# PLANNING POLICY AND GUIDELINES FOR MISSOURI LOCAL WORKFORCE DEVELOPMENT BOARDS Program Years 2016–2020

LWDA = Local Workforce Development Area

IV. Economic, Labor Market, and Workforce Analysis

If using Missouri Economic Research and Information Center (MERIC) data, please indicate the source is MERIC. If using another resource, please reference the source. MERIC regional representatives can be found online at:
https://www.missourieconomy.org/about_us/contactus.stm#Regional Contacts

A. Economic Analysis

1. *Describe the LWDA's current economic condition, including the following information by county (if your LWDA includes more than one county) and the overall region:*
   - *Average personal income level;*
   - *Number and percent of working-age population living at or below poverty level;*
   - *Unemployment rates for the last five years;*
   - *Major layoff events over the past three years and any anticipated layoffs; and*
   - *Any other factors that may affect local/regional economic conditions.*

B. Labor Market Analysis

1 Existing Demand Industry Sectors and Occupations

*Provide an analysis of the industries and occupations for which there is existing **demand.***

**Missouri's WIOA partnership includes a functional bureau of state government housed within the Department of Economic Development called the Missouri Economic Research Information Center (MERIC). The following economic analysis has been prepared to explain the Southwest Workforce Development Area's economic conditions and trends, as well as to explain pertinent industrial and occupational demand.**

**Real-Time Labor Market Analysis**

**In 2012 MERIC began using a new tool to assess current, or real-time, demand for occupations throughout the state. The tool, provided by Burning Glass Technologies, captures online job advertisements and aggregates those jobs by occupation and industry codes. While on-line advertisements do not represent all job openings, as other informal networks are also used, it does provide a broad picture of hiring activity and serves as one measure of current labor demand.**

**Industrial Demand**

**Industry demand analysis from February 2015 through January 2016 showed that the General Medical and Surgical Hospitals industry was a top job advertisement. Restaurants, Trucking, and Computer Systems Design also had a high number of job advertisers.**

**Top Ten Real-Time Labor Demand Industries by Online Job Ads**

| Industry | Job Postings |
|---|---|
| General Medical and Surgical Hospitals | 700 |
| Restaurants and Other Eating Places | 562 |
| General Freight Trucking | 540 |
| Computer Systems Design and Related Services | 426 |
| Building Material and Supplies Dealers. | 403 |
| Department Stores | 400 |
| Insurance Carriers | 267 |
| Animal Slaughtering and Processing | 205 |
| Specialized Freight Trucking | 193 |
| Business Support Services | 172 |

*Source: Burning Glass Technologies (February 1, 2015-January 31, 2016)*

**Occupational Demand**

**Job analysis highlights the top ten occupations Southwest Region employers advertised for in the past year. Truck Drivers were in the greatest demand, followed by Retail Salespersons, Registered Nurses, and Customer Service Representatives. Sales Representatives, Supervisors of Retail Workers and Laborers were also in demand.**

**Real-Time Labor Market Analysis provides a snapshot of current labor demand that is particularly helpful to current job seekers interested in who is hiring and for what occupations. MERIC has developed products, like the Real Time Labor Market Summary, using this tool. The Labor Market Summary provides both a regional and statewide snapshot of data found in job ads and is published every other month. MERIC and DWD will continue to explore how this data can inform workforce and economic development efforts to meet the needs of businesses around the state.**

**Top Ten Real-Time Labor Demand Occupations by Online Job Ads**

| Occupation | Job Postings |
|---|---|
| Heavy and Tractor-Trailer Truck Drivers | 1,548 |
| Retail Salespersons | 739 |
| Registered Nurses | 559 |
| Customer Service Representatives | 462 |
| Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products | 403 |
| First-Line Supervisors of Retail Sales Workers | 387 |
| Laborers and Freight, Stock, and Material Movers, Hand | 299 |
| Maintenance and Repair Workers, General | 270 |
| Combined Food Preparation and Serving Workers, Including Fast Food | 230 |
| First-Line Supervisors of Food Preparation and Serving Workers | 228 |

*Source: Burning Glass Technologies (February 1, 2015-January 31, 2016)*

2. Emerging Demand Industry Sectors and Occupations
   *Provide an analysis of the industries and occupations for which demand is emerging.*

**Industry**

**MERIC develops long-term employment projections based on industry trends and staffing patterns for the Southwest Workforce Development region. The table below describes the industries projected to have the most job openings from 2012 to 2022 based on both growth and replacement needs.**

**For the 2012-2022 time period, industries in the Southwest Region with the largest projected net change in employment are Manufacturing (1,952); Administrative and Support Services (1,667); Ambulatory Health Care Services (806); Truck Transportation (751); Specialty Trade Contractors (664); and Food Services and Drinking Places (636).**

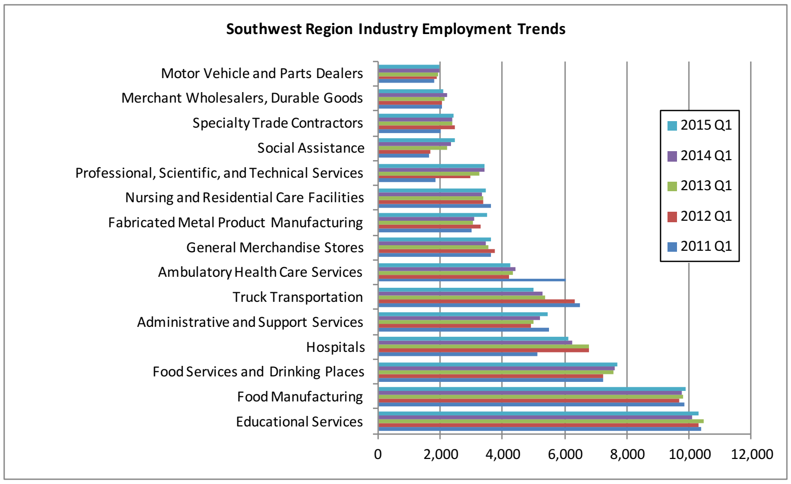
**Southwest Region 2012-2022 Industry Projections**

| | Employment | | Change | |
|---|---|---|---|---|
| | 2012 | 2022 | 2012-2022 | |
| Title | Estimated | Projected | Numeric | Percent |
| Manufacturing | 22,723 | 24,675 | 1,952 | 8.59% |
| Administrative and Support Services | 4,964 | 6,631 | 1,667 | 33.58% |
| Ambulatory Health Care Services | 4,144 | 4,950 | 806 | 19.45% |
| Truck Transportation | 5,671 | 6,422 | 751 | 13.24% |
| Specialty Trade Contractors | 2,368 | 3,032 | 664 | 28.04% |
| Food Services and Drinking Places | 7,833 | 8,469 | 636 | 8.12% |
| Professional, Scientific, and Technical Services | 2,914 | 3,510 | 596 | 20.45% |
| Fabricated Metal Product Manufacturing | 3,165 | 3,686 | 521 | 16.46% |
| Educational Services | 9,205 | 9,706 | 501 | 5.44% |
| Hospitals | 6,151 | 6,646 | 495 | 8.05% |

