

Smoky Mountains Area Workforce Board-Local Area 2

2014 Labor and Education Alignment Program (LEAP)

Strengthening the Lakeway Links: Providing a Demand Driven Workforce Supply Chain

Smoky Mountains Area Workforce Board-Local Area 2
In Partnership With

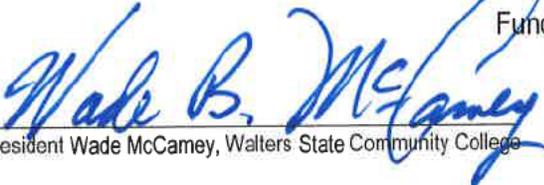
1. Walters State Community College
Tennessee College of Applied Technology- Morristown (Fiscal Agent)
2. Hamblen County Schools
Hawkins County Schools
Grainger County Schools
3. Employer Partners
Alcoa Howmet
Colortech
Kawaski
Mahle
Team Technologies
Tuff Torq

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Funding Requested:
\$1,000,000


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Abstract

Hamblen, Hawkins, and Grainger Counties make up the Lakeway Area, an area marked by transitioning industry and shifting workforce needs flanked by an employee skills gaps and lack of capacity to provide skills-based instruction for potential and incumbent workers. Empirical data reveals that workers in this area are less likely to enter or complete post-secondary education than their state peers, and they exceed the state in unemployment despite the presence of over 100 manufacturers, 12 Fortune 500 companies, and dozens of international corporations offering high-skilled, high-pay jobs. A three-year dialogue among a local collaborative of regional industry leaders, economic development leaders, Walters State Community College, TCAT-Morristown, and K-12 districts culminated with an October 2014 roundtable discussion where the leadership of 16 local advanced manufacturers identified specific skills gaps, including soft skills as measured by attendance, problem solving, stronger math and reading skills, and lack of substance abuse, as well as specific skills needed in electricity and industrial maintenance. The gap between the demand for advanced manufacturing jobs and the availability of qualified workers will continue to widen if a demand driven workforce supply chain is not carefully developed with the coordinated efforts of industry, government, education, and workforce entities within the Lakeway Area. The industries of the region have provided a match through 27 paid summer student internships for high school students.

The grant proposed herein, ***Strengthening the Lakeway Links: Providing a Demand Driven Workforce Supply Chain***, capitalizes on the opportunities of the LEAP grant to provide the following:

- Soft skills curriculum to all middle school students in Hamblen, Hawkins, and Grainger Counties;
- A Work Ethic diploma will be developed for students meeting workforce needs as identified by local industry, which will include items such as drug testing, attendance, tardiness, and participation in CTE and dual enrollment with TCAT or WSCC technical education programs, thereby endorsing the graduate as prepared for rapid entry into the workforce;
- Provide remediation in mathematics and reading in preparation for WorkKeys for CTE students;
- Create four new sites across the almost 1000 square mile area for specialized industrial electricity skills training for high school students through dual enrollment and incumbent worker training resulting in additional certificates and diplomas, as well as creating training slots created by the enrollment demands of Tennessee Promise. This will decrease enrollment wait times and more quickly produce entry-ready employees;
- Create one additional site for industrial maintenance instruction with PLC robotics and automation high school dual enrollment and for incumbent worker training. The addition of the industrial electrical and industrial maintenance sites will more than triple the Morristown TCAT's ability to serve incumbent workers in its service area, and strengthen sustainable connections among the collaborative; and
- Increase dual enrollment in Walters State Electromechanical program and its Technical Education.

The goals of *Strengthening the Lakeway Links* is precisely aligned to the primary goals of the LEAP program and Drive to 55 in its quest to provide a credentialed workforce, eliminate skills gaps, and create long-term relationships between manufacturers and educational entities for the economic development in the Lakeway Area.

