One in five Utah jobs requires at least a bachelor’s degree or higher. You have heard this statistic before, but how do we know? On the other end of the scale, what proportion of jobs in the state require virtually no training past a “short demonstration?” Is the pay different for different training levels? In this edition of Trendlines under Economic News you will find an article on the Utah Job Outlook. It presents job demand information about occupations in Utah between 2008 and 2018. Education and training requirements of these occupations are another dimension of the job outlook data.

Education and Training Levels – Defined

The U.S. Bureau of Labor Statistics uses a training classification system that assigns one of eleven training codes to all the 700+ occupations in the system. The assignment is based on “the most significant source” of education and training for the occupation based on research conducted by the Bureau. The 11 classifications of training are listed at the right.

The Data

DWS produces occupational projections biennially. That means every other year we spend months creating industry and occupational projections that describe the Utah job market. The current set of projections includes the 2008 to 2018 period. Estimates of employment and job openings are generated for each of the some 750 occupations in the State. These data include the employment or number of jobs in the base year—2008, the projected year—2018, new jobs created between 2008 and 2018, and the number of annual average job openings expected over that period. A training code is assigned to each occupation, as well as the 2009 median occupational wage. These
data are shown in the three graphs, one for 2008 and 2018, and one for the new jobs between 2008 and 2018. Those five training levels requiring at least a bachelor’s degree are combined into one pie piece. All the wage data is referenced to May of 2009. No projections of wages are made.

**What’s Happening**

The training requirements of Utah jobs are relatively stable and have not changed much over the last 20 to 30 years. The trend in training requirements is clear. Jobs in Utah, and other states and the nation, will require more training in the future. The sophistication and heavy infusion of new technology has impacted the labor market. This phenomena has had varying levels of impact in the array of occupations. Most of the impact is in the occupations that call for higher levels of academic training and particularly in the science and technology-oriented fields.

Still, the occupational structure of the job market changes slowly. For example, the occupations requiring a bachelor’s or higher degree accounted for 20.0 percent of all 1.4 million jobs in the state in 2008. The percent of these jobs in 2018 is estimated to be 20.7 percent. Of all the new jobs over the 10-year period, 23.8 percent will be in this category, reflecting the growing trend for more education and training.

On the other end of the training continuum—the short-term on-the-job training occupations—continue to account for just over one-third of all employment. This pie piece has not changed dramatically. The job market still calls for low-skilled labor in volume. This pie piece is the largest of all. The share of jobs in short term on-the-job

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**CLASSIFICATIONS OF TRAINING**

1. First Professional Degree
2. PhD
3. Masters
4. Bachelor’s + Experience
5. Bachelor’s
6. Associate
7. Applied Technology
8. Work Experience
9. Long-Term On-the-Job Training (one year or longer may include classroom training)
10. Moderate-Term On-the-Job Training (one month up to one year OJT)
11. Short-Term On-the-Job Training (short demonstration to one month OJT)

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Source: Utah Department of Workforce Services, Workforce Research and Analysis, September 2010.
training is, however, shrinking. Note on the graph in 2008 the proportion is 34.4 percent compared to a smaller 33.8 percent share in 2018. Just because these unskilled jobs don’t require much more than short demonstration to become proficient doesn’t mean the workers in these jobs are uneducated. Most of the applicants and workers have high school diplomas.

The job market in occupations requiring more education and training is expanding and the market for occupations calling for work experience and less training is shrinking. Bachelor’s and higher-degreed occupations and associate and applied technology occupations are experiencing higher than average (2.1 percent per year) growth as compared to the occupations requiring less training. These other jobs with lower training requirements are not declining in absolute terms, but slipping in their share of total jobs.

**Wages and Education and Training**

Yes, there is a relationship between higher training required and higher wages. The graphs show the median hourly rate (in 2009 dollars) for each of the pie pieces. Higher than the state median of $18.10 per hour rates are evident for all four of six of the more education and training categories. The highest paid was for the Bachelor’s or higher with an hourly median wage of $31.30. Wages for occupations requiring an associates degree or applied technology education were $19.40 per hour and $22.00 per hour, respectively.

**Over-Educated?**

About 28 percent of Utahns age 25 and over have a bachelor’s degree or higher. Twenty percent of Utah jobs require a bachelor’s degree or higher. Is this a massive mis-match in the job market and Utah’s population? Here two different data sources are at play. Utah’s population is educated and the emphasis in our society, schools, legislature, and in general is to promote education. Education for education’s sake is a real positive attribute in our society. The more education our citizenry has the better the society and standard of living is. On the other hand, some say we need to train our young people in just the skill they need to get a job. The answer is not simple and our state has been debating this question for decades, but that’s food for thought for another time.