*Source: MERIC Employment Projections*

**Industry employment trends offer insight on the industries that are growing over time in a given area. Between 2011 and 2015, Southwest region industries with the largest increase in employment were**

**Professional, Scientific, and Technical Services (1,559); Hospitals (1,000); Social Assistance (811); Fabricated Metal Product Manufacturing (494); Food Services and Drinking Places (454).**




*Source: US Census Bureau, QWI Explorer Application (qwiexplorer.ces.census.gov)*

**Occupations**

**The long-term occupational projections for the Southwest Region show that the top job openings are for Truck Drivers, Retail Salespersons and Cashiers. The definition of *Total Openings* is projected new growth and replacement needs. The Truck Driver occupation, for example, shows a total projected employment of 6,144 for 2022, only 672 more than the 2012 estimate of 5,472 jobs. This means of the 1,547 job openings over 10 years, 875 are replacement openings due to turnover while only 672 are new. Total openings are important to job seekers while new jobs indicate where new training needs may be found.**

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**Southwest Region Top Ten Long-Term Occupation Projections Sorted by Total Openings**

| Occupation | 2012 Estimated Employment | 2022 Projected Employment | Growth Openings | Replacement Openings | Total Openings |
|---|---|---|---|---|---|
| Heavy and Tractor-Trailer Truck Drivers | 5,472 | 6,144 | 672 | 875 | 1,547 |
| Retail Salespersons | 3,880 | 4,079 | 199 | 1,327 | 1,526 |
| Cashiers | 3,357 | 3,401 | 44 | 1,451 | 1,495 |
| Combined Food Preparation and Serving Workers | 2,692 | 3,060 | 368 | 1,028 | 1,396 |
| Laborers and Freight, Stock, and Material Movers | 2,224 | 2,510 | 286 | 689 | 975 |
| Customer Service Representatives | 2,013 | 2,379 | 366 | 548 | 914 |
| Waiters and Waitresses | 1,650 | 1,713 | 63 | 794 | 857 |
| Registered Nurses | 2,675 | 2,934 | 259 | 519 | 778 |
| Office Clerks, General | 2,765 | 2,952 | 187 | 581 | 768 |
| Personal Care Aides | 1,820 | 2,363 | 543 | 130 | 673 |

*Source: MERIC Employment Projections*

**Occupations expected to have 500 or more total openings over ten years include Truck Drivers, Personal Care Aides, Retail Salespersons, Cashiers, Combined Food Preparation and Serving Workers, Manual Laborers and Customer Service Representatives. The Personal Care Aide occupation is also projected to grow faster than the overall region, nearly 30 percent in ten years. Other fast growing occupations include Industrial Machinery Mechanics, Medical Secretaries, and Customer Service Representatives.**

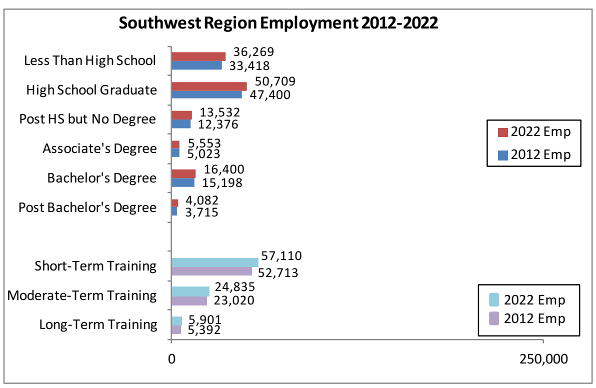
3. Employers' Employment Needs
   *Identify the job skills necessary to obtain current and projected employment opportunities. With regard to the industry sectors and occupations, provide an analysis of the employment needs of employers. Describe the knowledge, skills, and abilities required, including credentials and licenses.*

**Long-Term Projections – Jobs by Education Level**

**Occupations typically requiring short-term OJT are expected to account for the largest portion of 2022 employment change in the Southwest Region. Occupations requiring short-term OJT are projected to experience the highest number of increased employment at over 4,397, or 8.3 percent growth. Employment in occupations requiring moderate-term OJT is also expected to grow by approximately 1,815 or 7.9 percent.**

**Increased employment is also anticipated for occupations requiring a high school diploma. Employment for this education level is projected to increase by nearly 3,309, or 7.0 percent. Occupations requiring post-high school training will increase by 3,255 workers.**

**As estimated for the year 2022, 69 percent of workers in the Southwest region will be employed in occupations that require no formal postsecondary education (includes short-term OJT to work experience in a related occupation). Workers in occupations that require just a bachelor's degree will account for over 13 percent of total employment in 2022.**



**Occupations by Education Level**

**The 2012-2022 long-term occupations projections were used to identify the top ten occupations based on total openings and level of education or training needed. Top occupations requiring short to moderate-term training include services and support sector occupations. Top new openings requiring at least long-term training or as much as an Associate's degree include truck drivers, nurses, maintenance workers, and mechanics. The top occupations requiring a bachelor's degree or higher include Management, Education, and Social Work occupations.**

**Southwest Region Top Ten Long-Term Occupation Projections Sorted by Total Openings**

| Occupation | 2012 Estimated Employment | 2022 Projected Employment | Growth Openings | Replacement Openings | Total |
|---|---|---|---|---|---|
| Now - Typically requires short-term on-the-job training | | | | | |
| Retail Salespersons | 3,880 | 4,079 | 199 | 1,327 | 1,526 |
| Cashiers | 3,357 | 3,401 | 44 | 1,451 | 1,495 |
| Combined Food Preparation and Serving Workers, Including Fast Food | 2,692 | 3,060 | 368 | 1,028 | 1,396 |
| Laborers and Freight, Stock, and Material Movers, Hand | 2,224 | 2,510 | 286 | 689 | 975 |
| Customer Service Representatives | 2,013 | 2,379 | 366 | 548 | 914 |
| Waiters and Waitresses | 1,650 | 1,713 | 63 | 794 | 857 |
| Office Clerks, General | 2,765 | 2,952 | 187 | 581 | 768 |
| Personal Care Aides | 1,820 | 2,363 | 543 | 130 | 673 |
| Janitors and Cleaners, Except Maids and Housekeeping Cleaners | 1,983 | 2,275 | 292 | 373 | 665 |
| Secretaries and Administrative Assistants, Except Legal, Medical, and Executive | 2,009 | 2,225 | 216 | 242 | 458 |
| Next - Typically requires an associate's degree or long-term training | | | | | |
| Heavy and Tractor-Trailer Truck Drivers | 5,472 | 6,144 | 672 | 875 | 1,547 |
| Registered Nurses | 2,675 | 2,934 | 259 | 519 | 778 |
| Nursing Assistants | 1,481 | 1,590 | 109 | 282 | 391 |
| First-Line Supervisors of Retail Sales Workers | 1,637 | 1,669 | 32 | 356 | 388 |
| Teacher Assistants | 1,136 | 1,178 | 42 | 258 | 300 |
| Maintenance and Repair Workers, General | 1,188 | 1,256 | 68 | 228 | 296 |
| First-Line Supervisors of Office and Administrative Support Workers | 821 | 913 | 92 | 195 | 287 |
| First-Line Supervisors of Food Preparation and Serving Workers | 681 | 764 | 83 | 192 | 275 |
| Industrial Machinery Mechanics | 532 | 646 | 114 | 154 | 268 |
| Automotive Service Technicians and Mechanics | 786 | 839 | 53 | 199 | 252 |
| Later - Typically requires bachelor's degree or beyond | | | | | |
| General and Operations Managers | 1,835 | 2,004 | 169 | 343 | 512 |
| Elementary School Teachers, Except Special Education | 1,454 | 1,586 | 132 | 320 | 452 |
| Substitute Teachers | 1,195 | 1,240 | 45 | 204 | 249 |
| Accountants and Auditors | 556 | 624 | 68 | 165 | 233 |
| Secondary School Teachers, Except Special and Career/Technical Education | 712 | 730 | 18 | 193 | 211 |
| Farmers, Ranchers, and Other Agricultural Managers | 1,206 | 1,028 | 0 | 195 | 195 |
| Middle School Teachers, Except Special and Career/Technical Education | 550 | 599 | 49 | 121 | 170 |
| Physical Therapists | 296 | 360 | 64 | 73 | 137 |
| Child, Family, and School Social Workers | 402 | 432 | 30 | 85 | 115 |
| Cost Estimators | 210 | 258 | 48 | 67 | 115 |

