

**APPLICATION COVER PAGE**  
(Please Print or Type – All Fields Must Be Completed)

Project Name: Baker Technical Institute Welding Proposal
Amount Requested:

Project Director: Jerry Peacock, BTI Director		
District, School or ESD: Baker Technical Institute, Baker School District 5J		
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City: Baker City	State: Oregon	Zip: 97814
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Grant Fiscal Agent Contact: Doug Dalton, Chief Financial Officer		
District, Charter School or ESD: Baker School District 5J		
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Phone: 541-524-2266	Email: ddalton@baker.k12.or.us	

Superintendent: Mark Witty		
District or ESD: Baker School District 5J		
Address: 2090 Fourth Street		
City: Baker City	State: Oregon	Zip: 97814
Phone: 541-524-2262	Email: mwitty@baker.k12.or.us	

	Participating High School or Middle School Name (add additional rows as needed)	Lead Contact Name	Grade Levels	Student Enrollment
1.	Baker Technical Institute Baker High School	Jerry Peacock	9-12	492
2.				
3.				
4.				
5.				

## **Project Abstract**

Historically, welding programs have typically been a part of agriculture curriculum throughout the state. Baker High School was no different other than it had been doing it longer as it is one of the oldest accredited schools in Oregon.

However, given the economic demands of the region and the development of Baker Technical Institute, welding and metal technology is a new program of study, separate from agriculture (approved 9/8/2015), that will provide the job skills necessary to acquire a high wage, high-demand position and support our business partners and others throughout the state. This approved program is the only manufacturing technology pathway in Regions 13 and 14 covering all of northeast Oregon.

As with most separations, this one does not come without issues. The demands on an antiquated shop with an intensive welding/metals focus expose the electrical and ventilation systems as inadequate to meet the higher demand for a welding technology program. Additionally, there is a need to upgrade equipment to emulate that used by industry in order to better prepare our students for a smooth, realistic transition to the world of work.

## CTE Revitalization Grant Vision

### Innovation:

True educational innovations are those products, processes, strategies and approaches that improve significantly upon the status quo and reach scale.<sup>1</sup>

In 2013, a discussion between Baker High School and the Baker School District 5J school board regarding the status of CTE programs began. The concern was that these programs had become the victims of budget cuts and as such a large population of students, especially those at risk, had little opportunity to learn job skills and develop an interest in a potential career. The board made a considerable financial investment in addressing this concern and as a result, Baker Technical Institute (BTI) opened its doors to over 200 students in the fall of 2014 in a repurposed wing of Baker High under the leadership of a director and three instructors (since grown to five instructors).

Career pathways and programs were developed or in some cases enhanced under the umbrella of BTI. The mission of BTI was not only to help students develop job skills, but also expose students to various career opportunities, some of which might require further training. In addition, the staff at BTI felt it important to work on changing a culture or belief regarding work, thus, a focus on soft skills necessary to meet the expectations of potential employers. While Baker High had previously developed ten career pathways for students, five of them are available in the BTI program. Those that are offered to BTI students include agriculture, drafting/engineering, building construction, health services, and welding and manufacturing technology (approved 9/15). It did not take long for BTI to become the “buzz” of the community as there was widespread support for the concept, especially by businesses who have long felt that

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<sup>1</sup> <http://blogs.edweek.org/edweek/sputnik>

there existed a need to teach young people the job skills necessary to fill positions in the community that are high demand, high wage jobs.

As we looked at course offerings for 2015-16, it became obvious, given the economic climate of the region and multiple discussions with business and industry leaders, we needed to develop and offer a complete welding program and not one that was part of our traditional agriculture program of study (POS). In July, we requested program approval for manufacturing technology through the Oregon Department of Education, Office of Learning. This request was approved in September of 2015. We will develop the Program of Study for the welding and metal technology program during the 2015-16 school year.

In August of 2015, an industry-trained instructor was hired in order to effectively meet the needs of the business community to produce trained welders. Our instructor has three certifications and over 500 hours of training with Lincoln Electric and 14 years of field-based welding.

Baker Technical Institute is the only high school-based program in northeast Oregon that provides a separate welding-only program that is not part of another curriculum. It is our goal to be a regional program that supports students from neighboring schools who may wish to take our courses or use our facility, as well as offer after-school courses to our community members.

