#### Who Will Care for Our Seniors?

Comparing the Gap Between Available Healthcare Workers and Open Healthcare Jobs



## **Executive Summary**

here are few sectors of our economy projected to grow as rapidly in the coming years as the healthcare industry. Of the 20 occupations the Bureau of Labor Statistics expects to create jobs the fastest between 2012 and 2020, 11 are healthcare positions—a figure that rises to 13 if organizational psychologists and postsecondary healthcare educators are counted, two professions closely related to health. These growing fields encompass a range of jobs that will be critical to caring for the country's 76.4 million baby boomers as they age. Home health aides, physical therapist assistants, and diagnostic medical sonographers are all expected to see the number of positions in their field grow by more than 40 percent over this eight-year span alone.¹ The number of

physician assistant positions in the United States will swell by 38 percent as well.<sup>2</sup>

While such trends are good news for U.S. workers, they also raise questions about how prepared the American labor force will be to meet the needs of a rapidly aging population. In recent years, the ratio of working-age adults in the United States to seniors has been steadily dropping. While the country had roughly 16 Americans of prime-working age (25–64) for every one senior in 1950, by 2035 that figure is projected to drop to two workers per retiree.³ Already, such demographic shifts are making it difficult for some healthcare employers to find enough interested, qualified, and available workers to fill vital healthcare positions—particularly

#### **KEY FINDINGS**



In 2013, the demand for healthcare workers in the United States was so high that 4.4 healthcare jobs were advertised online for every one unemployed healthcare worker. This was in sharp contrast to the broader economy, where employers advertised just 1.3 jobs per worker.

In some occupations within the healthcare field, **shortages** appear to be particularly acute.

In 2013, employers advertised 89.1 times more jobs for occupational therapists than there were unemployed occupational therapists to fill them. Similarly, job postings for nurse practitioners and midwives as well as physicians and surgeons outnumbered unemployed workers in those fields by 48.5 and 26.5 to one, respectively.

The mismatch between unemployed workers and the needs of the economy is particularly dramatic in several states and localities.

In North Dakota, nearly 54 healthcare jobs were posted online in 2013 for every one unemployed, local healthcare worker. In eight other states—including Colorado, New Hampshire, and New Mexico—the number of jobs available in healthcare in 2013 outnumbered local, unemployed healthcare workers by more than 10 to one.

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in more rural communities. The American Association of Medical Colleges, for instance, estimates the United States is already short tens of thousands of doctors—a figure it predicts will grow to more than 90,000 physicians by 2025.<sup>4</sup> An estimated 43 percent of Americans living outside of metropolitan areas lacked access to adequate dental care in 2012.<sup>5</sup> As this report will show, there are more healthcare jobs available than there are unemployed healthcare workers to fill them.

## The United States is already short tens of thousands of doctors—a figure it predicts will grow to more than **90,000** physicians by 2025.

The difficulty some Americans have accessing adequate healthcare is already having a detrimental effect on the U.S. economy as a whole. In recent years, there has been a sharp rise in the number of working-age adults who have opted to become caregivers for elderly family members or friends.6 The large amount of time and attention needed to assume such roles often leads adult caregivers to cut back on their working hours—or even retire early—when they decide to provide care. Such decisions can greatly decrease an individual's earning power and productivity for the long term: An adult over the age of 50 can expect to forgo more than \$300,000 in wages, Social Security benefits, and pensions when they leave the labor force early to provide eldercare.7 Americans in rural areas who must travel to see specialists or undergo medical procedures or surgeries also miss out on days at work-often at a cost to their businesses or employers.

Given the demographic challenges facing the United States workforce, some experts have suggested that immigrants are particularly well suited to fill current healthcare workforce gaps. Immigrants are 38.6 percent more likely than the native born to be of working age, making them a vitally important source of manpower as our population ages. Recent immigrants are also considerably more likely than the native-born population to move for a new job or position—making them good candidates for healthcare jobs in more rural

or underserved areas. The foreign-born population already makes up a large share of workers in some key healthcare professions, indicating a strong interest in the field. In 2012, more than one in four U.S. dentists and physicians or surgeons were born elsewhere. Foreign-born individuals also accounted for roughly one in five laboratory technicians in dental, medical, or ophthalmology settings, and a similar share of home health aides and personal care aides, a group of workers that help seniors and disabled individuals with the tasks of daily living at home.

