

southern growth policies board

# Re-imagining Workforce Development



Updated in conjunction with the  
Delta Regional Authority, July 2014.

**Southern Growth Policies Board's  
2013 Report on the Future of the South**



# DELTA REGIONAL AUTHORITY

OFFICE OF THE FEDERAL CO-CHAIRMAN

July 23, 2014

Community leaders and economic developers more and more are recognizing that having a strong, skilled workforce is essential to attracting business investment and jobs, and cultivating economic growth for communities. With that recognition, the Delta Regional Authority partnered with the Southern Growth Policies Board to publish this report, entitled *Re-imagining Workforce Development*, to provide an in-depth study on the state of our workforce and the changing dynamics of workforce training in the American South and specifically the Delta region.

Globalization is changing the way business is being done and the talent bar for success is rising. As a result of these dynamics, this report identifies three areas on which community leaders should focus their efforts: Reimagining Readiness, Reengaging Adult Learners and Disconnected Youth, and Realigning Relationships and Resources.

Although the unemployment rate continues to slowly decrease, businesses are continually challenged with finding qualified and certified employees. Finding linkages between education and job skills has to be a priority to mediate this dilemma. Making sure students and disconnected workers are paired with adequate job skills training programs must be a priority as communities in the region brainstorm solutions for this problem. As workforce development plans are generated and solutions are implemented, seamless transitions between the future and current workforce will begin to emerge resulting in stronger, more vibrant economies.

To support communities in re-imagining their workforce systems, the DRA is starting the conversation with eight state-specific summits, using this report as the foundation for this important conversation. In addition to engaging communities in these discussions, DRA is making available a \$1.7 million in competitive investments that will be used for technical assistance and capacity building on the local level. We want these resources to assist communities in the Delta region with the development of systematic workforce development plans that will ultimately shrink the gap between available workers and available jobs that currently exists.

I am continually committed to working with and investing in our Delta communities. While change will not happen overnight, I am confident that by working alongside our partners and utilizing important tools such as this report to align our resources and drive smart investment, we will see incremental change that will improve the quality of lives, create jobs, and build better communities in the Delta region.

Sincerely,

Christopher A. Masingill

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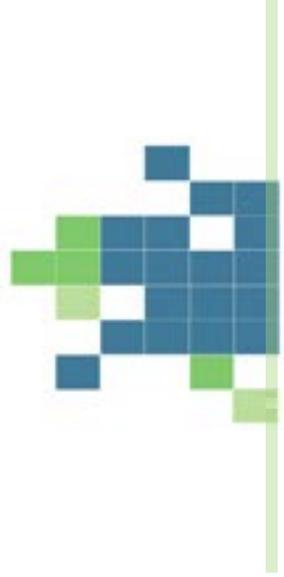
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# Re-imagining Workforce Development

2013 Report on the Future of the South  
by Linda Hoke, Ted Abernathy, and Scott Doron

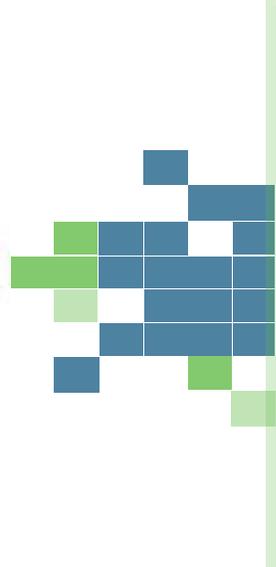
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# Introduction

**A** funny thing happened on the way to work. During the work lives of today's typical Southern baby boomer, everything changed. The jobs are different. The tools are different. Global competition is different. Most importantly, the prerequisites for success are different. Some changes have been building for decades; others have arrived at astonishing, and almost paralyzing, speed. Regardless, at a time when study after study confirms that talent rules, the economic future of the South depends on our collective ability to understand our current reality and reimagine a very different path for preparing our workforce.

A funny thing also happened on the way to writing this report. It seems that every week a stack of new articles, reports and commentaries were released detailing our changing world and discussing the necessary linkages between economic competitiveness, education and workforce preparation—but often with vastly different viewpoints about what we should do. So many reports and so many efforts, dating back over so many years, have resulted in the refrain of, “oh no, not another workforce discussion.”

Thirty years ago, *A Nation at Risk: The Imperative for Education Reform* laid out the challenges that we were, and would be facing, with clarity and urgency. Ten years ago with the publication of ***The Mercedes and the Magnolia***, the Southern Growth Policies Board called for seamless client controlled workforce systems, and a self-directed informed workforce dedicated to life-long learning. Many leaders agreed, but fewer took the comprehensive actions needed to meet the challenges of accelerating change.

Since then, the conversation has shifted from our lack of skilled labor to our lack of jobs and the skills-jobs mismatch. The speed, complexity and interdependence of change, combined with programmatic silos, entrenched systems and competing ideologies have resulted in a failure to adequately respond.

Not complete failure.

- Many young Southerners begin with great early childhood education and are taught at amazing K-12 schools by wonderful teachers using best practices and groundbreaking technology.
- Many Southern students get guidance beginning early from their schools or parents and understand what skills they need and what the future job market looks like.

- Many Southern employers are symbiotically engaged in their local schools, helping shape curriculum to reflect the workforce demands on the future.
- Many Southern graduates go to great community and technical colleges and learn skills that lead to good jobs. Others attend colleges and universities and graduate with credentials and abilities that are the foundation for successful careers and lives.
- Many Southerners upgrade their skills throughout life through on-the-job training, workplace instruction or continuing education.
- Many Southern employers find the talent they need to be productive and profitable so they can compete globally and provide the good jobs that are the foundation for a thriving community.
- Finally, many Southern students, employees and employers find all the information and support they need, seamlessly and readily available.

But, many do not, and if we want a globally competitive South with good jobs and a rising standard of living for everyone, more must. Part of our failure is a failure of imagination. We simply cannot imagine a workforce or a workforce preparation system as it was or is, but as it needs to be in the future. That future is shaped by today's ever-changing reality.

***“Economists of all stripes point to a robust pipeline of skilled workers as the essential ingredient of a strong and growing economy.”***

*The Competition that Really Matters*  
(Center for American Progress, 2012)

## Today's Persistent Reality

Albert Einstein once said that “Reality is merely an illusion, albeit a very persistent one.” While many things today are hotly debated and much of the future is unpredictable, most economic realities are things we know we already know. We know;

- The United States and the Southern economies are changing.
- Globalization has rewritten the rules of competition.
- Workforce demographics are changing.
- The talent bar for success is rising.
- Life cycles are changing.
- The tools for learning and skill acquisition are changing.
- The expectations for Return on Investment (ROI) for our education and workforce development dollars are rising.

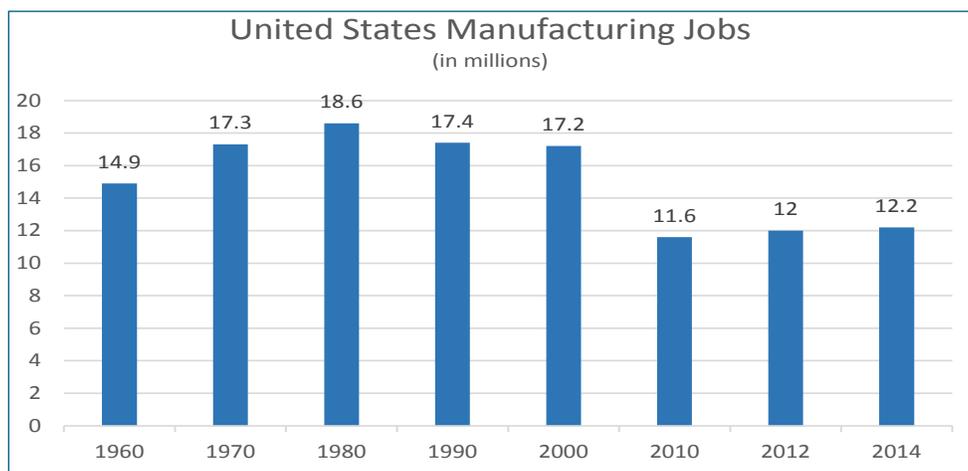
## The United States and Southern Economies are Changing

**Key Points:** *The recession has amplified our challenges. Innovation has destroyed stability, but has also created new opportunities. Automation and efficiencies have eliminated the need for many workers in many sectors. New industry clusters have moved to or emerged in the South.*

During the slow, painful recovery from the worst recession in over 70 years, it has become clear that our economy has changed and will never be what it once was. The Southern foundations of yesteryear—agriculture and manufacturing—remain important, but can no longer generate the jobs needed. In 1900 over 40 percent of the U.S. population was employed in agriculture; now that number is two percent. In 1950, 30 percent of U.S. workers were employed in manufacturing; today that number is below 10 percent.<sup>1</sup>

The change was not sudden. The Southern Growth Policies Board's book, *After the Factories*, released 30 years ago, correctly foretold a future where Southern jobs would be shifting from manufacturing to services. Even at that time, the slowest growth was occurring in Southern counties where manufacturing dominated.

Manufacturing is still very important to our economy. While U.S. and Southern manufacturing output continues to increase, technological advances in automation have reduced the need for manufacturing workers. The article *Help Wanted: Postsecondary Education and Training Required* by Carnevale, Strohl, and Smith, found that, "since 1960, the U.S. has increased real manufacturing output by nearly three percent annually without increasing the number of production workers."<sup>2</sup>



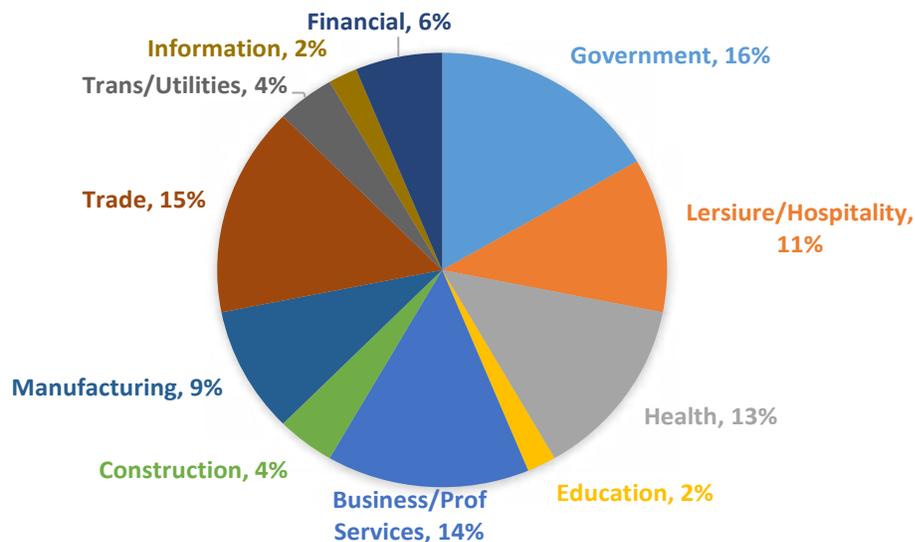
**Source:** All jobs measured in December, seasonally adjusted; U.S. Bureau of Labor Statistics.

According to MIT economist and Nobel Prize winner Peter Diamond, "What's different now is that the nature of jobs going away has changed."<sup>3</sup> Over the last decade most Southern states have seen huge swings in employment, with losses in manufacturing, construction and information technology sectors and large gains in education and health services. The distribution of jobs today is very different than just a few years ago, and the skills required for jobs have changed.

The types of jobs are different, but how they are being generated is also changing. A 2012 Delta Regional Authority (DRA) report, *Jobs and Small Businesses*, clearly showed that a growing share of new jobs are being generated by very small employers. At the beginning of

2010, 42 percent of the total jobs in the eight-state DRA region came from employers with nine or fewer employees. The report, authored by Dr. James Stapleton, Executive Director of the Douglas C. Greene Center for Innovation & Entrepreneurship at Southeast Missouri State University, further highlighted that over the last two decades all of the net new jobs had been generated by the expansion of existing businesses. Both the opening and closing of startup companies, and the attraction and loss of relocating companies had resulted in net job losses.

## DISTRIBUTION OF U.S. NONFARM EMPLOYMENT BY INDUSTRY JULY 2014



Source: Bureau of Labor Statistics - Seasonal Adjusted, July 2014

## Globalization has Rewritten the Rules of Competition

**Key Points:** *Globalization impacts everything. We need more and better jobs for our citizens; so does everyone else. We are competing with everyone, everywhere, for every job. Skilled labor is a deciding factor in many business locations and expansions. Having citizens with the right skills is the main way for most places to successfully compete.*

“What everyone in the world wants is a good job.”<sup>4</sup> So concludes Gallup Chairman Jim Clifton in his book *The Coming Jobs War*. When Gallup asked people from all over the world what they needed to be happy, the results surprised many. What they wanted was a good job. The same is true in the Southern United States; we need more good jobs. But so does everyone else. Global markets and the digital nature of information have created a competitive market for labor. The Secretary-General of the OECD began their report *Better Skills, Better Jobs, Better Lives* with the simple statement “Skills have become the global currency of the 21st century.”<sup>5</sup>

In a 2012 Harvard Business School report, Michael Porter and Jan Rivkin discuss U.S. competitiveness and conclude that U.S. prosperity is at risk. Structural changes over the last decade and the after effects of the Great Recession have combined to more transparently expose underlying weaknesses in our economy. Their survey clearly saw workers under greater pressure to maintain their standard of living in the coming years.<sup>6</sup>

Reports abound extolling the increasing competitiveness of various countries. Many countries have focused their efforts on the education and skills of their workers. Whether it is huge investments in early childhood education by China, the focus on teacher quality in Finland, literacy improvements in India, or the apprenticeship system of Germany, our competition is improving their human capital.

## Workforce Demographics are Changing

**Key Points:** *Long-predicted demographic trends have arrived and today's workplace is populated with more women, more ethnic and cultural diversity and more generations than seemed possible just a few years back.*

Demographic shifts are redefining the workplace. Jim Johnson and John Kasarda of the University of North Carolina have written about the disruptive trends we experienced over the past few decades. Several of the trends they discuss have already begun to impact Southern workplaces:<sup>7</sup>

- The browning of America: since 1995 the percentage of non-Hispanic whites has dropped from 75 percent to 65 percent and continues to decline;
- The “Silver Tsunami”: the graying of America is here, with almost 80 million Baby Boomers reaching 65 years old;
- Female workforce representation has risen from 36.8 percent in 1970 to 49.8 percent in 2010;
- 50 percent of all U.S. growth between 2000 and 2009 occurred in the South.

Individually each of these trends can have a profound impact on offices and shop floors of Southern work places, but combined they create a new workforce reality—although recently, population growth has slowed, older workers are remaining in the workforce and workforce participation rates have plummeted.

A recent article by Jessie Romero for the Richmond Federal Reserve asked bluntly “Where Have All the Workers Gone?”<sup>8</sup> Labor force participation rates have been falling for the last decade after 40 years of consistent growth. Millions of workers could be sitting on the sidelines because they no longer have the skills to compete for today’s job openings. As poverty rates and dependence rates rise, so do the strains on local and state finances.

The recent recession and its impact on savings and home values, combined with better health care and longer life expectancies, are contributing to many older workers choosing to remain working past their 65th birthdays. And as those older Baby Boomers stay, enter Generation Z. New college graduates are from the newest generation, born 1990 or later, and they bring new values, expectations and expertise to the workplace with them.

## The Talent Bar is Rising

**Key Points:** *The talent bar—what is needed to be successful at any job—is rising. The types of skills needed and the types of jobs being created are different than they were in the past and they will be different in the future. Skill mismatches are growing. Just two generations ago a high school diploma provided the skills for life-long success. Today, skills must be enhanced on a continuous basis and every credential needs to be quantified. The rewards for greater skills are increasing and for lesser skills, shrinking.*

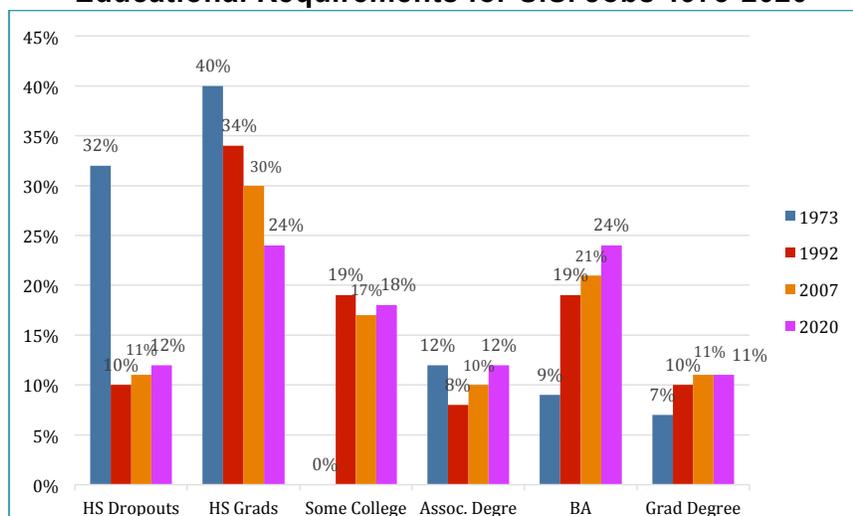
What employers need and expect from employees is different today. To be successful in today's workplace you need more education and more skills than ever before. While a high school diploma adequately prepared you for 75 percent of jobs in 1973, today almost 75 percent of jobs require more education or skills.

In his speech at the Southern Growth Policies Board's 2012 Chairman's Conference, Jamie Merisotis, President of the Lumina Foundation, spoke of the critical economic importance of post-secondary education, noting Lumina's goal of increasing the proportion of Americans with high quality college degrees, certificates or other credentials to 60 percent by 2025. He went on to call attention to the fact that nearly every county in the South currently falls short of this goal, identifying only five counties in the entire 13-state region that currently meet Lumina's goal—Albemarle (60%), Arlington (77%), Fairfax (65%) and Loudon (65%) counties in Virginia, and Orange County (63%) in North Carolina. "Elsewhere, and in the huge majority of states and cities in the South, degree-attainment rates are well below the level that can position your citizens for success in the global economy," he warned.<sup>9</sup>

***"In the huge majority of states and cities in the South, degree-attainment rates are well below the level that can position your citizens for success in the global economy."***

Jamie Merisotis, President, Lumina Foundation  
at Southern Growth Policies Board's  
Chairman's Conference, June 2012

**Educational Requirements for U.S. Jobs 1973-2020**



**Source:** *Recovery: Projections of Jobs and Education Requirements Through 2020* (Georgetown University Center on Education and the Workforce, June 2013).

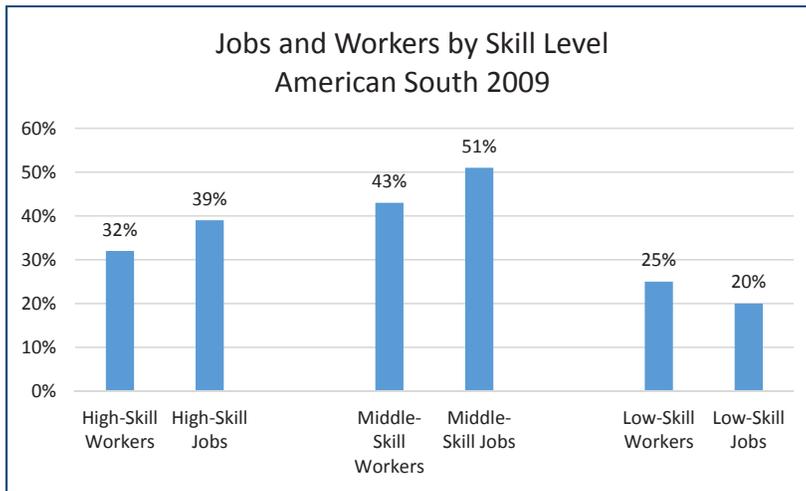
A 2011 report from the National Skills Coalition, for the Southern Governors' Association, concluded that "middle skill jobs, which require more than a high school education, but not a four-year degree, currently make up the largest segment of the jobs in the U.S., nearly half."<sup>10</sup>

***"The truth is that middle-skill jobs, which require more than a high school education but not a four-year degree, currently make up the largest segment of jobs in the U.S. economy (nearly half) and will continue to do so for years to come."***

*Middle-Skill Jobs in the American South's Economy*  
(Southern Governors Association, 2011).

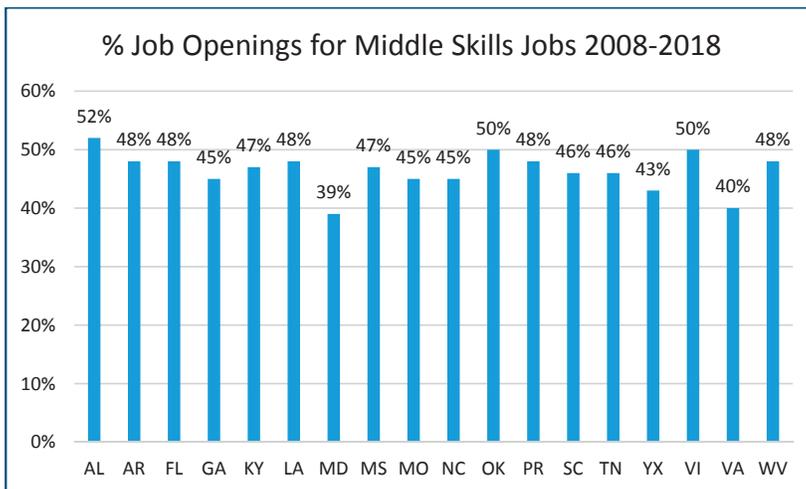
The report's conclusions were clear.

We have a middle-skill gap in the South and without some changes we will not be able to meet employers' needs.



**Source:** Driving Innovation from the Middle: Middle-Skill Jobs in the American South's Economy (Southern Governors Association, August 2011)

Despite the differences in economic drivers in Southern states, the demand for middle-skill workers in the coming years is a shared need.



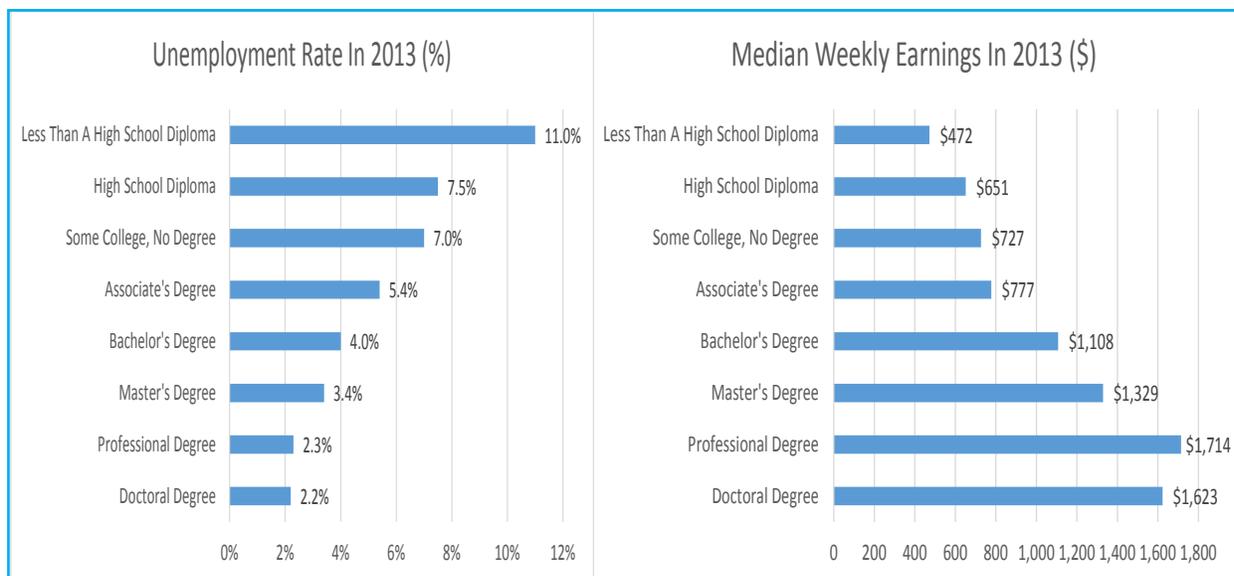
**Source:** Driving Innovation from the Middle: Middle-Skill Jobs in the American South's Economy (Southern Governors Association, August 2011)

The rising bar shows no signs of slowing down. Recent data released by the Bureau of Labor Statistics and analyzed by *The Atlantic* show that during 2012, with the economy slowly recovering and adding about 1.84 million jobs, people with at least some college accounted for all the net new jobs.<sup>11</sup>



As the chart below shows, education level clearly impacts both unemployment and wages.

Along with rising prerequisites for educational attainment, the requirement for new skills is also rising. The military is the largest employer in the United States, and nobody has said it better than Martin Dempsey, Chairman of the Joint Chiefs of Staff. “In the past we would have said we wanted men who were physically fit, educated, and disciplined. Now, we want someone who wants to belong to a value-based group, who can communicate, who is inquisitive, and who has an instinct to collaborate.”<sup>12</sup> Those thinking and behavioral skills are just the starting point for the list of employer expectations.



Note: Data are for persons age 25 and over. Earnings are for full-time wage and salary workers.  
Source: Current Populations Survey, U.S. Bureau of Labor Statistics, U.S. Department of Labor.

In a May 2012 article entitled “The Qualified Job Applicant, Redefined”, *Forbes* magazine reported that, even with high unemployment, “a national survey found that 64% of employers have positions for which they cannot find qualified applicants.”<sup>13</sup>

The discussion of life skills is not new. Ethics, accountability, and personal responsibility have been desired by employers since work began. Every conversation with employers eventually comes

around to their ability to find people who can pass initial screening tests and then display work habits that are consistent and acceptable.

The Partnership for 21st Century Skills, *Results that Matter* report in 2006 laid a foundation for the need for increased rigor and expanded skills for young adults to be successful in the coming years. In addition to the traditional academic three “Rs” they argued convincingly that learning and thinking skills such as critical-thinking, collaboration, communication and contextual learning are required.<sup>14</sup> Most research today, as well as employer surveys, confirm these skill prerequisites. They went further to describe new 21st century skills such as global awareness and entrepreneurial literacy, new information and communication technology skills and new life skills as emerging job requirements. Adaptability, flexibility and the ability to learn new skills are skills prized by employers.

Recently the Institute for the Future, in an article entitled *Future Work Skills 2020*, pushed the skill bar even higher, suggesting that competencies such as social intelligence, computational thinking, new-media literacy, and transdisciplinarity would be required of employees in the near future.<sup>15</sup>

The people and organizations responsible for arming our current and future workforce with the skills needed are struggling to understand and meet the rapidly changing expectations. Does everyone need to go to college? Are STEM skills more important than a solid liberal arts education? Where will the jobs be?

## Life Cycles are Changing

**Key Points:** *The educate-work-retire cycle of yesteryear is gone. People will need to acquire new work skills throughout their life. Some skills will be acquired pre-K, some in K-12, some in post-secondary education, some from other people, some from digital devices, some from employers and many from teaching yourself using any means possible. Whatever workforce system we may have had in the past, it is changing.*

Another interesting finding from the National Skills Coalition was that adults in the workforce today will make up two-thirds of the workforce in 2025. Our current workers will need to upgrade their skills to remain competitive and to meet workplace demands. The pattern of getting an education and then using those skills until retirement while working your way up a career ladder with a single company is no longer the norm, if it ever was.

Today, workers will have more than 10 different jobs in their lifetime; the median tenure in a current job is just 4.6 years.<sup>16</sup> Among Millennials, those born between 1977 and 1997, the expectation is 15-20 jobs with an average tenure of less than three years.<sup>17</sup> In 1950, the percentage of prime working age (35-64) men in their job for more than ten years was 51 percent.<sup>18</sup> Today that number is 39 percent. Marc Freedman’s book, *The Big Shift*, describes a new cycle where older workers are starting new careers in their 60s.

