



# Business IT Ecosystems Sector

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## Department of Employment, Training & Rehabilitation

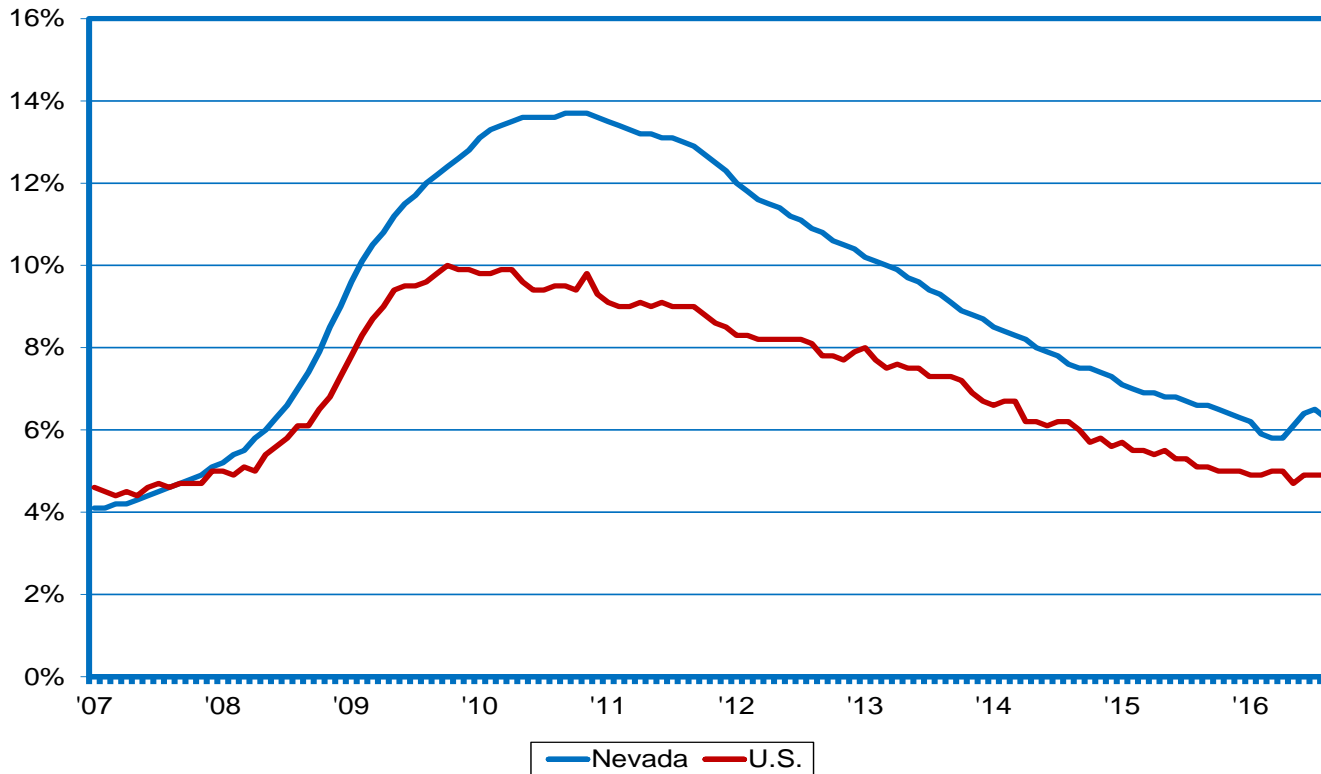
**Bill Anderson, Chief Economist**  
**Christopher Robison, Supervising Economist**  
**Hayley Smith-Kirkham, Economist**

**Prepared by the Research and Analysis Bureau**



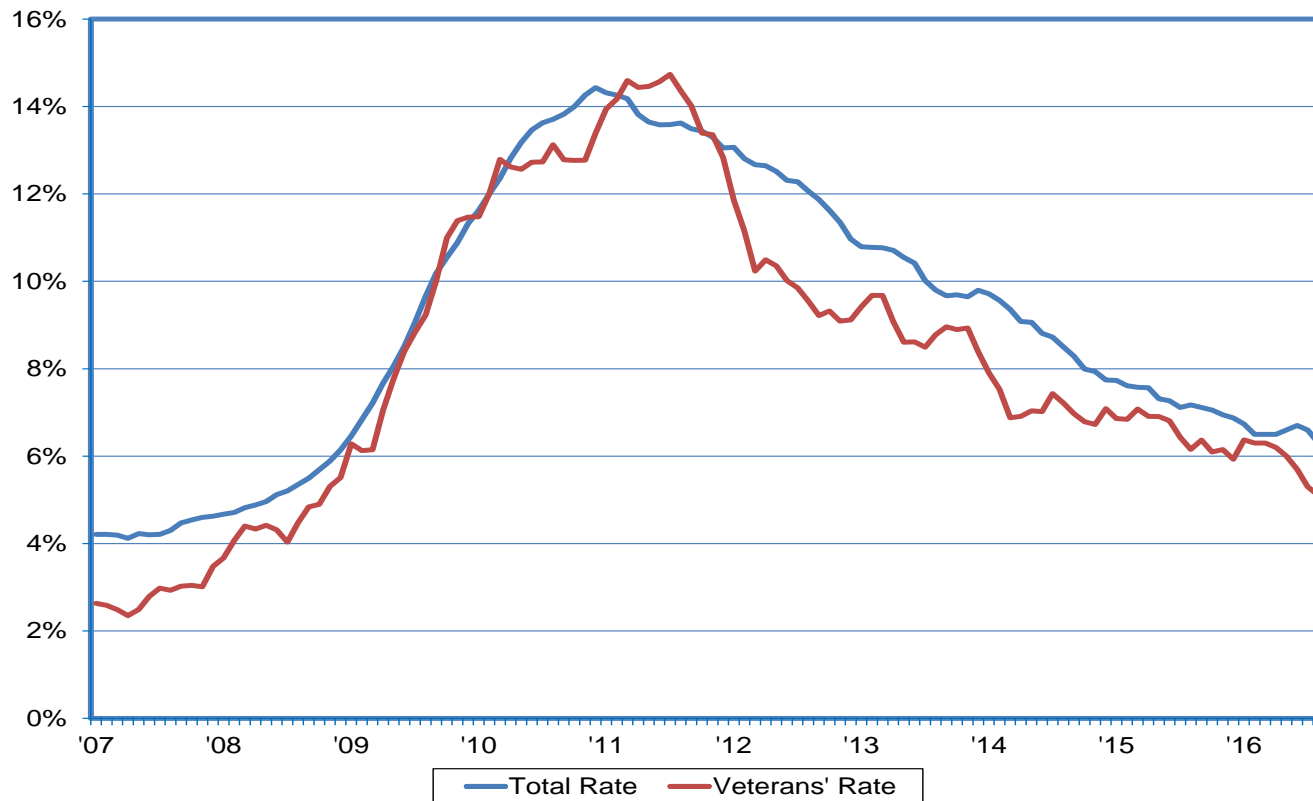
# Following 3 Months of Increases, Jobless Rate Heads Down in August

NV vs. the U.S. unemployment rate (SA)



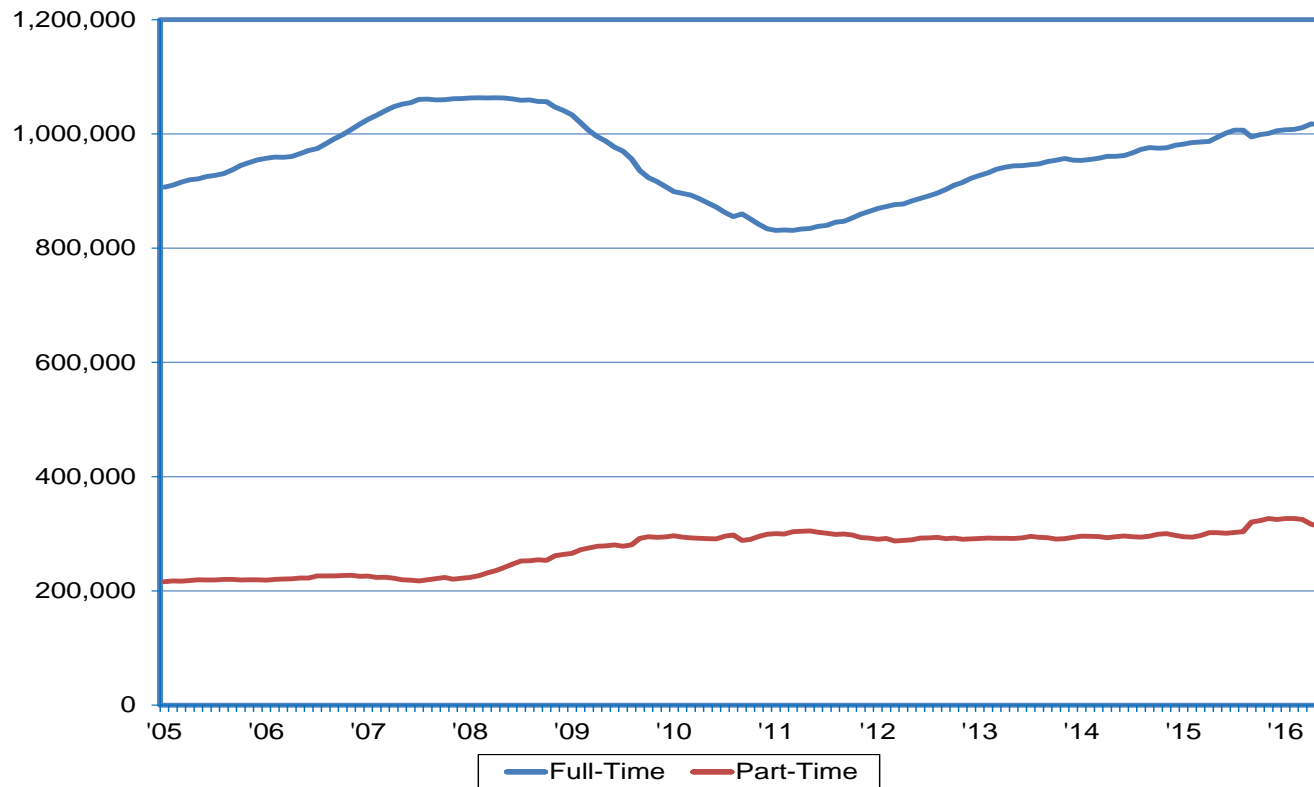
# The Jobless Rate for Vets has been Lower than the Total Rate During the Recovery

