Pullman – Moscow Regional Airport

Enplanement and Peak Hour Forecast

Passenger Terminal Design Phase I

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EXPERIENCE EXCEPTIONAL

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Need for Passenger Terminal Improvements

This report has been prepared to support the development of a new passenger terminal at the Pullman-Moscow Regional Airport (the Airport, or PMRA). PMRA has experienced unprecedented enplanement growth over the last decade. In 2009, PMRA enplaned 30,128 passengers which increased to 70,061 by 2019, an increase of 133 percent (**Table 1**). As a result of the enplanement growth, a new passenger terminal has long been needed. However, the Runway Realignment Program that has brought the Airport into compliance with FAA design standards for C-III aircraft while significantly enhancing the all-weather capability of the Airport took priority. Now that the Runway Realignment Program is nearing completion, the Airport is focusing on providing adequate passenger terminal facilities to first meet the needs of existing passenger demand while also considering near-term and future demand requirements.

Table 1
Enplanement History

Year	Enplanements
2009	30,128
2010	34,452
2011	37,305
2012	37,635
2013	38,689
2014	41,335
2015	46,768
2016	58,992
2017	59,880
2018	61,650
2019	70,560

Sources: FAA TAF, Airport Records

Existing Passenger Terminal Constraints

The existing passenger terminal building at PMRA was originally built in 1989 when the Airport was served by Fairchild Metroliner Aircraft that was replaced by the Bombardier Q200, which ultimately gave way to the Q400 aircraft. The passenger terminal is 8,785 square feet and is inadequate for the existing, near-term or long term forecasted passenger demand. **Table 2** highlights the deficiencies of the existing terminal facilities compared to the minimum requirements to accommodate 2019 enplanement levels.

Table 2: 2019 Enplanements – Minimum Terminal Facility Requirements

Airside	Existing Terminal	Minimum Requirements
Security Screening Checkpoint	790	2,800
Concourse Public Space	860	13,873
Concourse Leased Space	0	342
Gates: Passenger Boarding Bridges	0	3
Gates: Ground Boarding	1	3
Baggage Screening and Handling	168	4,000
Landside		
Terminal (Public)	6,693	10,245
Leased & Misc. Space	274	5,464
Total		
	8,785	**41,705**

Terminal facilities to accommodate near-term and future enplanement growth range from 52,000 to 68,000 square feet. The proposed new terminal facilities will be constructed in an undeveloped area of the Airport which was made available by the Runway Realignment Program.

In addition to the need for a larger terminal building, both landside and airside supporting facilities are also undersized. Existing and near-term demand require approximately 700 vehicle parking spaces compared to the 350 parking spaces that are currently available. The existing terminal apron is undersized and will not accommodate multiple scheduled aircraft and/or charter aircraft simultaneously.

This summary provides a brief overview of the terminal constraints that must be addressed to adequately support existing enplanement levels. Square footage of terminal facilities at airports throughout the Northwest Mountain Region with similar enplanements further highlight the deficiencies in PMRA's terminal facilities (**Table 3**).

Table 3
PMRA Terminal Needs Compared to Existing Terminal Facilities at NWMR Airports

Airport	2019 Enplanements	Terminal Square Footage
Pullman-Moscow Regional	70,560	8,785
Pocatello Regional	46,303	38,790
Walla Walla Regional	49,527	30,992
Lewiston-Nez Perce County	57,957	29,649
Yakima Air terminal/McAllister Field	69,510	30,838
Yampa Valley	100,079	71,695
Helena Regional	115,438	134,000

Limitations to Enplanement Growth

Enplanement growth over the last decade has been significant despite constraints in airport infrastructure. PMRA is entering the final year of construction of the runway realignment program which corrected design standard issues and extended the runway from 6,700 feet to 7,100 feet. These improvements provide infrastructure that meet the existing need of Alaska Airlines, charter and corporate aircraft.

A critical aspect of the Runway Realignment Program is to provide precision instrument capabilities consistent with standard industry operating procedures to best serve the Pullman-Moscow region. Prior to the runway realignment program, the Airport experienced a significant number of weather-related cancellations, averaging 70 per year between 2010 and 2019. The high number of cancellations resulted in an average enplanement loss of 3,724 annually.

Table 4

The new realigned runway opened on October 10, 2019. Airport records show only 11 weather related cancellation occurred between October 2019 and March 2020, demonstrating the benefits improved all-weather reliability provides. As expected, the reduction of cancellations improved consumer confidence in PMRA resulting in sharp increases in enplanements between November 2019 through February 2020 when compared to the year prior. The average month over month percentage change for this four-month period was 25.36 percent. Due to COVID-19, which impacted the airline industry worldwide, a full year of enplanement data is not available to fully understand the benefit the runway realignment program provides. However, utilizing the average percent growth between November 2019 through February 2020 and extrapolating through the remainder of 2020, enplanements at PMRA would have reached approximately 92,734 which is a 33.06% increase from 2019 (**Table 4**). This further demonstrates the immediate need for new passenger terminal facilities.

Runway Realignment Attributed Enplanement Growth (Monthly Comparison)

Year	2018	2019	2020	% Change
Oct		4,420	8,418*	
Nov	6,759	7,247		+7.22%
Dec	6,420	8,091		+26.03%
Jan		5,342	6,460	+20.93%
Feb		4,816	7,095	+47.32%
Mar		7,086	8,883*	
Apr		6,620	8,299*	
May		6,917	8,671*	
June		6,142	7,700*	
July		6,016	7,542*	
Aug		5,807	7,280*	
Sep		1,051	7,048*	
Total		69,691	92,734*	+33.06%

Sources: FAA TAF, Airport Records
*2020 Projected Enplanements based on year prior + 25.36% which is the average % increase from November 2019 through February 2020 for which are the only months of normal operations data available for the new runway pre-COVID. The Airport was closed September 2019 through October 9, 2019, therefore 2020 projected enplanements utilized 2018 data.

COVID-19 and PMRA Resiliency

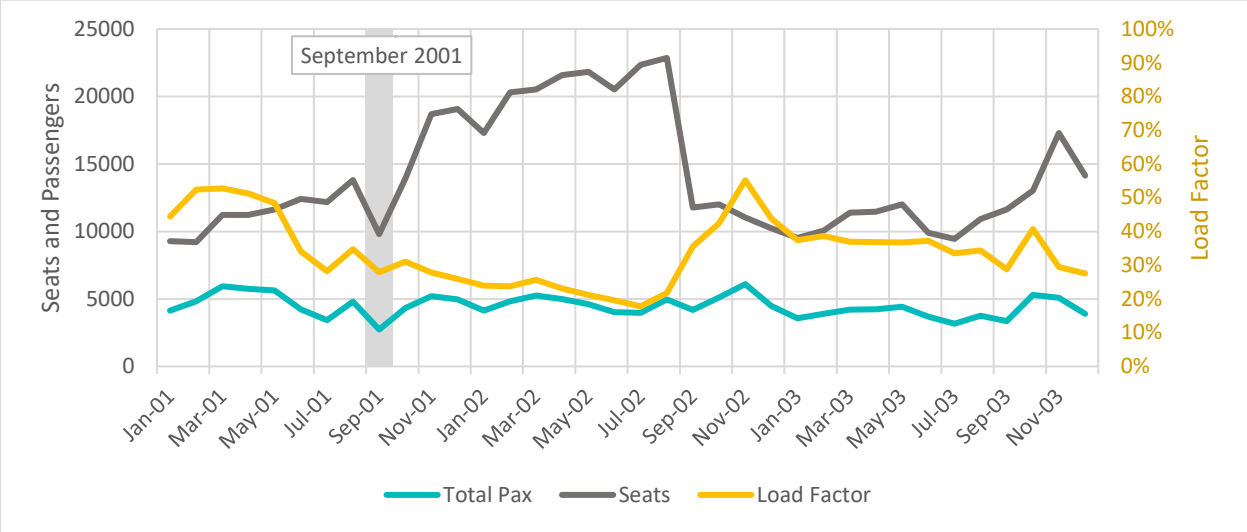
This forecast was developed during a time of uncertainty in the economy and aviation industry. The aviation industry in the United States has been greatly affected by the pandemic with both American and foreign airlines cutting back on domestic and international flights because of the sudden drop in demand for travel.

The aviation industry is expected to eventually recover from the effects of the COVID-19 pandemic and return to long-term growth as demand for travel returns. PMRA's market is resilient and is likely to return to pre-COVID-19 enplanement levels more quickly than the region and national averages. The COVID-19 pandemic and its impacts on aviation are unprecedented, but the September 11th attacks in 2001 and the Great Recession of 2008 are two examples of significant events impacting aviation and PMRA's resiliency and ability to recover. The historical rates of recovery for both events provide an insight into how quickly PMRA can expect to recover from the COVID-19 pandemic.

September 11, 2001

The effects of the September 11 attacks in 2001 resulted in a sharp decrease in air travel demand. This is not unlike the effects of COVID-19 and would provide insight into recovery scenarios for PMRA. **Figure 1** shows monthly enplanement, seat, and load factor data from January 2001 to December 2003.

Figure 1: PMRA Total Monthly Seats, Passengers, and Average Load Factors (Jan 2001- Dec 2003)



Note that this chart shows total passengers, not just enplanements. Load factors here are calculated using airport records containing passenger counts and landing records which were doubled to estimate total scheduled flights.
Source: PMRA Records

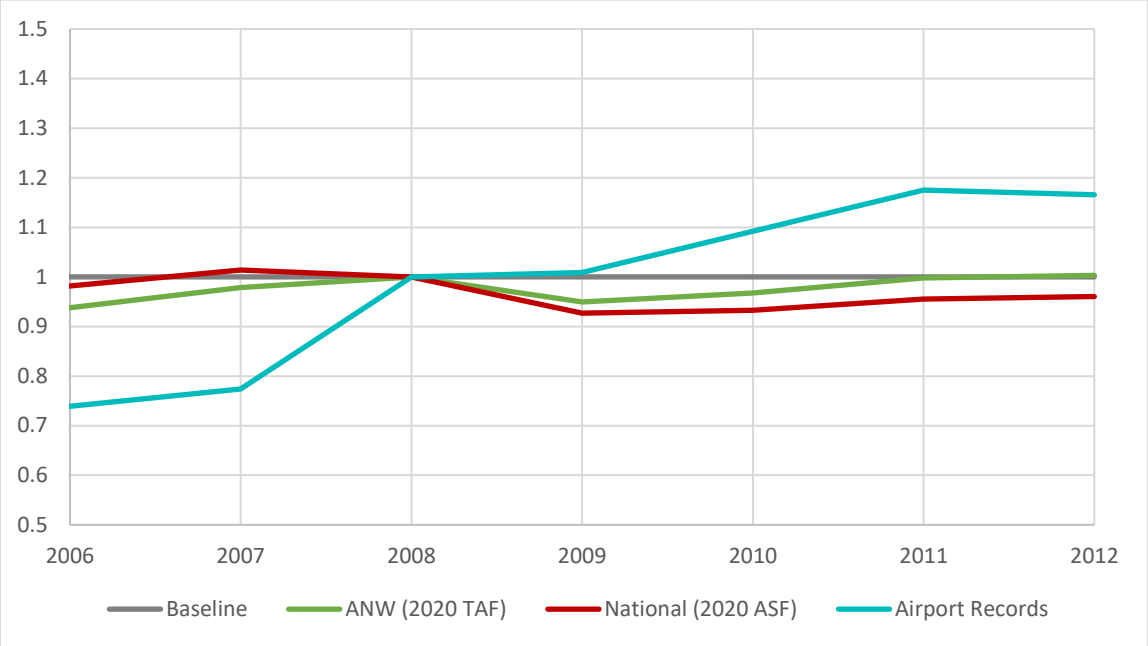
PMRA experienced a decrease of over 2,000 passengers, around 43 percent, from August to September 2001. This is a 48 percent decrease from September 2000 and a 52 percent decrease from September 1999. The decrease can be attributed to the immediate impacts of September 11th with flight being canceled and schedules changing along with the psychological impact the event had on travelers.

Immediately following a decrease in September, however, the number of passengers at PMRA increased. Note that the number of seats from November 2001 to August 2002 is near double of pre-September 11 levels due to the transition from the Q200 to the Q400 aircraft, which explains the lower load factors even as passenger numbers never fell below the September 2001 low. Thus, while September 11 had resulted in a decrease in enplanements at PMRA, it does not seem to have had a direct near-term or long-term impact.

2008 Great Recession

The 2008 Great Recession did not impact PMRA as severely as the rest of the FAA Northwest Mountain Region and the United States. Enplanements at PMRA increased 0.9 percent between 2008 to 2009 while national enplanements decreased 7.3 percent during the same period. **Figure 2** shows the indexed enplanement records for PMRA, the FAA Northwest Mountain Region (ANW), and the United States. ANW is comprised of 7 states: Colorado, Idaho, Montana, Oregon, Utah, Washington, and Wyoming.

Figure 2: Regional and National Comparison of Enplanement Index



ANW: FAA Northwest Mountain Region (Colorado, Idaho, Montana, Oregon, Utah, Washington, Wyoming)
Source: 2020 FAA Aerospace Forecast, 2020 FAA TAF, PMRA Records

The total number of passengers decreased from 48,407 in 2007 to 44,775 in 2008. Then 2009 saw total passenger numbers grow to 62,843. During the same period both regional and national enplanements declined. **Figure 2** data also demonstrates PMRA recovered more quickly than the region and national trends by entering a 10-year period of passenger growth beginning in 2009 at an average 8.2 percent per year.

PMRA has shown precedence in recovering from significant events impacting demand. The communities and regional economies are resilient and have shown that with similar industry events they recover more quickly. Enplanements recovering quickly from 2008 to 2009 followed by sustained growth shows the effects of the inelastic demand for air travel to and from PMRA as well as the potential for PMRA to see a relatively quick recovery. This demand inelasticity comes from the presence of the two universities such that if in person learning is occurring, air travel demand at PMRA will be relatively consistent. Thus, while COVID-19 has had a significant impact on aviation, PMRA has the potential to recover from its effects quickly and continue growing.

Aviation Activity Forecast

The following aviation demand enplanement and peak hour forecast has been prepared so that future terminal facilities are designed to meet the needs of existing, near-term, and long-term passenger demand. The Airport is requesting FAA review and approval of passenger enplanement levels and the peak hour demand forecast. Upon approval, the Airport will prepare a detailed programming document that provides justification for square footage requirements necessary to accommodate the approved enplanement and peak hour forecast.

This report includes enplanement and commercial operations forecasts at PMRA for a 20-year period. The PMRA forecasts have a base year of 2019 and use the Federal Aviation Administration (FAA) fiscal year (October to September). The latter half of 2020 uses projected numbers as this forecast is developed at a time before data for the full 2020 FAA fiscal year is available.

The following elements were used to project the next 20 years of enplanements:

- Analysis of relevant socio-economic trends in the region surrounding PMRA.
- Analysis of historical commercial aviation activity trends at PMRA, including examining the recovery from the 2008-2009 recession (also known as the Great Recession).
- Regression and trend models to develop projections of future enplanement and operations.
- Determining the outlook on charter activity at PMRA.

This forecast accounts for the ongoing impacts of COVID-19 which have greatly affected aviation activity in 2020 and are expected to have a ripple effect into the coming years. The forecast uses a multi-scenario approach to determine both near-term (the next four years) and long-term projections (five years out and onward).

Existing enplanement levels at PMRA are supported by the following:

1. Alaska Airlines provided 5 non-stop flights utilizing Bombardier Q400 aircraft to Seattle.
2. On July 28, 2020, PMRA was awarded a Small Community Air Service Development Grant for non-stop service to Denver utilizing an Embraer 175 aircraft or similar. Service is expected to be initiated in the near-term forecast horizon.
3. University athletic charters utilizing Boeing 737, 757, and/or Airbus 319 aircraft are on the rise due to the Runway Realignment Program. The frequency and total operations will increase immediately.
4. Enplanements will increase without the introduction of new air service due to the reduction in cancellations and improved consumer confidence because of the Runway Realignment Program.
5. As demonstrated by past significant events impacting aviation, PMRA is expected to recover more quickly than the region and nationally from the COVID-19 pandemic.

Aviation Activity Forecast

Community Profile & Socioeconomics

PMRA is in southeastern Washington's Whitman County. The Airport is three miles east of Pullman, Washington, and six miles west of Moscow, Idaho. The Airport is centrally located with respect to both cities and the regional transportation system.

The socioeconomics analysis consists of data being examined at national, state, and county levels. The proximity of the airport to the Washington-Idaho border means the service area consists of areas in both states; thus, the socioeconomics analysis includes the two counties surrounding the airport. The Pullman-Moscow Combined Statistical Area (CSA) is made up of Whitman County in Washington and Latah County in Idaho.

The Pullman-Moscow area serves as a hub for the technology manufacturing and services industry and employment. The cluster of high-tech, innovative industries greatly benefits from the proximity of the two research universities. The local universities are part of the Palouse Knowledge Corridor which is an economic development collaboration between southeastern Washington and north-central Idaho aimed at promoting economic growth in the region

Pullman, Washington

The City of Pullman is closely associated with Washington State University (WSU), a land-grant university with a student population of over 20,000 in Pullman in 2019. WSU employs over 5,000 people in Pullman, making it the largest employer in the City. WSU is a member of the Pacific Athletics Conference (PAC-12) and the university athletics program contributes to the local tourism, hospitality, and retail industries. The University serves as a catalyst for the growth of technology and manufacturing businesses. Schweitzer Engineering Laboratories, Inc. (SEL) is one such business founded by a former WSU professor in 1982. SEL has since become Pullman's second largest employer. SEL develops electric power systems and components and is headquartered in Pullman with multiple other U.S. and international locations.

Moscow, Idaho

The City of Moscow is home to the University of Idaho (UI) which is Moscow's largest employer with over 2,600 employees and a student population of over 11,000 at the Moscow campus. UI is a member of the Big Sky Division I collegiate athletic conference. The University serves as the economic engine of Moscow, supporting approximately 50 percent of the local economy (Source). Each student is projected to create over $57,000 in sales, $31,000 in wages, and three quarters of a job in the community while enrolled. The second largest employer in Moscow is the Gritman Medical Center and the government following as the third largest employer.

Population

Population data for the forecast analysis is composed of the population from the catchment area, which is defined as the geographic area that PMRA serves. The catchment area is based on drive-time to PMRA and competing airports, of which there are two nearby: Spokane International Airport (GEG) 83 miles to the north and Lewiston-Nez Perce County Airport (LWS) 38 miles to the south. The catchment area is

comprised of 27 zip codes and an approximate population of 84,525 as of 2020. Catchment area population was selected rather than CSA because the regional population has the choice of flying out PMRA, GEG, or LWS based on ease of travel and costs. Population count for non-census years are estimated based on census data and Woods & Poole population growth rate. **Figure 3** shows the catchment area.

Figure 3: PMRA Catchment Area

Source: Mead & Hunt

Table 5 to **Table 7** show the historic top five industries in terms of employment, sales, and earnings.

