

# THE GREATER NASHVILLE REGIONAL COUNCIL

2016 Labor Education Alignment Program (LEAP 2.0)

Tennessee Central Cooperative Manufacturing Education Program

The Greater Nashville Regional Council

IN PARTNERSHIP WITH

1. Tennessee College of Applied Technology Hartsville/Lebanon
2. Jackson County Schools; Macon County School System; Smith County Schools; Trousdale County Schools; Wilson County Schools
3. Mueller Industries, Hartsville; Orchid International, Mt. Juliet; De-Sta-Co, Mt. Juliet

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Funding requested: \$987,400.00



\_\_\_\_\_  
President/Director of Higher Education  
Institution

\_\_\_\_\_  
Project Director

## Executive Summary

The Greater Nashville Regional Council (GNRC) and Tennessee College of Applied Technology-Hartsville (TCAT-H) are proposing creation of the Tennessee Central Cooperative Manufacturing Education Program (TCCMEP) in order to ensure a strong future workforce in Middle Tennessee. The LEAP grant funding will build on a collaboration of employers, community leaders, and educators to deliver Advanced Manufacturing, Industrial Maintenance, and Mechatronics training in Jackson, Macon, Trousdale, and Wilson Counties. The program's committee is scheduled to meet semi-annually for 5 years and has a detailed equipment maintenance and repair program following TBR guidelines.

TCAT-H will provide training through the TCCMEP utilizing 28 new, advanced manufacturing pieces of equipment in its 3 separate classroom laboratories. It will also grow dual-enrollment opportunities at 4 different high schools in the region while the collaborative meets regularly to track educational achievements and long-term maintenance goals to ensure future success. Approximately 200 new students of all ages and backgrounds will be able to receive college credits toward advanced certificates through the program. In order to ensure program success through measurement, the following 5 metrics have been proposed: 1) Student Satisfaction, 2) Student Retention, 3) Course Completion, 4) Placement Rate, and 5) Employer Satisfaction.

Approximately 72% of current TCAT-H region employers are currently seeking to fill open positions. Of the 379 manufacturing establishments (employers) in the region, there are 271 current job openings. According to a recent survey performed by the Tennessee Valley Authority attaining data from EMSI in April 2016, there are a total of 757 job postings in the Region with 148 of them being unique. The TCCMEP will increase the rate and number of graduates from TCAT-H to fill the 271 current manufacturing job openings and 161 average monthly hires throughout the region.

The TCCMEP will ensure the success of the "Governor's Drive to 55" by increasing the number of students TCAT-H can enroll in courses for post-secondary certificates. The equipment purchased through these funds will grow the student population made up of many TN Reconnect and TN Achieves participants. The dual-enrollment portion of the program will give high school students the chance to gain the credits necessary for their certificates before their graduation, allowing them to obtain their certificate in less than two years and opening up space for future students.

The success of the TCCMEP rests on the dedication and specialized skills held by each of the partners. TCAT-H will serve as the fiscal agent for the grant and its Assistant Director will be the treasurer for the project. TCAT-H will also develop, implement, and teach the dual enrollment classes. The GNRC will serve as the lead entity and administrator. This includes overseeing the program's activities and working with the committee's director to ensure adherence to the meeting schedule. Career Technical Education (CTE) Directors spend every day with young students and help guide their studies and career options. They will help post-secondary school curricula by detailing what types of experience their students are already receiving. The collaborative's members from regional manufacturers are crucial to making sure educators know the skills their employees must have.

The attached budget and detail sheet explains how LEAP 2.0 funds will be used for this project. The bulk of the funds are to be used for equipment purchasing that will allow more students to get advanced certificates and join the workforce. Other funds will be used to facilitate the 9 Collaborative meetings scheduled over the lifetime of the grant (\$100 each) and \$45,000 is budgeted for indirect costs associated with grant-related administrative functions and reporting (\$1,500/month).

## Section One – Demonstrated Need

The Greater Nashville Regional Council (GNRC) and Tennessee College of Applied Technology-Hartsville (TCAT-H) are proposing the creation of the Tennessee Central Cooperative Manufacturing Education Program (TCCMEP) to ensure hands on training for a skilled workforce in Middle Tennessee. The LEAP grant funding will help build a collaboration of employers, community leaders and educators to deliver Advanced Manufacturing, Industrial Maintenance, and Mechatronics training in Jackson, Macon, Trousdale, and Wilson Counties. TCAT-H will provide training through the TCCMEP utilizing advanced manufacturing equipment in classroom laboratories throughout the region.

The Tennessee Department of Labor and Workforce Development (TDLWD) shows 3,175 average annual openings with an average salary of \$34,142 in the manufacturing industry across the state. Approximately 72% of current TCAT-H region employers are currently seeking to fill open positions. Of the 379 manufacturing establishments (employers) in the region, there are 271 current job openings. According figures from the Tennessee Valley Authority utilizing data from EMSI in April 2016, there were a total of 757 job postings in the region. Currently, Tennessee lacks the adequate workforce for these jobs. The TCCMEP will increase the rate and number of graduates from TCAT-H to fill the 271 current manufacturing job openings and 161 average monthly hires throughout the region.

The TDLWD projects the number of STEM and Advanced Manufacturing Careers requiring advanced training or skillsets to become certified workers in the years leading up to 2025. The top ten needed occupations in the TCAT-H region are:

1. Electrical and Electronic Equipment Assemblers,
2. Team Assemblers,
3. Cutting, Punching, and Press Machine Setters,
4. Operators, and Tenders-Metal and Plastic,
5. Laborers and Freight, Stock, and material Movers by hand,
6. First-Line Supervisors of Production and Operating Workers,
7. Production Workers (all other),
8. Inspectors, Testers, Sorters, Samplers, Weighers, Assemblers and Fabricators (All other),
9. Industrial Truck and Tractor Operators, and
10. Maintenance and Repair Worker.

High schools and TCATs are seeing challenges in providing up-to-date training that requires expensive, state-of-the-art equipment for a future manufacturing workforce. Each of the aforementioned positions requires moderate-to-long term on-the-job training experience for today's manufacturing sector.

Graduates involved in the TCCMEP will be used to fill entry level positions in these high demand occupations with partner manufacturers throughout the region. LEAP funding will be utilized to purchase training equipment as well as update classrooms/labs at the TCAT Lebanon, TCAT Hartsville, and the Tri-County Extension Campus locations. All sites are required to further address the current manufacturing skill gaps in occupations throughout the region. Highlights of the program include:

- A majority of the almost 200 new students enrolled in the TCCMEP will receive training in the number 1 most needed occupation listed above with the 4 Electrical Trainers and 4 Electrical Control Trainers to be purchased with LEAP funds.
- TCAT-H will buy 2 Fluid Power benches, a Vertical Milling Machining, CMM Coordinate Measuring Machine, and EDM Machine to fill the Cutting, Punching, and Press Machine Setter occupations ranked the number 3 most needed occupation in TDLWD's list. These students will also be trained for Tenders-Metal and Plastic Operator and Other Production worker positions.
- The 2 Mechanical Benches, Rotating Machines, and Motor Control Trainers will remedy skills gaps for all Production Workers and Maintenance and Repair Workers. Both are listed in the top 10 needed occupations by TDLWD.
- Welding and Robotics, both important skills for Team Assemblers; Cutting, Punching, and Press Machine Setters; and Tenders-Metal and Plastic Operators will be trained with the two Robotic Welders to be purchased with the grant funds as well.

Key industry skills such as problem solving, troubleshooting, operation, tuning and adjustment, installation, and maintenance and repair are also integrated throughout the training activities. During these training hours, each employer in partnership with TCAT-H will benefit from the equipment provided by TCCMEP. This program is primarily focused on providing a smooth transition from college courses into the active, skilled manufacturing workforce of Middle Tennessee.

In 2012, Tennessee manufacturing was projected to have one of the slowest rates of job creation at a 0.2% increase. Tennessee's manufacturing employment at its peak year in 2007 was

*TCAT-Hartsville Leap 2.0 Application: Tennessee Central Cooperative Manufacturing Education Program*

380,000 workers. Today, the TDLWD projects a 0.9% annual average percent increase in manufacturing employment. Employers are specifically looking to hire workers who can operate sophisticated computerized machinery, follow complex blueprints, and demonstrate higher math proficiency than was previously required of assembly line workers. TCAT-H is making a significant effort in filling this skills gap with the equipment purchased through this grant funding. It will provide the resources and educational tools necessary to engage 200 more students with manufacturing technologies by providing exceptional hands-on training with equipment used every day in the manufacturing sector across Middle Tennessee.

<b>Manufacturing</b>	<b>Tennessee</b>	<b>Jackson</b>	<b>Macon</b>	<b>Smith</b>	<b>Sumner</b>	<b>Trousdale</b>	<b>Wilson</b>
<i>Average Hourly Wage</i>	\$29.98	\$18.38	\$22.65	\$23.38	\$30.23	\$22.38	\$34.88

Source: TN Department of Labor and Workforce Development ([jobs4tn.gov](http://jobs4tn.gov))

Governor Haslam set an ambitious goal with his Drive to 55 objective seeking to have 55% of Tennesseans equipped with either a college degree or certificate by 2025. Programs created through this initiative have already produced significant benefits for the state and will continue to do so into the future. The Tennessee Promise’s guarantee of two, tuition-free years of community college or technical college has given thousands of students the opportunity to prepare themselves for their future careers. The TCCMEP will ensure this program’s success by increasing the number of students TCAT-H can enroll in courses for post-secondary certificates by almost 200. Equipment purchased through these funds will benefit the numerous TNAchieves students on waiting lists due to capacity constraints of TCAT campuses throughout the state. The dual-enrollment portion of the program gives high school students the opportunity to earn credits necessary for certificates prior to graduation; obtaining their certificate in less than two years opens up space for future students.

Tennessee Reconnect, another program born out of the governor’s “Drive to 55” initiative, seeks to give adults the chance to attend TCAT courses free of charge. The equipment purchased for the 3 separate campuses throughout the region will also bolster this program by allowing some sites to either

increase course offerings or expand class schedules into the evening. More training opportunities at more locations will give these busy adults more educational opportunities. Since the equipment will be located at TCAT campuses instead of high schools, adults will also have greater access to their benefits.