*Source: MERIC Employment Projections*

C. Workforce Analysis

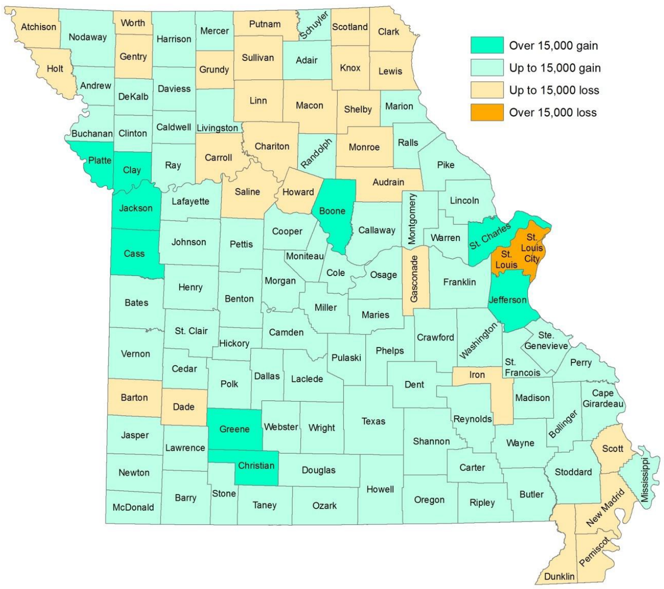
*Describe the current workforce, including individuals with barriers to employment, as defined in section 3 of WIOA[1]. This population must include individuals with disabilities among other groups[2] in the economic region and across the LWDA.*

[1] Individuals with barriers to employment include displaced homemakers; low-income individuals; Indians, Alaska Natives, and Native Hawaiians; individuals with disabilities, including youth who are individuals with disabilities; older individuals; ex-offenders; homeless individuals, or homeless children and youths; youth who are in or have aged out of the foster care system; individuals who are English-language learners, individuals who have low levels of literacy, and individuals facing substantial cultural barriers; farmworkers (as defined at section 167(i) of WIOA

**Geographic Change**

**While St. Louis and Kansas City remain the largest population centers in Missouri, the most recent decennial census shows some population shifts away from the urban core. The overall population for the Southwest Workforce Development Area has increased by 24,436 persons. Details for all counties are in Table 1.**

Missouri Population Change, 2000-2010




**Minority Population Growth**

**Missouri experienced population increases in the Black and Hispanic or Latino minority groups during the 2000's. The Southwest Region's black population increased by 1,000 persons, accounting for 1.1 percent of Southwest region's total population. Missouri's Black population accounts for 11.6 percent of total state population, and nationally, the Black population accounts for 12.6 percent of total U.S. population.**

**The Hispanic or Latino population in the Southwest Workforce Development Area has also increased. This minority group numbers about 18,700, an increase of 8,800 persons since 2000. The Hispanic or Latino population represents 6.4 percent of the Southwest's total population. Missouri's 2010 Hispanic or Latino population, in contrast, accounts for 3.5 percent of the state's total population;**

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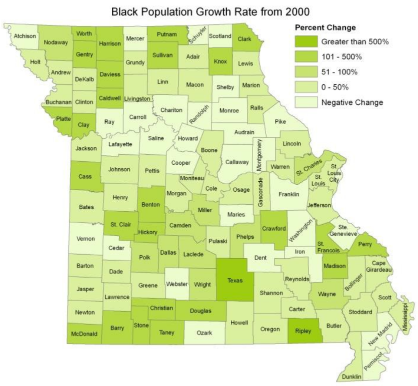
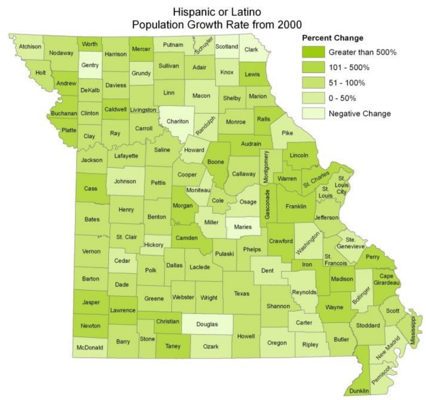
and Training and Employment Guidance Letter No. 35-14); individuals within two years of exhausting lifetime eligibility under the Temporary Assistance for Needy Families (TANF) program; single parents (including single pregnant women); and long-term unemployed individuals.

[2] Veterans, unemployed workers, and youth, and others that the State may identify.

**nationally, 16.3 percent of the U.S. population is Hispanic or Latino. The full datasets are available in Table 2: Black Population Rates and Table 3: Hispanic or Latino Population Rates in the Appendix.**



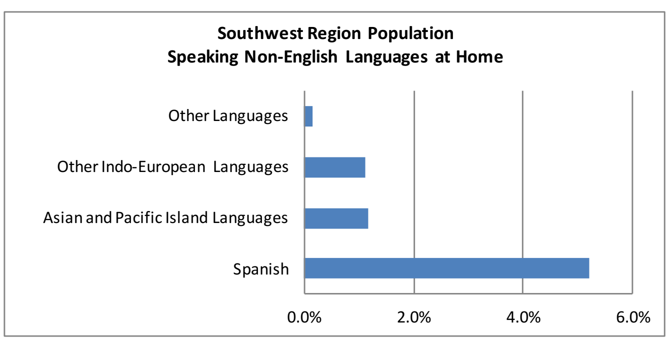




**Limited English Proficiency**

**According to the 2010-2014 American Community Survey 5-Year Estimates, 7.7 percent (13,256) of the Southwest region's 18 to 64 population age cohort spoke a language other than English at home. The most common non-English languages spoken in Southwest area homes was Spanish (5.2 percent); Other Indo-European languages (1.1 percent); Asian and Pacific Island languages (1.2 percent) and Other Languages (0.2 percent).**

