



# ANNUAL RATE REPORT

For Bond Year 2025 (March 2, 2024 – March 1, 2025)

At Ted Stevens Anchorage International Airport  
Consolidated Rental Car Facility



January 12, 2024



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## SECTION 1 | EXECUTIVE SUMMARY

This Report of the Independent Rate Consultant recommends the Customer Facility Charge (CFC) and Facility Maintenance Charge (FMC) levels for Bond Year (BY) 2025 (March 2, 2024 through March 1, 2025). The recommendations are based on an analysis of historical passenger enplanement and rental car demand trends at Ted Stevens Anchorage International Airport (ANC or the Airport), forecasts of enplanements and rental car transaction days, and projections of the CFC and the FMC levels needed to cover the obligations under the Indenture during BY2025.

In BY2024, the CFC was increased to \$6.60 per transaction day, based on the analysis and recommendations presented in the Annual Rate Report for BY2024 (the BY2024 Rate Report).<sup>1</sup> For BY2025, we recommend that the CFC rate be increased to \$8.00 per transaction day, and that the FMC rate be decreased from the current level of \$3.50 to \$2.60 per transaction day, effective March 2, 2024. The combined charge per transaction day would increase from the current level of \$10.10 to \$10.60. This report describes the analysis supporting these recommendations.

## SECTION 2 | BACKGROUND

The Anchorage RAC Center, LLC (the Company) commissioned this report to comply with the provisions of the Land/Building Lease between the State of Alaska, Department of Transportation and Public Facilities, Ted Stevens Anchorage International Airport, and the Company, dated September 1, 2005 (the Lease). Under the terms of the Lease, the Company assumed certain obligations for the design and construction of a consolidated facility (the Consolidated Facility) to house all Rental Car Concessionaires (RACs) at the Airport. The Consolidated Facility was financed with the proceeds of the Taxable Revenue Bonds (Rental Car Facility Project at Ted Stevens Anchorage International Airport), Series 2005A in the amount of \$49,530,000, and Series 2005B in the amount of \$13,294,573 (the Series 2005 Bonds), issued pursuant to the Trust Indenture between the Alaska Industrial and Export Authority (AIDEA) and the Bank of New York Trust Company, N.A., as Trustee, dated September 1, 2005 (the Indenture). The Consolidated Facility includes approximately 1,100 parking and storage spaces, car washing and fueling facilities, a rental customer sales lobby, and associated space. Appendix A of the Official Statement for the Series 2005 Bonds contains a description of the financing plan and a detailed financial feasibility study for the Series 2005 Bonds (the 2005 Feasibility Report).

According to the Indenture, the Series 2005 Bonds are special and limited obligations of AIDEA, payable solely from CFC proceeds. A State of Alaska statute (the CFC Statute) authorized the Commissioner of the Alaska Department of Transportation and Public Facilities (the Commissioner) to impose a CFC of \$4.00 per transaction day, effective June 24, 2005, to be adjusted periodically to the level expected to generate proceeds at least sufficient to pay the debt service requirements of

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<sup>1</sup> Unison Consulting, Inc., *Ted Stevens Anchorage International Airport Consolidated Rental Car Facility Annual Rate Report*, January 13, 2023.

the Series 2005 Bonds and to meet the other funding requirements of the Indenture. A transaction day covers 24 hours (plus a grace period of up to 59 minutes) during which a car is rented.

The CFC was raised to \$4.50 for the Bond Year ended March 1, 2011 (BY2011) through BY2015 and \$5.50 for BY2016. It decreased to \$5.25 from BY2017 through BY2019 and \$4.50 in BY2020 before increasing to \$4.75 in BY2021.

During BY2021, in calendar year (CY) 2020, due to extenuating circumstances amid the Coronavirus Diseases 2019 (COVID-19) pandemic, the Company commissioned Unison Consulting, Inc. (Unison) to prepare an Interim Rate Report according to the provisions of the Lease. The Interim Rate Report anticipated that CFC collections during BY 2021 would fall short of the BY2021 requirements, and amounts on deposit in the Coverage Fund would be applied to cover the deficiency in BY2021 CFC collections pursuant to the Indenture. As the Interim Rate Report recommended, the CFC rate was raised from \$4.75 to \$9.80 effective January 1, 2021, to restore the Coverage Fund balance and to meet the other requirements of the Indenture in BY2022.

After the CFC rate increase to \$9.80 effective January 1, 2021, the Company commissioned Unison to prepare a Special Rate Report to estimate the amount of Coronavirus Aid, Relief, and Economic Security Act (CARES Act) funds needed to supplement BY2022 CFC collections to reduce the CFC rate to \$4.75 effective April 1, 2022. The CARES Act awarded U.S. airports \$10 billion in grant funds to help offset revenue losses due to the COVID-19 Pandemic, and the Airport received approximately \$26.4 million of the CARES Act funds. The Special Rate Report, issued in March 2021, concluded that approximately \$3.1 million in CARES Act funds would be needed to supplement BY2022 CFC collections to meet the BY2022 CFC financial requirements specified in the Indenture, including the restoration of the Coverage Fund balance, assuming a reduction in the CFC rate to \$4.75 effective April 1, 2021. In response to the Special Rate Report, the Airport deposited \$3.1 million in CARES Act funds with the Bond Trustee and reduced the CFC rate to \$4.75 effective April 1, 2021. For BY2023, the CFC was increased to \$5.15, based on the BY2023 Rate Report's analysis and recommendations. For BY2024, the CFC was increased to \$6.60, based on the BY2024 Rate Report's analysis and recommendations.

The CFC Statute also authorized the Commissioner to impose a uniform FMC to pay for costs, fees, and expenses, including insurance and maintenance reserves, required to maintain and operate the Consolidated Facility. The FMC collections cannot be used to pay the debt service requirements of the Series 2005 Bonds. The FMC was set initially at \$0.26 per transaction day, effective March 2, 2006, for BY2007. Since then, the FMC has been adjusted periodically to generate sufficient amounts to cover the expenses paid with FMC collections. The FMC is currently \$3.50 per transaction day.

On May 24, 2005, the Commissioner issued an order (the Order) to impose the CFC, requiring the RACs to collect the CFC from their customers and remit the CFC collections to the Trustee in accordance with the rental car Concession Agreements. In the Order, the Commissioner committed to continue imposing the CFC while the Series 2005 Bonds and any other obligations under the Indenture are outstanding, and to adjust the CFC not less than annually to generate sufficient proceeds to provide for payment of the Series 2005 Bonds and any other obligations under the Indenture. The Lease requires the Company to appoint a qualified Independent Rate Consultant to

prepare a Rate Report each year. The Company selected Unison to prepare this report to assess the adequacy of the CFC level and recommend an adjustment, if necessary, to the CFC and FMC levels for the Bond Year ending March 1, 2025 (BY2025).

### SECTION 3 | THE COVID-19 PANDEMIC

Over the past three years, the pandemic disrupted daily life, travel, and global economic activities. Measures such as stay-at-home orders, travel restrictions, and social distancing helped mitigate the spread of the virus but also exacerbated the adverse economic effects of the pandemic. However, recent economic trends demonstrate remarkable resilience. The data presented in this section underscores the magnitude of the pandemic's impact while also highlighting the ability of the economy to withstand and recover from adverse shocks.

The World Health Organization (WHO) has declared an end to the global public health emergency, signifying a turning point. Figure 1 shows the reported COVID-19 cases in the United States, from the WHO's announcement of a global pandemic on March 11, 2020, to the end of the public health emergency in the United States on May 11, 2023. After peaking in January 2022, infections declined sharply and remained at very low levels.

Figure 1 | COVID-19: Archive of United States Weekly New Cases, March 2020–May 2023



Sources: Centers for Disease Control and Prevention COVID Data Tracker and Unison Consulting, Inc.

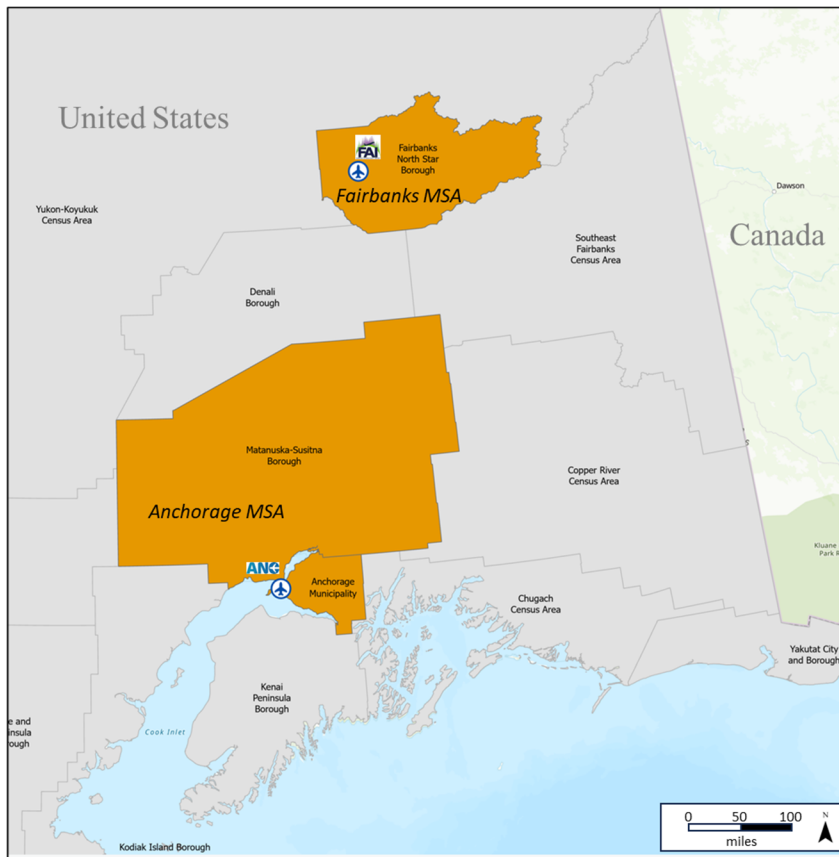
The distribution of initial COVID-19 vaccines and subsequent booster shots helped slow virus transmission and alleviated symptoms. As of May 2023, about 230.6 million people in the United States have completed their vaccination (69.5 percent of the population), and 56.4 million have received an updated bivalent booster dose. Alaska has a slightly lower but close vaccination rate: 477,592 are vaccinated (65.3 percent of state residents), and about 103,624 have received an updated bivalent booster dose. The high vaccination rate reflects significant progress in safeguarding public health and restoring economic normalcy.

## SECTION 4 | THE ECONOMIC ENVIRONMENT

Demand for air transport services is a function of the economic vitality of a region, gleaned from trends in gross domestic product (GDP), the labor market, key industries, and tourism. Regional, national—and even global—economic conditions influence residents' and visitors' demand for transportation services at a particular airport. A healthy regional economy attracts both business and leisure visitors, which in turn generates rental car demand at the airport.

The Airport is in the Municipality of Anchorage, about 4 miles from downtown. Anchorage, along with Matanuska-Susitna (Mat-Su) Borough, makes up the Anchorage, AK, metropolitan statistical area (Anchorage MSA), the largest metropolitan area in Alaska and the primary service area for the Airport. ANC is a 6-hour drive from Fairbanks, the nearest significant competing airport.

Figure 2 | Geographic Location of ANC



Sources: Esri and Unison Consulting, Inc.

Due to its advantageous location near the great circle route<sup>2</sup> between many major cities in the contiguous United States and Asia, ANC is an important passenger, cargo, and logistics node. ANC is also a major employer—about 10 percent of employment in Anchorage is linked to the Airport.<sup>3</sup>

In 2020, the U.S. economy plunged into a deep recession due to the COVID-19 pandemic and containment measures. The Alaskan economy, which was still reeling from the impacts of low oil prices induced by the 2014 oil industry downturn, fell into recession along with the U.S. economy. Since the significant drop in oil prices in 2014, Alaska’s economy has performed poorly compared to national averages.<sup>4</sup> By mid-2021, the U.S. economy had rebounded to pre-pandemic peak output level and entered the expansion phase of a new business cycle. Alaska’s state output, however, continues to lag national trends in the future of the oil industry, which will be influential in Alaska’s short- and long-term economic prospects.

#### 4.1 | Gross Domestic Product

The most comprehensive measure of economic output is GDP—the dollar value of all goods and services produced in a geographic region. Sustained growth in inflation-adjusted real GDP underpins economic expansions, while decreases in real GDP over two or more consecutive quarters often signal a recession. Generally, during an economic expansion, employment grows, incomes rise, and the demand for travel services (e.g., air travel, rental cars, hotels) also rises. Conversely, during an economic recession, employment decreases, incomes fall, and travel demand also falls.

When the COVID-19 pandemic struck the United States in the first quarter of 2020, widespread lockdowns, stay-at-home orders, and voluntary social distancing depressed consumer spending, causing the economy to fall into a deep recession. As a result, in 2020, U.S. real GDP decreased by 5.3 percent (annual rate) in the first quarter and another 28.0 percent in the second quarter. The magnitude of the overall contraction in U.S. real GDP was unprecedented. The second-quarter contraction alone was at least three times the GDP contraction during the 2008-2009 Great Recession (Figure 3).

The 2020 recession was different from previous U.S. economic recessions. The typical causes of recessions are market-related and economic—for example, asset market crashes, oversupply, loss of consumer and business confidence, or tight monetary and fiscal policy. The 2020 recession resulted from shocks to both supply and demand induced by the pandemic and deliberate measures to contain COVID-19. Therefore, when counties and states began to reopen in the second half of 2020 and social distancing began to ease, the U.S. real GDP rebounded quickly, increasing 34.8 percent in the third quarter and 4.2 percent in the fourth quarter. Vaccination helped restore

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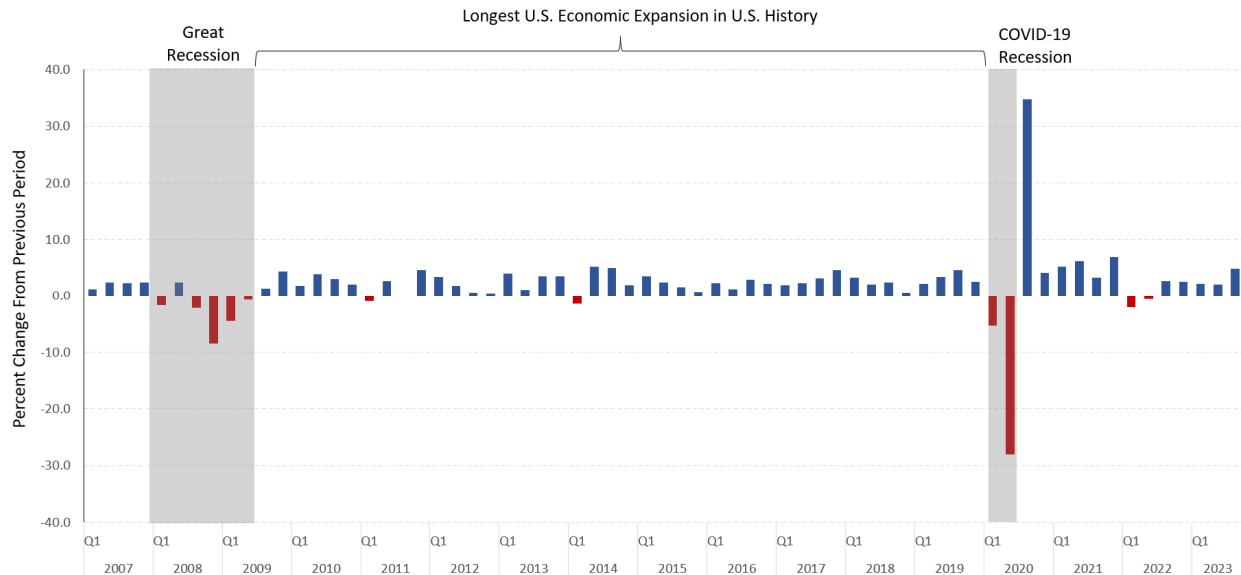
<sup>2</sup> The great circle route is the shortest path between two points on the surface of a sphere.

<sup>3</sup> Ted Stevens Anchorage International Airport, “Stats,” <https://ancairport.com/about/statistics/>.

<sup>4</sup> University of Alaska Center for Economic Development, “Alaska’s Economic Performance in National Context,” <https://static1.squarespace.com/static/59f6b60bcf81e02892fd0261/t/63755223ed155a341638d13b/1668633124243/ak-econ-performance.pdf>, November 2022.

consumer and business confidence, accelerate business re-openings, and sustain the economic recovery in 2021. U.S. real GDP grew 5.8 percent for the entire year, the highest annual increase since 1978.

Figure 3 | U.S. Real GDP, Quarterly, Annualized Percent Change from Previous Period, Q1 2007 - Q3 2023



Gray areas indicate economic recession periods.  
 Sources: U.S. Bureau of Economic Analysis and Unison Consulting, Inc.

Trends changed in 2022. The U.S. real GDP declined during the first two quarters—by 2.0 percent during the first quarter and 0.6 percent during the second quarter. GDP decreased due to supply and demand issues. On the supply side, production lagged due to:

- The surge in COVID-19 infections from the Omicron variant.
- The supply-chain bottlenecks and inventory pressures.
- A fundamental tightness in the labor market due to demand far exceeding labor supply.

On the demand side, growth slowed due to:

- The disappearing stimulus from household income transfers.
- Reduced government spending.
- Rising interest rates resulting from monetary tightening to contain inflation.
- The decrease in exports due to the appreciation of the U.S. dollar.

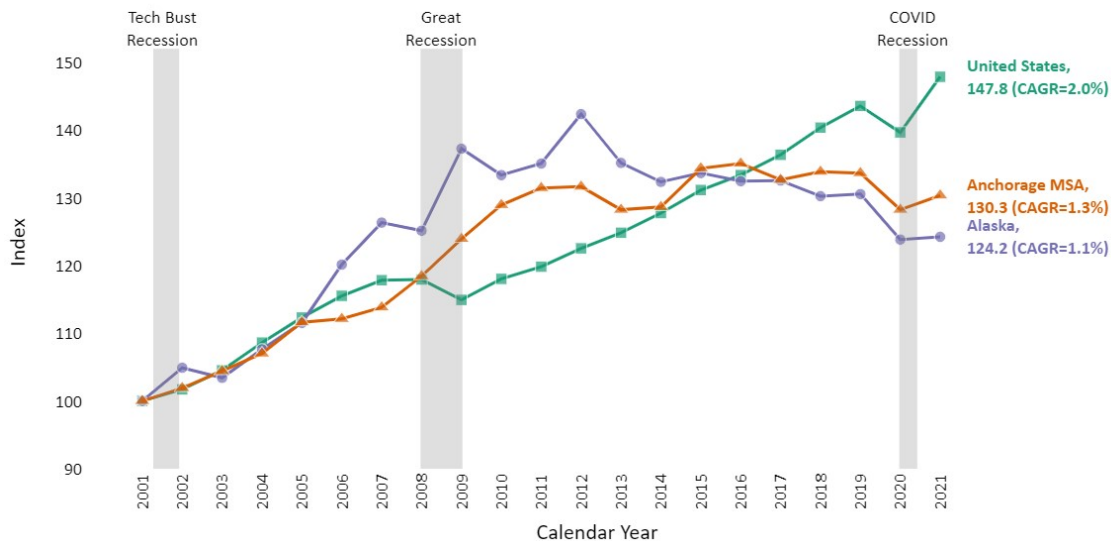
A GDP decline in two consecutive quarters typically signals a recession. However, the National Bureau of Economic Research (NBER), the official arbiter of U.S. business cycles, also looks beyond GDP trends to other key economic indicators such as nonfarm employment, real consumer

spending, industrial production, and real personal income. These trends, which were generally increasing, did not indicate a recession, which the NBER defines as a "significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in production, employment, real income, and other indicators." Instead, during the third quarter of 2022, GDP grew by 2.7 percent and 2.6 percent in the fourth—advancing by 1.9 percent for the year. Growth during the first two quarters of 2023 continued robustly, at 2.2 percent and 2.1 percent, respectively. Fueled by continued consumer spending and inventory increases, real GDP grew by 4.9 percent (advance estimate) in the third quarter of 2023.<sup>5</sup>

From 2001 through 2021, real GDP grew 48 percent (2.0 percent CAGR) nationally, 24 percent (1.1 percent CAGR) in Alaska, and 30 percent (1.3 percent CAGR) in the Anchorage MSA. The pattern of real GDP growth in Alaska and the Anchorage MSA has generally followed national trends but has also deviated in significant ways.

Alaska’s economy has depended heavily on the oil industry for over forty years. From 2005 to 2012 (including through the 2008-2009 Great Recession), the state of Alaska and the Anchorage MSA outpaced national economic growth due mainly to high oil prices. Between late June and the end of 2014, the price for Alaska North Slope oil declined by about 51 percent—from a high of over \$113 per barrel (BBL) to less than \$56 per barrel. As a result, the state economy began to lag. While real GDP increased by 9.4 percent nationally between 2015 and 2019, it fell by 2.4 percent statewide and 0.4 percent in the Anchorage MSA.

Figure 4 | Gross Domestic Product Index (2001=100), 2001-2021

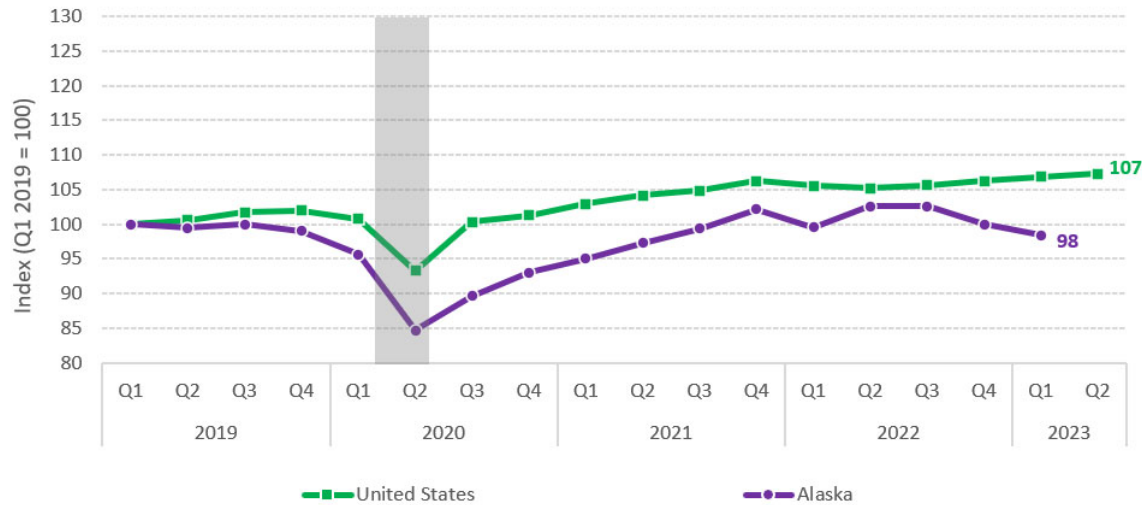


Gray areas indicate economic recession periods.  
 Sources: U.S. Bureau of Economic Analysis and Unison Consulting, Inc.

