Certifying the Next Generation of Welders: A Recruitment Event

Jenna Schultz, Dr. Ryan Anderson, Bradley Borges

Texas State University

Introduction

The skilled trades sector, and particularly the field of welding, faces a persistent gender gap. Specifically in the welding industry, there is predicted to be nearly 468,100 employees needed by 2032 (Bureau of Labor Statistics, 2023). This shortage is likely due to more welding positions being created and older welders beginning to retire. As the nation's infrastructure continues to age and requires increased maintenance, access to a highly trained skills trade workforce has never been more critical (AWS,2022). Typically trade school is the pathway for students looking to further a career in welding. Some of these schools offer certification with graduation but these certifications come with a cost ranging from $275-$1100 (H&K Fab, 2024). The welding industry has partnered with the Texas High School Welding Series (TXHSWS) to reduce these certification examination costs to $20 per certification. Developing a post-secondary student-led welding certification event for high school students can provide an outlet to promote opportunities and careers in the welding industry helping reduce the employment deficit.

How it Works

To develop and host a certification event takes communication, planning, and teamwork on behalf of every party involved to create an event that is effective, efficient, and successful. The following table illustrates the planning process student leadership uses to facilitate this event.

Table 1.

Steps student leadership follows to plan and host a welding certification event.

Step	Activity	Description
Step 1	Development (3 months out)	To begin, the student leaders need to select a few date options and provide them to the TXHSWS directors to schedule a date that does not conflict with other events. They need to secure a location, create a title, decide which welding tests will be provided and select other contests provided. Identify and complete any documentation the university requires.
Step 2	Promotion (2 ½ months out)	Develop a schedule of events for the day of the contest. Then create a flyer, open registration on TXHSWS and share on social media platforms being used to promote the event.
Step 3	CWIs and Volunteers (2 months out)	Certified Weld Inspectors (CWI) will need to be identified and booked to come and inspect the welds of the students attempting a certification. We recommend at least two CWIs for time purposes. It is also recommended to have an x-ray to evaluate welds to ensure complete penetration rather than visual inspection. There will also need to be volunteers selected to help run contests.
Step 4	Awards (1 ½ months out)	The student leaders then need to develop a database of companies and businesses who may be willing to sponsor awards or other support for the contest scholarships and prizes. Places like Ocean Corp, American Welding Society, Arclabs, Lincoln Tech and others provide scholarships to some of the

		winners. Then collect the awards and prizes ordered. Finish trophies being built by the post-secondary students.
Step 5	Participant communication (1-2 weeks out)	Organizers then need to make sure participants are aware of where to go, forms to fill out, and other critical information. As well as confirm and verify the attendance of the CWIs. This is also when prizes would be picked up and if lunch is being provided this is when it would be ordered.
Step 6	Contest (Day of)	On the day of, student leaders need to have a table and speaker set up to check participants in and provide announcements. It is smart to create and provide a map for attendees to follow if moving from one location to another. It is recommended to set up awards prior to check in.
Step 7	Follow Up	Once all awards are handed out, follow up with sponsors with thank you cards. Including a save the date for the next event would be a logical decision.

Results to Date

In total, this event has given out over $516,000 in scholarships and prizes. A total of 891 participants attended with over 200 passing their inspection and earning a certification. Typically, the number of individuals in attendance is higher in the spring, though more scholarships are provided in the fall. This is likely due to the fall event falling on the same day as opening day for deer season. A grant has been secured to cover the registration costs for 1,000 women and/or minorities to participate per year for the next three years.

Future Plans

Texas State University has hosted six welding certification events thus far. Student leaders intend to begin selecting a date sooner than usual to avoid conflicts. We recommend identifying a date that falls within school hours to allow students who might have to work on the weekends an opportunity to participate and does not conflict with deer season. It would be beneficial to secure more CWIs and an x-ray for inspection purposes. Another suggestion from agricultural teachers who attended the events is to provide tools that a student would use in the future as prizes such as welders, tools, wire, PPE, and computers. We recommend adding a quiz contest separate from the tool ID contest, this could be added to further develop the thinking skills and knowledge of the students that would benefit them in an interview setting.

Costs

Hosting these certification events can be relatively inexpensive if donors and sponsors are acquired. Almost all if not all expenses in the past have been donated or sponsored. The efficiency of student leaders securing these sponsors has allowed the up front, out of pocket cost to be almost nothing. These events further serve as a fundraising opportunity while the students competing also benefit from gaining certifications. Proceeds from the event are returned to the student organization.

References

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