



FINAL REPORT

MISSOURI COMMUNITY COLLEGE ASSOCIATION
mcca

MEETING THE NEED



Missouri's manufacturing industry plays a pivotal role in the economic well-being of our state.

In 2014, the sector contributed over \$35 billion, or 12.5 percent of our gross state product. It supports 255,831 direct jobs or 11.4 percent of total employment in Missouri, and these jobs pay an average wage of \$55,091.

When we applied for the grant that would fund MoManufacturing-WINs, Missouri's manufacturers, like many of their peers across the country, were on the cusp of a workforce shortage. As manufacturers looked to regain momentum following the recession, experts estimated that manufacturers would not be able to fill as many as 600,000 jobs. In Missouri, this posed a real and tangible threat to the state's well-being.

In response, Missouri's community colleges banded together to form the MoManufacturingWINs consortium. With funding from the Department of Labor's Trade Adjustment Assistance Community College and Career Training program, we developed transformative solutions to meet the state's manufacturing training needs.

These innovations have sparked change at every institution in the consortium, change that would not have happened without our colleges working together toward a common goal.

The individual and collective successes of the consortium are highlighted in this report, but the effects of this initiative will be felt long into the future.

I hope you'll enjoy learning about these efforts as much as we've enjoyed taking part in the consortium's journey.

Sincerely,

A handwritten signature in black ink that reads "Rob Dixon". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Rob Dixon
President and CEO
Missouri Community College Association



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A WIN FOR THE STATE

In 2012, a consortium of nine of Missouri's community and technical colleges received \$14.9 million from the Department of Labor's Trade Adjustment Assistance Community College and Career Training program to meet the growing demand for manufacturing labor.

Since then, these nine colleges have made transformative changes to more than 40 programs, engaged more than 200 employers and helped 4,547 individuals improve their skills.

The MoManufacturingWINS initiative was built around four strategies that challenged both long-standing practices as well as the very culture of the consortium institutions.

Despite these challenges, the colleges forged ahead, adapting along the way to meet both student and employer needs.

The consortium's efforts over the last four years exceeded many of the target performance measures set in the initial grant application. MoManufacturingWINS has truly changed the lives of thousands of Missourians—more than anyone thought possible.

STRATEGIES

- 1 Build programs that meet industry needs**
- 2 Strengthen online and technology-enabled learning**
- 3 Enhance career pathway options for learners and workers**
- 4 Accelerate and improve certification and employment attainment**

8,873

industry-recognized awards and credentials received by program participants

4,547

participants enrolled, surpassing the grant target by 37%

3,295

participants completed their program of study, surpassing the grant target by 86%

3,033

completers are now employed, surpassing the grant target by 111%

9

colleges participated

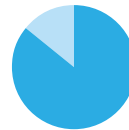
44

programs created or redesigned

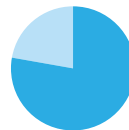
200+

employers engaged

WHO WE SERVED:



86% were either unemployed or under-employed at the start of the program



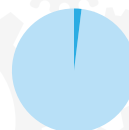
78% were academically low-skilled at the start of the program



54% were enrolling in college for the first time



12% of program participants were veterans



2% of program participants were Trade Adjustment Assistance eligible

\$56,000

the average annual wage secured by participants who completed their program of study

STRATEGIES TO SHIFT PARADIGMS



1. BUILD PROGRAMS THAT MEET INDUSTRY NEEDS

Employer engagement was built into the very DNA of the MoManufacturingWINS initiative. Every college built its courses around industry-recognized certifications, employer feedback and job market demand. In fact, one college quadrupled the size of its employer advisory council, and now college faculty and staff attend council meetings and incorporate feedback into the development of courses. At every college, partnerships with local employers were undeniably strengthened by the initiative and will sustain long after the grant is over.

2. STRENGTHEN ONLINE AND TECHNOLOGY-ENABLED LEARNING

Digital literacy is an absolute necessity in order to compete in today's job market—not to mention the benefits that online learning provides in the way of flexible, self-paced curriculum. To meet both of these needs, every college developed or redesigned programs to incorporate web-based resources. Through the grant, many colleges were able to purchase and utilize new online simulation software. This proved to be both a challenge and a tremendous learning opportunity for students with less developed digital literacy skills.

3. ENHANCE CAREER PATHWAY OPTIONS FOR LEARNERS AND WORKERS

MoManufacturingWINS programs were structured so that participants could easily navigate course offerings and acquire the high-demand skills necessary for their desired career. Colleges achieved this outcome by utilizing stackable credentials and a career pathway model of credit and non-credit options, all tied to industry-recognized certifications. Through new articulation agreements with four-year universities, participants could take their education even further.



4. ACCELERATE AND IMPROVE CERTIFICATION AND EMPLOYMENT ATTAINMENT

One of the hallmarks of the MoWINS program from the very beginning has been its ability to recruit, train and help students find employment in the most efficient way possible. This means awarding credit for prior learning, providing concurrent technical and academic courses, intrusive student support and flexible, modularized schedules. These techniques are designed to get the student trained and back in the workforce as soon as possible, limiting the strain on the students financial well-being.

