

CTE LABOR MARKET TOOL

This resource provides data snapshots and insights about the overall healthcare labor market, and a closer focus on the Dental Assistants, Medical Assistants, and Nursing Assistants occupations as those are popular areas for CTE healthcare programs. It also includes some guiding questions to help apply the data to your school's CTE program.

Careers in healthcare include many different kinds of jobs, some that focus on working directly with patients or supporting other medical professionals, and others that involve working in a laboratory or with medical coding and billing systems. People with these occupations work in many different settings, including hospitals, doctors' offices, medical laboratories, schools, and even people's homes. The three largest healthcare occupations in New York City are Home Health Aides, Registered Nurses, and Nursing Assistants. Chart 1 below shows the many different kinds of NYC organizations hiring professionals in healthcare.

Why use this resource?

- Use as a critical tool with your school's self study group to guide program planning and improvement aligned to labor market data
- Use as a critical tool to prepare students for postsecondary planning towards high-demand careers
- Feel prepared and confident when responding to NYSED questions about incorporating labor market data into your work

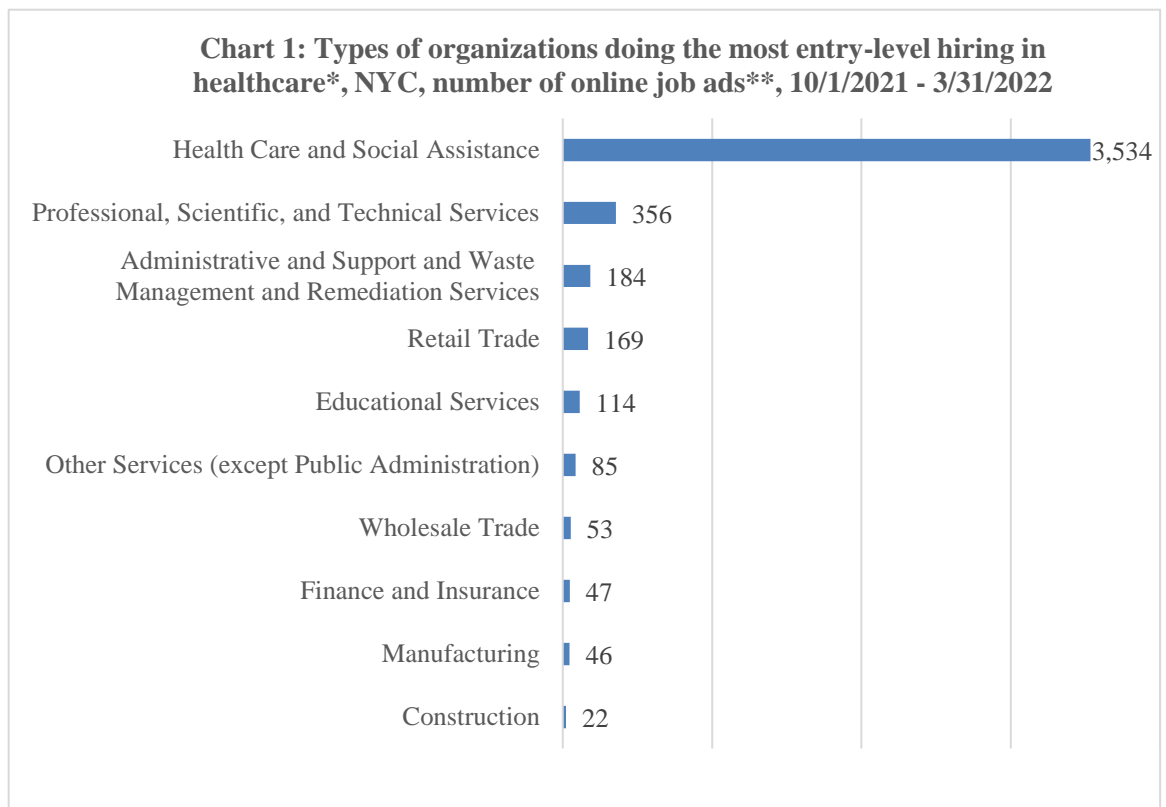


Chart 2 provides an overview of New York City employment in each of the three focus occupations. As you can see, the number of jobs in each of the occupations is expected to grow by 2028, with the *percentage increase* the largest for the medical assistants occupation (40.6%), and the predicted *size* of the occupation the largest for nursing assistants (45,570 jobs). It's important to keep in mind that even though these predictions help us understand the labor market's trajectory, things like new technologies or innovations, shifts in the economy, or major unexpected shocks like the COVID-19 pandemic can impact their accuracy.



Chart 2: Current & projected employment for 3 focus occupations, NYC, 2018 - 2028

	# Employed in NYC****	Projected NYC Employment***		Change Over Time (2018-2028)	
		2018	2028	Net	Percent
Dental Assistants	5,650	8,450	10,750	2,300	27.2%
Medical Assistants	12,160	13,670	19,220	5,550	40.6%
Nursing Assistants	32,610	39,790	45,570	5,780	14.5%

IN THIS RESOURCE...

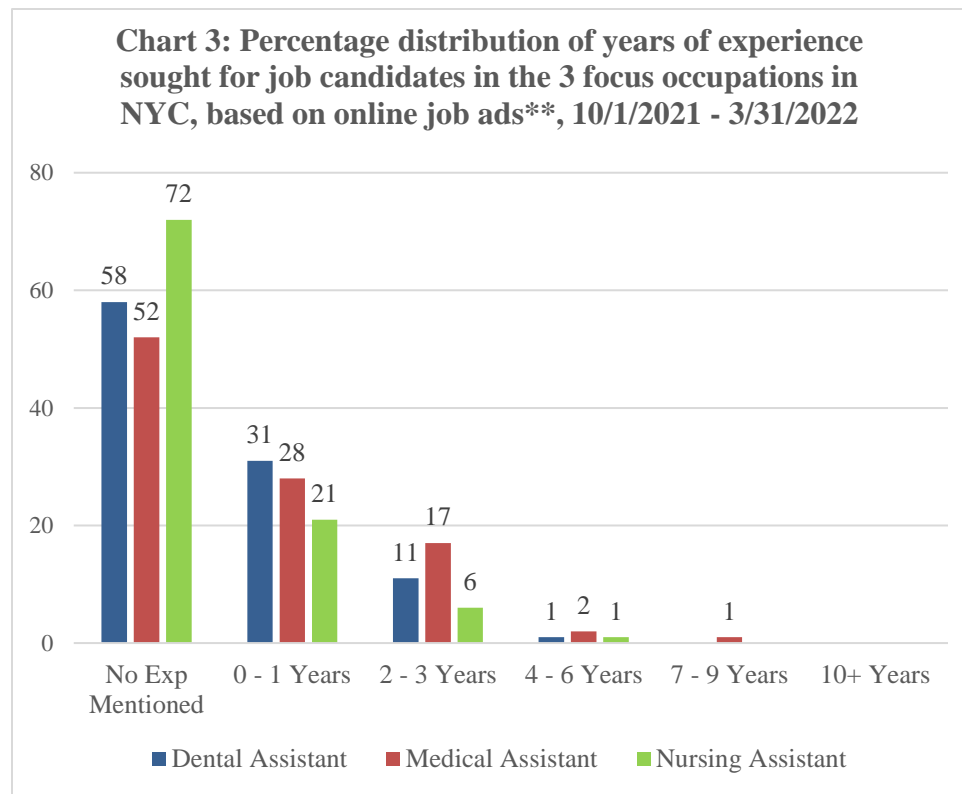
**LOOKING DEEPER:
WHO'S BEING
HIRED IN THIS
FIELD? (P.2)**

**POST-SECONDARY
PLANNING (P.3-4)**

**WHAT NEXT? GUIDING
QUESTIONS & WEB
RESOURCES (P.5)**

Looking Deeper: Who's Being Hired in This Field?

