



**TEXAS**  
Health and Human  
Services

**Texas Department of State  
Health Services**

# Trauma Injury Severity Score and Length of Stay by Trauma Service Area (Texas 2020)

Prepared by the Office of Injury Prevention  
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# Introduction

- The data used are traumatic injuries reported by hospitals, which must report spinal cord injuries, traumatic brain injuries, and other traumatic injuries specified in Texas Administrative Code, Title 25, Chapter 103.
- This data report includes only records submitted into the registries through a passive surveillance system.
- Patients transferred between hospitals will result in more than one record in the registries since each hospital must independently submit a record to the registries.

# Methodology Notes

- Trauma variables were pulled and cleaned in June 2021.
- Total number of unique patient records received in the EMS/Trauma Registries = 137,826.
- Per epidemiology best practice, data is suppressed when there are less than 5 records to protect identifiable data.

# Trauma Variables

- Traumatic Service Area (TSA)
- Length of Stay (LOS)
- Injury Severity Score (ISS) Ranges used:
  - 0 (less severe);
  - 1-8;
  - 9-15;
  - 16-24; and
  - $\geq 25$ .



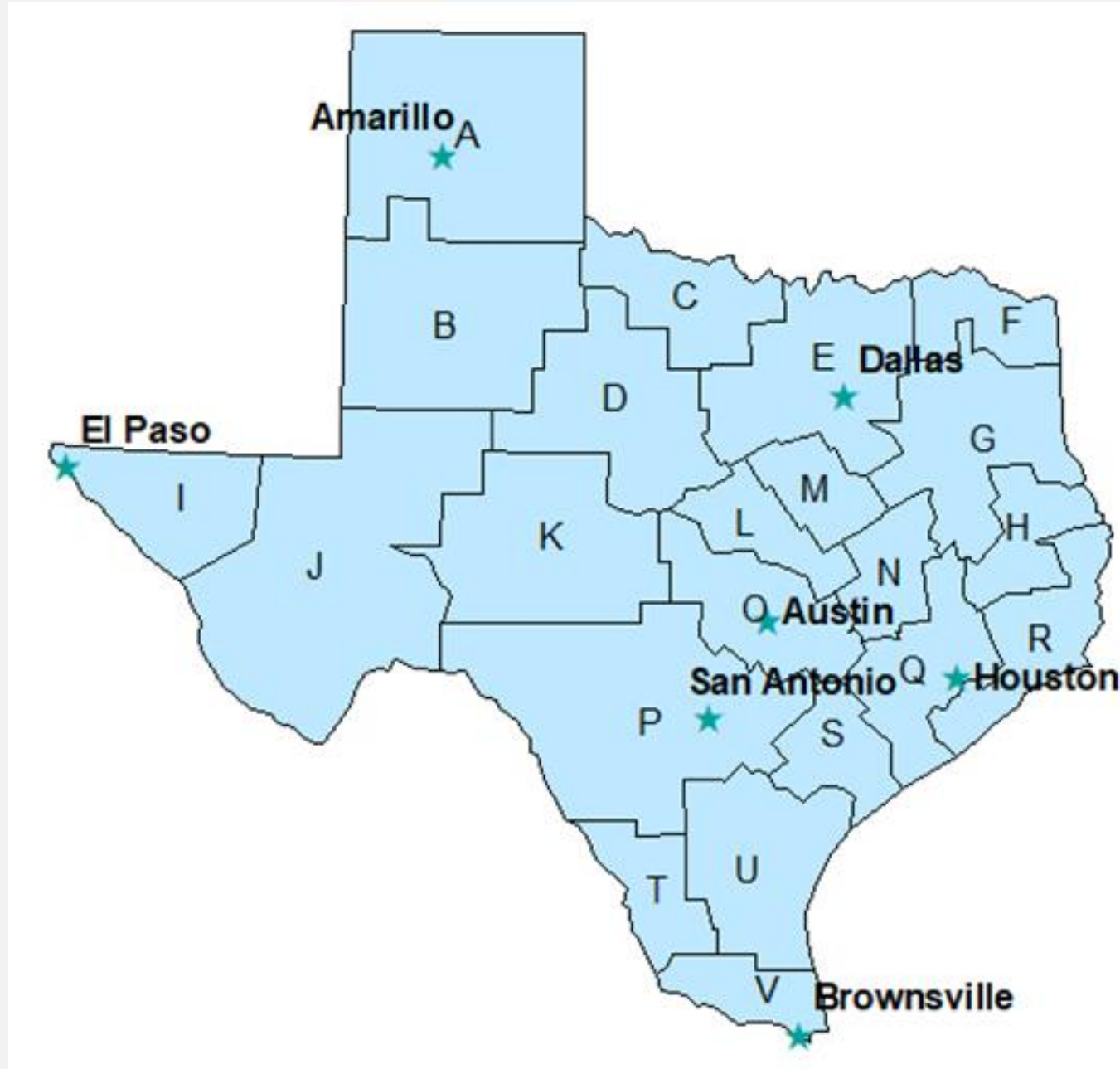
# Median and Average Length of Stay by Trauma Service Area



# Definitions

- Length of stay (LOS) is the duration of a single hospitalization episode. Inpatient days are calculated by subtracting day of admission from day of discharge.
- The median is the middle value when a data set is ordered from least to greatest.
- The mean / average of a data set is determined by adding all numbers in the data set and then dividing by the number of values in the set.

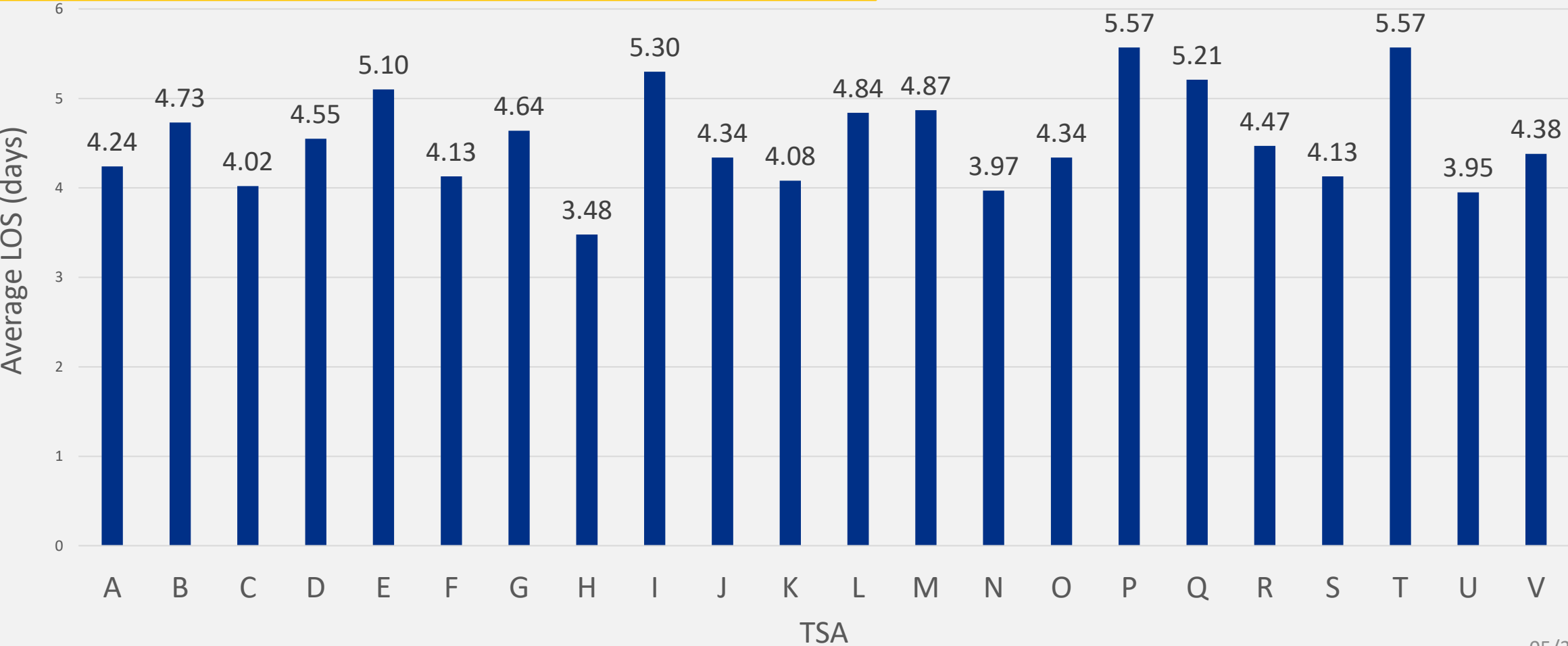
# Trauma Service Areas (TSA)





