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AirTrans Center Baseline Jobs Reporting Project: Connect Oregon Expansion

Port of Portland

Prepared for: Port of Portland

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Executive Summary

A focused expansion of the AirTrans Center (ATC) cargo ramp at PDX will add one 767-capable parking position plus ramp/GSE space. This addition will relieve a key air-cargo chokepoint, thereby improving cargo movement reliability and supporting Oregon's important exports and imports.

The project will help the region retain and grow high-value, family-wage cargo jobs tied to semiconductors, e-commerce, perishables, and biomedical shipments; reduce conflicts and delays, keeping freight moving through PDX instead of going to out-of-state airports, and align with the PDX Master Plan and trade-focused state objectives. This capital improvement, funded with a 62/38 grant–match structure, improves capacity in the network to achieve increased public benefits in reliability and trade enablement.

KEY TAKEAWAYS

- **PDX supports over 15,000 jobs and contributes over $3 billion annually to the local economy as export value with the ATC helping to sustain global competitiveness.**
- **Current scale of $2.9 billion export value through ~22,000 air-cargo operations at PDX.**
- **There are roughly 1,800 jobs directly associated with air cargo, and nearly 5,000 total jobs associated with ATC operations before the ATC expansion project.**
- **Expansion of the ATC enables more regional jobs beyond air-cargo roles by unlocking additional export activity, especially in tradable goods.**
- **Broader economic lift is achieved through higher business output, stronger supply chains, and more reliable global connections.**

The ATC is Oregon's primary interstate/international air-cargo hub, anchoring integrator operations (FedEx, UPS) and ad-hoc freighter service, with feeder links to communities statewide and beyond. All ATC aircraft parking positions have been under agreement since 2018; these operational restrictions constrain service growth. With over 22,000 cargo flights and ~272,600 metric tonnes handled through the ATC, cargo volumes have grown over 40 percent over 15 years, with integrators carrying the majority of freight. The current on-airport air cargo-related workforce includes nearly 1,800 badged ATC employees, plus off-airport administrative support.

Air cargo is fundamentally a derived demand: it rises and falls with regional economic activity. When a metropolitan region produces more high-value, time-sensitive goods—such as semiconductors, e-commerce fulfillment, perishables, and biomedical supplies—more of those shipments need fast, reliable transport to national and global markets. Conversely, when local output slows or exporters shift away from time-critical products, air cargo demand decreases. In that sense, air cargo is less a standalone industry and more a mirror to the region's production, trade intensity, and logistics needs.

Because air cargo reflects the economy, targeted capacity and reliability improvements at the airport operate like economic enablers: they don't create demand on their own, but they remove or relieve chokepoints that limit capacity. Eliminating bottlenecks, adding a wide-body position, and improving ground flows keep freight in-region rather than seeking alternative out-of-state gateways. The result is better schedule reliability for carriers and shippers, fewer diversions, and a tighter link between what the regional economy needs to move and what the airport can handle.

There is also a practical relationship between air-cargo volume and air-cargo jobs. Beyond a minimum level of staffing to operate the AirTrans Center, additional jobs associated with moving air cargo will increase as air-cargo volume increases. Initial incremental increases may be absorbed by existing shifts, but as labor force utilization tightens, hiring steps up (new shifts, leads, maintenance, security), then flattens again as productivity gains kick in. The slope may vary by a variety of factors, including mix (integrators vs. ad-hoc freighters), technology, and operating model. Still, the direction is consistent: more sustained cargo volume supports more on-airport cargo jobs—and preserving reliable capacity helps retain the larger job base already anchored to the air-cargo system.

In addition to dozens of direct jobs supported and multiplier effects across labor income, value added, and output from the capital investment itself, the project will enable cargo movement that will have meaningful economic impacts from ongoing operations and trade. Metrics of success will include an increase in cargo flight operations, an increase in air-cargo tonnage, and the generation and retention of high-quality jobs.

Introduction

With three airports, three operating marine terminals, and six business parks, the Port of Portland is an economic engine for supporting the region and transforming it into a place where everyone is welcome, empowered, and connected to the opportunity to find a good job or grow a business. The Port International Airport (PDX) in particular, helps drive economic growth with quality jobs and supports local and regional tourism.

This effort establishes "before-project" conditions and summarizes the baseline data for the metrics of success established between the Port of Portland and the Oregon Department of Transportation, developing a foundational tracking method for how the ATC expansion supports jobs and regional economic activity. The emphasis is on jobs and output, short-term construction employment and output, long-term on-airport cargo jobs created/retained, and broader trade-enabled economic activity tied to air exports through PDX.

Air-cargo volumes at PDX have increased an average of 2.87 percent per year over the past fifteen years.

Project Background

The PDX AirTrans Center (ATC) is the airport's hub for air-cargo operations with United Parcel Service (UPS), Federal Express (FedEx), Amazon Air (PrimeFlight), Cathay Pacific, DHL, and others using these shared cargo facilities. All existing aircraft parking positions within the ATC have had use agreements on them since late 2018, reducing operational flexibility and making it more difficult for air cargo expansion and recruitment of new air service.



The PDX ATC Air Cargo Expansion Improvement Project addresses a critical constraint in Oregon's air-cargo infrastructure. Current capacity limitations at the AirTrans Center (ATC) incentivize

cargo shipments to move through out-of-state airports, increasing total transportation costs and reducing economic competitiveness for Oregon shippers.

This Pre-project Performance Measurement Report for the ATC Air Cargo Expansion Project establishes baseline data, methods, and success metrics to quantify public benefits of expanding common-use cargo capacity at PDX.



