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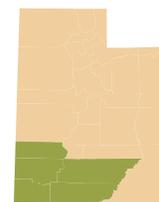


An economic and labor market analysis of the Southwest Utah Area

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Industrial Variety and the Southwest Utah Economy



BY LECIA LANGSTON, ECONOMIST

In regional policy circles, conventional wisdom holds that industrial diversity paves the road to economic stability and growth. On the other hand, empirical research suggests much less certainty to that axiom. Economic stability does seem to show a correlation with industrial diversity. However, economic growth does not necessarily follow a varied industrial employment mix.

Measuring Industrial Diversity

A multiplicity of industrial diversity measures exist. This article uses the Hachman Index to measure diversity created by Frank Hachman of the Utah Bureau of Business and Economic Research. This index is derived from Location Quotients at the two-digit

level of the North American Industry Classification System (NAICS). It measures how closely the employment distribution of an area resembles that of an industrially-diverse reference area.

Here, the industrial employment distribution of counties in southwest Utah is compared to that of the nation. An area with a Hachman Index of 1.00 maintained an industrial employment mix exactly equal to the national employment distribution. In essence, the closer the index is to one, the more diverse the area's industry mix.

The Rankings

In 2012, Utah's Hachman Index, at 0.97, placed it as one of the most industrially diverse states in the union. Nevertheless,

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Using the Hachman Index to explore the regional distribution of employment by industry.

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Economic indicators show us what to expect in the coming months.

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How industrial diversity can impact the economy.

"The fact that industries wax and wane is a reality of any economic system that wants to remain dynamic and responsive to people's changing tastes."

— James Surowiecki



statewide diversity does not translate into county-level diversity. In 2012, none of Utah's counties showed a Hachman Index as high as the state figure. Indices ranged from 0.95 for Salt Lake County to 0.09 in Duchesne County. Relatively diverse Washington (0.86) and Iron (0.83) counties ranked third and fifth, respectively, among all Utah counties. Kane (0.46) and Garfield (0.40) counties showed far less employment diversity. Finally, Beaver County (0.18) exhibited the fourth least diverse industrial mix in the state.

In Southwest Utah, larger counties displayed more industrial diversity than smaller counties, a pattern common throughout Utah. In Figure 1 county-level covered employment is plotted against the 2012 Hachman index to reveal that counties with higher employment do tend to show more diversity.

Iron County displayed a higher diversity ranking than its total employment level might suggest. This standing results primarily from a relatively high share of manufacturing jobs—an uncommon characteristic of non-urban counties. Access to rail transportation in Iron County provides a major spur to manufacturing activity. Beaver County's extremely low Hachman Index can be traced to its high concentration of jobs in covered agriculture. In Kane and Garfield counties, lower-than-average rankings stem from high concentrations of leisure/hospitality employment in both areas. In addition, the strong employment presence of Best Friends Animal Sanctuary bulks up other services employment and lowers the county's overall diversity.

Time After Time

Industrial mix is not static. Some industries grow as others contract. Interestingly, during the economic boom that preceded the recession, Washington County became less diverse as the construction industry ate up a larger share of total employment. Through the recession and recovery, the county's diversity improved with a higher Hachman Index. For example, in 2007 during the height of the expansion, the

county's Hachman Index measured 0.77 compared to 0.86 in 2012.

In contrast, Iron County's diversity increased during the boom, held steady during the recession and actually decreased somewhat in recovery. At the top of the economic expansion in 2007, Iron County's Hachman Index of 0.85 actually measured notably higher than Washington County's figure at 0.76. Kane, Beaver and Garfield counties showed similar patterns reaching the apex of

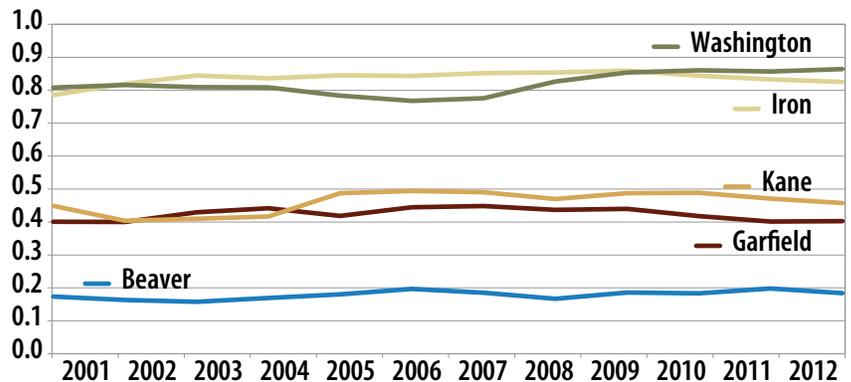
their diversity in 2007 only see their indices contract back to 2001 levels by 2012.