Table 5: CSA Top 5 Industries by Employment and Sales

Rank	2009		2014		2019	
	Industry	Jobs	Industry	Jobs	Industry	Jobs
1	State and Local Government	16,126	State and Local Government	15,276	State and Local Government	16,046
2	Retail Trade	4,048	Retail Trade	4,274	Retail Trade	4,465
3	Health Care and Social Assistance	3,400	Accommodation and Food Services	3,513	Accommodation and Food Services	4,088
4	Accommodation and Food Services	3,289	Health Care and Social Assistance	3,499	Health Care and Social Assistance	3,750
5	Manufacturing Employment	2,413	Manufacturing Employment	2,975	Manufacturing Employment	3,693

Source: Woods & Poole

Table 6: CSA Top 5 Industries by Retail Sales

Rank	2009		2014		2019	
	Industry	Sales	Industry	Sales	Industry	Sales
1	Food and Beverage Stores	$212.21	Food and Beverage Stores	$232.17	Food and Beverage Stores	$265.68
2	General Merchandise Stores	$124.21	Motor Vehicles and Parts Dealers	$165.11	Motor Vehicles and Parts Dealers	$197.74
3	Motor Vehicles and Parts Dealers	$111.90	General Merchandise Stores	$137.99	General Merchandise Stores	$141.85
4	Eating and Drinking Places	$93.64	Gasoline Stations	$107.75	Eating and Drinking Places	$136.70
5	Gasoline Stations	$87.79	Eating and Drinking Places	$102.78	Gasoline Stations	$98.93

Source: Woods & Poole

Table 7: CSA Top 5 Industries by Earnings

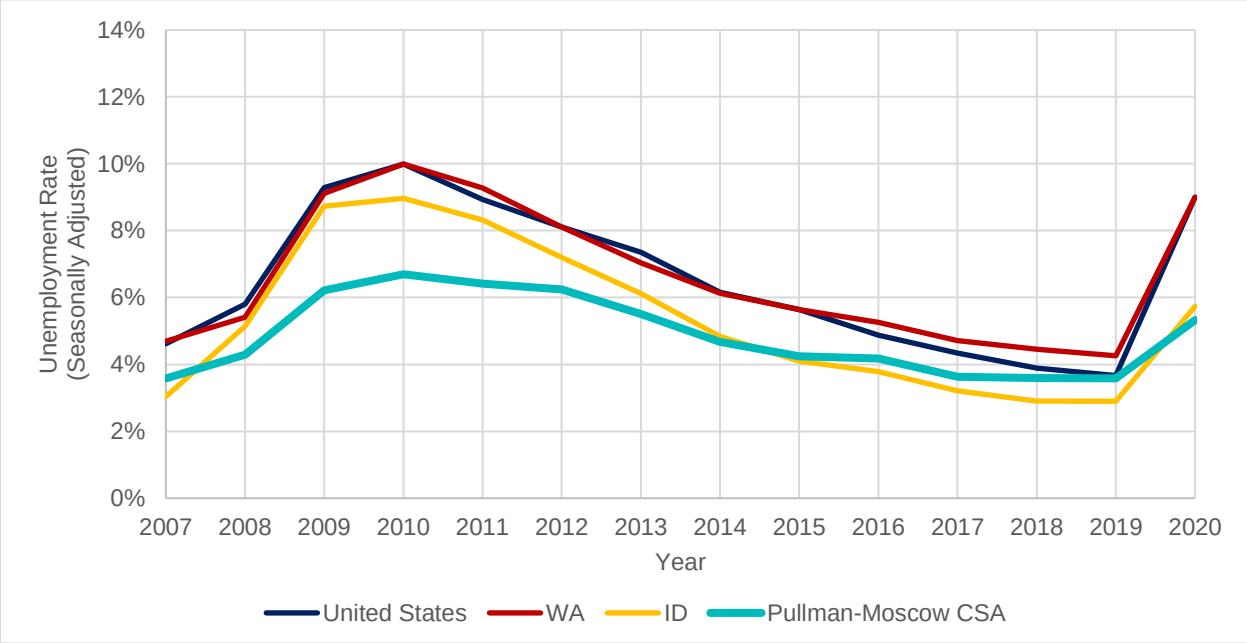
Rank	2009		2014		2019	
	Industry	Earnings	Industry	Earnings	Industry	Earnings
1	State and Local Government	$1,043.29	State and Local Government	$1,045.29	State and Local Government	$1,163.28
2	Manufacturing	$175.20	Manufacturing	$256.69	Retail Trade	$151.90
3	Health Care and Social Assistance	$164.48	Health Care and Social Assistance	$170.35	Manufacturing	$334.04
4	Retail Trade	$129.56	Retail Trade	$132.85	Health Care and Social Assistance	$201.79
5	Farm	$113.85	Construction	$89.18	Farm	$118.28

Source: Woods & Poole

The COVID-19 pandemic has resulted in the need to closely examine regional employment and economic situations. The pandemic has had differing effects across cities, counties, and states. The U.S. gross domestic product (GDP) has gone from a period of strong growth since the recovery from the 2007-2009 recession to a steep drop at an annual rate of 32.9 percent year over year in the second quarter, the sharpest economic contraction in modern U.S. history (Source). This decline reflects the COVID-19 "stay-at-home" orders issued in early Spring. However, many states and cities have begun reopening to mixed success, with states seeing record high numbers of positive cases in July. The full effects of the closure and reopening policies are still unknown and stand as a large topic of uncertainty in forecasting socioeconomic and aviation activity.

Figure 4 shows the average annual unemployment rate, from January 2007 to June 2020. This period covers the unemployment effects of the previous recession, the recovery, and the current employment resulting from the COVID-19 pandemic. Compared to the 2008 recession, the growth rate in unemployment rate is higher. Note that the unemployment data provided by the U.S. Bureau of Labor Statistics (BLS) is based on the residence of the individual rather than where they are employed.

Figure 4: Average Annual Unemployment Rate (Jan 2007-June 2020), Seasonally Adjusted



Source: U.S. Bureau of Labor Statistics, Pullman-Moscow CSA data is combined Whitman and Latah County data

Historically, the Pullman-Moscow CSA has had a lower unemployment rates relative to both states and the U.S. This trend can be attributed to the large number of people employed in education and jobs related to supporting the two universities. The high-tech manufacturing in the region contributes to the resilience of the local economy to economic downturns. However, the COVID-19 stay-at-home and social distancing policies have affected the local economy in ways a typical economic down cycle would not. Retail stores and restaurants have been required to shut down or limit the number of customers. Students have been required to use online learning and many students from out-of-town who would have moved to the Pullman-

Moscow area to attend classes have stayed home. The absence of on-campus learning and students that would have normally supported local businesses has produced a growth in unemployment.

Gross Regional Product

The gross regional product (GRP) is the value of goods and services produced in the County and serves as an index for the health of the overall economy. GRP grows as industries either increase production of existing goods or produce higher-value goods.

Regional Airports

PMRA is located close to two airports: Spokane International Airport (GEG) 83 miles to the north and Lewiston Nez-Perce County Regional Airport (LWS) 38 miles to the south. This proximity means there is high competition for travelers between airports for business jets, charter flights supporting university athletics, and airline service.

Charter flights supporting university athletics in the region are important as they are a relatively steady and predictable source of demand. The number of athletic events is generally consistent year to year which means there is a near-fixed number of operations. PMRA is the closest airport to WSU and IU. Prior to the Runway Realignment Program, PMRA was sometimes limited in capacity and capability to serve aircraft due to limited ramp space, inclement weather, and aircraft climb limitations due to surrounding topography. These limitations historically have led to charter flights using alternative airports such as LWS or GEG when PMRA does not meet their needs. In some years more than 100 air charter flights have been diverted from PMRA to GEG or LWS. The completion of the Runway Realignment Program and the new Passenger Terminal will result in increased retention of charter flights due to the elimination of the identified constraints.

The **Passenger Demand Analysis (Appendix A)** provides insight into PMRA's current and potential airline passenger market. The demand analysis serves as a basis for estimating the catchment area's passenger travel market and is an input in forecasting future enplanements and commercial operations. Understanding passenger demand and preferences will contribute PMRA's growth. The runway realignment and planned new terminal will improve reliability and capacity which will help PMRA recapture passengers that are diverting to other airports.

Based on 2019 numbers, 32 percent of catchment area travelers chose to use PMRA while 54 percent use GEG and the remaining 14 percent use other airports including LWS, Seattle (SEA), Portland (PDX), Boise (BOI), and Pasco (PSC). The demand analysis also examines the number of travelers heading to domestic or international destinations. **Table 8** shows which airports passengers choose categorized by domestic and international final destinations. The analysis shows that an estimated 55 percent of catchment area domestic passengers diverted to GEG while 41 percent of international passengers diverted to GEG. Of the passengers that choose to use PMRA, approximately 5.1 percent are flying to international destinations.

Table 8: Airport Use by Passengers in PMRA Catchment Area – Domestic and International Comparison (YE Q4 2019)

Rank	Originating Airport	Passengers	Percent
Domestic			
1	GEG	225,883	54.97%
2	PMRA	131,249	31.94%
3	Other	53,802	13.09%
Subtotal		410,934	100%
International			
1	GEG	10,073	40.97%
2	PMRA	6,990	28.43%
3	Other	7,524	30.60%
Subtotal		24,587	100%
Domestic and International			
1	GEG	235,956	54.18%
2	PMRA	138,239	31.74%
3	Other	61,326	14.08%
Total		435,521	100%

Other airports include PDX, BOI, PSC, YKM, EAT, ALW, LWS

Source: Mead & Hunt

Aviation Activity Profile

The aviation activity profile provides context for historical trends in airport activity and attempts to explain the factors that contributed to the trends. This profile serves as a baseline for the forecasts and includes information on passenger airline service and charter activity.

Airline Service

The TAF classifies a passenger enplanement as a passenger who boards a scheduled commercial or chartered aircraft with more than nine seats for turboprops (or any number of seats for jet aircraft). The aircraft must operate under Title 14 Code of Federal Regulations (CFR) Part 139 that applies to air carriers and commercial operators. Passenger enplanements include revenue and non-revenue passengers who paid taxes and passenger facility charges (PFC) for their carrier. Passenger enplanements do not include pilots, flight attendants, and non-revenue airline crew members.

The FAA has two classifications for passenger enplanements based on the type of carrier operating the route:

- **Air carrier enplanement:** Passengers on flights operated by a mainline carrier. This includes both scheduled and non-scheduled enplanements. These are typically the marketing airline, or the airline that sells the ticket. Examples include Alaska Airlines and Allegiant Airlines.
- **Commuter enplanement:** Passengers on flights operated by a regional carrier – airlines whose primary function is to feed to mainline carriers, regardless of aircraft size. These are typically an airline that feeds passengers from a smaller market to a hub airport on behalf of an air carrier. Examples includes Horizon Air and SkyWest Airlines.

Passengers on an Alaska Airlines Boeing 737-800 operated by Alaska Airlines pilots and crew are categorized as air carrier enplanements. In comparison, passengers on an Embraer 175 operated by Horizon Air pilots and crew on behalf of Alaska Airlines are categorized as commuter enplanements.

The FAA splits commercial operations into two categories; however, it is based on capacity rather than operator type:

- **Air carrier operations:** Takeoffs or landings of commercial aircraft with more than 60 seats and air cargo operations with a maximum payload of 18,000 pounds and more.
- **Air taxi operations:** Takeoffs and landings by commercial aircraft with 59 and fewer seats, and air cargo operations with a maximum payload of less than 18,000 pounds.

Current Passenger Airline Service

PMRA is serviced by Alaska Airlines (AS), operated by Horizon Air providing daily direct flights to and from Seattle-Tacoma Airport (SEA). Alaska Airlines is the sole commercial airline operating at PMRA, thus, most PMRA scheduled flight enplanements are considered commuter enplanements on air carrier operations as Horizon Air's fleet consists of only 76-seat aircraft: the Bombardier Q400 and Embraer E175. Horizon Air currently flies the Q400 at PMRA.

Figure 5: PMRA Non-Stop Routes

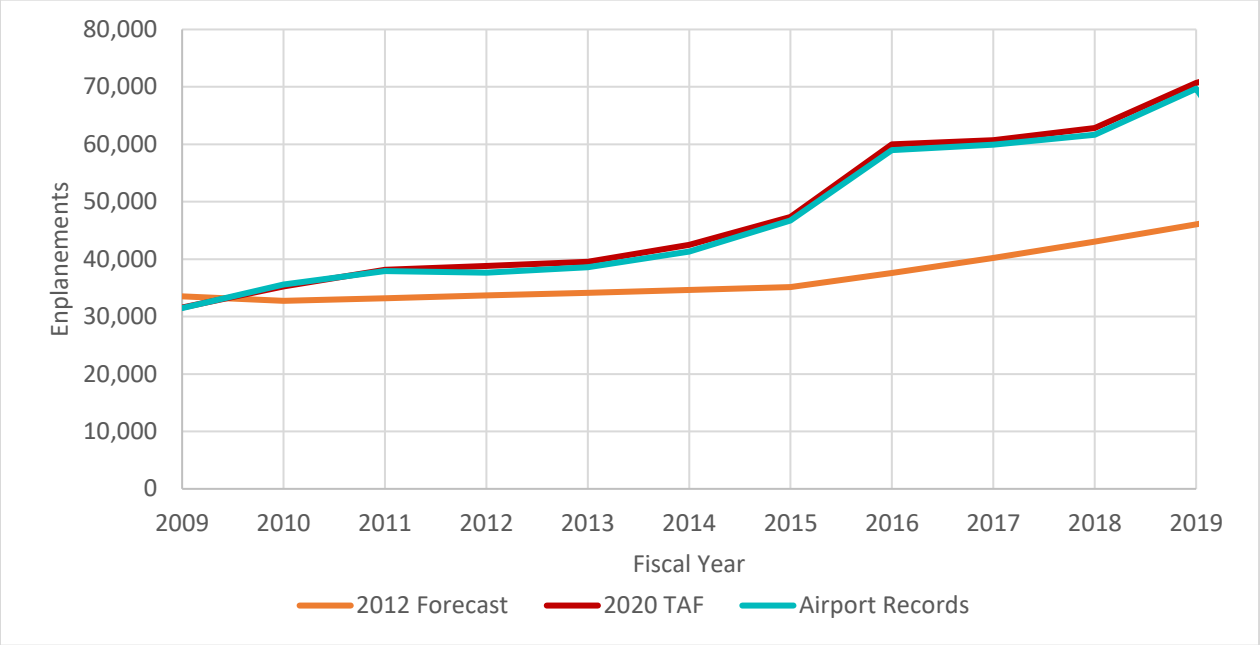
Source: Mead & Hunt

Historical Enplanements and Commercial Operations

In the past decade, PMRA has experienced strong growth in the number of enplanements. PMRA has grown at a faster rate, recording over 23,000 more enplanements in 2019 than previously forecasted in the 2012 Master Plan. The recent growth can be attributed to a combination of regional socioeconomic growth, a strong airport marketing strategy, and increasing flight frequency by Alaska Airlines. In recent years the PMRA has developed new outreach strategies to build a stronger presence in the region, spreading awareness of PMRA as an option to travel through rather than residents needing to drive to GEG or LWS for air travel.

Figure 6 compares actual PMRA enplanements to the 2012 forecasted enplanement and compares them to the 2020 TAF.

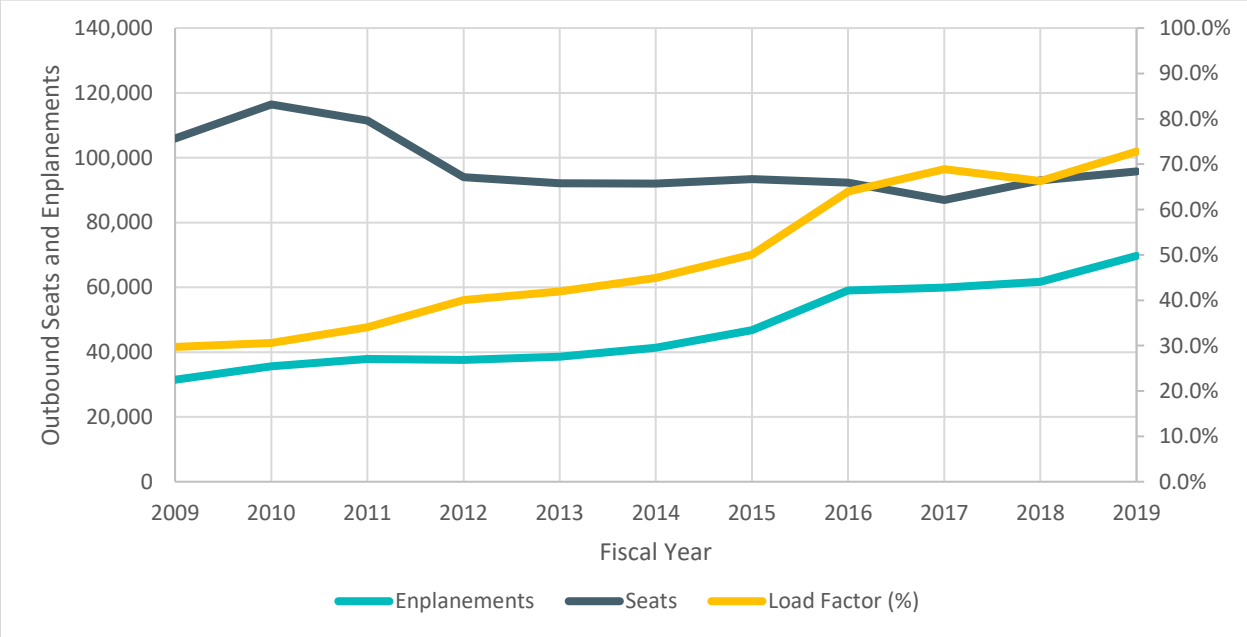
Figure 6: Historical PMRA Enplanement Comparisons



Source: 2020 PMRA passenger records, 2020 FAA Terminal Area Forecast, 2012 PMRA Master Plan

Figure 7 shows the historical enplanement records at PMRA along with the average annual load factor. The number of seats (and therefore, operations) has remained consistent since 2012. However, the number of enplanements as increased over time as load factors increased.

Figure 7: PMRA Enplanements, Outbound Seats and Average Load Factor

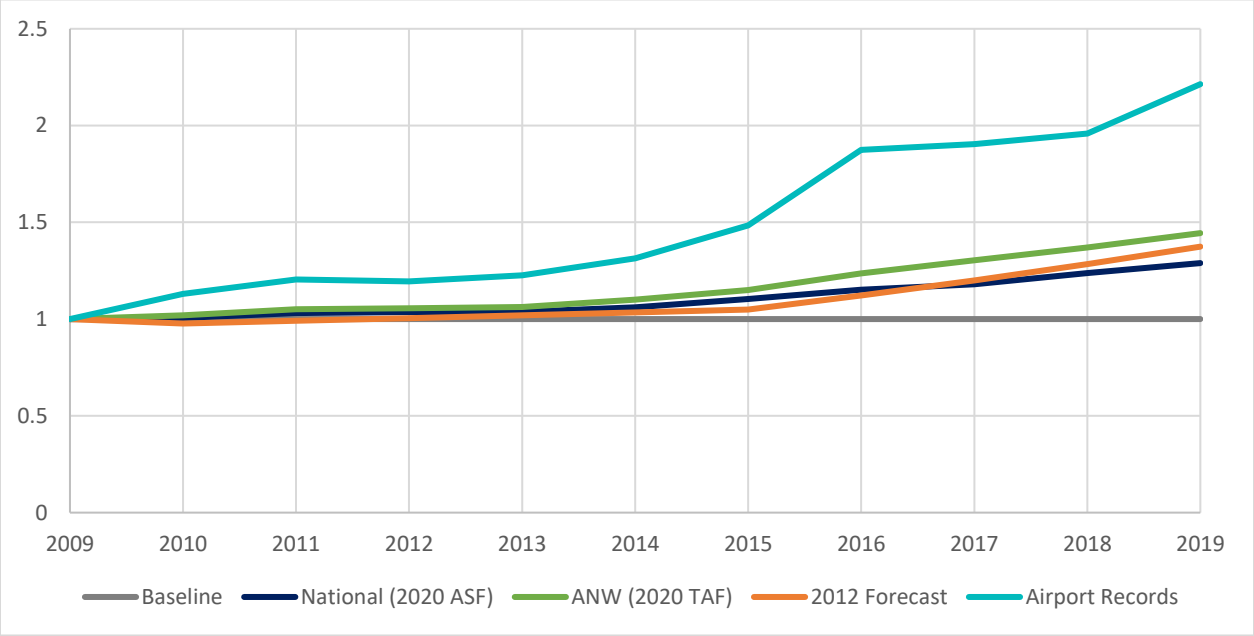


Source: 2020 PMRA passenger records

Growth in enplanements at PMRA has outpaced regional and national rates. According to the 2020 FAA Aerospace Forecast, national domestic enplanements grew at an annual rate of 2.6 percent. The FAA TAF records show that enplanements in the Northwest Mountain Region grew at an average of 3.7 percent annually. In comparison, PMRA growth rates have surpassed both regional and national averages with a CAGR of 8.3 percent. This growth also outperformed the previous 2012 Forecast which projected a CAGR of 3.2 percent, less than half of the actual average annual growth rate PMRA experienced in the past decade. The aggressive growth in enplanements is evidence that the PMRA market is responsive to added seats and capacity in the market.

Figure 8 shows the growth in enplanements at the airport, regional, and national levels on an indexed chart. Index charts show changes of variables relative to the baseline, which is equal to 1.0. An index greater than 1.0 indicates that enplanements are greater than 2009 levels while an index less than 1.0 indicates enplanements have decreased to lower than 2009 levels. Index charts allow for comparisons of variables with different magnitudes, such as comparing enplanements of one airport to the total enplanements of the entire country.

Figure 8: Indexed Historical Enplanements (2009-2019)



Source: 2020 FAA Aerospace Forecast, 2020 FAA TAF, 2012 PMRA Master Plan, PMRA Records

FAA TAF

The FAA Terminal Area Forecast (TAF) is the official FAA forecast that is prepared annually by FAA Headquarters for each airport in the FAA National Plan of Integrated Airport Systems (NPIAS). TAF data comes from the USDOT T-100 database, ATCT records, and FAA Form 5010, which airports submit annually to the FAA. The TAF reports historical data and forecasts for passenger enplanements, operations, and based aircraft in FAA fiscal year (October to September).

The 2020 TAF was published in January 2020 with estimates and forecasts made before the start of COVID-19 pandemic. Thus, the current TAF does not accurately reflect the current situation nor does it account for any near to long terms effects of the pandemic on air travel. Traditionally, the FAA reviews master plan forecasts by comparing to the TAF. However, based on the current TAF not reflecting recent current events, the 2020 TAF cannot be reliably compared to the forecast. **Table 9** summarizes the TAF for PMRA enplanements.