**The total percentage of the population speaking languages other than English at home is higher in the Southwest Region than in Missouri. Statewide, however, 6.6 percent of the population (244,947) spoke a non-English language at home. In Missouri, the most common non-English language is Spanish (2.7 percent), followed by Other Indo-European languages (1.9 percent), Asian and Pacific Island Languages (1.4 percent) and Other Languages (0.5 percent).**

**The percentage of individuals speaking languages other than English at home across the nation is much higher than the state average. In the U.S., 13.6 percent of the population speaks Spanish at home. Residents speaking Other Indo-European languages and Asian and Pacific Island languages total 3.7 percent each while those speaking Other Languages is 1 percent.**

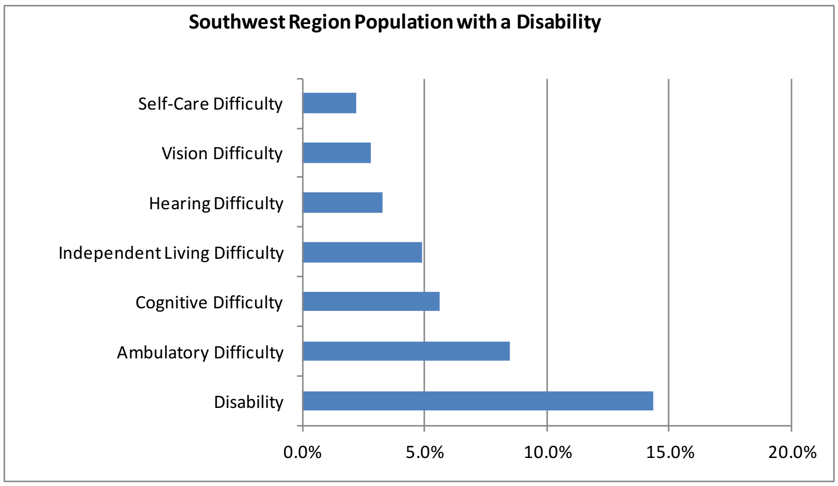


**Individuals with Disabilities**

**According to the American Community Survey 2010-2014 estimates, 14.4 percent, or 24,738 Southwest Area residents age 18-64 had a disability. Ambulatory difficulty was the most prevalent disability type at 8.5 percent of the population. About 5.6 percent of the population had a cognitive difficulty, followed by 4.9 percent with independent living difficulty.**

**The percentage of individuals with disabilities was consistent with state trends. Statewide, 12.4 percent of residents of the same age group had a disability. Missourians with an ambulatory difficulty was the highest at 6.6 percent, followed by cognitive difficulty (5.4 percent) and independent living difficulty (4.4 percent).**

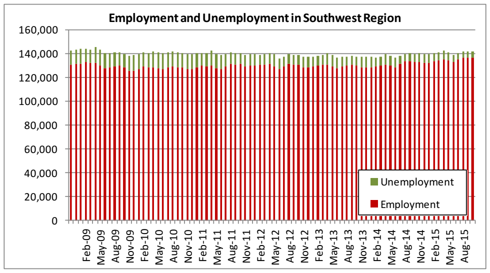
**Nationally, 10.2 percent of the population had a disability. Individuals with ambulatory difficulty total 5.2 percent, while 4.3 percent have cognitive difficulty and 3.6 percent have independent living difficulty.**

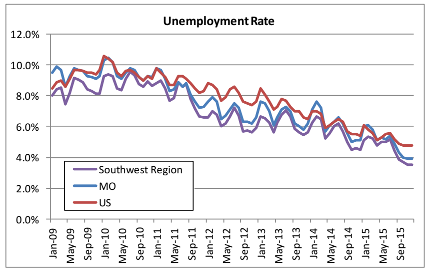



This includes:

1. Employment and Unemployment
   *Provide an analysis of current employment and unemployment data and trends in the LWDA.*

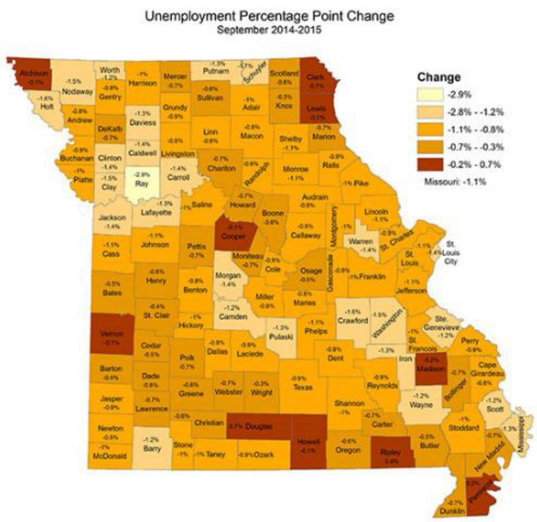
**During the recession, the number of Missourians employed in the Southwest region decreased, while the number of unemployed increased to a high of 9.6 percent. Over time, employers have become more confident in hiring workers, increasing total employment to just over 136,859 at the end of 2015. The unemployment rate has decreased to a low of 3.5 percent in December 2015, below the Missouri unemployment rate of 3.9 percent and the US at 4.8 percent. These numbers, queried from Local Area Unemployment Statistics (LAUS), includes include all employment, including self-employed workers.**




*Source: U.S. Department of Labor, Bureau of Labor Statistics*

**Even with the low unemployment rate statewide, Missouri still has pockets where the unemployment rate is high. The brighter news is that unemployment has decreased in every county during the past year. In the seven-county Southwest region, the unemployment rate decreased from 5.01 percent in September 2014 to 3.53 percent in September 2015. Numbers for each county are available in Table 4 of the Appendix.**




2. Labor Market Trends
   *Provide an analysis of key labor-market trends, including across existing industries and occupations.*

**Industry Employment Trends**

**The seven-county Southwest Workforce Development Area gained 715 workers from 2009 to 2014, a 0.6 percent increase. The Southwest, however, lags behind the state which experienced a 2.2 percent increase. Regional industries with the largest employment growth were Professional, Scientific, and Technical Services (51.6 percent), Administrative and Support Services (29.6 percent), and Food Manufacturing (19.1 percent). Four industries lost employment: Truck Transportation (-27.7 percent), Hospitals (-14 percent), Nursing and Residential Care Facilities (-5.6 percent), and General Merchandise Stores (-1.3 percent).**

| NAICS Sector | 2009 Employment | 2014 Employment | Change | Percent Change |
|---|---|---|---|---|
| **Total Region Employment** | **111,054** | **111,769** | **715** | **0.6 percent** |
| Educational Services | 10,757 | 11,277 | 520 | 4.8 percent |
| Food Manufacturing | 8,258 | 9,837 | 1,579 | 19.1 percent |
| Food Services and Drinking Places | 7,388 | 8,289 | 901 | 12.2 percent |
| Hospitals | 7,342 | 6,313 | -1,029 | -14 percent |
| Truck Transportation | 7,347 | 5,315 | -2,032 | -27.7 percent |
| Administrative and Support Services | 3,630 | 4,705 | 1,075 | 29.6 percent |
| Ambulatory Health Care Services | 4,041 | 4,465 | 424 | 10.5 percent |
| General Merchandise Stores | 3,758 | 3,709 | -49 | -1.3 percent |
| Nursing and Residential Care Facilities | 3,579 | 3,379 | -200 | -5.6 percent |
| Professional, Scientific, and Technical Services | 2,199 | 3,333 | 1,134 | 51.6 percent |

