

Request for COVID Relief Dollars for a Manufacturing Institute

Jackson County

Need

The Kansas City region continues to offer many opportunities for economic and workforce development. According to “Talent for Tomorrow Kansas City Regional Meeting” materials, “the Kansas City Region is expected to have nearly 50,000 total job openings between 2014 and 2024, including openings created by new job growth and the need for replacement workers” [based on MERIC Occupational Projections 2014-2024]. By 2027, 73% of jobs in Kansas City will require a postsecondary credential or degree [Education Asset Inventory for Greater Kansas City October 2017]. Construction, Manufacturing, Utilities, and Transportation & Warehousing comprise 18.6% of Kansas City’s industry sectors. Kansas City occupations typically needing a 2-year degree or certificate are expected to grow .9% per year [JobsEQ Economic Overview Kansas City MSA September 15, 2019]. According to the Economic Overview of the Kansas City Metropolitan Statistical Area (MSA), a demographic profile of Educational Attainment for ages 25-64 shows 54.4% of the population is represented as having “No High School Diploma” through “Some College/No Degree”. The formation of the Advanced Manufacturing Institute responds to regional needs by providing communities access to increased educational attainment and economic and workforce opportunity.

The Need During and Post-COVID19

The COVID19 crisis has created a huge demand disruption for items critical to fight the COVID pandemic. Demand priorities in product portfolios have changed drastically. We see three key scenarios affecting manufacturing assets:

- Manufacturers are shifting to address opportunities for hypergrowth (e.g., canned, shelf stable and frozen goods, respirators, personal protective equipment).
- Manufacturers are transitioning and repurposing legacy lines to make new products to support the community (e.g., distillers producing hand sanitizers, automakers producing ventilators).
- Where demand has drastically fallen off or supply chains have been disrupted, manufacturers which haven’t yet adapted are slowing or shutting down production volumes.

The COVID19 pandemic has caused a major disruption to the manufacturing pipeline that was already struggling. Now the manufacturing industry will have to reinvent itself with more automated equipment and training (Forbes, June, 2020). The Advanced Manufacturing Institute (AMI) at MCC will include the latest cloud-based technology and automated machinery to support the new normal in manufacturing thus expanding capacity in response to the rapidly changing landscape as Kansas City rebuilds its economic development and workforce needs post-COVID.

Solution

Metropolitan Community College is forging an innovative path forward with the Advanced Manufacturing Institute. It has been determined via a program study and a facilities analysis that the MCC Business and Technology (MCC BT) campus that houses the career and technical (CTE) programs is no longer a viable option for a Manufacturing Institute for a variety of reasons. The cost to renovate and bring the facility up to code is cost-prohibitive. Upon this discovery, MCC has begun implementing a plan to establish a state-of-the-art Manufacturing Institute by relocating some programs at the Business and Technology Campus to 2944 Troost Avenue (“Troost”) in Kansas City. This area is in an opportunity zone, an area that will benefit greatly from the educational and training opportunities which will be provided in the urban core.

Between FY 2013 and 2018, MCC posted 1,481 graduates (completers) with certificates or Associate of Applied Science degrees related to the manufacturing industry. Using this historical data and a conservative

growth of 20% each year, the Advanced Manufacturing Institute is expected to graduate 1,041 new completers with credit certificates or Associate of Applied Science degrees by year five, and a total of 3,097 new completers over five years (that number grows to 3,595 if we include the 2020 completers).

Outputs

	Baseline (2019)	2020	2021	2022	2023	2024
High School Diploma and AAS Degree	0	0	0	0	75	90
AAS Degree	99	99	99	119	143	171
Continuing Education	0	0	40	44	54	59
Manufacturing Certificates	2268	268	256	307	442	530
Apprenticeship Program	131	131	144	159	174	191
Annual Total	498	498	539	629	888	1041
Five-Year Total	3,595					

Labor Market Analysis and Connection to COVID19

Highlighted in the table below are the credentials needed in the Kansas City Region. These industries are those that support the development of parts for equipment in the healthcare industry, masks, and other PPE. Without the trained manufacturing workers, Kansas City will be further behind the curve in meeting the capacity needs post-COVID.

