

Using Data and Information to Align Economic and Workforce Development in the Healthcare Sector



Nevada Governor's Office of
ECONOMIC DEVELOPMENT

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Nevada's Economic Development Sectors

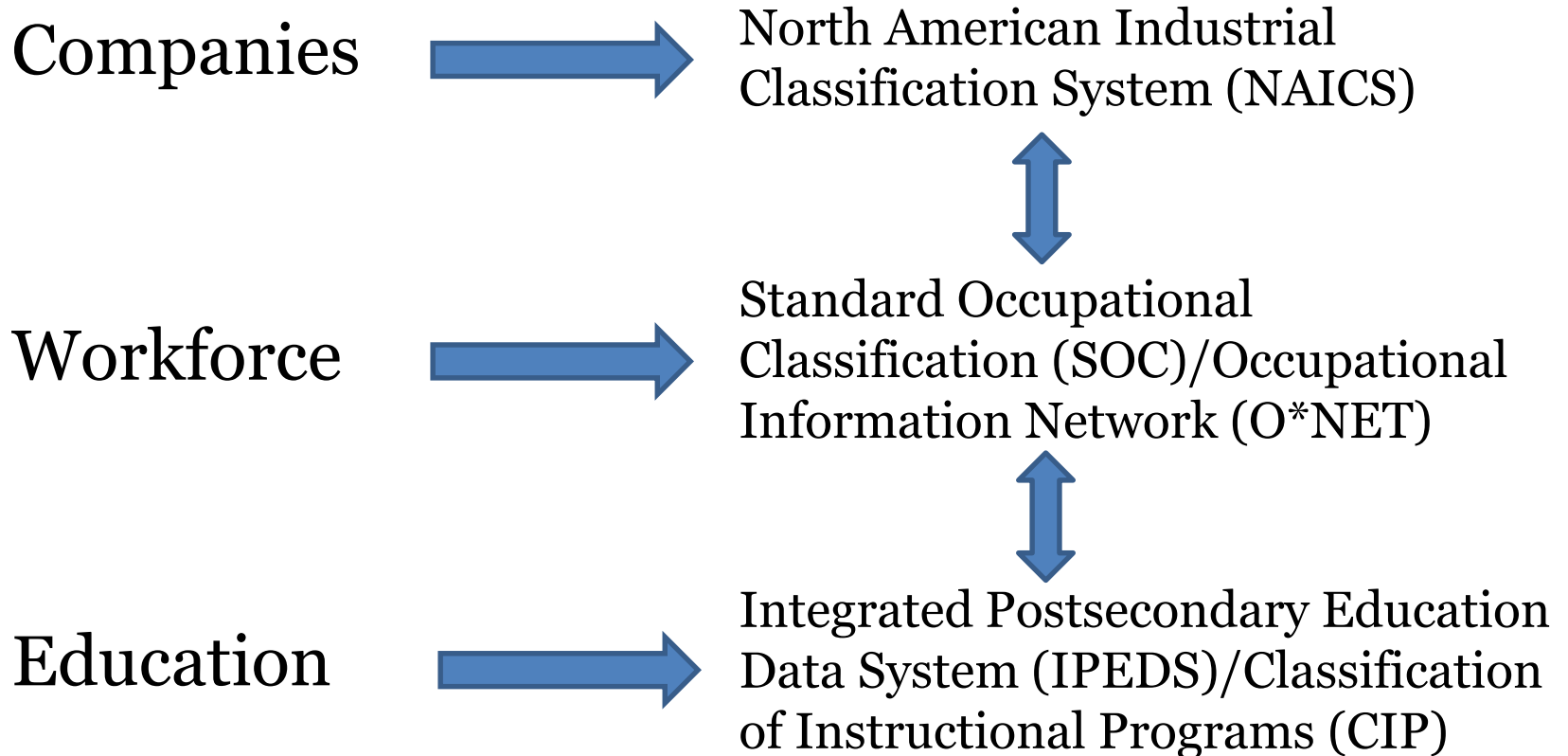
| Sector | Nevada's Economic Development Sectors | | | Jobs Multiplier | Location Quotient | Percent above or below National Concentration |
|--|---------------------------------------|----------------------------|----------------------|-----------------|-------------------|---|
| | Number of Jobs | Percent of All Nevada Jobs | Average Annual Wage* | | | |
| Aerospace and Defense | 13,110 | 1.0% | \$96,207 | 2.04 | 0.67 | -33% |
| Business Information Technology Ecosystems | 59,367 | 4.5% | \$55,949 | 2.11 | 0.67 | -33% |
| Health and Medical Services | 106,222 | 8.1% | \$65,123 | 1.81 | 0.66 | -34% |
| Natural Resources | 49,052 | 3.8% | \$76,333 | 2.69 | 0.63 | -37% |
| Manufacturing and Logistics | 116,631 | 8.9% | \$69,497 | 2.68 | 0.59 | -41% |
| Mining | 14,028 | 1.1% | \$107,221 | 2.29 | 2.35 | 135% |
| Tourism, Gaming, and Entertainment | 408,856 | 31.3% | \$37,047 | 1.82 | 2.45 | 145% |

*The average earnings per worker in the region. Includes wages, salaries, supplements (additional employee benefits), and proprietor income.

