Perspectives on Utah's Economy

Trendlines

Fall 2012

WHAT JOBS are in DEMAND?

UTAH'S NEW OCCUPATIONAL PROJECTIONS 2010–2020

EDUCATION AND TRAINING for the Jobs of the Future

Where is the Nation in the Business Cycle?

Department of Workforce Services

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Department of Workforce Services
Attn: WRA
140 East 300 South • SLC, UT 84111
801-526-9785 • Fax: 801-526-9238
Email: wipublications@utah.gov

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Workforce Research and Analysis
Rick Little, Director
Carrie Mayne, Editor

Contributors
Mark Knold
Carrie Mayne
Lecia Parks Langston
Jim Robson
Eric Martinson
Natalie Torosyan
MeLauni Jensen
Ivy Austria
John Krantz
Ben Hart

Designer
Pat Swenson

Editor
Kathy Hopkinson

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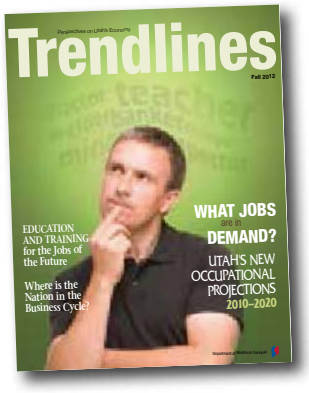
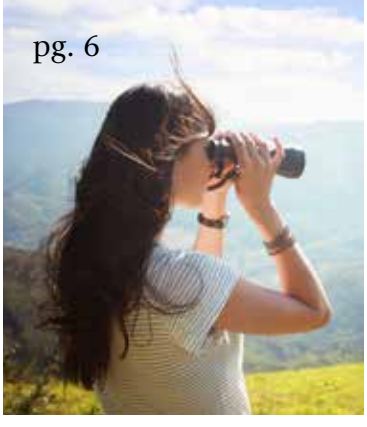


Occupational Insights

contents



Dichotomy in Utah's Economic Recovery

Utah is a big state geographically, but its employment is very concentrated. About 90 percent of employment lies between Logan and Provo. As a result, Utah has developed two economic profiles within the state — a metropolitan concentration and a rural dispersion.

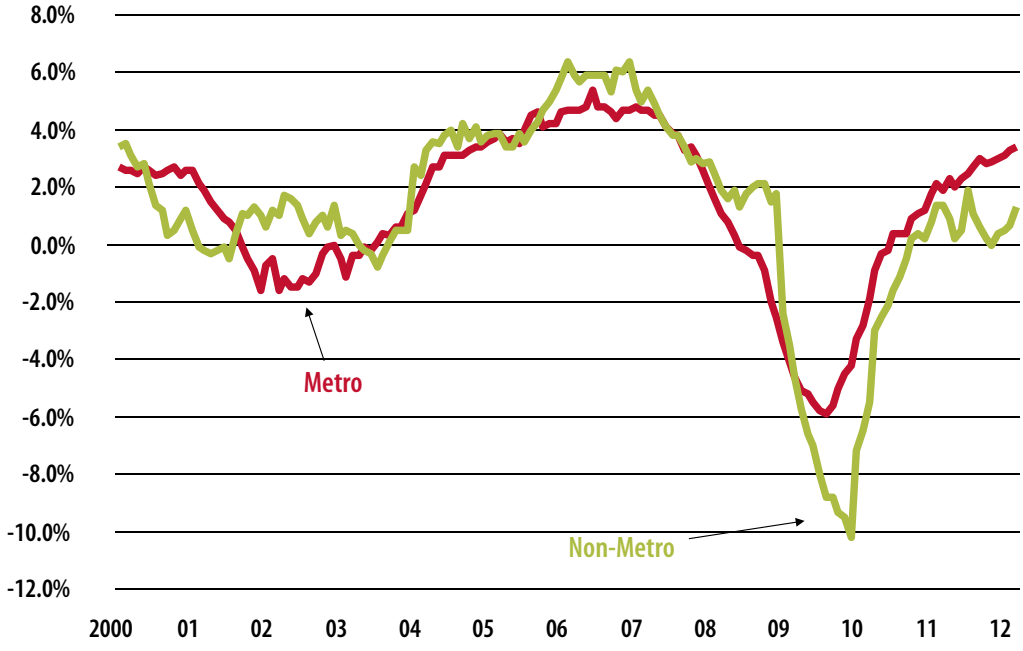
Figure 1 shows the metropolitan and rural percentage employment changes. Both regions suffered setbacks from 2008 to 2010. The recession put all areas into a tailspin, but the rural setback went deeper because of the rapid and sharp energy sector setback in 2009 that hit heavily in the Uintah Basin.

Currently, the metropolitan area is showing more bounce-back. Energy has come back strongly in the Uintah Basin, so it is pulling up the rural recovery. But remove that impact, and the rest of Utah's rural areas are still waiting for recovery to surface.

The current recovery needs more strength within the metropolitan core before lasting benefits trickle out to the rural economies.

Employment Growth: Metro vs. Nonmetro Utah

Monthly Year-Over Percent Change: 2000–2012*



Metro includes Cache, Weber, Morgan, Davis, Tooele, Salt Lake, Summit, Utah, Juab and Washington counties.

*Source: Utah Department of Workforce Services Note: *Through First Quarter 2012*

UTAH'S NEW OCCUPATIONAL PROJECTIONS

GUIDANCE FOR CAREER CHOICES

Every two years, like clockwork, the Utah Department of Workforce Services releases occupational projections for the next decade. Here we are, right on schedule with our most recent update. Our goal is to provide guidance to both the educational community who prepares our workforce and those who are making career choices. These projections also provide valuable insight into the current and future nature of Utah's labor force.

These projections cover the years 2010 to 2020. Don't be fooled into thinking that they are old because the base year is 2010: projections follow federal timing requirements and use the most current data available. Other things to keep in mind?

- Job growth, as well as replacement needs, generate total job openings.
- Occupations with a large employment base (such as cashiers) will also generate large numbers of job openings.
- The projected number of openings is the most important piece of employment outlook information (although the rate of expansion is also enlightening).
- Many more individuals may be trained in a particular occupation than the economy requires.

The most recent two sets of occupational projections have been com-

"PREDICTION is very difficult, especially if it's about the future."

—Nils Bohr, Nobel Laureate in physics

plicated by economic boom, recession and recovery. Growth rates for some large occupational groups have changed dramatically between the 2008 to 2018 projection set and the 2010 to 2020 set. Moreover, in an effort to improve our projections, we used newly available data sources to estimate employment for certain occupations outside the normal scope of our survey process. In other words, ardent followers of occupational data may notice larger-than-average differences in the two sets for certain occupations.

