

The Jobs and Innovation Challenge Grant

Final Integrated Report Metropolitan Community College

In the fall of 2011, the Greater Kansas City region learned that it has been selected by the Department of Commerce's Economic Development Administration, Department of Labor's Employment and Training Administration and the Small Business Administration (SBA) to receive funds from the \$37 million Jobs and Innovation Accelerator Challenge. The region received \$1,891,338 for its project to increase employment opportunities at the intersection of two industry clusters — advanced manufacturing and information technology.

The following details the activities and the program outcomes as delineated in the original scope of services entered into by Metropolitan Community College (MCC) in February, 2012. An additional scope of services was added in December, 2012 and those activities and program outcomes are included.

1. Collaboration Activities

Activity

Participate in KC Regional Workforce Acceleratory Project Grant Management Team and work with MARC to convene Employer Advisory Councils and Expert Occupational Development Teams.

Outcome

From its inception and throughout the grant, MCC participated in all activities related to the above teams to include recruitment of participating companies.

2. Business Development and Technical Assistance Activities

Activity

With input from employers, the Metropolitan Community College will work with MARC and Johnson County Community College to align workforce development training, particularly certification with one another's programs and with area four year universities and customize either credit or noncredit training leading to a credential in areas of advanced manufacturing and information technology where programs do not exist in the Kansas City region. Develop stackable credentials in advanced manufacturing and information technology to spur business creation and growth in use of robotics and mobile applications in advanced manufacturing processes. This curriculum development and new credential will create new career pathways for disadvantaged and dislocated workers. MCC will create a stackable credential in export logistics and management to enable small and medium-sized businesses to gain expertise to enter the export marketplace. Connect the career pathways for advanced manufacturing and IT with area high schools career pathways programs through PREP-KC.

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Outcomes

Computer Integrated Machining and Manufacturing: Computer Integrated Machining and Manufacturing (CIMM) workers use manual lathes, manual mills and computer numerical control (CNC) equipment to manufacture precision metal parts. This program, designed by MCC's Precision Machining Consortium industry partners, begins with an intensive, one-semester certificate (mill or lathe) that prepares students to begin a career in manufacturing and machining. After completing the certificate, students can increase their skills and versatility by taking additional classes, such as CNC and MasterCAM, or by earning an Associates of Applied Science degree. Successful learners will be Master the basics of manual mill or lathe machining through ten weeks of classroom and lab activities;

- Gain an orientation to Computer Numerical Control (CNC) programming and operation;
- Complete a paid internship as an entry-level machinist with a consortium manufacturing company during the last six weeks of the semester;
- Take a strong first step in a rewarding, in-demand career field.

The program's Consortium partners include: ATK/Lake City Plant, Badder-Johnson, Vector Tool & Engineering, Kocher+Beck Computech, Gray Manufacturing, Best Tool & Manufacturing, Brunson Instrument, Clay & Bailey, Creative Blow Mold Tooling, Fike Corporation, Machine Laboratory, Mead Westvaco-Calmar, Pride Manufacturing, R&D/Leverage, SOR, Triumph Structures, and Vista Manufacturing.

An Affiliate Agreement has been developed to create a seamless transition for Johnson County Community College students pursuing this program at MCC. Additionally, an articulation agreement has been developed between MCC and the University of Central Missouri for completers of the program to pursue a bachelor's degree. With this addition, stackable credentials have been developed for advancement from short-term training through four-year degree.

In spring of 2013, MCC enrolled 27 students in the initial offering of the CIMM Lathe program and 30 in fall 2013 in the CIMM Mill program, for a total of 57.

Mobile Application Development: Mobile app development is a growing field within the information technology sector and has many applications in advanced manufacturing. To expand the pool of individuals in the Kansas City region capable of developing mobile apps, MCC and JCCC partnered with RareWire to develop entry and advanced level stackable courses in app development using RareWire's software and development studio.

Based in Kansas City, MO, RareWire is a software and services company that currently provides technology, design and support capabilities to create native Apps on iOS and Android devices through the use of the RareWire App Creation Studio. Partnering RareWire subject matter experts and college instructional designers, the stackable certificate courses

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were designed then delivered in a train-the-trainer format to develop a pool of instructors at MCC and JCCC creating broader access to this training going forward. In the pool is an MCC employee who specializes in work with advanced manufacturing and can now apply mobile apps in the field.

