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Jackson Regional Partnership

2014 Labor and Education Alignment Program (LEAP)

LEAP to Success – Learn. Experience. Advance. Partner.

Jackson Regional Partnership

IN PARTNERSHIP WITH

1. Jackson State Community College
2. Tennessee College of Applied Technology, Crump
3. Tennessee College of Applied Technology, Jackson, Jackson-Lexington Campus
4. Tennessee College of Applied Technology, McKenzie
5. Tennessee College of Applied Technology, Paris
6. Tennessee College of Applied Technology, Whiteville, Whiteville-Brownsville Campus
7. University of Memphis
8. Southwest Tennessee Development District
9. Pathways to Prosperity
10. Jackson-Madison County School System and other area Local Education Agencies
11. Jackson Chamber
12. Local Workforce Investment Area 11
13. American Access, Armstrong Hardwood Flooring Company, Bodine Aluminum Tennessee, Caterpillar Inc., Design Team Sign Company, LLC, DURO Standard Products Company, Inc., Gerdau, John W. McDougall Company, Inc., LASCO Fittings, Inc., Manpower, Metal Technologies, MTD Products Inc., Mustang Fabricating, Stanley Black & Decker, TBDN Tennessee Company, Toyota Boshoku for ARJ Manufacturing, LLC, UGN, Inc. United Association

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Funding requested:
\$1,000,000


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Abstract/Program Summary

The purpose of this proposal is to seek funding to develop a career pathway to address the workforce development needs identified by advanced manufacturing companies in the rural West Tennessee counties of Carroll, Chester, Crockett, Decatur, Gibson, Hardeman, Hardin, Haywood, Henderson, Henry, Madison, and McNairy counties. The lead entity for this proposal is the Jackson Regional Partnership, and the fiscal agent is Jackson State Community College. Joined by the local Tennessee Colleges of Applied Technology, the University of Memphis, Local Education Agencies, economic development agencies, and advanced manufacturing companies, this application proposes to formalize and implement a career ladder that begins with a certificate as a certified production associate, with an emphasis on mechatronics, in high school and continues to diplomas in welding technology, machine tool technology, tool and die, associate of applied science degree in industrial technology to a bachelor of science in engineering technology.

In West Tennessee, advanced manufacturing represents 24 percent of the area's employment. Local advanced manufacturing companies report challenges in hiring workers with basic academic, workplace, and technical skills to support them in the plant environment. The University of Tennessee Center for Business and Economic Research & Tennessee Higher Education Commission (2011), the Tennessee Department of Labor and Workforce Development (2014), and the Jackson State Community College (2014) show a statewide and local need for welders, machinists, tool and die, industrial technologists, and engineering technologists.

To develop and formalize the proposed career pathway, the collaborative partners will accomplish several activities. The Jackson Regional Partnership will supervise a project director to manage the daily operations of the project. To facilitate communication and continued collaboration among partners, an Advisory Board will be created composed of representatives of the collaborative partners of this application. The Advisory Board will meet bi-monthly. The career ladder begins with the certified production associate, with an emphasis on mechatronics in area high schools. Currently two high schools in the 12 county area offer the certified production associate, with an emphasis on mechatronics, working with the Tennessee College of Applied Technology dual credit or dual enrollment. The plan will be to add an additional high school in spring 2015, and expand to other high schools in Fall 2015 starting with two high schools in Jackson-Madison County and one in Haywood County, all through articulation agreements using dual enrollment or dual credit. The career ladder continues to diplomas in welding technology, machine tool technology, tool and die, all programs offered by the Tennessee Colleges of Applied Technology; enhancements and expansions in these programs are proposed in this application. Jackson State Community College will focus on expansion and enhancement to the associate of applied science in industrial technology program. The Herff College of Engineering at the University of Memphis will collaborate with Jackson State Community College on a jointly appointed faculty position. This position will be housed at Jackson State but will have a joint appointment in the Department of Engineering Technology, and will teach courses to enable Jackson State students to matriculate at the University of Memphis and complete a B.S. degree in engineering technology, or one of the other engineering programs.