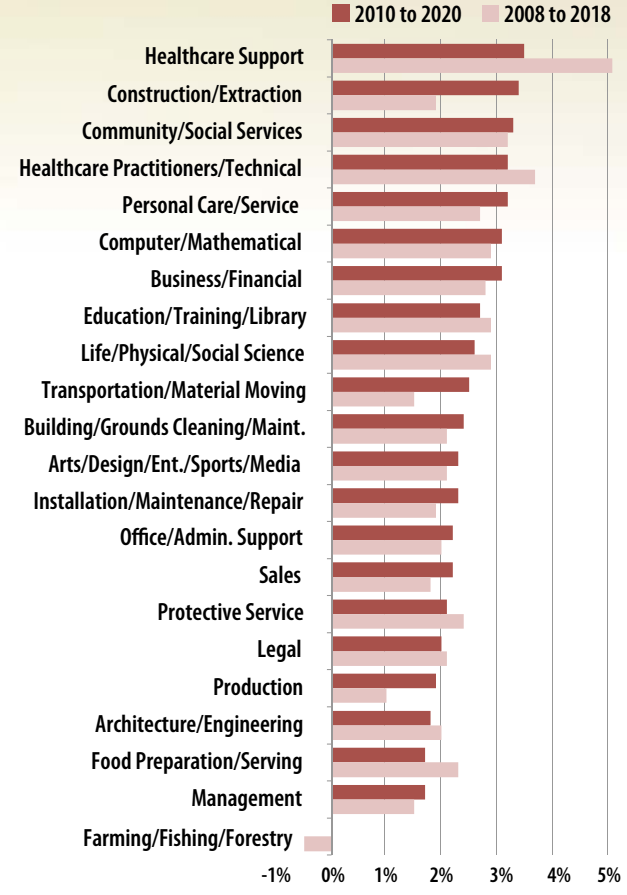
Characteristically, most broad trends remain unchanged. We're continually monitoring and projecting trends that encompass all employed persons. It takes countless individual changes to alter the shape of the entire labor market, so the general configuration of the labor market changes quite slowly. It should be comforting to realize that the same general patterns emerge with each new set of projections. Projections do catch current trends and provide reliable information for policy makers' future decision-making.

The final change of note in this particular projection set results from the U.S. Bureau of Labor Statistics' modifications to the training/preparation classification structure for occupations. Instead of a single, catchall training designation, each detailed occupation is categorized by typical entry-level education, typical work experience in a related occupation and typical on-the-

UTAH MAJOR

OCCUPATION GROUPS

PROJECTED ANNUAL AVERAGE GROWTH



Source: Utah Department of Workforce Services.

UTAH'S NEW

OCCUPATIONAL PROJECTIONS CONT.

job training needed for competency. Because a picture (or economist's graph) is worth a thousand words, I'll let my charts do most of the occupational-projection talking. However, here are a few trends to note:

- Projections indicate that overall Utah employment will expand by an average of 2.4 percent in each year of the decade — slightly higher than the rate of growth in the last projections set. Overall, the economy should generate 61,000 job openings (growth and replacements) each year between 2010 and 2020.
- Growth is expected to create just slightly more employment openings than replacement needs.
- Healthcare-related occupations continue to rank among the fastest-growing careers and provide numerous openings. However, many of the most rapidly expanding occupations appear in the "support" classification and pay lower-than-average wages.
- Occupations in computer-related fields still provide good employment opportunities and wages.
- Construction and extraction (mining) occupations show particularly strong growth rates in the current projections. Why? In the case of construction, employment levels registered at short-term lows in 2010. As the recovery continues, there's nowhere to go but up. The current boom in energy-related fields is also expected to continue to buoy up mining-related employment.
- Anticipated expansionary gains should also pump up employment growth rates in production, transportation/material moving and installation/maintenance/repair occupations from relatively low 2010 levels.
- Even declining occupations will show job openings due to the need to replace retiring workers.
- Despite some rather dramatic changes in growth rates, the annual number of projected job openings by major occupational group remained remarkably stable between the most recent two projection sets. This reflects the relationship between the current size of the occupation and the openings it will eventually produce. Again, large occupational groups create large numbers of openings.
- The new entry-level educational-requirement groupings suggest that occupations requiring at least a bachelor's degree will show the fastest growth over the next decade.
- More than 40 percent of jobs in 2020 will require just a high school degree, almost 30 percent will require less than a high school education, 20 percent will require a bachelor's degree or higher and just more than 10 percent will require post-secondary training less than a bachelor's degree. With slight changes, this reflects the current employment structure.

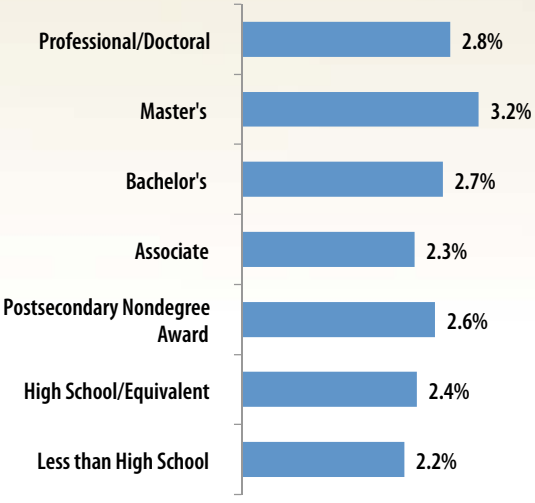
APPROXIMATELY 20 percent of jobs in 2020 will require a bachelor's degree or higher. Overall the economy should generate 61,000 jobs between 2010 and 2020.

For more information on our occupational projections, visit http://jobs.utah.gov/jsp/wi/utalmis/gotoOccinfo.do

UTAH PROJECTED 2010–2020 ANNUAL

EMPLOYMENT GROWTH RATE

BY TYPICAL ENTRY-LEVEL EDUCATIONAL REQUIREMENT



UTAH MAJOR OCCUPATION GROUPS

ANNUAL AVERAGE OPENINGS 2010–2020

Source: Utah Department of Workforce Services.

Where is the Nation in the Business Cycle?

The quick answer is "not where we want to be."

Economies perform in the course of what economists call a business cycle. Figure 1 provides a simple visual of a business cycle, which often resembles a roller coaster. Traits within the economy generally expand with time (such as GDP or employment), but that growth can be interrupted and even reversed for short intervals.

An existing growth trend will climb and reach a peak and then start to reverse. This marks the beginning of a new business cycle. The cycle then enters a contraction phase. The point at which the contraction ceases is called the trough. The peak-to-trough contraction is oftentimes viewed as the "official" length of a recession.

From this trough the economy again begins to grow. This is called the expansion phase. It generally has two parts — a recovery and a prosperity period. The recovery period is climbing from the trough back to a level equal to the previous peak. This period — or portions thereof — can oftentimes be included in the recession's measured effect because recession consequences can last longer than the "official" recession length. The continued growth thereafter is the prosperity period and signifies that the economy is growing beyond its previous best and has outdistanced the recession.

The Great Recession pushed America into one of these business cycles. Let's look at where we are and allow history to guide its appraisal.

