Since the end of the Great Recession, there have been encouraging signs that America’s manufacturing sector is experiencing a renaissance, albeit a muted one. In the aftermath of the Great Recession, and given that the manufacturing sector in the United States has been in a state of decline for a number of decades, a turnaround of this sector’s contribution to gross domestic product (GDP) is most encouraging. For all of 2012, the U.S. economy grew by 2.2 percent following a 1.8 percent increase in 2011, and 2.4 percent in 2010.\(^1\) For the first quarter of 2013 (that is, from the fourth quarter of 2012 to the first quarter of 2013), the U.S. Department of Commerce reported that the U.S. economy grew by 1.8 percent on an annualized basis according to data released in late June 2013.\(^2\) While growth in the nation’s manufacturing sector since the Great Recession remains a very positive development, it also thrusts another challenge to the forefront: creating an adequately trained workforce in the states to staff the increasingly complex positions involved in the 21st century manufacturing process.

Last year, the manufacturing sector contributed 11.9 percent to GDP, an increase from the 11.5 percent in 2011, and 11.2 percent contributions in 2010, an extremely positive development. It should be noted that, from a high of contributing 28 percent to GDP in 1953, the relative size of manufacturing has been declining steadily: 22 percent in 1977, 17 percent in 1987, 15 percent in 1997, 12 percent in 2007, and down to 11 percent in 2009. Even a slight increase in the sector’s contribution to overall GDP is notable. Table 1 and Figure 1 provide historical details on the manufacturing sector’s value added as a percentage of GDP.

On the employment front, data from the U.S. Department of Labor’s Bureau of Labor Statistics presents information for 2007 through 2011 (Table 2), the most recent statistics available.

The negative effects of the Great Recession are reflected in the manufacturing sector’s employment figures for the review period, 2007 through 2011. While the declin-

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### Table 1: Value Added by Manufacturing Sector to GDP (in $ millions) 1947 - 2012

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</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing (Value)</td>
<td>62,434</td>
<td>107,500</td>
<td>124,356</td>
<td>209,501</td>
<td>439,138</td>
<td>823,105</td>
<td>1,277,280</td>
<td>1,698,022</td>
<td>1,628,498</td>
<td>1,540,104</td>
<td>1,630,522</td>
<td>1,731,466</td>
<td>1,866,699</td>
</tr>
<tr>
<td>Manufacturing (Percent)</td>
<td>25.6</td>
<td>28.3</td>
<td>27.0</td>
<td>25.2</td>
<td>21.6</td>
<td>17.4</td>
<td>15.3</td>
<td>12.1</td>
<td>11.4</td>
<td>11.0</td>
<td>11.2</td>
<td>11.5</td>
<td>11.9</td>
</tr>
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</table>

Source: [http://www.bea.gov/industry/gdpbyind_data.htm](http://www.bea.gov/industry/gdpbyind_data.htm)
ing manufacturing sector’s role in the United States was referenced previously, the absolute number of Americans employed in the manufacturing sector also has been declining. In 2007, it stood at 13.6 million, significant-

ly less than the 20.1 million Americans employed in the manufacturing sector in 1978, the highest level reached in the past 85 years. During the Great Recession, this number declined further, to 11.2 million in 2010, before

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### Table 2

<table>
<thead>
<tr>
<th>Category</th>
<th>2007</th>
<th>2008</th>
<th>Year-Over-Year % Change</th>
<th>2009</th>
<th>2008</th>
<th>Year-Over-Year % Change</th>
<th>2010</th>
<th>2011</th>
<th>Year-Over-Year % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time Equivalent Employees</td>
<td>128,431</td>
<td>127,383</td>
<td>-1%</td>
<td>121,078</td>
<td>120,303</td>
<td>-1%</td>
<td>121,757</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Manufacturing Employees</td>
<td>13,609</td>
<td>13,142</td>
<td>-3%</td>
<td>11,528</td>
<td>11,238</td>
<td>-3%</td>
<td>11,456</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>Manufacturing as a percentage of FTEs</td>
<td>10.6%</td>
<td>10.3%</td>
<td>9.5%</td>
<td>9.3%</td>
<td>9.4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Full-time equivalent employees equal the number of employees on full-time schedules, plus the number of employees on part-time schedules converted to a full-time basis. The number of full-time equivalent employees in each industry is the product of the total number of employees and the ratio of average weekly hours per employee for all employees to the average weekly hours per employee on full-time schedules.

beginning a slow ascent to 11.5 million in 2011, the latest year available.

As graphically presented in Figure 1, the contribution of the manufacturing sector to overall GDP has been on a downward spiral since the early 1950s. The impact of the Great Recession was particularly deleterious to this downward trajectory, though it is important to note that there are signs of a nascent recovery in the American manufacturing sector. This hopeful recovery is borne out in the data in the last three years: 2010, 2011 and 2012.

On this note, while recent research (February 2013) by the Congressional Research Service (CRS) indicates that the United States remains the largest manufacturing country in the world (in 2010), China is rapidly closing in on this American dominance. However, this CRS report also noted that “a large share of manufacturing research and development (R&D) in the United States takes place in high-technology sectors, particularly pharmaceutical and electronic instrument manufacturing, whereas in other countries a far greater proportion of manufacturers’ R&D outlays occur in medium-technology sectors such as motor vehicle and machinery manufacturing.”

It also should be noted that this analysis is based on 2010 figures; the latest 2012 figures indicate that U.S. manufacturing has increased to almost $1.9 trillion. While this recent resurgence in manufacturing is noteworthy, two inexorable trends typify the modern American manufacturing sector: automation and imports, particularly of labor-intensive items. Not only has the American manufacturing sector become much more productive (automation), the price of these labor-intensive items (clothing, electronics) has become more competitive, allowing Americans to spend on categories such as healthcare, education, travel and recreation. Hence, as the economist Robert Samuelson notes, “it is a mistake to romanticize manufacturing” in the current era and expect it to be the major employment generator it was in a previous era. The nature of the contemporary manufacturing sector is such that, due to enormous gains in efficiency, the U.S. economy will produce more manufacturing output with fewer employees working at these 21st century manufacturing facilities.

There is consensus across the political and corporate spectrum, however, that a flourishing manufacturing sector is a critical ingredient in ensuring the vitality of the American economy. Advancements in manufacturing also are vital to reinforcing the nation’s role as the preeminent global economic superpower. Manufacturing’s footprint extends far beyond the actual production of goods and the higher wages usually associated with the sector; in fact, manufacturing remains integral in a range of different arenas including research, design, technological services and logistics. In addition, manufacturing accounts for two-thirds of private sector research and development, a key driver of innovation in the U.S. economy. Finally, every manufacturing job on average supports 2.5 jobs in other sectors while, at the upper end of the manufacturing plane, a single high tech manufacturing job supports 16 others.

Methodology
The scope of this Regional Resource ranges from the re-emergence of the manufacturing sector in the United States, with particular emphasis on the 15 SLC member states, to the efforts made by these Southern states to create a skilled workforce with the capacity to staff a broad spectrum of positions in the resurgent manufacturing sector. In an effort to secure the latest information from the SLC states in the arena of workforce development, a survey (Appendix A) was forwarded on December 11, 2012, to officials with oversight of workforce training in all SLC states. Responses from 14 of the 15 states were received from various officials by March 12, 2013. The analysis incorporates information contained in the survey responses along with independent research conducted by SLC staff. It is important to note that the survey responses received from the states are not presented verbatim or in their entirety, as the SLC took editorial license to maintain content uniformity. It also is important to note that in the sections to follow, the complete responses of all the states were not included but, rather, a selection of responses are presented in order to provide specific insights into state strategies to enhance workforce development programs.

