



Washington State Department of
Labor & Industries

Aerospace Apprentice Utilization Report

2025 Report to the Legislature

October 2025

Introduction

In 2020, the Washington State Legislature passed [Engrossed Senate Bill 6690](#) (ESB 6690) concerning the aerospace industry in Washington state. The bill created the Aerospace Workforce Council and conditionally reduced the existing 0.484% Business and Occupation (B&O) tax rate for companies manufacturing commercial aircraft or components of commercial aircraft to 0.357%.

As identified under [RCW 82.04.2602](#), the conditions for implementing the 0.357% B&O tax rate include:

1. Resolution of the World Trade Organization (WTO) dispute between the United States and the European Union allowing a B&O tax rate reduction for commercial aircraft manufacturers to 0.357% or less.
(As of August 2025, the WTO dispute has not been resolved.)
2. A “significant commercial airplane manufacturer,” as defined in [RCW 49.04.220](#)(6), has at least a 0.3% aerospace Apprentice Utilization Rate (AUR) of its qualified apprenticeable workforce in Washington.
(Note: One employer in Washington state meets the definition of a “significant commercial airplane manufacturer,” per RCW 49.04.220(6).)

To qualify for the 0.357% B&O tax rate, organizations must achieve an AUR of at least 1.5% of their qualified apprenticeable workforce once the implementation conditions are met.

The Washington State Department of Labor & Industries (L&I) is responsible for calculating the Aerospace AUR and reporting annually to the Washington State Department of Revenue (DOR) and relevant legislative committees. The provisions of the bill are codified under [RCW 49.04.210](#), [RCW 49.04.220](#), [RCW 82.04.260](#), and [RCW 82.04.2602](#).

Registered Apprenticeship in Washington

In Washington state, registered apprenticeship is a work-based learning career pathway that enables apprentices to develop knowledge, skills, and abilities in a career field and earn a wage in the process. In turn, employers can develop and prepare their future workforce.

A registered apprenticeship combines hands-on, on-the-job training with related supplemental instruction, all under the guidance of a journey-level professional in the same occupation. An “apprenticeable occupation” qualifies if it involves the apprentice gaining manual, mechanical, or technical skills that meet industry standards. These standards typically require at least 2,000 hours of on-the-job learning and a minimum of 144 hours of related supplemental instruction each program year. Apprenticeships prepare individuals for well recognized, high-skilled careers by offering a structured path of progressive skill development. While many jobs may meet some of the criteria, only those that fulfill all requirements qualify as apprenticeable occupations.

Upon completing a registered apprenticeship program, apprentices earn a nationally recognized professional credential.

The Washington State Apprenticeship and Training Council (WSATC) approves registered apprenticeship programs and apprenticeship preparation programs. Councilmembers are appointed by L&I and include representatives from employer and employee organizations within the business and labor communities, and a member of the public.

The L&I Apprenticeship program offers consultation on developing apprenticeship standards and manages registered apprenticeship programs and apprentices. L&I also issues journey-level credentials to individuals who successfully complete their training.

Currently, three registered apprenticeship programs in Washington state serve the aerospace industry: AJAC-Advanced Manufacturing Apprenticeships; Northwest Machinists Apprenticeship Committee; and IAM/Boeing Joint Apprenticeship Committee.

Aerospace Industry Apprentice Utilization Rates (AUR)

The AUR identifies the minimum required labor hours performed by apprentices at a specific jobsite, project, or employer. The Aerospace AUR is calculated by dividing the number of labor hours worked by apprentices in apprenticeable occupations by the total number of labor hours worked by all employees in apprenticeable occupations within an organization for a given year.

For the aerospace industry in Washington state, aerospace employers include those engaging in “...the business of manufacturing commercial airplanes, or components of such airplanes, or making sales, at retail or wholesale, of commercial airplanes or components of such airplanes...” [RCW 82.04.260(11)].

Under RCW 49.04.220, to qualify for the 0.357% B&O tax rate, aerospace employers must achieve an AUR of at least 1.5% of their qualified apprenticeable workforce. The AUR must be achieved by July 1, 2026, or five years after the effective date of the 0.357% B&O tax rate.

L&I calculates Aerospace AUR based on framework established by the Aerospace Workforce Council (as directed by RCW 49.04.210). Occupational data is compared to the number of workers that are in apprenticeable occupations with the number of apprentices employed by identified aerospace employers.

When the 0.357% B&O aerospace tax rate becomes effective, employers will be required to report relevant occupation data related to its qualified apprenticeable workforce. The data will be submitted to L&I. However, the tax rate is not yet in effect because the bill has required implementation conditions that have not been met. As a result, aerospace employers are not yet required to submit the tax rate data to L&I.

Since a specific dataset does not currently exist, L&I compiled data from available sources to calculate the Aerospace AUR for the purpose of this report. Data sources, along with any deficiencies, are identified in the following calculation description.

The AUR calculation method is as follows:

1. Identify aerospace manufacturing employers that would be eligible for the 0.357% B&O tax rate.
 - Data source is Washington State Department of Revenue (DOR).
 - This includes identified employers in Washington that meet the definition, per RCW 82.04.260(11).
 - The most recent data available is from 2020, which was the final year for the previous preferential tax rate.
2. Total number of employees in apprenticeable occupations.
 - Data source is Washington State Employment Security Department (ESD) (data through 2023).
 - Employment records include employee name and position for employers identified from DOR's list.
 - Employee list is based on Standard Occupational Classification (SOC) codes.
 - The Aerospace Workforce Council identified the SOC code list of qualifying apprenticeable occupations for the aerospace manufacturing industry.
 - There is a data deficiency because not all employers reported to ESD based on SOC code.
3. Number of apprentices in an apprenticeable occupation.
 - The data is sourced from L&I's Apprenticeship Registration and Tracking System (ARTS), an online searchable database of all registered apprentices and apprenticeship programs in Washington state.

The AUR calculation process:

1. Identify eligible aerospace manufacturing employers using DOR data.
2. Determine the list of apprenticeable occupations based on SOC code.
3. Generate a list of employees for each employer using ESD data.
4. From the employee list, identify those working in an apprenticeable occupation.
5. Cross-reference the list of employees with ARTS to identify registered apprentices.
6. Calculate the AUR by dividing the total number of employees in apprenticeable occupations at the company (denominator) by the number of registered apprentices at the company (numerator).

The estimated aerospace apprenticeship utilization rate for 2023 was between 0.6% and 0.8%. Boeing's internally calculated AUR was reported to L&I to be 1.4%. There were over 22,800 employees working in apprenticeable occupations for aerospace employers, but nearly 8,800 employee records did not specify an occupation. Therefore, confidence in the accuracy of these numbers is low. In 2023, aerospace employers employed 190 apprentices.

Conclusion

RCW 49.04.220(4) directs L&I to report the AUR annually to DOR and appropriate legislative committees starting in 2024.

Current apprenticeship utilization in the aerospace industry is relatively low. However, if the WTO dispute is resolved, recent investments in Aerospace Registered Apprenticeship should enable rapid growth to meet the 1.5% apprentice utilization. To reach this rate, Washington's aerospace workforce would have needed an estimated 340 to 475 registered apprentices in 2023.