Section 2 – Program Plan

The Tennessee Central Cooperative Manufacturing Education Program has the proven and devoted stakeholders necessary to ensure success. The program has a two pronged approach to training tomorrow’s workforce in the skills regional employers demand; 1) The purchase of training equipment necessary for educating students, and 2) Expanded dual-enrollment opportunities in high schools.

These funds will locate equipment throughout the three campuses operated by TCAT-H so students of all ages and backgrounds have access to what they need to succeed with their coursework. The dual-enrollment programs will further allow students to obtain college credits towards post-secondary certificates prior to graduating with their high school diploma. In order to achieve both objectives, the cooperative has identified the following schedule:

<b>August 2016</b> – Collaborative Meeting 1; Topic: <i>Governing Structure &amp; Program Implementation</i>
<b>August 2016</b> – Award Announcement
Phase I: Equipment Purchase
<b>September 2016</b> – Collaborative Meeting 2; Topic: <i>Equipment Purchase &amp; Placement Plan</i>
<b>September 2016</b> – Equipment Procurement Begins
<b>October 2016</b> – Equipment Ordered
<b>November 2016</b> – Equipment Delivered; Installation Begins
Phase II: Equipment & Curriculum Implementation
<b>December 2016</b> – Collaborative Meeting 3; Topic: <i>Secondary/Post-Secondary Curriculum &amp; Semester Goals</i>
<b>January 2017</b> – Students Begin Utilizing Equipment; First Dual-Enrollment Students Begin in Wilson County Schools
<b>March 2017</b> – Collaborative Meeting 4; Topic: <i>Initial Equipment Implementation Challenges &amp; Successes</i>
<b>June 2017</b> – Collaborative Meeting 5; Topic: <i>Review Performance Metrics &amp; Curriculum Outputs</i>
<b>September 2017</b> – Collaborative Meeting 6; Topic: <i>Set Secondary/Post-Secondary Curriculum &amp; Academic Year Goals</i>
<b>December 2017</b> – Collaborative Meeting 7; Topic: <i>Year 1 Equipment Maintenance Assessment</i>
Phase III: Equipment & Curriculum Review
<b>June 2018</b> – Collaborative Meeting 8; Topic: <i>Review Performance Metrics &amp; Secondary/Post-Secondary Curriculum Outputs; Set Curriculum &amp; Academic Year Goals</i>

<b>December 2018</b> – Collaborative Meeting 9; Topic: <i>Year 2 Equipment Maintenance Assessment</i>
<b>June 2019</b> – Collaborative Meeting 10; Topic: <i>Review Performance Metrics &amp; Secondary/Post-Secondary Curriculum Outputs; Set Curriculum &amp; Academic Year Goals</i>
<b>December 2019</b> – Collaborative Meeting 11; Topic: <i>Year 3 Equipment Maintenance Assessment</i>
<b>June 2020</b> – Collaborative Meeting 12; Topic: <i>Review Performance Metrics &amp; Secondary/Post-Secondary Curriculum Outputs; Set Curriculum &amp; Academic Year Goals</i>
<b>December 2020</b> – Collaborative Meeting 13; Topic: <i>Year 4 Equipment Maintenance Assessment</i>
<b>June 2021</b> – Collaborative Meeting 14; Topic: <i>Review Performance Metrics &amp; Secondary/Post-Secondary Curriculum Outputs; Set Curriculum &amp; Academic Year Goals</i>
<b>December 2021</b> – Collaborative Meeting 15; Topic: <i>Year 5 Equipment Maintenance Assessment &amp; Program Future</i>

The TCCMEP must have a means for measuring its objectives to be successful. The collaborative firmly believes these measures are vital program objectives and thus made them a predominant part of its 5 year plan for the future. Consistent discussions will keep the secondary and post-secondary educators accountable while allowing employers and workforce experts the opportunity to stay focused on the objectives and the ever-changing needs of the economy. The following 5 metrics have been proposed to help the collaborative track its progress:

1. Student Satisfaction – Obtained semi-annually via survey by TCAT-Hartsville and dual-enrollment school systems. **Year 1 Goal: 80% Very Satisfied or greater**
2. Student Retention – Obtained semi-annually using enrollment data from TCAT-Hartsville by Coordinator of Academic Affairs and Public Relations. **Year 1 Goal: 75% enrolled for next semester**
3. Course Completion – Obtained semi-annually using coursework data from TCAT-Hartsville by Coordinator of Academic Affairs and Public Relations. **Year 1 Goal: 90% passage rate**
4. Placement Rate – Obtained semi-annually using survey data from TCAT-Hartsville for graduates 3 months after certificate completion by Coordinator of Academic Affairs and Public Relations. **Year 2 Goal: 95% employed within 3 months**
5. Employer Satisfaction – Obtained annually via survey by TCAT-Hartsville from area employers with 3 or more program graduates. **Year 1 Goal: 80% Very Satisfied or greater**

In order to stay flexible with changing times, the collaborative may include additional performance measures to track future program implementation and progress. However, these core 5 measures will remain throughout the program’s duration to gauge success and identify areas of improvement.

The achievements of the TCCMEP are not only determined by the accountability created by measurable objectives, but also the structure of the collaborative. Below is the proposed committee structure for the collaborative:

### **Membership**

Mae Perry, Director, TCAT-Hartsville  
Jonathan Smallwood, Assistant Director, TCAT-Hartsville  
Kevin Harrison, Coordinator of Academic Affairs and Public Relations, TCAT-Hartsville  
Jason Coons, Campus Coordinator – Tri- County Extension Campus  
Matt Von Lunen, Division Administrator, GNRC  
Jennifer Cothron, CTE Director, Trousdale County Schools  
William Moss, CTE Supervisor, Wilson County Schools  
Kathy Cothron, CTE Director, Macon County Schools  
Marcella Bentley, CTE Director, Jackson County Schools  
Norma McClard, Manager Human Resources & Safety, Orchid International  
Ryan Pagels, Plant Manager, De-Sta-Co  
Al Frillman, Human Resources Department, Mueller Industries

### **Roles**

Mae Perry, Director: Helps set project goals, determines curriculum, and report on performance metrics and equipment maintenance

Matt Von Lunen, Project Administrator: Helps set project goals, monitors workforce data and reports on regional trends, acts as liaison between collaborative and state government with financial reporting

Bill Moss, Lead CTE Advisor: Helps set project goals, determines curriculum, reports on dual enrollment and secondary to post-secondary pipeline issues

Norma McClard, Lead Industry Advisor: Helps set project goals, determines curriculum, and reports on industry training needs and skill gaps

Jonathan Smallwood, Treasurer: Helps monitor program finances throughout purchase process and locates and tracks funds for proper equipment maintenance

Other Advisors & Leadership Roles (Roles to be determined via annual Collaborative vote)

This collaborative committee will meet according to the schedule listed above and be wholly responsible for the successful implementation of the program. It is made up of administrators and campus supervisors from all three TCAT locations where equipment will be located, the CTE advisors from each

of the secondary school systems in the region, a representative from the development district, and human resource or job training personnel from local industry.

The director of the collaborative will lead the committee and be responsible for adhering to the program's meeting schedule. The director will set the dates, times, and locations of the collaborative meetings as well as furnish the agenda. In addition, the director will have the power to add other individuals at their discretion. Should the director not be available at a meeting, the assistant director will take these responsibilities. The collaborative will have two subcommittees: 1) the CTE Advisory Subcommittee, and 2) the Industry Advisory Subcommittee. Each will designate a lead advisor to speak on their behalf should not all members be able to attend. This person will also ensure partners in their subcommittee are held accountable to the program's goals. The above collaborative structure names representatives for year one, but elections will be held each year for the position. A lead advisor can serve consecutive years in the position. All voting will take place based on a simple majority and the director's vote will have the ability to break a tie. A quorum of 33% must be reached for the collaborative to meet.

The equipment purchased through the TCCMEP will specifically provide industries with a workforce equipped with the technical skills needed. To compete in a global environment has never been more significant than today, and an increasing number of Tennesseans must possess the technical skills to position themselves for the increasing demands of the future job market. Today's manufacturers say the present demand for skilled employees guarantees that many of the lower-skilled jobs will not return. To provide students with these valuable skills, the following equipment will be purchased and disbursed throughout the three campuses:

**TCAT Hartsville and Tri-County Extension Campus**

- Mechatronics with Fanuc Robot (1 each)
- Fluid Power Full Bench (1 each)
- Basic Multimedia Virtual Learning System (1 each)
- Electrical Trainer (2 each)

- Electrical Control Trainer (Relay Logic with basic PLC) (2 each)
- Full Mechanical Bench (Levels 1 – 3) (1 each)
- Rotating Machines (Motors) (1 each)
- Motor Controls Trainer (1 each)
- MSSC Certified Production Technician Multimedia Training (1 each)
- Lincoln Educational Robotic Welder (1 in Hartsville only)

#### **TCAT Lebanon**

- Vertical Milling Machine
- CMM Coordinate Measuring Machine
- EDM Machine
- Lincoln Educational Robotic Welder

Two campus labs, those at the Tri-County Extension and Hartsville, will have trainers that simulate the equipment suggested by regional industry representatives. Students will receive training in Electrical, Electrical Controls, Fluid Power, Mechanical, Rotating Machines, Motor Controls, PLCs, Welding, and Robotics. Hands-on exercises performed on the trainers are presented as job tasks for learning the skills needed on the job. The Lebanon campus will provide industrial size machining equipment used by industries in the region according to employers. Students will receive training in CMM, EDM, Milling Machines and Robotic Welding.

In addition to purchasing equipment, the collaborative will be responsible for expanding dual-enrollment opportunities. TCAT-H representatives will continue to work closely in the 4 counties' school systems. For years, TCAT-H has worked with Trousdale County schools by offering dual-enrollment opportunities. These will only increase with the new equipment purchases. The Tri-Counties Extension Campus has served students in schools in Macon and Jackson with dual-enrollment courses offerings for many years as well. Following the installation of the proposed equipment, it will also include classes in mechatronics. A new dual-enrollment program in Wilson County is scheduled to start in the spring of 2017, and the equipment purchased through this program will allow the new partnership to expand with the rising population and need. Dual-enrollment courses will focus on skills related to Industrial Maintenance/Mechatronics, Advanced Manufacturing, Machine Tool Technology and Welding.