- Over 50% of job ads for each of the three focus occupations did not specify years of experience sought. This suggests that other criteria, such as skills and certifications, may be more important to employers in making hiring decisions.
- There is significant overlap in the employability skills that organizations look for in job candidates, with communication skills in-demand for all three focus occupations, while customer service and computer literacy are in-demand for two of the three focus occupations.
- Entry-level wages for each of the three focus occupations are below the living wage for a single adult in NYC (\$48,320*****).
- Only a small percentage of job ads for the three focus occupations sought candidates with a 4-year degree, and no job ads sought a candidate with more advanced educational attainment.



The chart below reflects entry-level wages****, as well as the most in-demand (i.e., among the five most frequently requested and in at least 10% of online job ads*****) employability skills, technical skills, and certifications** for entry-level jobs in the three focus occupations from 10/1/2021 – 3/31/2022. Values in parentheses reflect the percentage of online job ads in which each skill is mentioned.

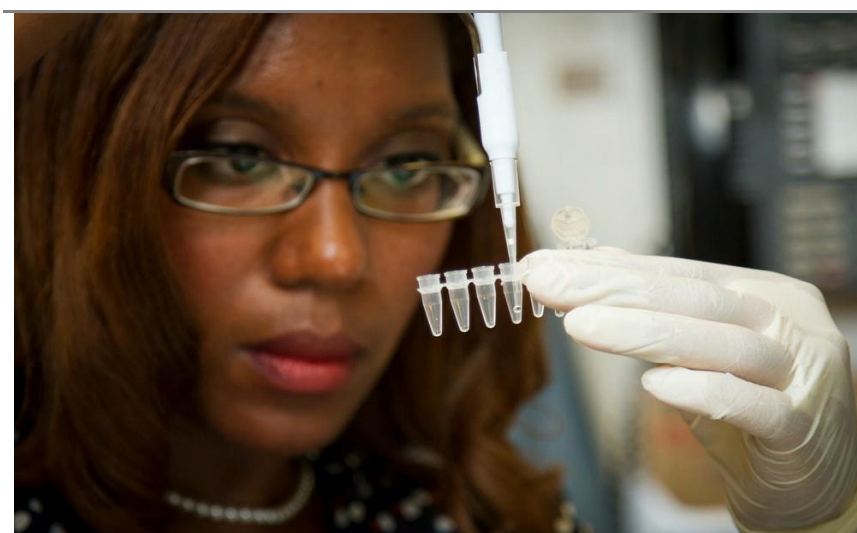
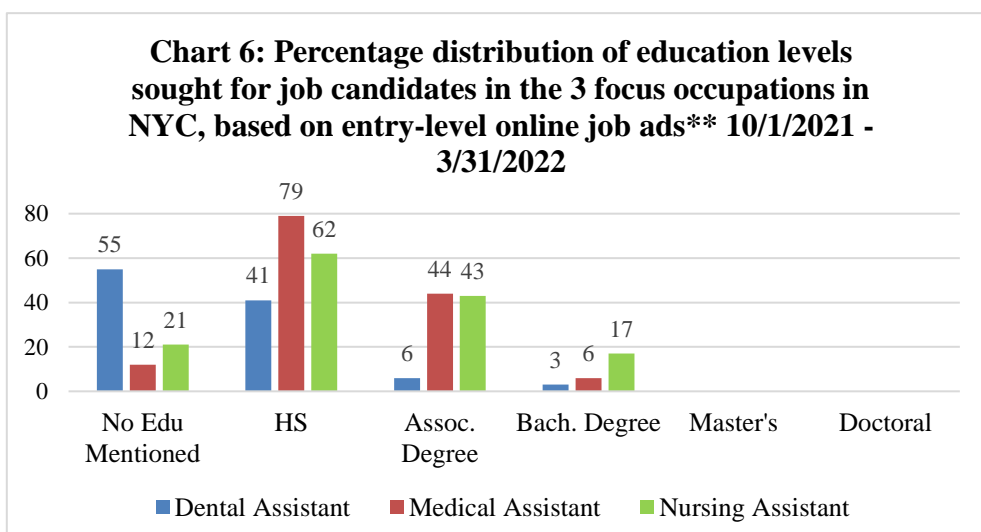
Chart 4: Entry-level wages & in-demand skills for 3 focus occupations