Strategic Location Drivers

- Availability of a Qualified Workforce
- Competitive Cost Environment
 - Labor, Utilities, Real Estate, Transportation, Taxes
- Favorable Logistics/Accessibility
 - Air, Highway, Rail, Port
- Favorable Business Environment
 - Taxes, Incentives, Permitting
- Quality of place
 - Ability to recruit/relocate key workforce

The Economic and Workforce Information and Data Pipeline



Tying Economic and Workforce Development Together

Identifying high demand occupations

- Employment Projections
- Burning Glass Technologies
- Target Sector approach
- Job Openings
- Brookings STEM Score

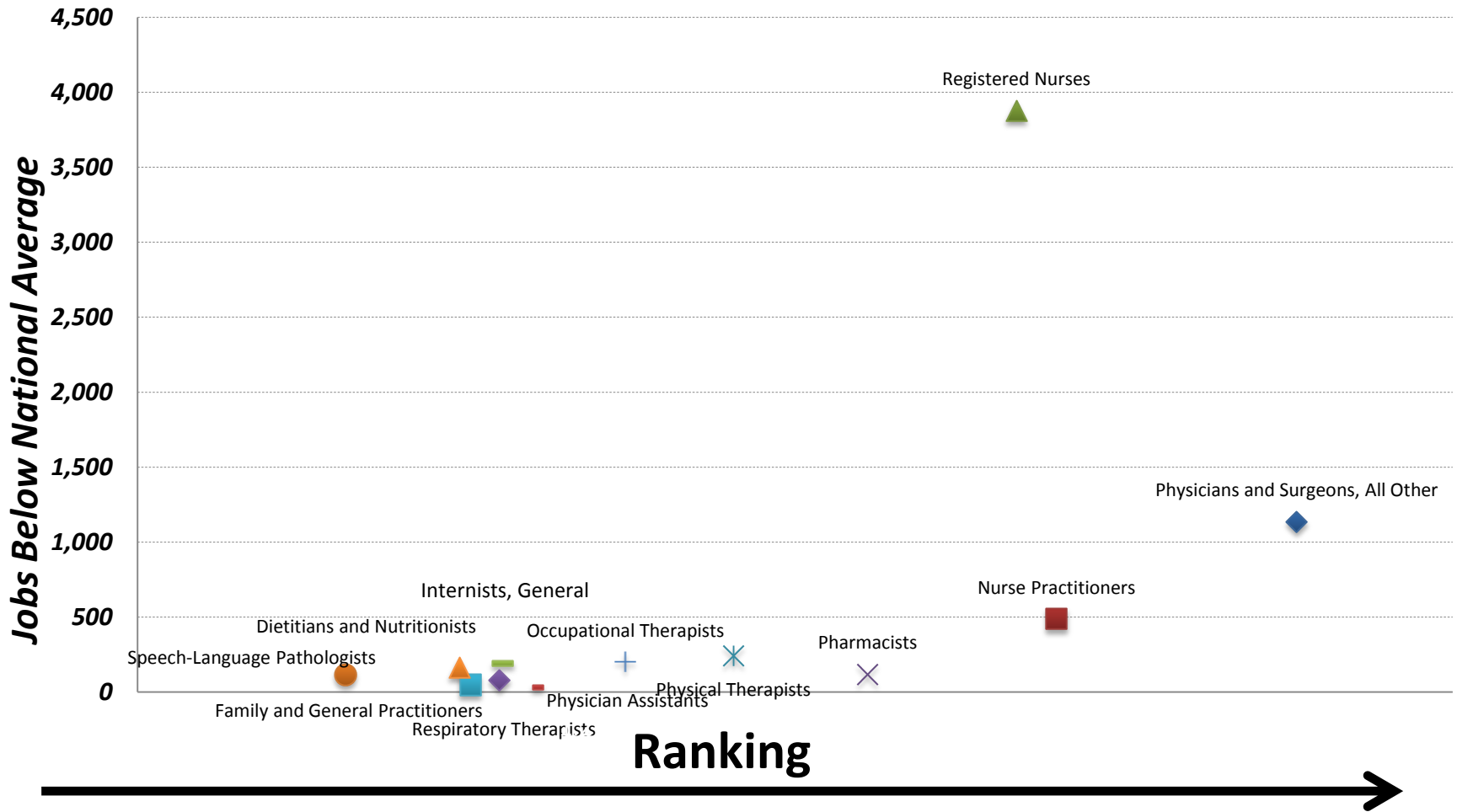
Top 20 High Demand Health and Medical Occupation Groups

