

TAACCCT Round II

*Making the Future: The Wisconsin Strategy*

Grant TC-23775-12-60-A-55

# A Companion to BEST PRACTICES & LESSONS LEARNED

September 2016

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call a friend or look something up; you need to be confident in your skills! It is an honor to know Ben and nominate him as an Exemplary Learner!”

Each Advance Wisconsin– Manufacturing program can change students’ lives. Our programs are structured in a way to help people gain the confidence they need to improve their skills to get a good job.

***Spotlight on Alfredo Gomez, Machine Tooling Technics Student at Madison College.***

When Alfredo Gomez lost his manufacturing job of 24 years, he knew it was time to return to school and resume his education in order to build a better career to support himself and his family.

Currently training in Machine Tooling Technics at Madison College, Alfredo had a lot of work to do before getting into the program. His first step at the college was to earn his GED. That was followed by three certificates and several credentials in the area of manufacturing funded by the TAACCCT Advance Wisconsin Manufacturing grant. Plus, he took classes to improve his English language skills. Now he is working toward a technical diploma in Machine Tooling Technics, which prepares students for careers in tool and die making, mold making, CNC programming, quality control inspection, and precision and repair machining.

Alfredo has approached his education at Madison College with such enthusiasm that he won the Exemplary Student of the Year Award for the School of Applied Science, Engineering, and Technology for 2014-15. Claudette Zweifel, the coordinator of his program, noted Alfredo’s dedication, work ethic, and outstanding character. One of his instructors said, “Not all students easily transition from the TAACCCT program into the Machine Tool program, but Alfredo has earned the respect of the other students by working long hours in the shop and being a natural leader.”

Alfredo followed a similar path of many Mexican immigrants to the United States. As a teenager, he started working in the farm fields of California, where his education took a back seat to day-to-day survival. After that, Alfredo moved to Wisconsin to live with his uncle, where he was hired by Trostel, a manufacturer of custom rubber products and compounds. He had a long run there as a machine operator until they moved their operations out of the United States and laid off many of their workers, including Alfredo.

Now, with the opportunity of education and a revitalized career, Alfredo is distinguishing himself among his classmates. He organized a group of students from Whitewater to carpool to school, and he makes sure others around him are learning by helping them with their English and technical training. It is important to Alfredo that no one feels left out or falls behind in their school work. He said, “This has been a great experience. What I have learned in the United States at the college level has exceeded my expectations.”

Most recently, thanks to his training at Madison College, Alfredo was hired as a mold technician by a company located close to his hometown, and they are allowing him to work part time until he completes the Machine Tool Technics diploma. Given Alfredo’s strong work ethic and positive attitude, it sounds as if that company is lucky to have him.

Successful student outcomes like those mentioned above would not be possible without strong partnerships between the School of Applied Science, Engineering, and Technology (ASET) as well as the

School of Adult Basic Education (SAA). ASET and SAA contribute their recent change in programming and growth due to the work that was developed and implemented under this project. The School of Applied Science, Engineering, and Technology has gone through the WTCS process of creating and getting approved two less-than-one-year technical diplomas, embedding Manufacturing Essentials in the Fabrication/Welding program and the Industrial Maintenance program. In addition, Madison College recently applied for a HB-1 grant where these two schools are partnering once again to propose a Bridge to Manufacturing Essentials with an electrical focus model to serve underprepared individuals over a four-year span. SAA has replicated their bridge programming among other programs around the college.

The TAACCCT Advance Wisconsin Manufacturing program has been a very rewarding project for the college and for the staff intimately involved. Many are proud to have contributed to the work and to have been a part of changing so many lives in a positive way. In closing, we would like to share a quote from a former student who was one of our several busy students juggling work, life, and school. "I am very grateful to Promega, Madison College, and the family who watch my son," Magally said. "My mother says to take advantage of these opportunities now because they may not come again." That is what she is doing, with faith that it will all pay off in the future!