<sup>5</sup> U.S. Bureau of Economic Analysis, "Gross Domestic Product, Third Quarter 2023 (Advance)," [https://www.bea.gov/sites/default/files/2023-10/gdp3q23\\_adv\\_fax.pdf](https://www.bea.gov/sites/default/files/2023-10/gdp3q23_adv_fax.pdf)

The COVID-19 pandemic and resulting recession disproportionately affected Alaska's economy and the Anchorage MSA. While real GDP fell by 2.8 percent nationally between 2019 and 2020, it fell by 5.1 percent across the state and 4.0 percent in the MSA. More recent MSA-level data on recovery from the COVID-19 recession is not yet available, but state-level data shows that after a relatively steady recovery between Q2 2020 and Q2 2022, the change in real GDP has been negative and remains below 2019 levels (Figure 5).

Figure 5 | Real GDP Index (Q1 2019=100), Q1 2019-Q2 2023



Gray areas indicate economic recession periods.

Sources: U.S. Bureau of Economic Analysis and Unison Consulting, Inc.

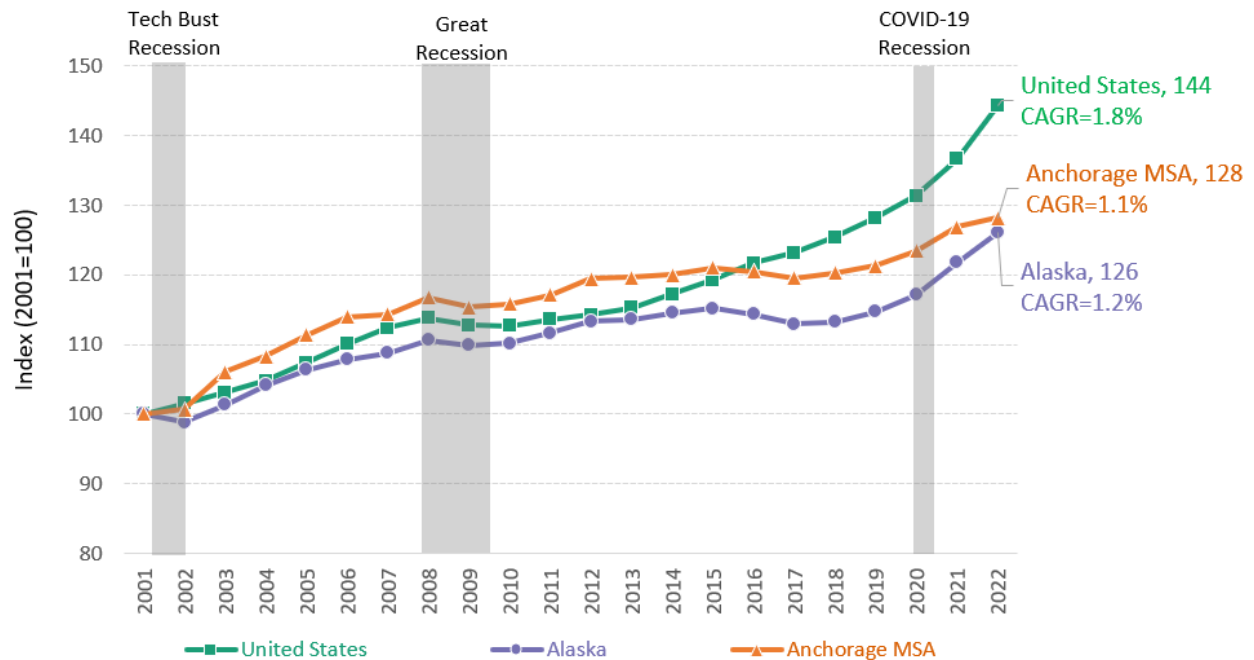
## 4.2 | Labor Market

Labor market trends evolve with business cycles and reflect the state of the economy. They are positively correlated with trends in income and travel. Strong business and employment growth and low unemployment stimulate demand for leisure and business travel. Increases in the number of business establishments indicate a healthy business climate, a high level of entrepreneurship, and a favorable environment for start-ups. Employment indicates job creation. Both measures are procyclical—they tend to increase during economic expansions and decrease during recessions (often with a lag).

### 4.2.1 | Business Establishments

From 2001 to 2022, the number of business establishments increased by 26 percent (1.1 percent CAGR) in the state of Alaska and by 28 percent in the Anchorage MSA (1.2 percent CAGR), compared with 44 percent nationally (1.8 percent CAGR, Figure 6). Business creation in the state and the MSA tracked closely with national trends until 2015, when the growth rate fell coincidentally with the oil price decline. However, between 2019 and 2021, through the COVID-19 recession, the number of establishments increased sharply in the state and the MSA, in line with the national trend. While establishment growth has continued across the state in 2022, the rate of increase has slowed in the Anchorage MSA.

Figure 6 | Business Establishment Index (2001=100), 2001-2022



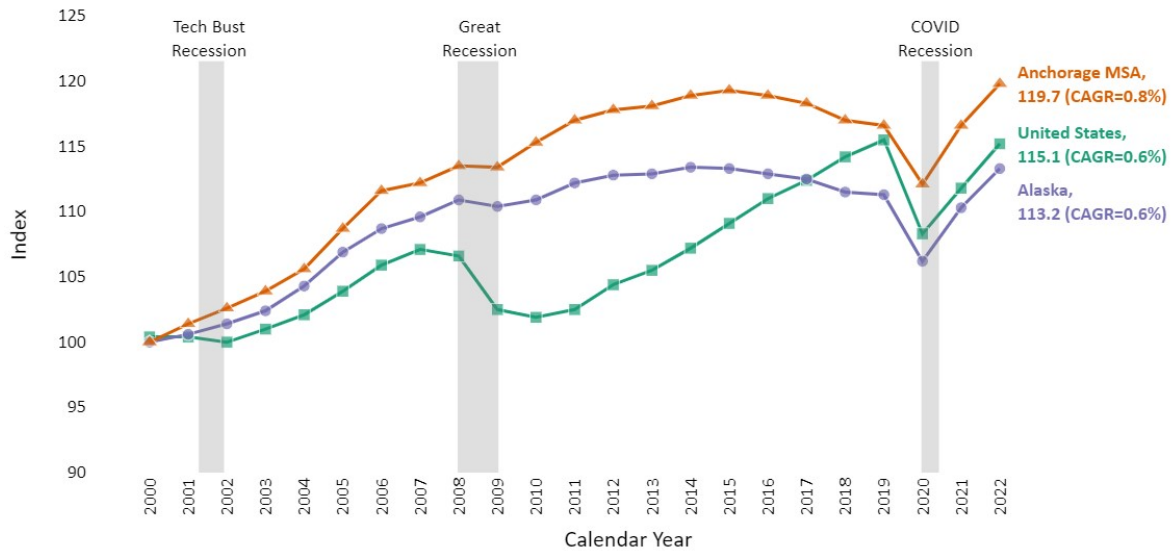
Gray areas indicate economic recession periods.  
 Sources: U.S. Bureau of Labor Statistics and Unison Consulting, Inc.

#### 4.2.2 | Nonfarm Employment

Alaska and the Anchorage MSA outpaced the nation in nonfarm employment growth between 2001 and 2015 (Figure 7), mainly due to high oil prices, stimulating economic growth. The sharp decrease in oil prices in 2014 and sustained lower prices through 2021 contributed to a significant slowing and a decline in job formation from 2015 to 2019. Between 2015 and 2019, nonfarm employment rose by 5.8 percent nationally but fell by 1.8 percent in the state of Alaska and 2.2 percent in the Anchorage MSA. As the COVID-19 pandemic hit and recession fell upon the nation, there was a further 4.6 percent decline in nonfarm employment across the state and a 4 percent reduction in jobs in the MSA in 2020. Nationally, employment fell by more than 6 percent.

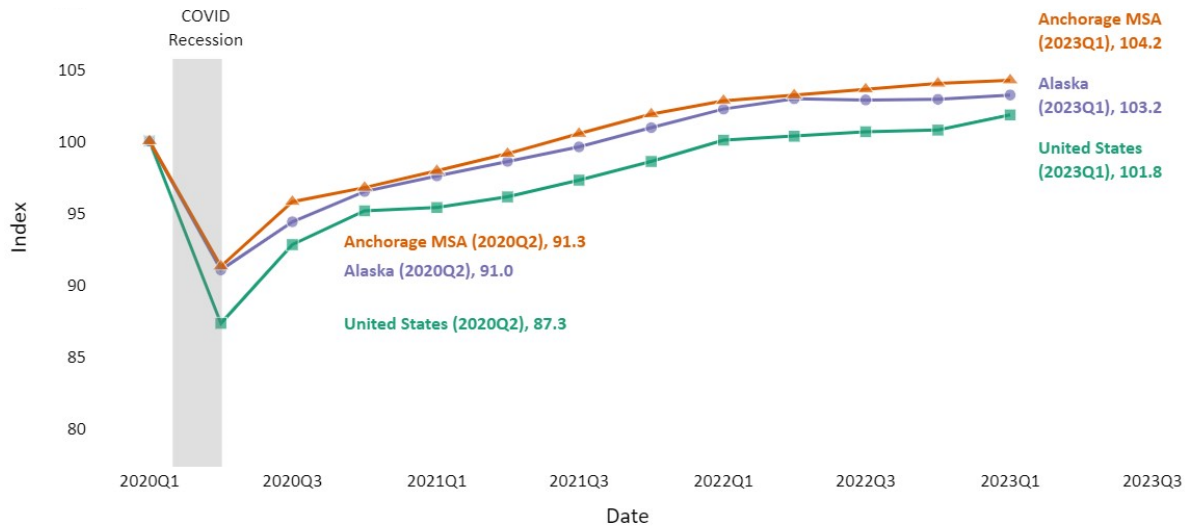
In 2021 and 2022, nonfarm employment rebounded significantly with increased economic activity as the vaccination rate rose and measures to contain the virus eased. Between 2020 and 2022, nonfarm employment increased 6.3 percent nationally, 6.9 percent in the MSA, and 6.7 percent in Alaska. Employment levels in 2022 in Alaska and the Anchorage MSA now exceed those of 2019 (Figure 8).

Figure 7 | Nonfarm Employment Index (2000=100), 2000-2022



Gray areas indicate economic recession periods.  
 Sources: U.S. Bureau of Labor Statistics and Unison Consulting, Inc.

Figure 8 | Nonfarm Employment Index (January 2020=100), Monthly, Q1 2020 - Q1 2023



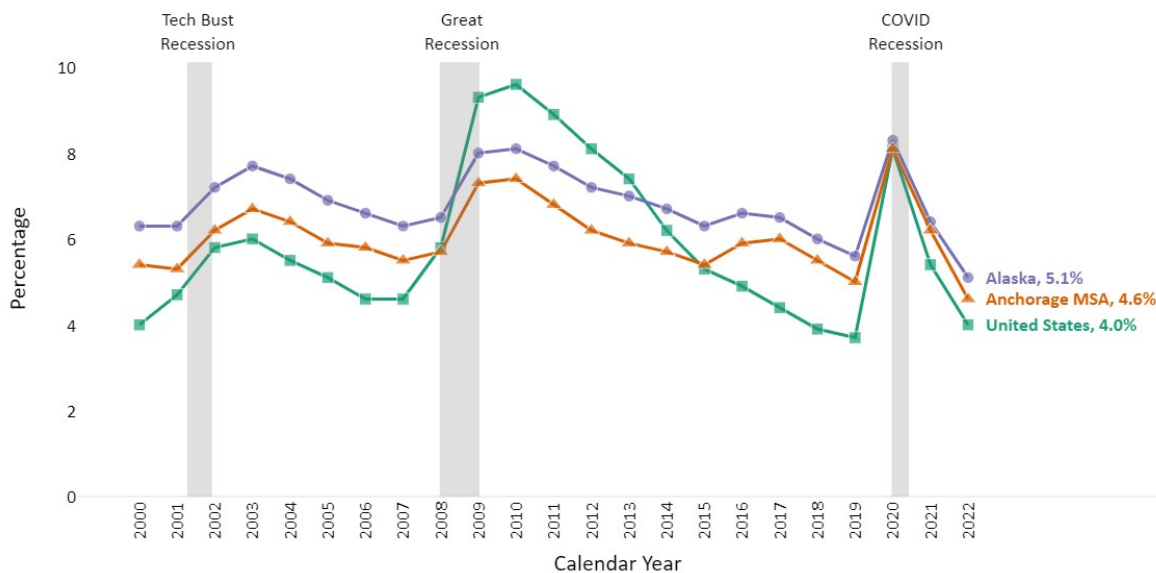
Gray areas indicate economic recession periods. Data are seasonally adjusted.  
 Sources: U.S. Bureau of Labor Statistics and Unison Consulting, Inc.

### 4.2.3 | Unemployment

The unemployment rate represents the share of unemployed members of the labor force (those 16 years and older who are either employed, or unemployed and actively looking for work). It provides a measure of unmet demand for jobs. High levels of unemployment imply lower incomes and less discretionary income for travel. As with employment, the unemployment rate follows business cycles.

Before the Great Recession (2000-2007), annual unemployment rates in the state of Alaska and the Anchorage MSA were higher than the national average—by an average of 1.8 percentage points and 0.9 percentage points, respectively. After converging during the Great Recession, unemployment in the state and MSA fell below national rates until 2014/2015, when oil prices dropped sharply. In 2019, before the COVID-19 recession, the unemployment rate stood at 5.6 percent in Alaska, 5.0 percent in the Anchorage MSA, and 3.7 percent in the nation. The 2020 recession exacted a heavy toll on unemployment rates, which soared to 8.1 percent in the nation and the MSA and 8.3 percent in Alaska. Recovery has been fast—by 2022, the annual average unemployment rate decreased to 4.0 percent nationally, 5.1 percent in Alaska, and 4.6 percent in the MSA (Figure 9).

Figure 9 | Average Annual Unemployment Rate, 2000-2022

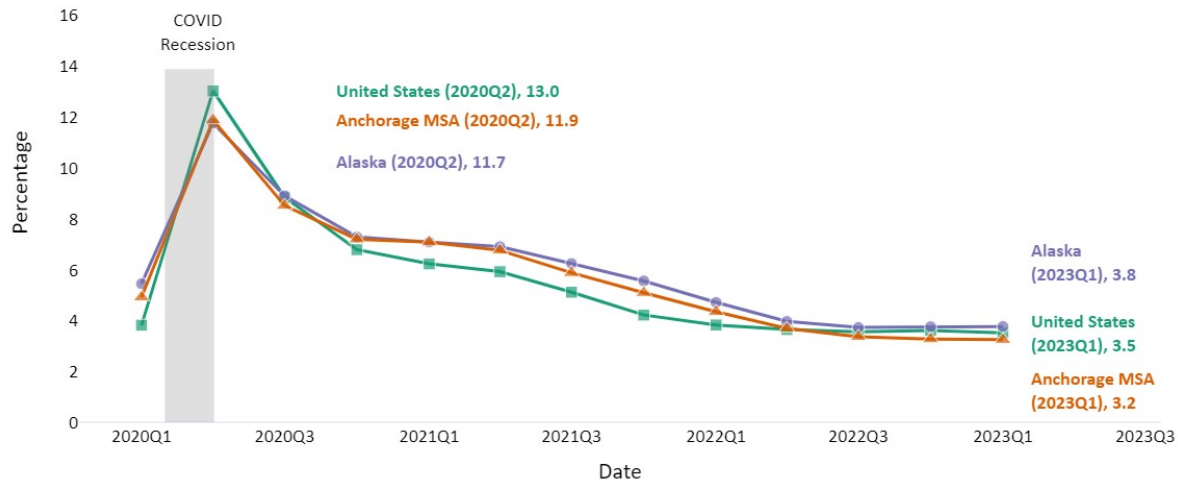


Gray areas indicate economic recession periods.  
 Sources: U.S. Bureau of Labor Statistics and Unison Consulting, Inc.

Figure 10 provides more resolution, showing quarterly unemployment rates between Q1 2020 and Q1 2023. In Q1 2020, before the pandemic, unemployment rates were 3.8 percent nationally, 5.4 percent in Alaska, and 4.9 percent in the Anchorage MSA. During the early months of the pandemic, following shelter-at-home orders, unemployment rose sharply—up to 12.9 percent nationally, 11.7 percent in Alaska, and 11.9 percent in the Anchorage MSA. These rates reflected the depression in consumer spending and business activity due to social distancing, travel restrictions, and business shutdowns. As shelter-at-home orders were lifted and businesses reopened, unemployment rates descended quickly. By Q1 2023, unemployment rates were below pre-pandemic levels nationally, in Alaska, and in the MSA. Each was below 4 percent, all levels typically prevailing in a full-employment economy.<sup>6</sup>

<sup>6</sup> Full employment generally is implied when unemployment rates are between 4.1 and 4.7 percent. Full employment is conceptual and refers to a state where “...the unemployment rate equals the nonaccelerating

Figure 10 | Quarterly Unemployment Rate, Q1 2020-Q1 2023



Gray areas indicate economic recession periods.  
 Sources: U.S. Bureau of Labor Statistics and Unison Consulting, Inc.

Nationally, the fast economic recovery has created a labor shortage. U.S. Bureau of Labor Statistics data show that in August 2023, there were 1.5 job openings for each unemployed person. In Alaska, the deviation was even higher — 2.5 job openings for each unemployed person. Curbs on immigration, retirements, family care, and health issues have contributed to an estimated 2.5 million worker shortfall in the labor force (below levels projected before the pandemic).<sup>7</sup> Airlines and airports are facing the impacts of this shortage—for flight crew, airport facility staff, and others. In the near term, this has impacted airline schedules, affecting both travelers and airports.<sup>8</sup>

### 4.3 | Tourism

Alaska is a world-famous tourist destination. Before the pandemic, more than 2.4 million tourists made approximately \$4.5 billion in economic impact for the state, including millions of dollars in taxes and fees.<sup>9</sup> Tourism supports about 10 percent of Alaska’s jobs.

During peak summer months, approximately 90 percent of visitors to Anchorage are leisure travelers. The split between leisure and business evens out during off-peak times when conventions and meetings are more common. About 40 percent of hotel stays are related to cruise industry

inflation rate of unemployment, no cyclical unemployment exists, and GDP is at its potential.” Sources: (1) C. Cook, “Full Employment,” Bloomberg, 2016. (2) Bureau of Labor Statistics, “Full Employment: an assumption within BLS projections,” 2017.

<sup>7</sup> A. Bhattarai, “Worker Shortages are Fueling America’s Biggest Labor Crises,” *The Washington Post*, September 16, 2022.

<sup>8</sup> O. Memon, “Examined: How Staff Shortages Can Impact An Airline’s Flight Schedules,” Simple Flying, <https://simpleflying.com/how-staff-shortages-impact-airlines-flight-schedules>, Oct 6, 2023.

<sup>9</sup> Alaska Travel Industry Association, <https://www.alaskatia.org/resources/tourism-works-for-alaska>.

visitors, while the rest are independent travelers. About 33 percent of visitors to the region rent cars.<sup>10</sup>

The COVID-19 pandemic disrupted travel and tourism. Alaska’s visitor volume during the peak travel season from April to December decreased by approximately 82 percent, from 2.4 million in 2019 to 427,000 in 2020 (Table 1). Associated visitor spending in Alaska is estimated to have fallen 78 percent from 2.79 billion in 2019 to \$619 million in 2020, resulting in a 79 percent decrease in supported jobs.

Table 1 | Impact of the COVID-19 Pandemic on Alaska's Visitor Industry

Number of Visitors (April-December)			
Travel Mode	2019	2020	Change
Cruise	1,330,000	0	-100.0%
Air	1,000,000	420,000	-58.0%
Highway/Ferry	99,000	7,000	-92.9%
<b>Total</b>	<b>2,429,000</b>	<b>427,000</b>	<b>-82.4%</b>
Spending and Jobs			
Visitor Spending	\$2,790,000,000	\$619,000,000	-77.8%
Visitor Industry Jobs	35,000	7,200	-79.4%

Source: McKinley Research Group, LLC, The Economic Impacts of COVID-19 on Alaska’s Visitor Industry, May 2021, in [https://www.alaskatia.org/wp-content/uploads/ATIA-COVID-Impacts-on-Visitor-Industry-6\\_3\\_21.pdf](https://www.alaskatia.org/wp-content/uploads/ATIA-COVID-Impacts-on-Visitor-Industry-6_3_21.pdf).

Recovery is underway in 2022 and 2023. Demand for hotel rooms in Anchorage during 2022 surpassed 2019 levels, and revenue per room was strong. In 2022, cruise passengers rebounded to 1.15 million—about 86 percent of 2019 levels. For the last 12 months for which data were available (August 2022 - July 2023), enplanements at ANC reached 96.1 percent of 2019 levels. All these statistics are positive signs for Alaska’s tourism-heavy economy.<sup>11</sup>

#### 4.4 | Oil Industry

The oil and gas industry is critical to Alaska, and the state’s economy is correlated with trends in oil markets. Alaska has no state-level income or sales tax, so the state relies heavily on revenue raised from oil production. The state taxes oil at a rate of 35 percent of the annual production tax value.<sup>12</sup> The volatile nature of the oil market introduces substantial variability to tax receipts. It has far-reaching impacts on the labor market.

<sup>10</sup> Personal communication with staff at Anchorage Convention & Visitors Bureau, November 2022.

<sup>11</sup> Alaska Tourism Industry Research, <https://www.alaskatia.org>.

<sup>12</sup> The annual production tax value is the gross value at the point of production less lease expenses. Source: Alaska Department of Natural Resources, “Alaska’s Oil Production Tax,” January 1, 2022, [https://dog.dnr.alaska.gov/Documents/Programs/Summary\\_of\\_Oil\\_and\\_Gas\\_Fiscal\\_System\\_2022.pdf](https://dog.dnr.alaska.gov/Documents/Programs/Summary_of_Oil_and_Gas_Fiscal_System_2022.pdf).

More than 95 percent of the oil produced in Alaska is sourced from the North Slope.<sup>13</sup> Figure 13 shows monthly production and the average monthly price of Alaska North Slope Oil (ANS) between 1981 and July 2023. Between 2000 and 2009, oil prices rose sharply—from just over \$30 per BBL<sup>14</sup> to more than \$140. During the Great Recession, prices sank below \$40 per BBL but rebounded by 2011 to more than \$100-. Prices remained stable—largely between \$100 and \$120—until August 2014 when they began to drop sharply due to overproduction and oversupply.<sup>15</sup> Within just a few months, the price of ANS fell to less than \$50, and the average daily price was just \$57 between 2015 and 2019, well below levels before the Great Recession. As a result of the global economic slowdown during the COVID-19 pandemic and recession, oil prices fell further, even turning negative for a short time in April 2020. Prices rose quickly through mid-2022 because of the Russia-Ukraine conflict (to above \$120), but eased later in 2022, in part due to the Chinese economic slowdown. The U.S. Energy Information Administration forecasts oil prices to be stable near \$90 per barrel through the end of 2023; however, the market remains unsteady. The Israel-Hamas war, which began in early October 2023, is likely to add instability to oil markets.

Figure 12 shows Alaska’s employment in the oil and gas industry between 2001 and 2023. The trends largely mirror the patterns in oil prices. Between 2004 and 2008, employment in the sector rose by more than 57 percent. After remaining flat during the Great Recession, employment increased further between 2011 and 2014, a period of sustained high ANS prices. However, the softening of the oil market since that time has led to a 52 percent decrease in the sector’s employment by 2022. Currently, the oil and gas industry employs 7,400 workers.