Credential (data for Kansas City Region)	Current Supply	Projected Demand	Gap		Annual Job Openings (data from MERIC)	Notes
Millwrights	238	243	5	2.10%	24	The average annual rate is a forecasted average employment growth rate based on retirement, transfers, demand, and new entries into the occupation. The negative number is highly indicative of the surge in retiree's over the next five years.
Welding, Cutters, Soldering, Brazing	922	929	7	.76%	36	
Mechanical Engineering Technicians	528	513	-15	-2.84%	36	
Engineering Technicians	685	722	37	5.4%	77	
Industrial Machinery Mech	812	835	23	2.83%	82	
Machinists	2545	2570	25	.98%	267	
Production Workers	801	794	-7	-.87%	86	
Computer-Controlled Machine Tool Operators	582	580	-2	-.34%	55	
Team Assemblers	7037	6732	-305	-4.33%	640	
Assemblers and Fabricators	1269	1208	-61	-4.81%	113	
Computer-Controlled Machine Tool Programmers	51	53	2	3.92%	7	

MERIC reports short term growth of 5.4% in the Kansas City area for Electrical and Electronics Engineering Technicians at an average wage of \$66,766, Computer-Controlled Machine Tool Programmers growth at

3.92% with an average wage of \$46,513, and Mechanical Engineers, growing at 4.98% with an average wage of \$87,414. An expected 236 annual job openings in Production/Operating workers, which for a median wage of \$60,688.

MCC has strong relationships with large manufacturers in the region through our apprenticeship and existing training programs. Their level of satisfaction with the partnership has led to expanding programs and piloting K12 to AAS programs. Currently, MCC is piloting a dual credit program that includes onsite training, internships, and a job at the end of the program.

Educating Kansas City's Workforce

Within the Metropolitan Community College (MCC) service area (Bates, Buchanan, Cass, Clay, Clinton, Jackson, Lafayette, Platte, and Ray Counties) and the State of Missouri, MCC works with industry partners through advisory committees, mentor programs, and curriculum development.

The April 2018 MCC “Analysis of the Economic Impact and Return on Investment of Education” reports that 96% of MCC students report staying in the Kansas City area after receiving their degree or certificate from MCC, another 1% settle outside the region, but in the state, and the remaining 3% settle outside the state.

According to the Kansas City Chamber's Economic Forecast Report, manufacturing is one of the top 10 industries with 71,715 jobs in the region for the 1st quarter in 2018. According to the same report, manufacturing is also in the top 10 of the fastest growing industries in Kansas City. In addition to local data, according to the Talent for Tomorrow Report created by the Missouri Department of Economic and Workforce Development, employment in cross-sector manufacturing makes up 27% of the overall jobs in Missouri with expected job growth of 8.5%. In Missouri, there are 827,280 jobs in manufacturing.

MERIC reports out of the top 10 fastest growing occupations in Missouri, Millwright jobs will increase by 26.62% with an average annual wage of \$51,309, Computer-Controlled Machine Tool Operators will grow 25.16% at \$37,387, and Industrial Machinery Mechanics by 17.9% at an average annual wage of \$50,916. **In the Kansas City region, manufacturing is 17% of the job market and earning 17.8% of total income.**

Employee/Partner Commitment

Metropolitan Community College has a strong and long-standing reputation in the community. Given our new direction with a strategic focus on workforce, more specifically, aligning our workforce programs with industries in the Kansas City region, there is overwhelming support for this concept.