Typical Entry Level Education/On-The-Job Training

| |
|---|
| Bachelor's degree |
| Associate's degree/Postsecondary non-degree award |
| High school diploma/Postsecondary non-degree award with OJT |
| High school diploma/Less than high school with OJT |

| Occupation Group Description | Consensus Rank | 2016 Jobs | Jobs Above or Below National Average | Median Hourly Earnings |
|--|----------------|-----------|--------------------------------------|------------------------|
| Health Diagnosing and Treating Practitioners | 1 | 26,238 | (7,312) | \$47.39 ← |
| Health Technologists and Technicians | 2 | 12,700 | (5,377) | \$24.60 ← |
| Counselors, Social Workers, and Other Community and Social Service Specialists | 3 | 3,496 | (2,050) | \$22.78 ← |
| Business Operations Specialists | 4 | 1,050 | (448) | \$27.40 |
| Other Healthcare Support Occupations | 5 | 11,066 | 985 | \$15.19 |
| Other Personal Care and Service Workers | 6 | 11,227 | (4,255) | \$11.65 |
| Information and Record Clerks | 7 | 6,202 | 354 | \$14.65 |
| Computer Occupations | 8 | 453 | (462) | \$34.54 |
| Other Production Occupations | 9 | 524 | (498) | \$15.74 |
| Material Recording, Scheduling, Dispatching, and Distributing Workers | 10 | 760 | 57 | \$15.10 |
| Financial Clerks | 11 | 2,375 | (146) | \$16.49 |
| Nursing, Psychiatric, and Home Health Aides | 12 | 7,167 | (11,980) | \$14.25 ← |
| Other Management Occupations | 13 | 2,170 | 187 | \$37.29 |
| Secretaries and Administrative Assistants | 14 | 3,857 | (2,072) | \$18.76 |
| Motor Vehicle Operators | 15 | 755 | 105 | \$16.35 |
| Operations Specialties Managers | 16 | 500 | (151) | \$41.66 |
| Other Office and Administrative Support Workers | 17 | 3,329 | 254 | \$14.50 |
| Occupational Therapy and Physical Therapist Assistants and Aides | 18 | 977 | (465) | \$24.20 |
| Food and Beverage Serving Workers | 19 | 876 | 259 | \$10.44 |
| Retail Sales Workers | 20 | 311 | 50 | \$10.98 |

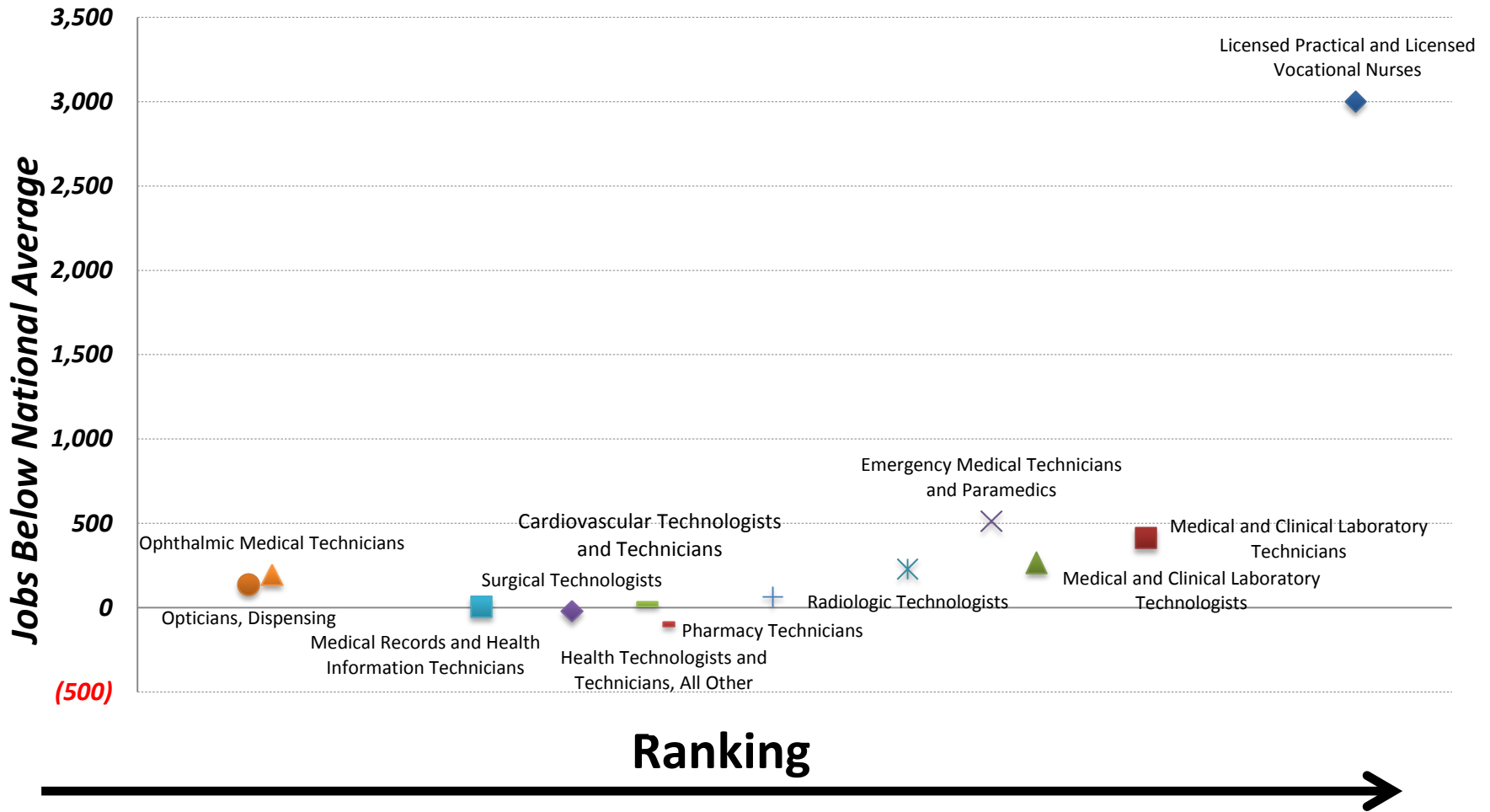
Drilling Down into the Detail: Health Diagnosing and Treating Practitioners