Positive Developments Flowing from Manufacturing’s Resurgence
The rising influence of the American manufacturing sector in the last few years not only has bolstered overall economic growth but also effected an increase in the number of American and foreign companies moving their production facilities to the United States. This “insourcing” trend has been propelled by a number of factors, including the rising cost of labor in several offshore locations, increasing energy costs overseas (both transportation and utility), improving productivity of American...
workers, availability of increasing volumes of domestic energy sources (natural gas, in particular), a more competitive U.S. dollar relative to other currencies and, quite importantly, proximity to an expanding U.S. economy in the context of the struggling economies in Europe and other settings. Even Apple announced in December 2012 that the company planned on moving the production of one of its Mac computers from China to the United States in 2013, a move that would generate a cascade of positive economic effects. A regional comparison of this growing manufacturing sector demonstrates that a number of Southern states rank very high in terms of capitalizing on the multiple advantages of a thriving industrial sector by recruiting companies to set up or expand production facilities.

A study released in March 2013 by The Aspen Institute and the Manufacturers Alliance for Productivity and Innovation also forecasted that there is ample potential for U.S. manufacturing to surge forward by 2025. The study documented that this renaissance would lead to significantly more well paying manufacturing jobs, promote GDP growth, and even help create the first surplus in the nation’s goods and services balance of trade since 1975.

Manufacturing Resurgence Prompts Corporate Moves

At the corporate level, no less a corporate titan than Jeffrey Immelt, CEO of General Electric (GE), declared in March 2012 that, “[O]utsourcing is quickly becoming outdated as a business model for GE appliances.” Mr. Immelt was referencing the trend associated with an increasing number of American companies, including GE, relocating their manufacturing operations back to the United States after decades of moving production offshore to far-flung locations. One of GE’s major “insourcing” moves, partially responsible for the Immelt quote, was repowering Appliance Park in Louisville, Kentucky, to resume manufacturing water heaters, refrigerators, washing machines and dishwashers. Formerly, GE had been manufacturing these appliances in plants in China and Mexico.

In a similar vein, an impressive roster of foreign automakers (Asian and European) in a number of Southern states continue to forge ahead with significant facility expansions, while their parent companies face serious challenges in their countries of origin. In fact, the entire U.S. auto industry has been showing impressive gains in the aftermath of the Great Recession, and gains in the first quarter of 2013 were so impressive that the automotive information website Edmunds.com lifted its 2013 U.S. new cars and light trucks sales forecast from 15 million to 15.5 million. Last year, Caterpillar announced that it would relocate its production facility in Sagami, Japan, to Athens, Georgia, to make construction equipment at a new $200 million factory that will employ about 1,400 people. The aeronautics sector also is displaying impressive signs of growth in a number of Southern states, with Boeing, Airbus, Gulfstream and Honda Aircraft either establishing or expanding their production facilities in South Carolina, Alabama, Georgia and North Carolina.

Manufacturing Resurgence Prompts Action by Policymakers

On the political field, policymakers at every level of government have renewed their focus on enhancing the manufacturing sector across the country. During his 2013 State of the Union address, President Barack Obama called for the creation of 15 manufacturing innovation institutes, creating a network to spur new inventions and entrepreneurial zeal in the manufacturing sector. The first of these state-of-the-art labs, situated in a once-shuttered warehouse in Youngstown, Ohio, already is operational and trains workers in the intricacies of 3D printing, a technological advancement with the potential to revolutionize the way almost everything is made. At the state level, Pennsylvania Governor Tom Corbett noted that, “Manufacturing in the U.S. is changing. It is important that governors continue to learn so they are able to determine the best way forward, ensuring...
good businesses and jobs for our citizens.” Similarly, Florida’s Governor Rick Scott, in reiterating the importance of expanding the manufacturing sector in his state, commented that, “[W]hen manufacturers purchase equipment in our state, they are investing in Florida for years to come. We want more manufacturers to move to Florida, and our existing manufacturing companies to buy the equipment they need and grow and create more jobs to support Florida families.”

**Manufacturing’s Resurgence: Emerging Challenges**

Even though states have been very active for a number of decades, particularly several Southern states, in preparing their workforces to staff manufacturing jobs, the critical importance of securing well paid employment for the millions of Americans who lost their jobs—and continue to remain unemployed—during and after the Great Recession has only been elevated. In that context, state policymakers want to ensure that workforce development programs they are promoting and funding meet the requirements of the companies that currently are operating (and might operate) within their jurisdictions. While increasing support for job training in an effort to build human capital is a prudent, long-term strategy to build both a vibrant middle class and a strong foundation for sustained economic growth, satisfying the labor requirements of corporate partners remains a critical objective. In the current era, an increasing number of states are working collaboratively with their corporate partners to ensure that the workforce being prepared comprehensively meets the criteria of the particular manufacturing operation. In addition to employers seeking skilled workers, these corporations also are invested in ensuring that the workers operating their multi-million dollar pieces of equipment are fully trained to do so.

At the same time, the issue of skills transferability remains an important element. For instance, a person trained to work in an auto plant in a Southern location optimally should have skills that may be transferable to another industry within the manufacturing sector, a move ensuring that the worker is not limited to only working in the auto industry. In an era when there is so much churn, specifically in terms of waxing and waning industries and fluctuating global economic tides, the ability for a worker to seamlessly move from industry to industry remains a trait with considerable importance. On this front, comments from the Louisiana Workforce Commission were most telling: “[E]fforts to prepare a better workforce in Louisiana go far beyond simply preparing job candidates for opportunities in specific sectors (e.g., manufacturing). Rather our efforts seek to create a pipeline of skilled, qualified workers to meet the demands of employers seeking to fill vacancies in high growth, high demand occupations.”

**SLC States Move Proactively**

Under the rubric of states accommodating employers with the workforce they need, the record of the following SLC states remains impressive.

» Alabama successfully wooed Airbus to build its first U.S. factory and assemble the company’s best selling jetliner, the A320. The state included $51.9 million as part of the incentive package for a 40,000 square-foot on-site training center where workers will be prepared, at state expense, for their new jobs.

» Louisiana’s award-winning program, LED FastStart, which helps new and expanding companies recruit, train and screen employees, was an influential factor in the French company Gameloft, one of the world’s leading publishers of mobile video games, locating its American operation in New Orleans in 2012. The company needed 150 programmers and other skilled employees to staff its New Orleans studio. Even before the company began operations in the city, FastStart launched a custom Gameloft New Orleans website and advertised on social media sites frequented by game software professionals to attract the talent pool Gameloft sought. FastStart’s recruitment efforts generated 1,350 resumes that were screened and presented to Gameloft for final selection by the company. More than 700 resumes met Gameloft’s hiring criteria, demonstrating that LED FastStart was pivotal in this process.

» Tennessee, in June 2013, announced that a 170,000 square-foot training facility, on a 22-acre property across from the Smyrna, Tennessee Nissan plant, will open in early 2016 to train students for careers in high-paying, advanced manufacturing jobs. The training facility, which will represent an investment of about $50 million, including donation of the land and some equipment by Nissan, will be part of the Tennessee Technology Center in Murfreesboro. A bulk of the financing of the new training center ($35.4 million) will come from the Tennessee Board of Regents along with some addition-

*The Tennessee Technology Center at Murfreesboro is one of 47 institutions within the Tennessee Board of Regents System, the seventh largest higher education system in the nation. This system comprises six universities, 14 community colleges, and 27 technology centers.*
al support from the U.S. Department of Labor. The new center will teach students how to maintain and trouble-shoot high tech manufacturing equipment, such as the complex robots and other computer controlled processes in use at Nissan and other area manufacturers, including Bridgestone, General Mills, Procter & Gamble and Wirtgen Co., and even the Amazon.com and Saks Fifth Avenue distribution centers in Middle Tennessee. While Nissan plans to lease more than a third of the facility to operate its training facility replacing the one it has used for three decades at its Smyrna complex, non-Nissan students will have access to nearly two-thirds of the new center along with the state-of-the-art equipment for training, including some robots donated by Nissan, and the advanced manufacturing maintenance curriculum or mechatronics, i.e., the combination of mechanics and electronics, so vital in any 21st century manufacturing operation.

