

# Brighton School District 27-J

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## **Background**

The Perkins Field Council selected this Perkins Local Plan due to demonstration of the strong community partnership and innovation of the kiosk idea for the ACE program. Although the kiosk had to be scrubbed this year, the strong community partnerships are excellent.

## **Alignment to Economic Development**

Strong community ties have been established through design and building projects. There exists a close collaboration between all the CTE teachers from design through production. This collaboration includes communication between the instructors and design tweaking during the process which replicates a real-world work environment. Towards this end we credit the following with our success:

- There is a strong female representation in the engineering, construction, and welding classes.
- Welcome arches for elementary schools are being designed by engineers and then those designs will be revised by engineering students.
- CTE Program Advisory Committee members are involved with judging skills competitions.
- Student-designed projects may lead to patents opportunities.
- Products created by welding and construction classes are sold at auction to defray materials costs.
- Large donations of materials come from area businesses and industries.
- Year-long class requirements increase the CTE program completion rates. Two CTE credits are required for graduation.

## **Overview of Students Served**

Many welding students are also construction students. The Project Lead the Way program has a 100% CTE program completion rate. An innovative, student-designed arm apparatus was produced to aid a student with disabilities to fully function in the welding class.

## **Key Innovations**

### **Student Engagement**

Prototypes are built first to test for design flaws which are mitigated before full production. For example, the gauge of the metal was changed in one project. Third level students aid the welding instructor with first level students during their off hours. Project-based learning and problem-solving activities are attractive to students and keep them engaged. Unfortunately many of the third level construction and welding students cannot be accommodated because classes are so full.

### **Preparing Students for Further Education or Employment**

Strong duplication of real world conditions help students feel comfortable and confident. Some examples include:

- The programs have impressive and knowledgeable industry-trained welding and woodworking instructors.
- Students learn to keep work areas tidy and clean.
- The welding class requires students to clock-in and clock out.

### **The Secret to the District's Success**

The high school principal points to the CTE instructors as a model for collaboration in the building and fosters replication between other departments. The administration and school board are very supportive. The Perkins funds have been thoughtfully used to augment the programs as they are integral to advancing student success in CTE. Collaboration between middle schools and high schools has been a bridge for middle school students to be integrated into high school CTE classes.

### **Support of STEM Skills**

- The CTE programs worked with the Sheriff's Department and students designed and built a bullet discharge box. This project supports critical thinking and problem solving while encouraging student perseverance. Students are allowed to "tinker" as they discover successes and flaws.
- Innovative Strategies to Recruit and Retain Underrepresented Genders in Non-traditional Career Programs
- Enthusiastic female students are role models who recruit more girls to the programs, both within the high school and also from the feeder middle schools.

## **Key Factors to Implementation**

### **Challenging Factors**

There must be time for teachers to communicate with each other.

### **Success Factors**

Involving advisory committee members and looking at community needs both helps students learn real world scenarios and introduces them to the importance of community service.

## **Results**

Students become familiar with business and industry leaders in their community. They also experiment with some entrepreneurship skills by designing, building, and marketing several innovative products.

An e-mailed comment from one of the business/industry members of the Perkins Field Council that visited the school summarizes it best,

***“This is the way career and technical education should be!”***