EMPLOYER PARTNERS

3M
ABB
Abel Machine, LLC
Accessible Technologies
Ace Manufacturing
Aerofil
All Purpose Construction
Alphapointe
Alpla, Inc.
Ambassador
American Air Filter
American Iron
Arrow Material Handling Products
Aspen Products
ATK (Alliant Tech Systems)
ATK Small Caliber Systems
Austin Machine
Baader Johnson
Baader Linco
Bachman Machine Co.
Bass Pro Shops
Bennett Packaging
Best Tech
Best Tool & Manufacturing
Black Jack Tire Supplies
Boeing
Botkin Lumber
Brogdon Machine
Brown-Covey, Inc.
Brunson Instrument Co.
Burger & Brown Engineering
Capital Express
Carboline
Central States Industrial
Centralized Showing Services
Centranz Inc.
Certain Teed Corporation
Ceva Logistics
Challenge Manufacturing
Civacon
CL Smith
Clay & Bailey
Clemco Industries
CLR Logistics
CMC Letco Industries
CNH Reman
Component Bar Products, LLC
Comprehensive Logistics
Computech Manufacturing Co. Inc.
Continental Tool
Corbitt Manufacturing
CoxHealth
Creative Blow Mold Tooling
Custom Metalcraft
Custom Manufacturing & Polishing
Custom Truck & Equipment
CVS Pharmacy
Deutsche Precision/Hydrumat
DioDes FabTech
Dohman Life Sciences
Dollins Tool, Inc.
Donaldson Co., Inc.
Duke Manufacturing
Emerson
Enduro Binders
Esselte
Executive Coach Builders
Faurecia
FE Moran
FedEx Freight
Fike Corporation
Flowers Bakery
Ford Corporation
FormPak
G.H. Tool & Mold
Gardner Denver
General Motors-Wentzville
GKN Aerospace
Grainger
Gray Manufacturing
Great Western Manufacturing
Haldex
HallMark Underground Warehouse
Harley Davidson
Havco Wood
Heartland Fabrication and Machine
Hellebusch Tool & Die
Hogan Truck Leasing
Holcim Cement
Home Depot
Homeyer Precision
HP Pelzer Automotive Systems
Huhtamaki
Independence Missouri School District
Industrial Spring Corp.
Industrial Steel Fabricators
JE Dunn Construction
Jet MidWest
John Deere Reman
Johnson Controls
Josh Heinrich
Kansas City Missouri School District
Kaufman Stadium
KC Machine
Kocher+Beck
Kraft Foods
K-Ter Imagineering, Inc.
Lafayette Industries, Inc.
Liberty Fruit Company
Machine Labs
Martinrea
May Technology & Manufacturing
MeadWestvaco-Calmar
Mercy
Microtool, Inc.
Mid-America Fittings, Inc.
Milwaukee Tool
Mississippi Lime
Modine Manufacturing
Mondi
Montgomery Tool
Multi-Craft Contractors, Inc.
Murphys Logistics
National Aluminum & Brass Foundry
National Cart
Natoli Engineering
Nebraska Furniture
Nike
North Star Battery
O'Fallon Casting
Overland Park Mazda
Ozburn-Hessey Logistics
Packaging Concepts
Parker Hannifin
PAS Technologies
Patriot Machine Co.
Patterson Mold
Paul Mueller
Paulo Manufacturing
Peppers Pool & Spa
PepsiCo.
Permian Plastics
Piramal Glass
Piston Automotive
Porta King
Pratt Industries
Precision Prototyping
Press Room Equipment Co.
Pride Manufacturing
Probitas Manufacturing Technologies
Pro-Con
ProEnergy
Prologistics
ProPack
PSI Engineering & Consulting
Quest
Quest Specialty Products
QuikTrip Distribution Center
R&D/Leverage
R&L Carriers
Rawlings Sporting Goods
Reckitt Benckiser
Reed Lumber Co.
Royal Machine
Rubbermaid
Schaefer Electric
Schrieber Foods Inc.
Schwoeppi
Seese Machine
Sega Engineering & Technical Services
Shick USA
Shure Manufacturing Corp.
Siesco Valley Screw Products
Silver Dollar City
Sonoco Plastics
SOR, Inc.
Sporting KC
Sprint Tech Warehouse
SRC
SRC Electrical
SRG Global
Stahl Specialty
Staples, Inc.
Strococo
Sunnen Products Co.
Superior Processes Solutions
Sysco Kansas City, Inc.
Tagg Logistics
Tank Components Inc.
TCI
TG USA
The Gund Company
The Toolroom, Inc.
Titanova Inc.
Toys R Us
Triumph Structures
True Manufacturing
True Value Nuts & Bolts
U.S. Foods
U.S. Silica
U.S. TOOL
Ultrasource
United Health Insurance
United Stationery
Universal Galvanizing
UPS
USPS
Valent Aerostructures
Van Am Tool & Engineering
Vanrob GM
Vector Tool & Engineering
Versa Tech
Vi-Jon
Vince & Associates
Vista Manufacturing Company
Wainwright Industries
Wainwright, a division of Modineer
Waldo Thrift Store
Walmart
Washington Metal Fabricators
WB Industries
Wonder Bread
Wunderlich
XPO Logistics
Yanfeng Automotive Interiors
Yarborough's Machine Company
Zephyr Products
Ziglin Signs
Zoltek

