat standards.

**TABLE 13D: PRE-ACCESSION MEDICAL QUALIFICATION STATUS AMONG ENLISTED SERVICE MEMBERS EVALUATED FOR DISABILITY: AIR FORCE, FY 2013-2017 vs. FY 2018**

	2013-2017		2018	
	n	%	n	%
Fully Qualified	13,018	92.6	3,606	92.6
Permanently Disqualified	857	6.1	255	6.5
Temporarily Disqualified <sup>1</sup>	180	1.3	35	0.9
<b>Total DES Cases with Medical Exam Record</b>	<b>14,055</b>		<b>3,896</b>	

1. The majority of temporary disqualifications are due to failure to meet weight for height and body fat standards.

Tables 14A-14D presents the most common pre-accession medical and weight DQs assigned during the MEPS examination for enlisted Service members evaluated for disability discharge. Pre-accession medical DQs are defined by the Department of Defense Instruction (DoDI) 6130.03 and recorded using International Classification of Diseases, Version 9 (ICD-9) and Version 10 (ICD-10) codes. All medical and weight DQ codes recorded at any pre-accession medical examination that preceded disability evaluation were used in generating Tables 14A-14D. Due to the use of both ICD-9 and ICD-10 codes during this time period, DESAR categorized medical DQs into clinically meaningful categories based on Clinical Classifications Software (CCS) codes in order to examine the leading pre-accession medical DQs for those who were disability evaluated in FY 2018 compared to aggregate data from the previous five years. Findings are presented for both permanent disqualifications (PDQ), DQs which require a medical waiver for accession, and temporary DQs, those that can be corrected. Medical DQs are not medical diagnoses; therefore, individuals may have either a current or verified past medical history of the disqualifying condition, according to the DoDI 6130.03. All results may be underestimated as the DESAR database is missing applicant records for 5-15% of the DES population (Table 11).

**Tables 14A-D Key Findings:**

- In all services and time periods, the most common pre-accession medical and weight DQs in Service members evaluated for disability discharge are consistent with highly prevalent medical disqualifications in the general military applicant population [2].
- Unmet DoD weight and body fat standards and vision defects were the most common pre-accession medical and weight DQs for the Army and Marine Corps across both time periods.
- Vision defects, a category mainly comprised of disorders of refraction and accommodation, was the most common pre-accession medical DQ for the Navy and Air Force across both time periods and the second most common medical DQ for the Army and Marine Corps.
  - In FY 2018, the proportion of Service members disqualified for a vision defect increased in the Army (7% of DQ vs. 13% of DQ), Navy (10% of DQ vs. 15% of DQ), and Marine Corps (8% of DQ vs. 11% of DQ).
- The proportion of those disqualified for history of allergic reaction (e.g. history of anaphylactic reaction, contact dermatitis) increased in FY 2018 for the Army (5% of DQ vs. 9% of DQ), Navy (9% of DQ vs. 13% of DQ), and Air Force (6% of DQ vs. 10% of DQ).

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**TABLE 14A: MOST COMMON PRE-ACCESSION DISQUALIFICATIONS (DQ) AMONG SERVICE MEMBERS EVALUATED FOR DISABILITY: ARMY, FY 2013-2017 vs. FY 2018**

2013-2017 <sup>1</sup>				2018			
DQ Category	n	% of DQ <sup>2</sup>	% with Exam <sup>3</sup>	DQ Category	n	% of DQ <sup>2</sup>	% with Exam <sup>3</sup>
Unmet DoD weight standards	1,749	22.0	2.2	Unmet DoD weight standards	238	14.4	1.3
Vision defects	583	7.3	0.7	Vision defects	210	12.7	1.1
Hearing loss and other sense organ disorders	574	7.2	0.7	Hx of allergic reaction	146	8.8	0.8
Hx of allergic reaction	405	5.1	0.5	Trauma-related joint disorders and dislocations	88	5.3	0.5
Disorders of lipid metabolism	313	3.9	0.4	Other non-traumatic joint disorders	82	4.9	0.4
<b>Total DES Cases with history of MEPS DQ</b>	<b>7,937</b>		<b>9.8</b>	<b>Total DES Cases with history of MEPS DQ</b>	<b>1,658</b>		<b>9.0</b>
<b>Total DES Cases with Medical Exam Record</b>	<b>81,194</b>			<b>Total DES Cases with Medical Exam Record</b>	<b>18,408</b>		

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

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

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

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

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**TABLE 14B:** MOST COMMON PRE-ACCESSION DISQUALIFICATIONS (DQ) AMONG SERVICE MEMBERS EVALUATED FOR DISABILITY: NAVY, FY 2013-2017 VS. FY 2018

2013-2017				2018			
DQ Category	n	% of DQ <sup>1</sup>	% with Exam <sup>2</sup>	DQ Category	n	% of DQ <sup>1</sup>	% with Exam <sup>2</sup>
Vision defects	90	10.1	0.7	Vision defects	47	15.1	1.2
Hx of allergic reaction	84	9.4	0.7	Hx of allergic reaction	41	13.2	1.0
Unmet DoD weight standards	72	8.1	0.6	Unmet DoD weight standards	23	7.4	0.6
Trauma-related joint disorders and dislocations	60	6.7	0.5	Trauma-related joint disorders and dislocations	20	6.4	0.5
Other non-traumatic joint disorders	49	5.5	0.4	Other non-traumatic joint disorders	15	4.8	0.4
<b>Total DES Cases with history of MEPS DQ</b>	<b>892</b>		<b>7.1</b>	<b>Total DES Cases with history of MEPS DQ</b>	<b>311</b>		<b>7.9</b>
<b>Total DES Cases with Medical Exam Record</b>	<b>12,520</b>			<b>Total DES Cases with Medical Exam Record</b>	<b>3,956</b>		

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

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

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

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**TABLE 14C: MOST COMMON PRE-ACCESSION DISQUALIFICATIONS (DQ) AMONG SERVICE MEMBERS EVALUATED FOR DISABILITY: MARINE CORPS, FY 2013-2017 vs. FY 2018**

2013-2017				2018			
DQ Category	n	% of DQ <sup>1</sup>	% with Exam <sup>2</sup>	DQ Category	n	% of DQ <sup>1</sup>	% with Exam <sup>2</sup>
Unmet DoD weight standards	218	19.6	1.4	Unmet DoD weight standards	81	25.0	2.0
Vision defects	94	8.4	0.6	Vision defects	35	10.8	0.8
Hx of allergic reaction	85	7.6	0.6	Hx of allergic reaction	19	5.9	0.5
Asthma	51	4.6	0.3	Hx of attention-deficit, conduct, and disruptive behavior disorders	19	5.9	0.5
Hx of attention-deficit, conduct, and disruptive behavior disorders	45	4.0	0.3	Asthma	17	5.2	0.4
<b>Total DES Cases with history of MEPS DQ</b>	<b>1,114</b>		<b>7.2</b>	<b>Total DES Cases with history of MEPS DQ</b>	<b>324</b>		<b>7.9</b>
<b>Total DES Cases with Medical Exam Record</b>	<b>15,423</b>			<b>Total DES Cases with Medical Exam Record</b>	<b>4,122</b>		

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

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

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

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**TABLE 14D:** MOST COMMON PRE-ACCESSION DISQUALIFICATIONS (DQ) AMONG SERVICE MEMBERS EVALUATED FOR DISABILITY: **AIR FORCE**, FY 2013-2017 vs. FY 2018

2013-2017				2018			
DQ Category	n	% of DQ <sup>1</sup>	% with Exam	DQ Category	n	% of DQ <sup>1</sup>	% with Exam <sup>2</sup>
Vision defects	105	12.2	0.7	Vision defects	31	12.3	0.8
Unmet DoD weight standards	81	9.4	0.6	Hx of allergic reaction	24	9.5	0.6
Hx of allergic reaction	54	6.3	0.4	Asthma	15	6.0	0.4
Trauma-related joint disorders and dislocations	46	5.3	0.3	Trauma-related joint disorders and dislocations	15	6.0	0.4
Asthma	42	4.9	0.3	Other non-traumatic joint disorders	14	5.6	0.4
<b>Total DES Cases with history of MEPS DQ</b>	<b>862</b>		<b>6.1</b>	<b>Total DES Cases with history of MEPS DQ</b>	<b>252</b>		<b>6.5</b>
<b>Total DES Cases with Medical Exam Record</b>	<b>14,055</b>			<b>Total DES Cases with Medical Exam Record</b>	<b>3,896</b>		

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

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

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

The most prevalent pre-accession medical DQ body system categories within the three most common disability body systems (musculoskeletal, psychiatric and neurological) are shown in Tables 15A-15D. Only Service members discharged with a service-connected disability were included in these tables; those who received a disposition of fit or separated without benefits dispositions were excluded. Classification of a Service member's disability conditions into body system categories is not mutually exclusive and Service members may be included in more than one body system category in cases of multiple disability conditions. Like the disability body system categories, pre-accession medical DQ categories within a body system are not mutually exclusive. A Service member is represented in multiple DQ categories if he/she has more than one type of medical DQ. Therefore, percentages associated with DQ categories at MEPS examination within each body system should be interpreted as the percent of Service members discharged with a specific disability type who had each specific DQ type at MEPS.

