The Information Technology Industry in New Mexico

Information technology (IT) falls within two main industry sectors: information and professional, scientific, and technical services. Among these two sectors are several subsectors that can be identified as involving IT. Those subsectors within information—software publishers; internet publishing and web search portals; data processing, hosting, and related services; and wired, wireless, satellite, and other telecommunications—offer information as a commodity, whereas those within professional, scientific, and technical services—computer systems design services, custom computer programming services, other computer related services, and computer facilities management services—offer human capital, being defined by the expertise and training of the service provider.

Employment Trends

Exhibit 1 shows that in 2012, employment within the IT industry, as defined in this report, comprised 1.8 percent of total private industry employment in New Mexico, one percentage point below the national average. It ranked below all other neighboring states apart from Oklahoma, which had the lowest concentration, at 1.6 percent. Colorado and Utah had the highest percentage of jobs in IT, at 5.0 percent and 3.8 percent, respectively. However, at the subsector level, New Mexico had a concentration in telecommunications of 1.0 percent, with only Colorado’s concentration (1.4 percent) ranking higher.

Employment in the telecommunications subsector made up, by far, the most IT employment, with 6,289 jobs in 2012, or 57 percent of total employment. Computer systems design services had the second highest employment numbers in 2012 (1,985 jobs, or 18 percent), while custom computer programming services had the third highest number of jobs (1,420, or 13 percent). Both sectors experienced average annual job growth over the preceding 10-year period (25.1 and 2.9 percent, respectively). (See Exhibits 2 and 4.) Computer facilities management services was the only other IT subsector that experienced average annual job growth over the 10-year period. Though employment only amounted to 186 in 2012, average annual job growth was 5.1 percent.
All of the growing IT subsectors fall within the professional, scientific, and technical services sector, while all other subsectors have contracted to varying degrees. This indicates that there is an increasing premium on human expertise over the commoditization of information within New Mexico.

While employment in telecommunications comprised 57 percent of total IT employment (as of 2012), the proportion of establishments was much lower. The number of establishments in the telecommunications subsector hovered roughly around 300 over the preceding 10-year period, and contracted to 293 by 2012; this represented only 18.9 percent of all IT establishments. (See Exhibits 3 and 4.) While the subsector has fewer establishments than other IT subsectors, those establishments tend to be larger; the average telecommunications establishment employed 21 workers in 2012, a much higher number than other IT industry subsectors, where average number of workers ranged from 2 to 8 in 2012.

The number of establishments grew in all IT subsectors over the preceding 10-year period, except for telecommunications and software publishers. Internet publishing and web search portals establishments showed the most growth since 2003, increasing from 14 to 39 (an average increase of 18 percent per year), though, with declining employment numbers, this indicates a trend towards smaller establishments rather than growth.

Wages

IT jobs pay higher than average, in general, with the combined IT (excluding telecommunications) average annual pay of $55,687 being 37 percent higher than the all-industry average. When including the somewhat lower paying telecommunications subsector, wages are still $43,461, or 6.8 percent higher.

The software publishers and custom computer programming services subsectors showed average annual wages well over the all-industry average. While the average wage across all industries was $40,698 in 2012, software publishers and custom computer programming services both averaged well over double this wage ($89,135 and $89,434, respectively).

Industry Employment Projections

Note: IT industry employment projections were only available at the 3-digit North American Industry Classification System (NAICS) level; therefore, some of the information presented includes non-IT employment within these broad industry categories.
As Exhibit 5 shows, employment in other information services (which includes the internet publishing and web search portals subsectors) is projected to grow by more than any other IT-related industry subsector during the projection period (16.5 percent). This, however, only represents an addition of 40 jobs. Telecommunications is also projected to expand by 8.2 percent, or 560 jobs. Professional, scientific, and technical services comprises a wide variety of subsectors, therefore, while it is encouraging that employment is projected to grow by 15.3 percent over the 10-year period, it is unclear how much will specifically occur within IT-related subsectors. On the other hand, publishing industries is projected to decline by 0.9 percent annually over the projection period, though this likely reflects anticipated changes in print publishing and may not represent changes within software publishing, its IT-related subsector.

A Broader Look at IT Employment

This article focuses on a narrow definition of IT employment, using subsectors within information and professional, scientific, and technical services as its basis. It is fruitful to consider a broader definition of IT that also includes IT manufacturing. Exhibit 6 shows employment within the three relevant subsectors in manufacturing: semiconductor and other electronic components manufacturing, computers and peripheral equipment manufacturing, and navigational, measuring, electromedical, and control instruments manufacturing. Over the past decade, semiconductor and other electrical component manufacturing has dominated the IT manufacturing subsector in New Mexico (predominantly due to Intel Corporation), representing around 70 percent of IT manufacturing employment, though employment within this subsector contracted by 36 percent during this time.

Occupations Profile

The dominant occupation within IT is computer user support specialists; computer and user support specialists comprise 21.9 percent of IT occupation employment, or 3,240 jobs. (See Exhibit 7.) Almost 60 percent of all IT employment falls within the top four occupations, which, along with computer user support specialists, consist of software developers, systems software (with 2,180 jobs, or 14.7 percent); network and computer systems administrators (1,400 jobs, or 9.5 percent); and computer systems analysts (1,350 jobs, also 9.1 percent).

Software developers, systems software is also the highest paying IT occupation. All 13 IT occupations have higher annual median wages than all occupations combined, with the 10 highest-paying occupations having wages close to or more than double the all-occupation median wage ($31,430). In 2012, both computer and information systems managers and software developers, systems software had an annual
median wage of over $90,000. Computer user support specialists had the lowest annual median wage, although it was still higher than the median wage across all occupations. All other IT occupations with 1,000 or more jobs, each, had a median wage in 2012 that was more than double the annual median wage across all occupations, except computer network support specialists, which still had a median wage ($60,150) that was very close to double the all-occupation median.

Who Works in Informational Technology?

Over 60 percent of IT jobs are held by men. Exhibit 8 shows the percentages of males and females within the IT industry and across all industries. It also shows the gender distribution across each of the relevant 4-digit NAICS subsectors, except telecommunications, which is a 3-digit NAICS subsector. Computer systems design services is the subsector with the highest percentage of men (65.4 percent). This includes the specific subsectors computer systems design services, custom computer programming services, other computer related services, and computer facilities management services, which all fall under the professional, technical, and scientific services subsector. Other information services (which includes internet publishing and web search portals) is the subsector with the highest female percentage (44.2 percent), which is still lower than the all-industry female percentage of 49.2 percent.

Exhibit 9 shows the age distribution across the IT industry, its subsectors, and all industries combined. It is clear that the IT industry, as a whole, has a slightly younger workforce compared to all industries, combined. While 37.4 percent of the all-industry workforce is under 35, this age range makes up 41.5 percent of the combined IT industry workforce. We see that the main subsector influencing this is telecommunications, within which 48.3 percent of the workforce is under 35. The subsector consisting of the oldest workforce is software publishers, in which 84.3 percent are 35 or older. This is considerably higher than the percentage of workers 35 or over across all industries (62.6 percent). The next oldest subsector was computer systems design services, with 65.5 percent of the workforce 35 or older. Interestingly, these subsectors also have the highest annual average wages, which may indicate that, while IT is, in general, a young industry, workers tend to access the top wages only after several years of experience.

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