

Data Definitions for HRSA Health Workforce Diversity Dashboard

The Health Workforce Diversity Dashboard provides an update to [HRSA's 2017 report](#) on the distribution of sex and race/ethnicity among 30 health occupations in the U.S. This application includes data on demographics for additional health occupations and provides information on the age distribution in addition to sex and race/ethnicity. It also provides users the flexibility to visualize, compare, and download data for selected occupations.

Dashboard Features

- **Filter:** Dashboard users can select the data they wish to view using the filters at the top of the screen. In particular, users can select a health profession, data category (race/ethnicity, age, or sex), and up to two states to display in the visualization. When “All states” is selected, the totals include the 50 states, the District of Columbia, and Puerto Rico (when available).
- **Visualization:** The dashboard provides two visualizations. First, users can choose between a pie chart or bar chart to display and compare the chosen data for up to two states. Second, a map view is available to allow for quick comparisons across the U.S. Clicking on a state will open a window showing data for the selected state.
- **Data Table and Export:** In addition to the visualizations described above, the dashboard also displays data in tabular form. Users have the option to view the data in count or percentage and export the selected data as an Excel (xlsx) or PDF file. The PDF download includes the map view.

Data Source

Data used in this application come from the Census Bureau's American Community Survey (ACS), 5-year Public Use Microdata Sample (PUMS) File.

- The ACS, an annual household survey, provides detailed self-reported data about U.S. households and persons, including information on individuals working across various industries and occupations.
- The health occupations included are classified based on the U.S. government's 2018 Standard Occupational Classification (SOC) system.
- The “workforce” is defined as individuals aged 16 and older who worked within the previous five years. It does not include workers seeking employment for the first time and who had not yet secured their first job. ‘All States’ totals include the 50 U.S. states, the District of Columbia, and Puerto Rico (when available).
- For employed individuals, the occupation refers to the person's job during the previous week. For those who worked two or more jobs, the occupation refers to the job where the person worked the greatest number of hours (primary job).
- For unemployed individuals and those who are not currently employed but report having a job within the last five years, the data refer to their last job.
- A value of NA in the dashboard indicates the data are suppressed, zero, or not available in the dashboard. ACS data are suppressed for any value where the percent relative standard error (PRSE) is greater than 30%.

Data Definitions

Diversity Elements

In this dashboard, diversity is reported for the following demographic dimensions. Both count and percentage are available to view.

1. Sex:

- Male
- Female

When the Data Category filter is set to display “sex”, the map legend is based on the clinician rate (per 100,000 population) in each state for the selected health profession. Users can click on any state for data on the distribution by sex.

2. Age groups

- < 30 years
- 30-39 years
- 40-49 years
- 50-59 years
- 60+ years

When the Data Category filter is set to display “age”, the map legend is based on the clinician rate (per 100,000 population) in each state for the selected health profession. Users can click on any state for data on the distribution by age.

3. Race/Ethnicity categories:

- Hispanic or Latino
- White (Non-Hispanic)
- Black or African-American (Non-Hispanic)
- Asian (Non-Hispanic)
- American Indian or Alaska Native (Non-Hispanic)
- Native Hawaiian or Other Pacific Islander (Non-Hispanic)
- Other or Multiple Races (Non-Hispanic)

When the Data Category filter is set to display “race/ethnicity”, the legend is based on the percent of Underrepresented Minorities (URM) in the total workforce in each state for the selected health profession. Users can click on any state for data on the distribution by race/ethnicity.

Underlying data for the map: Underrepresented Minority (URM) Percentage

HRSA’s Bureau of Health Workforce (BHW) defines URM as someone from a racial or ethnic group that is considered inadequately represented in a specific profession relative to the representation of that racial or ethnic group in the general population.

For the purposes of the health professions, BHW considers people from these racial and ethnic backgrounds underrepresented:

- American Indian or Alaska Native
- Black or African American

- Native Hawaiian or Other Pacific Islander
- Hispanic (all races)

The URM percentage for a given occupation within a state is calculated as the count of individuals who self-identify as Hispanic, Black or African American, American Indian or Alaskan Native, or Native Hawaiian or Other Pacific Islander divided by total count of workers (in the given occupation) within the state.

Underlying data for the map: Clinician Rate (per 100,000 population)

Clinician rate used in this application is calculated as total count of workers employed in an occupation in a state divided by the total population in the state. The result then is multiplied by 100,000.

Health Occupation data

Only selected health occupations from the ACS state-level data file are included in this application. The table below lists the selected health professions and associated SOC codes.

Occupation	SOC Code
Advanced Practice Nurses (excluding Clinical Nurse Specialists)*	29-1151 (Nurse Anesthetists) 29-1161 (Nurse Midwives) 29-1171 (Nurse Practitioners)
Chiropractors	29-1011
Counselors	21-1010 where the North American Industry Classification System (NAICS) Industry Code is Medical Setting**
Dental Assistants	31-9091
Dental Hygienists	29-1292
Dentists	29-1020
Diagnostic Related Technologists & Technicians	29-2030
Dietitians and Nutritionists	29-1031
Emergency Medical Technicians and Paramedics	29-2042 (Emergency Medical Technicians) 29-2043 (Paramedics)
Health Practitioner Support Technologists and Technicians	29-2050
Licensed Practical/Vocational Nurses	29-2061
Massage Therapists	31-9011
Medical Assistants	31-9092
Medical Records Specialists	29-2072
Medical Transcriptionists	31-9094
Medical and Clinical Laboratory Technologists & Technicians	29-2010
Nursing, Psychiatric and Home Health Aides	31-1121 (Home Health Aides) 31-1131 (Nursing Assistants) 31-1132 (Orderlies) 31-1133 (Psychiatric Aides)
Occupational Therapists	29-1122
Occupational Therapy Assistants And Aides	31-2010

Opticians, Dispensing	29-2081
Optometrists	29-1041
Personal Care Aides	31-1122
Pharmacists	29-1051
Pharmacy Aides	31-9095
Phlebotomists	31-9097
Physical Therapist Assistants & Aides	31-2020
Physical Therapists	29-1123
Physician Assistants	29-1071
Physicians	29-1210 (Physicians) 29-1240 (Surgeons)
Podiatrists	29-1081
Psychologists	19-3030 (Psychologists)
Registered Nurses	29-1141
Respiratory Therapists	29-1126
Social Workers	21-1020 where NAICS Industry Code is Medical Setting**
Speech-Language Pathologists	29-1127
Veterinarians	29-1131
Veterinary Assistants & Laboratory Animal Caretakers	31-9096

*Clinical Nurse Specialists are included with Registered Nurses.

** For this purpose a medical setting is defined as NAICS sector 62 (Health Care and Social Assistance), excluding NAICS 6242 (Community food and housing, and emergency services), 6243 (Vocational rehabilitation services), and 6244 (Child day care services).

Data Note

When data are suppressed, zero, or not available, it is shown in this application as NA (not applicable).

Beginning with the 2016-2020 ACS data, NCHWA has revised its variance estimation methodology for determining suppression to be more consistent with the method used by the Census Bureau. While this change has no impact on the point estimates it may result in higher standard errors.

Using these data

All data from this dashboard are in the public domain and can be used freely. Data should be cited as coming from the Department of Health and Human Services, Health Resources and Services Administration, Health Workforce Diversity Dashboard. Please direct questions to NCHWAinquiries@hrsa.gov.