Section 1: Program Need:

Localized Data Demonstrating Need: Manufacturing, particularly the advanced manufacturing of auto components, is a major contributor to the economy in Grainger, Hawkins & Hamblen counties. Manufacturing employs 13,118 workers in the three counties, and these jobs constitute 21% of the workforce, as compared to the national average of 6.67% of jobs in the sector, making the overall demand for trained manufacturing workers over 300% of the national average. Examining data from Jobs4TN.gov and EMSI's Analyst program, it is clear that the greatest demand for employees in the additional seven counties in Local Area 2 (Claiborne, Cocke, Greene, Hancock, Jefferson, Sevier & Union) is in Motor Vehicle Gasoline Engine & Engine Parts Manufacturing, Motor Vehicle Seating & Interior Trim Manufacturing, Motor Vehicle Steering and Suspension Component Manufacturing, Plastics Product Manufacturing & Laminated & Unlaminated Plastics Manufacturing. The table below shows the current and projected employment in these industries in the three counties and the local area.

2014 Industry Employment & 2020 Projections*
Grainger, Hamblen & Hawkins Auto Parts & Plastics Manufacturing

NAICS	Description	2014 Total Earnings	2014 Jobs	2020 Jobs	2014-20 Change
336310	Motor Vehicle Gasoline Engine and Engine Parts Manufacturing	\$65,669	2,432	2,847	415
326199	All Other Plastics Product Manufacturing	\$50,516	478	612	134
336350	Motor Vehicle Transmission and Power Train Parts Manufacturing	\$35,285	115	192	77
336360	Motor Vehicle Seating and Interior Trim Manufacturing	\$57,170	54	95	41
333514	Special Die and Tool, Die Set, Jig, and Fixture Manufacturing	\$50,249	226	231	5
326112	Plastics Packaging Film and Sheet (including Laminated) Manufacturing	\$54,277	78	82	4
336330	Motor Vehicle Steering and Suspension Components (except Spring) Manufacturing	\$52,976	730	730	0
	TOTAL		4,114	4,790	401

*Incorporates over 70 sources e.g., BLS, Census, Census of Business, Quarterly Census of Employment and Wages

Within the ten county service region of Walters State Community College (WSCC), an increase of 783 jobs is expected in the sector from 2014-2020. These industries compete for entry-level production employees and for highly skilled technical employees. Manufacturing employers in the three counties have identified five occupations where trained, reliable employees are most in demand: production operators, production management, industrial maintenance, technicians in electrical and electronics engineering, electro-mechanics, and product quality control, with the greatest demand in production operators. Currently area manufacturers employ an estimated 1,845 production operators, 264% of the national average; 576 in production management, 280% of the national average, & 1,099 in industrial maintenance, 131% above the national average. Another estimated 1,026 skilled technicians (e.g., electro-mechanical technicians, industrial machinery mechanics) are employed in the three counties; all

