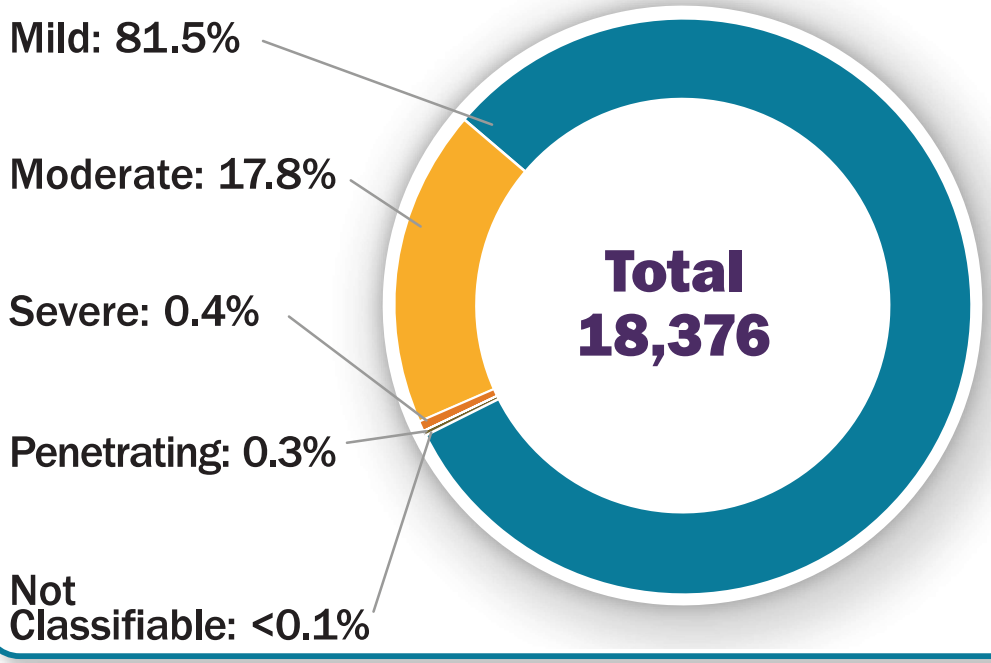
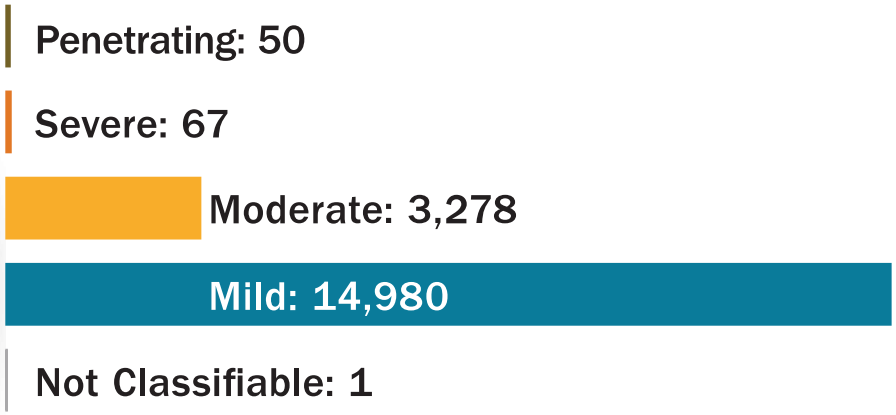
DOD Numbers for Traumatic Brain Injury Worldwide

2024





Source: Defense Medical Surveillance System, Theater Medical Data Store provided by the Armed Forces Health Surveillance Division.
Prepared by the Traumatic Brain Injury Center of Excellence.
*Percent may not add to 100% due to rounding.
2024, as of May 12, 2025

Definitions

Worldwide numbers represent medical diagnoses of TBI that occurred anywhere U.S. forces are located including the continental United States since 2000.

Mild TBI/concussion is characterized by the following: Confused or disoriented state which lasts less than 24 hours; or loss of consciousness for up to 30 minutes; or memory loss lasting less than 24 hours. Excludes penetrating TBI. A computed tomography scan is not indicated for most patients with a mild TBI. If obtained, it is normal.