## Milwaukee Area Technical College (MATC)

### TAACCCT Grant Narrative

MATC's original scope of work was to: "establish a model pipeline and pathway approach to align with manufacturing best practice." Educationally, MATC was to "emphasize competency-based, portable credentials including credit for prior experience; (and to) establish curriculum that is stackable and connected to college and industry standards". The delivery included: "increasing education and training capacity in these programs" while "encouraging the development of apprenticeship models, continuing education models and life-long learning." The project planned to increase "three tracks: entry level, intermediate, and advanced." After the first cohort and prior to solidification of the tracks, the project took a different direction: to encompass three tracks based on specific skills: Engine Lathe, Milling, and Welding. As of this writing, MATC served 371 students, with 146 completers, a 39% overall completion rate for *Making the Future*. They will likely reach the original goal of 385 students that may be realized with a specific TAACCCT participants due to a partnership with the Hispanic Chamber of Commerce, scheduled to begin training this April. The DWD returned wage completion data report states 54 of the students (37%) employed prior to TAACCCT training received wage increases.

*Making the Future's* operations team chose to highlight major accomplishments specifically related to student success, which is key to the college's mission, vision, and values (the consortium lead's input was incorporated to the project as a whole). The topics chosen include those with the most impact to students: 1) ABE bridge course that was built into the three certificate options (Engine Lathe, Milling, and Welding); 2) Improvements to internal collaboration; and 3) Sustainability. These categories often overlap, especially with consideration to internal collaborations.

#### **Bridge Course/Contextualized Math**

The MATC Contextualized Adult Basic Education (ABE) math course that was aligned with the Welding and Machine Tool certificate trainings. The course curriculum was structured within Delores Perin's definition of ABE contextualization: "The practice of systematically connecting basic skills instruction to a specific content [area] that is meaningful and useful to students."<sup>1</sup>

MATC's contextualized courses provide instruction with the primary objective to teach the basic skills of reading, writing, and/or mathematics (in the context of a specific subject area) "...for the purpose of meaningful application." The teaching of English, reading, or math is contextualized to what each student needs as it relates to standard content of an Occupational college-level course. Contextualized ABE math lessons are tailored so that students are able to apply fractions or multiplication to real-life welding situations. Similar learning methods are contextualized in English and reading lessons.

Using basic skills math as a companion to the contextualized math courses was a factor that allowed for greater success. In July 2015, MATC presented at a state-called conference at Wisconsin Indianhead Technical College. The college was one of four presenters and the MATC's research findings (provided by a METTE sub-grant award) allowed for statistical analysis to see the relationships between contextualized math coupled with the ABE math support in Welding and Machine Tool. This analysis

found that students who passed the ABE math support course compared to those who didn't pass had better performance overall. See Figure 1, below.