Preparing a Better Trained Workforce

The SLC states have undertaken an assortment of measures to create a better trained workforce for the various manufacturing operations in their jurisdictions.

Alabama

The Alabama Industrial Development Training (AIDT) program was established in 1971 and has worked on continuously improving the quality of the job training provided in the manufacturing sector since its inception. The success of the AIDT program was one reason for the state’s selection in 2012 by Area Development magazine (a publication for economic development professionals) as “having the top labor climate among the states.” In 2012 alone, AIDT delivered recruitment, screening and training services for 115 companies, representing 23,000 new jobs across the state. In January 2013, Alabama Governor Robert Bentley signed an executive order creating a task force designed to better prepare students for post high school life. Specifically, the Governor’s College and Career Ready Task Force will bring together members of K-12 education, two-year and four-year colleges and the business and industry community in an effort to strengthen the preparation of students for the workforce.

Arkansas

Governor Mike Beebe’s economic development vision includes a stronger partnership between economic development, education and workforce development in an effort to attract, retain and expand the state’s high growth industries.

Kentucky

In 2010, the Kentucky Workforce Investment Board adopted a strategic plan to “transform the commonwealth’s workforce system into a demand-driven, business-led, solutions-based service for both individual and business customers.”

Mississippi

Legislation in 2004 consolidated employment and training programs into one new executive agency, the Department of Employment Security.

Missouri

The state’s long-standing commitment to support and engage industry through flexible workforce programs is administered by the Department of Economic Development, operating locally through the 12 community colleges’ workforce centers throughout the state.

North Carolina

In 2012, the North Carolina General Assembly merged the state’s Employment Services Division with the Department of Commerce, with the goal of improving planning and communication for job development and placement. More recently in 2013, shortly after taking office, North Carolina Governor Pat McCrory made addressing the skills gaps and putting more North Carolinians to work a major focus of his administration. One of his first actions involved creating an Assistant Secretary for Manufacturing in the Department of Commerce to promote the re-shoring of advanced manufacturing jobs to North Carolina by ensuring that the state had the optimal conditions (such as a skilled workforce) to attract and retain companies.

South Carolina

The state’s ‘Dream It, Do It’ program is propelled by the objectives of engaging industry leaders and educators to help students, parents, teachers and counselors better understand the advanced manufacturing sector; educate more students in advanced manufacturing programs in the state’s high schools, two-year colleges and universities; and employ more graduates from these advanced manufacturing programs in businesses across the state.

Texas

In 1996, the Texas Legislature established the Texas Workforce Commission (TWC) to consolidate workforce training and education programs previously located in several different agencies.
Louisiana’s LED FastStart, launched in 2008, is designed to “revamp the state’s workforce development system and offer a faster, higher-quality workforce solution so companies will invest in the state,” according to Governor Bobby Jindal. LED FastStart provides customized workforce solutions (including employee recruitment, screening, training development and training delivery) from pre-employment through post-employment phases at new or expanding facilities. These services are provided at no cost to eligible companies investing in the state (typically those creating at least 15 new manufacturing jobs or 50 new service-related jobs) in specified sectors. LED FastStart’s partners include the Louisiana Community and Technical College System, Louisiana Workforce Commission, selected Louisiana universities and an array of private sector training experts.

In December 2012, Louisiana announced that South Africa-based Sasol will build a $16 billion to $21 billion gas-to-liquids and ethane cracker complex in Westlake, Louisiana, a project believed to be the largest foreign direct investment manufacturing project in U.S. history. Several months before the announcement, LED FastStart customized a Sasol training program for the future site’s 1,253 new workers. Based on Sasol’s needs, LED FastStart recommended a training center be built at SOWELA Technical Community College at Lake Charles, Louisiana. The $20 million facility will include the latest equipment for industrial technology training.

Virginia
Under Governor Bob McDonnell, the commonwealth continues to emphasize better alignment of education, economic development and workforce development and has fostered this process with the appointment of the state’s chief workforce officer to liaise between the Departments of Education and Commerce and Trade.

Establishing Workforce Development Policy in the SLC
Proactively guiding workforce development policies remains critical in ensuring that a state’s employment pool is equipped for the challenges of the 21st century economy. States follow different administrative models in this respect and a survey of the SLC state approaches demonstrates these differences. For instance, five SLC states (Alabama, Missouri, North Carolina, Oklahoma and West Virginia) indicated that their workforce development policies are implemented through their commerce or economic development departments. Another five states (Arkansas, Louisiana, South Carolina, Texas and Virginia) reported that they maintain separate workforce development departments. An additional two states (Georgia and Mississippi) handle workforce development policy out of the governors’ offices. Finally, workforce development policies in Kentucky and Tennessee are administered through the Education and Workforce Development Cabinet and Department of Labor and Workforce Development, respectively.

Workforce Development Agency Missions and Strategies
SLC state policymakers have enacted a number of strategies to enhance the quality of their workforces.

Arkansas
The Arkansas Department of Workforce Services’ (DWS) vision includes serving as the preferred provider of workforce services and solutions in the state. To realize this vision, this Arkansas department aims to train the state’s workforce to compete in the global economy by linking a comprehensive array of services for employers and job seekers. In a series of cross-program strategies, partnerships, more efficient resource leveraging, and better alignment of agency policies and procedures to accomplish this vision, DWS implements a number of strategies:

» Career Readiness Certificate (CRC) Program: a portable credentialing system based upon WorkKeys® assessments that demonstrates to employers that an individual possesses the basic workplace skills required for 21st century jobs;
» Arkansas Works: a comprehensive web-based college and career planning system to provide education, job training and career planning tools and information to students, job seekers and prospective employers;
» STEM (Science, Technology, Engineering and Mathematics Works): a pilot program to foster science, technology, engineering and mathematics (STEM) education;
» Microsoft IT Academy: includes web-based instruction and opportunities to earn industry-recognized certifications;
» Arkansas Workforce Data Quality Initiative: an effort to create a statewide longitudinal database (SLDS) on workforce that will link with the existing education SLDS;
» Arkansas Career Pathways Initiative: a program designed to coordinate publicly funded higher education with social services, workforce and economic development programs in order to produce a better trained workforce;
» Arkansas Energy Sector Partnership: a collaboration to train participants in energy efficiency, green construction, and renewable energy skills using grant funds received from the U.S. Department of Labor;
Partnership with Registered Apprenticeship: a mechanism to provide “green” skills education to apprentices statewide at mobile training centers operated by the Arkansas Apprenticeship Coalition;

Arkansas Partnership for Nursing’s Future: a program to train nurses and healthcare professionals – with DWS and the Arkansas Workforce Investment Board partnering with the Arkansas Association of Two-Year Colleges and the University of Arkansas for Medical Sciences – deploying over $5 million in grant funds.

**Louisiana**
The Office of Workforce Development (OWD) operates with the following mission: We Put People To Work! The state continuously seeks to improve its demand-driven system by responding swiftly to the short- and long-term needs of employers and by enabling employers to fill job vacancies. To this end, Louisiana’s OWD pursues a number of strategies including:

» increasing employer engagement;
» cultivating a collaborative regional approach for the state’s 18 Local Workforce Investment Boards (LWIB)* and ensuring that these LWIBs consolidate workforce training and support services into real “one-stop” centers;
» using state and regional labor market intelligence to drive services;
» targeting workforce recruitment to meet employer demand;
» integrating all services provided by the Louisiana OWD;
» improving training and technical assistance to WIBs and staff of the business and career solutions centers; and
» reducing OWD administrative costs.