**Integration:**

It is impractical to talk about CTE programs without recognizing the relevance and integration of science, technology, engineering, and math (STEM) principles. The difficulty many times is for an instructor to make the connections that allows for

classroom discussion to be translated into practical application. Welding technology is an excellent example of a program that contains all of the STEM principles and will be emphasized in the development of the program of study. We are fortunate to have a partnership with our GO STEM Hub located at Eastern Oregon University that is very interested in providing the professional development necessary to assure the integration of these principles into our welding and metal technology program.

Another critical partner is Treasure Valley Community College. Our welding instructor has collaborated extensively with the CTE coordinator at TVCC, as well as the head of the welding program, to determine the competencies needed in the BTI courses that integrate with those in the TVCC Welding Technology program. It will be possible for BTI students to graduate from Baker High with a TVCC Welding Technician certificate or possibly even an AA two year degree and thus ready to become a viable member of the workforce directly from high school.

Additionally, it has become apparent that content from several of our other CTE courses at BTI should be integrated with the welding/metal technology program. For example, as we develop the program of study, drafting and building construction concepts must be included in the curriculum design as they all have shared concepts.

We are fortunate to enjoy a supportive community who believes in the BTI concept and focus on CTE programs. The business and industry partners have indicated a genuine interest in providing not only real world internship experiences that support learning, but want to provide professional development opportunities to students and staff that integrate industry standards into the welding and metal technology courses.

WorkSource Oregon has agreed to support integration concepts through assessing all of our students with the National Career Readiness test to determine each student's ability to read, do math, and locate information as they relate to career readiness. This data will become part of individual learning plans that will inform instruction. This will allow the instructor to determine commonalities and integrate those concepts into the teaching process. This information will be shared with our district math and reading cadres to inform instruction at the middle school level.

**Expansion and Growth:**

This program is about expanding the current ag/welding program to a CTE program of study for welding and metal technology. The ag model allowed for three sections of welding, whereas this model allows five sections for 2015-16 to be expanded to six during 2016-17.

We believe both expansion and growth will occur in the program as we implement a strategy we hope will result in yet more interest. We are offering six week night courses to community learners with the belief that their positive experience will translate to more student interest as they are parents, relatives, and friends of Baker School District students. It does not take long in a small community for word to get around. One of the courses offered is for ladies only in order to promote welding to the female population and generate interest on behalf of this student population. Currently only 7.5% of the students in our program are female. There are 65 students currently being served with 30 more expected to enroll at semester. Of these, 33% are considered at risk and 15% are special needs. As the program expands to six periods, we fully expect to increase our enrollment and further positively impact our underserved population.

### **Experiential Learning:**

Welding and manufacturing programs epitomize experiential learning in that you do not learn the required skills without doing. Many of the current welding courses taught in secondary schools use a fairly standard approach that teaches students how to effectively flat weld, which does not reflect what industry might require. The BTI welding program will introduce students to all aspects of welding, including a multitude of surfaces. Our business partners represent different needs, so it is imperative that we support this with proper training preparation.

As noted in the letters of commitment from our partners, there is a strong emphasis on their desire to place students in programs such as work experience, mentorships, and/or internship programs. As the program evolves, it is the vision of the program to have senior students actively involved in one or more of these programs.

One concept we strongly value is that you only become a highly skilled welder by welding. Therefore, this program is less project-centered with more emphasis on every aspect and facet of welding. To say that the intensity level will change is an understatement. Students who become eligible for the aforementioned experiential learning opportunities will have the knowledge, skill, and experience to be a valued intern or employee and in many cases, have industry certifications that will make them more employable.

### **High Wage and High Demand:**

According to the local WorkSource Oregon department, there were 47 welding positions filled in Baker City from January 2014 through September 2015. This number does not represent those positions that were filled through another agency or small individual businesses. Information obtained through [qualityinfo.org](http://qualityinfo.org) indicates that employment in this occupation was much larger than the statewide average for all occupations. The total number of job openings is projected to be much higher than the statewide average number of job openings for all occupations through 2022. These numbers reflect the fact that there is high demand for welders throughout the eastern Oregon region and the state as a whole.