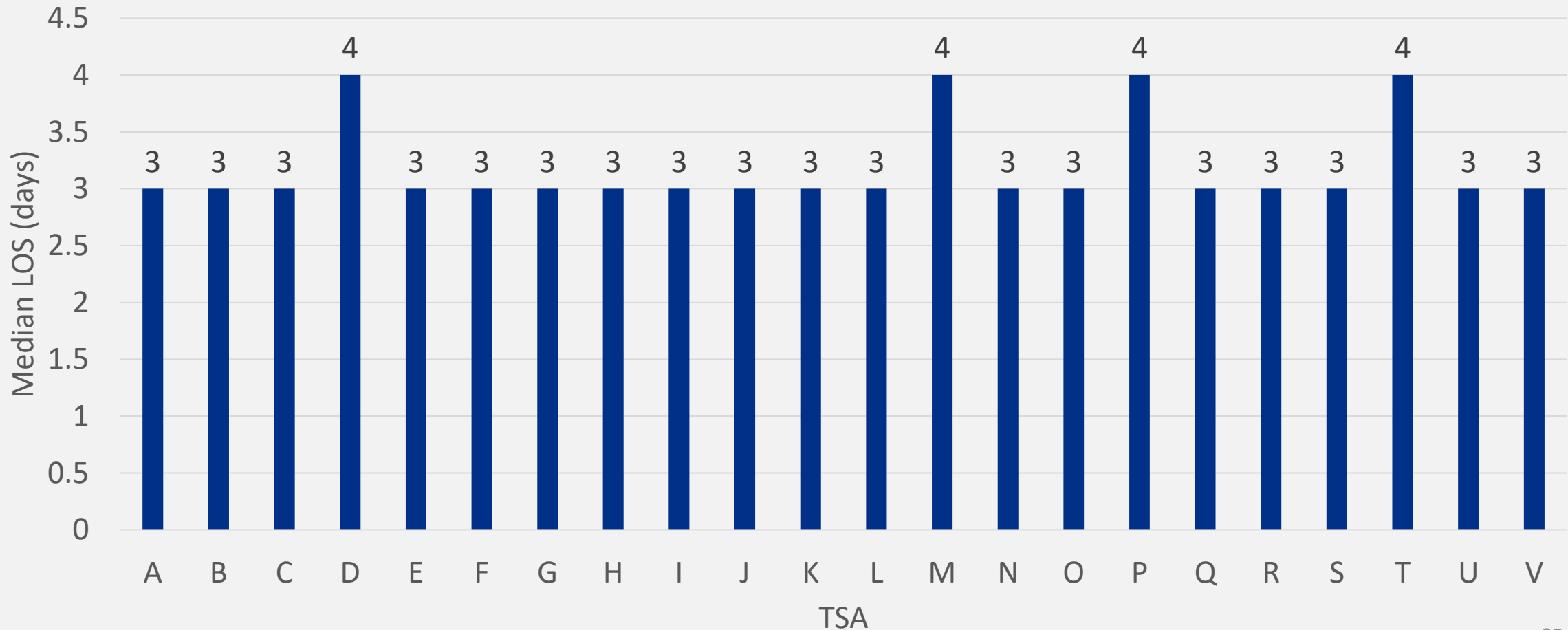
# 2020 – Mean / Average LOS by TSA

## N = 137,826



# 2020 - Median LOS by TSA

## N = 137,826



# Injury Severity Score by Trauma Service Area

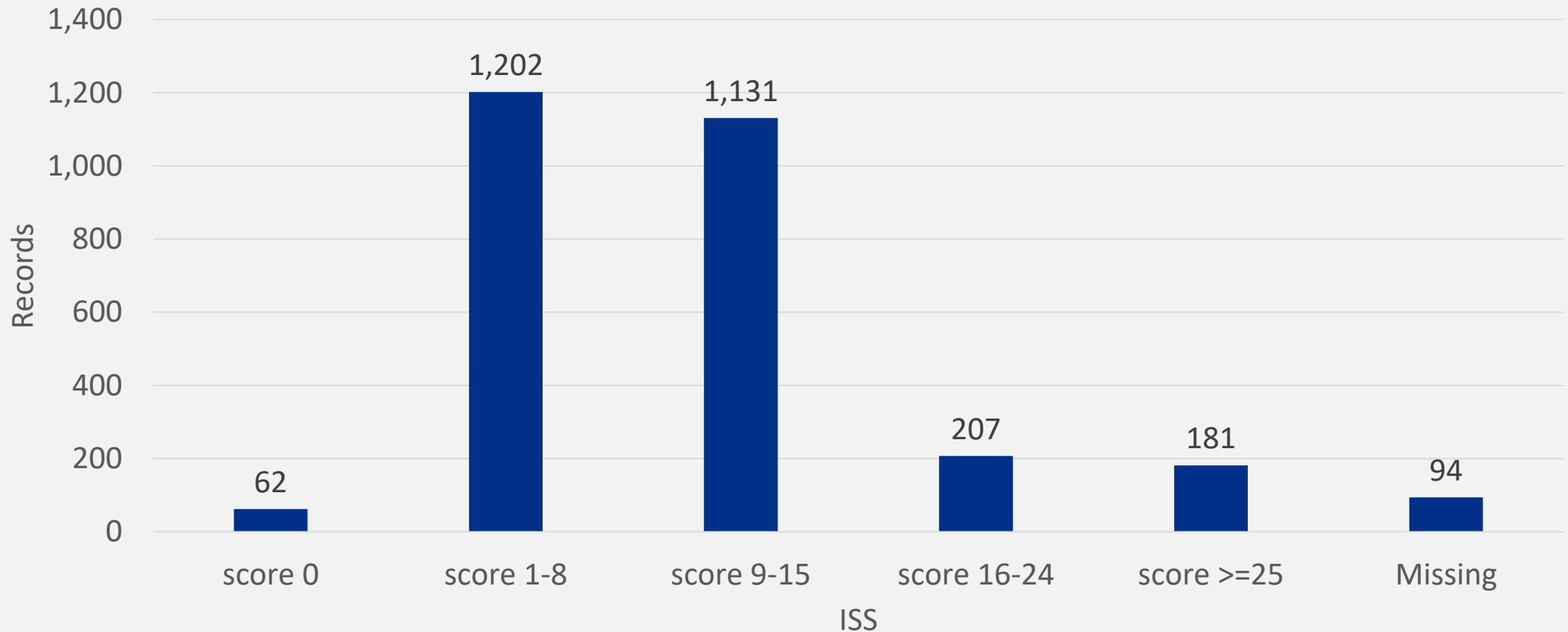


# Definition: Injury Severity Score

The Injury Severity Score (ISS) assesses the combined effects of patients with multiple injuries and is based on an anatomical injury severity classification known as the Abbreviated Injury Scale (AIS). AIS is an anatomically-based injury severity scoring system that classifies each injury by body region on a six-point scale.