Export Credential: A key component of the KC Jobs and Innovation Accelerator grant was the development of export-related credentials for small and medium-sized business to gain expertise to enter the export marketplace. In the process of exploring this outcome, we became aware that a credential existed and preparation for the credential examination was being supported by the Missouri Small Business and Technology Development Center.

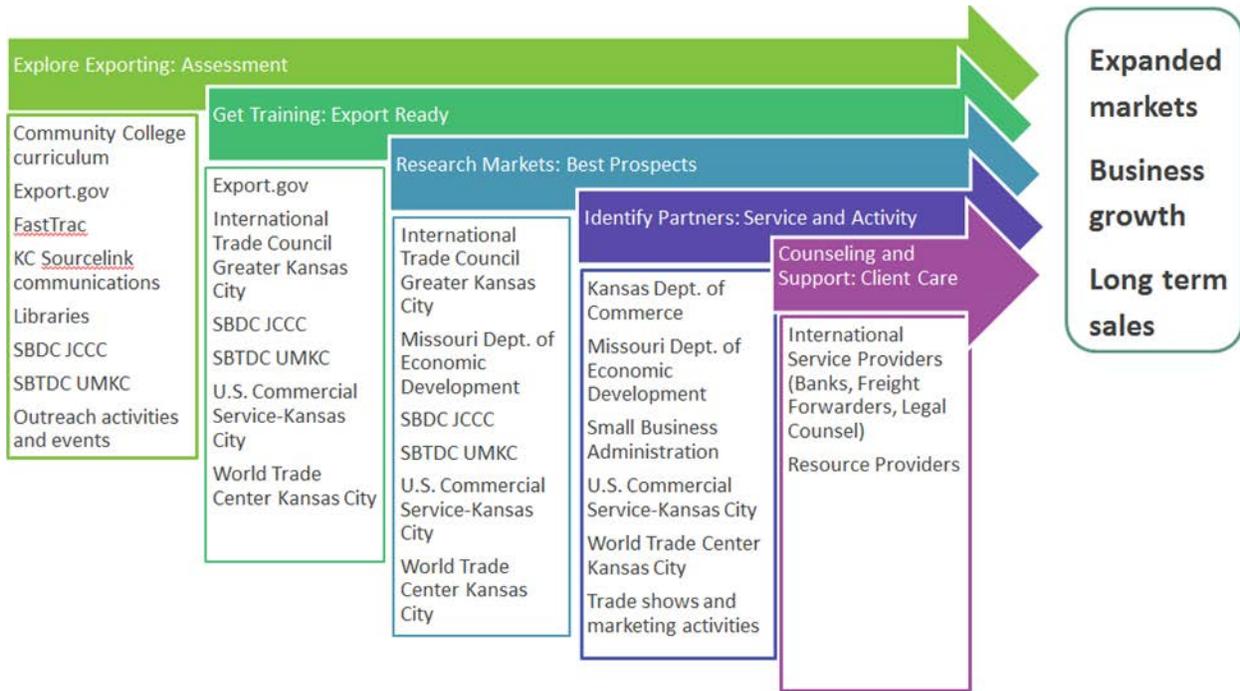
The credential is the Certified Global Business Professional (CGBP), awarded by NASBITE (National Association of Small Business International Trade Educators). The NASBITE CGBP certification confirms knowledge in international trade and assures that employees are able to practice global business at the professional level required in today's competitive environment (<http://www.nasbite.org/?page=CGBPindiv>).

Given the existence of an export-related credential, KCSourcelink and MCC began a collaboration to identify area resources that could support businesses entering the export market. The final outcome is a website (<http://kcsourcelink.com/growth/exporting-to-expand-sales>) hosted by KCSourcelink that maps the process for businesses to enter exporting from initial assessment to ongoing support when a company begins exporting.

To assist in identifying area resources available, KCSourcelink and MCC participated in a meeting of the Greater Kansas City Area Partners, Export Outreach Team. The meeting was convened by the Small Business Administration and Commercial Services of the Department of Commerce on June 25th, 2013. The workshop participants represented many of the area resources available to support business exporting. The resulting resource map provides businesses with a quick resource guide to assist them in entering the export market.

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This map became the core communication tool in raising the visibility of exporting resources in the Kansas City metropolitan area.

Career Pathways with PREP-KC: Through the grant period MCC has collaborated with PREP-KC on developing career pathways in a variety of areas to include IT and advanced manufacturing. In support of the related outcome of this grant, MCC has prepared a summer manufacturing career exploration program as an option for high school graduates of the class of 2014.