Stability and Growth

In small counties, a small numeric change can result in a large percent change in employment. Since size and diversity are related, the moderate correlation between diversity and stability may be overstated.

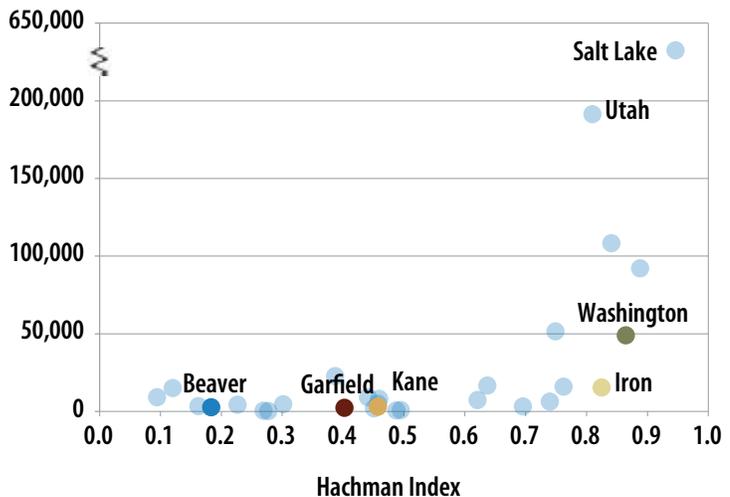
Interestingly, Washington County, the most diverse county in southwest Utah,

Figure 1: Hachman Index by County



Source: U.S. Bureau of Labor Statistics and Utah Department of Workforce Services

Figure 2: 2012 Hachman Index and Covered Employment by Counties in Utah



Source: U.S. Bureau of Labor Statistics and Utah Department of Workforce Services

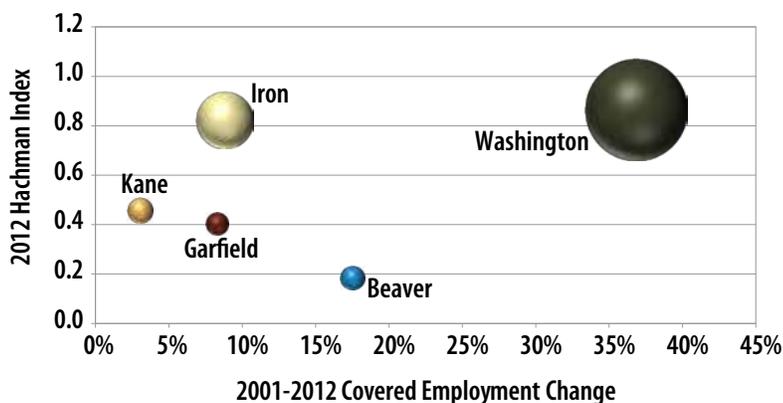
experienced the largest employment swings during the most recent boom to bust cycle. As most studies suggest, other factors may have greater sway on economic stability than mere industrial variety alone. Indeed, Iron County's manufacturing-related diversity actually seems to have compounded its difficulty in moving towards economic recovery as both manufacturing and construction imploded during the recession.

¹Hachman Index formula: http://home.business.utah.edu/bebrsp/URPL5020/Concentration/HI_Calc.pdf

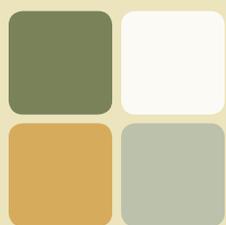
²Location Quotients quantify how concentrated a particular industry is in a region compared to the nation. It represents the share of industry employment in the region divided by the share of employment in the nation.