Section 3 – Strength of Partnership

The success of the Tennessee Central Cooperative Manufacturing Education Program rests on the dedication and specialized skills held by each of the collaborative's partners. TCAT-H will serve as the fiscal agent for the grant. Its Director will lead the committee and the Assistant Director will be the treasurer for the project. TCAT-H will also develop, implement, and teach the dual enrollment classes in Industrial Maintenance/Mechatronics, Advanced Manufacturing, Machine Tool Technology and Welding in Macon, Trousdale, and Wilson Counties. For over 50 years, TCAT-H has been the premier provider for workforce development in the region with strong performance. The college has a completion rate of 81%, a placement rate of 88% and licensure rate of 86%. Dual-enrollment has been a major part of the training at TCAT-H since 2008. On average, it trains between 150 and 400 high school students each year. Following the implementation of this program, the total number of students served will increase by about 200.

GNRC will serve as the lead entity and administrator for the TCCMEP. Overseeing the program's activities and working along with the collaborative committee's director will ensure adherence to the meeting schedule and participation levels. GNRC staff will also be responsible for seeking and training new collaborative members from the CTE Advisory Subcommittee or Industry Advisory Committee should duties change. In addition, GNRC will act as the liaison between the collaborative's committee and THEC. GNRC was established as a development district with the purpose of providing efficient planning and orderly economic development and has operated since 1965. Its staff of over 60 dedicated employees works every day to improve the lives of Tennesseans. Its staff members in the Planning, Research, and Development Department regularly work with the Tennessee Central Economic Authority and the Tennessee Department of Economic and Community Development.

With the program's strong emphasis on growing dual-enrollment opportunities, CTE Directors from the Trousdale, Macon, Jackson, and Wilson school systems serve a vital role in the collaborative.

They spend every day with young students and see firsthand their strengths or concerns with their studies and career options. They can also help post-secondary school curricula by detailing what types of experience their students are already receiving. In addition, CTE Directors can help the collaborative by providing suggestions for improvement of enrollment and completion metrics. They are more informed than anybody when promoting certificates that lead to careers in advanced manufacturing.

Supporting the governor's "Drive to 55" through the TCCMEP will only produce its desired impact for Tennesseans if those graduates with certificates and degrees can find work. The collaborative's members from regional manufacturing industries are crucial to making sure educators know what skills their students must have on their first day of work. Industry representatives will provide the collaborative with regular reports on the skills they believe are lacking with graduates from TCAT-H and make recommendations to remedy these gaps. Moreover, they are positioned to forecast hiring needs, allowing educators the time necessary to align today's students and curricula with tomorrow's jobs. Industry representatives will stay involved with semi-annual industry tours and job fairs held throughout the region as well.

#### Section 4 – Budget Plan

The attached budget and detail sheet explains how LEAP 2.0 funds will be used for this project. The bulk of the funds are to be used for equipment purchasing that will allow more students to get advanced certificates and join the workforce. Other funds will be used to facilitate the 9 Collaborative meetings scheduled over the lifetime of the grant (\$100 each) and \$45,000 is budgeted for indirect costs associated with grant-related administrative functions and reporting (\$1,500/month).

#### Section 5 – Sustainability

The TCCMEP schedule outlined in Section 2 shows it will take 16 months to purchase the training equipment necessary for its success and fully implement the program model. Rather than focusing on just the initial 30 month timeline of the grant's duration, plans are in place for ongoing

cooperation. For the following 4 years, the collaborative will meet semi-annually to discuss performance metrics and continually ensure educators' curricula are meeting the needs of students and employers. During these 4 years, members of the collaborative's committee will continually grow relationships that will extend beyond these meetings and keep a steady stream of information and feedback between all parties. Most importantly, this dialogue will make sure that Tennessee employers will keep educators abreast of its needs throughout an ever-changing economy. It will be the lead applicant's role as a consistent presence throughout the inevitable institutional and industry turnover to make sure these discussions continue well past the initial 30 months.

The collaborative recognizes that a sufficient maintenance plan for the valuable training equipment purchased with LEAP funds must be in place. It will work with external agencies and further partnerships that produce additional funding sources for maintenance needs. TCAT-H already partners with local business and industry that provide tangible resources with in-kind donations or equipment and instructional items for supplemental training offerings. TCAT-H will improve operational efficiencies by participating in and utilizing system maintenance opportunities and energy efficiency initiatives. It will continue to annually submit capital maintenance projects that minimize annual maintenance costs as well as take part in system energy initiatives that promote reduced operational costs. These actions can produce operational efficiencies by designing maintenance projects that will reduce the need for local renovation and repair projects.

#### Inventory Procedures

1. The College will decide when and which equipment purchases are necessary; utilizing TBR purchasing policies while also submitting requests for approval and/or budget the funds necessary to replace and/or repair equipment through long-term planning. Equipment needing priority will prevail providing that funds are available. When capitalizable equipment is added, it is added to the equipment inventory and properly depreciated over the life of the asset.
2. There will be an inventory check annually, performed by the Assistant Director and maintenance personnel who will then verify whether a piece of equipment: (a) is still on campus; (b) should be transferred to surplus property to be sold at auction; (c) has been transferred to another institution; or (d) disposed of due to poor condition and irreparable.

3. The instructors will conduct an annual inventory check to determine if equipment is still in usable condition or in need of repair or replacement. Funds are provided in the budget as a line item called "Renewals and Replacements" to provide for the maintenance and/or replacement and emergency purchase of equipment items.

#### Maintenance/Upkeep Procedures

When repairs on equipment become necessary, the item is diagnosed by the instructor and students from the most applicable shop at TCAT-H to determine what is needed and whether they can be performed by school personnel or students. If the repairs can be done in the school as a training activity, students will make the necessary repairs or perform maintenance under the guidance of their instructor. If the job cannot be done locally, outside repair services will be contacted. Materials, parts and services are obtained through normal purchasing procedures, and the annual Operations and Maintenance budget includes funds for potential equipment repairs.

Documentation of maintenance and upkeep of equipment will be coded by account code into the Banner accounting system. These invoices, purchase orders, and statements identify the equipment and show what actions were taken. During the annual inventory check, the condition of equipment will be checked. Should a piece of equipment be deemed in need of repair, it will be reflected on the equipment listing. The condition of that piece of equipment will then be updated on the inventory list.

#### Preventive Maintenance

Instructors and maintenance personnel are responsible for the development and implementation of routine preventive maintenance procedures for each piece of equipment of machinery listed in their inventories. Routine preventive maintenance is necessary for effective training programs and for the prevention of injuries and costly breakdowns of equipment and machinery. Furthermore, routine maintenance may identify unsafe conditions overlooked during other inspection processes. Failure to maintain equipment or to anticipate, report, or correct equipment defects could promote hazardous conditions; thus, exposing students and College personnel to possible injuries.

APPENDIX B- Budget

GRANT BUDGET				
LEAP Program Competitive Grant				
The grant budget line-item amounts below shall be applicable only to expenses incurred during the following				
Applicable Period: BEGIN: September 14, 2016 END: March 13, 2019				
POLICY 03 Object Line-item Reference	EXPENSE OBJECT LINE-ITEM CATEGORY <sup>1</sup>	GRANT CONTRACT	GRANTEE PARTICIPATION	TOTAL PROJECT
1, 2	Salaries, Benefits & Taxes	0.00	0.00	0.00
4, 15	Professional Fee, Grant & Award <sup>2</sup>	0.00	0.00	0.00
5, 6, 7, 8, 9, 10	Supplies, Telephone, Postage & Shipping, Occupancy, Equipment Rental & Maintenance, Printing & Publications	0.00	0.00	0.00
11, 12	Travel, Conferences & Meetings	900.00	0.00	900.00
18	Other Non-Personnel <sup>2</sup>	0.00	0.00	0.00
20	Capital Purchase <sup>2</sup>	941,500.00	0.00	941,500.00
22	Indirect Cost	45,000.00	0.00	45,000.00
24	In-KInd Expense	0.00	0.00	0.00
25	<b>GRAND TOTAL</b>	<b>987,400.00</b>	<b>0.00</b>	<b>987,400.00</b>

<sup>1</sup> Each expense object line-item shall be defined by the Department of Finance and Administration Policy 03, *Uniform Reporting Requirements and Cost Allocation Plans for Subrecipients of Federal and State Grant Monies, Appendix A*. (posted on the Internet at: [www.state.tn.us/finance/act/documents/policy3.pdf](http://www.state.tn.us/finance/act/documents/policy3.pdf)).

<sup>2</sup> Applicable detail follows this page if line-item is funded.