Table 9 January 2020 FAA TAF Enplanements by Category

Fiscal Year	2019	2020	2025	2030	2035	2040	'20-'40 CAGR
Enplanements	**70,745**	**75,665**	**84,337**	**94,015**	**104,803**	**116,841**	**2.2%**
Domestic Air Carrier	654	654	654	654	654	654	0.0%
Commuter	70,061	74,981	83,653	93,331	104,119	116,157	2.2%
Air Taxi	30	30	30	30	30	30	0.0%

Source: 2020 FAA Terminal Area Forecast

Part 121 Air Charter

Charter flights at PMRA are largely tied directly to WSU and UI athletic events as the universities transport athletes to and from sporting events. Home games also draw several large private aircraft and air taxi operations to the airport, which results in more traffic on the apron and increased passenger traffic.

Part 121 Air Charter operations are a distinct segment of aviation activity at PMRA due to the size of the aircraft involved. Both WSU and UI, along with many of the universities that fly into the area for sporting events, have charter contracts with air carrier operators that use aircraft such as the Bombardier Q400, Airbus 319, and Boeing 737.

Prior to the runway realignment that opened in October 2019, university charter activity would choose alternative airports such as Spokane (GEG) or Lewiston (LWS) due to runway length limitations and poor all-weather reliability. The 2012 forecast, shown in **Table 10**, estimated around 60 to 68 percent of sport-related charter flights used alternate airports (out of 224 annual sport-related operations). The runway realignment program addressed both issues and PMRA is expected to capture most of the university-related charter traffic.

Table 10: Previous Part 121 Air Charter Operations and Aircraft Mix Forecast (November 2012)

Year	Large Turbo-Prop & Regional Jets (Q400 & RJ)	Large Turbo-Jet (Boeing 737)	Diverted Flights (GEG/LWS)	Total	Percent of Flights using Alternative Airports
2010	22	50	152	224	67.9%
2015	30	60	134	224	59.8%
2020	116	104	4	224	1.8%
2025	116	104	4	224	1.8%
2030	116	104	4	224	1.8%

Source: 2012 Pullman-Moscow Regional Airport Master Plan. The 2020 projections assumed runway alignment completion by 2016.

The full impact of the new runway is uncertain due to the runway having been closed in September through October 9, 2019 for construction, charter operators were required to utilize alternate airports and thus Fall 2019 data is incomplete. Fall 2020 continues the uncertainty of the new runway's impact with the COVID-19 pandemic leaving the future of athletic events uncertain. Thus, the forecast for charter operations will carry forward the previous forecast's projections and assume the same number of sporting events and charter operations over the planning horizon.

Airline Demand Influences

There are multiple factors that influence passenger travel demand and airline interest in meeting that demand. These influences include factors both in and out of the individual airport's control. The socioeconomic factors discussed in the Community Profile section are examples of factors outside of the airport's control. The highly transient university population and concentration of high-tech industries contribute to a higher likelihood for the location population to want and need to travel.

Growth at PMRA has been constrained by runway all-weather reliability and space in the terminal and on the apron. Improving airport facilities and capability will lead to increased passenger retention as flights can more reliability operate at PMRA. The following are recently completed and planned facility improvement projects that will increase reliability and expand market share.

Improved Facilities at PMRA

- **Improved facilities at PMRA** –PMRA recently completed a runway realignment project which has addressed runway length and inclement weather issues and improves reliability. Reliability had been a consideration often cited by the location population when choosing which airport to fly in and out of. The previous runway conditions led to higher number of weather-related cancellations and delays relative to GEG or LWS which, while further away from the community, have similar routes and travel costs. The new runway improves reliability and so PMRA will likely retain the leaked travel segment over time
- **New Terminal** – The new terminal being designed is planned to open in 2023. This will increase the PMRA's ability to serve multiple aircraft and airlines simultaneously while also significantly improving the customer experience, which will aid in expanding market share capture.

Along with physical improvements to facilities, PMRA has been working to increase airline service by looking to expand routes and draw in additional airlines. PMRA has been awarded a grant by the U.S. Department of Transportation's Small Community Air Service Development Program (SCASDP). PMRA's grant will help fund a new twice daily route to and from Denver which will be operated by United Airlines. The Airport continues to engage in discussions with United and Skywest regarding this opportunity having met in-person most recently in November 2020. In addition to Denver service, Alaska Airlines, currently the sole airline operating at PMRA, has interest in starting a Portland route upon the recovery of passenger demand from COVID-19 impacts. The region has long been interested in service to Boise, Idaho and will continue to evaluate the viability of this route post COVID. The increase in frequency on the Seattle route coupled with near term additive service to Denver and Portland will provide travelers with improved choice and increase passenger retention.

Commercial Service Enplanement Forecast

Due to the uncertainty surrounding the effects of COVID-19 on air travel demand, the passenger enplanements forecast is divided into two parts: near-term forecast and long-term forecast. The near-term forecast aims to cover the most likely possible impacts of the pandemic on enplanements by analyzing various scenarios by adjusting recovery rate and timeframe. The long-term forecast projects enplanements from 2024/2025 onward, after the immediate and near-term COVID-19 effects have been realized.

Near-Term Forecast

Recent analysis by the International Air Transport Association projects global air travel to recover by 2024, lagging behind global GDP recovery (Source). Domestic demand has been driving the aviation industry recovery projections.

The uncertainty regarding the full effects of COVID-19 on air travel and the recovery process result in the need for multiple recovery scenarios. These scenarios involve having load factor as the main uncertain variable that determines the annual enplanement for the rest of 2020. This method is based on using the currently known airline schedules and gradually increasing operations over time as recovery progresses. U.S. Airline load factors had dropped from an average of 80 percent in January 2020 to 22 percent in late April. As airlines are unlikely to add operations until load factors are at profitable levels, using load factor as the main variable to project enplanements for the rest of 2020 allows the forecast to proceed with the currently known and operating airline routes.

Alaska Airlines (AS) has limited load factors as a response to COVID-19 in an effort to maintain social-distance guidelines between passengers. The lowered demand has also resulted a reduction from five daily flights to two daily flights. AS reported an average regional operations load factor of 40 percent for March to June 2020 and an average 56.9 percent load factor for January to June (Source). This is compared to 82.3 percent load factor in March to June 2019 and 80.3 percent in January to June 2019. The March to June load factors are especially relevant for 2020 enplanements as lock downs in the United States began in March.

Another factor that will influence the rate of enplanement recovery is when WSU and UI will fully return to in-person classes. PMRA's location within a region whose socioeconomics is heavily influenced by the highly transient and seasonal population of the local universities means that recovery will be heavily tied to when students will be able to return to regular in-person classes.

The following assumptions were made in creating the near-term scenarios:

- If AS continues to limit seat availability (and in turn, load factor) to maintain empty seats between passengers, the maximum load factor for the Q400 operating at PMRA will be around 60 percent, assuming some passengers are traveling in groups and can sit next to each other. Thus, the best-case scenario is for the remaining flights in the fiscal year to have an average 60 percent load factor.
- Based on airport records, the month of May saw load factors around 30 percent as reopening began and travel restrictions eased. **Table 11** shows the potential range of enplanements based on load

factors for the rest of fiscal year 2020. However, load factors are not expected to fall back to April and May (below 30 percent) levels.

- As the recovery timeframe is unknown, the projections set 2023 or 2024 as the year enplanements at PMRA will return to 2019 levels. The number of passengers flying to international destinations are expected to recover slower than domestic passengers due to PMRA's ties to university-related travel demand. Domestic enplanement recovery will likely return at a higher rate when in-person learning resumes.

Table 11: Estimated Enplanements based on Load Factors for July-September 2020

Estimates for July to September 2020 Enplanements		
Average Load Factor	**3-Month Enplanement Totals**	**Total 2020 Enplanements***
30%	4,172	43,184
40%	5,563	44,575
50%	6,954	45,966
60%	8,345	47,357
70%	9,736	48,748

Notes: Alaska Airlines scheduled 1 daily roundtrip through July and 2 daily roundtrips through August. AS is expected to operate 3 daily roundtrips for the remainder of calendar year 2020.
Estimate only includes July to September 2020 as it is the remainder of fiscal year 2020.
** This number is determined by adding the 3-month enplanement totals with PMRA records (39,102 enplanements from October 2019 to June 2020).*
Source: Mead & Hunt

Based on these assumptions multiple projections for recovery can be made. However, to refine the possibilities, aggressive and more optimistic projections will be compared with more measured, slower recovery rates.

'Quick' and 'slow' 2020 refer to the estimated average load factor for the remainder of fiscal year 2020. 'Quick' presents the best-case 60 percent load factor for AS flights in and out of PMRA while maintaining the social-distance policy. 'Slow' presents the expected worst-case scenario of an average 40 percent load factor for the rest of fiscal year 2020.

Due to the expected recovery of the air travel industry, the 'strong' near-Term scenarios present an aggressive 2022 domestic air-travel recovery at PMRA based on expecting in-person classes to resume at WSU and UI. The 'strong' near-term scenario for international travel is an optimistic outlook for a return to 2019 levels in 2023. This projection is based on having only 5.1 percent of enplanements in the catchment area using PMRA to connect to international flights in 2019, which would be approximately 3,500 enplanements in 2019. Conversely, the 'slow' near-term scenario would result in a return to 2019 levels in 2023 for domestic travelers and the IATA forecasted 2024 for international travelers.

The combination of these scenarios results in four near-term recovery scenarios:

Recovery Rate	Avg LF for remainder of 2020	Recovery Year	
		Domestic	International
Slow 2020 and Strong Near-Term	40%	2022	2023
Quick 2020 and Strong Near-Term	60%	2022	2023
Slow 2020 and Slow Near-Term	40%	2023	2024
Quick 2020 and Slow Near-Term	60%	2023	2024

Domestic destination enplanements are enplanements by passengers with itineraries that are within the United States, while international destination enplanements are enplanements by passengers traveling outside of the United States. The 'Quick 2020' domestic enplanement scenario shows enplanements recovering to 2019 levels by 2022 while the 'Slow 2020' scenario projects recovery being a year later. 'Strong Near-Term' international destination enplanements are forecasted to recover in 2023 while 'Slow Near-Term' shows recovery in 2024. The slower expected recovery of PMRA international destination enplanements in relative to domestic destination enplanements reflects the forecasted recovery of international travel in general. However, international destination travel makes up only an estimated 5.1 percent of total enplanements from October 2019 to February 2020. Therefore, the rate at which enplanements at PMRA will recover to 2019 levels is determined by the domestic destination enplanement recovery timeline.

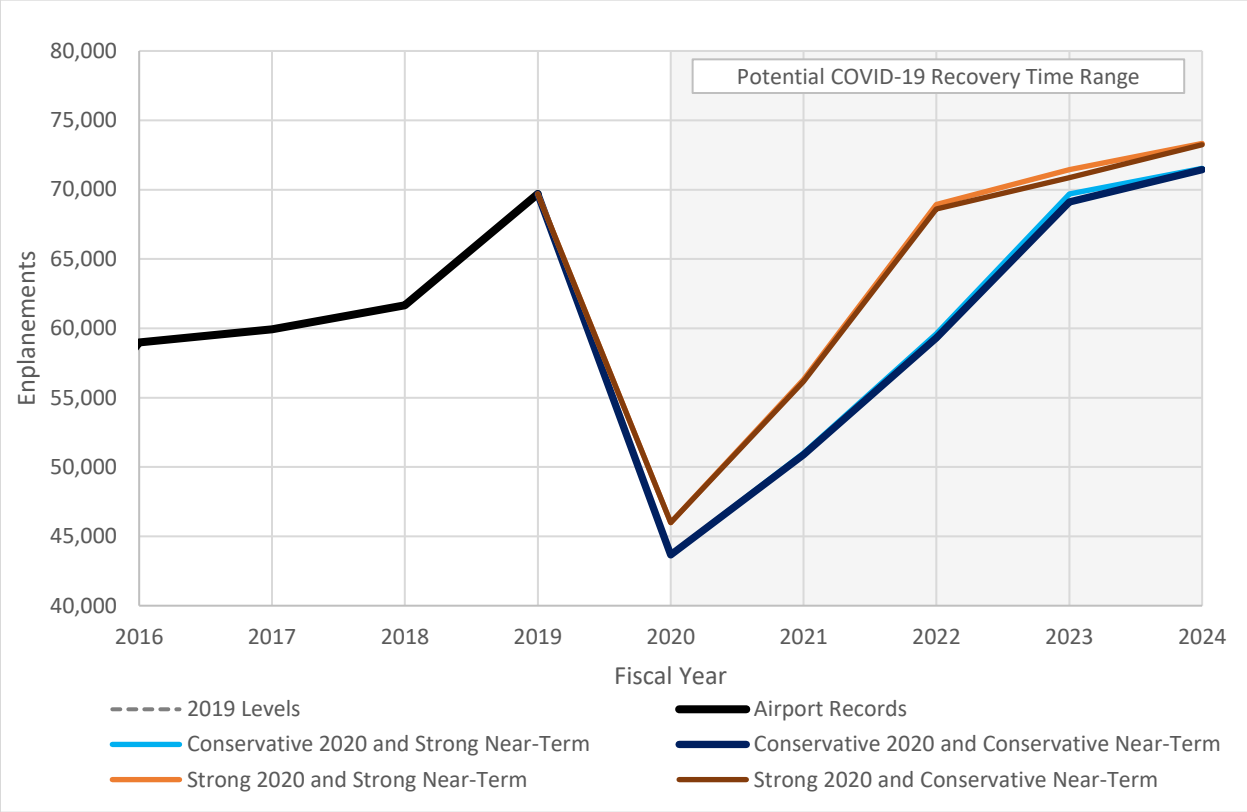
Table 12 shows projected enplanement figures for domestic and international travel from PMRA for fiscal years 2020 to 2024 based on the previously laid out near-term recovery scenarios. 2020 enplanements for domestic travel was based on the best and worst-case load factors. Enplanement estimates for the years after 2020 were modeled as linear growth until enplanements returned to 2019 levels.

Table 12: Near-Term Domestic and International Travel Enplanement Forecast

Fiscal Year	Domestic Destination Enplanements		International Destination Enplanements	
	Strong 2020 (60% LF)	Conservative 2020 (40% LF)	Strong Near-Term	Conservative Near-Term
2019	**66,167**	**66,167**	**3,524**	**3,524**
2020	42,875	45,657	1,700	1,700
2021	53,263	51,667	2,168	2,040
2022	**66,167**	58,470	2,764	2,448
2023	*67,918*	**66,167**	**3,524**	2,937
2024	*69,715*	*69,715*	*3,617*	**3,524**
'20-'24 CAGR	11.2%	12.2%	20.8%	20.0%

Bolded numbers represent year of recovery to 2019 levels. *Italicized* numbers represent forecasted numbers using a CAGR of 2.6% based on a multi-variable regression model. *Source: Mead & Hunt*

Figure 9: Near-Term Enplanement Recovery Scenarios



Source: PMRA Records, Mead & Hunt

Table 13: Near-Term Enplanement Recovery Scenarios

Fiscal Year	Conservative 2020 and Strong Near-Term	Strong 2020 and Strong Near-Term	Conservative 2020 and Conservative Near-Term	Strong 2020 and Conservative Near-Term
2019	69,691	69,691	69,691	69,691
2020	44,575	47,357	44,575	47,357
2021	51,715	57,131	51,587	57,003
2022	60,021	68,931	59,705	68,615
2023	**69,691**	**71,442**	69,104	**70,855**
2024	*71,535*	*73,332*	**71,442**	*73,239*
'19-'24 CAGR	0.5%	1.0%	0.5%	1.0%
20-'24 CAGR	12.6%	11.6%	12.5%	11.5%

Bolded numbers represent year of recovery to 2019 levels. *Italicized* numbers represent enplanements numbers projected using the multi-variable regression model. *Source: PMRA Records, Mead & Hunt*

Examining the total enplanements from the four scenarios shows that based on historical figures, domestic travel recovery is the main deciding factor of when enplanements would recover to or exceed 2019 levels. While the worst-case 'Slow 2020 and Slow Near-Term' scenario meets the criteria or returning or exceeding to 2019 levels, the projected 69,104 enplanements in 2023 is only 587 enplanements short of 2019 enplanements. The difference between the aggressive and conservative near-term scenarios is a 2.6 percent difference in 2024 enplanements.

Preferred Near-Term Forecast

The preferred near-term forecast is the 'Slow 2020 and Strong Near-Term' forecast. The uncertainty regarding the recovery from the COVID-19 crisis results in a more conservative projection of the next four years. The continued decline-and-surge cycle of COVID-19 cases into the fourth quarter of 2020 makes it difficult to predict when in-person learning will return to full capacity along with the economic sectors that rely on the presence of students and university employees. However, PMRA benefits from the relatively inelastic demand from universities in the region and has shown precedent to rebound from downturns quickly with the faster than average recovery from Great Recession impacts. In short, enplanement numbers at PMRA are expected to recover when WSU and UI can return to normal or close to normal operations as students, faculty, and staff will require the services of local businesses and transportation. Thus, the domestic destination enplanements are expected to recover by 2023, which would be faster than the global estimate of 2024 recovery. While international destination enplanements will recover in 2024, matching the global estimates.

Long-Term Forecast

This section explores the methodology of forecasting operations after the aviation industry recovers in the next four to five years. The selection of the preferred forecast method is based on factors including feasibility, past trends, and known airport conditions. The preferred forecasts help set the parameters around which future facility requirements at PMRA are determined.

Two long-term forecasts methods were assessed. The first method extrapolates the enplanement growth rate forecasted in the 2012 Master Plan into the future. The second method utilizes the correlation results to select inputs for a regression model that evaluated the past decade of enplanement data in relation to local and national socioeconomic factors.

2012 Master Plan Forecast Growth Rate

The 2012 Master Plan enplanement forecast utilized a methodology that combined two different scenarios:

- Scenario 1, Status Quo – Project enplanements as a function of catchment area population growth while keeping PMRA market share at 26 percent of the catchment area.
- Scenario 2, five percent Market Recapture - A market-based scenario that assumes a five percent market recapture after the completion of the runway realignment.

The 2012 Master Plan recommended forecast is a hybrid approach by using Scenario 1 before the completion of the new runway and applying Scenario 2 immediately following the completion of the project. The 2012 forecast assumed the new runway would be available by 2016. Since the forecast assumed

status quo for enplanements until the runway realignment was completed, the 2015 to 2030 compound annual growth rate of 3.78 percent was used to model post-COVID recovery.

Table 14 shows the 2012 forecasted enplanements and compares the 2009-2015 forecasted enplanements to the airport records for the same period.

Table 14: 2012 Master Plan Enplanement Forecast

Fiscal Year	2012 Forecast Enplanements	Airport Enplanement Records
2009	33,516	31,479
2010	32,745	35,606
2015	35,143	46,733
2019	46,062	69,691
2020	49,286	N/A
2025	54,933	N/A
2030	61,307	N/A
2009-2019 CAGR	2.92%	8.27%
2015-2019 CAGR	3.78%	10.51%
2019-2030 CAGR	2.21%	N/A

Source: PMRA Records, 2012 PMRA Master Plan

Regression Modeling

Forecasting passenger enplanement includes analyzing historical trends and using regression models to project passenger enplanements. Regression modeling requires identifying relationships between independent and dependent variables. These statistical relationships are defined using correlation coefficients. Correlation describes how strongly related the rates of change between two variables are to each other. The stronger the correlation, the more linear the relationship – a positive correlation means two variables increase together while a negative correlation means while one variable decreases, the other increases. The stronger the positive correlation, the closer the correlation coefficient approaches the value of 1.0. Strong negative correlations are closer to -1.0. Variables with no correlation have correlation coefficients closer to 0.

