TECHNICAL ASSISTANCE FOR BUILDING COLLABORATION AND CAREER PATHWAYS

VI. SIGNATURE PAGE

The undersigned agrees to the provisions of contract documents and hereby affix authorized signature(s):

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Date: June 26, 2014

IT IS MANDATORY OF ALL CONTRACTORS TO RETURN THIS SHEET FULLY COMPLETED WITH THEIR PROPOSAL.

CSW
Corporation for a
Skilled Workforce
Good Jobs. Thriving Communities.

A Systems-Based Approach for M-CAM Career Pathways & Credential Development

From Corporation for a Skilled Workforce (& Partners)

Prepared For Macomb Community College & Partners **June 26, 2014**

Contact

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Executive Summary

Corporation for a Skilled Workforce, combined with select nationally sourced partners, proposes a set of unique, transformative, and impactful strategies to assist the eight community colleges of the Michigan Coalition for Advanced Manufacturing (M-CAM) consortium. Through a carefully designed collaborative process, CSW will support the effective development of career pathways and credentialing tools in welding, CNC-machining, Mechatronics/Multi-Skill, and Production training areas in order to more purposefully prepare students and better connect employers with a skilled workforce. By supporting the efforts of the consortium through technical assistance and collaborative services, our work is specifically designed to will increase the overall opportunity of M-CAM partners to become national leaders in the consistent production of high-value manufacturing careers.

The growing skills economy is characterized by rapidly evolving and changing employer needs for skilled workers while many skills-based jobs remain unfilled nationwide. The nature of skills-based jobs, now more technical, and the speed with which employer needs change, now unpredictably and quickly, has introduced into the workforce ecosystems dynamic variables that surpass the traditional ability of community colleges to effectively supply technical training and credentials in a timely manner.

To address these challenges, the US Department of Labor, through its TAACCCT programs, has expended funds focused on the problems of filling the skills gaps in industry and returning workers and learners to the workforce. CSW and its partners believe that M-CAM has an opportunity to be creative, yet practical innovators in filling regional manufacturing skills gaps on an on-going basis. By designing solutions that address the needs, dynamics, and aspirations of both the workforce and employers, CSW and its partners can help M-CAM leverage this TAACCCT opportunity to create systemic change that fundamentally shifts the way individuals are recruited, trained, and hired.

The difficultly of designing successful strategies in the workforce arena, however, is compounded by the need to unite disparate actors focused on solving the complex problem of training individuals to fill very specific jobs. Accordingly, we intend to break down traditional barriers among students, educators, and employers, and implement and scale effective tools that enable better communication, decision-making, and forecasting to match skilled job seekers with quality jobs. To accomplish these goals requires a deep understanding and leadership role in credential program design, skills gap analysis, organizational redesign, and the development of specific technologies on par with consumer tools. We believe our partners and this proposal represent the strongest set of strategies for meetings these exact goals.

In addition to high-level and accomplished professionals within the CSW team, this proposal is enhanced by significant contributions from national players in the workforce development and higher education fields. To support this work, we have engaged: the Manufacturing Institute of the National Association of Manufacturers (NAM); the National Laboratory for Education Transformation; Thomas P. Miller and Associates; Eduworks; and Geographic Solutions.

CSW Background

Corporation for a Skilled Workforce is a Michigan-based national nonprofit organization that partners with government, business, education, and community leaders to connect workers with good jobs, increase the competitiveness of companies, and build sustainable communities. For more than 23 years, we have been an effective catalyst for change. We identify opportunities for innovation in work and learning and provoke transformative change in policy and practice. We have worked with dozens of workforce investment boards, state and local workforce agencies, community-based organizations, national foundations, federal agencies, and colleges to create lasting impact linking collaborative activities into greater change.

Our breadth and depth of experience and expertise in workforce development is unparalleled. We are a thought leader and doer in the field, working at both the conceptual and applied levels to address urgent, large-scale workforce development issues using rigorous and measurably effective strategies based on our knowledge of promising practices in diverse settings, drawn from work spanning all 50 states. We monitor the latest research on strategies for job creation and training so that we know which ones are working in the real world and which aren't. Our research is original, whether it's mapping a region's workforce needs and assets or analyzing specific economic and labor trends. We draw on those findings to develop customized solutions for a wide range of leaders.

Our partners benefit most from our extensive experience working directly in the trenches with business, government and education leaders to address the most pressing workforce challenges, like retooling struggling regional economies to deliver 21st century jobs and increasing access to education for low-skill workers. We understand the challenges that today's leaders face as they adapt their institutions to new economic realities, and those insights allow us to provide relevant and practical support to them.