## The Tools for Learning and Skill Acquisition are Changing

**Key Points:** *Technology is ubiquitous. Those with access to technology will have an advantage. Learning can occur anywhere. Old industrial models of teaching and learning are giving way to new methods.*

How, where and from whom people acquire new knowledge and skills is in full transformation. Throughout our history we have gained new skills by watching, listening, and practicing. Sometimes those skills were handed down directly by parents and master craftsmen. More recently the common practice was to be taught with others in an industrial model. Over the past few decades, two global trends have started to change our options.

Cheap, fast technology has provided new means to gather information. Once again this is not new. Learning shows on public television permeated children's daily lives almost 50 years ago, and training movies became staples of the military and the corporate world even before that. Today, personal technology that has enormous content and can be customized is everywhere. The market penetration of computers, smart phones, and now tablets, has literally put "how to" content into the hands of most of the population. A Google search of how to learn math will yield over 200,000 places that can help. General acceptance of platforms such as the Kahn Academy and iTunes University are prompting educators at every level to re-evaluate their practices.

Online learning is everywhere today. Once looked upon with skepticism, top-rated universities are now launching online learning efforts for both degrees and just certificates of participation. Seven prominent universities, including three in the South—Emory University, University of North Carolina at Chapel Hill, and Washington University—have formed a consortium called Semester Online. Poised to launch in the fall of 2013, Semester Online will offer approximately 30 online, for-credit courses to students from participating universities as well as others who are accepted and pay a per-course tuition fee.

Online learning is advancing even more quickly at the K-12 level. In a recent SREB survey, 67 percent of school districts reported offering online learning, with the percentage expected to reach three-quarters by 2015.<sup>19</sup>

## The Expectations for Return on Investment (ROI) for Our Education and Workforce Development Dollars are Rising

*Key Points: Outcome based investments are becoming the norm. Public officials, private companies and individuals are all challenged to find additional resources and are expecting more for less.*

Another byproduct of the recent recession is the focus on maximizing the impact of every public dollar expended. We are in a challenging public policy environment where measuring the outcomes of education and workforce training expenditures is much discussed. Is college worth it? Is some college worth it? What is the purpose of education? Pew Research Center's 2011 report, *Is College Worth It?* wasn't the first to raise that question, but certainly provoked a good deal of discussion in a time when stories of unemployed or underemployed college graduates are juxtaposed with those of rising tuition and mounting student debt.

## Responding to Reality

Given our changing reality, the question is "what can, and should, we do about it?" How can we prepare the workers our businesses need to be competitive in a global marketplace? How can our citizens acquire the skills they need to succeed in their jobs? How can we turn this turmoil into an advantage?

There is no lack of thought and discussion on these and related questions. As detailed in the *To Learn More* section of this report, in 2012 alone, major reports came out on topics as far reaching as:

- The future of higher education
- Re-examining college and career readiness
- Producing quality credentials
- The imperative of digital learning
- Addressing skills gaps, particularly for middle skills jobs
- Aligning education reforms
- Ending the high school dropout epidemic

Citizens also deliberated about these issues. As detailed in the *Listening to the South* section of this report, we heard six major themes come out of these discussions:

- The pace of change in the world around us has accelerated; we need to stop tinkering at the edges when it comes to education and workforce development.
- Learning starts well before children reach school; we need to act earlier.
- We're shortchanging our businesses—as well as our students—if we promote four-year colleges as the only pathway to success.
- We need to look behind the curtain; it's not all about job-specific skills.
- Businesses need to play a key role.
- Success requires a systems approach..

So what did we take away from all these reports, discussions and innovations? What it boils down to are three key recommendations. Borrowing from the three “Rs” that have historically been central to our education system, we need to:

1) **Re-imagine Readiness**

With businesses saying they are unable to find skilled workers, even as unemployment persists, many say that we have lost a strong connection between education and jobs; that education needs to be recoupled with work in a more systemic way.

Key Actions:

- Strengthen the connections between education and job skills
- Re-think credentials and their value in the workplace
- Give students more exposure to the world of work

- Scale technology so that every student can benefit from a high quality, personalized learning experience

## 2) **Re-engage Adult Learners and Disconnected Youth**

More than two-thirds of the workforce in 2020 and nearly half of the workforce in 2030 are already working today. At the same time, more than one in seven young people are disconnected from the foundations for future success—neither working nor in school. We need to re-engage both adults and youth in the education system to continuously update their skills in order to meet our need for a talented workforce in the future.

Key Actions:

- Target workers with some credits, but no degree or credential
- Help dislocated workers rejoin the workforce
- Recover disconnected youth

## 3) **Re-align Relationships and Resources**

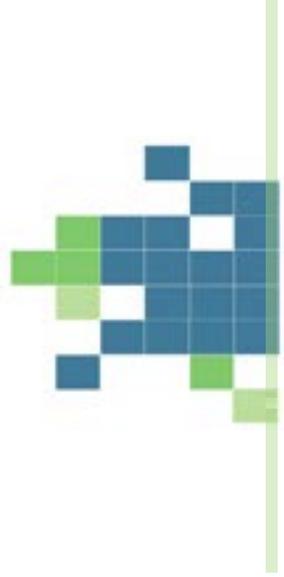
We need to better align education, workforce and economic development assets to create clear pathways and smooth transitions that will facilitate lifelong learning.

Key Actions:

- Create continuity in education and workforce development from early childhood through career
- Align and track data across the educational and workforce pipeline
- Engage businesses in a meaningful way

We also need to add a fourth R, and that is to “Ramp up.” “We have at least one example of something great happening [in every area of education and workforce development]...the last thing we need is more innovation...what we need is to learn how to take things to scale,” Marc Tucker, President and CEO of the National Center on Education and the Economy, told attendees at Southern Growth’s 2012 conference.

While Southern Growth continues to encourage innovation, we also see the need to apply what we’ve learned in order to reach greater numbers. This is something that Kentucky is trying to do with its new Districts of Innovation legislation. Passed in 2012 and expected to become operational for the 2013-14 school year, the legislation enables school districts to “re-think what a school might look like” and apply for waivers of certain administrative regulations and statutory provisions to make that happen. David Cook, the director of innovation and partner engagement at the Kentucky Department of Education, recently told *Education Week*, “My job is to take these incubation sites and figure out how to challenge other districts to do the same thing.”<sup>20</sup>



# Re-imagine Readiness

“**E**ducation equals jobs. In today’s world, it seems hard to imagine a time when that statement represented a new approach to economic development,” began former North Carolina governor and Southern Growth Chairman Jim Hunt in a May 2012 commentary written for Southern Growth’s 40th anniversary. Likewise, Richard Riley, another former Southern Growth Chair, as well as former U.S. Secretary of Education and governor of South Carolina, emphasized that “the future economic growth and expansion of our beloved South depends now, more than ever, on how well we improve our education offerings at all levels.”

Yet, many feel that we currently lack a strong connection between education and jobs. “High school and college graduates are showing deficiencies in both basic and applied skills, and a real lack of preparedness for today’s world of work. Workforce entrants are caught between an educational system that teaches—and measures—one set of skills and a rapidly evolving workplace that demands another,” says Susan Stewart in The Conference Board’s 2009 report, *Will You Want to Hire Your Own Kid? (Will Anybody Else?)*.<sup>21</sup>

**“Workforce entrants are caught between an educational system that teaches—and measures—one set of skills and a rapidly evolving workplace that demands another.”**

*Will You Want to Hire Your Own Kid? (Will Anybody Else?)* (The Conference Board, 2009).

It seems like everyone wants to change American education in some way or other, but education systems can’t and don’t change easily. The American system is almost a trillion dollar industry representing about 10 percent of gross national product,<sup>22</sup> and employs more than three million people, second only to the health care industry.<sup>23</sup> The present system consists of so many groups, with so many aims, and with so many flavor-of-the-month strategies, it is easy to get discouraged about the possibility of change. Indeed, many of the newest innovations seek an end-run around existing educational structures.

Still, the desire for true systemic change may be near a tipping point. As Bill Gates says about education, “The status quo can be changed, but it takes a lot of outrage.”<sup>24</sup> Even those inside the educational establishment have become attuned to the need for reinvention. Speaking to other college presidents at the American Council of Education in 2009, Gordon Gee, then President of Ohio State University emphasized that, “our challenge today is radical reformation. Change at the margins will not do. The choice, it seems to me, is this: Reinvention or extinction.”<sup>25</sup>

So, what does this re-invention or re-imagining entail? From an economic development perspective,

we think it needs to include:

- Strengthening the linkages between education and job skills
- Re-thinking credentials and their value in the workplace
- Providing students with more exposure to the world of work
- Scaling technology so that every student can benefit from a high quality, personalized learning experience

## Strengthen the Linkages Between Education and Job Skills

While there is certainly overlap between academic and employability skills, there are also those pointing out that career-readiness and college-readiness are not necessarily synonymous—and we need to be mindful of this in education reform efforts. “Policymakers and the public alike are embracing ‘college and career readiness’ as the solution, but what does that mean?” asks the Career Readiness Partner Council in a 2012 brief entitled *Building Blocks for Change: What it Means to be Career Ready*. “Much of the policy debate focuses on college entrance and completion, without remediation as a solution,” they go on. “However, college readiness is only part of the answer. What is needed is a more comprehensive strategy that bridges the gap between education and workforce preparation.”<sup>26</sup>

“Students are increasingly placing a premium on the job-related benefits of going to college,” report the authors of an annual nationwide study of entering college freshman. According to their survey, “the portion of incoming freshmen that cited ‘to be able to get a better job’ as a very important reason for attending college reached an all-time high of 87.9 percent in 2012,” compared with just 68 percent in 1976. In fact, they say, “In the minds of today’s college students, getting a better job continues to be the most prevalent reason to go to college.”<sup>27</sup>

Yet, many education experts believe that the traditional school curriculum does not adequately prepare students for jobs in the future. In his 2008 book *The Global Achievement Gap*, Tony Wagner of Harvard University identified seven key “survival skills” needed for success in the 21st century workforce—a list developed through a review of studies about business needs and well as interviews with top business leaders:

1. Critical thinking and problem solving
2. Collaboration across networks and leading by influence
3. Agility and adaptability
4. Initiative and entrepreneurship
5. Effective oral and written communication
6. Accessing and analyzing information
7. Curiosity and imagination

Wagner says that “*What matters today...is not how much our students know, but what they can do with what they know.*”<sup>28</sup>

Other employer surveys confirm the importance of many of the “soft skills” identified by Wagner. According to the *Job Outlook 2013* report, published by the National Association of Colleges and Employers (NACE), “What makes a new graduate stand out from equally qualified competitors is evidence of the ‘soft skills’ needed in the workplace. Employers prize skills such as communication skills, the ability to work in a team, and problem-solving skills.”<sup>29</sup>

In the recently released 2014 version, the top 5 skills employers say they want were, (1) ability to work in a team, (2) ability to make decisions and solve problems, (3) ability to plan, organize and prioritize work, (4) ability to communicate verbally, and (5) ability to obtain and process information.

Many business leaders believe that the education system isn’t producing job candidates with the needed skills, including:<sup>30</sup>

- A global mindset
- Systematic thinkers with problem solving skills and higher order analytical and collaborative skills
- An appreciation for lifelong learning

The Manufacturing Institute’s 2011 report *Boiling Point? The skills gap in U.S. manufacturing* is among the recent studies that speak to the gap between workers’ skills and business needs. Problem solving skills are highlighted as the number one skills deficiency<sup>31</sup>—something critical to businesses as they are forced to adapt to constantly changing market demands in order to remain competitive.

The Partnership for 21st Century Skills, a national coalition of business, education and policy leaders focused on 21st century readiness, challenges states to “redefine rigor” to think beyond the mastery of core subjects alone to the skills and knowledge that are important for success in the 21st century. The Partnership has developed a framework for 21st century learning that blends content knowledge in core subjects with life and career skills; information, media and technology skills; and what it calls learning and innovation skills—including critical thinking, communication, collaboration and creativity skills. Support systems are considered a critical part of the framework, including standards and assessments, curriculum and instruction, teacher professional development, and 21st century learning environments.<sup>32</sup>

The Partnership has been working with states and communities to make this skills and support framework an integral part of K-12 education. It has identified several key strategies for successfully accomplishing this, including:

1. High-profile leadership and a shared vision from all sectors—from government to business to education
2. Ongoing professional development in 21st century skills for teachers and administrators, including the incorporation of these skills into teacher education programs
3. Alignment of standards and curriculum with 21st century skill needs
4. Creation of assessments that measure 21st century skills

This is not to suggest that it’s all about shoehorning yet more subjects into an already packed school day. It may, in fact, be as much about re-thinking how instruction is delivered—incorporating

concepts such as the “flipped” classroom and other techniques that promote student problem-solving and team work rather than passive listening.

Recognizing the need to look more closely at how schools are developing the skills needed in today’s economy, Oklahoma has established a task force to develop an Innovation Index that will assess the extent to which schools in the state are providing opportunities for creative and critical thinking. “To succeed in this competitive economy, Oklahoma needs a creative, innovative and highly skilled workforce,” Governor Mary Fallin said, in lending her support to the public-private effort that is being coordinated by Creative Oklahoma. Among those on the task force are the state’s secretaries of commerce and education, as well as representatives from the K-12 and higher education communities.

And, in Alabama, Governor Robert Bentley issued an executive order in January 2013 that establishes the Governor’s College and Career Ready Task Force, composed of education, economic development and business leaders, whose broad aim is to address “the gap between the knowledge and skills of the workforce and what is necessary to increase success in business and industry.” Among the group’s specific charges is to develop a standard definition of readiness for graduates of various levels of education—from pre-kindergarten to four-year colleges.

## Re-think Credentials and Their Value in the Workplace

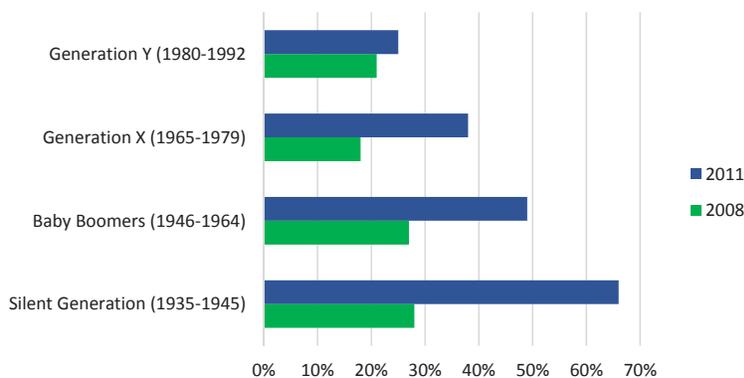
High school and higher education diplomas have traditionally been the gold standard of intellectual and skill attainment. The assumption is that by passing necessary classes, students have achieved the level of learning and skills desired by society, especially employers. In 2012, Ann Kirschner, Dean of the Honors College at City College, University of New York, wrote in the *Journal of Higher Education*, “The value of a diploma is symbolic, backed not by gold, but by the graduate’s sense of its worth and the employer’s willingness to accept it as the currency of competency.”<sup>33</sup>

The assumption that a diploma equals competency is no longer as strong as it used to be. To look at just one statistic: the Bill and Melinda Gates Foundation found that nearly 60 percent of students entering community college need remedial education.<sup>34</sup> Talking about his work at the Education Commission of the States, Bruce Vandal, now Vice President at Complete College America, told attendees at Southern Growth’s 2012 conference that “the conversation started about how we can get people to get more degrees.” He went on to explain that “it has evolved into whether credentials are meeting employer needs.” Re-thinking credentials from the perspective of students and workers should also be on the table—is our current system translating into economic success in the workplace?

The question of credentials, including their value and portability, is ever more important as an increasing number of workers become what has been referred to as “free agents”—performing temporary, contract or freelance work—or are otherwise following a path that is not a straight line tied to a long-term corporate career ladder and traditional training progression. According to a 2011 survey by Kelly Services, more than four in 10 workers now classify themselves as free agents, compared to 26 percent in 2008—a growing shift that is seen across all generation groups, not just today’s youth.<sup>35</sup> In a 2012 article in *Fast Company*, Anya Kamenetz speaks to the increasing propensity of workers to move between jobs—and even occupations—while picking up needed

training along the way. Speaking of one of the workers she has profiled, she notes that “the particulars of Hasler’s young career can appear exotic and, yes, flighty. But his essential experience—tacking swiftly from job to job and field to field, learning new skills all the while—resembles the pattern that increasingly defines our careers.”<sup>36</sup> In her 2011 book, *The Shift: The Future of Work is Already Here*, Lynda Gratton of the London Business School talks about “serial mastery” becoming the bar for success in the future, as change becomes ever more rapid and the line between permanent workers and those with special expertise brought in to work on a particular project becomes increasingly blurred.

% of Free Agent Workers by Generation



Source: Kristina Brobocky : Kelly Services INC.

The past several years have seen increasing attention being given to a broader view of the economic value of various credentials. Harvard University’s *Pathways to Prosperity* project, for example, calls for an expanded vision of pathways to success, to include preparation for well-paying jobs requiring less than a bachelor’s degree. Achieve, the Brookings Institution, the National Skills Coalition, the Southern Governors Association, the Urban Institute

and the Workforce Alliance are among those who have weighed in on the issue of “middle skills” job gaps in recent years. Others have pointed out that the U.S. is an outlier, internationally, related to its lack of attention to attainment of credentials below the bachelor’s degree level: ranking second internationally on bachelor’s degree attainment, but only 16th on sub-baccalaureate attainment. The sub-baccalaureate rate, relative to other industrialized countries, is especially low for younger workers.<sup>37</sup>

***“That whole space, between a high school diploma and a four-year college degree, has been overlooked ....The reform trajectory we’ve been on since ‘A Nation at Risk’ was a noble goal, but along the way, we’ve set aside every pathway but one, and we’ve left a lot of people behind.”***

*“College for All Campaign Getting a Second Look”, Education Week, June 9, 2011.*

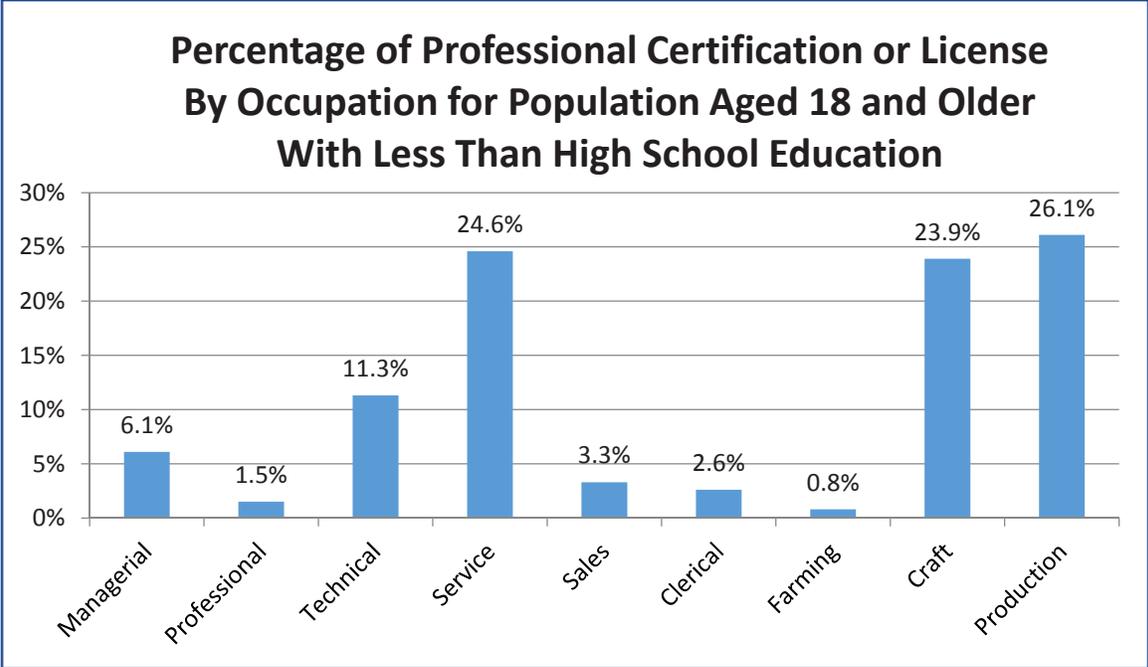
Indeed, research shows an increasing demand for workers not only with bachelor’s degrees, but also with other post-secondary credentials, including associate’s degrees, post-secondary certificates and industry-based certifications. A 2012 report from Georgetown University’s Center on Education and the Workforce finds that there are currently 29 million jobs that pay middle-class

wages but don't require a four-year degree.<sup>38</sup> And, while most studies conclude that the attainment of a bachelor's degree continues to be worth it over the long-term, it is important to note that about one in four people with associate's degrees—as well as those with some college but no degree—earn more than the median for someone with a bachelor's degree,<sup>39</sup> showing the value of what are often more occupation-specific credentials in high-demand fields.



So, how do we help ensure that credentials are relevant—and valuable—to both employers and workers? A number of responses are highlighted below, including support for certificate programs that lead more directly to employment; creation of assessment-based certification programs that attest to relevant skill sets; development of competency-based educational models; and exploration of digital badges, portfolios and other means of tracking skills gained over a lifetime.

If one is looking at sheer numbers, certificate programs are gaining in importance, especially as credentials for specific industries. Such programs are offered by two-year community and technical colleges, four-year colleges, and, increasingly, by for-profit organizations. In 2009, these programs conferred approximately 800,000 certificates—up from 300,000 in 1994, or more than 250 percent.<sup>40</sup> (The healthcare field was heavily represented, accounting for more than 40 percent of certificates awarded in 2009). By comparison, the number of associate's and bachelor's degrees awarded grew by 53 percent and 38 percent, respectively, over the 15 year period.



Source: U.S. Census Bureau, Measuring Alternative Educational Credentials 2012, January 2014.

**“Increasingly, employers are... looking for workers with industry-recognized credentials, and are far less concerned with the current gold standard measurements of success in education, such as course credits and seat time.”**

*Developing Human Capital: Meeting the Growing Global Need for a Skilled and Educated Workforce* (McGraw-Hill Research Foundation, 2011).

A Florida study suggests that certificate programs may have particular advantages for students from low-income families, as well as students who did not perform well in high school.<sup>41</sup> For one, Brian Bosworth, author of the 2010 report *Certificates Count*, reports that completion rates for certificates are twice or even three times as high as graduation rates for two-year degrees.<sup>42</sup> Certificates are not just an ending point, however, but are also seen as a way to enhance existing credentials by adding relevant work-related skills. Recent research indicates that

fully a third of all certificate holders also have an associate, bachelor's or graduate degree.<sup>43</sup>

New research from the Georgetown Center on Education and Workforce questions the conventional wisdom that short-term (less than a year) credentials have little economic value, finding instead that income gains are highly dependent on the field—rather than length—of study. They find, for example, that more than one in three male certificate holders earn more than the median male worker with an associate's degree and nearly one in four earn more than the median male worker with a bachelor's degree. Those with certificates in high-demand fields, such as electronics and computer and information services, fare even better.<sup>44</sup>

The challenge is in reaching this potential and ensuring that certificates lead to economic gains. Three of the top five certificate producing states—Louisiana, Kentucky and Georgia—are located in the South.<sup>45</sup> Yet, only one Southern state (West Virginia) is in the top ten in terms of the percentage of certificate holders with earnings premiums of greater than 20 percent compared with high school graduates. Four Southern states are in the bottom ten, including the region's three top producers.<sup>46</sup>

Tennessee's Technology Centers have been highlighted in a number of reports for their consistent success in translating non-degree training into economic value. The state's 27 centers provide competency-based training that is designed to qualify students for employment and/or help them advance in their current job or career field. According to the *Tennessee Higher Education Commission's 2011-2012 Fact Book*, the completion rate for Tennessee's Technology Centers in 2011 was 78.5% and 79.5% of students were placed in jobs in their field of training. A case study by Complete College America concluded that “there is no other state postsecondary system that comes anywhere close to achieving these outcomes,” citing figures that showed that all 27 of Tennessee's Technology Centers were included in a group of only 105 two-year, public postsecondary institutions in the nation that could report an average “on-time” completion rate above 50 percent for the last five years.<sup>47</sup>

Southern states have also been active in the area of career readiness credentialing, with Kentucky, North Carolina, Tennessee, Virginia and West Virginia—along with Maryland and Washington, D.C.—taking the lead in forming the Career Readiness Certificate Consortium in 2004. This type of credential certifies that the holder, which might be a high school student, recent graduate, or older adult already in the workforce, has achieved certain work readiness skills. The Consortium has since expanded to include all states, but Southern states remain among the most active; Georgia topped the latest “top ten” list in terms of the number of certificates issued to-date, joined by five other Southern states (SC, NC, TN, OK and VA).<sup>48</sup> While ACT's WorkKeys assessment system

is the foundation for each of the programs, there is wide variation in the scope and details of implementation in each state. Virginia, for example, has added “stackable” credentials in specialized industry sectors, such as healthcare and manufacturing to the basic credential that focuses on general workplace employability skills. Other states are also involved in partnerships related to more targeted industry and/or occupational specific skills—among them the National Association of Manufacturers’ Manufacturing Skills Certification System that was launched in 2009.

In addition to career and work readiness credentials, both educators and workforce professionals are beginning to look more closely at the value of traditional educational credentials, including increasing attention to competency-based credentials. Competency-based credentials rely on identifying the behaviors, knowledge, skills and abilities that are necessary for success in education or employment. Chris Sturgis of the International Association for K-12 Online Learning offers this simple description: “Students develop meaning at their own pace and are placed, promoted and graduate according to their demonstrated learning rather than seat time, age, or credit accumulation.”<sup>49</sup>

A well-known example of this is Western Governors University (WGU), an online, non-profit, competency-based institution where students work at their own pace to complete competency-based assessments,

based on standards developed by employers and academic experts. Relevant industry certifications are imbedded in the programs. Students pay a set fee per six month term (currently about \$3,000), entitling them to what WGU Vice President Scott Jenkins described to Southern Growth’s 2012 conference attendees as an “all you can eat buffet.” This model has been very successful in reaching non-traditional students, Jenkins reported, noting that 90 percent of students are over age 26 and 75 percent are from underserved populations. Enrollment has grown exponentially. “We graduated 500 students five years ago; we now graduate 500 per month,” Jenkins said. Further expanding its reach, WGU has partnered with several states to create new state-based universities, including WGU Indiana, WGU Washington and WGU Texas. In August 2012, Governor Bob McDonnell announced a new partnership with WGU that would create a faster—and more affordable—bachelor’s degree for nursing students in Virginia

***“As expectations for schools and students have risen dramatically and technology has revealed the potential of personalized learning, the Carnegie Foundation now believes it is time to consider how a revised unit, based on competency rather than time, could improve teaching and learning in high schools, colleges, and universities.”***

Carnegie Foundation, December 2012

Colleges have been reluctant to adopt such models over uncertainty whether accreditors and the federal government will approve of programs outside the traditional college model, reported Paul Fain, senior reporter at *Inside Higher Education*, in October 2012.<sup>50</sup> However, what Fain characterized as a “logjam” was broken in April 2013 when the U.S. Department of Education approved an application by Southern New Hampshire University to award student aid based on competency/direct assessment rather than time spent learning/credit hour.

In January 2011 the Lumina Foundation published a framework for defining the general knowledge and skills that students should attain in order to earn associate’s, bachelor’s and master’s degrees. The framework, known as the Degree Qualifications Profile, focuses on five key areas of learning: specialized knowledge, broad/ integrated knowledge, applied learning, intellectual skills and civic learning. “As part of our national goal to dramatically increase the percentage of Americans with high-quality degrees, we need a shared understanding of what a degree represents in terms of

learning,” explained Jamie Merisotis, the Foundation’s president and CEO.<sup>51</sup> The Profile is currently being tested at more than 220 colleges, universities and community colleges across the country, including 43 in the South.