unemployment rate for Nevada Vets vs. total (12-month moving average)



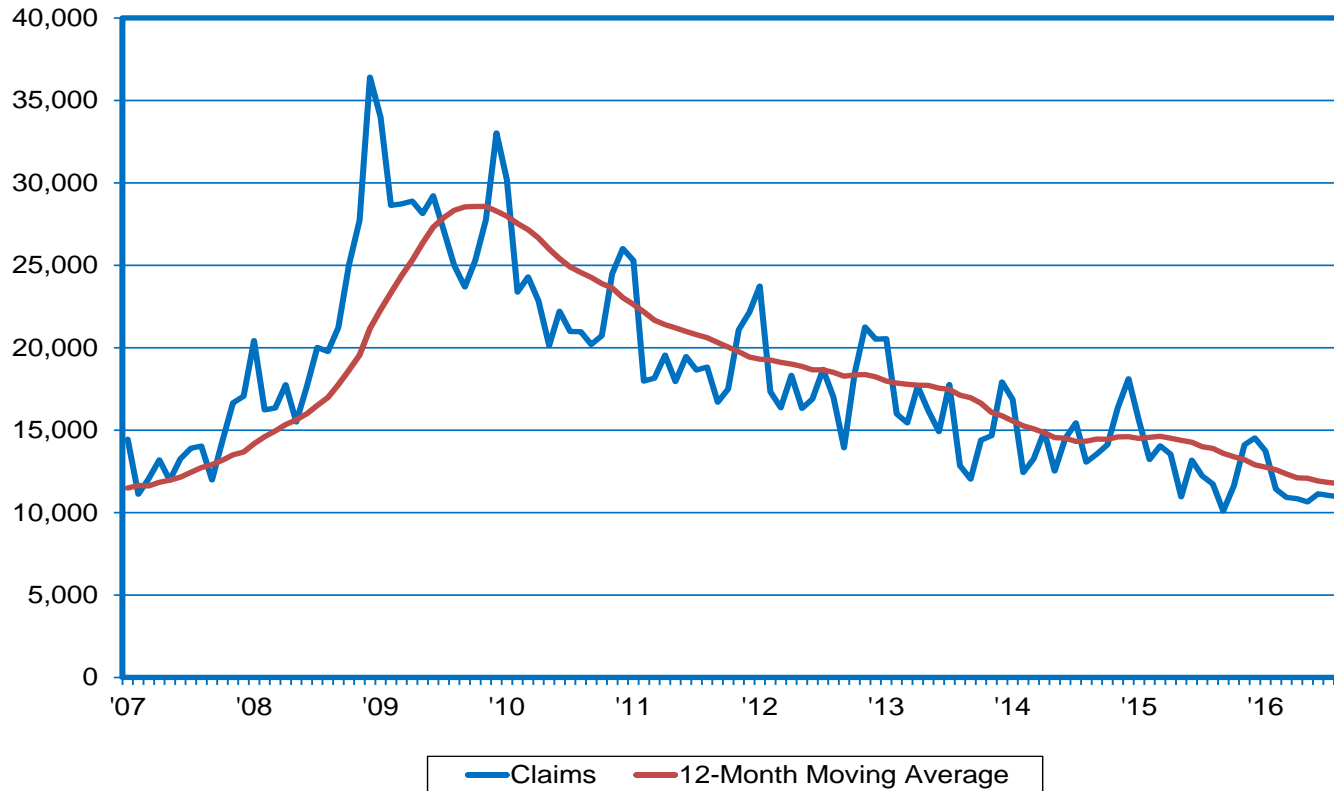
# Vast Majority of Employment Growth Concentrated in Full-Time Positions

FT vs. PT employment; (12-month moving average)



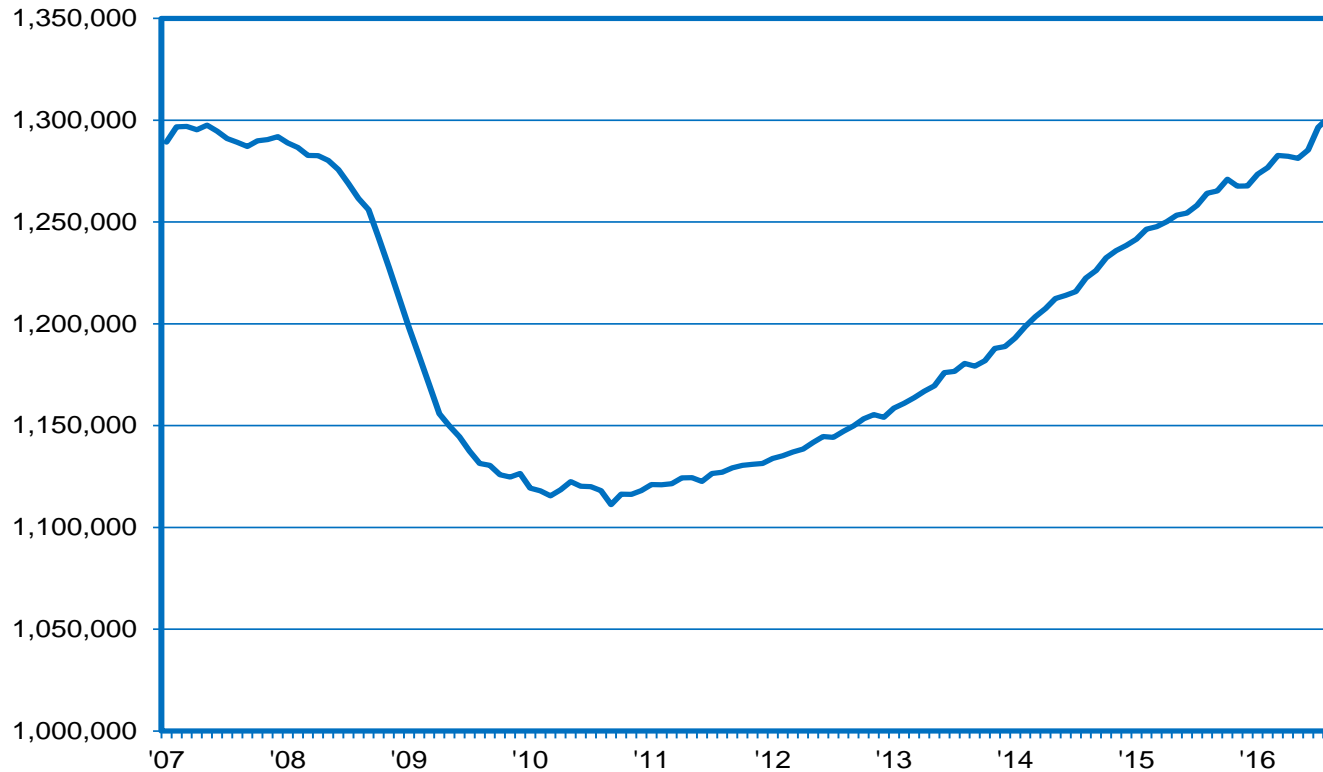
# Initial Claims Remain at Lowest Levels in a Decade