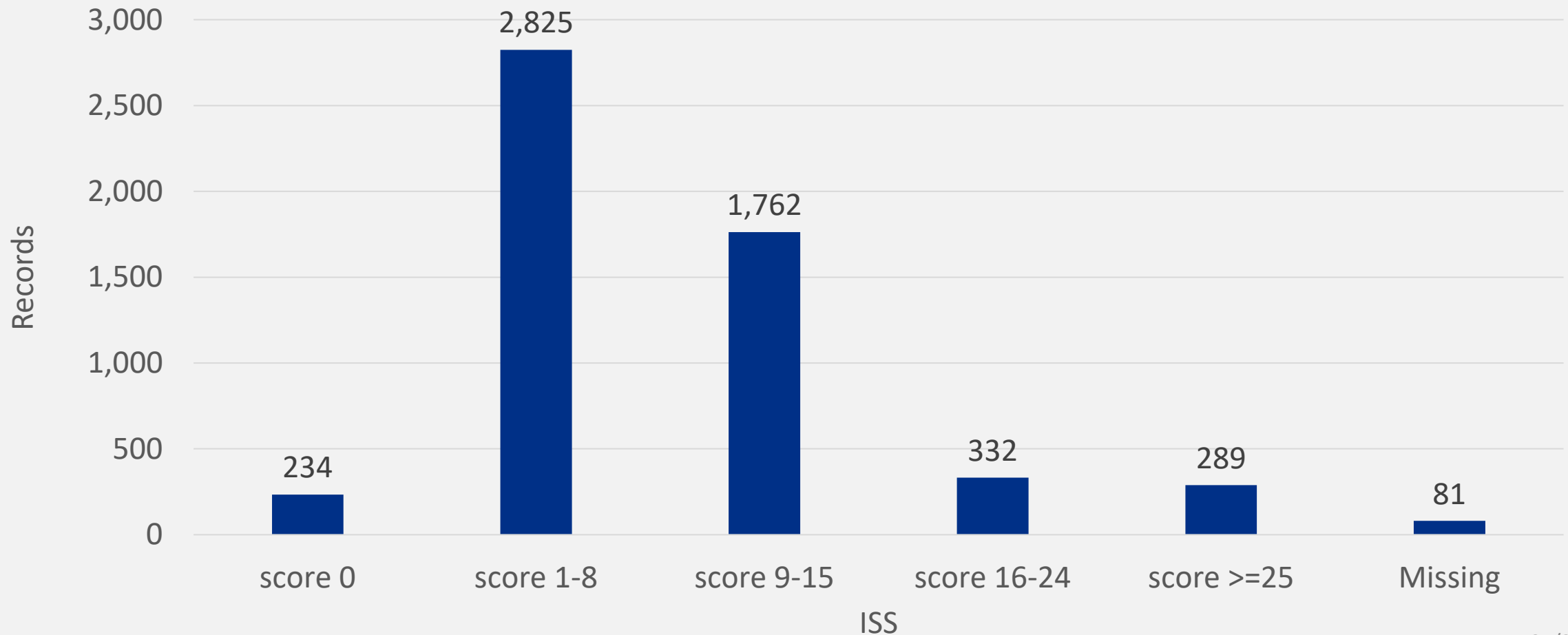
# 2020 - TSA A - ISS

## N = 2,877



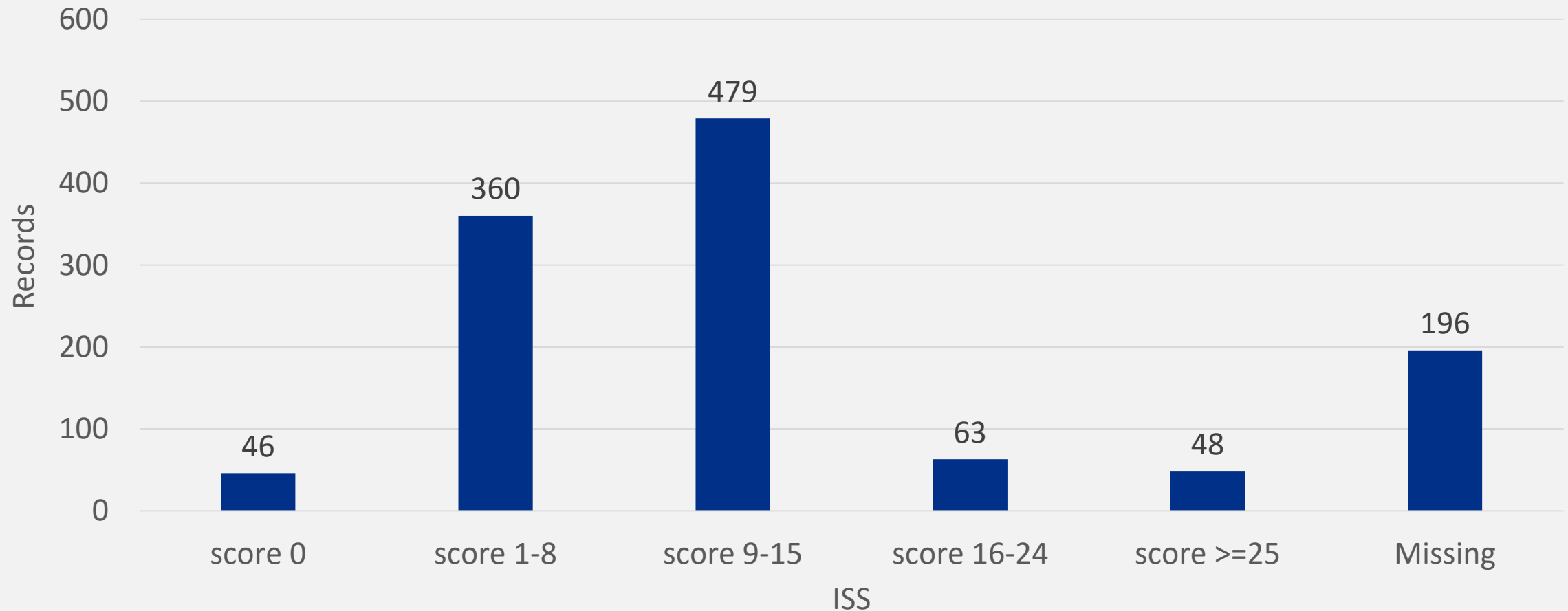
# 2020 - TSA B - ISS

## N = 5,523



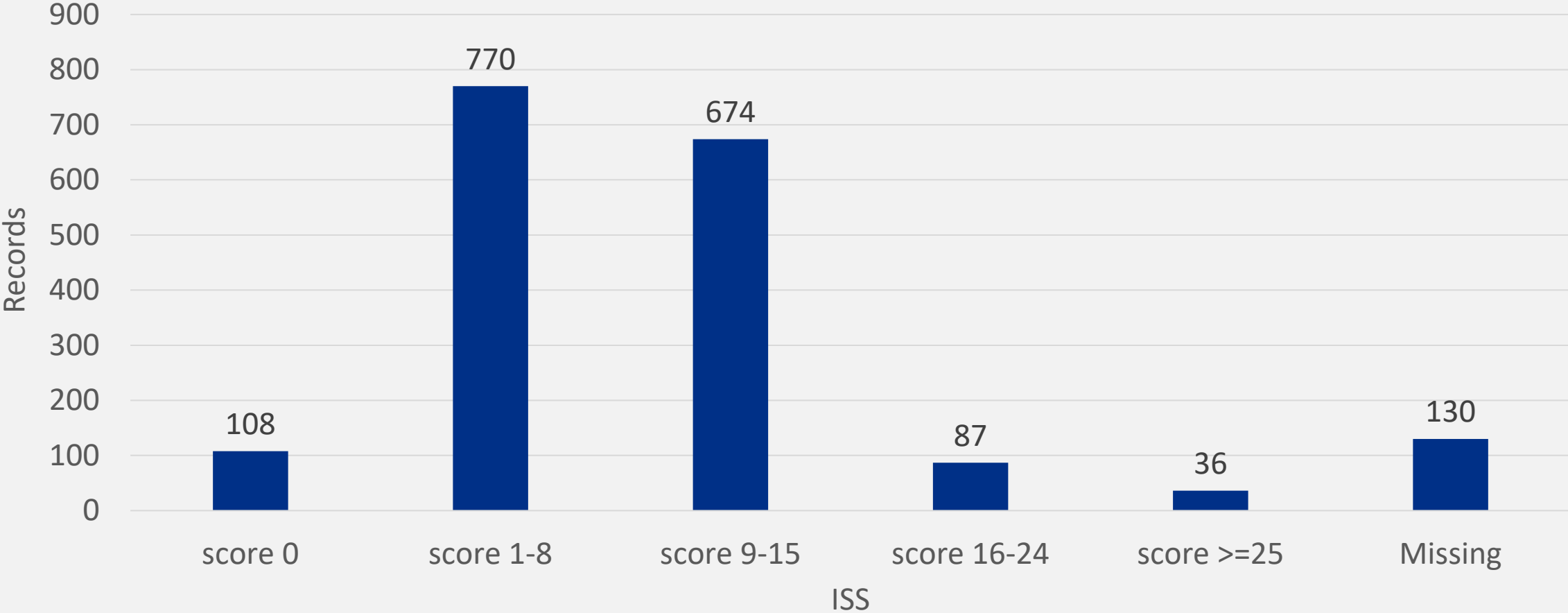
# 2020 - TSA C – ISS

## N = 1,192



# 2020 - TSA D - ISS

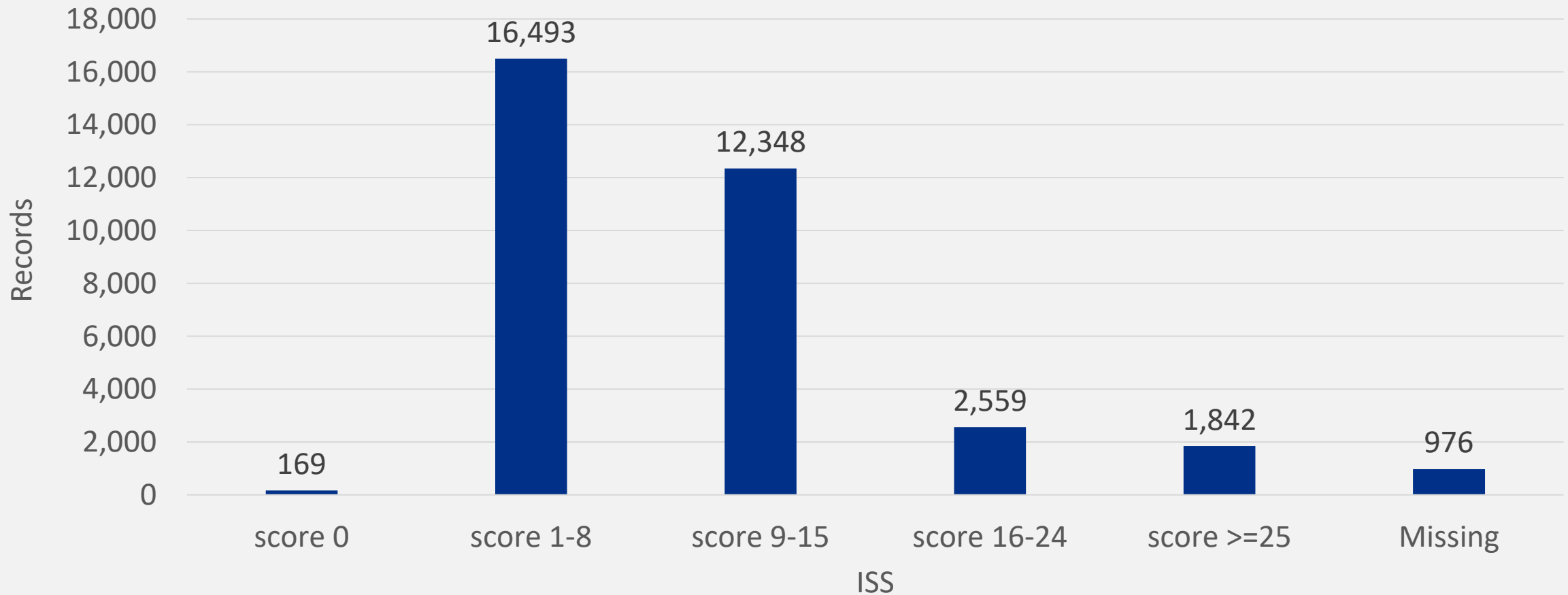
## N = 1,805





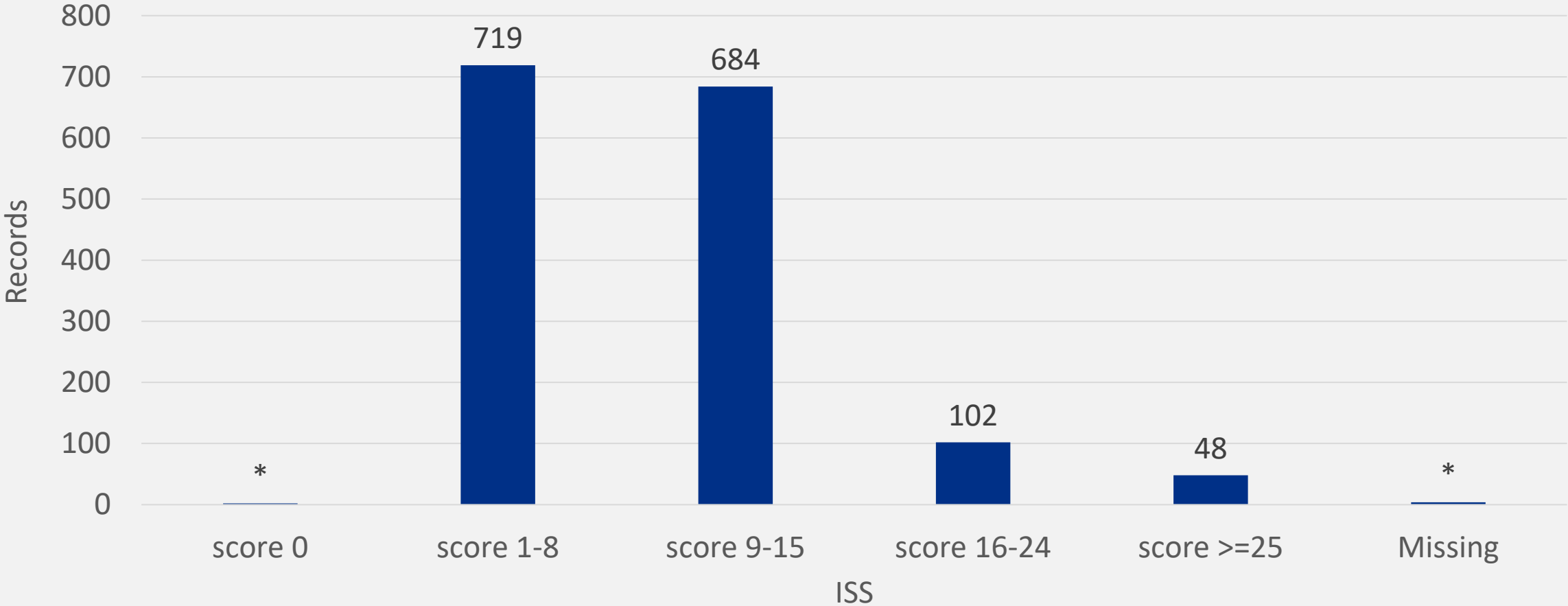
