



An Employer-Centric Earn and Learn Model for Engineering

The SBWIB in partnership with local aerospace manufacturing companies have developed a pre-apprenticeship program in Engineering. The effort initially started in response to previous defense department cuts, but quickly evolved as a way to support manufacturing companies in their training programs and building their workforce pipeline. The program is an employer driven earn and learn model that has attracted many top employers such as Northrop Grumman, L-3 Communications, Impresa Aerospace, Magnetika and many others.

One unique aspect of the program allows the employer to define or “Flex” the training plan that the students are taught to meet the needs of the participating manufacturer. The curriculum consists of three learning tracks, which include the following:

- Track I; Work readiness skills training,
- Track II; Industry specific occupational skills training,
- Track III; Work Based Learning (OJT)

Additionally, students receive an Industry-recognized stackable credential and opportunity to advance to employment, complete college and/or enter into a Registered Apprenticeship. Membership into the Society of Manufacturing Engineers (SME) is also included, providing them access to SME mentor programs, SME Connect, scholarships, competitions and more. Students who complete the program will also be able to earn qualified credentials to add to their college application and resume. Program expansion will include veterans, incumbent workers and other under-served or under-employed populations.

The development of the pre-apprenticeship in engineering responds to one of Southern California’s greatest challenges for manufactures, finding and attracting a qualified workforce.



Aero-Flex Employers



Aero-Flex Partners





NORTHROP GRUMMAN

Northrop Grumman

Northrop Grumman is a leading global security company providing innovative systems, products and solutions to government and commercial customers worldwide, offering a portfolio of capabilities and technologies for applications from undersea to outer space and into cyberspace.

Pioneer Partner to the new SBWIB Aero-Flex Pre-Apprenticeship (AFPA) Engineering Program, Northrop Grumman became the first company to graduate 19 South Bay area high school seniors from the program. The students were selected based on their

academic achievements, high school administration recommendations and expressed interest in Engineering related careers. Their learning included work readiness skills through the SBWIB Blueprint for Success curriculum and industry specific occupational skills training and work based learning.

Senior Verania Ceja Franco from Hawthorne High is one of the AFPA graduates that earned multiple industry recognized certificates including the capstone Certificate of Completion signed by eight apprenticeship committee employers.

“This employer-centric pre-apprenticeship will ensure our advanced manufacturing firms can find the engineering talent they need locally with the hands-on experience employers want.”

-Jan Vogel, CEO
SBWIB, Inc.



Verania Ceja Franco AFPA Youth Success Story

Verania Ceja Franco followed the Engineering pathway as a student at Hawthorne High School; now she attends California State University Northridge with the goal of becoming a civil or mechanical engineer. She had the honor of working with Northrop’s James Webb Space Telescope project team during her internship. She excelled in the work readiness skills track as well as the additional industry specific course work designated by her employer.

“Thank you for having invited me to the Awards Ceremony. It was really fun and it gave me even more motivation to continue my education so that soon I could be a mechanical engineer. My sister and I really enjoyed attending and watching all the people get awards for various reasons. Hopefully in the next four to five years I can become an engineer for military jets or cars. Events like those make me look forward to the future and try harder in my education.”