Providing the technical assistance sought by the M-CAM consortium aligns closely with the focus of CSW's work:

- **Community College systems change** -- CSW helps colleges undertake large-scale institutional alignment aimed at several principles of successful 21st century institutions: holistic employer engagement; widespread use of quality competency-based credentials; and strong student supports, especially career navigation. We're currently working with 33 TAACCCT grantees, including both individual sites and consortia on a mix of institutional and systems level changes to improve workforce outcomes for both employers and students.
- **Competency-Based Credentialing –** CSW is co-leading a national coalition and strategy to dramatically increase the use of competency-based credentials in the U.S. With Lumina Foundation support, CSW is finalizing an initial version of a U.S. Credentials Framework that will make it possible to connect the dots among degrees, certificates, industry certifications, badges, and other credentials.
- **Integrating Sector Strategies and Career Pathways –** CSW brings a decade of experience in developing industry sector partnerships as a key workforce strategy. We're focusing on bringing together the strengths of sector strategies with those of career pathway development efforts.
- **Michigan Center for Career Pathways –** CSW is based in Michigan and deliberately concentrates a significant part of our work here. Recently, CSW committed to serve as the home for the Michigan Center for Career Pathways (MiCCP) that a number of partners (including key workforce staff members from five of the eight M-CAM partners) have been developing during the past two years, and brought onto staff Steven Bennett to lead Center development.

CSW has a long track record of successfully providing technical assistance to consortia undertaking transformational workforce strategies. That includes assembling the right mix of CSW staff and appropriate expert partners into an integrated TA team that can provide needed assistance, insight, and action. We've assembled such a team for the M-CAM consortium assistance.

Proposed Solution Summary

The Corporation for a Skilled Workforce is uniquely suited to facilitate and support systemic change among the eight community colleges within the M-CAM consortium. In order to develop transferable and portable credentials, create employer-driven career pathways, and ensure meaningful collaboration among the partner community colleges, CSW will lead a diverse and impressive team of partners from around the country with comprehensive experience in the credential development process, career pathways, technical development, and system level change.

The overarching frame for technical assistance delivery and success is based on a few key assumptions:

(1) This work should be delivered with the intent of creating necessary change at the systemic level, using process redesign, technology development, and data integration among other inputs.

(2) CSW and partners will augment the work of the eight community colleges, recognizing that this work will only succeed if all community college partners are engaged, invested, and committed.

(3) All work and solutions must recognize and carefully integrate the needs and values of both students and employers in informing change at the community college level.

(4) Our approach for change will use the combined methodologies of Collective Impact (CI) and Human-Centered Design (HCD), with CSW and partners serving as resources for each of the community colleges leading various components of the consortium's work.

These assumptions are important to understand in context for the rest of this proposal. Any work led by CSW and its partners will align with these four assumptions. The Collective Impact approach is useful in this scenario as it provides the organizational infrastructure for change, outcomes, and success for the multiple partners at the table.[1] In this case, eight different, unique community colleges aim to develop consistent learning outcomes, transferable and portable credentials, and succinct career pathways. We will combine this approach with the Human-Centered Design methodology. HCD is a process by which the work of any design-based strategy, in this case the design of credentials, career pathways, and employer engagement, is done within a framework of the end-user.[2] By ensuring the end-users for the M-CAM consortium (students and employers) are at the center of any designed solutions or strategies, CSW and partners can support the right kind of work and outcomes that each of the eight community colleges has committed to achieve.

In addition to these basic assumptions, CSW will leverage the creation of the Michigan Center for Career Pathways (MiCCP) as a mechanism to support the work described within this proposal. MiCCP was created by a group of partners, many of whom are part of the M-CAM consortium, who recognized the need for a grassroots based mechanism that would identify, test, analyze, and embed strategies that supported systemic level career pathways in Michigan. In the spring of this year, CSW made a strategic investment in MiCCP by hiring a founding director that will take the center from concept to reality. Accordingly, MiCCP as a part of CSW will play a strategic role in helping to shape the right kind of conversations and strategies within this proposed work.

The scope of work included in the RFP provides a useful tool for us to describe our work. We have organized our approach and deliverables using that scope.

(1) Collaboration among Community College Partners

CSW and partners have extensive history in providing professional collaborative services to clients of all backgrounds. This work fits nicely with expertise both from a technical delivery standpoint as well as a content perspective. Our history of work positions CSW as one of a few organizations in the country that can effectively engage and negotiate numerous partners coming together around career pathways and industry credentials. From groundbreaking work in policy impacting credential development throughout

[1] http://www.ssireview.org/images/articles/2011_WI_Feature_Kania.pdf

[2] http://www.ideo.com/work/human-centered-design-toolkit/

the country, to significant work in sector strategies around manufacturing, the CSW team is poised to support the M-CAM team's collaborative work.