### Tables 15A-D Key Findings:

- In FY 2018, the most common pre-accession medical and weight DQ categories among all DES discharges were musculoskeletal for the Army, Navy and Air Force, while unmet DoD weight standards was the most common for the Marine Corps.
- Little to no concordance was observed between pre-accession DQ and the reason for disability evaluation both overall and for the three most common disability body systems.
  - Over all time periods, services and disability categories, less than 10% of DES cases had a history of any pre-accession medical DQ.
    - Less than 3% of discharges related to a musculoskeletal condition had a history of a pre-accession musculoskeletal DQ.
    - Less than 2% of discharges related to a psychiatric disorder had a history of a pre-accession psychiatric DQ.
    - Less than 1% of discharges related to a neurological condition had a history of a pre-accession neurological DQ.

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**TABLE 15A: MOST PREVALENT DISQUALIFICATION (DQ) TYPES AT MEPS MEDICAL EXAMINATION WITHIN LEADING DISABILITY BODY SYSTEM CATEGORIES: ARMY, FY 2013-2017 vs. FY 2018**

2013-2017 <sup>1</sup>			2018		
	n	% <sup>2</sup>		n	% <sup>2</sup>
<b>Total Disability Discharged</b>	<b>95,511</b>		<b>Total Disability Discharged</b>	<b>20,438</b>	
Musculoskeletal	1,610	1.7	Musculoskeletal	400	2.0
Weight	1,392	1.5	Vision	278	1.4
Vision	922	1.0	Weight	194	0.9
Any DQ	7,781	8.1	Any DQ	1,638	8.0
<b>Musculoskeletal Disability</b>	<b>66,916</b>		<b>Musculoskeletal Disability</b>	<b>12,969</b>	
Musculoskeletal	1,283	1.9	Musculoskeletal	290	2.2
Weight	1,050	1.6	Vision	188	1.4
Vision	679	1.0	Weight	125	1.0
Any DQ	5,683	8.5	Any DQ	1,100	8.5
<b>Psychiatric Disability</b>	<b>38,370</b>		<b>Psychiatric Disability</b>	<b>8,748</b>	
Weight	538	1.4	Musculoskeletal	124	1.4
Musculoskeletal	498	1.3	Vision	90	1.0
Psychiatric	320	0.8	Weight	76	0.9
Vision	300	0.8	Psychiatric <sup>3</sup>	64	0.7
Any DQ	2,874	7.5	Any DQ	594	6.8
<b>Neurological Disability</b>	<b>22,283</b>		<b>Neurological Disability</b>	<b>4,576</b>	
Musculoskeletal	323	1.4	Musculoskeletal	75	1.6
Weight	317	1.4	Vision	44	1.0
Vision	202	0.9	Weight	43	0.9
Neurological <sup>3</sup>	50	0.2	Neurological <sup>3</sup>	10	0.2
Any DQ	1,774	8.0	Any DQ	316	6.9

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

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

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**TABLE 15B: MOST PREVALENT DISQUALIFICATION (DQ) TYPES AT MEPS MEDICAL EXAMINATION WITHIN LEADING DISABILITY BODY SYSTEM CATEGORIES: NAVY, FY 2013-2017 vs. FY 2018**

2013-2017			2018		
	n	% <sup>1</sup>		n	% <sup>1</sup>
<b>Total Disability Discharged</b>	<b>11,810</b>		<b>Total Disability Discharged</b>	<b>3,487</b>	
Musculoskeletal	199	1.7	Musculoskeletal	63	1.8
Vision	116	1.0	Vision	60	1.7
Respiratory	78	0.7	Respiratory	23	0.7
Any DQ	754	6.4	Any DQ	257	7.4
<b>Psychiatric Disability</b>	<b>3,954</b>		<b>Psychiatric Disability</b>	<b>1,465</b>	
Vision	49	1.2	Vision	31	2.1
Musculoskeletal	37	0.9	Musculoskeletal	21	1.4
Psychiatric	30	0.8	Respiratory	13	0.9
Respiratory	24	0.6	Psychiatric <sup>2</sup>	11	0.8
Any DQ	240	6.1	Any DQ	113	7.7
<b>Musculoskeletal Disability</b>	<b>4,914</b>		<b>Musculoskeletal Disability</b>	<b>1,296</b>	
Musculoskeletal	129	2.6	Musculoskeletal	30	2.3
Vision	46	0.9	Vision	20	1.5
Respiratory	34	0.7	Weight	8	0.6
Any DQ	336	6.8	Any DQ	92	7.1
<b>Neurological Disability</b>	<b>2,213</b>		<b>Neurological Disability</b>	<b>679</b>	
Musculoskeletal	27	1.2	Musculoskeletal	15	2.2
Vision	24	1.1	Vision	10	1.5
Psychiatric	12	0.5	Dermatological	6	0.9
Neurological <sup>2</sup>	10	0.5	Neurological <sup>2</sup>	3	0.4
Any DQ	135	6.1	Any DQ	53	7.8

1. Percentages associated with disqualification categories at MEPS examination within each body system should be interpreted as the percent of Service members discharged with a specific disability type who had each specific disqualification 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 4<sup>th</sup> position regardless of ranking.

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**TABLE 15C: MOST PREVALENT DISQUALIFICATION (DQ) TYPES AT MEPS MEDICAL EXAMINATION WITHIN LEADING DISABILITY BODY SYSTEM CATEGORIES: MARINE CORPS, FY 2013-2017 vs. FY 2018**

2013-2017			2018		
	n	% <sup>1</sup>		n	% <sup>1</sup>
<b>Total Disability Discharged</b>	<b>15,097</b>		<b>Total Disability Discharged</b>	<b>3,898</b>	
Musculoskeletal	206	1.4	Weight	70	1.8
Weight	201	1.3	Musculoskeletal	61	1.6
Psychiatric	132	0.9	Psychiatric	37	0.9
Any DQ	1,006	6.7	Any DQ	288	7.4
<b>Musculoskeletal Disability</b>	<b>8,993</b>		<b>Musculoskeletal Disability</b>	<b>2,229</b>	
Musculoskeletal	143	1.6	Weight	46	2.1
Weight	132	1.5	Musculoskeletal	42	1.9
Psychiatric	74	0.8	Vision	27	1.2
Any DQ	618	6.9	Any DQ	174	7.8
<b>Psychiatric Disability</b>	<b>4,155</b>		<b>Psychiatric Disability</b>	<b>1,140</b>	
Musculoskeletal	44	1.1	Psychiatric	18	1.6
Psychiatric	43	1.0	Musculoskeletal	16	1.4
Weight	35	0.8	Weight	12	1.1
Any DQ	230	5.5	Any DQ	73	6.4
<b>Neurological Disability</b>	<b>2,862</b>		<b>Neurological Disability</b>	<b>635</b>	
Musculoskeletal	34	1.2	Musculoskeletal	11	1.7
Vision	30	1.0	Weight	7	1.1
Weight	29	1.0	Respiratory	6	0.9
Neurological <sup>2</sup>	9	0.3	Neurological <sup>2</sup>	2	0.3
Any DQ	179	6.3	Any DQ	49	7.7

1. Percentages associated with disqualification categories at MEPS examination within each body system should be interpreted as the percent of Service members discharged with a specific disability type who had each specific disqualification 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 4<sup>th</sup> position regardless of ranking.