LESSONS LEARNED

MoManufacturingWINS provided the resources for consortium colleges to test innovations that otherwise would not have been possible. There were many challenges tackled and lessons learned. Below is a condensed summary of these takeaways as identified by the internal evaluators for MoManufacturingWINS, Cosgrove and Associates and third party evaluators Bragg and Associates. John and Maggie Cosgrove, Deborah Bragg and their teams undertook a tremendous effort, gathering faculty, staff, student and partner experiences and feedback. Their work has been invaluable in telling the MoWINS story.



NEW ROLES FOR FACULTY

Several colleges came to see the value of involving instructors in the intrusive student support process. Some colleges used a team approach to regularly monitor student progress and provide needed support. This ranged from sending weekly emails to students, continuously checking certification bodies for student resources and leveraging industry experience and integrating it into program curriculum.

STUDENT SUPPORT: FROM ENROLLMENT TO EMPLOYMENT

Colleges continuously explored a wide variety of advising and coaching activities. During this exploration, they discovered that advising, career coaching, and student support are most useful when such services are applied continuously throughout a student's experience from recruitment to program completion and onto employment. The intrusive support services provided further confirmed the value and importance of a personal relationship between the student and the advisor/coach.

THE CHALLENGE OF RECRUITMENT

One lesson for the colleges involved the challenge of recruiting to manufacturing-related

programs and the public misconceptions concerning manufacturing careers. When the volume of unemployed traffic at career centers diminished, several colleges focused on training incumbent workers, while others recruited from high schools. Colleges learned that recruitment activities and materials needed to stress the value and economic return on employment in the manufacturing sector. Colleges found the benefit of using labor market information and real time labor market summaries.

THE NEED FOR ADDITIONAL SUPPORT IN ACCELERATED COURSES AND PROGRAMS

Although students appreciated accelerated programs, colleges learned that student success in such programs depended on the complexity of the curriculum as well as the student's academic readiness and life situation. Moving through a challenging curriculum at a quick pace is not an easy task. The role of increased instructional support services in an accelerated curriculum should not be understated.

THE VALUE OF STACKABLE CREDENTIALS

Employers' willingness to embrace industry credentials varied across the consortium, and at times, colleges had to educate employers on the value of industry-recognized certifications. They

subsequently learned how to balance employers' need for employees with desired competencies with their unwillingness to specify credentials as a job requirement. For example, several colleges found employers generally unaware of the Certified Production Technician certification although the employers said they needed employees with the skills encompassed by the certification.

HELPING STUDENTS OVERCOME CHALLENGES OUTSIDE THE CLASSROOM

Colleges recognized that the academic, economic, social, and personal barriers faced by the target population often threaten attendance, commitment, and completion. Participants' struggles with time management, college-level coursework and math drove the colleges to experiment with a variety of solutions. In many cases, colleges worked with students to identify and address potential barriers to success prior to even enrolling the student. For example, both urban and rural colleges learned that transportation can be an insurmountable hurdle for students. Colleges addressed this issue with offsite classrooms, online/hybrid curriculum and bus passes provided by social service partners.

IMPLEMENTING AN ALTERNATIVE DEVELOPMENTAL EDUCATION APPROACH

Colleges came to understand the importance of getting students ready for programs but approached this in varied ways. Examples included workshops on college success and math and establishing a minimum math level, coupled with in-class tutors. For one college, having math tutors physically in the classroom was so successful that the approach is being scaled and sustained without grant funding.

CONNECTING CURRICULUM TO EMPLOYERS AND STUDENTS

Across the Consortium, colleges saw the connection between students' digital literacy skills and their success. As a result, several colleges developed digital literacy assessments and courses. Colleges also learned that online,

self-paced training requires study skills and discipline and thus offered additional support for students. This ranged from two-week foundational skills courses to workshops to tutor students on basic computer navigation, email accounts, learning management systems, and online course requirements. Colleges learned to improve graduates' employability with curriculum in resume writing, job-seeking, and interview skills delivered by faculty, advisors, and/or employers. Colleges also learned the value of open educational resources (OER) and used this resource to develop and enhance curriculum.

