Health Professions Education Program Outcomes, 2011-2020





Health Professions Education Program Outcomes, 2011-2020

December 2022



Center for Health Workforce Studies School of Public Health, University at Albany State University of New York 1 University Place, Suite 220 Rensselaer, NY 12144-3445

Phone: (518) 402-0250 Web: www.healthworkforceta.org Email: info@healthworkforceta.org

PREFACE

This chartbook uses data from the Integrated Postsecondary Education Data System (IPEDS) to describe education program outcomes for 32 health professions between the years 2011 and 2020. It contains information on the number of awards conferred and the gender and race/ethnicity of individuals completing the programs.

This report was prepared by Jinman Pang and David Armstrong of the Health Workforce Technical Assistance Center (HWTAC), with layout design by Trish Galvin.

HWTAC was established in 2013 to support the efforts of the National Center for Health Workforce Analysis (NCHWA) and it provides technical assistance to states and organizations that engage in health workforce planning. HWTAC conducts several projects each year designed to provide expert assistance with health workforce data collection, analysis, and dissemination. HWTAC is based at the Center for Health Workforce Studies (CHWS) at the School of Public Health, University at Albany, State University of New York.

HWTAC is supported by the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services (HHS) as part of an award totaling \$450,000 with 0% financed with nongovernmental sources. The contents in this compendium are those of the authors and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS, or the US Government. For more information, visit <u>https://www.hrsa.gov</u>.

December 2022

SUGGESTED CITATION

Pang J, Armstrong D. *Health Professions Education Program Outcomes, 2011-2020*. Rensselaer, NY: Health Workforce Technical Assistance Center, Center for Health Workforce Studies, School of Public Health, SUNY Albany; December 2022.

TABLE OF CONTENTS

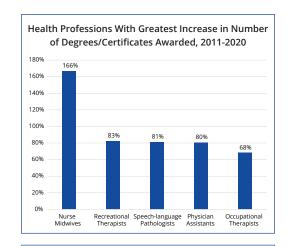
INTRODUCTION	1
KEY FINDINGS	1
PROFESSIONS	2
Audiologists	3
Chiropractors	4
Clinical Psychologists	5
Dental Assistants	6
Dental Hygienists	7
Dentists	8
Diagnostic Medical Sonographers	9
Dietitians and Nutritionists	10
Dietetic Technicians	11
Licensed Practical Nurses	12
Medical and Clinical Laboratory Technologists	13
Nuclear Medicine Technicians	14
Nurse Anesthetists	15
Nurse Midwives	16
Occupational Therapy Assistants	17
Occupational Therapists	18
Optometrists	19
Pharmacists	20
Paramedics/Emergency Medical Technicians	21
Physical Therapist Assistants	22
Physical Therapists	23
Physician Assistants	24
Physicians	25
Podiatrists	26
Psychologists	27
Radiation Therapists	28
Radiologic Technologists and Technicians	29
Recreational Therapists	30
Registered Nurses	31
Respiratory Therapists	32
Social Workers	33
Speech-language Pathologists	34
APPENDIX: CIP Codes, Minimum Education Requirements, and Award Level Codes by Profession	35

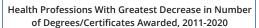
INTRODUCTION

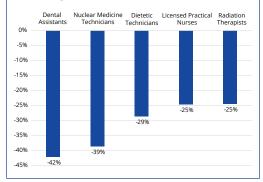
A robust and diverse supply of new health professionals is crucial for our health care delivery system. This chartbook uses Integrated Postsecondary Education Data System (IPEDS) data to describe education program outcomes for 32 health professions between the years 2011 and 2020. For each health profession, the number of degrees awarded, and the gender and race/ethnicity of the individuals completing the programs are displayed. Information for the year 2020 is considered preliminary. Information on the CIP Codes and award levels used to identify each health profession is reported in the footer of each page. Descriptions of award level codes can be found in the Appendix.

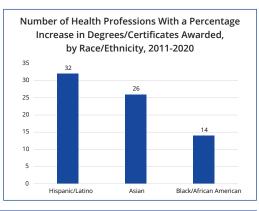
KEY FINDINGS

- The number of degrees/certificates awarded increased for the majority of health professions between 2011 and 2020.
 - The professions that experienced the greatest percentage increase in the number of degrees/certificates awarded included: nurse midwives, recreational therapists, speech-language pathologists, physician assistants, and occupational therapists.
 - The professions that experienced the greatest percentage decrease in the number of degrees/certificates awarded included: dental assistants, nuclear medicine technicians, dietetic technicians, licensed practical nurses, and radiation therapists.
- The percentage of female graduates increased for 20 of 32 health professions between 2011 and 2020.
- Between 2011 and 2020, all health professions became more diverse.
 - The percentage of Hispanic/Latinos increased for all 32 professions.
 - The percentage of Asians increased for 26 professions.
 - The percentage of Blacks/African Americans increased for 14 professions.



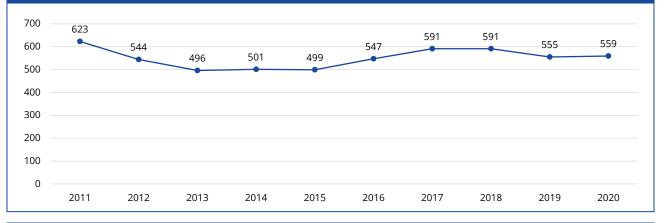


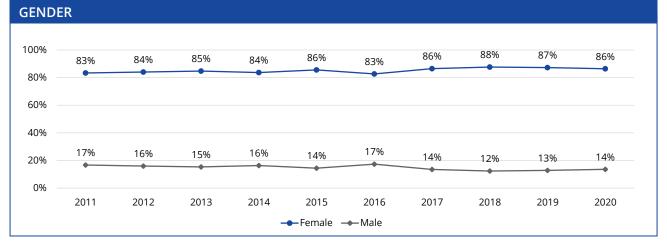




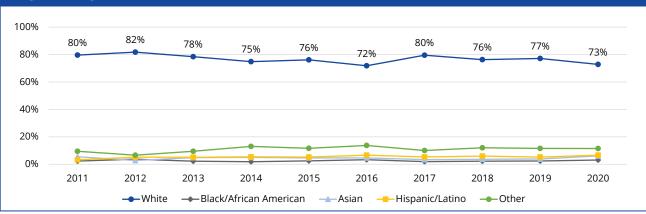
PROFESSIONS







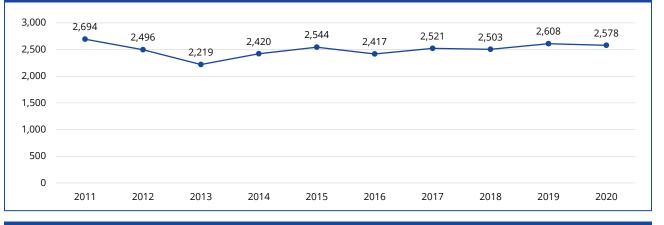


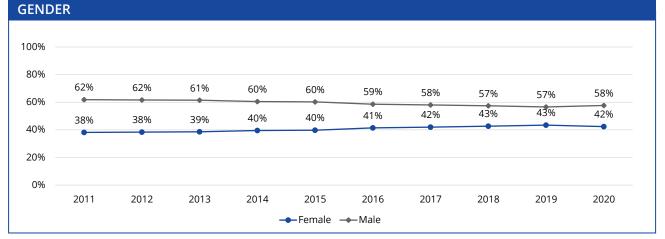


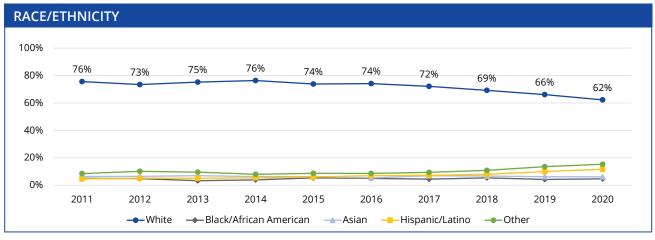
CIP Code: 51.0202; Minimum Education: Professional degree (doctoral level); Award Level Code(s): 18 and 19.