The oil and gas industry accounts for just over 2 percent of non-farm employment. However, as a major export industry,<sup>16</sup> it supports thousands of jobs in other sectors. In the long run, the future of the oil industry’s ability to support the economy is uncertain. In addition to price volatility, ANS production has been falling (Figure 11). The North Slope fields reached peak production of more than 2 million barrels per day in 1988.<sup>17</sup> For the twelve months ending July 2023, average production was only about 420,000 barrels per day. However, new drilling technologies and oil plays may support increased future output.

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<sup>13</sup> S. Teel. “The Oil Industry’s Recent Wild Ride,” *Alaska Economic Trends*, June 2022.

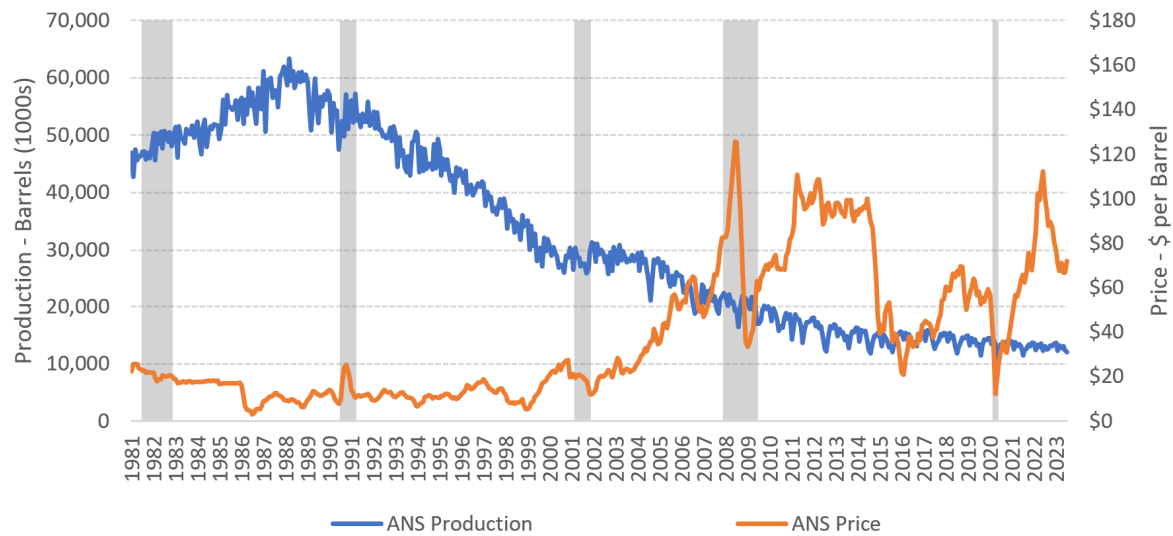
<sup>14</sup> A barrel is 42 U.S. gallons. Prices in this section are listed per barrel.

<sup>15</sup> U.S. Bureau of Labor Statistics, “The 2014 Plunge in Import Petroleum Prices: What Happened? *Behind the Numbers*, May 2015.

<sup>16</sup> In this context, export refers to trade outside of Alaska and the region—not necessarily international trade.

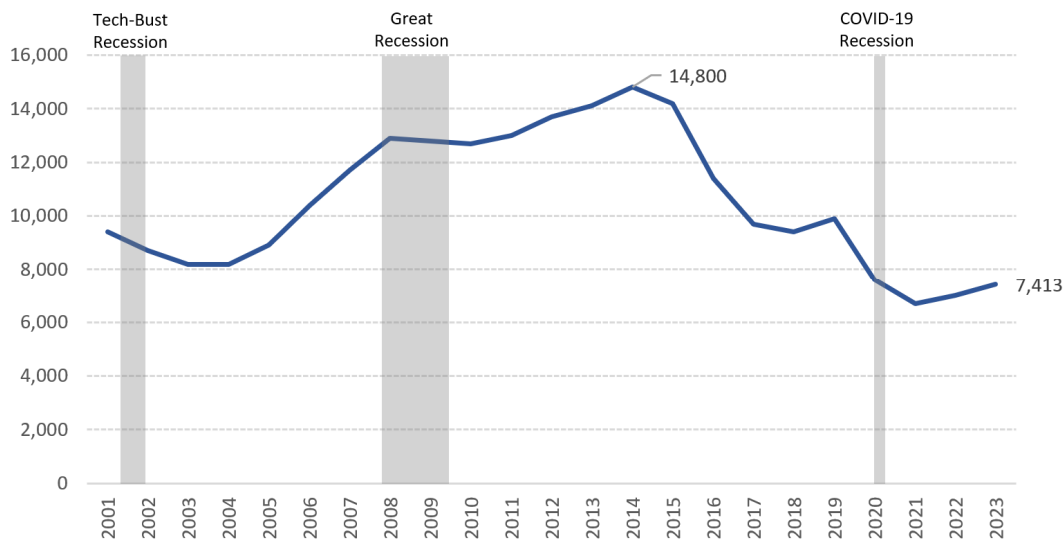
<sup>17</sup> Resource Development Council for Alaska, “Alaska’s Oil & Gas Industry,” <https://www.akrdc.org/oil-and-gas>.

Figure 11 | Alaska North Slope Monthly Oil Production and Average Price, 1981-July 2023



Gray areas indicate economic recession periods.  
 Source: U.S. Energy Information Administration.

Figure 12 | Alaska Oil Industry Employment, 2001-2023



Gray areas indicate economic recession periods.  
 Data for 2023 is the monthly average of employment, year-to-date.  
 Sources: Alaska Department of Labor and Workforce Development, and Unison Consulting, Inc.

#### 4.5 | Economic Outlook

The COVID-19 pandemic has ebbed, but the U.S. economy shows signs of strain amid inflationary pressures, low consumer sentiment, and tightening monetary policy. The Federal Open Market Committee (FOMC) has been actively raising interest rates since March 2022 to slow inflation. Through October 2023, the FOMC had increased the Fed Funds rate eleven times—by a total of 525 basis points (5.25 percent), increasing the cost of capital for individuals and corporations. A strong

dollar, which fundamentally signifies a strong economy, is dampening demand for U.S. exports. The global economy is also slowing, as expected from policy tightening to reduce inflation. The baseline forecast of the International Monetary Fund (IMF) is for global growth to slow from 3.5 percent in 2022 to 3.0 percent in 2023 and 2.9 percent in 2024, well below the historical (2000-2019) annual average of 3.8 percent.<sup>18</sup>

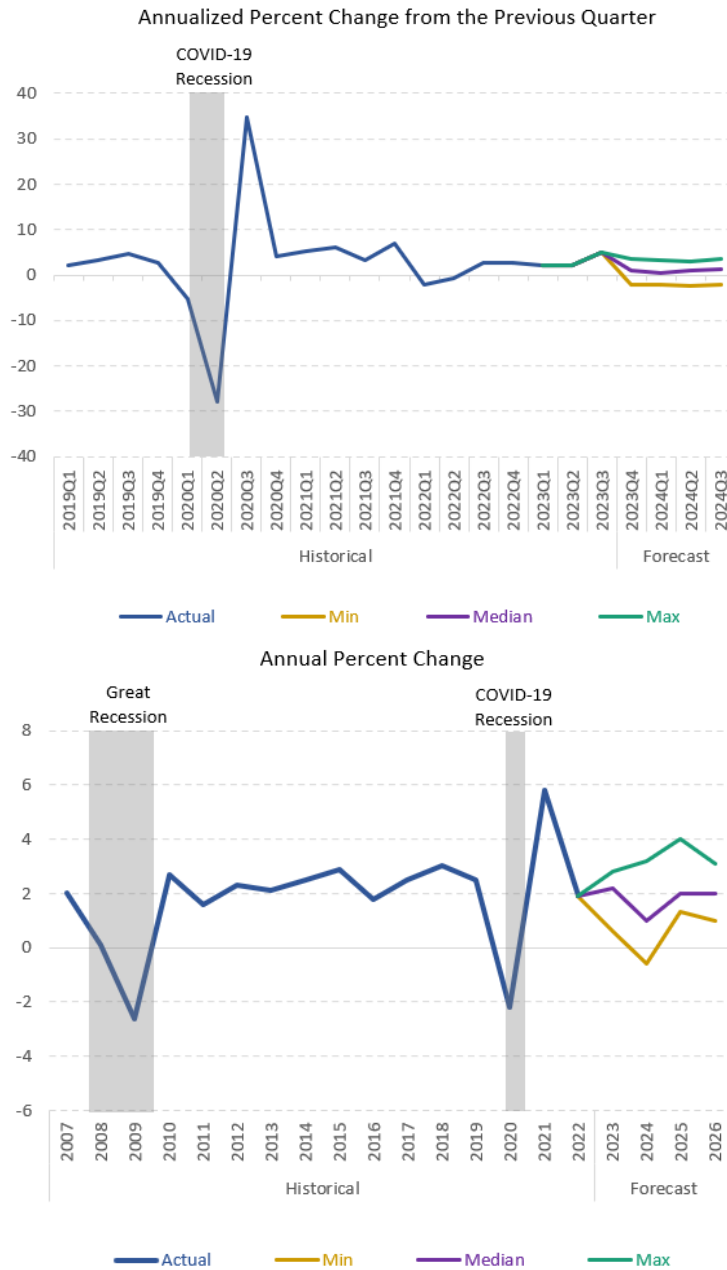
#### 4.5.1 | Short-Term Outlook

While the economy has rebounded strongly and surpassed pre-recession output levels, there are signs that growth may be slowing down. Predictions are cautious about the short-term GDP growth outlook (Figure 13). According to the median estimates from the Wall Street Journal (WSJ) October, Economic Forecasting Survey, after growing by 4.9 percent in the third quarter of 2023 U.S. real GDP is forecast to grow, 1 percent in the fourth quarter of 2023, 0.5 percent in the first quarter of 2024, and 1 percent in the second quarter of 2024, and 1.25 percent in the third quarter of 2024. On an annual basis, the median estimate for GDP growth is 2.2 percent in 2023, 1.0 percent in 2024, 2.0 percent in 2025, and 2 percent in 2026. However, forecasts vary widely, including some for negative growth starting in the fourth quarter of 2023. The October 2023 WSJ median estimate for the probability that the U.S. economy will slide into another recession within 12 months was 58 percent. This is down from 54 percent in the July 2023 survey and 61 percent in the January and April 2023 forecasts, signaling a potential return to a more stable economic environment.

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<sup>18</sup> International Monetary Fund, *World Economic Outlook, Navigating Global Divergences*, October 2023, [https://www.imf.org/en/Publications/WEO/Issues/2023/10/10/world-economic-outlook-october-2023#:~:text=The%20baseline%20forecast%20is%20for,19\)%20average%20of%203.8%20percent.](https://www.imf.org/en/Publications/WEO/Issues/2023/10/10/world-economic-outlook-october-2023#:~:text=The%20baseline%20forecast%20is%20for,19)%20average%20of%203.8%20percent.)

Figure 13 | Historical and Forecast Percent Change in U.S. Real GDP



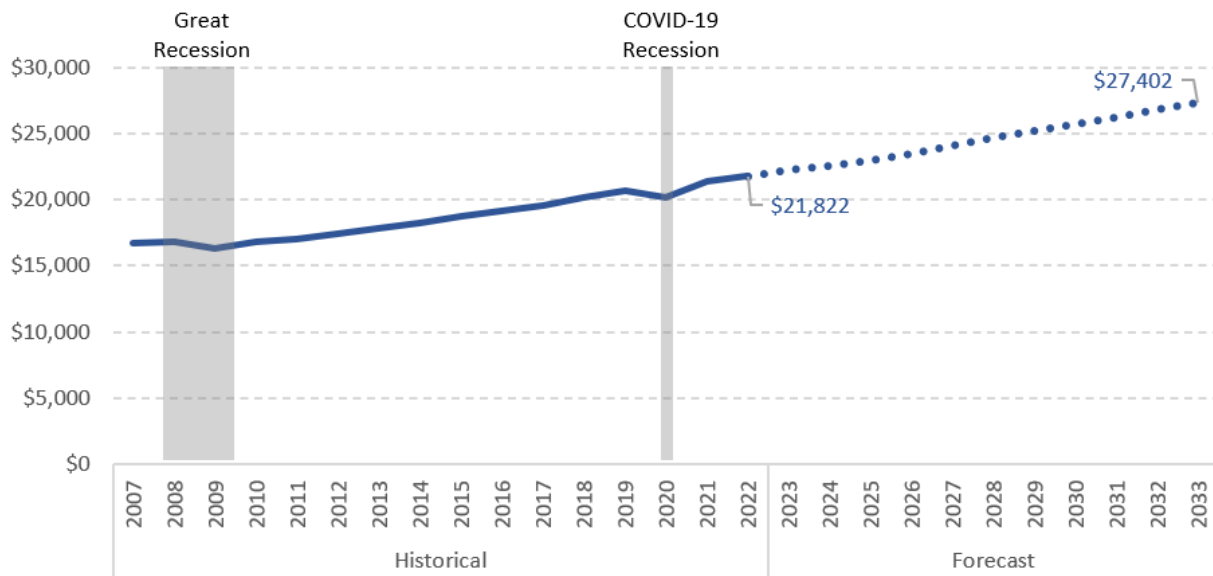
Gray areas indicate economic recession periods.

Sources: U.S. Bureau of Economic Analysis, Wall Street Journal Economic Forecasting Survey (October 2023 Forecast), and Unison Consulting, Inc.

#### 4.5.2 | Long-Term Outlook

In the long run, the U.S. economy is projected to return to a steady growth path (Figure 14). Moody’s Analytics forecasts the U.S. real GDP to grow at a compound annual rate of 2.1 percent from 2022 to 2033.

Figure 14 | Historical and Forecast U.S. Real Gross Domestic Product (Billions, 2017 Dollars), 2007-2033

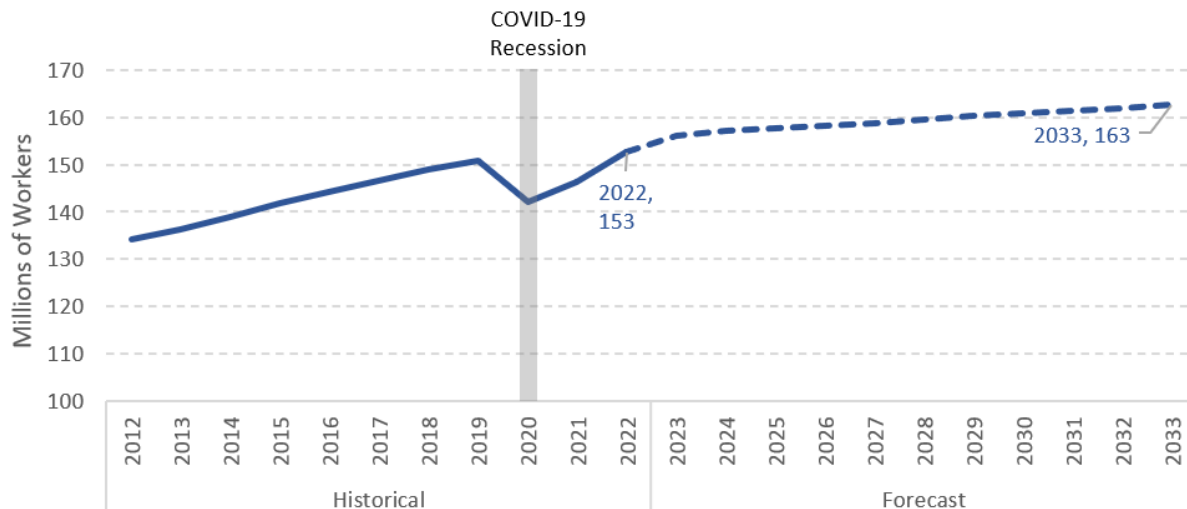


Gray areas indicate economic recession periods.

Sources: U.S. Bureau of Economic Analysis, Moody’s Analytics (October 2023 Forecast), and Unison Consulting, Inc.

Following the trend in economic output, U.S. employment is also expected to demonstrate robust growth throughout the next decade (Figure 15). After falling by almost 6 percent between 2019 and 2020, non-farm employment exceeded pre-pandemic levels by more than 1.1 percent by 2022. According to Moody’s Analytics, U.S. employment is projected to gain over 10 million jobs between 2022 and 2033, increasing at a compound annual rate of about 0.6 percent.

Figure 15 | Historical and Forecast U.S. Nonfarm Employment, 2012-2033



## 4.6 | Summary

Alaska's economy has struggled since oil prices fell dramatically in 2014. Trends in GDP, establishments, employment, and unemployment have been weak. The state's strong ties to oil markets leave it vulnerable to the movements in national and global prices, and declining oil production will continue to dampen tax revenues. On the other hand, recovery from the COVID-19 recession has been encouraging in terms of both employment levels and unemployment rates. Alaska's vital tourism sector is also a bright point, as visitation has increased since 2020. Overall, as with the nation, economic signals in Alaska and the Anchorage MSA are mixed.

Macroeconomic trends also show mixed signals, particularly in the short run. GDP growth is forecasted to slow. Consumer spending remains strong, although consumer confidence remains relatively low over inflation and recession worries. Rising interest rates—a consequence of Fed funds rate hikes to slow inflation—are dampening housing demand and threatening to slow capital investment. Beyond 2024, the outlook remains positive, with GDP and employment returning to their long-term growth trajectories and the unemployment rate remaining low.

## SECTION 5 | AIRPORT AIR TRAFFIC HISTORY

At airports, the demand for rental cars is a derived demand—derived from the demand for air travel to a particular destination. Airport rental car customers first make the choice to travel by air and then decide on renting a car because they need ground transportation once they get off their flights at the Airport. Arriving passengers (deplanements), particularly visitors ending their flights at ANC, constitute the market for airport rental cars. The Airport, however, tracks passenger traffic in terms of enplanements. Enplanements serve as a good proxy for deplanements since the two measures track each other almost perfectly.

Historical monthly data on enplanements are available through October 2022. Projections are generated from a multivariate regression model of enplanements with the following market demand drivers as explanatory variables: real per capita personal income of the Anchorage MSA and passenger yield at ANC.

### 5.1 | Operating Airline History

According to data accessed on October 24, 2023, fourteen different airlines had scheduled flights at ANC through 2023. Table 2 shows all the airlines that have or have had scheduled flights at ANC since 2016.

From 2016 to 2023, the airlines that have operated at ANC for the entire period include Alaska Airlines, American Airlines, Corvus Airlines, Delta Air Lines, Grant Aviation Inc., Sun Country Airlines, and United Airlines. Many of ANC's international carriers ceased operations at the Airport when the COVID-19 pandemic began in 2020, such as Air Canada, Condor Flugdienst, and Icelandair—of them, Air Canada and Condor Flugdienst resumed service in 2022. Other longstanding airlines that halted operations at ANC include JetBlue and Penair, though Penair is still contracted as a regional carrier for Alaska Airlines. Three new airlines were introduced to ANC in 2022: Aleutian Airlines, EW Discover, and Northern Pacific Airway.

All but two of ANC's 2022 airlines continued providing service in 2023—Corvus and Iliamna have so far not had any scheduled flights this year. In their place, however, one more new airline started service at ANC in 2023: Kenai Aviation Operations.

Table 2 | Schedule Passenger Airlines at ANC, by Calendar Year

<b>Annual Scheduled Flights by Carrier</b>									
<b>Code</b>	<b>Carrier Name</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
AC	Air Canada	•	•	•	•			•	•
AS	Alaska Airlines <sup>1</sup>	•	•	•	•	•	•	•	•
VC	Aleutian Airways							•	•
AA	American Airlines	•	•	•	•	•	•	•	•
DE	Condor Flugdienst	•	•	•	•			•	•
CON	ConocoPhillips Aviation Alaska				•	•	•	•	•
DL	Delta Air Lines	•	•	•	•	•	•	•	•
4Y	EW Discover							•	•
GV	Grant Aviation, Inc.	•	•	•	•	•	•	•	•
KW	Kenai Aviation Operations								•
7H	Northern Pacific Airway							•	•
7S	Ryan Air					•	•	•	•
SY	Sun Country Airlines	•	•	•	•	•	•	•	•
UA	United Airlines	•	•	•	•	•	•	•	•
<b>Airlines that have previously served ANC</b>									
G4	Allegiant Air LLC				•				
7H	Corvus Airlines <sup>2</sup>	•	•	•	•	•	•	•	
F9	Frontier Airlines Inc.						•		
H6	Hageland Aviation Services Inc						•		
FI	Icelandair	•	•	•	•				
IAR	Iliamna Air Taxi		•	•	•	•	•	•	
B6	JetBlue Airways Corporation	•	•	•	•				
KS	Penair	•	•	•	•				
8D	Servant Air, Inc.	•							
VN	Vietnam Airlines					•			

Note: Airlines and/or years with less than 10 scheduled flights are not included.

<sup>1</sup>Contracts Penair and Horizon Air.

<sup>2</sup>Contracts Penair.

Source: OAG Schedules Analyzer, last accessed October 24<sup>th</sup>, 2023.

## 5.2 | Overall Enplanement Trends

Changes in the U.S. business cycle drive growth trends in passenger traffic: the demand for air travel grows during periods of economic expansion and declines during periods of economic recession. Passenger traffic is also affected by significant changes in airline network strategies and one-off events such as the 2001 terrorist attacks, which took place during the 2001 U.S. economic recession, and the COVID-19 pandemic, which caused a steep drop in passenger travel and a deep economic recession in 2020.

Several developments during the decade of 2001 to 2010 created a difficult operating environment for the entire U.S. aviation industry. The long-running U.S. economic expansion from the early

1990s ended with the brief recession from March to November 2001. The recession weakened air travel demand. While the U.S. economy was in recession, terrorists attacked U.S. aviation on September 11, 2001, causing a three-day shutdown of the U.S. aviation system. Air travel demand plummeted in the months following the terrorist attacks.

Weak economic growth after the 2001 recession slowed air traffic recovery. The stringent security measures implemented at airports after the terrorist attacks discouraged air travel, especially to short-haul destinations that can be reached by ground transportation. Airlines competed for passengers by lowering airfares. Meanwhile, leisure and business travelers became increasingly price-conscious, as the internet made searching and comparing airfares easy.

Airlines faced rising fuel costs. Fuel prices more than quadrupled from 2002 to 2008. Since reaching a historic peak in 2008, fuel prices have decreased but remained at record-high levels until they began falling sharply in June 2014. Amid record fuel prices, the U.S. economy peaked in December 2007 and entered the Great Recession, which lasted through June 2009—the most prolonged U.S. economic recession since the Great Depression. The recovery from this recession has also been the slowest of all recoveries from previous recessions since the Great Depression. The recession spread globally and weakened demand for passenger and air cargo services.

The series of major shocks to the U.S. aviation industry set in motion significant structural changes. Mounting financial difficulties led to airline bankruptcies and mergers that left the U.S. airline industry with four major airlines—American, Delta, Southwest, and United—controlling 80 percent of the U.S. domestic passenger traffic. Surviving airlines responded to weak demand and high fuel prices with cuts in domestic seat capacity, retirement of old aircraft, fleet reconfiguration, route transfers between mainline and regional service, route network changes, pricing changes, and various other cost-cutting measures.