Other alternative ways to recognize learning and skills are also being developed. For instance, digital badges that represent achievement may be a replacement or adjunct to degrees. The MacArthur Foundation is working with Mozilla to develop an open source platform that will offer a “digital badge backpack” in which lifelong learners can collect and display badges.

## Give students more exposure to the workplace

“You can only learn to work in the workplace—there is no substitute,” Nancy Hoffman, Vice President at Jobs for the Future and author of *Schooling in the Workplace*, has emphasized.<sup>52</sup> Surveys of business leaders back up this view. For example, a 2010 study by Hart Research Associates showed that employers are looking for recent graduates not only with a broad range of skills and in-depth knowledge or skills in a specific area, but also with the ability to apply text learning in real-world settings.<sup>53</sup> Employers “admit that the degree alone is not the ace it once was; now they emphasize work experience as a way to make yourself stand out.”<sup>54</sup>

From a student’s perspective, perhaps it should also be said that you can only learn *about* work and *work options* by having more exposure to the workplace. Many students are limited in their view of career options due to a lack of exposure to the possibilities. For this reason, step one for many states and localities has been a focus on career awareness—from development of broad career awareness portals, such as Alabama’s [Alcareertech.org](http://Alcareertech.org), to campaigns focused on industries of particular importance to the state or locality. For example:



- The North Carolina Business Committee for Education launched its NC Business@Work initiative in 2012 to promote career awareness and opportunities among middle school students. More than 31,000 students from every county in the state participated in the week-long campaign that included business presentations, job shadowing and other events.

- *Go Build Alabama* is a public-private campaign designed to educate young people—and their parents—about career opportunities in

the construction industry. *Go Build Georgia*, which followed in 2012, has already had some interesting spin-offs, such as a new Maritime Logistics Internship Program, where high school students will learn—inside and outside the classroom—about exporting, importing, supply chain management and other aspects of careers in maritime logistics.

- A number of states and localities have developed campaigns around promoting careers in advanced manufacturing, building on the *Dream It Do It* Campaign launched by the National Association of Manufacturers and SkillsUSA in 2007. Alabama, Mississippi, South Carolina and Virginia are among those with their own *Dream It Do It* websites and campaigns. On

a local level, the Catawba County Chamber of Commerce and Catawba Valley Community College in North Carolina are working on an initiative to promote manufacturing and logistics careers via informational videos and a website.

Some states have made career planning a formal part of their education systems. The Southern Regional Education Board highlights these and other efforts in its 2013 report, *From College to Careers*. Middle school students in Louisiana, for example, must participate in at least six activities per year—from job shadowing to field trips—that will help them choose a career option and develop a required Individual Graduation Plan (IGP) in high school. Similarly, eighth grade students in South Carolina develop IGPs that align to a career pathway.

Other states are experimenting with career coaching initiatives focused on helping students make connections between education and careers, including identifying apprenticeships, internships and other work-based experiences. Virginia launched its Career Coach initiative in 2005 with 11 coaches based in 13 high schools. Career coaches, who are employees of the community college system, now serve in 168 high schools; community colleges began to hire career coaches for adult learners in the spring of 2012.

Despite many excellent career awareness and internship programs throughout the nation, Nancy Hoffman's study of workplace experiences in other countries shows the U.S. at a disadvantage in comparison with the strong vocational pathways and experiences provided in many other countries around the world. As she points out, we tend to have what she characterizes as “add-ons;” they have a system. In Switzerland, for example, she notes that qualifications for every job are nationally standardized and transferable and about 25 percent of companies take in apprentices, while a strong structure of intermediaries in Australia coordinates interactions between students and businesses.

Still, there are many promising approaches that are taking a comprehensive view towards integrating learning and workplace experience, including many that are part of state Career and Technical Education programs. Among the most widespread are high-school based career academies that are organized around industry themes, combining core academic classes, industry-specific classes, and work-based learning activities. Durham, North Carolina's City of Medicine Academy high school, built on the grounds of Durham Regional Hospital, prepares students for health care fields by interacting closely with the hospital for teaching, laboratories and other facilities, job shadowing, field trips, guest speakers, mentoring and problem-based learning. Students dress in scrubs, color coordinated by grade level. Opportunities include dual enrollment with the local community college, I-School through the University of North Carolina at Greensboro, and the state's Virtual Public High School.

The National Academy Foundation (NAF), a nationwide network of many of these types of academies, reports that as of the 2012-2013 school year, members operated 546 academies in 178 school districts in 39 states, involving over 62,000 students. Atlanta, Birmingham, Charlotte, New Orleans and Oklahoma City are among the cities in the South represented. NAF reports that in 2012, 97 percent of NAF seniors graduated from high school, compared with a 50 percent graduation rate in the cities where most of the academies are located. Additionally, they report that over half of NAF graduates attending college earn bachelor's degrees in four years—compared with 32 percent nationally. One of the most talked about state-level initiatives that is organized around this industry-themed, academic/work-based approach is California's Linked Learning initiative. With

some 800 schools already using an academy-type model in the state, in January 2013, the California Department of Education selected 63 districts and county offices of education to formally pilot linked learning in their high schools beginning next fall. Together, these schools will reach nearly one-third of the state's public high school students.

Innovation in linking education and work experience is taking place at the postsecondary level as well. In 2012, Missouri Governor Jay Nixon announced nearly \$9 million in grants to establish Innovation Campuses throughout the state that would “create a direction connection for Missouri students between the skills they learn in the classroom and the skills that are in demand today.” Accelerated degree completion (though dual enrollment while in high school, credit for applied learning experiences, and other means), mentoring, and work-based experiences are the hallmarks of the program. The University of Missouri-St. Louis, for example, plans to develop curricula in partnership with area businesses and to supplement classroom education with internships and apprenticeships through business partners.

There are numerous other examples of individual schools, school districts, community colleges and universities forming partnerships with businesses that better integrate learning and work. Among them:

- Birmingham, Alabama's Holy Family Cristo Rey High School, which is part of a network of 25 Catholic high schools in 17 states where every student participates in a four-year work-study program, spending one day per week in a corporate workplace.
- An employee training program developed by the global nuclear energy company AREVA and Central Virginia Community College that mixes traditional academic courses with focused technical training and hands-on work experience. Students accepted into the program become full-time AREVA employees, receiving a salary, benefits and pre-paid tuition while alternating work at nuclear sites in the fall and spring with accelerated classroom training in the summer and winter. Students, who receive academic credit for their field work as well as for technical training taught by AREVA trainers, receive their associate's degree in applied science and technology in approximately three years.
- A partnership between Volkswagen Chattanooga, Tennessee Tech University and Chattanooga State Community College that enables students to transfer seamlessly from hands-on training at Volkswagen Academy to an associate's degree in engineering technology program at Chattanooga State to a bachelor's in engineering at Tennessee Tech.
- Apprenticeship 2000, an apprenticeship program involving a partnership between Central Piedmont Community College and eight manufacturing firms in Charlotte, North Carolina that is based on the European model of combining work and school.

There is also a growing recognition that workplace exposure for teachers, as well as students, can only help strengthen the connection between academic learning and real world applications. The Kenan Fellows program at North Carolina State University, GW Virginia Science and Technology Campus' Teachers in Industry Project, York Technical College's Externships for Teachers program and the Nashville Chamber of Commerce's teacher externship program are all examples of efforts that have been made to address this need.

## Scale technology so that every student can benefit from a high quality, personalized learning experience

We seem to have one foot in the present, but the other stuck in the past when it comes to the use of technology in education. On the one hand, recent trends suggest that technology offers the promise of personalized learning, where every student can access quality instruction—at their own pace—no matter where they are located.

- The rapid growth of free, open-enrollment, non-credit university courses over the Internet—known as Massive Open Online Courses (MOOCs)—has opened educational opportunities for hundreds of thousands around the world. As one recent article proclaimed, “It’s almost as if there’s an arms race in online education. Which MOOC platform can expand the fastest?”<sup>55</sup> In February 2013 alone, edX—originally founded by Harvard and MIT—announced the addition of six international schools to its roster, bringing its total to 12, while Coursera announced the addition of 29 new institutions, bringing its total to 62. Virtual support groups, study sessions and discussion forums have formed on Facebook, Google+, Reddit and other sites, enabling students to receive help from peers across the globe at all hours.
- In May 2013, North Carolina’s Wake Tech Community College became the first community college in the nation to broadly offer a MOOC, beginning with a developmental math class aimed at reducing the number of students needing remedial math.
- The Khan Academy, which offers a free video library of some 4,300 mini-lectures and accompanying practice exercises and assessments, has delivered over 280 million lessons since the website was first created in 2006 as a way for the founder to tutor his cousin in math. Khan Academy recently launched its first statewide pilot in Idaho.
- Virtual high schools offer Advanced Placement, language and specialty classes that may not otherwise be available to every student—and also provide opportunities for students to make up coursework in order to stay on track with their schooling.
- Support for the use of e-textbooks is growing, not only for the cost savings, but also for their potential to offer a more enriched learning experience, including imbedded video clips, personalized quizzes, and updated data.



On the other hand, while technology seems to have quickly permeated every other aspect of society, it has only seeped tentatively into most student instruction. Without thinking, people routinely operate in a world of on-demand and ubiquitous access to information and networks—which many say does not characterize the current education system. With smart phones, tablets, laptops, Wi-Fi, and computerized everything else—many feel that the educational experience seems stuck in the past.

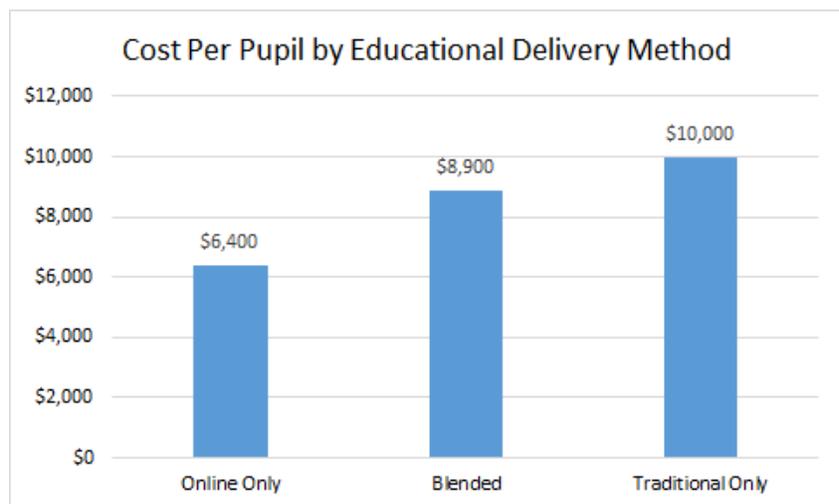
Mary Ann Wolf, in *Innovate to Educate*, states:

*In contrast to trends to personalize products, services, and the user experience throughout our economy, society and daily lives—in part by leveraging continually evolving technologies—education has only scratched the surface on personalizing the learner experience. Such efforts in education continue to be the exception rather than the rule and often represent a “tweaking” of the traditional model rather than the necessary systemic redesign of how we educate our children.*

Students today, says GetEducated’s Vicky Phillips, were raised with online technology and demand it. “This generation of students is all about convenience,” says Phillips. “If they don’t want to go to a class, why should they? If they don’t want to wait until 3 p.m. for office hours, why can’t the instructor have virtual office hours? It’s the whole mentality of anytime/anywhere—it’s very much a part of our culture and especially this generation.”<sup>56</sup>

Today’s mobile devices—smart phones, tablets, and e-readers—as well as digital content (including instructional games), availability of video (conferencing, streaming, capture) and access to WiFi have fueled the potential for personalized, blended (a combination of technology and standard teaching methods) and virtual learning, notes the Center for Digital Education and Converge in a 2012 report entitled *The Blended and Virtual Learning Frontier*. Dissatisfaction with the present system, as well as a need to cut costs, may mean that education is ready for an immersion in technology, they add. They go on to identify a number of other factors favoring the increased use of technology, including:<sup>57</sup>

- The need to improve high school graduation rates. This has led to credit-recovery programs, which are predominantly online. Students can transfer out of failing classes, for example, to virtual classes which progress at the student’s learning rate.
- Student demand for the freedom to “self-blend” and take whichever type of course best suits their needs, abilities, and circumstances.
- State legislative mandates that students take online courses before graduation, as in Alabama.
- Competition between schools. At both higher education and K-12 levels, students are demanding blended and online services. In some districts, K-12 students have multiple choices for online learning (including charter and state schools), while colleges find flexible learning options are recruitment tools.



Source: *Education Reform for the Digital Era* (Fordham Institute, April 25, 2012)

A new report from the National Governors Association, *Regulating Online Postsecondary Education: State Issues and Options*, also speaks to the stars aligning in terms of a push for greater use of online education. “States and their colleges and universities face competing pressures when it comes to meeting the economy’s demand for a more educated workforce. They must expand student access and completion of certificates and degrees but do so within lasting fiscal constraints,” they say. “That is forcing states to consider a range of options for cost-effectively expanding their capacity to meet workforce needs, including greater use of online programs from all types of in-state and out-of-state institutions.”<sup>58</sup>

At the same time, the Center for Digital Education/Converge report acknowledges that there are cultural and financial barriers to technology adoption, including:

- Educator, administrator and community acceptance. For example, only one-in-three college leaders (33 percent) believe their faculty “accepts the value and legitimacy of online education.”
- Seat-time funding. School funding is largely based on amount of time spent in school, de-incentivizing online learning. This has begun to change in recent years. In 2009, New Hampshire did away with seat-time policies entirely, requiring high schools to comply with a competency-based model.
- Lack of technology standardization. Instructors using digital curriculum products from multiple vendors often confront different interfaces. Disparate learning systems may also not be compatible with existing management systems.
- Start-up costs. Although technology may save money in the long run, schools need additional up-front funds to invest in computers, networks, teacher training, and new curriculum.
- Lack of teacher training in the use of technology.

States will also need to confront a number of challenges—and hard policy choices—as they simultaneously promote access and quality assurance, says the National Governors Association (NGA). They call on governors to review existing laws and regulations in the area of online education in order to look for ways to simplify and streamline the process, while also exploring the possibility of joining an interstate reciprocity agreement for authorization of such programs across state lines.<sup>59</sup> While the NGA report speaks specifically to issues related to online post-secondary education, the challenges of promoting access and quality assurance apply to other levels of education as well. *Education Week* reported in January 2013, for example, that Tennessee, faced with lackluster performance from the privately-run Tennessee Virtual Academy, was considering tougher standards for virtual schools that would tie their growth to academic performance.<sup>60</sup>



# Re-engage Adult Learners and Disconnected Youth

“**T**here is indeed a transformation coming in American higher education. It is not driven by technology or MOOCs, though these tools abet the change. It will be driven by the rise of post-traditional learners,” says Louis Soares in *Manifesto for College Leaders*, a 2013 report for the American Council on Education on transforming higher education to better serve post-traditional learners.<sup>61</sup>

**“If current trends continue, by 2018 there will be more full-time online post-secondary students than students who take all their classes in a physical location.”**

*The Blended and Virtual Learning Frontier: A Special Report, (Center for Digital Education and Converge, 2012)*

As the National Skills Coalition emphasized in 2009 recommendations to the President and Congress, over two-thirds of the workforce in 2020 and almost half of the workforce in 2030 is already in the workforce today—and therefore “beyond the reach of K-12 or traditional higher education reforms.”<sup>62</sup> “To put the scale in context, over the next 10 years about 30 million young people will graduate from high school in the United States, and many will be prepared for college—but there are today twice as many adults already in the work force who have no postsecondary credentials,” Louis Soares explains.

According to Soares, these non-traditional students demand “more customized pathways to degree or credential completion and a focus away from credit hours to the ability to demonstrate and apply knowledge.” He goes on to explain that this encompasses:

**“The media’s “typical” college student lives on a campus at a four-year institution. But that describes no more than a sixth of the total college population. In fact, there are more college attendees over the age of 30 than such “typical” students. The most significant shift in higher education is the massive growth in the adult-student population.”**

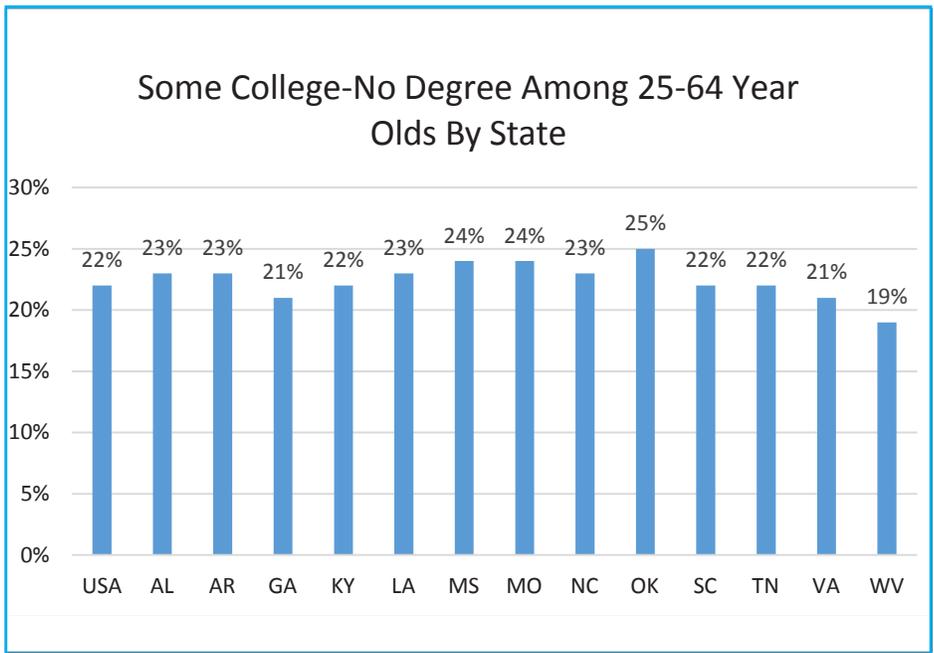
Frederick Hess in *The Atlantic*, Sept. 28, 2011

- Modular, easy-to-access instruction;
- Blended academic and occupational curricula;
- Progressive credentialing of knowledge and skills;
- Financial, academic, and career advising; and
- Public policy that reflects the complex task of balancing life, work, and education

The Center for Law and Social Policy points out that yesterday’s non-traditional student is today’s traditional student, noting that nearly half of students currently pursuing post-secondary credentials are

considered “independent students,” defined as being 24 years or older, married, responsible for children, orphans, and/or veterans of the armed forces.<sup>63</sup> A December 2012 survey by Gallup and the Lumina Foundation found that more than four in ten adults without a post-secondary credential had thought in the past year about going back to get one. More than a third (36%) identified family responsibilities as the biggest barrier to doing so, followed by the cost of higher education (28%) and job responsibilities (15%).<sup>64</sup> As illustrated by the fact that 90 percent of the students at Western Governors University are over the age of 26, trends such as the growth in online education and competency-based credentials are already helping to expand educational opportunities for this group, who often must juggle work and family responsibilities with their schooling.

Louisiana is among the states that is both capitalizing on the promise of online education and providing other supports to meet the needs of adult learners. An August 2011 documentary by American RadioWorks featured the story of Marilyn Johnson Jackson, a native of Shreveport, Louisiana who quit college at age 19, returned to take night classes years later, but again quit after a losing battle with trying to work full-time, take care of a son and go to school. By this time, she was about \$20,000 in debt and still had no degree. “Jackson didn’t think she would ever finish her degree until one day she noticed a new billboard for the Center for Adult Learning in Louisiana,” the story went on.<sup>65</sup> Louisiana’s program, known as CALL, is a joint initiative between the Louisiana Board of Regents and the Southern Regional Education Board that offers adult learners an accelerated, convenient way to get a degree from state universities and community colleges. Among its features are online classes, an accelerated schedule, and credit for prior knowledge through exams or portfolios. CALL was initially piloted in the northern part of the state, but a significant expansion in 2010 extended its reach statewide. As for Ms. Jackson, she graduated with an associate’s degree in 2008, got a job as a billing manager at the state hospital, and hoped to return to get a bachelor’s degree.<sup>66</sup>



Source: A Stronger Nation Through Higher Education, Lumina Foundation, June 2013

## Target workers with some credits, but no credentials

The Center on Education and the Workforce at Georgetown University estimates that about 15 million Americans over the age of 25 have at least two years of postsecondary education, but no college degree.

Southern states are involved in a number of initiatives that target this group of adult workers and aim to help them complete their credentials. For example:

- Arkansas participated with five other states in the 2008-2011 *Non-traditional No More* project, coordinated by the Western Interstate Commission for Higher Education. The set-aside of Academic Challenge Scholarship (lottery) funds for non-traditional students, partnerships between state agencies such as the Departments of Higher Education and Workforce Services to reach out to out-of-work adults, and the enactment of state laws addressing barriers to the transfer of credits were among the key successes highlighted in Arkansas' efforts.<sup>67</sup>
- Kentucky's *Project Graduate*, is a collaborative effort between the Kentucky Council on Postsecondary Education, Kentucky's public universities and the Association of Independent Kentucky Colleges and Universities, aimed at former students with 80 or more credit hours, but no bachelor's degree. Each participating campus has developed an action plan to provide incentives and support to returning adult students. Almost 900 students have graduated from the program since it began in 2007.
- Oklahoma launched *Reach Higher*, a program designed to help adults with some credit complete their associate's or bachelor's degree, after identifying nearly 70,000 Oklahomans that left college with more than 77 hours of credit. Nine public universities and 14 community colleges and technical branches participate in the program that features flexible enrollment periods, on-campus and online options, and compressed course schedules.
- West Virginia's *DegreeNow* program is designed to meet the needs of adult learners, including compressed class schedules, online, evening and weekend class options, and the ability to earn credits for work and life experiences.

Among the common features of the programs targeting adult learners are:

- **Flexibility:** adults often need to balance classes, family and work obligations. Flexible enrollment periods, compressed course schedules, and online course options are all common.
- **Time:** many programs include efforts to shorten the time it takes to complete a degree, including policies that facilitate the transfer of credits between institutions. There is also increasing exploration of prior learning assessment systems related to providing



credit for prior learning, be it through military service, work experience or training, or even self-study.

- **Affordability:** shortening the time to get a degree can help with affordability issues, but access to financial aid is also important in addressing financial barriers to returning to school.
- **Support:** many programs provide special academic as well as social support services for returning adults, often involving coordination with other programs and agencies.

Individual universities, community colleges, localities and businesses have also developed incentive and/or support programs to encourage adults to complete their degrees. Louisville, Kentucky's *Degrees at Work* program was launched by business, education and community leaders in 2010 as part of an ambitious community-wide effort to increase the number of adults with post-secondary degrees by 55,000 by the year 2020. Among the program's strategies is to promote the adoption of education-friendly programs, policies, and practices among Louisville employers.

One Louisville employer that already has a well-developed program, known as Metropolitan College, to help employees obtain degrees is UPS. Launched in 1998, the partnership between UPS, the Commonwealth of Kentucky, the City of Louisville, Jefferson Community and Technical College and the University of Louisville combines part-time employment at UPS with educational incentives, career development services, and financial and workplace support. The Aspen Institute reports that as of 2010, 2,600 participants who had participated in Metropolitan College for one or more semesters had earned 3,760 credentials, including 1,024 certificates, 966 associate's degrees, 1,576 bachelor's degrees, and 194 advanced degrees.<sup>68</sup> Since its launch, Metropolitan College has been expanded to include two other employers: Humana and ResCare.

And, in North Carolina, Fayetteville Technical Community College (FTCC), located near Fort Bragg—home of the U.S. Army airborne forces and Special Forces, as well as U.S. Army Forces Command—is one of three community colleges participating in a national pilot to promote accelerated college completion for military veterans. The focus of the *Maps to Credentials* project is to create a model to assess and give credit to veterans for skills learned in the military. A recent article in *Community College Times* notes that veteran enrollment has increased 40 percent since FTCC started the program in fall 2010, and 214 veterans completed degrees last spring, compared with only three in the spring of 2010.<sup>69</sup>

## Help Dislocated Workers Rejoin the Workforce

“From January 2009 through December 2011, 6.1 million workers were displaced from jobs they had held for at least 3 years,” the U.S. Bureau of Labor Statistics reported in August 2012. By January 2012, 56 percent of these displaced workers had been re-employed, however, more than half of them were earning less than they had in their prior job.<sup>70</sup>

As the bar continues to rise in terms of skill requirements for today's jobs, the challenge of re-employment becomes increasingly difficult for those with lower levels of education, as well as for older workers who may not have updated their skills in many years.

Recent charts from the Pew Fiscal Analysis Initiative show that while workers age 55 and older are

less likely than other age groups to be unemployed (they make up 16% of the unemployed vs. 20% of the workforce), they are likely to face more difficulty in returning to the workforce when they do lose a job. During the fourth quarter of 2011, 42 percent of unemployed workers age 55 and over had been without a job for a year or more, the highest rate for any age group.<sup>71</sup>

The American Association of Community College's Plus 50 Initiative is one example of an effort to engage older learners—including those who are looking to re-train for new careers. St. Louis Community College initially started a Plus 50 program thinking that it would primarily appeal to people interested in retirement careers and enrichment. However, the recession caused the program to shift gears, moving towards a greater emphasis on helping older dislocated workers in declining industries re-train in completely different fields.

Michigan, which perhaps could be considered the poster child for the nation when it comes to dislocated workers, is focusing on affected workers as part of its implementation of the *Break Through* program. Coordinated by Jobs for the Future, *Break Through* promotes the development of pathways through adult basic education, developmental education and degree-level programs for low-skilled adults. Forty-one community colleges in 22 states participate in the program, which includes state networks in Kentucky and North Carolina in addition to Michigan.

***“Lack of attachment to the anchor institutions of school or work at this stage of life can leave scars that last a lifetime, affecting everything from earnings and financial independence to physical and mental health and even marital prospects.”***

*One in Seven* (Social Science Research Council, Sept. 2012)

## Recover Disconnected Youth

According to a 2012 report by the Annie E. Casey Foundation, over 6.5 million young Americans, ages 16-24, are neither in school nor working, disconnecting them from the foundations needed for a successful future.<sup>72</sup> Those living in low-income families are especially at risk. The Great Recession has hit young people particularly hard—especially those without any credentials. Unemployment rates



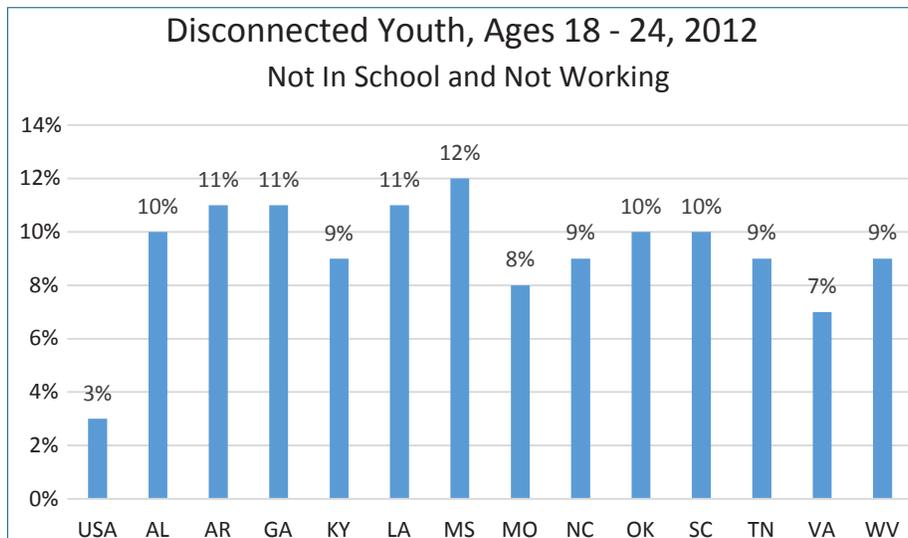
for those not in school and without a high school diploma were 19.7 percent for young men and 31.2 percent for young women in October 2011.<sup>73</sup>

The Casey Foundation's report, *Youth and Work*, emphasizes that “reconnecting youth to education and employment requires a multifaceted approach.” At the same time, they find that “despite rhetorical and legislative language encouraging cross-disciplinary and cross-system approaches, funding streams and programs remain largely categorical and fragmented.”<sup>74</sup> Among the positive examples

they highlight are programs such as YouthBuild and Year Up that combine academics, training, work experience and ongoing support.