- Approach: CSW and partners will be primarily responsible for the overall collaborative approach, in partnership with local community colleges and their expertise. Using the combined methodologies of CI/HCD, CSW will engage community college partners, employers, and industry groups (locally and nationally) over the course of two years to create or refine credentials that meet/exceed national standards. We'll provide on-site and virtual facilitation, as necessary, and provide technical support and consultation as the consortium partners dive deep into aligning core competencies, defining credentials, and building career pathways. Our team will provide unparalleled access to national best practices, industry leaders, and thought leaders who impact the manufacturing credentialing arena. We will also provide content, expertise, and facilitation for two additional gatherings (beyond what is prescribed in the RFP) in the form of a talent forum for the community college partners, bringing together training providers, industry leaders from around the nation, and other support inputs, including customized delivery and tracking technologies, in order to increase the number of employers who use credentials as a means of validation throughout their hiring practices.
- Deliverables: First, this work will create a dedicated learning network among the eight community college partners that will be a mechanism for collective decision-making and process design. Second, this work will map the strategies for building transitions from non-credit to credit-based programs, helping to mitigate a major barrier among community colleges nationally. And third, this work will define the methods and technical resources needed to connect the community college partners with manufacturing industry leaders, relevant research, and national best practices in order to improve local hiring decisions that do not yet use certifications as a means of defining competence. We will connect community colleges with examples of employers who do use certifications as part of their hiring practices. In addition to these deliverables, this work will allow CSW and partners to facilitate yet-to-be determined deliverables that arise out of the group meetings. The importance of this kind of mechanism cannot be overstated. We believe that the eight community college partners will need the ability, space, and outlet to drive, capture, and put into practice necessary innovations. We will document the outcomes from the collaborative work in order to define additional deliverables, outcomes, and results.
- Conditions/Decision Points: A schedule of preferred dates for each of the meetings throughout the two years will be helpful to have as soon as possible. This will help ensure that CSW and partners can leverage the best resources for these meetings.

(2) System Development for Student Recruitment

Through its long history of working with community colleges, CBOs, and in advising Recovery Act grantees who held DOL job-training grants, CSW has a familiarity with the kinds of issues colleges face in recruiting students into specific programs of study. Our team, including Larry Good and Dr. Keith Bird, has a successful track record in building career pathways, specifically in manufacturing. Using the partnerships and expertise of CSW and MiCCP, we will enable the development of strategies and technologies that can be used to identify and recruit students to various career pathways based on the four training areas offered through M-CAM.

- Approach: CSW and partners will define parameters and collect best practice examples of successful career pathway recruitment strategies. Further, we will carefully research the existing body of research for tools that have actually lead to the development of tangible career pathways in order to allow students to make informed decisions about training programs and long-term career aspirations. We will include work that ensures any student recruitment strategy is inclusive, so that all student populations can be exposed to these training areas, including veterans, adult ed, dislocated, and others. To support these efforts, we will leverage learning and tools developed from other TAACCCT grants from around the country. We will also engage work from CLASP around their Alliance for Quality Career Pathways that will provide various resources that can assist the partner colleges. Further, we will support efforts that integrate career pathway tools with front-line providers including advisors, case managers, and enrollment specialists.

- Deliverables: We will deliver extensive background research and information on tools, national best practices, and opportunities that support the development of career pathways and recruitment tools for students to those pathways. We will deliver a career pathway system of visuals that describes the options for students among the eight community college partners, the four training programs, the various credentials, and myriad career opportunities as a result. This visual and its related work will form important inputs for work described in sections five and six of this solution summary.

(3) Mapping Current M-CAM Programs of Study

In order to understand how current programs of study among all eight community college partners relate to advanced manufacturing, CSW and partners will support efforts that provide a comprehensive overview of existing programs. Previous work that CSW has conducted around program mapping in alternative energy and various other industries will inform our approach throughout the duration of the grant.

- Approach: CSW will leverage the significant experience of its subcontractors to support the eight community colleges in program mapping. We will first seek to understand existing programs among all of the colleges, define parameters around advanced manufacturing, and the role of local employers in both areas. Recognizing that each college has already begun different components of this work, CSW and partners will assist in organizing and finalizing the work.
- Deliverables: First, by synthesizing the work of each of the eight community colleges, CSW and partners will create a single comprehensive map/matrix that connects existing training programs with advanced manufacturing. This tool will have broad application for other areas within manufacturing not supported within this M-CAM grant, in addition to occupational training programs in other industries. Second, as a result of this mapping, this work will inform the creation of articulation agreements among the eight community colleges within the four training areas. And third, this mapping will link to student recruitment and navigation efforts already embedded within each institution.