# 2020 - TSA E - ISS

## N = 34,387



# 2020 - TSA F - ISS

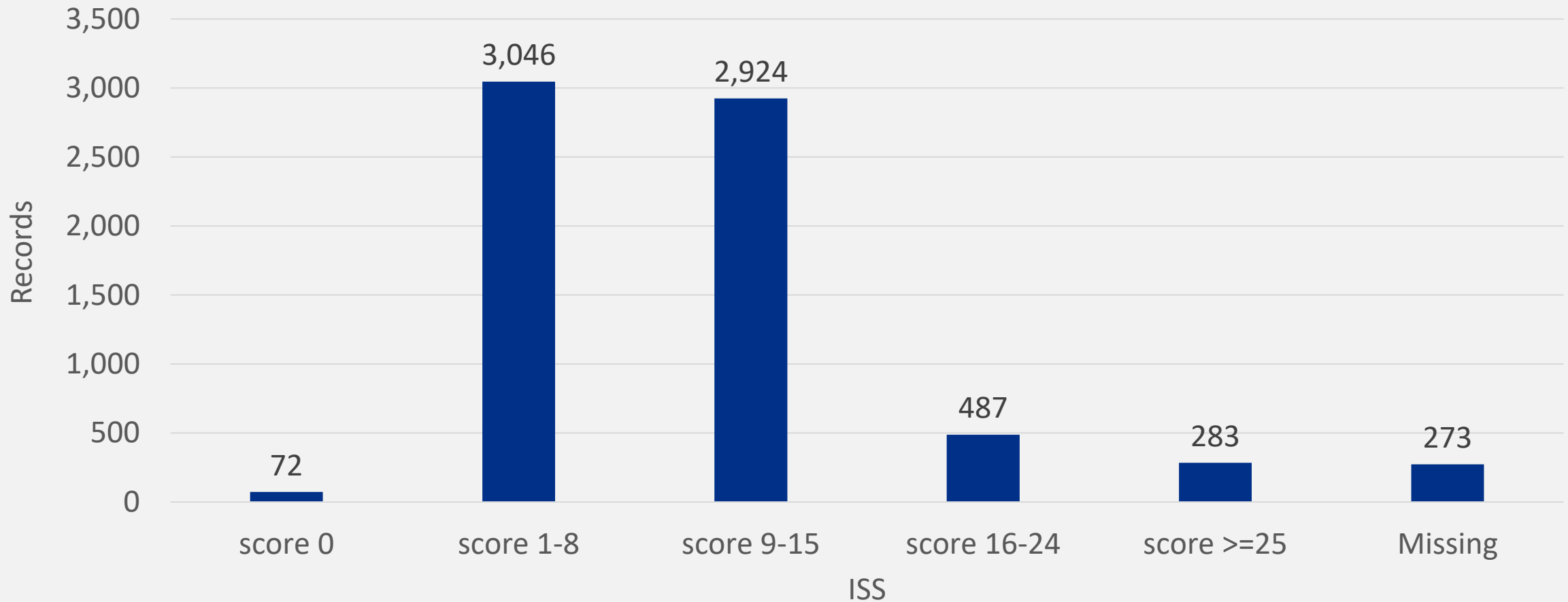
## N = 1,559



\* = less than 5 records so suppressed

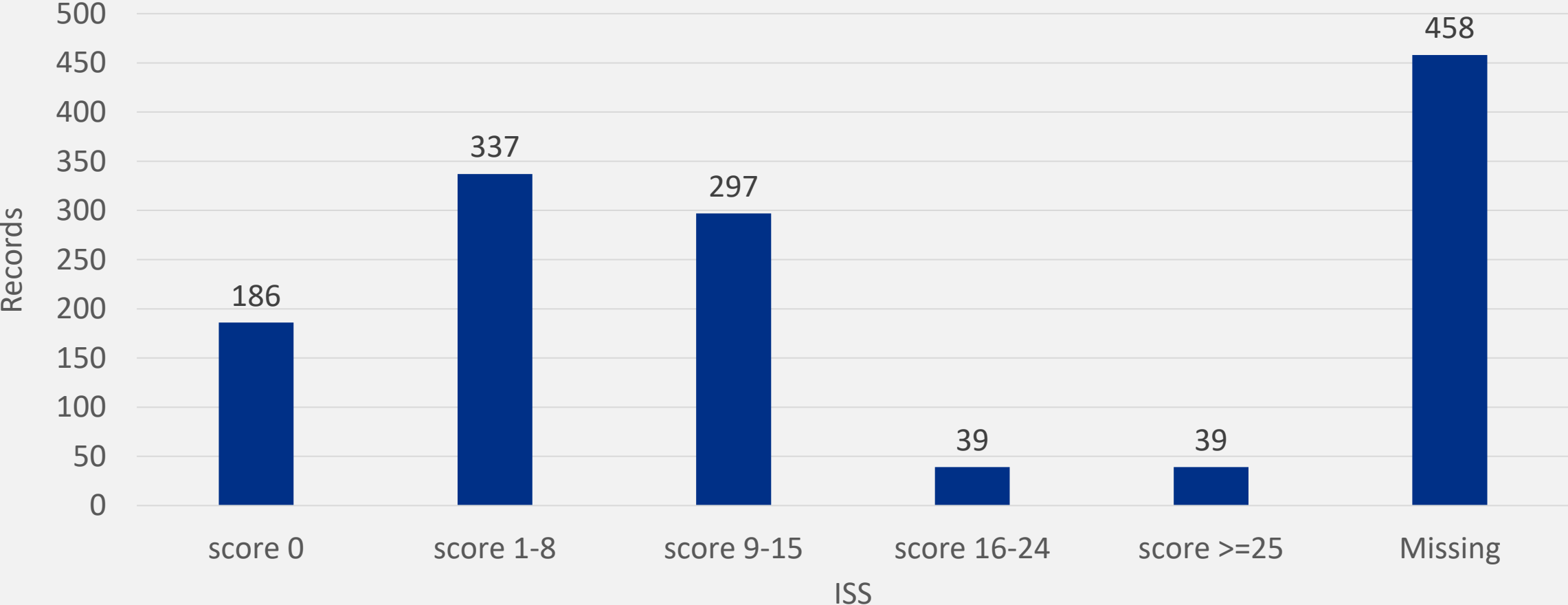
# 2020 - TSA G - ISS

## N = 7,085



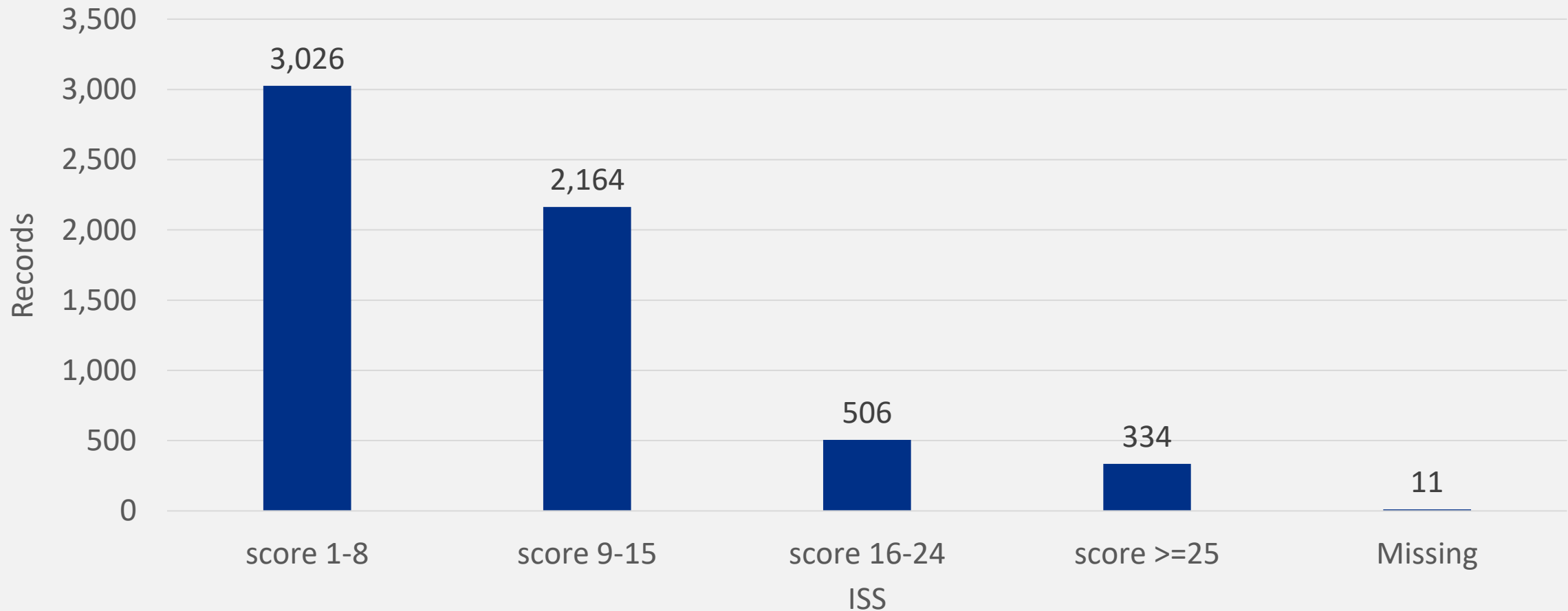
# 2020 - TSA H - ISS

## N = 1,356



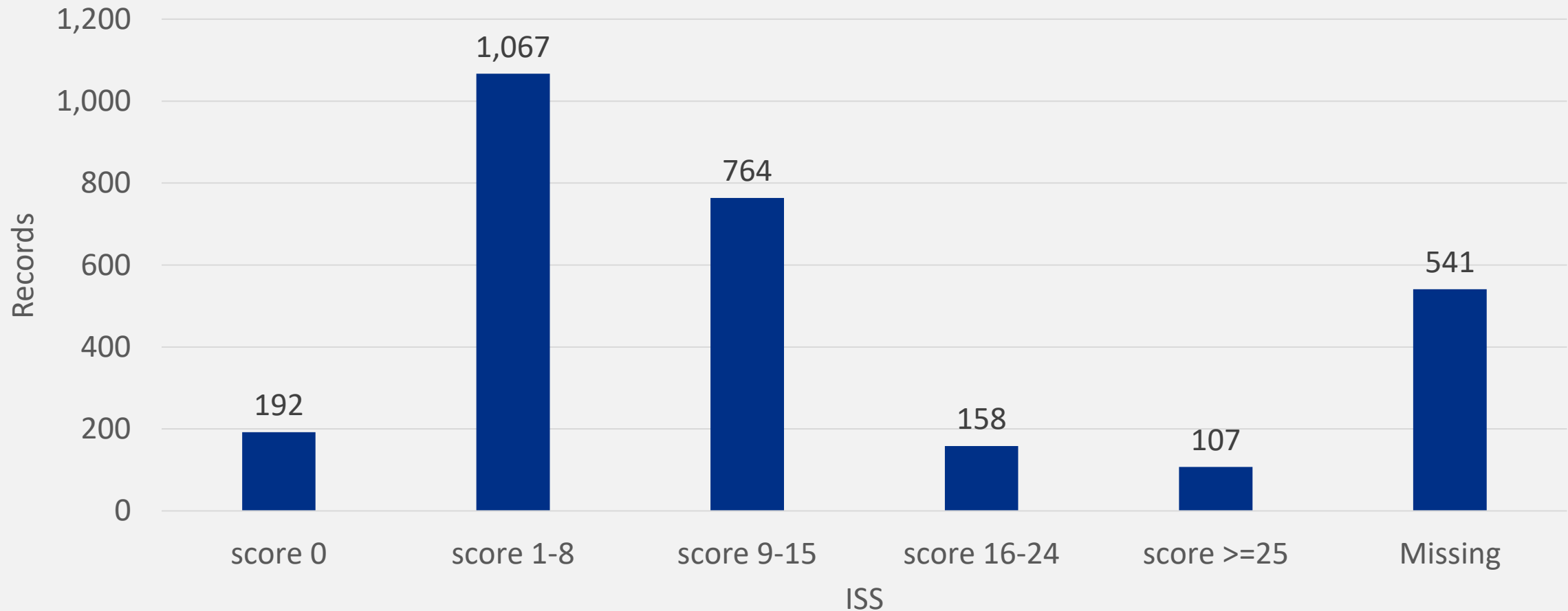
# 2020 - TSA I - ISS

## N = 6,041



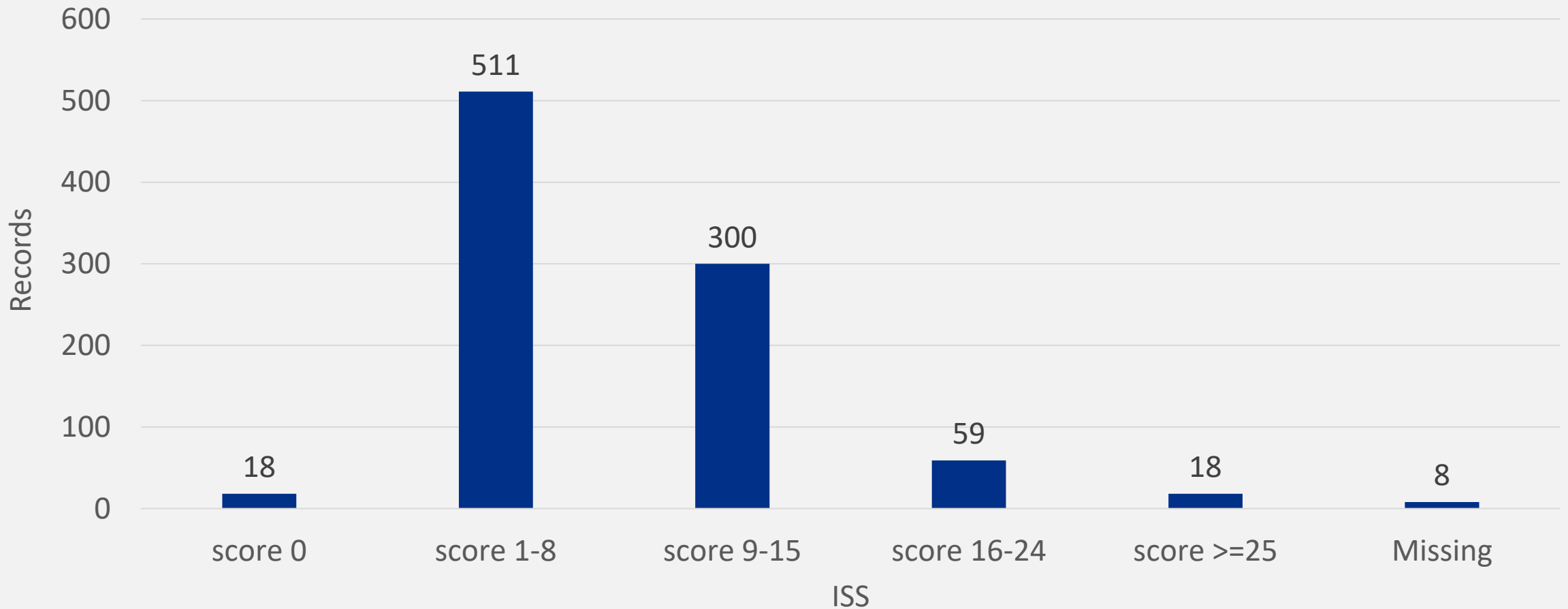