To understand how immigrants can best help America meet its healthcare workforce needs, however, more work needs to be done to determine what specific fields have the most unmet demand for more workers. In this brief, we shed light on this important topic. To do this, we compare data from the American Community Survey on the characteristics of the unemployed population against Labor Insight data available from Burning Glass Technologies, a labor market analytics firm that searches 40,000 job boards daily to study the number and type of unique jobs being advertised by U.S. employers. Comparing these two sources of data reveals that in many parts of the country, there are already far more jobs being advertised online for healthcare workers than there are available, trained health workers to fill them. This problem will likely only grow worse as demand for healthcare services skyrockets in the coming years.

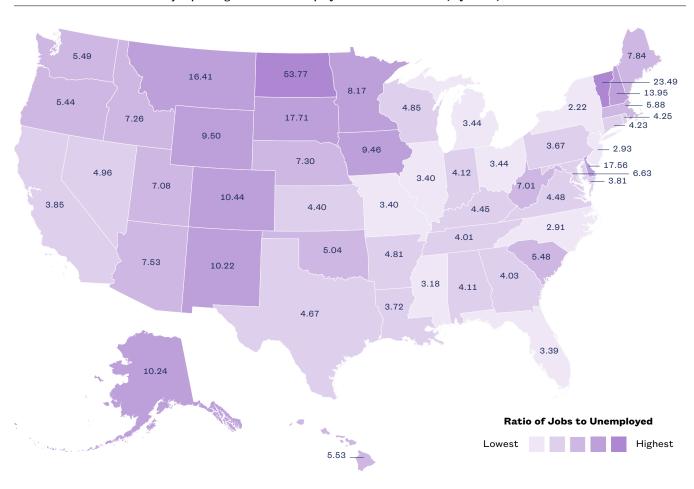
# An adult over the age of 50 can expect to forgo more than **\$300,000** in wages, Social Security benefits, and pensions when they leave the labor force early to provide eldercare.

In the following sections, we provide more detailed data on the healthcare jobs that were advertised in 2013. We also examine both the areas of the country and specific occupations where the gap between the demand for healthcare workers and the available supply is at near-crisis levels.

## The State and Local Picture

s indicated earlier, our analysis of job posting and unemployment data finds that in 2013, there were 4.4 healthcare jobs advertised online for every one unemployed healthcare worker. The phenomenon of healthcare jobs outnumbering unemployed healthcare workers existed in every single state in the country. This ranged from New York State, where 2.2 healthcare jobs were advertised for every one unemployed healthcare worker, to North Dakota, where the equivalent ratio was 53.7 to one. Although

FIGURE 1: Ratio of healthcare job postings for each unemployed healthcare worker, by state, 2013



in most states, there were between three and five jobs available for every one local unemployed healthcare worker, in eight of the states we analyzed, job postings outnumbered unemployed workers by more than 10 to one.

#### The phenomenon of healthcare jobs outnumbering unemployed healthcare workers existed in every single state in the country.

Echoing what the Partnership for a New American Economy has found in past reports, largely rural states tended to face the greatest healthcare worker shortages. Eight of the 10 states with the largest ratio of available healthcare jobs to unemployed health workers in 2013 were places where at least 75 percent of counties were rural.12 That group included many of the states in the Mountain West-North Dakota, South Dakota, Montana, and Wyoming—as well as New Hampshire, Alaska, Vermont, and New Mexico.