(4) Mapping Industry-Recognized Credentials, Learning Outcomes, and Curricula

In many important ways, CSW is *the* principal national policy leader in credentialing and associated learning outcomes. As we've been creating the U.S. Credentials Framework for the Lumina Foundation over the last year, we've engaged a mix of industry certification owners and community colleges to help shape the Framework to be useful to both colleges and industry. Our initial testing of the Framework has involved having some of those key stakeholders map their credentials against the Framework to ascertain the level of competencies/learning outcomes the holder of the credential will have achieved. We understand from that process, as well as from our work with Lumina's Degree Qualifications Profile, how to most effectively map certification requirements against programs of study. Further, this work effectively focuses on defining a combination of methods that help stack credentials usefully.

The CSW team retains deep knowledge and skills about connecting industry-recognized credentials and post-secondary programs of study. It includes Dr. Keith W. Bird and Larry Good, CSW staff who are leading our national credentialing work; Dr. Audrey S. Theis, who is part of the team developing the Credentials Framework and has worked extensively as a NAM Manufacturing Institute consultant with similar mapping, including with national TAACCCT consortia; Dr. Rebecca Nickoli, who brings extensive experience about manufacturing credentials and curricula alignment from her prior role as a Vice President at Ivy Tech Community College in Indiana; and the enormous expertise in manufacturing credentials offered by the Manufacturing Institute at NAM.

- Approach: Using the vast wealth of experience, research, and tools that CSW has developed for industry credentialing, CSW and partners will engage all community college partners in a process that maps industry-recognized credentials, learning outcomes, and curricula with existing programs of study. Using technology resources, the mapping will be completed in a collaborative environment among the community colleges, certain employers, and national credentialing bodies in manufacturing.
- Deliverable: This work will produce a visually and aesthetically informative mapping that layers the different elements of credentialing, learning outcomes, and curricula with existing training programs. We believe that based on our efforts and the work of the community colleges, we will produce a mapping tool that will serve as a national best practice. The intersection of work and resources within this area will be a significant tool to garner attention from federal agencies, national policy leaders, and industry drivers.

(5) Stakeholder Connected System & (6) Using Labor Market Information

We believe components 5 and 6 of the RFP are inherently linked, and we present our approach to supporting these efforts by combining collaborative processes captured in new solutions to be developed by CSW and its partners. The development of a stakeholder connected system will lead to an effective set of innovations and is a significant opportunity to bring together the many interconnected parts of the RFP and to further meet the broad demands of this grant for implementing long-term change. This type of system requires a sophisticated use of data; the typical approach to using data won't work in this instance, we believe, because it is too far removed from local conditions in order to be useful or practical. Instead, we propose that M-CAM and its partners require a "middle solution" between business as usual with current tools and automated tools that can be procured through a commercial off-the-shelf system.

This middle solution will link actual participants with colleges and employers in a virtual communication system that be informed by statistically driven LMI data, in a locally and regionally qualified manner. This solution is based on the integration of various quantitative and qualitative inputs from among the eight community colleges in partnership with the development of a sophisticated portal that provides access to real-time data and makes that data useful for the practitioner or technician.

This system and the systems-based approach that CSW and partners will incorporate will offer a comprehensive mechanism to monitor, provide feedback, and ensure students are successful in the long-term.

- Approach:
  - Part 5: By mapping the manufacturing programs of study against the relevant industry credentials, we will create a clear picture of the required competencies for the various levels and types of certifications, certificates and degrees being employed. With that map, and drawing upon our team's national expertise about manufacturing, the CSW team will work with the M-CAM partners to construct an overarching picture that shows multiple ways that

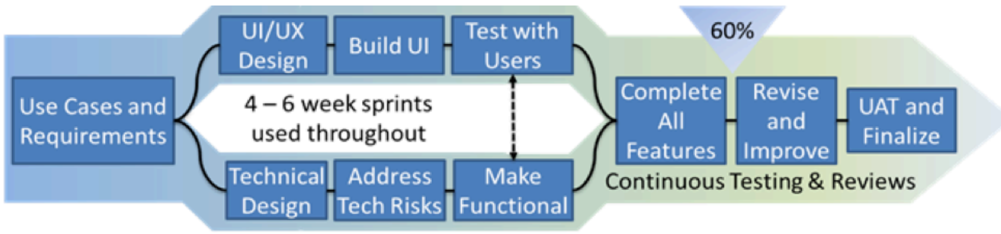
credentials can be "stacked" based on competencies. The product from this work will be an interactive pathways mapping tool that students can use to understand points of entry into manufacturing pathways and their choices for career progression. Accordingly:

- CSW and partners will map out a carefully developed system using technology and other resources that will connect the eight community colleges' recruitment efforts, training programs, and placement strategies. Once mapped, we will develop a "version 1.0" collaboratively designed web-based portal system that interfaces with each community college, with LMI data, and with previously described competency-based work of this proposal. This system will provide the modern technological and user-driven means for bringing all of these components together, including the industry mapping, program mapping, student recruitment efforts, and outcomes derived from partner meetings throughout the duration of this work;
- The system will also provide innovative and tested methods by which students can access each community college in order to achieve sequentially stacking credentials, no matter where the students starts; and
- Further, this system will ensure that widespread candidate pools are represented, including dislocated workers, Veterans, disconnected workers, and other relevant populations.