above the national average. An estimated 446 statistical product control jobs, 145% above the national average, are in the three counties, and 858 are located in the ten counties. Jobs4TN has a Precision Production Pathway which incorporates many of these occupations that local industries need, and companies using advanced manufacturing techniques are most likely to have growth in jobs, reporting that “workers that are able to operate computer-numerically controlled machines are expected to have the best job prospects.” Further, despite declining employment, a number of these jobs are expected to become available for highly skilled workers because of an expected increase in retirements. Beyond the empirical data, plant managers and leaders representing 16 advanced manufacturers from Grainger, Hamblen, & Hawkins counties were assembled in October 2014 with leaders from WSCC, Tennessee College for Applied Technology (TCAT) at Morristown, industrial boards, chambers of commerce, educational foundations, & K-12 educators. Those in attendance heard the advanced manufacturers describe the skill gaps needs for their companies. The empirical data and the advanced manufacturers analysis of skill gaps form the basis of this grant. Repeatedly, they emphasized the needs for soft skills as measured by attendance, teamwork, the ability to learn and re-learn, problem solving, & lack of substance abuse as their first need. This echoes state and national research about work readiness and the need for a renewed American work ethic. Local industrial leaders recognized the need for communication, mathematics, & computer skills in all segments of the industry. These entry-level employees must understand basic tool knowledge and are enhanced with a basic understanding of electricity & industrial maintenance of equipment. There are jobs available but a lack of qualified workers to fill those positions. In response to the skills gaps identified, the Smoky Mountain WIA Board, Walters State Community College and TCAT-Morristown in partnership with Hamblen, Grainger, and Hawkins County Schools (3 of the 10 County WSCC and TCAT service area), and six student internship sites propose *Strengthening the Lakeway Links: Providing a Demand-Driven Workforce Supply Chain* to provide the needed supply of entry ready employees. This represents great opportunity for a three county area that exceeds the state in its unemployment rate. (US Department of Labor, Bureau of Labor Statistics, 2014) Grainger-Hamblen-Hawkins residents are less likely to enter or complete any post-secondary education than their state peers according to the U.S. Census Bureau American Community Survey, December 2013. To provide the demand driven workforce supply chain, there will be seamless alignment between K-12 education, the TCAT, & Walters State Community College to produce rapid entry workers with the required work ethic and soft skills and to produce pathways in industrial electricity, industrial maintenance, & automation/robotics.

Linkage between activities & local needs will include the following:

- The three school systems will add soft skills to the curriculum during the formative middle grades and will provide through local funding the curriculum and salaries for the teachers. The industrial and education leaders of the three counties will

develop criteria for a work ethic diploma that is anticipated to include the following: drug testing, attendance, absence, discipline, basic computer skills, tardiness, grade point average, CTE coursework, registration for Tennessee Promise, enrollment in post-secondary, completion of industrial interview, resume, service learning, & Jobs4TN career survey. The program will be marketed through various tools that endorsing business and industry display to promote the program and guarantee interviews to students with the work ethic diploma, if they meet the other job-related qualifications for the open position. The LEAP manager will arrange industrial tours in advanced manufacturing and for an array of employers to speak to all students in the three school districts about career opportunities, educational opportunities through company benefits, and the soft and hard skills required for workplace success, as well as visits to TCAT & WSCC. Finally the LEAP manager will track credentialing, hours of training accrued, and diplomas of job candidates, dual enrollment and incumbent workers trained; expand real-world learning opportunities for students through internships in advanced manufacturing sites in the three county region; facilitate the development & endorsement of the work ethic diploma; strengthen the partnership & communication among industry, post-secondary & K-12 education; and gather and report data on the grant progress to inform the steering committee to make informed decisions and necessary adjustments. The LEAP manager will work with the fiscal agent in purchasing & compliance with state & federal regulations and will work with school personnel to assist students in meeting the criteria of the work ethic diploma and support CTE teachers with KeyTrain (preparation for WorkKeys) to increase the percentage of students graduating at WorkKeys Level 3 or Bronze Level. LWIA2 board uses WorkKeys to assess applied math, reading for information, & locating information, meeting employers' need for workers with reading & math skills. The LEAP manager will assist students enrolling in TCAT or WSCC through high school dual enrollment, assist transition to full-time enrollment in post-secondary education at TCAT or WSCC, and complete job applications, and assist incumbent worker enrollment.

- Industry has identified a need for operators, technical operators, electricians, & industrial maintenance workers in the current and future workforce supply chain. Industrial electricity will be added to the curriculum at four sites in the three school districts in the consortium. The TCAT will dually enroll these students and/or allow 200 hours credit toward a TCAT certificate. The curriculum will mirror the TCAT curriculum, as well as the equipment used. Additionally, video-conferencing will be used to allow the TCAT instructor to frequently interact with industrial electricity students & to review their projects across the 978 square miles served by the grant, while the K-12 instructor is also in the classroom and the lab. This will increase the capacity of the TCAT to deliver industrial electricity curriculum to incumbent workers across the Lakeway region with industrial electricity sites located in each school district and to serve Tennessee Promise's increased