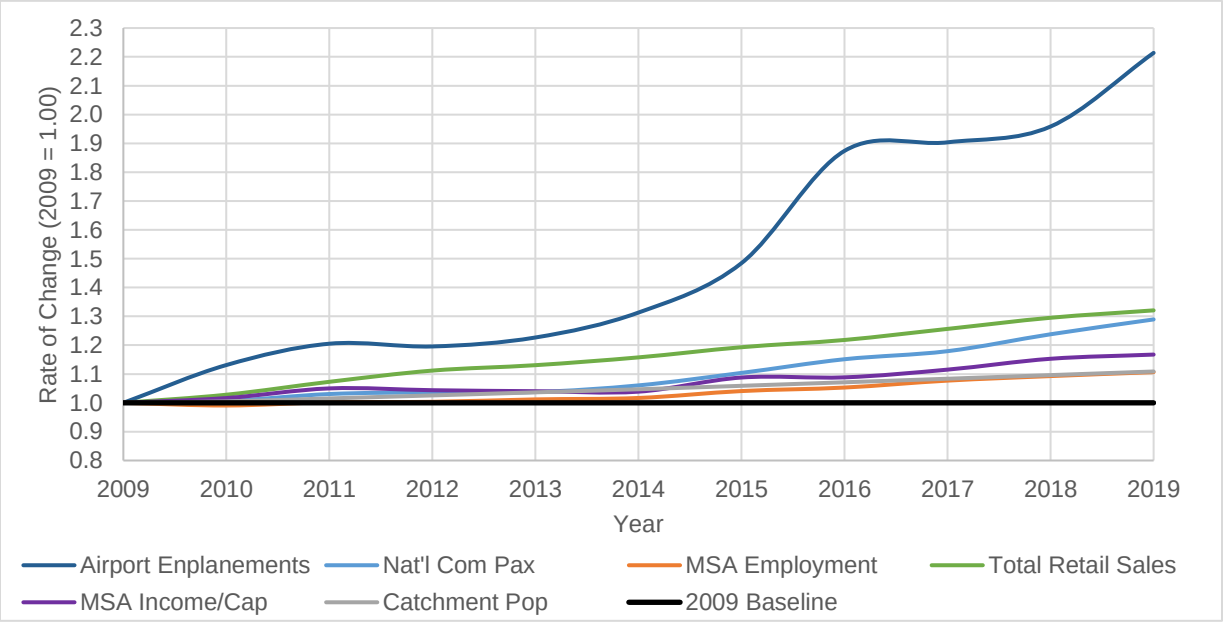
Variables highly correlated (correlation coefficient (r) greater than 0.8) with PMRA passenger enplanements in the past 10 years were assessed using single and multi-variable regression models. The strong correlation between local socioeconomic variables and enplanement at PMRA indicate that employing a regression model while accounting for the effects of the ongoing COVID-19 pandemic will serve as a good measure for market demand in the long term. **Table 15** shows the top correlated national and regional-scale variables tested against passenger enplanements. **Figure 10** provides an index of the tested variables against PMRA enplanements with 2009 as the baseline. Index charts show changes of variables relative to the baseline, which is equal to 1.0. An index greater than 1.0 indicates that the variable is above its 2009 level, and an index below 1.0 indicates that the variable is below its 2009 level.

Table 15: 2009-2019 PMRA Enplanement Correlation Analysis

Variable	Correlation Coefficient
National Commercial Passengers[1]	0.982
CSA Employment[2]	0.974
Catchment Population[3]	0.968
U.S. Gross Domestic Product (GDP)[4]	0.967
CSA Income per Capita[2]	0.957
CSA Retail Sales[2]	0.952
CSA Gross Regional Product[2]	0.910

Sources:
1. 2020 FAA Aerospace Forecast
2. Woods & Poole
3. Mead & Hunt
4. Organization for Economic Co-operation and Development (OCED)

Figure 10: Multi-Regression Variable Index (2009 Baseline)



Source: PMRA Records, Woods & Poole, OCED, Mead & Hunt

Multi-variable regression models were tested against historical enplanements to account for the effects of the multiple strongly correlated variables. Multi-variable models allow the forecast to account for local (CSA employment, retail sales, catchment population, etc.) and national (GDP and national commercial passengers) forces. In multi-variable regression analysis, the adjusted R^2 is used to decide the level of confidence each model has. Every variable added to a model increases the R^2 and never decreases it, which can lead to an incorrectly high R^2 value. The adjusted R^2 value accounts for this effect and avoids the issue of not knowing if the R^2 value is high due to the model being better or because it has more predictor variables. **Table 16** shows the adjusted R^2 value of different variable combinations tested.

Table 16: Multivariable Regression Analysis – Adjusted R-Square

Variable	Adjusted R^2
National Commercial Passengers, Catchment Population	0.961
National Commercial Passengers	0.957
Employment, Retail Sales, Catchment Population	0.940

Forecasts for each variable were considered throughout the forecast period to determine the preferred regression model. Due to the strong relationship between local variables and the presence of WSU and UI and the effect of students on the local socioeconomics, multivariable regression with local variables is preferred. Additionally, the differences in how COVID-19 has impacted cities and regions in the United States indicate analysis using more localized information is important in recognizing the distinct factors that will play a part in the future of PMRA enplanements. Based on the results of the regression analysis, the multivariable model assesses CSA employment, retail sales, and catchment population. This combination of variables has strong adjusted R^2 and includes the strongest local and regional factors that have historical correlated with enplanements at PMRA.

Passenger Enplanement Regression Equation: *y = m1(x1) + m2(x2) + m3(x3) + b*

y = Passenger Enplanements, b = Intercept from Regression Analysis

$$y = (3.2 \times CSA\ Employment) + (-81.8 \times CSA\ Retail\ Sales) + (4.72 \times Catchment\ Pop.) - 410521.88$$

Additional Air Service

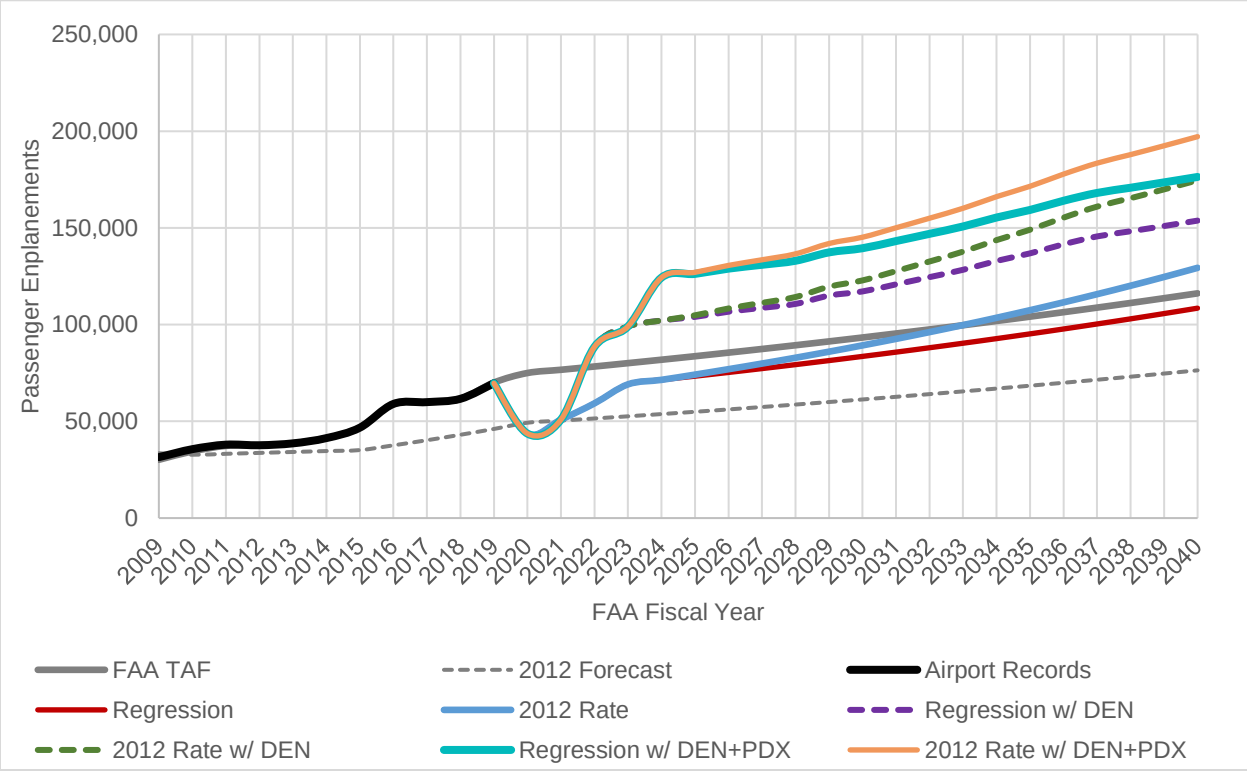
On top of the two main long-term forecast growth rates, there is the additional variable of new air service that would have a large impact on the number of enplanements. PRMA has recently been awarded a SCASDP grant from the U.S. Department of Transportation. PMRA's grant offers a minimum revenue guarantee to support new air service to DEN. Service to DEN route would offer significant eastbound connection opportunities which has previously been unavailable via PMRA. The grant would allow two daily United Airline flights to and from DEN on a 50-seat regional jet. The 50-seat jet is expected to be eventually replaced as airlines move towards 76-seat aircraft as 50-seat jets are being retired. The route is currently projected to begin in FY2022 and would create a 'step-up' effect on the number of enplanements on top of the long-term forecasted enplanements.

Another additional route planned is daily service to and from PDX by Alaska Airlines. Alaska Airlines has been increasing service to PDX to ease congestion at SEA. Destination studies also indicate that PDX is a top market for PMRA passengers, with PDX among the top ten destinations for PMRA passengers. In late 2019, Alaska Airlines indicated that they were ready to start service to PDX; however, the COVID-19 put the discussion on hold. The flight would be serviced by 76-seat aircraft such as the ERJ-175. The route is currently expected to begin when PMRA enplanement recovers from the impacts COVID-19 and is thus projected to begin in FY2024.

Figure 11 shows six different long-term scenarios using the two long-term forecasting methods combined with forecasts with and without the additional air service. The chart compares the forecasts to the 2020 TAF and 2012 Master Plan forecast enplanement projections. The additional service creates a 'step-up' in the

forecasts that include new routes as added seats and enplanements create a dramatic increase the year service begins.

Figure 11: Enplanement Forecasts (FY2020-FY2040)



'DEN' represents forecasts with the 2 daily UA DEN service added
'DEN+PDX' represent forecasts with the 2 daily UA DEN service and 1 daily PDX service added
Source: 2020 FAA TAF, 2012 PMRA Master Plan, Mead & Hunt

Preferred Long-Term Forecast

The preferred long-term forecast method is the regression method with the added two daily flights to DEN and one daily flight PDX ('Regression w/ DEN+PDX' in table above). The regression method considers socioeconomic factors which in turn, account for the unique characteristics of the local community. PMRA's proximity to the two universities means there are both aviation demand socioeconomics determining factors. While the 2012 Master Plan forecast also considered local population growth it does not account for other regional and local socioeconomic variables that may play a role in enplanement numbers.

The regression method forecast represents natural growth of aviation over time with socioeconomic changes and so it serves as a baseline. On top of the baseline forecast, the effects of additional air service are added by utilizing aircraft seat numbers and projected load factors. The SCASDP grant ensures the addition of the 2 daily DEN flights. The additional PDX service is expected to begin when enplanements recover from the effects of the COVID-19 pandemic. This expectation is based on growing congestion at SEA and market demand from PDX and its connections. Horizon Airlines has a maintenance base at PDX, so aircraft routinely cycled through for service. **Table 17** compares the preferred forecast to the 2012 Master

Plan's forecast. The 2012 Master Plan's 2034 and 2039 enplanements were calculated by carrying the growth rate forward.

Table 17: Preferred Forecast and 2012 Master Plan Forecast Comparison

Fiscal Year	Preferred Forecast	2012 Master Plan Forecast
2019	69,691	46,062
2020	43,663	49,286
2024	124,294	53,754
2029	137,325	59,976
2034	155,359	66,935
2039	173,517	74,701
2019-2039 CAGR	4.7%	2.4%
2020-2039 CAGR	7.5%	2.2%

Source: PMRA Records, Mead & Hunt, 2012 PMRA Master Plan

Commercial Aircraft Operations

Commercial aircraft operations in this analysis includes scheduled and charter passenger airlines. This section details the methods used to forecast both scheduled and non-scheduled operations at PMRA.

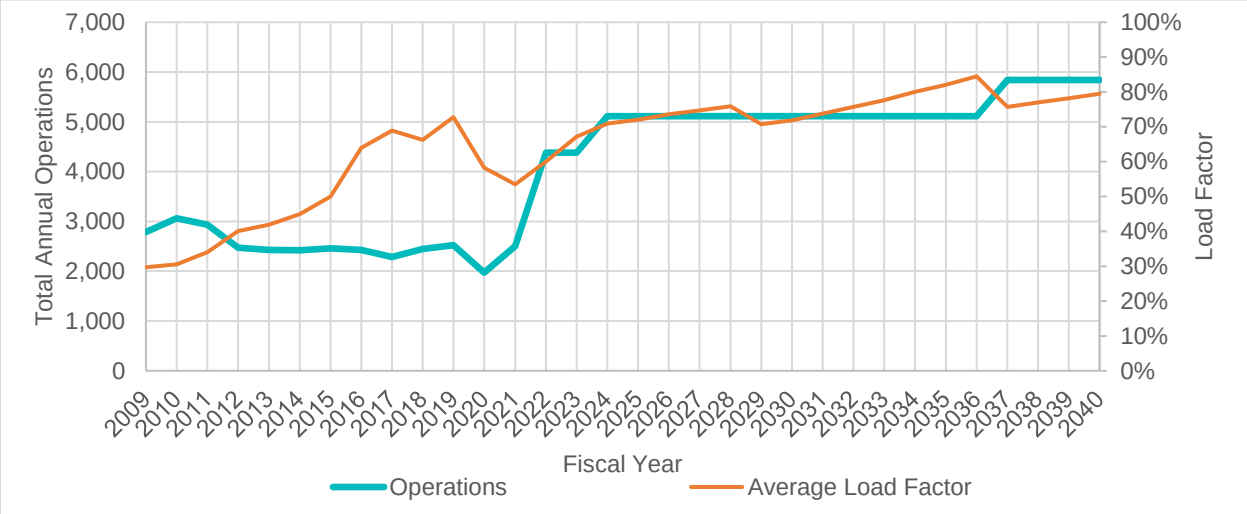
Scheduled Operations Forecast

Scheduled operations at PMRA are forecasted based on the enplanement forecast. This assumes that airlines will add service to meet the level of demand in the passenger enplanement forecast. Thus, when average load factors grow beyond an average of 80 percent, airlines are assumed to add service or increase aircraft size.

Scheduled service at PMRA is expected to be served by regional jets with less than 90 seats. The airport is currently mainly served by the 76-seat Q400. PMRA routes, being served by Alaska Airlines (SEA and PDX) and United Airlines (DEN), is projected to have service from 76-seat aircraft like the Q400 and E175 through the forecast period. The DEN route is to be served by the 50-seat CRJ200 in Skywest's fleet and will be replaced by the 70 to 76-seat CRJ700/900 or E175 as the CRJ200 are retired. In general air taxi aircraft (aircraft with less than 60 seats) are expected to be retired in the coming years. This is based on recent aircraft orders by airlines with the expectation that older, smaller turboprop and piston aircraft will get some more years of use due to the impacts of COVID-19. Eventually, however, these aircraft will be replaced by larger 70 to 90 seat narrow-body jets. The PMRA scheduled operations forecast assumes the CRJ200 will be retired by 2029.

Figure 12 and **Table 18** show the forecasted operations and average annual load factor at PMRA for the forecast period. The dip in load factor in 2029 is due to the expectation of 50-seat aircraft being replaced by 76-seat aircraft and the decrease in 2037 is due to added service to meet increased demand (indicated by load factors over 80 percent). This additional service can be potentially filled by additional frequency or with a new seasonal route or point-to-point service.

Figure 12: Scheduled Commercial Operations Forecast (FY2009-FY2040)



Source: PMRA Records, Mead & Hunt

Table 18: Scheduled Commercial Operations Forecast (FY2019-FY2040)

Fiscal Year	Average Seats/Flight	Operations	Average Load Factor
2019	76	2,520	72.8%
2020	76	1,972	58.3%
2024	76	5,110	70.9%
2029	76	5,110	70.7%
2034	76	5,110	80.0%
2039	76	5,840	78.2%
2040	76	5,840	79.4%
'19-'39 CAGR	0.0%	4.3%	0.4%
'20-'40 CAGR	0.0%	5.6%	1.6%

Source: PMRA Records, Mead & Hunt

Charter Service Forecast

Both WSU and UI participate in various National Collegiate Athletic Associated (NCAA) sports. Charter flights are used by some sports teams from both universities to transport the athletic teams. The aircraft types that are most utilized for charter operations are the Airbus A319 and the Boeing 737. In addition, Pacific -12 (WSU), Sunbelt (UI Football), and Big Sky Conference teams often require larger aircraft such as the Boeing 757 and Boeing 767.

University-related charter contracts are open to bids and renewal everyone to three years and are typically fulfilled by air carrier operators. The influx of athletics-related charter aircraft in addition to scheduled passenger service can result in apron congestion and increased pedestrian traffic at the airport.

Historically, WSU and UI have had charter contracts specifying PMRA's use with LWS and GEG as alternative airports that are used as needed during inclement weather or when ramp space becomes limited. The runway realignment project improves the reliability of the airport which in turn is expected to

help PMRA recapture charter activity that had been lost to GEG and LWS as PMRA's new runway is able to accommodate operations during previously unserviceable conditions.

Thus, to forecast athletic charter operations at PMRA, some assumptions will need to be made. While COVID-19 has cancelled many athletic events, the number of events in a typical year generally stays constant with matches between schools kept relatively similar from year to year. Thus, this forecast assumes a constant number of athletic events and charter operations over the planning horizon. This forecast carries forward the FAA approved 2012 Master Plan athletic charter operations forecast with collegiate athletic activity recovering by 2023. **Table 19** shows PMRA's air charter forecast.

Table 19: Air Charter Operations and Aircraft Mix Forecast

Year	Large Turbo-Prop & Regional Jets (Q400 & RJ)	Large Turbo-Jet (Boeing 737)	Diverted Flights (GEG/LWS)	Total	Percent of Flights using Alternative Airports
2010	22	50	152	224	67.9%
2015	30	60	134	224	59.8%
2023	116	104	4	224	1.8%
2030	116	104	4	224	1.8%
2040	116	104	4	224	1.8%

2010 and 2015 operations from PMRA 2012 Master Plan Forecast

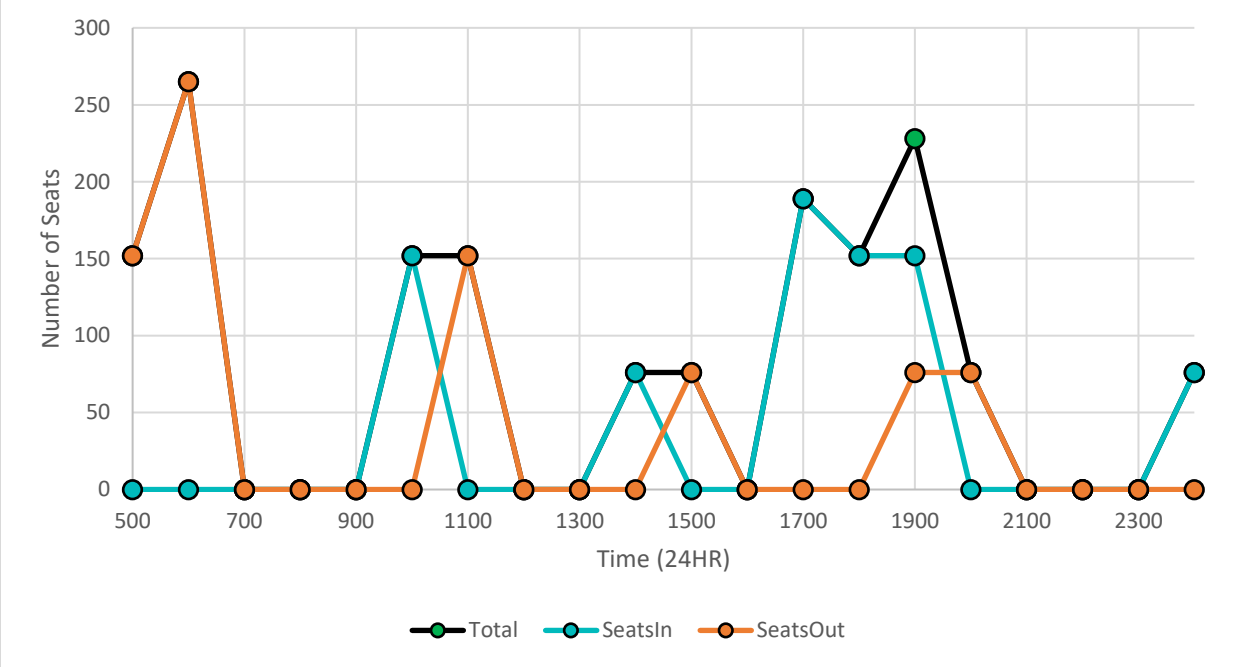
Peak Hour Forecast

The peak month determination utilizes historic data from fiscal year 2019. However, it is important to consider that the flight schedules for fiscal year 2019 existed during a time before the runway realignment project was completed and so operations and enplanements do not reflect the increased reliability of the new runway at PMRA.

The effect athletic charters have on the peak hour is uncertain as these charter operations do not have a consistent schedule. However, athletics-related flights operate with large aircraft such as the 737-800 and, during major games, there may be multiple large jet flights athletic teams, bands, and boosters potentially traveling in and out of PMRA.