3. Advanced manufacturing Technical Assistance/Training

Activity

MCC proposes to provide consulting and training services for six small advanced manufacturing companies (250 or fewer employees). The timeline for these services would be September 1, 2012 – February 15, 2013

Outcomes

In November 2012 MCC Institute for Workforce Innovation invited six companies to participate in the Jobs Accelerator Grant in which each company would receive up to 40 hours of systems review with recommendations for improvement and training in various areas.

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The review tools used were unique to each organization and represent the need of the client and the approach MCC used to deliver on the grant requirement. Each company was assigned a consultant or a team of consultants to review the company's processes to determine their internal/external needs as it would pertain to retain or increase employment in their respective organizations.

During the review of the processes at each company a series of observations were made and analysis performed. As a result of the analysis, a report of findings and recommendations has been made, which is the basis for the reports given to each participating company. In some cases a follow up meeting was held with the company to further define the analysis and provide input as to recommendations for improvement.

There were a total of six companies that initially were recruited and indicated interest in the grant opportunity and are listed below. Of these initial six, three received reports and only one requested and received a follow up visit to discuss the report in detail. The others decided to drop out of the process due to time constraints.

Company	Participated	Received Report	Received follow up for recommendations
Mast Technologies	Yes	Yes, mostly verbal but did not need follow up visit	N/A
Ultrax	No-initially interested but did not respond to follow up calls	N/A	N/A
InnovaPrep	Initially but dropped after first visit	N/A	N/A
Legacy Technologies	Yes	Yes, complete report provided with recommendations	Yes, follow up meeting held to review report and discuss recommendations
Shatto Milk	Yes	Yes	No-not interested in follow up visit
Rare Wire	Yes to some degree	No	No

Companies which participated and received a complete report were provided an analysis of data and comparisons of this data to industry leaders and/or best practices leading to a number of recommendations.

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These recommendations are given as a source for overall, interactive improvements in key functions as listed for each company. The intent of the recommendations are to provide a set of resources each company could use to retain or increase their current level of employees, provide continual improvement in various areas of their organization and to be used as a holistic approach to corporate improvement as well. Along with the recommendations made to the companies suggested interventions were given where appropriate, and where some interventions may not be available through MCC were indicated and a recommendation given to selecting other experts in the respective field.

4. Customized Institutional Assessment

Activity

The goal would be to identify areas of operation that could be revised to improve efficiencies by implementing new technology applications, which could allow for expansion and the hiring of additional employees. The 40-hour assessment includes: 1) interviews with key personnel to determine scope of assessment; 2) review process documentation and current technology applications; 3) examine work processes in warehousing and distribution, production, sales and support operations, as appropriate; and 4) provide documentation of findings and recommendations for technology applications.

Outcome

This outcome was not achieved for any of the companies involved. If future related activities are proposed, the companies involved will need to be of sufficient size to allow the release of employees to participate.

5. Customized Training

Activity

For each company, MCC would provide two-part training for up to six employees who will serve as audit team member. Part 1: Customized online training directly related to areas of audit. Part 2: Half-day training at an MCC site to refine and implement audit strategies.

Outcome

The organizations were unable to make employees available for the customized training component. The size of the organizations to be served under this type of activity needs to be considered for future related activities. The companies served in this activity simply did not have the capacity to release four to six employees for half-day training sessions.

6. Follow-up Survey

Activity

An initial survey would be completed no later than September 30th, 2013, with a one-year completion of the audit follow-up survey to provide grant reporting data on company

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progress toward outcomes of developing expansion opportunities that lead to employee retention and growth.

Outcomes

Initial surveys were conducted upon completion of assessments, with follow ups scheduled for September 2014.

7. Advanced Soldering Curriculum Development

Activity

MCC is requesting funds for establishing an IPC Authorized Training and Certification Center at our Southland Training Center (STC). The STC would house and electronic circuit soldering training lab. The funds would be used to support teacher certifications and instructional/student supplies.

Outcomes

An MCC instructor was sent to EPTAC, an IPC Certified Center, and successfully completed IPC J-Std certification and IPC-A-610 recertification. The supplies were provided under a contract with a private firm and required to grant expenditure.

8. Site License: Authorized IPC Training and Certification Center

Activity

Provides the right to use IPC curriculum and course materials and receive technical updates.