Recessions are generally defined by monitoring the value of the economic output produced, called the GDP.[1] Figure 2 compares the current Great Recession GDP flow with the historic performance of past recession GDP flows.[2] But GDP is only one economic trait in a business cycle. The performance of employment more directly influences the American public, so it is also represented in Figure 2 (the lines with bubbles) for historic comparison.[3] In quick summary, the current recovery is falling well short of the historic recoveries of past recessions.

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[1] Using an inflation-adjusted GDP (called Real GDP) eliminates inflation's distortion upon the value of the economic output.

[2] Past flows are represented as the average Real GDP performance of all post-1950 recessions excluding the Great Recession.

[3] Employment is seasonally adjusted to smooth out distortions that different seasons have upon employment levels. Employment change is represented by percentage change, and further presented in reference to the quarter of GDP trough.

The Great Recession GDP fell by over four percentage points from its peak to trough. The previous recession average GDP declines are just below two percentage points. The bigger drop this time comes across as a possible influencing factor in the recovery's lingering lag. Historically, it only takes two quarters for GDP to recover and move beyond its previous peak. In the current recovery, it took ten quarters to meet and surpass the previous peak. In past recessions, ten quarters beyond the trough would have GDP seven percentage points beyond the previous peak. This dissimilarity is why the current recovery is labeled lethargic and disappointing.

Employment presents an even more lackluster comparison. Employment rebounds naturally lag GDP rebounds. Recessions tend to squeeze inefficiencies out of the economy, and employment is often one of the variables squeezed most. Typically, employment takes five quarters beyond the GDP trough to equal pre-recession employment. The current recovery is 12 quarters beyond the GDP trough yet has recovered only one third of previous peak employment.

The reasons for such results are varied, but historical performance reveals that the current recovery will isolate itself within the history of recoveries as a significant underachiever.

Figure 1: Anatomy of a Business Cycle

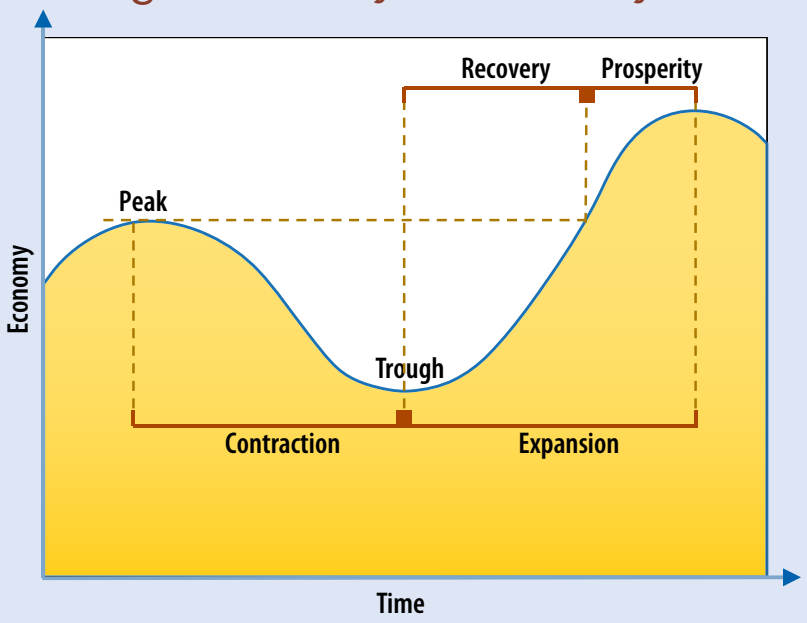
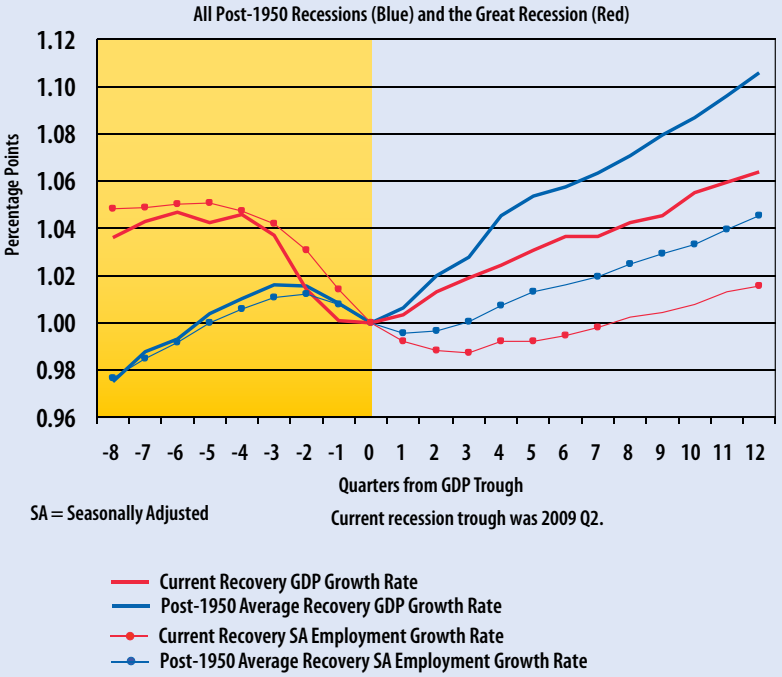


Figure 2: Historically Slow Recovery
for Both Gross Domestic Product and Employment



Making Sense of Occupational Projections

Utah's Star Rating System

We get it. Whether you are trying to make a career decision or decide what kind of training to offer at an educational institution, it's difficult to ferret out what the numbers behind our occupational projections really mean. Are 50 job openings a lot? What's most important: the number of job openings or the growth rate? If an occupation has a huge number of openings, is it necessarily a good career choice?

During 2006, in an effort to help our users find some clarity while making career choices, the Utah Department of Workforce Services decided to attach star ratings to occupations based on both employment outlook and wages. In the intervening years, we've repeatedly tweaked the methodology behind the ratings in an attempt to provide the best indicator possible for our occupational-projections customers.

As we release the most current set of projections, we've made a significant change to our ranking system. In the past, we applied star ratings according to training-level group. However, the current ratings are made irrespective of required training to clarify which occupations offer the best wages and outlook, period. It will still be possible to use the ratings to rank occupations by educational requirements. Nevertheless, it's inappropriate to compare an occupation's star rating today to its star rating in a previous projection cycle.

Ratings provide general guidance for those seeking high-demand/high-wage positions and are not the final word on the desirability of a particular occupation. Star ratings should not be used to exclude occupations for training purposes due to many factors: the nature of survey data collection, the length of the projections period, the unknown future, the variability of wages within a given occupation and the relative nature of the ratings process itself.