**North Carolina**
The Division of Workforce Solutions (NC DWS) seeks to align and transform economic development and education policies in the state to stimulate and support workforce development. The state works toward this goal pursuing the following manner:

» merging the Division of Workforce Development and Employment Service to create the NC DWS, a consolidation expected to improve customer service for employers and employees;
» integrating NC DWS' services delivery model;
» streamlining NC DWS' technology system and facilitating job matching and labor market data for businesses and individuals;

*Workforce Investment Boards (WIB) are regional entities created to implement the federal Workforce Investment Act of 1998. Every community in the 50 states is associated with a Local WIB or LWIB.

**Oklahoma**
The state workforce development mission is geared to “facilitate a trained and ready workforce” by ensuring the existence of an appropriately skilled and credentialed workforce to support business expansion, retention and location in the state. Once again, an important element listed by the state is aligning the goals of workforce and economic development. In order to accomplish this mission, Oklahoma pursues a number of specific strategies, including: focusing on particular sectors (such as energy and aerospace); CRC; regional one-stop system certification; state and regional joint planning; and tax incentives for talent attraction and employee retention.

**Texas**
The mission of the Texas Workforce Commission includes “promoting and supporting an effective workforce system that offers employers, individuals and communities the opportunity to achieve and sustain economic prosperity.” The state strives for these goals through a number of mechanisms, such as:

Workforce Florida Inc., the statewide workforce investment board of business and government leaders charged with overseeing Florida’s workforce system, includes the Department of Economic Opportunity, 24 regional workforce boards and nearly 100 One-Stop Career Centers. A key tool in Workforce Florida’s toolbox is the Quick Response Training (QRT) program, the state’s performance-based, partial reimbursement worker training program that has been lauded by site selection consultants and economic developers across the country. For the upcoming fiscal year 2013-2014, the Florida Legislature and Governor Scott agreed to double the funding (compared to the previous fiscal year) for QRT grants to $12 million, a notable achievement and confirmation of the importance placed on worker training by the state.

An example of QRT’s success is its work with Amcor Rigid Plastics, a Central Florida packaging company that deployed QRT grant funds to train more than 80 existing, and approximately 30, new employees to operate and maintain specialized equipment. Amcor is just one of more than 400 Florida companies approved for QRT grants since 2000.
» supporting education and training efforts to equip the state’s workforce with the knowledge and skills that are in demand by Texas employers. One of the ways this is accomplished is through state funding for the Skills Development Fund. These grants help incumbent workers upgrade their skills, or help create high-skill, high wage jobs;

» TWC devotes resources to increase youth competencies in STEM fields. These initiatives include expanding statewide participation in high school robotics programs, supporting one of the state’s middle and high school science fairs, and funding summer camps that encourage student interest in STEM-related careers; and

» TWC’s College Credit for Heroes (CCH) initiative which seeks to assist veterans by developing a methodology for them to maximize their college credit from Texas institutions of higher education for experience and training earned during military service. The goal is to expedite the transition of these veterans into the civilian workforce. In the first phase of the CCH initiative, seven community colleges were selected to develop accelerated paths toward workforce certifications and degree plans with an initial focus on careers in the healthcare field.

Training Workers: States’ Investments

There is a range of different costs associated with training workers for employment at different companies.

Alabama

Alabama’s AIDT program indicated several expense categories including:

» in-kind expenses for job and task analysis; pre-employment recruiting, screening and training; training manuals and videos; leadership development; industrial maintenance assessment; and AIDT project management;

» expenses paid directly to the company for on-the-job training instructor reimbursement;

» travel reimbursement for instructor development; and

* The Texas Skills Development Fund is the state’s premier job training program providing training dollars for Texas businesses and workers through collaboration among businesses, community and technical colleges, local workforce development boards and economic development partners. The program also merges employer needs and local job training opportunities through skills grants providing customized training to meet specific employer needs. Fund administrators also help connect business partners in community colleges during outreach and project development and provide technical assistance to ensure that the college has completed all application forms properly and that a curriculum has been developed to accommodate the participating employer’s expressed needs.

» either paying completely or sharing the costs of vendor training with the specific company.

Georgia

The Governor’s Office of Workforce Development (GOWD) acts as the state pass-through entity for distributing federal WIA funds to localities. These funds serve to encourage workforce development in local areas through tutoring, mentoring, training, and other educational opportunities.

Mississippi

Local entities administering funds from the federal WIA allocated approximately 30 percent of their WIA allotment to on-the-job training.

Missouri

In terms of costs, Missouri officials indicated that depending on a host of variables (type of company, occupation, number of workers required) the cost of training a qualified worker could be as high as $3,000 and as low as $250.

Tennessee

While the average cost per participant depended on the job, the skills gap and availability of training programs, approximately $2,500 was spent per participant.

Texas

For the Fiscal Year 2012-2013 biennium, the Legislature appropriated $48 million for the Skills Development Fund. Grants from the Fund enable community and technical colleges to provide customized job training programs for businesses that want to train new workers or upgrade the skills of their existing workforce.

Virginia

A series of grants provided to enhance workforce development in the state include:

» A $150,000 grant from the Wellmont Foundation was provided to the Appalachian Mountain Healthcare Workforce Development Initiative in Southwest Virginia. These funds provided scholarships to low-income, unemployed, and dislocated individuals for healthcare skills certification or credentialing;

» Canon’s domestic manufacturing facility, Canon Virginia, manufactures copiers, printers, and cartridges and is a major source of employment in Southeast Virginia. The company provided $1.5 million over five years to Thomas Nelson Community College to develop and deliver customized training to support skilled workers needed by Canon;
Virginia Department of Business Assistance, a state government entity which connects businesses with resources, provided a $150,000 grant to CGI Technologies, Inc., an information technology and business processing company with multiple locations in the commonwealth, for recruiting and training assistance in support of their expansion. This was a one-time disbursement that supported the hiring of 100 additional positions at CGI’s Russell County (Southwest Virginia) facility; and

A $150,000 grant to Blue Ridge Community College to train workers for employment at manufacturing facilities in the Shenandoah Valley.

**Partnering with the Community College System**

All the SLC states indicated that the workforce development entities maintain vibrant and ongoing partnerships with the community college system in their states. The extent of these partnerships varies from the extremely connected example of Missouri, where the state community college system is a statutory partner in the Department of Economic Development, to Tennessee, where the partnership is fostered through workforce development officials serving on the local boards and governing bodies of the state’s community colleges. In Virginia, the Virginia Workforce Council is the systems office for all 23 community colleges, a development that ensures a strong partnership.

**Alabama**

The community college system is called upon if they are the “best and most economical solution to the training needs” of the company involved. For aviation certifications, for instance, AIDT partners with the Alabama Aviation College, a unit of Enterprise Ozark Community College.

**Arkansas**

The Department of Workforce Services partners with both the Department of Higher Education and the Association of Two-Year Colleges.

**Georgia**

The GOWD has a strong relationship with the Technical College System of Georgia (TCSG). TCSG campuses conduct training programs in the necessary fields, an effort overseen by the GOWD.

**Kentucky**

While an official from the Kentucky Community and Technical College System (KCTCS) serves on the board of the Kentucky Workforce Investment Board, the two agencies collaborate frequently. One such example is Accelerating Opportunity, a program designed by both agencies for qualifying adults to earn college credits and skills at the state’s eight community colleges that can lead to better paying jobs. With regard to Kentucky, the role played by the Bluegrass Community and Technical College (BCTC), a member of KCTCS and one of the fastest growing two-year community and technical colleges in the state, is important. BCTC’s Bluegrass Advanced Manufacturing Center is located at the Toyota manufacturing facility in Georgetown, Kentucky, and offers, among other certifications, the highly acclaimed Toyota Advanced Manufacturing Technician Program (AMT).