In 2010, the U.S. airline industry as a whole began earning profits. In late 2014, jet fuel prices began falling along with world oil prices, returning to mid-2000s levels. The sharp decrease in fuel costs brought airlines more profits, allowing them to renew their fleets and increase flight schedules while maintaining capacity discipline.

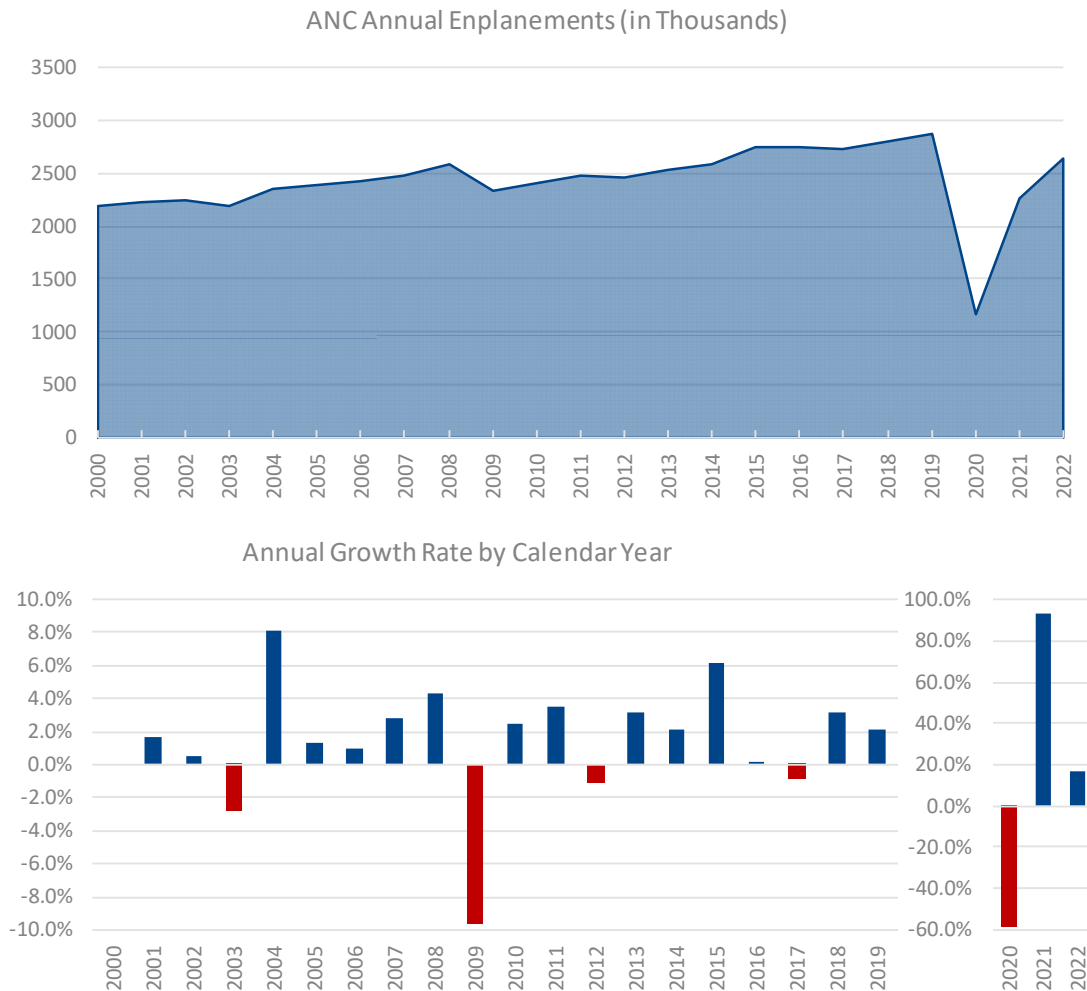
In 2020, COVID-19 infections broke out, being declared a global pandemic by the WHO on March 11, 2020. On April 14, 2020, air traffic across the United States dropped almost 97 percent. Since then, the aviation industry has been recovering, but many airports, including ANC, have yet to return to their pre-pandemic traffic levels.

ANC followed a slow but gradual upward trend since 2000, only experiencing four past declines prior to the COVID-19 pandemic: in 2003, 2009, 2012, and 2017. Enplanements faced a 9.6 percent decrease in 2009 due to the Great Recession, but the other three declines were much smaller—under 3 percent. After the Great Recession, however, ANC's enplanements did not return to their previous 2008 peak until 2014. From there, enplanements grew steadily to a 2019 peak of 2.9 million. In 2020, the COVID-19 pandemic caused a sharp drop in air traffic activity around the globe, and ANC experienced a significant decline of 59.2 percent in enplanements to 1.2 million.

Despite not yet reaching pre-pandemic levels, recovery has been progressing quickly, with a substantial 92.8 percent increase in enplanements from 2020 to 2021, up to 2.3 million. Recovery

continued through 2022, albeit at a slower rate, with enplanements rising another 16.6 percent up to 2.6 million. Figure 16 shows ANC's long-term historical enplanement trends from 2000 to 2022.

Figure 16 | Historical Enplanement Trends at ANC by Calendar Year



Source: Airport records.

### 5.3 | Comparison With National Trends

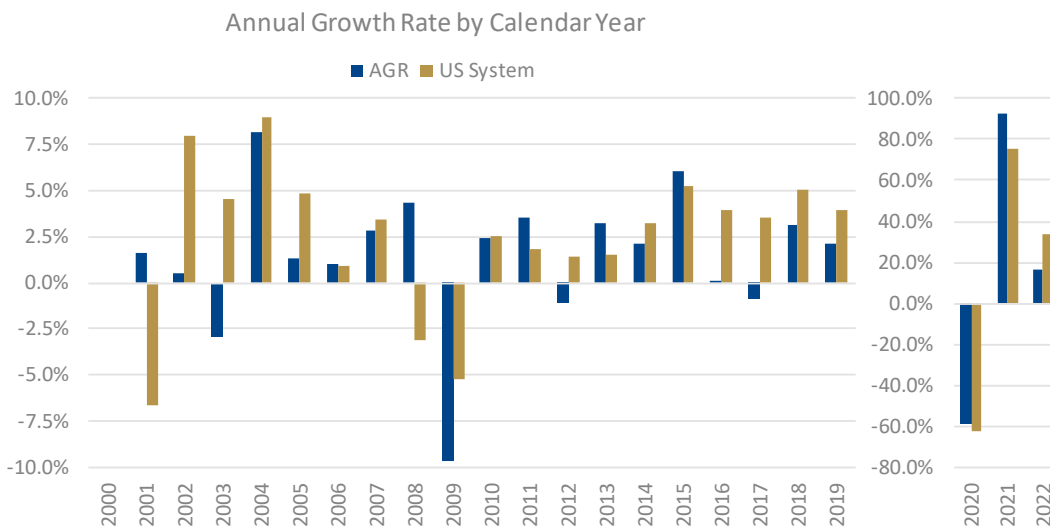
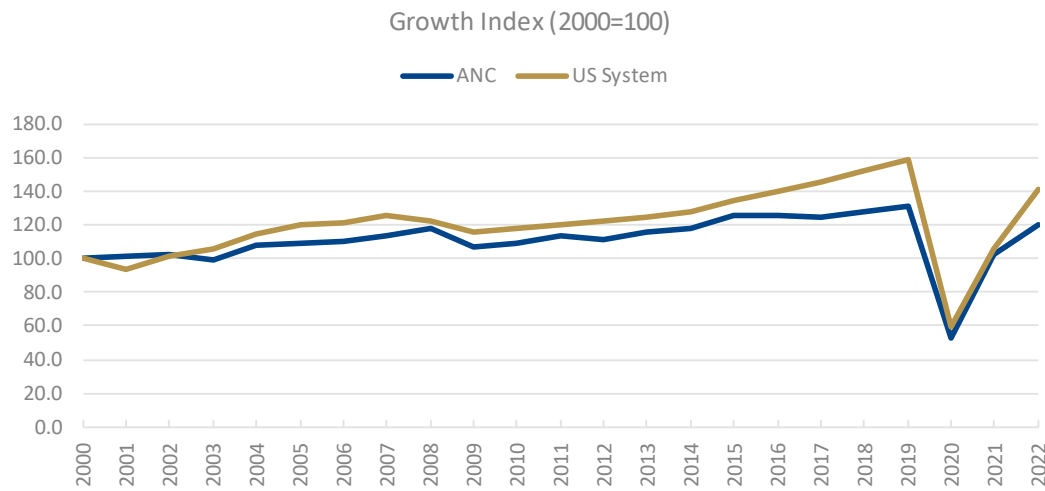
Figure 17 compares enplanement growth trends between ANC and the U.S. total from 2000 to 2020, and Figure 18 records the Airport's annual share of the national total of enplanements.

Unlike the U.S. total, ANC did not suffer a decline in 2001 after the September 11 terrorist attacks. However, ANC faced a decrease later on in 2003, which was also the year that the U.S. total growth rate exceeded that of the Airport. Since then, ANC's growth rate remained behind the U.S. system. The national decline in enplanements due to the Great Recession began in 2007 and continued through 2009—ANC's decline was later, starting in 2008, but had a sharper decrease in that shorter time. After the Great Recession, enplanement growth for the U.S. system was more consistent than that of ANC, eventually building a gap in growth rate and reducing ANC's share of total

enplanements. During the COVID-19 pandemic in 2020, travel restrictions across the country caused the national total of enplanements to fall deeper than that of the Airport—down 62.2 percent for the U.S. system, and down 59.2 percent for ANC. Both drops caused the 2020 enplanement levels for ANC and nationwide to fall well below their 2000 levels.

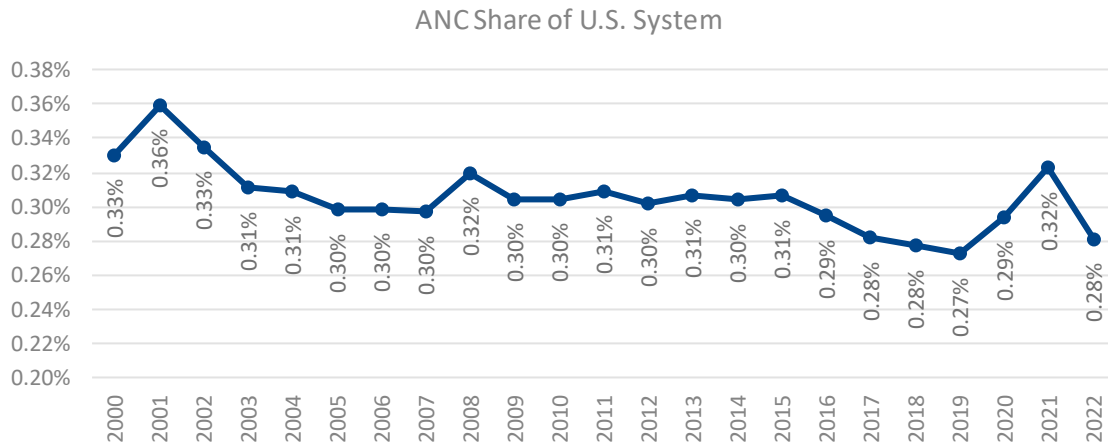
ANC is classified as a medium hub commercial service airport by the FAA. A medium hub is defined as an airport enplaning at least 0.25 percent but less than 1 percent of total U.S. enplanements. Over the past two decades, ANC’s share of total U.S. enplanements has been gradually shrinking from its 2000 share of 0.33 percent. Aside from two notable increases, one in 2001 and another in 2008, ANC largely maintained a share of 0.30 to 0.31 percent until 2015. After 2015, ANC’s growth lagged behind the U.S. system, and its share shrunk to 0.27 percent in 2019. Due to ANC experiencing an overall smaller decline than the U.S. System during the start of the COVID-19 pandemic in 2020, the Airport’s share increased to 0.29 percent. This share grew further to 0.32 percent in 2021, but shrank back down to 0.28 percent in 2022 due to ANC’s slower recovery than the U.S. system.

Figure 17 | ANC and U.S. Total Enplanement Growth by Calendar Year



Source: Airport records and Bureau of Transportation Statistics.

Figure 18 | ANC Share of Total U.S. Enplanements by Calendar Year

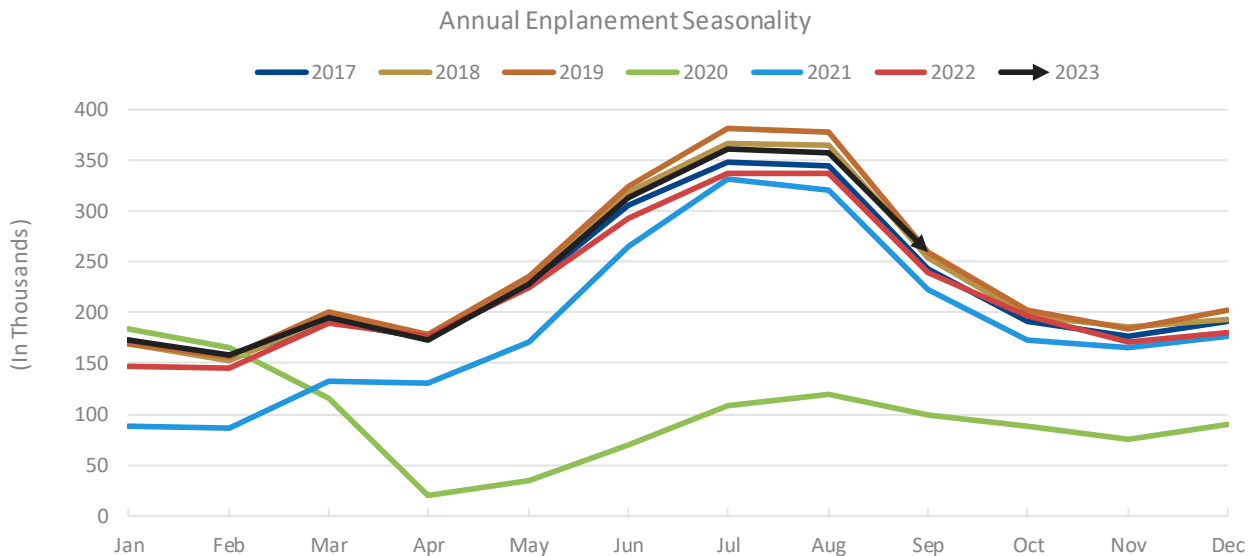


Source: Airport records and Bureau of Transportation Statistics.

### 5.4 | Enplanement Seasonality

Figure 19 shows the monthly enplanement levels at ANC from January 2017 to September 2023. Each year, ANC’s enplanements consistently peak in the summer and dip in the winter. 2020 broke this pattern due to air traffic dropping almost 97 percent across the United States in April. Since then, ANC’s 2020 enplanements have remained well below previous years. Enplanements in 2021 eventually returned to the usual trend of peaking in the summer, but still at a noticeably lower level than pre-pandemic years. ANC’s enplanement trends returned to normal patterns in 2022, albeit at levels still slightly lower than pre-pandemic years. The difference from pre-pandemic years is most noticeable during the summer rise in activity. From January through September, monthly enplanements trends through 2023 have so far closely mirrored that of 2022.

Figure 19 | Monthly Enplanement Trends



Source: Airport records.

Table 3 shows the monthly enplanements shares of each annual total from 2010 forward (aside from 2023, due to not having the entire year’s total yet) and highlights the largest and smallest monthly shares each year. July is most often the peak month each year, with February consistently having the least enplanements. 2020 disrupted this pattern due to the COVID-19 pandemic and the suspension of air traffic in April, but monthly enplanement shares returned to usual trends in the next year.

Table 3 | Monthly Enplanement Shares

Enplanement Shares														
Month	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Jan	6.4%	6.3%	6.4%	6.3%	6.4%	6.3%	6.4%	6.3%	6.0%	5.9%	15.7%	3.9%	5.6%	
Feb	5.4%	5.6%	5.9%	5.6%	5.6%	5.5%	5.8%	5.7%	5.4%	5.5%	14.1%	3.8%	5.5%	
Mar	6.6%	7.3%	7.2%	7.0%	7.2%	7.2%	7.3%	7.1%	6.9%	7.0%	9.8%	5.8%	7.2%	
Apr	6.3%	6.3%	6.5%	6.3%	6.1%	6.3%	6.4%	6.4%	6.3%	6.2%	1.8%	5.8%	6.7%	
May	8.0%	8.0%	8.3%	8.4%	8.4%	8.3%	8.4%	8.3%	8.3%	8.2%	3.0%	7.6%	8.5%	
Jun	11.0%	11.0%	11.0%	11.0%	10.4%	10.8%	11.2%	11.2%	11.3%	11.3%	6.0%	11.7%	11.1%	
Jul	13.1%	12.9%	12.6%	12.9%	12.7%	13.0%	12.7%	12.8%	13.1%	13.3%	9.3%	14.7%	12.8%	
Aug	12.9%	12.5%	12.5%	12.8%	12.5%	12.5%	12.7%	12.7%	13.0%	13.1%	10.2%	14.2%	12.8%	
Sep	8.9%	9.1%	8.8%	9.1%	9.1%	8.9%	8.9%	8.9%	9.1%	9.1%	8.4%	9.9%	9.1%	
Oct	7.4%	7.3%	7.0%	7.2%	7.4%	7.2%	6.8%	7.0%	7.0%	7.0%	7.6%	7.6%	7.5%	
Nov	6.7%	6.6%	6.7%	6.3%	6.6%	6.6%	6.4%	6.5%	6.6%	6.4%	6.4%	7.3%	6.5%	
Dec	7.3%	7.0%	7.0%	7.1%	7.5%	7.2%	7.1%	7.0%	6.9%	7.1%	7.7%	7.8%	6.8%	
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	
	Third largest share of CY total.					Third smallest share of CY total.								
	Second largest share of CY total.					Second smallest share of CY total.								
	Largest share of CY total.					Smallest share of CY total.								

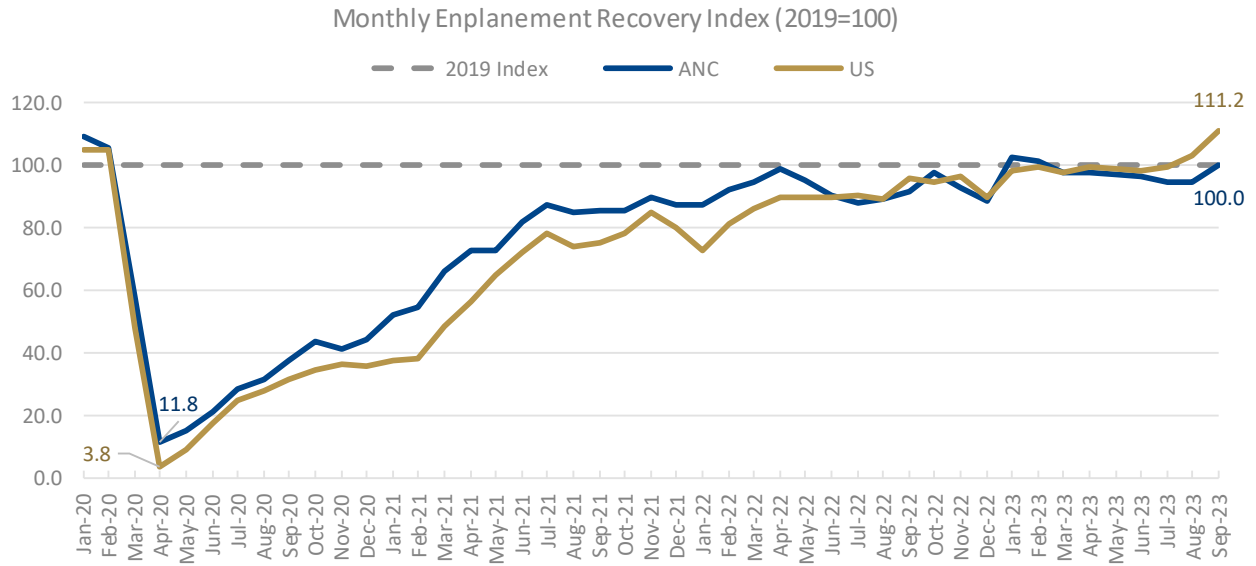
Source: Airport records.

## 5.5 | Monthly Enplanement Recovery

In April 2020, the COVID-19 pandemic caused all air traffic across the United States to drop dramatically, and has since been working to recover—the U.S. system fell to 3.8 percent of its 2019 level, and ANC fell to 11.8 percent (Figure 20). The Airport did not suffer as significant a decline as the national total, and has maintained an overall faster recovery in the following months. Due to the delta variant of COVID-19 and its associated fourth wave of infections that started in the mid-summer of 2021, recovery for both ANC and the U.S. system began to plateau in July. Recovery was disrupted again through the holidays of 2021, leading up to the omicron variant and its record-breaking fifth wave of infections in January 2022. After the fifth wave, however, infections declined swiftly, and recovery continued. ANC’s recovery faced two more downswings in 2022, first through the late spring and then again through the late fall. A sharp rise in January 2023 had ANC briefly surpass its 2019 level, but its recovery slowly went down in the following months. However, as of September 2023, a recent increase in ANC’s recovery led it to reach 100.0 percent of its 2019

activity. The U.S. system is ahead, having grown to 111.2 percent of its 2019 level by the same month.

Figure 20 | Monthly Recovery Comparison, ANC vs. U.S. System



Source: Airport records and Bureau of Transportation Statistics.

## SECTION 6 | AIR TRAFFIC FORECASTS

Our forecast development considers the impacts of the pandemic, changes in supply and demand in the aviation industry, changes in the business environment, and the fundamental drivers of passenger traffic growth. To project air traffic during different phases of recovery and growth, we utilize a hybrid modeling framework that combines multiple forecasting methods and data sources.

Recognizing high uncertainty around the pandemic's effects and the aviation industry's long-term outlook, we present three scenarios—"Base," "High," and "Low"—that differ in the pace of air traffic recovery and long-term growth. The Base scenario assumes that recent economic and air traffic growth trends will continue. The High scenario provides a more optimistic outlook for the economic and air traffic growth trends, including the continued easing of airline capacity constraints, downward pressure on inflation, and robust labor market and national production. The Low scenario offers a more conservative outlook, accounting for several adverse short-term factors, such as labor and fleet constraints on airline capacity, upward inflationary pressures, and slowing global economic growth.

The three scenarios provide a reasonable range for planning and sensitivity analysis. However, forecasts are inherently uncertain, and many factors can cause actual performance to fall outside the forecast range. In addition, the airline industry and the broader economy face significant structural changes, which elevate various sources of risk and uncertainty. We will discuss these in detail at the end of this section.