Drilling Down into the Detail: Health Diagnosing and Treating Practitioners

| Occupation Description | Consensus Rank | Jobs | Median Hourly Earnings | Jobs Above or Below National Average | Typical Entry Level Education | Typical On-The-Job Training |
|------------------------------------|----------------|--------|------------------------|--------------------------------------|---------------------------------|-----------------------------|
| Physicians and Surgeons, All Other | 1 | 1,201 | \$107.23 | (1,135) | Doctoral or professional degree | Internship/residency |
| Nurse Practitioners | 5 | 556 | \$45.84 | (487) | Master's degree | None |
| Registered Nurses | 8 | 15,531 | \$38.24 | (3,876) | Bachelor's degree | None |
| Pharmacists | 11 | 427 | \$60.38 | (118) | Doctoral or professional degree | None |
| Physical Therapists | 18 | 1,408 | \$50.13 | (241) | Doctoral or professional degree | None |
| Occupational Therapists | 21 | 527 | \$45.58 | (201) | Master's degree | None |
| Physician Assistants | 28 | 754 | \$45.11 | (31) | Master's degree | None |
| Internists, General | 31 | 233 | \$79.19 | (190) | Doctoral or professional degree | Internship/residency |
| Respiratory Therapists | 32 | 826 | \$34.04 | (82) | Associate's degree | None |
| Family and General Practitioners | 33 | 956 | \$72.77 | (48) | Doctoral or professional degree | Internship/residency |
| Dietitians and Nutritionists | 34 | 150 | \$30.32 | (161) | Bachelor's degree | Internship/residency |
| Speech-Language Pathologists | 43 | 334 | \$35.50 | (116) | Master's degree | None |