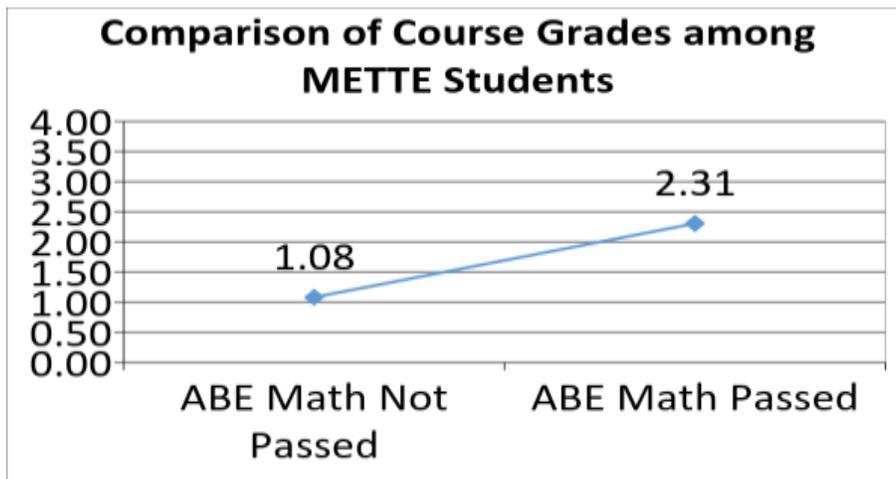


Figure 1

Regarding completers, we saw the most success in our partnership with the Hispanic Chamber of Commerce (HCCW) cohorts who participated in welding technical training at our campus in West Allis. These cohorts had basic skills math and basic skills English embedded into the core curriculum, and class schedules that were customized to fit the needs of the participants (e.g., courses ran during hours of 2<sup>nd</sup> and 3<sup>rd</sup> shifts). The HCCW participants' rate of completion was 64%, compared to the other welding cohorts' completion rate of 38%.

The impact of the ABE component is clear in TAS, as the Welding program incorporated basic skills math for spring semester 2016 into its general operating budget. Other divisions considered adding basic skills companion courses. This contextualization model was shared with the School of Liberal Arts & Sciences (LAS), which added to its case to develop contextualization in its design of English and math courses. LAS' approach is to offer the experience and talent of its faculty as applied to programs in TAS, and to design programming that fits the needs of these programs. Last spring a manufacturing focus group developed a list of essential and highly-desired soft skill qualities. An M7 manufacturers group met last fall to refine that list.

LAS leaders have proposed a contextualized course on Job and Career Readiness geared toward TAS, Business, and Allied Health. The course would replace courses in English and Economics, with the focus of targeting essential and highly-desired soft skills, coupled with written and oral competencies in the workplace. The timeline proposes this new course (2-3 credits) is expected to run by fall semester 2017. Twenty-one learner-supported sections in both math and English are running in spring semester. This broader impact of the ABE support courses would not have been realized without this grant.

### **Improved Internal Collaboration**

Collaboration throughout several divisions of the college has either been built or enhanced during grant implementation. *Making the Future* originated with the School of Technical and Applied Sciences (TAS), two advisory groups, and Grants & Resource Development; the team offered collaborations with other

departments to bring awareness of the grant throughout the college. Grant funding paid for a new full-time data analyst position, and allowed the core team to hire an Education Assistant and a Professional Development Assistant. These positions added greater capacity for further student support and data analysis, and built bridges between departments and divisions. The Education Assistant was retained through another source of funding. The data analyst position carries through two additional rounds of TAACCCT. Relationships have also been enhanced through more effective cross-functional teams and broader collaborative efforts, which realizes better communication college-wide.

A core value at MATC is collaboration. One of our efforts involved other divisions through training. An example is the 2015 CAEL training that administration, staff, and faculty attended from every campus. [A committee was formed to inform the division of Academic Affairs about grant happenings and provides opportunities to be a part of cross-functional work teams and/or core committees.] Additionally, collaborative efforts with the on-campus Military Experience Service Office (MESO), has a dedicated committee, shared with CPL. Other departments, including Registration, Recruitment, and Tutoring, are involved within further development of the evolving CPL policy and procedures. The funding from *Making the Future* allowed the work to build and maintain meaningful work relationships across each campus, and offers support to other grant projects, while keeping student success at the forefront.

**Sustainability – MATC**

The college’s strong commitment to developing partnerships and community collaborations will be sustainable beyond the grant. Partnerships in the following areas were developed through grant activities and will continue:

- **Educational Partners:** Sustain and increase partnership opportunities with institutions of higher education to create a pipeline to MATC.
- **Workforce Development:** Sustain and improve MATC’s responsiveness to the demonstrated needs of community businesses and industry.
- **Graduate Job Placement:** Sustain and increase partnership opportunities to improve job placement rates for graduates in their chosen fields of study.
- **Engagement:** Sustain and increase effective relationships with area businesses and community-based organizations, such as Employ Milwaukee (previously the Milwaukee Area Workforce Investment Board). See referral statistics, below.