**Industry Wage Trends**

**The region saw overall wages increase by 4.5 percent, or over $1,300, lower than the statewide wage growth of 9.4 percent. Wage growth was highest in manufacturing and sales industries. Industries with the highest wage growth during the period were Professional, Scientific, and Technical Services (39.5 percent), Electrical Equipment, Appliance, and Component Manufacturing (20.7 percent), and Merchant Wholesalers, Durable Goods (16.8 percent). Three industries had wages decrease between 2009 and 2014: Truck Transportation (-6.6 percent), Educational Services (-1.9 percent), and Hospitals (-0.7 percent).**

| NAICS Sector | 2009 Wages | 2014 Wages | Change | Percent Change |
|---|---|---|---|---|
| **Overall Regional Average Wage** | **$31,224** | **$32,616** | **$1,392** | **4.5 percent** |
| Hospitals | $50,124 | $49,788 | -$336 | -0.7 percent |
| Professional, Scientific, and Technical Services | $33,096 | $46,176 | $13,080 | 39.5 percent |
| Electrical Equipment, Appliance, and Component Manufacturing | $35,208 | $42,480 | -$3,792 | 20.7 percent |
| Ambulatory Health Care Services | $40,716 | $40,920 | $204 | 0.5 percent |
| Educational Services | $41,052 | $40,284 | -$768 | -1.9 percent |
| Fabricated Metal Product Manufacturing | $35,052 | $39,828 | $4,776 | 13.6 percent |
| Truck Transportation | $42,288 | $39,492 | $3,816 | -6.6 percent |
| Transportation Equipment Manufacturing | $33,996 | $38,928 | $4,932 | 14.5 percent |
| Merchant Wholesalers, Durable Goods | $32,748 | $38,256 | $5,508 | 16.8 percent |

| | | | | |
|---|---|---|---|---|
| Motor Vehicle and Parts Dealers | $32,544 | $37,920 | $5,376 | 16.5 percent |

**Industry Clusters**

**According to the location quotient indicator, manufacturing is the Southwest Region's most highly concentrated industry group. The location quotient (LQ) indicator describes how concentrated an industry is in a region in relation to the nation, with 1.00 being the national average. The region's most concentrated industry is Food Manufacturing (7.08) followed by Electrical Equipment Manufacturing (5.46), Animal Production (4.94), and Truck Transportation (4.90).**

| NAICS Sector | 2009 Location Quotient | 2013 Location Quotient |
|---|---|---|
| Food Manufacturing | 6.83 | 7.08 |
| Electrical Equipment, Appliance, and Component Manufacturing | 4.89 | 5.46 |
| Animal Production | 5.23 | 4.94 |
| Truck Transportation | 5.83 | 4.90 |
| Furniture and Related Product Manufacturing | 8.28 | 4.48 |
| Fabricated Metal Product Manufacturing | 2.76 | 2.47 |
| General Merchandise Stores | 1.71 | 1.60 |
| Building Material and Garden Equipment and Supplies Dealer | 1.27 | 1.39 |
| Motor Vehicle and Parts Dealers | 1.35 | 1.38 |
| Hospitals | 1.32 | 1.26 |

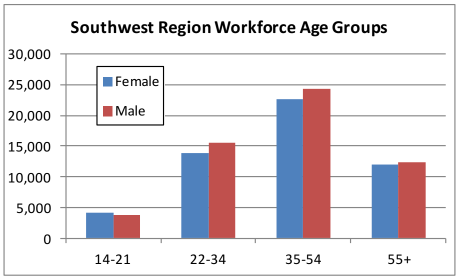
**Industry demand is consistent with occupational job postings seen in the Top Ten Real-Time Labor Demand Occupations by Job Ads data found in Section IV.B.1. In this table, the highest number of job ads is for Truck Drivers. With a concentration of manufacturers, additional occupations such as Sales Representatives; Customer Service; Laborers; and Maintenance and Repair are heavily advertised.**

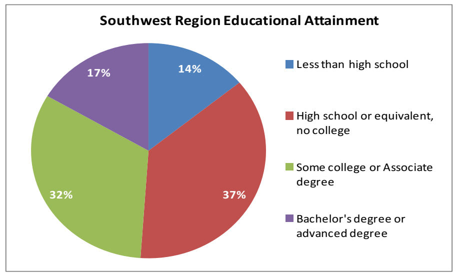
3. Education and Skill Levels of the Workforce
   *Provide an analysis of the educational and skill levels of the workforce.*

**Missouri has a workforce of 2,594,137 men and women who are currently working. The Southwest region represents 4.2 percent of that workforce or 108,725 workers. Workforce is defined as persons 14 years of age or older who are gainfully employed.**

**The state's workforce is aging. In Missouri, 22 percent of the workforce is age 55 or older; similarly, in the Southwest region, 22 percent of its workforce (both the male and female populations) is 55 and older.**

**The average educational attainment rate for the Missouri workforce, with a high school diploma or higher, is 88 percent; in the Southwest region, it is 86 percent. Statewide, 12 percent of workers have not graduated high school while 14 percent of the Southwest region's workforce has less than a high school education.**


Southwest Region Workforce Age Groups
30,000
25,000
20,000
15,000
10,000
5,000
0
Female
Male
14-21
22-34
35-54
55+


Southwest Region Educational Attainment
14%
37%
32%
17%
Less than high school
High school or equivalent, no college
Some college or Associate degree
Bachelor's degree or advanced degree

4. Skill Gaps

*Describe apparent "skill gaps."*

**Analysis of the skills and education gaps that employers have identified is an important step in determining what training issues need to be addressed. National business surveys point to skills gaps that have negatively impacted the economy, such as a 2015 manufacturing survey that indicated 6 out of 10 positions remain unfilled due to talent shortage, even with a large number of unemployed manufacturing workers available for hire[3]. MERIC has developed target industry competency models, conducted business surveys, and recently acquired a real-time labor market skills demand tool that provides valuable insight into the needs of Missouri employers.**

**MERIC conducted Industry Competency Model analysis for many of the state's targeted industry sectors, such as Energy, Information Technology, Transportation, and Life Sciences. In doing so, the reports revealed that workers will need to enhance their existing skills sets to meet the demands of new and evolving technologies used in these growing industry sectors, and employers seek a good skill mix of both technical and soft skills in their workers. Interdisciplinary knowledge is a key ingredient to success, especially in high-tech sectors. Proficiency in rules and regulations was also rated as highly important and necessary for work in today's complex business environment.**

**The Industry Competency Model reports also highlighted issues related to the overall aging of the workforce. The imminent retirement of a large segment of workers across the targeted sectors could result in a shortage of this specialized labor pool. The ability to produce a sustainable pipeline of skilled workers will be important for the success of these sectors and the economy as a whole.**