Wage differentials are a quick and easy way to spot relatively high paying occupations in a region.<sup>2</sup> While this is a general way to determine high wage, in the case of welders it is dependent upon certification and job type. For example, a welder with TIG certification (GTAW) has the potential to earn considerably more than one who has Shielded Metal Arc Welding (SMAW) certification. The wage differential in the eastern region of the state is about average when compared to other occupations, but higher than the average for the state. It is the vision of the BTI welding program to produce highly skilled welders who have been through effective work experiences and mentorships that will result in higher wages than other occupations in the region.

### **Partnerships**

Given the structure of Baker Technical Institute, it would be impossible to be innovative without the support of our partnerships with business, industry, and education. Before BTI was even a concept, it was critical that we had relationships with industry partners that supported our goals and vision. They were not only eager to support our programs

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<sup>2</sup> [Qualityinfo.org](http://Qualityinfo.org)



with internships and work experience opportunities, but have been invaluable in providing insight into industry standards and professional development. They have provided the welding program with scrap materials for classroom use, as well as some equipment that is used in the workplace.

As you will notice, our partners represent a holistic approach to CTE.

Treasure Valley Community College has been a strong educational liaison in the past and will be in the future as we develop our welding program to reflect the competences in their programs, resulting in more dual credit for our students. Eastern Oregon University has partnered with us to provide STEM professional development through the GO STEM for curricular integration.

As we discussed the design of BTI and the vision of the welding and manufacturing program, we developed a strong relationship with the Baker County Economic Development Council, our County Commission, Baker City Chamber of Commerce and our local WorkSource Oregon program. They have been invaluable in helping us understand the needs of local, regional and state industries and have provided us all with the data and encouragement needed to move forward with the vision. Much of what we will develop as a program will be a result of their expertise and knowledge regarding the current industry standards.

All of our partners have indicated an interest in not only being a partner before and during the grant, but well beyond. Whether it is serving as a member of the advisory committee, providing professional development, expertise, or articulated credit, we enjoy great support from this diverse group who support our programs and students.

While we have good representation of at risk students (33%) in the welding program and special needs students (15%), the female population is underserved at 7.5%. Several of the partners have provided support for females in CTE through their involvement in the local BOLI sponsored Girls Only Summer Camp. Additionally, several were instrumental in their support of the BOLI/ODOT Career Day in April that included many CTE occupations and with over 500 attendees, many females were exposed to occupational opportunities. Our industry partners have indicated that they are looking for not only job skills, but work ethic, and will hire accordingly regardless of background or gender.

### Outcomes and Measures

#### Project Outcomes and Progress Measures

<b>Area 1 - Improved and sustainable partnerships with business, industry, labor, and educational providers.</b>		
<b>Project Outcome</b>	<b>Progress Markers</b>	<b>Expected Results</b>
1.1 Develop at least 10 sustainable partnerships with welding/manufacturing business, post- secondary institutions and economic and workforce development programs.	Development of internships or work/study programs with local industry. Professional Development conducted by industry partners. Increased credit articulation with education partner. Welding instructor has made contact with all the industry partners and has determined how we can support their business and how they can support our program.	Increase in students serving in apprenticeship work/study capacity with local industry. BTI courses will reflect the industry standards and the current trends of what is needed. Increased classroom visitations by industry leaders to provide student/staff professional development. Increase material/supply support from industry partners. Improved communication with those in roles of