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**TABLE 15D: MOST PREVALENT DISQUALIFICATION (DQ) TYPES AT MEPS MEDICAL EXAMINATION WITHIN LEADING DISABILITY BODY SYSTEM CATEGORIES: AIR FORCE, FY 2013-2017 vs. FY 2018**

2013-2017			2018		
	n	% <sup>1</sup>		n	% <sup>1</sup>
<b>Total Disability Discharged</b>	<b>16,034</b>		<b>Total Disability Discharged</b>	<b>4,226</b>	
Musculoskeletal	210	1.3	Musculoskeletal	63	1.5
Vision	141	0.9	Vision	39	0.9
Psychiatric	85	0.5	Psychiatric	31	0.7
Any DQ	806	5.0	Any DQ	242	5.7
<b>Musculoskeletal Disability</b>	<b>8,463</b>		<b>Musculoskeletal Disability</b>	<b>1,804</b>	
Musculoskeletal	128	1.5	Musculoskeletal	41	2.3
Vision	73	0.9	Vision	14	0.8
Weight	42	0.5	Psychiatric	11	0.6
Any DQ	429	5.1	Any DQ	103	5.7
<b>Psychiatric Disability</b>	<b>4,511</b>		<b>Psychiatric Disability</b>	<b>1,800</b>	
Musculoskeletal	52	1.2	Vision	21	1.2
Vision	46	1.0	Musculoskeletal	18	1.0
Psychiatric	35	0.8	Psychiatric	13	0.7
Any DQ	223	4.9	Any DQ	98	5.4
<b>Neurological Disability</b>	<b>3,433</b>		<b>Neurological Disability</b>	<b>986</b>	
Musculoskeletal	39	1.1	Musculoskeletal	17	1.7
Psychiatric	13	0.4	Respiratory	7	0.7
Vision	13	0.4	Psychiatric	4	0.4
Neurological <sup>2</sup>	5	0.1	Neurological	4	0.4
Any disqualification	139	4.0	Any disqualification	55	5.6

1. Percentages associated with disqualification categories at MEPS examination within each body system should be interpreted as the percent of Service members discharged with a specific disability type who had each specific disqualification 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 4<sup>th</sup> position regardless of ranking.

## History of accession medical waiver among enlisted Service members evaluated for disability

Applicants with a permanent medical disqualification (PDQ) found during the MEPS medical examination must apply and be approved for an accession medical waiver from the service-specific waiver authority in order to enlist in that branch of service. Waiver records received by DESAR include information on medical waivers considered by each Service’s waiver authority from 1995 to the most recently completed fiscal year. Only waiver applications that occurred prior to the Service member’s MEB date were included in these analyses. In cases where more than one waiver record was available for an individual, only the most recent waiver record was included.

Table 16 shows the history of medical waiver application among enlisted Service members evaluated for disability by year of disability evaluation and service.

### Table 16 Key Findings:

- The overall prevalence of an accession medical waiver application generally remained stable over time and was highest in the Army (8%) and lowest in the Air Force (5%).

**TABLE 16:** HISTORY OF ACCESSION MEDICAL WAIVER APPLICATIONS AMONG ENLISTED SERVICE MEMBERS EVALUATED FOR DISABILITY BY YEAR OF DISABILITY EVALUATION: FY 2013-2018

	Army <sup>1</sup>			Navy			Marine Corps			Air Force		
	Waiver App	Total <sup>2</sup>	% <sup>3</sup>	Waiver App	Total <sup>2</sup>	% <sup>3</sup>	Waiver App	Total <sup>2</sup>	% <sup>3</sup>	Waiver App	Total <sup>2</sup>	% <sup>3</sup>
<b>2013</b>	1,426	17,475	8.2	128	2,205	5.8	153	2,609	5.9	113	2,972	3.8
<b>2014</b>	1,553	20,430	7.6	210	2,895	7.3	167	3,183	5.2	140	3,816	3.7
<b>2015</b>	2,181	27,665	7.9	224	3,297	6.8	190	3,099	6.1	147	4,072	3.6
<b>2016</b>	1,564	19,728	7.9	170	2,356	7.2	179	3,197	5.6	143	2,743	5.2
<b>2017</b>	856	10,745	8.0	258	3,523	7.3	241	4,265	5.7	173	3,238	5.3
<b>2018</b>	1,680	20,654	8.1	363	4,251	8.5	255	4,249	6.0	236	4,385	5.4
<b>Total</b>	<b>9,260</b>	<b>116,697</b>	<b>7.9</b>	<b>1,353</b>	<b>18,527</b>	<b>7.3</b>	<b>1,185</b>	<b>20,602</b>	<b>5.8</b>	<b>952</b>	<b>21,226</b>	<b>4.5</b>

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

2. Total: Enlisted Service members evaluated for disability

3. Percent of enlisted disability cases with a history of accession medical waiver application

The leading disqualifications considered for medical accession waivers among enlisted Service members evaluated for disability are shown in Tables 17A-17D.

### Tables 17A-D Key Findings:

- The most common medical waivers across all services and time periods were musculoskeletal conditions, sensory defects/disorders (vision, ears/hearing), history of allergic reaction, and asthma.
- In FY 2018, the rate of medical waiver considerations for history of allergic reaction increased in the Army, Navy, and Air Force.

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**TABLE 17A:** FIVE MOST COMMON DISQUALIFICATIONS CONSIDERED FOR ACCESSION MEDICAL WAIVERS AMONG ENLISTED SERVICE MEMBERS EVALUATED FOR DISABILITY: **ARMY**, FY 2013-2017 vs. FY 2018

2013-2017 <sup>1</sup>			2018		
DQ Category	n	%	DQ Category	n	%
Vision defects	731	9.6	Vision defects	235	14.0
Hearing loss and other sense organ disorders	668	8.8	Hx of allergic reaction	173	10.3
Hx of allergic reaction	485	6.4	Trauma-related joint disorders and dislocations	105	6.3
Trauma-related joint disorders and dislocations	400	5.3	Other non-traumatic joint disorders	94	5.6
Other circulatory disease	400	5.3	Hearing loss and other sense organ disorders	85	5.1
<b>Total Waiver Applications</b>	<b>7,580</b>		<b>Total Waiver Applications</b>	<b>1,680</b>	

DQ: Disqualification; Hx: History

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

**TABLE 17B:** FIVE MOST COMMON DISQUALIFICATIONS CONSIDERED FOR ACCESSION MEDICAL WAIVERS AMONG ENLISTED SERVICE MEMBERS EVALUATED FOR DISABILITY: **NAVY**, FY 2013-2017 vs. FY 2018

2013-2017			2018		
DQ Category	n	%	DQ Category	n	%
Vision defects	112	11.3	Vision defects	60	16.5
Hx of allergic reaction	100	10.1	Hx of allergic reaction	51	14.0
Trauma-related joint disorders and dislocations	73	7.4	Trauma-related joint disorders and dislocations	19	5.2
Other bone disease and musculoskeletal deformities	61	6.2	Asthma	18	5.0
Asthma	58	5.9	Hx of attention-deficit, conduct, and disruptive behavior disorders	12	3.3
<b>Total Waiver Applications</b>	<b>990</b>		<b>Total Waiver Applications</b>	<b>363</b>	

DQ: Disqualification; Hx: History

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**TABLE 17C:** FIVE MOST COMMON DISQUALIFICATIONS CONSIDERED FOR ACCESSION MEDICAL WAIVERS AMONG ENLISTED SERVICE MEMBERS EVALUATED FOR DISABILITY: **MARINE CORPS**, FY 2013-2017 vs. FY 2018

2013-2017			2018		
DQ Category	n	%	DQ Category	n	%
Hx of intentional self-inflicted injury	133	14.3	Hx of intentional self-inflicted injury	29	11.4
Other bone disease and musculoskeletal deformities	82	8.8	Other bone disease and musculoskeletal deformities	29	11.4
Hx of allergic reaction	80	8.6	Asthma	22	8.6
Asthma	79	8.5	Hx of allergic reaction	19	7.5
Pathological fracture	63	6.8	Hx of anxiety disorder	18	7.1
<b>Total Waiver Applications</b>	<b>930</b>		<b>Total Waiver Applications</b>	<b>255</b>	

DQ: Disqualification; Hx: History

**TABLE 17D:** FIVE MOST COMMON DISQUALIFICATIONS CONSIDERED FOR ACCESSION MEDICAL WAIVERS AMONG ENLISTED SERVICE MEMBERS EVALUATED FOR DISABILITY: **AIR FORCE**, FY 2013-2017 vs. FY 2018