Outcomes

As a result of MCC's interaction with EPTAC, a partnership is being developed for MCC to operate under EPTAC's IPC certification, certify our instructors as master instructors, and substantially reduce the time for MCC to offer IPC instructor certification in support of area companies. Under this agreement MCC will be authorized to use IPC curriculum and course materials and receive technical updates.

9. Instructor Training:

Activity

As a requirement to become an IPC Authorized Training and Certification Center, MCC needs to send the two instructors to EPTAC, an IPC Certified Training Center.

Outcome

An MCC instructor was sent to EPTAC, an IPC Certified Center, and successfully completed IPC J-Std certification and IPC-A-610 recertification. The supplies were provided under a contract with a private firm and required to grant expenditure.

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10. Facilities and Supplies

Activity

Since 2000, MCC has provided electronic circuit initial and recertification to more than 1,000 Honeywell FM & T employees. Honeywell is relocating and has decided to contract with MCC to provide all their electronic circuit (soldering) training at the MCC Southland Training Center (STC) rather than moving their training lab to the new location. The STC is located in south Kansas City at the former Richards Gebaur Air Force Base, very near Honeywell's new site. The Center is equipped with Honeywell donated soldering equipment. The 4,000 square foot building is all open space with open classrooms and labs in the four corners. Renovation is needed to create several labs with the addition of walls, improved lighting and ventilation. This will lead to a more conducive learning environment and increase the security of the lab equipment. Renovations will cost \$24,410. The few remaining instructional supplies will cost \$2,060.

Outcomes

The lab renovation was completed in December 2012 and the equipment purchased in September 2013.

The following activities were completed by Kansas City Kansas Community College

11. **Best Harvest Bakeries Training (Manufacturing)**

Activity

The Applied Baking Science training course was an in-depth, hands-on introduction to the principle behind baker ingredient laboratory tests. The individual learned widely used dough and ingredient testing technology equipment. The training took place on July 29th- August 1st, 2013. The employees will train other employees. The Effective Bakery Production Manager training will be for Best Harvest Bakeries' production or plant manager. The objective is to gain a better understanding of the manufacturing plant's management systems, production schedules, production costs, and document interpretations. The training takes place on August 5th-9th, 2013. Harvest Bakeries will send one person to the training. The employee will train other employees on the equipment.

Outcomes

- 3 people trained (2 applied baking science and one effective bakery production)
- Trained individuals will train other employers on new technology and systems.
- "This funded training allowed training materials to be purchased that will be used widely throughout Harvest Bakeries" – Ed Honesty, Harvest Bakeries

Sustainability

- Harvest Bakeries has since accepted being on KCKCC's advisory board
- Harvest Bakeries has sent KCKCC a list of training needs that are being discussed currently and would be funded through Harvest Bakeries training dollars.

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12. State Street Training (IT)

Activity

State Street was in need of Basic Excel 2010 and Advanced Excel 2010 training for entry and seasoned level employees, respectively. This training improved employee's ability to work with specific software operations. Instruction included reading and writing macros, deciphering data electronically, large data management, and helped employees update to the 2010 Microsoft Software.

Outcomes

- 218 people were trained during 14, 2 hour training sessions spread across 5 full days
- 2 assessment meetings were held to customize curriculum specific to State Street's daily work flow along with one day spent observing employees to capture daily workflow and simulate into training sessions
- 75 resource guides, 75 Excel curriculum guides, and 218 shortcut cheat sheets were supplied to State Street for continue use.
- 100+ post assessments were collected, all identifying lessons learned and additional training needs
- "For our recently new hires, this training was necessary in them finding success." Steve Green, State Street Talent Acquisition Vice President
- "Out of all the similar training State Street has experienced in years past, this was by far the best results we've ever seen." Shell Yoakum, State Street Training and Development
- "The training was applicable to my current role. I actually learned a lot of helpful shortcuts and learned about a lot of features of 2010 that I didn't know existed. These will help our automation and increase productivity." Anonymous employee (from evaluations)
- "Opportunity to learn new processes that can I can apply to my daily work." Anonymous employee (from evaluations)
- "I liked that they taught us information that was relevant to our jobs." Anonymous employee (from evaluations)

- "The training was practical and interactive, with students working through the processes." Anonymous employee (from evaluations)

Sustainability

- Met on 10/9/13 to discuss future training needs that will build on this training and will most likely be funded by State Street training dollars.
- Have decided to partner on career initiatives that will aid in their current hiring of community college students.
- Partnered on Innovation Summit for 2014, State Street is a sponsor of the event, another effort to help them recruit a talented workforce.
- They expressed interest in additional training opportunities that can be funded or help funded through a grant, this important and needed training would not have occurred if this particular funding was not available for them.