initial claims for unemployment insurance



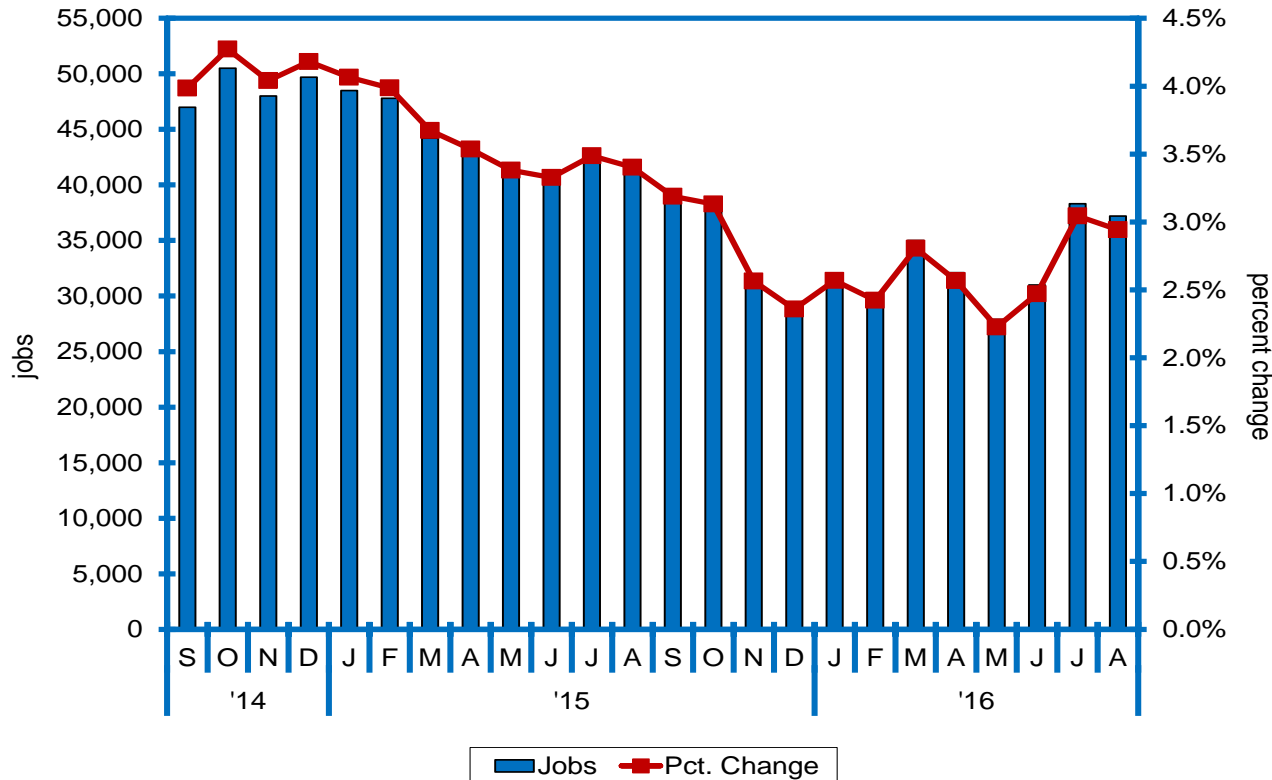
# Jobs Surge in Past Few Months; Stand 37K+ Above Year Ago

nonfarm jobs in Nevada (SA)



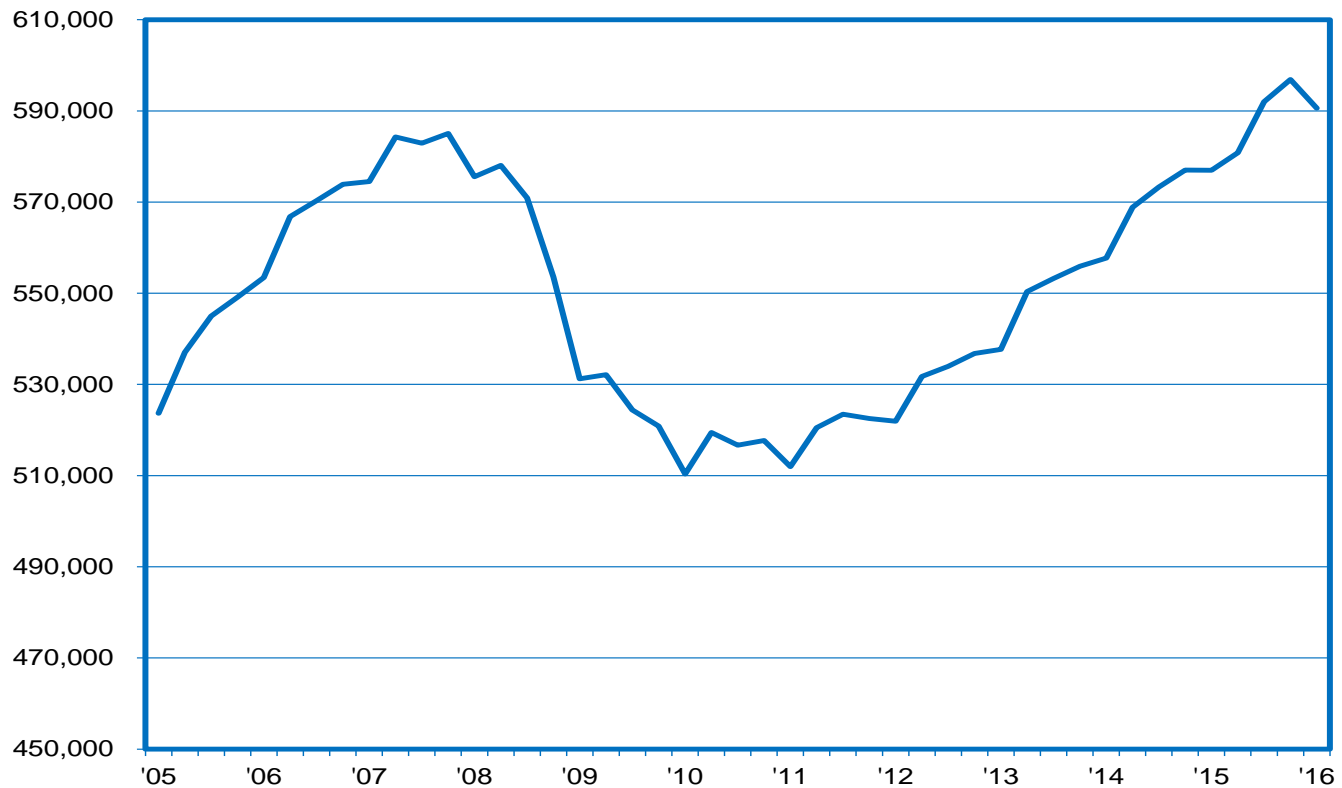
# Job Growth at Strongest Pace in Nearly a Year

job growth (SA; year-over-year)



# Small Biz Jobs at All-Time High for IQ; Gains Recorded in Each of Past 21 Quarters

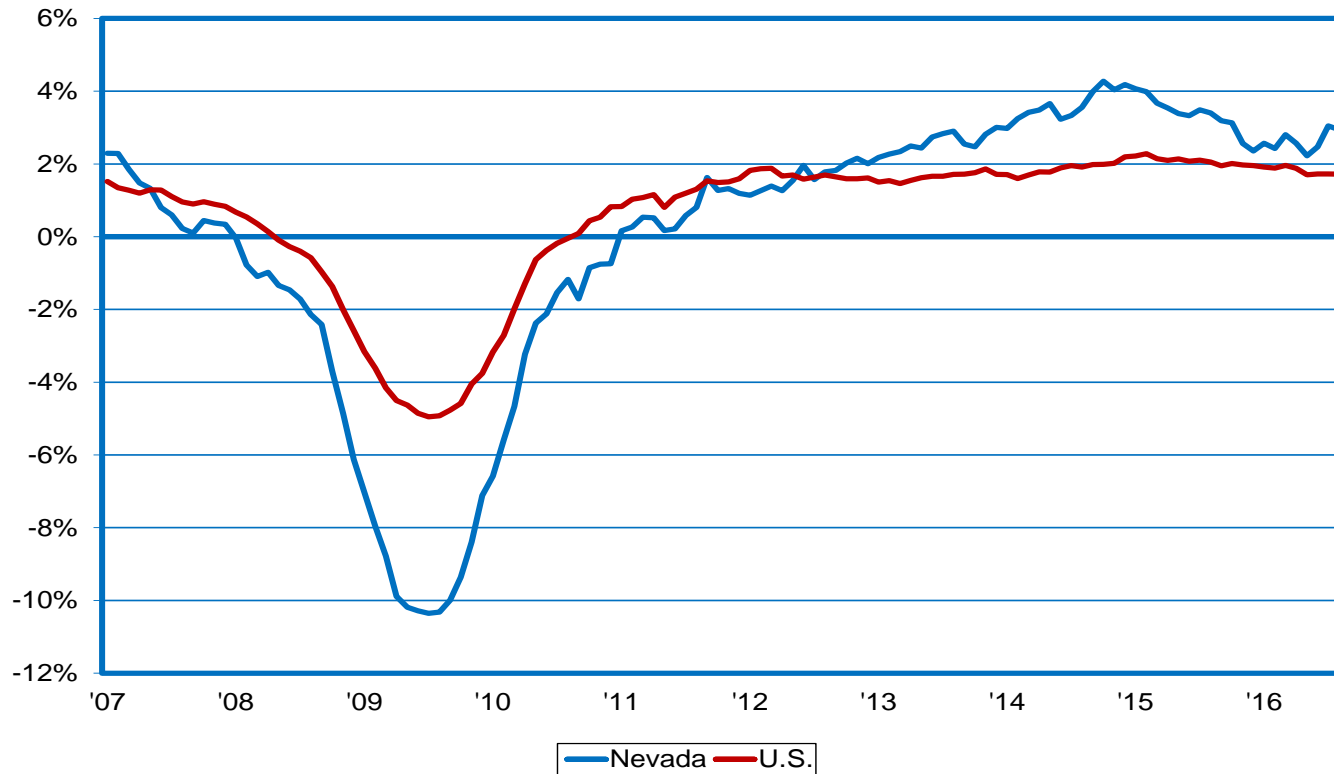
employment in establishments with less than 100 workers