TCAT-H Leap 2.0 Application  
Capital Purchase Line Item Detail

Tri-County Extension Campus	\$ 288,250
TCAT Lebanon	\$ 300,000
TCAT Hartsville	\$ 353,250

**Tri-County Extension Campus/TCAT Hartsville**

Mechatronics with Fanuc Robot	\$ 42,750
Fluid Power Full Bench	\$ 36,000
Basic Multimedia Virtual Learning System	\$ 25,000
Electrical Trainer (2 @ 30,250 ea.)	\$ 60,500
Electrical Control Trainer (Relay Logic with basic PLC) (2 @11,750 ea.)	\$ 23,500
Full Mechanical Bench (Levels 1 – 3)	\$ 47,150
Rotating Machines (Motors)	\$ 17,100
Motor Controls Trainer	\$ 15,500
MSSC Certified Production Technician Multimedia Training	\$ 20,750
<u>Total</u>	<u>\$ 288,250</u>

**TCAT Lebanon**

Vertical Milling Machine	\$ 75,000
CMM Coordinate Measuring Machine	\$ 45,000
EDM Machine	\$ 115,000
Lincoln Educational Robotic Welder	\$ 65,000
<u>Total</u>	<u>\$ 300,000</u>

**TCAT Hartsville**

Lincoln Educational Robotic Welder	\$ 65,000
Mechatronics with Fanuc Robot	\$ 42,750
Fluid Power Full Bench	\$ 36,000
Basic Multimedia Virtual Learning System	\$ 25,000
Electrical Trainer (2 @ 30,250 ea.)	\$ 60,500
Electrical Control Trainer (Relay Logic with basic PLC) (2 @11,750 ea.)	\$ 23,500
Full Mechanical Bench (Levels 1 – 3)	\$ 47,150
Rotating Machines (Motors)	\$ 17,100
Motor Controls Trainer	\$ 15,500
MSSC Certified Production Technician Multimedia Training	\$ 20,750
<u>Total</u>	<u>\$ 353,250</u>

**GRAND TOTAL FOR LABS** **\$941,500**



# TENNESSEE COLLEGE OF APPLIED TECHNOLOGY

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## HARTSVILLE

716 McMurry Boulevard East, Hartsville, TN 37074  
Phone (615) 374-2147 FAX (615) 374-2149 <http://www.tcathartsville.edu>

July 22, 2016

Attn. Curt Johnston  
Tennessee Higher Education Commission  
404 James Robertson Parkway, Suite 1900  
Nashville, TN 37243-0830

RE: LEAP 2.0 Tennessee Central Cooperative Manufacturing Education Grant Application

Dear Mr. Johnston:

Tennessee College of Applied Technology Hartsville (TCATH) would like to confirm our support and participation in the Tennessee Central Cooperative Manufacturing Education Grant Application project. The project will assist in establishing a robust mechatronics program accessible to Jackson, Macon, Smith, Sumner, Trousdale and Wilson county residents who are unemployed or under employed. This project would pursue the goals of increasing the supply of skilled employees in advanced manufacturing, and creating a local collaborative that would connect education, economic development and workforce development to pave a pathway from training to employment.

There were 2600 job openings including related positions advertised online in Tennessee on July 19, 2016. For 50 years, our role as technical education providers is about helping students and workers of all ages fulfill their skill performance potential. TCATH is a training facility which is designed to meet industry standards through training that simulates the occupational environment found in potential places of employment of the students. We accomplish this with workforce development training that is relevant to the work place with employable skills and work ethics.

Thank you for the opportunity to submit for this grant. TCATH will be good stewards of funds received to promote and develop a skilled workforce for the State of Tennessee.

Respectfully submitted,

Mae W. Perry  
Director

*work***FORCE**  
*development*

"It's what we do!"™

A Tennessee Board of Regents Institution

An Equal Opportunity/Affirmative Action  
Employer

# Wilson County Schools

Excellences in all we do.

William H. Moss, Career Technical Education Supervisor  
351 Stumpy Lane  
Lebanon, Tennessee 37090

---

Telephone (615) 444-3282  
Fax (615) 443-8745  
Cell (615)-946-3204

Date: 07 July 2016

From: William H. Moss, CTE Supervisor

To: To whom it may concern

Re: Support for the TCAT at Hartsville

1. I have served on the Advisory Council for the TCAT in Hartsville for over 15 years and have watched their growth into Macon, Sumner and Wilson Counties. Under Mrs. Perry's leadership this growth has been possible because of the strong partnerships that she and her team have developed both with secondary administrators and industry partners. We in Wilson County are benefiting from this strong partnership through the establishment of a satellite campus in a building owned by the County School System.
2. In talking to other CTE Directors from across the State, I have been told of the benefits that their system has received because of participation in a LEAP grant with the TCAT in their area. We in Wilson County have a need because of new industry that has moved in for a better-trained workforce. This grant will facilitate that training. In fact in the Spring of 2017, our Seniors will be attending the TCAT satellite campus in Lebanon as full time students
3. I am honored to write a letter of support for the LEAP Grant. If you have any questions concerning this recommendation, please do not hesitate to call. Thank you for your time in considering this recommendation.

**Preparing today's students for tomorrow's opportunities**

# CARROLL CARMAN

Hartsville/Trousdale County Mayor  
328 Broadway, Room 6  
Hartsville, Tennessee 37074  
Telephone: (615) 374-2461 Fax: (615) 374-3948  
[carroll.carman@trousdalecountytn.gov](mailto:carroll.carman@trousdalecountytn.gov)



Debbie Jenkins  
Executive Assistant/Office Manager  
[deborah.jenkins@trousdalecountytn.gov](mailto:deborah.jenkins@trousdalecountytn.gov)

Linda Gammons  
Office Assistant  
[linda.gammons@trousdalecountytn.gov](mailto:linda.gammons@trousdalecountytn.gov)



Rene' Pridemore  
Accounts Payable/Payroll  
[carrie.pridemore@trousdalecountytn.gov](mailto:carrie.pridemore@trousdalecountytn.gov)

Leah Verville  
Administrative Assistant/  
Human Resources  
[leah.verville@trousdalecountytn.gov](mailto:leah.verville@trousdalecountytn.gov)

July 12, 2016

Ms. Mae Perry  
Director  
Tennessee College of Applied Technology  
716 McMurry Blvd. East  
Hartsville, TN 37074

Dear Ms. Perry:

I would like to take this opportunity to offer my full support of TCAT's application for the L.E.A.P. 2.0 Grant. We in Hartsville/Trousdale County feel very blessed to have TCAT located right here in our own community. Given the fact that TCAT has been instrumental in the success of so many of our citizens in the past, I feel that this grant will only enhance the success of this facility in providing the educational needs of our future workforce.

Sincerely,

A handwritten signature in dark ink, appearing to read "Carroll Carman".

Carroll Carman  
County Mayor

# TROUSDALE COUNTY BOARD OF EDUCATION

*Clint Satterfield, Director of Schools*

www.tcschools.org

July 12, 2016

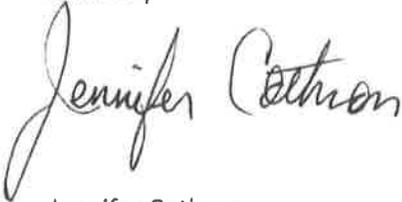
To Whom It May Concern:

I am writing to express my support for TCAT-Hartsville in their application being submitted for the L.E.A.P. 2.0 Grant for implementing dual enrollment classes in local secondary schools to address manufacturing needs now and in the future.

Postsecondary success is important to Trousdale County as we prepare our students for their future. Having a mechatronics and machining program in our community will greatly benefit students who wish to pursue a career in those areas. Our students will be able to begin their program of study at TCAT-Hartsville as early as their Junior year. Upon completing coursework, students will be able to enter the workforce prepared for any challenges they will face.

I fully support TCAT-Hartsville in their work to create a seamless pathway from K-12 through postsecondary.

Sincerely

A handwritten signature in cursive script that reads "Jennifer Cothron". The signature is written in black ink and is positioned to the left of the typed name.

Jennifer Cothron

CTE Director/Supervisor

Trousdale County Schools

(615) 374-2193 Fax (615) 374-1108  
103 Lock Six Road Hartsville, Tennessee 37074



State of Tennessee  
Department of Economic and Community Development  
Office of Rural Development  
William R. Snodgrass Tennessee Tower, 26<sup>th</sup> Floor  
312 Rosa L. Parks Avenue  
Nashville, Tennessee 37243-1102

June 30, 2016

To Whom It May Concern:

This is Written in support of the L.E.A.P. (Labor Education Alignment Program) 2.0 Grant. The Hartsville TCAT has been a long standing critical support for our industrial and manufacturing community. This grant will further that support by establishing dual enrollment classes for secondary education and further enhance our adult classes on campus. Special emphasis will be given to mechnantrics and machining, which are skills that are in great demand in this Region. This will obviously help individuals in thigh school enter the workforce without additional delay and reduce the number of openpositions in so many of our manufacturing operations.

The Hartsville TCAT has long been a friend to industry, and the establishment of these programs are in answer to the most needed requests of manufacturing. We would hope you would look with favor upon this request as there is likely more demand in this Region than anywhere else in the State. This grant would also allow a seamless pathway for students interested in mechatronics and machinery to continue along their educational path.

Thanks for your consideration of this very deserving application. If you have questions for me, I may be reached by phone at 615-957-2695.

Sincerely,

A handwritten signature in black ink that reads "Reggie Mudd".

Reggie Mudd, Regional Director

Tennessee Department of Economic &  
Community Development

Orchid International  
94 Belinda Parkway  
Mt. Juliet, TN 37122  
(615) 773.3331

[www.orchidinternational.com](http://www.orchidinternational.com)



May 18, 2016

Tennessee College of Applied Technology – Hartsville/Lebanon, TN

When people talk about automotive manufacturing today, they no longer only think about Detroit. Car builders started moving south in the 80's and Tennessee has seen a huge benefit from that move. Building cars takes skilled trade workers to maintain the tooling and equipment required to build vehicles. Training in the skilled trades has lagged behind the shift in manufacturing. The importance of going to college has been pushed so hard over the last twenty years that a lot of key programs fell to the wayside. The need for programs such as the ones that are offered by TCAT are critical to the future of manufacturing in Tennessee.

Orchid International is an automotive stamping and assembly plant. We are tier one to General Motors and tier two to many other OEM's. Orchid is on the cutting edge of tool and machine building, and the need for specialized skilled trades' people is great. Over the last ten years we have seen a terrible down turn in the economy that hit the manufacturing sector very hard, and a recovery like no one could have expected. The growth experienced in the last six years have brought to light the need for training programs to help start young people down the path of a vocation.

Programs such as the ones offered by TCAT, with the help of manufacturing partners such as Orchid, will insure the future of manufacturing in Tennessee. We look forward to working with TCAT to find new talent to the fill shortage of skilled trade people in Middle Tennessee. A well trained skilled workforce is a major draw for any new manufacturing company. The future growth of manufacturing in Tennessee is only limited by the skill of the workforce, and any program that helps to build the skills needed will be greatly supported by Orchid.