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13. Mastercam Ver X7 CNC Software Training (IT & Manufacturing)

Activity

This four week course served twelve students. The students were employees of Pride Manufacturing and A&E Custom Manufacturing; each owner defined this training as a needed skill for their employees and committed individuals to the training. The training consisted of computer essentials, basic card drawing, geometry modifications, advanced CAD drawing, modeling, drill tool paths, contouring, base machining, and more.

Outcome

This class filled in less than 4 hours of marketing the course to employers.

Sustainability

- The demand for this training funded by the EDA demonstrated a real need and has required us to regularly offer the class. This creates additional revenue for the college while training very employable skills sets to the workforce and incumbent workers.

14. Kansas City Start Up Village (IT)

Activity

This skills competition was name MECA KC Challenge 2013 and matched high school computer science and business students with college and graduate students specializing in computer science or business fields. The teams included business development strategist, programmers, designers, and marketers, which were tasked with developing creative ways for the small business start-ups and the corporations to integrate in new IT technology components to further their products and brands. Businesses throughout Kansas City presented the teams with a current issue that is facing them that would have a technology component to it. The teams then spent 16 hours developing a solution (with technology components) and presented their solution to a room full of business owners, IT specialists, and other students. During the process there was a focus on mentoring and skills development within each of the groups. This competition took place on three separate days. Most Entrepreneurial City in America (MECA) is a complimentary organization to KCSV and administered the event.

- Funds were allocated towards a wide range of IT and Business training curriculum which was then matched to each individual that participated in the MECA KC Challenge and their interest. The exploration and determination of curriculum was done by Kansas City Startup Village companies.

Outcomes

- 50 high school and college students participated.
- More than 15 startups participated in the event.
- Students have reported that jobs have been achieved, lifelong mentors were found, and life-long friends were developed through participating in the event.

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- “Leaving the MECA KC Challenge as an IT employer I felt confident that there is a talented IT workforce right here in Kansas City?” – Anonymous Employer (from event evaluations).
- KCKCC and the Job Accelerator grant are the first organizations to support the world renowned Kansas City Startup Village in any kind of financial assistance.

Sustainability

- Multiple trainings consisting of the MECA Challenge participants will be occurring throughout the 2013-2014 school year.
- MECA Challenge 2014 is already in the planning stage.

15. Local Ruckus

Activity

Customized IT training for the Startup Company and technical employer so that he/she can become the trainer for other employees. The training consisted of Ruby on Rails and SQL training.

Outcome

Training allowed better efficiency and assist in the national launch of a new business entity.

Sustainability

- The Startup Village and Local Ruckus are in continuous conversation with KCKCC for the purpose of the following: continued training, filling hiring needs, and inspiring entrepreneurship.

16. CAD Curriculum Development (IT & Manufacturing)

Activity

Although KCKCC has Mastercam courses, the college does not fill its standalone CAD program. These funds aided in the creation of a consortium of employers who met and voiced the need for further CAD training and curriculum development.

Outcomes

- KCKCC internal faculty and staff met twice before the consortium meeting to discuss the CAD training and what strength and weaknesses exist.
- On 9/18/13 JE DUNN and Johnson Controls both participated in a consortium breakfast that lasted more than two hours and included 15 people. Needs in the workforce were discussed and two training programs were identified as a need. These needs were 1) a curriculum that addressed trade employees transitioning to office and administrative roles; and 2) curriculum needed for workshop focused on sub-contractors.
- KCKCC hired a curriculum developer to create both of the aforementioned training needs.

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Sustainability

- Both JE DUNN and Johnson Controls committed to being on our advisory boards
- Content has been developed for two new workshop offerings within KCKCC's CAD program

17. Digital Story Telling Curriculum Development (IT)

Activity

KCKCC convened exploratory meetings with several storytelling components (internal and external) with the intention to develop a cohesive curriculum. KCKCC also held a Digital Storytelling Forum to increase awareness throughout the community of what this term means, to increase awareness amongst the community of what KCKCC has to offer in these disciplines, and to connect students with wonderful employment opportunities.