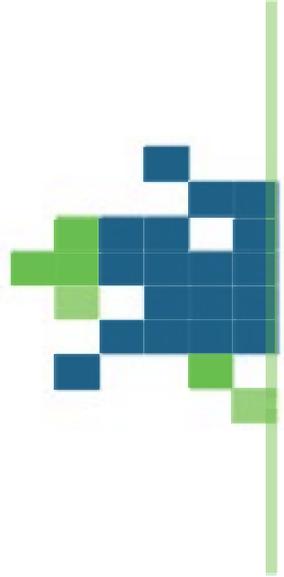
Prevention PLUS, Inc. is a non-profit organization that provides a range of services aimed at helping at-risk youth in the Atlanta area transition to employment and/or further education. Founded in 1986 as a teen drug and alcohol prevention program, Prevention PLUS has evolved to incorporate a high

school program serving youth ages 14-20; an academy focused on recovering students who are close to completing high school graduation requirements; a YouthBuild program that gives young people the opportunity to complete their GED or high school diploma, while also learning job skills through the construction of affordable housing; and other support services aimed at preparing students for higher skill jobs. The U.S. Department of Labor has highlighted the program's efforts to identify and develop programs around industry sectors that offer the best opportunities for area youth in terms of job and wage growth. This includes a partnership with Atlanta Technical College that feeds students into supply chain management training and degree programs.<sup>75</sup>



\*Disconnected Youth defined as: Percent of young people ages 18-24 not attending school, not working, and no degree beyond high school

**Source:** KIDS COUNT website, Annie E. Casey Foundation-2014.



# Realign Relationships and Resources

“**W**e are program rich and system poor.”

Jeff Edmondson, managing director of the Strive Network, shared the above quote with attendees at Southern Growth Policies Board's 2012 Chairman's Conference, explaining the impetus behind the creation of the Strive Partnership in Cincinnati and Northern Kentucky, an effort that has brought together K-12, postsecondary, business and non-profit leaders to develop a coordinated “cradle to career” approach aimed at improving student outcomes in the metro region. He described how area leaders first came together in 2006 around what could be called “donor fatigue.” They were investing a lot in education, but seeing little return in the way of improved student achievement, he explained.

He went on to describe the conscious movement from an approach that he characterized as “spray and pray,” or a multitude of isolated efforts, to one that he characterized as “collaborative action,” where partners are not just coordinating individual efforts, but are all working to “move the same dial.” The focus is on a narrow range of key outcomes—and how the partners can align their efforts to collectively move the dial, while resisting the all-to-common urge to start a new program to do so.

In its first five years of operation, the partners have seen the dial move on a number of indicators, registering a nine percent increase in kindergarten readiness, an 11 percent increase in high school graduation, and a 10 percent increase in college enrollment. They have since taken the model nationwide, forming a network that currently counts communities in more than 27 states—including Louisiana, North Carolina, Tennessee and Virginia.

According to many observers, the words used to describe Cincinnati in 2006—program rich and system poor—could be used to describe many local and state workforce development efforts. Consider the following comments:

*Currently, K-12 and postsecondary education exist in separate worlds in the United States. Policies for each system of education are typically created in isolation from each other—even though, in contrast to the past, most students eventually move from one system to the other.<sup>76</sup>*

– National Center for Public Policy and Higher Education

*A primary cause for the alarming shortage of “college-ready” high school completers, as indicated by this year’s SAT and ACT results, is the lack of alignment between high school completion standards and expectations for the minimum academic preparation needed to successfully transition into postsecondary school education and training. There is little coordination between the secondary and postsecondary stakeholders in the current system, and as a result it’s not surprising to see divergent standards and expectations that hinder—or eliminate—viable postsecondary pathways for many high school completers.<sup>77</sup>*

– Jamie Merisotis, President, Lumina Foundation

*While there are isolated efforts to move adults through postsecondary education and into the workforce, many still find a complicated system that is difficult to navigate, not appropriately aligned and not properly focused on student success.<sup>78</sup>*

– Bruce Vandal, Vice President, Complete College America

*Individuals looking to advance in their educational and career goals must be able to move seamlessly across different levels of education and the workforce. Unfortunately, current policies rarely provide such a smooth passage for the majority of students and workers.<sup>79</sup>*

– Workforce Strategy Center

*The lack of alignment between what employers need and what skills are taught and delivered has become a critical problem for U.S. competitiveness.<sup>80</sup>*

– The President’s Council on Jobs and Competitiveness

*It’s often easy to engage K-12 and postsecondary education stakeholders in planning and communications, while the possible connections with a state’s workforce policies and programs are overlooked. But education reforms and economic development strategies should be two sides of the same coin, as they share the common goal of developing a well-educated, skilled workforce.<sup>81</sup>*

– Achieve



## Create Continuity from Early Childhood through Career

What does alignment mean? In an ideal world, it means that:

- Children arrive ready for school in their early years and early care and education policies are linked to other education efforts;
- Standards are aligned between different levels of education so that expectations are clear and students are well-prepared as they move to each higher level;

- Expectations of workforce needs are also clear and students are prepared as they move from education into the workplace;
- Transitions are made smoother by programs that bridge the different levels of education, such as parent training, “ready schools” and “countdown to kindergarten” initiatives in the early years and dual enrollment, early college high school, and bridge initiatives that focus on transitions between secondary and post-secondary education;
- Transitions are also smooth as individuals move from school into the workplace—and back again throughout their lives;
- Social service programs that provide child care, transportation and other supports to low-income populations are aligned with programs to help these populations advance in the workplace;
- Assessment tools and certifications measure and document student and worker skills; and
- Data is linked throughout the system in order to better track outcomes and signal where adjustments are needed.

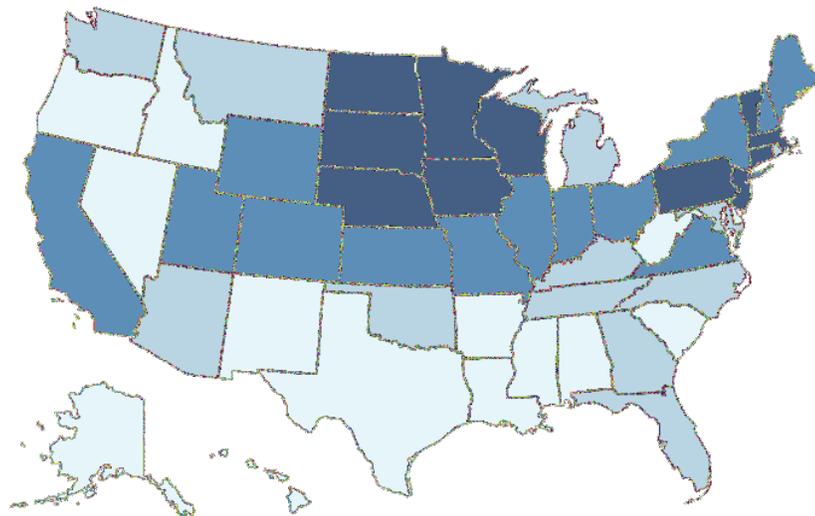
The starting point for improved alignment in many states has been the establishment of a P-16 or P-20 council, beginning with Georgia’s establishment of such a council in 1995. States have also established commissions or councils to coordinate a comprehensive range of services to children and youth. Drawing on studies in six states, *Ready by 21* identifies the following as fundamental to successful partnerships:<sup>82</sup>

- Collaboration to improve relationships across state systems and services and streamline duplicative programs and services;
- Collaboration to create programs of study, remediation, etc., to ensure successful transition from secondary to post-secondary education;
- Joint policy development to ensure continuity of services across systems, including data systems, particularly during the key transition points from early childhood through career success; and
- Joint planning to make funding recommendations and to identify indicators of a successful comprehensive service continuum.

While the Education Commission of the States (ECS) has noted that there has been some attrition since they launched a national database of 38 P-20 councils in 2008, they have also seen “pockets of growth” as well as interest in a number of states with taking the next step towards P-20 governance and agency consolidation.<sup>83</sup> They cite Oregon, for example, for 2011 legislation that makes it “the first to centralize funding decisions and accountability within a single entity,” the Oregon Education Investment Board.<sup>84</sup> Finance is an area that is particularly ripe for reform, agree other observers. “State finance structures are lagging behind other areas in existing K-16 reform,” says the National Center for Public Policy and Higher Education in its report *The Governance Divide*. “State education finance systems must become K-16; this includes the legislative committees and staff functions that oversee finance and budgetary systems. . . . If education finance can span education systems, it has the potential to drive change in many other policy arenas as well.”<sup>85</sup>

Alignment of state standards in the educational arena has also received significant attention in recent years. Achieve, Inc. is among the organizations that is pushing for greater alignment of state

## Student Pipeline - Transition and Completion Rates from 9th Grade to College



U.S. Average = 20.8

**Note:** Represents percentage of 9th graders who graduate from HS on time, go directly to college, return for their second year, and graduate within 150% of program time.

**Source:** NCHEMS Information Center - 2010 is the latest data available.

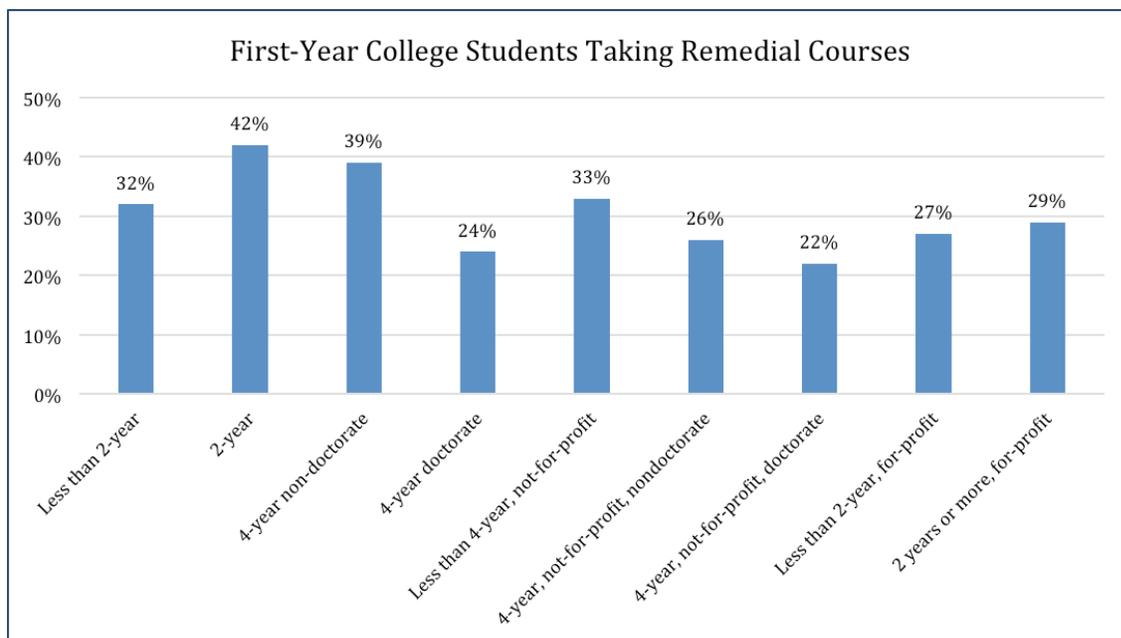
standards and policies towards an ultimate goal of college and career readiness. In their 2012 report, *Closing the Expectations Gap*, they note the following progress: <sup>86</sup>

- **Readiness Standards:** All 50 states have now adopted the Common Core State Standards, or their own college- and career-readiness standards.
- **Graduation Requirements:** 23 states now require that all high school graduates complete a curriculum that includes rigorous math and English requirements.
- **Assessments:** 18 states administer assessments to high school students that post-secondary institutions use in making college admission decisions.
- **Accountability Data:** 32 states use at least one of four indicators that Achieve believes are critical measures of readiness (including, for example, the percentage of students requiring remedial courses in college); four states use at least two of these indicators; and one state (Texas) uses all four.

## Align and Track Data across the Educational and Workforce Pipeline

According to the National Center for Education Statistics, more than one in three college freshmen require at least some remedial coursework.<sup>87</sup> The remediation rate is highest at public two-year colleges, where 42 percent of first-year students surveyed in 2007-2008 reported having taken at least one remedial course. Southern states reported remediation rates as high as 71 percent for two year colleges and 32 percent for four year colleges in a 2011 report by Complete College America.<sup>88</sup>

The high remediation rate—coupled with questions about the value of a college education in view of escalating costs vs. uncertain outcomes, and the business community's reports of being unable to find skilled workers—have states asking how they can better prepare their students for college and work readiness. Aligning and tracking data across the educational and workforce pipeline can help identify where interventions are needed in order to better prepare students for the future.



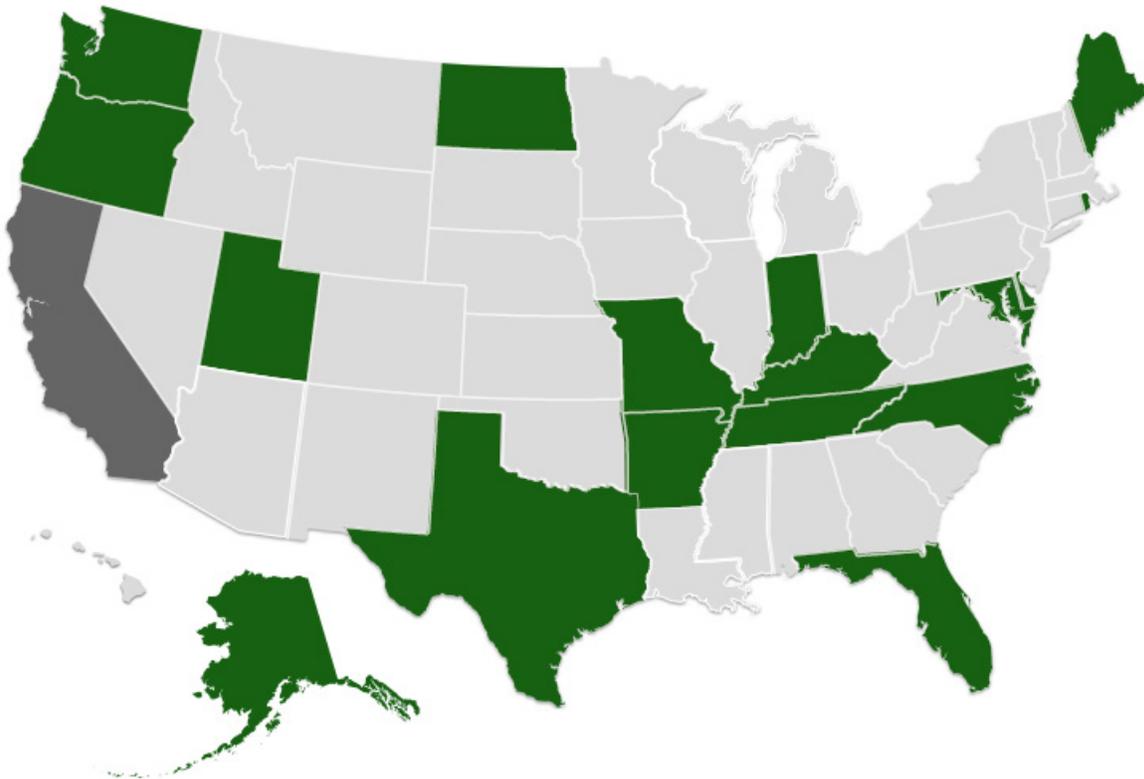
**NOTE:** Although these data are for first-year undergraduates, student status was determined by accumulation of credits. Students attending postsecondary education part time, or not completing the credit accumulation requirements for second-year status, could be considered first-year students for more than 1 year. Therefore, there is a distinction between having "ever" taken a remedial course and having taken one in 2007–08. Data are based on a sample survey of students who enrolled at any time during the school year. Data include the 50 states, the District of Columbia, and Puerto Rico.

**Source:** U.S. Department of Education, National Center for Education Statistics, 2007-08 National Postsecondary Student Aid Study (NPSAS:08).

With the introduction of No Child Left Behind, data began to play a more prominent role in decision-making for both schools and governments. While No Child Left Behind is focused more on compliance-based testing (i.e. at an aggregate level do students and schools meet national standards at one point in time?), advocates are now pushing for data that tracks individual students from P-20 and evaluates their preparedness at each step along the way. In addition, collecting data at the point of entry into the workforce also provides information on the student's preparedness into the workforce.<sup>89</sup>

The first benefit of long-term individual-based data collection is to create better alignment in P-20 education. This allows the education system to more effectively respond and make changes when it is proven that students are not prepared for the next stage in their education or workforce journey. The latest annual report by the Data Quality Campaign (DQC) notes that many states are tracking the linkages between education levels. For example, 44 states link data between early childhood education and K-12 education and 33 states link data between K-12 and postsecondary education. Only 14 states, however, currently link K-12 and workforce data.<sup>90</sup>

### States Linking K-12 and Workforce Data



**Note:** The above map has been updated since this report was written. As of 2013, there are 19 states that link K-12 and workforce data.  
**Source:** Data Quality Campaign, State Analysis by State Action 2013

Florida is widely cited as a national leader in terms of collecting longitudinal data and aligning it along the P-20/workforce pipeline. This alignment allows for schools to understand how well they have prepared their students for the next step in their development. For instance, high schools have data on how their students did in postsecondary education. High schools and parents can examine data on indicators such as the percentage of college students taking remedial courses, passing key courses and maintaining a certain GPA.<sup>91</sup> The DQC recently highlighted Missouri's efforts to plan and implement a comprehensive P-20/Workforce data system that grew out of a 2008 National Governor's Association (NGA) Honor States Grant for P-20 Longitudinal Data Research. The effort has built partnerships across a wide range of state agencies, including the Office of Social and Economic Data Analysis, the Missouri Department of Elementary and Secondary Education, the Department of Economic Development, the Department of Labor and Industrial Relations, and the

Department of Higher Education—all around a common goal of “better preparing Missouri’s citizens for the new economy.”<sup>92</sup>

At Southern Growth’s 2012 conference, John Dorrer of Jobs for the Future talked about an effort to use data to better connect course and curriculum content with labor market needs. Nine individual community colleges (including three in Kentucky), as well as the Kentucky Community and Technical College System, are participating in the initiative, with a goal of developing the capacity to use real-time labor market information tools to guide decision-making related to strategic planning, curriculum design, and student career guidance.

Improved accountability is another benefit of data collection and use. With growing student loan debt at the same time that stories abound about the lack of jobs for recent college graduates, postsecondary institutions have come under scrutiny as to the value of education they provide. Tightened state budgets have lawmakers asking postsecondary institutions to make the case as to why they should continue to fund them. Tennessee, Arkansas and Georgia, for example, are among those already linking—or moving towards linking—higher education funding to outcomes rather than enrollment. In addition, Louisiana’s GRAD Act, first passed in 2010 and fine-tuned in 2011, provides more flexibility for colleges and universities in return for improved student outcomes. A policy brief by the American Association of State Colleges and Universities highlights Tennessee’s model as “one of the most intricate and innovative approaches to higher education financing in the nation,” noting that “the change has led campuses to bring in extra advisers, increase tutoring and remedial classes, fast-track majors and develop extra courses between semesters.”<sup>93</sup>

In Virginia, legislation passed in 2012 requires the state’s institutions of higher education to publish data on the employment outcomes of graduates at 18 months and five years after the date of graduation. The State Council of Higher Education for Virginia recently released data on post-completion wages of graduates from the Commonwealth’s public and private universities, showing how individual schools and degrees fared once students entered the workforce. For example, a student who earned a four-year degree in construction management from Virginia Tech had a median income of nearly \$50,000 compared to all four-year degree holders in the state, who had a median income of \$33,000.<sup>94</sup> Arkansas and Tennessee also made similar data available this past fall. The three Southern states are the first in the nation to make their data publically available via the website [CollegeMeasures.org](http://CollegeMeasures.org).

The Data Quality Campaign offers several key policy recommendations related to establishing effective state longitudinal data systems:

1. Prioritize the data that is to be collected through broad-based stakeholder input. This keeps the amount of data that is needed to a manageable amount and takes into account what different stakeholders need at different points along the P-20/workforce pipeline.
2. Create universal standards when it comes to data collection and terms used.
3. Follow individuals through the pipeline, but take steps to protect the privacy of the individual at the same time.
4. Ensure access and build the capacity of all stakeholders—from parents to school administrators to policy makers—to actually use the data.<sup>95</sup>

The need for multi-state data collaboration is an additional focus of two recent reports from the DQC. “States have responsibilities to ensure that transferring students receive uninterrupted education and services, produce indicators that provide a complete picture, and ensure that information is comparable across states,” they write. “However, states’ and districts’ ability to meet these responsibilities requires data capacity that can be undermined due to significant mobility of students and teachers across state lines and lack of comparability across states.” They emphasize that “It is vital that policymakers understand these challenges and work with other state policymakers to standardize education data, support student record exchanges, share limited and appropriate data across state lines, and define and use common metrics.”<sup>96</sup>

## Engage Businesses in a Meaningful Way

Where do business needs fit in? Business partnerships and individual companies have a long history of adopting troubled schools, donating money for scholarships, encouraging their employees to give their time for tutoring and other support, providing texts (like newspapers), developing internship programs and otherwise promoting education. Now, businesses are acting more like full partners in education. This is appropriate since they invest nearly \$4 billion annually to support education.<sup>97</sup>

In his report *Revving the Education Engine: Effectively Aligning Education, Workforce and Economic Development Policy*, Bruce Vandal outlined elements that should be part of a bridge between education and workforce preparation, including:<sup>98</sup>

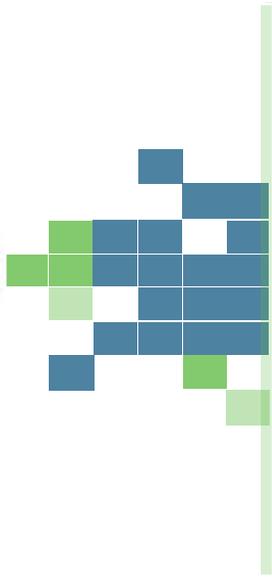
- Collaboration between the education and business communities to develop more diverse assessment instruments that measure and certify skills and competencies that are in demand in the workplace, such as Virginia’s use of ACT’s Career Readiness Certificate;
- Alignment of education and workforce data systems, such as South Carolina’s use of WIN’s Strategic Compass that tracks not only data on industry and occupational trends, but identifies education and training programs and assesses whether they are meeting occupational demands;
- Development of customized instructional models to meet the needs of a diverse student population, such as Arkansas’ Career Pathways Initiative.

Looking at the education and workforce continuum as a highway has become a useful construct for thinking about how all the pieces fit together. At a March 2012 forum that was part of the North Carolina New Schools Project’s Vision 2015 planning process, Joanne Honeycutt, Director of Career and Technical Education for the North Carolina Department of Public Instruction, likened yesterday’s transition after high school to a crossroads, where you went either to college or a career. The model of the future is more of an interstate highway, she said, with ramps on and off to enable students to exit at a time that is appropriate for them—but easily get back on at some point in the future.

Virginia’s Hampton Roads “Peninsula” region used the highway metaphor in its recent development of a strategic plan for career pathways in advanced and precision manufacturing technologies. The effort is one of three pilot projects that were selected as part of a statewide process to better align education, workforce development and economic development systems. The Virginia Peninsula’s plan, entitled *Roadmap to Success*, is organized around “expressways” that provide occupational training and short-term certificate programs for dislocated workers, retirees, veterans, and others

who can get back into the workforce fairly quickly; “highways” that are aimed at students as well as workers without experience, but the ability to learn quickly; and “byways” that are described as longer-term programs that may be aimed at those with more barriers to success. The plan goes on to describe on- and off-ramps, where exiting is “painless and return to the same point easy.” Included in the collaborative are manufacturers, public school systems, community colleges, universities, GED programs, and economic and workforce development organizations.

It might be helpful to think about business as providing critical supports, including not just monetary support, or fuel, but also GPS navigation, as we move down the workforce development highway. “Critical to moving alignment forward is involving the business community very early in the process,” said Bruce Vandal in his *Revvng the Education Engine* report. Nashville, Tennessee’s experience illustrates the importance of this involvement. The Institute for a Competitive Workforce details how business commitment has driven school reform there, pushing it forward “when otherwise it might have fallen apart.”<sup>99</sup> Central to the reform effort has been the creation of 12 academy high schools housing 44 different academies, each with its own specialty (from medical science to environmental planning) and set of business partners. “A hallmark of Nashville’s academy model is its reliance on sustained business engagement rather than a periodic sprinkling of extra dollars,” they emphasize. Among the positive signs: the city’s graduation rate grew from 69 percent in 2006 to 83 percent in 2010. The Ford Motor Company named Nashville one of seven Ford Next Generation Learning Hubs in 2011, putting it in a role to offer professional development and mentoring for other communities seeking educational transformation based on broad-based community and business engagement.



# Listening to the South

**T**here are probably no other topics that are more of a lightning rod for discussion than education and jobs. As Public Agenda elaborates, “It’s hard to find any American who isn’t touched in some way by the public schools as a student, parent, taxpayer, employer, or any combination of the above. And by almost any measure, the schools are one of the public’s top concerns.”<sup>100</sup> That schools head the list for many comes as no surprise, considering the strong links between education and future success—both for businesses and individuals. Likewise, “creating good jobs” is a priority that tops many polls. So, when one asks people to talk about workforce development—at the intersection of both education and jobs—there is no lack of dialogue.

Where are citizens talking about workforce development in the South? Everywhere!

Consider just this small sample:

- *The Role of Citizens in Solving the High School Dropout Problem* was the topic of a series of 40 forums across the state of Alabama coordinated by the David Mathews Center for Civic Life in 2012.
- The 25th class of Leadership Huntsville-Madison County produced a documentary emphasizing the need for a greater focus on career technical education in the public schools. Lockheed Martin hosted the May 2012 debut screening, using it as a launching pad for discussion.
- The Arkansas School Boards Association, through its Arkansas Study Circles Project, has worked in more than 50 communities throughout the state since 1998, encouraging dialogue and community problem solving around educational issues ranging from student achievement to high school reform.
- The Public Voice Partnership at Georgia College worked with the Milledgeville/Baldwin County Partners for Progress Education Committee to sponsor two public forums on dropout prevention in November 2011.
- In the fall of 2012, the Kettering Foundation, the National Issues Forum Institute and the American Commonwealth Partnership launched “Shaping Our Future,” a national dialogue on the future of higher education. Nearly 100 institutions, including many in the South, have already held forums. Efforts are underway to expand the dialogue among business organizations, civic groups, youth organizations and communities.

Southern Growth Policies Board listened to the voices of those participating in forums such as these throughout the South, alongside what we heard through:

- Community forums held using Southern Growth Policies Board's *Listening to the South* discussion materials;
- An online survey that invited ideas and priorities from those who might not have been able to participate in a face-to-face gathering;
- A June 24, 2012 policy dialogue that brought together Southern Growth's board, council and associate members—as well as other workforce development experts—to reflect on key policy challenges and priorities; and
- Comments from participants made during an open forum at Southern Growth's *2012 Annual Conference: Re-imagining Workforce Development*.

The key themes that emerged from our listening process were:

- 1) The pace of change in the world around us has accelerated; we need to stop tinkering at the edges when it comes to education and workforce development.
- 2) Learning starts well before children reach school; we need to act earlier.
- 3) We're shortchanging our businesses—as well as our students—if we promote four-year colleges as the only pathway to success.
- 4) We need to look behind the curtain; it's not all about technical skills.
- 5) Businesses need to play a key role.
- 6) Success requires a systems approach.