enrollment. Industrial electricity addresses a skill gap need for basic tool knowledge, problem solving, team working, & understanding of basic machine operations. Students will also receive multi-meter certifications. Hamblen and Hawkins Co. Schools will enhance their industrial maintenance programs to include robotics, automation, & programmable logic controllers, further increasing the capacity of TCAT for off-site training in the evening. Our industrial roundtable clearly communicated that the future supply chain of workers will have greater demand for automation/robotics & industrial maintenance PLC. Further, industrial maintenance at the Morristown and Hawkins TCAT center lack the current equipment to effectively teach automation/robotics & PLC at the level of sophistication required for Lakeway industries today and tomorrow and will be purchased through the grant. Four portable computer labs will be purchased to facilitate dual enrollment through distance learning and to operate the software for the automation/robotics/PLC trainers, and to support KeyTrain in applied mathematics, reading comprehension, & reading for information. Students within the seven high schools in the consortium will be able to enroll in dual enrollment in the WSCC in the electromechanical associate's degree, which addresses electrical power, industrial controls, & millwright. WSCC will offer Electrical Circuits, Engineering Graphics, & Industrial Materials for dual enrollment through distance learning. Equipment purchased will provide WSCC four labs across the region to teach these classes to incumbent workers or other specialized classes to meet industries' specialized needs. The lab portion of the classes will be blended using both on-site and distance instruction and will involve frequent interaction with the WSCC instructor using the computer labs and circuit lab equipment. Through this grant program, high school students will be engaged in post-secondary education through dual enrollment while still in high school, increasing their job opportunities, job readiness, and engagement in the system that will lead to certifications and diplomas, and numerous incumbent workers skills will be enhanced by the addition of four remote sites in area high schools for training by TCAT or WSCC.

The activities of this grant are fully **aligned with the Tennessee Drive to 55 Goals** and will increase the percentage of Tennesseans earning post-secondary certificates or diplomas and being prepared to meet the employment needs of current and future Tennessee employers. Programs supported by this grant will enable participants to obtain dual K-12 and community college credit as well as industrial program certificates & diplomas. The grant will provide seamless employer driven career pathways from K-12 to TCAT for industrial electricity and industrial maintenance with specializations in PLC, and robotics, automation certificates and diplomas and from K-12 to WSCC Electromechanical associate's degree and ultimately, an Industrial Engineering degree from East Tennessee State University.

Section 2. Program Plan:

Project Governance and Accountability Plan: Dr. Nancy Brown, WSCC Dean of Workforce Development and Jerry Patton, Director of the TCAT at Morristown, will serve as the program directors, aligning the work of the grant to maximize student connections to the TCAT and Walters State Community College to increase the number of students obtaining industry certification and diplomas and incumbent workers receiving needed training. Ultimately, success will be measured in job-related placements in advanced manufacturing, & certificates, diplomas, dual credits earned. The steering committee will be composed of the following:

Dr. Nancy Brown, Dean Workforce Development WSCC	Jerry Patton, Director TCAT-Morristown Howmet Castings
Dr. Wade McCamey, President Walters State Community College	Tom Foray, Plant Manager Howmet Castings
R. Jack Fishman, Chair Industrial Development Board	Bob Bobo, Tuff Torq VP Operations
Marshall Ramsey, President Morristown Area Chamber & Tennessee Economic Development Council	Bill Brittain, Hamblen County Mayor & East Tennessee Economic Development Council
Darhonda Patterson, TRW Plant HR Manager	Tom Sewell, WSCC Dean of Technical Education
Edwin Jarnagin, Director of Grainger County Schools	Dr. Dale Lynch, Director of Hamblen County Schools
Steve Starnes, Director of Hawkins County Schools	Mike Watson, CTE Supervisor-Hamblen County Schools
Wayland Seaton, CTE Supervisor-Hawkins County Schools	Lisa Setsor, CTE Supervisor-Grainger County Schools
Dr. Brenda Dean, Assistant Director-Hamblen County Schools	

