

# CTE: THE KEY TO ECONOMIC DEVELOPMENT

## Health Care:

Accounted for

# \$2.9 trillion

in 2013—17% of U.S. GDP<sup>1</sup>



**Employs 18 million people<sup>2</sup>**



**Experienced 90% real-wage growth for health care professionals from 1983-2010<sup>3</sup>**

**What is the pathway to these fulfilling and essential careers?**

**Career and Technical Education!**



**Pearson**

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*Connecting Education and Careers.*

# Health Care

**One of the foremost sectors of the U.S. economy, health care:**

- tops the list of key industries in many states
- includes not just cutting-edge medical technology and services, but also information technology, business and marketing, and more
- requires high-skilled workers

**What jobs are available in health care?**

Unlike other fields in which technology-fueled productivity has reduced labor needs, health care is and will remain labor intensive. Another 5 million job openings will be available in the sector from 2012 to 2022.<sup>4</sup> Professional and technical health care occupations, including nurses, pharmacy technicians, diagnostic medical sonographers, medical technologists and occupational therapists, will grow the fastest of all occupations in the United States through 2020, by 31 percent, followed by health care support occupations, such as veterinary assistants, dental assistants and medical transcriptionists.<sup>5</sup> In addition, gaps are reported in the emerging field of health informatics: Online job postings for these positions stay open longer than average.<sup>6</sup>

Workers in professional and technical health care fields earn more than \$38,000 per year, higher than the national median wage; half of workers in these occupations earn more than \$60,000.<sup>7</sup> Those employed in support occupations make less, but these jobs still pay better than other occupations open to individuals without postsecondary education.<sup>8</sup>

By 2020, 82 percent of health care jobs will require some postsecondary education, such as an associate degree or postsecondary certificate.<sup>9</sup> Licensing and certification is also critical to career success in this sector. Health care occupations require academic, employability and technical skills, including skills in operating and monitoring medical equipment, recording and tracking patient progress, and addressing safety concerns and patient needs. In addition, 11 percent of jobs in health care are found in marketing, sales, management, and education and training.<sup>10</sup> Just a few of the health care careers available and in demand include:

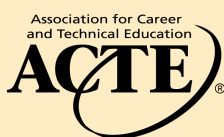
- medical coders
- radiologic technicians
- dental hygienists
- occupational therapists
- nuclear medicine technologists
- hospital administrators
- doctors
- nurse educators

## Endnotes

1. Centers for Medicare and Medicaid Services. (n.d.). *National Health Expenditure Data: Historical*. Retrieved from <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical.html>.
2. Centers for Disease Control and Prevention. (n.d.). *Workplace Safety and Health Topics: Healthcare Workers*. Retrieved from <http://www.cdc.gov/niosh/topics/healthcare>.
3. Carnevale, A. P., Smith, N., Gulish, A., & Beach, B.H. (2012). *Healthcare*. Washington, DC: Georgetown University Center on Education and the Workforce.
4. NAS Insights. (n.d.). *Healthcare Workforce Outlook to 2022*. Retrieved from <http://www.nasrecruitment.com/uploads/files/healthcare-workforce-outlook-to-2022-72.pdf>.
5. Carnevale, A. P., Smith, N., & Strohl, J. (2013). *Recovery: Job Growth and Education Requirements Through 2020*. Washington, DC: Georgetown University Center on Education and the Workforce.
6. Burning Glass. (2014). *Missed Opportunities? The Labor Market in Health Informatics, 2014*. Retrieved from [http://burning-glass.com/wp-content/uploads/BG-Health\\_Informatics\\_2014.pdf](http://burning-glass.com/wp-content/uploads/BG-Health_Informatics_2014.pdf).
7. Carnevale, A. P., Smith, N., Gulish, A., & Beach, B.H. (2012). *Healthcare*. Washington, DC: Georgetown University Center on Education and the Workforce; U.S. Bureau of Labor Statistics. (2013). *Occupational employment projections to 2022*. Retrieved from <http://www.bls.gov/opub/mlr/2013/article/occupational-employment-projections-to-2022.htm>.
8. Carnevale, A. P., Smith, N., Gulish, A., & Beach, B.H. (2012). *Healthcare*. Washington, DC: Georgetown University Center on Education and the Workforce.
9. Ibid.
10. Carnevale, A. P., Smith, N., Stone III, J. R., Kotamraju, P., Steuernagel, B., & Green, K. A. (2011). *Career Clusters: Forecasting Demand for High School Through College Jobs*. Washington, DC: Georgetown University Center on Education and the Workforce.
11. HOSA-Future Health Professionals. (2015). *Competitive Event Update 2015-2016*. Retrieved from [http://www.hosa.org/sites/default/files/15-16%20CE%20Update\\_1.pdf](http://www.hosa.org/sites/default/files/15-16%20CE%20Update_1.pdf).
12. Bellevue College. (n.d.). *Certified Associate of Health Information & Management Systems*. Retrieved from <http://hiteducation.org/cahims>.
13. Albemarle County Public Schools. (n.d.). *Monticello High School Health and Medical Sciences Academy*. Retrieved from <https://sites.google.com/a/k12albemarle.org/health-and-medical-sciences-academy/Home>; additional information from academy faculty.
14. North Seattle College. (n.d.). *Health & Medical*. Retrieved from <https://northseattle.edu/health-medical>; additional information from North Seattle faculty.