Peak hour scenario at PMRA is forecasted assuming that in 2039 the added service to PDX and one of the DEN flights will depart between 5am and 7am. The early departures exist to serve the significant number of passengers looking to fly to SEA, PDX, and DEN for connections to early morning flight banks. This schedule would give the business traveler time to make afternoon meetings if flying to west coast destinations and to land at their destinations by the evening for east coast destinations. Additionally, a point-to-point service to Boise by Alaska Airlines is included for the long-term scheduling forecast. This service would likely be seasonal, based on current demand analysis and is reflected in the operations forecast. To model a peak scenario, a large charter flight served by a 737-800 that could be expected to serve university athletic charter is modeled to also occur within the 5am and 7am period. **Figure 13** shows the number of seats based on the busiest day in 2019 (August 10, 2019) with the forecasted operations added in. **Table 20** contains the projected schedule used to determine the peak hour.

Figure 13: Forecasted Peak Hour 2039 – With Morning Athletic Charter



Source: Diio Mi, Mead & Hunt

Table 20: Forecasted Peak Hour 2039 Schedule

Arrivals				Time	Departures			
Airline	**Origin**	**Equip**	**Seats**		**Seats**	**Equip**	**Destination**	**Airline**
AS	SEA	DH4	76	0035				
				0500	76	DH4	SEA	AS
				0530	76	DH4	PDX	AS
				0600	76	E175	DEN	UA
				0630	189	737-800	*Charter*	*Charter*
UA	DEN	E175	76	1050				
AS	SEA	DH4	76	1055				
				1130	76	E175	DEN	UA
				1135	76	DH4	SEA	AS
AS	SEA	DH4	76	1445				
				1525	76	DH4	SEA	AS
Charter	Charter	737-800	189	1730				
AS	SEA	DH4	76	1835				
AS	PDX	DH4	76	1850				
UA	DEN	E175	76	1900				
AS	BOI	DH4	76	1900				
				2000	76	DH4	BOI	AS
				1915	76	DH4	SEA	AS

Source: Diio Mi, Mead & Hunt

Forecast Summary

The uncertainty that COVID-19 brings to aviation demand results in the enplanement forecast being split into two sections: near-term and long-term. The near-term forecast is based on existing enplanements, reduced cancellations and improved consumer confidence resulting from the runway realignment program, near-term additive air service opportunities, and industry projections on when passenger enplanements may return to pre-COVID levels. The long-term forecast is based on a multi-variable regression that utilizes strongly correlated regional socioeconomics variables.

PRMA is in the position to have a strong recovery pace from the effects of COVID-19 on the aviation industry. The local socioeconomic conditions and presence of two large universities with strong Division I sport programs point to a strong rebound in air travel demand once in-person learning returns to full capacity. The new runway also improves retention and upcoming new airlines and served routes will draw existing and new passengers to fly PMRA. Therefore, based on these characteristics and analysis of historical records, commercial enplanements, and operations at PMRA are expected to recover by 2024. This expectation means PMRA will recover at the same rate, if not more quickly than the rest of the U.S. aviation industry.

Table 21 provides summary of enplanements and operations for the forecast period.

Table 21: Forecast Summary

Fiscal Year	2019	2020	2024	2029	2034	2039	2040
Enplanements	69,691	43,663	124,294	137,325	155,359	173,517	176,314
Scheduled Operations	2,520	1,972	5,110	5,110	5,110	5,840	5,840

Appendix A – Passenger Demand Analysis

PULLMAN-MOSCOW REGIONAL AIRPORT

Passenger Demand Analysis

YEAR ENDED DECEMBER 31, 2019

Mead & Hunt

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INTRODUCTION & METHODOLOGIES

INTRODUCTION

Achieving air service success requires thoroughly understanding the market and the needs of local stakeholders, airlines, and trends impacting the aviation industry. Air service development efforts are most effective when they follow a plan consistent with industry trends, the air service needs of the community and specific strategies of target airlines for additional air service. Pullman-Moscow Regional Airport (PUW) is subject to several trends that impact air service efforts, including:

- Airline mergers have concentrated industry capacity with the “big four” airlines controlling over 80 percent of the U.S. domestic market.
- Smaller regional aircraft continue to be replaced by larger regional aircraft at an accelerated rate driven in part by a regional airline pilot shortage.
- Connecting passengers are funneled through fewer major hubs and short-haul markets were reduced or eliminated by select carriers.
- Competition for air service has increased with incentives and community partnerships becoming more important to the airline decision-making process.
- Low-cost carriers and ultra-low-cost carriers, as a group, are growing steadily in domestic markets and the reaction and competition from traditional network carriers is evolving rapidly.
- Several consecutive years of strong industry financial performance have airlines investing in growth opportunities but volatile fuel costs and the potential for a slowing economy may temper future growth.

With these trends in mind, the responsibility is on airports to monitor their market and be proactive with their air service development efforts, especially when performance issues are noted. When service improvements or new service is sought, it is important that airports and communities know and understand their market, and the *Passenger Demand Analysis* is a critical tool in helping communities do so. It provides objective air traveler data, compiled from industry accepted sources using standard methodologies.

This *Passenger Demand Analysis* was developed as the Coronavirus Disease 2019 (COVID-19) was rapidly impacting the world with devastating effects on the airline industry. While the ultimate impact on the airline industry is yet to be determined, there will be a long recovery period before the U.S. demand for air travel returns to normal conditions. This study reviews historical trends and catchment area demand as it existed through the fourth quarter of 2019. Assumptions about the pandemic-affected air travel environment have not been incorporated because there is not currently a clear view to where this evolving situation will lead. However, as with every other challenge to industry demand (e.g., September 11, 2001, swine flu, the Great Recession), the industry will rebound and air travel will continue to be a vital and growing element for economic development throughout the U.S. While the currently evolving environment will certainly create some temporary setbacks or delay potential expansion plans, the observations and recommendations of this study are still valid and important for long-term air service development.

OBJECTIVES

The objective of the *Passenger Demand Analysis* is to develop information on the travel patterns of airline passengers who reside in the PUW catchment area. The report provides an understanding of the PUW situation and formulates strategies for improvement. This analysis includes an estimate of total airline passengers in the catchment area and related destinations as well as an assessment of the air service situation at PUW.

METHODOLOGY

The *Passenger Demand Analysis* combines Airline Reporting Corporation (ARC) ticketed data, Marketing information Data Tapes (MIDT) booking data and U.S. Department of Transportation (DOT) airline data to provide a comprehensive overview of the air travel market. For the purposes of this study, ARC/MIDT data includes tickets purchased through travel agencies in the PUW catchment area (**Exhibit 3.1**, page 5) as well as tickets purchased via online travel agencies by passengers in the PUW catchment area. It does not capture tickets issued directly by airline web sites (e.g., www.aa.com, www.united.com) or directly through airline reservation offices. The data used include tickets for the zip codes in the catchment area, NOT all tickets. As a result, ARC/MIDT data represents a sample to measure the air travel habits of catchment area air travelers. Although limitations exist, ARC/MIDT data accurately portrays the airline ticket purchasing habits of a large cross-section of catchment area travelers. A total of 12,787 ARC/MIDT tickets for the year ended December 31, 2019, were used in this analysis. Adjustments were made for Frontier Airlines and Southwest Airlines since they have limited ARC/MIDT representation.

EXECUTIVE SUMMARY

DATA SOURCE/ CATCHMENT AREA

The *Passenger Demand Analysis* includes 12,787 ARC/MIDT tickets from the PUW catchment area for the year ended December 31, 2019. The catchment area has an estimated population of 85,215 in 2019 and 27 zip codes. In addition to ARC/MIDT data, Diio Mi origin and destination data and schedule data is used.

DEPARTURES AND AVAILABLE SEATS

Alaska Airlines provided service at PUW in calendar year 2019 to Seattle-Tacoma International Airport (SEA). PUW had 1,360 departures and 103,360 outbound seats. Departures and seats were up 7 percent from calendar year 2018.

AIRPORT USE

Thirty-two percent of catchment area travelers used PUW, while 54 percent diverted to Spokane International Airport (GEG) and 14 percent to other airports including SEA and airports in Lewiston, Portland, Boise and Pasco. In a comparison of domestic versus international itineraries, 32 percent of domestic travelers and 28 percent of international travelers used PUW.

TRUE MARKET

PUW's total air service market, called the true market, is estimated at 435,521 annual origin and destination passengers. Domestic travelers accounted for 410,934 of the total true market (94 percent). International travelers made up the remaining 24,587 passengers (6 percent).

DESTINATIONS

Seventy-two percent of travelers were destined to or from one of the top 25 markets. SEA was the number one destination with 17 percent of passengers. SEA is potentially overstated due to inaccuracies in reporting by Alaska Airlines to the U.S. DOT. PUW retained 58 percent of passengers to SEA. The next largest markets were Las Vegas, Phoenix-Sky Harbor, Denver and Boise with retention of 15, 15, 14 and 23 percent, respectively. One of the top five markets, SEA, had nonstop service. Five of the top 25 markets had retention of 40 percent or greater while seven markets had retention of 20 percent or less.

REGIONAL DISTRIBUTION

Thirty-seven percent of travelers were destined to the West region. Thirty-two percent traveled to the Northwest region, and 6 percent traveled internationally. PUW's highest retention occurred in the Northwest region and Alaska. PUW's lowest retention rates were to the Southwest, Southeast and Central regions.

Of the international travelers, the top three international regions were Asia, Mexico and Central America, and Europe with respective retention rates of 33, 20 and 25 percent.

AIRLINES USED

Providing the only service at PUW, Alaska had the largest share of flown passengers based on U.S. DOT data. Diverting passengers to GEG and other airports were estimated using an approximation of carrier share with ARC/MIDT data. An adjustment was made for Frontier Airlines and Southwest Airlines. Carrier shares of diverting catchment area passengers were Alaska 30 percent, Delta Air Lines 28 percent, Southwest 24 percent, United Airlines 9 percent and American Airlines 5 percent. Frontier Airlines and Hawaiian Airlines each had a 1 percent share and all other airlines served 2 percent of diverting passengers.

PASSENGER ACTIVITY

From 2010 through 2019, PUW's origin and destination passengers (as reported by airlines to the U.S. DOT) increased at a compounded annual growth rate (CAGR) of 5.9 percent compared to a 2.7 percent CAGR at GEG. PUW passengers have ranged from 69,854 to 138,239 over the 10-year period. GEG passengers have ranged from 2.77 million to 3.79 million. Since 2018, PUW's passengers increased 5.7 percent compared to 4.0 percent at GEG.

DOMESTIC AIRFARES

For calendar year 2019, the one-way average domestic airfare for PUW was $176. PUW's fare was $10 higher than GEG's average fare. In individual markets, PUW had a higher fare than GEG in 22 of the top 25 true markets and exceeded GEG by $50 or greater in three markets, Portland, Nashville and Washington-National. PUW had a lower fare than GEG in two of the top 25 markets, Kahului and Minneapolis.

AVERAGE FARE TREND

From 2010 through 2019, the average domestic airfare for PUW passengers increased at a CAGR of 3.7 percent. GEG's average fares increased at a 1.6 percent CAGR over the 10-year period. The fare gap between PUW and GEG has fluctuated significantly, ranging from being lower than GEG in 2010/2011 by $17 to $18 and higher than GEG in 2018 by $13.

NONSTOP SERVICE

In calendar year 2019, PUW offered nonstop service to one top 25 destination with 26 average weekly departures. GEG had nonstop service to 14 of the top 25 destinations with 392 average weekly departures. PUW served one destination overall compared to 17 at GEG.

AIR SERVICE OPPORTUNITIES

While the COVID-19 pandemic has brought tremendous new uncertainty, this study was performed prior to the known impact of the pandemic on passenger traffic. Because of this, the true market estimate does not reflect the change in passenger traffic brought on by COVID-19. Since then, the world has seen passenger airline traffic drop by over 90 percent compared to 2019 and will likely have impacts for many years to come. While PUW has lost frequencies and capacity in 2020, the expectation is that the market will rebound in 2021 and likely be back to normal levels in 2022, with opportunities for new capacity or routes for summer 2021.

Optimal new PUW service would provide daily service to a hub with significant connecting opportunities, particularly eastbound since PUW's existing SEA service provides good north-south connecting opportunities but is circuitous for eastbound connections. Hubs at a stage length of less than 1,000 miles and aircraft with less than 100 seats provide the least cost risk for the airlines when considering daily service given the PUW catchment area market size.

Of the hubs within 1,000 miles, Denver provides the best opportunity for nonstop PUW service. United operates Denver as a hub and is looking to expand Denver operations, particularly to the west. SkyWest Airlines would most likely operate the service with 50-seat regional jets, either as a contract carrier or as pro-rate. PUW's existing Small Community Air Service Development Program (SCASDP) grant is positioned to provide incentives for the service.

The next most likely hub opportunity is Portland service by Alaska. With a short stage length and significant congestion at SEA, Portland service would complement PUW's existing SEA service well although it would not provide near the eastbound connectivity as Denver. Other hubs like Los Angeles and Phoenix are longer term opportunities while Salt Lake City is unlikely with existing Lewiston service.

The top point-to-point opportunity is Boise with the support of the University of Idaho; however, Alaska is currently the only identified air carrier to provide the service and the aircraft size is likely too large for daily service without significant stimulation. Allegiant service on a less-than-daily basis to markets such as Las Vegas, Los Angeles and/or Phoenix-Mesa is also a possibility.

AIRPORT USE

To understand airport use, it is important to understand the relative size of the catchment area, current air service and passenger activity. PUW's use was determined using year ended December 31, 2019, ARC/MIDT data for the zip codes from the catchment area.

AIRPORT CATCHMENT AREA

An airport catchment area, or service area, is a geographic area surrounding an airport where it can reasonably expect to draw passenger traffic and is representative of the local market. The catchment area contains the population of travelers who should use PUW considering the drive time from the catchment area to competing airports. This population of travelers is PUW's focus market for air service improvements and represents the majority of travelers using the local airport. **Exhibit 3.1** identifies the PUW catchment area. It is comprised of 27 zip codes within the U.S. with a population of approximately 85,215 in 2019 (source: U.S. Census Bureau, Woods & Poole Economics, Inc.).

EXHIBIT 3.1 PUW CATCHMENT AREA

Alaska Airlines provided 1,360 departures and 103,360 seats at PUW in 2019.

AIR SERVICE

Table 3.1 provides PUW's departures and seats by month for the year ended December 31, 2019. PUW had service by one airline, Alaska Airlines, to one destination, SEA. Alaska provided 1,360 departures and 103,360 seats. Compared to 2018, departures and seats increased 7 percent.

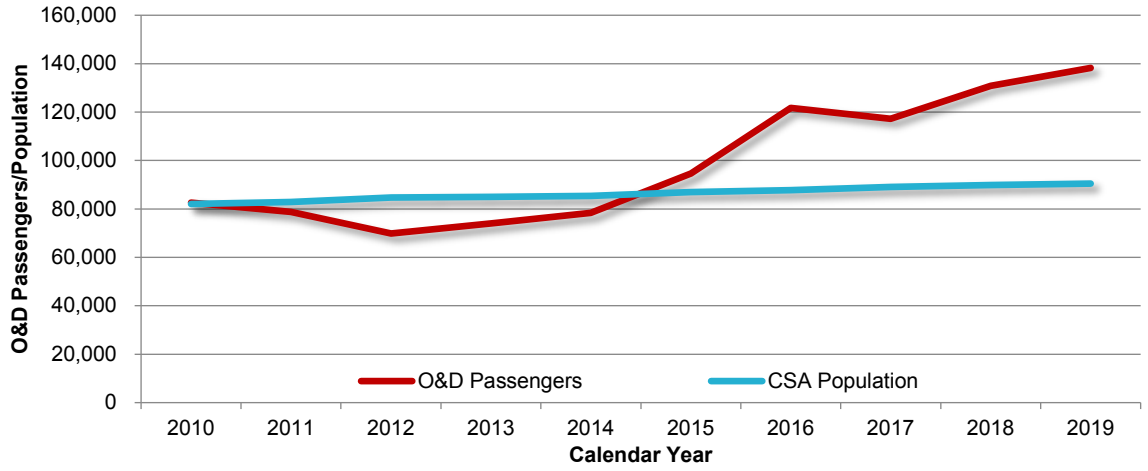
TABLE 3.1 DEPARTURES AND SEATS BY AIRLINE AND DESTINATION

DESTINATION	MARKETING CARRIER	CY 2019											
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Seattle, WA	Alaska	120	108	122	120	124	120	123	124	26	82	141	150
Total Departures		**120**	**108**	**122**	**120**	**124**	**120**	**123**	**124**	**26**	**82**	**141**	**150**
Total Seats		**9,120**	**8,208**	**9,272**	**9,120**	**9,424**	**9,120**	**9,348**	**9,424**	**1,976**	**6,232**	**10,716**	**11,400**

PASSENGER AND POPULATION TRENDS

Exhibit 3.2[1] plots origin and destination passenger trends from 2010 to 2019 compared to population trends at PUW. The Pullman-Moscow, WA-ID Combined Statistical Area (CSA) was used as a surrogate for the growth trend of the PUW catchment area population. Over the 10-year period, population grew at a CAGR of 1.1 percent, while origin and destination passengers increased by a CAGR of 5.9 percent.

EXHIBIT 3.2 PASSENGERS AND POPULATION TRENDS



[1] *Source: Diio Mi; Woods & Poole Economics, Inc.*

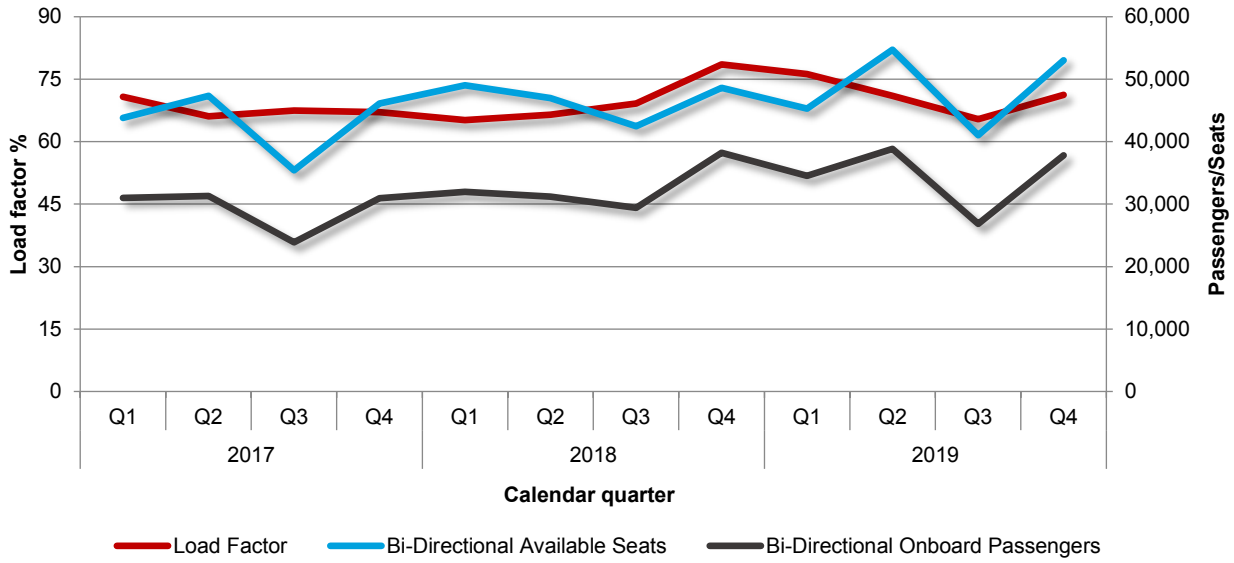
Load factors declined in the third and fourth quarters of 2019 year-over-year, while load factors improved in the first and second quarters.

LOAD FACTOR, AVAILABLE SEATS AND PASSENGERS

Exhibit 3.3 shows PUW's bi-directional available seats, bi-directional onboard passengers and load factors for arrivals and departures by quarter from the first quarter 2017 through the fourth quarter 2019. Load factors are relatively steady throughout the year without significant seasonal fluctuations as capacity is shifted. Year-over-year in 2019, load factors were up in the first and second quarters compared to 2018 by 11 percentage points in the first quarter and 5 percentage points in the second quarter; however, the third and fourth quarters in 2019 declined, by 4 percentage points (third quarter) and 7 percentage points (fourth quarter) lower than 2018 in each quarter. For the past three years, the load factor peaked in the fourth quarter of 2018 and hit the 12-quarter low in the first quarter of 2018.

Over the three-year period, available seats were at the 12-quarter low of 35,416 in the third quarter of 2017 but peaked in the second quarter of 2019 at 54,720. Seats were down in all quarters compared to 2018 except for the second quarter 2019. The low for onboard passengers at PUW through the three-year span was in the third quarter of 2017 at 23,884, and the high for onboard passengers was 38,843 in the second quarter of 2019. Like the load factor, onboard passengers increased in the first and second quarters of 2019 year-over-year and decreased in the third and fourth quarters.