- Part 6(a): We will develop traditional and innovative useful data resources that describe current market conditions and inform decision-making. To that end, we will produce a skills gap analysis for each of the eight community colleges and their regions using a national EMSI subscription. The skills market analysis for each community college will include the following topics for analysis: geographic overview, demographic and labor force characteristics, industry analysis (for each of the 2-digit NAICS code industry per region), occupation analysis (for each of the 2-digit SOC code occupation groups as well occupations at the 4-digit level in manufacturing), human capital, real-time labor market demand, business demand surveys, and qualitative data through local/regional input. Each analysis will first be completed in a draft form for reaction from each college before a final version is published.
- Part 6(b): Based on each skills gap analysis and data/information developed from work previously described, we will work with colleges to develop compelling support materials and appropriate Web and app solutions that help students make informed decisions about training programs and long-term career aspirations. This material and technology access will be data-driven and aligned with current industry needs.
- Part 6(c): In order to effectively use data, including data made available through commercial off-the-shelf systems like EMSI, Burning Glass, or Geographic Solutions, we will use the M-CAM designed portal described above to combine local inputs of the eight community colleges and their industry partners (both quantitative and qualitative data) with automated labor market information, using the Minimum Viable Product (MVP) design methodology. This combined approach will contextualize data in a way that is not currently available within the market. This is a key component of our overall proposal. Combing the MVP and Human-Centered Design methodologies, we will develop the M-CAM portal so that it incorporates local conditions and labor market data that supports, describes, and enhances the end-user experience, in this case both students and employers. End-user design is critical for any technology developed and is often missing in workforce solutions. Our approach includes a team of professionals with deep experience in competency

management, learning management, user interface design, and enterprise/cloud system development. Development of the M-CAM portal will include the following work:

- An initial environmental scan to define and understand existing relevant technologies and practices among the eight M-CAM partners;
- Technical design that incorporates and emphasizes usability, user experiences and back-end functionality as described through this graphic;[3] and



- Training and support for local practitioners and technicians who will use the system.

- Deliverable: These efforts will produce a state of the art, easy-to-use and understand web-based portal that utilizes important resource inputs from community colleges, industry leaders, and policy leaders, as well as well as real-time LMI data as described below, in order to provide the tools for students to make informed choices about their individual career pathway. We will deliver a comprehensive skills gap analysis for each of the eight community colleges; research-based materials for inclusion in marketing efforts that recruit students at each of the community colleges; consultation and support for access to LMI systems like EMSI and Burning Glass through the development of the portal system.
- Conditions/Decision Points: The College, on behalf of the seven other community colleges, should provide parameters by which this portal system can be developed. This portal is not intended to replicate existing enterprise systems already in existence at each college; instead, this portal is intended to build on what already exists and aggregate different data points, both qualitative and quantitative, in a fashion that informs decision-making about career pathways and credential attainment for students. Accordingly, parameters for what should be included in this portal and desired functionality is a necessary decision that the College should make in order to inform our work and provide end-users with the tools that most reflect everyday technology and service tools common in industry and consumer life.

Project Implementation Plan

The project implementation plan is described below with tasks, deliverables, and team members. The work is organized in quarters, beginning October 1, 2014 and through September 30, 2016. The scheduled work, by quarter, is highlighted for each task.

Part 1(a)(i) – Collaboration	
Task	Collaboration: 4 2-day meetings in each training area
Deliverable	Defined learning network/mechanism for all partners; a mechanism to facilitate outcomes that come as a result of collaborative events; mechanism to guarantee that