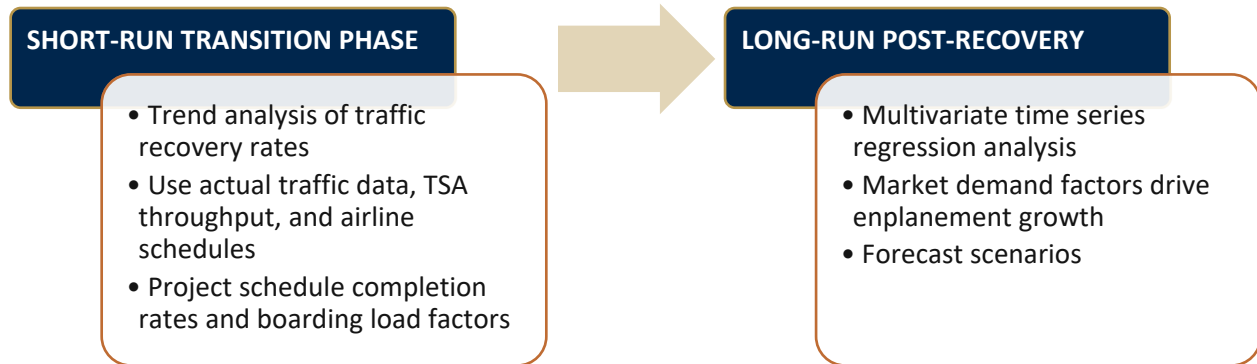
### 6.1 | Forecast Methodology

Our hybrid modeling framework utilizes various forecasting methods and data sources to project air traffic across two phases: recovery in the short term and growth over the long term (Figure 21). For the recovery phase, we analyze short-term air traffic growth trends and produce projections of flights, seats, and enplanements at the airline level based on published airline schedules, schedule completion rates, and boarding load factors. During this phase, we project the monthly ramp-up of enplanements until they stabilize to historical growth patterns and the forecast period enters a long-term growth phase. In this phase, we use multivariate regression analysis to quantify the relationship between passenger demand for air travel and key market drivers and to project annual enplanement growth rates based on projected trends in the key market drivers.

Forecast development by phase considers the factors expected to drive traffic trends across the phases. It tailors different methods, data, and assumptions better to model the effects of those factors on air traffic. For instance, in the short-term phase, we analyze seat availability and capacity constraints in setting assumptions for forecast inputs, such as projections of schedule completion rates and boarding load factors. Then, we apply these forecast inputs to advance airline schedules to project monthly enplanement levels.

In the long run, the short-run factors, although still important, will likely play less of a role in driving passenger traffic trends. Instead, market demand factors, such as income and price, will again become the primary drivers of growth in passenger traffic.

Figure 21 | Hybrid Forecast Development by Phase



Source: Unison Consulting, Inc.

## 6.2 | Short-Term Phase

In this phase, forecast development considers the recent progress in traffic recovery and growth. During forecast development, data on airport activity (enplanements) were available through September 2023. In addition, the TSA screening throughput data was available through November 2023, reflecting ANC's near real-time passenger traffic patterns. Advance airline schedules (accessed in November 2023), supplemented with TSA screening throughput data, provide the starting point for projecting monthly enplanements through May 2024.

To obtain a reliable projection of seat capacity, we apply a completion factor to scheduled seats to anticipate potential cuts in advance schedules. This factor considers the occurrence of flight disruptions due to weather events and equipment maintenance. It also considers current staffing and fleet constraints that cause airlines to adjust their published schedules periodically, depending on the volume of flight bookings and the projected availability of aircraft and crew. We use advance schedules only through May 2024 because schedules farther into the future are subject to more significant, often downward adjustments.

We apply boarding load factors to the seat capacity forecasts to estimate monthly enplanements. Table 4 shows the schedule completion rate assumptions, which start to decline in January 2024 and drop to around 93.5 percent in May 2024 under the Low scenario. The high seat completion rates underscore the ongoing improvements in airlines' staffing and scheduling following the significant disruptions during the pandemic.

Table 4 | Projected Schedule Completion Rates and Seats

Month	Seat Completion Rate			Projected Seats		
	Scenario 1	Scenario 2	Scenario 3	Scenario 1	Scenario 2	Scenario 3
	Base	High	Low	Base	High	Low
Oct-23	100.0%	100.0%	100.0%	264,867	264,867	264,867
Nov-23	100.0%	100.0%	100.0%	234,500	234,500	234,500
Dec-23	100.0%	100.0%	100.0%	236,438	236,438	236,438
Jan-24	100.0%	100.0%	98.5%	225,235	225,235	221,856
Feb-24	98.0%	100.0%	96.5%	211,673	215,993	208,433
Mar-24	97.0%	99.0%	95.5%	238,329	243,243	234,644
Apr-24	97.0%	99.0%	95.5%	229,836	234,575	226,282
May-24	95.0%	97.0%	93.5%	288,086	294,151	283,537

Source: OAG advance airline schedules and forecasts by Unison Consulting, Inc.

The BLF assumptions in Table 5 reflect seasonal patterns and an overall improvement. ANC's monthly BLF averaged around 77 percent between January and September, around one percentage point lower than the 2019 year-to-date average but approximately five percentage points higher than the 2022 year-to-date level.

Under the Base scenario, we assume the monthly average BLF will continue to improve and average 1.5 percentage points above 2019 levels between October 2023 and May 2024. Under the High scenario, the monthly average BLF will be expected to be around three percentage points higher than 2019 levels over the same period. The Low scenario assumes that monthly BLF will be approximately 0.5 percentage points higher than 2019.

Table 5 | Projected Boarding Load Factors (BLF)

2019 and 2023 Boarding Load Factors				2023-2024 Boarding Load Factors <sup>3</sup>			
Month	2019 BLF <sup>1</sup>	2023 BLF	Difference (pp) <sup>2</sup>	Month-Year	Scenario 1 Base	Scenario 2 High	Scenario 3 Low
Jan	69.6%	70.1%	0.5	Jan-24	71.6%	73.1%	70.6%
Feb	73.2%	70.6%	-2.6	Feb-24	75.2%	76.7%	74.2%
Mar	79.9%	78.8%	-1.2	Mar-24	81.9%	83.4%	80.9%
Apr	71.6%	71.6%	0.1	Apr-24	73.6%	75.1%	72.6%
May	78.0%	75.7%	-2.2	May-24	80.0%	81.5%	79.0%
Jun	78.7%	80.2%	1.5				
Jul	84.4%	83.7%	-0.7				
Aug	85.4%	83.6%	-1.8				
Sep	81.5%	81.9%	0.4				
Oct	76.7%			Oct-23	78.8%	80.3%	77.8%
Nov	75.2%			Nov-23	75.2%	76.7%	74.2%
Dec	78.2%			Dec-23	78.2%	79.7%	77.2%

<sup>1</sup> BLF = enplanements/seats.

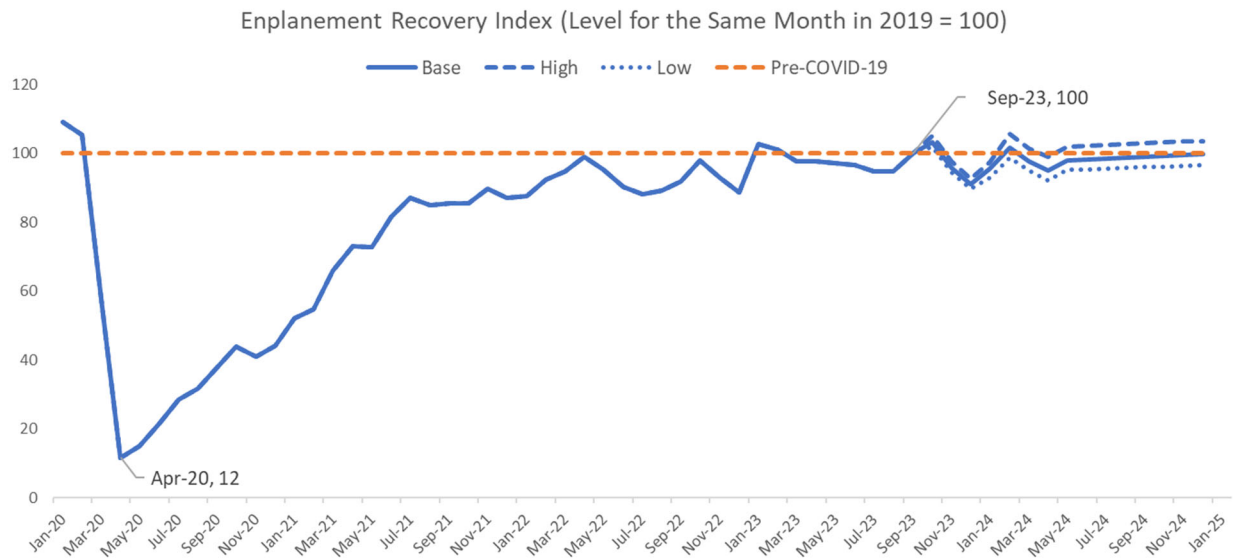
<sup>2</sup> Percentage-point (pp) difference between the 2023 and 2019 monthly BLF. Negative values indicate lower 2023 BLF compared to 2019.

<sup>3</sup> BLF forecasts begin in October 2023.

Source: Unison Consulting, Inc.

Figure 22 shows the projections of monthly enplanements based on our assumptions of advanced schedules and boarding load factors indexed to 2019 levels. Since its nadir in April 2020, monthly enplanements at ANC have gradually recovered toward 2019 pre-COVID levels. As of September 2023, enplanements were around 100 percent of the 2019 level, though the year-to-date level still averaged about 97 percent of 2019 levels.

Figure 22 | Monthly Enplanements: Forecast Recovery to Pre-COVID Level



Forecasts begin in October 2023.  
 Source: Unison Consulting, Inc.

We conduct univariate time series analysis to forecast when enplanements will return to 2019 pre-COVID levels. We evaluate linear and logarithmic functional forms to fit recovery trendlines from April 2020, when passenger traffic reached its lowest level during the pandemic, to May 2024. We also test a truncated logarithmic functional form that starts in 2021.

The truncated logarithmic functional form produces a trendline that best reflects the shape of recovery at ANC over the last year. The logarithmic trendline projects an initial acceleration of recovery and eventual tapering, resulting in a more extended recovery period than that projected by a linear trendline, which predicts a straight-line trajectory. At ANC, since recovering to around 90 percent of 2019 levels in early 2022, monthly enplanements have mostly remained above 90 percent of 2019 levels.

Our projections show ANC beginning to achieve and sustain monthly enplanements above pre-COVID levels in 2024 in the Base and High scenarios and 2026 in the Low scenario:

- Scenario 1 (Base) – Monthly enplanements first return to pre-COVID levels in December 2024. Annual enplanements begin to exceed the 2019 level by the end of the following year.
- Scenario 2 (High) – Monthly enplanements first return to pre-COVID levels by May 2024, with annual enplanements exceeding the 2019 level by the end of the year.
- Scenario 3 (Low) – Monthly enplanements return to pre-COVID levels by April 2026, with annual enplanements exceeding the 2019 level by the end of the year.

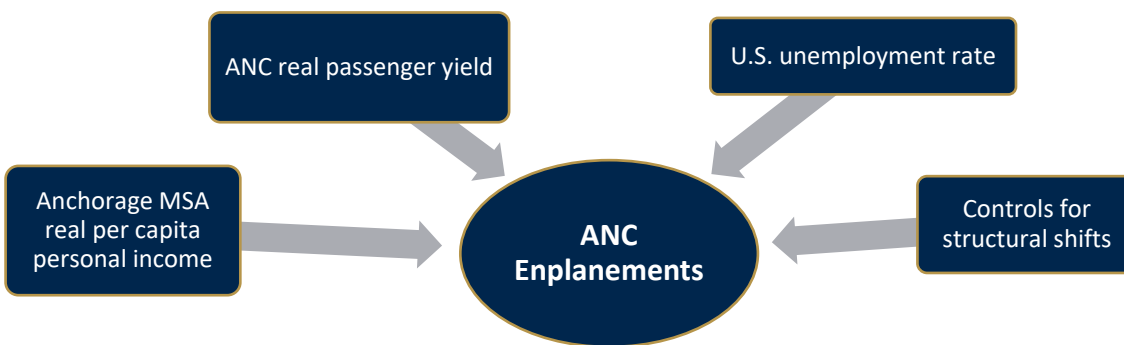
### 6.3 | Post-Recovery Growth Phase

The stabilization of monthly enplanement growth marks the end of the short-term phase and the start of the long-term phase, reflecting a return to historical growth patterns. Under the current assumptions, this phase begins in 2025 in the High scenario, 2026 under the Base scenario, and 2027 under the Low scenario.

During this phase, the growth in passenger traffic is "demand-driven"—driven by market factors underlying air transportation economics. We assume growth patterns would normalize, the historical relationship between air traffic and economic drivers would again prevail, and airlines would adjust seat capacity to meet increasing air travel demand.

Multivariate time series regression analysis links enplanement growth to changes in crucial market demand drivers (Figure 23). Regression analysis provides a rigorous and quantitative framework for measuring the contributions of individual demand drivers to enplanement growth while accounting for structural changes at the Airport, such as the 9/11 terrorist attacks in 2001.

Figure 23 | Long-Term Passenger Air Travel Demand Drivers



Source: Unison Consulting, Inc.

Forecasting using regression analysis is executed in two steps. In the first step, a regression equation is estimated using historical data on the model variables—in this case, from 1993 through 2019. The regression equation includes “coefficients” that measure the contributions of each driver in predicting annual enplanement at the Airport. The regression estimation method minimizes forecast errors—the difference between the actual and predicted enplanement levels. In the second step, the estimated regression coefficients are combined with projections of market drivers to forecast enplanement growth.

Consumer demand theory, along with our assessment of structural changes at the Airport and the aviation industry, informs the specification of the regression model. Annual enplanements serve as the dependent variable. The key explanatory variables include two economic indicators, the Anchorage MSA’s real per capita personal income and U.S. unemployment rate, and a price indicator, ANC’s real passenger yield.

In the Base scenario, the forecasts of economic and income indicators and real passenger yield come from Moody’s Analytics (forecast update as of October 2023) and FY2023-2044 FAA

Aerospace Forecasts, respectively. Alternative growth rates are used in the High and Low scenarios. To produce the alternative growth rates discussed below, we consider the forecasts in the Wall Street Journal's October 2023 Economic Survey and adjust the Base forecasts.<sup>19</sup>

To control for the effects of seasonality, the regression model includes control variables that capture the quarterly differences in average enplanement. Together these explanatory variables prove to be strong predictors of ANC's historical enplanement levels.<sup>20</sup> Additional variables are included to adjust for serial correlation common in time series data.

### 6.3.1 | Anchorage MSA's Real per Capita Personal Income

The Anchorage MSA's real per capita personal income indicates consumer income and overall economic trends for the region. Holding all other factors constant, real per capita personal income growth promotes enplanement growth. Conversely, decreases in real per capita personal income decrease enplanements. The positive regression coefficient estimate for real per capita personal income confirms the direct relationship between income and air travel demand.

Between 2011 and 2019, the Anchorage MSA's real per capita personal income had stagnated, growing by essentially zero percent annually. It then decreased by 0.3 percent from 2019 to 2022 as the COVID-19 pandemic upended the MSA's economy.

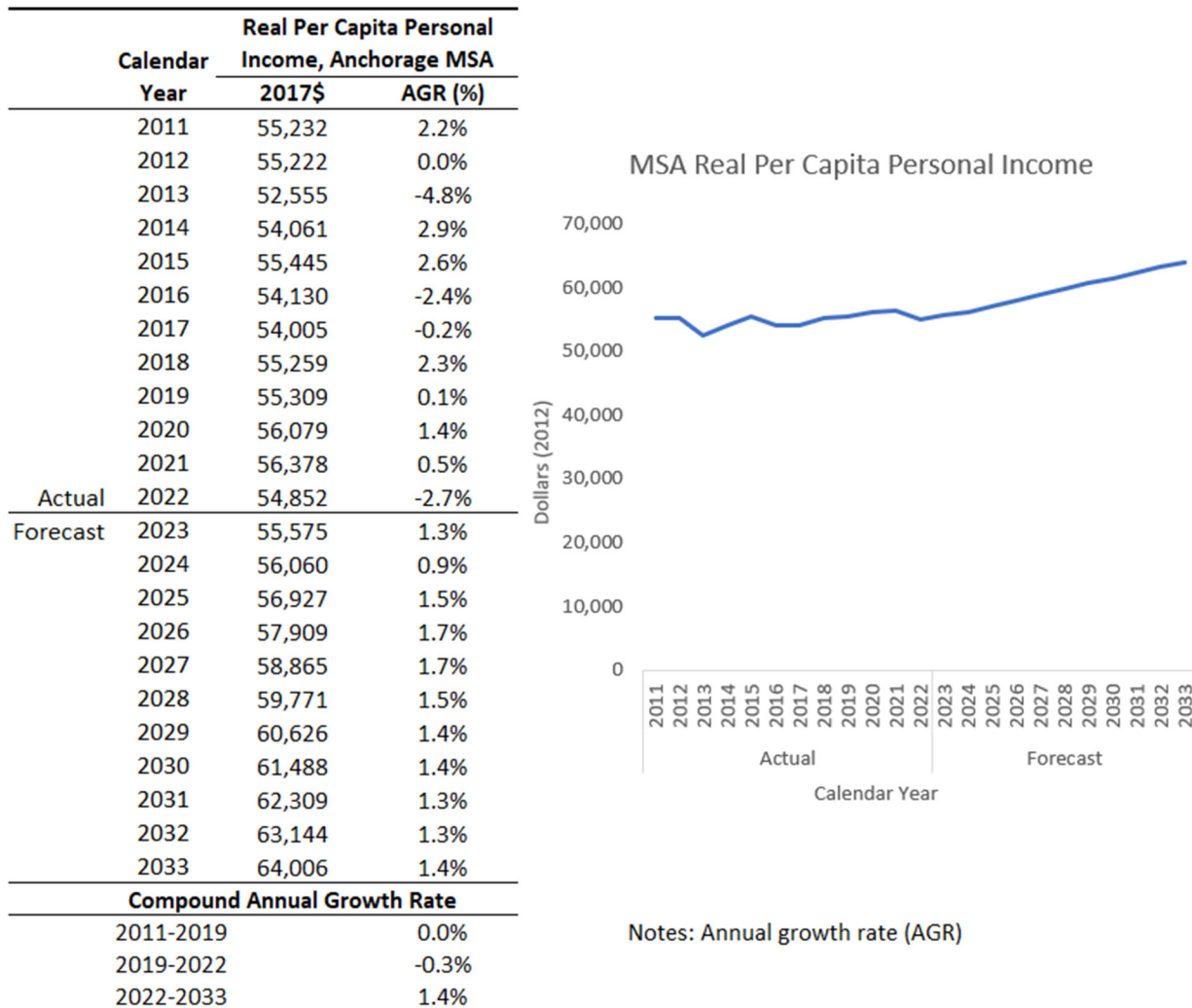
The outlook for the Anchorage MSA is more optimistic than its recent history. According to the forecasts of Moody's Analytics, the MSA's real per capita personal income in the Base scenario is expected to fall in 2022 before recovering in 2023 and beginning its long-term growth. The 2022-2033 compound annual growth rate is 1.4. Relative to the Base scenario, the 2022-2033 compound annual growth rate is assumed to be 0.4 percentage points higher in the High scenario (1.8 percent) and 0.4 percentage points lower and lower in the Low scenario (1.0 percent).

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<sup>19</sup> As the WSJ Economic Survey does not provide forecasts for the MSA per capita personal income, we adjust the MSA's per capita personal income in the High and Low scenarios using the Survey's estimates of real GDP growth.

<sup>20</sup> The regression model yields an adjusted R-squared of nearly 0.99. Adjusted R-squared serves as a crucial indicator of the linear regression model's predictive capability, with a value of one representing an optimal, precise fit.

Figure 24 | Anchorage MSA Real Per Capita Personal Income



Source: historical data come from the Bureau of Economic Analysis and forecasts by Moody’s Analytics.

### 6.3.2 | Real Passenger Yield at ANC

Real passenger yield indicates the price of air travel.<sup>21</sup> It is calculated as total airline passenger revenues divided by revenue passenger miles, adjusted for inflation.

The law of demand applies to demand for air travel: the quantity purchased varies inversely with price, holding other factors constant. The negative regression coefficient estimate for real passenger yield confirms this inverse relationship.

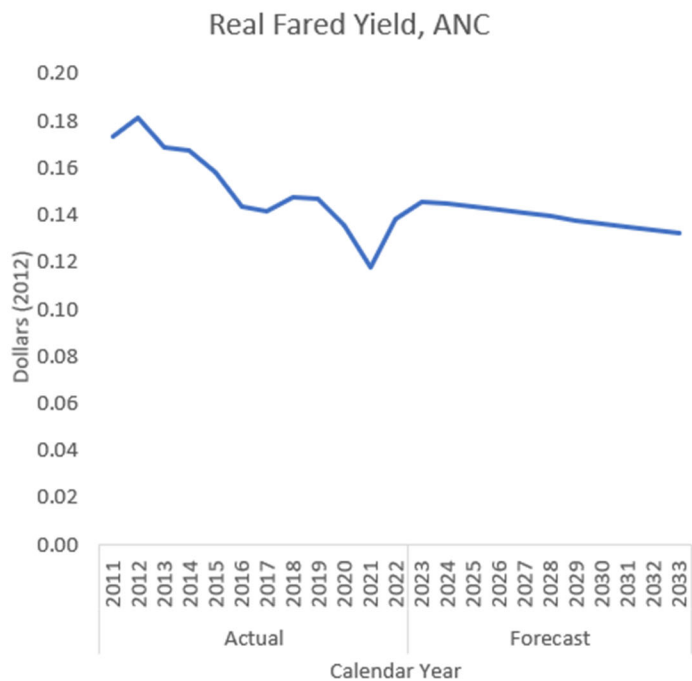
<sup>21</sup> Real passenger yield is a better indicator of the price of air travel than average fare because it controls for trip distance.

Between 2011 and 2019, ANC’s real passenger yield decreased by average of 2.1 percent annually (Figure 25). During the first two years of the pandemic, airlines struggled with a significant drop in air travel demand. As a result of this reduction, ANC’s real passenger yield fell sharply, decreasing 7.7 percent in 2020 and 13.2 percent in 2021. When air travel rebounded in 2022, ANC’s real passenger yield recovered most of its losses, increasing 17.7 percent in 2022 and bringing the average decline between 2019 and 2022 to just 1.9 percent.

Over the forecast horizon, the real passenger yield at ANC is expected to follow the pre-pandemic long-term trend and gradually fall from \$0.14 in 2022 to around \$0.13 in 2033, yielding a 2022-2033 compound annual growth rate of -0.4 percent. Relative to the Base scenario, the real passenger yield is expected to decrease 0.3 percentage points faster in the High scenario (CAGR = -0.7 percent) and 0.3 percentage points slower in the Low scenario (CAGR = -0.1 percent).

Figure 25 | ANC Real Passenger Yield (2017\$)

	Calendar Year	Real Fared Yield, ANC	
		2017\$	AGR (%)
	2011	0.17	-2.7%
	2012	0.18	4.5%
	2013	0.17	-6.9%
	2014	0.17	-0.6%
	2015	0.16	-5.7%
	2016	0.14	-9.1%
	2017	0.14	-1.5%
	2018	0.15	4.5%
	2019	0.15	-0.8%
	2020	0.14	-7.7%
	2021	0.12	-13.2%
Actual	2022	0.14	17.7%
Forecast	2023	0.15	5.3%
	2024	0.15	-0.3%
	2025	0.14	-1.0%
	2026	0.14	-1.1%
	2027	0.14	-0.8%
	2028	0.14	-1.0%
	2029	0.14	-1.1%
	2030	0.14	-1.1%
	2031	0.14	-1.1%
	2032	0.13	-1.0%
	2033	0.13	-1.0%
<b>Compound Annual Growth Rate</b>			
	2011-2019		-2.1%
	2019-2022		-1.9%
	2022-2033		-0.4%



Notes: Annual growth rate (AGR)

Sources: historical data come from the U.S. Bureau of Transportation Statistics and forecasts by Unison Consulting, Inc.