Moderate TBI is characterized by the following: Confused or disoriented state which lasts more than 24 hours; or loss of consciousness for more than 30 minutes, but less than 24 hours; or memory loss lasting greater than 24 hours but less than seven days; or meets criteria for mild TBI except an abnormal CT scan is present. Excludes penetrating TBI. A structural brain imaging study may be normal or abnormal.

Severe TBI is characterized by the following: Confused or disoriented state which lasts more than 24 hours; or loss of consciousness for more than 24 hours; or memory loss for more than seven days. Excludes penetrating TBI. A structural brain imaging study may be normal but usually is abnormal.

Penetrating TBI, or open head injury, is characterized by the following: A head injury in which the scalp, skull and dura mater (the outer layer of the meninges) are penetrated. Penetrating injuries can be caused by high-velocity projectiles or objects of lower velocity such as knives, or bone fragments from a skull fracture that are driven into the brain.

Updates and Revisions

The Armed Forces Health Surveillance Division modified their data matching algorithms to improve data accuracy within the MHS Information Platform and implemented these changes on June 6, 2024. As a result, historical cases reported changed. The current report reflects up-to-date data from the AFHSD since 2000.

This report currently features deployment related data through December 2022 only. Report will be refreshed when data becomes available.

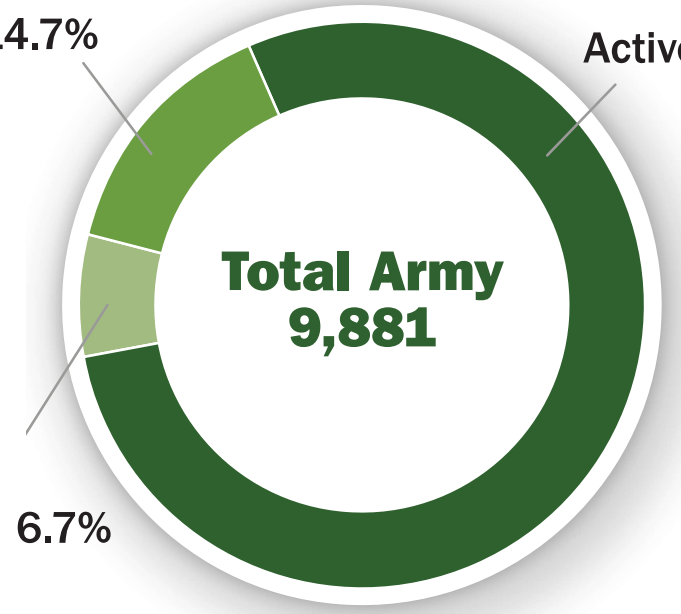
Effective March 2020, the AFHSD resumed the distribution of data from the Defense Medical Surveillance System used in this report. The current report reflects up-to-date data from the AFHSD since 2000.

From the second quarter of 2018 through the third quarter of 2019, AFHSD temporarily halted the distribution of the data used in this report and the Traumatic Brain Injury Center of Excellence used the MHS Data Repository to ensure this report was completed on a timely basis. While TBICoE used a different data source, the approach was consistent with the historical methodology.

Effective October 2015, the International Classification of Diseases was updated. With the improved information, more moderate traumatic brain injuries can be counted. Previously, some cases were categorized as “not classifiable” due to more limited surveillance information. Also in 2015, the Assistant Secretary of Defense clarified the TBI case definition. A subsequent review found that some of the remaining “not classifiable” cases were likely moderate TBI. This change will contribute to higher counts of moderate TBI surveillance cases.