[3] UI = user interface; UX = user experience; UAT = user acceptance testing

	all partners stay connected.							
Team	CSW team including Larry Good, Steven Bennett, Katie Hall, Rebecca Nickoli, Audrey Theis							
Timeline	2014Q4	2015Q1	2015Q2	2015Q3	2015Q4	2016Q1	2016Q2	2016Q3
Part 1(a)(ii) – Core Competencies/Non-Credit & Credit Strategies								
Task	Facilitate: alignment of core competencies and building transitions between non-credit and credit courses options							
Deliverable	Defined core competencies across four training areas and eight colleges; pathway development that includes strategies for transitions between non-credit to credit based credentials							
Team	CSW team including Larry Good, Steven Bennett, Katie Hall, Rebecca Nickoli, Audrey Theis; The Manufacturing Institute at NAM							
Timeline	2014Q4	2015Q1	2015Q2	2015Q3	2015Q4	2016Q1	2016Q2	2016Q3
Part 1(a)(iii) –Aligning Core Competencies, Industry-Recognized Credentials, and Career Pathways								
Task	Facilitate: 3 meetings that support alignment of core concepts, credentials, and career pathways							
Deliverable	Defined value for all stakeholders of credentials and career pathways, tools to access credential and pathway strategies							
Team	CSW team including Larry Good, Steven Bennett, Katie Hall, Rebecca Nickoli, Audrey Theis; The Manufacturing Institute at NAM							
Timeline	2014Q4	2015Q1	2015Q2	2015Q3	2015Q4	2016Q1	2016Q2	2016Q3
Part 1(b) – Employer Engagement								
Task	Engagement: leverage national research for employers to improve hiring practices that include credentials							
Deliverable	Collection of case studies and research highlighting best practices; mechanism to effectively engage employers for the long run; tools to incentivize employers to adapt key hiring practices that include credentials							
Team	CSW team including Larry Good, Steven Bennett, Katie Hall; The Manufacturing Institute at NAM							
Timeline	2014Q4	2015Q1	2015Q2	2015Q3	2015Q4	2016Q1	2016Q2	2016Q3
Part 2 – Identify & Recruit Students for Career Pathways								
Task	Develop: create systems that will identify, recruit, and retain students through identified career pathways in order to improve informed decision making and increase							

	college persistence							
Deliverable	Collection of case studies and research that will aid colleges in attraction and recruitment strategies; strategies to increase persistence within these pathways; strategies that are reflective of varying student populations including veterans, adult ed, dislocated, etc.							
Team	CSW team including Larry Good, Steven Bennett, Rebecca Nickoli, Audrey Theis							
Timeline	2014Q4	2015Q1	2015Q2	2015Q3	2015Q4	2016Q1	2016Q2	2016Q3

Part 3 – Mapping Current Programs of Study								
Task	Facilitate: map the current M-CAM programs of study at each individual community college related to advanced manufacturing							
Deliverable	Comprehensive mapping of existing programs with advanced manufacturing; tools to replicate this mapping in other areas for the eight community colleges							
Team	CSW team including Larry Good, Steven Bennett, Rebecca Nickoli, Audrey Theis; The Manufacturing Institute at NAM							
Timeline	2014Q4	2015Q1	2015Q2	2015Q3	2015Q4	2016Q1	2016Q2	2016Q3

Part 4 – Mapping Credentials & Industry-Recognized Content/Curricula								
Task	Engage: map industry-recognized certifications, content, and curricula with faculty and leadership from each of the eight community colleges; identify gaps; identify resources that one college may have that can be used at other institutions							
Deliverable	A mechanism that connects industry certifications and related content with local programs of study							
Team	CSW team including Larry Good, Keith Bird, Steven Bennett, Rebecca Nickoli, Audrey Theis; The Manufacturing Institute at NAM							
Timeline	2014Q4	2015Q1	2015Q2	2015Q3	2015Q4	2016Q1	2016Q2	2016Q3

Part 5 – Connected Stakeholder System for Stackable Credentials								
Task	Facilitate: develop a stakeholder connected system that supports student attainment of stackable credentials; create a mechanism to incorporate grant inputs and labor market information in order to support the attainment of stackable credentials							
Deliverable	A sophisticated portal that will incorporate various data inputs to ease the process by which students, from all populations, can attain various stackable credentials within the program areas of M-CAM							
Team	CSW team including Larry Good, Steven Bennett, Rebecca Nickoli, Audrey Theis; National Laboratory for Education Transformation; Eduworks; Geographic Solutions							
Timeline	2014Q4	2015Q1	2015Q2	2015Q3	2015Q4	2016Q1	2016Q2	2016Q3

Part 6(a) – Skills Gap Analysis	
Task	Develop: a skills gap analysis for each of the eight community colleges and their respective regions
Deliverable	Comprehensive skills gap analysis for each community college that includes regional input, occupation/industry analysis, real-time labor market demand analysis, among other factors
Team	CSW team including Larry Good, Steven Bennett; Thomas P. Miller and Associates
Timeline	**2014Q4** **2015Q1** **2015Q2** **2015Q3** 2015Q4 2016Q1 2016Q2 2016Q3

Part 6(b) – Support Materials	
Task	Assist: production of information and marketing materials for students interested in the four training areas
Deliverable	Research- and data-backed material, including a visual pathway description that informs and incentivizes students considering any of the pathways
Team	CSW team including Larry Good, Steven Bennett, Rebecca Nickoli, Audrey Theis; National Laboratory for Education Transformation
Timeline	2014Q4 2015Q1 **2015Q2** **2015Q3** **2015Q4** **2016Q1** 2016Q2 2016Q3