**Employ Milwaukee: TAACCCT Referrals**

Recruitment: eBlast to prospective referrals	1,070 individuals
# Total Referrals	130
# Enrolled in Training	17
# Enrolled Veterans	2
# Individuals w/Intensive Services	16
# Full-time employment after training	7

- **Connections:** Sustain and improve outreach programs to key partners, including alumni. One of our notable efforts is that of Collabor8, a professional network that meets monthly to share ideas/best practices, ways to streamline, and to build a network of contacts in a number of public and community organizations.
- **Efficiency:** Sustain and increase participation in statewide or regional collaboration or efficiency initiatives, such as the Milwaukee 7.

The TAACCCT 2 team strengthened cooperation and collaboration across divisions and departments on all four campuses to promote the grant. For instance, the current School of Pre-College's Faith-Based Organization (FBOs)/Community-Based Organization (CBOs) Network of over 40 organizations was used to inform, recruit, engage, and assist prospective students who enrolled in manufacturing training certificate programs. These partnerships provide an allegiance to support underrepresented individuals and families throughout Milwaukee from education and advocacy to supportive services.

MATC's community partnerships make it possible for students to receive wrap-around non-grant funded support services-and notifications, including but not limited to:

- Transportation assistance (i.e., bus passes provided to students);
- Childcare assistance;
- Comprehensive orientation that brought key staff throughout the school in one place to discuss services available to students, such as Financial Aid;
- MATC's JOBSshop, WiscTechConnect Job System, internship opportunities posted on BlackBoard, internal and external job fairs, and job leads;
- Academic Support Centers/Tutoring: Six students incurred over 2,300 minutes of support time in our primary Academic Support Centers at the Downtown campus (through fall 2015);
- Student Accommodations: Of the participants who self-reported, 13 have disabilities;
- FSET services: 17 students received services from FSET (through fall 2015);
- Financial Aid, including information on scholarships: 199 students were eligible for Pell grants
- Academic Advisors and Counselors: More than 70 students met with advisors or career counselors during the course of their training program
- Professional development services such as resume writing, mock interviews, job interview clothing banks, and time management that was led through the grant's Professional Development Specialist position;
- Encouraging e-mails and helpful reminders (such as school closings); and
- MATC application and Scheduling: Operations' team registered each student for the training program(s) so they could focus on other areas of concern. We provided help in completing all required application materials as well.

These services help to minimize or eliminate barriers to success so students realize and reach their fullest potential academically, professionally, and personally.

Sustainability encompasses both short- and long-term strategies. Due to the grant, 50 of our students are actively enrolled in TAS programs; four (4) additional students have graduated with a technical diploma. Also, our partnership with the Hispanic Chamber of Commerce (HCCW) includes two additional Welding cohorts, scheduled to begin the ABE courses in late spring and summer of 2016. Funding for these cohorts may be provided through ResCare, MATC Foundation, Mayor's Initiative Manufacturing Fund, and contracts with MATC's Office of Workforce & Economic Development (OWED).

MATC and three other technical colleges have a long-standing relationship with the Milwaukee 7 (M7). M7 is composed of hundreds of leaders in the business community from seven counties in southeastern Wisconsin. Activities include a Welding Fabrication Focus Group comprised of manufacturing organizations such as GenMet; JB Friction & Fab Corp.; Jorgensen Conveyors, Inc.; Kapco Inc.; KSM Industries, Inc.; Rychtik Welding & Manufacturing, Inc.; Super Steel LLC.; and Telsmith. Each of these employers specifically concentrate on talent development in the manufacturing sector. The Dean of TAS has been actively working with the leaders of M7 throughout the duration of the grant to identify skills for entry-level welders. This discussion opened the door for dialogue on essential skills and creating a welding curriculum to meet the needs of the region. Through this collaboration we were able to develop a Welding 101 pathway with the TAACCCT grant, with support from faculty, the M7, and employers. This curriculum has been modified based on feedback from students and employers. Welding 101 has been incorporated into the official state pathway initiative, currently in the approval process. See Figures 2 and 3 for the proposed pathways, below.