## Stop Tinkering at the Edges

*We've got to radically rethink how we do education in a world where globalization, technology, and demographics have completely changed the way we live, work, and learn.*

- Online survey respondent from Virginia

"I think the workplace has changed dramatically in the last 25 years and it changes at a much faster pace than it did 25 years ago," agreed a survey respondent from Texas, adding "it's more challenging to prepare students for the workplace when the education sector 'workplace' has changed minimally in the last 25 years."

Those at Southern Growth's policy dialogue saw things the same way, observing that the economy was changing faster than education and that the speed of change was accelerating. Globalization, in particular, is on a faster and faster track, they said. They noted that we're faced with hard choices, especially given today's fiscal challenges. They emphasized the need to re-think education and workforce development "big time" in view of what they saw as a decade of austerity.

Over half of all survey respondents strongly agreed that "we need to stop tinkering at the edges and more radically re-design K-12 education," rating their agreement with that statement a 9 or 10 on a 10 point scale. Similarly, over half expressed a strong need to revamp the workforce training system. Only a quarter felt a strong need for radical changes to community college and college education.

Many expressed a sense of urgency to act now so we don't get too far behind. Speaking in a video entitled *No Textbook Answers* that highlighted community deliberations on how to close achievement gaps, a participant in Helena, Arkansas warned, "If something is not done and done in a hurry, the last one in Helena turn off the lights."<sup>101</sup>

## Start Earlier

*Preparation for work begins at birth, not grade 9.*

- Online survey respondent from Tennessee

Early education initiatives were endorsed by a large number of participants in the Alabama forums that focused on the dropout issue. "Children don't actually drop out in high school," stated a citizen in Ft. Payne. "They drop out in kindergarten and hang around to make it official."<sup>102</sup> The Alabama report went on to quote a participant in Phenix City who encouraged the community to "invest early, so you don't have to pay so much in the end."<sup>103</sup> A number of online survey respondents also characterized early childhood education as an investment. "We must begin with high quality pre-K education," emphasized a respondent from Alabama. "This one investment can give all students a chance to succeed in school and in life." Expanding on this thought, another online survey respondent, from Tennessee, offered the following explanation:

*Supports and remediation are important for older youth and transitional young adults to become effective workers. But, public investment in education and assistance for older youth at the cost of building and sustaining an effective continuum of early childhood services often condemns a state to "too late," "catch up," "fix it after it's broken" approaches to workforce development. And, such restriction means the workforce that results isn't as effective or successful as it might have been, even when the "late in the game" workforce preparation efforts are successful.*

A number of participants in Southern Growth's policy dialogue were also convinced that early education is where we need to shift our focus. When given the opportunity to provide one piece of advice to their governor, one of the participants said that he would advise the governor to "direct education policy at third grade down."

## College is Not the Only Path to Success

*We're not Lake Wobegon, not all our kids are above average, and only about 15% should go to four-year college.*

- Online survey respondent from Georgia

While it's likely that not all would agree with the 15 percent figure cited by the respondent offering the *Prairie Home Companion* analogy above, it is clear that many throughout the South agree with the general sentiment that we need to do more to recognize and promote pathways to success besides attending a four-year college. In terms of specific comments made by survey respondents, the greatest number related to this issue above all others. Illustrative of these comments are:

- *Quit advertising college as the only path for success. (VA)*
- *There needs to be better communication at the high school level about career choices. Not everyone needs to go to college. Not everyone needs to go through community college—but almost everyone can take “target industry training” and get a good job—i.e. welding, plumbing, nursing assistant, etc. (AL)*
- *Parents need to understand that there are viable careers that do not require four year degrees but require technical education (LA)*
- *Prepare high school age children for careers in other areas than four year postsecondary education. Trade skills are sorely missing and for those not attending college, our education system is doing an extremely poor job of offering alternatives to a college education. (VA)*
- *Restore quality vocational training in the high schools, which might actually reduce the dropout rate. (TN)*

These views were reinforced at the local level as well. For example, nearly two-thirds of the people attending a *Listening to the South* forum hosted by the Chamber of Commerce of Huntsville/Madison County, Alabama saw raising awareness of career and education options besides just those requiring a four-year degree as one of the most important actions their community could take to address workforce development challenges. In Baldwin County, Georgia, “providing vocation-oriented instruction” was one of five common themes that surfaced as eight groups talked about ideas related to helping more students graduate from high school.<sup>104</sup> And in Blount County, Alabama, a forum participant citizen emphasized, “We cannot assume that every student is going to go to [a four-year] college.”<sup>105</sup> A report on a series of statewide forums in Alabama notes that “in a number of communities, citizens would like to see their vocational and technical programs brought back or expanded.”<sup>106</sup>

Likewise, Policy Dialogue participants keyed in on the shortage of workers in what are often referred to as “middle skill” jobs, noting that jobs are going unfilled even as we face high rates of unemployment. This is especially troubling when coupled with the looming retirement of a significant percentage of our skilled workforce in the next ten years, they said. Among the key pieces of advice they offered were:

- Advanced manufacturing hasn’t gone away; it is still critical to the economy. We need to step up our investments in community colleges that are best positioned to provide the training needed to produce skilled workers in this sector.
- Young people need to be exposed to a variety of career paths, including options other than four-year colleges. We also have to sell alternative pathways to parents, including the message that nearly 30 percent of those with an associate’s degree earn more than the median for those with a bachelor’s degree. The messaging is important; we need to invest in it.

In terms of messaging, one thing that struck a nerve among several in the room was the use of the term “middle skills.” As one participant put it, if I’m flying in an airplane, I want to make sure that those who maintained it were highly skilled, not middle-skilled. He challenged those in workforce

and education fields to come up with a term that was more reflective of the level of skills currently required in manufacturing and trade occupations.

Participants at the Policy Dialogue also talked at some length about the increasing importance of skills rather than a degree or other formal credentials. Workers need credentials with market value, they said, and this may not necessarily be conveyed by a degree alone. Increasingly, employers don't have confidence in degrees as a credential they explained; a degree doesn't necessarily mean competency. "Our college bound students do not have an issue getting to college," said an online survey respondent from Virginia. "Where we struggle is the ones that graduate with no skill." Policy Dialogue participants observed that businesses are rewarding those with skills, regardless of their formal credentials. They talked about the movement towards competency-based third party credentials, such as ACT's National Career Readiness Certificate and the National Association of Manufacturers'-endorsed Manufacturing Skills Certification System. "Bring 3rd party certified skills to scale at a state level," advised a 2012 conference attendee. "We do it in clinical health [and] increasingly in IT."

## Look Behind the Curtain

*Ask any state in the South and they will tell you the same thing, I bet. Sober/clean employees are increasingly scarce. That adversely impacts industry and business attraction and retention.*

- Online survey respondent from Kentucky

When asked to name the most important thing that their state could do to improve the quality of its workforce, the same online respondent said "address the drug culture and drug epidemic," stressing, "this is probably the greatest challenge of all." Respondents from South Carolina and Tennessee were among others who spoke to this need, offering comments such as: "Employers requiring skilled and semi-skilled employees can't find employees who can pass a drug screen and background search" and "We constantly hear that employers are not hiring because of lack of soft skills and that applicants cannot pass a drug screening."

The need for soft skills training was mentioned by many more than just the Tennessee respondent above. "We continue to hear from business and industry, 'They don't show up on time. They don't dress appropriately and sometimes they don't show up at all,'" reported a respondent from Alabama. "Schools do not help students understand workforce 'rules,'" the respondent said. "They think students will just figure it out."

In addition to drug and soft skill issues, others noted the need to look beyond just education and training and confront poverty and other challenges that are drawing people out of the workforce. Online survey respondents from Mississippi, for example, talked about the importance of improving parenting as well as reducing the incidence of single mother births. "We have to go back to what worked; the village raising the child," said a forum participant from Helena, Arkansas, adding, "but we've got to first fix the village."<sup>107</sup>

## Businesses Need to Play a Key Role

*Training needs to connect to jobs. We can't give people skills training, whether soft, hard or middle, and pat them on the back and wish them good luck.*

- Online survey respondent from Tennessee

"Develop a truly business-led education system from K12 through all higher levels," said an online survey respondent from South Carolina. At the very least, citizens called for a greater role for business, seeing them playing several critical roles.

One key role that citizens see for business is providing a "reality check" regarding the demand for workers in various industry sectors. We need "more dialog between private sector [human resource] needs and what is being trained," said a survey respondent from Alabama. We "don't need 100,000 cosmetologists with a demand for 1,000." A respondent from North Carolina agreed that we need to "educate and train students for jobs employers have forecasted," while a respondent from Virginia thought that "public funding should only be utilized for training /education for 'in demand' occupations."

A second role for business is providing feedback to those designing education and training programs about the skills needed in the workplace. "Educators need to listen to their local business leaders to learn what specific skills should be taught to students," said a survey respondent from Louisiana. "Work with the local industries to identify the competencies and skill sets the workforce should have to take us into the future," agreed a respondent from North Carolina, while a respondent from Mississippi commented, "workforce development has come a long way, but employers need to better define their expectations of employment needs, certifications, etc. in order that community college workforce entities can actively address those expectations and needs."

Finally, there was a good deal of discussion about encouraging more business involvement in schools in order to show both the relevance of education to the world of work as well as to provide students with hands-on experience in the workplace. When asked about the most important things their state should invest in to prepare people for future jobs, more of Southern Growth's online survey respondents picked "work-based learning/internships/apprenticeships" among their top three than any other strategy. "Work with [the] Chamber of Commerce to develop experiential opportunities for middle-school students; essentially a day out of the classroom for all students on a regular basis," suggested a 2012 conference attendee, adding to that suggestions to bring business/industry into the classroom, utilize on-line resources, and develop mentorship programs. "Provide hands-on work experience by re-designing the senior year of high school, with the experience directly related to career plans," recommended an online survey respondent from Virginia, while a respondent from Tennessee suggested looking to "for-profit career colleges" for inspiration in terms of "externships and placement." Experience informs decisions, agreed participants at Southern Growth's Policy Dialogue. We need to make sure all students get workplace experience before college, they said.

Writing about the results of forums on the dropout issue in four communities, Civic Enterprises observed in its report *Raising Their Voices*, "Although nearly all students understood the importance of a high school diploma and post-secondary education and training to their future in the labor force, few understood what the content of their current educations had to do with that success. One student in Kingsport said that many of her peers could not understand how writing a paper about

*The Canterbury Tales* would help them obtain employment. In addition, all participants —students, parents, and teachers—thought making classes more applicable and emphasizing their connection to the real world would motivate more students....As one parent in Kingsport put it, ‘People will work really hard at something they see as important and relevant.’”<sup>108</sup>

While acknowledging the importance of business involvement, participants at a forum in Huntsville, Alabama cautioned against expecting businesses to take on the entire burden. “While on-the-job experiences for students are recognized as valuable, it is resource-intensive for industry,” they said. “A ‘train the trainer’ model that brings teachers or counselors into industry is considered more sustainable,” they advised.

## Success Requires a Systems Approach

*Economic development is a team sport. Economic development needs workforce development and we can’t talk about workforce development without talking about education.*

- Participant at Southern Growth’s Policy Dialogue

The word “alignment” surfaced in many comments. There seemed to be three main interpretations of this word—all of them important to developing a systems approach. First, was the need to align education and training with business needs, as touched on in the prior section. Second was the importance of aligning different levels of education. And third, many talked about the need to better align education and workforce development.

When asked about the most important thing their state could do to improve the quality of its workforce, a number of comments were made related to alignment; among them:

- *Strategically align education and training institutions with workforce needs and recruitment opportunities by region. (VA)*
- *Realigning the education system so that all students are adequately prepared for the next level of education or to go into the workforce. (MO)*
- *Alignment of the education and workforce continuum. (NC)*

“We’re not a system,” said participants at Southern Growth’s Policy Dialogue, emphasizing, “we need to function as a system.” An online survey respondent from North Carolina put out a call to action, noting that “The South should lead the effort at producing a cohesive, coherent workforce development system that aligns and collaborates with its respective economic development system.”

## Resources to Start a Discussion in Your Community:

Southern Growth Policies Board encourages communities throughout the South to start—or continue—dialogues about what they can do to improve the quality of their current and future workforce. There are a number of resources available to help you begin that dialogue, including:

Southern Growth Policies Board's *Listening to the South* materials, including a Moderator's Guide and participant discussion guides on *Building a Competitive Workforce*, at <http://www.southerngrowth.com/forums/forums.html>

Through its *Arkansas Study Circles Project*, the Arkansas School Boards Association has discussion materials available on a variety of relevant topics, including student achievement, family involvement, and early care and education. <http://arsba.org/home/677-2/>

*Civic Enterprises: Raising their Voices*, a 2010 report that shares findings from dialogues that brought students, parents and teachers in four communities together to talk about the dropout problem, concludes with a guide to help communities conduct dialogues in their own schools. <http://www.americaspromise.org/~media/Files/Resources/raisingtheirvoices>

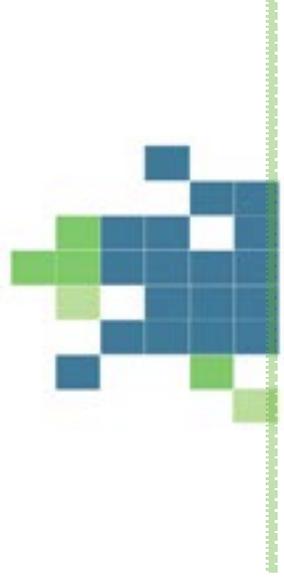
*Everyday Democracy* has resource materials on education, youth, and early childhood development at <http://www.everyday-democracy.org>

*National Issues Forums*: this nationwide network of locally sponsored public forums has discussion materials on topics such as: how to help more students graduate from high school; how to prepare today's kids for tomorrow's jobs; how to close the achievement gap; and exploring the 21st century mission of public schools. Its most recent guide, *Shaping Our Future: How Should Higher Education Help Us Create the Society We Want?*, invites citizens to deliberate about the future of higher education. [http://www.nifi.org/issue\\_books/guides.aspx?catID=10](http://www.nifi.org/issue_books/guides.aspx?catID=10)

Public Agenda has a series of *Discussion Starters* on education topics at: <http://www.publicagenda.org/publicengagement/choicework-discussion-starters#education>. Also see <http://www.publicagenda.org/pages/csg-education>

*Learning From Failure: A Discussion Guide on High School Reform*, is available from SERVE a university-based research and technical assistance center serving the Southeast. <http://www.serve.org/uploads/publications/LearningfromFailure.pdf>

There are also several films and videos that have been used to spark community conversations about education issues, including *Waiting for Superman* (go to <http://www.waitingforsuperman.com/action/page/resources>), and *No Textbook Answer* (go to <http://kettering.org/videos/notextbookanswerpreview/>)



# Conclusion



In today's rapidly changing world, the prerequisites for success are different than they once were. We need to re-imagine workforce preparation in order to remain competitive in a future where we face increasing global competition and a rising bar for talent. And, we must do this in a time of fiscal challenge.

The following will be key to our success:

1) **Re-imagining Readiness**

A key goal for most people the world over is a good job—one that enables them to provide for their family. We need to strengthen the connection between education and jobs in a way that keeps this goal in the foreground. At the same time, this does not mean that it's all about job-specific skills, but just as much about developing the ability to communicate, think creatively and adapt and learn in a constantly changing environment.

2) **Re-engaging Adult Learners and Disconnected Youth**

Options continue to narrow for those with limited education and skills. We need to promote continuous learning among all of our workers—and potential workers—so that they are not left behind. This includes re-engaging both adult learners and disconnected youth.

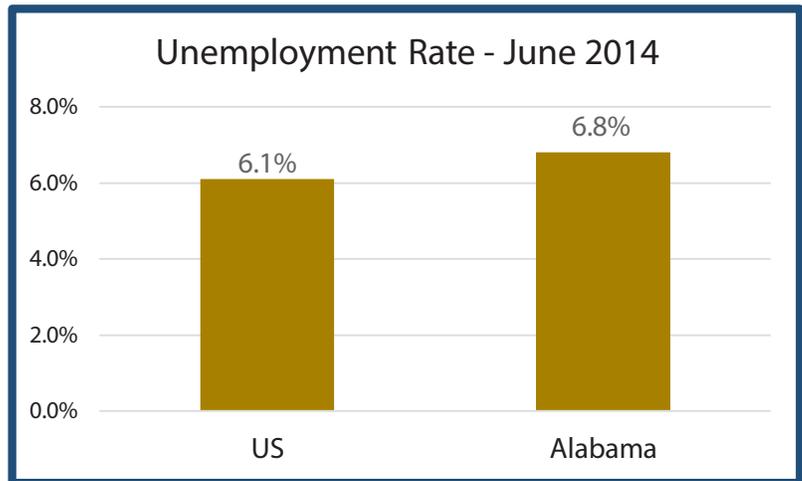
3) **Re-aligning Relationships and Resources**

Success requires a systems approach. We need to better align education, workforce and economic development assets to create clear pathways and smooth transitions that will facilitate lifelong learning. Businesses need to play a key role.

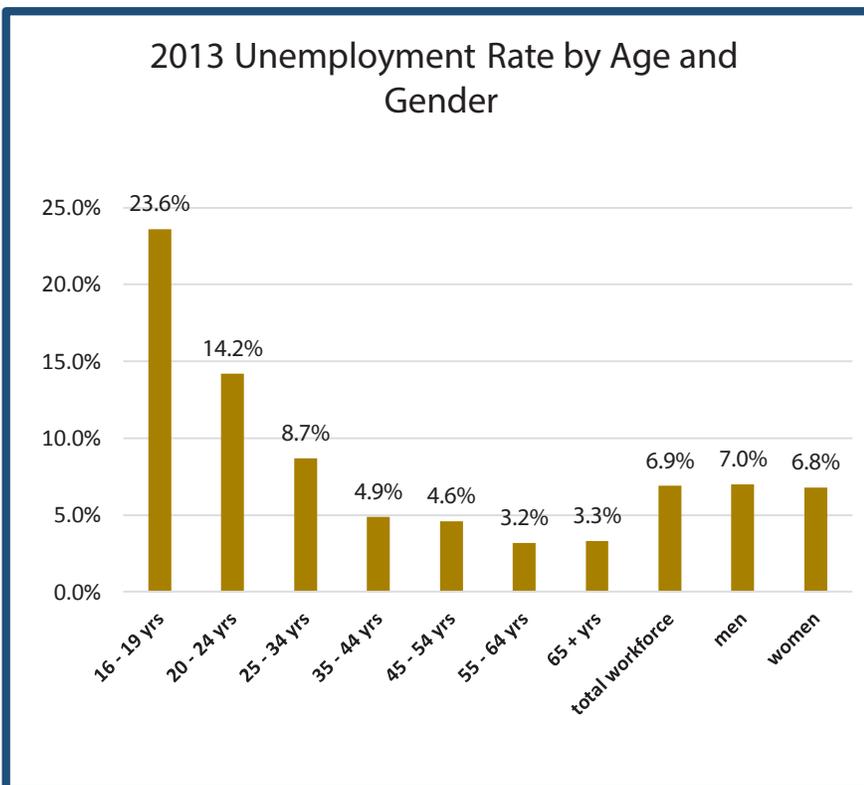
Most importantly, we need to be bold. As we heard from citizens around the region, the pace of change in the world around us has accelerated; we need to stop tinkering at the edges.

# Re-Imagining Regional Workforce Development

# Alabama



At 6.8% Alabama's latest official unemployment rate for June 2014 remains above the national average of 6.1%.



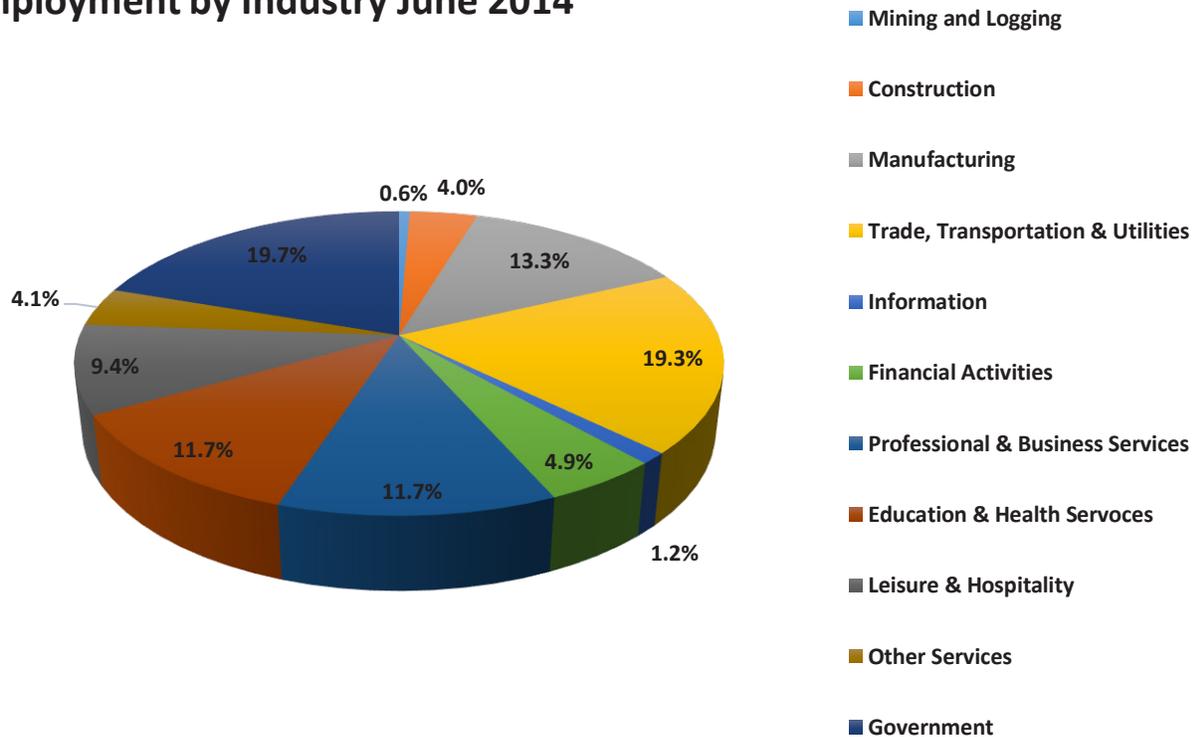
Population: 4,833,722

Civilian labor force 2013

Total	2,186,000
16 - 19 yrs	68,000
20 - 24 yrs	251,000
25 - 34 yrs	452,000
35 - 44 yrs	476,000
45 - 54 yrs	459,000
55 - 64 yrs	368,000
65 + yrs	112,000

For 2013, unemployment for young adults remained high in Alabama. This reflects a national trend. Unemployment for men is slightly higher than for women.

## Employment by Industry June 2014



Alabama's economy is very diverse with a strong manufacturing sector. Looking at specific clusters, business and financial services is a large growth cluster and Alabama continues to be very competitive in the transportation equipment manufacturing.

### Clusters in Alabama

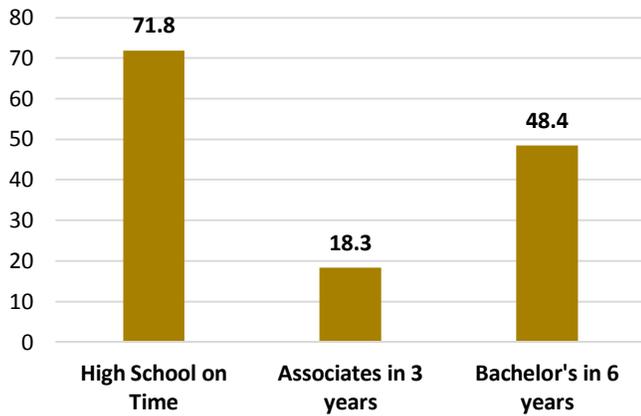
**Largest Cluster:** Business & Financial Services, 224,768 jobs

**Largest Growth Cluster:** Business & Financial Services, 47,876 new jobs since 2002

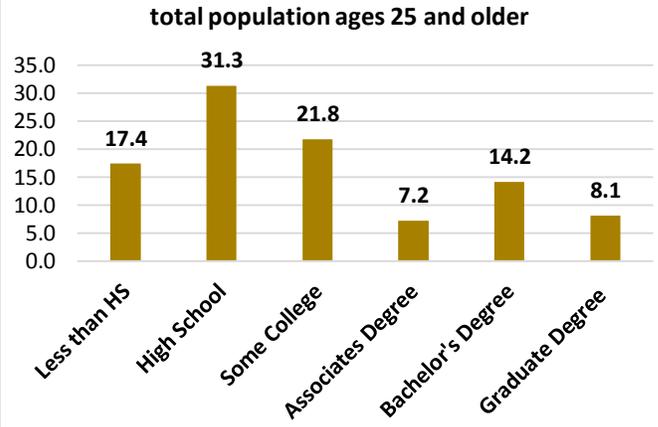
**Most Competitive Cluster:** Transportation Equipment Manufacturing, 18,444 new or retained jobs due to state competitive advantage

**Most Concentrated Cluster:** Primary Metal Manufacturing, 3.11 times the national concentration level

### Percentage of Full Time Students Completing Degrees on Time 2012



### Percentage Highest Educational Attainment 2012



#### Number of Degrees Conferred – 2011

Certificates less than 2 years	4,856
Associates Degrees	11,186
Bachelor's Degrees	25,484
Master's Degrees	10,654

#### Number of Post-Secondary Institutions -- 84

Nationally 85% of adults have graduated high school, 28% have at least a Bachelor's degree and 10% have advanced degrees.