COMMUNICATION IS KEY TO BUILDING PARTNERSHIPS

Colleges learned the value of communicating with employers and experimented with ways to engage employers in developing curriculum, connecting with students and hiring completers. One college used advisory committees as an avenue for employers to offer periodic feedback, while others asked employer partners to help design dynamic programs to meet immediate needs and maintain a regional dialogue of critical, basic manufacturing technical skills.

SOCIAL SERVICE AGENCY PARTNERS

Colleges learned the value of social service agencies for recruiting and providing non-academic support for students. Throughout the course of the grant, colleges continued to seek out new social service agencies as partners.

WORKFORCE PARTNERS

Several colleges developed new ways to leverage the services of their local Workforce Investment Boards, Career Centers and Chambers of Commerce. The majority of the colleges reported improvements in their WIB partnerships as the grant moved from initial to mature implementation. Ongoing communication as well as one-on-one personal relationships were reported as critical to the development of a successful partnership. In addition, colleges also reported significant value in hiring staff with previous WIB experience to serve as student support staff and career coaches.



EAST CENTRAL COLLEGE

INDUSTRY PARTNER MAKES WELDING PROGRAM A REALITY

Thanks to one of Franklin County's largest manufacturers, East Central College was able to use their MoManufacturingWINS funds to address the growing demand for welders.

Based in Washington, Missouri, Clemco Industries has a long-standing relationship with East Central College, which was strengthened when Clemco leaders donated floor space inside their facility to East Central's Center for Workforce Development.

Since February 2015, the company has housed six welders that are used in an 8-week Introduction to MIG Welding program that was funded by MoManufacturingWINS.

"Our most significant accomplishment was the launch of Intro to MIG Welding," Tammy Stowe, East Central's Grant Specialist said. "It

was instantly filled and had a waiting list. Employers were ecstatic that we were finally providing the training they had been asking for."

The program was created based on direct discussion with area employers who stressed the increasing need for skilled welders.

"It seems that employers are contacting the college on a more regular basis regarding training opportunities for their existing employees, as well as when an employer needs positions filled within the company," Stowe said.

This happened to a lesser degree before the grant, but soliciting employer feedback and actually implementing that feedback into programming seems to have reinforced employers' faith that East Central is working to provide a pipeline of workers that have the necessary skills.

"East Central has become a valued partner in so many aspects of our business and this program is just one more example of how ECC has worked hard to connect with the needs of local manufacturers," Arnie Sallaberry, President of Clemco Industries, said.

East Central continues to work with Clemco Industries, and as long as there is demand and Clemco is willing to remain a training location, the college plans to sustain this program model.



276

participants

136

completed
their program

91

completers now
employed

PROGRAMS OFFERED:

Portal Program: WorkKeys/NCRC+, Digital Literacy (DL), COMPASS®
Certified Logistics Technician
Certified Production Technician
Precision Machining Technology
Welding Technology

LOREN KEPHART

Loren Kephart found his passion and a career in manufacturing when he started at Rabco Products in Washington, Missouri.

The company was rolling out a new phase of operations to manufacture auto parts, and saw Kephart as the person to lead the project. The company believed in him and the precision machining program at East Central College.

“I’m a success story that ECC offers on CNCs,” Kephart said, “and what I consider to be a vital part of the company because they do rely on me for the product that we’re producing.”

Participating in the MoManufacturingWINS program has made a big difference in Kephart’s career and in his life.

“East Central instructors helped me be more focused in my job,” Kephart said. “They helped me be more confident in my work, and the critical thinking that I learned has helped me be a better person in my life and with my family.”



METROPOLITAN COMMUNITY COLLEGE

METROPOLITAN QUADRUPLES MACHINIST PARTNERSHIPS

As part of their MoManufacturingWINs program, Metropolitan Community College brought together 48 Kansas City-area employers to address the dire need for trained machinists. This is up from an advisory board of just 12 employers prior to the grant.

The MCC Kansas City Manufacturing Consortium formed in association with MCC's new Computer-Integrated Machining and Manufacturing (CIMM) program. As consortium partners, the companies have helped with curriculum development for the program and are providing paid internships to students.

"We believe that the most significant accomplishments during the grant were a result of our CIMM Internship program," Nancy Russell, MCC's Executive Director for Workforce Development said. "The program has had a successful hiring rate, and is a strategy that is being maintained."

The CIMM program is an accelerated 16-week program. The first 10 weeks consist of classroom instruction and skills development and the final six weeks consist of a company-paid internship in the production facility of a Consortium partner.

The CIMM program coordinator visits all Consortium company sites during the internship period to get feedback from students and assigned company mentors. The coordinator can make adjustments to maximize the value of the internship to both the student and the company.

666

participants

514

completed
their program

422

completers now
employed



**You create your own luck,
and I put myself in a position
to capitalize on that luck.
MCC was a part of that.**

Joe Limata

Program Participant



PROGRAMS OFFERED:

Warehousing & Logistics Associate
Industrial Maintenance Technician
Basic Industrial Welding
Basic Machining
Credit Welding
Computer Integrated Machining &
Manufacturing



ANNA SPRINGER

Anna Springer completed the Computer Integrated Machining and Manufacturing certificate program at MCC, which is how she got a job with global packaging organization WestRock Co.