Sincerely,

**Norma McClard**

Manager Human Resources and Safety  
Direct Phone / Fax: (615) 773-3331



94 Belinda Parkway  
Mt. Juliet, TN. 37122  
[www.orchidinternational.com](http://www.orchidinternational.com)

Orchid International  
94 Belinda Parkway  
Mt. Juliet, TN 37122  
(615) 773.3331

[www.orchidinternational.com](http://www.orchidinternational.com)



May 18, 2016

Tennessee College of Applied Technology-Hartsville/Lebanon

Subject: THEC Labor Education Alignment Program Grant Competition 2.0

Orchid International in Mt. Juliet is in need of employees for skilled trade positions: Tool & Die, CNC Machinists, etc. Unfortunately, there is a serious lack of candidates with the proper training for these positions in Middle Tennessee. As we continue to promote and educate students on the opportunities available and the need for students to enroll in skilled trade classes, the 2016 LEAP 2.0 Grant will enable students to reach goals that would otherwise not be available to them.

Programs such as the ones offered by TCAT, with the help of manufacturing partners such as Orchid, will insure the future of manufacturing in Tennessee. We look forward to working with TCAT to find new talent to fill the shortage of skilled trade people in Middle Tennessee. A well trained skilled workforce is a major draw for any new manufacturing company. The future growth of manufacturing in Tennessee is only limited by the skill of the workforce, and any program that helps to build the skills needed, will be greatly supported by Orchid.

Sincerely,

**Bill Jones**

Director of Operations  
Direct Phone / Fax: (615) 773-3319



94 Belinda Parkway  
Mt. Juliet, TN. 37122  
[www.orchidinternational.com](http://www.orchidinternational.com)



Administered by: *Nashville Career Advancement Center*

July 5, 2016

Ms. Mae Perry, Director  
Tennessee College of Applied  
Technology, Hartsville  
716 McMurry Boulevard East  
Hartsville, TN 37074

Re: LEAP 2.0 Application

Ms. Perry,

The Nashville Career Advancement Center (NCAC) is pleased to provide this letter of support for the Tennessee College of Applied Technology, Hartsville, for their proposal of the LEAP 2.0 grant. NCAC is the administrative entity for the Middle Tennessee Workforce Development Board and is a partner in the American Job Centers.

As a workforce partner, it is vital that we focus on existing and emerging in-demand industries that will have sustained growth, eliminate skill gaps and lead to self-sufficiency. The proposed project, the Tennessee Central Cooperative Manufacturing Education Program with its focus on mechatronics and machining is within the identified sectors for workforce development. By focusing on dual enrollment classes in the local secondary school systems and for careers in mechatronics and machining, this project will ensure that students are prepared for the workforce that supports business and economic growth in the area.

We appreciate the opportunity to support the Tennessee College of Applied Technology, Hartsville.

Sincerely,

Paul Haynes  
Executive Director



Ms. Mae Perry

Director

Tennessee College of Applied Technology

Hartsville Tennessee

We are pleased to support TCAT –Hartsville’s proposal for the L.E.A.P. Grant funding to address educational needs for the community. As you are aware Mueller recruits some of our Machine Operator’s from your facility. Advanced skills are a key to our/Mueller’s future. Hands on experience are hard to find and we will gladly support the cause.

Thanks,

Al Frillman

Human Resource Department

Mueller Refrigeration

Hartsville TN

**Casey Brawner**  
*School Nursing Supervisor*  
**Candace Brown**  
*School Psychologist*  
**Shawn Carter**  
*Supervisor of Instruction*  
**Kathy Cothron**  
*Career and Technical*  
**Dawn Thompson**  
*Supervisor of Attendance*



**David Flynn**  
*Technology Director*  
**Cindy Gammons**  
*Federal Programs Director*  
**Cathy Stafford**  
*Special Education Supervisor*  
**Teresa Rush**  
*Food Services Supervisor*  
**Rita Wilburn**  
*Data Analyst*

**Macon County Schools**  
Tony Boles, Director of Schools

June 30, 2016

**Mae Perry**  
Director - Tennessee College of Applied Technology Hartsville Campus  
716 McMurry Blvd  
Hartsville, TN 37074

Dear Mrs. Perry,

It has come to my attention that the Tennessee College of Applied Technology at Hartsville is proposing a new mechatronics program for 2016-2017. I offer the following comments to support the program.

With the growth of technological innovations and breakthroughs in the last decade, mechatronics has come to the industrial forefront thus our students need to be exposed to the latest and greatest for their future education or work experience. Dual credit/dual enrollment is just another way the students can get a jump on their peers in this area before furthering their education or advancing to work experiences. Numerous industries in our area have expressed interest and needs in this area thus we as a school system will be able to bring better employees to these industries resulting in bettering our community and work force.

Therefore we at the Macon County Board of Education support the Tennessee College of Applied Technology in pursuing the L.E.A.P. (Labor Education Alignment Program) 2.0 Grant. Our students can apply what they learn in these dual credit/dual enrollment classes to the betterment of their future.

We therefore support the Tennessee College of Applied Technology on obtaining the L.E.A.P. grant and hope you will act favorably on their request.

**Kathy Cothron**  
CTE Director Macon County  
501 College Street  
Lafayette, Tennessee  
615-666-2125 ex111

*Inspiring and Empowering Students*

Macon County Board of Education, 501 College Street, Lafayette, TN 37083  
Phone: 615-666-2125 Fax: 615-666-7878 or 615-666-3280 Special Education: 615-666-2685



# *Steve Jones*

## Macon County Mayor

201 County Courthouse  
Lafayette, Tennessee 37083  
Email: [sjonesmaconmayor@nctc.com](mailto:sjonesmaconmayor@nctc.com)

Phone (615) 666-2363  
Fax (615) 666-5323  
[maconcountyttn.gov](http://maconcountyttn.gov)

2/18/2016

Mae W. Perry, Director  
Tennessee College of Applied Technology  
716 McMurry Blvd East  
Hartsville, TN 37074

To Whom It May Concern,

Please accept this as endorsement for the Tennessee College of Applied Technology to apply for the L.E.A.P. (Labor Education Alignment Program) 2.0 Grant.

It is my understanding the grant will be used to implement dual enrollment classes in local secondary school systems and further enhance our adult campuses to address the manufacturing needs now and in the future by creating a seamless pathway from K12 through post-secondary programs for mechatronics and machining to serve local manufactures.

This initiative will complement our communities by giving our students the ability to have a head start on their future careers. It will also give local industries and business the ability to have access to a higher quality of employee.

Any assistance in helping Tennessee College of Applied Science towards this grant will be greatly appreciated.

Respectively,

Steve Jones, Macon County Mayor



**TENNESSEE CENTRAL**  
ECONOMIC AUTHORITY

*Tennessee Central Economic Authority*  
702 McMurry Blvd. E.  
Hartsville, TN 37074  
Phone: 615-374-4607  
Fax: 615-374-4608

July 10, 2016

Curt Johnston  
Director of Education & Workforce Alignment  
Tennessee Higher Education Commission  
404 James Robertson Parkway, Suite 1900  
Nashville, TN 37243

Mr. Johnston,

Tennessee Central Economic Authority would like to express its support for the Tennessee Central Cooperative Manufacturing Education Program Labor Education Alignment Program grant application.

Tennessee Central Economic Authority, an economic development organization, has served Macon, Smith, Sumner, Trousdale, and Wilson Counties for 30 years. In that time, the region has experienced phenomenal economic and job growth. However local manufacturing industry has suffered over the last few years due to an under-skilled workforce. Manufacturers across the region struggle to fill positions that require skills in areas like welding, mechatronics, electrical technology, fabrication, stamping, and more.

Without an increase in available workforce possessing skills necessary to sustain manufacturing operations, fewer industries will consider Tennessee in their site selection process. Both the State and local communities lose the opportunity to compete for new capital investment and high-paying jobs for citizens.

The issue of an under-skilled workforce is one that is faced throughout all of Tennessee. Governor Haslam has answered this call by enacting the "Drive to 55" initiative, under which 55% of Tennesseans will hold a certificate or degree by the year 2025. The initiative features programs that provide free post-secondary education to most Tennesseans. The initiative has not only captured the attention of the nation, it has become an integral part of recruiting new industry.

The Governor and legislators have made a tremendous effort to make education available to those who seek it. The goal of the Tennessee Central Manufacturing Program is to make it the best education possible.

The Tennessee Central Economic Authority fully supports the Program. Meeting the demand of an increasingly skilled workforce is critical to the future of Tennessee's economy now more than ever.

Thank you for your consideration,

Charly Lyons  
Executive Director



[tennesseecentral.org](http://tennesseecentral.org)

*This Institution is an equal opportunity provider and employer.*



**Jackson County High School**  
190 Blue Devil Lane, Gainesboro, TN 38562  
931-268-9771

June 30, 2016

To Whom It May Concern:

I would like to take this opportunity to support the Tennessee College of Applied Technology at Hartsville application for a Labor Education Alignment Program (L.E.A.P.) Grant. A strong partnership between the Jackson County High School and the Tennessee College of Applied Technology at Hartsville at Red Boiling Springs campus has been established for many years.

According to the Tennessee Department of Economic and Community Development, Tennessee outpaced national growth in job creation in Advanced Manufacturing at a rate of 27.1% for Tennessee compared to 8.7% nationally over the last five years. In addition, Tennessee has the second largest increase in the Southeast over the last three years in manufacturing gross domestic product. In 2015, 428 manufacturing establishments exist in the Upper Cumberland area alone. These statistics clearly show the need for qualified workers in this Advanced Manufacturing Mechatronics program of study.

Implementation of the Advanced Manufacturing Mechatronics program would provide our rural youth an opportunity to earn skills which are in high demand in Tennessee. Jobs with this skill set are more than ten thousand dollars above the average personal income per capita in the state.

This Advanced Manufacturing Mechatronics Program will provide the foundation for qualified workers necessary for economic growth in Jackson County and Tennessee.

Sincerely,

Marcella Bentley  
CTE Director  
Jackson County Schools



DESTACO Mt. Juliet Operations  
210 Mundy Memorial Lane  
Mt. Juliet, TN, 37122

July 22, 2016

Ms. Mae Perry  
Director  
Tennessee College of Applied Technology-Hartsville  
716 McMurry Blvd East  
Hartsville, TN 37074

Dear Ms. Perry:

DESTACO's Mt. Juliet, Tennessee facility is pleased to support TCAT-Hartsville's proposal for the L.E.A.P. (Labor Education Alignment Program) 2.0 Grant funding, in support of technical education.