Occupation	Entry-level Wage	In-demand Employability Skills	In-demand Technical Skills	In-demand Certifications*****
Dental Assistants	\$32,480	Communications (31%), Customer Service (24%), Detailed Oriented (20%), Computer Literacy (17%), and Multilingualism (11%)	Dentistry (49%), Sterilization (35%), Oral Hygiene (21%), Dental Instruments (14%), and Infection Control (13%)	Radiology Certification, and Certified Dental Assistant
Medical Assistants	\$35,570	Communications (42%), Clerical Works (25%), Multitasking (19%), Scheduling (18%), and Customer Service (17%)	Medical Assistance (88%), Vital Signs (61%), Medical Records (43%), Electronic Medical Record (32%), and Basic Life Support (31%)	Certified Medical Assistant
Nursing Assistants	\$39,240	Compassion (32%), Computer Literacy (26%), Communications (25%), Proactivity (19%), and Management (17%)	Nursing (77%), Vital Signs (37%), Electrocardiography (36%), Phlebotomy (31%), and Basic Life Support (24%)	Patient Care Technician, Certified Nursing Assistant, and Licensed Practical Nurse

Chart 5 shows the ethnicity and sex of people who work in the three focus occupations in NYC****. As you can see, these jobs are overwhelmingly held by females, while there is greater diversity across ethnicities.

Chart 5: Sex and ethnicity distributions for 3 focus occupations

Occupation	Ethnicity %						Sex %	
	American Indian/ Alaska Native	Asian/ Pacific Islander	Black	Hispanic	White	Multi-ethnic/ Other	Female	Male
Dental Assistants	0.33	14.56	7.83	46.45	27.80	3.04	89.14	10.86
Medical Assistants	0.60	12.73	24.48	39.57	19.52	3.10	87.75	12.25
Nursing Assistants	0.26	10.50	48.25	27.42	10.12	3.45	91.68	8.32



Post-secondary Planning

CTE students are encouraged to pursue education and training after graduation from high school in order to enter into an in-demand career with family-sustaining wages in NYC. The following is a list of CUNY degree programs aligned with the healthcare industry as well as non-degree programs that result in an industry-endorsed certification and/or college credits. Some CTE programs have robust partnerships with CUNY programs that are codified by an articulation agreement. These agreements provide a range of student benefits such as advanced standing, early college credit, and preferential placement. CTE school leaders, teachers, and work-based learning coordinators are encouraged to connect with the school counseling teams at their school to determine strong postsecondary options for their students. Please reach out to your Industry Engagement Manager for more information about the articulation agreements.

- Chart 7 is a sample of the over 50 CUNY programs focused on healthcare spread across the five boroughs, ranging from certificate programs up through Master's and PhD degree opportunities.
- Chart 8, on the following page, provides a list of non-degree healthcare occupation-focused training opportunities available through a variety of different NYC-based organizations.