2013-2017			2018		
DQ Category	n	%	DQ Category	n	%
Vision defects	123	17.2	Vision defects	36	15.3
Hx of allergic reaction	46	6.4	Other non-traumatic joint disorders	21	8.9
Hx of attention-deficit, conduct and disruptive behavior disorders	42	5.9	Hx of allergic reaction	18	7.6
Other non-traumatic joint disorders	41	5.7	Hx of attention-deficit, conduct and disruptive behavior disorders	16	6.8
Other nervous system disorders	38	5.3	Asthma	15	6.4
<b>Total Waiver Applications</b>	<b>716</b>		<b>Total Waiver Applications</b>	<b>236</b>	

DQ: Disqualification; Hx: History

The most prevalent accession medical waiver considerations overall and within each of the 3 leading disability body systems (musculoskeletal, psychiatric and neurological) are shown in Tables 18A-18D for each service. Only Service members discharged with a service-connected disability were included in these tables (i.e. fit and separated with benefits dispositions are excluded). Classification of a Service member's disability conditions into body system categories is not mutually exclusive. 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, waiver types within each body system are not mutually exclusive and a Service member is represented in multiple waiver categories if he/she has more than one type of medical waiver. Therefore, percentages associated with waiver types within each body system should be interpreted as the percent of Service members discharged with that specific waiver type within that specific disability body system.

### Tables 18A-D Key Findings:

- In all services, the leading reasons for waivers generally did not vary based on the body system evaluated for disability.
- Musculoskeletal and vision waivers were the most common medical waivers across all services and time periods.
- Similar to pre-accession medical disqualifications, little to no concordance was observed between accession medical waivers and the reason for disability evaluation for the three most common disability body systems.
  - Over all time periods, services and disability categories, less than 9% of DES cases had a history of any pre-accession medical waiver.
    - Less than 3% of discharges related to a musculoskeletal condition had a history of a pre-accession musculoskeletal waiver.
    - Less than 2% of discharges related to a psychiatric disorder had a history of a pre-accession psychiatric waiver.
    - Less than 1% of discharges related to a neurological condition had a history of a pre-accession neurological waiver.

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**TABLE 18A: MOST PREVALENT ACCESSION MEDICAL WAIVER TYPES WITHIN LEADING DISABILITY BODY SYSTEM CATEGORIES: ARMY, FY 2013-2017 vs. FY 2018**

2013-2017 <sup>1</sup>			2018		
	n	% <sup>2</sup>		n	% <sup>2</sup>
<b>Total Disability Discharged</b>	<b>95,511</b>		<b>Total Disability Discharged</b>	<b>20,438</b>	
Musculoskeletal	1,619	1.7	Musculoskeletal	365	1.8
Vision	956	1.0	Vision	272	1.3
Hearing	698	0.7	Psychiatric	130	0.6
Any Waiver	7,467	7.8	Any Waiver	1,659	8.1
<b>Musculoskeletal Disability</b>	<b>66,916</b>		<b>Musculoskeletal Disability</b>	<b>12,969</b>	
Musculoskeletal	1,307	2.0	Musculoskeletal	272	2.1
Vision	685	1.0	Vision	177	1.4
Hearing	482	0.7	Psychiatric	77	0.6
Any Waiver	5,381	8.0	Any Waiver	1,106	8.5
<b>Psychiatric Disability</b>	<b>38,370</b>		<b>Psychiatric Disability</b>	<b>8,748</b>	
Musculoskeletal	506	1.3	Musculoskeletal	117	1.3
Vision	306	0.8	Vision	95	1.1
Psychiatric	289	0.8	Psychiatric	57	0.7
Any Waiver	2,683	7.0	Any Waiver	601	6.9
<b>Neurological Disability</b>	<b>22,283</b>		<b>Neurological Disability</b>	<b>4,576</b>	
Musculoskeletal	340	1.5	Musculoskeletal	81	1.8
Hearing	188	0.8	Vision	49	1.1
Vision	182	0.8	Psychiatric	25	0.5
Neurological <sup>3</sup>	24	0.1	Neurological <sup>3</sup>	8	0.2
Any Waiver	1,687	7.6	Any Waiver	335	7.3

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

2. Percentages associated with waiver categories within each body system should be interpreted as the percent of Service members 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.

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**TABLE 18B: MOST PREVALENT ACCESSION MEDICAL WAIVER TYPES WITHIN LEADING DISABILITY BODY SYSTEM CATEGORIES: NAVY, FY 2013-2017 vs. FY 2018**

2013-2017			2018		
	n	% <sup>1</sup>		n	% <sup>1</sup>
<b>Total Disability Discharged</b>	<b>11,810</b>		<b>Total Disability Discharged</b>	<b>3,487</b>	
Musculoskeletal	223	1.9	Vision	64	1.8
Vision	129	1.1	Musculoskeletal	62	1.8
Psychiatric	67	0.6	Psychiatric	21	0.6
Any Waiver	843	7.1	Any Waiver	296	8.5
<b>Psychiatric Disability</b>	<b>3,954</b>		<b>Psychiatric Disability</b>	<b>1,465</b>	
Vision	47	1.2	Vision	34	2.3
Musculoskeletal	43	1.1	Musculoskeletal	21	1.4
Psychiatric	26	0.7	Psychiatric	14	1.0
Any Waiver	270	6.8	Any Waiver	131	8.9
<b>Musculoskeletal Disability</b>	<b>4,914</b>		<b>Musculoskeletal Disability</b>	<b>1,296</b>	
Musculoskeletal	137	2.8	Musculoskeletal	29	2.2
Vision	52	1.1	Vision	20	1.5
Respiratory	27	0.5	Psychiatric	7	0.5
Any Waiver	376	7.7	Any Waiver	109	8.4
<b>Neurological Disability</b>	<b>2,213</b>		<b>Neurological Disability</b>	<b>679</b>	
Musculoskeletal	36	1.6	Musculoskeletal	16	2.4
Vision	27	1.2	Vision	11	1.6
Psychiatric	16	0.7	Dermatological	4	0.6
Neurological <sup>2</sup>	3	0.1	Neurological <sup>2</sup>	0	0.0
Any Waiver	168	7.6	Any Waiver	58	8.5

1. Percentages associated with waiver categories within each body system should be interpreted as the percent of Service members 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.

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**TABLE 18C: MOST PREVALENT ACCESSION MEDICAL WAIVER TYPES WITHIN LEADING DISABILITY BODY SYSTEM CATEGORIES: MARINE CORPS, FY 2013-2017 vs. FY 2018**

2013-2017			2018		
	n	% <sup>1</sup>		n	% <sup>1</sup>
<b>Total Disability Discharged</b>	<b>15,097</b>		<b>Total Disability Discharged</b>	<b>3,898</b>	
Musculoskeletal	191	1.3	Musculoskeletal	58	1.5
Vision	128	0.8	Vision	38	1.0
Psychiatric	111	0.7	Psychiatric	35	0.9
Any Waiver	847	5.6	Any Waiver	228	5.8
<b>Musculoskeletal Disability</b>	<b>8,993</b>		<b>Musculoskeletal Disability</b>	<b>2,229</b>	
Musculoskeletal	138	1.5	Musculoskeletal	42	1.9
Vision	74	0.8	Vision	27	1.2
Psychiatric	66	0.7	Psychiatric	15	0.7
Any Waiver	525	5.8	Any Waiver	141	6.3
<b>Psychiatric Disability</b>	<b>4,155</b>		<b>Psychiatric Disability</b>	<b>1,140</b>	
Musculoskeletal	51	1.2	Musculoskeletal	15	1.3
Psychiatric	30	0.7	Psychiatric	14	1.2
Vision	27	0.6	Vision	10	0.9
Any Waiver	202	4.9	Any Waiver	59	5.2
<b>Neurological Disability</b>	<b>2,862</b>		<b>Neurological Disability</b>	<b>635</b>	
Musculoskeletal	30	1.0	Musculoskeletal	7	1.1
Vision	30	1.0	Hearing	6	0.9
Psychiatric	24	0.8	Respiratory	5	0.8
Neurological <sup>2</sup>	0	0.0	Neurological <sup>2</sup>	1	0.2
Any Waiver	158	5.5	Any Waiver	45	7.1

1. Percentages associated with waiver categories within each body system should be interpreted as the percent of Service members 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.

