Science & Engineering Jobs in New Mexico

No matter where you go, you’re likely to hear about the importance of science and engineering in the economy. The attention to this sector is driven by the overall desirability of its businesses and jobs; businesses are often expanding, developing, and inventing products, processes, and technologies, while employing more educated workers at higher wages. From an economic and labor market standpoint, more educated workers with higher paying jobs are going to be able to contribute more to the local economy through their buying power (among other things), while helping to attract other businesses to the state. With this focus on science and engineering, including Science, Technology, Engineering, and Mathematics (STEM), it is important to look at the science and engineering workforce in New Mexico.

What is Considered a Science and Engineering Job?
The New Mexico Department of Workforce Solutions (NMDWS) used the occupational listing created by the National Science Foundation (NSF), in conjunction with the Bureau of Labor Statistics’ (BLS) Standard Occupational Classification (SOC) system, to identify science and engineering occupations within the state. Using NSF methodology, NMDWS split occupations into two categories: science and engineering (S&E) and science and engineering-related (S&E-R). NMDWS did not include education occupations in their listing; this exclusion was due to data limitations at the statewide level.

Where is the Science & Engineering Employment in New Mexico?
Based on 2011 data, approximately 12 percent of New Mexico’s workforce was employed in an S&E or S&E-R occupation (see Exhibit 1). New Mexico is ranked second in the region for this employment, following only Colorado, which has 12.8 percent of the workforce in S&E/S&E-R occupations. The U.S. as a whole has over 11 percent of its workforce employed in S&E or S&E-R occupations. As shown in Exhibit 2, Arizona and Texas both have 11 to 12 percent of the workforce in S&E/S&E-R occupations, while Utah and Oklahoma have less than 11 percent in this category.

Science & Engineering Definitions

S&E
"generally associated with a bachelor’s level of knowledge and education in S&E fields"
Examples
engineers; mathematicians; life, physical & social scientists

S&E-R
"also requires some S&E knowledge or training, but not necessarily as a required credential or at the bachelor’s degree level"
Examples
engineering technicians; drafters; managers

Health Care
"health care practitioners and technicians"
Examples
physicians; registered nurses; dental hygienists; medical sonographers
S&E and S&E-R occupations are more concentrated in the Central corridor of the state. Exhibit 3 shows that the Central Region has the largest concentration, with 14.0 percent of the workforce in S&E/S&E-R jobs, followed by the Northern Region, with 12.6 percent. The large concentration in both of these regions is likely attributed to the presence of Sandia and Los Alamos national laboratories, and the S&E/S&E-R businesses that support or are involved with their operations. Mining and natural gas extraction in the North also drives the employment of engineers and technicians. The Southwestern Region follows the North closely, with over 11 percent of the workforce in S&E/S&E-R jobs. The Eastern Region has the smallest concentration of these workers, with less than 8 percent of total employment. This is likely due to the rural nature of the region. Engineers, engineering technicians, and surveyors and mapping technicians, often related to mining and oil extraction activities, have the largest employment of all S&E/S&E-R jobs (excluding health care-related occupations) in the East.

Jobs in Science & Engineering—A Closer Look
Exhibit 4 provides a breakdown of S&E jobs by sub-occupation. Over 40 percent of all S&E workers in New Mexico are working in computer occupations. Over 30 percent of S&E workers are engineers. Scientists, including mathematical scientists, comprise the remainder of S&E workers (22 percent). In the S&E-R sector, the majority of workers (over 70 percent) are employed as health care practitioners and technicians (see Exhibit 5). This is not surprising, as the Health Care industry employs the largest number of workers of any industry in the state. Architects, surveyors, and cartographers make up the largest percentage of S&E-R workers, following those in health care. Computer, engineering, medical, and natural science managers comprise 7.8 percent of the S&E-R workforce. Computer and information systems managers are projected to see greater job openings than most other S&E occupations in the coming years.
NMDWS used two factors when identifying some of the best science and engineering occupations: projected annual job openings and average annual wages. Jobs with the most annual openings are going to provide more employment opportunities for job seekers. Science and engineering jobs that pay high wages are also desirable, as they provide significant income opportunity for New Mexicans. NMDWS used 2010 to 2020 employment projections and 2011 average average wages to identify top jobs.

First, it’s important to know which are the most common science and engineering jobs in the state—those with the greatest employment now. Exhibit 6 provides the top three jobs in science and engineering (by sub-category). Computer support specialists top the list of S&E jobs, while medical and health services managers provide the most jobs in S&E-R. There are more registered nurses in the health care related category than any other occupation.