**Louisiana**

The partnership between the community college and workforce development agencies is accomplished at both the state and local levels. The state’s Workforce Cabinet
includes multiple state agencies that impact workforce development with officials from the state’s Community and Technical College System being key members.

**Mississippi**
The Workforce Enhancement Training (WET) fund, established in 2005 from unemployment compensation contributions, provides millions of dollars in training funds annually to the state’s 15 community colleges. These WET grants are administered through the Department of Employment Security, working in conjunction with the Mississippi Development Authority (the state’s economic development agency) and designed to help businesses with customized job training programs that meet their specific workforce needs.

**North Carolina**
The Division of Workforce Solutions acts as the pivot in the state’s efforts to provide companies in North Carolina with the most qualified and skilled workforce possible. In this vein, NC DWS partners with the state community college system, the economic development arm of the Department of Commerce, and other key state and local providers in determining the training needs of, and delivering services to, employers locating or expanding in the state. One example of successful collaboration between NC DWS and the state’s community college system involves the Focused Training Series, a program designed for short-term, concentrated training programs to address job orders requiring rapid employment expansions. Another example involves the collaboration with the state’s 16-campus University of North Carolina (UNC) system. Recently, a certificate program in sustainable agriculture at UNC-Pembroke, generated with funds from NC DWS, was included in the campus’ formal curriculum for students. Momentum in the state to better train workers for manufacturing positions was bolstered at a May 2013 summit in Raleigh, hosted by the North Carolina Community College System, that featured leaders from the business, government and education sectors. These leaders committed to enhancing training and education programs to meet the reawakening manufacturing sector. In the past two years, the state’s community college system has revamped 80 technical programs to promote certification in a wide variety of skills and joined the National Association of Manufacturers to implement a comprehensive skills certification system and recruit students into manufacturing-related programs.

**Oklahoma**
The community colleges, Oklahoma Department of Career and Technology Education (CareerTechs), Department of Commerce and the governor’s office work closely to advance the state’s one-stop system certification initiative. The objective is to develop regional collaborations among workforce, education and economic development partners and carry out comprehensive planning for building a regional talent pipeline to support key industries in the state. These alliances are accomplished as a result of the Governor’s Council for Workforce and Economic Development (GCWED), initially established through executive order but later codified through legislation in 2006. One of the accomplishments of the legislation was the creation of an interagency Workforce Solutions Staff Team designed to provide high level management staff to a working group that meets monthly to support the GCWED and resolve any issues related to workforce development. Oklahoma officials credit the organizational structure of the Council and regular meetings, interaction and relationships among senior staff as key factors for its success. Examples of this collaboration include renewable energy sector partnerships; wind energy training projects; and projects at both the state’s community colleges and CareerTechs to build the skills of Temporary Assistance for Needy Families recipients and those adversely affected by foreign trade.

**South Carolina**
The Department of Employment and Workforce (DEW) collaborates with the state’s technical college system through a variety of mechanisms, including:

» readySC, a unit within the South Carolina Technical College System and one of the oldest and most experienced workforce training programs in the United States, screens and tests applicants for new and expanding businesses;

» Apprenticeship Carolina (another unit within the South Carolina Technical College System) works to ensure that all employers in South Carolina have access to the information and technical assistance they need to create demand-driven registered apprenticeship programs;

» Work Ready Communities initiative, a national initiative enabling community leaders to rally behind the concept of a ready-to-work workforce; and

» Trade Adjustment Assistance (TAA) grants, with DEW working very closely with the technical colleges as they implement curriculums, services and work centers for trade-impacted workers through the TAA grants.

Furthermore, South Carolina’s 12 LWIBs, which are responsible for executing the federal WIA, consistently collaborate with the state’s 16 technical colleges to provide participant training; host job fairs at the technical colleg-
es; and partner with readySC to screen, hire, and train workers for new and existing businesses.

**Texas**
The executive director of TWC (the entity that provides oversight, coordination, guidance, planning, technical assistance, and implementation of employment and training activities to meet the needs of employers throughout the state) and the commissioner of higher education (Texas Higher Education Coordinating Board) serve together on the Texas Workforce Investment Council. The TWC partners with the state’s community colleges through the Skills Development Fund.

**West Virginia**
Given the state’s focus on remaining a dominant player in energy production, the state – led by WorkForce West Virginia – increasingly is focused on training a new generation of manufacturing workers to take maximum advantage of the huge reserve of ethane contained within the Marcellus Shale gas region. These workers will be immersed in an array of technical jobs spanning the chemical and polymer industries and, ultimately, finished consumer goods. For instance, West Virginia is an active player in Marcellus ShaleNET, a coalition between Westmoreland County Community College (the lead agency), Pennsylvania College of Technology, West Virginia Northern Community College, Eastern Gateway Community College in Ohio, and Broome Community College in New York, in a multi-state effort to design a comprehensive recruitment, training, placement, and retention program for high priority occupations in the natural gas drilling and production industry. In addition, West Virginia’s community and technical colleges are increasing student recruitment efforts for chemical processor training and other advanced manufacturing programs such as mechanical and electronic processes, i.e., ‘mechatronics.’ Furthermore, WorkForce West Virginia, the state’s network of services geared toward providing and upgrading the skills of the state’s workforce, promotes a range of initiatives, such as the EarnMoreWV.com campaign, a statewide effort that showcases high demand manufacturing careers in drafting, machine tool technology, chemical plant operation and mechatronics, all careers that pay starting salaries of $40,000 or more, and the two-year training programs that can assist job seekers secure these careers.

**State Workforce Development Agency Partnerships**
Partnerships between state workforce development agencies and companies are a critical element in ensuring the success for both the company and the state.

**Georgia**
The GOWD cited the example of JCB North America, a company founded in 1945 with its North American headquarters in Pooler, Georgia. While JCB North America is the world’s third largest heavy equipment manufacturer, the company worked closely with GOWD to strengthen its manufacturing workforce by implementing an on-the-job training program, i.e., a formal manufacturing skills apprenticeship program. This three-year apprenticeship program comprises classroom work at Savannah Technical College and hands-on work on JCB America’s manufacturing floor.

**Mississippi**
The successful partnerships with businesses in the state to enhance workforce development include OJT, customized training, industry sector training and recruitment and referral services. The following examples highlight the state’s efforts in this connection:

» to address the staffing needs of utility companies such as Entergy by deploying financing from the governor’s discretionary fund and the Delta Workforce Investment Area Board, Mississippi Delta Community College launched an electrical lineman training program. The program received additional funding from Entergy and other local power companies;

» after the opening of the Toyota plant in Blue Springs, the Itawamba Community College Belden Center built a testing and training center for Toyota and its nearby suppliers. The Center has provided classes in blueprint reading, statistical process control and Japanese business culture for several thousand trainees while also screening job candidates for the facility; and

» Atlanta, Georgia-based Advanced Technology Logistics, Inc. (ATL) provides consulting and support to a wide range of clients throughout the Southeast and beyond. When ATL’s operation in Ocean Springs, Mississippi, sought qualified employees, the Mississippi Department of Employment Security worked with Harrison County, Mississippi officials to ensure that qualified candidates were identified. As Levi Robinson, president and CEO of ATL, wrote, “It’s great to see that the system actually works, and that employers and workforce agencies can work together to provide employment, especially in times like these.”