“When I first came to this school, I had been laid off by my former employer. He told us about all of these grants. I went down to the unemployment office and they pointed me in this direction,” Springer said.

Springer was nominated by her employer and former instructors to meet the U.S. Sec-

retary of Labor, Thomas Perez, when he visited the Business & Technology campus to talk about the grants. Springer participated in a roundtable discussion with Perez, students, graduates and other officials to talk about the results of the grants.

“I got into the CIMM program and through the grant I was able to get my certificate,” Springer said. “Through the internship I was able to work with WestRock. We liked each other so much they went ahead and hired me.”



141

participants

44

completed
their program

40

completers now
employed

PROGRAMS OFFERED:

- Certified Production Technician
- Certified Logistics Technician
- Pneumatic Technician
- Industrial Hydraulic Mechanic
- Certified Manufacturing Technician

MINERAL AREA COLLEGE



“I wanted that job and I got it, and I’m sure—I know this program helped.”

**Mark Keltz
Certified Logistics Technician**

After he got laid off, Mark Keltz came back to the Midwest and saw a commercial for Mineral Area College.

In talking with college staff they introduced him to the Certified Logistics Technician program.

When he came to the program, Mark had some experience in the logistics field; however, many aspects of the program, like the technology skills class, were new to him.

After completing the program, Mark went on to work for Crown Valley as a driver in their warehouse, and he is pursuing a bachelor’s program in logistics.

“MoManWINs was the catalyst for all of this,” Mark said.

A father of four, Mark hopes that his children will see his accomplishments and know that they too can succeed in college.

“Hopefully they do it sooner than I did,” Mark said.

STRONG PARTNERS MAKE A STRONG PROGRAM

At Mineral Area College, a strong partner network made all the difference when it came to the success of the college’s MoManufacturing-WINs program.

By partnering with the Southeast Missouri Workforce Investment Board, the college not only increased referrals, but also helped participants access useful support services. The Job Center presented on resume writing, job seeking and interview skills.

Beyond their partnership with local workforce entities, Mineral Area College also strengthened its ties to area employers.

“Employer partners were crucial to the suc-

cess of the grant,” Bev Hickam, Workforce Development Director at the college said.

Employers encouraged incumbent workers to participate in three Work Keys Occupational profiles—production, maintenance, quality and logistics—which drove curriculum development.

“Employers came to view the programs as a pipeline for qualified job applicants and continuously sent job openings to grant staff for distribution to program participants,” Hickam said.

The partnerships that were developed as a result of the MoManufacturingWINs program have sustained and will continue to benefit future students at Mineral Area College.

NORTH CENTRAL

“ **When students say this isn’t enough for me—I want more education, that’s an awesome day.**

**Sue Quinn, Recruitment and Retention Specialist
North Central Missouri College** ”



When Karen Zorn lost her manufacturing job of 13 years, she wasn’t quite sure

KAREN ZORN

what was next for her future.

During a visit to the Chillicothe Career Center, she was referred to the MoManufacturingWINS program at North Central Missouri College.

Karen was hesitant to take time out in order to go back to school to enhance her skills but she was attracted to the MoManufacturingWINS program, particularly the individualized attention.

“I took advantage of everything offered – the workshops, tutoring, scholarships, supportive services – everything I could to make it work,” Karen said.

Just before successfully completing the Manufacturing Skills certificate program, Karen began her new manufacturing career with Modine Manufacturing Company in Trenton.

MISSOURI COLLEGE

GRANT SPARKS NEW PROGRAM AT NCMC

MoManufacturingWINs served as the spark that formalized the Industrial Technology program at North Central Missouri College.

Through the grant, NCMC created three new short-term accelerated technical programs.

“Accelerated, modularized and technology-enabled courses were new for our technical programs,” Jason Helton, North Central’s Director of Corporate and Business Relations said. “Mo-ManufacturingWINs demonstrated that these models can be successful.”

Many campus departments, including financial aid, registrar, student services and others played an important role in making the accelerated courses successful. A number of policies and procedures had to be adapted, but by the end of the grant effort, the college demonstrat-



ed the value of these courses and how they fit student and employer needs.

“There seems to be a sense now across campus that modularized courses can fit and play an important role in other degree programs,” Jason said. “Some departments are already moving in that direction.”

According to Jason, embedded industry-recognized credentials also added credibility to the programs—another element that is being sustained and replicated in the college’s career and technical education programs.

94

participants

46

completed their program

43

completers now employed

PROGRAMS OFFERED:

Industrial Maintenance Skills
Manufacturing Skills
Welding Skills



OZARKS TECHNICAL COMMUNITY COLLEGE

INDUSTRY ADVICE BRINGS NEW FOCUS

Ozarks Technical Community College has used a version of sector analysis and partnerships for years. These efforts were only strengthened by MoManufacturingWINs.