**Each year MERIC staff assist the St. Louis Community College to survey hundreds of companies in the St. Louis MSA regarding workforce issues[4]. In 2015 the survey found that 57 percent of businesses identified a "shortage of workers with knowledge or skills" as the main barrier to expanding employment, followed by "economic conditions" at a distance second of 35 percent. The top shortcomings of job applicants were mostly soft skills such as poor**

**Top Southwest Region Real-Time Labor Demand Skills**

| Top Baseline Skills Needed | Rank |
|---|---|
| Communication Skills | 1 |
| Organizational Skills | 2 |
| Customer Service | 3 |
| Writing | 4 |
| Problem Solving | 5 |

| HEALTHCARE<br>Top Specific Skills Needed | Rank |
|---|---|
| Patient Care | 1 |
| Treatment Planning | 2 |
| Patient/Family Education and Instruction | 3 |
| Neonatal Intensive Care Unit (NICU) | 4 |
| Post Anesthesia Care Unit (PACU) | 5 |

| INFORMATION TECHNOLGY<br>Top Specific Skills Needed | Rank |
|---|---|
| SQL | 1 |
| Technical Support | 2 |
| Software Instillation | 3 |
| Repair | 4 |
| System Implementation | 5 |

| FINANCE<br>Top Specific Skills Needed | Rank |
|---|---|
| Accounting | 1 |
| Recruiting | 2 |
| Business Development | 3 |
| Financial Statements | 4 |
| Onboarding | 5 |

| ENGINEERING<br>Top Specific Skills Needed | Rank |
|---|---|
| Computer Aided Drafting/Design (CAD) | 1 |
| Mechanical Engineering | 2 |
| Process Improvement | 3 |
| Robotics | 4 |
| AutoCAD | 5 |

| MANUFACTURING/PRODUCTION<br>Top Specific Skills Needed | Rank |
|---|---|
| Inspection | 1 |
| Machinery | 2 |
| Record Keeping | 3 |
| Repair | 4 |
| Packaging | 5 |

*Source: Burning Glass Technologies (February 1, 2015-January 31, 2016)*

[3] The skills gap in U.S. manufacturing 2015 and beyond. Deloitte Consulting and the Manufacturing Institute, 2015. Complete report at www.themanufacturinginstitute.org

[4] State of the St. Louis Workforce 2015. St. Louis Community College Workforce Solutions, August 2015. Available at: http://www.stlcc.edu/Workforce-Solutions/St-Louis-Workforce/

**work ethic (#1), lack of critical thinking (#2), and lack of communication or interpersonal skills (#3). Lack of general business or industry knowledge rounded out the top four. These shortcomings are consistently the top issues business identify in this survey and mirror the "soft skills" challenge that can be seen across the country in various business surveys. This very large business survey, while limited to the St. Louis MSA, is a good proxy for the issues other businesses face throughout the state. Furthermore, the importance of soft skills revealed in these surveys can be seen in online job ads that consistently rank these skills as a top desire for applicants.**

**MERIC analyzes the real-time job ads for workforce regions, which are one representation of job demand, versus the supply of job seekers in the state's workforce development system and develops a report each year highlighting results[5]. An analysis of labor demand and supply in the Southwest Region shows large gaps in Healthcare and Business and Sales occupations. For example, Healthcare and Related Occupation job ads accounted for 18.3 percent of all postings but just 7.3 percent of job seekers were looking for employment in these occupations. These gaps represent opportunities for job seekers, who can get training, to apply for occupations that are in higher demand.**

**Employers indicate through job advertisements the basic and specialized skills needed to be successful in their business. While these needed skills do not necessarily point to gaps, it does provide a snapshot of skill demand and reinforces some of the findings from earlier surveys and competency model analysis. MERIC researchers analyzed over 13,636 online job advertisements from February 1, 2015 to January 31, 2016 using a tool from Burning Glass Technologies, to determine what skills were in greatest demand over the year.**

**When considering all occupations, common skills are listed the most in job advertisements and show that basic business fundamentals, communication, organization and customer service skills are the most cited. Writing skills and problem solving complete the list of top five common skills.**

**Analysis of specific occupational clusters shows more targeted skill needs in jobs related to healthcare, information technology, finance, engineering and manufacturing. Many of these occupational clusters relate to the industries Missouri has targeted for economic growth.**

**Basic skills cover a broad range of topics, such as reading and writing, applied math, logic flows, information gathering, ethics, etc., and mainly relate to the educational efforts of primary and secondary schools, institutions of higher learning, and workforce training programs. From the workers' standpoint, many of these skills are hopefully gained through education and early work opportunities as a younger person however evidence from skills gap analysis suggest this is still a challenge. Partnerships by educators, businesses, workforce and economic developers should continue to focus efforts on this issue as these basic skills form the foundation for successful, occupation-specific training to follow.**

**Specific occupational skills are learned through longer-term employment in an industry which provides training or through the more formal education of apprenticeships, community colleges, or four-year universities. Attaining these skills, outside of business experience and training, presents some challenges to job seekers, particularly those who have been unemployed for a long time period, and to educational institutions. Job seekers need affordable, flexible training alternatives, especially if**

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[5] Missouri Labor Supply & Demand Analysis. Missouri Economic Research and Information Center, February 2015. Available at: https://www.missourieconomy.org/pdfs/statewide_labor_supply_n_demand_analysis.pdf

**the person needs to work while gaining new skills. Education providers work to keep up with industry trends and technology while also needing to adapt to new, cost-effective learning methods. As with basic skill development, stakeholders in a healthy, growing economy must also partner to meet the needs of both workers and business.**

**Missouri's opportunities for long-term economic growth will increasingly depend on a well educated, flexible workforce that responds quickly to changing business needs. Targeted efforts to prepare workers start at a young age, are honed through higher education and work experience, and are sustained by a culture and ability to embrace life-long learning. Taking bold, and sometimes difficult, steps to equip Missouri's workforce for success will be one of the strongest economic development tools a state can have in retaining and attracting the industries of the future.**

**MERIC, the WIOA agency leadership and the Sector Strategy research will strive to incorporate real-time feedback from employers about the current status of labor market information in each region and for the state.**