		economic development.
1.2		
<b>Area 2 – Improved student access to CTE programs of study with particular attention to historically underserved students.</b>		
<b>Project Outcome</b>	<b>Progress Markers</b>	<b>Expected Results</b>
2.1 BTI will provide leadership in the development of CTE programs.	Develop a POS for the welding program as part of the manufacturing pathway.	Full POS by the end of 2016 and review during 2017.
2.2 Provide increased access to welding education for students at BTI and neighboring schools through a program of study in welding and metal technology.	Develop a full-time welding program that reflects two hour sessions for intermediate and advanced welding.	Students will increase access to welding through extended class periods.
2.3 Recruit underserved populations, especially females, into the welding program.	Develop a marketing plan with the Baker High Guidance Department to better explain benefits to females. Develop a girls-only summer camp that exposes welding to females.	Increased number of females in the welding program during the 2016-17 school year.
<b>Area 3 – Increased rigor in technical and academic content align to diploma requirements, industry-recognized technical standards such as the Oregon Skill Sets, and employability skills.</b>		
<b>Project Outcome</b>	<b>Progress Markers</b>	<b>Expected Results</b>
3.1 Increase the number of articulated credits in welding by 30% from prior years.	Assure that the welding curriculum reflects the competencies of TVCC classes through continued communication with the CTE coordinator and department head.	Increase in students who receive articulated credit through TVCC.
3.2 Fifty percent of the students in the advanced welding class will get industry certification in GMAW, SMAW, FCAW, or GTAW (Oregon Skill Set).	Students will submit welding samples to the AWS lab to determine level of certification in each area.	Students will submit various welding samples to AWS for various aspects of welding.
3.3 Utilize GO STEM Hub to assure that science, technology, engineering and math concepts are embedded in the academic content.	Professional development of instructor to assure the welding curriculum contains STEM concepts for practical application.	Professional development of instructor to assure the welding curriculum contains STEM concepts for practical application.
3.4 Assess all welding	Develop a baseline for	Designation of ability

students with the National Career Readiness Certificate to determine math, reading and locating information levels.	each student and use the information to inform individual instruction.	levels - bronze, silver, gold or platinum rating.
<b>Area 4 – Increased student awareness of career opportunities through exposure to employers.</b>		
<b>Project Outcome</b>	<b>Progress Markers</b>	<b>Expected Results</b>
4.1 Develop career awareness and exploration opportunities through experiential learning activities.	Development of pre-apprenticeship, mentorship and work/study opportunities with industry and business partners.	Students having the opportunity to benefit from real world work experience.
4.2 Develop a welding competition component in the SkillsUSA chapter of Baker Technical Institute.	There will be an added component of welding in the BTI SkillsUSA program.	More students competing in the welding competitions at local, regional and state SkillsUSA events.
4.3 Develop a metal technology pathway that is inclusive of career opportunities and integrates other pathways in the program, as well as with our community college partner.	Integration of the drafting, building construction, engineering and welding programs to unify pathways that support industry, business and education partners. Attend OACTE Conference to become more aware of integration with other CTE programs.	Revision of pathway curriculum that reflects inclusion of concepts common to all CTE courses.
<b>Area 5 – Improved ability to meet workforce needs in the region with a focus on high wage and high demand occupations.</b>		
<b>Project Outcome</b>	<b>Progress Markers</b>	<b>Expected Results</b>
5.1 Utilize business partners to assure the welding program is current and meets the needs of the industry and the region.	Quarterly meetings with minutes from our business partners that reflect collaboration about needs and trends.	Industry and business input will help direct curriculum development and revision.
5.2 Utilize the services of WorkSource Oregon to educate welding students about high wage, high-demand opportunities that exist in the region and in the state.	Development of an office for WorkSource Oregon in the BTI facility.	Students will become more aware of what high-wage, high-demand jobs exist and are better prepared to be successful in job acquisition.


### Activities and Timeline

<b>Activity</b>	<b>Outcome(s) addressed</b>	<b>Timeline</b>	<b>Person(s) responsible</b>
Establish the local advisory committee and determine meeting dates	1.1	Jan-Feb 2016	BTI director and course instructor
BTI will provide oversight in the development of the Program of Study for the welding and metal technology program	2.1	Feb-May 2016	Course instructor, BTI director, advisory committee, community college partner
STEM professional development for curriculum integration	3.3	Spring 2016	GO STEM coordinator at EOU
Develop a marketing plan to make area schools aware of program and facility	2.2	May 2016	BTI director and course instructor
Develop a recruitment plan to assure the underserved population is aware of the program	2.3	May 2016	BTI director and course instructor
Begin addressing infrastructure needs required to meet the needs of increased use	--	March 2016	BTI director and contractors
Purchase equipment to support new program and modernize shop	2.1, 5.1	Spring 2016	Course instructor and BTI director
Work with community college to articulate credit (TVCC)	3.1	Spring 2016	Course instructor
Assess all students using the NCRC test (Benchmark)	3.4	January 2016	WorkSource Oregon representative
Develop experiential learning opportunities for welding students	4.1	Spring-Summer 2016	Course instructor, BTI director, industry partners
Professional development provided by industry partners	5.1	Spring 2016 – Fall 2017	Course instructor, industry partners

