Addressing the Nationwide Shortage of Radiologic Technologists

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Abstract

There is currently a nationwide shortage of radiologic technologists. Recent surveys conducted by AMN Healthcare and the American Society of Radiologic Technologists (ASRT) have found that radiologic technologists are in high demand with many current job vacancies. The purpose of this study is to determine by both division (United States Census subregion) and state, on a per capita basis, how many first-time candidates sat for the American Registry of Radiologic Technologists (ARRT) radiography exam for the years 2020-2022. The ARRT annually publishes data on the number of prospective radiologic technologists that sat for the registry exam by state. The data published for years 2020-2022 were averaged and then compared to the 2020 United States census data to determine the number of candidates produced in each state as well as the nine separate United States census divisions on a per capita basis. The study found that during the time period in question, divisions one through eight produced one ARRT radiography registry candidate for every 27,033 residents in these divisions. Division nine (Pacific division) was an outlier producing one ARRT radiography registry candidate for every 50,527 residents of this division. This can be compared to the national average for the time period in question, which was one ARRT radiography registry candidate for every 29,295 residents. This information may be used for general knowledge, advocacy purposes as well as a basis for further inquiry. Existing radiologic technology programs in states and divisions producing less than the national average could utilize this data to advocate for increased resources and clinical placement for students with the aim of program growth. Professional organizations, educational institutions, and employers could advocate to state and federal leaders and policymakers for new programs dedicated to producing radiologic technologists in order to keep pace with a shifting and growing population.
KEY FINDING
Western coastal states in the Pacific Division are producing far less Radiologic Technologists relative to the national average.

ARRT Radiography Candidates Per Capita
On average, one candidate is taking the ARRT radiography exam for every 29,295 residents in the United States.

National average: 29,295

Producing More | Average | Producing Less

Aggregate Data: 2020-2022
Map: Travis Armstrong MPA, R.T. (R) & Jeleana Petra Loa Student RT • Created with Datawrapper

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STATE DATA
TOP 12 PRODUCING STATES
1. South Dakota 1 out of 16,121
2. West Virginia 1 out of 17,585
3. Nebraska 1 out of 17,985
4. Arkansas 1 out of 19,683
5. Mississippi 1 out of 20,708
6. Utah 1 out of 20,972
7. Iowa 1 out of 21,269
8. Maine 1 out of 21,287
9. Louisiana 1 out of 21,464
10. Kentucky 1 out of 21,683
11. Idaho 1 out of 21,894
12. Minnesota 1 out of 23,103

BOTTOM 12 PRODUCING STATES
1. Hawaii 1 out of 97,018
2. Vermont 1 out of 53,590
3. California 1 out of 53,364
4. Oregon 1 out of 43,683
5. Washington 1 out of 41,877
6. Maryland 1 out of 39,853
7. Alaska 1 out of 38,600
8. New Jersey 1 out of 38,070
9. Massachusetts 1 out of 37,393
10. Delaware 1 out of 35,355
11. Virginia 1 out of 33,455
12. Michigan 1 out of 33,369

U.S. CENSUS DIVISION DATA