**Missouri**
The state’s Department of Economic Development, through the Division of Workforce Development, has partnered with more than 5,000 companies in the last several years on
In January 2013, Tennessee granted approximately $3.8 million in FastTrack Job Training assistance grants to the Nissan plant in Decherd (south of Nashville) to fund training for about 850 new jobs at the facility. Nissan, which has been at its Decherd location since 1997, is currently going through a major expansion, and these grants will support three projects: building the ‘E’ motor for the all-electric Nissan Leaf manufactured in Smyrna, Tennessee; expanding casting operations at the facility; and producing four-cylinder engines for Daimler and Infiniti.

State financed industry training programs. Some of these include the automotive, bio sciences, financial services, information technology and logistics sectors.

**North Carolina**

Opportunity North Carolina (ONC) is a program initiated in 2010 that encourages individuals receiving unemployment insurance benefits to volunteer for a training opportunity offered by a North Carolina employer. Businesses participating in the ONC offer training up to six weeks and, at the end of the training period, these businesses may offer jobs to the program participants. More than 130 businesses have participated in ONC and 87 have placed nearly 200 participants in permanent positions. Also in North Carolina, the Triad Region Workforce Development Board partnered with Guilford Technical Community College and several local manufacturing companies to develop an accelerated 17-week computer numeric control machinist training course. Graduates from this training course possess machining skills, an industry-recognized National Institute for Metalworking Skills credential and a Career Readiness Certificate (CRC), all qualifications sought by manufacturing and aviation cluster companies in the area such as TIMCO, HondaJet, Jeffreys Manufacturing, and Atlantic Aero.

**Tennessee**

Many companies operating in the state have benefitted from a number of state workforce development programs including on-the-job, customized, and incumbent worker training, as well as grants providing instruction in specified skills experiencing shortages in employees, where the company shares a portion of the training costs. Tennessee officials also commented that “many employers are looking for shorter training programs that better connect them to customized opportunities.” Some of the companies that have worked with the Tennessee Department of Labor and Workforce Development in recent years include Volkswagen, Asurion, LQK Keystone, AO Smith, NSK Steering, Gestamp, Wrigleys, Eastman, Weyerhauser, Wallanius Wilhelmson, ConAgra, Unilever, Bridgestone, Martinrea, Shoals Technologies, Akebono, Magnetti Marelli, Hemlock, and Lennox.

**Texas**

Employers are active participants in the development and support of workforce training programs throughout Texas and, according to the state’s survey response, in fiscal year 2012, the Skills Development Fund served 111 businesses through partnerships with community and technical colleges on projects to create 5,108 new jobs and retrain 14,732 existing workers. For instance, McLennan Community College in Waco addressed the training needs of a consortium of six manufacturing businesses, including Mars Chocolate North American and Imperial Woodworks, Inc., with a $998,974 Skills Development Fund grant. The curriculum included training for 53 new and 693 incumbent workers on the operation and maintenance of complex manufacturing equipment, productivity software, forklift operation, safety and lean manufacturing. Similarly, a $389,173 grant was awarded to Texas State Technical College in Harlingen that enabled four manufacturing businesses to train 94 new and 188 incumbent workers in Advance Manufacturing Integrated Systems Technology (AMIST) Basic Electricity, AMIST Electric Code and AMIST Programmable Logic Controllers. Employees at companies such as Industrial Tool & Die, Penn Aluminum International LLC, Mexican Snacks, and Valley International Cold Storage realized improvements in productivity, product quality and safety as a result of this training.

**Workforce Development Success Stories**

**Alabama**

A number of companies (Mercedes Benz, Honda of Alabama, Boeing Corporation, Thyssen Krupp, Airbus Engineering and Allstate Insurance) successfully secured assistance from the state to expand workforce development.

**Kentucky**

The commonwealth does not directly manage any training programs but rather delegates this responsibility to the specific local workforce board, relevant community college system and/or Bluegrass State Skills Corporation (BSSC), a unit within the Cabinet for Economic Development, and cited the following success story: BSSC coordinated incentives for workers at the Ford Motors facility in Louisville to retool two production plants, hire additional workers and add an additional shift at the facility.
Mississippi
On-The-Job program, a key element of the state’s workforce development mission, has been very effective, according to feedback received from the state’s Department of Employment Security. For instance, Aurora Flight Sciences Corporation, a Columbus, Mississippi-based company that availed itself of OJT assistance with regard to personnel noted the following:

“It is with great pleasure to let you know that Aurora Flight Sciences Corporation has experienced tremendous success with the OJT program. As you know, last year, we had a hiring campaign which resulted in placement of numerous new hires. Because of the OJT program, we were able to enhance the new hires’ skills and add new skills required to perform the job. We have and continue to see great benefit from participating in the OJT program for both the company as well as the employees who needed training.”

Missouri
The state’s Division of Workforce Development’s exemplary record working with the aircraft manufacturer Boeing demonstrated the department’s effectiveness. In 2006, with assistance from the Division, St. Louis Community College formed a joint venture with Boeing to develop and provide a pre-employment training program for potential Boeing employees. The impetus for this partnership emerged from Boeing’s need for a host of technical positions, such as sheet metal assemblers and riveters. Not only is the program developed and designed by St. Louis Community College and Boeing, the pre-employment training program provides 208 hours of instruction in aircraft assembly techniques, accessing computer-based work instructions and teamwork. After a review of their performance in the program, candidates have the potential to be hired at Boeing. In fact, the project’s success has made it a national model for Boeing and, locally in St. Louis, the St. Louis Community College went on to establish an Aerospace Institute which has attracted other aerospace-related companies to become partners in the program as well.

North Carolina
An example of a successful workforce development program involves the healthcare arena. Specifically, the Charlotte area’s healthcare sector benefits from the Anesthesia Technician Certification Program developed through the Carolina College of Health Sciences. While the first class graduated in fall 2012, the program addressed the need for meaningful career advancement for anesthesia technicians and was developed to meet the employment needs of major healthcare employers in the Charlotte area including Carolinas Medical Center system and Novant Health (a healthcare provider to more than 5 million residents from Virginia to South Carolina).

Oklahoma
The Office of Workforce Solutions fostered the partnership between Oklahoma State University and OGE Energy Corporation to design and present a Power Transmission Distribution Technology Associate Degree program geared toward a career in the utility field. Graduates of the program typically begin in an apprenticeship program at the company before advancing to a journeyman lineman position.

Performance Ratings: Private Sector Feedback
In general, companies were satisfied with the efforts of states to provide a qualified workforce to staff these different manufacturing facilities.

Alabama
Honda and Mercedes (two of the four major automakers with manufacturing facilities in the state) had less than 1 percent attrition with their workers who came through the state’s AIDT process. One of the major factors driving the low attrition rate was the quality of the AIDT training program.
Arkansas
As a result of its CRC, companies including Hewlett Packard, LM Glassfiber and Hino Motors provided positive feedback on the state’s efforts.

Missouri
Custom Powder Systems, a Springfield, Missouri-based company that creates systems to transport, contain, blend and process dry materials for pharmaceutical, biopharmaceutical, food, nutrition supplement and industrial manufacturing, noted that the additional workforce development assistance from the state:

“...afforded us the opportunity to develop unskilled workers during a period when most companies were laying off employees, we retained our workforce without cutting our talent and allowing us to ramp up faster as we started seeing an upturn in production. As we are seeing an increase in production we also have utilized the training skills our employees have benefited from allowing for faster lead-times required by our customers. In addition, we have increased our workforce 10 percent to 12 percent over the last year and are adding a third shift.”