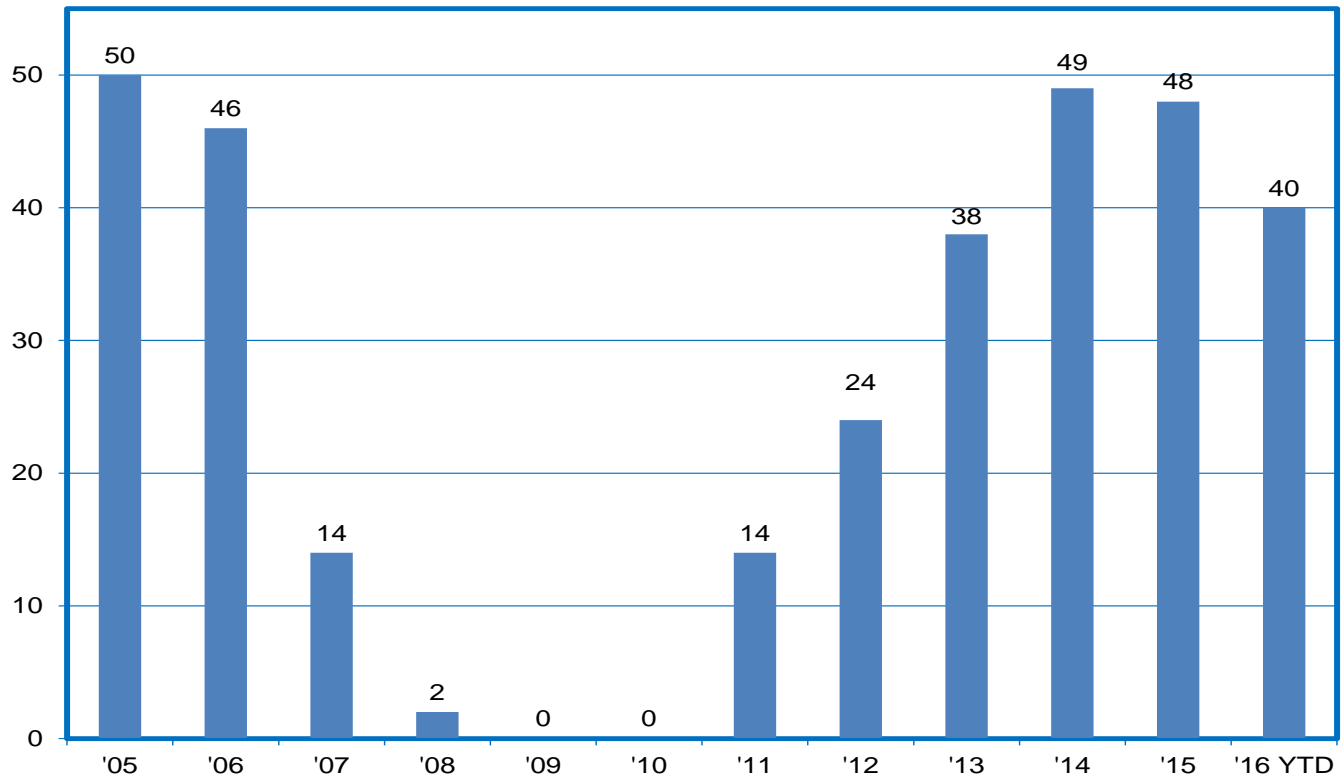
# Nevada Job Growth Exceeds Nation in 49 Straight Months; 2.9% vs. 1.7% in August

job growth (year-over-year)



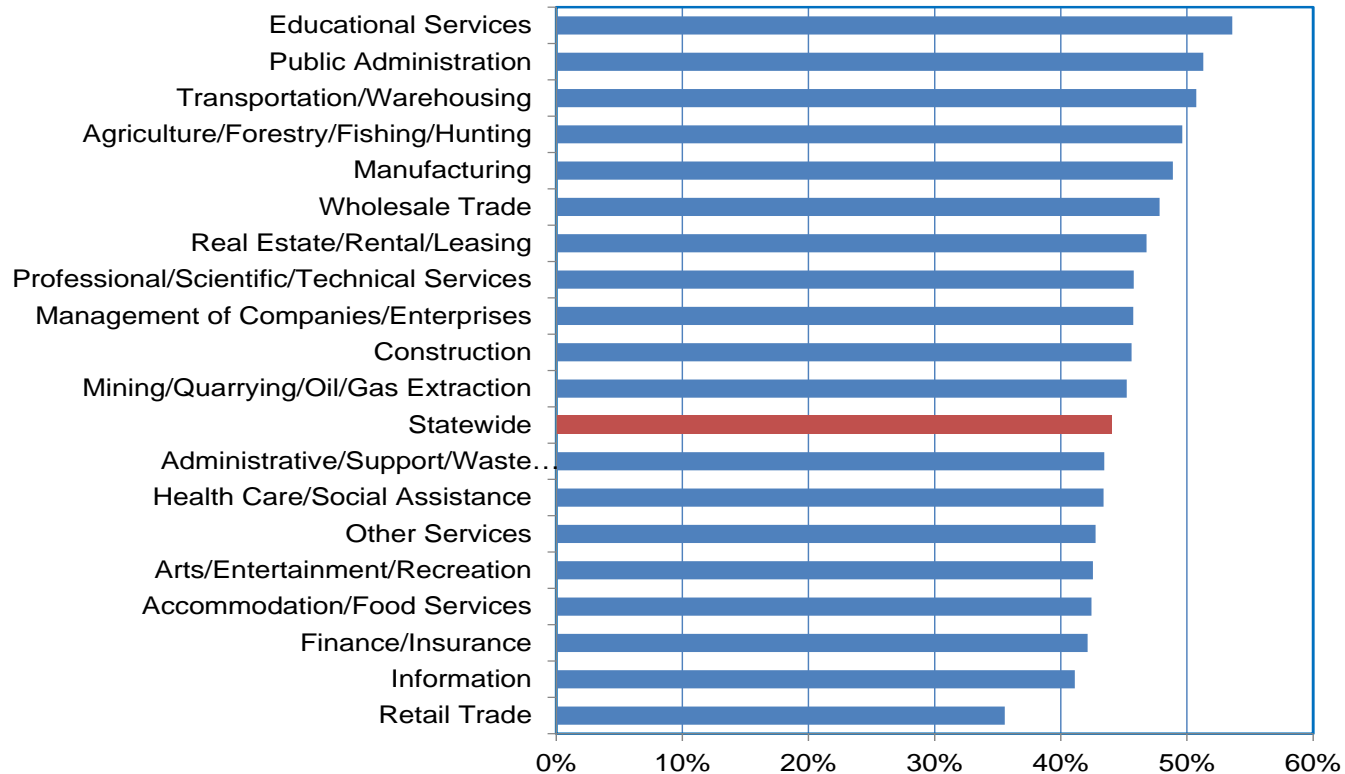
# Silver State Job Growth Stronger than in 40 Other States in IQ

job growth rankings (# of states with slower private sector job growth than NV)



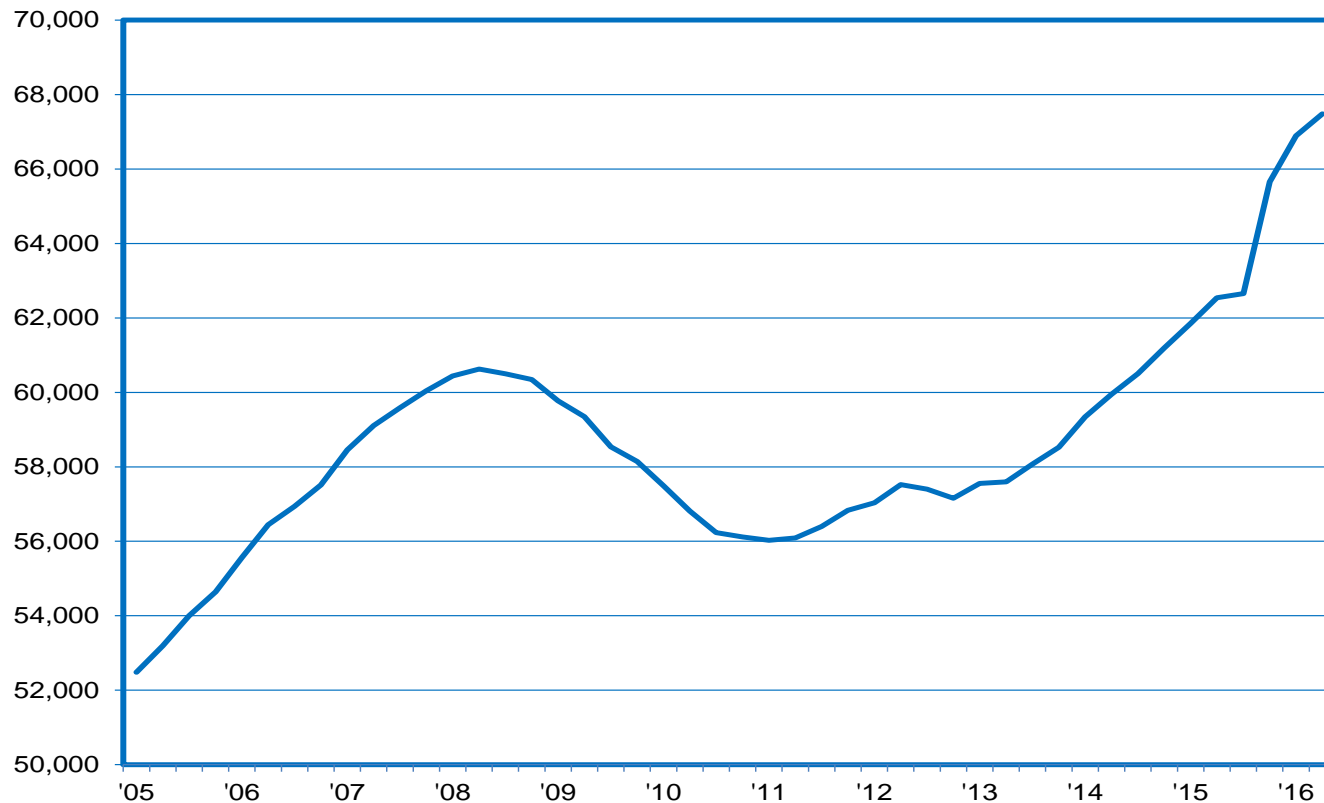
# 44% of Workforce at Least 45 Years Old; 50%+ in Educ., Govt., & Trans./Warehousing