All of the college's degree programs are designed to produce work-ready individuals, and each program has an advisory committee composed of industry personnel.

"The MoManufacturingWINs grant allowed us to improve this model by becoming even more specific," Cindy Stephens, Director of Technical Innovation said.

For example, through MoWINs discussions with employers, the college was able to identify a specific need for stainless steel welders.

"We have a welding program, but the needs

of the local stainless steel industry went beyond our traditional offerings," Cindy said.

Even though this was not part of the grant, OTC worked with industry to obtain donated materials and equipment. The college also involved additional partners for a recruitment video to increase awareness about the opportunities that exist within the stainless steel sub-industry.

In the end, additional courses were added, companies are happy, and students are gaining the skills they need.

Another example of industry driven innovation was the implementation of drug screening in the 20-week welding program.

"We learned from our employers that every welding hiring process includes a drug test," Cindy said. "It makes little sense to spend grant money training someone if they won't be employable."

Previously the college had never dismissed anyone because of drugs, but following the implementation of the screening program retention rose by approximately 10 percent.

162

participants

138

completed
their program

123

completers now
employed

“It was a complete 180 degree turnaround in my pride and confidence after earning the certificate.”

Tim Noel

Program Participant”

PROGRAMS OFFERED:

Accelerated Machine Tool
Accelerated Industrial Maintenance
20-Week Welding
Non-Credit Welding



TIM NOEL

When Tim Noel found himself bouncing from part-time job to part-time job, it was his mother and the MoManufacturingWINS program at Ozarks Technical Community College that changed his life.

As his frustration in being unable to find full-time work grew, his mother, Rebecca Noel, an accounting clerk in the Technical Education Division at OTC, told her son about the MoManufacturingWins program.

“I had done jobs here and there and finally, I called my mom up and said, ‘I can’t keep this up. I can’t support a family like this.’ I had a fiancé. My mom told me about the program and kept me posted,” Tim said.

Tim went into machine manufacturing de-

spite not having any experience with heavy machinery, although he had a background in carpentry.

“The program was amazing. The instructors had so much knowledge to share. I was scared to death of the math, but the instructors broke it down and talked us through it,” said Noel.

After completing the 17-week course to receive his certificate in Machine Tool Technology, Tim began working full-time at Clay & Bailey Manufacturing in Kansas City, where he operates lathe equipment.

“It was a complete 180 degree turnaround in my pride and confidence after earning the certificate,” Tim said. “I came away with the confidence, skills and knowledge to walk in somewhere and say that this is what I can do. I’m here if you want me. No more nervousness. I stand just as good a chance as anyone now to get a job.”

585

participants

256

completed
their program

236

completers now
employed

PROGRAMS OFFERED:

Machinist Level I Skills Certificate
Machinist Level II Skills Certificate
Total Productive Maintenance Professional Certificate
Certified Production Technician Skills Certificate
Pipe Welding Skills Certificate
Structural Welding Certificate

COLLEGE SCALES ADVISING INNOVATION

Building upon the success of intrusive advising in Mo-ManufacturingWINS and MoHealthWINS, State Fair Community College decided to scale their navigator program system-wide.

Each SFCC student is assigned an advisor or navigator, who then works one-on-one with the student on everything from what courses to take to financial aid.

Since implementation in 2014, fall-to-fall retention of first-time, full-time students increased from 59 percent to 63 percent. Retention also increased for part-time students from 28 percent to 31 percent. The number of students completing increased from 767 in 2014-2015 to 806 in 2015-2016. The navigators also played a role in reducing the amount of student loans by more than \$100,000 from the previous year, which means more students will have less debt at the end of their educational journey.

“We are energized by the positive impact the navigator program is having on our technical and transfer students,” said Dr. Joanna Anderson, SFCC president. “Participating in the MoHealthWINS and MoManufacturingWINS programs has been valuable to our students and the communities that we serve. This has been an exciting change on our campuses, and we are definitely better equipped to help more students achieve their goals.”



ROBIN EVERS

It's not every day that you turn 50 and decide to become a welder, but that's what Robin Evers did.

"When I went home and told my husband, he just looked at me like, 'Seriously?' He knew I could do it, but was surprised I wanted to do it professionally," Evers said.

She and her husband were living at Lake of the Ozarks at the time. Both had worked on a farm, built houses and done the occasional construction job, but Robin's professional background was in psychology.

For years, she had relied on her masters degree, but after being laid off she had to look at other options.

"I had a very good job," Evers said, "but that position ended. At Lake of the Ozarks, there weren't a lot of positions, and those that were out there went to younger people."

She spent some time teaching, but wasn't earning enough to make ends meet.

"When you're 50, it's hard to figure out what you're going to do," Evers said.

It was Evers' son that suggested she look into working nuclear plant shutdowns, and through one of her teaching positions she learned about the accelerated welding program at State Fair Community College.