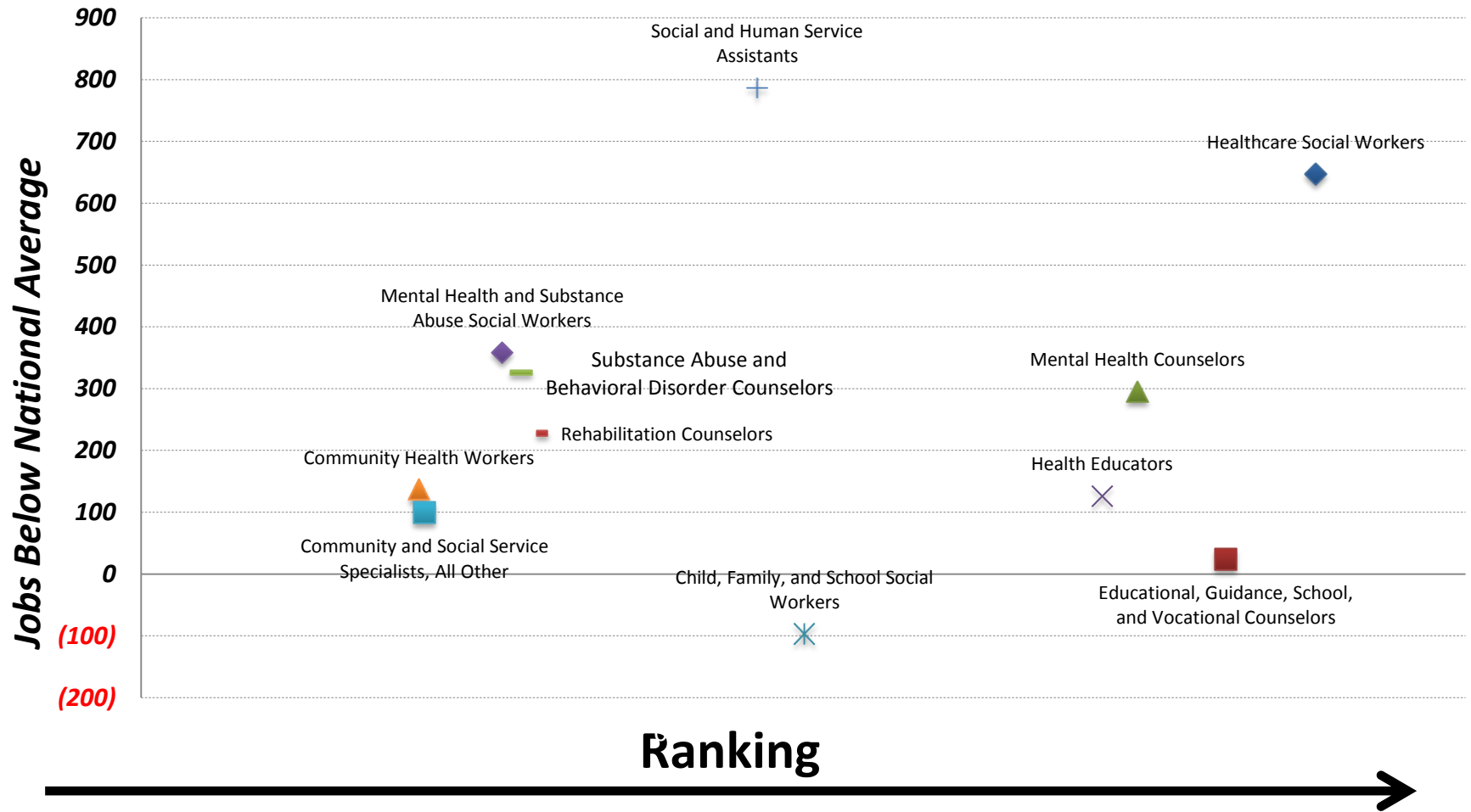
Drilling Down into the Detail: Health Technologists and Technicians



Drilling Down into the Detail: Health Technologists and Technicians

| Occupation Description | Consensus Rank | Jobs | Median Hourly Earnings | Jobs Above or Below National Average | Typical Entry Level Education | Typical On-The-Job Training |
|--|----------------|-------|------------------------|--------------------------------------|-----------------------------------|-----------------------------------|
| Licensed Practical and Licensed Vocational Nurses | 2 | 1,962 | \$25.17 | (3,000) | Postsecondary nondegree award | None |
| Medical and Clinical Laboratory Technicians | 9 | 877 | \$19.37 | (413) | Associate's degree | None |
| Medical and Clinical Laboratory Technologists | 15 | 1,016 | \$31.78 | (267) | Bachelor's degree | None |
| Emergency Medical Technicians and Paramedics | 20 | 990 | \$19.65 | (513) | Postsecondary nondegree award | None |
| Radiologic Technologists | 27 | 1,321 | \$29.75 | (231) | Associate's degree | None |
| Pharmacy Technicians | 46 | 416 | \$15.83 | (65) | High school diploma or equivalent | Moderate-term on-the-job training |
| Health Technologists and Technicians, All Other | 56 | 873 | \$21.32 | 98 | High school diploma or equivalent | None |
| Cardiovascular Technologists and Technicians | 57 | 414 | \$32.20 | (22) | Associate's degree | None |
| Surgical Technologists | 67 | 857 | \$27.44 | 22 | Postsecondary nondegree award | None |
| Medical Records and Health Information Technicians | 77 | 1,184 | \$17.82 | (5) | Postsecondary nondegree award | None |
| Ophthalmic Medical Technicians | 90 | 141 | \$17.68 | (194) | Postsecondary nondegree award | None |
| Opticians, Dispensing | 94 | 214 | \$21.32 | (137) | High school diploma or equivalent | Long-term on-the-job training |