2015:IIIQ Nevada workforce by age



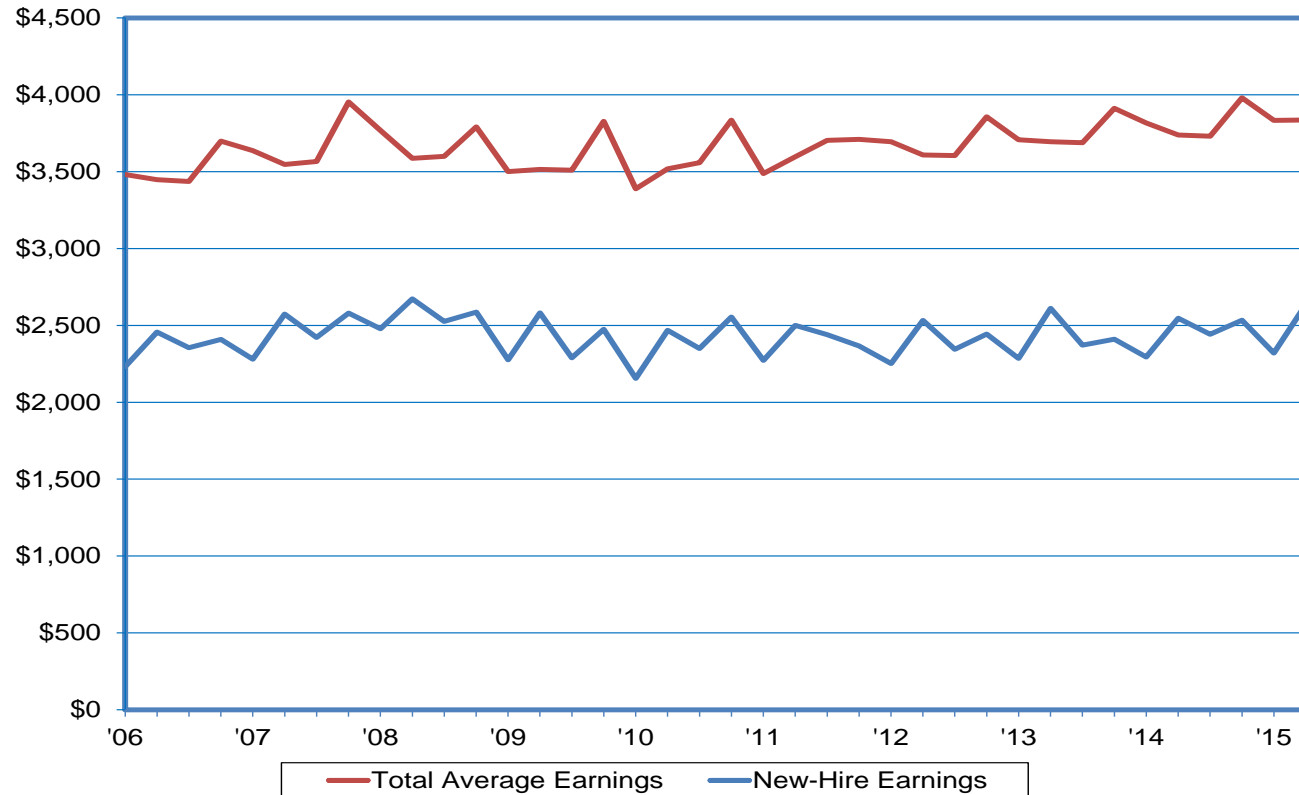
# At Nearly 68K, # of Employers at Record High; Up vs. Yr.-Ago in 20 Straight Qtrs.

number of Nevada employers



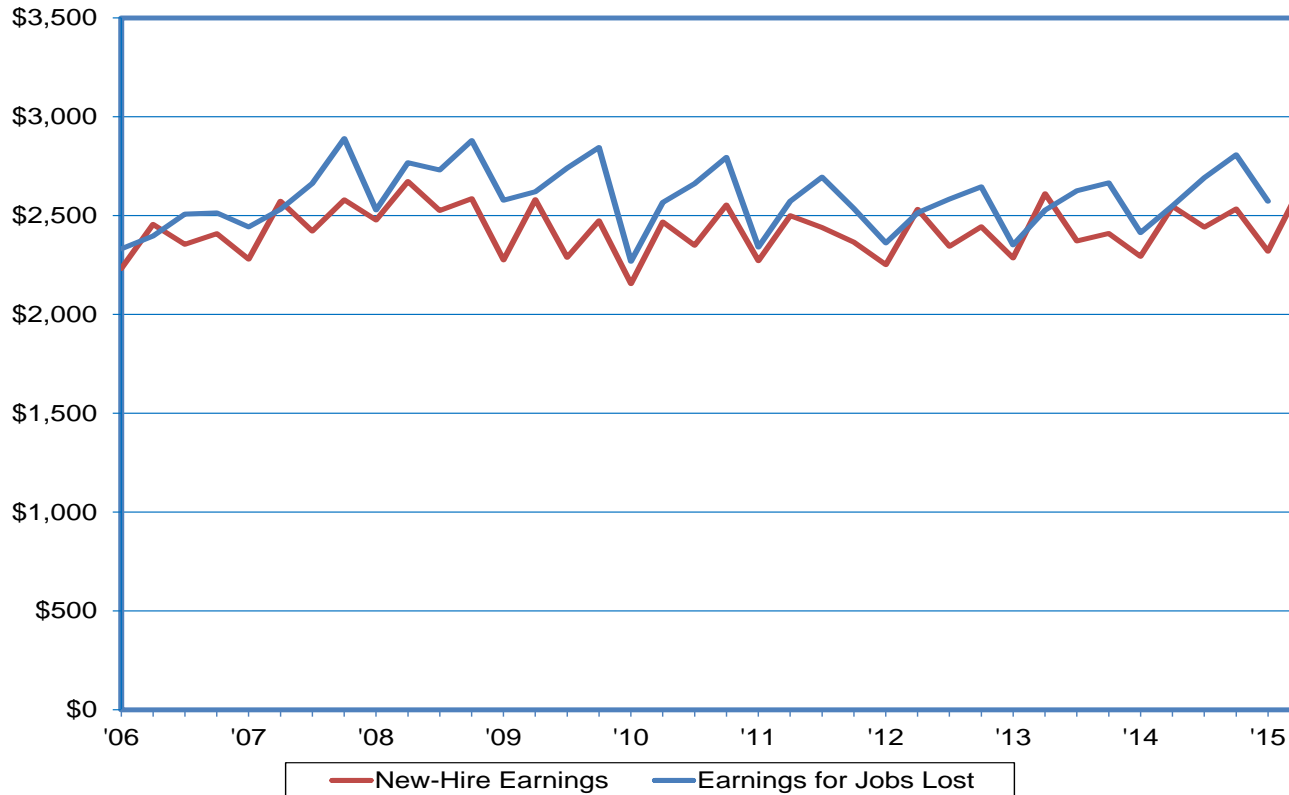
# New-Hire Earnings Approximately 2/3rds of Overall Average...a Consistent Relationship