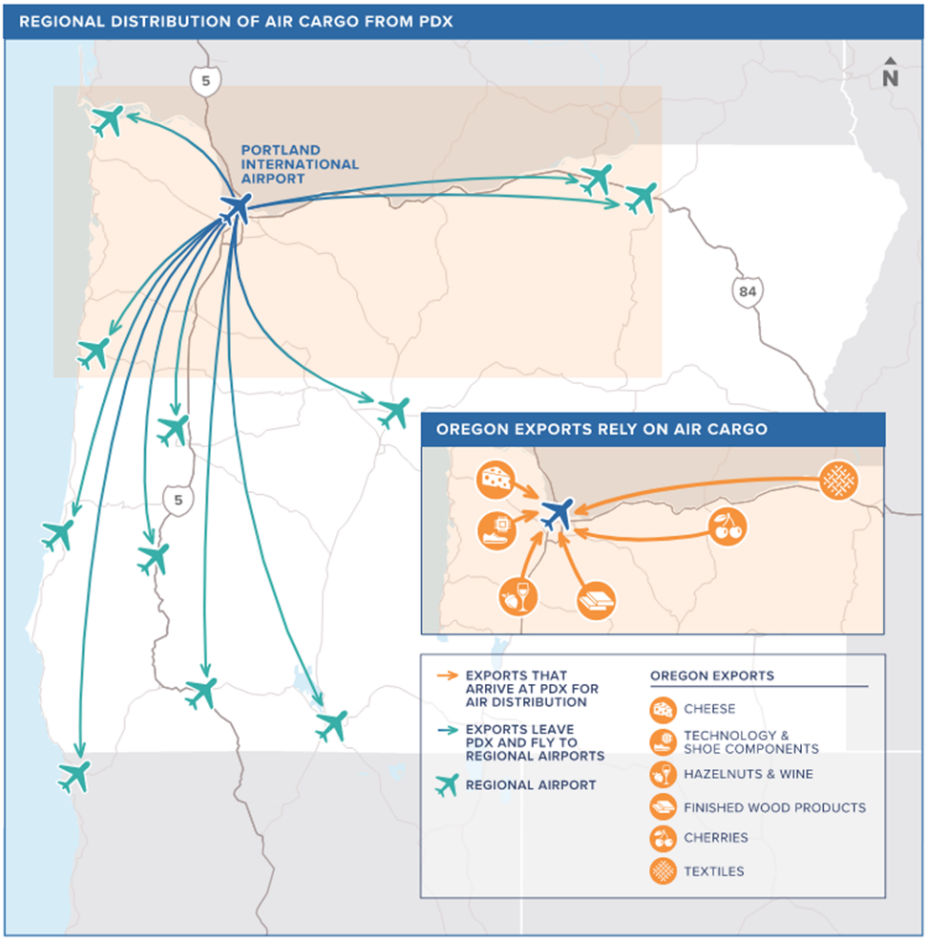
Air Cargo Context and Connect Oregon-Funded ATC Project

The PDX AirTrans Center (ATC) Air Cargo Expansion project will expand common-use cargo capacity and improve operational efficiency and safety at Portland International Airport. The project, aligned with the PDX Airport Master Plan, will add more than 60,000 square feet of pavement for additional aircraft parking, maneuvering, and ground service equipment storage. This expansion addresses long-standing capacity constraints at the ATC, which serves as Oregon's primary interstate and international air cargo facility.

Though the ATC is Oregon's primary interstate/international air-cargo hub, all aircraft parking positions at ATC have been fully leased since late 2018, constraining growth and flexibility. The Connect Oregon–funded ATC expansion of additional pavement, GSE storage, and one additional wide-body parking position (raising mainline cargo positions from 26 to 27, or a nominal increase of 3.85 percent) relieves day/time restrictions, reduces operational delays, and supports cargo demand growth.



The additional ATC wide-body aircraft parking space plus GSE area increases ramp flexibility and reduces gating/hold delays in the south ramp taxilane complex. The port's experience suggests that targeted investments to improve capacity at a key chokepoint can produce large public benefits.



PDX is the state's largest and most versatile airport and the fourth-largest freight hub for international trade on the West Coast. The ATC is Oregon's primary interstate and international cargo facility, serving as the state's only international air-cargo handling center. It also functions as a hub for feeder flights to regional airports across Oregon, providing critical links for feeder flights connecting Oregon communities such as Astoria, Medford, and Pendleton to national and global markets.

High-value and time-sensitive products—particularly technology, agricultural exports, biomedical goods, and organ transplants—rely on the efficiency of the air cargo system. With air cargo volumes increasing 43 percent over the past 15 years, the existing system is under strain.

The Port of Portland applied for and received an award from the State of Oregon Department of Transportation (ODOT) through the Connect Oregon grant program. The ODOT grant award may provide up to 70 percent of eligible project costs; in this case, the grant provides 62 percent with a requested grant amount of $3.6M, and the Port commitment to fund the remaining $2.2M, equal to 38 percent of total project costs.

Project Connect Oregon Grant Application Request Amount:	$3.6M	(62%)
Port 30% Match per Connect Oregon requirement:	$2.2M	(38%)
Total Project Cost:	**$5.8M**	**(100%)**

The Airtrans Center Air Cargo Expansion Project

The ATC Air Cargo Expansion Project is designed to increase Port-owned common-use cargo capacity and improve both efficiency and safety at PDX. Located in the southeast area of the South Ramp Taxilane, this initiative responds to priorities outlined in the PDX Airport Master Plan, known as *Airport Futures,* and is consistent with more recent work for PDX 2045 (please see https://pdx2045.org/).

The expansion project will provide:

- **60,000 square feet of additional aircraft parking**
- **7,000 square feet of GSE storage to increase flexibility**
- **Stormwater improvements for the new impervious area**

The air cargo network at PDX is especially critical for the movement of high-value and time-sensitive goods. Oregon's economy depends on the efficient movement of products such as technology components, agricultural exports, and biomedical goods, including blood supplies and organ transplants. Air cargo allows these goods to reach destinations quickly, and businesses pay premium rates for this higher level of service. The expansion of the ATC will help preserve Oregon's ability to compete in global markets by ensuring fast, reliable access for these industries.