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**TABLE 18D: MOST PREVALENT ACCESSION MEDICAL WAIVER TYPES WITHIN LEADING DISABILITY BODY SYSTEM CATEGORIES: AIR FORCE, FY 2013-2017 vs. FY 2018**

2013-2017			2018		
	n	% <sup>1</sup>		n	% <sup>1</sup>
<b>Total Disability Discharged</b>	<b>16,034</b>		<b>Total Disability Discharged</b>	<b>4,226</b>	
Musculoskeletal	145	0.9	Musculoskeletal	48	1.1
Vision	132	0.8	Vision	39	0.9
Psychiatric	91	0.6	Psychiatric	33	0.8
Any Waiver	665	4.1	Any Waiver	220	5.2
<b>Musculoskeletal Disability</b>	<b>8,463</b>		<b>Musculoskeletal Disability</b>	<b>1,804</b>	
Vision	100	1.2	Vision	29	1.6
Psychiatric	62	0.7	Psychiatric	16	0.9
Musculoskeletal	36	0.4	Musculoskeletal	11	0.6
Any Waiver	362	4.3	Any Waiver	102	5.7
<b>Psychiatric Disability</b>	<b>4,511</b>		<b>Psychiatric Disability</b>	<b>1,800</b>	
Musculoskeletal	47	1.0	Musculoskeletal	17	0.9
Vision	34	0.8	Vision	15	0.8
Psychiatric	29	0.6	Psychiatric	13	0.7
Any Waiver	188	4.2	Any Waiver	83	4.6
<b>Neurological Disability</b>	<b>3,433</b>		<b>Neurological Disability</b>	<b>986</b>	
Musculoskeletal	23	0.7	Musculoskeletal	18	1.8
Psychiatric	14	0.4	Vision	5	0.5
Vision	11	0.3	Psychiatric	4	0.4
Neurological <sup>2</sup>	4	0.1	Neurological <sup>2</sup>	0	0.0
Any Waiver	112	3.3	Any Waiver	47	4.8

1. Percentages associated with waiver categories within each body system should be interpreted as the percent of Service members 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.

## History of hospitalization among active duty Service members evaluated for disability

Hospitalization records received by DESAR include data on direct care inpatient stays among active duty Service members from 1995 through 2018. The following tables describe hospitalizations which occurred within one year prior to a Service member's first disability evaluation. Only the primary diagnoses listed in hospitalization records prior to the Service member's MEB date were utilized in the creation of these tables. Table 19 shows the number and percentage of Service members with a history of hospitalization by year of disability evaluation and service.

### Table 19 Key Findings:

- Overall hospitalization rates within one year prior to disability evaluation among active duty Service members evaluated for disability were highest in the Navy (21%) and lowest in the Air Force (9%).
  - From FY 2013 through FY 2018, the prevalence of hospitalization among those evaluated for disability remained relatively stable for all services.

**TABLE 19: HISTORY OF HOSPITALIZATION WITHIN ONE YEAR OF DISABILITY EVALUATION BY YEAR OF DISABILITY EVALUATION: FY 2013-2018**

	Army <sup>1</sup>			Navy			Marine Corps			Air Force		
	Hosp	Total <sup>2</sup>	% <sup>3</sup>	Hosp	Total <sup>2</sup>	% <sup>3</sup>	Hosp	Total <sup>2</sup>	% <sup>3</sup>	Hosp	Total <sup>2</sup>	% <sup>3</sup>
<b>2013</b>	1,650	14,501	11.4	490	2,219	22.1	436	2,537	17.2	263	2,761	9.5
<b>2014</b>	1,773	15,486	11.4	640	2,976	21.5	505	3,119	16.2	361	3,534	10.2
<b>2015</b>	2,811	22,564	12.5	795	3,352	23.7	504	3,076	16.4	343	3,501	9.8
<b>2016</b>	2,204	16,757	13.2	446	2,422	18.4	437	3,172	13.8	200	2,791	7.2
<b>2017</b>	1,224	9,613	12.7	769	3,682	20.9	682	4,269	16.0	234	3,241	7.2
<b>2018</b>	2,410	18,076	13.3	861	4,386	19.6	657	4,251	15.5	379	4,149	9.1
<b>Total</b>	<b>12,072</b>	<b>96,997</b>	<b>12.4</b>	<b>4,001</b>	<b>19,037</b>	<b>21.0</b>	<b>3,221</b>	<b>20,424</b>	<b>15.8</b>	<b>1,780</b>	<b>19,977</b>	<b>8.9</b>

Hosp: Number Hospitalized

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

2. Total: Active Duty Service members evaluated for disability.

3. Percent of disability cases with a hospitalization.

Tables 20A-20D present the most common primary diagnoses at hospitalizations occurring within 1 year prior to first disability evaluation by Service and year of disability evaluation.

### Tables 20A-D Key Findings:

- Psychiatric disorders were the leading reasons for hospitalization occurring within six months prior first disability evaluation in all services across both time periods. This is similar to hospitalizations among the general active duty population [9].
- In FY 2018, the percentage of Service members hospitalized for mood disorders and adjustment disorders increased in all services, compared to the previous time period.
- Spondylosis/intervertebral disc disorders were common within hospitalizations occurring within six months prior to first disability evaluation.

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**TABLE 20A:** FIVE MOST COMMON PRIMARY DIAGNOSES FOR HOSPITALIZATIONS AMONG ACTIVE DUTY SERVICE MEMBERS EVALUTED FOR DISABILITY DISCHARGE: **ARMY**, FY 2013-2017 vs. FY 2018

2013-2017 <sup>1</sup>			2018		
Diagnosis Category	n	%	Diagnosis Category	n	%
Mood disorders	1,386	14.3	Mood disorders	496	20.6
Anxiety disorders	1,090	11.3	Adjustment disorders	366	15.2
Adjustment disorders	891	9.2	Anxiety disorders	332	13.8
Spondylosis; intervertebral disc disorders; other back problems	498	5.2	Alcohol-related disorders	130	5.4
Alcohol-related disorders	453	4.7	Schizophrenia and other psychotic disorders	93	3.9
<b>Total DES Hospitalized</b>	<b>9,662</b>		<b>Total DES Hospitalized</b>	<b>2,410</b>	

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

**TABLE 20B:** FIVE MOST COMMON PRIMARY DIAGNOSES FOR HOSPITALIZATIONS AMONG ACTIVE DUTY SERVICE MEMBERS EVALUTED FOR DISABILITY DISCHARGE: **NAVY**, FY 2013-2017 vs. FY 2018

2013-2017			2018		
Diagnosis Category	n	%	Diagnosis Category	n	%
Mood disorders	691	22.0	Mood disorders	205	23.8
Anxiety disorders	286	9.1	Anxiety disorders	101	11.7
Schizophrenia and other psychotic disorders	235	7.5	Adjustment disorders	87	10.1
Adjustment disorders	223	7.1	Schizophrenia and other psychotic disorders	59	6.9
Alcohol-related disorders	159	5.1	Alcohol-related disorders	37	4.3
<b>Total DES Hospitalized</b>	<b>3,140</b>		<b>Total DES Hospitalized</b>	<b>861</b>	

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**TABLE 20C:** FIVE MOST COMMON PRIMARY DIAGNOSES FOR HOSPITALIZATIONS AMONG ACTIVE DUTY SERVICE MEMBERS EVALUTED FOR DISABILITY DISCHARGE: **MARINE CORPS**, FY 2013-2017 vs. FY 2018

2013-2017			2018		
Diagnosis Category	n	%	Diagnosis Category	n	%
Mood disorders	367	14.3	Mood disorders	110	16.7
Anxiety disorders	264	10.3	Anxiety disorders	63	9.6
Adjustment disorders	147	5.7	Adjustment disorders	59	9.0
Schizophrenia and other psychotic disorders	124	4.8	Schizophrenia and other psychotic disorders	35	5.3
Spondylosis; intervertebral disc disorders; other back problems	105	4.1	Spondylosis; intervertebral disc disorders; other back problems	31	4.7
<b>Total DES Hospitalized</b>	<b>2,564</b>		<b>Total DES Hospitalized</b>	<b>657</b>	

**TABLE 20D:** FIVE MOST COMMON PRIMARY DIAGNOSES FOR HOSPITALIZATIONS AMONG ACTIVE DUTY SERVICE MEMBERS EVALUTED FOR DISABILITY DISCHARGE: **AIR FORCE**, FY 2013-2017 vs. FY 2018

2013-2017			2018		
Diagnosis Category	n	%	Diagnosis Category	n	%
Mood disorders	282	20.1	Mood disorders	110	29.0
Schizophrenia and other psychotic disorders	88	6.3	Adjustment disorders	48	12.7
Anxiety disorders	77	5.5	Anxiety disorders	38	10.0
Spondylosis; intervertebral disc disorders; other back problems	72	5.1	Schizophrenia and other psychotic disorders	26	6.9
Adjustment disorders	64	4.6	Alcohol-related disorders	19	5.0
<b>Total DES Hospitalized</b>	<b>1,401</b>		<b>Total DES Hospitalized</b>	<b>379</b>	

The body system categories for the most prevalent primary medical diagnoses at hospitalization within the three most common disability categories for each Service are shown in Tables 21A-21D. Only Service members who were discharged with a service-connected disability were included in these tables (e.g. fit and separated without benefits dispositions are excluded). Classification of a Service member's disability conditions into body system categories is not mutually exclusive and 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, body system categories at hospitalization are not mutually exclusive and a Service member is represented in multiple body system categories if he/she has 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).