The budget includes costs for salaries, benefits, taxes, supplies, mileage, and equipment. Toyota Boshoku, on behalf of ARJ Manufacturing, LLC, will provide \$66,394 in match dollars in the form of two (2) Co-ops

Success of the project will be measured by seven objectives that focus on the number of high school students who complete the certificate as a certified production associate, with an emphasis on mechatronics through dual credit or dual enrollment; the number of students who complete the Production Automation Program; the number of students who complete the Computer Numerically Controlled Tool Programmer Diploma and the Machine Tool Technology Program; the number of students who complete an Industrial Electricity Program; the number of students who complete the associate of science degree in industrial technology; and the number of students jointly enrolled in the engineering technology bachelor's degree program at the University of Memphis through a shared faculty member with Jackson State Community College.

The collaborative secondary and higher education partners will continue their commitments through enrollment, state appropriations, and industry support. Communication beyond the project will continue through regular bi-monthly meetings of the Advisory Board described in this application. These meetings will ensure that the foundation provided with the LEAP funding will continue when the project funding ends

Section 1. Program Need The purpose of this proposal is to seek funding to develop a career pathway to address the workforce development needs identified by advanced manufacturing companies in the rural West Tennessee counties of Carroll, Chester, Crockett, Decatur, Gibson, Hardeman, Hardin, Haywood, Henderson, Henry, Madison, and McNairy counties. The lead entity for this proposal is the Jackson Regional Partnership, and the fiscal agent is Jackson State Community College. Joined by the local Tennessee Colleges of Applied Technology, the University of Memphis, Local Education Agencies, economic development agencies, and advanced manufacturing companies, this application proposes to formalize and implement a career ladder that begins with a certificate as a certified production associate, with an emphasis on mechatronics, in high school and continues to diplomas in welding technology, machine tool technology, tool and die, associate of applied science degree in industrial technology to a bachelor of science in engineering technology. According to the U.S. Department of Commerce, the manufacturing sector accounts for 11 percent of employment throughout the United States. A 2014 survey of U.S. manufacturing employers found that 75 percent had substantial problems finding qualified employees to fill their highly technical jobs. Manufacturing employers need workers who have production skills to operate, monitor, and control various processes. Also needed are workers that have skill sets in process design, development, maintenance installation, repair, supply chain logistics, quality assurance, continuous improvement, health, and safety. Educators and industry must collaborate to define specific competencies needed by workers in advanced manufacturing and implement career ladders to ensure continued ability to improve skill sets (Hoke, Abernathy, & Doron, 2013). In West Tennessee, advanced manufacturing represents 24 percent of the area's employment. Local advanced manufacturing companies report challenges in hiring workers with basic academic, workplace, and technical skills to support them in the plant environment.

Localized Data, Clear Linkages, and Alignment to Tennessee Drive to 55. The University of Tennessee Center for Business and Economic Research and the Tennessee Higher Education Commission (2011) provide academic program supply and occupational demand projections for 2008-2018. For the career path, Production Pathway, that includes machine tool technology, machine shop technology, tool and die, and welding, the demand minus supply is for 4,555 workers for a supply to demand ratio of 0.01 (p.103-106). The career path, Maintenance, Installation, and Repair Pathway, that includes engineering, manufacturing, industrial, industrial maintenance, and computer technologies and other has a demand minus supply of 1,519 workers and a supply to demand ratio of 0.38 (p. 108-110). *The Tennessee Statewide Supply and Demand Analysis for 16 Education Clusters* produced by the Tennessee

Department of Labor and Workforce Development (2012) identifies a shortage of qualified employees in precision production, operations and maintenance (p. 29). The Jobs4TN website provides long term labor market information 2012-2020. The target counties for this application are contained in Local Investment Areas 11 and 12, and the Jobs4TN website projects a growth of 4.9 and 7.0 percent for manufacturing maintenance and repair workers; 3.6 and 18.5 percent for welders, solderers, and brazers; 12.3 percent for machinists (LWIA 12 only); 7.3 percent for machinists (LWIA12 only); and 3.4 percent (LWIA 11 only) for tool and die makers. The website also provides job postings throughout Tennessee. A recent review of job postings for welders, machinists, tool and die, industrial maintenance, and engineering technology indicates in excess of over 50 available positions in the target counties. In preparation for this application, the collaborative group conducted an on line survey with existing advanced manufacturing companies to gauge current and future need for the targeted jobs. The collaborative received responses from 36 companies. The results showed a projected need for 191 industrial maintenance personnel, 79 tool and die makers, and 130 machinists, for a total of 400 employees. Respondents were requested to rank need according to 'extreme,' 'moderate,' or 'low.' Table 1 contains the percentages of manufacturing companies who responded with extreme or moderate demand for targeted jobs.