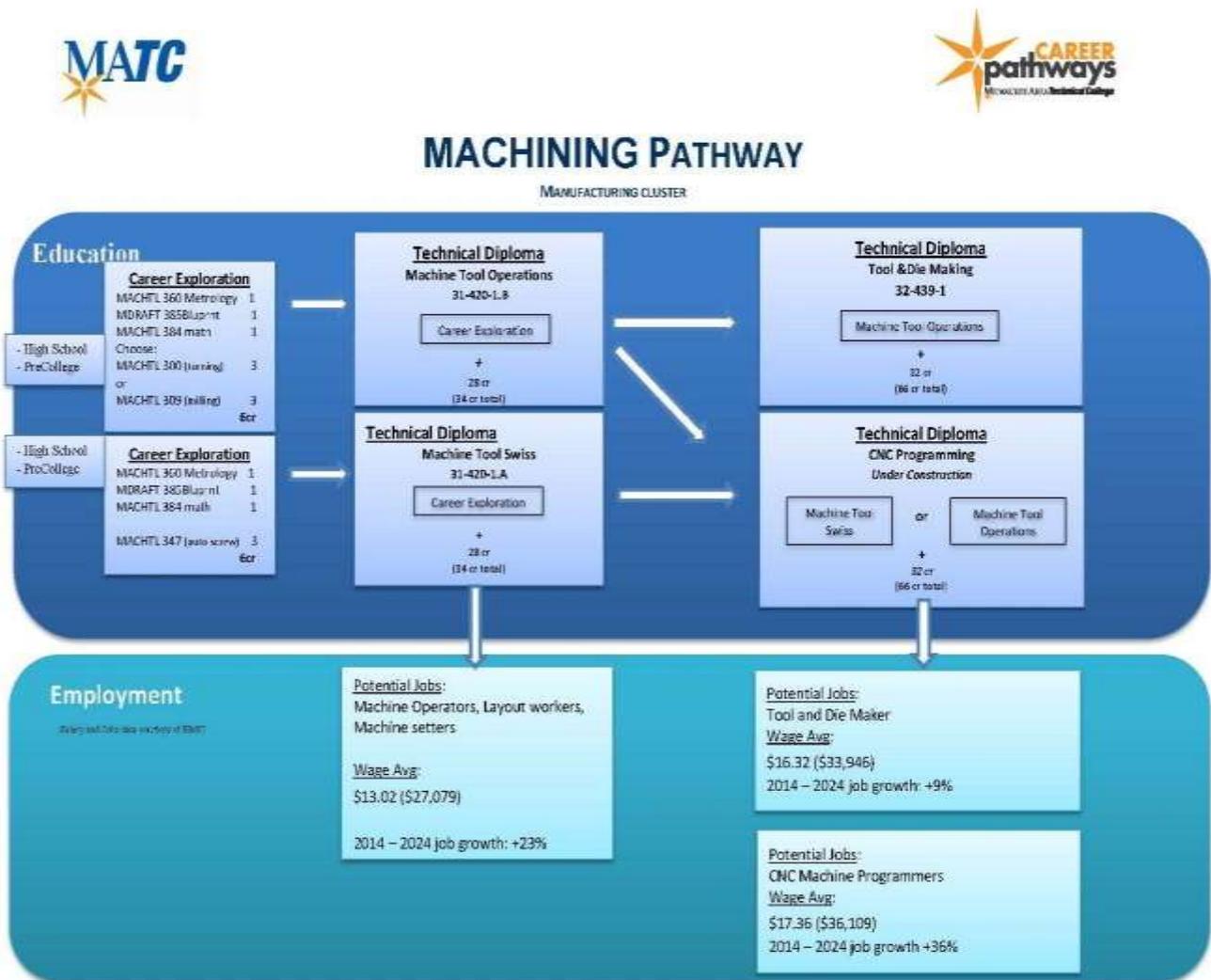


Figure 2



## WELDING PATHWAY

MANUFACTURING CLUSTER

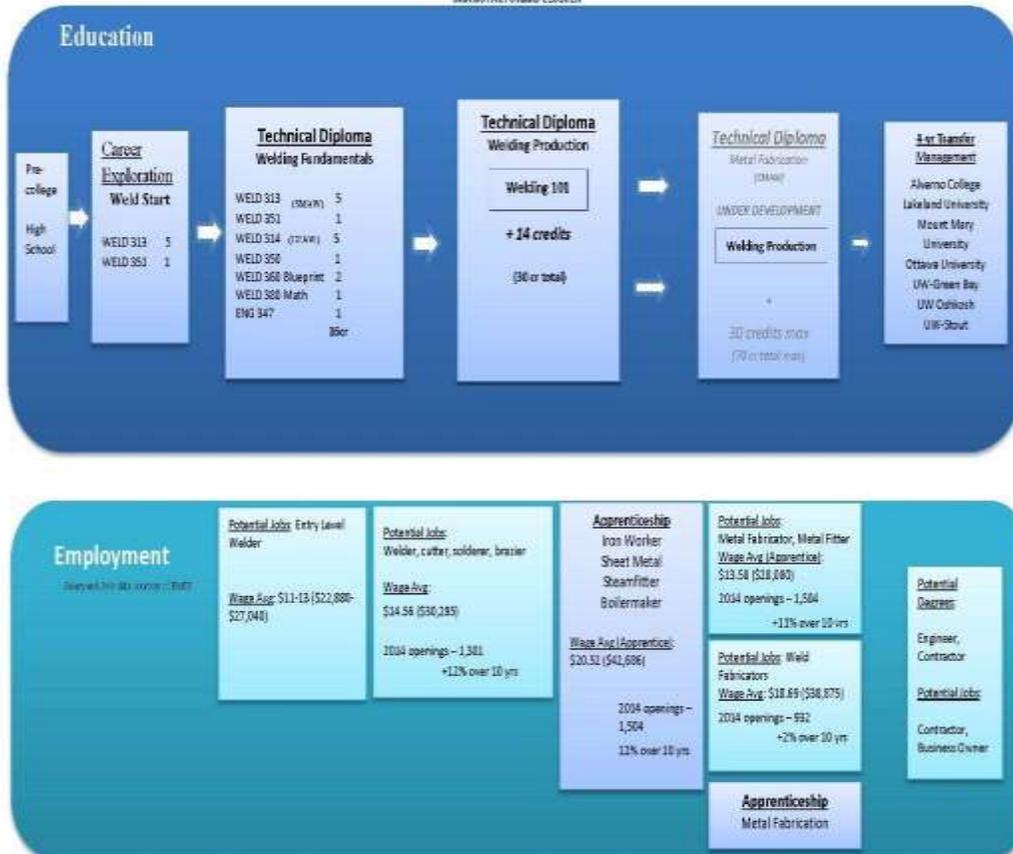


Figure 3

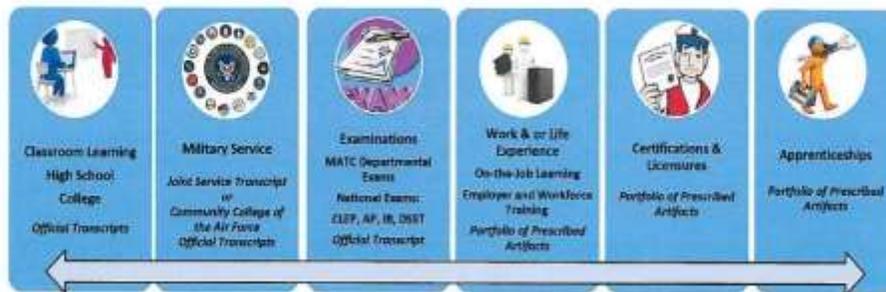
### Sustainability – Consortium

This round of TAACCT has allowed MATC to re-design its policies and procedures related to Credit for Prior Learning and Work Experience (CPL), formerly known as Academic Standing at MATC. *Making the Future's* Project Coordinator is a standing member of the college's CPL/Veterans Steering Committee. This committee is charged with implementing a variety of initiatives that MATC is currently implementing, including ACE's tool for military and CAEL's intake tool. This committee is also charged with ramping up our services for veteran students. Through the duration of the grant, 13 students have transferred 116 credits to MATC. See Figure 4, below, that visually details MATC's new CPL process.

## Credit for Prior Learning and Work Experience (CPLE) formerly Advanced Standing



CPLE is the term used by colleges to describe the process of earning college credit from learning. CPLE is measured and awarded only for learning, and not for the experience. Below are the sources of college-level learning and the artifacts used to evaluate CPLE.