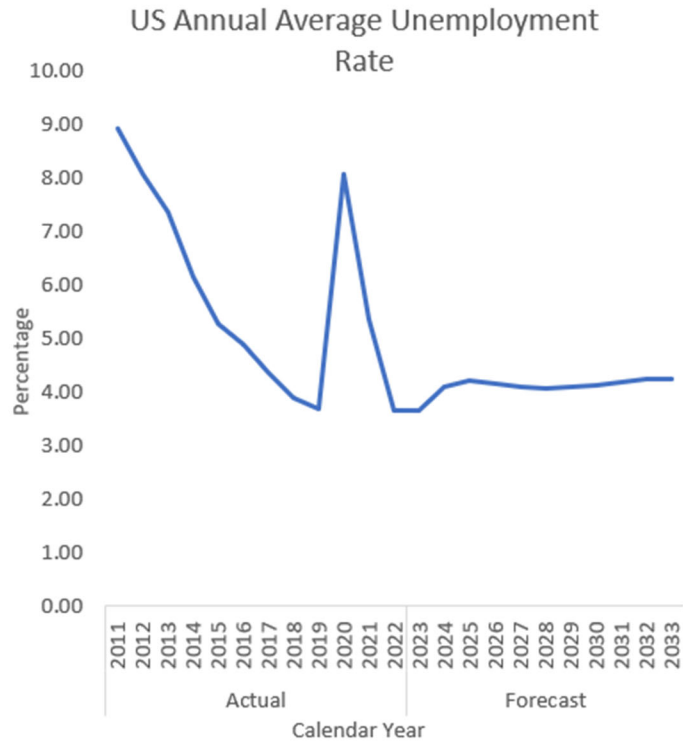
### 6.3.3 | U.S. Unemployment Rate

The U.S. unemployment rate provides a key indicator for national economic conditions, which affect aggregate demand for business and leisure travel. Falling unemployment rates indicate an expanding national economy, while rising unemployment rates indicate a slowing and contracting national economy. Passenger traffic tends to track business cycles in the U.S. economy. The regression coefficient from the model confirms the negative association between the U.S. unemployment rates and ANC passenger traffic, showing a negative and statistically significant negative sign.

Over the next decade, the U.S. unemployment rate in the Base scenario is expected to rise gradually from the current historic lows. According to the forecast by Moody's Analytics, the U.S. unemployment rate in the Base scenario is projected to rise from 3.6 percent in 2022 to 4.3 percent in 2033 (Figure 26), rising by 1.4 percent annually or a total of 0.7 percentage points. To produce alternative unemployment trajectories, we assume that the U.S. unemployment rate will rise slower in the High scenario and faster in the Low scenario. Relative to the 2023-2033 average of 4.1 percent in the Base scenario, the U.S. unemployment rate is expected to average around 0.3 percentage points lower in High scenario (3.8 percent) and 0.3 percentage points higher in the Low scenario (4.4 percent).

Figure 26 | Annual Average U.S. Monthly Unemployment Rates (Seasonally Adjusted)

Calendar Year	Annual Average Unemployment Rate, US	
	Percentage	AGR (%)
2011	8.93	-7.0%
2012	8.07	-9.6%
2013	7.36	-8.9%
2014	6.16	-16.3%
2015	5.27	-14.3%
2016	4.87	-7.6%
2017	4.36	-10.6%
2018	3.89	-10.7%
2019	3.68	-5.3%
2020	8.08	119.2%
2021	5.37	-33.6%
Actual 2022	3.64	-32.1%
Forecast 2023	3.65	0.4%
2024	4.08	11.6%
2025	4.22	3.4%
2026	4.14	-1.8%
2027	4.10	-1.1%
2028	4.08	-0.4%
2029	4.09	0.4%
2030	4.13	1.0%
2031	4.19	1.4%
2032	4.23	1.0%
2033	4.25	0.4%
<b>Compound Annual Growth Rate</b>		
2011-2019		-10.5%
2019-2022		-0.4%
2022-2033		1.4%



Notes: Annual growth rate (AGR)

Source: Historical data from the Bureau of Labor Statistics and forecasts by Moody's Analytics.

### 6.3.4 | Other Explanatory Variables

The regression model also controls for structural shifts in the aviation industry following the terrorist attacks in 2001, seasonality in enplanement trends, and serial correlation inherent in the time series data used for estimating the model.

### 6.4 | Forecast Enplanements

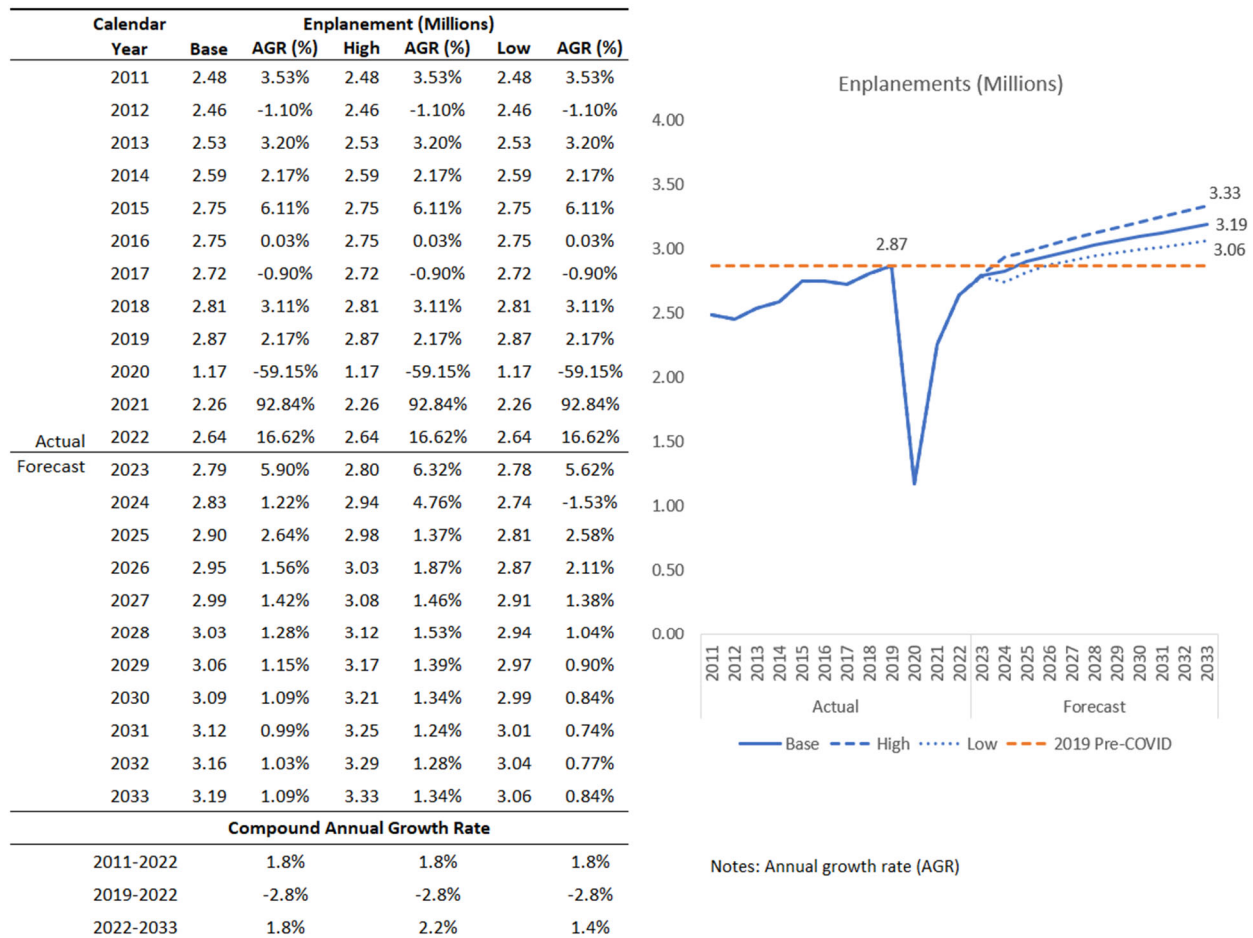
Figure 27 shows the historical and forecast annual enplanement levels. The resulting forecasts are summarized below:

- **Scenario 1 (Base):** Annual enplanements are expected to first exceed the pre-pandemic level in 2025. Beyond 2025, annual enplanements grow at diminishing rates, averaging 1.2 percent

annually. In 2033, annual enplanements are expected to reach close to 3.2 million, yielding a compound annual growth rate of around 1.8 percent.

- **Scenario 2 (High):** Annual enplanements are expected to first exceed the pre-pandemic level in 2024, reaching 2.9 million. Beyond 2024, annual enplanements are expected to grow at an average annual rate of around 1.4 percent. In 2033, annual enplanements are expected to reach around 3.3 million, yielding a 2022-2033 compound annual growth rate of around 2.2 percent.
- **Scenario 3 (Low):** Annual enplanements eventually return to the pre-pandemic level by the end of 2026, reaching 2.87 million. Beyond 2026, annual enplanements are expected to grow at an average annual rate of 0.9 percent. In 2033, annual enplanements are projected to reach 3.1 million, yielding a 2022-2033 compound annual growth rate of 1.4 percent.

Figure 27 | Historical and Forecast Enplanements



The 2023 forecast is based on Airport records from January to September and projections from Unison Consulting, Inc. from October to December.

Source: Unison Consulting, Inc.

## SECTION 7 | AIRPORT RENTAL CAR MARKET HISTORY

Data reported by the rental car companies at ANC are aggregated to reveal the historical trends in the Airport rental car market using the following key indicators:

- **Transaction days** – the total number of days for which vehicles were rented.
- **Rental contracts** – the count of rental transactions completed or number of customers accommodated as contract holders.
- **Gross revenue** – the total revenue received by RACs from rental contracts.
- **Average contract duration** – the mean number of days for which a car is rented per rental contract, calculated by dividing transaction days by rental contracts.
- **Average rental rate** – the mean price of renting a car per day, calculated by dividing gross rental revenues by transaction days. RACs adjust rental rates in response to market conditions, causing the average daily rental rate to fluctuate from year to year.

Gross revenue and rental rate are expressed in both nominal terms (current dollars) and real terms (constant 2017 dollars), with the latter using the urban consumer price index (CPI) to adjust for price inflation.

### 7.1 | Annual Trends

Table 6 summarizes the demand and revenue indicators of rental car activity for calendar years 2000 through 2022, along with the year-to-date total for January through September 2023.

Rental car companies serving airports operate in the same dynamic business environment that airlines operate in. They face changes in air travel demand patterns, economic recessions, and other shocks. The combined effects of these changes in the business environment underlie the trends in the different indicators of rental car activity. Since 2000, the ANC rental car market has been adversely affected in various degrees by the following major events: the 2001 U.S. economic recession, the 9/11 terrorist attacks, the 2008-2009 Great Recession, and the 2020 COVID-19 pandemic and economic recession. The downturns in the ANC rental car demand indicators coincide with these events.

Each downturn prior to 2020 was followed by recovery and expansion, as shown in Figure 28 and Figure 29. Over the long term, aggregate demand measures such as transaction days, rental contracts, and gross revenues exhibit increasing trends. From 2000 through 2019, transaction days at ANC increased 34.9 percent (1.6 percent per year, on average)—the result of an increase in rental contracts of 22.7 percent (1.1 percent per year, on average) and an increase in the average contract duration of 11.6 percent (0.6 percent per year, on average). Rental gross revenue, in nominal terms, increased 65.5 percent (2.7 percent per year, on average) from an increase in transaction days of 34.9 percent (1.6 percent per year, on average) and an increase in nominal rental rate of 22.7 percent (1.1 percent per year, on average). In real terms, rental gross revenue increased 11.4 percent (0.6 percent per year, on average), while the average rental rate decreased 17.5 percent (1 percent per year, on average). Much of the growth in transaction days, rental contracts, and gross revenue took place in the second half of the last decade, during the expansion phase of the previous business cycle.

The COVID-19 pandemic and subsequent restrictions on travel had a large impact on travel and, by extension, the rental car market in ANC. From 2019 to 2020, transaction days fell 52.7 percent, and rental contracts fell 57.9 percent—both below 2000 levels. While this led to the average contract duration increasing by 12.1 percent, rental gross revenue at ANC dropped 62.1 percent down to \$24.7 million, the lowest gross revenue ANC has seen in its available history dating back to 2000. While the overall U.S. economy has recovered from 2020's recession in the second quarter of 2021 and re-entered a state of growth, the aviation and rental car industries have yet to return to their pre-pandemic levels.

Numbers increased across all of ANC's rental car demand and revenue indicators through 2021 and 2022. Transaction days increased 52.9 percent from 2020 to 2022, up to a total of roughly 837,400 days. Rental contracts increased 60.8 percent to about 164,800 contracts, leading to a slightly lower average contract duration of 5.1 days in 2022. Gross revenue quickly rebounded, rising to a total of 247.5 percent from 2020 to 2022, surpassing its 2019 level by a substantial margin and reaching \$86.0 million. The average rental rate also spiked due to the two-year recovery process, rising 127.3 percent to an average nominal rate of \$102.72 in 2022—significantly higher than its entire available history since 2000.

Table 6 | Annual Rental Car Activity, 2000-YTD2023

CY	Demand Indicators			Revenue Indicators		
	Transaction Days (in 1000s) <sup>1</sup>	Rental Contracts (in 1000s) <sup>1</sup>	Avg. Contract Duration (Days) <sup>2</sup>	Gross Revenue (in \$1000s) <sup>1</sup>	Avg. Nominal Rental Rate <sup>3</sup>	Avg. Real Rental Rate <sup>4</sup>
2000	858.5	198.5	4.33	\$39,410.4	\$45.91	\$65.35
2001	847.9	191.9	4.42	\$39,273.4	\$46.32	\$64.13
2002	835.5	186.7	4.47	\$40,550.1	\$48.54	\$66.14
2003	840.7	184.6	4.56	\$42,121.6	\$50.10	\$66.75
2004	834.6	181.8	4.59	\$45,868.5	\$54.96	\$71.32
2005	814.9	172.2	4.73	\$39,894.2	\$48.96	\$61.46
2006	818.4	170.3	4.81	\$39,771.0	\$48.59	\$59.10
2007	858.2	199.1	4.31	\$43,943.1	\$51.20	\$60.53
2008	891.1	192.7	4.62	\$47,133.0	\$52.89	\$60.23
2009	738.3	168.1	4.39	\$38,434.2	\$52.06	\$59.47
2010	764.1	170.0	4.50	\$40,611.0	\$53.15	\$59.74
2011	803.8	177.1	4.54	\$43,206.2	\$53.75	\$58.58
2012	853.3	185.2	4.61	\$41,354.7	\$48.47	\$51.75
2013	871.4	189.4	4.60	\$44,346.8	\$50.89	\$53.55
2014	910.2	196.7	4.63	\$48,341.9	\$53.11	\$55.00
2015	1,039.5	222.1	4.68	\$51,786.1	\$49.82	\$51.52
2016	979.9	211.5	4.63	\$51,121.9	\$52.17	\$53.29
2017	1,019.7	222.1	4.59	\$53,011.7	\$51.99	\$51.99
2018	1,033.7	228.2	4.53	\$59,636.0	\$57.69	\$56.32
2019	1,158.9	243.3	4.76	\$65,237.6	\$56.29	\$53.97
2020	547.7	102.5	5.34	\$24,753.6	\$45.20	\$42.80
2021	744.0	134.3	5.54	\$60,900.1	\$81.85	\$74.04
2022	837.4	164.8	5.08	\$86,010.2	\$102.72	\$86.04
2022 YTD	681.3	128.5	5.30	\$76,606.6	\$112.45	\$94.20
2023 YTD	740.6	141.2	5.25	\$79,031.2	\$106.72	\$85.87
Compound Annual Growth Rate						
2000-2010	-1.2%	-1.5%	0.4%	0.3%	1.5%	-0.9%
2007-2009	-7.2%	-8.1%	0.9%	-6.5%	0.8%	-0.9%
2009-2019	4.6%	3.8%	0.8%	5.4%	0.8%	-1.0%
2000-2019	1.6%	1.1%	0.5%	2.7%	1.1%	-1.0%
2019-2022	-10.3%	-12.2%	2.2%	9.7%	22.2%	16.8%
2000-2022	-0.1%	-0.8%	0.7%	3.6%	3.7%	1.3%

YTD = January through September.

<sup>1</sup> Data received from rental car companies.

<sup>2</sup> The average contract duration is calculated by dividing transaction days by rental contracts.

<sup>3</sup> The average nominal rental rate is calculated by dividing gross rental revenues by transaction days.

<sup>4</sup> The average real rental rate is expressed in constant 2017 dollars.

Sources: ANC rental car companies for data on transaction days, rental contracts, and gross revenue; and Moody's Analytics and the U.S. Bureau of Labor Statistics for Consumer Price Index, both used in deriving gross revenue and rental rate in 2017 dollars.

Figure 28 | Growth Trends in Transaction Days, Rental Contracts, and Contract Duration (2000=100)

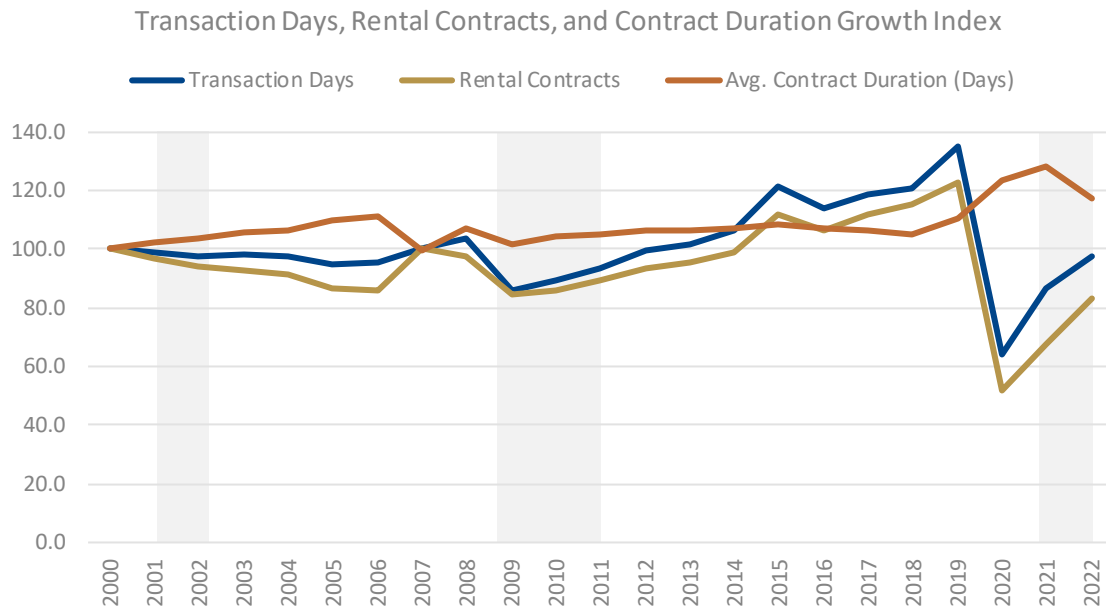
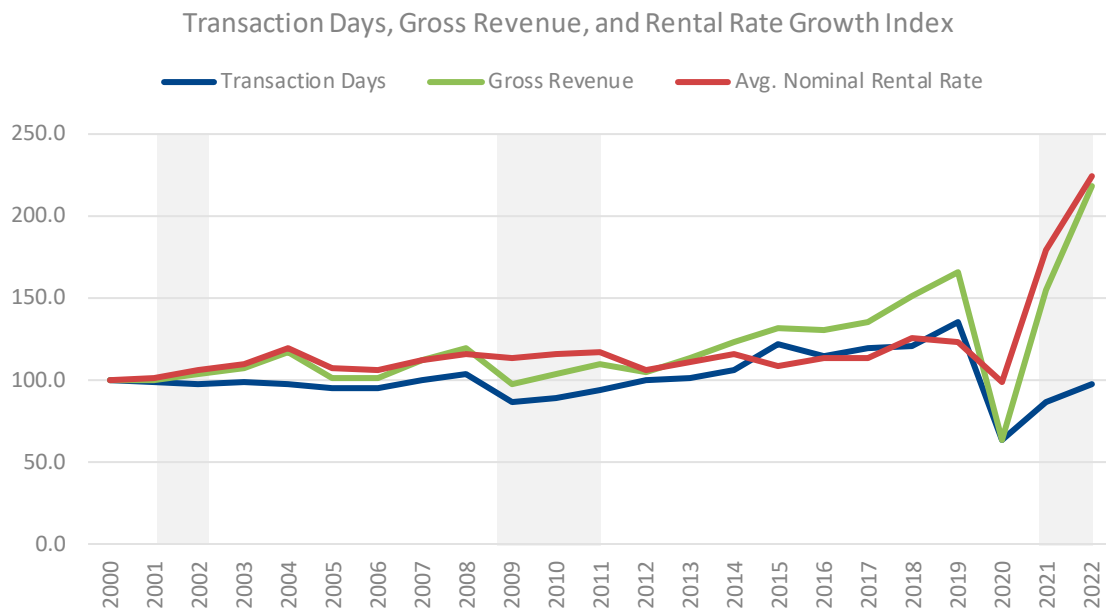


Figure 29 | Growth Trends in Transaction Days, Gross Revenue, and Rental Rate (2000=100)



Following the 9/11 terrorist attacks in 2001, the rental car market at ANC suffered relatively small declines in transaction days and rental contracts initially. The declines, however, persisted for a number of years. Transaction days and rental contracts returned to their 2000 levels only in 2007, when the Consolidated Facility opened. Gross revenue fared better—surpassing the 2000 level in all but one year through 2008—with increases in nominal rental rates.