"It was a great program," Evers said. "I was surprised that they would let a 50-year-old complete the program, but I was very grateful that they took that chance."

So with her new skills, Evers tours the country for three months out of the year doing welding for nuclear plants that have shut down for their annual maintenance. The rest of the year she teaches for Central Methodist University.

She and her husband look forward to the day when they can both retire to become snowbirds, spending their winters in Florida and their summers at the Lake of the Ozarks, which they will always call home.

MoMAN GIVES WELDING PROGRAM NEW LIFE

Before MoManufacturingWINs, State Fair Community College's welding program didn't even have a full-time faculty member, so there weren't any classes offered until 3 p.m.

With funding from the grant, the college was able to hire two new faculty, purchase new equipment and expand the capacity of the school's welding lab by 300 percent.

"MoManufacturingWINs was the catalyst that helped us get what we needed to increase enrollment three-fold," Mark Kelchner, State Fair

Community College's Dean of Technical Education & Workforce Innovation said.

To engage employers, State Fair offered college lab tours, set up meetings to gather input, and arranged internship opportunities with local employers. Since the changes were made, Pro-Energy, Johnson Controls and Sedalia Machine Works have all hired students from the program.

Based on its success, the college plans to sustain the accelerated welding program even after grant funds are no longer available.



STATE TECHNICAL COLLEGE

GRANT FUNDS NEW TRAINING FACILITY

State Technical College of Missouri in partnership with the Lewis and Clark Career Center created a non-credit innovative and accelerated Precision Machining program in St. Charles, Missouri.

What was once just an empty space is now a state of the art training program—thanks in large part to the MoManufacturingWINs grant. In addition to the new program, there were several lessons learned and best practices identified.

“The attainment of industry-recognized credentials in a non-credit class is a best practice for State Tech,” Nancy Wiley, Grant Program Manager for State Tech said.

Credentials the college traditionally award have been incorporated into associate degrees and certificate programs. With MoManufacturingWINs, State Tech was able to offer non-credit industry-recognized credentials to a wide variety of participants.

There was a total of 378 participants in Precision Machining and Introduction to Welding programs, 220 earned at least one industry recognized credential from their program of study and 118 went on to complete the program. The impact was evident, 340 participants either retained or obtained employment by earning a credential.

Grant participants were also given the opportunity to utilize credit for prior learning and see the associated benefits.

“Prior to the MoManufacturingWINs grant, credit for prior learning was not a focus,” Nancy said. “The grant has made it a spotlight – one that can be promoted in more departments across campus.”

378

participants

118

completed
their program

111

completers now
employed

PROGRAMS OFFERED:

Precision Machining
Introduction to Welding

“

This program was a restoration of faith that programs like these can work.

**Jeremiah Walton
Program Participant**”

JEREMIAH WALTON



Jeremiah Walton was working at LMI Aerospace doing sheet metal work on small parts when he heard about the MoManufacturingWINS program.

“I took the training, and the idea was to get into machining because Boeing is operated by the machinist union,” Jeremiah said.

Jeremiah enrolled in the Machine Tool course in the fall of 2014, and by January 2015, he had landed a job at Boeing.

“The skills I learned are critical to the job I have now, and were helpful to the job I was doing,” Jeremiah said.

Jeremiah said that the job layout, measurement, and properties of metal that were covered in the NIMs course directly relate to his current job, especially given the complexity of the materials he works with at Boeing.

“This program was a restoration of faith that programs like these can work,” Jeremiah said.



ST CHARLES COMMUNITY COLLEGE

NEW MANUFACTURING PROGRAM TAKES OFF

With the MoManufacturing grant award, St. Charles Community College was able to create three new programs, expanding the college's career and technical training programs in high-demand areas of the manufacturing industry.

"The MoManufacturingWINS grant brought a unique opportunity to the college," Amanda Sizemore the college's Dean of Corporate and Community Development said.

The college has had limited opportunities to offer manufacturing skills training and with the resources the grant provided, staff have worked to identify the workforce needs of local employers and sought input from agencies and groups looking to better position their clients for job and career options with these employers.

Thanks to MoManufacturingWINS, SCC Workforce Development now has pathways to bring workforce-ready individuals to area employers. Through the project, partnerships were formed with entities like Pike-Lincoln Technical Center, Connections to Success, and a local employer who has a large training center to provide more accessible options for prospective candidates to participate in the programs.

"We see these partnerships as an opportunity to collaborate to further develop and implement initiatives which will strengthen the workforce and the community we serve," Sizemore said.



SCC staff worked to align employer needs with related industry-recognized credentials.

"During this process it was critical to make sure employers are aware, not only of the credential to be earned, but the skills which can be developed within those credentials," Sizemore said.

To address this, SCC staff met with employers and used events like "Manufacturing Day" to showcase the different credentials and skills that the programs offered.