**CPLE Language**

CPLE Acronyms	CPLE	Credit for Prior Learning	AP	Advanced Placement Exams
	PLA	Prior Learning Assessment	CE	Challenge Examination
	ME	Military Experience	IB	International Baccalaureate
	WE	Work Experience	CLIP	College Level Examination Program
	TC/TE	Transfer Credit	JST	Joint Service Transcript
	ACE	American Council on Education	AS	Advanced Standing
	CAL	Council for Adult & Experiential Learning	DSST	Defense Activity for Non-Traditional Education Support
	AE	Auto Equate	TIS	Transfer Information System

**MATC CPLE Resources**

**Staff Resources**

MATC Portal Page (Departments, Academic Affairs)

- CPLE Policy, Guide, and Work Flow
- CPLE (Advanced Standing) Forms
- Military CPLE
- Links to course matrices for CLEP, AP, IB tests, and certifications
- Links to Auto Equate lists for WTCs, LW System, Private, and Out-of-State Colleges
- LW System Transfer Information System (TIS) <https://www.wiscconsin.edu/transfer/>
- US Department of Education - <http://oae.ed.gov/accreditation/search.aspx>
- Training & Resources

**Student Resources**

MATC Website (Student Services, Get Involved)

- CPLE Guide
- Military
- Transfer Credits
- Work/Life Experience
- Credit by Exam
- Certificates/Licensure
- FAQ's
- CPLE Questionnaire
- CPLE Inquiry Form

<http://www.matc.edu/student/resources/cple/index.cfm>

For information and questions regarding Credit for Prior Work and Life Experience, students should visit MATC's website to access the following:

- CPLE Questionnaire
- CPLE Inquiry Form

**Transfer-In Contact Info**

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 Lana Rowakowik - [lrowak@matc.edu](mailto:lrowak@matc.edu)  
 Tim Morgan - [tmorgan@matc.edu](mailto:tmorgan@matc.edu)

Please submit Advanced Standing (CPLE) Forms to [advstanding@matc.edu](mailto:advstanding@matc.edu)

MATC is an Affirmative Action/Equal Opportunity Institution and complies with all requirements of the Americans With Disabilities Act.

CPLE 12/15

Figure 4

Policies and procedures, along with lessons learned, have been applied directly to two additional TAACCCT awards: INTERFACE and ACT for Healthcare (rounds 3 and 4). The core team has created a variety of standardized reports and written documentation to support TAACCCT that has been carried through to the additional rounds. Examples include standardized tracking methods at the client reporting system level as well as external master documents and an adaptation of the consortium's Program Participant Summary and Equal Measure's data dictionary template that were applied to ACT for Healthcare.