The steering committee will meet each quarter to discuss grant implementation, progress, & data; review quarterly input from its subcommittee, the Industrial Roundtable, which is composed of 16 area advanced manufacturers; area employers, industrial developers; review TCAT and WSCC dual enrollment numbers; review the enrollment, completion, and job-related placements of grant participants; and formatively make adjustments to assure maximum effectiveness of the grant.

Activity	2015				2016			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Steering Committee meets								
Steering subcommittee (Industrial Roundtables) meets								
Students dually enrolled in Electromechanical course sequence			12		15		15	
High school students dually enrolled in Industrial Electricity & Industrial Maintenance at TCAT	25		50		50		50	
Marketing campaign for work ethic diploma to industry, community, parents, & students								
Students receive remediation through KeyTrain	40	60		80	100	100	100	100
Schedule visits to TCAT, WSCC, and high school CTE programs for Industrial Roundtable to promote input in curriculum								
Schedule TCAT, WSCC & visits to industry partners for students								
Student internships & Teacher externships identified & secured in advanced manufacturing								
Incumbent workers enrolled at TCAT or WSCC	28	30	32	34	36	38	40	45
Soft skills curriculum delivered to middle school students	1200	1200		1200	1200	1200		1200
Criteria for Work Ethic Diploma is established by Steering Committee & Roundtable								
Steering committee approves purchases and hires								

Outcome	2015				2016			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Steering Committee: A. Approves Hires & Purchases; B. Review data C. Sets 6-month goals D. Evaluates LEAP Manager	A, C	B	B, C	B, D	B, C	B	B, C	B, D
Steering subcommittee (Industrial Roundtables) meets, provides curriculum input, reports skill gap progress								
High school students dually enrolled in Electromechanical course sequence at WSCC			12		15		15	
High school students dually enrolled in Industrial Electricity & Industrial Maintenance at TCAT	25		50		50		50	
Postsecondary enrollment in Industrial Maintenance w/PLC, automation, robotics and Industrial Electricity	90	92	94	96	98	100	105	110

Outcome	2015				2016			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Total number of manufacturers endorsing Work Ethic Diploma for priority interviewing	10	15	20	25	30	35	40	45
Students through KeyTrain ready for Bronze Level WorkKey testing	25	25		35	35	35		40
Industrial Roundtable completes visit to TCAT, WSCC, CTE programs to promote input in curriculum								
Number of high school students touring TCAT, WSCC & advanced manufacturing sites	100			100		100		100
Number Student internships/Teacher externships completed in advanced manufacturing			10/20				30/35	
Incumbent workers completing 80 hours of training in industrial electricity and industrial maintenance	30	30	30	30	35	35	40	45
Number of middle school students completing soft skills curriculum		1200				1200		
Number of students postsecondarily enrolling in TCAT or WSCC Tech Ed through TN Promise			75			75		
Number of students earning Work Ethic Diploma		75				125		
Project manager distributes quarterly report to steering committee and industrial roundtable concerning enrollment, certificates, and diplomas toward Drive to 55 goals and job placement								
Sustainability plan finalized and recurring cost moved to local budgets								
Equipment A. Installed B. Inspected C. Maintenance performed	A,	A	B, C		B, C		B, C	
WIA trains Grainger/Hamblen/Hawkins teachers on soft skills curriculum								