It is worth noting that the ratio of open jobs to unemployed workers in the healthcare sector differs markedly from patterns observed during the same period in the economy as a whole. In 2013, about 1.3 jobs were posted online across all industries for every unemployed U.S. worker. Given that the skill set of the unemployed may not directly match up with the types of jobs available, the existence of slightly more jobs than unemployed workers was not a surprise. In a small number of states, however, the unemployed population was larger than the number of jobs that employers posted overall in 2013—a sharp difference with what we observed for the healthcare industry specifically, where the employment picture was much better for workers. For each state, the ratio of jobs to unemployed workers in the healthcare sector is represented in figure 1.

To better understand needs on the local level, our analysis also looked at the ratio of unemployed healthcare workers to available health jobs in the 40 largest metropolitan areas in the country. The numbers, shown in figure 3, vary considerably across localities.

While employers searching for healthcare workers in the New York City metropolitan area posted 1.9 jobs for every one unemployed healthcare worker in 2013—the third lowest ratio in the group—health jobs outnumbered unemployed workers by 9.6 to one in the Kansas City metropolitan area. The metro areas of Denver, Phoenix, and San Francisco all followed closely behind, with ratios greater than 7 to one. Two of the cities with the highest ratios of healthcare jobs to unemployed health workers were based in Texas: Dallas and Houston.

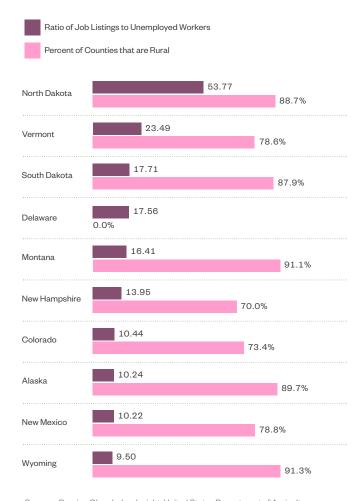
The figures, however, can be read as showing, once again, that healthcare worker shortages are most concentrated outside of America's largest cities. None of the cities had anywhere near the unmet demand for healthcare workers as places like North Dakota and Vermont, two states that are largely rural. And of the 40 metropolitan areas in our sample, 25 of them—or almost two thirds—had ratios lower than the national average of 4.4 jobs to each unemployed worker.

## Occupations Facing the **Greatest Shortages**

hile the data for the healthcare sector overall indicates that health employers face major challenges, our analysis gains new meaning when we examine information on the 41 individual occupations that fall within the healthcare sector.13 Because some healthcare positions, such as dentistry or nurse practitioners, require very specific training not easily or quickly obtained, this work allows us to more concretely hone in on potential workforce gaps that may be particularly difficult to fill in the years ahead without major changes in the way America recruits and educates healthcare workers.

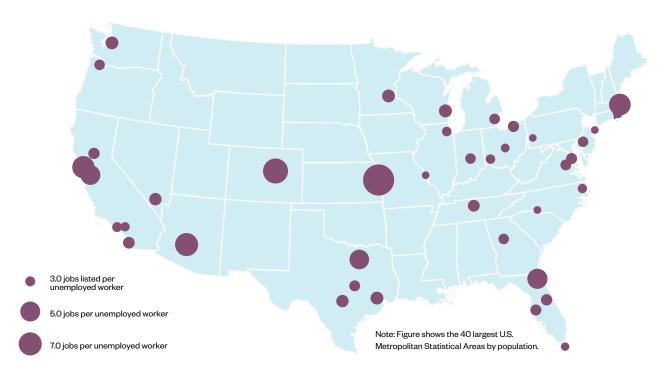
Looking at data on the individual occupation level, it becomes clear that many specific healthcare jobs are facing severe workforce shortages. For instance, occupational therapists, a group that develops treatment plans for both disabled and elderly patients dealing with mobility and other issues, appear to have the greatest need for workers—with job postings outnumbering unemployed workers by 89.1 to one in 2013. Occupational therapy aides and assistants had the third highest gap between unemployed workers and available jobs, with more than 70 times the number of jobs posted than available, unemployed workers. A miscellaneous group of health diagnosing and treating professionals came in second. This group includes a range of occupations with a more holistic focus, including acupuncturists, naturopathic physicians, and orthoptists professionals who deal largely with the treatment and identification of eye movement disorders. (See Appendix Table 3 for data on specific occupational fields.)