EXHIBIT 3.3 LOAD FACTOR, AVAILABLE SEATS AND ONBOARD PASSENGERS



PUW retained 32 percent of its catchment area passengers in total, including 32 percent of domestic passengers and 28 percent of international passengers.

AIRPORT USE

Exhibit 3.4 shows the airports used by PUW catchment area travelers. An estimated 32 percent of the catchment area's air travelers used PUW for their trips; 54 percent diverted to GEG while 14 percent diverted to other airports including SEA and airports in Lewiston, Portland, Boise and Pasco.

Table 3.2 shows passengers by domestic and international itineraries. Thirty-two percent, or 131,249 domestic travelers, and 28 percent, or 6,990 international travelers, used PUW. An estimated 55 percent of PUW catchment area domestic passengers diverted to GEG while 41 percent of international passengers diverted to GEG. Thirteen percent of domestic and 31 percent of international passengers diverted to other airports. Overall, PUW retained 32 percent or 138,239 of the total 435,521 domestic and international catchment area passengers.

EXHIBIT 3.4 AIRPORT USE

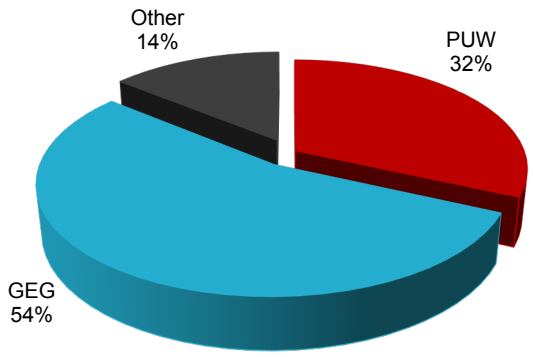


TABLE 3.2 AIRPORT USE - DOMESTIC & INTERNATIONAL COMPARISON

RANK	ORIGINATING AIRPORT	PAX	%
Domestic			
1	GEG	225,883	55
2	PUW	131,249	32
3	Other	53,802	13
Subtotal		**410,934**	**100**
International			
1	GEG	10,073	41
2	PUW	6,990	28
3	Other	7,524	31
Subtotal		**24,587**	**100**
Domestic and International			
1	GEG	235,956	54
2	PUW	138,239	32
3	Other	61,326	14
Total		**435,521**	**100**

AIRPORT USE BY COMMUNITY

Airport retention rates by community are an important aspect to understanding the overall PUW catchment area. ARC/MIDT tickets include local travel agency data which is reported by the agency zip code and online travel agency data which is reported by the passenger zip code. **Table 3.3** shows how retention varies among the local communities within it.

Overall, the Pullman community generated the highest number of true market passengers, with 288,476 annual passengers, 66 percent of the total. The Moscow community also generated a significant number of passengers at 93,994 or 22 percent. Communities with below average retention (less than 20 percent) included the Colfax, Potlatch, Viola, Deary, Oakesdale and communities included in “other”. The highest retention (30 percent or greater) was in the Pullman and Palouse communities.

TABLE 3.3 AIRPORT USE BY COMMUNITY

COMMUNITY	% AIRPORT USE			TRUE MARKET PASSENGERS
	GEG	PUW	OTHER	
Pullman	47	38	15	288,476
Moscow	61	25	14	93,994
Colfax	85	4	11	11,895
Potlatch	79	16	5	7,272
Troy	57	29	14	5,986
Palouse	66	30	4	3,900
Viola	67	8	25	3,708
Deary	84	7	10	3,736
Oakesdale	98	0	2	2,884
Other	84	5	11	13,670
Total	**54**	**32**	**14**	**435,521**

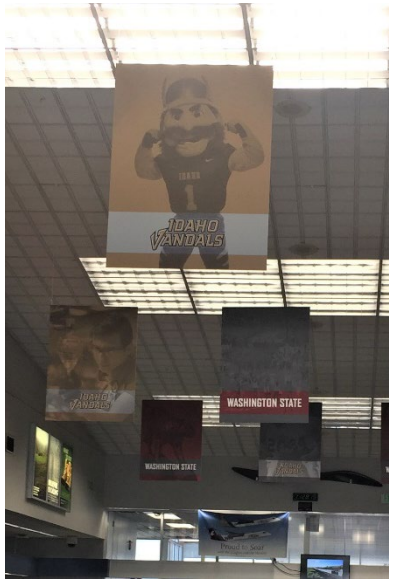
TRUE MARKET

The true market portion of the *Passenger Demand Analysis* provides the total number of passengers in the catchment area; specifically, it analyzes the portion of passengers diverting from the PUW catchment area. This section investigates destinations associated with travel to and from the catchment area. In addition, destinations are grouped into geographic regions to further understand the regional flows of catchment area air travelers.

TRUE MARKET ESTIMATE

The airport catchment area (**Exhibit 3.1**, page 5) represents the geographic area from which the airport primarily attracts air travelers. Domestic airlines report origin and destination traffic statistics to the U.S. DOT on a quarterly basis. Used by itself, these traffic statistics do not quantify the total size of an air service market. By combining ARC/MIDT tickets with passenger data contained in the U.S. DOT airline reports, an estimate of the total air travel market by destination was calculated. The total air travel market is also referred to as the "true market". Passengers were estimated for domestic and international markets on a destination basis. Adjustments were made to account for Frontier Airlines and Southwest Airlines, which are under-represented in ARC/MIDT data.

The ARC/MIDT data used in this report includes information on initiated passengers ticketed by local or online travel agencies. This enables the identification of passenger retention and diversion. According to U.S. DOT airline reports for the year ended December 31, 2019, 56 percent of PUW origin and destination passengers initiated air travel from PUW, and the other 44 percent began their trip from another city (e.g. New York, Dallas and Phoenix). For the purposes of this analysis, it is assumed that travel patterns for PUW visitors mirror catchment area passengers.



TOP 25 TRUE MARKET DESTINATIONS

The top 25 destinations for PUW (shown in **Table 4.1**) accounted for 72 percent of the travel to/from the PUW catchment area. SEA was the largest market and the only market with nonstop service, accounting for 75,005 annual passengers (102.7 passengers daily each way [PDEW]) and 17 percent of all catchment area travel. SEA is potentially overstated due to inaccuracies in reporting by Alaska Airlines to the U.S. DOT. Las Vegas, Phoenix-Sky Harbor, Denver and Boise made up the remaining top five markets.

TABLE 4.1 TRUE MARKET ESTIMATE - TOP 25 DESTINATIONS

RANK	DESTINATION	PUW REPORTED PAX	DIVERTED PAX	TRUE MARKET	PDEW
1	Seattle-Tacoma, WA	43,628	31,377	75,005	102.7
2	Las Vegas, NV	3,666	21,131	24,797	34.0
3	Phoenix, AZ (PHX)	3,085	16,888	19,973	27.4
4	Denver, CO	2,652	16,557	19,210	26.3
5	Boise, ID	3,943	13,175	17,118	23.4
6	Los Angeles, CA	6,393	10,495	16,889	23.1
7	Portland, OR	4,455	10,671	15,125	20.7
8	Oakland, CA	2,212	11,535	13,747	18.8
9	San Diego, CA	3,636	8,364	12,000	16.4
10	Sacramento, CA	3,738	7,844	11,582	15.9
11	Anchorage, AK	4,176	6,689	10,865	14.9
12	San Francisco, CA	4,340	6,253	10,593	14.5
13	San Jose, CA	3,325	6,556	9,881	13.5
14	Orange County, CA	2,883	4,309	7,192	9.9
15	Honolulu, HI	1,526	4,035	5,561	7.6
16	Kahului, HI	1,061	4,297	5,358	7.3
17	Ontario, CA	1,413	3,732	5,145	7.0
18	New York, NY (JFK)	1,470	3,491	4,961	6.8
19	Burbank, CA	1,247	3,615	4,862	6.7
20	Chicago, IL (ORD)	2,007	2,641	4,648	6.4
21	Minneapolis, MN	863	3,607	4,470	6.1
22	Boston, MA	1,276	2,860	4,136	5.7
23	Bellingham, WA	1,112	2,957	4,069	5.6
24	Nashville, TN	569	3,091	3,660	5.0
25	Washington, DC (DCA)	1,374	2,020	3,394	4.6
Top 25 destinations		**106,052**	**208,190**	**314,242**	**430.5**
Total domestic		**131,249**	**279,685**	**410,934**	**562.9**
Total international		**6,990**	**17,597**	**24,587**	**33.7**
All markets		**138,239**	**297,282**	**435,521**	**596.6**

Five markets had retention of 40 percent or greater, including SEA, San Francisco, Orange County, Chicago-O'Hare and Washington-National.

TOP 25 DOMESTIC DESTINATIONS

Table 4.2 shows the percentage of passengers by market and originating airport for the top 25 domestic destinations. Thirty-four percent of passengers used PUW for travel to the top 25 domestic markets. Overall, the highest retention rates by market (40 percent or greater) included SEA, San Francisco, Orange County, Chicago-O'Hare and Washington-National. The lowest retention rates (20 percent or less) included Las Vegas, Phoenix-Sky Harbor, Denver, Oakland, Kahului, Minneapolis and Nashville.

TABLE 4.2 TOP 25 DOMESTIC DESTINATIONS BY ORIGINATING AIRPORT

RANK	DESTINATION	ORIGIN AIRPORT %			TOTAL PAX
		GEG	PUW	OTHER	
1	Seattle-Tacoma, WA	40	58	2	75,005
2	Las Vegas, NV	70	15	16	24,797
3	Phoenix, AZ (PHX)	73	15	11	19,973
4	Denver, CO	80	14	6	19,210
5	Boise, ID	65	23	12	17,118
6	Los Angeles, CA	43	38	19	16,889
7	Portland, OR	62	29	9	15,125
8	Oakland, CA	72	16	12	13,747
9	San Diego, CA	53	30	17	12,000
10	Sacramento, CA	62	32	6	11,582
11	Anchorage, AK	40	38	22	10,865
12	San Francisco, CA	43	41	16	10,593
13	San Jose, CA	57	34	9	9,881
14	Orange County, CA	44	40	16	7,192
15	Honolulu, HI	40	27	32	5,561
16	Kahului, HI	53	20	27	5,358
17	Ontario, CA	64	27	9	5,145
18	New York, NY (JFK)	34	30	36	4,961
19	Burbank, CA	63	26	11	4,862
20	Chicago, IL (ORD)	39	43	18	4,648
21	Minneapolis, MN	67	19	13	4,470
22	Boston, MA	48	31	22	4,136
23	Bellingham, WA	51	27	21	4,069
24	Nashville, TN	66	16	19	3,660
25	Washington, DC (DCA)	51	40	9	3,394
Top 25 Domestic		**55**	**34**	**11**	**314,242**
Total Domestic		**55**	**32**	**13**	**410,934**

On a total passenger basis, SEA, Las Vegas and Phoenix-Sky Harbor were the top three passenger diversion markets.

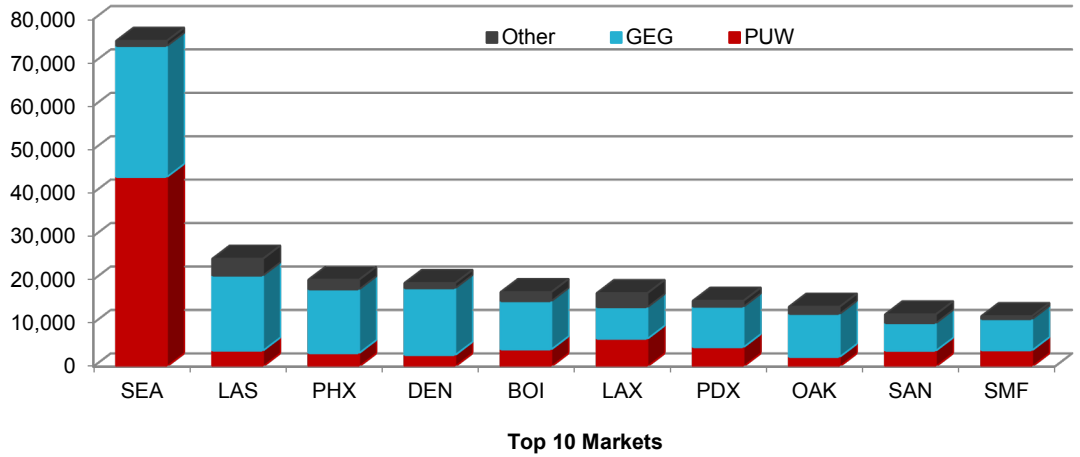
TOP 10 DOMESTIC DESTINATIONS BY ORIGINATING AIRPORT

Table 4.3 shows the top 10 markets when passengers exclusively fly out of PUW as well as the top 10 markets when passengers fly exclusively from GEG and other airports. Four of PUW's top 10 markets were also in the top 10 markets for GEG and other airports. On a total passenger basis, SEA, Las Vegas and Phoenix-Sky Harbor were the top three passenger diversion markets. **Exhibit 4.1** shows the top 10 markets overall and the percentage PUW, GEG and other airports receive by market with a bar graph.

TABLE 4.3 TOP 10 DOMESTIC DESTINATIONS BY ORIGINATING AIRPORT

RANK	GEG		PUW		OTHER	
	DESTINATION	PAX	DESTINATION	PAX	DESTINATION	PAX
1	Seattle-Tacoma, WA	30,193	Seattle-Tacoma, WA	43,628	Las Vegas, NV	3,857
2	Las Vegas, NV	17,274	Los Angeles, CA	6,393	Los Angeles, CA	3,219
3	Denver, CO	15,371	Portland, OR	4,455	Anchorage, AK	2,359
4	Phoenix, AZ (PHX)	14,679	San Francisco, CA	4,340	Phoenix, AZ (PHX)	2,208
5	Boise, ID	11,115	Anchorage, AK	4,176	Boise, ID	2,060
6	Oakland, CA	9,900	Boise, ID	3,943	San Diego, CA	1,996
7	Portland, OR	9,324	Sacramento, CA	3,738	Honolulu, HI	1,804
8	Los Angeles, CA	7,276	Las Vegas, NV	3,666	New York, NY (JFK)	1,801
9	Sacramento, CA	7,181	San Diego, CA	3,636	San Francisco, CA	1,743
10	San Diego, CA	6,368	San Jose, CA	3,325	Oakland, CA	1,635

EXHIBIT 4.1 RETENTION AND DIVERSION FOR THE TOP 10 DESTINATIONS



TOP 15 INTERNATIONAL DESTINATIONS

Table 4.4 shows the percentage of passengers for the top 15 international destinations by originating airport. Only the top 15 international destinations are shown due to the smaller market sizes involved with international itineraries and limited available data. PUW retained 30 percent of the catchment area passengers destined for the top 15 international markets.

Beijing, China, Shanghai, China and San Jose del Cabo, Mexico were the top three international markets. Seoul, South Korea and Puerto Vallarta, Mexico made up the remainder of the top five markets. The highest retention (greater than 40 percent) was to Vancouver, Canada and Taipei, Taiwan. The lowest retention at 20 percent or less was to San Jose del Cabo, Mexico; Puerto Vallarta, Mexico; Cancun, Mexico; and Delhi, India.

TABLE 4.4 TOP 15 INTERNATIONAL DESTINATIONS BY ORIGINATING AIRPORT

RANK	DESTINATION	ORIGIN AIRPORT %			PASSENGERS	
		GEG	PUW	OTHER	TOTAL	PDEW
1	Beijing, China	42	39	19	1,980	2.7
2	Shanghai, China	36	33	31	1,830	2.5
3	San Jose del Cabo, Mexico	58	19	23	1,592	2.2
4	Seoul, South Korea	10	35	55	1,281	1.8
5	Puerto Vallarta, Mexico	63	18	18	1,177	1.6
6	Vancouver, Canada	31	59	10	1,008	1.4
7	Victoria, Canada	44	23	33	890	1.2
8	Cancun, Mexico	59	18	23	879	1.2
9	Mazatlan, Mexico	44	23	33	766	1.0
10	Taipei, Taiwan	38	50	13	666	0.9
11	Loreto, Mexico	44	23	33	540	0.7
12	Frankfurt, Germany	17	33	50	477	0.7
13	Delhi, India	43	20	37	477	0.7
14	Edmonton, Canada	44	23	33	425	0.6
15	Madrid, Spain	46	23	31	379	0.5
Top 15 International		**42**	**30**	**28**	**14,367**	**19.7**
Total International		**41**	**28**	**31**	**24,587**	**33.7**

Most airline hubs are directional and flow passenger traffic to and from geographic regions, not just destinations within the region.

FEDERAL AVIATION ADMINISTRATION (FAA) GEOGRAPHIC REGIONS

It is important to identify and quantify air travel markets, but it is also important to measure air travel by specific geographic regions. Generally, airlines operate route systems that serve geographic areas. Additionally, most airline hubs are directional and flow passenger traffic to and from geographic regions, not just destinations within the region. Therefore, air service analysis exercises consider the regional flow of passenger traffic as well as passenger traffic to a specific city. Accordingly, this section analyzes the regional distribution of air travelers from the airport catchment area. For this exercise, the FAA geographic breakdown of the U.S. is used (**Exhibit 4.2**).

EXHIBIT 4.2 FAA GEOGRAPHIC REGIONS

The West region was the largest traveled region, with 37 percent of passengers, followed by the Northwest region.

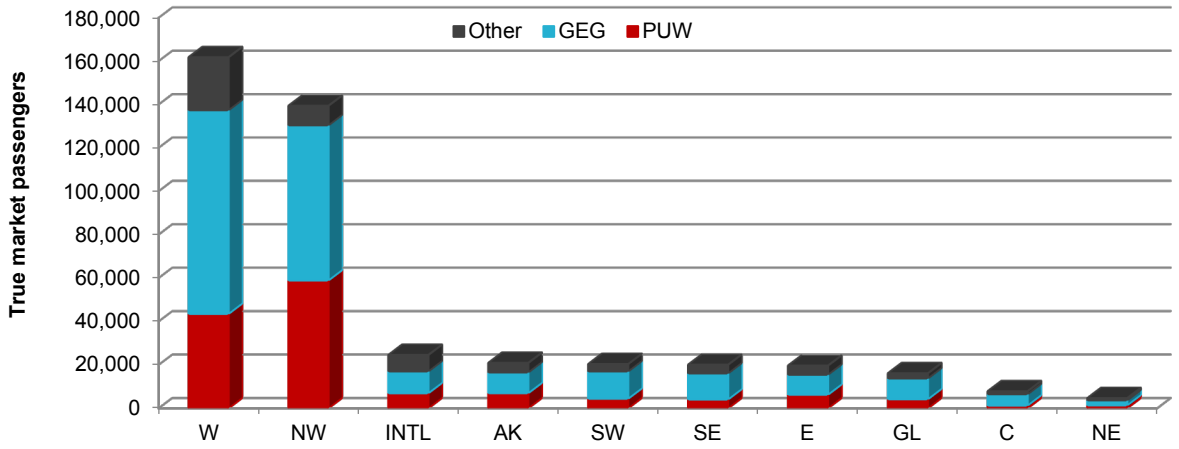
REGIONAL DISTRIBUTION OF TRAVELERS

Table 4.5 and **Exhibit 4.3** divide catchment area travel into the FAA's nine geographic regions and one catch-all international region. The West region was the largest traveled region, with 37 percent of passengers. The Northwest region was the second largest with 32 percent of passengers. PUW's retention rates were highest to the Northwest region and Alaska. PUW's lowest retention rates were to the Southwest, Southeast and Central regions.

TABLE 4.5 REGIONAL DISTRIBUTION OF TRAVEL BY AIRPORT

AIRPORT		REGION										
		W	NW	INTL	AK	SW	SE	E	GL	C	NE	TOTAL
GEG	Pax	93,881	71,503	10,073	9,573	12,591	12,019	9,213	9,572	5,219	2,312	235,956
	%	40	30	4	4	5	5	4	4	2	1	100
PUW	Pax	43,517	58,915	6,990	7,004	4,453	4,110	6,307	4,225	1,305	1,413	138,239
	%	31	43	5	5	3	3	5	3	1	1	100
Other	Pax	24,392	8,982	7,524	4,346	3,344	3,952	4,145	2,347	1,333	961	61,326
	%	40	15	12	7	5	6	7	4	2	2	100
Total	**Pax**	**161,790**	**139,399**	**24,587**	**20,923**	**20,388**	**20,080**	**19,666**	**16,144**	**7,858**	**4,686**	**435,521**
	%	**37**	**32**	**6**	**5**	**5**	**5**	**5**	**4**	**2**	**1**	**100**
PUW Retention %		**27**	**42**	**28**	**33**	**22**	**20**	**32**	**26**	**17**	**30**	**32**

EXHIBIT 4.3 REGIONAL DISTRIBUTION OF TRAVEL



Asia was the largest international region, with 41 percent of PUW catchment area international passengers and retention of 33 percent.