As noted in the air-cargo context discussion above, demand for air cargo services at PDX has grown significantly—43 percent over the past 15 years, including 28 percent over the last decade, leaving the ATC constrained, with all cargo positions under agreement since 2018. With no unconstrained ramp space available, the Port of Portland has had to impose day and time restrictions on carriers, limiting flexibility and sometimes leading to lost service opportunities. The ramp layout also restricts the number and size of aircraft that can be accommodated, creating operational delays when aircraft must wait for suitable positions.

Although the numerical increase of mainline cargo aircraft parking spaces from 26 to 27 may seem modest, the additional ramp capacity will relieve operational delays, provide flexibility for carriers, and better accommodate growth in air cargo demand. This incremental expansion is important strategically for PDX because it will increase flexibility along the entire South Ramp to accommodate a mix of aircraft sizes, thereby helping to meet projected cargo demand and sustain



essential air cargo operations to serve the State of Oregon. In doing so, the project will preserve Oregon's competitiveness in international trade and ensure continued support for industries and communities that depend on fast, reliable air freight.

Trends in Air Cargo and Flight Operations at PDX Airport

Air cargo at the Airport includes both freight and mail, transported on a mix of dedicated freighter aircraft and in the belly compartments of passenger aircraft. The Airport is served by 12 airlines operating freighter aircraft, including two major integrator carriers—FedEx and UPS—which provide end-to-end distribution through large hub-and-spoke networks. The remaining carriers are traditional all-cargo airlines that typically operate point-to-point or ad-hoc services. This mix of operators allows the Airport to handle both consistent, scheduled cargo flows and irregular, shipment-specific services.

FedEx and UPS anchor the Airport's cargo network with regular service to national hubs and regional airports. FedEx has maintained continuous bi-directional service to six destinations, including major hubs at Indianapolis, Memphis, and Oakland, along with Oregon's Medford and Redmond airports. It has also connected intermittently to Fort Worth, Roseburg, and several other regional airports. UPS has consistently served Ontario, CA, and Louisville, KY, with additional service at times to Seattle's Boeing Field, Dallas–Fort Worth, Spokane, and Chicago Rockford. Other carriers, while less consistent, have provided bidirectional or ad-hoc service to a variety of destinations, underscoring the Airport's role as a flexible cargo gateway for both scheduled and nonscheduled ad-hoc freight demand. Taken together, these patterns show that integrators like FedEx and UPS provide a stable backbone of reliable service, while traditional cargo carriers contribute valuable flexibility to meet variable and specialized freight needs.

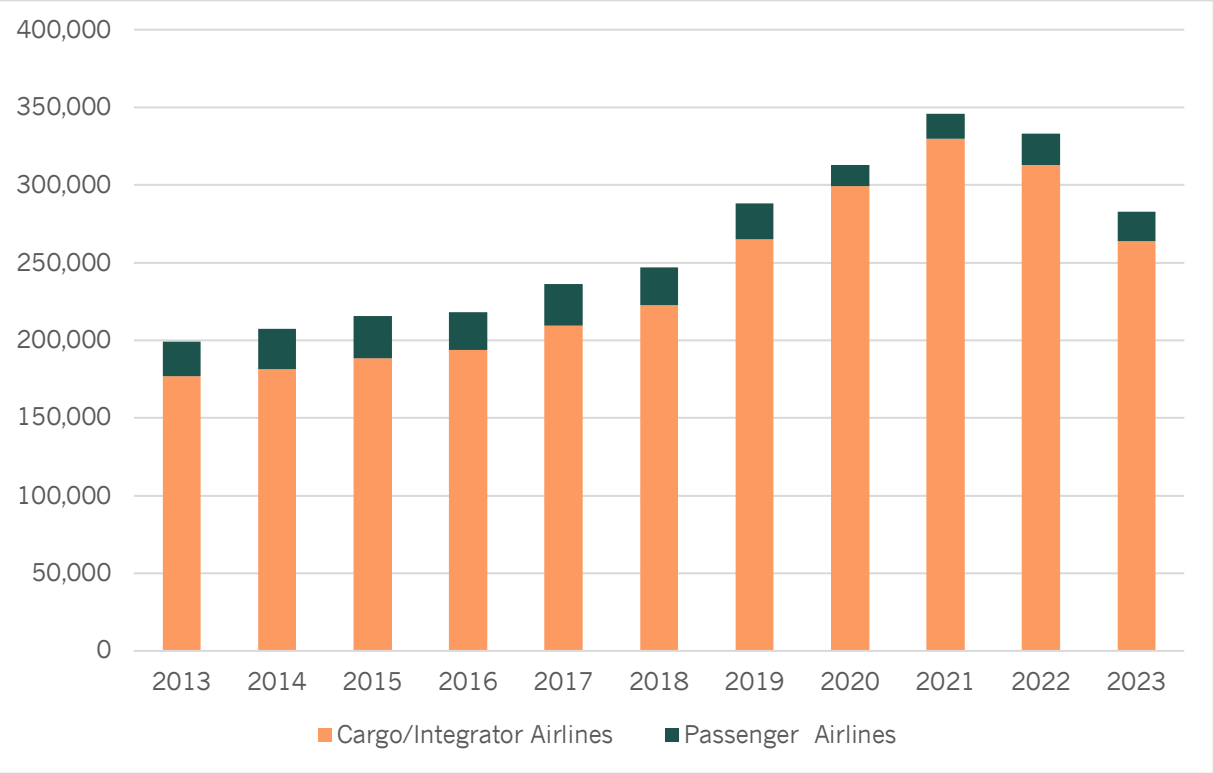
Table 1
PDX Historical Cargo Volumes, 2013-2023

CARGO VOLUMES (METRIC TONNES)				SHARE OF CARGO VOLUMES	
Year	Passenger Airlines	Cargo/Integrator Airlines	Total	Passenger Airlines	Cargo/Integrator Airlines
2013	22,244	176,739	198,983	11%	89%
2014	25,872	181,478	207,350	12%	88%
2015	27,226	188,508	215,733	13%	87%
2016	24,656	193,601	218,258	11%	89%
2017	26,881	209,445	236,325	11%	89%
2018	24,291	222,575	246,866	10%	90%
2019	22,867	265,076	287,943	8%	92%
2020	13,436	299,277	312,713	4%	96%
2021	15,947	329,920	345,867	5%	95%
2022	20,234	312,883	333,116	6%	94%
2023	18,723	264,010	282,733	7%	93%

Source: Port of Portland, Technical Report: Aviation Activity Forecasts, July 2024, Table 11, Historical Cargo Volumes.