### ALABAMA STATE RANKINGS

#### Forbes

"Best States of Business" 2013

**44th** -- Overall Ranking

**43rd** -- Labor Supply

#### Area Development Magazine

"Top States for Doing Business" 2013

**4th** -- Overall Ranking

**4th** -- Business Environment

**3rd** -- Labor Climate

#### Site Selection Magazine

"Ranking of Economic Development" 2013

**11th** -- Top Business Climate

**5th** -- Competitiveness

#### CNBC

"Top States for Business" 2014

**34rd** -- Overall Ranking

**20th** -- Workforce

**47th** -- Education

#### Education Week

"2014 State Report Cards"

Economy & Workforce Policies "A" 100%

#### Gallup

"The State of the American Workplace 2012"

**10th** -- Worker Engagement Level

Actively Disengaged 18.0%

Not Engaged 49.2%

Engaged 32.8%

#### US Chamber of Commerce

"Enterprising States 2011"

**4th** -- Academic R&D Intensity

**25th** -- Higher-ed Degree Output

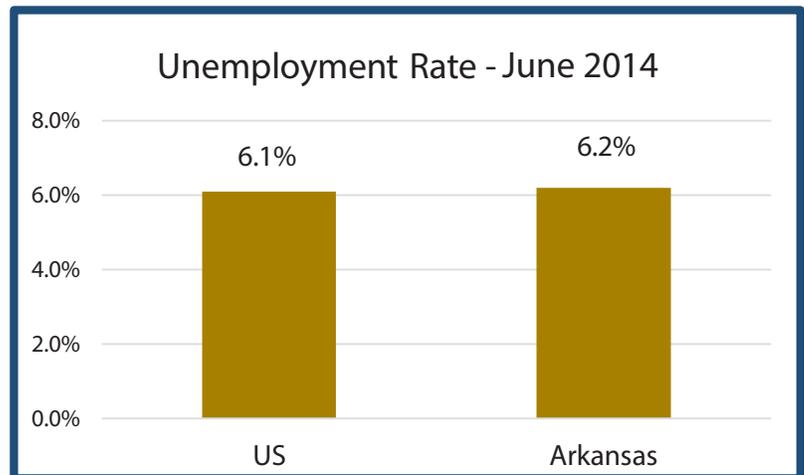
#### Sources:

BLS – Labor Force Statistics from Current Population Survey  
 BLS – Local Area Unemployment Statistics  
 BLS – Employment Status of Civilian Population  
 National Center for Education Statistics (NCES) – Number of Title IV Postsecondary Institutions  
 BLS - Table 5. Employees on nonfarm payrolls by state and selected industry sector, seasonally adjusted  
 US Census Bureau – Annual Population Estimates  
 US Census Bureau - B23006 Educational Attainment  
 US Chamber of Commerce – "Enterprising States"  
 Southern Regional Education Board (SREB) "Fact Book 2013"

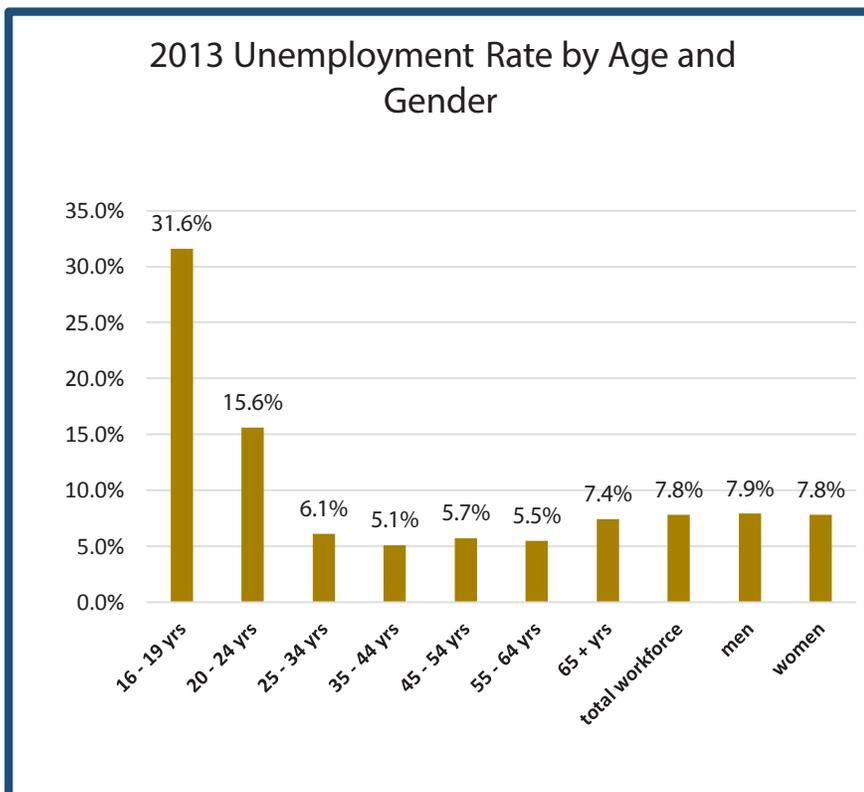
# Re-Imagining Regional Workforce Development



# Arkansas



At 6.2%, Arkansas's latest official unemployment rate for June 2014 remains just above the national average of 6.1%.



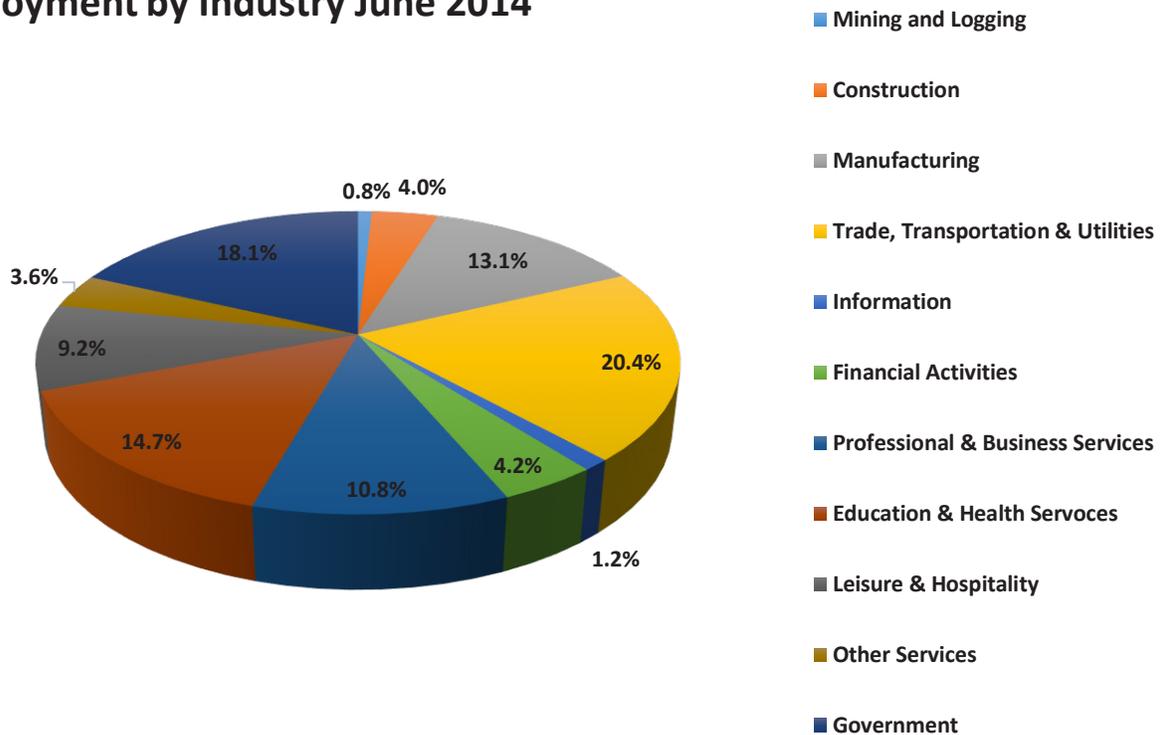
Population: 2,959,373

Civilian labor force 2013

Total	1,308,000
16 - 19 yrs	49,000
20 - 24 yrs	147,000
25 - 34 yrs	288,000
35 - 44 yrs	273,000
45 - 54 yrs	302,000
55 - 64 yrs	185,000
65 + yrs	64,000

For 2013, unemployment for young adults remained high in Arkansas. This reflects a national trend. Unemployment for men is slightly higher than for women.

## Employment by Industry June 2014



Arkansas's economy is diverse with a strong manufacturing sector. Looking at specific clusters, agribusiness, food processing and technology are large. Business and financial services is a growing cluster and Arkansas remains very competitive.

### Clusters in Arkansas

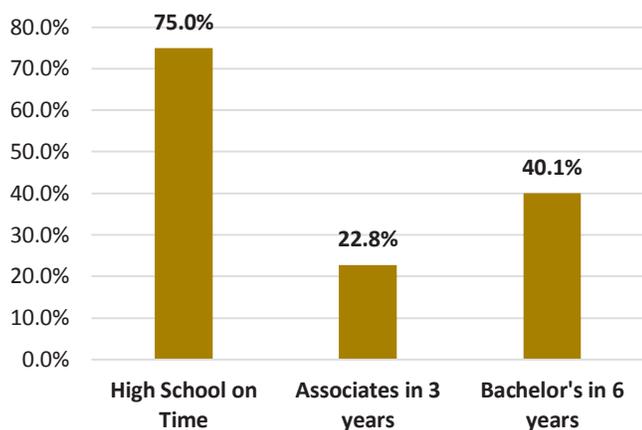
**Largest Cluster:** Agribusiness, Food Processing & Technology, 118,277 jobs

**Largest Growth Cluster:** Business & Financial Services, 25,810 new jobs since 2002

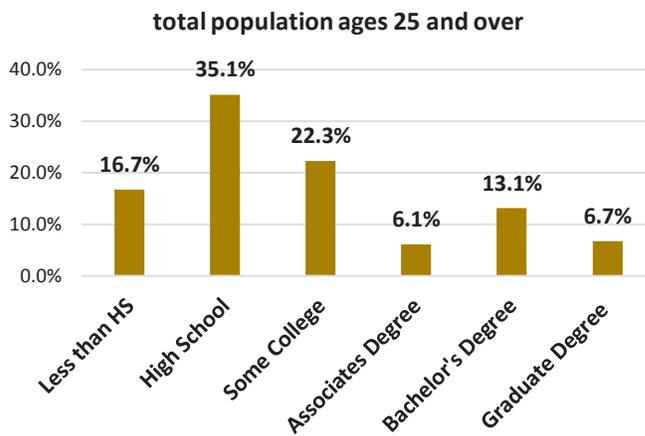
**Most Competitive Cluster:** Business & Financial Services, 7,481 new or retained jobs due to state competitive advantage

**Most Concentrated Cluster:** Agribusiness, Food Processing & Technology, 2.57 times the national concentration level

### Percentage of Full Time Students Completing Degrees on Time 2012



### Percentage Highest Educational Attainment 2012



#### Number of Degrees Conferred – 2011

Certificates less than 2 years	6,635
Associates Degrees	10,181
Bachelor's Degrees	13,259
Master's Degrees	4,793

Nationally 85% of adults have graduated high school, 28% have at least a Bachelor's degree and 10% have advanced degrees.

#### Number of Post-Secondary Institutions -- 83

### ARKANSAS STATE RANKINGS

#### Forbes

"Best States of Business" 2013

**35th** -- Overall Ranking

**42nd** -- Labor Supply

#### CNBC

"Top States for Business" 2014

**30th** -- Overall Ranking

**19th** -- Workforce

**37th** -- Education

#### Education Week

"2014 State Report Cards"

Economy & Workforce policies "A" 100%

#### Gallup

"The State of the American Workplace 2012"

**5th** -- Worker Engagement Level

Actively Disengaged 18.5%

Not Engaged 47.6%

Engaged 33.9%

#### US Chamber of Commerce

"Enterprising States 2011"

**6th** Higher-Ed Efficiency

**6th** High School Advanced Placement Intensity

**6th** Academic R&D Intensity

**17th** Job Placement Efficiency

**19th** Long-term Job Growth

**24th** College Affordability

#### Sources:

BLS – Labor Force Statistics from Current Population Survey

BLS – Local Area Unemployment Statistics

BLS – Employment Status of Civilian Population

National Center for Education Statistics (NCES) – Number of Title IV Postsecondary Institutions

BLS - Table 5. Employees on nonfarm payrolls by state and selected industry sector, seasonally adjusted

US Census Bureau – Annual Population Estimates

US Census Bureau - B23006 Educational Attainment

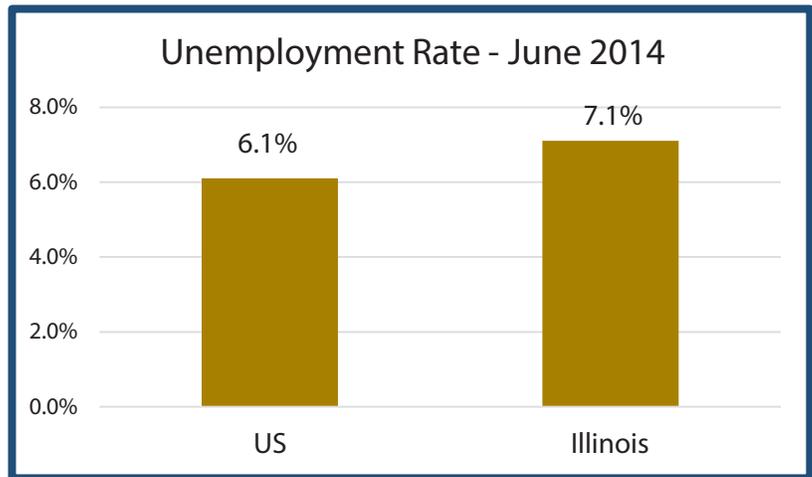
US Chamber of Commerce – "Enterprising States"

Southern Regional Education Board (SREB) "Fact Book 2013"

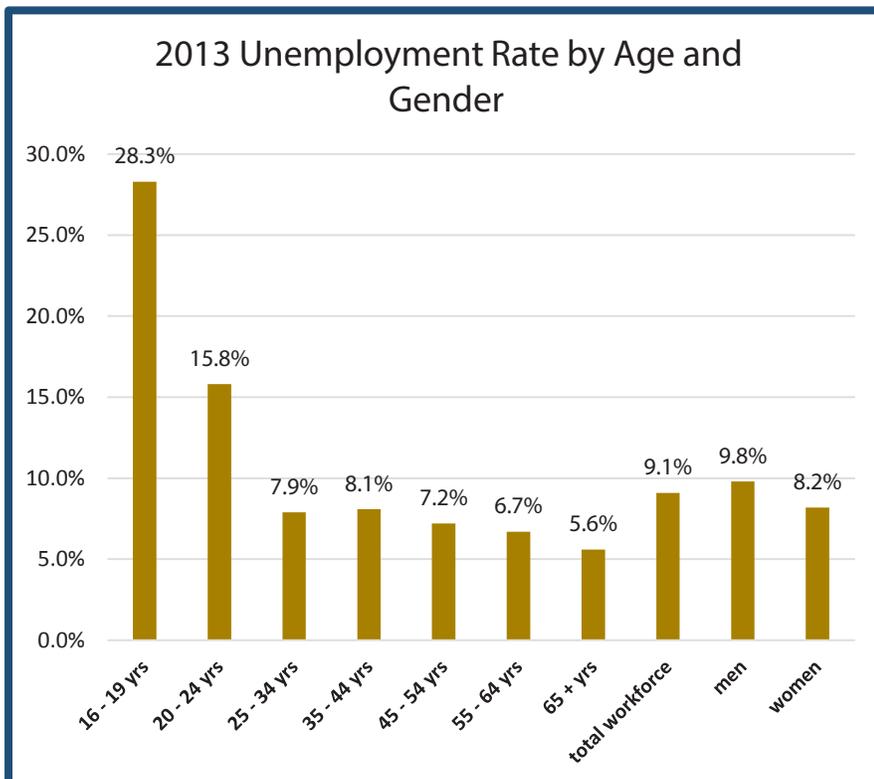
# Re-Imagining Regional Workforce Development



# Illinois



At 7.1% Illinois's latest official unemployment rate for June 2014 remains above the national average of 6.1%.



Population: 12,882,135

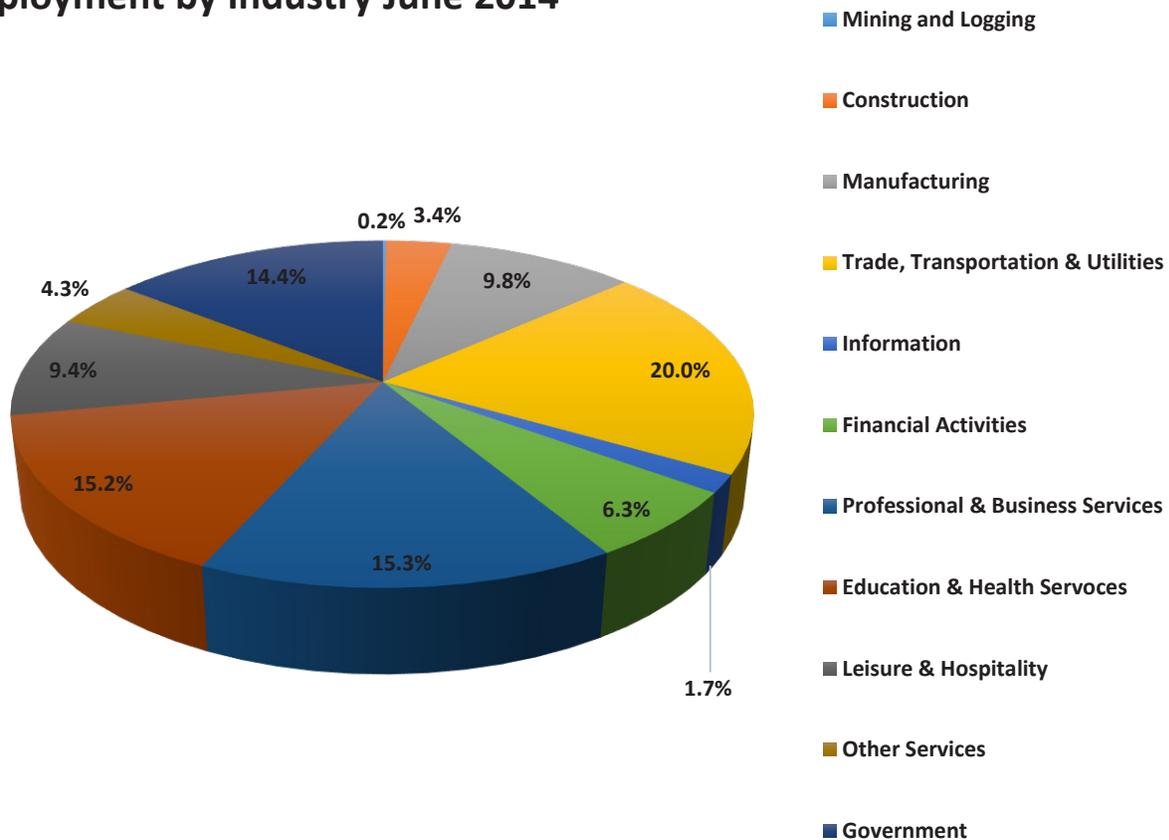
Civilian labor force 2013

Total	6,560,000
16 - 19 yrs	258,000
20 - 24 yrs	643,000
25 - 34 yrs	1,492,000
35 - 44 yrs	1,323,000
45 - 54 yrs	1,444,000
55 - 64 yrs	1,065,000
65 + yrs	335,000

For 2013, unemployment for young adults remained high in Illinois. This reflects a national trend.

Unemployment for men is slightly higher than for women.

## Employment by Industry June 2014



Illinois's economy is very diverse. Looking at specific clusters, business and financial services is a large and growing cluster with close to a million jobs. Illinois also has a strong concentration in machinery manufacturing.

### Clusters in Illinois

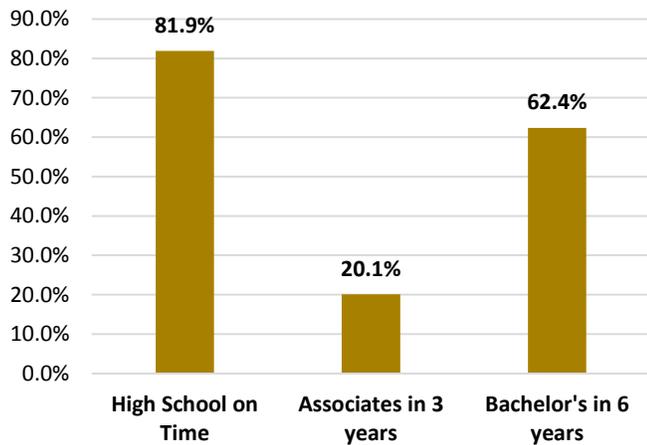
**Largest Cluster:** Business & Financial Services, 942,941 jobs

**Largest Growth Cluster:** Business & Financial Services, 118,017 new jobs since 2002

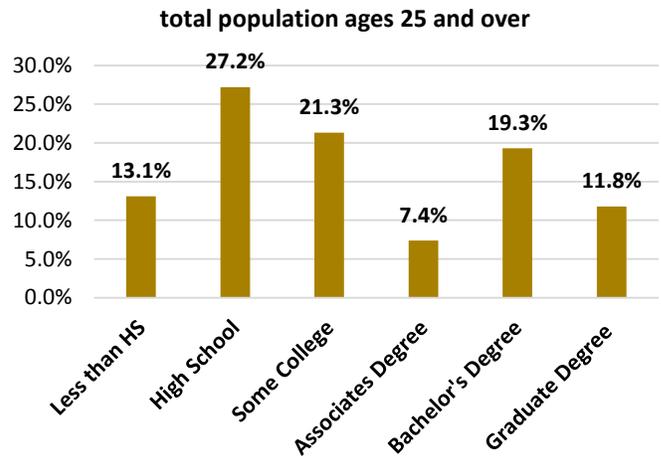
**Most Competitive Cluster:** Apparel & Textiles, 8,597 new or retained jobs due to state competitive advantage

**Most Concentrated Cluster:** Machinery Manufacturing, 1.77 times the national concentration level

### Percentage of Full Time Students Completing Degrees on Time 2012



### Percentage Highest Educational Attainment 2012



### Number of Degrees Conferred – 2011

Certificates less than 2 years	19,567
Associates Degrees	35,271
Bachelor's Degrees	68,403
Master's Degrees	41,776

Nationally 85% of adults have graduated high school, 28% have at least a Bachelor's degree and 10% have advanced degrees.

### Number of Post-Secondary Institutions -- 289

## ILLINOIS STATE RANKINGS

### Forbes

"Best States of Business" 2013

**38th** -- Overall Ranking

**32nd** -- Labor Supply

### CNBC

"Top States for Business" 2014

**27th** -- Overall Ranking

**32nd** -- Workforce

**15th** -- Education

### Education Week

"2014 State Report Cards"

Economy & Workforce policies "C" 75%

### Gallup

"The State of the American Workplace 2012"

**46th** -- Worker Engagement Level

Actively Disengaged 19.5%

Not Engaged 52.8%

Engaged 27.7%

### US Chamber of Commerce

"Enterprising States 2011"

**11th** Economic Output Per Job

**13th** Higher-ed Degree Output

**14th** Educational Attainment

**20th** Job Placement Efficiency

**22nd** High School Advanced Placement Intensity

**23rd** Higher-ed Efficiency

### Sources:

BLS – Labor Force Statistics from Current Population Survey

BLS – Local Area Unemployment Statistics

BLS – Employment Status of Civilian Population

National Center for Education Statistics (NCES) – Number of

Title IV Postsecondary Institutions

BLS - Table 5. Employees on nonfarm payrolls by state and selected industry sector, seasonally adjusted

US Census Bureau – Annual Population Estimates

US Census Bureau - B23006 Educational Attainment

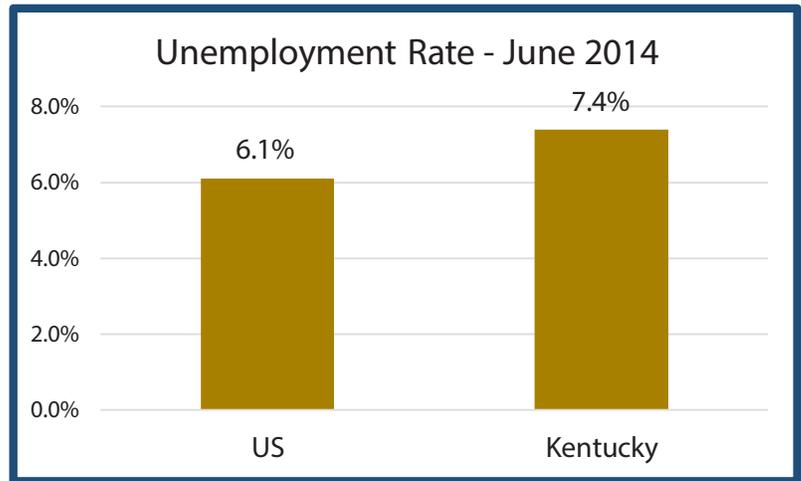
US Chamber of Commerce – "Enterprising States"

Southern Regional Education Board (SREB) "Fact Book 2013"

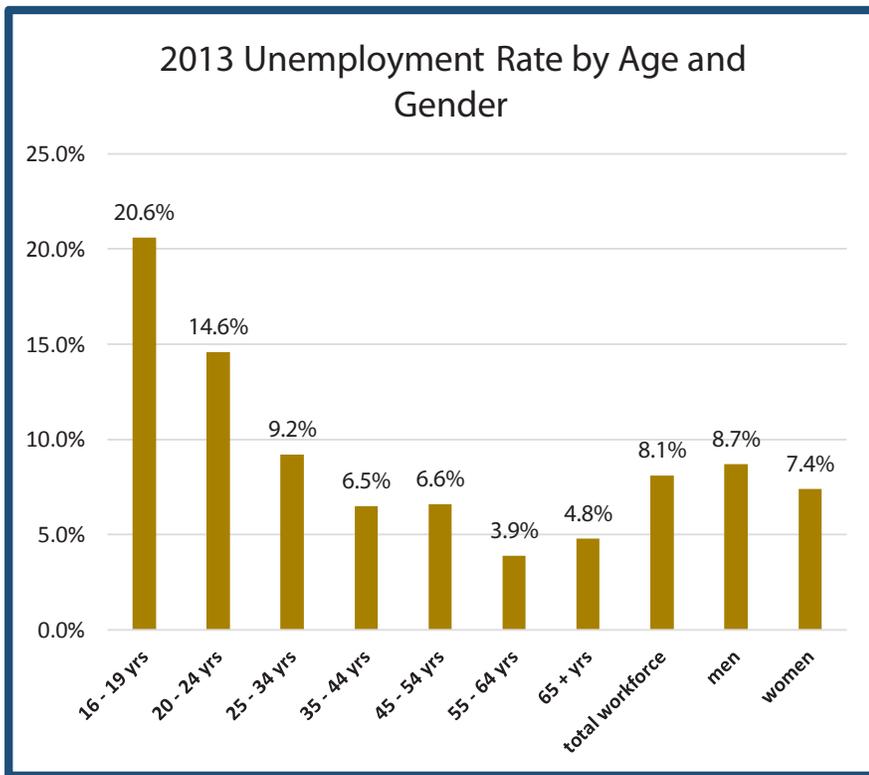
# Re-Imagining Regional Workforce Development



# Kentucky



At 7.4% Kentucky's latest official unemployment rate for June 2014 remains above the national average of 6.1%.



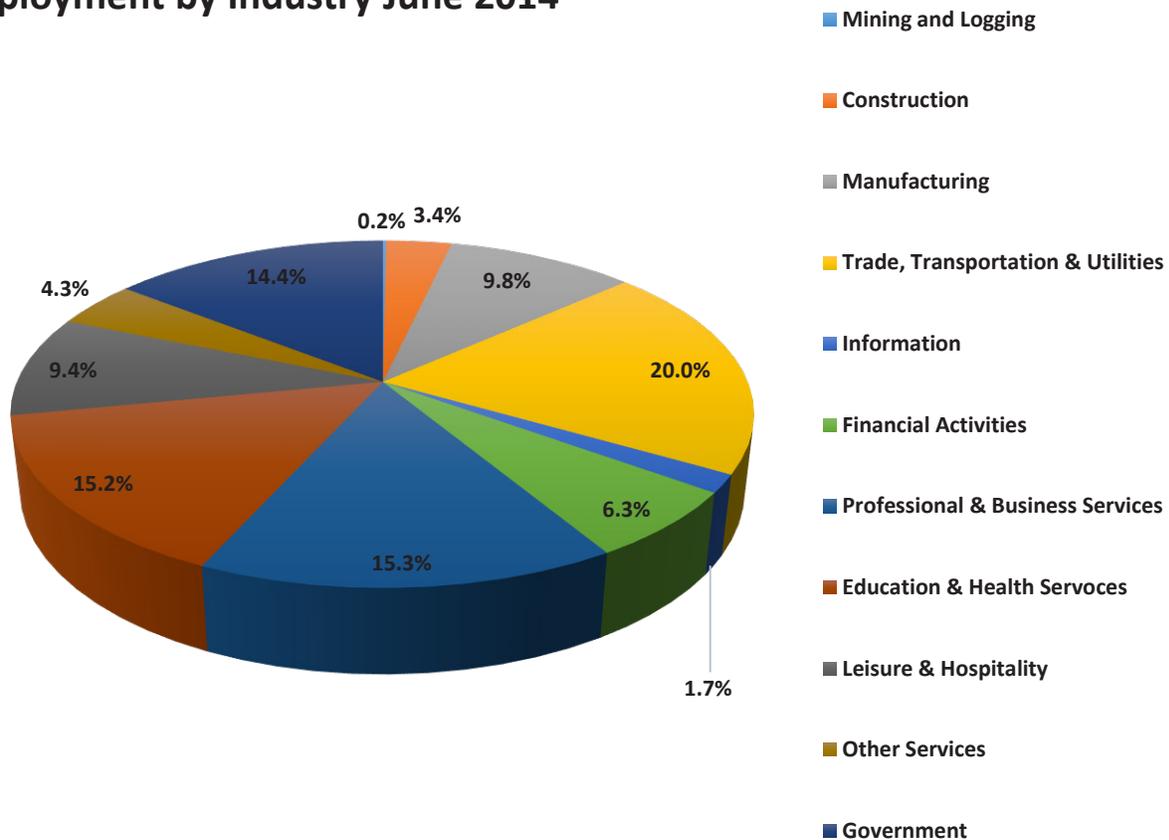
Population: 4,395,295

Civilian labor force 2013

Total	2,064,000
16 - 19 yrs	80,000
20 - 24 yrs	243,000
25 - 34 yrs	443,000
35 - 44 yrs	416,000
45 - 54 yrs	464,000
55 - 64 yrs	320,000
65 + yrs	98,000

For 2013, unemployment for young adults remained high in Kentucky. This reflects a national trend. Unemployment for men is slightly higher than for women.