Here's a brief primer on our star-rating methodology:

- The star rating is based on both employment outlook and wages.
- Only occupations with employment of at least 100 in the base year are ranked. In addition, residual occupational groups, which combine similar, small occupations, are not ranked.
- Employment outlook is based 90 percent on the number of total Utah job openings projected between 2010 and 2020 and 10 percent on how fast the occupation is expected to grow over that time period.
- The most recent surveyed median annual wages are used in the wage computation.
- There may be slight adjustments to the ratings based on an economist's personal knowledge of the labor market.

Ranked occupations are rated from zero to five stars.

- Five-stars — strongest employment outlook and high wages.
- Four-stars — good employment outlook and relatively high wages.
- Three-stars — moderate-to-strong employment outlook and low-to-moderate wages.
- Two-stars — relatively high wage but a limited employment outlook.
- One-star — relatively low wage and strong employment outlook.
- Zero-stars — limited employment outlook and low wages.

For more information, visit http://jobs.utah.gov/jsp/wi/utalmis/gotoOccinfo.do

2010–2020 Utah's Best of the Five-Star Jobs

- Biomedical Engineers
- Civil Engineers
- Computer Programmers
- Computer Systems Analysts
- Construction Managers
- Dental Hygienists
- Financial Managers
- First-Line Supervisors of Mechanics, Installers, and Repairers
- General and Operations Managers
- Information Security Analysts, Web Developers and Computer Network Architects
- Lawyers
- Management Analysts
- Medical and Health Services Managers
- Network and Computer Systems Administrators
- Pharmacists
- Physicians*
- Sales Managers
- Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products
- Software Developers, Applications
- Software Developers, Systems Software

* Includes all physician specialties
Source: Utah Department of Workforce Services

Ratings provide general guidance for those seeking high-demand/high-wage positions.

Education & Training for the Jobs of the Future

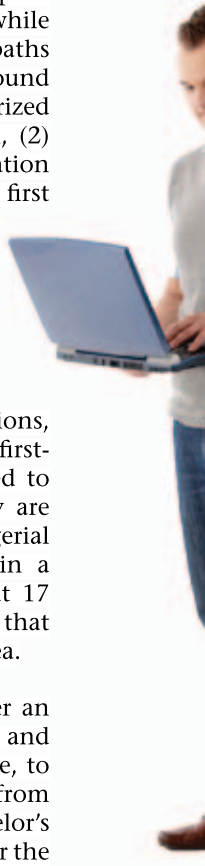
Career pathways explained — there may be several ways to achieve your career goals.

The Utah Department of Workforce Services recently released statewide occupational employment projections for 2010 to 2020. Those seeking career guidance — students and other career changers — can use the projections as a guide to the preparation needed to enter an occupation. For each of the roughly 770 occupations included in these projections, there are educational and training categories that detail the preparation needed to enter and become competent in a specific occupation. Counselors, teachers and parents use this information to assist students and others who want to embark in a chosen occupation.

The education and training categories used in the projections were developed specifically by the U.S. Bureau of Labor Statistics (BLS) for people interested in career exploration, but they are also used extensively by those who need to make decisions with regard to human resource planning, business workforce investments and public policy and by others who want to know what the future demand may be for workers with various levels of education and training. For example, the fastest projected job growth, 32.1 percent, is among occupations with a master's degree as the typical entry-level education needed, while the largest number of projected new jobs, 133,815, is among occupations with a high school diploma as the typical entry-level education needed.

The New Education and Training Categories

Some occupations have a single distinct path for entry and achieving competency, while others have several paths. Whatever paths there are for an occupation, BLS has found that career pathways can be categorized using three dimensions: (1) education, (2) work experience in a related occupation and (3) typical on-the-job training. The first two dimensions, education and work experience, are pre-employment requirements usually needed to enter an occupation, while on-the-job training generally occurs once someone is initially employed.



Of the two pre-employment dimensions, work experience most often applies to first-line supervisors or managers who need to have experience in the activities they are supervising. There are some non-managerial occupations where work experience in a related field is needed. In Utah, about 17 percent of all jobs are in occupations that require work experience in a related area.

The level of education needed to enter an occupation is well-defined for some and not so clear-cut for others. For example, to become a lawyer you need to graduate from law school after completing a bachelor's degree. Paralegals, in contrast, may enter the occupation with one of three different levels

Table 1: Utah Employment and Annual Job Openings

by Education, Work Experience and On-the-Job Training Category

2010–2020

Education, Work Experience and On-the-Job (OJT) Training	Employment				Employment Change 2010–2020		Annual Job Openings Due to Growth and Replacement Needs 2010 - 2020		Number of Occupations	
	Number		Percent Distribution							
	2010	2020	2010	2020	Number	Percent	Number	Percent	Number	Percent
TYPICAL EDUCATION NEEDED FOR ENTRY										
Total All Occupations	1,273,451	1,581,297	100%	100%	307,846	24.2%	61,036	100%	770	100%
Doctoral or professional degree	30,869	39,584	2.4%	2.5%	8,715	28.2%	1,470	2.4%	61	7.9%
Master's degree	18,738	24,753	1.5%	1.6%	6,015	32.1%	1,025	1.7%	34	4.4%
Bachelor's degree	195,440	248,674	15.3%	15.7%	53,234	27.2%	9,577	15.7%	152	19.7%
Associates degree	73,745	90,974	5.8%	5.8%	17,229	23.4%	3,140	5.1%	46	6.0%
Postsecondary non-degree award	54,741	69,060	4.3%	4.4%	14,319	26.2%	2,493	4.1%	41	5.3%
Some college, no degree	9,533	12,389	0.7%	0.8%	2,856	30.0%	549	0.9%	5	0.6%
High school diploma or equivalent	565,121	698,936	44.4%	44.2%	133,815	23.7%	26,131	42.8%	334	43.4%
Less than high school	325,264	396,927	25.5%	25.1%	71,663	22.0%	16,651	27.3%	97	12.6%
WORK EXPERIENCE IN A RELATED OCCUPATION										
Total All Occupations	1,273,451	1,581,297	100%	100%	307,846	24.2%	61,036	100%	770	100%
More than 5 years	34,104	41,185	2.7%	2.6%	7,081	20.8%	1,410	2.3%	17	2.2%
1 to 5 years	148,331	181,496	11.6%	11.5%	33,165	22.4%	6,442	10.6%	69	9.0%
Less than 1 year	28,523	35,068	2.2%	2.2%	6,545	22.9%	1,344	2.2%	11	1.4%
ne	1,062,493	1,323,548	83.4%	83.7%	261,055	24.6%	51,840	84.9%	673	87.4%
TYPICAL ON-THE-JOB TRAINING										
Total All Occupations	1,273,451	1,581,297	100%	100%	307,846	24.2%	61,036	100%	770	100%
Internship/residency	40,788	52,110	3.2%	3.3%	11,322	27.8%	2,109	3.5%	31	4.0%
Apprenticeship	24,639	32,947	1.9%	2.1%	8,308	33.7%	1,424	2.3%	15	1.9%
Long-term OJT	64,420	80,064	5.1%	5.1%	15,644	24.3%	3,072	5.0%	68	8.8%
Moderate-term OJT	230,452	284,750	18.1%	18.0%	54,298	23.6%	10,477	17.2%	214	27.8%
Short-term OJT	535,707	657,406	42.1%	41.6%	121,699	22.7%	26,543	43.5%	172	22.3%
None	377,445	474,020	29.6%	30.0%	96,575	25.6%	17,411	28.5%	270	35.1%

Source: Utah Department of Workforce Services.