With consideration to lessons learned, the core team determined the following areas provided continual challenges that affected the overall success of the grant:

- State approved pathway certificates were not developed for these trainings, which made it difficult to implement into core curriculum in the machine tool and welding programs. Both INTERFACE and ACT for Healthcare developed state approved pathways in the planning year (prior to grant implementation).
- Collaboration with Employ Milwaukee, formerly the Milwaukee Area Workforce Board (MAWIB), was not fully developed or utilized in the planning stage and in the first two years of the implemented grant. This is attributed to challenges, such as key staff turnover, a contract that did not spell out reporting requirements to MATC, as well as re-structuring of agency staff.

INTERFACE was cognizant to build its relationship at the beginning of the grant with Employ Milwaukee, which has led to a number of best practices and successes realized in the grant.

- Tuition waivers did not offer students much “skin in the game” and the DOL modified the practice for remaining rounds of TAACCCT. This factor, coupled with marketing to the same target groups (CBOs), did not offer a broad enough population base for the trainings. Even though there was a robust information session, followed by an orientation process for the students, attaching to program students and additional targeted markets would have been beneficial to the overall success. INTERFACE and ACT for Healthcare adopted elements from this grant, but marketed the program to program students without waivers of tuition or books.
- The STM machine was under-utilized because only a few staff members had training to operate it. The new Associate Dean plans to hire an outside trainer in the future so faculty will be able to incorporate the machine into TAS’s operational work plan.

### **Conclusion**

Funding for *Making the Future* allowed MATC to experiment and examine new ways of work. Our efforts to train Veterans, TAA participants, and adults offered a unique pathway to three training tracks that has realized student success, a core value of the school. Through a variety of partnerships that encompassed Milwaukee’s employers, economic development organizations/initiative, CBOs/FBOs, as well as a variety of internal department leaders, we were able to harness value that will be recognized for now and future endeavors. This funding allowed us to improve internal processes and procedures, create state-recognized pathways, overhaul the CPLE system for the college, improve external and internal collaborations, and offer a robust plan to sustain the efforts after funding ends. We have applied best practices to many areas throughout the college and look forward to the continuation of factors we consider successful and far-reaching (e.g., contextualized math). This experience has been beneficial not only to the entire college community, but also the Milwaukee manufacturing arena.

The following page contains statements from our TAACCCT students.

<sup>1</sup>The definition’s origin derived from Perin’s: [Facilitating Student Learning through Contextualization: A review of Evidence](#) (2011).



“...I just wanted to give you a quick update on how things are going since I completed the grant welding program in May. I have been accepted into the Local 8 Ironworkers Apprenticeship program. I was rated #3 out of about 60+ applicants. I got my first job placement on July 27th. I have been working at the new Northwestern Mutual building job site for almost 2 months. Things are going really well- love my new job!

I want to thank all of you for the opportunity to get into the welding grant program. It really gave me a great base for what I am doing in my new career. The things I learned during the welding program have made this transition very smooth...Obviously, I still have lots to learn but I feel like I am a step ahead of the game.

Again, thank you all for everything you did to make my experience at MATC a great one...”

**Marriah G., Ironworkers Local 8 Apprentice**

”Thank you for offering this manufacturing class...I was able to successfully complete the Engine Lathe program and was able to further my education in the CNC field. Right now I have obtained full-time employment in the CNC manufacturing field. Because of the TAACCCT training program, I have bettered myself because I have successfully learned a new trade. I hope your program will be able to help other people that are in my position.”

**Denise N., Engine Lathe Completer**

“My time in the classroom was always enjoyable.... From group discussions to lunch breaks, it was all well worth it..... Basil was my instructor... He was polite, patient, and very well informed about the trade.... I would rate my experience at MATC West Allis 10 out of 10..... My instructor, Basil, did an excellent job as a teacher...”

**Terry T., Welding Completer**

“This training was very helpful, it got me a really good employment in the manufacturing industry, it didn’t just give me a good employment it also got me a welding career, I’m very thankful for the TAACCCT II training.”

**Cristan R., Welding Completer**