# 2020 - TSA J - ISS

## N = 2,829



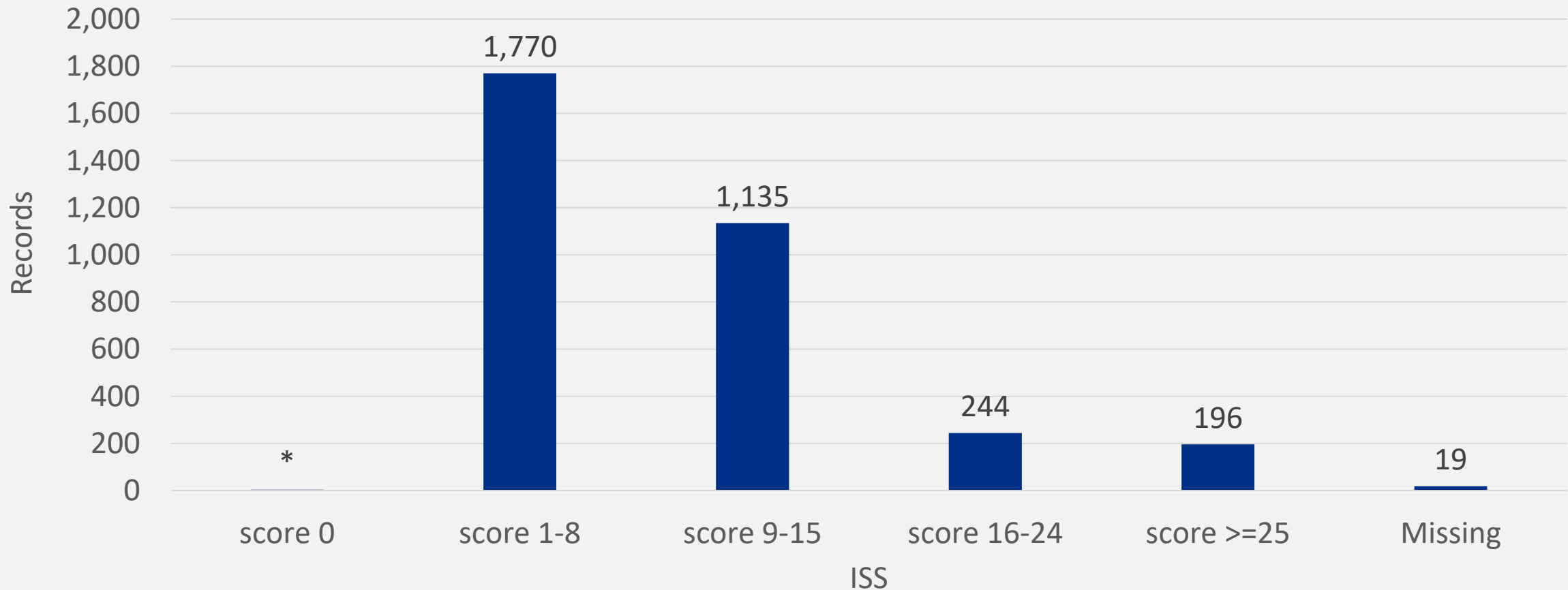
# 2020 - TSA K - ISS

## N = 914



# 2020 - TSA L - ISS

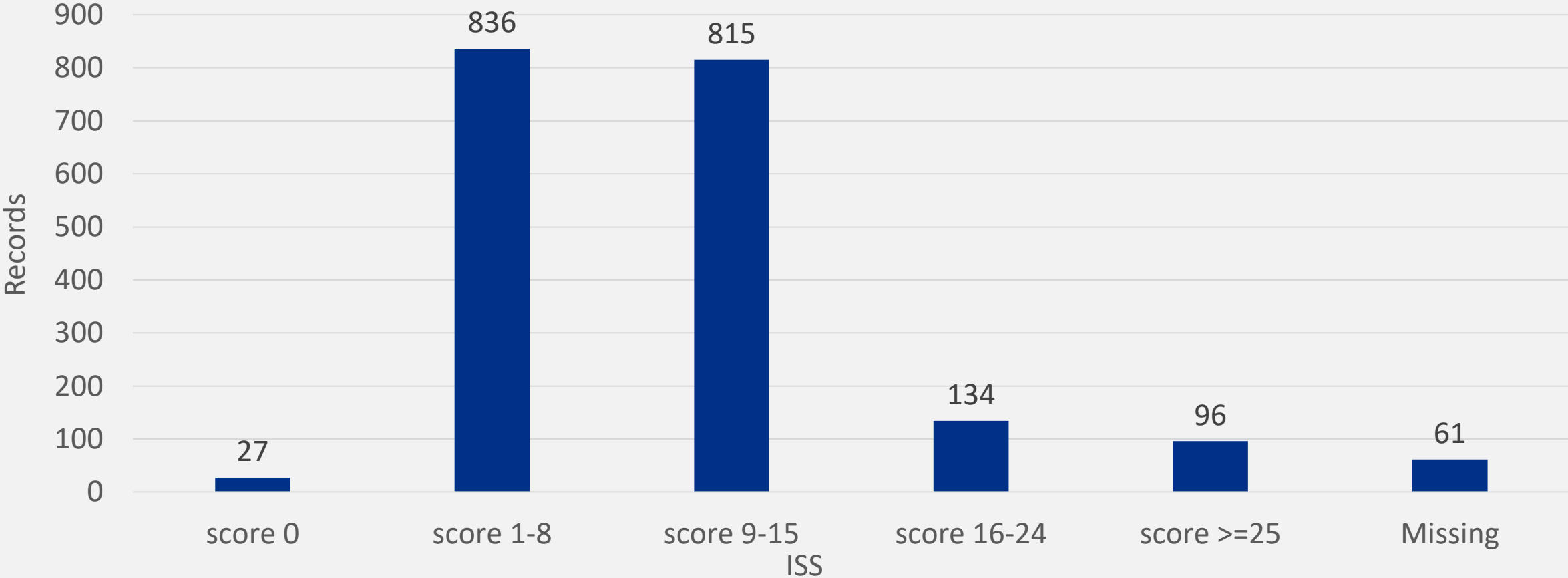
## N = 3,368





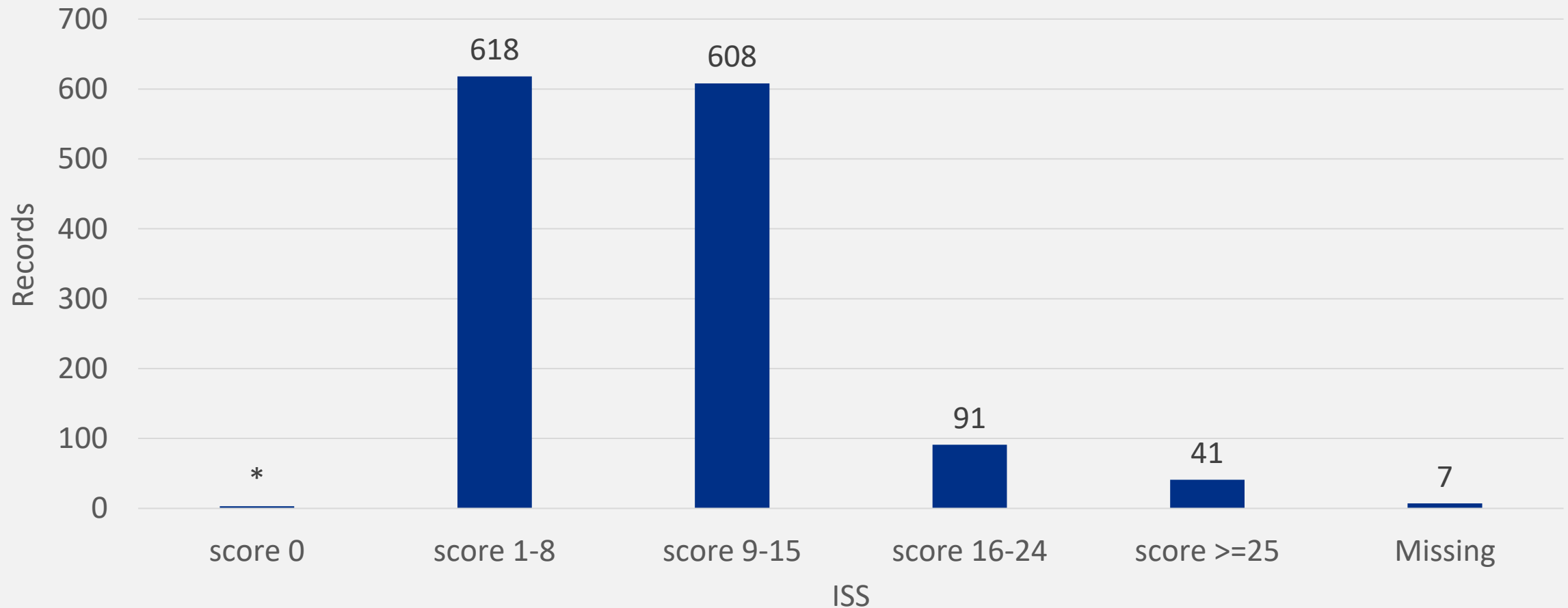
# 2020 - TSA M - ISS

## N = 1,969



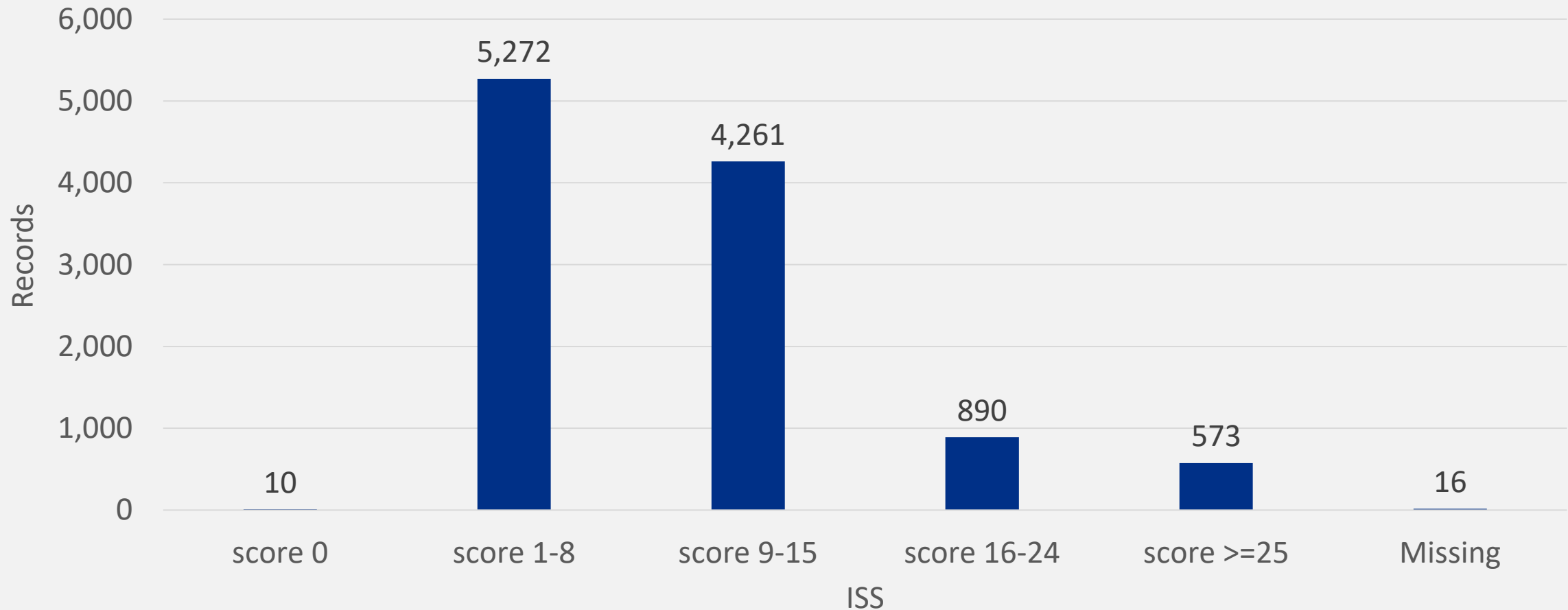