DESTACO made the decision to consolidate multiple operations into one and settled in Mt. Juliet, Tennessee in July of 2015. Needing to fill 164 skilled and technical manufacturing related positions, we know first-hand the urgent need to improve upon the manufacturing related skills and technical expertise of the local workforce.

Our research led us to believe that we could expect to pull qualified candidates from surrounding counties to support our workforce needs. Unfortunately, we found it nearly impossible to fill our skilled manufacturing positions from local applicants. We have been forced to farm surrounding States to meet our hiring needs and still, are sorely lacking in qualified candidates.

TCAT has served as a major strategic partner that DESTACO has depended upon from the very beginning. The staff has continued to work with DESTACO to better understand the skill sets we need, in anticipation of integrating those skills into future programs.

The L.E.A.P. 2 grant could make those programs a reality now, through funding to secure current equipment needed to teach relevant advanced job skills, in order to achieve the technical certifications required by the higher paying / higher skilled jobs available today.

DESTACO is committed to supporting TCAT's application for this funding and wish you great success!

Kindest regards,

Ryan Pagels  
Plant Manager – Mt Juliet Facility

[destaco.com](http://destaco.com)





July 15, 2016

Ms. Mae Perry  
Director  
Tennessee College of Applied Technology-Hartsville  
716 McMurry Blvd East  
Hartsville, TN 37074

Dear Ms. Perry:

I am pleased to support TCAT-Hartsville's proposal for the L.E.A.P. (Labor Education Alignment Program) 2.0 Grant funding to address the technical education needs of Tennesseans.

TCAT-Hartsville has a fine reputation for creating a world-class learning environment for students of all ages by providing hands-on training classes focused on teaching manufacturing skills. The programs that were created with the L.E.A.P 1.0 Grant funding not only established a foundation for teaching manufacturing skills but they also provide an alignment to industry certifications for your students.

This grant project will help to address the need for advanced skills training by providing funding for the hands-on equipment needed at the college and related high schools. The new training equipment will provide the necessary components required to teach advanced job skills that are needed for high demand, high-wage jobs in the region.

Amatrol is committed to support you in this effort and we look forward to your success.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul S. Perkins", is written over a light blue horizontal line.

Paul S. Perkins  
President  
Amatrol, Inc.

**Learning Systems for Technical Education**

www.amatrol.com Fax 812-283-1584 Phone 812-288-8285



June 28, 2016

Mr. Russ Deaton  
Interim Executive Director  
State of Tennessee Higher Education Commission  
Parkway Towers, Suite 1900  
Nashville, TN 37243-0830

Dear Mr. Deaton:

On behalf of Wilson County, TN, I want to first thank you and the Commission for its continual support and efforts in the field of workforce development. I especially want to emphasize our support of programs and efforts which builds upon the relationship between students, education providers and employers.

Having worked in Tennessee's field of economic development for over thirty years, I now find that location and expansion decisions are being driven more by the availability of skilled employees. No longer can we simply detail our tax, wages and locational advantages. Today's projects require a detailed analysis of educational and training programs that can become part of their development programs.

That is why I commend the Commission for its funding of the Labor Education Alignment Program, LEAP. We see it as a program that bridges the gap between those that need and those that can meet those needs. The opening of the TCAT-Lebanon has provided the vehicle that allows our secondary, higher education and employers to work together. Expanding this program to include a dual enrollment option is both a logical and needed next step.

Programs however need more than good design, they need good leadership. That is why we support the programs and efforts of Ms. Mae Perry and her staff. This group has been able to make the necessary inroads and to receive commitments of involved parties. The bridges built between student, educational systems, employers and the Commission is working in Wilson County, TN. *That is why this office and its governing entities of Mayors and Board Members support this program and specifically the efforts of Ms. Perry and the Tennessee College of Applied Technology, Hartsville/Lebanon.*

Any consideration for their application under the LEAP Program, 2.0 Grant that can further continue their successful efforts would be greatly appreciated. Again, thank you for your work and the support of the Commission.

Sincerely

G. C. Hixson, CEcD  
Executive Director

# Job Posting Analytics

Machine Tool Cutting Setters, Operators, and Tenders, Metal and Plastic in 7 Counties

EMSI Q2 2016 Data Set

July 2016

## Tennessee Valley Authority



26 Century Blvd.  
Nashville, Tennessee 37214  
865-632-2101

# Job Postings Summary

**12**

Unique Postings (Apr 2016)  
120 Total Postings

**10 : 1**

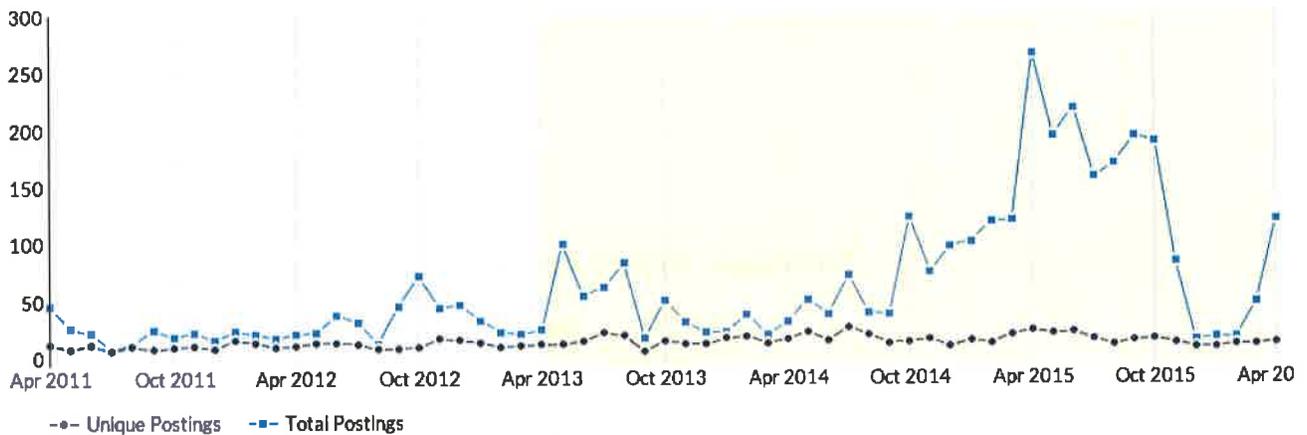
Posting Intensity (Apr 2016)  
Regional Average: 8 : 1



There were 120 total job postings for *Machine Tool Cutting Setters, Operators, and Tenders, Metal and Plastic* in April 2016, of which 12 were unique. These numbers give us a Posting Intensity of 10-to-1, meaning that for every 10 postings there is 1 unique job posting.

This is higher than the Posting Intensity for all other occupations and companies in the region (8-to-1), indicating that companies may be trying harder to hire this position.

## Total vs. Unique Postings Trend



Occupation	Apr 2013 Postings	Apr 2016 Postings	% Change
Machine Tool Cutting Setters, Operators, and Tenders, Metal and Plastic	11	12	+9%

# Job Posting Analytics

Tool and Die Makers in 7 Counties

EMSI Q2 2016 Data Set

July 2016

## Tennessee Valley Authority



26 Century Blvd.  
Nashville, Tennessee 37214  
865-632-2101

## Job Postings Summary

12

Unique Postings (Apr 2016)  
30 Total Postings

3 : 1

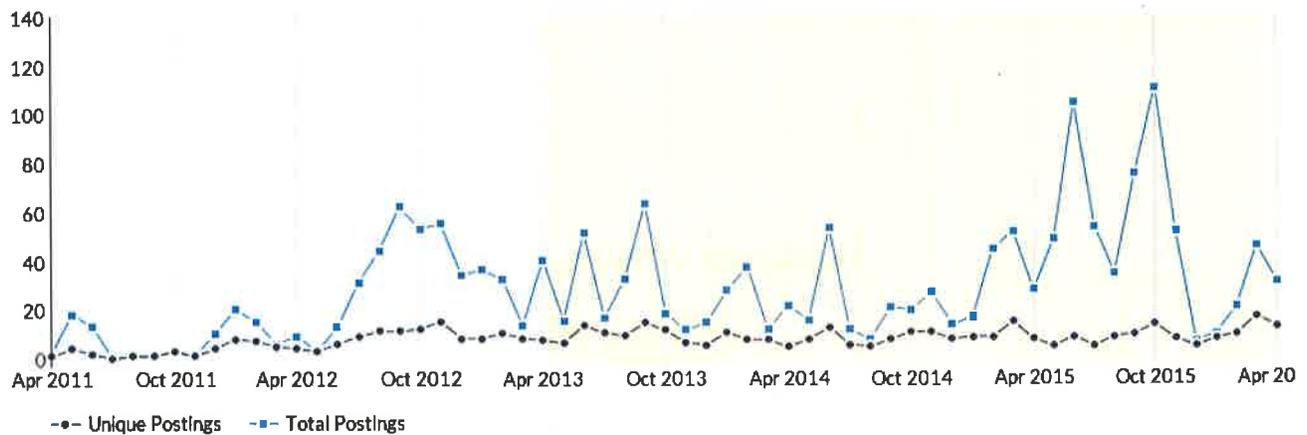
Posting Intensity (Apr 2016)



There were 30 total job postings for *Tool and Die Makers* in April 2016, of which 12 were unique. These numbers give us a Posting Intensity of 3-to-1, meaning that for every 3 postings there is 1 unique job posting.

This is lower than the Posting Intensity for all other occupations and companies in the region (8-to-1), indicating that companies may not be trying as hard to hire this position.