Health Professions Education Program Outcomes, 2011-2020





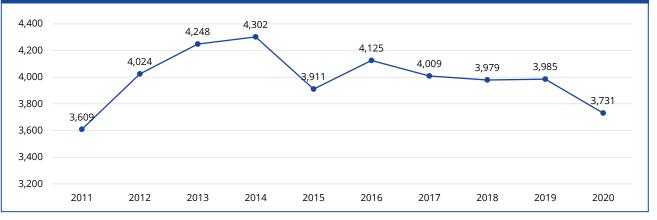


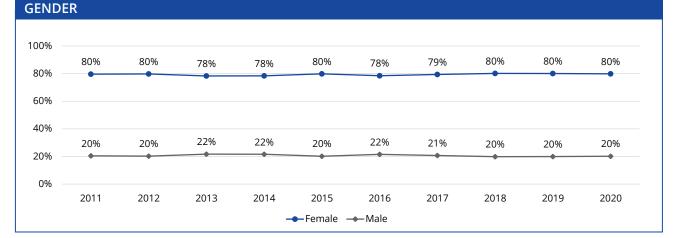


CIP Code: 51.0101; Minimum Education: Professional degree (doctoral level); Award Level Code(s): 18 and 19.

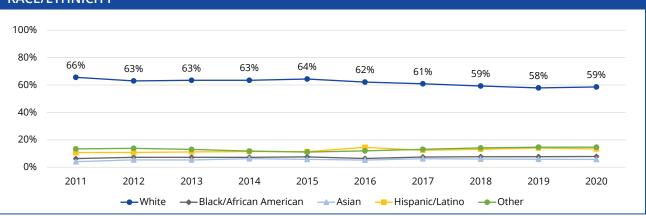
Health Workforce Technical Assistance Center





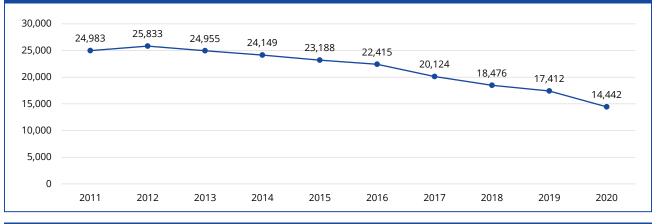


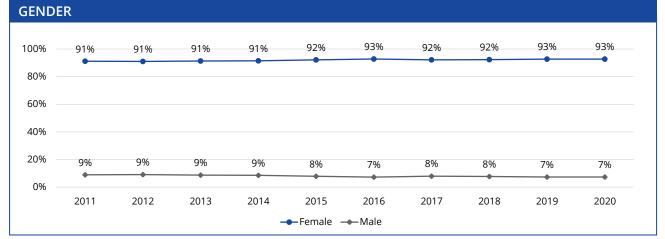


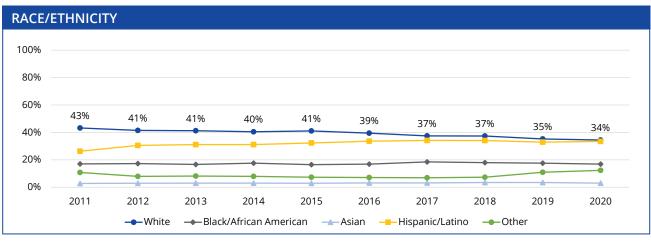


CIP Code: 42.2801; Minimum Education: Professional degree (master's level); Award Level Code(s): 7, 8, 18, 19.



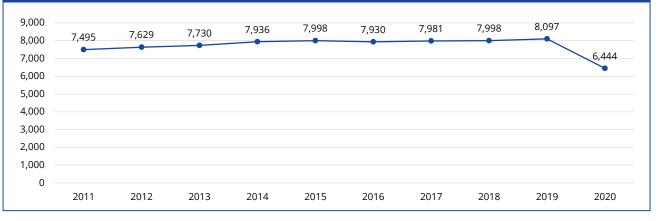


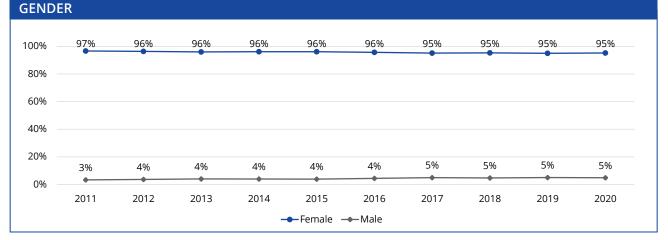


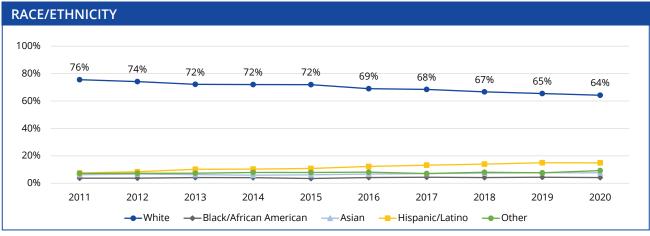


CIP Code: 51.0601; Minimum Education: Post-secondary certificate; Award Level Code(s): 1-5, 20, 21.





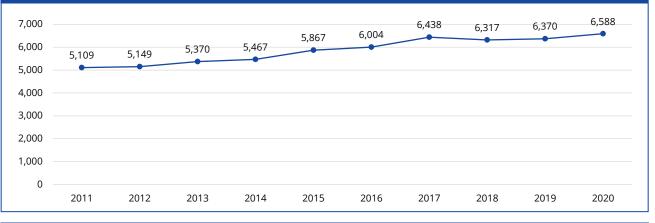


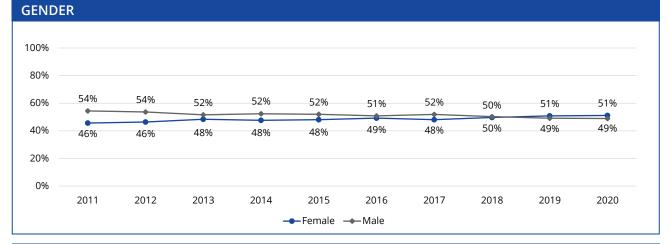


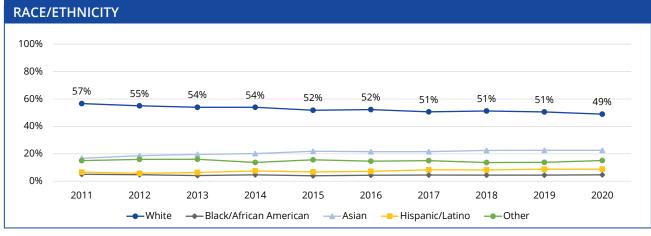
CIP Code: 51.0602; Minimum Education: Associate's degree; Award Level Code(s): 3, 5.

Health Professions Education Program Outcomes, 2011-2020



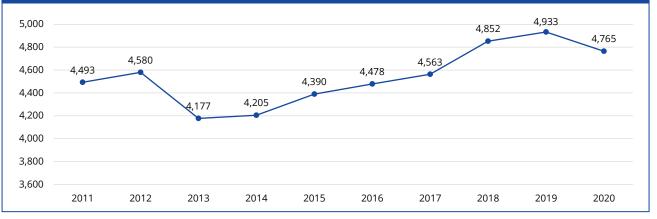


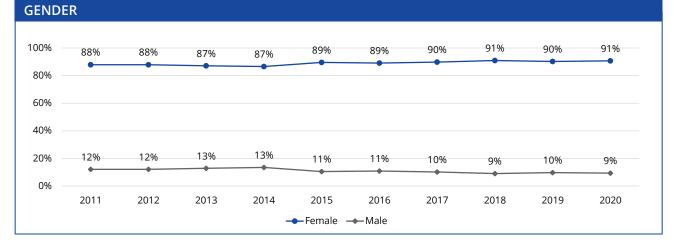


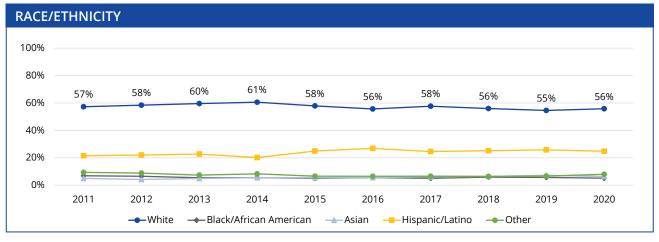


CIP Code: 51.0401; Minimum Education: Professional degree (doctoral level); Award Level Code(s): 18, 19.