# 2020 - TSA N - ISS

## N = 1,368



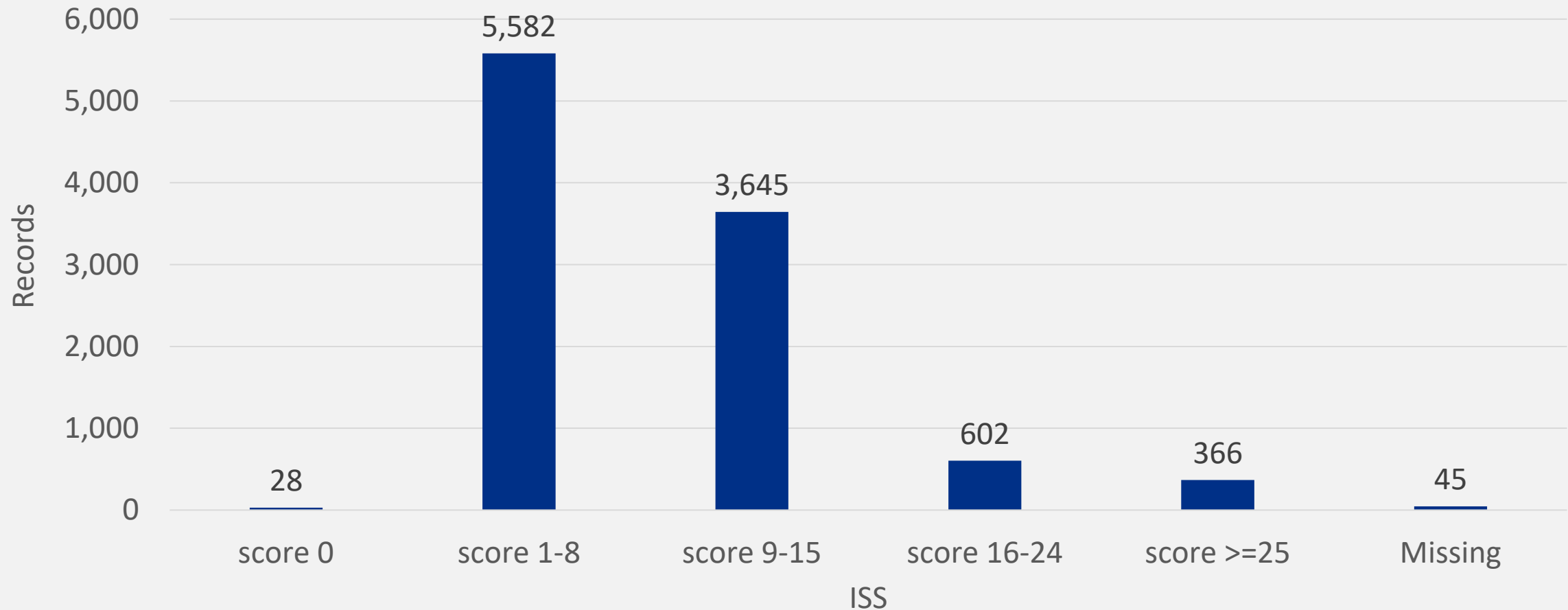
# 2020 - TSA O - ISS

## N = 11,022



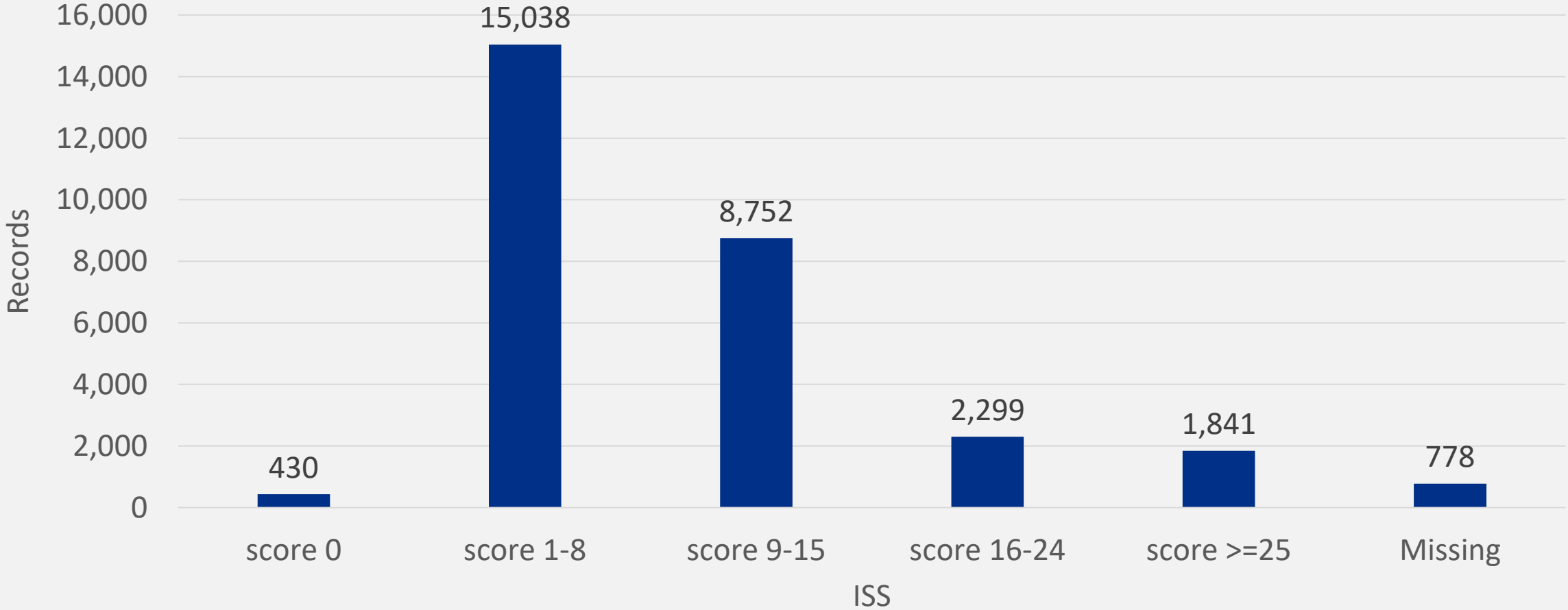
# 2020 - TSA P - ISS

## N = 10,268



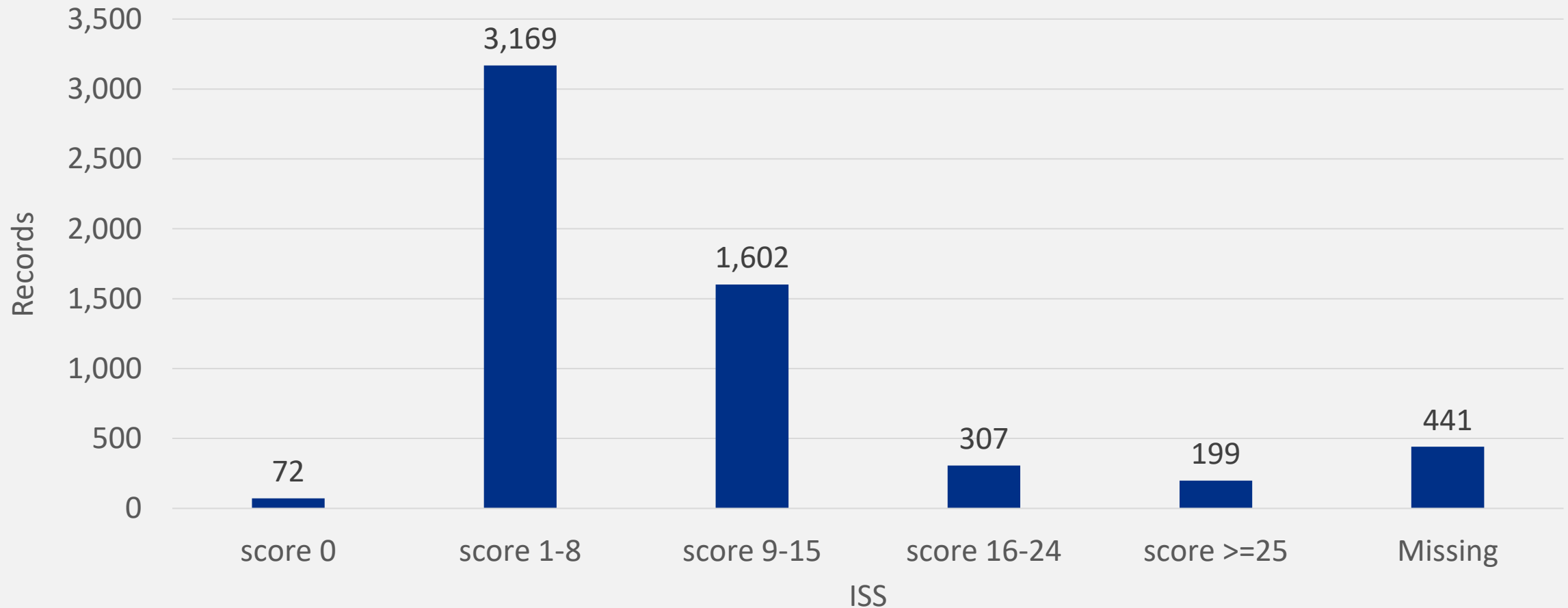
# 2020 - TSA Q - ISS

## N = 29,138



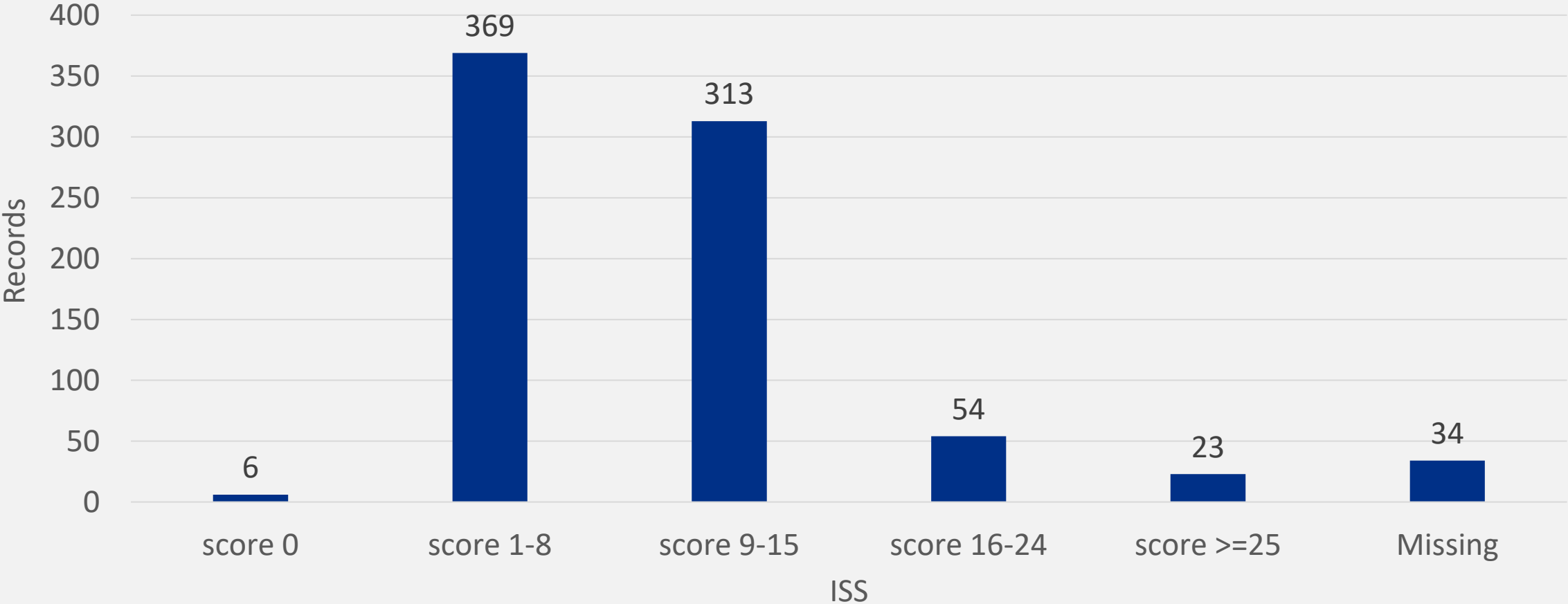
# 2020 - TSA R - ISS

## N = 5,790



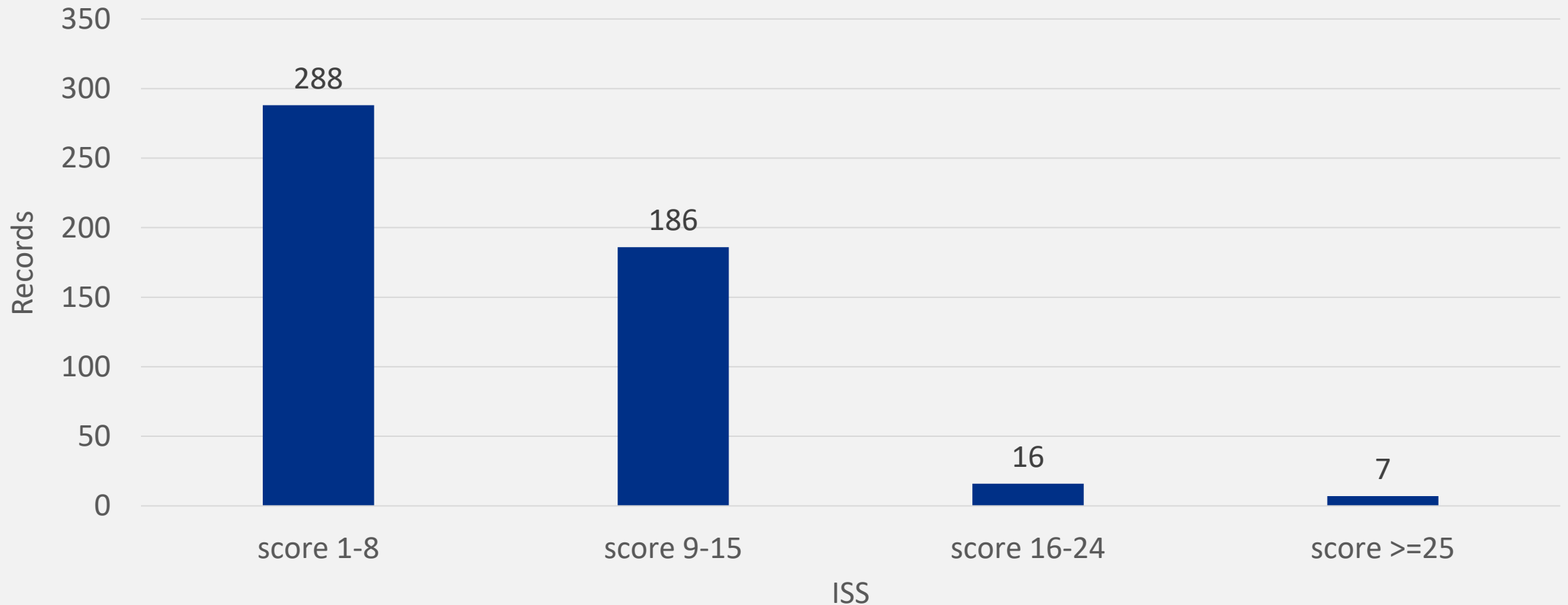