SkillsUSA professional development for instructor	4.2	Spring 2016	BTI director
Prepare students for regional spring SkillsUSA	4.2	Spring 2016 – Spring 2017 ongoing	Course instructor
Work with American Welding Society to certify advanced students in various aspects of welding	3.2	Ongoing 2016-17	Course instructor
Regional and State SkillsUSA Competition	4.2	April 2016 – April 2017	Course instructor
Participate in a summer non-traditional females in welding program	2.3	Summer 2016 and 2017	Course instructor
OACTE Conference	4.3	April 2016 and 2017	BTI director
Continuously work with economic developers and WorkSource Oregon to be aware of current trends	5.1 5.2	Ongoing	BTI director and course instructor
Project evaluation and data collection, compiled and distributed to partners	--	May 2017	BTI director

### **CTE Program of Study Design**

The BTI Welding and Metal Technology start-up CTE program of study was approved in September of 2015. As indicated previously, this is an innovative approach to developing a career pathway to an industry that requires more highly skilled workers than what we could produce in the agriculture-based program. The program will consist of basic welding/metals (semester), intermediate welding/metals (year) and advanced welding/metals (year).

The content and standards will consist of connections between academic and technical content through integration of STEM concepts, especially math. Professional development through support of our GO STEM Hub at Eastern Oregon University will help shape this. Additionally, our industry partners, through their support and advisory

capacity, will help define the standards needed in the workforce. They will also support the program through provision of experiential learning opportunities, especially in the areas of high-skill, high-wage, high-demand occupations.

Alignment and articulation will be evident in the curriculum designed for this program of study as the Oregon Diploma essential skills of reading, writing and math will be incorporated to support student prior knowledge. Our post-secondary partner will assist in the development of our curriculum as it relates to articulated credit.

Accountability and assessment will incorporate academic and technical skill assessment designed to meet or exceed state adjusted levels of performance. Students will be able to demonstrate their technical and academic proficiency in meaningful ways. As students progress through their coursework, they will have the opportunity to demonstrate proficiency through acquisition of welding certifications. These include gas-metal arc welding (GMAW), shielded metal arc welding (SMAW), flux core arc welding (FCAW) and gas tungsten arc welding (GTAW). Additionally student academic progress will be assessed through use of the National Career Readiness test administered by WorkSource Oregon. A student's knowledge level in reading, math, and locating information will be measured and instructional strategies implemented to improve individual student performance.

Student support services will be addressed through effective informational guidance tools and advising that will help students identify career path options that will allow them to take ownership of their education. Students will have opportunities to apply their skills in various competitions such as those provided through FFA and SkillsUSA, our recently formed program.

As we look to assure all of the core elements are included in the program of study, we recognize that while we are developing a high level welding and metal technology program, it must be designed to meet students where they are academically and physically (skill set). Given it is a hands-on program, we will have a population of students who typically perform better in that environment than the core classroom. Current history indicates we have 33% at risk youth and 15% special needs. We welcome this group as they epitomize why the program was formed; to help all students become successful.

### **High Wage and High Demand Occupations**

According to the publication, *What Employers Need*, July 2012, Workforce Region 3 acknowledged that the fabricated metal manufacturing industry had gradually declined during the last 10 years not because of a lack of jobs, but a lack of skilled applicants. Welders were cited most often as an occupation that is difficult to fill and an occupation they expect to see growth.<sup>3</sup>

Data reviewed from qualityinfo.org relative to high wage occupations in eastern Oregon, the BTI region, listed welders as a high wage job at \$17.64 per hour. While this is less than the \$19.41 average for the state, it is considered high wage for our region according to the regional data analyst.

Likewise, it is considered a high demand job, as speculated by employers in the July 2012 survey cited above. The employment growth from 2012 (4,402) to 2022 (5,032) projects a growth of 630 jobs or a 14.3% change. There are an additional 1,080 replacement openings for a total of 1,710 total openings.

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<sup>3</sup> Qualityinfo.org



This data is supported by our local industry partners and those who are involved with economic development and employment agencies. In fact, some speculate the total might be even higher as small, rural businesses do not always provide data to venues that compile the information.

We are encouraged by this information and believe our efforts to create a trained workforce for a high wage, high demand occupation through a welding and metal technology program of study is one based on solid information.