# Appendix

# Labor Market Data

| TABLE 1: Missouri Population Change, 2000-2010 | | | | | |
|---|---|---|---|---|---|
| County | Population Change | County | Population Change | County | Population Change |
| Adair | 630 | Grundy | -171 | Perry | 839 |
| Andrew | 799 | Harrison | 107 | Pettis | 2,798 |
| Atchison | -745 | Henry | 275 | Phelps | 5,331 |
| Audrain | -324 | Hickory | 687 | Pike | 165 |
| Barry | 1,587 | Holt | -439 | Platte | 15,541 |
| Barton | -139 | Howard | -68 | Polk | 4,145 |
| Bates | 396 | Howell | 3,162 | Pulaski | 11,109 |
| Benton | 1,876 | Iron | -67 | Putnam | -244 |
| Bollinger | 334 | Jackson | 19,278 | Ralls | 541 |
| Boone | 27,188 | Jasper | 12,718 | Randolph | 751 |
| Buchanan | 3,203 | Jefferson | 20,634 | Ray | 140 |
| Butler | 1,927 | Johnson | 4,337 | Reynolds | 7 |
| Caldwell | 455 | Knox | -230 | Ripley | 591 |
| Callaway | 3,566 | Laclede | 3,058 | Saline | -386 |
| Camden | 6,951 | Lafayette | 421 | Schuyler | 261 |
| Cape Girardeau | 6,981 | Lawrence | 3,430 | Scotland | -140 |
| Carroll | -990 | Lewis | -283 | Scott | -1,231 |
| Carter | 324 | Lincoln | 13,622 | Shannon | 117 |
| Cass | 17,386 | Linn | -993 | Shelby | -426 |
| Cedar | 249 | Livingston | 637 | St. Charles | 76,602 |
| Chariton | -607 | Macon | -196 | St. Clair | 153 |
| Christian | 23,137 | Madison | 426 | St. Francois | 9,718 |
| Clark | -277 | Maries | 273 | St. Louis County | -17,361 |
| Clay | 37,933 | Marion | 492 | St. Louis City | -28,895 |
| Clinton | 1,764 | McDonald | 1,402 | Ste. Genevieve | 303 |
| Cole | 4,593 | Mercer | 28 | Stoddard | 263 |
| Cooper | 931 | Miller | 1,184 | Stone | 3,544 |
| Crawford | 1,892 | Mississippi | 931 | Sullivan | -505 |
| Dade | -40 | Moniteau | 780 | Taney | 11,972 |
| Dallas | 1,116 | Monroe | -471 | Texas | 3,005 |
| Daviess | 417 | Montgomery | 100 | Vernon | 705 |
| DeKalb | 1,295 | Morgan | 1,256 | Warren | 7,988 |
| Dent | 730 | New Madrid | -804 | Washington | 1,851 |
| Douglas | 600 | Newton | 5,478 | Wayne | 262 |
| Dunklin | -1,202 | Nodaway | 1,458 | Webster | 5,157 |
| Franklin | 7,685 | Oregon | 537 | Worth | -211 |
| Gasconade | -120 | Osage | 816 | Wright | 860 |
| Gentry | -123 | Ozark | 181 | | |
| Greene | 34,783 | Pemiscot | -1,751 | | |

**Table 2: Black Population Growth Rate, 2000-2010**

| County | Percent Change | County | Percent Change | County | Percent Change |
|---|---|---|---|---|---|
| Adair | 36 | Grundy | 40 | Perry | 127 |
| Andrew | 4 | Harrison | 150 | Pettis | 6 |
| Atchison | -87 | Henry | 0 | Phelps | 69 |
| Audrain | -11 | Hickory | 257 | Pike | -21 |
| Barry | 174 | Holt | 33 | Platte | 105 |
| Barton | 31 | Howard | -24 | Polk | 93 |
| Bates | 49 | Howell | 37 | Pulaski | 21 |
| Benton | 132 | Iron | -17 | Putnam | 200 |
| Bollinger | 28 | Jackson | 6 | Ralls | 1 |
| Boone | 31 | Jasper | 46 | Randolph | -14 |
| Buchanan | 24 | Jefferson | 33 | Ray | -18 |
| Butler | 6 | Johnson | 9 | Reynolds | 29 |
| Caldwell | 233 | Knox | 250 | Ripley | 717 |
| Callaway | -12 | Laclede | 75 | St. Charles | 96 |
| Camden | 88 | Lafayette | -1 | St. Clair | 141 |
| Cape Girardeau | 47 | Lawrence | 7 | Ste. Genevieve | -8 |
| Carroll | -13 | Lewis | 22 | St. Francois | 146 |
| Carter | 40 | Lincoln | 45 | St. Louis County | 21 |
| Cass | 202 | Linn | 5 | St. Louis City | -12 |
| Cedar | -68 | Livingston | 8 | Saline | -4 |
| Chariton | -42 | McDonald | 250 | Schuyler | -50 |
| Christian | 210 | Macon | 1 | Scotland | -70 |
| Clark | 280 | Madison | 127 | Scott | 5 |
| Clay | 135 | Maries | -17 | Shannon | 21 |
| Clinton | 1 | Marion | 8 | Shelby | -52 |
| Cole | 20 | Mercer | -14 | Stoddard | 2 |
| Cooper | -19 | Miller | 52 | Stone | 152 |
| Crawford | 103 | Mississippi | 25 | Sullivan | 240 |
| Dade | 43 | Moniteau | 4 | Taney | 225 |
| Dallas | 84 | Monroe | -26 | Texas | 1,688 |
| Daviess | 475 | Montgomery | -19 | Vernon | -18 |
| DeKalb | 42 | Morgan | 34 | Warren | 30 |
| Dent | -7 | New Madrid | -1 | Washington | -4 |
| Douglas | 114 | Newton | 40 | Wayne | 73 |
| Dunklin | 8 | Nodaway | 92 | Webster | -9 |
| Franklin | -3 | Oregon | 50 | Worth | 200 |
| Gasconade | 50 | Osage | 33 | Wright | 76 |
| Gentry | 163 | Ozark | -21 | | |
| Greene | 45 | Pemiscot | -7 | | |

| Table 3: Hispanic or Latino Population Growth Rate, 2000-2010 | | | | | |
|---|---|---|---|---|---|
| County | Percent Change | County | Percent Change | County | Percent Change |
| Adair | 66 | Grundy | 8 | Perry | 242 |
| Andrew | 110 | Harrison | 58 | Pettis | 99 |
| Atchison | 28 | Henry | 84 | Phelps | 90 |
| Audrain | 252 | Hickory | 34 | Pike | 12 |
| Barry | 60 | Holt | 86 | Platte | 100 |
| Barton | 94 | Howard | 39 | Polk | 76 |
| Bates | 54 | Howell | 55 | Pulaski | 96 |
| Benton | 90 | Iron | 115 | Putnam | 13 |
| Bollinger | 44 | Jackson | 61 | Ralls | 133 |
| Boone | 103 | Jasper | 122 | Randolph | 46 |
| Buchanan | 124 | Jefferson | 70 | Ray | 64 |
| Butler | 62 | Johnson | 14 | Reynolds | 16 |
| Caldwell | 113 | Knox | 31 | Ripley | 8 |
| Callaway | 88 | Laclede | 79 | St. Charles | 139 |
| Camden | 193 | Lafayette | 92 | St. Clair | 79 |
| Cape Girardeau | 137 | Lawrence | 105 | Ste. Genevieve | 13 |
| Carroll | 62 | Lewis | 106 | St. Francois | 74 |
| Carter | 44 | Lincoln | 132 | St. Louis County | 72 |
| Cass | 120 | Linn | 86 | St. Louis city | 59 |
| Cedar | 33 | Livingston | 93 | Saline | 83 |
| Chariton | -15 | McDonald | 27 | Schuyler | 7 |
| Christian | 166 | Macon | 24 | Scotland | -21 |
| Clark | -19 | Madison | 270 | Scott | 57 |
| Clay | 99 | Maries | -27 | Shannon | 81 |
| Clinton | 57 | Marion | 55 | Shelby | 65 |
| Cole | 96 | Mercer | 155 | Stoddard | 54 |
| Cooper | 62 | Miller | 48 | Stone | 86 |
| Crawford | 107 | Mississippi | 79 | Sullivan | 97 |
| Dade | 81 | Moniteau | 35 | Taney | 159 |
| Dallas | 77 | Monroe | 63 | Texas | 92 |
| Daviess | 58 | Montgomery | 83 | Vernon | 95 |
| DeKalb | 75 | Morgan | 127 | Warren | 205 |
| Dent | 32 | New Madrid | 17 | Washington | 50 |
| Douglas | 0 | Newton | 121 | Wayne | 115 |
| Dunklin | 110 | Nodaway | 95 | Webster | 53 |
| Franklin | 106 | Oregon | 16 | Worth | 229 |
| Gasconade | 138 | Osage | 9 | Wright | 71 |
| Gentry | -18 | Ozark | 42 | | |
| Greene | 85 | Pemiscot | 8 | | |

