

# **THE U.S. HEALTH WORKFORCE – STATE PROFILES**

## **MASSACHUSETTS**

**August 2018**

U.S. Department of Health and Human Services  
Health Resources and Services Administration  
Bureau of Health Workforce  
National Center for Health Workforce Analysis



**HRSA**  
Health Resources & Services Administration

## **The U.S. Health Workforce - State Profiles**

### **Background**

*The U.S. Health Workforce - State Profiles* (State Profiles) complement *The U.S. Health Workforce Chartbook* (Chartbook) by providing state-level data for each of the 34 health occupations included in the Chartbook. The data in the State Profiles correspond to Chartbook information on number of graduates in each profession, total number of providers, and number per capita. The Chartbook and State Profiles were developed as part of the Health Resources and Services Administration's effort to make data on the U.S. health workforce more readily available to diverse users.

### **Data Table Content**

The data tables in the State Profiles are organized alphabetically for the 50 U.S. States. For each State, estimates are provided for the health workforce and 2015 graduates. Health workforce estimates include total number in an occupation, percent relative standard error (% RSE) of the estimate, and the ratio of individuals in each occupation per 100,000 working-age population. Total graduate data are also presented along with graduate-to-population ratios.

- Health workforce numbers are from HRSA's analysis of the U.S. Census Bureau, American Community Survey (ACS) Public Use Microdata Sample (PUMS), 2011-2015.
- The % RSE is a measure of statistical reliability based on sampling error. The % RSE is calculated by dividing the standard error by the estimate and multiplying the result by 100. Lower % RSEs (i.e. proportionately lower standard errors) indicate greater precision. % RSEs between 20 and 29 percent should be used with caution and % RSEs greater than or equal to 30 percent are not reported because they do not meet standards of reliability.
- The "working-age population" includes all individuals aged 16 and older employed in an occupation and individuals who are seeking employment.
- Workforce-to-population ratios are calculated using the working-age population figures from HRSA analysis of the ACS PUMS, 2011-2015.
- 2015 graduate numbers are from the U.S. Department of Education, National Center for Education Statistics Integrated Postsecondary Education Data System (IPEDS) for the 2014-2015 academic year. Details can be found in the [Chartbook Technical Documentation](#). No IPEDS data were available for message therapists; dispensing opticians; physical therapist assistants and aides; personal care aides; and nursing, psychiatric, and home health aides.
- Graduate-to-population ratios are calculated using the working-age population from HRSA analysis of the ACS PUMS, 2015.

### **References, Resources and Additional Information**

*The U.S. Health Workforce Chartbook*, released in 2018, can be found at <https://bhw.hrsa.gov/health-workforce-analysis/research>.

Details on the data sources, definitions, analysis, and other information provided in the State Profiles are available in *The U.S. Health Workforce Chartbook: Technical Documentation*, which can be found at <https://bhw.hrsa.gov/health-workforce-analysis/research>.

For more information about the National Center, e-mail us at [healthworkforcecenter@hrsa.gov](mailto:healthworkforcecenter@hrsa.gov), or visit our website at <https://bhw.hrsa.gov/national-center-health-workforce-analysis>.

Suggested citation: U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. *The U.S. Health Workforce – State Profiles*, Rockville, Maryland; 2018.

Occupation	Massachusetts				
	2011-2015 Health Workforce <sup>a</sup>			2015 Graduates <sup>b</sup>	
	Total	% RSE <sup>c</sup>	Per 100K Working-age Population	Total	Per 100K Working-age Population
Chiropractors	967	18.7	17.6	NA	NA
Counselors	14,411	4.4	262.9	518	9.3
Dental Assistants	7,630	5.7	139.2	199	3.6
Dental Hygienists	5,337	6.1	97.4	230	4.1
Dentists	5,023	8.4	91.6	450	8.1
Diagnostic Related Technologists and Technicians	8,344	5.6	152.2	371	6.6
Dietitians and Nutritionists	2,776	9.1	50.6	83	1.5
Emergency Medical Technicians and Paramedics	5,121	7.8	93.4	101	1.8
Health Diagnosing and Treating Practitioner Support Technologists and Technicians	14,129	4.1	257.8	880	15.8
Licensed Practical and Licensed Vocational Nurses <sup>d</sup>	15,787	3.6	288.0	762	13.6
Massage Therapists	4,851	7.0	88.5	NP	NP
Medical and Clinical Laboratory Technologists and Technicians	11,978	5.3	218.5	272	5.0
Medical and Health Services Managers	20,587	3.7	375.6	572	10.2
Medical Assistants	13,951	4.4	254.5	1,392	24.9
Medical Records and Health Information Technicians	4,205	8.3	76.7	105	1.9
Medical Secretaries	28,197	2.8	514.4	NP	NP
Nurse Anesthetists	603	18.4	11.0	74	1.3
Nurse-Midwives and Nurse Practitioners	4,641	7.5	84.7	644	11.7
Nursing, Psychiatric, and Home Health Aides	74,466	1.9	1,358.5	NP	NP
Occupational Therapists	3,783	8.4	69.0	357	6.4
Opticians, Dispensing	1,445	12.5	26.4	NP	NP
Optometrists	1,096	14.7	20.0	123	2.2

Occupation	Massachusetts				
	2011-2015 Health Workforce <sup>a</sup>			2015 Graduates <sup>b</sup>	
	Total	% RSE <sup>c</sup>	Per 100K Working-age Population	Total	Per 100K Working-age Population
Personal Care Aides	36,760	3.2	670.6	NP	NP
Pharmacists	7,486	6.0	136.6	1,098	19.7
Physical Therapist Assistants and Aides	2,339	13.3	42.7	NP	NP
Physical Therapists	7,533	6.7	137.4	603	10.8
Physician Assistants	2,691	9.4	49.1	346	6.2
Physicians	32,261	2.4	588.5	637	11.4
Psychologists	9,544	4.5	174.1	5,803	103.9
Registered Nurses <sup>d</sup>	80,303	1.8	1,465.0	4,606	84.0
Respiratory Therapists	2,060	11.1	37.6	87	1.6
Social Workers	20,430	3.6	372.7	1,679	30.1
Speech-Language Pathologists	4,459	8.4	81.3	555	9.9
Veterinarians	2,003	12.2	36.5	94	1.7

<sup>a</sup>Health Workforce data are from Special Tabulations of the American Community Survey Public Use Microdata Sample, 2011-2015

<sup>b</sup>Graduate data are from Special Tabulations of the National Center for Education Statistics Integrated Postsecondary Education Data System, 2014-2015 Data. Degree award levels included in the count of graduates are specified in Part 5 of the U.S. Health Workforce Chartbook – Technical Documentation.

<sup>c</sup>% RSE (Percent Relative Standard Error) = ((Standard Error/Estimate)\*100); Lower % RSEs (i.e. proportionately lower standard errors) indicate greater precision. % RSEs between 20 and 29 percent should be used with caution.

<sup>d</sup>LPN/LVN data include LPNs receiving an associate degree or some college education without degree. RN data include RNs receiving an associate's, a bachelor's, or a graduate degree.

NA: Data are not available for the selected state and occupation.

NR: Data not reported at the state-level because the RSE  $\geq$  30%; estimate does not meet standards of reliability

NP: Graduate data is not available from IPEDS data.