new-hire monthly earnings vs. total average earnings



# Earnings for Jobs Lost are Just Slightly Higher than Those for New Hires

average monthly earnings for jobs lost vs. new-hire earnings



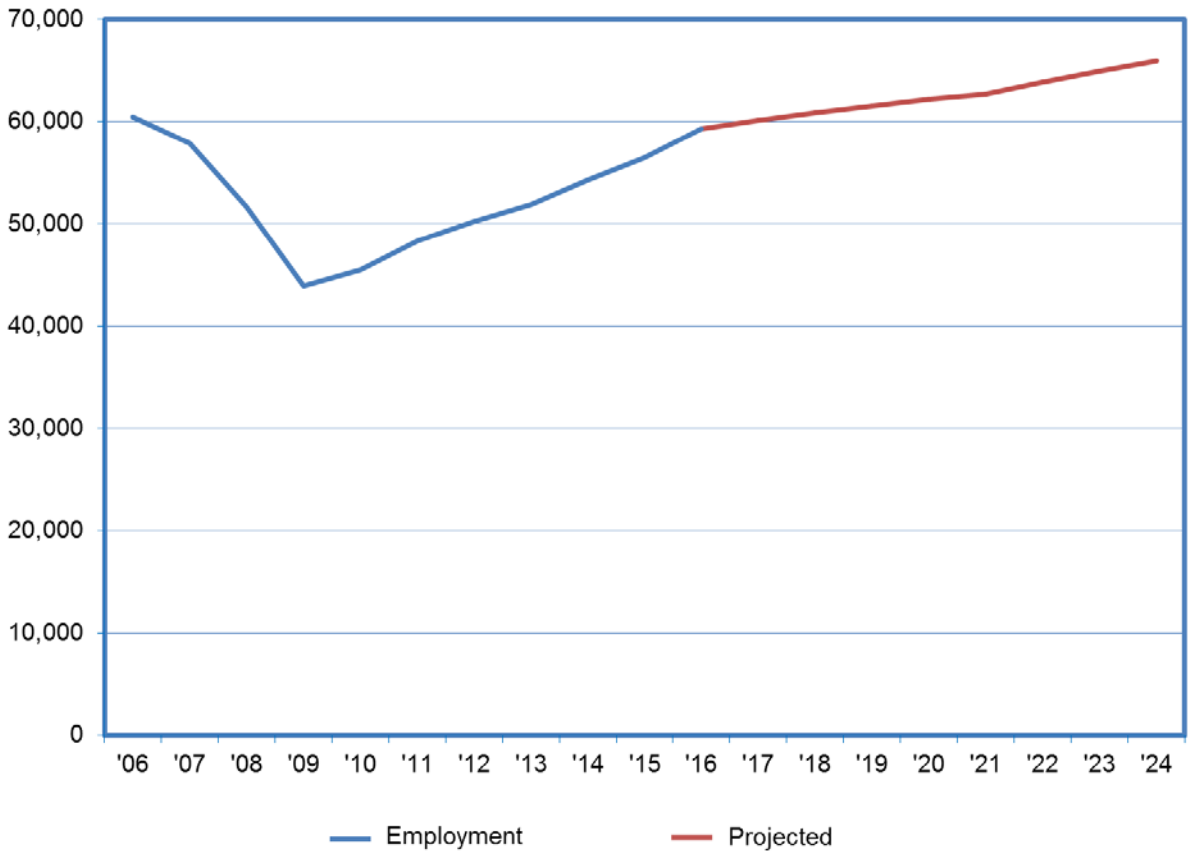
# Business IT Ecosystems Sector

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# Employment Projection

59,310 jobs in 2016; 65,923 jobs projected by 2024



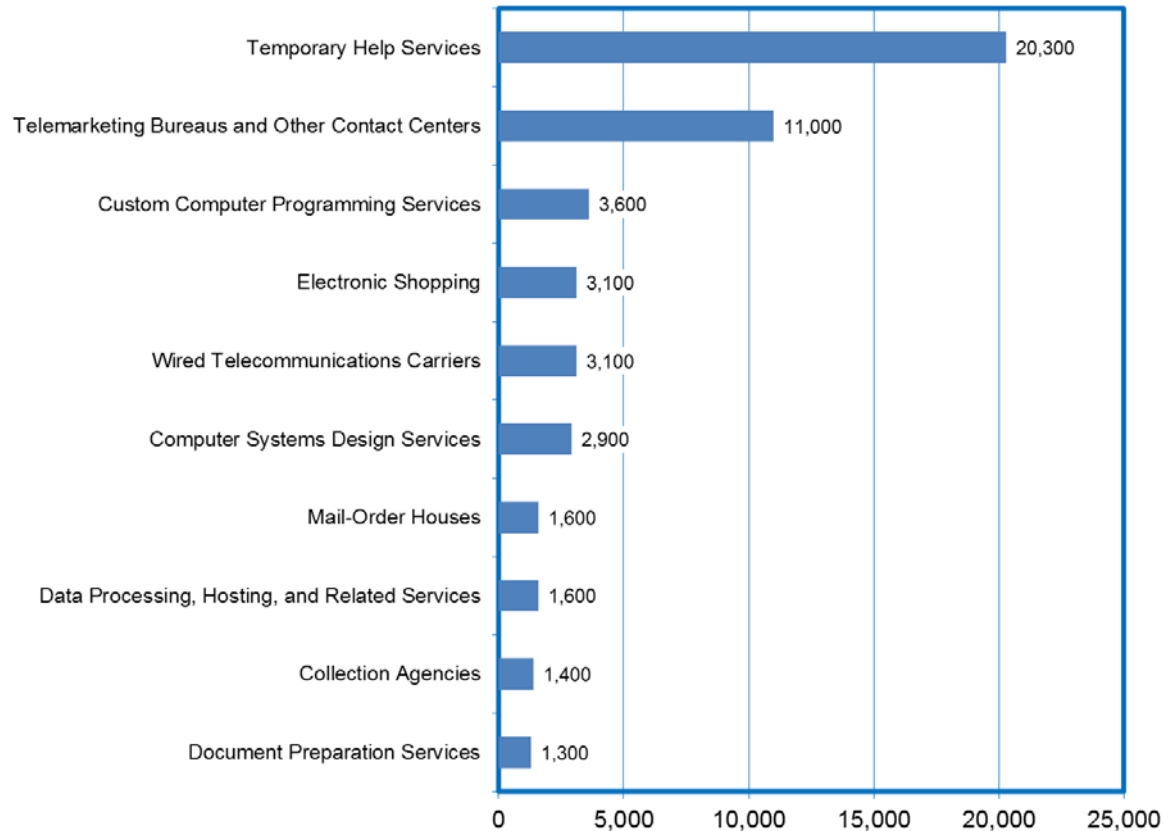
Source: Economic Modeling Specialists Intl. (EMSI)





# Largest Information Technology Industries

## 2016 employment

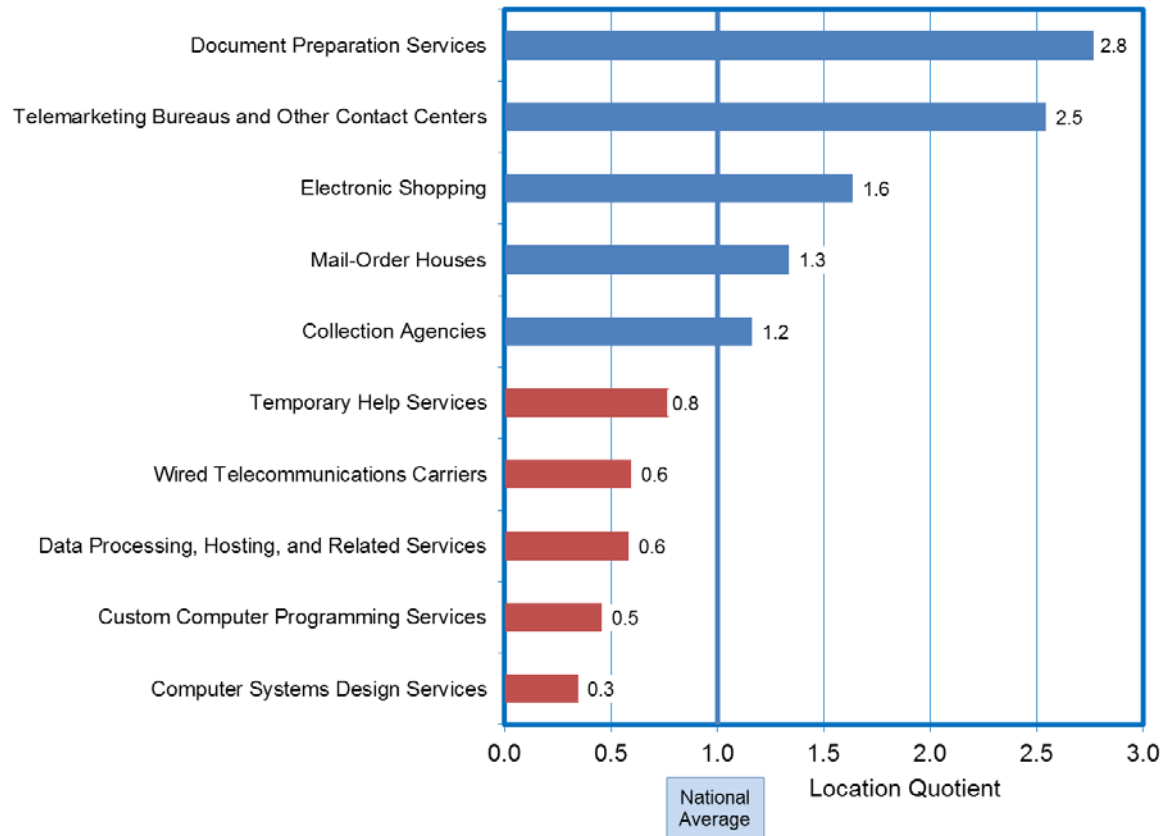


Source: *Economic Modeling Specialists Intl. (EMSI)*



# Regional Competitive Advantage

## information technology industries



Source: Economic Modeling Specialists Intl. (EMSI)