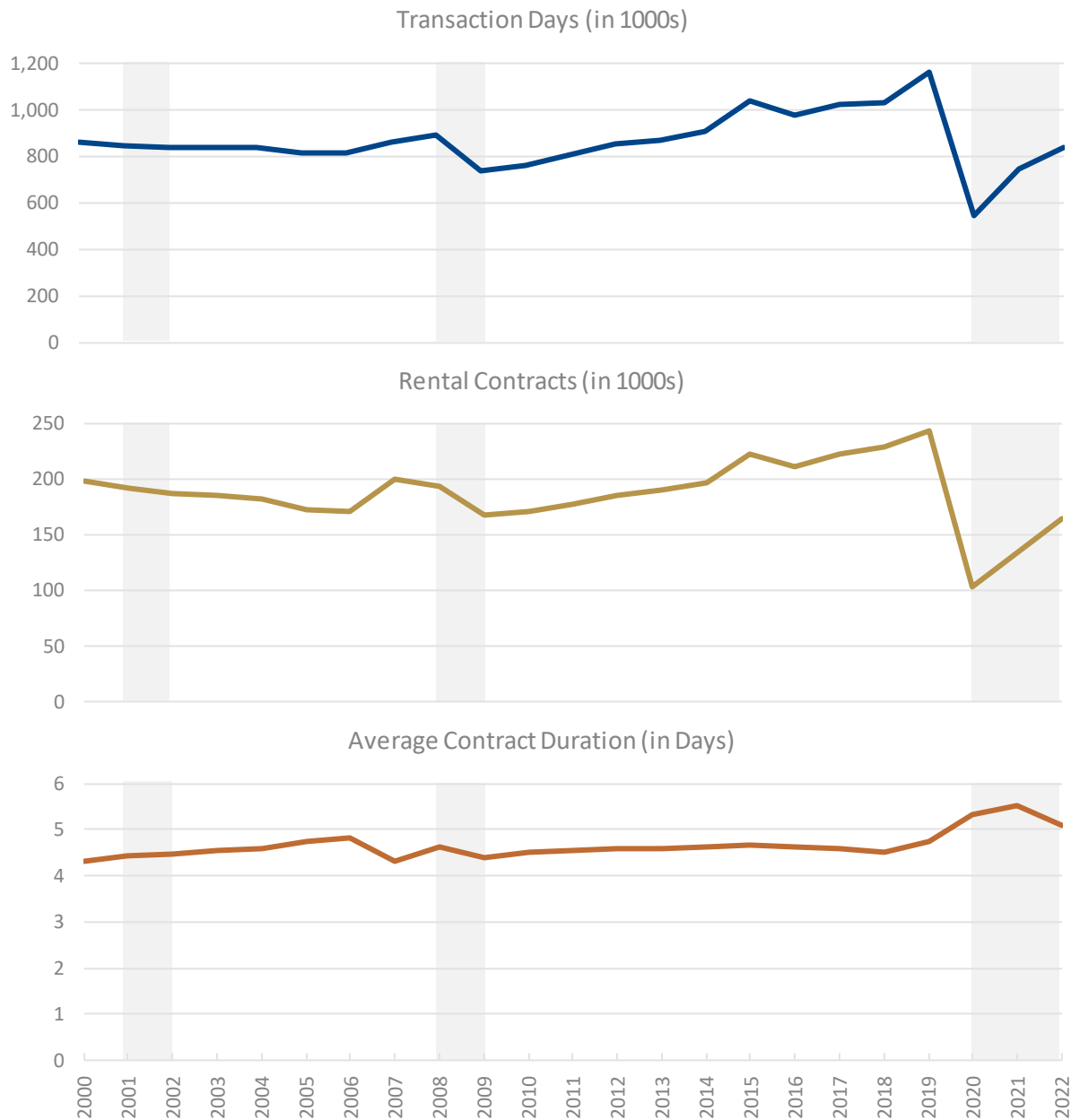
In 2008, the financial market crashed, setting off the Great Recession of 2008-2009. The RACs experienced substantial declines in transaction days, rental contracts, and nominal gross revenue by 7.2, 8.1, and 6.5 percent per year, respectively, during the recession. After the Great Recession ended in 2009, the rental car companies enjoyed steady growth at ANC. Transaction days, rental contracts, and nominal gross revenue increased by a compound growth rate of 4.6, 3.8, and 5.4 percent per year, respectively, between 2009 and 2019.

Figure 30 illustrates the annual levels and rates of change in transaction days, rental contracts, and the average contract duration separately. The trends in transaction days reflect the combined influence of the underlying rental contracts and contract duration. Transaction days exceeded 900,000 beginning in 2014, rising to an all-time high of 1.16 million in 2019. Rental contracts exceeded 200,000 for the first time in 2015 and continued rising to an all-time high of 243,000 in 2019. Record performance in the ANC rental car market in 2019 resulted from an acceleration of ANC passenger traffic growth and the use of the Consolidated Facility by non-airport visitors and cruise ship passengers.

In 2020, the COVID-19 pandemic abruptly ended the long-running economic expansion, resulting in deep declines in economic activities nationwide, including rental car activity at ANC. Through 2020, transaction days decreased from its record high to about 548,000 (down 52.7 percent), resulting from a decrease in rental contracts from its own peak down to about 102,000 (down 57.9 percent). However, the drops were tempered by an increase in contract duration to an average of 5.34 days (up 12.1 percent). The resulting 19.7 percent decrease in average nominal rental rate (from \$56.29 to \$45.20) reflects rental car companies' response to stimulate demand.

2021 shows partial recovery in transaction days and rental contracts, and 2022 continued that recovery up to about 837,400 and 164,800, respectively. Neither demand indicator has yet to return to pre-pandemic levels. Average contract durations, however, continued to lengthen in 2021, up to a peak of 5.5 days. This peak saw a decrease down to 5.1 days in 2022, which is still above the entire history of ANC's pre-pandemic average contract durations.

Figure 30 | Annual Trends in Demand Indicators

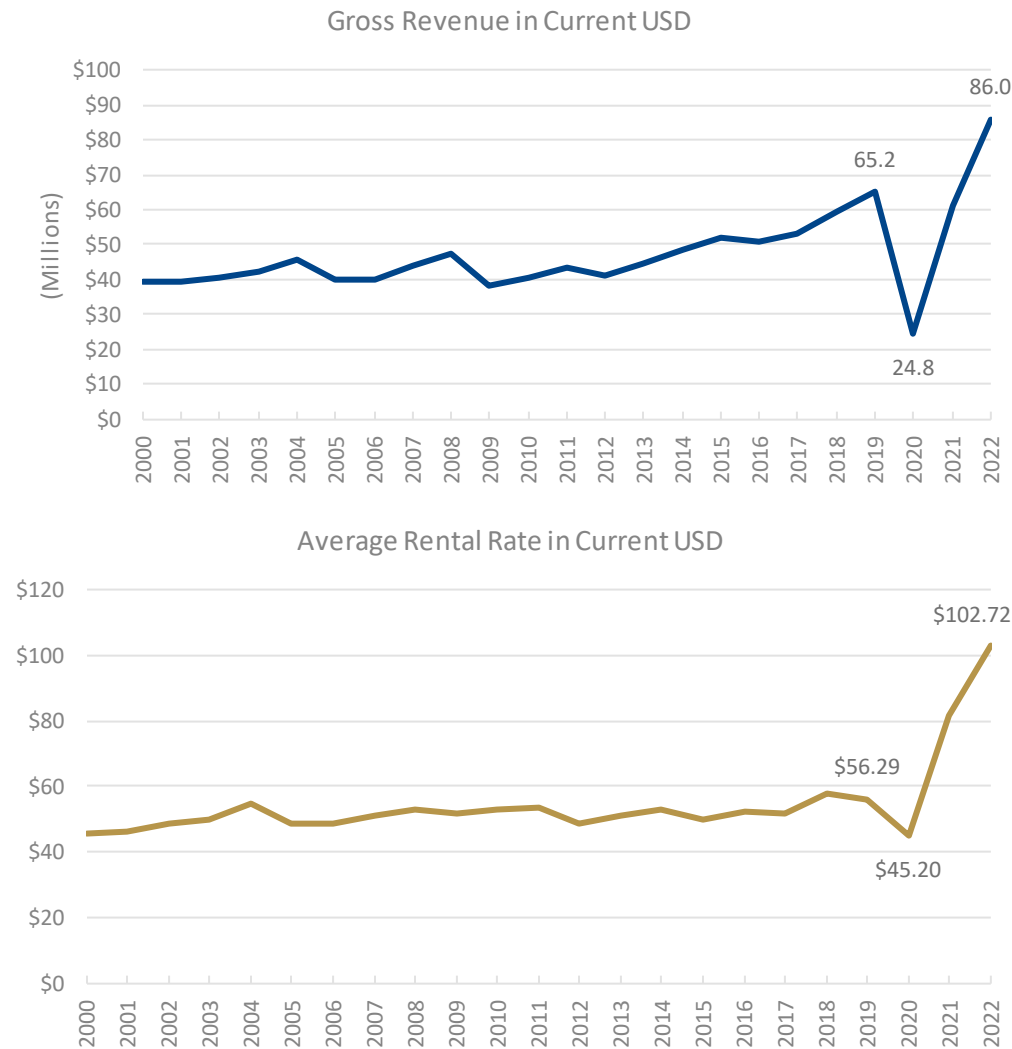


Source: ANC rental car companies.

Figure 31 illustrates the annual levels and rates of change in gross revenue and average rental rate in nominal terms. Gross revenue, in nominal terms, surpassed \$50 million beginning in 2015 and continued rising to a peak level of \$65.2 million in 2019, before falling significantly to \$24.8 million in 2020. The average rental rate, in nominal terms, reached its pre-pandemic peak of \$57.69 in 2018, up from values between \$45 and \$55 in previous years. In 2020, however, the average rental rate decreased to \$45.20 in response to economic decline.

Both revenue indicators returned to a sharp upward direction in 2021, which continued even further into 2022. Gross revenue rose up to \$86.0 million in 2022, far above its 2019 pre-pandemic peak. Meanwhile, the average rental rate spiked to a height of \$102.72—far above the rest of ANC’s prior rental rate history.

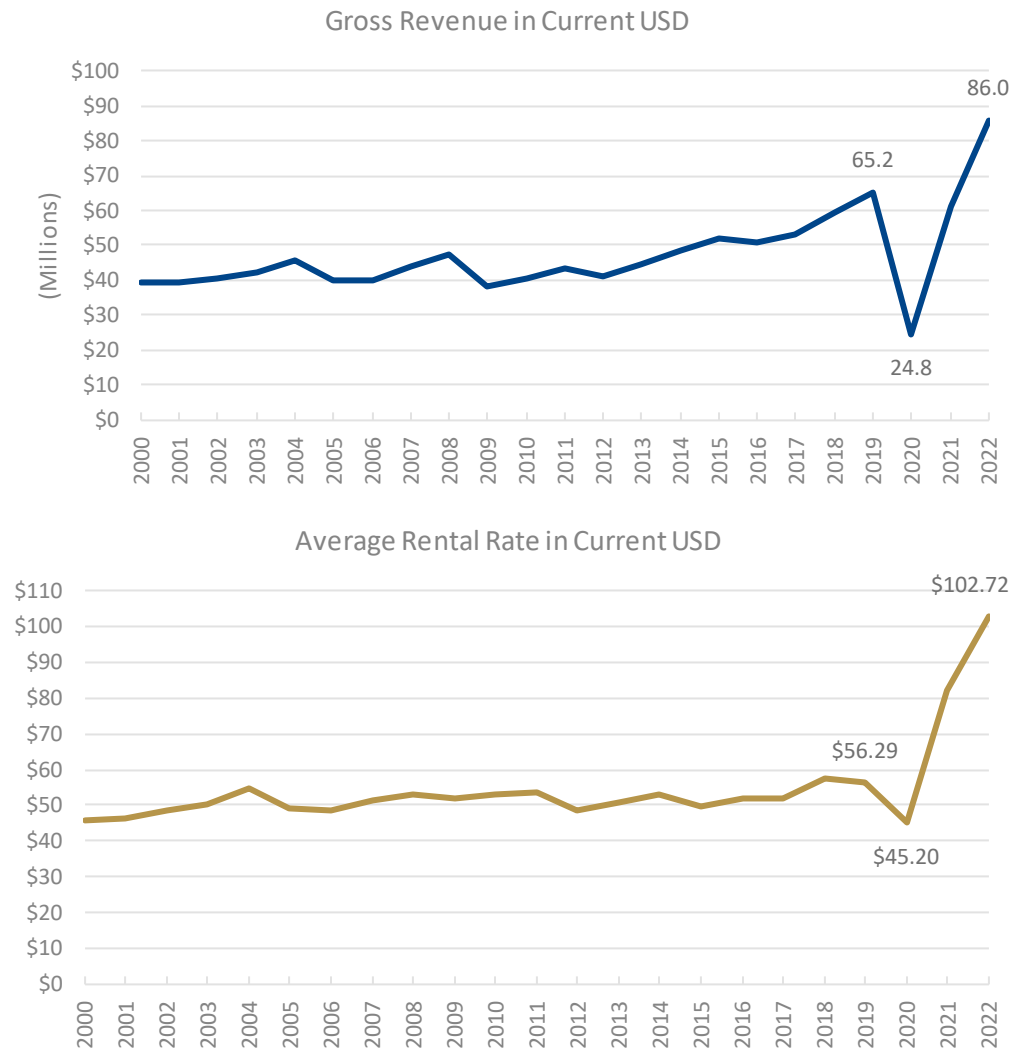
Figure 31 | Annual Trends of Revenue Indicators in Nominal Terms



Source: ANC rental car companies.

Figure 32 shows the trends in revenue indicators in real terms, expressed in constant 2017 dollars. After removing inflation effects, gross revenue and the average rental rate show decreasing trends from 2004 through 2012. After 2012, gross revenue increased steadily through 2019, while the average rental rate remained relatively constant, with both facing sharp declines in 2020 before rising again in 2021. Both measures continued to grow in 2022, setting new historical peaks in real gross revenue and rental rates.

Figure 32 | Annual Trends of Revenue Indicators in Real Terms



Sources: ANC rental car companies, Moody’s Analytics, and U.S. Bureau of Labor Statistics.

## 7.2 | Monthly Patterns

ANC rental car activity shows wide seasonal variation. In previous years before 2020, activity was distinctly high during the summer months and low during the winter months—a reflection of the seasonal patterns in passenger traffic at the Airport and tourism in Alaska. In 2020, COVID-19 impacts altered the monthly patterns substantially. Figure 33 shows the monthly patterns in rental car demand indicators from 2017 to September 2023.

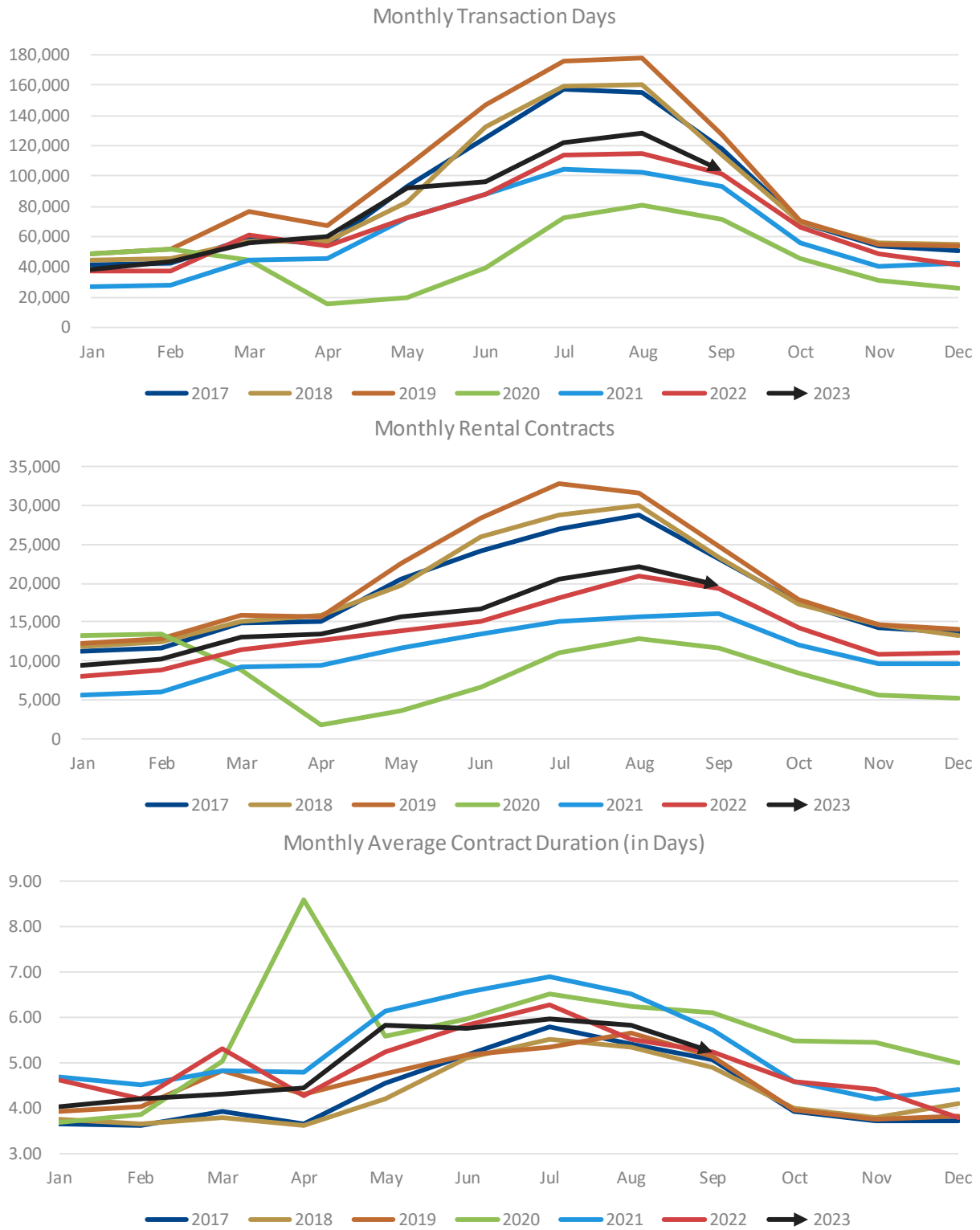
Demand under COVID-19 bottomed in April 2020—transaction days and rental contracts fell to just under 16,000 and 2,000, respectively. Transaction days decreased 76.6 percent, and rental contracts decreased 88.2 percent from their corresponding levels in April 2019. Rental car demand has slowly recovered over the summer of 2020, but fell again through winter. With the distribution of COVID-19 vaccinations in 2021, transaction days and rental contracts improved over the next year, even withstanding the additional waves of infection brought about by the Delta and Omicron

variants. This improvement continued through 2022 and 2023, but transaction days and rental contracts have yet to return to pre-pandemic levels, with the gaps still especially apparent when comparing each year's summer peaks.

The average contract duration doubled in April 2020 to 8.6 days (from 4.3 days in April 2019). This spike in average contract duration could be attributed to visitors who found themselves stuck in the area at the time of travel restrictions coming into effect due to COVID-19. The average contract duration since decreased from that spike, but consistently remained longer than pre-pandemic levels through the rest of 2020 and all of 2021. This elevated average contract duration began to falter in 2022, occasionally dipping back to pre-pandemic levels in certain months, such as April, August, and December. So far, 2023's monthly average duration patterns have deviated, showing a sharp rise in May followed by a flat plateau through the summer, as opposed to the more gradual bell curve shown in the previous year.

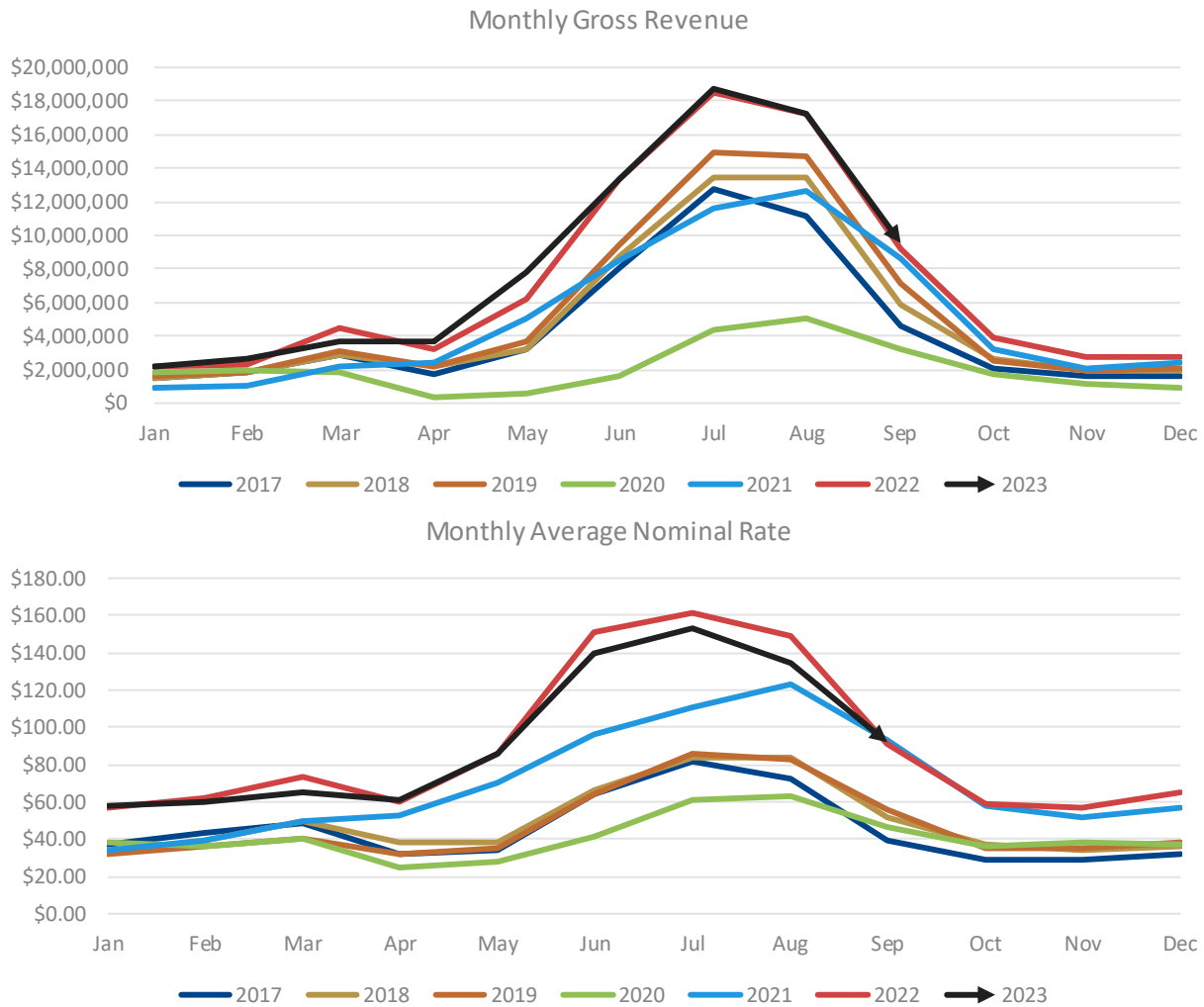
Figure 34 shows the monthly patterns of the nominal revenue indicators over the same time period. 2022 monthly gross revenue had risen consistently and substantially higher than previous years, most notably over the summer. 2023 continues this elevated monthly gross revenue trend, closely following 2022's path. Additionally, the monthly average nominal rate also saw a significant rise from May to June in 2022, with the summer maintaining a considerable height over previous years, in addition to the year's monthly rental rates staying consistently higher than pre-pandemic trends. 2023's monthly average rental rates also show a similarly elevated trend, but its summer peak did not reach quite the same height as the previous year.

Figure 33 | Monthly Pattern of Demand Indicators



Source: ANC rental car companies.

Figure 34 | Monthly Pattern of Nominal Revenue Indicators



Source: ANC rental car companies.

### 7.3 | Market Shares

The following RACs operate at the Consolidated Facility of ANC in 2022:

- Alaska Rent A Car, which operates Avis
- Corporate Sales and Leasing, which operates Budget
- Enterprise Rent-A-Car Company, which operates Enterprise, National, and Alamo
- Floyd and Sons, which operates Dollar and Thrifty
- Hertz Corporation, which operates Hertz.
- Delta Leasing

The U.S. rental car industry went through a wave of consolidation during the last decade. Today, three companies, each selling multiple brands, control approximately 95 percent of the U.S. rental car market:

- Avis Budget Group, Inc. which owns the Avis, Budget, Payless, and Zipcar brands
- Enterprise Holdings, Inc. which owns the Enterprise, National and Alamo brands
- Hertz Global Holdings, Inc. which owns the Hertz, Dollar and Thrifty brands

Figure 35 shows the distributions of gross revenue shares and the timeline of each brand's share size from 2000 through 2022 at ANC, along with a comparison of distributions between 2022 and 2023 for the same January-September year-to-date period.

