The Data for DAT exam:

I didn’t end up with state or school level data. I found their user manual, which gives score distribution every year, but not in state level. They are available, however, only in 2021 and 2019. I was having trouble finding earlier ones.

<http://www.mouthhealthy.org/~/media/ADA/Education%20and%20Careers/Files/dat_users_manual.ashx> is the source, for 2019.

<https://www.ada.org/-/media/project/ada-organization/ada/ada-org/files/education/dat_users_manual.pdf?rev=ece68524cca4463da8be2657d6401652&hash=000FE9171A9F931FAA8AF81E2DF3DE7F> are for 2021

Alternatively, according to a DAT exam prep website at <https://dat-prep.com/dat-scores-for-dental-schools.php> , we might can find DAT scores from the yearly ADEA Official Guide to Dental School.

However, these guides(<https://www.adea.org/officialguide/> ) costs $35 and I didn’t find a pirated version.

The data for oral health:

Useful Data Sources:

In this point I began to doubt if we can get data from US armed forces, which recruits from all states, so I looked into other academic papers.

Flores and Tomany-Kerman (2008) mentioned a dataset for children’s health of the United States: the National Survey of Children Health. Source: <https://doi.org/10.1542/peds.2007-1243>. There’s no need reading the paper.

The description can be found at <https://www.childhealthdata.org/learn-about-the-nsch/NSCH>. It was done annually since 2016 and previously in 2003, 2007, and 2011/12. However, Data Querry at <https://www.childhealthdata.org/browse/survey> cannot have all data downloaded, while full data must be required at <https://www.childhealthdata.org/dataset> and I’m not familiar with what should I write in the request.

This dataset can be useful, since it has the following question in survey:

DURING THE PAST 12 MONTHS, has this child had FREQUENT or CHRONIC difficulty with any of the following? >Toothache?

DURING THE PAST 12 MONTHS, did this child see a dentist or other oral health care provider for any kind of dental or oral health care?

Including co-pays and amounts reimbursed from Health Savings Accounts (HSA) and Flexible Spending Accounts (FSA), how much money did you pay for this child’s medical, health, dental, and vision care DURING THE PAST 12 MONTHS? (HOWMUCH)

Since children are also victim of lack of access to affordable oral health care, this might be an important dataset.

Meanwhile, the Behavioral Risk Factor Surveillance System (BRFSS) of CDC provides telephone survey data regarding health conditions of American People. It’s available at state and local level, easily downloadable from 2016 to 2020.

It is useful because I have found following questions included:

Not including teeth lost for injury or orthodontics, how many of your permanent teeth have been removed because of tooth decay or gum disease?

Adults who have visited a dentist, dental hygenist or dental clinic within the past year

Including all types of dentists, such as orthodontists, oral surgeons, and all other dental specialists, as well as dental hygienists, how long has it been since you last visited a dentist or a dental clinic for any reason? (This question’s choices are: 1 year, 2 year, 5 year, over 5 year, don’t know)

Adults aged 18+ who have had permanent teeth extracted

I managed to open the 2020 entry in R and found it quite complex, with 279 variables. It is available in State level. For example, here is 2020 data: <https://www.cdc.gov/brfss/annual_data/annual_2020.html>

Useless Data/Not Accessible:

The Kleiner and Kudrle Paper:

They gained the data from commander of Lowry Air Force Base in Colorado.

(Page 13 of Kleiner Paper/page 559 of original journal: “Therefore, we employed a unique source of medical and demographic information from a sample of new enlistees into the U.S. Air Force. We gained the cooperation of the commander of Lowry Air Force Base near Denver, Colorado, historically a major base for new recruits. We designed and provided a questionnaire that Air Force personnel administered as part of the initial dental examination required of everyone.)

Papers I researched (and found not useful):

Schindler et al (2020) used annual oral health inspection data of air force for Active Duty Air Force. However, the original dataset was not included, and the supplement material are only either selected result or analysis on result.

Source: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7974017/>

Norris et al (2021) mentioned the air force 2018 and 2019 ROHS study on recruits. However, they did not release raw data.

Source: <https://academic.oup.com/milmed/article/186/1-2/e194/5948054>

There’s one paper for Department of Defense Recruit, but it seems that the survey was done only in 2008 and data was not available. Source: <https://doi.org/10.7205/milmed-d-11-00180>

The National Institute of Dental and Craniofacial Research (<https://www.nidcr.nih.gov/research/data-statistics>) had some tables which was from datasets of National Health and Nutrition Examination Survey (NHNES) of CDC. However, the tables are not in state-level (for example this page for tooth decay of children: <https://www.nidcr.nih.gov/research/data-statistics/dental-caries/children>) and the NHNES data are not released. The data can only be viewed in their research data center in Maryland.

I’m also looking for data at data.gov. However, I have yet found anything important.

This is a monthly count of dental service provided per 1,000 beneficiaries of Medicaid and CHIP (Children Health Insurance Plan), from 2018 to 2020, in state level. However, the time span is too short and I doubt how representative it can be.

https://catalog.data.gov/dataset/dental-services-provided-to-medicaid-and-chip-beneficiaries-under-age-19

I tried to look for insurance claims data and Veteran Affairs dental services data. Neither are available.