Table 1

Maintenance Technicians	88 percent
BS Degreed Engineers	55 percent
Tool & Die Makers	52 percent
Machinists	43 percent

A focus group was held on October 24, 2014 with eight advanced manufacturing companies at Jackson State Community College regarding the multi-skilled maintenance technician training. The attendees were asked to prioritize their training needs; the highest to lowest needs were lab retrofit, HMI and networking equipment, advanced training for faculty, faculty release funding, welding training, and faculty sharing with the University of Memphis. Data lists containing the above information are contained in the Appendix to this application. The Tennessee Colleges of Applied Technology (TCAT) in the 12 county area, in discussions with local manufacturing companies, identified the need for additional welders. The need is evidenced by the welding technology programs at all the TCAT locations in the 12 county service area continuing to be full with extensive waiting lists for entry. The need is also evidenced by 100 percent job placement for program graduates.

The Executive Office of the President and the Council of Advisors on Science and Technology (2014) concluded that "increasing career pathways and dual credit opportunities across education...will increase the number of qualified technical employees in advanced manufacturing" (p.35-36). The Asset Mapping Report (February 2014)

compiled by Pathways to Prosperity for the Southwest region recommends the design of seamless 9-14/16 accelerated programs of study in manufacturing and a limited number of other selected sector areas. Career pathways or ladders is a way to transition workers from an education program to the workforce, with the goal to increase education and job training options along specific career paths. The purpose of this application is to formalize and implement a career ladder that begins with a certificate as a certified production associate, with an emphasis on mechatronics, in high school, and continues to diplomas in welding technology, machine tool technology, tool and die, associate of applied science degree in industrial technology to a bachelor of science in engineering technology. Data from the recent University of Tennessee Center for Business and Economic Research and the Tennessee Higher Education Commission (2011), the Jobs4TN website, locally administered surveys and industry focus groups show a clear need for this career ladder and resulting skill sets in the service area by advanced manufacturing companies. The successful implementation of the activities described in the application will result in a clear alignment of education and workplace technical skills needs in the 12 county area.

To begin the career ladder, dual enrollment and dual credit courses are offered by Jackson State Community College and the Tennessee Colleges of Applied Technology for area high school students. At Jackson State Community College, students take general education classes, while at the Tennessee College of Applied Technology locations, students enroll in one of the advanced manufacturing programs. The career pathway supports and is aligned with the "Drive to 55" initiative. All education components of this proposal result in certificates, diplomas, associate's or bachelor's degrees. Also, this proposal offers opportunities for adults currently in the workforce to return to higher education to achieve additional academic credentials that are aligned with the "Drive to 55" initiative.

Section 2. Program Plan. Timeline and Overview. The development and formal implementation of the proposed career ladder involves a number of secondary and higher education institutions collaborating with local industry, workforce, economic and community development entities. The Jackson Regional Partnership will supervise a project director to manage the daily operations of the project. The job description will be finalized, position advertised and filled by the end of February 2015. The first meeting of the Advisory Board will occur the last week of January 2015, and every other month thereafter.