³See <http://economyutah.blogspot.com/2014/04/county-by-county-economic-diversity.html>

Figure 3: 2001 to 2012 Covered Employment Growth and Hachman Index



Source: U.S. Bureau of Labor Statistics and Utah Department of Workforce Services



All Southwest Utah Counties Finally Show Job Growth

BY LECIA LANGSTON, ECONOMIST

In the final quarter of 2013, all five counties in southwest Utah finally managed year-to-year job growth, of course, some counties fared better than others. Washington County continues to show the most robust and consistent expansion followed surprisingly by Beaver County. Job growth in Garfield, Kane and Iron County proved less exciting. However, at last all counties seem to be in recovery mode.

Beaver County

The construction of green energy projects has played a major role in Beaver County's employment in recent years. Jobs expanded dramatically due to windfarm or geothermal plant construction only to contract at the completion of the projects. In the final quarter of 2013, construction employment hit the deflationary stage and its ballooning growth rates evaporated. However, the county still finds itself growing at a healthy rate. Several upcoming projects such as potash mining should continue to provide additional jobs for residents in the future.

Between December 2012 and December 2013, Beaver County generated a net gain of more than 100 positions and posted a vigorous 4.8 percent uptick. While construction employment

remained virtually unchanged, manufacturing, mining, retail trade and utilities all made significant job contributions.

Interestingly, U.S. Census Bureau population estimates for 2013 suggest that Beaver County's population actually decreased slightly from 2012 to 6,459 residents. More jobs and a smaller population translated into a lower unemployment rate. Despite a very minor uptick in March, at 3.8 percent, the unemployment rate remained below both the state and national figures and firmly in the realm of "full-employment. Just since March of 2012, the county's jobless rate decreased by more than half a percentage point. First-time claims for unemployment insurance also show persistently low levels.

In addition, gross taxable sales jumped up by a whopping 57 percent between the fourth quarters of 2012 and 2013. Just as with construction employment, large projects have generated notable levels of business investment expenditures in Beaver County.

Garfield County

Garfield County's economy continued to limp along in the final quarter of 2013. However, the county did generate its first year-

to-year employment gain in nine months. Yet, the 0.3 percent, five job increase between December 2012 and December 2013 is hardly worth mentioning. The labor market will need to generate stronger employment additions before it can be pronounced economically fit. December figures may mark the first step towards improved economic health.

Despite the county's overall weak economic showing, healthcare/social services and the county's largest industry, leisure/hospitality services, created roughly 20 jobs each. Inopportunistly, minor losses in other industries (construction, manufacturing, trade and federal/local government) combined to nearly offset the aforementioned gains.