FIGURE 2: Share of counties that are rural in states with the largest ratio of healthcare job postings for each unemployed healthcare worker, 2013



Sources: Burning Glass Labor Insight; United States Department of Agriculture, Economic Research Service, Urban-Rural Continuum Codes, 201

FIGURE 3: Ratio of Healthcare Jobs Advertised Online to Unemployed Healthcare Workers in 40 Largest U.S. Metropolitan Areas, 2013



METROPOLITAN AREA	RATIO OF JOBS TO UNEMPLOYED
Kansas City, MO-KS	9.61
Denver-Aurora-Lakewood, CO	8.98
Phoenix-Mesa-Scottsdale, AZ	7.63
San Francisco-Oakland-Hayward, CA	7.12
Boston-Cambridge-Newton, MA-NH	6.75
Jacksonville, FL	5.83
San Jose-Sunnyvale-Santa Clara, CA	5.68
Dallas-Fort Worth-Arlington, TX	5.51
Milwaukee-Waukesha-West Allis, WI	5.42
Houston-The Woodlands-Sugar Land, TX	5.34
Seattle-Tacoma-Bellevue, WA	5.31
Minneapolis-St. Paul-Bloomington, MN-WI	5.31
Las Vegas-Henderson-Paradise, NV	4.93
San Antonio-New Braunfels, TX	4.93
Nashville-Davidson-Murfreesboro-Franklin, TN	4.49
San Diego-Carlsbad, CA	4.42
Orlando-Kissimmee-Sanford, FL	4.17
Sacramento-Roseville-Arden-Arcade, CA	4.02
Cleveland-Elyria, OH	3.97
Baltimore-Columbia-Towson, MD	3.94

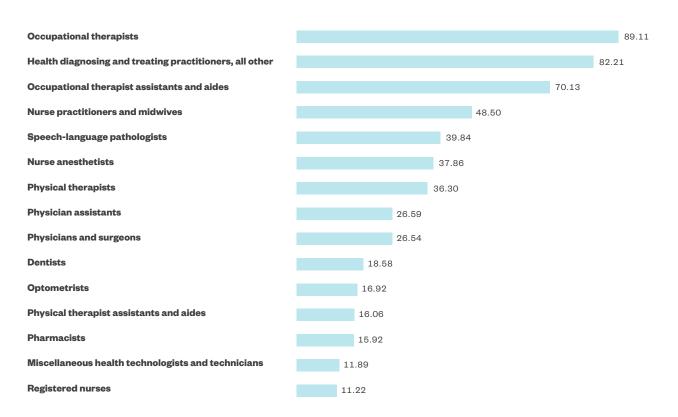
METROPOLITAN AREA	RATIO OF JOBS TO UNEMPLOYED
Tampa-St. Petersburg-Clearwater, FL	3.81
Austin-Round Rock, TX	3.78
Washington-Arlington-Alexandria, DC-VA-MD	3.66
Detroit-Warren-Dearborn, MI	3.62
Philadelphia-Camden-Wilmington, PA-NJ-DE	3.61
Indianapolis-Carmel-Anderson, IN	3.60
Atlanta-Sandy Springs-Roswell, GA	3.58
Portland-Vancouver-Hillsboro, OR-WA	3.20
Los Angeles-Long Beach-Anaheim, CA	2.94
Chicago-Naperville-Elgin, IL-IN-WI	2.90
Cincinnati, OH-KY-IN	2.84
Virginia Beach-Norfolk-Newport News, VA	2.79
Riverside-San Bernardino-Ontario, CA	2.50
Columbus, OH	2.29
Miami-Fort Lauderdale-West Palm Beach, FL	2.28
Providence-Warwick, RI-MA	1.97
Charlotte-Concord-Gastonia, NC-SC	1.93
New York-Newark-Jersey City, NY-NJ-PA	1.92
St. Louis, MO-IL	1.86
Pittsburgh, PA	1.69

#### Occupational therapists appear to have the greatest need for workers—with job postings outnumbering unemployed workers by **89.1 to 1** in 2013.