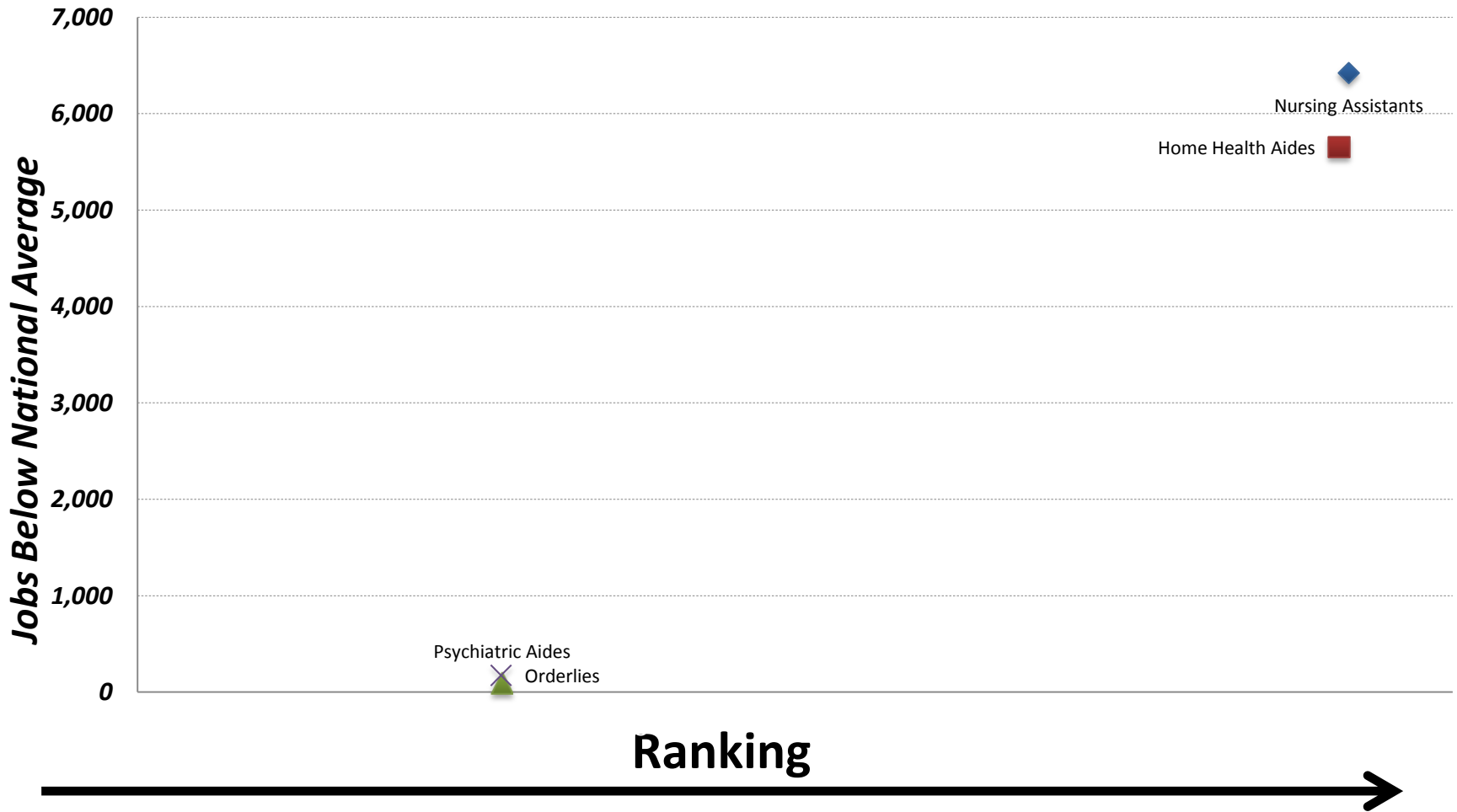
Drilling Down into the Detail: Counselors, Social Workers, and Other Community and Social Service Specialists



Drilling Down into the Detail: Counselors, Social Workers, and Other Community and Social Service Specialists

| Occupation Description | Consensus Rank | Jobs | Median Hourly Earnings | Jobs Above or Below National Average | Typical Entry Level Education | Typical On-The-Job Training |
|--|----------------|------|------------------------|--------------------------------------|-----------------------------------|--------------------------------|
| Healthcare Social Workers | 44 | 401 | \$30.03 | (647) | Master's degree | None |
| Educational, Guidance, School, and Vocational Counselors | 54 | 53 | \$26.43 | (24) | Master's degree | None |
| Mental Health Counselors | 63 | 525 | \$22.26 | (295) | Master's degree | Internship/residency |
| Health Educators | 69 | 96 | \$27.68 | (126) | Bachelor's degree | None |
| Child, Family, and School Social Workers | 92 | 629 | \$21.43 | 97 | Bachelor's degree | None |
| Social and Human Service Assistants | 96 | 705 | \$16.20 | (786) | High school diploma or equivalent | Short-term on-the-job training |
| Rehabilitation Counselors | 120 | 117 | \$18.63 | (228) | Master's degree | None |
| Substance Abuse and Behavioral Disorder Counselors | 124 | 255 | \$21.99 | (326) | Bachelor's degree | None |
| Mental Health and Substance Abuse Social Workers | 126 | 333 | \$23.24 | (358) | Bachelor's degree | None |
| Community and Social Service Specialists, All Other | 132 | 82 | \$18.04 | (99) | Master's degree | None |
| Community Health Workers | 133 | 90 | \$20.74 | (137) | High school diploma or equivalent | Short-term on-the-job training |
| Marriage and Family Therapists | 155 | 136 | \$26.91 | (14) | Master's degree | Internship/residency |