From 2013 to 2023, total cargo volumes at the Airport grew from 198,983 to 282,733 metric tonnes, as shown in Figure 1, reflecting a 3.6 percent compound annual growth rate (CAGR). This growth was driven primarily by cargo and integrator airlines, which continue to carry the majority of freight, compared to the relatively smaller volumes of passenger airlines' belly cargo. Cargo volumes peaked in 2021 at 345,867 tonnes, likely due to pandemic-related shifts in logistics and demand for fast delivery of essential goods. As global supply chains stabilize, cargo volumes at PDX have declined slightly in 2022 and 2023, reverting roughly to pre-pandemic levels.

Figure 1. PDX Historical Cargo Volumes in Metric Tonnes, Cargo/Integrator Airlines and Passenger Airlines



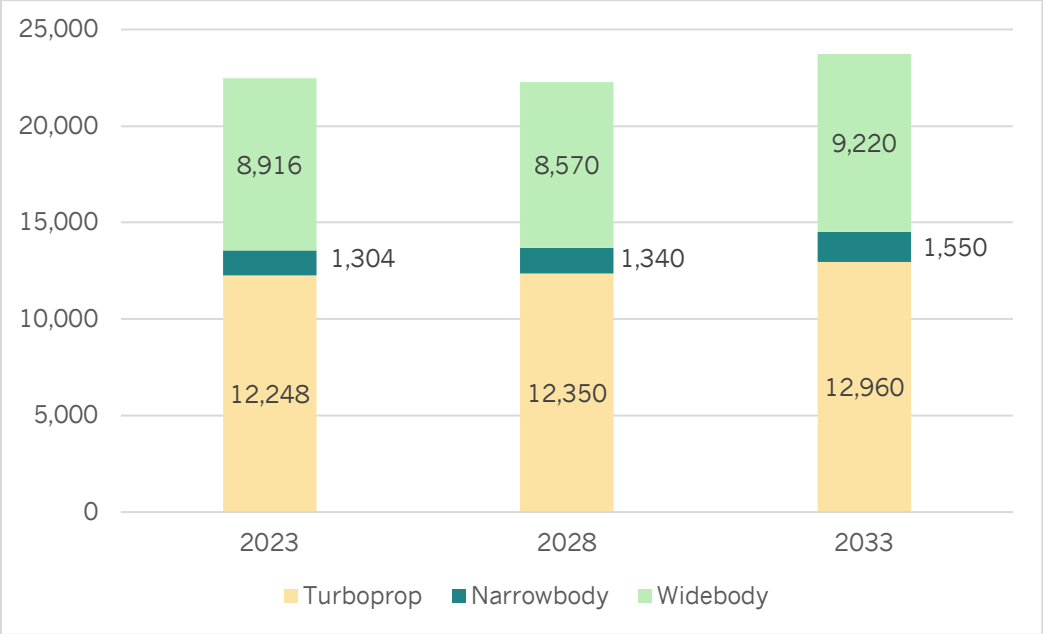
Source: Port of Portland, Technical Report: Aviation Activity Forecasts, July 2024, Excerpted from Table 11, Historical Cargo Volumes.

During this period, cargo carried by integrator airlines rose steadily from 176,739 to 264,010 metric tonnes, representing annual growth of 4.2 percent. In contrast, cargo volumes on passenger airlines declined from 22,244 to 18,723 metric tonnes—an average annual decrease of 2.2 percent. These trends reflect long-term shifts in air cargo demand and reinforce the Airport's growing role as a freight hub anchored by integrator carriers.

In general, turboprop aircraft are projected to remain the dominant aircraft type, accounting for over half of all operations from 2023 through 2033, as shown in Figure 2. They make up 54.5 percent of operations in 2023, with a slight increase to 55.5 percent in 2028, before stabilizing at 54.6 percent in 2033. Wide-body aircraft represent the second-largest share, though their proportion is expected to decline slightly from 39.7 percent in 2023 to 38.5 percent in 2028, before recovering modestly to 38.9 percent by 2033. Narrowbody

operations are expected to grow steadily, increasing from 5.8 percent of operations in 2023 to 6.5 percent by 2033, reflecting gradual diversification in aircraft types serving the Airport.

Figure 2. Air Cargo Fleet Mix



Source: Port of Portland, Technical Report: Aviation Activity Forecasts, July 2024, Excerpted from Table 26, Airplane Fleet Mix.

In short, the demand for air-cargo transportation has been increasing and is experiencing capacity constraints at the ATC. The expansion of capacity enabled by this ATC project will allow the Port to accommodate projected future continued growth.

The Cargo-to-Jobs Relationship

A practical way to describe how air-cargo activity supports regional employment of air-cargo jobs is to use a simple proportional model:

$$\text{Jobs} \approx \alpha + \beta \times \text{Volume}$$

where Volume can be annual metric tonnes handled (preferred when thinking about ground handling) or annual cargo operations (useful when staffing scales with turns), β captures the approximate number of on-airport cargo jobs supported per unit of volume, and α reflects baseline staffing that must exist regardless of small swings in demand (supervision, facilities, security, coordination, etc.).

Read literally, this formula says: if cargo volume grows, we expect jobs to grow by about β times that change—on average, over a relevant range. In the ATC context, it's best understood as a planning heuristic, not a precise forecast. It helps quantify orders of magnitude and communicate why seemingly modest increments of capacity (e.g., one more wide-body position) can protect or grow jobs.