Education & Training for the **Jobs** of the **Future** cont.

The pathways that account for most of the projected employment are shown in Table 2.

of formal education: postsecondary non-degree award, an associate degree or a bachelor's degree.

For some occupations, education can be substituted for work experience and vice versa. Chefs and head cooks are a good example. Preparation to become a chef may be a formal degree from a culinary school with no prior work experience or through years of experience as a lower-level cook and advancing to become a head cook or chef.

The third dimension to a career pathway is on-the-job training, or OJT. Some OJT is needed for a person to become competent at performing an occupation in about 70 percent of all jobs in Utah. To be competent means that someone is qualified to perform the occupation independently. Most often, OJT is a postemployment activity received after being hired.

Apprenticeships, which are common in some construction occupations and internship or medical and teaching residences, are examples of OJT that must be successfully completed with appropriate state licensure or certification before entering an occupation.

Under the current BLS education and training pathways, there are eight education levels, four work experience categories and six OJT levels. The first column in Table 1 lists the various types of education and training there are under each of the three dimensions. Table 1 also provides the 2010 base year employment and the projected 2020 employment for each of the levels under the three different dimensions of education and training.

The Education and Training Assignments Represent a Typical Path

Each of 770 detailed Utah occupations receives an education, work experience and OJT assignment. While there are a possible 192 different combinations, all 770 occupations fall into 58 different assignments of education, experience and OJT. The 58 occupational assignments for entry-level education, work experience in a related occupation and OJT represent the typical path to enter an occupation and become a competent performer. BLS has determined the "typical path" after reviewing and analyzing various data sources, qualitative information and public input from career counselors, human resource professionals and other interested parties. Although some occupations have more than one identifiable path, only one path — the one most prominent — is assigned as the typical path. Occupations that have multiple pathways for entry are discussed in narratives contained in the BLS Occupational Outlook Handbook.

Of the 58 typical paths assigned to detailed Utah occupations, the 15 pathways that account for most 2020 projected employment are presented in Table 2. These 15 pathways account for 88 percent of total 2020 employment and 79 percent of the detailed occupations.

Educational Attainment versus the Typical Pathway

The typical education and training pathway to enter and achieve competence for an occupation does not indicate the demand for workers by educational attainment. While the BLS assignments by occupation of a typical pathway are carefully determined, occupations generally have many workers with higher levels of educational attainment than the typical pathway would suggest.

For example the educational pathway for a registered nurse is an associate degree, but if we look at the educational attainment of registered nurses as reported in the 2010 American Community Survey, 55.9 percent of all registered nurses nationally have at least a bachelor's degree. The typical pathway to become a cashier is less than a high school diploma and short-

term, on-the-job training. However, 82.9 percent of cashiers report having at least a high school diploma and 16.4 percent have at least an associates degree.

When businesses make hiring, promotion or wage decisions, candidates with higher levels of education often have an advantage over other qualified, but less-educated individuals.

Conclusion

The BLS education and training categories provide information on how a job seeker or student can prepare to enter an occupation and become a competent performer. Counselors, educators, human resource professionals and others use occupational projections and their pathways to better understand the preparation and training needs necessary for the workforce in the coming years. When the three dimensions of education and training are applied to Utah's 2010 to 2020 employment projections, they show faster job growth in occupations where postsecondary education is needed for entry. For the various types of OJT, 2020 projected employment growth is fastest for apprenticeship and internship/residency occupations.

Table 2: The 15 Pathways of Education, Work Experience and On-the-Job Training with the Highest 2020 Projected Employment

Education Needed for Entry	Work Experience in a Related Occupation	Typical On-the-job Training (OJT)	2020 Projected Employment	As a Percent of Total 2020 Employment	Number of Occupations with this Pathway
Doctoral or Professional Degree	None	None	28,159	1.8%	46
Bachelor's Degree	1–5 years	None	30,474	1.9%	25
Bachelor's Degree	None	Intership/Residency	38,502	2.4%	11
Bachelor's Degree	None	Moderate OJT	25,069	1.6%	17
Bachelor's Degree	None	None	134,034	8.5%	81
Associates Degree	1–5 years	None	25,189	1.6%	1
Associates Degree	None	None	54,224	3.4%	29
Postsecondary Non-degree Award	None	None	47,849	3.0%	19
HS Diploma or Equivalent	1–5 years	Short-term OJT	24,677	1.6%	2
HS Diploma or Equivalent	1–5 years	None	83,022	5.3%	21
HS Diploma or Equivalent	None	Apprenticeship	32,617	2.1%	14
HS Diploma or Equivalent	None	Long-term OJT	51,968	3.3%	46
HS Diploma or Equivalent	None	Moderate-term OJT	200,345	12.7%	144
HS Diploma or Equivalent	None	Short-term OJT	266,913	16.9%	89
Less than HS	None	Short-term OJT	350,519	22.2%	63
		Sum of 15 Categories	**1,393,561**		**608**
		Total All Occupations	**1,581,297**		**770**
		Sum as a Percent of Total	**88.1%**		**79.0%**

Source: Utah Department of Workforce Services.

Long-Term Unemployment in Utah

How do claimants fare who collect benefits for 20 weeks or longer?

As the agency that administers Unemployment Insurance (UI) for the state of Utah, the Department of Workforce Services is concerned with evaluating the program and the outcomes for its beneficiaries. In the latest issue of *Utah Insights,* we presented an analysis of the UI program in Utah to see what happens to recipients after they leave UI. This article focuses on a group of individuals who were not analyzed in that piece: long-term recipients, those claimants who collect benefits for 20 weeks or longer. Of all the individuals who filed an initial UI claim in Utah between January 2009 and December 2010 and received benefits for any amount of time, long-term recipients make up 41 percent. To understand how these UI beneficiaries fare, especially in regards to their benefits duration and subsequent labor market outcomes, their economic and demographic characteristics were analyzed.

There were 43,569 long-term claimants during our analysis period. The average age was 39 years and around 64 percent were male. Duration of benefits received was 40 weeks, on average.

Duration by Pre-UI Industry

Figure 1 displays the industries for which the UI claim was filed, listed by average benefits duration. The longest average duration on UI was by people who were previously employed in Manufacturing, Transportation/Warehousing and Wholesale Trade. Those who spent the shortest average duration receiving UI benefits were employed in Arts/Entertainment/Recreation, Agriculture and Accommodation/Food Services. A reason for the short duration might be that jobs in these industries tend to have high turnover and frequent openings. Also, individuals employed in these fields only qualify for relatively low maximum benefit amounts due to low income received over short periods of time.