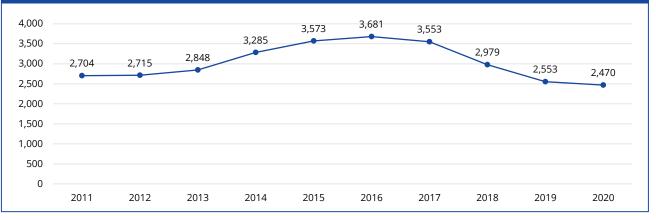


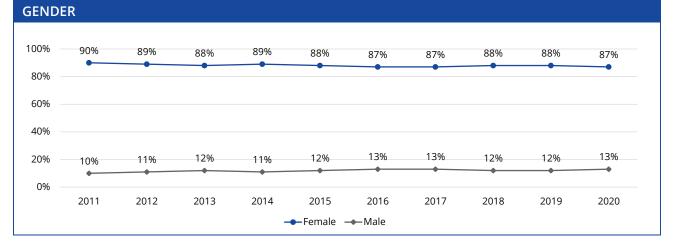
CIP Code: 51.0910; Minimum Education: Associate's degree; Award Level Code(s): 3, 4, 5.

DIETITIANS AND NUTRITIONISTS

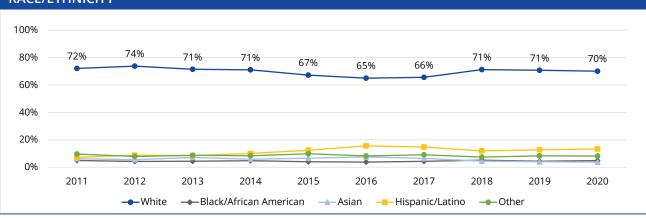


TOTAL NUMBER OF DEGREES/CERTIFICATES AWARDED





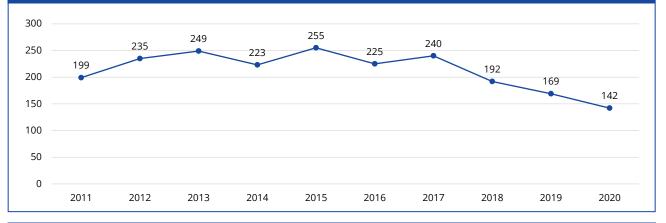


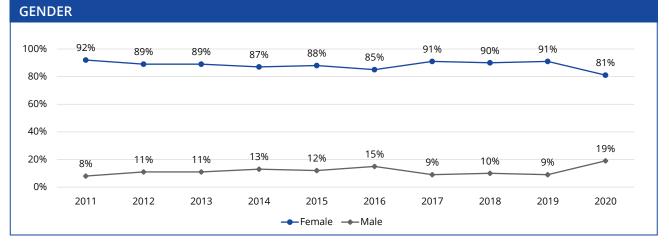


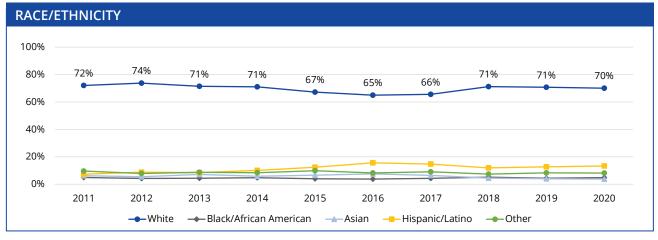
CIP Code: 51.3101; 51.3102; Minimum Education: Bachelor's degree; Award Level Code(s): 5.



TOTAL NUMBER OF DEGREES/CERTIFICATES AWARDED

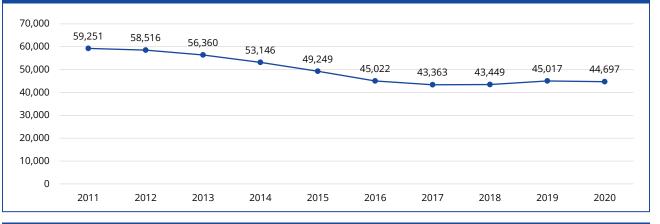


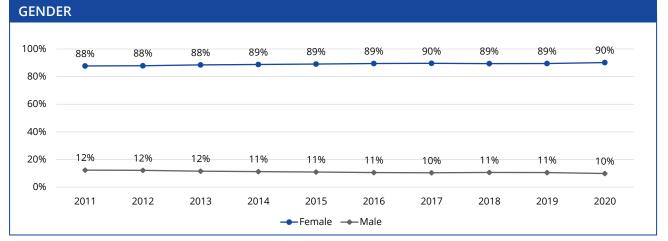


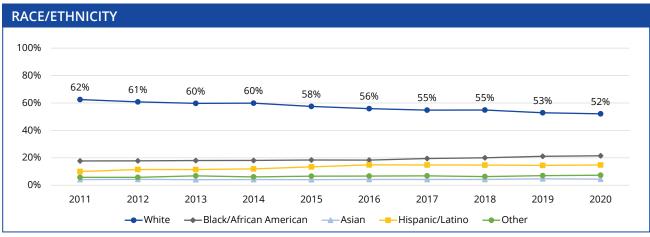


CIP Code: 51.3103; Minimum Education: Associate's degree; Award Level Code(s): 3.





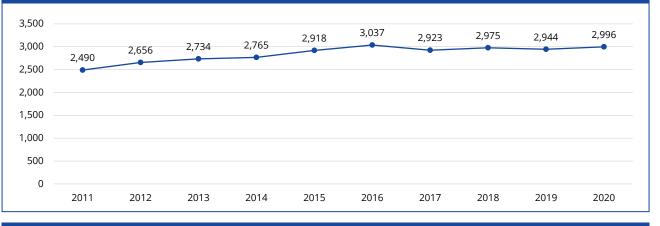


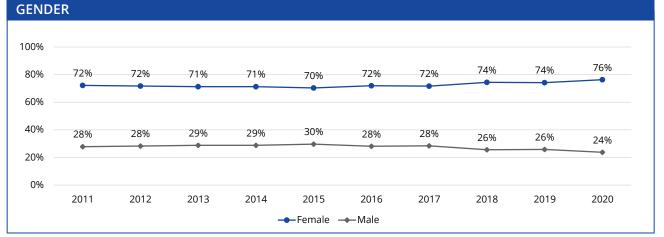


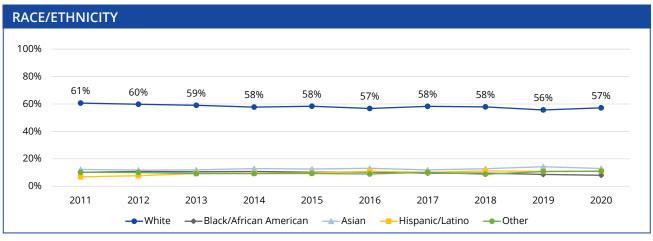
CIP Code: 51.3901; Minimum Education: Post-secondary certificate; Award Level Code(s): 1, 2, 3, 20, 21.