DISTRIBUTION OF INTERNATIONAL TRAVEL

Table 4.6 shows international travelers by airport and region. Six percent of catchment area travelers had international itineraries. Asia was the most frequented international region with 41 percent, or 9,995 of the total 24,587 catchment area international travelers, followed by Mexico and Central America with 24 percent, and Europe with 13 percent of the total. Canada was the fourth largest region with 13 percent of international travel. The remaining top international regions were, in order of greatest to least: the Middle East, Africa, South America, Australia and Oceania, and the Caribbean. PUW's retention was highest (greater than 30 percent) to Asia and Canada. PUW's lowest retention (20 percent or less) was to Mexico and Central America.

TABLE 4.6 REGIONAL DISTRIBUTION OF INTERNATIONAL PASSENGERS

REGION	ORIGINATING AIRPORT			TRUE MARKET	% OF COLUMN	PUW RETENTION %
	GEG	PUW	OTHER			
Asia	3,481	3,254	3,259	9,995	41	33
Mexico & Central America	3,218	1,199	1,529	5,946	24	20
Europe	1,198	778	1,182	3,158	13	25
Canada	1,198	1,166	726	3,091	13	38
Middle East	446	294	403	1,144	5	26
Africa	244	145	206	595	2	24
South America	152	81	115	349	1	23
Australia & Oceania	100	53	76	229	1	23
Caribbean	36	19	27	81	0	23
Total passengers	**10,073**	**6,990**	**7,524**	**24,587**	**100**	**28**
% of row	**41**	**28**	**31**	**100**	**-**	**-**

AIRLINES

Information in this section identifies airline use by catchment area air travelers. The information is airport and airline specific. The intent is to determine which airlines are used to travel to specific destinations. The airline market share at PUW is based on U.S. DOT airline reported data. Airline market share at GEG is based on ARC/MIDT data and is an estimation of the carrier's share of diverted passengers.

AIRLINES USED AT PUW

Table 5.1[2] provides the airline share for the top 25 true markets and total share by airline at PUW. With the only nonstop service at PUW, Alaska Airlines served 95 percent of PUW passengers. All other carriers, through codeshare and interline connections, served approximately 5 percent of passengers.

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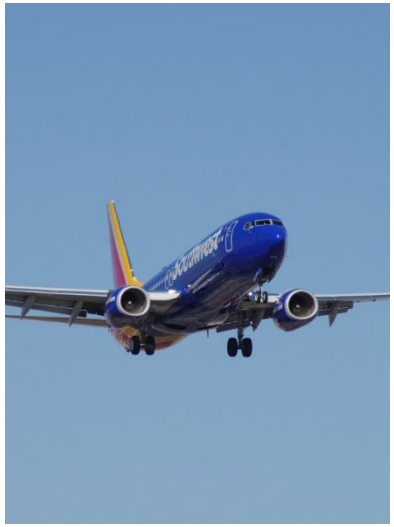
TABLE 5.1 AIRLINES USED AT PUW

RANK	TOP 25 DOMESTIC TRUE MARKETS	AIRLINE %		TOTAL PAX
		AS	OTHER	
1	Seattle-Tacoma, WA	100	0	43,628
2	Los Angeles, CA	100	0	6,393
3	Portland, OR	100	0	4,455
4	San Francisco, CA	100	0	4,340
5	Anchorage, AK	100	0	4,176
6	Boise, ID	100	0	3,943
7	Sacramento, CA	99	1	3,738
8	Las Vegas, NV	100	0	3,666
9	San Diego, CA	100	0	3,636
10	San Jose, CA	99	1	3,325
11	Phoenix, AZ (PHX)	97	3	3,085
12	Orange County, CA	100	0	2,883
13	Denver, CO	99	1	2,652
14	Oakland, CA	100	0	2,212
15	Chicago, IL (ORD)	92	8	2,007
16	Honolulu, HI	97	3	1,526
17	New York, NY (JFK)	97	3	1,470
18	Eugene, OR	100	0	1,432
19	Ontario, CA	100	0	1,413
20	Washington, DC (DCA)	98	2	1,374
21	Boston, MA	99	1	1,276
22	Burbank, CA	100	0	1,247
23	Bellingham, WA	100	0	1,112
24	Kahului, HI	96	4	1,061
25	Newark, NJ	99	1	909
Total Top 25		**99**	**1**	**106,960**
Total All Markets		**95**	**5**	**138,239**

[2] *Source: Diio Mi; Year Ended December 31, 2019*



AIRLINES USED AT GEG

Table 5.2 shows the airlines used and top destinations when travelers from the catchment area used GEG. Southwest Airlines had the highest share of catchment area passengers at GEG, carrying 29 percent of diverting passengers. Alaska had the second highest share at 28 percent, followed by Delta Air Lines, United Airlines, American Airlines and Frontier Airlines. All other carriers combined for the remaining 2 percent of passengers.

TABLE 5.2 AIRLINES USED AT GEG

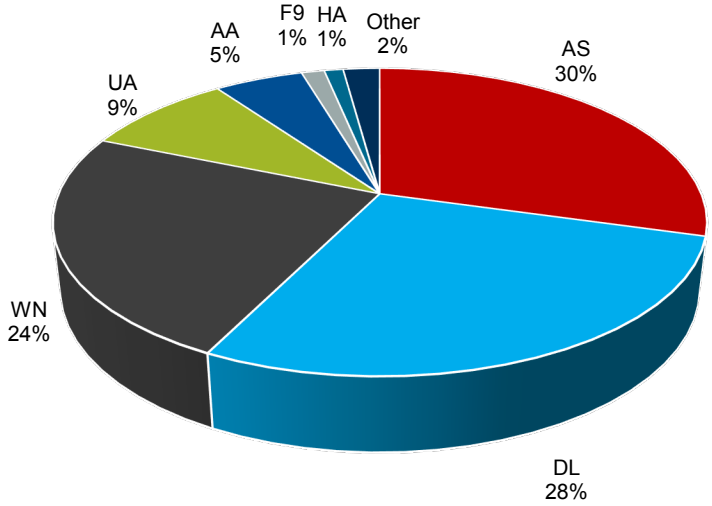
RANK	TOP 25 DOMESTIC TRUE MARKETS	AIRLINE %							TOTAL GEG PAX
		WN	AS	DL	UA	AA	F9	OTHER	
1	Seattle-Tacoma, WA	0	59	38	0	0	0	3	30,193
2	Las Vegas, NV	57	5	23	0	0	14	0	17,274
3	Denver, CO	37	1	5	50	0	7	0	15,371
4	Phoenix, AZ (PHX)	46	6	7	0	40	0	0	14,679
5	Boise, ID	45	52	2	0	1	0	0	11,115
6	Oakland, CA	70	22	7	0	1	0	0	9,900
7	Portland, OR	0	96	4	0	0	0	1	9,324
8	Los Angeles, CA	25	21	51	0	0	0	2	7,276
9	Sacramento, CA	68	19	11	2	0	0	0	7,181
10	San Diego, CA	51	31	16	1	2	0	0	6,368
11	San Jose, CA	58	24	15	0	3	0	0	5,669
12	San Francisco, CA	1	29	16	49	0	0	5	4,510
13	Anchorage, AK	0	50	50	0	0	0	0	4,330
14	Ontario, CA	71	15	4	1	8	0	0	3,276
15	Orange County, CA	42	24	33	0	1	0	0	3,171
16	Burbank, CA	71	17	12	0	0	0	0	3,081
17	Minneapolis, MN	5	5	83	8	0	0	0	3,007
18	Kahului, HI	2	44	27	17	0	0	10	2,863
19	Nashville, TN	40	21	31	6	2	0	0	2,399
20	Kansas City, MO	26	2	55	16	2	0	0	2,316
21	Honolulu, HI	2	34	28	12	0	0	23	2,231
22	Bellingham, WA	0	100	0	0	0	0	0	2,092
23	Baltimore, MD	27	17	36	21	0	0	0	2,026
24	Boston, MA	7	10	49	28	6	0	0	1,967
25	San Antonio, TX	44	9	20	3	24	0	0	1,914
Total Top 25		**33**	**31**	**21**	**8**	**4**	**2**	**1**	**173,532**
Total All Markets		**29**	**28**	**25**	**9**	**5**	**2**	**2**	**235,956**

When PUW catchment area travelers divert to alternate airports, the largest percentage used Alaska Airlines, followed by Delta Air Lines, Southwest Airlines, United Airlines and American Airlines.

DIVERTING PASSENGER AIRLINE USE

Exhibit 5.1 shows the airlines used when travelers from the catchment area originated from GEG and other airports. Overall, Alaska carried the highest number of diverting passengers, with 30 percent, followed by Delta with 28 percent, Southwest with 24 percent, United with 9 percent and American with 5 percent. Frontier and Hawaiian Airlines each had shares of 1 percent. Other airlines accounted for 2 percent of passengers.

EXHIBIT 5.1 DIVERTING PASSENGER AIRLINE USE



FACTORS AFFECTING AIR SERVICE DEMAND AND RETENTION

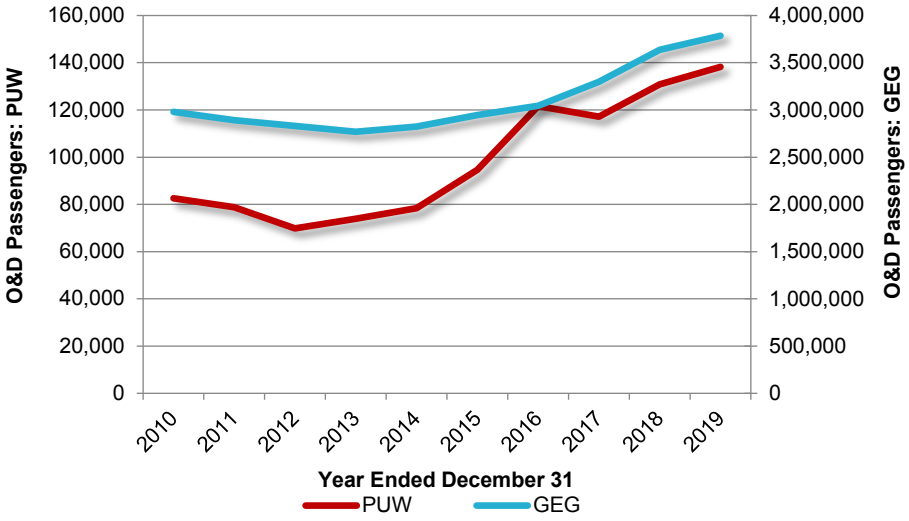
This section examines several factors that have affected and will continue to affect air service demand in the Palouse and PUW's ability to retain passengers. The factors affecting PUW's ability to retain passengers included in this section are airfares, nonstop service availability, and the quality and capacity of air service offered at PUW and GEG.

PASSENGER ACTIVITY COMPARISON

To better understand the changes in passenger volumes at PUW and GEG, **Exhibit 6.1** provides a depiction of origin and destination passengers over the last 10 years by year ended December 31 passenger totals as reported to the U.S. DOT. During this period:

- PUW's passengers increased at a CAGR of 5.9 percent and ranged from 69,854 passengers to 138,239 passengers.
- GEG's passengers increased at a CAGR of 2.7 percent, ranging from 2.77 million passengers to 3.79 million passengers.

EXHIBIT 6.1 PASSENGER TRENDS



Notably, PUW's passengers increased 5.7 percent from 2018 to 2019, an increase greater than that experienced at GEG (4.0 percent).

PUW's overall average domestic fare for the year ended December 31, 2019, was $176, $10 higher than GEG.

AIRFARES

When a traveler decides which airport to access for travel, airfares play a large role. Airfares affect air service demand and an airport's ability to retain passengers. One-way airfares (excluding taxes and Passenger Facility Charges [PFC]) paid by travelers are used to measure the relative fare competitiveness between PUW and GEG. Fares listed for GEG are for all air travelers using the airport and are not reflective of the average fare paid only by catchment area travelers diverting to GEG.

Table 6.1[3] shows one-way average airfares for the top 25 catchment area domestic destinations. Average airfares are a result of many factors including length of haul, availability of seats, business versus leisure fares and airline competition. PUW's overall average domestic fare for the year ended December 31, 2019, was $176, $10 higher than GEG.

In individual markets, PUW had a lower fare than GEG in the Kahului and Minneapolis markets. PUW exceeded GEG by greater than $50 in the Portland, Nashville and Washington-National markets.

TABLE 6.1 U.S. DOT AVERAGE DOMESTIC ONE-WAY FARES

RANK	DESTINATION	AVERAGE ONE-WAY FARE		DIFF.
		GEG	PUW	
1	Seattle-Tacoma, WA	$92	$114	$21
2	Las Vegas, NV	$106	$136	$30
3	Phoenix, AZ (PHX)	$146	$170	$24
4	Denver, CO	$137	$170	$33
5	Boise, ID	$85	-	-
6	Los Angeles, CA	$153	$168	$15
7	Portland, OR	$120	$175	$55
8	Oakland, CA	$145	$182	$37
9	San Diego, CA	$124	$164	$40
10	Sacramento, CA	$135	$154	$19
11	Anchorage, AK	$211	$231	$20
12	San Francisco, CA	$164	$169	$5
13	San Jose, CA	$138	$167	$29
14	Orange County, CA	$156	$167	$10
15	Honolulu, HI	$285	$317	$32
16	Kahului, HI	$278	$266	($12)
17	Ontario, CA	$155	$185	$30
18	New York, NY (JFK)	$245	$260	$15
19	Burbank, CA	$143	$192	$49
20	Chicago, IL (ORD)	$229	$242	$13
21	Minneapolis, MN	$223	$193	($30)
22	Boston, MA	$264	$281	$16
23	Bellingham, WA	$133	$134	$1
24	Nashville, TN	$208	$272	$64
25	Washington, DC (DCA)	$281	$361	$81
Average Domestic Fare		**$166**	**$176**	**($10)**

[3] *Source: Diio Mi; Note: Year Ended December 31, 2019; Fares do not include taxes or Passenger Facility Charges*

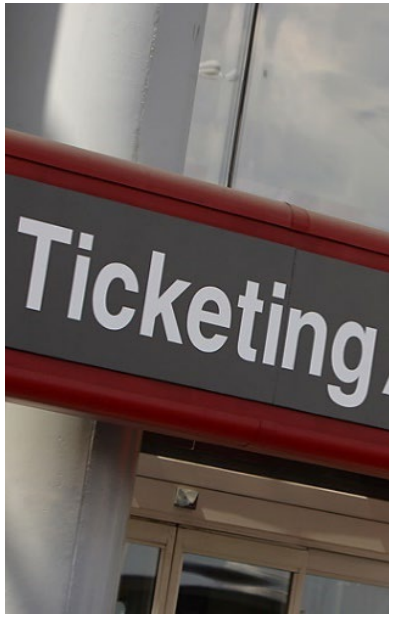
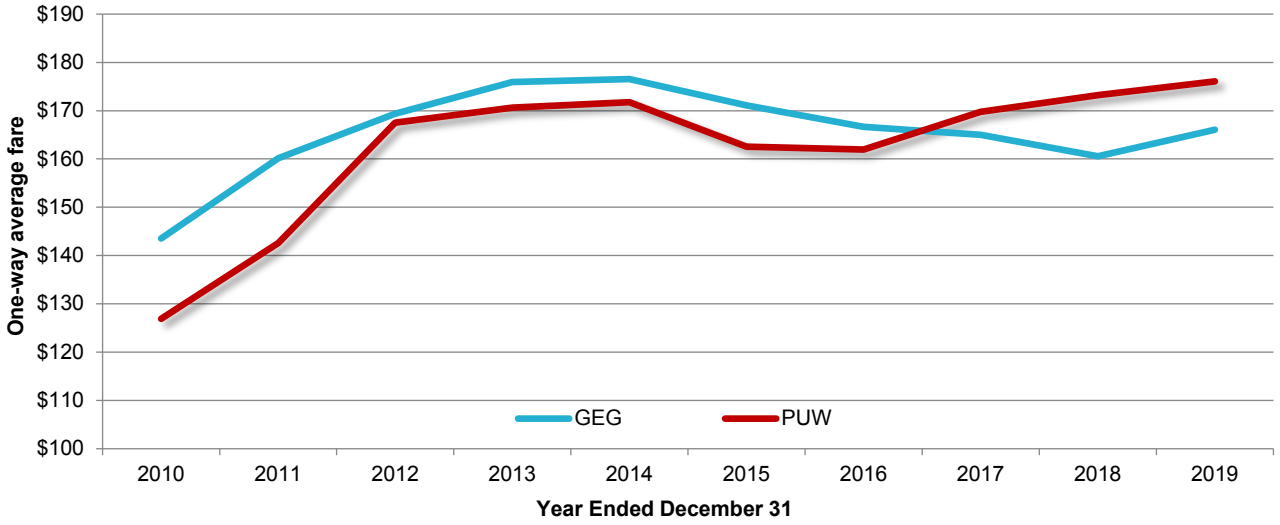


Exhibit 6.2 tracks the average fares at PUW and GEG from 2010 through 2019. Based on U.S. DOT airline data, average fares at PUW have ranged from $127 (2010) to $176 (2019). The average fare at GEG ranged from $144 (2010) to $177 (2014). Overall, average domestic fares over the 10-year period increased at a CAGR of 3.7 percent at PUW and 1.6 percent at GEG.

Overall, the fare gap between PUW and GEG has fluctuated significantly, ranging from being lower than GEG in 2010/2011 by $17 to $18 and higher than GEG in 2018 by $13. PUW's average fare due to Alaska's low-fare pricing was lower than GEG's average in seven of the past 10 years. The fare gap decreased from 2018 to 2019 by $3.

EXHIBIT 6.2 10-YEAR AVERAGE DOMESTIC ONE-WAY FARE TREND



PUW offered nonstop service to one of the top 25 catchment area destinations with an average of 26 weekly departures in calendar year 2019.

NONSTOP SERVICE AVAILABILITY

Travelers drive to competing airports to access air service for many reasons, one of which is nonstop service availability. **Table 6.2**[4] compares the level of air service offered at PUW with that offered at GEG.

In calendar year 2019, PUW offered nonstop service to one of the top 25 catchment area destinations with 26 average weekly frequencies. GEG had service to 14 of the top 25 markets with 392 weekly departures on average. PUW had service to one market overall, while GEG had service to 17 overall.

TABLE 6.2 NONSTOP SERVICE COMPARISON

RANK	DESTINATION	AVG WEEKLY DEPARTURES	
		GEG	PUW
1	Seattle-Tacoma, WA	161	26
2	Las Vegas, NV	17	0
3	Phoenix, AZ (PHX)	21	0
4	Denver, CO	31	0
5	Boise, ID	26	0
6	Los Angeles, CA	7	0
7	Portland, OR	55	0
8	Oakland, CA	13	0
9	San Diego, CA	10	0
10	Sacramento, CA	8	0
11	Anchorage, AK	0	0
12	San Francisco, CA	15	0
13	San Jose, CA	6	0
14	Orange County, CA	0	0
15	Honolulu, HI	0	0
16	Kahului, HI	0	0
17	Ontario, CA	0	0
18	New York, NY (JFK)	0	0
19	Burbank, CA	0	0
20	Chicago, IL (ORD)	7	0
21	Minneapolis, MN	16	0
22	Boston, MA	0	0
23	Bellingham, WA	0	0
24	Nashville, TN	0	0
25	Washington, DC (DCA)	0	0
Total Top 25 Frequencies		**392**	**26**
Total All Markets		**427**	**26**
Number of Top 25 Served		**14**	**1**
Total Destinations Served		**17**	**1**

[4] *Source: Diio Mi; Year Ended December 31, 2019*

PUW offered a total of 1,360 departures and 103,360 seats, with all departures on turboprop aircraft.

QUALITY OF AIR SERVICE AT COMPETING AIRPORTS

The quality of air service offered by an airport is a factor in a traveler's decision when selecting which airport to originate travel from. In general, passengers prefer larger over smaller aircraft and jet over turboprops.

Table 6.3[5] provides PUW's and GEG's total departures by aircraft type for calendar year 2019. PUW offered a total of 1,360 departures and 103,360 seats, with all departures on turboprop aircraft.

Comparatively, GEG offered 22,188 departures and 2.43 million seats on a mix of aircraft. Twenty-nine percent of GEG's departures were on turboprop aircraft, while 27 percent of GEG's departures were on regional jets.

TABLE 6.3 DEPARTURES BY AIRCRAFT TYPE BY ORIGIN

AIRCRAFT TYPE	SEAT RANGE	TOTAL DEPARTURES	
		GEG	PUW
Turboprop	>30	6,404	1,360
Regional jet	30-50	697	0
	51-70	5,256	0
Narrow body jet	70-125	280	0
	126-160	5,781	0
	>160	3,770	0
Total Departures		**22,188**	**1,360**
% Turboprop Departures		**29%**	**100%**
% Regional Jet Departures		**27%**	**0%**
Total Seats		**2,434,823**	**103,360**

[5] *Source: Diio Mi; Year Ended December 31, 2019*

An increase in retention of 10 percentage points would create an estimated additional 43,552 annual passengers (59.7 PDEW) for PUW.