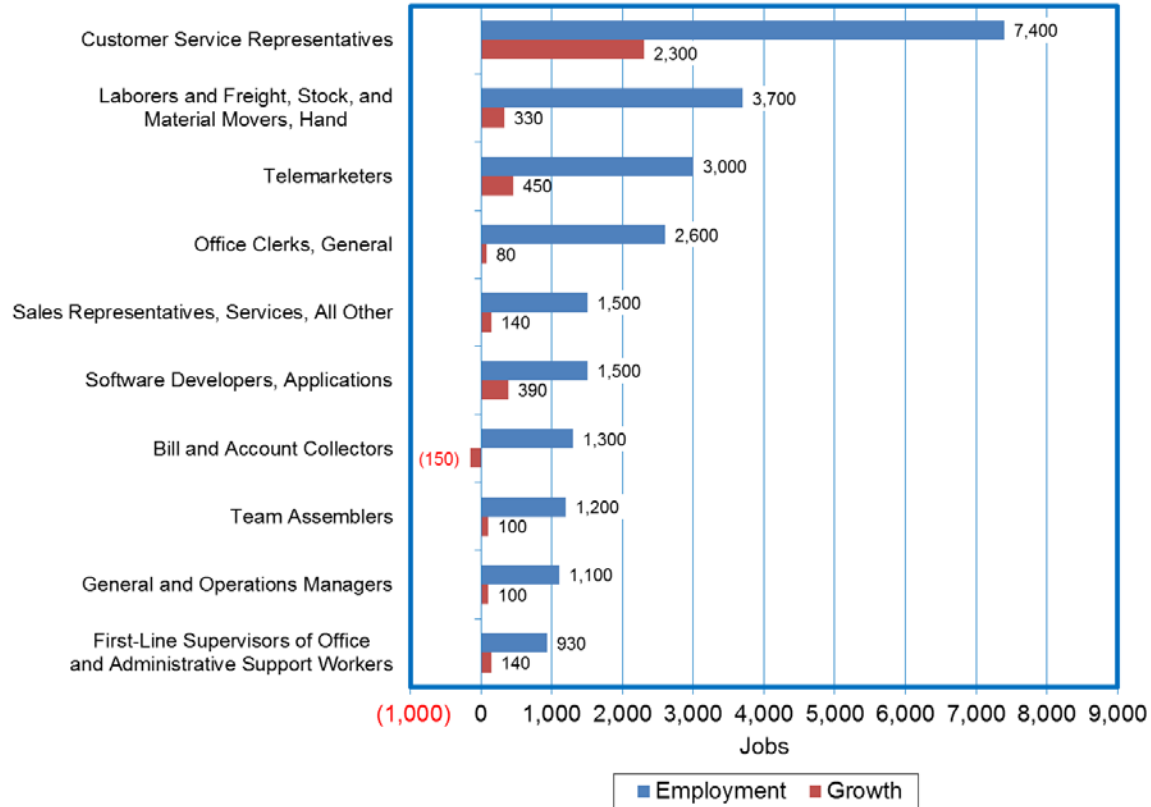
# Industry vs. Occupation Employment

*Although the sector councils are designed to address employment needs in specific industries, this work can only be accomplished by examining and training individuals at the occupational level.*



# Information Technology Occupations

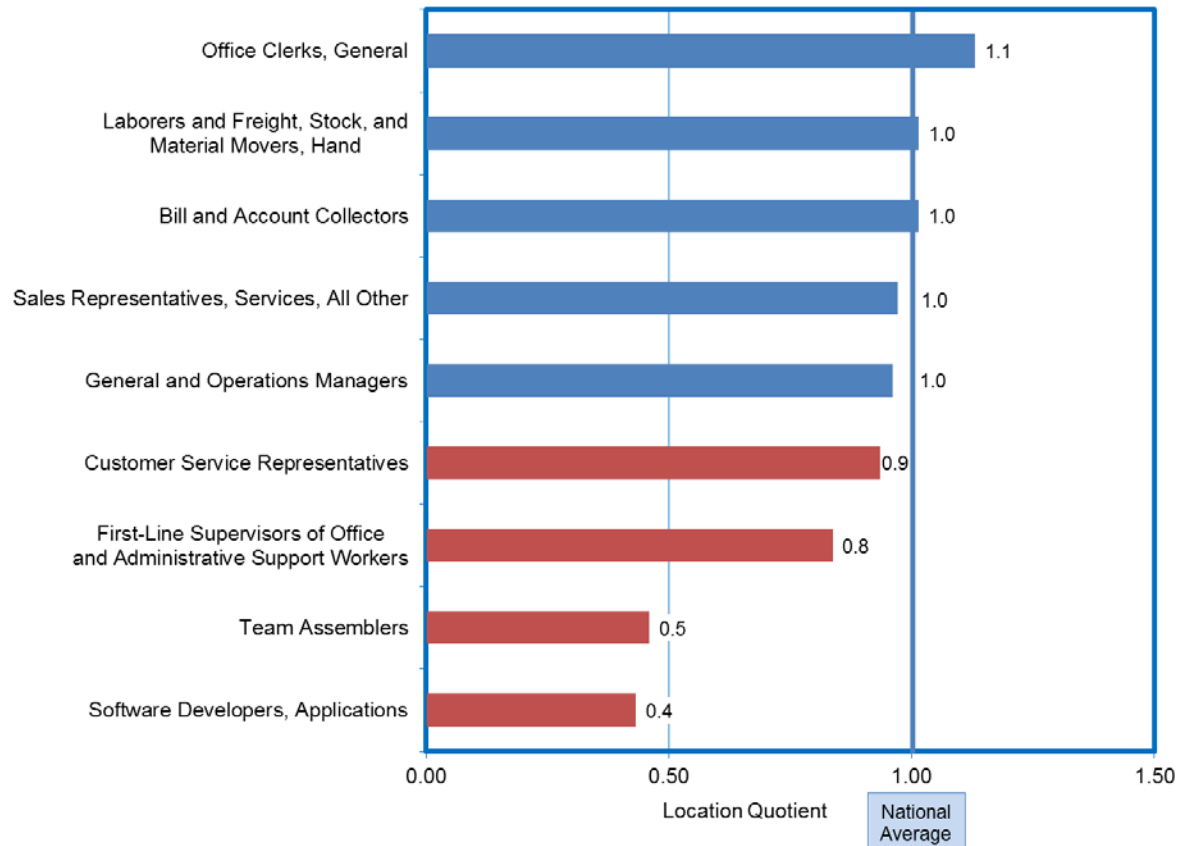
2016 employment and projected growth by 2024



Source: Economic Modeling Specialists Intl. (EMSI)

# Regional Competitive Advantage

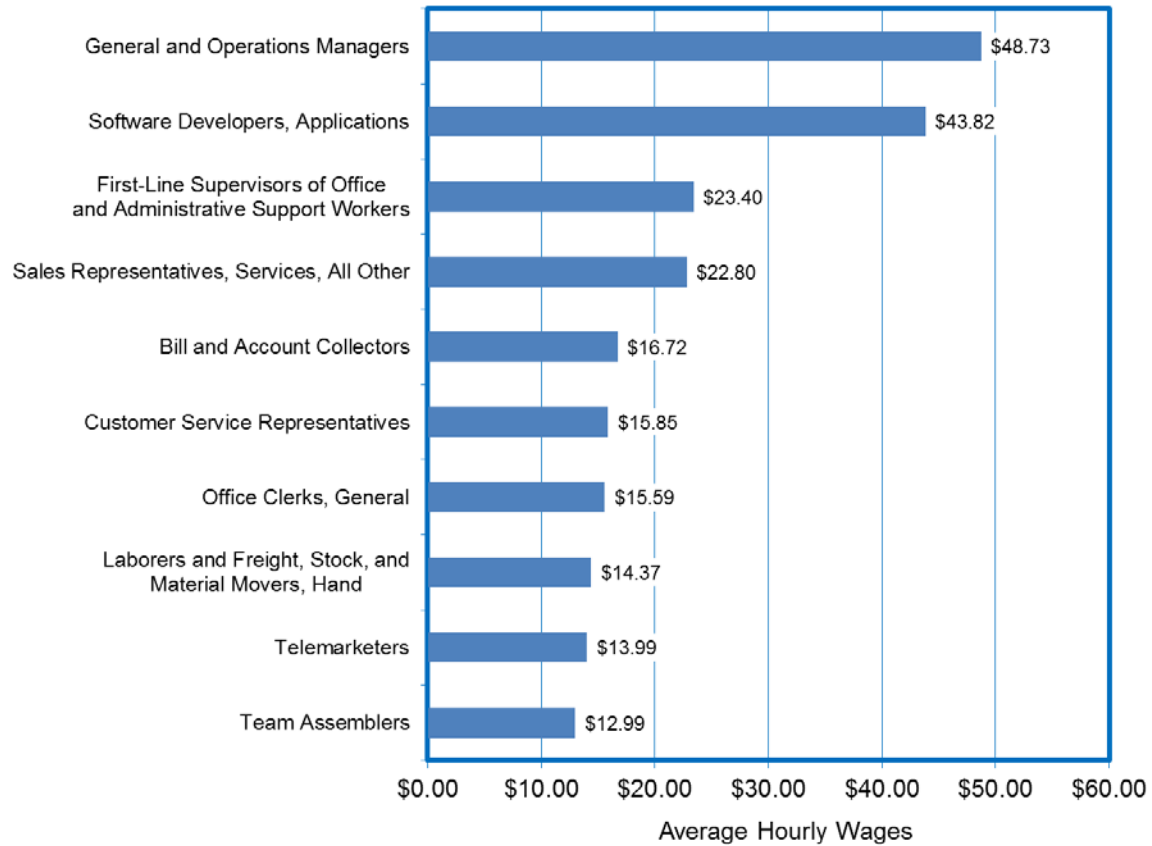
## information technology occupations



Source: Economic Modeling Specialists Intl. (EMSI)