Chart 7: CUNY post-secondary programs related to healthcare

Borough	School	Academic program	Credential*****	DOE/CUNY articulation agreement's benefits
Bronx	Bronx CC	Community Health	Certificate	
Bronx	Bronx CC	Exercise Science and Kinesiology and Public Health	AS	
Bronx	Bronx CC	Pharmaceutical Manufacturing Technology and Radiologic Technology	AAS	
Bronx	Hostos CC	Practical Nursing	Certificate	
Bronx	Hostos CC	Aging and Health Studies, Nursing, and Radiologic Technology	AAS	
Bronx	Hostos CC	Community Health	AS	
Bronx	Lehman College	Health Careers Preparation and Speech-Language Pathology	Certificate	
Bronx	Lehman College	Exercise Science, Health Education and Promotion, Health Services Administration, and Nursing	BS	
Bronx	Lehman College	Speech Pathology and Audiology	BA	
Bronx	Lehman College	Health Education & Promotion and Speech-Language Pathology	MA	
Bronx	Lehman College	Nursing and Nutrition	MS	
Bronx	Lehman College	Nutrition	DNP	
Brooklyn	Brooklyn College	Health and Nutrition Sciences and Exercise Science	BS	
Brooklyn	Brooklyn College	Thanatology	Advanced Certificate	
Brooklyn	Brooklyn College	Community Health	MA	
Brooklyn	Brooklyn College	Health Informatics, Nutrition, Speech-Language Pathology	MS	
Brooklyn	Kingsborough CC	Community Health, Exercise Science, Mental Health and Human Services, and Pre-Physical Therapy	AS	
Brooklyn	Kingsborough CC	Nursing	AAS	
Brooklyn	Medgar Evers College	Practical Nursing	Certificate	
Brooklyn	Medgar Evers College	Nursing	AAS	
Brooklyn	Medgar Evers College	Nursing (RN)	BS	
Brooklyn	NYC College of Tech	Health Science	AS	
Brooklyn	NYC College of Tech	Nursing and Radiologic Tech and Medical Imaging	AAS	
Brooklyn	NYC College of Tech	Health Communication, Health Services Administration, Nursing, and Radiologic Science	BS	
Manhattan	Borough of Manhattan CC	Health Informatics and Community Health	Certificate	
Manhattan	Borough of Manhattan CC	Community Health Education, Public Health, and School Health Education	AS	Prior Learning Credit: 9 credits
Manhattan	Borough of Manhattan CC	Science for Health	AS	
Manhattan	Borough of Manhattan CC	Health Information Technology, Nursing, and Paramedic	AAS	
Manhattan	City College of New York	Health Professions Preparation	Certificate	
Manhattan	City College of New York	Speech Pathology	BA	
Manhattan	City College of New York	Physician Assistant and Translational Medicine	MS	
Manhattan	Graduate Center	Speech-Language-Hearing Sciences	PhD	
Manhattan	Hunter College	Health Careers Preparation	Certificate	
Manhattan	Hunter College	Nursing, Nutrition and Food Science: Dietetics and Public Health	BS	
Manhattan	Hunter College	Gerontological/Adult Health Nurse Practitioner and Nutrition and Food Science: Dietetics/Nutrition	BS/MS	