Oklahoma
Feedback from employers on the graduates of the CRC has been very positive. After securing workforce development assistance from the state, OGE Energy Corporation, one of the major energy production companies in the state, noted “We know how those who have their CRCs scored and their ability ratings. That knowledge reduces the training time for the new employee. And time is money.” Also, based in Edmond, Oklahoma, Pelco Products, Inc., the largest traffic signal hardware manufacturer in the nation, obtained workforce development assistance and commented that “WorkKeys® assessment is a confidence builder. Employees can see exactly where they excel and where training is needed for job satisfaction. We will continue to use this system for hiring the right person for the job and also for promotions. The assessments ensure the right skill sets and training needs.”

Texas
Feedback from several companies documented their satisfaction with the state’s efforts on expanding workforce development programs. For instance, Northwest Texas Healthcare System, an acute care facility providing inpatient, outpatient, emergency, and community health services and located in Amarillo, Texas, addressing the issue of employees receiving certifications coordinated by the TWC, noted that “hundreds of healthcare professionals achieved certification status, an accomplishment that will impact the quality of patient care now and in the future.” Similarly, CoServ, Inc., the second largest electric cooperative in the Lone Star state, based in Corinth, Texas, commented that the efforts of the TWC ensured that “CoServ recruit and retain a sustainable talent pool of employees.” Finally, Osteogenics Biomedical, Inc., based in Lubbock, Texas, and a leader in the dental bone grafting industry, indicated that, as a result of the TWC-propelled workforce training, “the skills acquired by our employees measurably improved operational efficiency in our company.”

Best Practices in the SLC States
Given that all the SLC states have operated workforce development programs for a lengthy period of time, honing in on some best practices to expeditiously create a trained workforce remains a useful exercise. In this connection, the states provided a sampling of best practices that possibly could be adopted in other settings. In general, more than half of the survey responses stressed the importance of states working closely with companies to customize the required training for workers. In addition, the responses also emphasized the next step, i.e., the state working in harmony with the community college system to tailor the training received by workers for the different companies.

More detailed information on best practices was provided by several states.

Georgia
The state stressed apprenticeships and on-the-job training in its Go Build Georgia campaign, an effort by the Governor’s Office of Workforce Development to educate young people on “the value of learning a trade, dispel their misconceptions about the skilled trade industry and inspire them to consider building a career as a skilled tradesman.”

North Carolina
North Carolina highlighted several of its programs as best practices, such as:

» promoting the partnership between the NC DWS (a division of the North Carolina Department of Commerce) and the state’s community college system, a collaboration that hinges on affordability, geographical accessibility and programs to strategically provide and address in-demand occupation training;
» enabling the North Carolina Workforce Development Training Center, another agency operating under the aegis of the North Carolina Department of Commerce, to
provide high quality, affordable, easily accessible training and professional development services for the state’s workforce development system at 23 LWIBs, JobLink Career Centers, youth programs, and partner agencies; ensuring that the state waivers for federal WIA funds are used in the most efficient and effective manner, such as OJT sliding scale for training reimbursements, maximum transfer of Adult and Dislocated Worker funds, and using funds for incumbent worker programs; and emphasizing and supporting the delivery of OJT programs, including streamlining contracts and developing effective skills’ gap analysis processes to assist businesses in training new employees.

Oklahoma

Oklahoma identified its Training for Industries Program (TIP) as a best practice. In existence since 1968, Oklahoma’s TIP provides start-up training for a host of industries, from manufacturing to warehouse and distribution centers, aerospace to business services, biotech to food processing.

South Carolina

Similarly, South Carolina indicated that the state’s partnership with the South Carolina Manufacturing Extension Partnership (SCMEP) is one of its best practices in advancing workforce development in the state. The SCMEP is a private, non-profit entity that assists South Carolina businesses with “a range of innovative strategies and solutions to strengthen leadership, develop competencies, drive growth, and eliminate waste.”

One of SCMEP’s vital business improvement services is the no cost one-day Competitiveness Review, a comprehensive on-site, systematic evaluation of a company’s operations.

Tennessee

Tennessee identified as one of its best practices the state’s “team approach,” a process that always includes multiple agencies working in partnership to enhance a number of economic development goals, including workforce development. For instance, the state, through its Department of Economic and Community Development (ECD), provides recruitment experts to identify each team. The Department of Labor and Workforce Development provides resources (through the Tennessee Career Center system that is designed to connect people and jobs at locations across the state deploying WIA funds) to work with a company at the local level to ensure connections to funds and training providers. Funds from the on-the-job training program, provided at the Tennessee Career Centers, are devoted to customize training and ensure a positive return on both state and federal monies.

North Carolina’s collaboration between the private sector and community college system in fostering worker training has a long history of national recognition. For instance, Central Piedmont Community College (CPCC) and Siemens Energy, both located in Charlotte, have a fruitful partnership building and developing a talent pipeline to address Siemens’ workforce needs with suitably trained workers. About 12 years ago, Siemens approached CPCC to devise a solution to the worker skills gaps the company faced in hiring employees in the Charlotte area. Consequently, the two entities created an apprenticeship program that enabled students to work at Siemens while attending CPCC’s Mechatronics degree program. While Siemens pays for each student’s tuition costs, participants earn a paycheck and receive intensive company-specific technical training and hands-on experience. Not only has CPCC offered more than 680 classes to Siemens employees over the years, in 2010, CPCC also helped Siemens through its applicant screening process when the company announced it was hiring more than 700 new positions at its facility in Charlotte. CPCC quickly reached out to Charlotte Works (a private-public partnership bringing together Charlotte area resources to educate, empower and engage the area’s workforce to meet business needs) and Centralina Works (a statewide agency that partners with economic development, education and businesses to create innovative strategies to serve career seekers and businesses), which provided Siemens with a way to track applicants through an online portal, significantly expediting the hiring process. During his 2012 State of the Union address, President Barack Obama highlighted the CPCC/Siemens partnership as a shining example of a community college and private industry working effectively together to elevate workforce training.

Tennessee’s collaboration with Volkswagen is a fine example of this team approach, an instance where multiple public and private entities working in concert to first recruit the company to locate in the state and then to adequately train workers for the facility. At the outset, the state’s ECD, the city of Chattanooga, Hamilton County, Chattanooga State Technical Community College and many other entities played a pivotal role in recruiting Volkswagen to Tennessee. The local Career Center and funding from the federal Workforce Investment Act (WIA) -- the nation's principal workforce development legislation providing funds to address the employment and training needs of dislocated workers -- was helpful in establishing and facilitating a process for the job ap-
plication process, staffing the assessment center, making qualified referrals, setting up appointments and meetings for interviews, and helping schedule worker training for the qualified candidates. While training was largely provided at Volkswagen’s Lean Training Center, much of the costs were offset by funds from ECD and WIA. In addition, WIA funds supported the on-the-job training (OJT) model through cost reimbursement grants. Furthermore, this training model continued and became instrumental in providing funding for workers for the facility’s third shift in July 2012, a mere year after the Volkswagen facility first opened.

West Virginia
West Virginia’s best practice recommendation involves assistance to training for dislocated coal miners. In terms of the new areas of training preferences, the miners chose advanced manufacturing, diesel technology, heavy equipment operator, commercial driver licenses, welding technology, healthcare and computer technology. Importantly, the state’s community and technical colleges were involved in training these former coal miners in other fields.

Threshold for Customizing Workforce Development
A number of states indicated a specific threshold that must be met, either in dollar terms or number of jobs, in order to customize workforce development assistance to different companies. For instance, Alabama listed a minimum of 10 new jobs with a minimum starting wage of $10 per hour. Georgia required a minimum of 15 new manufacturing jobs, 15 new warehousing and distribution jobs and at least 50 new jobs at targeted service operations such as call centers, headquarters and business centers. Missouri required a minimum of 10 jobs while North Carolina required a minimum of six jobs, though there were county-specific variations. West Virginia provided up to $5,000 for dislocated coal miners from National Emergency Grant funds. Two states (Kentucky and Oklahoma) provided training on a case-by-case basis while others (Arkansas, Mississippi and Texas) did not list a specific threshold. Tennessee indicated that the state is influenced by the local community’s potential to recoup the federal and state investment of funds in a particular company within five to seven years in its decisions related to additional assistance in the form of workforce development training.