Outcomes

- 92 people attended the Digital Storytelling Forum
- 12 employers attended the digital storytelling event along with 16+ resource providers and organizations
- Ricardo Steven was referred to Artist INC., KC, Freelance Exchange and to look at the KCSOURCELINK calendar for networking opportunities.
- Kira McCononico, a consulting business (mostly with graphic design), was referred to The Central Exchange, Freelance Exchange and Kansas Small Business Development Center.
- Audrey Fryer and Julie Leach have an idea for an educational matching website; but, don't have programmers, developers or know where to go with their idea. KC SOURCELINK referred them to Digital Sandbox, Kansas SBDC and the Information Experience Lab at UM-Columbia.
- Connecting for Good identified interns who qualified for what they were looking for.
- T2 identified available interns for their internship programs.
- Freelancers connected with the Johnson County Commission office and t2 for the potential of future projects.

Sustainability

- Digital Storytelling Forum has been determined to be an annual event
- Digital storytelling was an unknown term at KCKCC, now is being used throughout classes and curriculum; in fact our digital media professor is entertaining changing the name of the program.
- Curriculum throughout Humanities is being reviewed to align with the Digital Storytelling theme.

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18. FLEET Curriculum Development (Manufacturing)

Activity

The FLEET program includes training components in the three key areas of Financial Literacy, Essential Employability Skills, and Entrepreneurship. Manufacturing employers emphasize the need for improvements in employees' employability skills and financial literacy. Manufacturing employers also look for ways to encourage innovation and efficiency in an entrepreneurial setting. KCKCC will offer FLEET training to approximately 1000 Technical Education Center (TEC) students in the next 3 years as part of our Training for Employment (T4E) program. The FLEET program is being launched in increments throughout Fall 2013 and this financial support filled an immediate need to develop curriculum for the first cohort of students

Outcomes

- Financial Literacy (the "FL" in "Fleet") and the Entrepreneurship (the "E" in "FLEET") was developed.
- The process of putting the curriculum online was started.
- KCKCC was asked to do two workshops for 90 plus students which would be focused on our FLEET curriculum.

Sustainability

- FLEET curriculum developed during this grant will be used in countless trainings, seminars, and events for years to come.

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Project Objective	Funding Agency	Resource and Inputs	Activity	Activity Output	Program Outcome	Quarterly Progress Report (based on outcomes)
Work with MCC and JCCC to align workforce development training with one another's programs and universities to customize training leading to credentials in advanced manufacturing and IT.	EDA	EDA Grant Funds Wal-Mart Foundation Grant MCC & JCCC In-Kind	Develop stackable credentials in advanced manufacturing and information technology to spur business creation and growth in use of robotics and mobile applications in advanced manufacturing processes. This curriculum development and new credential will create new career pathways for disadvantaged and dislocated workers.	MCC will create a stackable credential in export logistics and management to enable small and medium-sized businesses to gain expertise to enter the export marketplace. Sector Partnership Taskforce will connect career pathways for advanced manufacturing and IT with area high schools' programs through PREP-KC and partners	Minimum of 50 students enrolling in the new community college programs	57 students were enrolled in MCC's Computer Integrated Machining & Manufacturing (CIMM) program in. MCC and JCCC meet to develop an affiliate agreement to align the programs. The CIMM certificate is the first credential in a stack that will articulate through an associate's degree to a bachelor's degree at UCM.
MCC will establish a credentialed training program for advanced soldering in a new training facility established to support a large new Honeywell manufacturing plant. The EDA funds will support the curriculum development and provide certification for the teachers to	EDA	EDA funds through MARC CSC to MCC and MCC in-kind support	Develop credentialed program for soldering.	MCC will become a regional authorized IPC training and certification center.	MCC will track the number of persons trained from 1/1/13 through 9/30/13.	Personnel training required for IPC certification was completed and 18 individuals, from two companies were training in the added IPC 610 standard. In addition 335 were trained in J-Standard soldering.

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provide the training.						
Work with Metropolitan Community College to identify and provide technical assistance to small advanced manufacturing companies. The technical assistance will be focused on improving operational efficiencies, which would allow for expansion and the hiring of additional employees.	EDA	EDA Grant Funds	Work with Metropolitan Community College to identify and provide technical assistance to small advanced manufacturing companies. The technical assistance will be focused on improving operational efficiencies, which would allow for expansion and the hiring of additional employees.	EDA	EDA Grant Funds	Assessments have been completed and final reports presented to four companies; two companies withdrew from the process.