This representation allows decision-makers to consider the relationship between cargo volume and jobs. It is important to note a few caveats with this model:

- It **anchors to today's workforce** using **α** so that at the current volume, the model reproduces roughly the observed on-airport cargo headcount
- **It describes changes in jobs in "round numbers."** For example: "A sustained increase of +X thousand tonnes per year would support on the order of +β×X additional on-airport cargo jobs, assuming today's operating model."

Baseline Data Sources and Assumptions

In order to estimate potential jobs and output impacts accruing from the project, baseline data were identified as the following regarding ATC operational and capacity baseline (for years 2023–2025):

- All ATC positions under agreement since 2018; no unconstrained ramp space pre-project.
- The scope of the project adds one wide-body aircraft position (a 3.85-percent increase), over 60,000 square feet of pavement, and about 7000 square feet of GSE storage.
- 2023 totals:
  - 22,468 cargo flights;
  - 272.6k metric tonnes handled;
  - Volumes driven predominantly by integrator freighters.
- PDX cargo grew about 43 percent over 15 years
  - Ramp constraints require day/time restrictions today.
- ATC workforce baseline: ~1,784 badged employees across FedEx, UPS, integrators, and handlers (with additional off-airport admin support).

Using these baseline data, the team has identified key performance indicators (KPIs) for tracking the project's performance. These KPIs include:

- For Construction (during the 1 to 2 years the project improvements are implemented):
  - Jobs (direct, indirect, induced);
  - Labor income or compensation;
  - Estimated Output.
- For Operations (ongoing):
  - Direct on-airport cargo jobs (baseline badges + off-airport admin), wage quality,
  - Throughput proxies (added flights/month and carrying capacity).
- Trade-enabled activity:

- Imputed export value per operation and per employee;
- share of statewide exports moving via PDX air cargo.

Using these key performance indicators, the Port will work to develop a jobs and economic activity monitoring plan and "success" dashboard, which may include the following:

- New direct ATC jobs vs. baseline 1,800; retained jobs narratives; average wage snapshots; added flights/month; tonnes handled; qualitative diversion avoidance stories.
- Annual roll-up: realized construction jobs, labor income, value added, and output; operations net new/retained jobs; wage quality; trade-enabled indicators (export value/operation and per employee).

Estimated Impacts Attributable to the Project

In general, the ATC expansion is expected to generate significant economic benefits for Oregon. It is estimated that the project will create about 59 new direct air cargo jobs and help retain more than 1,500 existing jobs linked to air cargo and supporting industries, such as freight forwarding and customs brokerage. Many of these jobs offer wages higher than the regional average, with cargo-related air transportation jobs averaging over $75,000 annually. Additionally, the improved capacity will support the broader regional economy and the state's export industries, strengthening Oregon's position in the global marketplace while reducing the need for costly truck drayage to airports in neighboring states. [1]

The success of the ATC project will be measured by its ability to increase statewide air cargo tonnage and the number of air cargo flights handled through PDX. The project's design is expected to enable approximately 68 additional air cargo flights and about 900 metric tonnes of carrying capacity per month —representing an estimated 3.85 percent increase in cargo handling capability. These improvements not only enhance operational efficiency and safety at the ATC but also help Oregon businesses maintain affordable shipping costs, reducing the risk of companies relocating operations out of state due to logistics expenses.

Jobs and economic activity are broadly described as:

- Construction-related jobs generated with the implementation of the capital-improvement project;
- Air-transportation related jobs generated or retained as a result of increased cargo movement enabled by the capital-improvement project; and
- Regional jobs generated in the regional economy enabled by the increased capacity of the AirTrans Center.

[1] This work builds upon the work conducted for the ATC grant application, reviewing assumptions for the jobs and economic activity expected to be generated, and moving to verify that the jobs and economic activity anticipated from the improvements are actually realized.

Expected (Short-Term) Construction-Related Impacts

In addition to the long-term impacts from expanded operations enabled by the grant-funded project, the grant project is projected to yield construction-related (short-term) impacts due to the implementation of the project. The Port was awarded $3.6 Million in Connect Oregon funds, which will need to be matched with $2.2 Million of Port funds for a total project cost of $5.8 Million.

Key Short-Term Impacts

- **Employment: 50 total (30 direct, 7 indirect, 13 induced)**
- **Labor income: ~$4.0M (direct ~$2.59M)**
- **Value added: ~$5.75M**
- **Output: ~$10.07M Average direct compensation ≈ $86k/worker.**

Using the construction estimate of $5.8 million in infrastructure improvements enabled by implementation of the grant, ECO conducted an analysis of the expected construction-related economic impacts of the overall federal project, using 2023 IMPLAN[2] data for the State of Oregon, yielding the results as shown in Table 2.

Table 2. Estimated Construction-Related Impacts of $5.8 million in Infrastructure Spending

Impact	Employment	Labor Income	Value Added	Output
Direct	30	$2,591,000	$3,310,000	$5,800,000
Indirect	7	$590,000	$991,000	$1,976,000
Induced	13	$808,000	$1,445,000	$2,293,000
TOTAL	50	$3,988,000	$5,747,000	$10,069,000