Overall, there were 15 health occupations where the number of jobs posted by employers outnumbered unemployed workers from those fields by more than 10 to one. Looking at this group, the vast majority-14 out of 15—were frontline medical professionals, many of which will be crucial to the care of aging baby boomers. Physical therapists and their assistants and aides,

optometrists, and dentists were all included in this group with the largest potentially unmet staffing needs. Physicians or surgeons, as well as the physician assistants that support them, both had roughly 26 jobs open for every one unemployed individual who last worked in the field. It is clear that in many of these occupations, it will take time and effort to find and train enough workers to fill available positions. Most of the occupations require workers to have a Master's degree or higher, or a professional degree that students typically earn after completing undergraduate study. Individuals pursuing occupations in many healthcare fields must often also pass rigorous state licensing exams. (See Appendix Table 4.)

FIGURE 4: Ratio of jobs advertised online to unemployed workers, by health occupation, 2013



 $Note: Only occupations \ with \ ratios \ greater \ than 10 \ are \ displayed. For the full \ group of 42 healthcare occupations \ studied, see \ Appendix \ Table 3.$ 

Sources: American Community Survey, 1-Year Sample, 2013 and Burning Glass Labor Insight

#### Conclusion

s job postings and unemployment trends from 2013 indicate, in many healthcare fields the shortage of workers is already at near-crisis levels. Immigrants, of course, will not provide the full answer to America's current workforce challenge. More should be done to improve the science, technology, engineering, and math (STEM) education of U.S. students so more will be encouraged to go into healthcare fields requiring related skills. Some of the 4.5 million people with less than a bachelor's degree who are currently unemployed should also be given training that would allow them to take on the large number of healthcare positions, such as occupational or physical therapy assistants or aides, that require on-the-job training or two-year degrees.14 15 16

Such changes, however, are unlikely to answer the staggering manpower gap documented here. The rapid pace of current demographic change and the long lead time to train many types of healthcare professionals makes it likely that other workers including immigrants—will be needed to care for our aging population in the future. Between 2000 and 2030, for instance, the number of elderly individuals living in America is projected to more than double, rising from 35.0 million to 71.5 million people.<sup>17</sup> That change is likely to put extreme pressure on our healthcare system. One study on healthcare spending, for instance, found that the average elderly individual spends three times more on their healthcare each year than the workingage population.18 This brief raises real questions about whether there will be enough front-line practitioners to provide care for them.

In the long term, a continued shortage of healthcare workers could have dramatic economic consequences. Without enough workers to care for our seniors, increasing numbers of working-age adults may feel

obliged to cut back on their working hours—or leave the workforce altogether—to provide basic level of care. Many adults have already done this in recent years, and the economic impact has been meaningful. Since the early 2000s the total amount of lost wages, Social Security benefits, and pension income by working caregivers has already been estimated at more than \$3 trillion.19

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Despite the role that immigrants could play filling gaps in America's healthcare workforce, our current immigration system does not make it easy for employers to hire them, even temporarily, when no U.S.-born workers are available for the job. While the United States currently has dedicated visa programs for both the agriculture and hospitality sectors, two fields that frequently face manpower challenges, no similar visa exists for the healthcare industry, despite the huge demand anticipated for such workers in the coming years. Some of the options that do exist to bring foreignborn medical professionals to underserved areas are also highly limited or problematic. The Conrad State 30 Waiver program, which helps foreign doctors who complete residencies in the United States remain in the country after graduation, is limited to just 30 slots per state per year.20 Congress allowed the H-1C visa, which once brought 500 registered nurses annually to medically underserved areas, to expire in 2009.21

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This brief makes clear that our immigration system should be reevaluated to better meet the needs of America's rapidly aging population. Expanding or creating visa channels that would more easily allow healthcare workers to come to the United States would be one meaningful first step. Another would be creating a visa system that would allow individual areas, such as states or cities, to sponsor immigrants with the specific skills they need to fill vacant jobs at the local level. In recent years, the polarized politics in Washington have kept our immigration programs from being reformed to better serve the specific needs of the evolving U.S. economy. In the coming years, such logjams will need to be cleared to ensure that seniors are able to get the level of care they both demand and deserve as they age.

