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Addressing the Nationwide Shortage of Radiologic Technologists

Travis Armstrong
Boise State University

Jeleana Loa
Boise State University

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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.

Addressing the Nationwide Shortage of Radiologic Technologists

AUTHORS:

Travis Armstrong, MPA, R.T. (R)

Jeleana Petra Loa, Student R.T.

BACKGROUND

- There is currently a **nationwide shortage of radiologic technologists** with employers finding it very difficult to fill job vacancies

RESEARCH QUESTION

- On a **state by state per capita basis**, how many first time candidates sat for the American Registry of Radiologic Technologists (ARRT) radiography exam for the years **2020-2022**

RELEVANCE

- 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**

METHODS

- The American Registry of Radiologic Technologists (ARRT) data for first-time candidate volume for the radiography exam for years 2020-2022 were summed and averaged to provide the annual mean for the number of candidates by state and US Census division for the three year period
- The data was compared to the 2020 U.S. Census data to determine **the number of radiography candidates produced in each state and US Census Division on an average annual per capita basis** for years 2020-2022

CONCLUSION

- This study found **considerable variation** in the number of ARRT radiography registry candidates produced per capita in the fifty states and nine US Census divisions
- The western most Pacific division produced the fewest ARRT radiography registry candidates on a per capita basis**

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

