Job Openings at 14-Year High as Hiring Returns to Pre-Recession Levels
Before long, the U.S. economy is going to run into a problem that was unimaginable just six months ago: we might run out of people to employ.”
1. Make attracting, developing, and retaining talented people in your communities your top ED priority.
“Education is the single most important factor in driving economic growth.”

CEO for Cities

“Technology has been a key driver of economic growth over the last two decades, fueling the innovation and entrepreneurship that are crucial to long-term economic development and prosperity.

Brookings Institute
One of the most persistent challenges affecting both lagging and thriving state economies is the **growing skills gap**—the disparity between the skills companies need to drive growth and innovation versus the skills that actually exist within their organizations and in the labor market.

A sizable skills gap impacts other vital dimensions of the economy including **exports and international trade, entrepreneurship, and technology**, all **critical drivers** of national competitiveness and economic growth.

US Chamber Foundation, 2014
“Average is Over”

“In the past, workers with average skills, doing an average job, could earn an average lifestyle. Today, average is over. So many more employers have so much more access to so much more above average cheap foreign labor, cheap robotics, cheap software, cheap automation, and cheap genius. Therefore, everyone needs to find their extra – their unique contribution that makes them stand out in whatever is their field of employment.

Tyler Cowen, “Making It In America”
EMPLOYMENT DATA
**Average Annual Wage of Grade A Careers**

- Graduate Degree: $117,990 (Grade A), $91,631 (All OCCs)
- Bachelor's Degree: $79,039 (Grade A), $68,482 (All OCCs)
- Associate's Degree/Post HS: $53,708 (Grade A), $30,878 (All OCCs)
- High School diploma or equivalent: $55,372 (Grade A), $38,053 (All OCCs)
- Less than High School: $28,581 (Grade A), $22,909 (All OCCs)
Total Openings for Grade A Careers

- Graduate Degree: 18,091 Grade A, 36,731 All OCCs
- Bachelor's Degree: 74,580 Grade A, 149,252 All OCCs
- Associate's Degree/Post HS: 34,079 Grade A, 110,141 All OCCs
- High School diploma or equivalent: 49,633 Grade A, 334,047 All OCCs
- Less than High School: 21,331 Grade A, 289,891 All OCCs
Top Grade A Careers

Grade A occupations are projected to experience the greatest percentage of growth between 2012 and 2022. Some of these occupations were hard hit by the recession started in 2008, and are projected to experience a return to growth, while others are part of a growing industry such as healthcare. These occupations cover a wide range of career opportunities, and require short, medium and long term education and training.

### NOW Occupations

<table>
<thead>
<tr>
<th>Title</th>
<th>Openings</th>
<th>Avg Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Care Aides</td>
<td>11,318</td>
<td>$19,398</td>
</tr>
<tr>
<td>Construction Laborers</td>
<td>7,617</td>
<td>$41,129</td>
</tr>
<tr>
<td>Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products</td>
<td>7,551</td>
<td>$60,638</td>
</tr>
<tr>
<td>Sales Representatives, Services, All Other</td>
<td>6,036</td>
<td>$53,079</td>
</tr>
<tr>
<td>Medical Secretaries</td>
<td>5,823</td>
<td>$30,801</td>
</tr>
<tr>
<td>Insurance Sales Agents</td>
<td>4,186</td>
<td>$57,587</td>
</tr>
<tr>
<td>Painters, Construction and Maintenance</td>
<td>2,396</td>
<td>$49,462</td>
</tr>
</tbody>
</table>

### NEXT Occupations

<table>
<thead>
<tr>
<th>Title</th>
<th>Openings</th>
<th>Avg Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered Nurses</td>
<td>21,004</td>
<td>$58,037</td>
</tr>
<tr>
<td>Carpenters</td>
<td>7,097</td>
<td>$49,187</td>
</tr>
<tr>
<td>Licensed Practical and Licensed Vocational Nurses</td>
<td>6,601</td>
<td>$37,800</td>
</tr>
<tr>
<td>Managers, All Other</td>
<td>5,027</td>
<td>$98,711</td>
</tr>
<tr>
<td>Computer User Support Specialists</td>
<td>4,452</td>
<td>$47,667</td>
</tr>
<tr>
<td>Electricians</td>
<td>4,273</td>
<td>$54,978</td>
</tr>
<tr>
<td>Plumbers, Pipefitters, and Steamfitters</td>
<td>2,806</td>
<td>$60,324</td>
</tr>
</tbody>
</table>