Employer/Partner	General Support	Financial Support	Input into Curriculum	Provide Work-Based Learning Opportunities
KC SmartPort	X	X	X	X
Kansas City School District	X		X	X
City of Kansas City	X		X	X
MARC	X		X	X
KC Development Council	X		X	X
LMV Automotive Systems	X	X	X	X

Builders Association	X	X	X	X
JE Dunn	X	X	X	X

Alignment with Strategic Planning

This project aligns with MCC, local, and statewide strategic plans for economic and workforce development. In the MCC strategic plan, MCC on the MOVE, five anchors frame the strategic plan: Student Success; Equity Diversity, and Inclusion; Resource Development and Alignment; Culture and Environment; Structure and Processes. The Advanced Manufacturing Institute at the proposed location aligns with the MCC Strategic Plan in the following ways:

Student Success

Goal: Metropolitan Community College will make data-informed decisions that maximize student success and support excellence in innovation, teaching, learning, and student-centered support services for all learners at every stage of their lives.

Objectives Addressed

1. Implement pathways designed to promote student retention, progress, and completion
2. Create credit and non-credit programs that align with industries in the Kansas City region
3. Close the achievement gap for underrepresented students through the intentional use of data and metrics to create robust support mechanisms and programs for students
4. Identify and remove institutional barriers to student completion
5. Identify strategies to increase job placement and transfer opportunities for students

Equity, Diversity, and Inclusion

Goal: Metropolitan Community College recognizes our obligation to work toward equity and inclusion and to embody the values of access and excellence.

Objectives Addressed

1. Increase equity in student success throughout the student life cycle using targeted approaches to bridge achievement gaps for underrepresented student populations
2. Continue to develop an institutional infrastructure to promote diversity, inclusion, and equity for students, employees, and community stakeholders.

Resource Development and Alignment

Goal: Metropolitan Community College will increase our ability to sustain and meet current and future institutional priorities while maintaining our accountability to our stakeholders by ensuring sound financial practices through aligning budget and resources with the Strategic Plan.

Objective Addressed: Increase revenue through alternative resource opportunities.

This proposal also aligns with the local strategic vision captured through the Mid-America Regional Council work in the City:

Goal: Workforce Development Priorities

Objectives Addressed

1. Create clear entry points and career pathways for non-degreed workers.
2. Support a regional, community-engaged effort to redesign high school so that students graduate

with market-value assets such as college credit, industry recognized credentials, and career and entrepreneurial experiences.

3. Expand experiential learning opportunities, inside and outside of the classroom, to provide maximum exposure and align expectations.
4. Develop a college-attraction program to identify promising STEM students in high school and connect them to area colleges and further experiential learning and civic opportunities
5. Implement bridge programs at higher education institutions across the region to connect promising high school students with peer mentors, faculty and opportunities to earn college credit.

Finally, this proposal aligns with the State’s strategic vision as captured in the Missouri Department of Higher Education – Preparing Missourians to Succeed: BluePrint for Higher Education and through the Missouri Chamber of Commerce and Industry “Workforce 2030: A Call to Action” initiative to improve worker skills.

Goal: Optimize existing training programs and find innovative solutions to address gaps and to improve educational attainment in Missouri.

Goals addressed in this plan

Increase Educational Attainment: Missouri will increase the proportion of working-age adults with high quality, affordable postsecondary credentials to 60 percent by 2025.

Strategies to Improve Attainment addressed in this proposal:

1. Raise the postsecondary education participation rates of traditional students.
Increase collaboration among higher-education institutions and high schools to help students begin planning earlier for college and careers, with assistance from the state departments of higher education and elementary and secondary education. Moreover, this project has goals to maximize business engagement and focus on improving worker skills.

Serving the Underserved in Kansas City

Metropolitan Community College serves a diverse student population that tend to be the underserved.