MEDICAL AND CLINICAL LABORATORY TECHNOLOGISTS

TOTAL NUMBER OF DEGREES/CERTIFICATES AWARDED



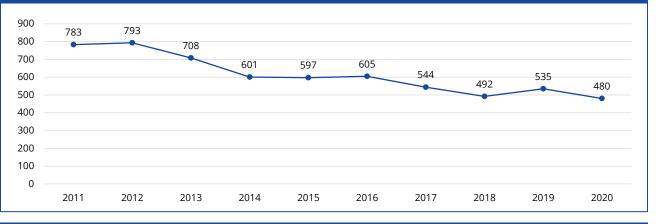


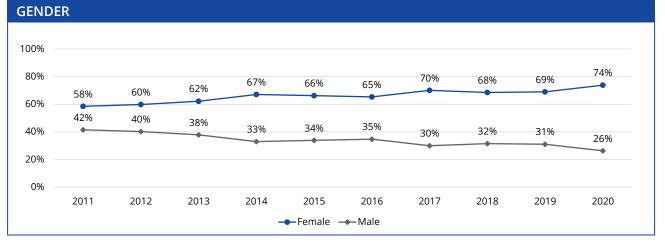


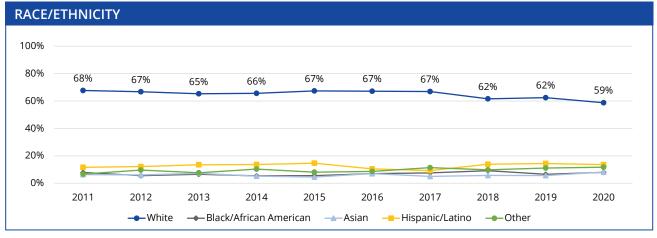
CIP Code: 51.1005; Minimum Education: Bachelor's degree; Award Level Code(s): 5.

NUCLEAR MEDICINE TECHNICIANS

TOTAL NUMBER OF DEGREES/CERTIFICATES AWARDED

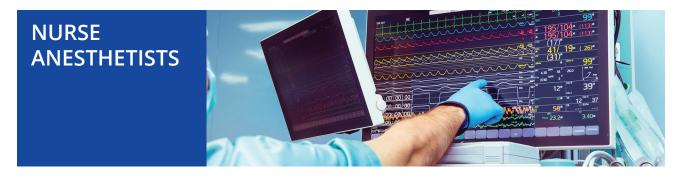


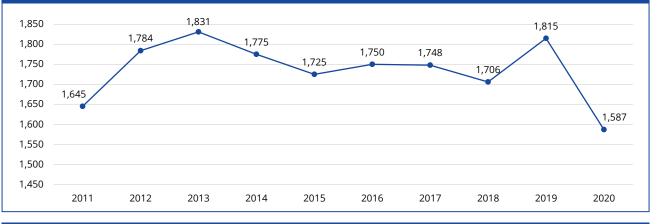


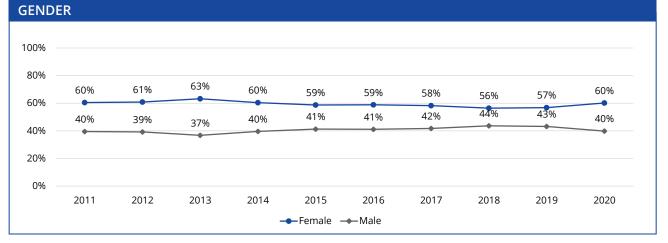


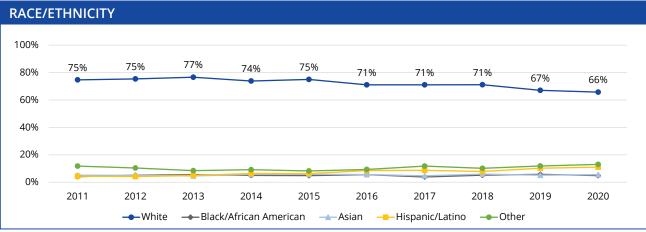
CIP Code: 51.0905; Minimum Education: Associate's degree; Award Level Code(s): 3, 5.

Health Workforce Technical Assistance Center







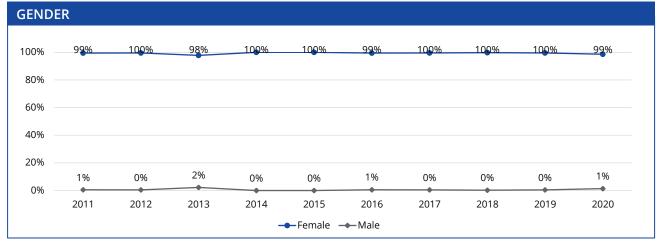


CIP Code: 51.3804; Minimum Education: Professional degree (master's level); Award Level Code(s): 7, 8, 18, 19.

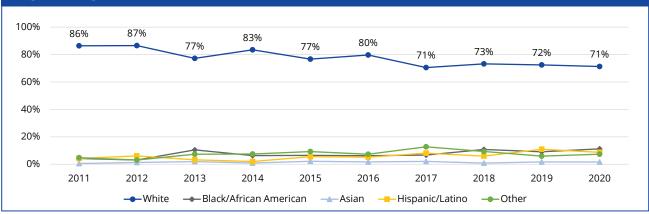
Health Professions Education Program Outcomes, 2011-2020







RACE/ETHNICITY

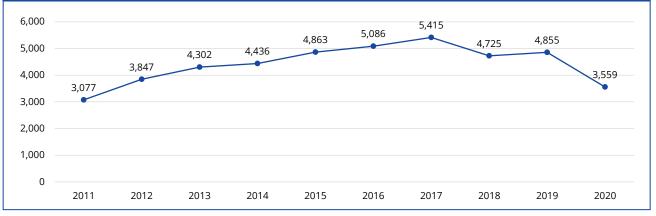


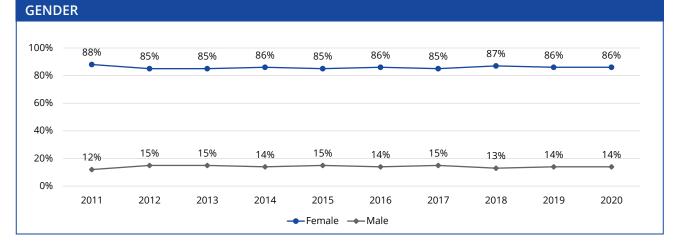
CIP Code: 51.3807; Minimum Education: Professional degree (master's level); Award Level Code(s): 7, 8, 18, 19.

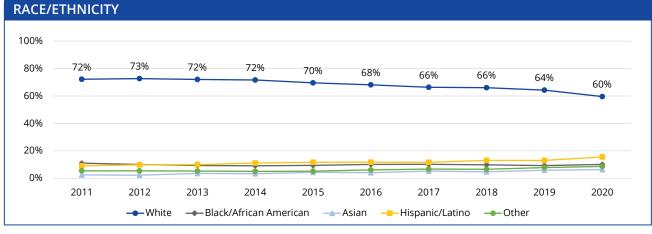
OCCUPATIONAL THERAPY ASSISTANTS



TOTAL NUMBER OF DEGREES/CERTIFICATES AWARDED

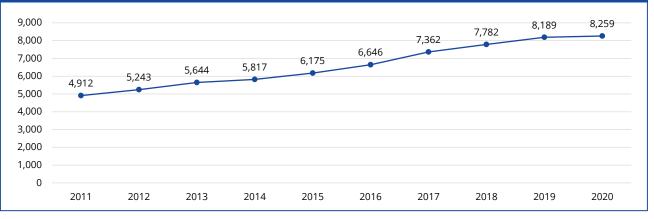


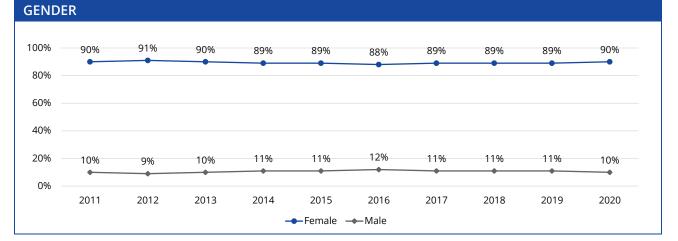


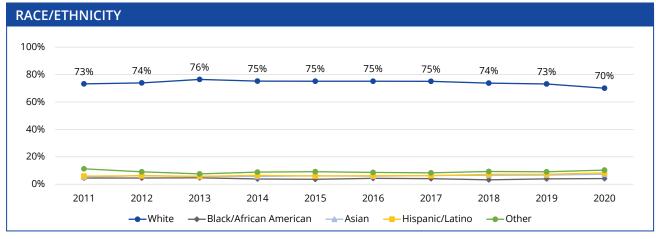


CIP Code: 51.0803; Minimum Education: Associate's degree; Award Level Code(s): 3.