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## How does CTE prepare the health care workforce?

Career and technical education prepares high school, postsecondary and adult students for careers in health care through:

- the national Career Clusters® Framework—including Career Clusters and pathways in health science, IT, and business management and administration—which outlines course progressions that help students explore career options and prepare for college and career success
- CTE courses in surgical technology, optometrics, EKG technology, phlebotomy, pharmacy assisting, EMT and more, all integrated with rigorous academics
- work-based learning experiences, such as hospital-based classrooms and clinical internships
- career and technical student organization enrichment experiences, such as HOSA-Future Health Professionals industry-based competitions in CPR/First Aid, medical math, physical therapy, nurse assisting and more<sup>11</sup>
- opportunities to earn stackable postsecondary certificates, degrees and industry-recognized certifications; for instance, the National Science Foundation, Bellevue College in Washington and the Healthcare Information and Management Systems Society have developed an entry-level technician certification for the health IT field.<sup>12</sup>

## What are promising programs in health care?

The **Monticello High School Health and Medical Sciences Academy** in Charlottesville, Virginia, has a mission to empower students to utilize 21st-century skills while exploring health science career opportunities. The school offers multiple pathways to suit student interests and plans, from routes to becoming an EMT, surgical technologist or certified nurse assistant through industry certification, to careers in biotechnology, radiology and sonography that lead to further education at the associate degree level, to occupations that require an advanced degree. Curriculum is integrated and includes content in biology, health and medical science. The Academy utilizes community partnerships to design curriculum and facilitate work-based learning experiences, such as clinical rotations followed by a senior-year internship. Industry and education partners include the University of Virginia, Phthisis Diagnostics, the Defense Intelligence Agency, Afton Scientific Corporation, Martha Jefferson Hospital and Piedmont Virginia Community College.<sup>13</sup>

Positive completion and employment outcomes are standard for students in the health and medical programs at **North Seattle College**. This success is founded on the school's flexible offerings and support services. For instance, the Nursing Assistant-Certified and Certified Phlebotomist programs are part of the Integrated Basic Education and Skills Training (I-BEST) program, a proven model in Washington that strengthens basic skills in the context of CTE. Stackable credentials also support student achievement. Students score over 90 percent in certification and licensing exams for the Emergency Medical Technician, Medical Assisting, Nursing Assistant-Certified and Pharmacy Technician programs. In addition, the majority of Medical Assistant graduates have found employment, as have Nursing Assistant-Certified graduates who are seeking work. Supervised clinical experiences are widely available, and cutting-edge laboratories and equipment foster student learning.<sup>14</sup>

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