Part 6(c) – Labor Market Information and Data Utilization	
Task	Facilitate: access to multiple forms of data (LMI) and the creation of a portal, linked to activity #5, that eases use and increase effectiveness of data for local institutions
Deliverable	A sophisticated cloud-based portal system that will serve as the “middle solution” between existing tools that colleges employ and commercial off-the-shelf products; a mechanism to better use data in a way that is contextualized for local needs
Team	CSW team including Larry Good, Steven Bennett; National Laboratory for Education Transformation; Eduworks; Geo Solutions
Timeline	**2014Q4** **2015Q1** **2015Q2** **2015Q3** **2015Q4** **2016Q1** **2016Q2** **2016Q3**

The Team

CSW has a solid track record of on-time delivery for our customers and will be able to complete this project by September 30, 2016. Our experienced staff of 22 professionals enables us to accommodate unexpected customer needs and short timeframes. Further, CSW has the ability to increase its capacity by calling upon consulting associates with whom we have a successful track record, and who we trust. Many of our customers are repeat customers because they have been highly satisfied with the timeliness and quality of our work. We have had multiple, long term relationships with several of our customers.

- Project/Account Manager: Steven Bennett will serve as the designated project manager for this proposed work on behalf of CSW. He will convene and organize all efforts outlined within this work in order to provide an effective and efficient team for M-CAM and its partner colleges. He will also provide content delivery for many of the items outlined within this proposal. His experience with federal grants as a project manager, collaborative efforts around the state, and program delivery within the workforce development arena provide him with ample experience to serve in this role.

- Other Personnel:

  a) *Dr. Keith Bird* will provide content delivery for this proposal, specifically with respect to mapping credentials linked to the four program areas. He has extensive knowledge of credentialing frameworks and the intersection of education, workforce development, and economic development. He joined CSW in 2009 after serving for ten years as Chancellor of the Kentucky Community and Technical College System (KCTCS).

  b) *Larry Good* will provide leadership for all parts of the work identified in this proposal and will deliver significant content delivery in the areas of credentialing, mapping, data, collaboration, and student and employer engagement. He is a co-founder of CSW, chair of its board, and a senior fellow for the organization. He is a leader in designing and implementing transformative workforce development change strategies that result in scalable results.

  c) *Katie Hall* will provide significant collaborative efforts to engage all partners of the M-CAM consortium throughout the two years of this proposed work. She has extensive public sector experience involving a variety of policy issues. At CSW she conducts research regarding credentialing and sector strategies in addition to working with community colleges. Previously, she worked in the White House Office of Global Communications and with the State of Michigan Department of Natural Resources.

  d) *Dr. Rebecca Nickoli* will provide content delivery for this proposal, specifically with respect to student recruitment and retention, career pathway creation, and credential development. For more than three decades she served in a variety of leadership positions for Ivy Tech Community College of Indiana, including Vice President for Corporate College and the Grants Office. She has served on the Indiana State Workforce Investment Council (appointed by the Governor) and as a consultant/evaluator for the Higher Learning Commission (HLC) of the North Central Association of Colleges and Schools.

  e) *Dr. Audrey Theis* will provide content delivery for this proposal, specifically with respect to the development of manufacturing career pathways. She is nationally recognized for her depth of knowledge and experience in working with community colleges around the country in the development of manufacturing-related career pathways, with a focus on alignment of programs of student with industry-based certifications and the development of critical feeder systems.

- Subcontractors:

  a) *Eduworks Corporation* is a global industry leader in developing advanced and highly efficient software solutions for learning, education, training, human resource management, and competency management. Eduworks solutions and services range from content conversion to revolutionary tools which read and analyze documents to map knowledge, people, skills, training and jobs. We make innovative use of algorithms that enable computers to analyze the structure and meaning of documents and digital media. Founded in 2001 our solutions have been implemented in numerous industry sectors including energy, aviation, education, healthcare, defense, staffing, and not-for-profit sectors.

b) *Geographic Solutions* has a leadership role in serving state and regional workforce labor boards and their One-Stop Career Centers. Geographic Solutions routinely “spiders” the Web, crawling and searching for new job postings, taking the new job information and codifying it in taxonomies that expand upon the Department of Labor O*NET job codes. NLET and CSW believe making the competency and assessment-based management system job-linked will require linking each competency to labor codes and that Geographic Solutions is the ideal partner for this.

c) *The Manufacturing Institute of the National Association of Manufacturers (NAM)* is the authority on the attraction, qualification, and development of world-class manufacturing talent. The Institute is the place where we exceed expectations and deliver results to help close the skills gap. In partnership with some of the leading consulting firms in the country, the Institute studies the critical issues facing manufacturing and then applies that research to develop and identify solutions that are implemented by companies, schools, governments, and organizations across the country.