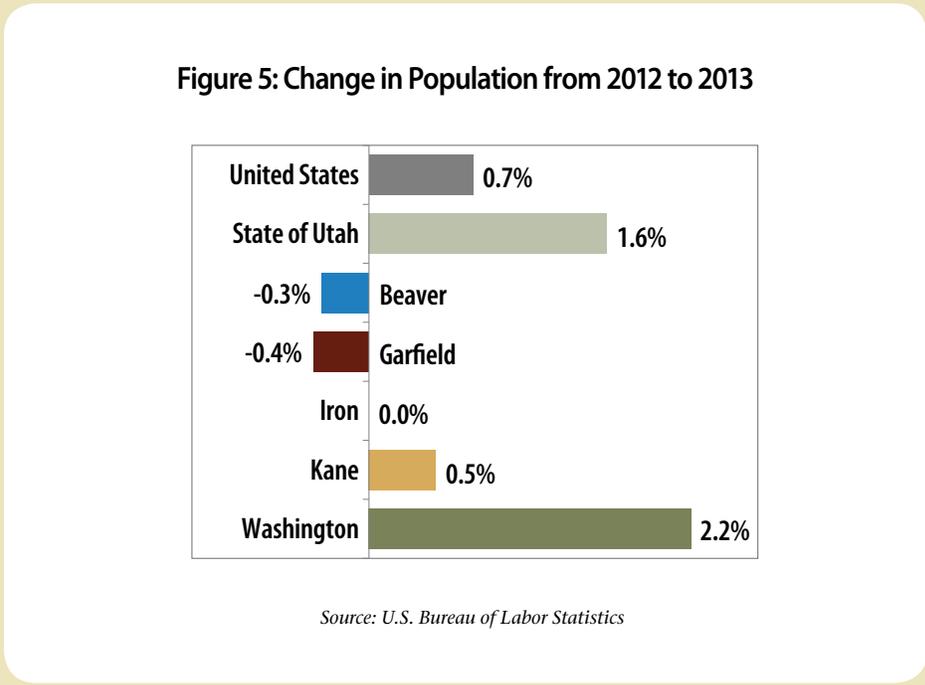
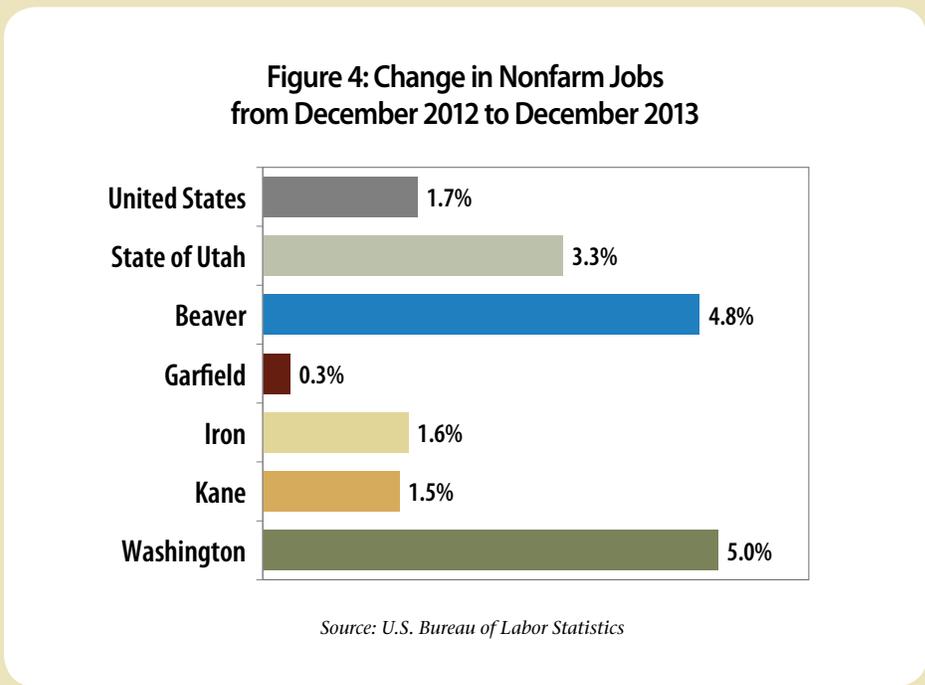
Garfield County's less than vigorous expansion in the jobs arena, explains its virtually stagnant jobless rate. The unemployment rates for both March 2012 and March 2013 measured 9.2 percent. As usual, Garfield County's very seasonal economy resulted in one of the highest jobless rates in the state. The county's immobile seasonally adjusted unemployment rate echoes the numbers of initial claims for unemployment insurance which have settled back into their very seasonal pattern.

Recently released population estimates from the U.S. Census Bureau show Garfield County with a declining population base. Job losses of the past several years may have spurred workers to leave the county. Garfield County's 2013 population estimate of 5,083 reflects net out-migration of more than 200 individuals over the past three years.

Gross taxable sales rounded out the county's lackluster economic indicators. Between the fourth quarters of 2012 and 2013, sales dropped by roughly 6 percent.

Iron County

After a brief slip into negative territory in September, Iron County navigated itself back to job growth in the final quarter of 2014. Despite a rather disappointing recovery, the county finally seems poised to move toward stronger expansion.



Year-to-year growth rates are remained relatively low—only 1.6 percent in December 2013. Fortunately, anticipated manufacturing hiring and an improved construction scene should help Iron County achieve full-fledged expansion in the months ahead.

Between December 2012 and December 2013, Iron County generated almost 260 net, new jobs. Construction and healthcare/social services created the most new jobs with a little help from a reviving manufacturing sector, retail trade, and leisure/hospitality services. The only major

employment declines occurred in the public sector with federal, state and local entities all exhibiting job losses.

Although Iron County is relatively new to employment gains, its unemployment rates have consistently trended downward. In March 2014, the county's jobless rate stood at 4.8 percent, down a full percentage point from the previous year. Recent population estimates from the U.S. Bureau of the Census show a stream of net out-migration over the past four years which suggests that unemployed workers have left the area. First-time claims for unemployment insurance have certainly mellowed back to their tradition seasonal pattern and show no sign of economic distress.