Wages by Post-UI Industry

Mean annual wages for the year after leaving UI are shown in Figure 2 according to industry. Mining employees have the highest post-UI wages of all long-term claimants. Management of Companies and Utilities employees also enjoy relatively high wages. The lowest wages are found in Accommodation/Food Services, Arts/Entertainment/Recreation and Retail Trade.

To learn how other UI recipients perform in the labor market, refer to the latest Utah Insights issue at https://jobs.utah.gov/wi/pubs/publicat.html.

Figure 1

Pre-UI Industry Code and Title	Longest Average Weeks Duration
32 - Manufacturing *	45
33 - Manufacturing **	43
49 - Transportation/Warehousing	42
42 - Wholesale Trade	42
52 - Finance/Insurance	42
Pre-UI Industry Code and Title	**Shortest Average Weeks Duration**
92 - Public Administration	37
55 - Management of Companies	37
72 - Accommodation/Food Services	37
11 - Agriculture	35
71 - Arts/Entertainment/Recreation	34

** 32 - Manufacturing includes: wood product manufacturing, paper manufacturing, printing and related support activities, petroleum and coal products manufacturing, chemical manufacturing, plastics and rubber products manufacturing, nonmetallic mineral product manufacturing*

*** 33 - Manufacturing includes: primary metal manufacturing; fabricated metal product manufacturing; machinery manufacturing; computer and electronic product manufacturing; electrical equipment, appliance and component manufacturing; transportation equipment manufacturing; furniture and related product manufacturing; miscellaneous manufacturing*

Figure 2

Industry Code and Title	Post-UI Highest Annual Mean Wage
21 - Mining	$32,106.30
55 - Management of Companies	31,507.00
22 - Utilities	30,207.48
33 - Manufacturing *	26,040.91
54 - Professional/Scientific/Technical Services	25,666.62
Industry Code and Title	**Post-UI Lowest Annual Mean Wage**
11 - Agriculture	$15,146.59
56 - Administrative/Waste Management Services	14,976.34
45 - Retail Trade **	13,885.61
71 - Arts/Entertainment/Recreation	13,614.57
72 - Accommodation/Food Services	10,853.19

** 33 - Manufacturing includes: primary metal manufacturing; fabricated metal product manufacturing; machinery manufacturing; computer and electronic product manufacturing; electrical equipment, appliance and component manufacturing; transportation equipment manufacturing; furniture and related product manufacturing; miscellaneous manufacturing*

*** 45 - Retail trade includes: sporting goods, hobby, musical instrument and book stores; general merchandise store; miscellaneous store retailers; and nonstore retailers*

THE REVERSAL OF A CLOSING GAP: HOW THE RECENT RECESSION WIDENED UTAH'S URBAN/RURAL WAGE GAP

METROPOLITAN COUNTIES:
Cache
Davis
Juab
Morgan
Salt Lake
Summit
Tooele
Utah
Washington
Weber

MICROPOLITAN COUNTIES:
Box Elder
Carbon
Iron
Uintah

RURAL COUNTIES:
Beaver
Dagget
Duchesne
Emery
Garfield
Grand
Kane
Millard
Piute
Rich
San Juan
Sanpete
Sevier
Wayne

In the July/August 2010 issue of *Trendlines*, we examined the gap between the wages of rural and urban Utah workers. It was found that, contrary to national trends, the gap in wages between workers in rural counties and urban counties in Utah was shrinking from 2001 to 2009. Now that we have three years of post-recession data available, what impact, if any, did the recession have on the rural/urban wage gap?

The definitions of rural and urban areas in this article follow the July/August 2010 article. A metropolitan area includes one or more counties surrounding an urbanized area of more than 50,000 people. A micropolitan area includes counties around an urbanized area between 10,000 and 50,000 people. Finally, rural refers to areas that are neither metropolitan nor micropolitan. The table shows all of Utah's 29 counties classified according to these definitions. Here, the focus will be on the differences between metropolitan counties and rural counties.

Figure 1 depicts annual trends for the change in wages over the past nine years. The year-over-year growth rate of wages has been held back for both rural and urban areas since the recession. Yet even more interesting is that whereas the year-over rate of growth was greater for rural areas from 2003 to 2008 (except for the year 2006), urban wage growth started outpacing rural wages in 2009 and has outpaced them since. Otherwise expressed, when calculated as a percentage of average annual wages of metropolitan areas, rural average annual wages have been decreasing since the beginning of the recession in 2008. As Figure 2 illustrates, rural wages for the last three years are increasing at a decreasing rate compared to 2002 to 2008. In fact, the gap might be even more pronounced than shown were it not for the oil and gas boom that Duchesne County is experiencing.

Although a pre-recession trend showed rural wages in Utah had been receiving an ever greater slice of the economic pie, the Great Recession seems to have reversed that trend.

ALTHOUGH A PRE-RECESSION TREND showed rural wages in Utah had been receiving an ever greater slice of the economic pie, the Great Recession seems to have reversed that trend.

FIGURE 1: ANNUAL AVERAGE WAGES RURAL VS. METROPOLITAN 2002–2011

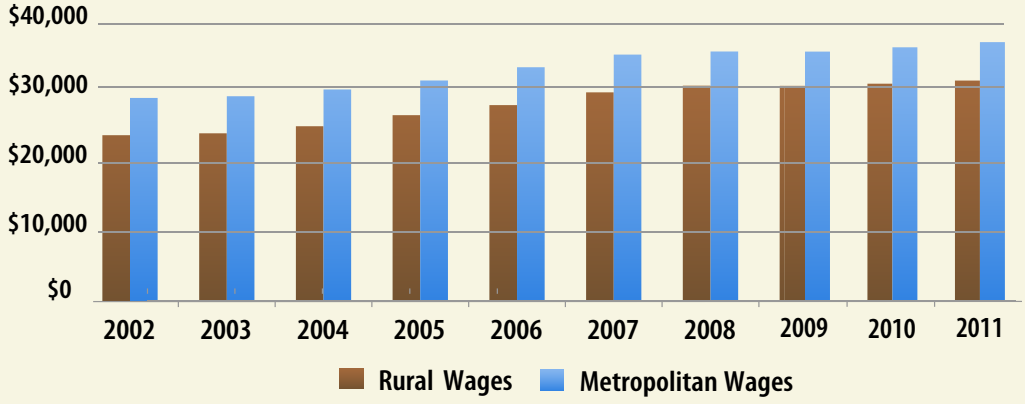
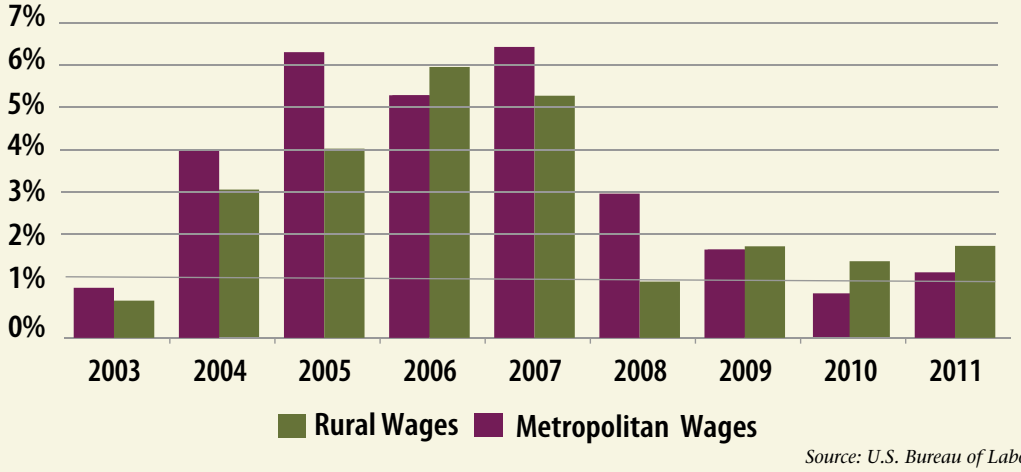