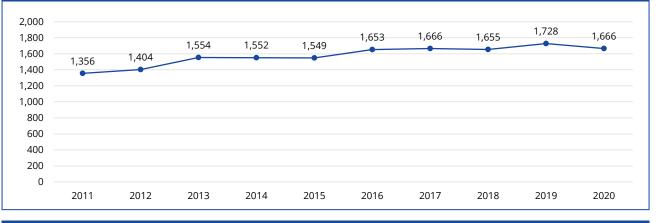


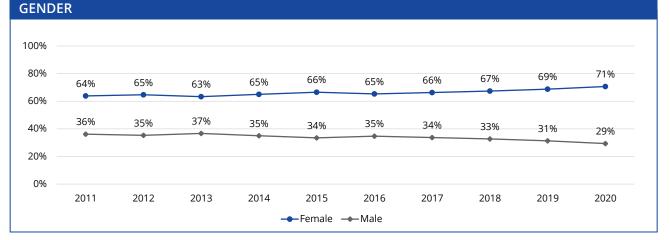


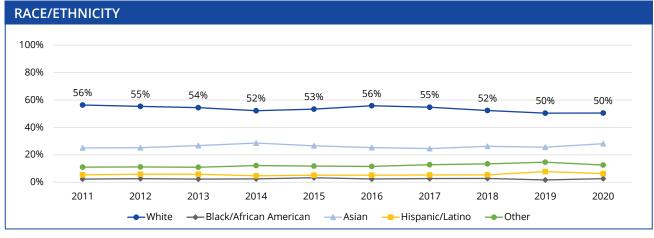


CIP Code: 51.2306; Minimum Education: Professional degree (master's level); Award Level Code(s): 7, 17, 18, 19.



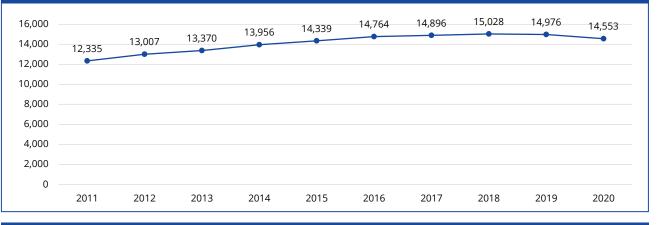


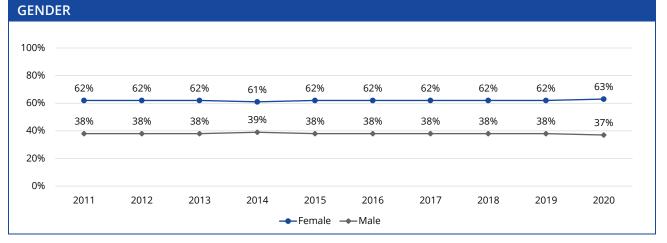




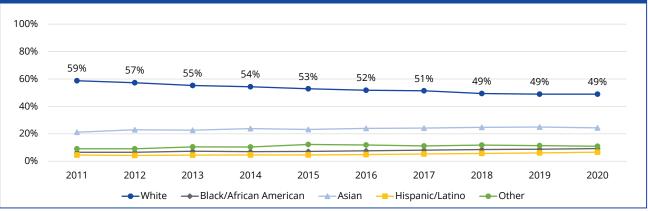
CIP Code: 51.1701; Minimum Education: Professional degree (doctoral level); Award Level Code(s): 18, 19.





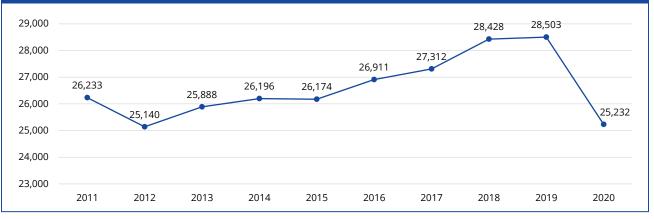


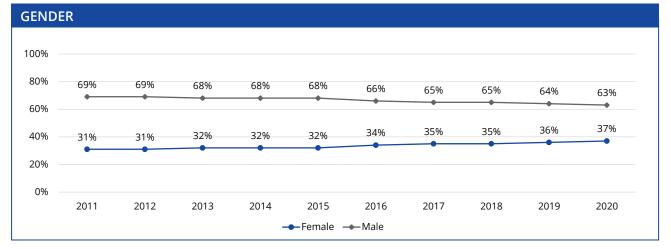


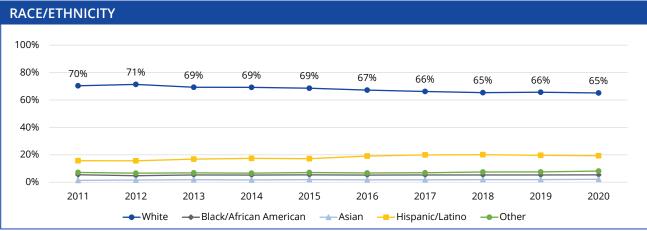


CIP Code: 51.2001; Minimum Education: Professional degree (doctoral level); Award Level Code(s): 18, 19.





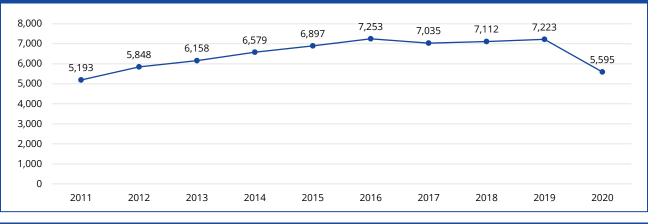


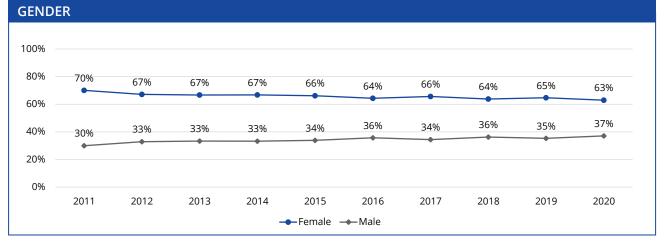


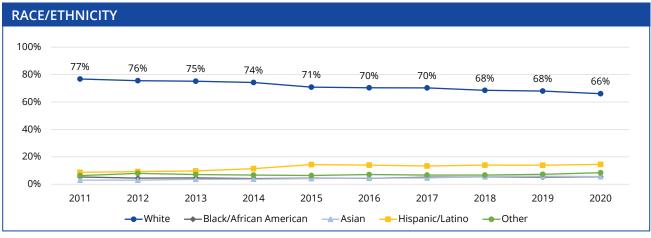
CIP Code: 51.0904; Minimum Education: Post-secondary certificate; Award Level Code(s): 1, 2, 3, 20, 21.

Health Professions Education Program Outcomes, 2011-2020





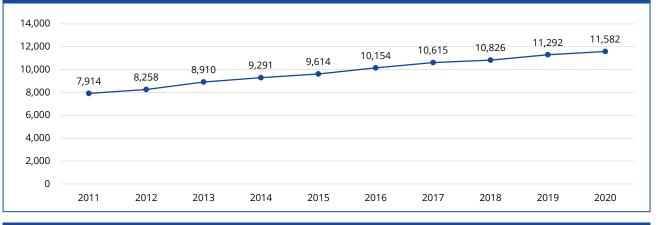


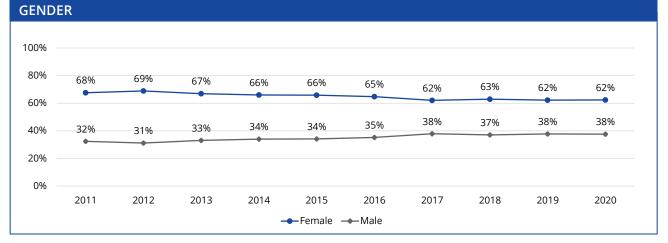


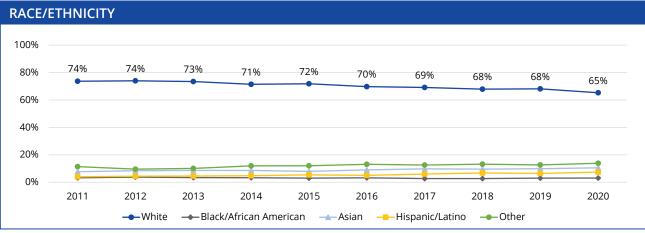
CIP Code: 51.0806; Minimum Education: Associate's degree; Award Level Code(s): 3.