## Total vs. Unique Postings Trend



Occupation	Apr 2013 Postings	Apr 2016 Postings	% Change
Tool and Die Makers	7	12	+71%

# Job Posting Analytics

Welding, Soldering, and Brazing Workers in 7 Counties

EMSI Q2 2016 Data Set

July 2016

## Tennessee Valley Authority



26 Century Blvd.  
Nashville, Tennessee 37214  
865-632-2101

## Job Postings Summary

30

Unique Postings (Apr 2016)  
151 Total Postings

5 : 1

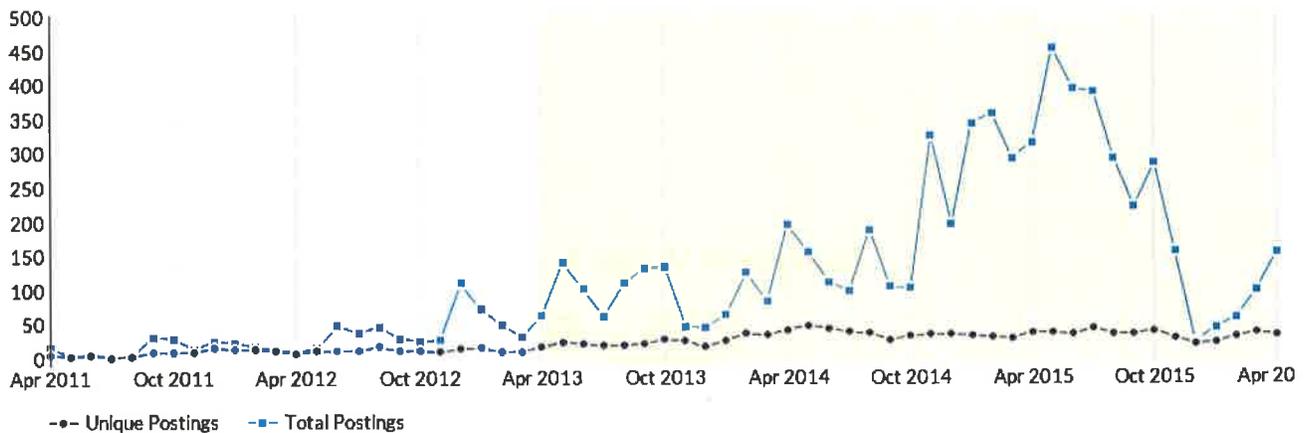
Posting Intensity (Apr 2016)



There were 151 total job postings for *Welding, Soldering, and Brazing Workers* in April 2016, of which 30 were unique. These numbers give us a Posting Intensity of 5-to-1, meaning that for every 5 postings there is 1 unique job posting.

This is lower than the Posting Intensity for all other occupations and companies in the region (8-to-1), indicating that companies may not be trying as hard to hire this position.

## Total vs. Unique Postings Trend



Occupation	Apr 2013 Postings	Apr 2016 Postings	% Change
Welding, Soldering, and Brazing Workers	14	30	+114%

# Job Posting Analytics

Computer Control Programmers and Operators in 7 Counties

EMSI Q2 2016 Data Set

July 2016

## Tennessee Valley Authority



26 Century Blvd.  
Nashville, Tennessee 37214  
865-632-2101

# Job Postings Summary

27

Unique Postings (Apr 2016)  
153 Total Postings

6:1

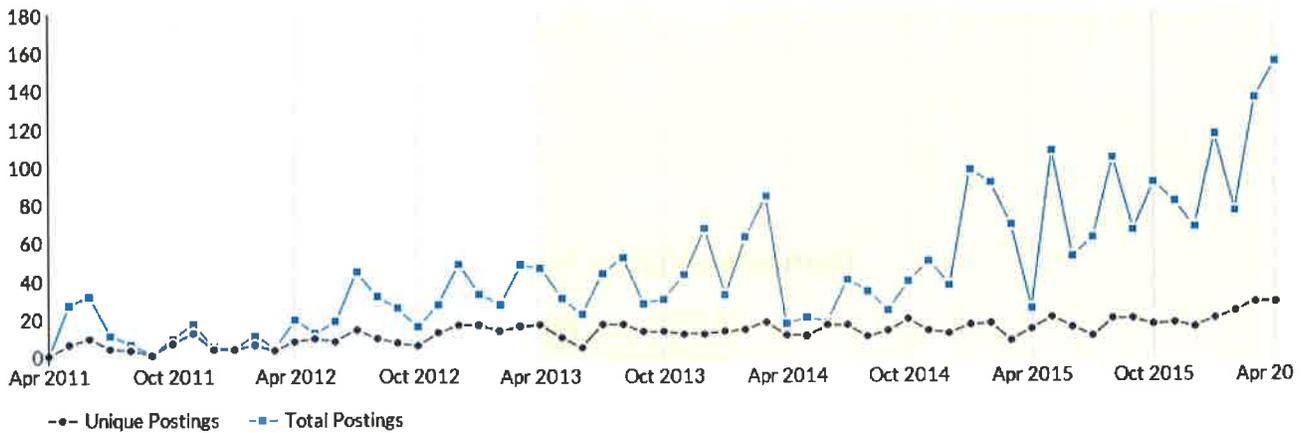
Posting Intensity (Apr 2016)



There were 153 total job postings for *Computer Control Programmers and Operators* in April 2016, of which 27 were unique. These numbers give us a Posting Intensity of 6-to-1, meaning that for every 6 postings there is 1 unique job posting.

This is lower than the Posting Intensity for all other occupations and companies in the region (8-to-1), indicating that companies may not be trying as hard to hire this position.

## Total vs. Unique Postings Trend



Occupation	Apr 2013 Postings	Apr 2016 Postings	% Change
Computer Control Programmers and Operators	16	27	+69%

# Job Posting Analytics

Forming Machine Setters, Operators, and Tenders, Metal and Plastic in 7 Counties

EMSI Q2 2016 Data Set

July 2016

## Tennessee Valley Authority



26 Century Blvd.  
Nashville, Tennessee 37214  
865-632-2101

## Job Postings Summary

4

Unique Postings (Apr 2016)  
13 Total Postings

3 : 1

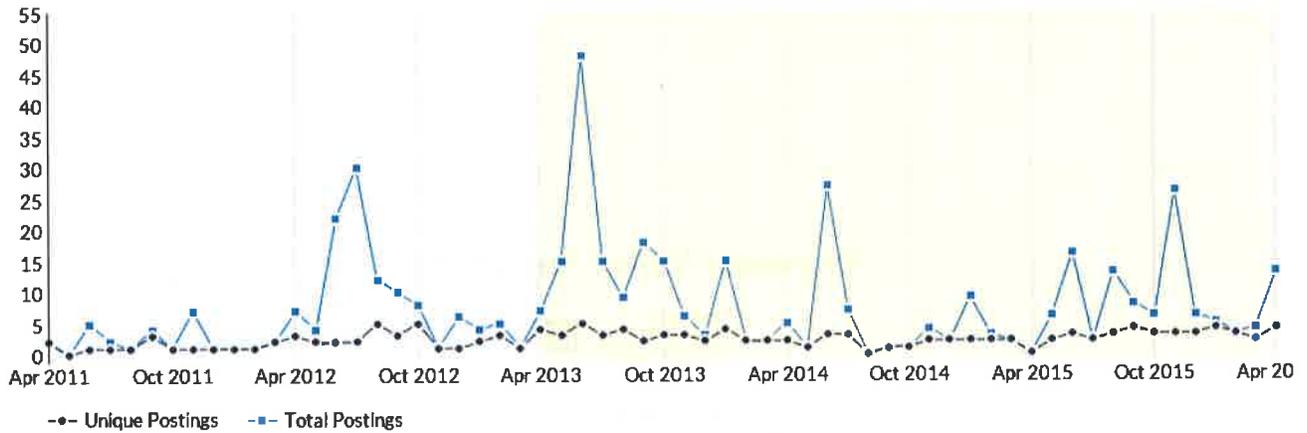
Posting Intensity (Apr 2016)



There were 13 total job postings for *Forming Machine Setters, Operators, and Tenders, Metal and Plastic* in April 2016, of which 4 were unique. These numbers give us a Posting Intensity of 3-to-1, meaning that for every 3 postings there is 1 unique job posting.

This is lower than the Posting Intensity for all other occupations and companies in the region (8-to-1), indicating that companies may not be trying as hard to hire this position.

## Total vs. Unique Postings Trend



Occupation	Apr 2013 Postings	Apr 2016 Postings	% Change
Forming Machine Setters, Operators, and Tenders, Metal and Plastic	4	4	0%

# Job Posting Analytics

Electrical, Electronics, and Electromechanical Assemblers in 7 Counties

EMSI Q2 2016 Data Set

July 2016

## Tennessee Valley Authority



26 Century Blvd.  
Nashville, Tennessee 37214  
865-632-2101

# Job Postings Summary

19

Unique Postings (Apr 2016)  
68 Total Postings

4 : 1

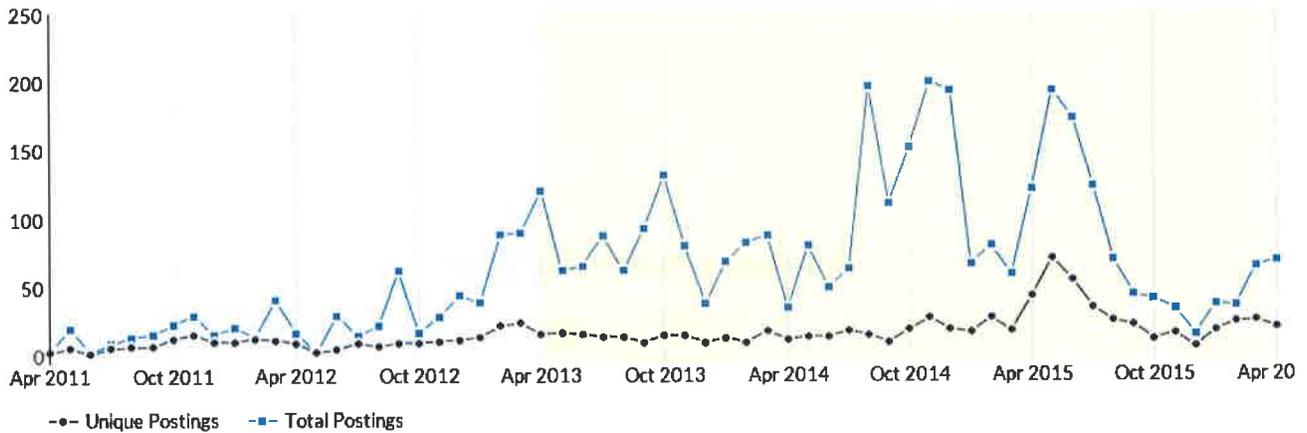
Posting Intensity (Apr 2016)



There were 68 total job postings for *Electrical, Electronics, and Electromechanical Assemblers* in April 2016, of which 19 were unique. These numbers give us a Posting Intensity of 4-to-1, meaning that for every 4 postings there is 1 unique job posting.