DHA
Defense Health Agency ®

ARMY 2024



Penetrating: 28

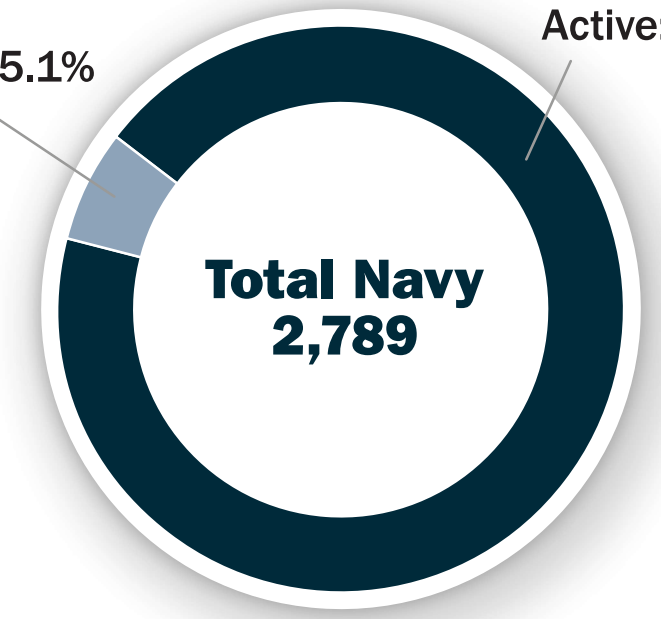
Severe: 38

Moderate: 1,699

Mild: 8,116

Not Classifiable: 0

NAVY 2024



Penetrating: 11

Severe: 14

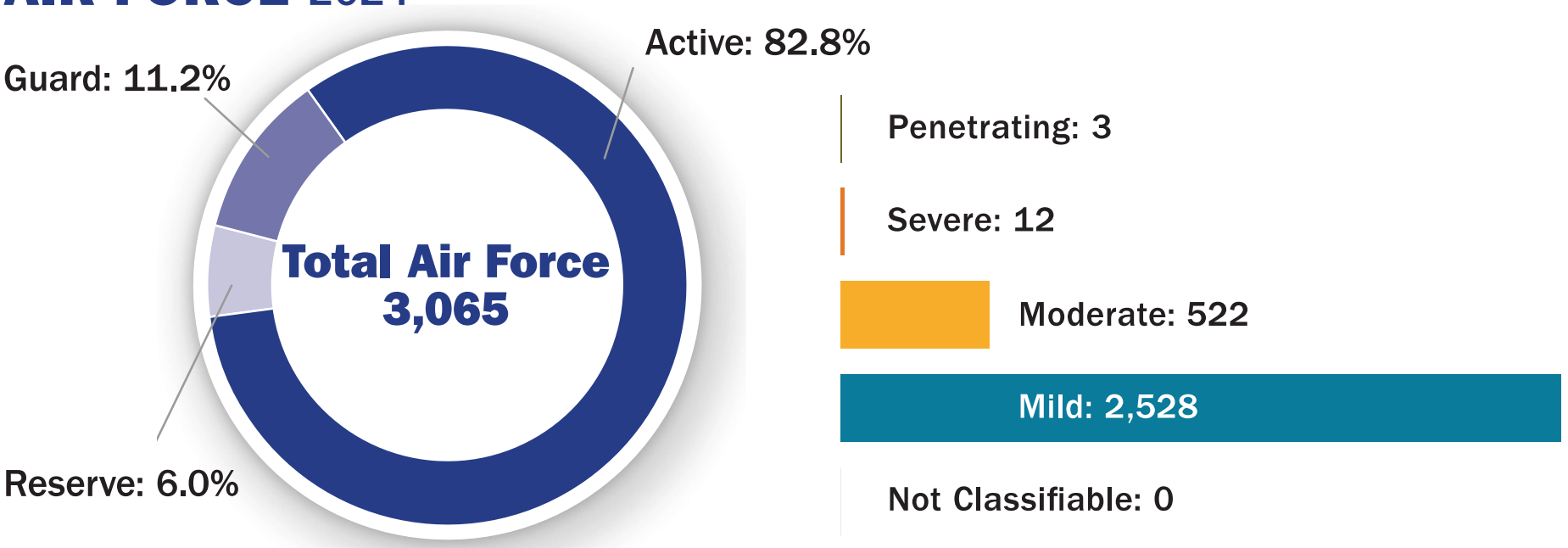
Moderate: 534

Mild: 2,229