RETENTION RATE SENSITIVITY

Considering the previous factors of airfares, nonstop service and quality of service, a retention rate sensitivity follows in **Table 6.4**. The purpose is to show how small changes in passenger retention can affect passenger volume. Passengers in total and for each of the top 25 markets are calculated using varying degrees of retention. An increase in retention of 10 percentage points would create an estimated additional 43,552 annual passengers (59.7 PDEW) for PUW.

TABLE 6.4 RETENTION RATE SENSITIVITY

RANK	DESTINATION	REPORTED PAX	RETENTION %	RETENTION IMPROVEMENT		
				5%	10%	15%
1	Seattle-Tacoma, WA	43,628	58	47,378	51,128	54,878
2	Las Vegas, NV	3,666	15	4,906	6,146	7,386
3	Phoenix, AZ (PHX)	3,085	15	4,084	5,083	6,081
4	Denver, CO	2,652	14	3,613	4,573	5,534
5	Boise, ID	3,943	23	4,799	5,655	6,511
6	Los Angeles, CA	6,393	38	7,238	8,082	8,927
7	Portland, OR	4,455	29	5,211	5,967	6,724
8	Oakland, CA	2,212	16	2,899	3,587	4,274
9	San Diego, CA	3,636	30	4,236	4,836	5,436
10	Sacramento, CA	3,738	32	4,317	4,896	5,475
11	Anchorage, AK	4,176	38	4,719	5,262	5,805
12	San Francisco, CA	4,340	41	4,869	5,399	5,929
13	San Jose, CA	3,325	34	3,819	4,313	4,807
14	Orange County, CA	2,883	40	3,242	3,602	3,962
15	Honolulu, HI	1,526	27	1,804	2,082	2,360
16	Kahului, HI	1,061	20	1,329	1,597	1,865
17	Ontario, CA	1,413	27	1,671	1,928	2,185
18	New York, NY (JFK)	1,470	30	1,718	1,966	2,214
19	Burbank, CA	1,247	26	1,490	1,733	1,976
20	Chicago, IL (ORD)	2,007	43	2,240	2,472	2,705
21	Minneapolis, MN	863	19	1,087	1,311	1,534
22	Boston, MA	1,276	31	1,483	1,690	1,896
23	Bellingham, WA	1,112	27	1,316	1,519	1,723
24	Nashville, TN	569	16	752	935	1,118
25	Washington, DC (DCA)	1,374	40	1,544	1,713	1,883
Total Top 25		**106,052**	**34**	**121,764**	**137,476**	**153,188**
Total Domestic		**131,249**	**32**	**151,795**	**172,342**	**192,889**
Total International		**6,990**	**28**	**8,220**	**9,449**	**10,678**
Total of All Markets		**138,239**	**32**	**160,015**	**181,791**	**203,567**

SITUATION ANALYSIS

As Alaska Airlines has committed additional resources to the PUW market, PUW's enplanements have continued to increase, reaching record levels in 2019. However, PUW is situated in a difficult position geographically. With a catchment area population of 85,215, it is flanked by Lewiston-Nez Perce County Regional Airport (LWS) only 35 miles to the south and GEG 75 miles to the north.

PUW's air service is limited to nonstop flights to SEA. While LWS historically had service by two airlines, Alaska pulled LWS service in August 2018 leaving LWS with two to three times daily service to Salt Lake City by Delta Air Lines (operated on a pro-rate basis by SkyWest Airlines). GEG has a broader array of service by six airlines, with the competitive challenge made more difficult by the presence of Frontier Airlines and Southwest Airlines.

The net result of PUW's limited service to SEA and the routing options available at the other two airports is that PUW retains only 32 percent of its catchment area air travelers. Fifty-four percent of catchment area air travelers drive to GEG and the remaining 14 percent drive to SEA, LWS or airports at Portland, Boise and Pasco. This diversion is not surprising since these airports offer an opportunity to travel south and east without the 250-mile backhaul to SEA that is required when using the local airport. PUW does well with its available capacity with a load factor of approximately 71 percent for the year ended December 31, 2019; however, the need to travel via SEA severely restricts the opportunity to improve retention given the proximity of the two competing airports.

While PUW reached record passenger levels in 2019, this positive trend will not continue in 2020 due to the impact of COVID-19. The COVID-19 pandemic has brought tremendous new uncertainty for the airline industry. This study was performed before the full impact of the pandemic can be assessed. Therefore, the true market estimate has not been adjusted to reflect this impact. Since the timeframe covered by this study (calendar year 2019), the world has seen

passenger airline traffic drop by over 90 percent compared to 2019 and will likely have impacts for many years to come. The section identifies opportunities and discussion of routes based on data within this report, pre-COVID-19 impact. While PUW has lost frequency and capacity in 2020, the expectation is that the market will rebound in 2021 and likely be back to normal levels in 2022, with opportunities for new capacity or routes possible for summer 2021.

While the longer-term effects of the current COVID-19 environment are unknown as it relates to airline strategies moving forward, airlines adjust to changes in demand. As demand returns, returning to previous service levels will be a top priority. This effort combined with a re-focused effort on building the business case for new air service will be critical during the recovery period for the industry. As airlines begin to build up their post-COVID-19 networks, it will be imperative to discuss with all carriers the benefits of service to the Palouse, from costs to target passengers. The following subsections discuss top opportunities for hub service and point-to-point service.

HUB SERVICE OPPORTUNITIES

Optimal hub service would provide daily service to a hub with significant connecting opportunities, particularly eastbound since PUW's existing SEA service provides good north-south connecting opportunities. With PUW's existing catchment area population, the best aircraft to serve the market are regional jets or turboprops with less than 100 seats. It would be difficult for the PUW catchment area to sufficiently fill larger aircraft on a daily basis. While aircraft of this size can serve long stage lengths, the least risky stage length for the airlines on a cost basis, particularly a new entrant airline, includes hubs at less than 1,000 miles. The following discussion includes hubs that are less than 1,000 miles distant from PUW.

Denver

The Denver hub is located 785 miles from PUW. Denver is considered a hub by several airlines including Frontier Airlines, Southwest Airlines and United Airlines. Frontier and Southwest both operate larger aircraft and are not considered a good fit for the PUW market at this time, particularly with their existing service at GEG. However, United is expanding at Denver and has indicated their commitment to smaller communities. Their partnership with SkyWest Airlines, either on a contract or pro-rate basis, makes the Denver opportunity the best opportunity for expanded service at PUW. Denver is PUW's fourth largest true market with 26 PDEW and also offers significant connecting opportunities to the east. In 2019, PUW was awarded a SCASDP grant to support nonstop Denver service. Discussions continue with United and SkyWest for potential Denver service, with the possibility of a summer 2021 start date.

While there is a possibility for Alaska Airlines to consider Los Angeles service, PUW would likely struggle to fill the 76-seat regional jet aircraft on a daily basis due to the limited connectivity beyond Los Angeles and a PUW true market of 23 PDEW.

Los Angeles

Multiple airlines consider Los Angeles a hub including Alaska, American Airlines, Delta Air Lines and United. Each of these airlines also operate regional aircraft; however, as COVID-19 has progressed, several of these airlines have pulled back their service offering at Los Angeles, particularly from the Pacific Northwest. Alaska has been counter to this trend, adding Los Angeles service to several markets beginning this fall. While there is a possibility for Alaska to consider Los Angeles service, PUW would likely struggle to fill the 76-seat regional jet aircraft on a daily basis due to the limited connectivity beyond Los Angeles and a PUW true market of 23 PDEW. At a stage length of 886 miles, this would also be a high risk market for Alaska on a cost basis until there is further market growth.

Phoenix

Two airlines consider Phoenix-Sky Harbor a hub, American and Southwest. American operates regional aircraft at the hub and would be the target for PUW service; however, Phoenix-Sky Harbor is located 957 miles from PUW. Due to this longer stage length, it is considered a riskier hub for PUW service on a cost basis than several other hubs under consideration. Recently, American has been adding some service for the fall at Phoenix-Sky Harbor after years of little to no growth. Much of this service, however, has been to increase frequency from their existing stations. While Phoenix-Sky Harbor is PUW's third largest true market at 27 PDEW and would provide connecting opportunities, the long stage length and significant other competitive opportunities for American in the Pacific Northwest make this a longer term opportunity for PUW after the market continues to grow.

Portland

Portland represents the nearest new hub for additional PUW service at just 275 miles. Alaska is the only carrier operating Portland as a hub. While Portland would offer many of the same connecting opportunities as SEA with most connections focused on north-south service, Alaska may see PUW-Portland service as an opportunity given SEA's congestion combined with Alaska's existing high frequency from PUW to SEA. Portland service would be the next best opportunity at PUW for Alaska with the lowest cost risk given the 275-mile stage length. In general, Alaska is starting to push more flow over Portland to ease some of the congestion at SEA. In a meeting in early 2020 with Alaska representatives, Alaska indicated that PUW-Portland service is "when" not "if" the service will be implemented; however, the service will likely not be added for the next two to four years, particularly given the impacts of COVID-19.

Salt Lake City

While Salt Lake City is the nearest multi-directional hub at a stage length of 485 miles and would provide one-stop connecting service to the east and south, SkyWest/Delta service at LWS is a significant obstacle for PUW obtaining

nonstop Salt Lake City service. The LWS service is operated on a pro-rate basis by SkyWest with Delta. It is highly unlikely that Delta or SkyWest would provide service at PUW given the close proximity of the LWS service. However, there is potential in the future if SkyWest begins pro-rate service from PUW to Denver to potentially consolidate their operations at PUW.

San Francisco

United is the primary airline operating San Francisco as a hub. While San Francisco is within a good range for regional jet service at 685 miles, the airport is capacity constrained and there has been little growth opportunity by the airlines. When additional gate space becomes available, San Francisco could be an opportunity for PUW, either as a contract or pro-rate market with SkyWest under a United codeshare. San Francisco would offer international and eastbound connecting opportunities although more circuitous than an eastbound hub like Denver.

POINT-TO-POINT SERVICE OPPORTUNITIES

Point-to-point opportunities include any market that an airline does not consider a hub as well as markets largely served by low-cost carriers. Often times, point-to-point markets can be served on a less-than-daily basis with larger aircraft.

Boise

While Boise could potentially offer some limited interline connections for an airline, it is not considered a hub by any individual airline and as such is included under the point-to-point service opportunities discussion. Boise currently has service by Alaska, American, Delta, Allegiant, Southwest and United. Of these carriers, Alaska is the only airline that would consider point-to-point service although they have ceased much of this flying in other markets.

Based on discussions with the community, there is a significant community of interest component between the Palouse and Boise, particularly with the University of Idaho. Based on flown data obtained directly from Alaska combined with ARC/MIDT data, Boise has a true market of 23 PDEW. This market size would have to grow considerably to fill a 76-seat aircraft on a daily basis. Ideally, an airline operating a smaller aircraft size would operate the service. Currently, no potential operators fitting these parameters have been identified.

In March 2020, community representatives discussed the potential for Boise service with Alaska. Alaska indicated that they could consider non-summer seasonal service to help utilize their off-season aircraft capacity but that it would require a revenue guarantee in the $600,000 to $800,000 range at a minimum to support nine-month seasonal service.

Potential Allegiant service includes Las Vegas, Los Angeles and Phoenix-Mesa, similar to the service provided at Pasco.

Other Markets

The best opportunity for service to other point-to-point markets is with an ultra-low-cost carrier (ULCC). ULCCs include airlines such as Allegiant Air, Frontier Airlines, JetBlue Airways and Spirit Airlines. Of these, Allegiant is the best opportunity for PUW as they serve smaller markets on a less-than-daily basis. Allegiant does not currently serve any airports in the immediate area, with the closest service airport at Pasco. Allegiant has indicated in past meetings that they serve few if any Pullman-Moscow area passengers at Pasco which bodes well for potential PUW service. Potential Allegiant service includes Las Vegas, Los Angeles and Phoenix-Mesa, similar to the service provided at Pasco. Discussions with Allegiant have been positive.

TOP 50 TRUE MARKETS

TABLE A.1 TOP 50 TRUE MARKETS

RANK	DESTINATION	PUW REPORTED PAX	RETENTION %	TRUE MARKET	PDEW	DIVERTING PAX	
						GEG	OTHER
1	Seattle-Tacoma, WA	43,628	58	75,005	102.7	30,193	1,184
2	Las Vegas, NV	3,666	15	24,797	34.0	17,274	3,857
3	Phoenix, AZ (PHX)	3,085	15	19,973	27.4	14,679	2,208
4	Denver, CO	2,652	14	19,210	26.3	15,371	1,186
5	Boise, ID	3,943	23	17,118	23.4	11,115	2,060
6	Los Angeles, CA	6,393	38	16,889	23.1	7,276	3,219
7	Portland, OR	4,455	29	15,125	20.7	9,324	1,347
8	Oakland, CA	2,212	16	13,747	18.8	9,900	1,635
9	San Diego, CA	3,636	30	12,000	16.4	6,368	1,996
10	Sacramento, CA	3,738	32	11,582	15.9	7,181	663
11	Anchorage, AK	4,176	38	10,865	14.9	4,330	2,359
12	San Francisco, CA	4,340	41	10,593	14.5	4,510	1,743
13	San Jose, CA	3,325	34	9,881	13.5	5,669	887
14	Orange County, CA	2,883	40	7,192	9.9	3,171	1,138
15	Honolulu, HI	1,526	27	5,561	7.6	2,231	1,804
16	Kahului, HI	1,061	20	5,358	7.3	2,863	1,434
17	Ontario, CA	1,413	27	5,145	7.0	3,276	456
18	New York, NY (JFK)	1,470	30	4,961	6.8	1,690	1,801
19	Burbank, CA	1,247	26	4,862	6.7	3,081	534
20	Chicago, IL (ORD)	2,007	43	4,648	6.4	1,825	815
21	Minneapolis, MN	863	19	4,470	6.1	3,007	599
22	Boston, MA	1,276	31	4,136	5.7	1,967	893
23	Bellingham, WA	1,112	27	4,069	5.6	2,092	865
24	Nashville, TN	569	16	3,660	5.0	2,399	692
25	Washington, DC (DCA)	1,374	40	3,394	4.6	1,726	294
26	Kansas City, MO	559	16	3,394	4.6	2,316	519
27	Baltimore, MD	749	22	3,373	4.6	2,026	599
28	Juneau, AK	842	27	3,081	4.2	1,584	655
29	Austin, TX	723	24	2,992	4.1	1,878	391
30	New Orleans, LA	620	22	2,857	3.9	1,838	399
31	Orlando, FL (MCO)	654	23	2,805	3.8	1,479	672
32	Dallas, TX (DFW)	596	21	2,793	3.8	1,402	795
33	St. Louis, MO	417	15	2,717	3.7	1,684	616
34	Reno, NV	620	23	2,711	3.7	1,306	785
35	Fairbanks, AK	798	29	2,707	3.7	1,500	409

TABLE A.1 TOP 50 TRUE MARKETS

RANK	DESTINATION	PUW REPORTED PAX	RETENTION %	TRUE MARKET	PDEW	DIVERTING PAX	
						GEG	OTHER
36	Atlanta, GA	465	17	2,690	3.7	1,860	364
37	San Antonio, TX	376	14	2,640	3.6	1,914	350
38	Dallas, TX (DAL)	714	27	2,612	3.6	1,603	294
39	Philadelphia, PA	712	29	2,416	3.3	931	773
40	Indianapolis, IN	451	20	2,220	3.0	1,347	422
41	Fresno, CA	681	31	2,202	3.0	1,041	480
42	Raleigh/Durham, NC	376	17	2,182	3.0	1,541	264
43	Houston, TX (IAH)	628	29	2,181	3.0	1,105	448
44	Salt Lake City, UT	429	20	2,164	3.0	622	1,113
45	Fort Lauderdale, FL	413	20	2,086	2.9	1,218	454
46	Newark, NJ	909	44	2,065	2.8	896	260
47	Palm Springs, CA	705	35	2,026	2.8	1,101	220
48	Medford, OR	551	27	2,014	2.8	1,035	428
49	Ketchikan, AK	542	27	1,983	2.7	1,019	422
50	Beijing, China	772	39	1,980	2.7	839	369
Top 50 Destinations		**121,354**	**32**	**377,133**	**516.6**	**207,605**	**48,175**
Total Domestic		**131,249**	**32**	**410,934**	**562.9**	**225,883**	**53,802**
Total International		**6,990**	**28**	**24,587**	**33.7**	**10,073**	**7,524**
Total All Markets		**138,239**	**32**	**435,521**	**596.6**	**235,956**	**61,326**

GLOSSARY

AIRLINE CODES

AA	American Airlines
AS	Alaska Airlines
DL	Delta Air Lines
F9	Frontier Airlines
HA	Hawaiian Airlines
UA	United Airlines
WN	Southwest Airlines

AIRPORT CATCHMENT AREA (ACA)

The geographic area surrounding an airport from which that airport can reasonably expect to draw passenger traffic. The airport catchment area is sometimes called the service area.

AIRPORT CODES

BOI	Boise, ID
DAL	Dallas-Love Field, TX
DCA	Washington-National, DC
DEN	Denver, CO
DFW	Dallas-Fort Worth, TX
GEG	Spokane, WA
IAH	Houston-Intercontinental, TX
JFK	New York-Kennedy, NY
LAS	Las Vegas, NV
LAX	Los Angeles, CA
LWS	Lewiston, ID
MCO	Orlando-International, FL

AIRPORT CODES (CONTINUED)

OAK	Oakland, CA
ORD	Chicago-O'Hare, IL
PDX	Portland, OR
PHX	Phoenix-Sky Harbor, AZ
PUW	Pullman-Moscow, WA
SAN	San Diego, CA
SEA	Seattle, WA
SMF	Sacramento, CA

ARC

Acronym for Airline Reporting Corporation.

AVERAGE AIRFARE

The average of the airfares reported by the airlines to the U.S. DOT. The average airfare does not include taxes or passenger facility charges and represents one-half of a roundtrip ticket.

CAGR

Abbreviation for compounded annual growth rate, or the average rate of growth per year over a given time period.

DESTINATION AIRPORT

Any airport where the air traveler spends four hours or more. This is the Federal Aviation Administration definition.

DIVERSION

Passengers who do not use the local airport for air travel, but instead use a competing airport to originate the air portion of their trip.

FAA

Acronym for the Federal Aviation Administration.

HUB

An airport used by an airline as a transfer point to get passengers to their intended destination. It is part of a hub and spoke model, where travelers moving between airports not served by direct flights change planes en route to their destination. Also an airport classification system used by the FAA (e.g., non-hub, small hub, medium hub, and large hub.

INITIATED (ORIGIN) PASSENGERS

Origin and destination passengers who began their trip from within the catchment area.

LOAD FACTOR

The percentage of airplane capacity that is used by passengers.

LOCAL MARKET
The number of air travelers who travel between two points via nonstop air service.

MIDT
Acronym for Marketing Information Data Tapes provided by the Global Distribution Systems.

NARROW-BODY JET
A jet aircraft with a single aisle designed for seating over 100 passengers.

NONSTOP FLIGHT
Air travel between two points without stopping at an intermediate airport.

ONBOARD PASSENGERS
The number of passengers transported on one flight segment.

ORIGIN AND DESTINATION (O&D) PASSENGERS
Includes all originating and destination passengers. In the context of this report, it describes the passengers arriving and departing an airport.

ORIGINATING AIRPORT
The airport used by an air traveler for the first enplanement of a commercial air flight.

PASSENGER FACILITY CHARGE
Fee imposed by airports of $1 to $4.50 on enplaning passengers. The fees are used by airports to fund FAA approved airport improvement projects.

PAX
Abbreviation for passengers.

PDEW
Abbreviation for passengers daily each way.

POINT-TO-POINT
Nonstop service that does not stop at an airline's hub and whose primary purpose is to carry local traffic rather than connecting traffic.

REFERRED PASSENGERS
Origin and destination passengers who began their trip from outside the catchment area.

REGIONAL JET
A jet aircraft with a single aisle designed for seating fewer than 100 passengers.

RETAINED PASSENGERS
Passengers who use the local airport for air travel instead of using a competing airport to originate the air portion of their trip.

TRUE MARKET
Total number of air travelers, including those who are using a competing airport, in the geographic area served by PUW. The true market estimate includes the size of the total market and for specific destinations.

TURBOPROP AIRCRAFT
A type of engine that uses a jet engine to turn a propeller. Turboprops are often used on regional and business aircraft because of their relative efficiency at speeds slower than, and altitudes lower than, those of a typical jet.

U.S. DOT
Acronym for U.S. Department of Transportation.

WIDE-BODY JET
A jet aircraft with two aisles designed for seating greater than 175 passengers.

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