Manhattan	Hunter College	Medical Laboratory Technology and Psychiatric-Mental Health Nurse Practitioner	Advanced Certificate	
Manhattan	Hunter College	Adult-Gerontology Clinical Nurse Specialist, Biomedical Lab Management, Community/Public Health Nursing, Nursing Administration/Urban Policy and Leadership Dual Program, Nutrition, Psychiatric-Mental Health Nurse Practitioner, and Speech-Language Pathology	MS	
Manhattan	Hunter College	Gerontological/Adult Nurse Practitioner	MS	
Manhattan	Hunter College	Gerontological/Adult Nurse Practitioner, Nursing, and Psychiatric-Mental Health Nurse Practitioner	DNP	
Manhattan	Hunter College	Physical Therapy	DPT	
Manhattan	School of Labor and Urban Studies	Healthcare Leadership and Advocacy	Certificate	
Manhattan	School of Labor and Urban Studies	Leading Change in Healthcare Systems	Advanced Certificate	
Manhattan	School of Professional Studies	Health Information Management, Health Services Administration, Nursing, and Nursing RN	BS	
Manhattan	School of Professional Studies	Nursing Education, Nursing Informatics, and Nursing Organizational Leadership	BS/MS	
Manhattan	School of Professional Studies	Nursing Education, Nursing Informatics, and Nursing Organizational Leadership	Advanced Certificate	
Manhattan	School of Professional Studies	Health Information Management, Nursing Education, Nursing Informatics, and Nursing Organizational Leadership	MS	
Manhattan	School of Public Health	Industrial Hygiene, Population Health Informatics, and Public Health	Advanced Certificate	
Manhattan	School of Public Health	Community Health; Environmental and Occupational Health Sciences; Epidemiology and Biostatistics; Global and Migrant Health Policy; Health Communication for Social Change; Health Policy and Management; Maternal, Child, Reproductive & Sexual Health; Population Health Informatics; and Public Health Nutrition	MPH	
Manhattan	School of Public Health	Population Health Informatics	MS	
Manhattan	School of Public Health	Community Health and Health Policy; Environmental and Planetary Health Sciences; Epidemiology; and Maternal, Child, Reproductive & Sexual Health	PhD	
Manhattan	School of Public Health	Nutrition & Dietetic Internship	DI	
Queens	LaGuardia CC	Practical Nursing	Certificate	
Queens	LaGuardia CC	Human Services: Mental Health	AA	
Queens	LaGuardia CC	Public Community Health	AS	
Queens	LaGuardia CC	Nursing, Nutrition and Culinary Management, Occupational Therapy Assistant, Paramedic, and Radiologic Technology	AAS	
Queens	Queens College	Nutrition and Dietetics and Nutrition and Exercise Sciences	BS	
Queens	Queens College	Medical Career Planning	Advanced Certificate	
Queens	Queens College	Speech-Language Pathology	MA	
Queens	Queens College	Nutrition and Nutrition & Exercise Science	MS	
Queens	Queensborough CC	Health Care Office Administration and Medical Office Assistant	Certificate	
Queens	Queensborough CC	Health Science and Public Health	AS	
Queens	Queensborough CC	Nursing and Nursing – Pre-Clinical Sequence	AAS	
Queens	York College	Community Health Education, Health Promotion Management, Health Science, Nursing, Pharmaceutical Sciences, and Public Health	BS	
Queens	York College	Health Science Occupational Therapy	BS/MS	
Queens	York College	Physician Assistant	MSPAS	
Staten Island	College of Staten Island	Physician Assistant	BS	
Staten Island	College of Staten Island	Nursing	AAS and BS	
Staten Island	College of Staten Island	Healthcare Management	MS	
Staten Island	College of Staten Island	Adult-Gerontology Health Nursing	DNP, MS, and Post-Master's Cert.	
Staten Island	College of Staten Island	Physical Therapy	DPT	

Chart 8: Non-degree healthcare training opportunities

Administration for Children's Services' V-CRED program for Allied Health and Pharmacy Technicians
Career Discovery NYC's Medical Biller Program
COOP Tech's Health Career Programs
CUNY's Continuing and Professional Education
Grace Institute's Patient Service Representative Program
New Jewish Home, Nurse Assisting Training
Northwell Health Career Development Certificate Program
OBT's Medical Administrative Assistant Program
The Door/Bronx Youth Center's EMT Training Program
Workforce1 Career Center System's Medical Billing Specialist Program

What Next? Guiding Questions & Web Resources

“Describe how current labor market data has informed program design and choice of technical assessment.”

The prompts below are designed to promote discussion and ideas for program planning, and to help you answer the question above from the CTS self study tab and the NYSED CTE application (Part 2, Section C).

How can we incorporate this report’s data insights into our...	Data points to consider:
...program focus?	Introductory paragraph overviews on page 1 and charts 1, 2, 3, 4
...technical and employability skills?	Chart 4
...articulation agreement?	Charts 6, 7
...technical assessments?	Chart 4
... career pathway options?	Charts 1, 2, 7, 8

Consider the questions below keeping in mind the labor market data points you’ve explored in this report and the questions that you’ve answered above.

Select three ways that you might adjust your program in response to labor market data:

- Program focus
 Articulation agreement
 Technical assessments
 Career pathway options
 Technical and employability skills
 Other:

Which one of these three adjustments could most easily be implemented this school year?

Which one of the three would make the biggest difference for the quality of your program? Why?