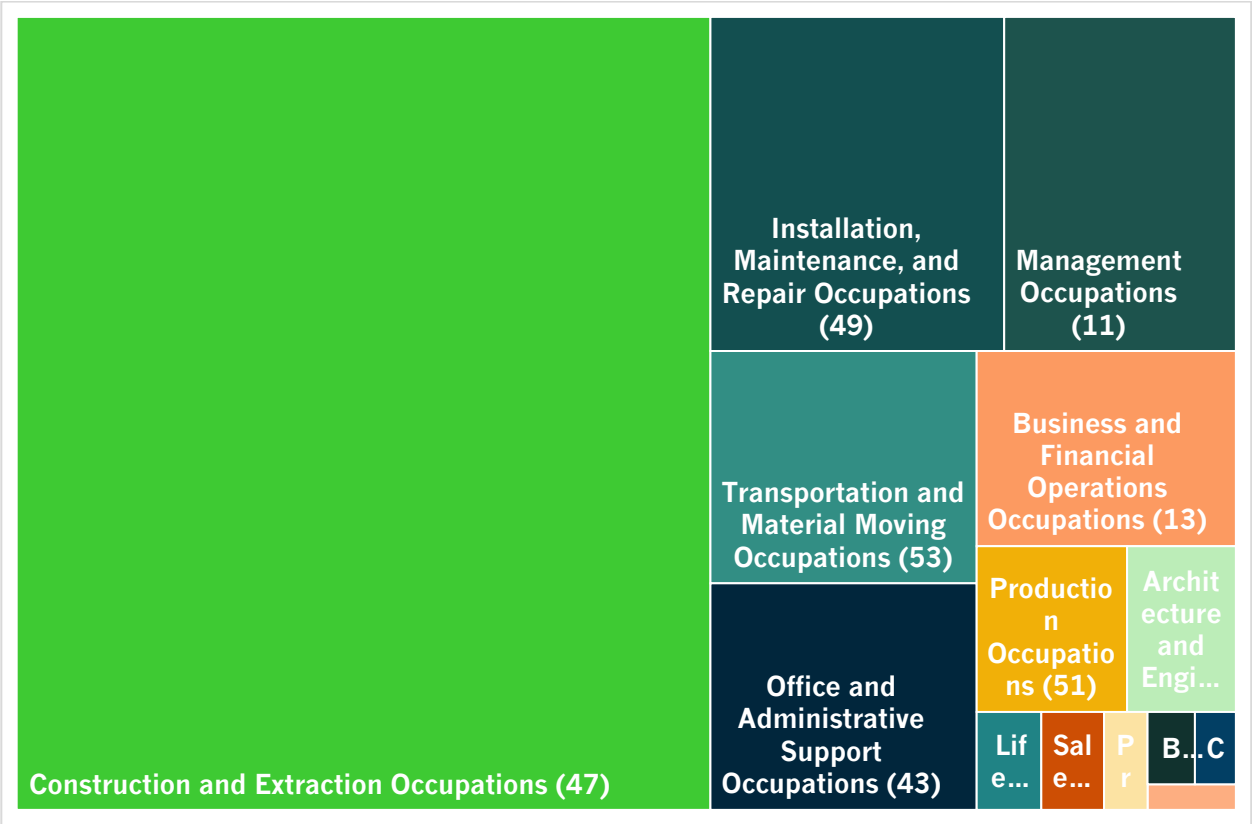
Source: IMPLAN (2023 data), modeled by ECOnorthwest.

The $5.8 million in infrastructure spending is expected to yield an estimated 30 direct jobs, paying over $2.5 million in labor income (for a per-worker average compensation of over $86,000), and an additional estimated 20 secondary (indirect and induced) jobs.

Unsurprisingly, these jobs are concentrated in the Construction and Extraction Occupations (SOC code 47), though the distribution of occupations includes jobs across a wide array of occupations, particularly installation, maintenance and repair, management, transportation and material moving, and office and administrative support functions, as shown in Figure 3.

[2] For more information on the IMPLAN model, please visit https://support.implan.com.

Figure 3. Distribution of Occupations for Infrastructure Construction, listed by Standard Occupational Classification (SOC)



Source: Bureau of Labor Statistics, data extracted on July 29, 2025.

Expected (Long-Term) Operations-Related Impacts

There are a variety of ways existing data can be extrapolated to help us understand the employment and economic activity associated with air-cargo activity, and the increase in economic activity enabled and preserved by improvements to the ATC. There will be direct economic benefits (in terms of jobs) associated with the increase in cargo movement enabled, as well as an overall benefit to the Oregon economy due to a net increase of long-term jobs and increase in private investment in Oregon to satisfy needs to increased air exports.

As noted in the grant application, quantifying the specific economic benefits (in terms of jobs) that will result from this project, depends on the way direct jobs are defined. As a starting point, the Port generally has confirmed that there are approximately 1,550 to 1,800 cargo-related jobs on-airport, which we confirmed with a request for badging data from PDX.

Key Long-Term Impacts

- **Employment: About 59 new on-airport cargo jobs and more than 1,800 existing jobs retained**
- **Per-Employee Income: Cargo-related jobs pay over an average of $75,000 annually**
- **$2.9 Billion in Exports enabled through ~22,000 air cargo operations**
- **Trade-enabled regional activity suggests that even incremental capacity can leverage substantial economic value.**

Original estimates in the grant application were based upon analyses conducted as part of the Port's recent work relating to economic impact by Steer (2023) and Martin Associates (2016). These analyses estimated total (cargo and passengers) direct employment at the airport of 10,549 (Steer) and 10.574 (Martin). Relying on these direct job estimates and data on direct employment associated with freight air transportation, ECOnorthwest developed several alternative methods for estimating the increase in cargo-related jobs as part of the original grant application. Using the Port's statistics regarding marine and aviation cargo, including monthly air operations, ECOnorthwest applied the operations data to estimate the total jobs associated with air-cargo movement from the Steer analysis as **1,543 current jobs** associated with the movement of air cargo at PDX.

To verify this estimate, ECOnorthwest recently obtained employment badging data from the Port of Portland. As of July 2, current ATC employers had issued a total of 1,784 employee badges,[3] as shown in Table 3.

[3] Recognizing that there are off-airport jobs supporting these 1,784 ATC employer jobs, ECO reached out to Jonathan Whatley, PrimeFlight's general manager to inquire about off-airport employees. According to Mr. Whatley, PrimeFlight's 548 on-airport employees are supported by another seven employees in administrative functions, including operations, human resources, safety/security, and management. Presuming that other employers have administrative employees in similar proportions suggests a total of over 1,800 direct employees associated with cargo movement through the AirTrans Center.