# 2020 - TSA S - ISS

## N = 799



# 2020 - TSA T - ISS

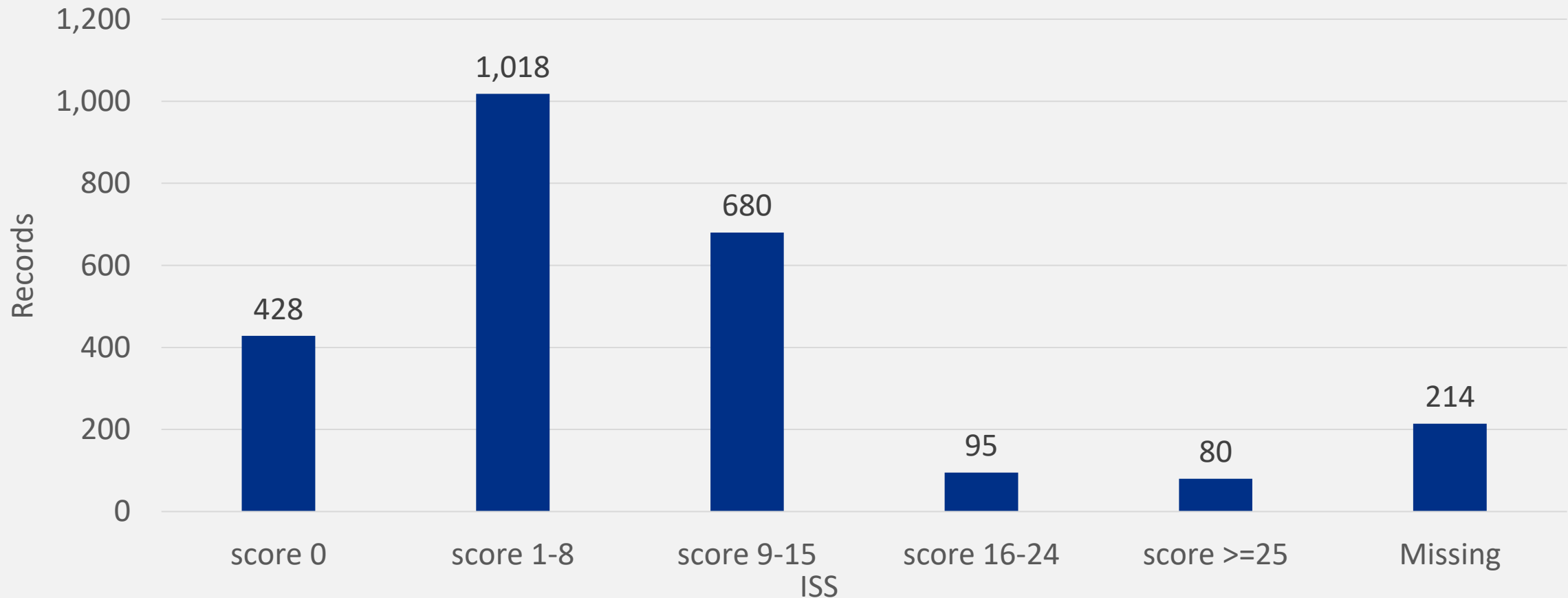
## N = 497





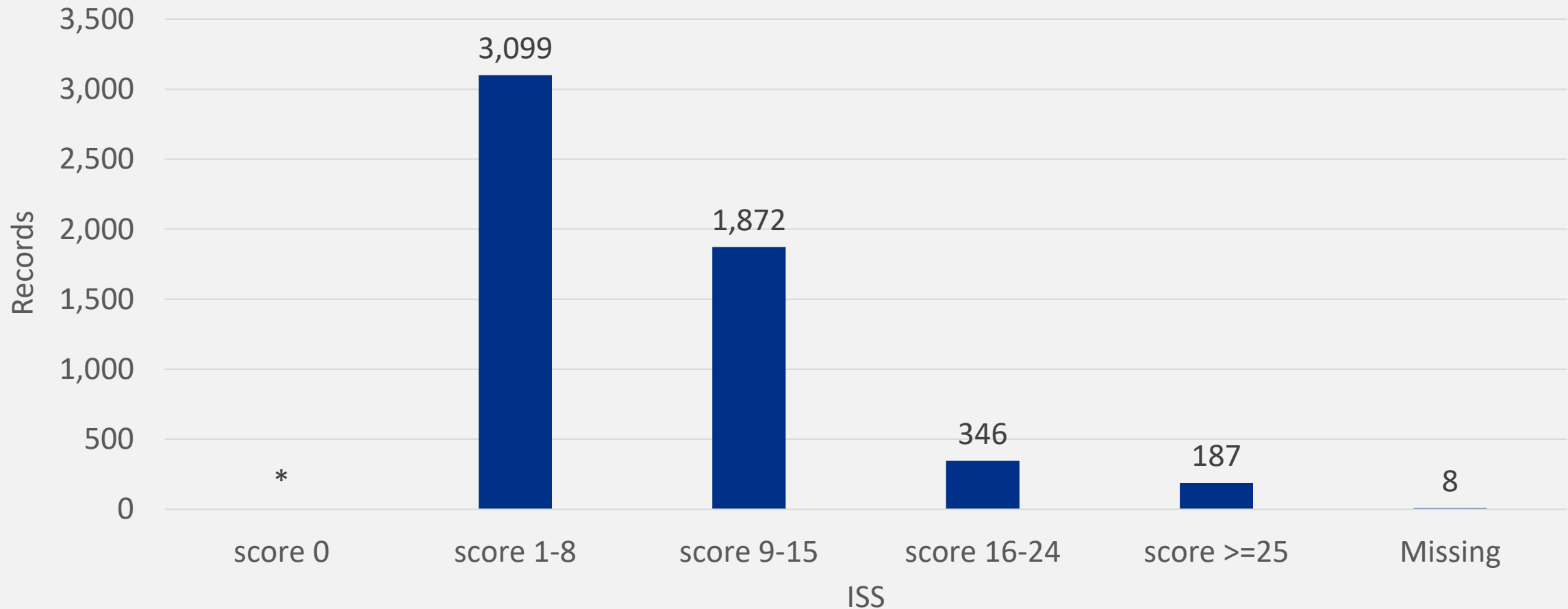
# 2020 - TSA U - ISS

## N = 2,515



# 2020 - TSA V - ISS

## N = 5,513



# Resources

- National Trauma Data Bank (NTDB) data dictionary:  
<https://www.facs.org/quality-programs/trauma/tqp/center-programs/ntdb/ntds>
- NSW Institute of Trauma and Injury Management  
<https://aci.health.nsw.gov.au/get-involved/institute-of-trauma-and-injury-management>
- Coding is based on the International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM)

**Thank you!**

Trauma Injury Severity Score and Length of Stay  
by Trauma Service Area-Texas-2020

**May 26, 2022**

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