Role of Equipment Request and Justification: Manufacturing employers in the three counties have identified five occupations where trained, reliable employees are most in demand: production operators, production management (highest demand), industrial maintenance, technicians in electrical and electronics engineering and electro-mechanics, and product quality control. Equipment will be purchased through the grant for four high schools to provide dual enrollment in the TCAT and four new sites across the region to train incumbent workers near work sites: motor control wiring package, commercial wiring package, relay ladder logic trainer, industrial control system troubleshooting trainer,

motor control/PLC troubleshooting trainer, process control/PLC troubleshooting trainer, and residential house trainer. To enhance industrial maintenance at the TCAT Morristown and Hawkins locations to include automation and robotics, the following will be purchased: 1. Factory in a box PLC training system to teach analog and discrete I/O primer; boiler room; chemical treatment & bleach treatment plant; flow, temperature, pH process, level, & dual elevator control; mixing line; seven segment display; forward/reverse motor starter; painting control; and sorting room; and 2. Four robotic/automation trainers at each site, including software. At the Hamblen County schools site, two robot trainers, a mechatronics trainer, and a CNC mill for computer integrated manufacturing and industrial maintenance will be purchased for dual enrollment and to expand industrial maintenance for incumbent workers, thus reducing wait time for training at the TCAT. The four portable computer labs will be used to support the software of the trainers for robotic, automation, and mechatronics and will be used for reading and math remediation through KeyTrain.

Section 3. Strength of Partnership:

1. Jerry Patton, Director of TCAT Morristown and Hawkins, will direct the project and steering committee and assure seamless alignment between all programs for quality and maximizing certificates, diplomas, and competencies attainment & will serve as fiscal agent; 2. Dr. Nancy Brown, WSCC/WIA, will serve as lead entity for the grant, organizing partner participation, ensuring communications, gathering and sharing data, and finding opportunities for coordination with the Career Center; 3. WSCC President Wade McCamey will assist in extending the dual enrollment opportunities across the ten county service area; 4. Directors of Hamblen, Hawkins, and Grainger Co Schools will provide facilities, Internet connectivity, maintenance, utilities, teachers, counselors, and assist in the recruitment of students; 4. Regional industrial employers including Tom Foray, Howmet Castings; Dahronda Patterson, TRW; and Bob Bobo, TuffTorq will serve on the Steering Committee, a clearinghouse for industrial needs to provide swift response through the grant to provide a demand driven supply chain of viable and sustainable skilled workers, approve purchases and the selection of the LEAP manager, inform the soft skills and CTE curriculum, & expand participation in the roundtable by other local industries. Tom Foray, Plant Manager of Howmet Castings will chair the Industrial Roundtable composed of representatives from 16 regional industrial employers. These regional industries will continue to provide internship and externship opportunities for students and teachers in addition to providing speakers for school visits and sites for student tours; 5. LEAP Manager serves as liaison among WSCC, TCAT, local schools, and industries to assist with dually enrolling students, enrolling them as post-secondary students in TCAT and WSCC in programs aligned with advanced manufacturing, facilitating the implementation of the soft skills curriculum and

KeyTrain in preparation for WorkKeys testing at the Career Center, identifying students eligible for the work ethic diploma, securing student internships and teacher externships, & recruiting local industries that will guarantee interviews to students with work ethic diplomas if they meet other requirements of the posting; 6. Industrial Partners will provide feedback to the Steering Committee on identified needs, provide student internships, serve as resources for educational programs, and become work ethic diploma employers; 7. CTE Directors will serve as work based learning coordinators for student internship, identify professional development for teachers in implementing new programs and utilizing grant purchased equipment, & provide leadership for CTE programs. **Capabilities of partners:** For the last three years, these partners, chambers of commerce & economic developers have met regularly to discuss the skills deficits of entry-level employees and have effectively partnered through other grants for teacher externships, student internships, and changes to the educational course offerings. The partners bring stability, experience, cooperation, relationships, vision, and a deep commitment to solving skills gap issues and guaranteeing economic success for the area to provide workers for the regions today and tomorrow.