### **Equity**

With the exception of one other county in Oregon, Baker County has the lowest percentage of not-white population in the state according to the 2013 Census.<sup>4</sup> The percentage of white is approximately 85% to not-white, 15%. However, the percentage of white at Baker High, and consequently Baker Technical Institute, is 87%. While it will always be our intent to assure that race/ethnicity student's needs are met and well represented, the bigger challenge is encouraging our at risk (poverty) and special needs students to succeed academically and technically in preparation for future careers. The number of students who are economically disadvantaged in our school is over 50%.

This is sometimes hard to determine given that high school students do not self-report.

The special needs population approaches 16%, higher than the state average of 13.5%.

While 50% of the high school population is female, only 7.5% are enrolled in the welding and technology program.

Analysis of enrollment in the current welding classes indicates that 33% of the 65 students are at risk, typically poverty, and 15% are special needs. As we develop the

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<sup>4</sup> <http://education.oregon.gov/documents/archive/STEM-CTE%20Venn%20Diagram%20V2.pdf>

program of study, we will integrate and embed more credit possibilities in the curriculum that support these students being able to take more CTE related courses like welding.

Many of these students are in remediation courses that not only result in frustration, but represent little practical application of core concepts in a real world environment.

Quality instruction drives student achievement and success. We are fortunate to have a high energy, knowledgeable industry professional with the capacity to relate to this population, yet motivate them to want to develop a skill for a high wage, high demand job in the future.

Females are truly underserved in the welding and metal technology programs. While entry level courses reflect higher numbers historically, they are not apt to continue the sequence of courses. We will attempt to address this through more recruitment efforts through our guidance office, as well as using those females who have a good experience as role models to entice more into the program. We will offer classes after school to our community learners, one of which will be female only, to again provide a positive role model for our female students.

As we design the program of study, we recognize that retention is important, particularly with our underserved students. We know that the more hands-on, success oriented our program will be, the more interest it will maintain. It will be imperative that the program reflects opportunities for experiential learning as this is the key for the students to truly understand career possibilities.

It will be important that these students have the opportunity to earn articulated credit as research indicates that those with such credit are more likely to attain a post-secondary certificate or degree.

## **Diploma Connections**

Students need to see relevance in school. Many struggle to understand how core classroom academics relate to CTE and other elective course offerings. It is our intent to design the welding and technology program courses to provide core academic credits embedded in the practical application of welding in the individual courses. The courses will reflect the essential skills of reading, writing, and math needed to meet the requirements of the Oregon Diploma and the career-related learning experience.

Baker Technical Institute is focused on preparing our students for a career in a CTE related program by teaching the skills necessary to be successful. We also believe that in order to connect to a diploma, many of our students, especially those who are underserved, must be taught soft skills such as responsibility, accountability, customer service, job quality, initiative, etc. that will be embedded in everything we do, especially course competencies.

Individual student learning plans will be developed and will reflect the personalization of the educational experience for each student. Articulated credit and experiential learning such as internships and work/study opportunities will be a part of this.

As research supports, students who are connected to a CTE program improve their chances to graduate. As we look at reaching the goal of 40/40/20 by 2025, programs like this not only encourage students to stay in school, but pursue more education and training. It is our goal to provide an exciting and interesting welding program that will help accomplish this.

## **Sustainability**

The program of study described in this project will continue to benefit students long after the expiration of this grant. The original ag/welding program has been in existence since the 1950s. Given the fact that this POS will result in a stand-alone program supported extensively by business, industry and education partners, it will not only be sustained but at a higher level with economic impact for the community and region.

It is also important to note that this program is under the direction of Baker Technical Institute and as such, will be given the attention it needs to make the adjustments necessary to reflect changes in industry standards. BTI has been given very favorable media attention that generates yet more school and community interest.

This project not only enjoys support from the myriad of partners noted in Section C, but the school district as well. The letters of commitment provided by our partners have indicated a strong interest to support this project before, during, and after the grant.

The district has and will continue to provide funding to support the POS as best demonstrated by their support of an additional instructor for the program.

As the project develops and ages, we will use student data and advisory committee input to inform our instruction and thus our direction.