Curious to explore more? Check out these web resources:

- CTE NYC website: www.cte.nyc
- CTE Industry Commission resources: bitly.com/CTEIndustryEngagement
- CTE College and Career Planning Team's postsecondary milestones toolkit: <https://bit.ly/35uglcc>
- CareerOneStop labor market data explorer: www.careeronestop.org

Technical Notes & Data Sources:

* “Healthcare” occupations have been operationalized as occupations with a 2010 Standard Occupation Classification (SOC) code starting with either the two-digit “31-XXXX” (“Healthcare Support Occupations”) or “29-XXXX” (“Healthcare Practitioners and Technical Occupations”).

** These analyses were conducted using the EMSI Burning Glass Analyst proprietary web-based research platform. Please note that some intra-occupation percentage totals may equal >100% if the employer indicated a range of minimum/preferred years of experience or education-attainment level. “Entry-level” jobs are considered to be those with job advertisements that specified 0-1 year of experience.

*** New York City 2018-2028 long-term employment projections are determined by New York State Department of Labor (NYSDOL). Please note that these estimates include self-employed workers, which is not always true of other estimates such as the OEWS estimates.

**** NYSDOL, Occupational Employment and Wage Statistics (OEWS) estimates for New York City (July 2021 release). NYSDOL adjusted wages to reflect levels in the first quarter of 2021. NYSDOL operationalizes “Entry Wage” as the average of the bottom third of wages.

***** Demographics based on U.S. Census, American Community Survey (ACS) estimates, NYC 2015-2019 5-year sample, IPUMS release February 2021. Please note that the ACS does not ask for respondents’ gender, only biological sex. As a result, there are only results available for male and female categories. To learn more about this, please see here: <https://www.census.gov/acs/www/about/why-we-ask-each-question/sex/>

***** AA denotes Associate in Arts; AS denotes Associate in Science; AAS denotes Associate in Applied Science; BA denotes Bachelor of Arts; BS denotes Bachelor of Science; DI denotes Dietetic Internship; DNP denotes Doctor of Nursing Practice; DPT denotes Doctor of Physical Therapy; MA denotes Master of Arts; MPH denotes Master of Public Health; MS denotes Master of Science; MSPAS denotes Master of Science in Physician Assistant Studies; PhD denotes Doctor of Philosophy.

***** Massachusetts Institute of Technology’s (MIT) Living Wage calculator, 2020 estimate for the five counties of New York City, NY (<https://livingwage.mit.edu/metros/35620>; data accessed April 2022), adjusted to the first quarter of 2021 using the U.S. Bureau of Labor Statistics Consumer Price Index for All Urban Consumers (New York-Newark-Jersey City metropolitan area, not seasonally adjusted).

***** Additional skills that are in-demand as measured by being mentioned in at least 10% of online job ads for entry-level workers but not among the top 5 most frequently requested are:

Dental Assistants: Additional in-demand employability skills include Spanish language. Additional in-demand technical skills include dental procedures, Dentrux, orthodontics, postoperative care, radiography, office procedures, patient preparation, and oral and maxillofacial surgery.

Medical Assistants: Additional in-demand employability skills include planning, filing, Spanish language, multilingualism, professionalism, interpersonal communications, management, computer literacy, and time management. Additional in-demand technical skills include phlebotomy, electrocardiography, medical office procedures, infection control, patient assistance, sterilization, medical history documentation, patient preparation, blood draws, laboratory testing, patient flow, primary care, medical prescription, medical terminology, bilingual (Spanish/English), blood pressure, pediatrics, financial statements, specimen collection, dermatology, nursing, and setting appointments.

Nursing Assistants: Additional in-demand employability skills include decision making, clerical works, problem solving, customer service, energetic, advocacy, and enthusiasm. Additional in-demand technical skills include blood pressure, medical assistance, cardiopulmonary resuscitation (CPR), rehabilitation, acute care, venipuncture, respiration, hospital experience, intensive care unit, pediatrics, activities of daily living (ADLs), nursing care, patient assistance, clinical practices, and heart rate.

***** The source data for in-demand certifications includes both EMSI Burning Glass Analyst and New York City licensing requirements.