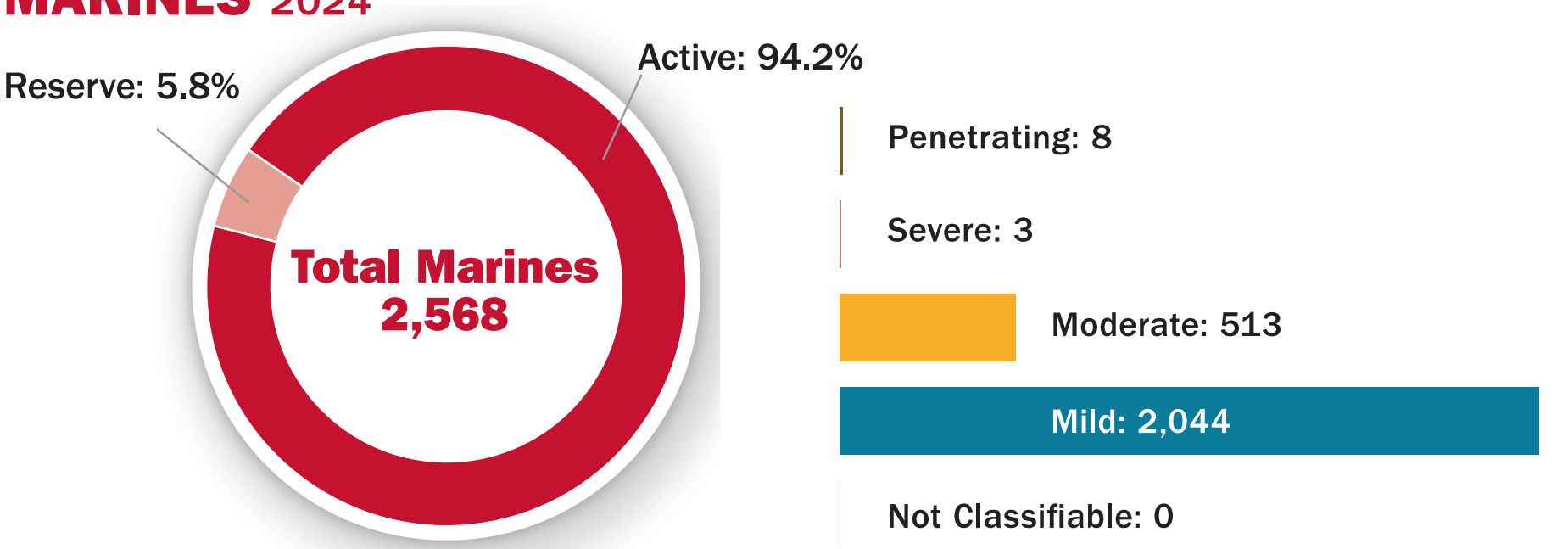
Not Classifiable: 1

DOD Worldwide TBI Numbers

AIR FORCE 2024

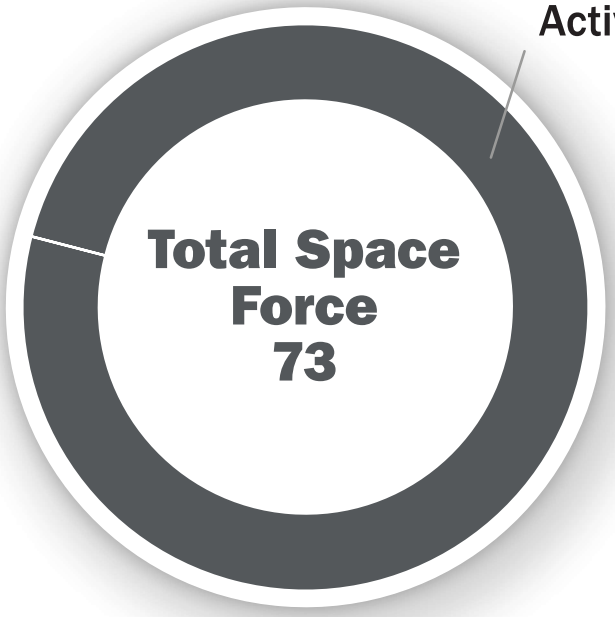


MARINES 2024



DOD Worldwide TBI Numbers

SPACE FORCE 2024



Penetrating: 0

Severe: 0

Moderate: 10

Mild: 63

Not Classifiable: 0