## Employment by Industry June 2014



Illinois's economy is very diverse. Looking at specific clusters, business and financial services is a large and growing cluster with close to a million jobs. Illinois also has a strong concentration in machinery manufacturing.

### Clusters in Illinois

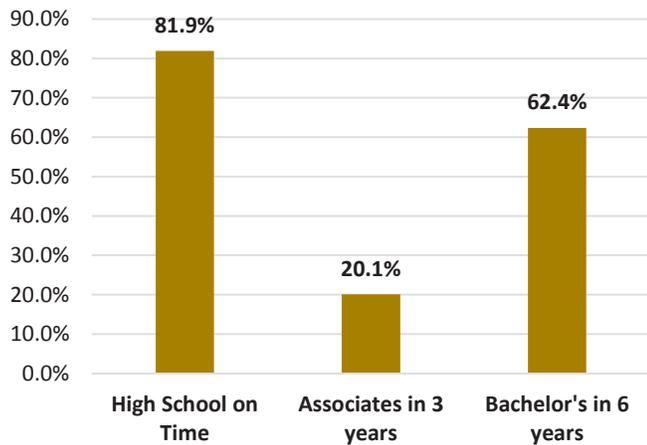
**Largest Cluster:** Business & Financial Services, 942,941 jobs

**Largest Growth Cluster:** Business & Financial Services, 118,017 new jobs since 2002

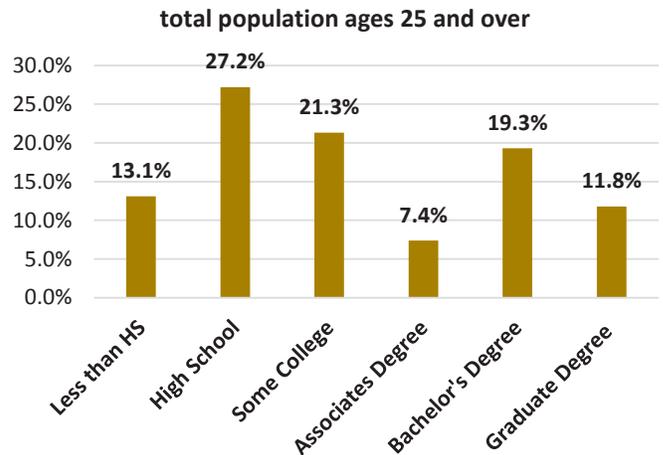
**Most Competitive Cluster:** Apparel & Textiles, 8,597 new or retained jobs due to state competitive advantage

**Most Concentrated Cluster:** Machinery Manufacturing, 1.77 times the national concentration level

### Percentage of Full Time Students Completing Degrees on Time 2012



### Percentage Highest Educational Attainment 2012



### Number of Degrees Conferred – 2011

Certificates less than 2 years	19,567
Associates Degrees	35,271
Bachelor's Degrees	68,403
Master's Degrees	41,776

Nationally 85% of adults have graduated high school, 28% have at least a Bachelor's degree and 10% have advanced degrees.

### Number of Post-Secondary Institutions -- 289

## ILLINOIS STATE RANKINGS

### Forbes

"Best States of Business" 2013  
**38th** -- Overall Ranking  
**32nd** -- Labor Supply

### CNBC

"Top States for Business" 2014  
**27th** -- Overall Ranking  
**32nd** -- Workforce  
**15th** -- Education

### Education Week

"2014 State Report Cards"  
 Economy & Workforce policies "C" 75%

### Gallup

"The State of the American Workplace 2012"  
**46th** -- Worker Engagement Level  
 Actively Disengaged 19.5%  
 Not Engaged 52.8%  
 Engaged 27.7%

### US Chamber of Commerce

"Enterprising States 2011"  
**11th** Economic Output Per Job  
**13th** Higher-ed Degree Output  
**14th** Educational Attainment  
**20th** Job Placement Efficiency  
**22nd** High School Advanced Placement Intensity  
**23rd** Higher-ed Efficiency

### Sources:

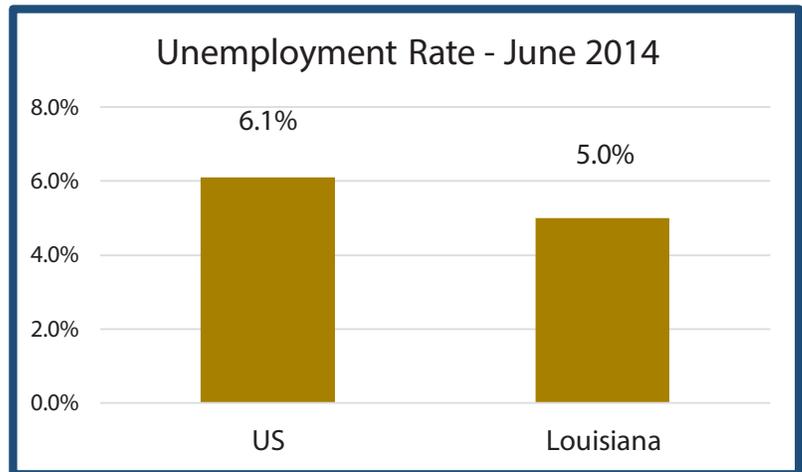
BLS – Labor Force Statistics from Current Population Survey  
 BLS – Local Area Unemployment Statistics  
 BLS – Employment Status of Civilian Population  
 National Center for Education Statistics (NCES) – Number of Title IV Postsecondary Institutions

BLS - Table 5. Employees on nonfarm payrolls by state and selected industry sector, seasonally adjusted  
 US Census Bureau – Annual Population Estimates  
 US Census Bureau - B23006 Educational Attainment  
 US Chamber of Commerce – "Enterprising States"  
 Southern Regional Education Board (SREB) "Fact Book 2013"

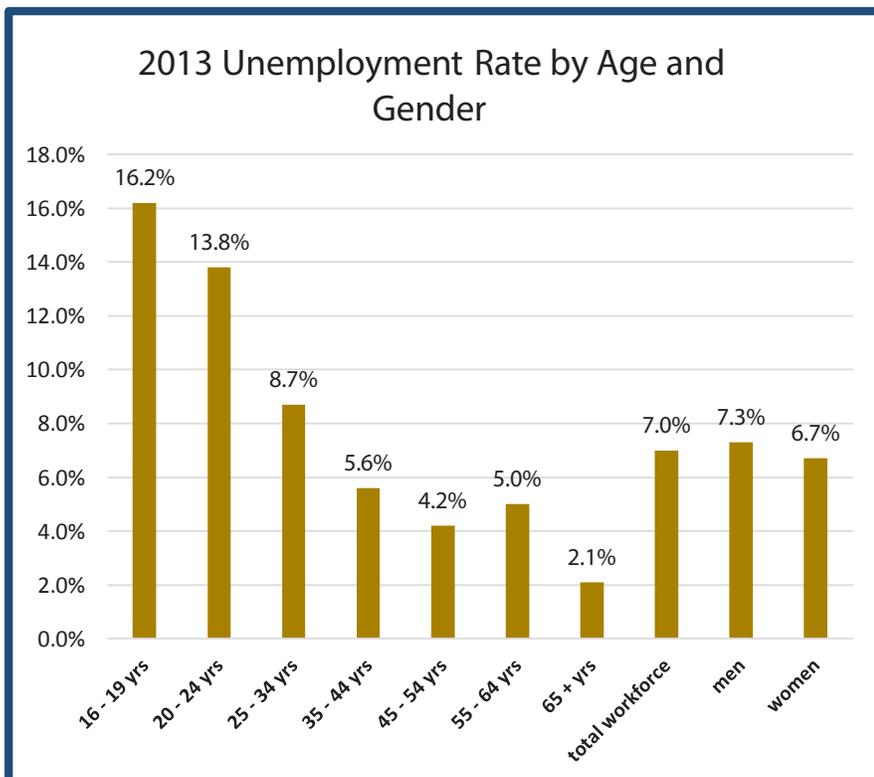
# Re-Imagining Regional Workforce Development



# Louisiana



At 5.0% Louisiana's latest official unemployment rate for June 2014 remains well below the national average of 6.1%.



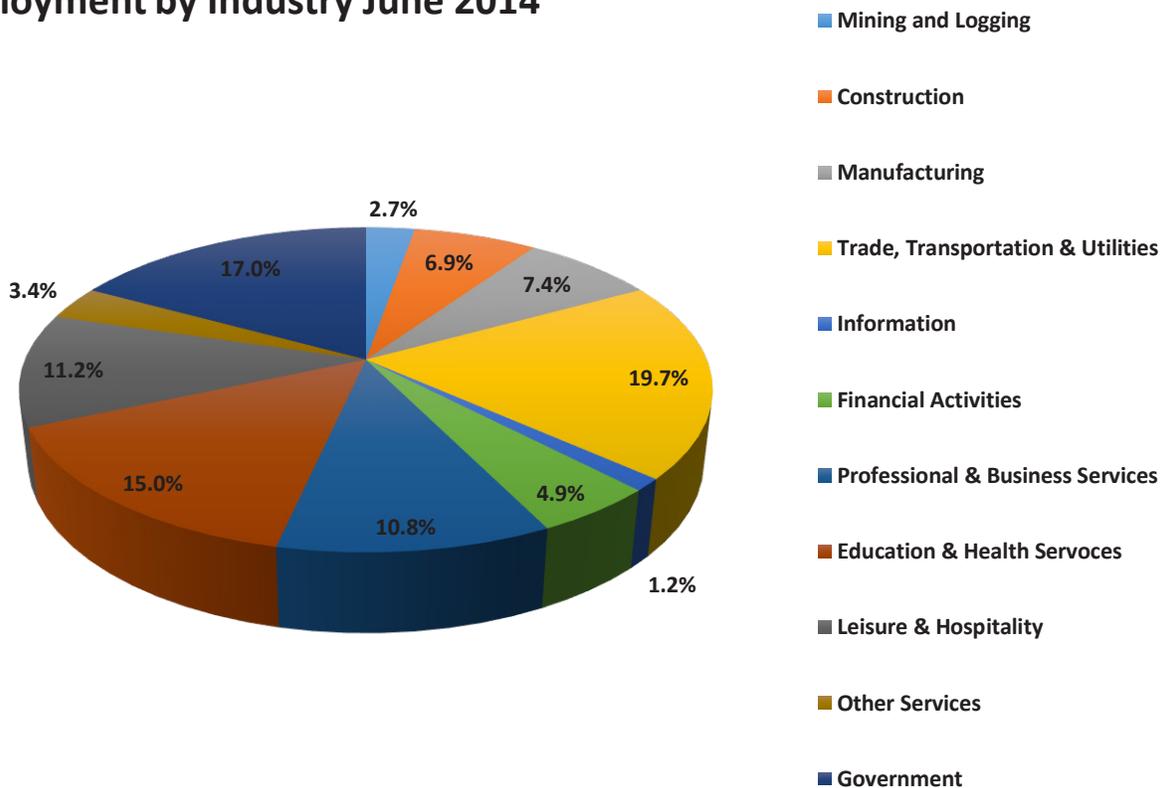
Population: 4,625,470

Civilian labor force 2013

Total	2,096,000
16 - 19 yrs	80,000
20 - 24 yrs	233,000
25 - 34 yrs	463,000
35 - 44 yrs	431,000
45 - 54 yrs	467,000
55 - 64 yrs	318,000
65 + yrs	104,000

For 2013, unemployment for young adults remained high in Louisiana. This reflects a national trend. Unemployment for men is slightly higher than for women.

## Employment by Industry June 2014



Louisiana's dynamic economy is diverse with a strong energy sector. Looking at specific clusters, business and financial services is a large and growing cluster and Louisiana continues to be very competitive in America's new growth energy economy.

### Clusters in Louisiana

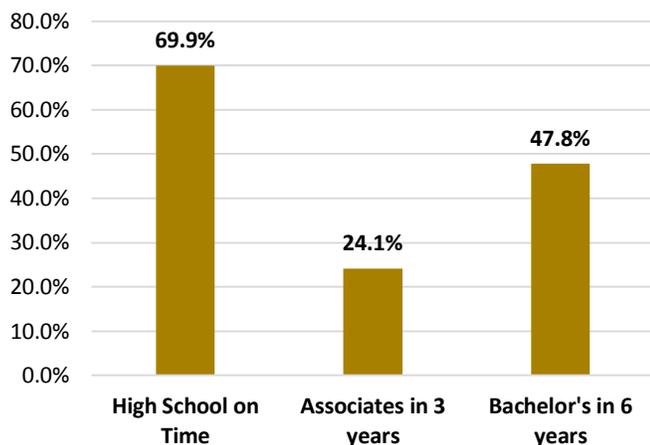
**Largest Cluster:** Energy (Fossil & Renewable), 242,346 jobs

**Largest Growth Cluster:** Business & Financial Services, 36,864 new jobs since 2002

**Most Competitive Cluster:** Energy (Fossil & Renewable), 14,196 new or retained jobs due to state competitive advantage

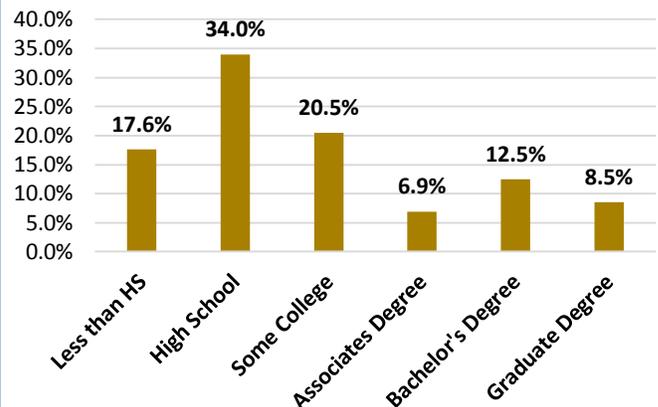
**Most Concentrated Cluster:** Energy (Fossil & Renewable), 1.94 times the national concentration level

### Percentage of Full Time Students Completing Degrees on Time 2012



### Percentage Highest Educational Attainment 2012

total population ages 25 and over



### Number of Degrees Conferred – 2011

Certificates less than 2 years	11,501
Associates Degrees	7,236
Bachelor's Degrees	21,509
Master's Degrees	7,017

Number of Post-Secondary Institutions -- 121

### LOUISIANA STATE RANKINGS

#### Forbes

"Best States of Business" 2013

**40th** -- Overall Ranking

**44th** -- Labor Supply

#### CNBC

"Top States for Business" 2014

**40th** -- Overall Ranking

**26th** -- Workforce

**44th** -- Education

#### Education Week

"2014 State Report Cards"

Economy & Workforce policies "A" 100%

#### Gallup

"The State of the American Workplace 2012"

**1st** -- Worker Engagement Level

Actively Disengaged 15.9%

Not Engaged 47.1%

Engaged 37.0%

Nationally 85% of adults have graduated high school, 28% have at least a Bachelor's degree and 10% have advanced degrees.

#### US Chamber of Commerce

"Enterprising States 2011"

**2nd** College Affordability

**13th** Economic Output Per Job

**17th** Higher-ed Efficiency

**19th** Short-term Job Growth

#### Site Selection Magazine

"Ranking of Economic Development" 2013

**4th** -- Competitiveness

#### Area Development Magazine

"Top States for Doing Business" 2013

**6th** -- Overall Ranking

**4th** -- Leading Workforce Development Programs

#### Sources:

BLS – Labor Force Statistics from Current Population Survey

BLS – Local Area Unemployment Statistics

BLS – Employment Status of Civilian Population

National Center for Education Statistics (NCES) – Number of Title IV Postsecondary Institutions

BLS - Table 5. Employees on nonfarm payrolls by state and selected industry sector, seasonally adjusted

US Census Bureau – Annual Population Estimates

US Census Bureau - B23006 Educational Attainment

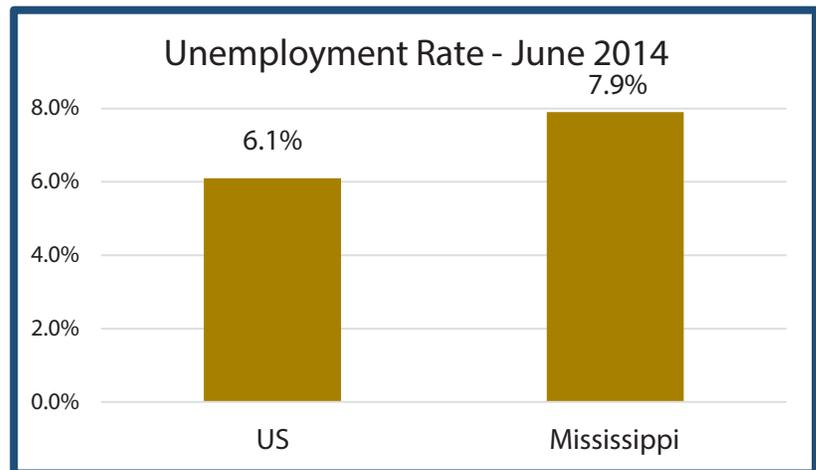
US Chamber of Commerce – "Enterprising States"

Southern Regional Education Board (SREB) "Fact Book 2013"

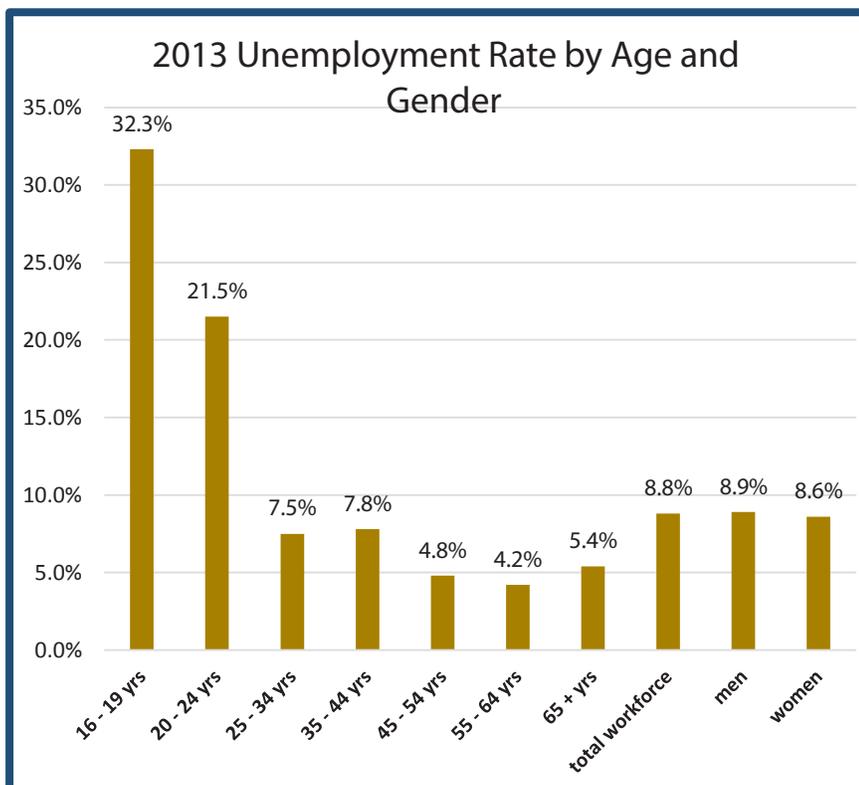
# Re-Imagining Regional Workforce Development



# Mississippi



At 7.9% Mississippi's latest official unemployment rate for June 2014 remains above the national average of 6.1%.



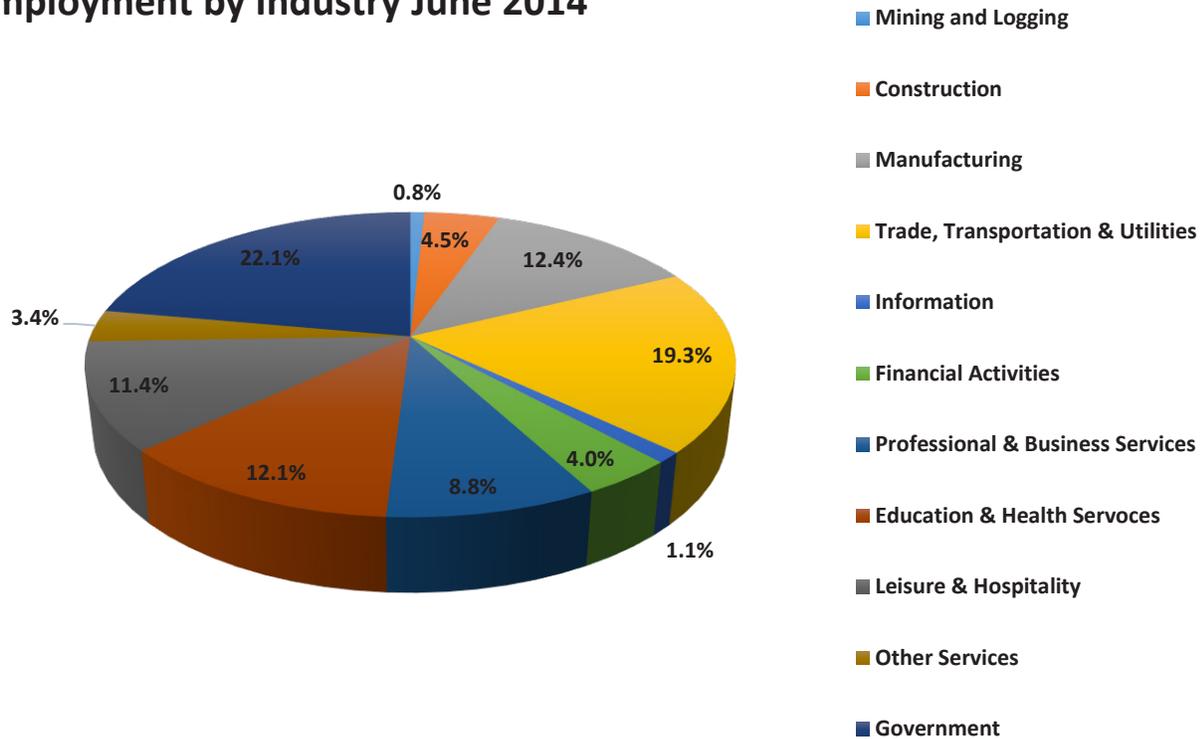
Population: 2,991,207

Civilian labor force 2013

Total	1,259,000
16 - 19 yrs	46,000
20 - 24 yrs	130,000
25 - 34 yrs	286,000
35 - 44 yrs	288,000
45 - 54 yrs	260,000
55 - 64 yrs	184,000
65 + yrs	65,000

For 2013, unemployment for young adults remained high in Mississippi. This reflects a national trend. Unemployment for men is slightly higher than for women.

## Employment by Industry June 2014



Mississippi's economy is diverse with a strong manufacturing sector. Looking at specific clusters, business and financial services is a large and growing cluster and Mississippi continues to be very competitive in transportation equipment manufacturing.

### Clusters in Mississippi

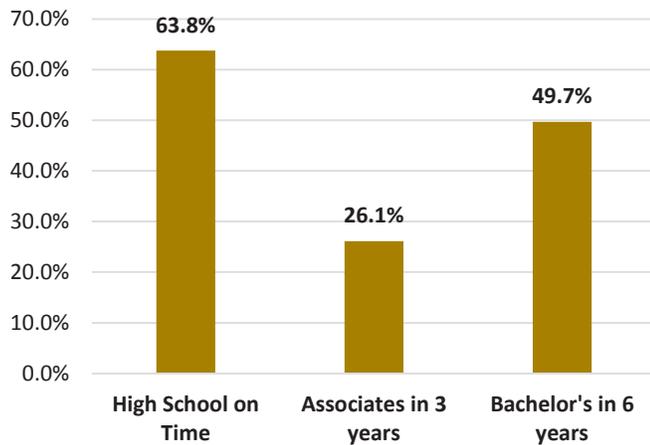
**Largest Cluster:** Business & Financial Services, 102,313 jobs

**Largest Growth Cluster:** Business & Financial Services, 20,518 new jobs since 2002

**Most Competitive Cluster:** Transportation Equipment Manufacturing, 7,116 new or retained jobs due to state competitive advantage

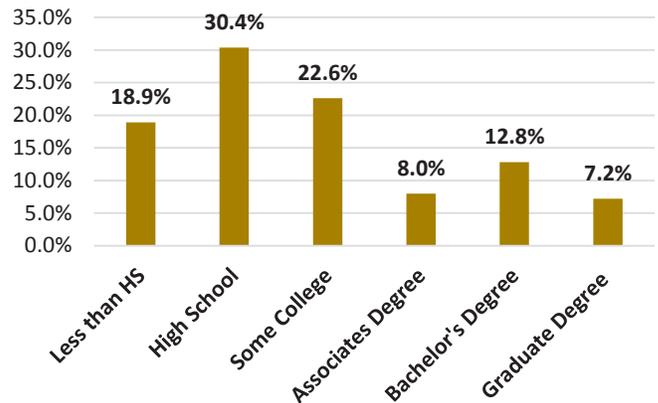
**Most Concentrated Cluster:** Forest & Wood Products, 2.32 times the national concentration level

### Percentage of Full Time Students Completing Degrees on Time 2012



### Percentage Highest Educational Attainment 2012

total population ages 25 and over



### Number of Degrees Conferred – 2011

Certificates less than 2 years	4,134
Associates Degrees	11,440
Bachelor's Degrees	13,230
Master's Degrees	4,676

### Number of Post-Secondary Institutions -- 60

### MISSISSIPPI STATE RANKINGS

#### Forbes

"Best States of Business" 2013

**49th** -- Overall Ranking

**48th** -- Labor Supply

#### CNBC

"Top States for Business" 2014

**36th** -- Overall Ranking

**17th** -- Workforce

**48th** -- Education

#### Education Week

"2014 State Report Cards"

Economy & Workforce policies "C" 75%

#### Gallup

"The State of the American Workplace 2012"

**13th** -- Worker Engagement Level

Actively Disengaged 18.2%

Not Engaged 49.6%

Engaged 32.2%

Nationally 85% of adults have graduated high school, 28% have at least a Bachelor's degree and 10% have advanced degrees.