Section 4. Budget Plan:

Clear Alignment Local manufacturers identified the needs for soft skills as measured by attendance, teamwork, the ability to learn and re-learn, problem solving, & lack of substance abuse as their first need, as well as the need for communication, mathematics, & computer skills in all segments of industry. This grant will provide soft skills curriculum to all middle school students, KeyTrain in preparation for WorkKeys to measure communication skills of reading and math in the work setting, and a Work Ethic Diploma that includes voluntary drug testing. Further, to meet the need of five identified occupations of greatest demand: production operators, production management, industrial maintenance, technicians in electrical & electronics engineering & electro-mechanics, and product quality control. This grant will provide four industrial electricity labs to be placed in four high schools for dual enrollment with TCAT by day and incumbent workers training centers in the evening, tripling the TCATs' ability to serve this segment. A K-12 teacher for industrial electricity is included for Grainger Co. The TCAT Morristown and Hawkins industrial maintenance programs will be enhanced with trainers for automation, robotics, and PLC. Hamblen Co Schools Computer Integrated Manufacturing program will be enhanced with a CNC mill, automation and mechatronics trainer to provide TCAT dual enrollment by day and an incumbent worker lab by evening. Computers and software are also included to support the operations of the trainers and dual enrollment with TCAT and WSCC electromechanical program. A LEAP manager will build relationships among all stakeholders and ensure that the commitments and goals of the grant are met or

exceeded. A **Local Match** by advanced manufacturers in support of the LEAP grant will be provided through paid summer internships for a minimum of 12 student interns over the 24 months at a rate of \$10/hr for 40 hrs/week for a eight-week period, generating \$78,160 for the match. Equipment purchases for K-12 districts to support dual enrollment, incumbent worker training, and capacity to accommodate Tennessee Promise students is made based on the enrollments of the school districts in an equitable manner. **See Line Item Budget with Narrative, pages 24-26.**

Section 5. Sustainability:

Walters State Community College, TCAT Morristown and Hawkins, WIA, industrial leaders, and the school systems of the three counties have forged strong relationships with open and frank dialogue. After the grant, each entity in which the equipment is located will maintain it through local funds, Carl Perkins funds, and equipment maintenance line items; the KeyTrain license and drug testing will be absorbed into the local budgets of the school districts, in cooperation with the WIA, local Career Center, educational foundations and the industrial roundtable; the LEAP Manager will be absorbed by the school districts, local government, and the Douglas Cherokee Economic Authority as a shared position; & industry will continue to support entry ready workers through student internships. The steering committee and its open roundtable of industrial leaders will meet semi-annually to provide input of local industrial needs to WSCC, TCAT, & the local school districts as they develop programs and are proactively responsive in providing a demand driven workforce supply chain to ensure the economic welfare of our region. Dr. Nancy Brown, WSCC/WIA, the program entity, and the Chamber of Commerce will maintain the communication among partners and stakeholders beyond the grant-funded period through the roundtable, newsletter, & outreach to expand roundtable membership. This grant will continue to meet the skill gap needs identified by industrial leaders: 1. Soft skills-annually 1200 middle school students will complete a soft skills curriculum; a work ethic diploma based on students attendance, communication, math preparation, & drug testing will be provided to identify truly work ready entry-level employees. Few would argue that these soft skills are most essential for entry-level positions. 2. With seamless integration between the high schools, TCAT, and WSCC, these entry-level employees will possess basic tool knowledge, problem-solving, and basic understanding of electricity and the industrial maintenance of equipment, resulting in dual enrollment, certificates, and diplomas. The demand for skilled workers exceeds the TCAT and WSCC facilities capacity to supply these workers. Adding four additional training sites at local high schools across the region for industrial electricity and one for industrial maintenance with PLC, robotics, and automation, especially for incumbent workers, will dramatically impact the capacity for the production of skilled workers in the supply chain who are entry ready for the workforce and are utilizing the educational opportunities for dual enrollment, certificates and diplomas from the Tennessee College of Applied Technology and Walters State Community College.