Table 3. PDX ATC Employer Badges, as of July 2, 2025

EMPLOYER	ACTIVE CARDS
ABX Air Inc	7
Air Transport International	4
AirPac Airlines, Inc	7
Ameriflight LLC	20
Atlas Air	1
Cathay Pacific Airways	7
DHL Express USA Inc	72
Empire Airlines Inc	13
Federal Express	341
Federal Express Ground	1
FedEx PDX Maintenance	18
FedEx PDX Market USGO	50
LGSTX Services	2
Pet Net Solutions	1
PrimeFlight Aviation Services	548
Quantem Aviation Services, Inc.	215
Sidwell Air Freight Inc	6
Summit NW Corporation	17
United Parcel Service	437
UPS Cartage Services, Inc.	17
Total	**1,784**

Source: Port of Portland.

These direct jobs are only the first layer of economic impact relating to this air-cargo activity. Multipliers describe how this activity ripples through the broader economy. Economists typically refer to direct, indirect, and induced effects where direct effects are the on-airport and airline activities themselves (carriers, ground handlers, maintenance, security). Indirect effects come from suppliers to that activity (fuel providers, catering, GSE vendors, parts, professional services). Induced effects are household-spending impacts from the wages earned in the first two layers (groceries, rent, healthcare). Analysts track these to show, for example, how one airport job supports additional jobs off-airport, or how a dollar of airline spending translates into regional GDP.

A hypothetical $1 million in output in the air transportation industry (air cargo and air passengers combined) in the State of Oregon in 2024 data year (latest available) would be expected to produce the following employment, labor income, and value-added impacts, as shown in Table 4.

Table 4
Estimated Employment, Labor Income, Value Added, and Output Associated with $1 million in Output

	EMPLOYMENT	LABOR INCOME	VALUE ADDED	OUTPUT
Direct Effects	1.82	$237,921	$541,070	$1,000,000
Indirect Effects	1.67	$133,844	$168,546	$289,766
Induced Effects	1.55	$99,367	$179,067	$288,108
Total Effects	5.05	$471,132	$888,683	$1,577,874

Source: IMPLAN (2024), State of Oregon, modeled by ECOnorthwest.

Air transportation multipliers are often larger than average because the industry is both high-wage and supply-chain intensive. A single additional wide-body movement touches many specialized vendors (fueling, load control, deicing, aircraft servicing) and supports well-compensated roles, so each direct job tends to generate meaningful indirect and induced employment. Capital outlays—aprons, gates, navigation equipment—also have strong one-time construction multipliers. Importantly, the structure differs by segment: integrators and belly-cargo networks emphasize time-definite logistics and ground handling; hub passenger operations add retail and hospitality; MRO clusters expand technical supply chains. The resulting multipliers reflect that operational mix, local vendor depth, and wages.

So **for every direct job, there are nearly two jobs created**, supported by the supply-chain and consumption enabled by the direct economic activity, as shown in Table 5.

Table 5
Jobs Multipliers in the Air Transportation Industry

MULTIPLIER EFFECT	EMPLOYMENT
Direct Effects	1.00
Indirect Effects	0.92
Induced Effects	0.85
Total Effects	2.77

Source: IMPLAN (2024), State of Oregon, modeled by ECOnorthwest

Based on direct employment of 1,800, based on the air transportation in Oregon in 2024 (the latest year available), estimates indirect and induced employment of nearly 5,000 as shown in Table 6.

Table 6
Estimated ATC-Related Employment

	EMPLOYMENT
Direct Effects	1,800
Indirect Effects	1,652
Induced Effects	1,533
Total	4,985

Source: IMPLAN (2024), State of Oregon, modeled by ECOnorthwest.

Two additional features make air-transportation multipliers distinctive. First, network effects: reliability and small capacity gains can result in outsized activity because flights connect to national and global markets; improving a chokepoint doesn't just add "one more job," it can retain or enable entire service patterns.

Second, trade enablement: air service raises the effective productivity of export-oriented firms (semiconductors, biotech, perishables) by reducing lead times and inventory costs. While these benefits don't show up perfectly in standard input–output tables, they amplify observed multipliers by increasing the region's competitiveness and keeping high-value shipments from leaking to other gateways. As such, the per-employee labor income is higher for the direct jobs (those in air transportation), compared to indirect or induced jobs, as shown in Table 7.

Table 7
Average Per-Employee Labor Income

	PER EMPLOYEE LABOR INCOME
Direct Effects	$130,726
Indirect Effects	$80,146
Induced Effects	$64,108
Direct + Indirect Average	$106,523
Average	$93,294

Source: IMPLAN (2024), State of Oregon, modeled by ECOnorthwest.

Expected Off-Airport Regional Economic Impacts

The relatively modest increase in jobs associated with the movement of air cargo will be supplemented by a much larger number of jobs associated with the increase in economic activity generated in the region. These jobs are associated with the increase in the production of goods and services, whose export movement will be made possible with this expansion to the ATC.

For the grant application, ECO and the Port explored the potential jobs associated with an additional $1 billion in semiconductor exports, based on the current value of statewide exports, and the data showing about half of export value being in semiconductors.

Data from the Foreign Trade Division of the U.S. Census through wisertrade.org shows that air exports through PDX comprise a small fraction (just under 15 percent in 2024 and 2023) of statewide exports, suggesting that the $1 billion estimate should not be attributed fully to PDX and the ATC.

Combining the international air export volumes and values of shipments by air through PDX with the air operations data from the Port of Portland and an estimate of the proportion of cargo shipped through dedicated air freighters (as opposed to combined passenger flights ("belly cargo"), ECO explored alternative methods to estimate regional economic impacts enabled by the ATC expansion.

This exploration utilizes the value and volume of trade through the Portland International Airport, and considers the number of cargo flight operations along with the current ATC employees and reported value and volume of air cargo. As described earlier in this memo, Air Cargo is generally split between dedicated air-cargo freighters and air cargo transported on aircraft with passengers ("belly cargo"). Nationwide, ACI-International suggests that air cargo is fairly evenly split between dedicated air freighters and belly cargo; however, as noted in Figure 1, air cargo at PDX leans heavily toward dedicated cargo freighters, with only a small percentage attributable to belly cargo in passenger aircraft. As such, this work acknowledges this tendency and assumes air cargo will continue to lean heavily toward dedicated freighters, with 90 percent of cargo assumed shipped in these dedicated freighters, with only 10 percent shipped as belly cargo in passenger aircraft.