#### US Chamber of Commerce

"Enterprising States 2011"

**11th** Higher-ed Efficiency

**20th** STEM Job Growth

#### Area Development Magazine

"Top States for Doing Business" 2013

**9th** -- Overall Ranking

**5th** -- Right to Work Environment

#### Sources:

BLS – Labor Force Statistics from Current Population Survey

BLS – Local Area Unemployment Statistics

BLS – Employment Status of Civilian Population

National Center for Education Statistics (NCES) – Number of Title IV Postsecondary Institutions

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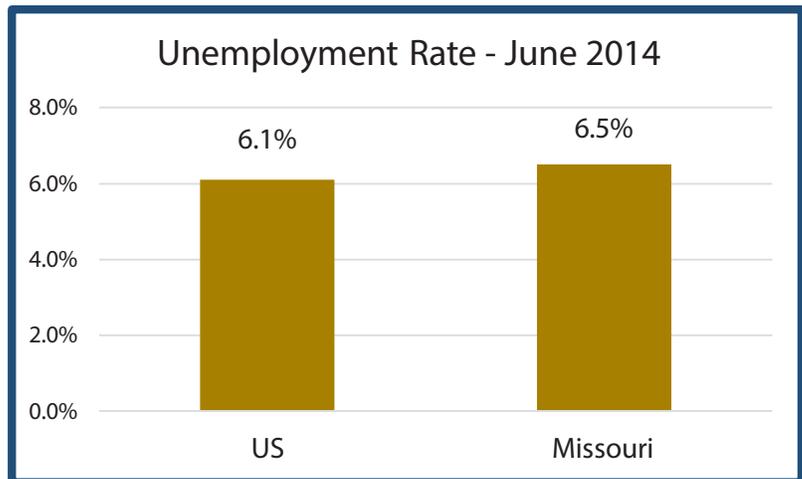
US Census Bureau - B23006 Educational Attainment

US Chamber of Commerce – "Enterprising States"

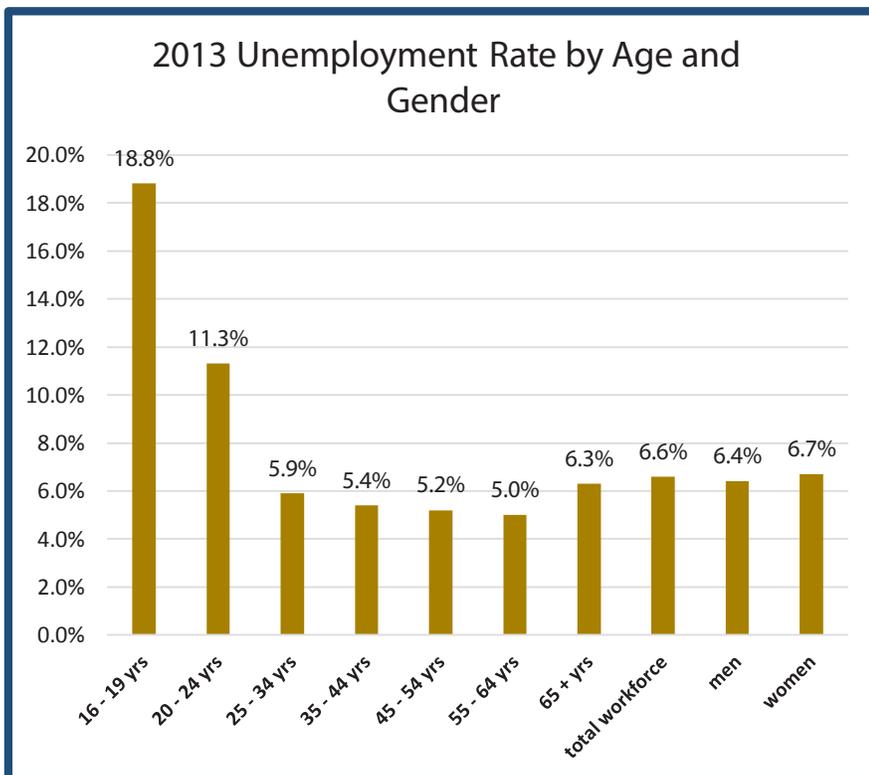
Southern Regional Education Board (SREB) "Fact Book 2013"

# Re-Imagining Regional Workforce Development

# Missouri



At 6.5% Missouri's latest official unemployment rate for June 2014 remains above the national average of 6.1%.



Population: 6,044,171

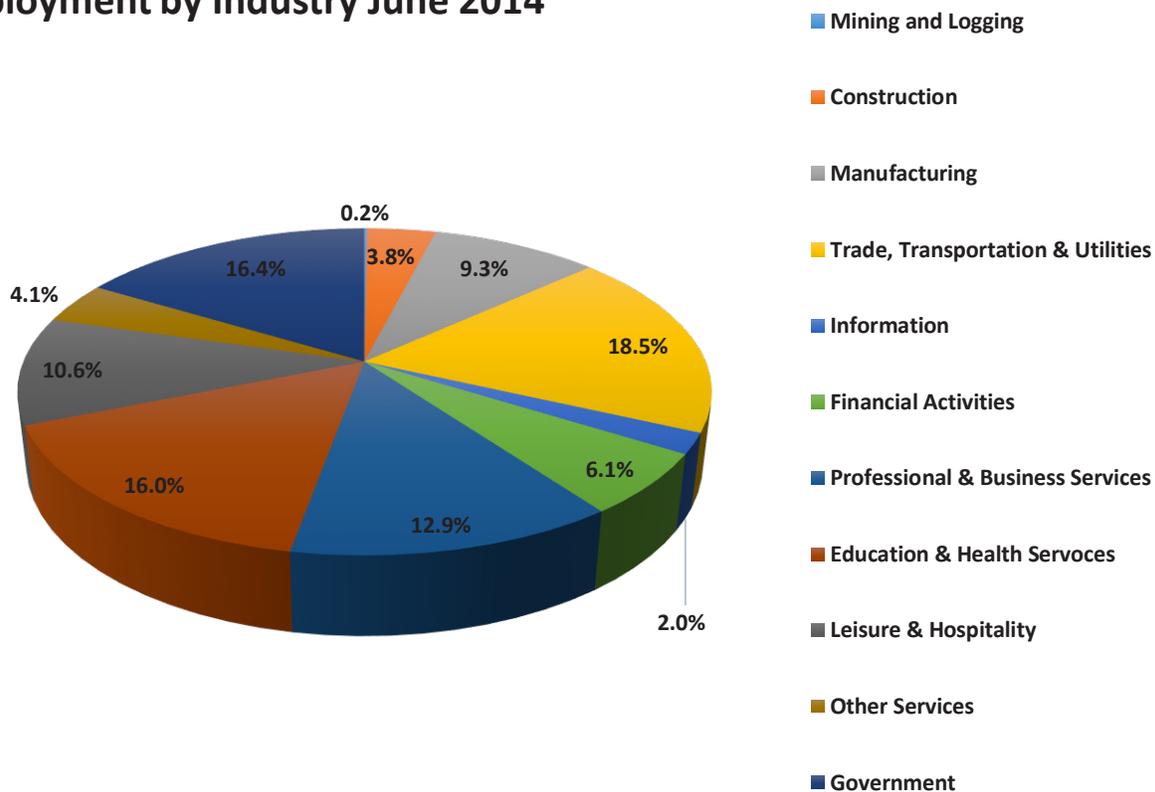
Civilian labor force 2013

Total	3,015,000
16 - 19 yrs	128,000
20 - 24 yrs	277,000
25 - 34 yrs	664,000
35 - 44 yrs	606,000
45 - 54 yrs	684,000
55 - 64 yrs	494,000
65 + yrs	162,000

For 2013, unemployment for young adults remained high in Missouri. This reflects a national trend.

Unemployment for women is slightly higher than for men.

## Employment by Industry June 2014



Missouri's economy is diverse with a strong manufacturing sector. Looking at specific clusters, business and financial services is a large and growing cluster and Missouri continues to be very competitive in information technology and telecommunications. Missouri also has a high concentration of agribusiness and food processing.

### Clusters in Missouri

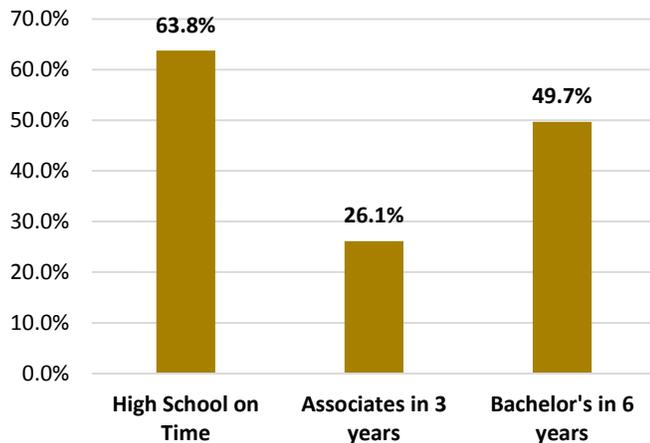
**Largest Cluster:** Business & Financial Services, 356,496 jobs

**Largest Growth Cluster:** Business & Financial Services, 56,957 new jobs since 2002

**Most Competitive Cluster:** Information Technology & Telecommunications, 2,605 new or retained jobs due to state competitive advantage

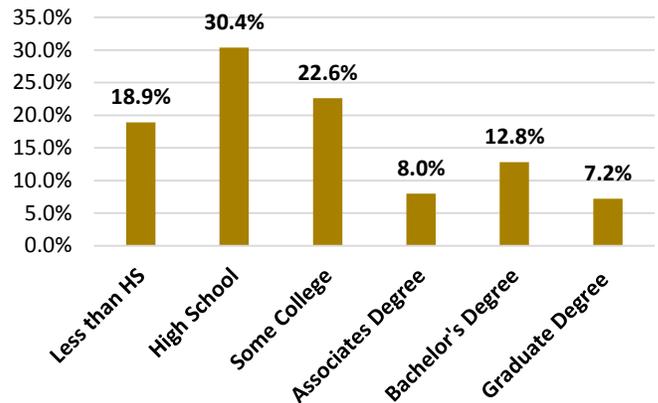
**Most Concentrated Cluster:** Agribusiness, Food Processing & Technology, 1.60 times the national concentration level

### Percentage of Full Time Students Completing Degrees on Time 2012



### Percentage Highest Educational Attainment 2012

total population ages 25 and over



### Number of Degrees Conferred – 2011

Certificates less than 2 years	4,134
Associates Degrees	11,440
Bachelor's Degrees	13,230
Master's Degrees	4,676

### Number of Post-Secondary Institutions -- 60

### MISSISSIPPI STATE RANKINGS

#### Forbes

"Best States of Business" 2013

**49th** -- Overall Ranking

**48th** -- Labor Supply

#### CNBC

"Top States for Business" 2014

**36th** -- Overall Ranking

**17th** -- Workforce

**48th** -- Education

#### Education Week

"2014 State Report Cards"

Economy & Workforce policies "C" 75%

#### Gallup

"The State of the American Workplace 2012"

**13th** -- Worker Engagement Level

Actively Disengaged 18.2%

Not Engaged 49.6%

Engaged 32.2%

Nationally 85% of adults have graduated high school, 28% have at least a Bachelor's degree and 10% have advanced degrees.

#### US Chamber of Commerce

"Enterprising States 2011"

**11th** Higher-ed Efficiency

**20th** STEM Job Growth

#### Area Development Magazine

"Top States for Doing Business" 2013

**9th** -- Overall Ranking

**5th** -- Right to Work Environment

#### Sources:

BLS – Labor Force Statistics from Current Population Survey

BLS – Local Area Unemployment Statistics

BLS – Employment Status of Civilian Population

National Center for Education Statistics (NCES) – Number of Title IV Postsecondary Institutions

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US Census Bureau - B23006 Educational Attainment

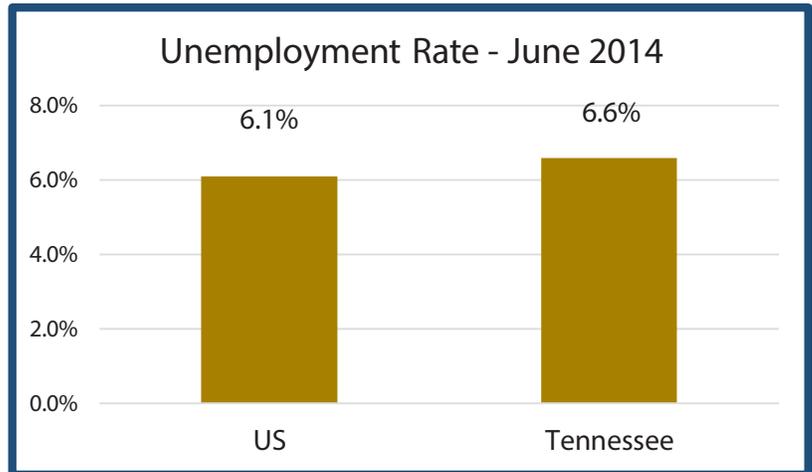
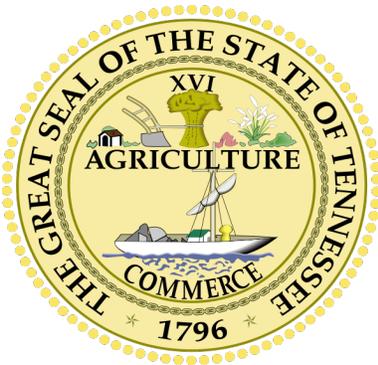
US Chamber of Commerce – "Enterprising States"

Southern Regional Education Board (SREB) "Fact Book 2013"

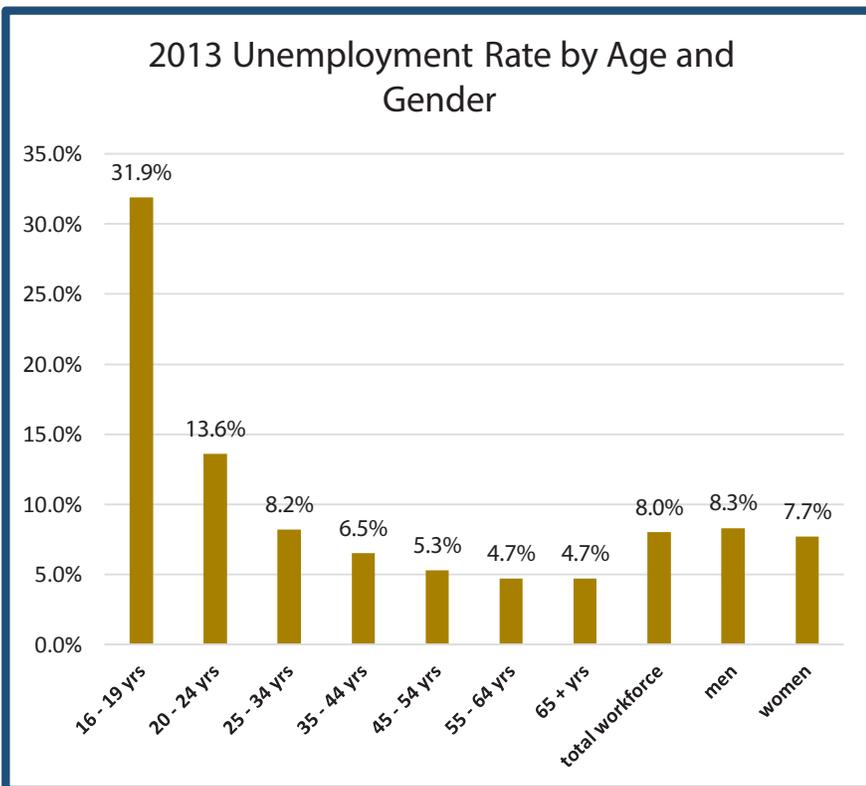
# Re-Imagining Regional Workforce Development



# Tennessee



At 6.6% Tennessee's latest official unemployment rate for June 2014 remains above the national average of 6.1%.



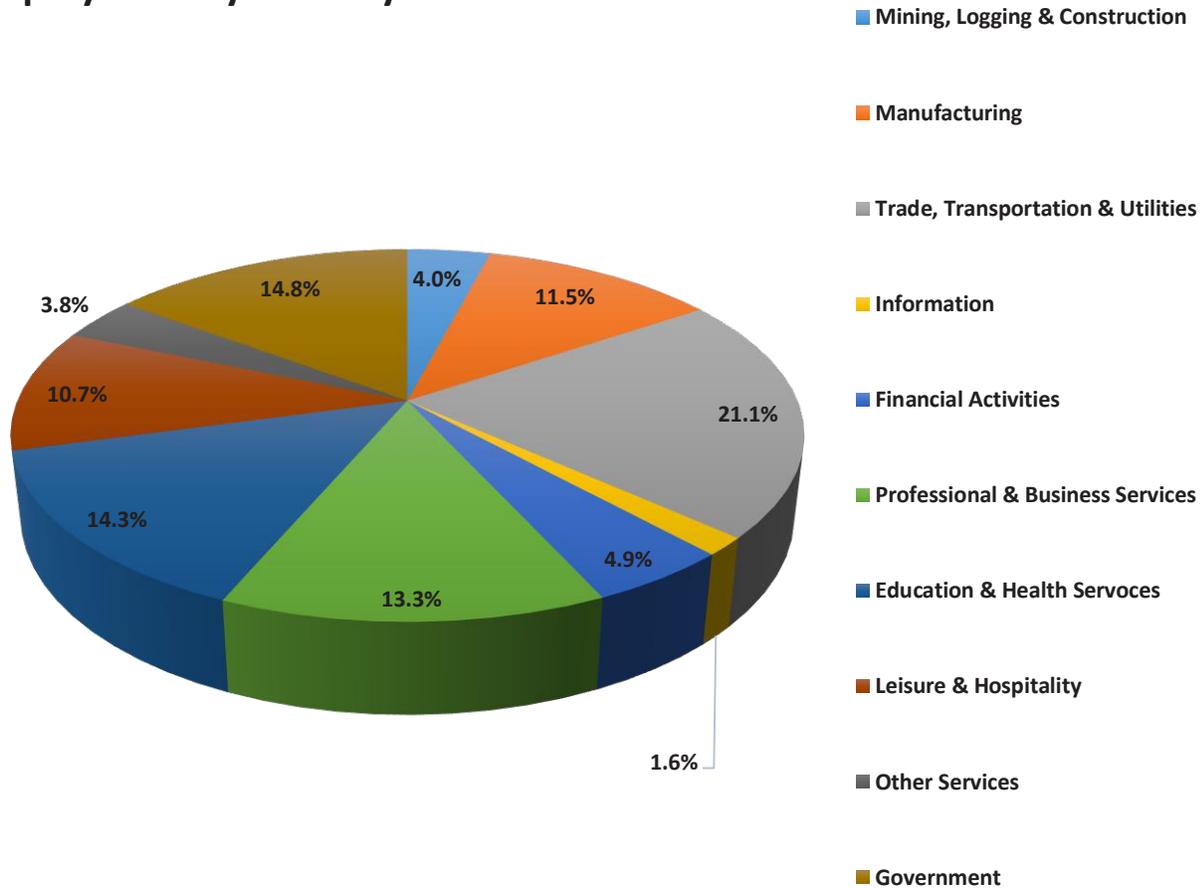
Population: 6,495,978

Civilian labor force 2013

Total	3,069,000
16 - 19 yrs	134,000
20 - 24 yrs	296,000
25 - 34 yrs	673,000
35 - 44 yrs	698,000
45 - 54 yrs	627,000
55 - 64 yrs	468,000
65 + yrs	173,000

For 2013, unemployment for young adults remained high in Tennessee. This reflects a national trend. Unemployment for men is slightly higher than for women.

## Employment by Industry June 2014



Tennessee's economy is diverse with a strong manufacturing sector. Looking at specific clusters, business and financial services is a large and growing cluster and Tennessee is very competitive in biomedical and life sciences. Tennessee also has a strong concentration in electrical equipment, appliance and component manufacturing.

### Clusters in Tennessee

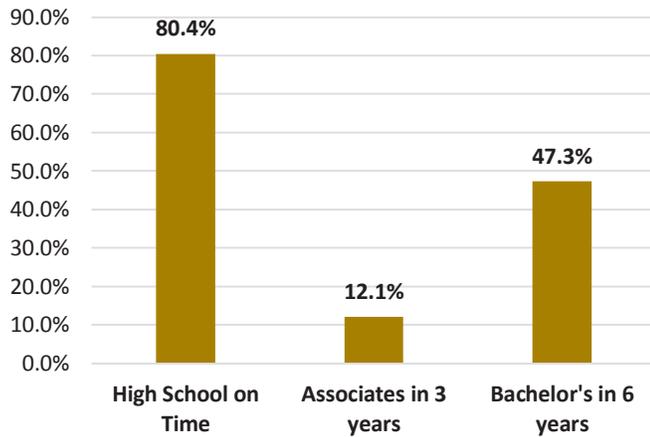
**Largest Cluster:** Business & Financial Services, 333,477 jobs

**Largest Growth Cluster:** Business & Financial Services, 70,107 new jobs since 2002

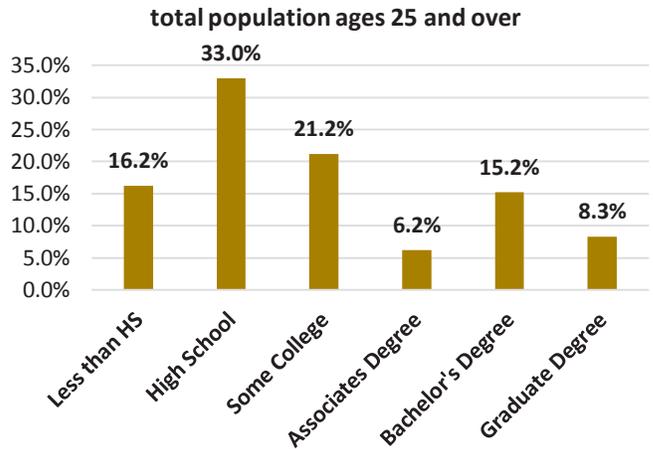
**Most Competitive Cluster:** Biomedical/Biotechnical (Life Sciences), 18,577 new or retained jobs due to state competitive advantage

**Most Concentrated Cluster:** Electrical Equipment, Appliance & Component Manufacturing, 2.28 times the national concentration level

### Percentage of Full Time Students Completing Degrees on Time 2012



### Percentage Highest Educational Attainment 2012



### Number of Degrees Conferred – 2011

Certificates less than 2 years	13,121
Associates Degrees	12,478
Bachelor's Degrees	31,026
Master's Degrees	11,099

### Number of Post-Secondary Institutions -- 175

## TENNESSEE STATE RANKINGS

### Forbes

"Best States of Business" 2013

**15th** -- Overall Ranking

**30th** -- Labor Supply

### CNBC

"Top States for Business" 2014

**14th** -- Overall Ranking

**6th** -- Workforce

**39th** -- Education

### Education Week

"2014 State Report Cards"

Economy & Workforce policies "A" 100%

### Gallup

"The State of the American Workplace 2012"

**17th** -- Worker Engagement Level

Actively Disengaged 17.4%

Not Engaged 50.9%

Engaged 31.7%

Nationally 85% of adults have graduated high school, 28% have at least a Bachelor's degree and 10% have advanced degrees.

### US Chamber of Commerce

"Enterprising States 2011"

**22nd** College Affordability

### Area Development Magazine

"Top States for Doing Business" 2013

**7th** -- Overall Ranking

**6th** -- Right to Work Environment

### Site Selection Magazine

"Ranking of Economic Development" 2014

**2nd** -- Competitiveness

**5th** -- Top Business Climate

### Sources:

BLS – Labor Force Statistics from Current Population Survey

BLS – Local Area Unemployment Statistics

BLS – Employment Status of Civilian Population

National Center for Education Statistics (NCES) – Number of Title IV Postsecondary Institutions

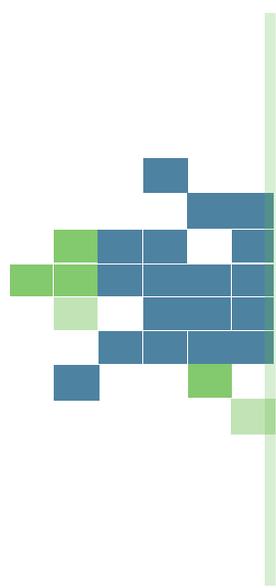
BLS - Table 5. Employees on nonfarm payrolls by state and selected industry sector, seasonally adjusted

US Census Bureau – Annual Population Estimates

US Census Bureau - B23006 Educational Attainment

US Chamber of Commerce – "Enterprising States"

Southern Regional Education Board (SREB) "Fact Book 2013"



## To Learn More

**W**hile not a comprehensive list, below are just a few of the many organizations and recent reports that you may wish to look to for more background information and/or policy ideas related to re-imagining workforce development.

### **Achieve, Inc.:**

<http://www.achieve.org>

- ❖ *2012 Closing the Expectations Gap: 50-State Progress Report on the Alignment of K-12 Policies with the Demands of College and Careers* (Washington, D.C.: Achieve, September 2012).

### **ACT, Inc.:**

<http://www.act.org>

- ❖ *The Condition of College and Career Readiness 2012* (Iowa City, IA: ACT, 2012).

### **Alliance for Excellent Education:**

<http://www.all4ed.org>

- ❖ *The Digital Learning Imperative: How Technology and Teaching Meet Today's Education Challenges* (Washington, D.C.: Alliance for Excellent Education, June 2012).

### **American Association of Community Colleges:**

<http://www.aacc.nche.edu>

- ❖ *Reclaiming the American Dream: Community Colleges and the Nation's Future* (Washington, D.C.: American Association of Community Colleges, 2012).

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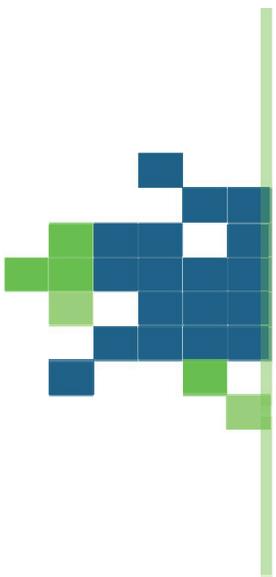
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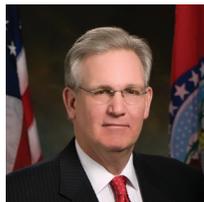
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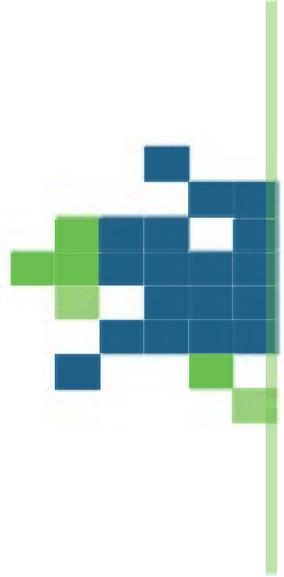


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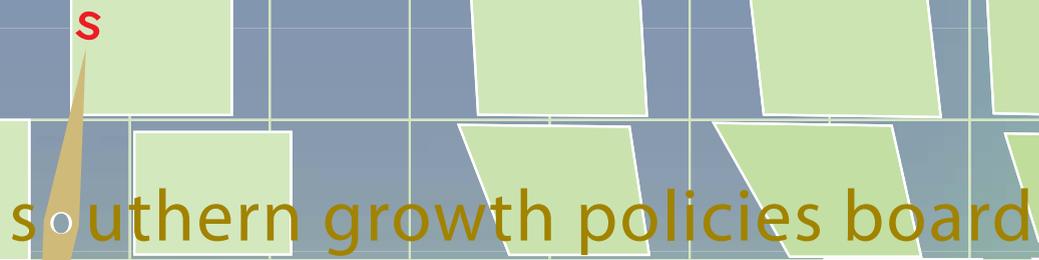
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<sup>110</sup> *2011 American Community Survey*, Table S1501

<sup>111</sup> *Certificates: Time is the Enemy* (Washington, D.C.: Complete College America, 2011). Data on Certificate completion not provided by Alabama, South Carolina and Tennessee. Associate's and Bachelor's: United States Department of Education, Education Dashboard. For Certificates, this measures the cohort that started in 2005; for Associate's degrees, the cohort that started in 2006; and for Bachelor's degrees, the cohort that started in 2003.

<sup>112</sup> For Missouri: Anthony Carnevale, Nicole Smith and Jeff Strohl, *Help Wanted: Projections of Jobs and Education Requirements Through 2018* (Washington, D.C.: The Georgetown University Center on Education and the Workforce, 2010). For all other states: Anthony Carnevale and Nicole Smith, *A Decade Behind: Breaking Out of the Low-Skill Trap in the Southern Economy* (Washington, D.C.: The Georgetown University Center on Education and the Workforce, 2012).



**In September of 2014 the Southern Growth Policies Board  
ceased to operate. The Southern Governors Association has  
assumed many of the policy responsibilities that Southern  
Growth provided for over 40 years. You can contact SGA at  
[www.southerngovernors.org](http://www.southerngovernors.org)**