d) *National Laboratory for Education Transformation* is focused on creating minds, civic engagement, expertise, and innovation within education and learning. NLET’s clear objective is to harness the very best tools, methods and technology from outside the enclave of traditional education policy, research and practice. This means using the best minds and organizations in the country to bring “parity” to education and learning, in line with consumer, enterprise and government systems. NLET will analyze the traditional system with new tools on our journey to assist in the redesign of learning to meet the social, economic and security challenges ahead.

e) *Thomas P. Miller and Associates* is a consulting and management firm based in Indianapolis, Indiana. From its founding 1989, TPMA has followed a vision of incorporating workforce development and education advancement approaches into the mainstream of economic development strategy. From that guiding vision has grown a firm that is engaged in all aspects of economic development planning and human capital growth – one that brings a uniquely well-rounded and balanced approach to its work.

Project Costs

For all work, we propose total expenses at $975,000 over two years. This number represents all expenses and provides the necessary financial resources for CSW and its partners to deliver in a world-class fashion. An outline of expenses is provided here.

- CSW: In total, CSW expenses equate to $412,980 over two years. This number provides for staff time of six professionals with diverse backgrounds and experience plus travel, operating, and technology/subscription expenses. Of that total, $345,325 is in labor/benefits and $67,655 is for travel and expenses.
- NAM/Manufacturing Institute: In total, NAM/Manufacturing Institute expenses equate to $71,900 over two years. This number includes $58,975 for personnel and another $12,924 for operating and indirect expenses.
- NLET: In total, NLET expenses equate to $125,000 over two years. This number provides for staff time of two professionals for the development of the portal, engagement with community colleges for a needs assessment (relative to the portal) and ongoing support/training throughout the duration of the proposal.

- Eduworks: In total, Eduworks expenses equate to $150,000 over two years. This provides for technical development of the portal, to include user interface design, backend support, and quality assurance. Eduworks will provide necessary testing and incorporate feedback from users as part of this process.
- TMPA: In total, Thomas P. Miller and Associates expenses total $215,120 for the completion of eight skills gap analyses at $26,890 individually. This figure is inclusive of all expenses, including travel, in order to research, develop, test, and publish the analyses.

Client References & Previous Similar Projects

- *Providing Technical Assistance to U.S. Department of Labor (DOL) ARRA High Growth Sector Partnerships*: From 2010-2013, CSW was engaged by the National Governors Association as a partner on a 3.5 year project to provide technical assistance to grantees that received high growth sector grants from the U.S. Department of Labor. Across the nation, 240 grantees received $500 million for green jobs and $250 million for health care and other growth sectors. An additional $40 million for innovation in career pathways efforts in green was later awarded by DOL. CSW provided customized coaching, peer learning networks, and synthesis of promising practices to grantees across the nation in this project. Contact: Martin Simon, Program Director for Workforce Development, National Governors Association, 202.624.5345, msimon@nga.org.
- *Strengthening the private- and public-sector supports available to help companies effectively address talent attraction, retention, and development needs*: After decades of working extensively with many states and regions to develop and implement sector strategies, we believe that the future of these efforts lies in the intersection of sector strategies and cluster initiatives. Since 2012, we've worked on a cluster approach with a partnership of organizations in Southeast Michigan through the federally funded Advanced Energy Storage Systems Initiative (AESSI) to grow the advanced energy storage value chain in Southeast Michigan through the development of both technology and talent. Through our collaborative leadership of this initiative, we are promoting continued sharing of promising practices related to workforce development and community-based job creation, better alignment of efforts across different federal funding streams to support the growth of an industry cluster, deeper investment in talent strategies, and better communication and advocacy of what's working to address challenges and policy barriers. Contact: William Warren, Grants/Cooperative Agreement Specialist, US Department of Commerce, Economic Development Administration, 312.353.8143, ext 158, william.l.warren@eda.gov.
- *National Aviation Consortium*: Dr. Audrey Theis has performed many of the tasks required under this RFP in her role as a technical consultant through the Manufacturing Institute to the National Aviation Consortium, also a round 2 TAACCCT grant. For each of the five partner colleges, she is responsible for career pathway development, articulation with four-year schools, alignment of curriculum with relevant industry-based certifications, and support for the development of new industry-based certifications. Contact: Denise Pfeifer, PMP, Project Manager, NAC Grant, Wichita Area Technical College, National Center for Aviation Training, 316.677.9998, dpfeifer@watc.edu.

Exceptions/Deviations from Proposal Requirements

There are no exceptions or deviations from RFP requirements included within this written proposal.