Considering the $2.9 billion in export value and 20,752 air cargo operations in 2024 and the current number of badged and supporting ATC employees suggests an average imputed value of just under $70,000 per operation, or just over $1.6 million per direct ATC employee, as summarized in Table 8.

Table 8. Summary of Air Cargo Values per Operation and per Employee

ASSUMPTIONS	DESCRIPTION	2024 VALUES
	TOTAL VALUE--ALL COMMODITIES	$2,900,406,597
	Total Air Cargo Operations	20,752
90%	Dedicated Freighter (vs. Belly Cargo) split	
	Effective Dedicated cargo operations	23,058
	Imputed value per operation	$125,789
1,807	ATC Employees (badged and support)	
	Imputed value per employee	$1,605,095

Source: http://www.wisertrade.org, data from U.S. Census Bureau, Foreign Trade Division (export value); Port of Portland (Air Cargo Operations); ACI-International (air-cargo freighter vs. belly cargo split).

By considering trade volumes, operations data, and ATC staffing levels, the analysis imputes an average value of **nearly $126,000 per cargo operation** and **over $1.6 million per ATC employee**. These findings demonstrate the substantial economic leverage generated by relatively small numbers of highly skilled staff and limited operations compared to the total aviation footprint. They underscore the critical role of air cargo infrastructure and workforce in sustaining regional export competitiveness, while also pointing to the need for continued investment in ATC capacity and reliability to keep pace with future demand.

The Air Transportation Center project will generate a range of economic impacts beyond direct job creation. Expanded operations will increase overall business output, contributing additional value to the regional economy and strengthening gross regional product. Higher levels of commercial activity will, in turn, generate new local and state tax revenues. Improved passenger connectivity will also support visitor spending across lodging, restaurants,

KEY TAKEAWAYS

- **PDX supports over 15,000 jobs and contributes over $3 billion annually to the local economy with the ATC helping to sustain global competitiveness.**
- **Current scale of $2.9 billion export value through ~22,000 air-cargo operations at PDX.**
- **There are roughly 1,800 direct jobs, and nearly 5,000 total jobs, associated with ATC operations before the ATC expansion project.**
- **Expansion of the ATC enables more regional jobs beyond air-cargo roles by unlocking additional export activity, especially in tradable goods.**
- **Broader economic lift is achieved through higher business output, stronger supply chains, and more reliable global connections.**

retail, and transportation sectors, while enhanced cargo capacity will increase the value of goods moving through the Airport and reinforce regional trade.

Public revenues also increase as a result of expanded aviation activity. The project is expected to generate millions in state and local tax revenues, helping fund essential public services. Visitor spending adds another layer of impact: improved air service is forecasted to support millions annually in hospitality, retail, and transportation spending from passengers traveling through the airport.

Air cargo enhancements tied to the project also support trade and competitiveness. Expanded facilities are projected to facilitate **billions in the value of imports and exports**, underscoring the Airport's role as a logistics hub. These flows not only benefit freight carriers but also strengthen the supply chains of regional businesses that depend on timely air shipments.

Finally, the project catalyzes broader economic development. Real estate markets near the Airport are likely to benefit from higher demand for commercial space, while enhanced connectivity improves the region's attractiveness for business investment. Productivity gains from reduced travel times and more reliable global connections further reinforce the project's long-term value to the regional economy.

These direct impacts of Air Cargo and the ATC expansion are just one small sliver of the impact that the airport has on the broader region as a whole. PDX serves as a critical economic engine for the entire region—statewide and beyond. The Airport supports more than 15,000 jobs across aviation, hospitality, logistics, and related industries, providing opportunities for residents and businesses alike. Its operations contribute nearly $3 billion annually to the local economy, reinforcing PDX's role as both a regional hub for travel and trade and a driver of long-term economic growth.

Appendix 1: Cargo-to-Jobs Relationship Caveats

The cargo-to-jobs relationship model described is only an approximation with the following important caveats:

- **Non-linearity.** Staffing often changes in steps (e.g., adding a new shift or team lead) rather than smoothly. Around those thresholds, **β** can jump.
- **Utilization vs. capacity.** If existing shifts/equipment are under-utilized, early volume gains may be absorbed with little or no hiring (β → 0). Once utilization is high, further gains require people (β rises).
- **Mix matters.** Jobs per tonne differ by carrier type, aircraft mix, and product mix (integrator vs. ad-hoc freighter, e-commerce vs. perishables). A single **β** blurs these differences.
- **Productivity and technology.** Process improvements, automation, and GSE changes can shift **β** over time (usually downward per unit of volume).
- **Contracting vs. direct hires.** Some activity moves to third-party providers or off-airport locations; the jobs still exist, but may not appear in ATC badge counts.
- **Seasonality and peaking.** Temporary peaks can drive overtime before headcount growth; conversely, troughs may not reduce core staffing, inflating **α**.
- **Network effects and diversion.** Airline network changes, belly-cargo availability, or diversion to out-of-state airports can break the link between local volume and local jobs.
- **Policy and compliance.** Security requirements, training standards, and labor agreements can all change the staffing baseline **α** independently of volume.
- **Data granularity.** Reported "tonnes" can include belly cargo with different handling intensity than freighter cargo; "operations" can bundle very different turn times.

How to interpret these results responsibly:

- This discussion pairs the β-based estimate with a range (e.g., "on the order of 40–70 jobs"), and clearly states that assumptions drive both the low and high ends (utilization, mix, tech).
- Future work should re-estimate β using updated ATC data (tonnes per FTE, operations per FTE) so the rule of thumb stays aligned with realities on the ramp.

In short, this model utilizes a simplified formula providing a useful, defensible shorthand for how added cargo activity translates into employment at the ATC—so long as the team treats it as a guidepost, explains the assumptions, and regularly recalibrates it against observed staffing and throughput.