The career ladder begins with the certified production associate, with an emphasis on mechatronics in area high schools. Currently two high schools in the 12 county area offer the certified production associate, with an emphasis on mechatronics, working with the Tennessee College of Applied Technology dual credit or dual enrollment. The

plan will be to add an additional high school in spring 2015, and expand to other high schools in Fall 2015 starting with two high schools in Jackson-Madison County and one in Haywood County, all through articulation agreements using dual enrollment or dual credit. The career ladder continues to diplomas in welding technology, machine tool technology, tool and die, all programs offered by the Tennessee Colleges of Applied Technology; enhancements and expansions in these programs are proposed in this application. The Tennessee College of Applied Technology-McKenzie proposes to add a new Production Automation Program in January 2015, and add a Fanuc Robot and Education Training Package. The Tennessee Colleges of Applied Technology-Jackson, Jackson-Lexington Campus, Whiteville, Whiteville-Brownsville Campus, and Paris will all enhance and expand their current welding programs. Equipment will be purchased installed, and any instructors hired during the first quarter 2015. The Paris location will be modified to accommodate the new equipment purchase. Enhanced or expanded welding classes will begin May, September 2015, January, May and December 2016. The Tennessee College of Applied Technology-Crump proposes to add a Computer Numerically Controlled Tool Programmer Diploma to its existing Machine Tool Technology program. The program will be 1,296 hours or one year in length. While this diploma is a Machine Tool Technology diploma offering, students will be required to take two courses from other academic programs: Welding and Drafting/CAD. Graduates with the competencies offered in the Computer Numerically Controlled Machine Tool Programmer diploma will be prepared for entry employment as a CNC programmer and operator utilizing equipment such as plasma cutters, laser cutters, vinyl cutters, water jets, CNC milling machines, and CNC lathes. During January to April 2015, bids for equipment will be taken, curriculum developed (outline, lesson plans, evaluations), requests to TCAT Office for the program then to TBR Board for approval. Upon approval the Council on Occupational Education (accrediting body) will be notified and brochures and web pages updated. Enrollment will begin May 2015. The Crump facility also proposes to increase the number of students completing the Industrial Electricity Program through the addition of a Lab-Volt Electromechanical Training System with training components in power circuits, DC machines, single-phase transformers and AC machines, three-phase transformers and AC machines, and an electromechanical training system. The additional trainer will provide increased hands-on lab activities for high school dually enrolled students who, after gaining competencies in the Industrial Electricity program, will be prepared for postsecondary enrollment in Industrial Electricity, Industrial Maintenance, Electronics Technology, HVAC, or may work in the electrical field as an aide to an electrician. This career is part of the Construction Pathway Cluster which has a bright outlook statewide and nationally (Labor Market Statistics,

Occupational Employment Projects Unit). Occupations within this cluster are expected to be in high demand with employers (TN Department of Labor and Workforce Development), with a median annual wage of \$49,840 in May 2012. Further, this career has a projected growth in 2012-2022 that is faster than average at 20% (Bureau of Labor Statistics 2012-2022 employment projections/TN Department of Labor and Workforce Development, Employment Security Division). Bids for the Training System will be gathered in January 2015. From January to August 2015 the expansion of dual enrollment will be promoted among area high schools, and any additional lesson plans and evaluations developed. Enrollment will begin in August 2015 and continue in January and August 2016.

Jackson State Community College will focus on expansion and enhancement to the associate of applied science in industrial technology program by focusing on three activities. First, the College will retrofit McWherter Center Labs to accommodate HMI, Networking and Robotic training which will require additional contracted electrical wiring for higher voltage equipment, and the relocation of existing equipment and installation of new equipment. The lab retrofit will begin August 2015 to be completed in May 2016. Second, the College will provide advanced faculty training due to existing new technology equipment (robots, motor/motion control equipment) and request new technology equipment (HMI and Networking) to properly train students on industry driven technology that exists in their facilities today. Faculty training will begin in January 2015 to June 2015. Third, faculty release time is required for developing online curricula and switch to 60 percent release time funding to focus on the new Advanced Maintenance Technician training. Release time will begin June 2015 and extend until December 2016. The proposed career ladder extends from an associate of applied science in industrial technology to a bachelor of science in engineering technology. The Herff College of Engineering at the University of Memphis will collaborate with Jackson State Community College on a jointly appointed faculty position. This position will be housed at Jackson State but will have a joint appointment in the Department of Engineering Technology, and will teach courses to enable Jackson State students to matriculate at the University of Memphis and complete a B.S. degree in engineering technology, or one of the other engineering programs. Sharing faculty with the University of Memphis is a step to better utilize faculty in a cost effective way for both institutions. This sharing facilitates the ability to make a seamless transition from an Associate's degree to a Bachelor's degree with the shared faculty member fully involved in both degree programs. The establishment and hiring of this position will be complete by August 2015. Simultaneously, while the education components are being enhanced, expanded, and established, the Southwest Tennessee Development District, Pathway to Prosperity, Local Education Agencies, the Jackson Chamber, Local