Drilling Down into the Detail: Nursing, Psychiatric, and Home Health Aides



Drilling Down into the Detail: Nursing, Psychiatric, and Home Health Aides

| Occupation Description | Consensus Rank | Jobs | Median Hourly Earnings | Jobs Above or Below National Average | Typical Entry Level Education | Typical On-The-Job Training |
|------------------------|----------------|-------|------------------------|--------------------------------------|-----------------------------------|--------------------------------|
| Nursing Assistants | 17 | 4,655 | \$15.36 | (6,427) | Postsecondary nondegree award | None |
| Home Health Aides | 19 | 1,970 | \$11.24 | (5,656) | No formal educational credential | Short-term on-the-job training |
| Psychiatric Aides | 145 | 309 | \$14.26 | (92) | High school diploma or equivalent | Short-term on-the-job training |
| Orderlies | 146 | 233 | \$14.47 | (172) | High school diploma or equivalent | Short-term on-the-job training |

Top 25 High Demand Occupations in the Healthcare Industry by Consensus Rank

| Description | Consensus Rank | 2016 Jobs | Median Hourly Earnings | Jobs Above or Below National Average | Typical Entry Level Education | Typical On-The-Job Training |
|--|----------------|-----------|------------------------|--------------------------------------|-----------------------------------|--------------------------------|
| Physicians and Surgeons, All Other | 1 | 1,201 | \$107.23 | (1,135) | Doctoral or professional degree | Internship/residency |
| Licensed Practical and Licensed Vocational Nurses | 2 | 1,962 | \$25.17 | (3,000) | Postsecondary nondegree award | None |
| Software Developers, Applications | 3 | 53 | \$42.81 | (68) | Bachelor's degree | None |
| Computer Systems Analysts | 4 | 66 | \$37.95 | (92) | Bachelor's degree | None |
| Nurse Practitioners | 5 | 556 | \$45.84 | (487) | Master's degree | None |
| Computer User Support Specialists | 6 | 88 | \$21.37 | (114) | Some college, no degree | None |
| Medical Scientists, Except Epidemiologists | 7 | 83 | \$46.15 | (256) | Doctoral or professional degree | None |
| Registered Nurses | 8 | 15,531 | \$38.24 | (3,876) | Bachelor's degree | None |
| Medical and Clinical Laboratory Technicians | 9 | 877 | \$19.37 | (413) | Associate's degree | None |
| Network and Computer Systems Administrators | 10 | 84 | \$37.45 | (75) | Bachelor's degree | None |
| Pharmacists | 11 | 427 | \$60.38 | (118) | Doctoral or professional degree | None |
| Market Research Analysts and Marketing Specialists | 12 | 71 | \$25.71 | (79) | Bachelor's degree | None |
| General and Operations Managers | 13 | 721 | \$40.00 | (23) | Bachelor's degree | None |
| Postsecondary Teachers | 14 | 67 | \$28.55 | (38) | Doctoral or professional degree | None |
| Medical and Clinical Laboratory Technologists | 15 | 1,016 | \$31.78 | (267) | Bachelor's degree | None |
| Medical and Health Services Managers | 16 | 1,527 | \$47.08 | (552) | Bachelor's degree | None |
| Nursing Assistants | 17 | 4,655 | \$15.36 | (6,427) | Postsecondary nondegree award | None |
| Physical Therapists | 18 | 1,408 | \$50.13 | (241) | Doctoral or professional degree | None |
| Home Health Aides | 19 | 1,970 | \$11.24 | (5,656) | No formal educational credential | Short-term on-the-job training |
| Emergency Medical Technicians and Paramedics | 20 | 990 | \$19.65 | (513) | Postsecondary nondegree award | None |
| Occupational Therapists | 21 | 527 | \$45.58 | (201) | Master's degree | None |
| Management Analysts | 22 | 71 | \$35.32 | (51) | Bachelor's degree | None |
| Secretaries and Administrative Assistants, Except Leg | 23 | 1,195 | \$17.21 | (581) | High school diploma or equivalent | Short-term on-the-job training |
| First-Line Supervisors of Production and Operating Wor | 24 | 56 | \$27.55 | (57) | High school diploma or equivalent | None |
| First-Line Supervisors of Office and Administrative Supp | 25 | 1,101 | \$21.94 | (205) | High school diploma or equivalent | None |

Top 25 High Demand Health and Medical Occupations Sorted by Jobs Below National Average