Health Workforce Technical Assistance Center





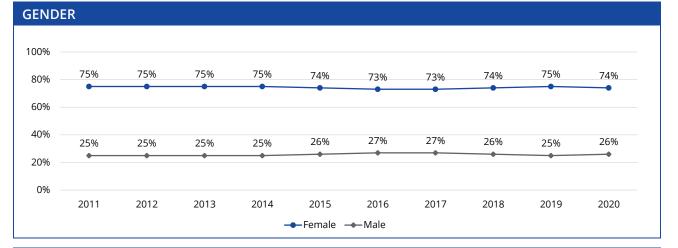




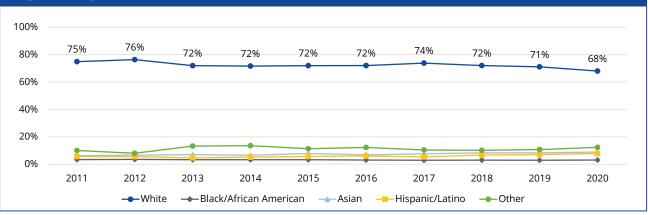
CIP Code: 51.2308; Minimum Education: Professional degree (doctoral level); Award Level Code(s): 18, 19.



TOTAL NUMBER OF DEGREES/CERTIFICATES AWARDED 12,000 10,142 9,732 10,000 9,110 8,562 8,239 7,651 8,000 7,055 6,592 6,299 5,619 6,000 4,000 2,000 0 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020



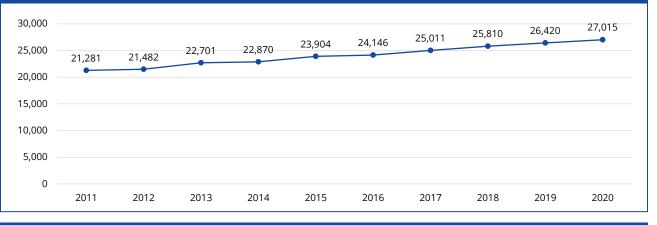


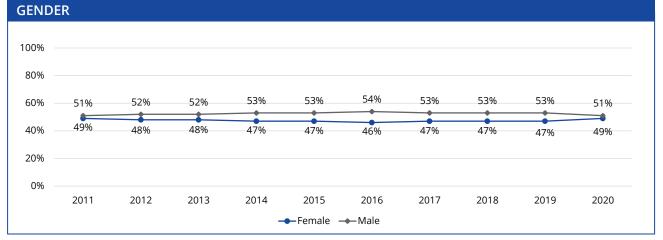


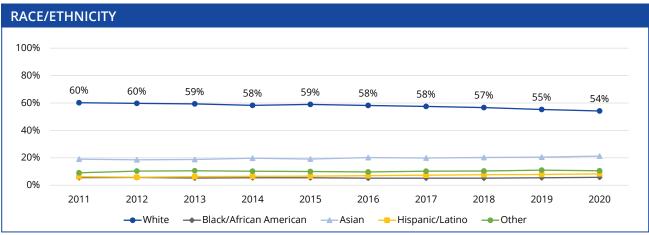
CIP Code: 51.0912; Minimum Education: Professional degree (master's level); Award Level Code(s): 5, 7.

Health Workforce Technical Assistance Center





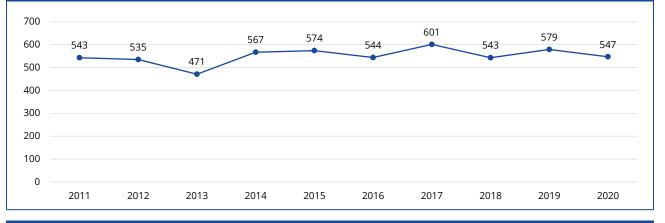


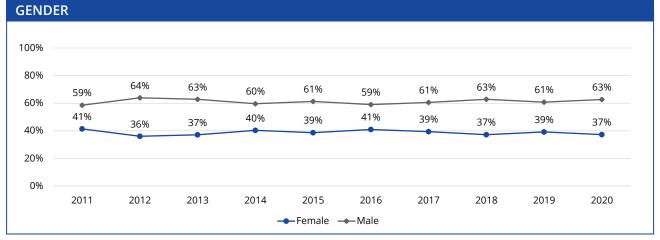


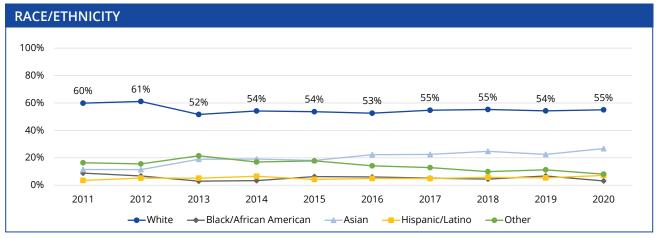
CIP Code: 51.1201; 51.1202; 51.1901; Minimum Education: Professional degree (doctoral level); Award Level Code(s): 18, 19.

Health Professions Education Program Outcomes, 2011-2020







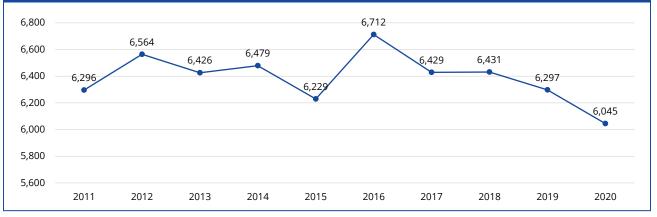


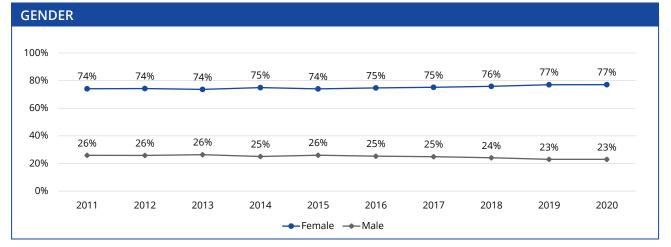
CIP Code: 51.1203; 51.2101; Minimum Education: Professional degree (doctoral level); Award Level Code(s): 18, 19.

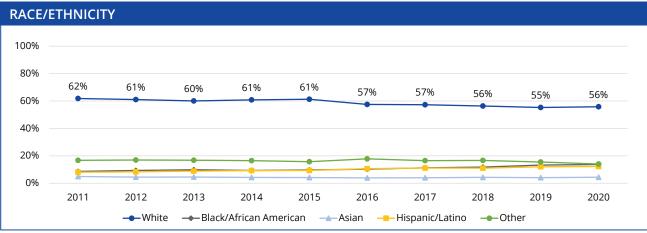
Health Workforce Technical Assistance Center



TOTAL NUMBER OF DEGREES/CERTIFICATES AWARDED



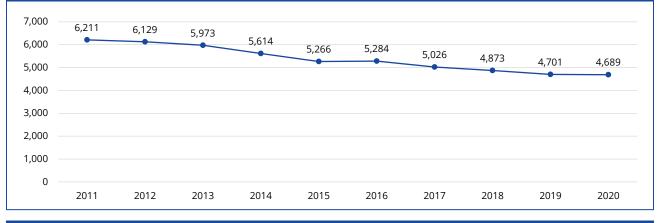


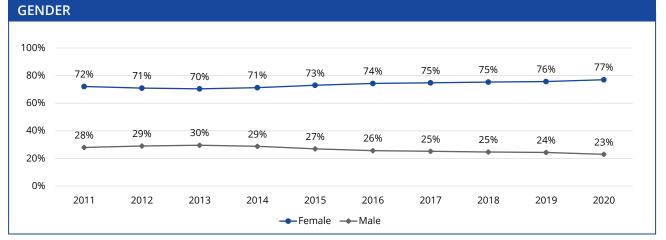


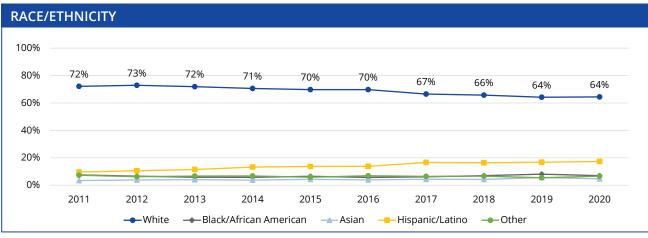
CIP Code: 42.0101; Minimum Education: Professional degree (master's level); Award Level Code(s): 7, 8, 18, 19.