### Tables 21A-D Key Findings:

- In both time periods, psychiatric disorders were the most common reason for hospitalization among disability discharged active duty Service members across all services.
- Across all services and time periods, rates of any hospitalization were lowest in those discharged with a musculoskeletal condition (4%-13%), and highest in those discharged with a psychiatric disorder (15%-36%).
- More concordance was observed between the reason for hospitalization and the reason for disability discharge than was observed with either medical disqualifications (Tables 15A-D) or waivers (Tables 18A-D).
  - Over all time periods, services and disability categories, 9% to 22% of DES cases had been hospitalized at an MTF within one year prior to disability evaluation.
    - 10%-28% of Service members discharged for a psychiatric disorder had been hospitalized for a psychiatric disorder.
    - 1%-5% of Service members discharged for a musculoskeletal condition had been hospitalized for a musculoskeletal condition.
    - 2%-7% of Service members discharged for a neurological condition had been hospitalized for a neurological condition.

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**TABLE 21A: MOST PREVALENT HOSPITALIZATION BODY SYSTEM CATEGORIES WITHIN LEADING DISABILITY BODY SYSTEM CATEGORIES: ARMY, FY 2013-2017 vs. FY 2018**

2013-2017 <sup>1</sup>			2018		
	n	% <sup>2</sup>		n	% <sup>2</sup>
<b>Total Disability Discharged</b>	<b>78,451</b>		<b>Total Disability Discharged</b>	<b>17,848</b>	
Psychiatric	3,487	4.4	Psychiatric	1,187	6.7
Musculoskeletal	1,368	1.7	Musculoskeletal	260	1.5
Neurological	667	0.9	Neurological	151	0.8
Any Hospitalization	9,547	12.2	Any Hospitalization	2,364	13.2
<b>Musculoskeletal Disability</b>	<b>55,286</b>		<b>Musculoskeletal Disability</b>	<b>11,325</b>	
Musculoskeletal	1,267	2.3	Psychiatric	286	2.5
Psychiatric	1,193	2.2	Musculoskeletal	210	1.9
Neurological	353	0.6	Neurological	65	0.6
Any Hospitalization	5,160	9.3	Any Hospitalization	939	8.3
<b>Psychiatric Disability</b>	<b>29,130</b>		<b>Psychiatric Disability</b>	<b>7,176</b>	
Psychiatric	3,069	10.5	Psychiatric	1,081	15.1
Substance Abuse	410	1.4	Substance Abuse	123	1.7
Musculoskeletal	381	1.3	Musculoskeletal	88	1.2
Any Hospitalization	5,245	18.0	Any Hospitalization	1,577	22.0
<b>Neurological Disability</b>	<b>17,882</b>		<b>Neurological Disability</b>	<b>4,054</b>	
Psychiatric	490	2.7	Psychiatric	159	3.9
Musculoskeletal	396	2.2	Neurological	96	2.4
Neurological	350	2.0	Musculoskeletal	80	2.0
Any Hospitalization	2,176	12.2	Any Hospitalization	464	11.4

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

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

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**TABLE 21B: MOST PREVALENT HOSPITALIZATION BODY SYSTEM CATEGORIES WITHIN LEADING DISABILITY BODY SYSTEM CATEGORIES: NAVY, FY 2013-2017 vs. FY 2018**

2013-2017			2018		
	n	% <sup>1</sup>		n	% <sup>1</sup>
<b>Total Disability Discharged</b>	<b>12,032</b>		<b>Total Disability Discharged</b>	<b>3,587</b>	
Psychiatric	1,254	10.4	Psychiatric	401	11.2
Musculoskeletal	288	2.4	Neurological	66	1.8
Neurological	247	2.1	Musculoskeletal	52	1.4
Any Hospitalization	2,693	22.4	Any Hospitalization	749	20.9
<b>Psychiatric Disability</b>	<b>4,044</b>		<b>Psychiatric Disability</b>	<b>1,534</b>	
Psychiatric	1,115	27.6	Psychiatric	371	24.2
Substance Abuse	104	2.6	Substance Abuse	31	2.0
Neurological	65	1.6	Neurological	16	1.0
Any Hospitalization	1,438	35.6	Any Hospitalization	477	31.1
<b>Musculoskeletal Disability</b>	<b>4,864</b>		<b>Musculoskeletal Disability</b>	<b>1,313</b>	
Musculoskeletal	236	4.9	Psychiatric	38	2.9
Psychiatric	108	2.2	Musculoskeletal	36	2.7
Neurological	56	1.2	Neurological	16	1.2
Any Hospitalization	620	12.7	Any Hospitalization	129	9.8
<b>Neurological Disability</b>	<b>2,278</b>		<b>Neurological Disability</b>	<b>706</b>	
Neurological	169	7.4	Neurological	41	5.8
Psychiatric	72	3.2	Psychiatric	31	4.4
Musculoskeletal	56	2.5	Musculoskeletal	10	1.4
Any Hospitalization	455	20.0	Any Hospitalization	126	17.8

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

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**TABLE 21C: MOST PREVALENT HOSPITALIZATION BODY SYSTEM CATEGORIES WITHIN LEADING DISABILITY BODY SYSTEM CATEGORIES: MARINE CORPS, FY 2013-2017 vs. FY 2018**

2013-2017			2018		
	n	% <sup>1</sup>		n	% <sup>1</sup>
<b>Total Disability Discharged</b>	<b>14,891</b>		<b>Total Disability Discharged</b>	<b>3,906</b>	
Psychiatric	795	5.3	Psychiatric	248	6.3
Musculoskeletal	494	3.3	Musculoskeletal	132	3.4
Neurological	237	1.6	Neurological	40	1.0
Any Hospitalization	2,374	15.9	Any Hospitalization	607	15.5
<b>Musculoskeletal Disability</b>	<b>8,812</b>		<b>Musculoskeletal Disability</b>	<b>2,218</b>	
Musculoskeletal	448	5.1	Musculoskeletal	118	5.3
Psychiatric	142	1.6	Psychiatric	41	1.8
Neurological	108	1.2	Neurological	14	0.6
Any Hospitalization	1,069	12.1	Any Hospitalization	231	10.4
<b>Psychiatric Disability</b>	<b>4,087</b>		<b>Psychiatric Disability</b>	<b>1,145</b>	
Psychiatric	679	16.6	Psychiatric	212	18.5
Musculoskeletal	57	1.4	Musculoskeletal	20	1.7
Substance Abuse	57	1.4	Substance Abuse	19	1.7
Any Hospitalization	1,003	24.5	Any Hospitalization	286	25.0
<b>Neurological Disability</b>	<b>2,836</b>		<b>Neurological Disability</b>	<b>639</b>	
Neurological	123	4.3	Neurological	19	3.0
Psychiatric	90	3.2	Psychiatric	16	2.5
Musculoskeletal	70	2.5	Musculoskeletal	15	2.3
Any Hospitalization	454	16.0	Any Hospitalization	81	12.7

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

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**TABLE 21D: MOST PREVALENT HOSPITALIZATION BODY SYSTEM CATEGORIES WITHIN LEADING DISABILITY BODY SYSTEM CATEGORIES: AIR FORCE, FY 2013-2017 vs. FY 2018**