Gross taxable sales sustained their strong track record as 2013 came to a close. Between the fourth quarters of 2012 and 2013, Iron County sales increased by almost 11 percent. County sales have shown strong growth since the second quarter of 2011.

Kane County

Kane County ended 2013 with a rate of job growth of 1.5 percent. While the 40-job, December-to-December gain might not seem particularly thrilling, the county has shown expansion in 16 of the last 18 months. This relatively slow-and-steady trend suggests the county is gradually expanding and improving and should continue to do so.

Between December 2012 and December 2013, retail trade generated the largest number of net, new jobs. In addition, financial activities, healthcare/social services and leisure/hospitality services all contributed new employment. However, a drop in local government jobs put a drag on the county's overall gains.

For the most part, Kane County's unemployment rate has been trending downward with just a slight uptick in recent months. However, initial claims for unemployment insurance have remained at a very low, seasonal level. At 5.5 percent, the county's March unemployment rate measured just slightly lower than it did a year ago. The

U.S. Census Bureau recently released population estimates for 2013 which show a declining population base for the area. Fewer workers needing jobs coupled with an improved job market have kept the county's unemployment edging downward.

Despite some improvements for Kane County, gross taxable sales decreased by 5.8 percent between the fourth quarters of 2012 and 2013. This decline was generally precipitated by a decline in non-store retailer sales.

Washington County

Washington County rang in another quarter with job growth in the 5 percent range, marking two full years of strong employment expansion in Utah's Dixie. In addition to this "soft landing," anticipated additions to the county's employment base should continue to buoy up Washington County's numbers in the months ahead.

In December 2013, Washington County's year-to-year employment gain clocked in at 5 percent, representing a net increase of roughly 2,500 jobs. Leisure/hospitality services and construction ran neck and neck in the race for top job gain honors. In addition, retail trade, government (including public education) and

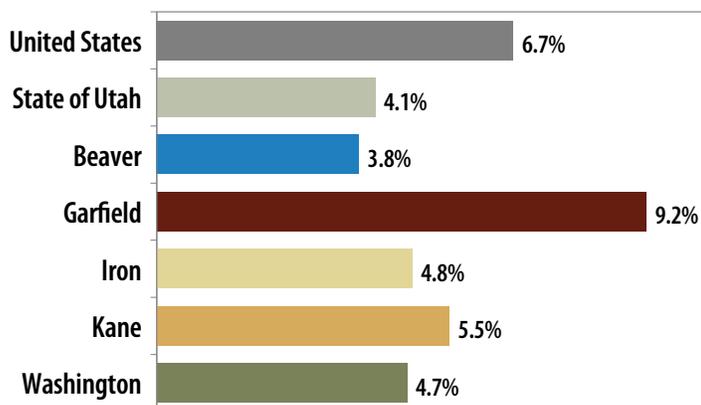
healthcare/social services all added notable numbers of new positions.

In past months, most industries grew or showed only minor declines. However, in a departure from that trend, one major industry did show a significant decline. Professional/scientific/technical services took a 240 job hit. Fortunately, growth elsewhere more than counterbalanced this loss.

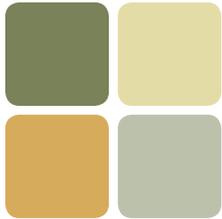
With a steady influx of new jobs, it should come as no surprise that Washington County's unemployment rate continues to decline. According to recently released population estimates from the U.S. Census Bureau, Washington County has seen strong net in-migration in recent years and its jobless rate drops still. In March 2013, the county's jobless rate stood at 4.7 percent—almost a full percentage point lower than a year earlier.

Gross taxable sales chimed in to round out the glowing picture of Washington County's economy. Between the fourth quarters of 2012 and 2013, sales increased by almost 10 percent marking the county's twelfth straight quarterly gain.

Figure 6: December 2013 Seasonally Adjusted Unemployment Rates



Source: U.S. Bureau of Labor Statistics



Recent Migration in Southwest Utah

BY LECIA LANGSTON, ECONOMIST

Moving residences is a relatively common occurrence in southwest Utah. The U.S. Census Bureau recently released 2013 population figures providing estimates of migration's role in population change. In addition, County-to-County Migration Flows tables collected from the American Community Survey track the yearly movements of individuals between 2007 and 2011.