### Methodology

n this brief, we discuss statistics for the healthcare industry overall as well as for individual occupations within healthcare. When discussing the industry overall, we include all of the jobs listed that fall into two major occupational families within the Occupational Information Network, or O\*NET-SOC classification, a system used by government and policy researchers to study workforce trends and trends within industries. The two families we use for our analysis include all the positions in the Healthcare Practitioners and Technical family as well as all positions in the Healthcare Support occupational group.

To compare the number of unemployed workers in each field to the number of jobs listed, we first refer to the American Community Survey's (ACS) one-year 2013 data sample. In this data, we are able to isolate not only the number of unemployed workers in a given city or state, but the last position held by such workers. All unemployed work ers who list their previous job as a healthcare occupation, in one of the two O\*NET-SOC occupational families described above, are counted as unemployed healthcare workers. This method provides a good measure of the total labor force supply as well as the total number of unemployed persons—and is one that has been used by other researchers.22 However, for the purposes of this report, which looks at specific occupation fields, the ACS does not allow us to identify newly graduated individuals who are looking for work in a specific field with no previous work experience. In other words, while we would be able to identify such newly graduated workers as unemployed, we would be unable to identify these new healthcare graduates as unemployed healthcare workers. This population is estimated to be quite small, as only 3 percent medical graduates finish medical school without being matched to a residency program.23 Meanwhile, 92 percent of

master's level nursing graduates and 88 percent of bachelor's level nursing graduates find jobs within 6 months of graduation.<sup>24</sup>

Our analysis of the number of jobs posted for healthcare workers or individual occupations makes use of the Labor Insight tool developed by Burning Glass Technologies, a leading labor market analytics firm. Burning Glass, which is used by policy researchers and academics, scours almost 40,000 online sources daily and compiles results on the number and types of jobs and skills being sought by U.S. employers. This search includes online job boards, individual employer sites, newspapers, and public agencies, among other sources. Burning Glass has an algorithm and artificial intelligence tool that identifies and eliminates duplicate listings including ones posted to multiple job boards as part of a broad search. To ensure that our analysis compared relevant groups, we used Burning Glass's online tool to look at only listings that fell into the two O\*NET-SOC occupational families identified above. Only jobs posted in calendar year 2013 were considered.

To produce estimates of the number of jobs posted versus the number of unemployed workers at the national level, we aggregated the total number of jobs posted in each state and added to the total any relevant jobs posted on Burning Glass that did not specify a specific location. These jobs represented a very small part of the total number of jobs listed on Burning Glass. In the healthcare industry, 54,917 jobs fell into that category—or 2.7 percent of all healthcare jobs listed in 2013. For industries overall, the equivalent share was 2.5 percent. The presence of jobs with unidentifiable locations means that for some states, our figures may be inherently conservative, as even more jobs may have been based there than specified here.

