



## **Core Plus Aerospace/Advanced Manufacturing Program Grants**

1. **Purpose:**

The purpose of the Aerospace/Advanced Manufacturing grants is to:

- Increase the quality and rigor of secondary career and technical education in support of Aerospace and Advanced Manufacturing occupations.
- Develop knowledge, skills, and abilities necessary for industry employment in manufacturing sectors.
- Expand access to and awareness of the opportunities offered by high quality career and technical education.
- Create an aerospace/manufacturing pipeline to employment, which utilizes an organized program of study; and
- Provide for professional development of instructors to better deliver Aerospace/Advanced Manufacturing instruction in high school and skill center programs across the state.

2. **Description of services provided:**

Grants are provided to school districts and skill centers, funding annual start-up or expansion of Aerospace Manufacturing programs, and professional development for instructors leading these programs. Participating schools and skill centers must agree to offer Aerospace Manufacturing or other high skilled manufacturing-based programs to students by spring semester of the 2020-2021 school year.

3. **Criteria for receiving services and/or grants:**

Participating schools and skill centers must agree to offer an Aerospace or Advanced Manufacturing training program to students by spring semester of school year 2020-21. Instructors must attend a minimum of 20 hours Core Plus professional development opportunities scheduled throughout the year. Active programs are required to have students compete in regional or state level skills competitions that support continual development and application of the knowledge, skills and abilities being developed through the advanced manufacturing program of study.

**Beneficiaries in 2020-21 School Year:**

<b>Number of School Districts:</b>	19
<b>Number of Schools:</b>	23

**Number of Students:** 1983  
**Number of Educators:** 23  
**Other:** *Name other...* 0

**Number of OSPI staff associated with this funding (FTEs):** 0  
**Number of contractors/other staff associated with this funding:** 0

**FY21 Funding: State Appropriation:** \$900,000  
**Federal Appropriation:** \$0  
**Other fund sources:** \$0  
**TOTAL (FY21)** \$900,000

4. **Are federal or other funds contingent on state funding?**

No

Yes, please explain.

*If state funds are not available, the state will not be eligible...*

5. **State funding history:**

<b>Fiscal Year</b>	<b>Amount Funded</b>	<b>Actual Expenditures</b>
FY21	\$900,000	\$809,204
FY20	\$900,000	\$839,669
FY19	\$450,000	\$442,084
FY18	\$450,000	\$335,290
FY17	\$450,000	\$364,426
FY16	\$450,000	\$360,603
FY15	\$450,000	\$395,528
FY14	\$450,000	\$368,847
FY13	\$450,000	\$357,496

6. **Number of beneficiaries (e.g., school districts, schools, students, educators, other) history:**

<b>Fiscal Year</b>	<b>Number of School Districts</b>	<b>Number of Schools</b>	<b>Number of Skill Centers</b>	<b>Number of Students</b>
FY21	19	23	7	1,983
FY20	36	45	7	2,985
FY19	23	27	5	2,105
FY18	21	25	3	1,825
FY17	6	9	6	863
FY16	6	6	4	633
FY15	6	9	4	422
FY14	12	9	4	410
FY13	12	12	2	588

7. **Programmatic changes since inception (if any):**

From 2013-16 this work existed in two separate budget provisos: \$300,000 to be allocated to skill centers and \$150,000 allocated to support high school programs. In the 2017 biennial budget, the amount of the grants was combined into a single line item allocating \$450,000 for start-up, expansion, and maintenance of Aerospace and Advanced Manufacturing programs. For the 2019-2021 biennium, funding for Core Plus Aerospace programs doubled from \$450,000 to \$900,000 for start-up, expansion, and maintenance of Aerospace and Advanced Manufacturing Programs. There was also additional funding for two new Core Plus sectors, both Core Plus Construction and Core Plus Maritime, through separate provisos.

8. **Evaluations of program/major findings:**

In 2020-21, the grant requests remain consistent to support program growth and demand across the state. School districts where advisory committees have strong industry representation and partnership have provided solid collaboration and guidance on facilities, tools and equipment, and professional development. Adoption and use of the Core Plus Student Certificate supports priority selection for job interviews and is the foundation for articulation agreements for community and technical college CTE dual credit coursework.