### **Communication**

Baker Technical Institute is not only unique to Baker School District, but somewhat so in the state. While it is in a repurposed wing of Baker High, it has its own director who oversees all of the CTE programs and is instrumental in developing relationships and partnerships with the community. Since its inception in 2014, BTI has been the “buzz” of the community as there is tremendous support in bringing back career technical education to assist in the development of job skills, soft skills, and career exploration.

Lessons learned from the first year of BTI have resulted in a middle school program that exposes seventh and eighth graders to career opportunities and pathways. This was done with the purchase of career exploration modules from Pitsco, most of which support the pathways at BTI. By 2017, the freshmen entering Baker High will be exposed to 15 career options and in a better position to determine a pathway of interest at BTI. This program has been heavily communicated to parents and the community and is required of all middle schoolers.

## **Bonus Narrative**

### **A. Career and Technical Student Organization (CTSOs)**

During the 2014-15 school year, the SkillsUSA program was started at Baker Technical Institute/Baker High School. It began as a result of the CTE Revitalization Grant that was received for the 2013-15 biennium. The program had over 20 students, many of whom had never belonged to any school club or activity in their school career. Many of these students were considered at risk. We held a regional competition with three other schools and those who made it through regionals had the opportunity to go to state competition.

We had no welders who made it past the regional competition. Given the description of the program of study and our efforts to develop highly skilled welders, there is strong interest in our students to be a part of the BTI SkillsUSA chapter and compete at the regional and state levels. Presently, welding students represent the largest portion of our chapter members. It is exciting to see their enthusiasm, especially when they previously had no idea that they would be recognized for their skill. What they learn from competition and leadership will support them in their future career.

We have been very fortunate that community partners have volunteered their time to help judge these competitions and provide their advice on how the student might be better prepared.

## **B. Middle School Component**

As discussed in Section L, staff at BTI recognized that career and technical education introduced at the high school level was too late. It was obvious that without thought to a future career, students would use their freshman year in exploration trying to determine an interest.

With the help of Youth Development Council and Oregon Community Foundation grants, a middle school program was developed to support our efforts in CTE pathways.

These grants helped fund a career center at Baker Middle School with 15 career modules, many of which crosswalk to career pathways at Baker Technical Institute.

Middle school students are required to take the career class with seventh graders completing seven modules and the final eight when they are eighth graders.

It is the intent of this program to help these students enter BHS/BTI with a better understanding of a potential career pathway. If this occurs, it is reasonable to believe that students will be in a better position to participate in experiential learning opportunities during their junior or senior year, especially in welding and metal technology.

### **C. Out-of-School Time Programming**

During the summer of 2015, we participated in a BOLI Girls Only Summer Camp that included welding as a career choice for females. According to the surveys submitted at the end of camp, this was one of the most positive experiences had by the campers. Given this, we plan on offering more programs in the summer of 2016 that will support a larger demographic.

We are currently and will continue to offer classes to our adult community learners who have an interest in welding. While they may not specifically be our BTI students, they will undoubtedly know some and may be a source of encouragement for them to get involved with our school time program.

It should be interesting to note that we offered a six week welding course for community learners, women only, in the fall of 2015 that filled up and produced a waiting list. This is a good sign that there is an interest in the community to support the direction we have elected to go with our program.



#### **D. Focus and Regional, Statewide or System Changes**

Given the data previously cited, this project has the capacity to not only impact the region, but the state. With a growth rate in the welding profession of 14.3% and 1,710 total openings projected by 2022, skilled workers must be trained to meet the demand. Once the program of study is designed and in place, we will continue to work with our partners to understand the current industry trends and how we might need to adapt. It is imperative that our partnership with the community college be constantly reviewed to assure that both entities are teaching appropriate curriculum that is integrated with STEM concepts.

Additionally, we must maintain our strong relationship with the Baker County Economic Development Council, Chamber of Commerce, WIB representatives and county commission. It is the goal of this organization to attract new business to the community, but there must be a trained workforce to attract them. Likewise, local industry should be given attention as a trained workforce will assist them in expansion.

Whether it be new business or expansion, the program that will be developed to meet the needs of industry must be able to expand. Once we resolve the infrastructure and equipment issues outlined in the budget section, and project abstract we will be able to support more need through increased staffing. This may require additional hours beyond the school day as well as making the facility available to other entities, but we stand ready to do what is needed to support our community and region.