FIGURE 2: YEAR-OVER CHANGE IN ANNUAL AVERAGE WAGES FOR URBAN AND RURAL UTAH



Source: U.S. Bureau of Labor of Statistics.

Graphic Designer

National employment of graphic designers is projected to increase by 13 percent from 2010 to 2020.

To quote Paul Rand, "Design is the method of putting form and content together. Design, just as art, has multiple definitions; there is no single definition. Design can be art. Design can be aesthetics. Design is so simple, that's why it is so complicated." Graphic design is a creative process that combines art and technology to communicate ideas.

Graphic designers' primary responsibility is to present information in a way that is both accessible and memorable. They help to make an organization recognizable by selecting a medium that represents a particular idea or identity to be used in published, printed or electronic media for advertising and

promotional purposes. Graphic designers work with a variety of communication tools in order to convey a message from a client to a particular audience.

Qualifications for entry into this occupation usually consist of a bachelor's degree or certificate in graphic design from an accredited trade school. Prospective graphic designers will also find that work experience in the field is among the most sought after attributes, as most jobs demand proficiency in one or more graphic design programs.

According to the Bureau of Labor Statistics, the national employment of graphic designers is projected to increase by 13 percent from 2010 to 2020. The median annual wage of graphic designers on a national level is $44,010, which is higher than the $39,140 median annual wage in Utah. Utah has a high concentration of employment for this occupation in the following industries:

1. Specialized Design Services
2. Advertising, Public Relations and Related Services
3. Newspaper, Periodical, Book and Directory Publishers
4. Printing and Related Support Activities
5. Other Miscellaneous Manufacturing

The Department of Workforce Services projects this occupation in the State of Utah will have an average of 80 openings each year through 2020 and will expand at an annual rate of 2.3 percent. High turnover may result in numerous openings. However, the Bureau of Labor Statistics predicts that competition for senior graphic designer positions will be very strong.

Occupational Wages - Published April 2012 (data from May 2011) for Graphic Designers

Area name	Hourly Inexperienced	Annual Inexperienced	Hourly Median	Annual Median	Training Level
Logan MSA	$11.96	$24,880	$16.26	$33,810	Bachelor's degree or certificate
Ogden-Clearfield MSA	$14.39	$29,920	$18.18	$37,810	Bachelor's degree or certificate
Provo-Orem MSA	$12.37	$25,720	$18.69	$38,880	Bachelor's degree or certificate
St. George MSA	$12.82	$26,670	$15.70	$32,660	Bachelor's degree or certificate
Salt Lake City MSA	$13.37	$27,810	$19.61	$40,790	Bachelor's degree or certificate
Utah - Statewide	$13.07	$27,180	$18.82	$39,140	Bachelor's degree or certificate
United States	–	–	$21.16	$44,010	Bachelor's degree or certificate

2008-2018 Employment Projections for Graphic Designers*

Area name	Employment Estimate 2008	Employment Estimate 2018	Annual % Change	Openings from Growth	Openings from Replacements	Total Annual Openings (Growth + Replacements)
Metro Utah	3,890	4,610	1.8%	70	120	190
Non-Metro Utah	140	180	3.0%	0	0	10
Cache County	190	220	1.5%	0	10	10
Washington County	140	170	2.2%	0	0	10

2010-2020 Employment Projections for Graphic Designers

Area name	Employment Estimate 2010	Employment Estimate 2020	Annual % Change	Openings from Growth	Openings from Replacements	Total Annual Openings (Growth + Replacements)
Utah - Statewide	2,730	3,370	2.3%	60	80	150

**2010-2018 projections for Statewide: Metro & Non-Metro, Cache county, and Washington County is not available.*

Sources: http://jobs.utah.gov/jsp/wi/utalmis/gotoOccwage.do and http://www.bls.gov/ooh/arts-and-design/graphic-designers.htm

Investing in Small Businesses

Helping with the Costs of Creating New Utah Jobs

In August, 2012 DWS rolled out the Small Business Bridge Program. As of the end of September, over 45 companies have applied, creating over 180 new jobs for the Utah economy. The program, which is open to all small businesses that have less than 100 employees, will continue until all program funding has been obligated.

The Bridge program is designed to offset the cost and time associated with advertising, interviewing, hiring and training a new employee. The general program guidelines are listed at the right.

Program information, including the application and full program guidelines, are available on our website at https://jobs.utah.gov/employer/bridge/index.html. If you have questions, please visit your local employment center and talk to a Workforce Development Specialist.

BRIDGE

Business Opportunity | Readiness Skills
Implementation | Demand
Growth | Employment Creation

General Guidelines:

- For a newly created position to qualify, it must pay at least 80 percent of the County Average Wage.
- A business will receive a reimbursement according to the wage and unemployment status of a new hire.
  - Each job created can qualify for $3,000 to $4,000, depending on wage.
  - If the business hires a UI Claimant to fill a new job, that business may receive an additional $500.
- Businesses must be current on UI contributions to participate.
- Newly created jobs cannot be seasonal or temporary.

Transitioning from Welfare to Work

When politicians, economists, policy analysts or the media talk about "welfare," they are generally referring to the federal program known as Temporary Assistance for Needy Families (TANF). Before 1996, welfare was provided by the Aid to Families with Dependent Children program, which was supplanted by TANF when welfare reform was instituted through the passage of the Personal Responsibility and Work Opportunity Reconciliation Act. A central feature of this reform was the requirement that TANF recipients participate in activities designed to help them eventually transition into the labor force. However, many TANF recipients are considered "hard-to-employ" and the overall percentage of TANF recipients who successfully transition into employment is frustratingly low. The examination of data on TANF recipients reveals one particularly effective predictor of labor market success: future employment is highly dependent on prior involvement in the labor force.

Future employment is highly dependent on prior involvement in the labor force.