Unique Accomplishments and National Recognitions
An aspect highlighted by three states (Georgia, Texas and West Virginia) involved efforts initiated by their workforce development programs in assisting military veterans to obtain the necessary training to secure jobs in a range of civilian fields. Georgia’s Troops to Trucks program seeks to expedite the entry of veterans into civilian employment in the transportation sector. In Texas, the Skills for Veterans initiative funnels funds to community and technical colleges and the Texas Engineering Extension Service to address the unique challenges and training needs of post-9/11 Texas veterans. WorkForce West Virginia won national recognition for consolidating all the resources available to returning troops, active military and veterans on a single, comprehensive website.

Kentucky, Missouri and Virginia all were lauded by the U.S. Department of Labor for their efforts. Kentucky’s strategic planning and implementation was recognized as a model state workforce board, a development that resulted in 19 states seeking technical assistance from the board on the topic. In the January 2013 issue of Area Development, a publication for economic development professionals, Mississippi ranked as one of the top 10 states in the country for doing business, a ranking that was buoyed by the state’s focus on workforce development.

Oklahoma’s Education and Training Tinker Partnership was born in response to the phasing out of operations at Tinker Air Force base six years ago, a decision that would have eliminated 60 percent of the workforce at the base. This partnership included the Midwest City Secondary District, Rose State College, Langston University, University of Central Oklahoma, University of Oklahoma, six Career Tech Centers and Tinker Air Force Base. Entities belonging to the partnership assessed and cataloged every job at Tinker Air Force base, determined which positions would be eliminated and which positions would be retained and designed specific curricula at these different institutions for new careers for both current employees and new entrants. Harvard University’s John F. Kennedy School of Government recognized the unique collaboration between Oklahoma’s higher education system and Tinker Air Force base to create customized courses and curricula targeted to potential replacement workers with the Innovations in American Government award.

Conclusion
The cautious resurgence of the American manufacturing sector in the last few years is a positive development at a juncture when there is a dire need for high tech, high wage jobs across the country. Even though the manufacturing sector’s contribution to GDP has been on a downward trajectory for a number of decades, the slight uptick in the sector has generated a range of benefits, including in-
creased employment, higher revenues at the individual and corporate levels, and enhanced economic opportunities in parts of the country that needed this economic boost. The recent trend of American companies relocating their manufacturing operations from overseas locations to facilities in the United States is a critical element contributing to this burgeoning manufacturing sector. Yet, it is important not to overemphasize the employment potential of this resurgent manufacturing sector since the huge advancements in technology and automation have resulted in tremendous output achievements with a much diminished role for manual labor. Unquestionably, the enormous efficiency gains in manufacturing have enabled greater output levels with fewer workers contributing to these increased output levels.

Given that a highly trained workforce is a central aspect of a thriving manufacturing sector, states across the country, particularly in the South, have placed a great deal of emphasis on ensuring that their economic development strategies incorporate the workforce development needs of these different companies. For instance, every state in the SLC region provides assistance to companies either locating or expanding in their states so that the workforce operating in these facilities is suitably trained.

States go to great lengths in this regard and one such example involves the KIA manufacturing facility in West Point, Georgia. Soon after the Korean automaker KIA announced the opening of its first North American facility at West Point (near Columbus) in 2006, the first structure on the facility was a $14 million, 70,000 square-foot training center constructed, staffed and paid for by Georgia Quick Start, the state’s training program for workers in the manufacturing arena.28 Georgia Quick Start’s training programs are developed specifically to fit the unique requirements of the individual company, and even before the actual KIA production facility was operational, the state’s Quick Start program had identified and trained a very skilled workforce at the prototype training facility. In fact, KIA officials were exceedingly pleased with the competency of the workers coming through the training center – based on the efforts of Georgia Quick Start and the Technical College System of Georgia – that in early 2011 the company donated 20 new KIA Sorrentos to the Technical College System of Georgia.

Economic development specialists generally are in agreement that there are four vital ingredients, i.e., essential building blocks to foster sustained, robust economic growth: high quality public education; a transportation infrastructure that promotes the efficient movement of goods and people; a business climate that is attractive to prospective investors, both domestic and foreign; and, critically for the purposes of this policy document, a workforce trained in the skills needed by local industry. All the SLC states have been very proactive in pursuing and implementing measures to enhance the quality of the workforce in their states to accommodate the rising demand for better skilled individuals required by the rising manufacturing sector. These measures have taken the form of various strategies, including the governors’ offices assuming a more active role and implementing workforce development policies through the state commerce and/or economic development departments.

Another important component highlighted in all the state responses included states partnering with their community college system to further workforce development and better equip workers for 21st century jobs. One striking example is the aforementioned Bluegrass Community and Technical College in Kentucky, locating its Bluegrass Advanced Manufacturing Center at the Toyota manufacturing facility in Georgetown, Kentucky, and offering, among other certifications, the highly sought after Toyota Advanced Manufacturing Technician Program. This is a strategy apparent in many other states too, i.e., companies such as Toyota partnering with the community college system to offer technical certifications for manufacturing positions. A typical curriculum also involves these employees working at the different manufacturing facilities while earning their degrees or certifications, replicating the highly successful approach in countries like Germany, where a dual education system, combining an apprenticeship in a company and technical/vocational education concurrently, has proven to be extremely effective in preparing a well trained workforce.

In closing, states across the country, and especially in the South, are realizing that a workforce adequately prepared to deal with the challenges of the 21st century economy is vital for economic success and have initiated a series of measures to strive toward this goal. These efforts have coincided with the rising importance of the manufacturing sector in America, a development that offers the potential for high tech, high wage jobs for thousands of Americans. Continued investments and refinement of current state programs, especially in the form of workforce training, to bolster the economic gains delivered by this sector will ensure that the Southern region remains competitive and takes full advantage of the recent growth in U.S. manufacturing operations.
Appendix A

SLC State Survey for Workforce Development Policy Document

Name:
Title:
Agency Name:
State:

1. Please provide a brief history of your state’s efforts to prepare a better trained workforce, i.e., establishing an office to oversee workforce development in your state such as South Carolina’s ReadySC or Georgia’s Quick Start, to work in manufacturing projects.

2. Does your office function as an independent agency or does it serve as a unit within the Department of Commerce/Economic Development?

3. Please list the mission of your agency and some of the specific strategies adopted by it to enhance workforce training in your state.

4. In your agency’s experience, what are some of the financial costs involved in providing companies with qualified trained workers? Please list these examples by either specific project or on a fiscal year basis.

5. Does your office partner with the state community college (or equivalent) oversight entity to achieve the goal of a technically proficient workforce? If so, please provide the specific ways this interaction is achieved.

6. Please provide some of the success stories enjoyed by your state in the area of workforce training, including details on the specific companies that were provided an industry-specific workforce.

7. Are there any companies in your state that have partnered in a workforce training program? If so, please provide details of this participation.

8. Please provide specific feedback received from a company that was the beneficiary of your state’s program.

9. What would your agency highlight as “best practices” in proceeding expeditiously in this effort to create a trained workforce in your state?

10. What does your state consider as a threshold, either in terms of a dollar investment or number of jobs, to customize a specific workforce training program to assist a company either relocating or expanding its operation?

11. Are there any other details regarding your state’s workforce training program that you would like to highlight? For instance, has your state’s workforce development program received regional or national recognition by an independent entity?


5. Ibid.