Due to the unprecedented events of COVID-19 and the shutdown of onsite instruction, Core Plus showed one of its biggest strengths can be the natural community it has built. Core Plus leaders continued to offer bi-monthly meetings to convene with all Core Plus instructors (current and previous grant awardees) to provide support and collaboration to create a bank of meaningful online activities and resources to keep kids engaged and learning at home. This work alongside an annual review of the curriculum led to a shift of the Aerospace curriculum to a student-friendly online learning management system. Due to the foundation of Core

Plus and the transferability of skills among sectors, this work benefited all the Core Plus programs. Professional development opportunities shifted from hands-on, skill-based training to program specific training allowing for continuous improvement of programs and better alignment to industry recommendations.

The creation of a new Core Plus database has allowed better data collection, the ability to evaluate program alignment to industry, and the adoption of partnership levels to allow Core Plus leadership to monitor/assess programs and build supports for each level of engagement.

9. **Major challenges faced by the program:**

COVID-19 created the obvious challenge of how to teach hands-on technical skills virtually. Although students were able to continue learning about the Aerospace and Advanced Manufacturing industry, online/distance learning prohibited or limited the hands-on skill development opportunities students need to earn the Core Plus certificate. COVID-19 also created barriers for instructors to attend the required professional development and also required multiple budget adjustments as initial plans for use of grant funds were often modified due to unforeseen factors.

10. **Future opportunities:**

The Core Plus Aerospace and Advanced Manufacturing programs continue to be adopted as model career and technical education programs. There has been increased interest in the program from a variety of manufacturing sector employers in addition to other industries recognizing the value of the core training as well as interest from aerospace supply chain companies outside of our state. More businesses are providing greater access to guest speakers, field trips, guest educators in the classroom and teacher and counselor externships; as well as providing input and validating curriculum for the expansion of Core Plus programs of study.

With development and refinement of the Student Certificate to have consistency among all three Core Plus sectors, this ensures that all students who are in a recognized Core Plus Aerospace and Advanced Manufacturing program have priority interview status not only with Boeing and their supply chain manufacturers but additional regional and local employers as well. This style of student certificate is a new concept for many educators as well as business and industry-hiring representatives so providing professional development and community outreach activities regarding use and acceptance of this student certificate as a skill assessment and employment-screening tool is imperative. Core Plus is currently exploring electronic badging as a way for students to complete badges that represent key competencies and can lead to alignment in apprenticeship and post-secondary options for students.

11. **Statutory and/or budget language:**

ESSB 5092, Sec. 1518 (2)(d)(i) - \$900,000 of the general fund—state appropriation for fiscal year 2020 and \$900,000 of the general fund—state appropriation for fiscal year 2021 are provided solely for annual start-up, expansions, or maintenance of existing programs in aerospace and advanced manufacturing programs.

12. **Other relevant information:**

OSPI hired a Core Plus Project Coordinator in 2019 to promote, monitor, and manage the Core Plus professional development, track grant awards, conduct data collection, cultivate industry buy-in and necessary employer engagement activities, and build systems for strategic scale up of Core Plus. This allowed industry and education to work together to build a better system and structure to track, evaluate and support Core Plus programs. The increase in funds and sectors lead to a drastic increase in demand across the state which specifically broadened school participation in eastern and rural communities widening industry representation in Core Plus.

Core Plus is explicitly called out as a program that meets the criteria of the CTE Graduation Pathway. Expansion of Core Plus programs, including Core Plus Aerospace, will be a likely focus of districts across the state.

All three sector leaders of Core Plus (Aerospace, Construction, and Maritime), continue to meet regularly to unify systems and body of work to make it easier for schools to adopt one or more Core Plus Programs. Professional development opportunities are regularly provided by OSPI, Boeing, and other industry partners such as the Manufacturing Industrial Council of Seattle, The Associated General Contractors Education Foundation, Lakeside Industries, SafeBoats, Woolridge Boats and AJAC. Several of the Core programs offer OSHA 10 Hour Certification, Forklift Operator Certification, and First aid/CPR Certification. All programs are actively exploring options to gain additional industry-recognized certificates and certification as directed by their local advisory boards.

13. **Schools/districts receiving assistance:**

See [OSPI's Grantee List](#)

14. **Program Contact Information:**

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