Health Professions Education Program Outcomes, 2011-2020









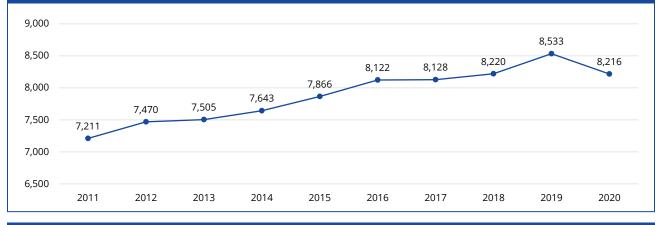
CIP Code: 51.0907; Minimum Education: Associate's degree; Award Level Code(s): 3, 5.

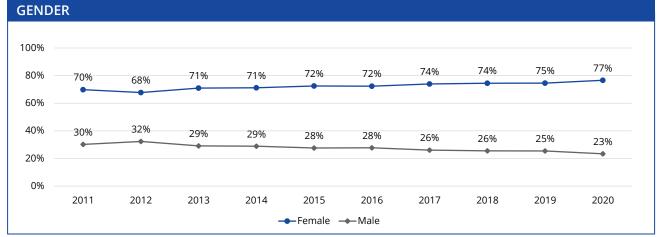
Health Workforce Technical Assistance Center

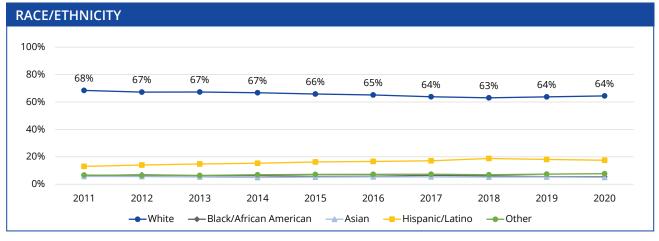
RADIOLOGIC TECHNOLOGISTS AND TECHNICIANS



TOTAL NUMBER OF DEGREES/CERTIFICATES AWARDED





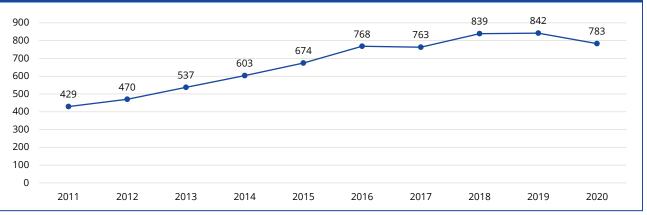


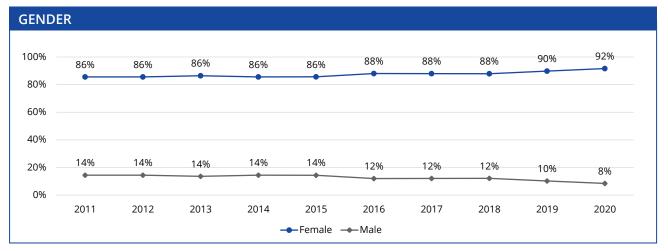
CIP Code: 51.0911; Minimum Education: Associate's degree; Award Level Code(s): 3, 4, 5.

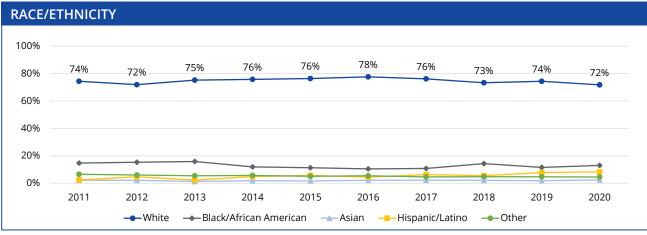
RECREATIONAL THERAPISTS



TOTAL NUMBER OF DEGREES/CERTIFICATES AWARDED

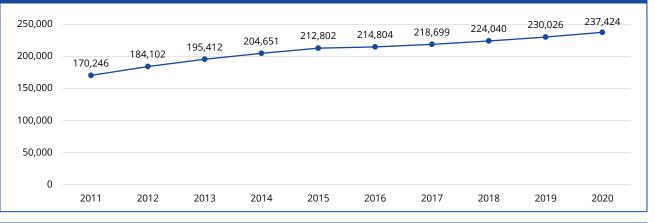


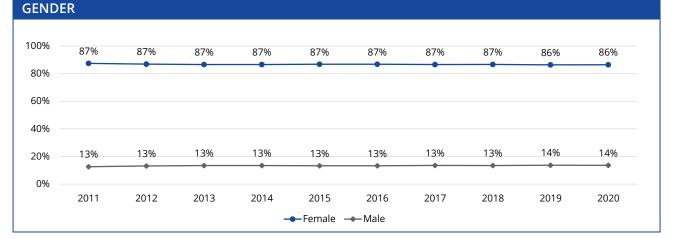


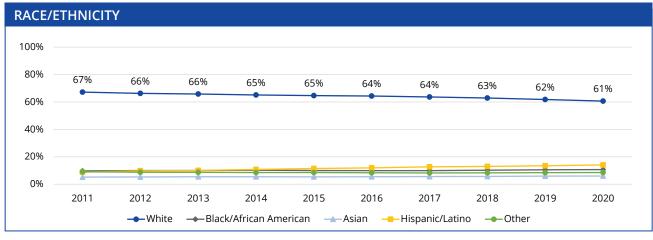


CIP Code: 51.2309; Minimum Education: Bachelor's degree; Award Level Code(s): 5.



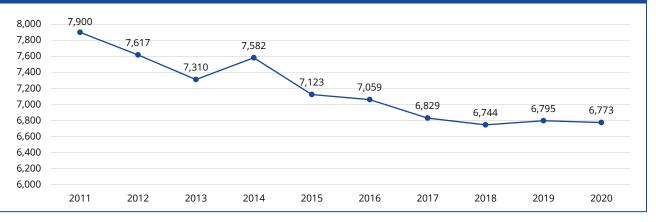


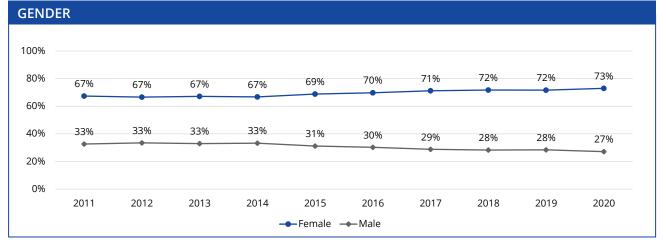


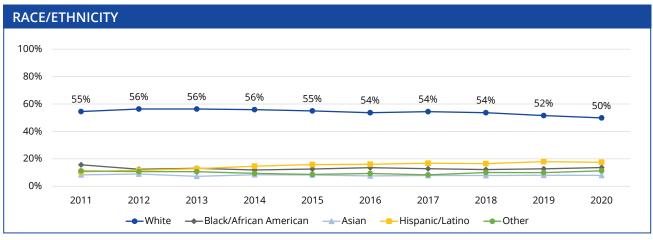


CIP Code: 51.3801; Minimum Education: Associate's degree; Award Level Code(s): 3, 4, 5.