Workforce Investment Area 11, and industry partners will collaborate with higher education partners to market and make referrals to this career ladder to current and future students and employees as way to transition workers from an education program to the workforce, with the goal to increase education and job training options along specific career paths. The Local Workforce Investment Act will assist with assessments including Career Readiness Certificates and determine WIA eligibility for possible assistance with training expenses and job search activities.

Measurable Objectives. The primary goal of this project is to develop and formalize career ladder pathways to address the workforce development needs identified by advanced manufacturing companies in 12 rural West Tennessee counties. To meet this goal, this project has seven (7) objectives. **Objective 1:** By the end of the two year project, 50-60 students will have completed dual enrollment or dual credit courses for a certificate as a certified production associate, with an emphasis on mechatronics. **Objective 2:** By the end of the two year project, 35-40 students will have completed the Production Automation Program at the Tennessee College of Applied Technology-McKenzie. **Objective 3:** By the end of the two year project, over 75 additional students will achieve the welding technology diploma at the Tennessee Colleges of Applied Technology-Jackson, Jackson-Lexington Campus, Whiteville, Whiteville-Brownsville Campus, and Paris. **Objective 4:** By the end of the two year project, eight (8) graduates will complete the Computer Numerically Controlled Tool Programmer Diploma and the Machine Tool Technology program through the Tennessee College of Applied Technology-Crump. **Objective 5:** By the end of the two year project, 36 high school students will be prepared to enter a multitude of postsecondary educational programs: Industrial Maintenance, Electronics Technology, HVAC, Computer Information Technology, or an A.S. program. Students choosing to enter the workforce may do so as an aide to an electrician. **Objective 6:** By the end of the two year project, 32 additional students will complete the associates of science degree in industrial technology at Jackson State Community College. **Objective 7:** By the end of the two year project, 10-15 students will be jointly enrolled in the engineering technology and other related bachelors degree programs at The University of Memphis through the shared faculty member with Jackson State Community College.

Project Governance and Accountability. The lead entity for this project is the Jackson Regional Partnership, and the fiscal agent is Jackson State Community College. The Jackson Regional Partnership will be responsible for ensuring the activities are accomplished according to the timeline, and data are collected to measure success of the project and the objectives. The Jackson Regional Partnership will supervise a project director to manage the daily operations of the project. To facilitate communication and continued collaboration among partners, an Advisory

Board composed of the project director, representatives from industry, the Jackson Regional Partnership, Local Education Agencies, Tennessee Colleges of Applied Technology locations, Jackson State Community College, the University of Memphis, Pathways to Prosperity, and Local Workforce Investment Area 11, will be created. The Advisory Board will meet six times a year to receive updates on industry needs, the career pathways enrollment, successes, LEAP objectives, timeline, and budget expenditures. The Advisory Board will be utilized to identify opportunities for improvement, changes, expansions, or modifications in the career pathway training and academic offerings including curriculum, marketing to potential students, and articulation through the pathway.