Births, Deaths and Migration

Population change results from the intricate interaction between births, deaths and net migration. Births minus deaths results in natural increase. All counties in southwest Utah showed positive natural increase according to the Census Bureau's 2013 population estimates. Iron, with its abundance of college students and Beaver counties exhibited the highest rates of natural increase per 1,000 population in Southwest Utah during 2013.

The other major component of population change, net migration, is an estimate of the difference between the number of individuals moving into an area and the number of individuals moving out. In southwest Utah, only Washington and Kane counties showed positive net migration estimates for 2013. Washington County's population increased by 2.2 percent—the highest growth rate among the state's metropolitan counties. Moreover, Washington County was one of only two counties in Utah where net in-migration

outpaced natural increase. On the other hand, Kane County's in-migration was so low that net migration proved a virtual draw and constrained its overall population growth.

In Iron County, net out-migration essentially canceled out natural increase leaving the county with essentially no population change at all between 2012 and 2013. In Beaver and Garfield counties, net out-migration measured higher than natural increase. Both counties showed declining population estimates in 2013.

Moving Where?

According to the American Community Survey, a whopping 19 percent of the population experienced a yearly move in Southwest Utah between 2007 and 2011, although margins of error may be large for small counties.

Counties in southwest Utah with large college student populations tended to show the highest of percentages of population changing residences. Note that both Iron and Washington counties displayed moving rates of roughly 20

percent during the 2007-2011 time period. Beaver, Garfield and Kane counties exhibited moving rates roughly half the level of the two largest counties in the region. These three smaller counties also showed a higher number of out-migrants than in-migrants during the surveyed years.

Most movers in southwest Utah changed new residences within the same county. Individuals moving across county lines tended to stay within the state at just a slightly higher rate than those who moved out of state. On the other hand, movers to the southwest area were slightly more likely to have originated in another state rather than in another county in Utah.

Not surprisingly, counties along the Wasatch Front seemed the most likely destination for southwestern movers changing county residences within the state. In particular, Utah and Salt Lake counties absorbed the highest number of transplants from southwest Utah. Migrating individuals also showed a propensity to move to neighboring counties. In particular, Iron and Washington county residents traded places to a noticeable degree.

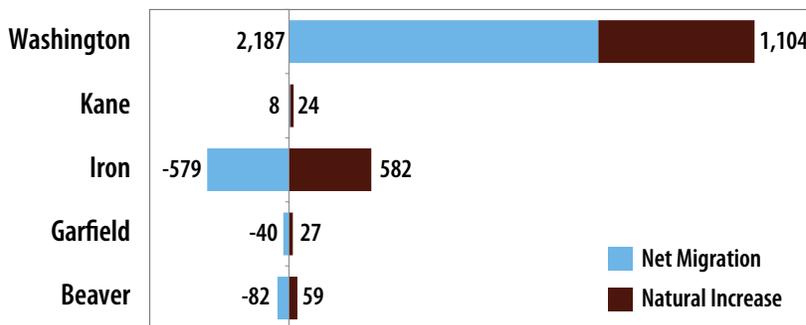
"When I was a kid my parents moved a lot, but I always found them."

— Rodney Dangerfield

When crossing state lines, movers from southwest Utah were disposed to reside in neighboring states. Nevada, Arizona and California appeared the most common moving destinations.

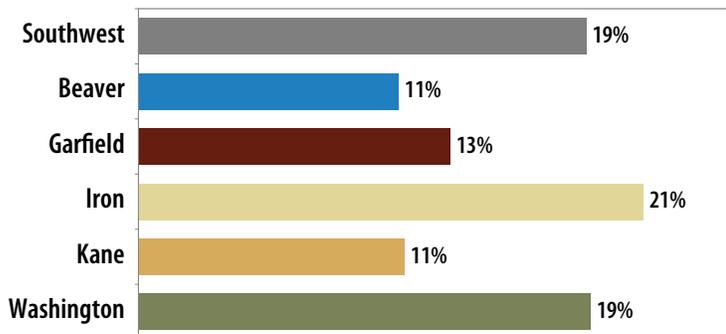
In-migration to the area showed a wider variety of sources than did the destinations of out-migration. Washington and Millard counties contributed most heavily to Beaver County's in-migration. Interestingly, both Oregon and Nevada contributed heavily to Garfield County's out-of-state in-migrants while from within Utah, the highest number of movers originated in Emery County. The largest number of in-migrants to Iron County just crossed the border from Washington County, although Clark County, Nevada (home to Las Vegas) ran a close second. California was also a major source of Iron County in-migration between 2007 and 2011. Ironically, Iron County provided the largest source of new residents for Kane County. A notable number of in-migrants also moved from Nevada and nearby Arizona. Utah, Salt Lake, Iron and Clark (Nevada) counties also provided Washington County's largest number of new residents between 2007 and 2011.