These occupations also often provide the most annual openings in coming years. Statewide, science and engineering jobs, overall, are projected to grow slightly faster (1.8 percent, annually) than all occupations combined (1.5 percent). Science and engineering jobs are projected to provide close to 12 percent of future annual job openings (around 4,000/year). Within S&E, clinical, counseling, and school psychologists are projected to have 170 job openings annually, statewide, growing at 1.8 percent annually. This is followed by computer support specialists and other engineers, which are projected to grow by 140 and 110 jobs, respectively.

Life, physical, and social science, and electrical and electronic engineering techs are projected to provide approximately 130 jobs annually, combined; this growth rate, however, is slower than the statewide average. Medical and health services managers, which provide the most S&E-R jobs currently, is projected to grow at the S&E rate, and provide about 70 job openings a year.

The health care industry, and many of its top occupations, is projected to see greater growth than most other industries in the state. Registered nurses, by far, will provide the most job openings over the projection period; a projection shows 700 job openings each year for nurses. These openings, combined with 200 openings per year for licenses practical and vocational nurses, is projected to represent over 40 percent of all health care-related job openings over the projection period.

Science and engineering occupations, more often than not, require a higher level of education; the required higher education levels also return higher wages. In 2011, the average annual wage in New Mexico was $41,700. S&E and S&E-R occupations had an average annual wage that ranged from $72,900 (health care practitioners and technicians)
to $89,500 (management occupations). Exhibit 8 shows the highest paying jobs in science and engineering (for those jobs with more than 10 projected annual openings). Aerospace engineers and all other engineers top the S&E wage list, while engineering and natural sciences managers pay the most of all S&E-R jobs. Unsurprisingly, physicians and surgeons (all other), and family and general practitioners pay the most of health care practitioners and technicians. Dentists round out the top three highest paying S&E health care-related jobs.

Science & Engineering Education Requirements

Higher Education Needed

As stated previously, jobs in science and engineering are projected to grow slightly faster than all jobs combined between 2010 and 2020. We also know that science and engineering jobs typically require higher educational attainment and, subsequently, pay higher wages. So, what is the distribution of science and engineering jobs by the education required? In 2010, over 50 percent of all science and engineering jobs required at least a bachelor’s degree. Close to two-thirds required at least an associate's degree. This is in stark contrast to all occupations combined. In 2011, around 70 percent of all jobs in New Mexico only required a high school diploma or more.

Science & Engineering Jobs by Education Requirement
New Mexico, 2010-2020

Science and engineering jobs that require a bachelor’s degree or more are projected to grow by about 17 percent, as compared to jobs that require less than a bachelor’s degree, which are projected to grow by about 19 percent. Jobs requiring a master’s degree, however, are still projected to grow the most (24 percent). When analyzing growth in all jobs, not just those in science and engineering, the trend is reversed. Growth in jobs requiring a bachelor’s degree or more are projected to grow at a faster rate (19 percent) than jobs requiring less than a bachelor’s degree (15 percent). Even with varying trends in jobs growth by educational requirement, it is ever apparent that education opportunities in science and engineering are in critical demand at all levels of the education system.

Highest Paying Science & Engineering Jobs
Jobs with Highest Wages & More than 10 Annual Openings
New Mexico, 2011

<table>
<thead>
<tr>
<th>Category</th>
<th>Annual Openings</th>
<th>Avg. Annual Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Science and Engineering</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineers, All Other</td>
<td>110</td>
<td>$112,000</td>
</tr>
<tr>
<td>Aerospace Engineers</td>
<td>20</td>
<td>$104,000</td>
</tr>
<tr>
<td>Electronics Engineers, Except Computer</td>
<td>60</td>
<td>$100,000</td>
</tr>
<tr>
<td><strong>Science and Engineering Related</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engineering Managers</td>
<td>40</td>
<td>$135,000</td>
</tr>
<tr>
<td>Natural Sciences Managers</td>
<td>30</td>
<td>$121,000</td>
</tr>
<tr>
<td>Computer &amp; Information Systems Managers</td>
<td>30</td>
<td>$108,000</td>
</tr>
<tr>
<td><strong>Health Care Related</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physicians &amp; Surgeons, All Other</td>
<td>30</td>
<td>$211,000</td>
</tr>
<tr>
<td>Family &amp; General Practitioners</td>
<td>60</td>
<td>$190,000</td>
</tr>
<tr>
<td>Dentists, General</td>
<td>30</td>
<td>$177,000</td>
</tr>
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Source: NMDWS, OES program.

The Occupational Bulletin is a monthly publication from the New Mexico Department of Workforce Solutions, Economic Research & Analysis Bureau. This month’s contributor is Ashley Leach, Economist.

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