# 2016 Average Hourly Wages

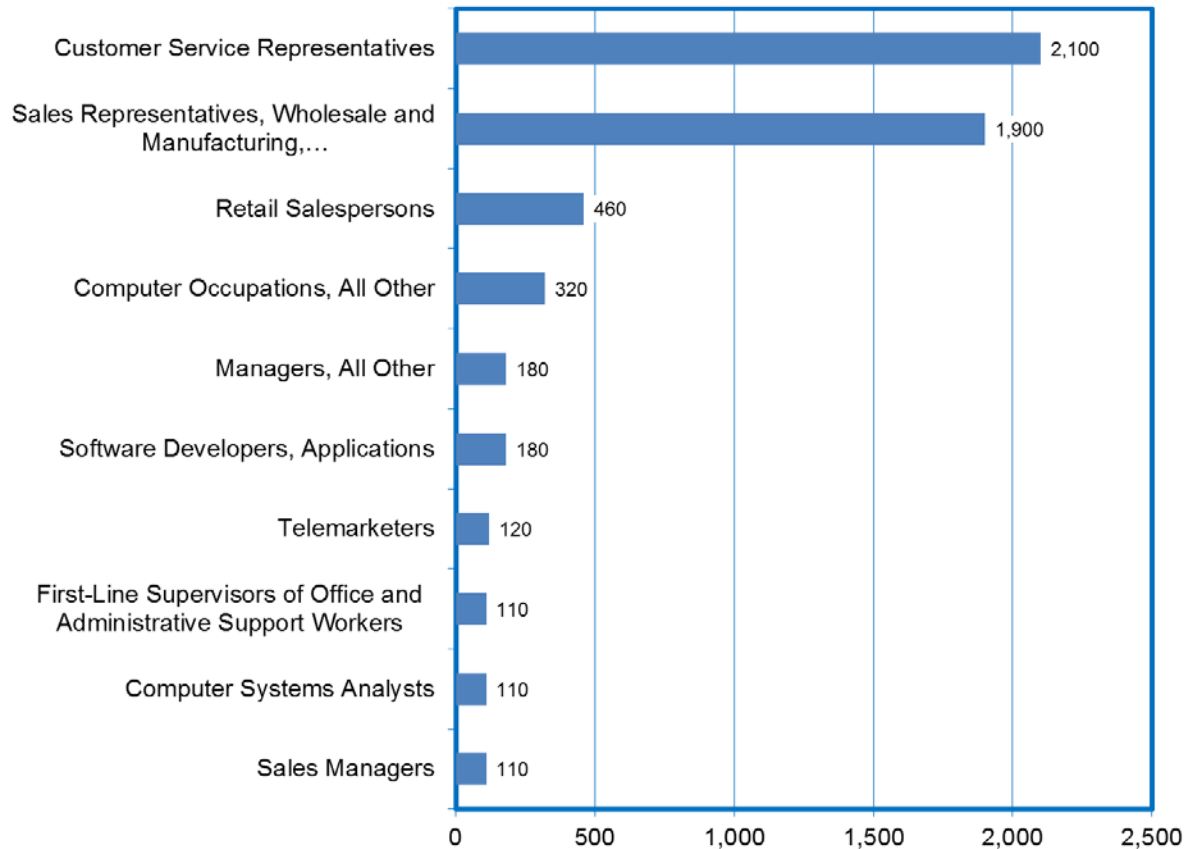


Source: Economic Modeling Specialists Intl. (EMSI)



# Largest Occupations by Ad Volume

information technology online job postings



Source: Labor Insight/Burning Glass Technologies



# O\*NET Occupational Skills and Attributes Reports

## O\*NET Occupation Profile - Customer Service Representatives

|  |  |  |
|--|--|--|
| <p><b>Tools</b></p> <ul style="list-style-type: none"> <li>Autodialers</li> <li>Automated attendant systems</li> <li>Automatic call distributor ACD</li> <li>Scanners</li> <li>Standalone telephone caller identification</li> </ul>                         | <p><b>Skills</b></p> <ul style="list-style-type: none"> <li>Active Listening</li> <li>Speaking</li> <li>Service Orientation</li> <li>Reading Comprehension</li> <li>Critical Thinking</li> </ul> | <p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>Customer and Personal Service</li> <li>English Language</li> <li>Clerical</li> <li>Computers and Electronics</li> </ul>   |
| <p><b>Technologies</b></p> <ul style="list-style-type: none"> <li>Customer relationship management software</li> <li>Database user interface query software</li> <li>Enterprise resource planning software</li> <li>Network conferencing software</li> </ul> | <p><b>Abilities</b></p> <ul style="list-style-type: none"> <li>Oral Comprehension</li> <li>Oral Expression</li> <li>Speech Clarity</li> <li>Speech Recognition</li> <li>Near Vision</li> </ul>   | <p><b>Work Activities</b></p> <ul style="list-style-type: none"> <li>Getting Information</li> <li>Interacting with Computers</li> <li>Communicating with Persons Outside Organization</li> <li>Communicating with Supervisors, Peers, or Subordinates</li> <li>Establishing and Maintaining Interpersonal Relationships</li> </ul> |

Source: Occupational Information Network (O\*NET)





# Information Technology Occupations

skills specified in online job ads

| <b>Baseline Skills</b>   | <b>Specialized Skills</b> | <b>Data Software Skills</b> |
|--------------------------|---------------------------|-----------------------------|
| Communication Skills     | SQL                       | SQL                         |
| Writing                  | Project Management        | Microsoft Excel             |
| Troubleshooting          | Customer Service          | Microsoft Office            |
| Problem Solving          | Technical Support         | JAVA                        |
| Project Management       | Software Development      | Oracle                      |
| Planning                 | JAVA                      | Microsoft C#                |
| Team Work/ Collaboration | Oracle                    | LINUX                       |
| Customer Service         | Software Engineering      | JavaScript                  |
| Microsoft Excel          | Microsoft C#              | SQL Server                  |
| Microsoft Office         | LINUX                     | C++                         |

*Source: Labor Insight/Burning Glass Technologies*



# Aligning Economic and Workforce Development

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*A consensus ranking of high demand occupations that align with economic development priorities specific to manufacturing and logistics*



# Clarifications and Limitations

- ❑ Location Quotients (LQs) are used to identify potential sources of competitive advantage, or areas of regional specialization. LQs measure the relative concentration of a given industry or occupation in a state relative to the nation.
- ❑ LQs are calculated by dividing the proportion of the state's economic activity in an industry or in an occupation, by the proportion of the nation's economic activity in that same industry or occupation.
- ❑ LQs of 1.2 or higher indicate some degree of specialization. LQs of 0.8 to 1.2 indicate normal distribution of industry within the region. LQs of less than 0.8 may indicate that the region may be deficient.
- ❖ Limitations of on-line job postings:
  - ❑ Jobs requiring low skills/low wages tend to use alternative methods of attracting job seekers and are under represented in online ads.
  - ❑ Internal company hiring and union hiring are often not captured by online ads.
  - ❑ Online job posting volume does not necessarily correlate with the level of job openings or hiring.
  - ❑ The percentage of job postings that specify a certification is small limiting how representative the data is.
  - ❑ Algorithmic ad parsing can lead to miscoding occupations and skills due to similarities between abbreviations and other letter combinations, etc.





# Clarifications and Limitations

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- ❑ In online job postings Burning Glass reports licenses and certifications together.
- ❑ The mean salary data in job postings reflects the salary listed by employers in job postings, adjusted to be equivalent to a full-time, annual wage. If a salary range is specified, the median of the range used.
- ❑ High ad volume often occurs for occupations/industries that are having difficulty finding qualified candidates, high turnover positions/recurring openings, or when companies are building large candidate pools.
- ❑ Online job postings should only be used with caution when developing/analyzing time series trends due to the constant changes in the rate of online advertising usage and in the methods used for collecting the data.



# For Additional Information, Please Contact

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