Hispanic or Latino, American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, or two of more races	36.15%
Eligible to receive Pell Grants	37.94%
From rural Missouri counties, as defined in the Missouri Department of Health and Senior Services' Health in Rural Missouri report	3.63%

Project Plan

Activ ity	Milest one	Timing
Secure new location in the inner city urban core of Kansas City	Execute purchase of Troost property	Completed
Establish design and transition teams	<ol style="list-style-type: none"> 1. Secure industry partners 2. Identify transition team members 3. Establish weekly meeting schedule 	Completed
Architect firm and general contractor will be identified, and a contract executed	Solicit Request for Proposal (RFP) for an architects firm and general contractor.	Completed
<p>Planning & Design: The architects will gather data from all the stakeholders, including MCC leadership, staff, and instructors. The design team will also engage and solicit area manufacturing industry partners, including the Mid America Regional Council. The team will design a state of the art facility. This facility will include the latest innovations in instruction and manufacturing.</p>	<ol style="list-style-type: none"> 1. Utilize purchasing/bid process to secure an architects for planning and design. 2. Establish bi-weekly meeting schedule 3. Begin capital campaign 4. Research and identify best practices for the manufacturing institute design 5. Review designs and make revisions 6. Select a design for the advanced manufacturing institute 	Completed
Teach - out planning	<ol style="list-style-type: none"> 1. Request board approval for relocating programs to Troost. 2. Make a substantive change request to HLC. 3. Make notification to the Department of Education (DOE) 4. Make notifications/requests to the Missouri Department of Higher Education (MDHE). 	May 2020-December 2020
<p>Renovation & Construction: Set a realistic build-out using 15 months as a target time frame. Design a flow of renovation and construction that will not interrupt the flow of classes or student engagement.</p>	<ol style="list-style-type: none"> 1. Utilize purchasing/bid process to secure a construction company and general contractor. 2. Establish bi-weekly meeting schedule 3. Review layouts and make revisions 	May 2020 - August 2021

Relocation of equipment: Design the movement of equipment that will not interrupt the flow of MCC classes and courses or put an undue burden on the students.	<ol style="list-style-type: none"> 1. Utilize MCC's purchasing/bid process to secure moving companies 2. Establish bi-weekly meeting schedule 3. Develop teach-out plan 4. Review layouts and make revisions 5. Move usable equipment to Troost 6. Purchase equipment identified in the budget. 	May 2021
Marketing and informational campaign: Using MCC and industry partners' marketing and public affair departments, create an educational campaign targeted toward non-traditional students and the unique opportunity to succeed in non- traditional careers. Work with career program coordinators to remove real or perceived barriers for non-traditional student recruitment and enrollment and work with MCC and partners to ensure they have the tools to dispel any apprehension regarding non-traditional students and career pathways.	<ol style="list-style-type: none"> 1. Establish a marketing team with internal and external stakeholders. 2. Design a marketing and informational campaign to cover MCC's service area. 3. Create educational material targeting non-traditional students and the unique opportunity to succeed in non-traditional careers. 4. Work with MCC's career program coordinators to develop marketing and programming materials to remove real or perceived barriers for non-traditional student recruitment. 5. MCC's student advisors will work with area high school advisors to produce the tools necessary to promote to traditional and non-traditional students and career pathways. 	March - July 2021
Relocation: Implement the teach-out or transition of courses that will not interrupt the flow of MCC classes or put an undue burden on the student.	<ol style="list-style-type: none"> 1. The transitioning programs will develop and submit their teach-out and transition plans for approval. 2. Course schedule development transition plan as approved by Board, HLC, DOE, and MDHE is followed. 	May - August 2021

Opening Schedule: Classes begin in the new state-of-the-art manufacturing institute.	Conduct a walk through to ensure that the facility is ready.	July-August 2021
Project Evaluation	Develop evaluation material and solicit feedback from advisory panels, industry partners, program coordinators, and career education consortium for feedback.	December 2021

Our Ask

The total cost of the renovation and construction of the AMI is estimated at \$18M (we are still awaiting a Guaranteed Maximum Price [GMP]), excluding equipment. We are requesting \$7M for the renovation and construction of the AMI. The following is the planned cost breakdown for the construction and renovation phase of the project:

\$10M—Jackson County

\$3M—MCC Bonding Capacity

\$4M—MCC Foundation Capital Campaign

Granting our request will allow us to continue to prepare students, serve our community, and create opportunities for Kansas Citizens.