This is lower than the Posting Intensity for all other occupations and companies in the region (8-to-1), indicating that companies may not be trying as hard to hire this position.

## Total vs. Unique Postings Trend



Occupation	Apr 2013 Postings	Apr 2016 Postings	% Change
Electrical, Electronics, and Electromechanical Assemblers	15	19	+27%

# Job Posting Analytics

## Structural Metal Fabricators and Fitters in 7 Counties

EMSI Q2 2016 Data Set

July 2016

### Tennessee Valley Authority



26 Century Blvd.  
Nashville, Tennessee 37214  
865-632-2101

## Job Postings Summary

1

Unique Postings (Apr 2016)  
2 Total Postings

2 : 1

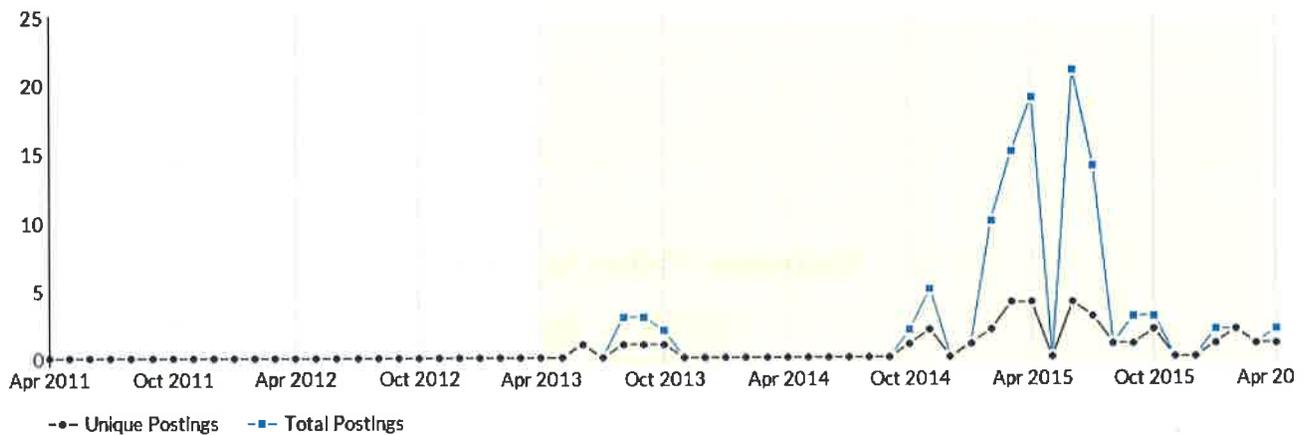
Posting Intensity (Apr 2016)



There were 2 total job postings for *Structural Metal Fabricators and Fitters* in April 2016, of which 1 were unique. These numbers give us a Posting Intensity of 2-to-1, meaning that for every 2 postings there is 1 unique job posting.

This is lower than the Posting Intensity for all other occupations and companies in the region (8-to-1), indicating that companies may not be trying as hard to hire this position.

## Total vs. Unique Postings Trend



Occupation	Apr 2013 Postings	Apr 2016 Postings	% Change
Structural Metal Fabricators and Fitters	0	1	Insf. Data

# Job Posting Analytics

Miscellaneous Assemblers and Fabricators in 7 Counties

EMSI Q2 2016 Data Set

July 2016

## Tennessee Valley Authority



26 Century Blvd.  
Nashville, Tennessee 37214  
865-632-2101

## Job Postings Summary

43

Unique Postings (Apr 2016)  
220 Total Postings

5 : 1

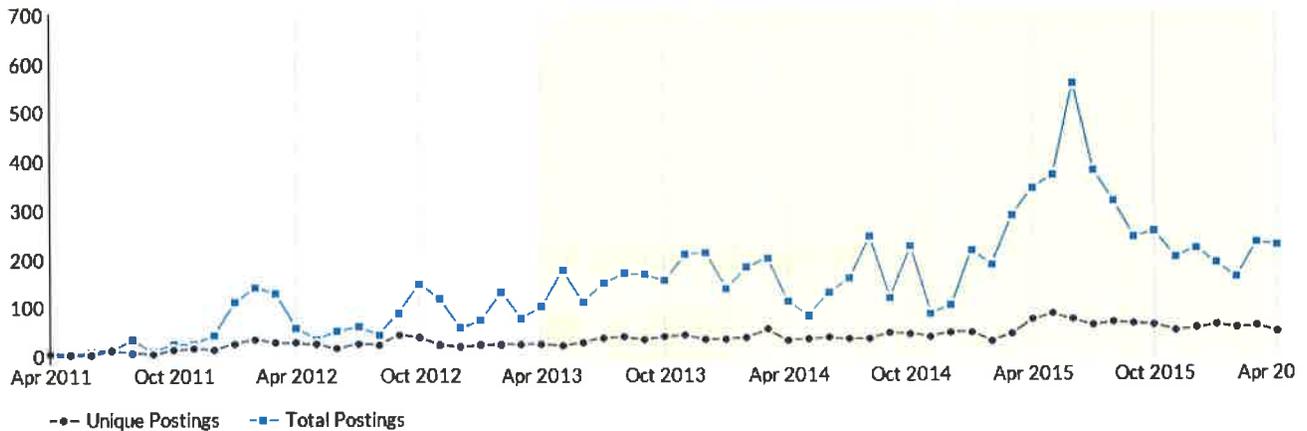
Posting Intensity (Apr 2016)



There were 220 total job postings for *Miscellaneous Assemblers and Fabricators* in April 2016, of which 43 were unique. These numbers give us a Posting Intensity of 5-to-1, meaning that for every 5 postings there is 1 unique job posting.

This is lower than the Posting Intensity for all other occupations and companies in the region (8-to-1), indicating that companies may not be trying as hard to hire this position.

## Total vs. Unique Postings Trend



Occupation	Apr 2013 Postings	Apr 2016 Postings	% Change
Miscellaneous Assemblers and Fabricators	22	43	+95%

**Occupational Employment Distribution**

Here are the top ten occupations for the Sector (2 digit) Manufacturing Industry in LVI/A 7 (no data available for Jackson County) based on a 2014 estimate.

Rank	Occupation Title
1	Team Assemblers
2	First-Line Supervisors of Production and Operating Workers
3	Mechanists
4	Helpers—Production Workers
5	Packaging and Filling Machine Operators and Tenders
6	Industrial Truck and Tractor Operators
7	Laborers and Freight, Stock, and Material Movers, Hand
8	Sewing Machine Operators
9	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic
10	Inspectors, Testers, Sorters, Samplers, and Weighers

**Occupational Employment**

Here are the top ten occupations for the Sector (2 digit) Manufacturing Industry in LVI/A 7 (no data available for Macon County) based on a 2014 estimate.

Rank	Occupation Title
1	Team Assemblers
2	First-Line Supervisors of Production and Operating Workers
3	Mechanists
4	Helpers—Production Workers
5	Packaging and Filling Machine Operators and Tenders
6	Industrial Truck and Tractor Operators
7	Laborers and Freight, Stock, and Material Movers, Hand
8	Sewing Machine Operators
9	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic
10	Inspectors, Testers, Sorters, Samplers, and Weighers

**Occupational Employment Distribution**

Here are the top ten occupations for the Sector (2 digit) Manufacturing Industry in LVI/A 7 (no data available for Stovall County) based on a 2014 estimate.

Rank	Occupation Title
1	Team Assemblers
2	First-Line Supervisors of Production and Operating Workers
3	Mechanists
4	Helpers—Production Workers
5	Packaging and Filling Machine Operators and Tenders
6	Industrial Truck and Tractor Operators
7	Laborers and Freight, Stock, and Material Movers, Hand
8	Sewing Machine Operators
9	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic
10	Inspectors, Testers, Sorters, Samplers, and Weighers

**Occupational Employment**

Here are the top ten occupations for the Sector (2 digit) Manufacturing Industry in LVI/A 6 (no data available for Swain County) based on a 2014 estimate.

Rank	Occupation Title
1	Electrical and Electronic Equipment Assemblers
2	Team Assemblers
3	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic
4	Laborers and Freight, Stock, and Material Movers, Hand
5	First-Line Supervisors of Production and Operating Workers
6	Production Workers, All Other
7	Inspectors, Testers, Sorters, Samplers, and Weighers
8	Assemblers and Fabricators, All Other
9	Industrial Truck and Tractor Operators
10	Maintenance and Repair Workers, General

**Occupational Employment**

Here are the top ten occupations for the Sector (2 digit) Manufacturing Industry in LVI/A 5 (no data available for Transylvania County) based on a 2014 estimate.

Rank	Occupation Title
1	Team Assemblers
2	Production Workers, All Other
3	Laborers and Freight, Stock, and Material Movers, Hand
4	First-Line Supervisors of Production and Operating Workers
5	Packaging and Filling Machine Operators and Tenders
6	Inspectors, Testers, Sorters, Samplers, and Weighers
7	Maintenance and Repair Workers, General
8	Industrial Engineers
9	Helpers—Production Workers
10	Mechanists

**Occupational Employment**

Here are the top ten occupations for the Sector (2 digit) Manufacturing Industry in LVI/A 5 (no data available for Wilson County) based on a 2014 estimate.

Rank	Occupation Title
1	Team Assemblers
2	Production Workers, All Other
3	Laborers and Freight, Stock, and Material Movers, Hand
4	First-Line Supervisors of Production and Operating Workers
5	Packaging and Filling Machine Operators and Tenders
6	Inspectors, Testers, Sorters, Samplers, and Weighers
7	Maintenance and Repair Workers, General
8	Industrial Engineers
9	Helpers—Production Workers
10	Mechanists