### LATER Occupations

<table>
<thead>
<tr>
<th>Title</th>
<th>Openings</th>
<th>Avg Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>General and Operations Managers</td>
<td>15,031</td>
<td>$91,952</td>
</tr>
<tr>
<td>Accountants and Auditors</td>
<td>10,935</td>
<td>$65,144</td>
</tr>
<tr>
<td>Elementary School Teachers, Except Special Education</td>
<td>7,451</td>
<td>$48,463</td>
</tr>
<tr>
<td>Middle School Teachers, Except Special and Career/Technical Education</td>
<td>4,491</td>
<td>$53,377</td>
</tr>
<tr>
<td>Computer Systems Analysts</td>
<td>3,877</td>
<td>$80,088</td>
</tr>
<tr>
<td>Lawyers</td>
<td>3,812</td>
<td>$116,183</td>
</tr>
<tr>
<td>Software Developers, Applications</td>
<td>3,224</td>
<td>$85,772</td>
</tr>
</tbody>
</table>
Missouri is reaching peak employment again in 2015.

CY 2014: Largest 1 year job increase since 1997.
# MO Employment Growth by 2022

## New Jobs will be created....

<table>
<thead>
<tr>
<th>2012 Employment</th>
<th>2022 Projected Employment</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.84 Million</td>
<td>3.09 Million</td>
<td>255,000</td>
</tr>
</tbody>
</table>

## But Replacement Jobs also needed....

\[
\text{New Job Openings} + \text{Replacement Jobs} = \text{Total Openings}
\]

<p>| | | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>255,000</td>
<td>665,000</td>
<td>920,000</td>
</tr>
</tbody>
</table>

2012-2022 Occupational Projections, MERIC. Occupations include payroll workers and the self-employed.
920,000 Total Job Openings

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Total Openings</th>
<th>% of Total</th>
<th>Median Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Skill</td>
<td>186,000</td>
<td>20%</td>
<td>$66,000</td>
</tr>
<tr>
<td>Middle Skill</td>
<td>327,000</td>
<td>36%</td>
<td>$35,100</td>
</tr>
<tr>
<td>Low Skill</td>
<td>407,000</td>
<td>44%</td>
<td>$24,400</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>920,000</strong></td>
<td><strong>100%</strong></td>
<td><strong>$32,300</strong></td>
</tr>
</tbody>
</table>

56% of Job Openings need Middle-to-High Skills

51,300 Annual Openings for Middle-to-High Skill Workers

Can Unemployed Meet the Need?

143,000 Unemployed (+25 Older) in 2013

• 77,000 (54%) have Some College or College Degrees
• Highest Rate of Unemployment in Construction
• Some Yes, but Others need New Skills...

In 2014 Too Few Jobseekers Chasing Opportunities in STEM, Business, and Healthcare

Annual Job Openings
that Require Education
after High School.

2012-2022 Occupational Projections, MERIC. Job openings include growth and replacement needs for an occupation.
STEM
What are Businesses Saying?

Business Roundtable of U.S. Company C.E.O.s
126 Employers Surveyed in Fall 2014

• **60%** of Job Openings require **basic STEM literacy**
• **42%** of Job Openings require **advanced STEM knowledge**

• Biggest Gaps:
  - Advanced Computer Skills
  - Quantitative Knowledge Skill

60% of new jobs in the 21st century will require STEM skills possessed by only 20% of the current workforce.

Source: National Commission on Mathematics and Science for the Twenty-first Century
STEM SKILLS ARE IN DEMAND

In Missouri, STEM skills have stayed in demand even through the economic downturn.

**STEM:**
- 3.1 jobs for every 1 unemployed person

**Non-STEM:**
- 3.7 unemployed people for every 1 job

Source:
1. STEM is where the jobs are.
   – STEM jobs will grow by 17% over the next 10 years compared to 9.8% for non-stem.

2. STEM workers make higher salaries.
   – 26% more on average; Less likely to experience job loss.

3. Decline in STEM knowledge capital is reducing the basic scientific research that leads to growth.
4. United States is failing to produce enough skilled STEM workers.
   - 60% of the new jobs that will open in the 21st century will require skills possessed by only 20% of the current workforce.
   - U.S. may be short as many as 3 million high-skills workers by 2018.
     • 2/3 of those jobs will require at least some post-secondary education.
   - American universities, however, only award about 1/3 of the bachelor’s degrees in science and engineering as Asian universities.
Top Missouri STEM Job Openings 2012-2022

Technologists and Engineers Top List

- Computer User Support Specialists: 4,452
- Computer Systems Analysts: 3,877
- Applications Software Developers: 3,224
- Computer Programmers: 2,506
- Network and Computer Systems Administrators: 2,040
- Computer and Information Systems Managers: 1,580
- Civil Engineers: 1,563
- Mechanical Engineers: 1,534
- Technical & Scientific Wholes/Mfg. Products Sales Reps.: 1,500
- Industrial Engineers: 1,327