Figure 7: 2013 Net Migration and Natural Increase



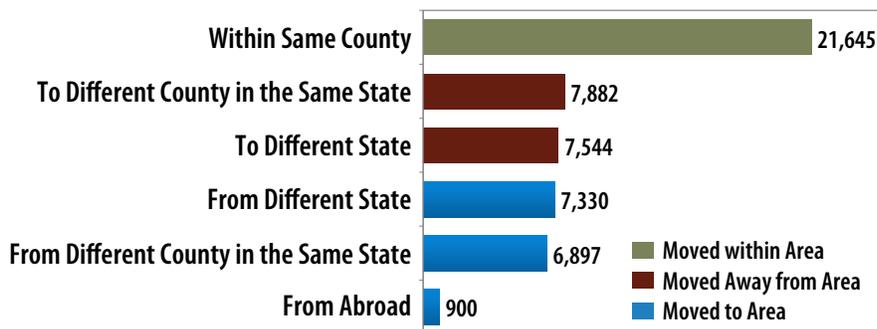
Source: U.S. Census Bureau; 2013 Population Estimates

Figure 8: Share of Resident Population which Moved in the Previous Year from 2007 to 2011



Source: U.S. Census Bureau; American Community Survey

Figure 9: Southwest Utah Population which Moved in the Previous Year from 2007 to 2011



Source: U.S. Census Bureau; American Community Survey

For access to additional migration and population data go to:



<http://utaheconomysouthwest.blogspot.com/2014/03/theyre-here-2013-population-estimates.html>



<http://utaheconomysouthwest.blogspot.com/2014/02/where-did-they-come-from-where-did-they.html>



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The Influence of Industrial Diversity

BY MELAUNI JENSEN, LMI ANALYST

Labor market economists don't always agree about the most favorable structure for a thriving economy; all theories, tools and applications have their pluses and minuses. The same holds true for the discussion about industrial diversification and its influence on local economies.

A diverse economy has a broad and balanced variety of industries and doesn't rely on related businesses that provide or produce the same products or services. As we saw in the Summer 2013 issue of Local Insights, industry data provide important information about local conditions. The Quarterly Census of Employment and Wages (QCEW) derived from Utah employer's Unemployment Insurance (UI) reports provides us with this view. This comprehensive database quantifies business establishments, shows an accurate reflection of Utah employment and allows us to profile a geographic area and evaluate its diversity.

Industry diversity can lead to lower unemployment in an area. Less diverse local economies are more prone to experience higher employment instability. Diversity on the other hand, offers more options. For instance, a worker who is unemployed from one industry may find work in another industry desiring their skill set. Occupations such as accountants or sales

representatives could work in many different industries and may have an easier time finding opportunities than those who are skilled for specific industries like coal miners and skin care specialists. When one industry loses workers, the others in the area may be adding jobs. Industrial diversity can minimize this risk of unemployment and temper a downturn, or recession in the economy.

To measure industry diversity, DWS economists look to the Hachman Index. This tool was developed by Frank Hachman, an economics professor from the University of Utah. Using QCEW data and its industry classification coding system (NAICS) to identify industries, the Hachman Index compares the variety of industries in a local economy to the national variety. Economists use this formula to calculate the variable comparisons.

Utah currently ranks fourth in the nation for industrial diversity. This diversity has been a contributing factor to Utah's relatively speedy economic recovery.

Industrial diversity is one tool economists use to evaluate the underlying strength and performance of a local economy. In this issue of Local Insights, industrial diversity will be looked upon at the county level, and some revealing factors will emerge.