| Description | Consensus Rank | 2016 Jobs | Median Hourly Earnings | Jobs Above or Below National Average | Typical Entry Level Education | Typical On-The-Job Training |
|---|----------------|-----------|------------------------|--------------------------------------|-----------------------------------|-----------------------------------|
| Nursing Assistants | 17 | 4,655 | \$15.36 | (6,427) | Postsecondary nondegree award | None |
| Home Health Aides | 19 | 1,970 | \$11.24 | (5,656) | No formal educational credential | Short-term on-the-job training |
| Registered Nurses | 8 | 15,531 | \$38.24 | (3,876) | Bachelor's degree | None |
| Licensed Practical and Licensed Vocational Nurses | 2 | 1,962 | \$25.17 | (3,000) | Postsecondary nondegree award | None |
| Personal Care Aides | 35 | 10,372 | \$10.38 | (2,741) | No formal educational credential | Short-term on-the-job training |
| Medical Secretaries | 29 | 2,426 | \$16.63 | (2,043) | High school diploma or equivalent | Moderate-term on-the-job training |
| Physicians and Surgeons, All Other | 1 | 1,201 | \$107.23 | (1,135) | Doctoral or professional degree | Internship/residency |
| Social and Human Service Assistants | 96 | 705 | \$16.20 | (786) | High school diploma or equivalent | Short-term on-the-job training |
| Healthcare Social Workers | 44 | 401 | \$30.03 | (647) | Master's degree | None |
| Secretaries and Administrative Assistants, Except Leg | 23 | 1,195 | \$17.21 | (581) | High school diploma or equivalent | Short-term on-the-job training |
| Medical and Health Services Managers | 16 | 1,527 | \$47.08 | (552) | Bachelor's degree | None |
| Billing and Posting Clerks | 61 | 1,262 | \$17.52 | (523) | High school diploma or equivalent | Moderate-term on-the-job training |
| Emergency Medical Technicians and Paramedics | 20 | 990 | \$19.65 | (513) | Postsecondary nondegree award | None |
| Nurse Practitioners | 5 | 556 | \$45.84 | (487) | Master's degree | None |
| Medical and Clinical Laboratory Technicians | 9 | 877 | \$19.37 | (413) | Associate's degree | None |
| Mental Health and Substance Abuse Social Workers | 126 | 333 | \$23.24 | (358) | Bachelor's degree | None |
| Cooks, Institution and Cafeteria | 112 | 340 | \$13.67 | (352) | No formal educational credential | Short-term on-the-job training |
| Dental Hygienists | 106 | 1,440 | \$43.17 | (351) | Associate's degree | None |
| Substance Abuse and Behavioral Disorder Counselors | 124 | 255 | \$21.99 | (326) | Bachelor's degree | None |
| Mental Health Counselors | 63 | 525 | \$22.26 | (295) | Master's degree | Internship/residency |
| Residential Advisors | 107 | 243 | \$12.45 | (283) | High school diploma or equivalent | Short-term on-the-job training |
| Psychiatric Technicians | 101 | 79 | \$14.97 | (279) | Postsecondary nondegree award | Short-term on-the-job training |
| Medical and Clinical Laboratory Technologists | 15 | 1,016 | \$31.78 | (267) | Bachelor's degree | None |
| Childcare Workers | 40 | 209 | \$10.53 | (263) | High school diploma or equivalent | Short-term on-the-job training |
| Physical Therapist Assistants | 38 | 417 | \$27.46 | (261) | Associate's degree | None |

Top High Demand Healthcare Occupations in Both Consensus and National Ranking Tables

| Description | Rank | 2016 Jobs | Median Hourly Earnings | Jobs Above or Below National Average | Typical Entry Level Education | Typical On-The-Job Training |
|---|------|-----------|------------------------|--------------------------------------|-----------------------------------|--------------------------------|
| Physicians and Surgeons, All Other | 1 | 1,201 | \$107.23 | (1,135) | Doctoral or professional degree | Internship/residency |
| Licensed Practical and Licensed Vocational Nurses | 2 | 1,962 | \$25.17 | (3,000) | Postsecondary nondegree award | None |
| Nurse Practitioners | 5 | 556 | \$45.84 | (487) | Master's degree | None |
| Registered Nurses | 8 | 15,531 | \$38.24 | (3,876) | Bachelor's degree | None |
| Medical and Clinical Laboratory Technicians | 9 | 877 | \$19.37 | (413) | Associate's degree | None |
| Medical and Clinical Laboratory Technologists | 15 | 1,016 | \$31.78 | (267) | Bachelor's degree | None |
| Medical and Health Services Managers | 16 | 1,527 | \$47.08 | (552) | Bachelor's degree | None |
| Nursing Assistants | 17 | 4,655 | \$15.36 | (6,427) | Postsecondary nondegree award | None |
| Home Health Aides | 19 | 1,970 | \$11.24 | (5,656) | No formal educational credential | Short-term on-the-job training |
| Emergency Medical Technicians and Paramedics | 20 | 990 | \$19.65 | (513) | Postsecondary nondegree award | None |
| Secretaries and Administrative Assistants, Except Legal, Medical, and Executive | 23 | 1,195 | \$17.21 | (581) | High school diploma or equivalent | Short-term on-the-job training |

Questions for Sector Council Members

In your experience:

1. Which of the discussed occupations do you find most difficult to fill?
2. Which of these occupations do you believe will increase in demand because of new and emerging trends?
 - Please share your rationale.
3. Do you believe these typical entry level education and experience identified by the Bureau of Labor Statistics are correct?
 - If not, please share the specific education (i.e., certification program, degree, etc.) and experience you typically look for when sourcing talent within your sector.

Governors Office of Economic Development

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