2013-2017			2018		
	n	% <sup>1</sup>		n	% <sup>1</sup>
<b>Total Disability Discharged</b>	<b>14,922</b>		<b>Total Disability Discharged</b>	<b>3,973</b>	
Psychiatric	460	3.1	Psychiatric	199	5.0
Musculoskeletal	143	1.0	Neurological	28	0.7
Neurological	140	0.9	Substance Abuse	22	0.6
Any Hospitalization	1,308	8.8	Any Hospitalization	365	9.2
<b>Musculoskeletal Disability</b>	<b>7,690</b>		<b>Musculoskeletal Disability</b>	<b>1,686</b>	
Musculoskeletal	105	1.4	Psychiatric	26	1.5
Psychiatric	60	0.8	Musculoskeletal	13	0.8
Neurological	47	0.6	Neurological	4	0.2
Any Hospitalization	404	5.3	Any Hospitalization	65	3.9
<b>Psychiatric Disability</b>	<b>4,100</b>		<b>Psychiatric Disability</b>	<b>1,679</b>	
Psychiatric	424	10.3	Psychiatric	186	11.1
Neurological	36	0.9	Substance Abuse	20	1.2
Substance Abuse	31	0.8	Neurological	13	0.8
Any Hospitalization	608	14.8	Any Hospitalization	256	15.2
<b>Neurological Disability</b>	<b>3,219</b>		<b>Neurological Disability</b>	<b>943</b>	
Neurological	82	2.5	Neurological	20	2.1
Musculoskeletal	52	1.6	Psychiatric	10	1.1
Psychiatric	34	1.1	Musculoskeletal	8	0.8
Any Hospitalization	291	9.0	Any Hospitalization	53	5.6

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

### Database Limitations

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The following data 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. Occupational classification has been associated with disability in both civilian and military literature and is essential to understanding the precise 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 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. Due to the use of both ICD-9 and ICD-10 codes during the time period of this report, DESAR categorized all ICD9/10 codes into clinically meaningful categories based on Clinical Classification Software (CCS) codes. CCS codes do not contain the level of detail available with ICD-9/10 codes.

LIMITATIONS

### Data Quality and Standardization Recommendations

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1. Accurate indicators of the medical conditions that result in disability rating are not available, precluding surveillance or evaluation of conditions which lead to disability. Though Veterans Affairs Schedule for Rating Disabilities (VASRD) codes are available, they are not diagnosis codes. To allow for more accurate surveillance of the burden of disability in the military, each Service's DES database should include one or more Medical Evaluation Board (MEB) diagnoses in the electronic disability record, in the form of text and ICD-9/10 codes.
2. Date of the underlying injury or onset of the condition is an important variable to consider when utilizing disability evaluation system data, allowing for the measurement of time elapsed from onset to MEB to Physical Evaluation Board (PEB) to discharge. Though healthcare utilization patterns can be determined from hospitalization and ambulatory data, the precise date of the event, onset of symptoms, or initial diagnosis is difficult to infer from the data available. Each Service should include additional variables to indicate date of onset of illness or injury of the medical condition for which a Service member is undergoing disability.
3. High utilization of analogous codes, particularly among Service members with musculoskeletal disabilities, and lack of formal MEB medical diagnosis in the electronic file, precludes the evaluation of the association of certain types of disability with specific medical conditions. In the absence of formal medical diagnoses that describe the disabling condition, expanding the VASRD codes, particularly musculoskeletal codes, may reduce the utilization of analogous codes and provide more complete information on the condition that precipitated the disability evaluation. This may be necessary for informing interventions to decrease disability.

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Flat icons for “Results at a Glance” graphic created by <https://www.flaticon.com/authors/freepik>.

### Special Studies

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#### **Variations in disabling conditions and rating based on deployment characteristics among Army, Navy, Marine Corps and Air Force Service members evaluated for disability discharge: FY 2013-2018**

##### **Background**

The impacts of deployment on the physical and mental health of military Service members is of continued interest to military policy makers. Studies have shown that Service members with a history of deployment in support of Overseas Contingency Operations (OCO) have higher rates of disability discharge and higher disability ratings than those who were never deployed (Connor et al 2016). Studies have also shown that the nature of recent deployments has given rise to an increase in mental health conditions (e.g. deployment to a combat zone increases the odds of mental health problems) (Bell et al 2011, Hoge et al 2006). The Disability Evaluation System Analysis and Research (DESAR) annual report findings corroborate a temporal trend in increased psychiatric and neurological conditions over the past six years of annual reporting (DESAR AR 2018).

The limited literature around military disability does not fully describe variations in disabling conditions based on differences in deployment such as length of deployment, number of deployments, and time spent deployed. Additionally, the DESAR annual reports have not historically included analysis of deployment factors. The purpose of this study is therefore to explore variations in the type of disabling conditions and rating of conditions by different deployment factors. Among Service members evaluated for disability, the most common unfitting conditions and distribution of ratings were compared between those with a history of deployment versus those who were not deployed in support of OCO. Characteristics of the deployed population were further explored to describe differences in the types and severity of conditions evaluated based on the number of times a Service member was deployed.

##### **Methods**

The study population includes all Army, Air Force, Navy and Marine Corps Service members evaluated for a disability between the years 2013 and 2018. Information on history of disability was acquired through Service-specific Disability Evaluation System (DES) databases. Disability evaluation records include demographic characteristics of the Service members at the time of disability evaluation as well as information pertaining to the disability evaluation including date of disposition determination, the conditions for which the Service member was deemed unfit for continued Service (defined using Veterans Administration Schedule of Rating Disabilities (VASRD) codes) and percent disability rating.

VASRD codes from the DES database were used as the basis for identifying disabling conditions. Each VASRD code assigned to a Service member is given a percentage rating which indicates the severity of the condition. The ratings for each code are combined to create a total and final rating for the Service member which will determine the amount of salary a Service member is paid upon discharge due to disability. Service members with disability evaluations rated at a combined total of less than 30% are usually separated from the military with a one-time severance payment. Service members evaluated at a total rating of 30% or higher are typically permanently retired from the military and receive a monthly disability payment for life. Final disposition indicates the outcome decision for evaluated Service members. Dispositions were grouped in the following categories: “fit to return to service”, “placement on the permanent retirement list (PDRL)”, ‘placement or retained on the temporary retirement list (TDRL)’, ‘separated with severance pay’, ‘separated without benefits’, and ‘other’ which may include administrative termination and transfer to the retired reserve.

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The *combat-related* measure found in the DES dataset indicates whether a disabling condition occurred due to combat-related activities. Typically, combat-related determination coincides with deployment but Service members can acquire combat-related injuries in non-deployment settings such as combat training.

Service members were classified as deployed or non-deployed based on presence of a deployment record provided by the Defense Manpower Data Center (DMDC). The number of deployments per Service member was ascertained by the number of unique records for each Service member. Only Service members deployed in support of OCO were included in this data; therefore, any other type of deployment (e.g. float deployment, relief effort) were not included. At the time of this study, FY 2018 OCO deployment data were unavailable.

Frequencies and percentages were calculated to determine the most commonly assigned VASRD codes and to compare the percentage of ratings greater or less than 30% between those Service members deployed and not deployed.

### Results

The study population was comprised of 188,692 Service members with a total of 218,033 evaluations for disability discharge. Approximately two-thirds of the population were deployed in support of OCO (Table 1). The Army had the largest proportion of deployed Service members (71%) while the Marine Corps had the lowest deployment rate (50%) (Table 1). A greater proportion of men than women were deployed (70% vs 48%).

In a comparison of characteristics related to disability evaluations, total combined ratings were, on average, higher for deployed than non-deployed Service members; the majority of deployed Service members (74%) received ratings of 30% or greater compared to approximately half (52%) of non-deployed (Table 1). In addition to receiving higher percent ratings, deployed Service members were assigned, on average, more VASRD codes than non-deployed (2.3 vs 1.8). Deployed Service members most frequently received a final disposition of permanent disability retirement (PDRL) (64%) while those non-deployed typically received a disposition of separated with severance pay (SWSP) (41%). Among the deployed Service members, 37% had conditions deemed related to combat compared to only 4% of non-deployed Service members. Deployed and non-deployed Service members were evaluated for disability, on average, only once, although deployed Service members had, on average, slightly more conditions (2.3) than non-deployed Service members (1.8)

Four of the five most commonly assigned VASRD categories were similar for both deployed and non-deployed Service members and were comprised of musculoskeletal conditions, particularly back disorders (Table 2). Although these four VASRD categories were common between both groups, higher rates were seen for deployed Service members among the back disorders. Post-traumatic stress disorder (PTSD) was assigned among 34% of those deployed and was the most commonly assigned code; whereas, among non-deployed, PTSD was assigned only 6% and was not one of the top five most common codes.