Role of Equipment. The implementation of the proposed career ladder in the 12 county service area that begins with a certificate as a certified production associate, with an emphasis on mechatronics, in high school and continues to diplomas in welding technology, machine tool technology, tool and die, associate of applied science degree in industrial technology to a bachelor of science in engineering technology will involve the purchase of equipment for several higher education partners. The Tennessee College of Applied Technology-Crump proposes to purchase a PlasmaCam cutter. The PlasmaCam will be utilized in the new Computer Numerically Controlled Machine Tool Programmer diploma that is specifically needed by two companies, Design Team Sign Company and Mustang Fabrication. The computer numerically controlled programmer position is part of the Precision Production Pathway Cluster; according to the Tennessee Department of Labor and Workforce Development (2013), estimated median annual wage is \$41,980 (\$20.20/hr.) with a bright outlook statewide, and a 50 percent projected growth 2012-2022. The Center in Crump also proposes to purchase a Lab-Volt Electromechanical Training. This program offering will increase the enrollment opportunities for dual enrollment students as the additional trainer will allow for an increased amount of hands-on lab activities. This career is part of the Construction Pathway Cluster which statewide has an excellent outlook; occupations within this cluster are expected to be in high demand with employers, a median annual wage of \$49,840, and a projected growth in 2012-2022 that is faster than average at 20 percent. The Tennessee College of Applied Technology-Jackson, Jackson-Lexington Campus will expand and enhance the current welding program for 45 students by purchasing 8 CleanAir Welding Stations, 9 TIG Welding Machines, 9 MIG Welding Machines, 2 Lincoln S-500 Advanced Welding Process Welders, 2 Miller Dynasty Advanced Welding Process Welders, Ironwork, and various grinders. The Tennessee College of Applied Technology-Whiteville, Whiteville-Brownsville Campus will enhance their welding program through the purchase of a Miller Welding Automation (Robotic Trainer), and a Fanuc LR Mate 200iD/4S Education Training Cert Package. The

Tennessee College of Applied Technology-Paris proposes to expand their welding program through the purchase of 4 welding stations. Statewide and locally, the demand for welders is evidenced in the University of Tennessee Center for Business and Economic Research study (2011), and in the Jobs4TN website which projects a 3.6 and 18.5 percent growth in Local Investment Areas 11 and 12. Locally, United Association of Journeymen and Apprentices and John W. McDougall Company, Inc. have provided letters attesting to the need for additional welders in Paris. The Tennessee College of Applied Technology-McKenzie proposes to add a Production Automation Program through the purchase of a Fanuc Robot. Caterpillar, Inc., MTD products Inc., and UGN, Inc. have provided documentation that supports this program and the equipment purchase. According to these companies, individuals with training experience in robotics, PLC, motor controls, and pneumatics are needed so that employees can function effectively in the modern manufacturing workplace.

Section 3. Strength of Partnership Role and Capability of Each Partner. This application has a wide range of partners. From industry, the partners include American Access, Armstrong Hardwood Flooring Company, Bodine Aluminum Tennessee, Caterpillar Inc., Design Team Sign Company, LLC, DURO Standard Products Company, Gerdau, John W. McDougall Company Inc., LASCO Fittings, Inc., Manpower, Metal Technologies, MTD Products Inc., Mustang Fabricating, Stanley Black & Decker, TBDN Tennessee Company, Toyota Boshoku (on behalf of ARJ Manufacturing, LLC), UGN, Inc., and United Association of Journeymen and Apprentices. Several industry partners will serve on the Advisory Board and supply regular input on the progress of the project. Toyota Boshoku, on behalf of ARJ Manufacturing, LLC, has agreed to provide \$66,394 in match dollars. The Jackson Regional Partnership is the lead entity, will supervise the project director, and will be responsible for the activities and timeline of the project. The Jackson Regional Partnership will be responsible for the regular meetings of the Advisory Board. The industry partners will be responsible for providing input on specific job needs and the progress of this partnership in meeting those needs. Jackson State Community College will serve as the fiscal agent, and will be responsible for enhancing the industrial technology program by expanding collaboration with high schools, Colleges of Applied Technology and the University of Memphis to include dual credit, articulation agreements, and sharing of equipment and instructor resources. The Tennessee Colleges of Applied Technology Crump; Jackson, Jackson-Lexington Campus; McKenzie; Paris; Whiteville, Whiteville-Brownsville Campus will be responsible for continuing certificate and diploma offerings in welding technology, machine tool technology, and tool and die. Enhancements and additions will be made to these offerings. The Colleges will also

work to expand the certificate as a certified production associate, with an emphasis on mechatronics, in area high schools. Local Education Agencies will be responsible for also marketing the career pathway in the Career and Technical Education classes. The Southwest Tennessee Development District, Pathways to Prosperity, and Jackson Chamber will be responsible for career advising and support by coordinating teacher externships, college access programs, and work based learning opportunities. These agencies will also take the lead in a highly visible public campaign to address current thinking that young people need only a high school diploma to get a job and that the only postsecondary option is “college for all.” The Local Workforce Investment Area 11 will assist with referrals, assessments including the Career Readiness Certificates, determine WIA eligibility for possible assistance with training expenses, and job search activities.