| COUNTY | Unemployment Rate Sept 2015 | Change in Unemployment Rate Sept 2014-Sept 2015 | COUNTY | Unemployment Rate Sept 2015 | Change in Unemployment Rate Sept 2014-Sept 2015 | COUNTY | Unemployment Rate Sept 2015 | Change in Unemployment Rate Sept 2014-Sept 2015 |
|---|---|---|---|---|---|---|---|---|
| ADAIR | 4.4 | -1.0 | GRUNDY | 3.8 | -0.9 | PERRY | 3.8 | -0.9 |
| ANDREW | 3.7 | -0.8 | HARRISON | 4.3 | -1.0 | PETTIS | 4.6 | -0.7 |
| ATCHISON | 4.3 | -0.1 | HENRY | 5.1 | -0.6 | PHELPS | 4.4 | -1.1 |
| AUDRAIN | 4.1 | -0.9 | HICKORY | 6.2 | -1.0 | PIKE | 4.0 | -1.0 |
| BARRY | 4.4 | -1.2 | HOLT | 2.8 | -1.6 | PLATTE | 3.8 | -1.0 |
| BARTON | 5.2 | -0.4 | HOWARD | 4.1 | -0.7 | POLK | 5.0 | -0.7 |
| BATES | 5.6 | -0.5 | HOWELL | 6.0 | -0.1 | PULASKI | 5.4 | -1.3 |
| BENTON | 5.9 | -0.8 | IRON | 6.9 | -1.3 | PUTNAM | 3.4 | -1.3 |
| BOLLINGER | 5.0 | -0.7 | JACKSON | 5.5 | -1.4 | RALLS | 3.6 | -0.9 |
| BOONE | 3.1 | -0.6 | JASPER | 3.9 | -0.9 | RANDOLPH | 5.1 | -0.9 |
| BUCHANAN | 4.3 | -0.9 | JEFFERSON | 4.3 | -1.1 | RAY | 4.4 | -2.9 |
| BUTLER | 5.6 | -0.5 | JOHNSON | 4.6 | -1.1 | REYNOLDS | 6.1 | -0.9 |
| CALDWELL | 3.6 | -1.4 | KNOX | 3.3 | -0.3 | RIPLEY | 7.2 | 0.4 |
| CALLAWAY | 4.2 | -0.8 | LACLEDE | 6.1 | -0.9 | ST. CHARLES | 3.5 | -0.9 |
| CAMDEN | 5.0 | -1.2 | LAFAYETTE | 4.0 | -1.3 | ST. CLAIR | 6.2 | -0.4 |
| CAPE GIRARDEA | 4.1 | -0.8 | LAWRENCE | 4.3 | -0.7 | STE. GENEVIEVE | 4.6 | -1.2 |
| CARROLL | 5.1 | -1.4 | LEWIS | 4.4 | -0.2 | ST. FRANCOIS | 5.5 | -1.0 |
| CARTER | 6.3 | -0.7 | LINCOLN | 4.4 | -1.1 | ST. LOUIS COUNTY | 4.3 | -1.1 |
| CASS | 4.3 | -1.1 | LINN | 6.5 | -0.9 | ST. LOUIS CITY | 5.7 | -1.4 |
| CEDAR | 4.9 | -0.5 | LIVINGSTON | 3.9 | -0.8 | SALINE | 4.0 | -1.0 |
| CHARITON | 4.3 | -0.7 | MCDONALD | 4.0 | -1.0 | SCHUYLER | 4.4 | -1.7 |
| CHRISTIAN | 3.8 | -0.6 | MACON | 4.5 | -0.8 | SCOTLAND | 3.8 | -0.6 |
| CLARK | 6.6 | 0.7 | MADISON | 5.4 | -0.2 | SCOTT | 4.9 | -1.2 |
| CLAY | 4.0 | -1.5 | MARIES | 4.7 | -0.8 | SHANNON | 6.8 | -1.0 |
| CLINTON | 3.9 | -1.4 | MARION | 4.0 | -0.7 | SHELBY | 4.2 | -1.1 |
| COLE | 3.6 | -0.9 | MERCER | 3.8 | -0.7 | STODDARD | 5.6 | -1.0 |
| COOPER | 5.2 | -0.1 | MILLER | 4.8 | -0.9 | STONE | 5.6 | -1.0 |
| CRAWFORD | 5.0 | -1.6 | MISSISSIPPI | 5.2 | -1.3 | SULLIVAN | 5.4 | -0.6 |
| DADE | 4.7 | -0.6 | MONITEAU | 4.4 | -0.7 | TANEY | 5.4 | -1.0 |
| DALLAS | 5.6 | -0.8 | MONROE | 4.5 | -1.1 | TEXAS | 6.0 | -0.9 |
| DAVIESS | 4.0 | -1.3 | MONTGOMERY | 4.5 | -1.0 | VERNON | 4.9 | -0.1 |
| DEKALB | 3.9 | -0.7 | MORGAN | 5.6 | -1.4 | WARREN | 4.2 | -1.4 |
| DENT | 5.2 | -0.9 | NEW MADRID | 5.8 | -0.7 | WASHINGTON | 5.7 | -1.5 |
| DOUGLAS | 7.8 | 0.7 | NEWTON | 4.0 | -0.8 | WAYNE | 4.9 | -1.2 |
| DUNKLIN | 6.9 | -0.7 | NODAWAY | 3.8 | -1.5 | WEBSTER | 4.6 | -0.7 |
| FRANKLIN | 4.4 | -1.0 | OREGON | 5.8 | -0.6 | WORTH | 2.5 | -1.2 |
| GASCONADE | 3.7 | -0.8 | OSAGE | 3.5 | -0.5 | WRIGHT | 5.9 | -0.3 |
| GENTRY | 3.9 | -0.8 | OZARK | 6.9 | -0.9 | | | |
| GREENE | 3.9 | -0.6 | PEMISCOT | 8.4 | 0.2 | | | |

Table 4: Unemployment Rates, September 2015 and Change in Unemployment from September 2014