#### **Endnotes**

- "Fastest Growing Occupations," Bureau of Labor Sta tistics, Occupational Outlook Handbook, last modified January 8, 2014, http://www.bls.gov/ooh/fastest-growing.htm.
- 2 "Occupational Therapy Assistants and Aides," Bureau of Labor Statistics, Occupational Outlook Handbook, last modified January 8, 2014, http://www.bls.gov/ooh/ healthcare/occupational-therapy-assistants-and-aides. htm#tab-6.
- 3 Social Security Administration, 2015 Trustees Report, Actuarial Tables, "Covered Workers and Beneficiaries," Available here: https://ssa.gov/OACT/TR/2015/Ir4b3. html.
- 4 IHS Inc. for the American Association of Medical Colleges, "The Complexities of Physician Supply and Demand: Projections from 2013 to 2025," (March 2015).
- 5 Anne Braswell and Nalo Johnson, "Rural America's Oral Healthcare Needs," National Rural Health Association Policy Brief, February 2013. (Available online.)
- 6 Lynn Feinberg and Rita Choula, "Understanding the Impact of Family Caregiving on Work," AARP Public Policy Institute, October 2012. Available online: http://www.aarp.org/content/dam/aarp/research/public\_policy\_institute/Itc/2012/understanding-impact-family-caregiving-work-AARP-ppi-Itc.pdf
- 7 MetLife, "Caregiving Costs to Working Caregivers," 2011. Available online: https://www.metlife.com/assets/cao/mmi/publications/studies/2011/Highlights/ mmi-caregiving-costs-working-caregivers-highlights. pdf
- **8** U.S. Census Bureau, American Community Survey, 2013, 1-Year Estimates.

- 9 Based on author's analysis of the Annual Social and Economic Supplement of Current Population Survey, 1999-2014 Sample. White paper forthcoming.
- 10 Based on author's analysis of American Community Survey sample, 2008-2012.
- **11** Ibid.
- 12 Based on the author's analysis of the United States Department of Agriculture Economic Research Service, Rural-Urban Continuum Codes, 2013.
- dix, examines all the occupations that fall within two major occupational families as defined by the Standard Occupational Classification (SOC), a system used by federal government researchers and the Bureau of Labor Statistics to study the U.S. job market. The occupations used in this analysis include all the occupations within the Healthcare Practitioner and Technical Occupations major group as well as all the occupations within the Healthcare Support Occupations major group.
- **14** "Employment Status of the Civilian Population 25 Years and Older by Educational Attainment," Bureau of Labor Statistics, last modified August 7, 2015, http://www.bls.gov/news.release/empsit.t04.htm.
- 15 Bureau of Labor Statistics, Occupational Outlook Handbook, "How to Become an Occupational Therapy Assistant or Aide," last modified January 8, 2014, http://www.bls.gov/ooh/healthcare/occupational-therapy-assistants-and-aides.htm#tab-4.

- **16** Bureau of Labor Statistics, Occupational Outlook Handbook, "How to Become a Physical Therapist Assistant or Aide," last modified January 8, 2014, http://www.bls.gov/ooh/healthcare/physical-therapist-assistants-and-aides.htm#tab-4.
- 17 West, Lorraine A., et al. "65+ in the United States: 2010." U.S. Census Bureau Current Population Reports, 2014. (Available online.)
- 18 Keehan, SP, Lazenby, HC, Zezza, MA, et al. Age Estimates in the National Health Accounts. Health Care Financing Review 2004 Dec. 2; 1(1); Web Exclusive.
- 19 MetLife, "Caregiving Costs to Working Caregivers," 2011. Available online: https://www.metlife.com/assets/cao/mmi/publications/studies/2011/Highlights/ mmi-caregiving-costs-working-caregivers-highlights. pdf
- 20 "Senators Introduce Bill to Expand and Make Permanent Conrad 30," Association of American Medical Colleges, last modified May 8, 2015, https://www.aamc.org/advocacy/washhigh/highlights2015/431668/050815senatorsintroducebilltoexpandandmakepermanentconrad30.html.
- 21 "H-1C Registered Nurse Working in a Health Professional Shortage Area as Determined by the U.S. Department of Labor," U.S. Citizenship and Immigration Services, last modified June 17, 2013, http://www.uscis.gov/working-united-states/temporary-workers/h-1c-registered-nurse/h-1c-registered-nurse-working-health-professional-shortage-area-determined-department-labor.
- **22** Change the Equation, "STEM Help Wanted," May 2012. (Available online.)
- **23** Brian Palmer, "Unmatched," Slate, April 15, 2015. (Available online.)
- 24 American Association of Colleges of Nursing, "Employment of New Nurse Graduates and Employer Preferences for Baccalaureate-Prepared Nurses," October 2012. (Available online.)

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