Individually and collectively the partners collaborating on this application have strengths, and are each capable of working to ensure the project’s success. The major industries, academic institutions of secondary and higher education, and non-profits that promote employment, economic, and community in the 12 county service area have all formed a partnership for this application. The Jackson Regional Partnership is the result of study and research to promote regionalism, job and investment preparation in a nine county area. The Jackson Regional Partnership began in 201, and is an extension of the Jackson Chamber and a nine-member advisory council. The local advanced manufacturing companies involved in this project have called rural West Tennessee their home for many years, and have depended on schools of higher education in the area to fill their labor market needs. Jackson State Community College has served 14 counties in rural West Tennessee since 1967. The College is a workforce leader for business, industry, and healthcare offering associate degrees, technical, safety training, leadership, teamwork, other soft skills, and certification preparation. The Tennessee Colleges of Applied Technology in the 12 county service area offer competency-based technical training and professional development through traditional and distance learning instructional delivery systems of the highest quality that will qualify individuals for employment and/or advancement in jobs. The Southwest Tennessee Development District is a multi-faceted organization that provides comprehensive planning and encourages economic, community, and human resource development in an eight county area. The Pathways to Prosperity initiative works with area secondary and postsecondary institutions, local governments and industry to develop and implement an academic/career learning pathway to address local and regional economic and labor market needs. Most of the local education agencies partnering in this application offer introductory courses in advanced manufacturing that provide the basis for the formal career pathway to be

developed and implemented through this project. The Workforce Investment Area 11 assists job seekers, dislocated workers, youth, foster care participants, incumbent workers, new entrants to the workforce, veterans, persons with disabilities, and employers. These activities promote an increase in employment, job retention, earnings, and occupational skill attainment by participants.

Section 4. Budget Plan Alignment of funding request and grant activities. The total amount requested for the LEAP to Success-Learn. Experience. Advance. Partner. two-year project submitted by the Jackson Regional Partnership is \$1,000,000 including \$13,617 in indirect costs (1.4%) for the fiscal agent, Jackson State Community College. The amount of \$438,000 is requested in salaries, benefits, and taxes. This amount includes the project director, faculty release time, faculty development, part time welding instructor, engineering technology faculty member shared by Jackson State and the University of Memphis. The amount of \$12,500 is requested in office supplies, laptop, printer for the project director, HMI for electrical panels, and expendable items such as welding gas and welding wire. Mileage and travel for the project director is estimated at \$12,220. The amount of \$523,663 is requested for equipment and building modification to expand and enhance welding technology programs, machine tool technology program, industrial electricity program, and production automation program at the Tennessee Colleges of Applied Technology; and enhance and expand the associate of science degree in industrial technology at Jackson State Community College. No funding request is made to expand the certified production associate, with an emphasis on mechatronics in area high schools. The expansion can be accomplished with current resources.

Local Match. Toyota Boshoku, on behalf of ARJ Manufacturing, LLC, has agreed to provide \$66,394 in match dollars in the form of two (2) Co-ops. One Co-op will be for tooling through the Tennessee College of Applied Technology and the other Co-op will be maintenance through the Advanced Manufacturing Technology program at Jackson State Community College. The amount of \$66,304 is based on 2 Co-Ops at \$15.96 for 2,080 hours.

Section 5. Sustainability Plan to Sustain Program. The collaborative secondary and higher education partners will continue their commitments to enhance or expand current advanced manufacturing education and training programs described in this application after the two year funding is complete. Programming changes will be sustained through enrollment, state appropriations, and industry support.

Plan for Communication Beyond Project. Communication beyond the project will continue through regular bi-monthly meetings of the Advisory Board described in this application. These meetings will ensure that the foundation provided with the LEAP funding will continue when the project funding ends.