To demonstrate the importance of prior attachment to the labor force, we examined the employment and earnings histories for 13,515 first-time TANF recipients who entered the program between 2003 and 2007. We divided these individuals into four groups based on the number of quarters they were employed in the two years prior to entering TANF. The groups are defined as those who were employed zero quarters, one to three quarters, four to six quarters and seven to eight quarters. We studied the employment and earnings of individuals in these four groups over three years after they entered TANF.

Figure 1 demonstrates the importance of work history. For those without formal employment in the two years prior to involvement in the program, only 33 percent were employed after entering TANF. The number of employed individuals increases by more than 10 percentage points for each higher level of prior employment. About 66 percent of those who worked seven or eight quarters before TANF were also employed after. Figure 2 shows a similar relationship between the average quarterly earnings of these same groups. Average quarterly wages for the group with the strongest prior labor market attachment were more than two times higher than the group with none.

TANF recipients often have difficulties entering the labor market due to poor health, lack of desirable skills, no access to transportation and the need to care for family members. For those who can work, the data suggest that the best way to improve the probability of future employment is to stay as actively engaged in the labor market as possible.

Figure 1: Quarterly Employment Rate for TANF Recipients by Number of Quarters Employed Two Years Prior to TANF

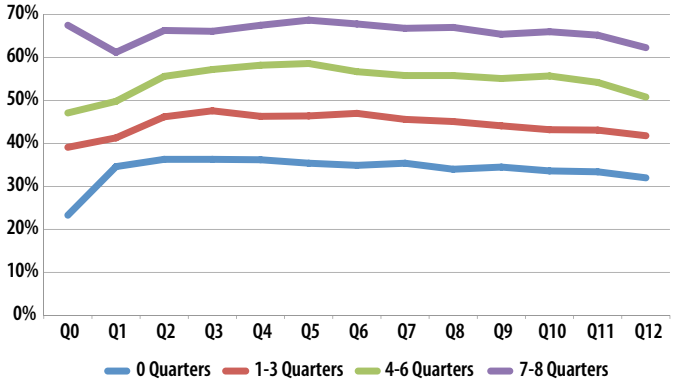
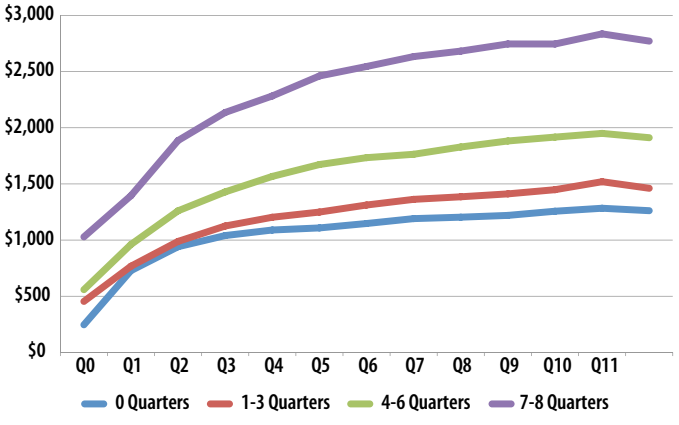


Figure 2: Average Quarterly Earnings for TANF Recipients by Number of Quarters Employed Two Years Prior to TANF



Source: Utah Department of Workforce Services.

Jobs ranging from artists to athletes

ENTERTAINMENT

Entertainment: it's big business! In 2011, Utah had 984 establishments in the Arts, Entertainment, and Recreation industry. These are businesses with well-known occupations from artists and designers to performers and producers to coaches and athletes. Ultimately their job is to entertain the public and do it well enough to get them coming back for more. That means performance, creativity and hard work.

For thousands of years, people have found a way to get entertainment, from story-telling and drawing in the dirt to games in the Roman Coliseum; from operas and plays to present-day musicals, CDs, streaming and game consoles. It can fulfill the need to stimulate emotions, senses and the mind; give a means of escape from day-to-day life; or relieve frustrations. During hard and easy economic times, the need for entertainment can be crucial to satisfy emotional needs.

Entertainment surrounds us. You can find an entire section for it in the daily newspaper. Watch the local news, and you'll be sure to hear about the latest movie or the newest scandal. Utah itself has a plethora of ways to entertain. You can find museums, books, theaters, amusement parks and more. Utah's landscape allows for hiking, biking, camping, skiing and site seeing. The state has become popular for great work ethic and talent, creating jobs, opportunity and revenue. Entertainment will never lose its appeal; there will only be new ways to enjoy it.

Arts, Entertainment, and Recreation Industry, Utah

Year	Average Employment	Number of Establishments	Annual Payroll	Average Monthly Wage
2011	17,920	984	$402,005,457	$1,869
2010	17,422	959	$394,866,582	$1,889
2009	17,439	968	$385,799,610	$1,844
2008	17,659	932	$384,756,390	$1,816
2007	18,047	930	$386,747,237	$1,786
2006	17,332	952	$351,794,372	$1,691
2005	16,422	894	$309,869,562	$1,572
2004	15,847	820	$292,184,776	$1,536
2003	15,627	776	$284,260,714	$1,516
2002	16,939	731	$387,029,783	$1,904
2001	16,157	701	$289,519,012	$1,493

Source: Utah Department of Workforce Services

just the facts...

August 2012 Unemployment Rates		Changes From Last Year	
Utah Unemployment Rate	5.8%	Down	0.9 points
U.S. Unemployment Rate	8.1%	Down	1.0 points
Utah Nonfarm Jobs (thousands)	1,234.7	Up	2.0%
U.S. Nonfarm Jobs (thousands)	133,092.0	Up	1.4%
August 2012 Consumer Price Index Rates			
U.S. Consumer Price Index	230.4	Up	1.7%
U.S. Producer Price Index	195.5	Up	2.0%

Source: Utah Department of Workforce Services

August 2012 Seasonally Adjusted Unemployment Rates

Beaver	6.0 %
Box Elder	6.7 %
Cache	4.1 %
Carbon	6.8 %
Daggett	5.5 %
Davis	5.2 %
Duchesne	3.9 %
Emery	7.4 %
Garfield	10.3 %
Grand	8.4 %
Iron	7.1 %
Juab	6.4 %
Kane	6.8 %
Millard	4.5 %
Morgan	5.2 %
Piute	5.6 %
Rich	3.9 %
Salt Lake	5.2 %
San Juan	10.2 %
Sanpete	7.2 %
Sevier	6.0 %
Summit	5.0 %
Tooele	6.1 %
Uintah	3.6 %
Utah	5.3%
Wasatch	6.5 %
Washington	6.9 %
Wayne	11.3 %
Weber	6.5 %

Watch for these features in our

Next Issue:

Theme:
A Look Forward & Back

Industry Highlight:
Mining

Occupation:
Roustabout

Utah Department of Workforce Services
Workforce Research and Analysis Division
140 E. 300 S.
Salt Lake City, UT 84111

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