PREPARING UTAH’S WORKFORCE FOR 21ST CENTURY JOBS

Having a well-prepared, knowledgeable, and skilled workforce is a necessary component to ensuring positive economic growth in Utah. Preparing Utah’s workforce for high-growth, high-wage jobs is also critical to maintaining both the competitiveness and standard of living of Utah’s workers. With the economy shifting and the presence of global competitors increasing, Utah workers should understand what occupations will provide them with an adequate wage, as well as opportunities for growth in their careers.

This report evaluates a list prepared by Utah’s Department of Workforce Services of the best high-growth, high-wage jobs Utah officials expect to see over the next decade. The report provides detailed information about the educational and training requirements for each of Utah’s top jobs, as well as data on the current levels of attainment of the degrees or training necessary for each job. The purpose of this report is to inform current workers, future workers, employers, and policy makers about the opportunities that exist in Utah’s economy and the steps that are necessary for Utah workers to take advantage of these opportunities.

FIVE STAR JOBS

In 2008, the Department of Workforce Services produced a complete list of the state’s occupational projections for 2006 to 2016. In this list, Workforce Services ranked jobs using a “star” rating of one to five. The star rating is based on both employment outlook and wages, where five-star occupations have the strongest employment outlook and highest wages. The employment outlook for a given occupation is determined by both the projected annual number of job openings and how fast the occupation is expected to grow between 2006 and 2016. Median annual wages were used to determine the wage portion of the star rating.

Median annual wages are based on an average of all wages of the workers in each occupation. This figure is an estimate of what a more experienced worker could expect to earn. Workforce Services lists inexperienced wages in its projections as well. Inexperienced wages represent the bottom third of all wages for the occupation, and is an estimate of what a worker may expect to earn when first starting a job. The wages represented in this analysis were collected by Workforce Services in 2005.

The Department of Workforce Services includes 624 jobs in its occupation projections. Of these 624 jobs, 72 (11.5%) are rated as five star jobs, 122 (19.6%) as four star, 144 (23.1%) as three star, 142 (22.8%) as two star, 56 (9.0%) as one star, and 88 (14.1%) as not rated. The majority of five-star jobs are management, computer and mathematical, and education and training related occupations. Fifty-three percent require a degree, while 36% require on-the-job training and 11% require work experience in a related field.

The degrees required for five-star jobs vary from associate’s to doctoral degrees. Associate’s degrees usually require at least two years of full-time academic schooling after high school. Many of these occupations are health-related, including registered nurses,
The on-the-job training requirement for five-star jobs can range anywhere from just a few days or weeks training to more than 12 months of formal on-the-job training. Training can be a combination of both work experience and classroom instruction, but it often involves trainees watching experienced workers and/or being given progressively more difficult assignments until they develop the skills needed for average job performance. Workforce Services classifies on-the-job training into three categories—long term (12 or more months), moderate term (one to 12 months), or short term (a few days to several weeks). Some five-star jobs require candidates have work experience in a related occupation. Employers offering these types of jobs prefer applicants who have already received the necessary training at a previous job.

Median hourly wages of five-star jobs range from $13.20 (industrial truck and tractor operators and court, municipal, and license clerks) to $68.50 (chief executives). The average median wage is around $28.00. Total annual openings range from ten per year (occupational therapist assistants and cardiovascular technologists) to 990 openings per year (heavy and tractor-trailer truck drivers). The average number of total annual openings for five-star jobs is around 200. The five-star occupation with the highest expected growth in annual openings (excluding replacements) is registered nurse, and the occupations with the highest number of replacements are truck drivers and general and operations managers.

**UTAH FOUNDATION’S TOP 25 FIVE-STAR JOBS**

Using the Workforce Services’ list of long-term occupational projections, Utah Foundation determined the top 25 five-star rated jobs by eliminating any job with a median wage of less than $20.00 per hour and then selecting the 25 occupations with the highest number of projected annual openings. This produces a list that includes a variety of job types and training levels. All of the jobs on Utah Foundation’s final list have a median hourly wage of more than $20.00 per hour and are expected to have more than 100 openings per year between now and 2016. The list is not rank-ordered and groups the jobs by type.

Figure 4 lists each job and provides information on the level of education and training needed to work in the field, as well as the median wages of the occupation. The job titles used by the Department of Workforce Services and in this report are consistent with the North American Industry Classification System (NAICS). This system is used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.6

Figures 5 through 8 are selected from the full report, showing information about the supply of graduates for some of the most prominent five-star job categories in Utah: business administration, computer systems-related positions, and nursing. These are job categories for which Utah provides a significant number of graduates each year. The full report provides similar graphs for each of the top 25 five-star job categories.

**THE EFFECTS OF THE RECENT ECONOMIC RECESSION**

The Department of Workforce Services’ estimated annual number of job openings was forecast using 2006 as a base year. This forecast was made before the economic recession began in December 2007, and in the past two years, annual growth in many of these five-star jobs did not meet Workforce Services’ projections. In particular, the construction industry experienced significant losses in the number of available jobs. While hiring has slowed in almost all occupations, there are signs economic conditions are slowly improving at both the national and state level. Therefore, it is important to remember that the occupational outlook forecast was for a 10-year period, and growth in these occupations will likely resume.
While the information in this report is useful in understanding how to prepare Utah’s future workforce for Utah’s top 25 five-star jobs, it only completes part of the picture. In order to understand how Utah’s workforce can better fill the demand for these jobs, Utah Foundation will be publishing a second part to this report, analyzing where executives in these 25 occupations find their best employees, how well Utah is providing the education and training necessary for these positions, and how Utah could do better in providing a quality labor pool for these high-growth, high-wage jobs.

2 Employment outlook is based 90% on the projected number of total Utah job openings between 2006 and 2016 and 10% on how fast the occupation is expected to grow over that time period.


4 DWS, “Utah Job Outlook.”

5 Computer systems software engineer and application engineers were combined because of similar job descriptions, training, and wages. In this case an average of employment estimates, annual openings, and hourly wages are calculated. Some supervisory positions were also listed as a subset of management positions because of similarity. In these cases, employment estimates, annual openings, and hourly wages of the management position are listed.


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