SCC provides brief summaries of the National Career Readiness Credential (NCRC) to help employers understand real world skills that the certificate represents and how those align to skills the employers need.

Employer engagement was key to the success of the MoManufacturingWINS program at St. Charles Community College. Employers know what they need, and SCC looks for opportunities to help address that need. Sizemore's team serves as the liaison between the college and the employer, ensuring successful outcomes.

TYLER KOESTER



ferred under the MoSTEMWINS grant. There he learned MIG, TIG and Flux-core welding. Upon completing this second course, Tyler's certification was upgraded to the AWS Level I Full, which secured him a job with National Cart Co., located in St. Charles, Missouri.

National Cart Co. is a leader in the design, manufacturing, and distribution of material handling products, food service products, and store fixtures.

"The graduates from SCC are some of the best entry-level welders we have seen," Heather Simmons, Senior Human Resource Generalist with National Cart said. "They have a great program."

Tyler has continued to prove himself at National Cart, employed for less than one year, he has been promoted twice and according to Heather, is helping to lead an important aluminum project for the company.

"If it weren't for the welding program at SCC, I don't know where I would be today," Tyler said. "I just bought my first house, my first truck, and have a baby on the way. Thank you, SCC."

Like many individuals who apply for the welding program at St. Charles Community College, Tyler Koester had no direction in life.

"I was working for a lawn care service," Tyler said. "It was a dead-end job, going nowhere."

With a basic understanding of welding, but no formal education in the field, he registered for the program offered at SCC through the MoManufacturingWINS grant.

Tyler found his passion in welding. A star student, he excelled in stick welding and completed all requirements easily, earning his American Welding Society (AWS) Level I partial certification. He continued his training by registering for the welding II course, of-

1965

participants

1862

completed their program

1794

completers now employed

If it weren't for the welding program at SCC, I don't know where I would be today.

**Tyler Koester
Program Participant**

PROGRAMS OFFERED:

Manufacturing Portal
Certified Production Technician
Welding

ADULT LEARNING ACADEMY THRIVES UNDER MoMANWINS

Enthusiastic cheers and applause resounded in the Adult Learning Academy (ALA) when Nicole Johnson passed a 16-week developmental math course in only a month's time.

Nicole had spent 20 years as a certified nurse's aid and was working toward a certificate in health information technology, when she became one of the first participants to complete St. Louis Community College's Adult Learning Academy.

Now, almost three years later, the program has helped hundreds of students get the one-on-one mentoring that they need to be ready not just for college, but for careers in healthcare and manufacturing.

The program was initially established under MoHealth-WINs, but has sustained with funding from MoManufacturing-WINs and now MoSTEMWINs.

Using the COMPASS® computerized test as a starting point, students in the ALA develop foundational reading, writing, and math skills and improve their ability to transfer skills from one context to another, think critically, and successfully transition to college coursework. Then, through a series of competency-based and portfolio-assessed learning experiences, students develop confidence in themselves as lifelong learners who can adapt to the changing demands of the workplace.

A single father raising five children passed pre-algebra in nine months, and previously had earned his GED through the academy, while two other students passed it in less than two weeks. They were among five celebrations in one day.

Successful completion of the ALA becomes the first step on a pathway to career opportunity and advancement, preparing students to better comprehend content and succeed in the subsequent courses. Unlike traditional developmental education, students move through the course at their own pace and are allowed to repeat lessons without penalty. Then, once a competency is mastered, students are not required to repeat lessons aligned to the same competency and skills.

The program has been so successful that the college has expanded it on its Florissant Valley campus with non-grant funded faculty.

ERIC LEWIS



Three years ago if you told Eric Lewis he would be working as a CNC operator at the Gund Company, he wouldn't have believed you.

"I really didn't have any direction before this program—like none whatsoever—and this program gave me a direction to go in," Eric said.

You can see Eric's passion for his new-found career in the way he lights up as he talks about his experiences in the program.

"I've got a career now. It's not just a job anymore," Eric said. "I look forward to it every day."

Eric had been living near St. Louis Community College's Florissant Valley campus and walked three miles to get to class every day. Now he works for the Gund Company, a local manufacturer that specializes in electrical insulation for power systems.

"This training gave me a career path and a chance to make something with my life," Eric said. "It completely changed everything for me."

585

participants

256

completed their program

236

completers now employed



MoManufacturingWINS not only increased our capacity to serve manufacturers in our region but also helped us acquaint hundreds of students with the opportunities that exist if they have the right skills.

Steve Long
Associate Vice Chancellor
Workforce Solutions
St. Louis Community College

PROGRAMS OFFERED:

Portal: WorkKeys/NCRC+, Digital Literacy, COMPASS®
Certified Logistics Technician
Certified Production Technician
Precision Machining Technology
Welding Technology

MISSOURI COMMUNITY COLLEGE ASSOCIATION

mcca

*where Missouri's community colleges unite for advocacy, information,
collaboration and professional development*

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