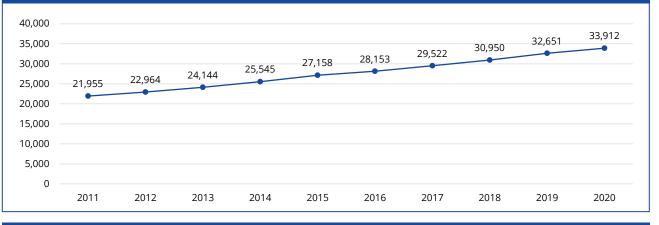


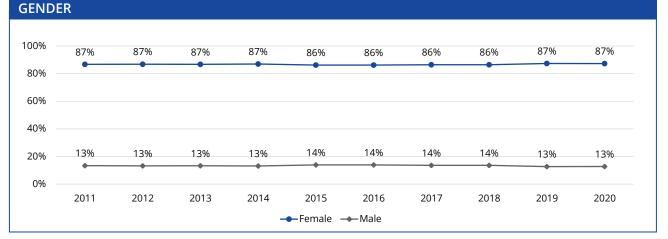


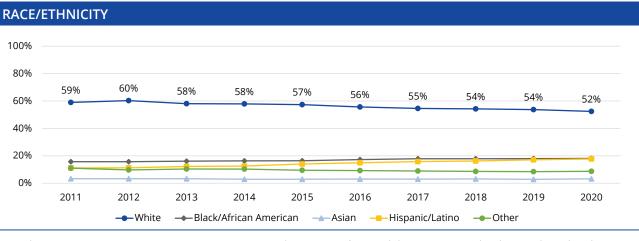
CIP Code: 51.0908; Minimum Education: Associate's degree; Award Level Code(s): 3, 5.

Health Workforce Technical Assistance Center



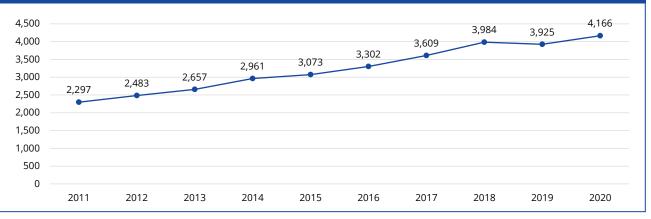


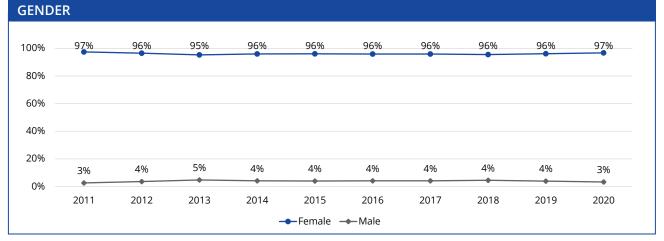


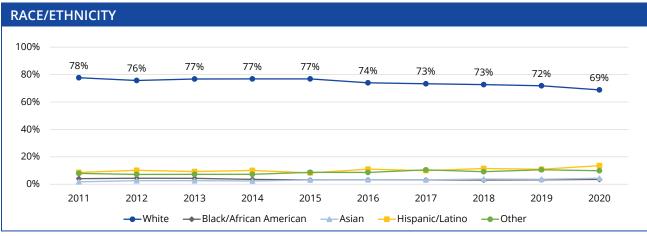


CIP Code: 51.1503; 44.0701; 44.0702; 44.0799; Minimum Education: Professional degree (master's level); Award Level Code(s): 7.









CIP Code: 51.0203; Minimum Education: Professional degree (master's level); Award Level Code(s): 7.

Health Workforce Technical Assistance Center

APPENDIX

TABLE A-1: CIP Codes, Minimum Education Requirements, and Award Level Codes by Profession

Occupation	CIP Code	Minimum Education	Award Level Codes
Audiologists	51.0202	Professional degree (doctoral level)	18, 19
Chiropractors	51.0101	Professional degree (doctoral level)	18, 19
Clinical Psychologists	42.2801	Professional degree (master's level)	7, 8, 18, 19
Dental Assistants	51.0601	Post-secondary certificate	1, 2, 3, 4, 5, 20, 21
Dental Hygienists	51.0602	Associate's degree	3, 5
Dentists	51.0401	Professional degree (doctoral level)	18, 19
Diagnostic Medical Sonographers	51.0910	Associate's degree	3, 4, 5
Dietitians and Nutritionists	51.3101 51.3102	Bachelor's degree	5
Dietetic Technicians	51.3103	Associate's degree	3
Licensed Practical Nurses	51.3901	Post-secondary certificate	1, 2, 3, 20, 21
Medical and Clinical Laboratory Technologists	51.1005	Bachelor's degree	5
Nuclear Medicine Technicians	51.0905	Associate's degree	3, 5
Nurse Anesthetists	51.3804	Professional degree (master's level)	7, 8, 18, 19
Nurse Midwives	51.3807	Professional degree (master's level)	7, 8, 18, 19
Occupational Therapy Assistants	51.0803	Associate's degree	3
Occupational Therapists	51.2306	Professional degree (master's level)	7, 17, 18, 19
Optometrists	51.1701	Professional degree (doctoral level)	18, 19
Pharmacists	51.2001	Professional degree (doctoral level)	18, 19
Paramedics/Emergency Medical Technicians	51.0904	Post-secondary certificate	1, 2, 3, 20, 21
Physical Therapist Assistants	51.0806	Associate's degree	3
Physical Therapists	51.2308	Professional degree (doctoral level)	18, 19
Physician Assistants	51.0912	Professional degree (master's level)	5, 7
Physicians	51.1201 51.1202 51.1901	Professional degree (doctoral level)	18, 19
Podiatrists	51.1203 51.2101	Professional degree (doctoral level)	18, 19

TABLE A-1: CIP Codes, Minimum Education Requirements, and Award Level Codes by Profession (cont.)

Occupation	CIP Code	Minimum Education	Award Level Codes
Psychologists	42.0101	Professional degree (master's level)	7, 8, 18, 19
Radiation Therapists	51.0907	Associate's degree	3, 5
Radiologic Technologists and Technicians	51.0911	Associate's degree	3, 4, 5
Recreational Therapists	51.2309	Bachelor's degree	5
Registered Nurses	51.3801	Associate's degree	3, 4, 5
Respiratory Therapists	51.0908	Associate's degree	3, 5
Social Workers	51.1503 44.0701 44.0702 44.0799	Professional degree (master's level)	7
Speech-language Pathologists	51.0203	Professional degree (master's level)	7

Award Level Codes

- 1 Award of less than 1 academic year
- 2 Award of at least 1 but less than 2 academic years
- 3 Associate's degree
- 4 Award of at least 2 but less than 4 academic years
- 5 Bachelor's degree
- 6 Postbaccalaureate certificate
- 7 Master's degree
- 8 Post-master's certificate
- 17 Doctor's degree research/scholarship
- 18 Doctor's degree professional practice
- 19 Doctor's degree other
- 20 Certificates of less than 12 weeks
- 21 Certificates of at least 12 weeks but less than 1 year

ABOUT THE AUTHORS



Jinman Pang, MS

Research Associate, Center for Health Workforce Studies

Ms. Pang conducts data analysis, updates federal data sources, and conducts literature reviews, among other tasks as needed. Ms. Pang specializes in health econometrics, applied microeconomics, data analysis, modeling, and forecasting. She is currently a PhD candidate with the Economics Department at the University at Albany.

David Armstrong, PhD

Director, Health Workforce Technical Assistance Center

Dr. David Armstrong manages the day-to-day operations of HWTAC and provides direct assistance to states and organizations engaged in health workforce planning. Dr. Armstrong has an extensive background in conducting health workforce studies. He has presented nationwide and produced dozens of reports on the health care workforce in New York and the US. He has a doctorate in sociology from the University at Albany, SUNY and has worked in the field of health workforce studies since 2003.



Center for Health Workforce Studies School of Public Health | University at Albany, SUNY 1 University Place, Suite 220 | Rensselaer, NY 12144-3445