Comparisons by Service (results not shown) indicated approximately 75% of deployed Soldiers and Airmen and 65% of deployed Sailors and Marines were assigned a disability rating of 30% or higher. In addition, comparisons by Service of the most commonly assigned VASRDs among deployed Service members revealed a similar distribution to the most commonly assigned VASRD codes for all Services combined (Table 3) and were similar between services, with the exception of PTSD and major depressive disorder (MDD). The rate of PTSD was higher among Soldiers (40%) and Marines (31%) versus Sailors (14%) and Airmen (19%). Approximately 8% of Sailors and Airmen were disability discharged due to MDD, while MDD was not among the five most common reasons for disability discharge among Soldiers and Marines.

Further analyses were conducted to describe the relationships between disability evaluation characteristics and number of deployments. The average number of deployments in this population was 2.07, with approximately 44% deployed once, 30% deployed twice and 26% deployed three or more times (Figure 1). The rate of 30% or higher combined disability rating slightly increased as the number of deployments increased, ranging from 71% to 78% (Table 3). The most commonly assigned VASRD codes did not vary by number of deployments (results not shown).

### Discussion

These results show differences between deployed and non-deployed Service members in severity of disability ratings and, to a lesser extent, VASRD code assignments. Deployed Service members were evaluated for nearly double the number of VASRD codes than non-deployed Service members which may explain, at least in part, why total ratings and rates of permanent disability retirement were higher average for the deployed group. This finding is similar to previous research that found deployed Service members, regardless of occupation, had significantly more unfitting conditions than non-deployed Service members (Gubata et al, 2013).

The most commonly assigned VASRD codes were similar between the deployed and non-deployed groups but deployed Service members had notably higher rates of PTSD and slightly higher rates of back problems. This finding is similar to previous research as Xue et al, 2015 found that increased length and number of deployments as risk factors for PTSD development and Gubata et al, 2014 found that deployment was significantly associated with increased odds of back-related disability. Additionally, Packnett et al, 2012 found high rates of comorbid musculoskeletal conditions and back disorders among PTSD-related disability discharges, which also mirror the most common unfitting conditions among deployed personnel.

While these results indicate that deployment has an effect on disability ratings, they do not tell us whether deployed Service members are in fact sicker or whether other factors affect frequency and severity of rating (i.e. tendency of health providers and other evaluators to rate Service members higher because they know they were deployed). More research is recommended to better understand the relationships between deployment and disability discharge. Future studies could include assessing the relationship between deployment and VASRD code assignment, linking deployment to the combat-related determinations, and investigating the timing between deployment and disability evaluation.

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**TABLE 1: SERVICE, DEMOGRAPHIC AND DISABILITY CHARACTERISTICS OF ALL SERVICE MEMBERS EVALUATED FOR DISABILITY BETWEEN FY 2013-2018 BY DEPLOYMENT STATUS**

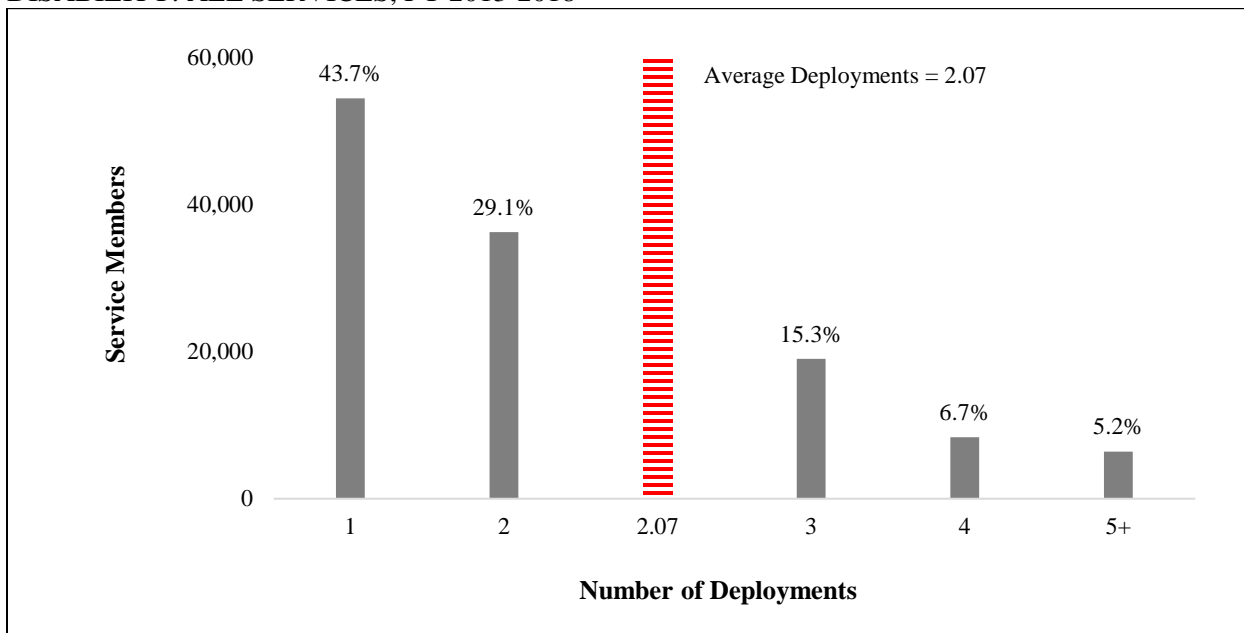
	<b>Deployed (n=124,406)</b>	<b>Non-deployed (n=64,286)</b>
<b>Service</b>	<b>%</b>	<b>%</b>
Army	71.1	29.0
Navy	54.0	46.0
Marine Corps	50.2	49.8
Air Force	62.4	37.6
<b>Sex</b>		
Male	70.3	29.7
Female	48.4	51.6
<b>Disability Rating Category<sup>1</sup></b>		
Less than 30%	25.7	47.0
30% or greater	73.6	51.9
<b>Final Disposition<sup>1</sup></b>		
Placed on PDRL	63.5	39.3
Separated with severance pay	20.7	40.6
Placed/Retained on TDRL	10.8	12.1
Fit/ Return to Duty	2.4	2.6
Other	2.2	3.4
Separated without benefits	0.3	2.0
<b>Combat Determination</b>		
Combat	37.4	4.4
Non-combat	54.2	86.4
Missing	8.4	9.2
<b>Average number of disability evaluations</b>	1.2	1.1
<b>Average number of assigned VASRD codes</b>	2.3	1.8

<sup>1</sup>Those with missing values are excluded from this table.

**TABLE 2: MOST FREQUENTLY ASSIGNED VASRD CODES AMONG DEPLOYED SERVICE MEMBERS WITH DISABILITY EVALUATIONS COMPARED TO THOSE NON-DEPLOYED: ALL SERVICES, FY 2013 - 2018**

<b>VASRD Code</b>	<b>Deployed (n=124,406)</b>	<b>Non-deployed (n=64,286)</b>
	<b>%</b>	<b>%</b>
PTSD	34.0	3.8
Intervertebral disc syndrome	15.5	10.2
Degenerative arthritis of the spine	14.9	8.7
Lumbosacral or cervical strain	12.0	9.5
Leg, limitation of flexion of	10.3	10.0

**FIGURE 1. NUMBER OF DEPLOYMENTS FOR SERVICE MEMBERS EVALUATED FOR DISABILITY: ALL SERVICES, FY 2013-2018**



**TABLE 3: PROPORTION OF 30% OR GREATER DISABILITY RATINGS AMONG DEPLOYED SERVICE MEMBERS WITH DISABILITY EVALUATIONS BY NUMBER OF DEPLOYMENTS: ALL SERVICES, FY 2013-2018**

Disability Rating Category	Number of Deployments		
	1 Deployment (n=54,096)	2 Deployments (n=36,020)	3+ Deployments (n=33,456)
	%	%	%
Less than 30% rating	29.3	24.3	22.0
30% or greater ratings	70.7	75.7	78.0

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