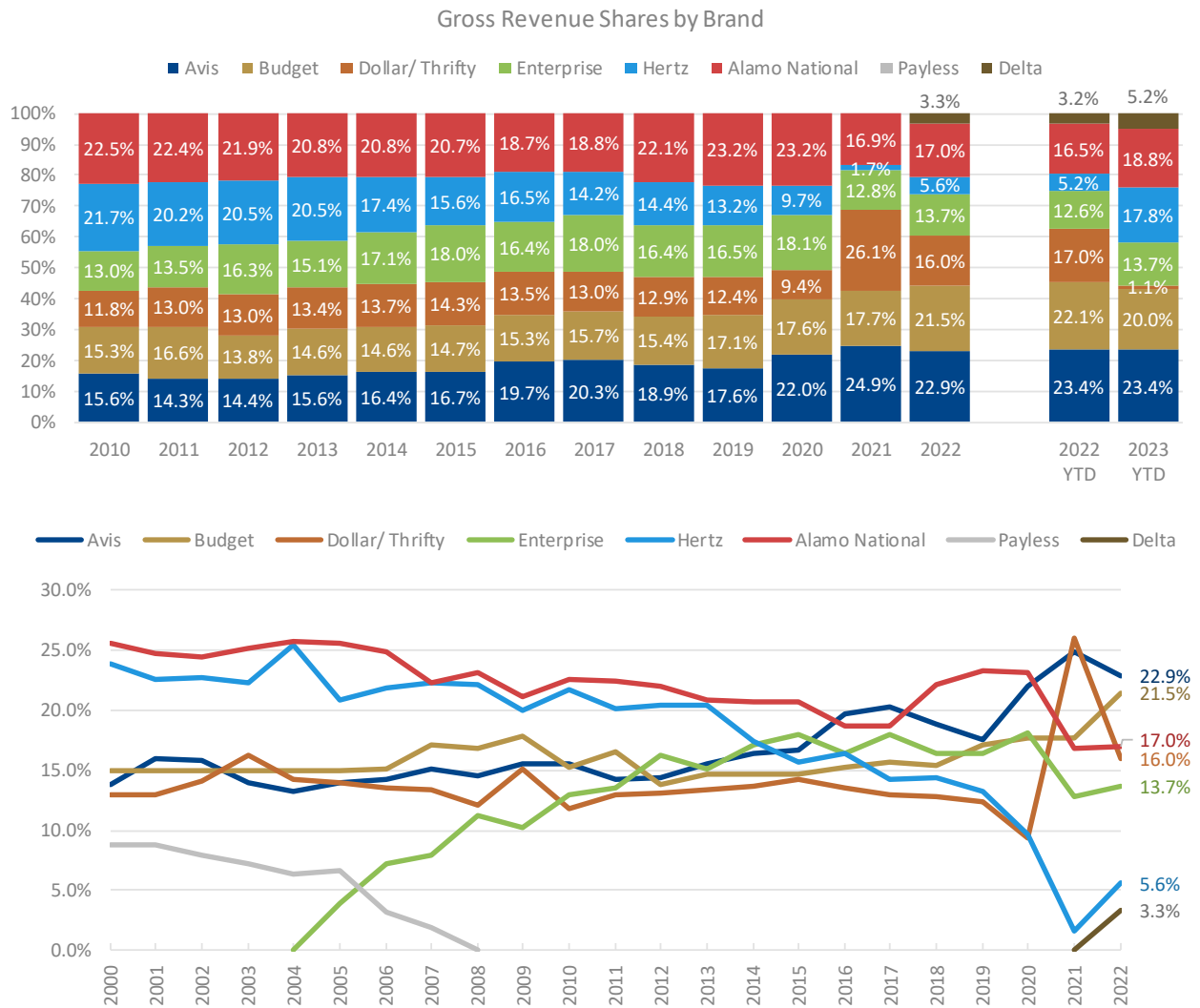
In 2019, the Alamo and National brands together accounted for the largest share of 23.2 percent in gross revenue, followed by the Avis (17.6 percent), Budget (17.1 percent), Enterprise (16.5 percent), and Hertz (13.2 percent), while the Dollar and Thrifty brands together accounted for the smallest share of 12.4 percent. In 2020, Alamo and National again accounted for the largest share of 23.2 percent in gross revenue, followed closely by Avis (22 percent), Enterprise (18.1 percent), Budget (17.6 percent), and Hertz (9.7 percent), while Dollar and Thrifty together accounted for the smallest share of 9.4 percent. With the exception of 2016 and 2017, Alamo and National have consistently held the largest rental car market share at ANC for the past two decades.

Alamo and National's lead was recently disrupted in 2021, getting overtaken by the expansion of three other brands. In 2021, Dollar and Thrifty held the lead with a share of 26.1 percent, followed by Avis with 24.9 percent, and Budget with 17.7 percent. Alamo and National fell just under the top three with a share of 16.9 percent, with Enterprise behind them holding 12.8 percent. Hertz has been continuously shrinking in share since 2018, and that shrinkage accelerated in 2021 down to a share size of 1.7 percent. This significant decline in share size is due in part to Hertz slowing service and then completely stopping service from August through October of that year.

Delta Leasing began service in April 2022, claiming a 3.3 percent share of gross revenue in its first year. Hertz has returned from its brief 2021 absence with increased activity and finished 2022 with a partially recovered share of 5.6 percent. Enterprise grew to 13.7 percent, Alamo and National stayed largely the same with a minor expansion to 17.0 percent, and Budget increased to 21.5 percent. Inversely, Dollar and Thrifty experienced a significant shrinkage, losing its leading share and falling to a share size of 16.0 percent. Avis also faced a slight reduction to 22.9 percent, but that also became the leading share size in 2022, considering the change in share distribution among the other companies.

So far, 2023 is seeing continued growth in the share sizes for Delta, Alamo and National, Hertz, and Enterprise, while Avis and Budget are seeing minor continued reductions. Dollar and Thrifty have stopped serving at ANC as of May 2023, so its share has almost vanished, and will likely become more minuscule as the year progresses.

Figure 35 | Annual Gross Revenue Shares by Brand



Source: ANC rental car companies.

## SECTION 8 | TRANSACTION DAY FORECASTS

Forecasts of transaction days serve as the basis for calculating CFC revenues. Forecast development employed multivariate time series regression analysis to quantify the contributions of key explanatory variables to trends in transaction days. Explanatory variables are selected based on the economic theory of demand, the concept of airport rental car demand as a derived demand from passenger air travel, and the analysis of historical car rental market trends at the Airport.

### 8.1 | Multivariate Time Series Regression Analysis

Multivariate time series regression analysis is used to link transaction days with measurable explanatory variables. Regression analysis quantifies the contributions of rental car demand drivers to transaction days, accounting for seasonality patterns in airport rental car demand and serial correlation in time series data. The regression model utilizes historical monthly data from January 2000—the earliest month for which complete rental revenues, transactions, and transaction days data are available—to September 2023.

The contributions of rental car demand drivers are represented by the “regression coefficients.” The estimated coefficients are used to calibrate the regression model and generate forecasts of transaction days given the projected trends in the explanatory variables. Explanatory variables are retained in the regression model based on their explanatory power and the statistical significance of the coefficients. The key model variables, individually discussed below, include ANC’s passenger enplanements, average daily rental rate, and U.S. real GDP per capita. The Customer Facility Charge (CFC), Facility Management Charge (FMC), and taxes are added to the average daily rental rate for a comprehensive price indicator.

#### 8.1.1 | Airport Passenger Traffic

The demand for rental cars at ANC derives from the demand for air travel to Alaska. This relationship is confirmed by the positive coefficient estimated for ANC enplanements. An increase in enplanements increases transaction days, and a decrease in enplanements decreases transaction days. The forecasts account for the sharp declines caused by the COVID-19 pandemic and present three scenarios for recovery: Base, High, and Low. The forecasts of ANC enplanements under the different scenarios are shown in Figure 27.

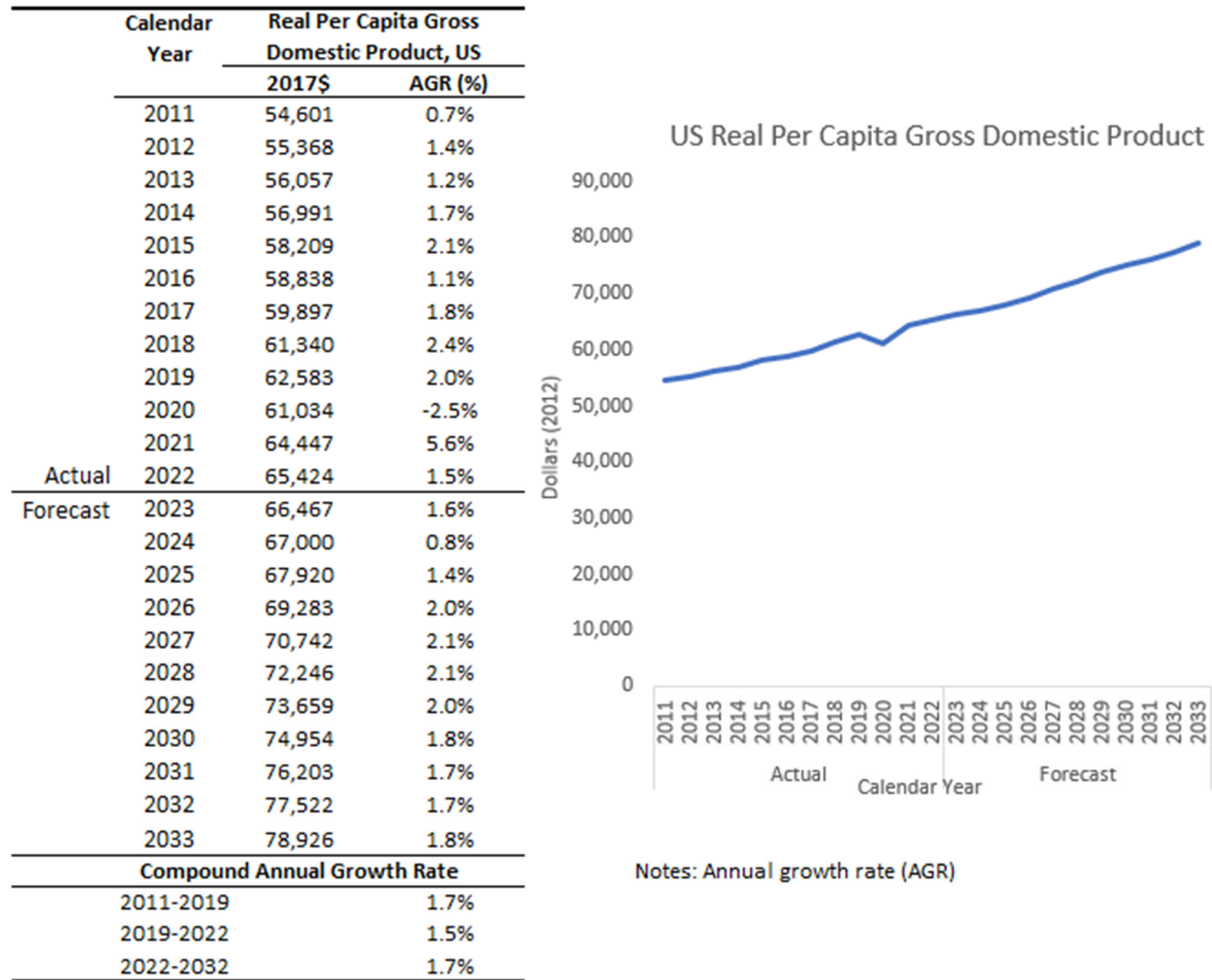
#### 8.1.2 | Economic Trends

U.S. real GDP per capita reflects national economic trends and serves as an important determinant of consumer demand, such as the demand for airport rental cars. We used a national measure of the economy, as opposed to a local measure, because the Airport’s rental car customers typically come from outside the local service area. The positive regression coefficient estimate for this variable confirms its expected impact on the Airport’s transaction days. Holding all other factors constant, increases in real per capita GDP promote growth in transaction days at ANC. Conversely, decreases in GDP dampen growth in rental car demand at the Airport.

According to the forecasts of Moody’s Analytics, U.S. real GDP per capita in the Base scenario is expected to grow at a compound annual growth rate of 1.7 percent from 2022 to 2033. This growth rate is similar to the growth rate observed between 2011 and 2019 and slightly faster than the 1.5 percent growth from 2019 to 2022, which included a sharp contraction in 2020 and a quick

rebound in 2021. Relative to the Base scenario, U.S. real GDP per capita over the forecast horizon is expected to grow 0.4 percentage points faster in the High scenario (2.1 percent compounded annually) and 0.4 percentage points slower in the Low scenario (1.3 percent compounded annually).

Figure 36 | U.S. Real Per Capita GDP (2017\$)



Source: Historical data from the Bureau of Economy Analysis and forecasts by Moody’s Analytics.

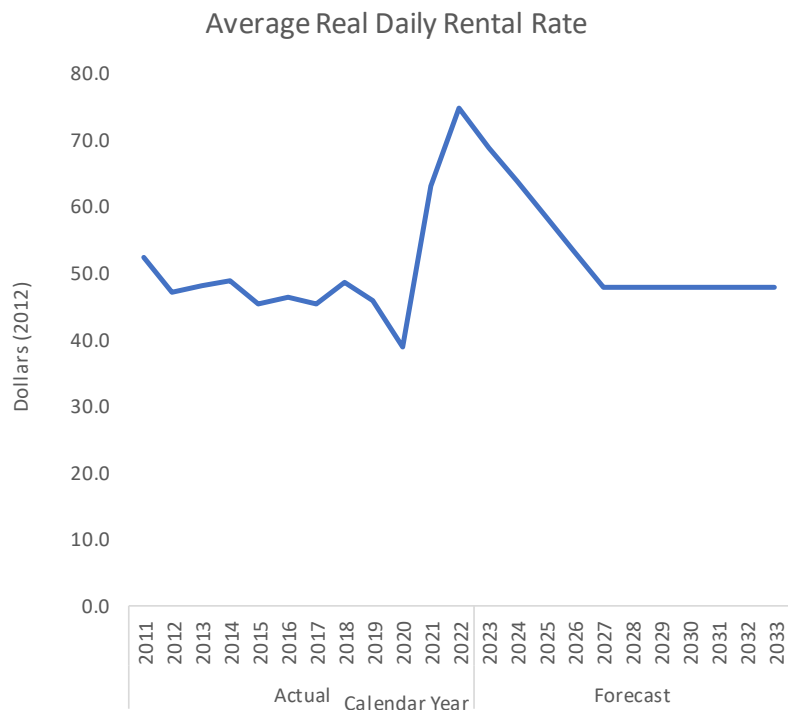
### 8.1.3 | Price of Renting a Car

Demand is inversely related to price. Holding all other factors constant, an increase in price decreases demand, and a decrease in price increases demand. In the case of rental cars, an increase in price can decrease transaction days by decreasing rental contracts—fewer customers rent cars—and/or by decreasing contract duration—customers rent cars for shorter periods. Conversely, a decrease in price can increase transaction days by increasing rental contracts and/or by increasing contract duration. The negative coefficient estimated for the rental rate variable confirms this inverse relationship.

Prior to the pandemic, the average real daily rental rate had remained relatively stable. During the pandemic, real rental rates spiked due to rental car supply shortages and shifts in travelers’ preferences toward rental cars as public health concerns over the COVID-19 virus intensified. Over the forecast period, the real rental rate in the Base scenario is expected to remain elevated in the short term before easing and falling to 2011-2019 pre-pandemic levels in the medium and long term (Figure 37). The 2022-2032 compound annual growth rate of the Base scenario’s real rental rate is -4.0 percent. Relative to the Base scenario, real rental rates beyond 2022 are expected to fall 0.3 percentage points faster in the High scenario and around 0.4 percentage points slower in the Low scenario.

Figure 37 | Average Real Monthly Rental Rate (2017\$)

Calendar Year	Avg. Real Monthly Rental Rate	
	2017\$	AGR (%)
2011	52.2	-12.7%
2012	47.0	-10.0%
2013	47.9	2.0%
2014	48.8	1.8%
2015	45.2	-7.4%
2016	46.2	2.2%
2017	45.2	-2.0%
2018	48.4	7.0%
2019	45.8	-5.3%
2020	38.8	-15.4%
2021	63.0	62.5%
Actual 2022	74.6	18.4%
Forecast 2023	68.6	-8.0%
2024	63.6	-7.3%
2025	58.5	-7.9%
2026	53.3	-9.0%
2027	47.8	-10.2%
2028	47.8	0.0%
2029	47.8	0.0%
2030	47.8	0.0%
2031	47.8	0.0%
2032	47.8	0.0%
2033	47.8	0.0%
<b>Compound Annual Growth Rate</b>		
2011-2019		-1.6%
2019-2022		17.6%
2022-2033		-4.0%



Notes: Annual growth rate (AGR)

The 2023 forecast is based on Airport records from January to September and projections by Unison Consulting, Inc. from October to December.

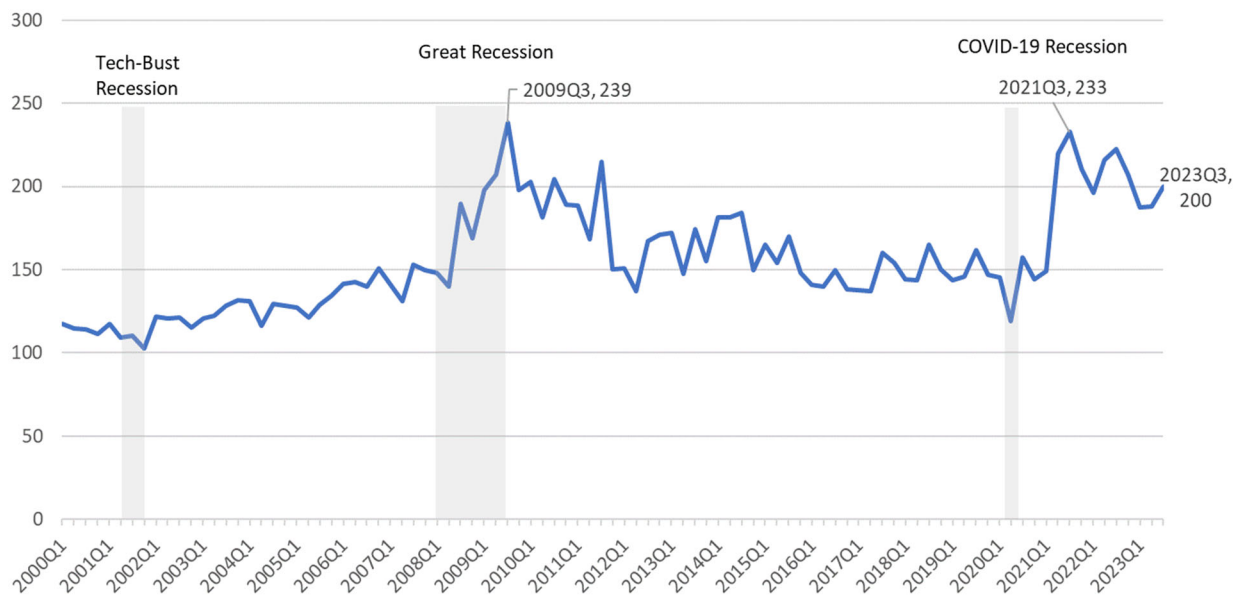
The average real monthly rental rate is calculated by averaging each month’s rental rate, and then calculating the simple average of all twelve months for each year. This is then translated to constant 2017 dollars.

Sources: Airport records and forecasts by Unison Consulting, Inc.

The assumption of an eventual “normalization” of rental rates is supported by historical patterns—for example, see the historical trends in the Producer Price Index for Passenger Car Rental (Figure 38). During the 2008-2009 Great Recession, the rental car market underwent considerable upheaval, with a sharp surge in rental prices triggered by various disruptions within the industry. These disruptions included substantial layoffs and the insolvency of Advantage Rent-A-Car, alongside Hertz's acquisition of Dollar Thrifty, all of which contributed to a tumultuous period for the sector.

Despite the industry challenges, rental prices began a downward trajectory shortly after 2009, eventually regaining stability and returning to pre-recession levels by late 2015 or early 2016. This marked a noteworthy recovery, considering the magnitude of the recession's impact on the sector. With this historical context, we assume an eventual return of real rental prices to pre-pandemic levels by the end of 2026, around five years after peaking in late 2021.

Figure 38 | Producer Price Index for Passenger Car Rental for Leisure Travel, 2000 Q1 to 2023 Q3, Not Seasonally Adjusted (December 1998=100)



Gray areas indicate economic recession periods.  
 Source: U.S. Bureau of Labor Statistics, retrieved from St. Louis FRED.

We evaluate the sensitivity of the forecast results to the rental rate recovery assumption. We estimate a model in which real rental prices remain elevated at 110 percent of the 2019 level. The forecasts from this model are similar to the baseline forecasts, with the differences no larger than 3 percent of the Base forecast by 2033.

In the forecast model, we employ a comprehensive measure of the price of renting a car, which includes the real daily rental rate, taxes, CFC, and FMC. The forecasts assume no change in taxes through 2033. The sum of CFC and FMC is \$10.10 effective August 1, 2023.<sup>22</sup>

We also analyze the sensitivity of forecast results to alternative CFC and FMC schedules. Specifically, we tested two hypothetical CFC and FMC schedules after CY2025: (1) the nominal sum of CFC and FMC rises with inflation, and (2) the nominal sum of CFC and FMC reduces to zero. The forecast results are not sensitive to the assumption of these alternative schedules, with the 2033 forecast transaction days under these alternative CFC and FMC schedules deviating no larger than 1 percent from the Base forecast.

#### 8.1.4 | Impact of Transportation Network Companies (TNCs)

Peer-to-peer ride hailing services like Uber Technologies (Uber) and Lyft are growing their presence at various airport terminals, providing travelers with ground transportation to and from airports. Uber operated in Anchorage between September 2014 and March 2015, then stopped and resumed service in June 2016. Ride hailing services pose competition to rental cars and other ground transportation modes. Therefore, as ride hailing services rise, rental car transaction days are expected to decrease.

In performing the regression analysis of rental car transaction days, a control variable was tested to quantify any impact of competition from these ride hailing services. This TNC control variable yielded a statistically insignificant regression coefficient estimate, though with a negative and correct sign, and was eventually left out of the regression model in this year's forecast update. The statistically insignificant regression coefficient suggests either of the following: the presence of TNCs had not materially impacted rental car demand at ANC, or the data is insufficient to measure any impact. Future forecast updates will continue to monitor the regression coefficient on the TNC control variable.

During the COVID-19 pandemic, passenger preferences for ground transportation modes appeared to have shifted from TNCs in favor of rental cars. Rental cars were viewed as a safer option from a public health safety perspective. When these public health concerns subsided, the demand for TNCs began to rise again.

## 8.2 | Transaction Day Forecast Results

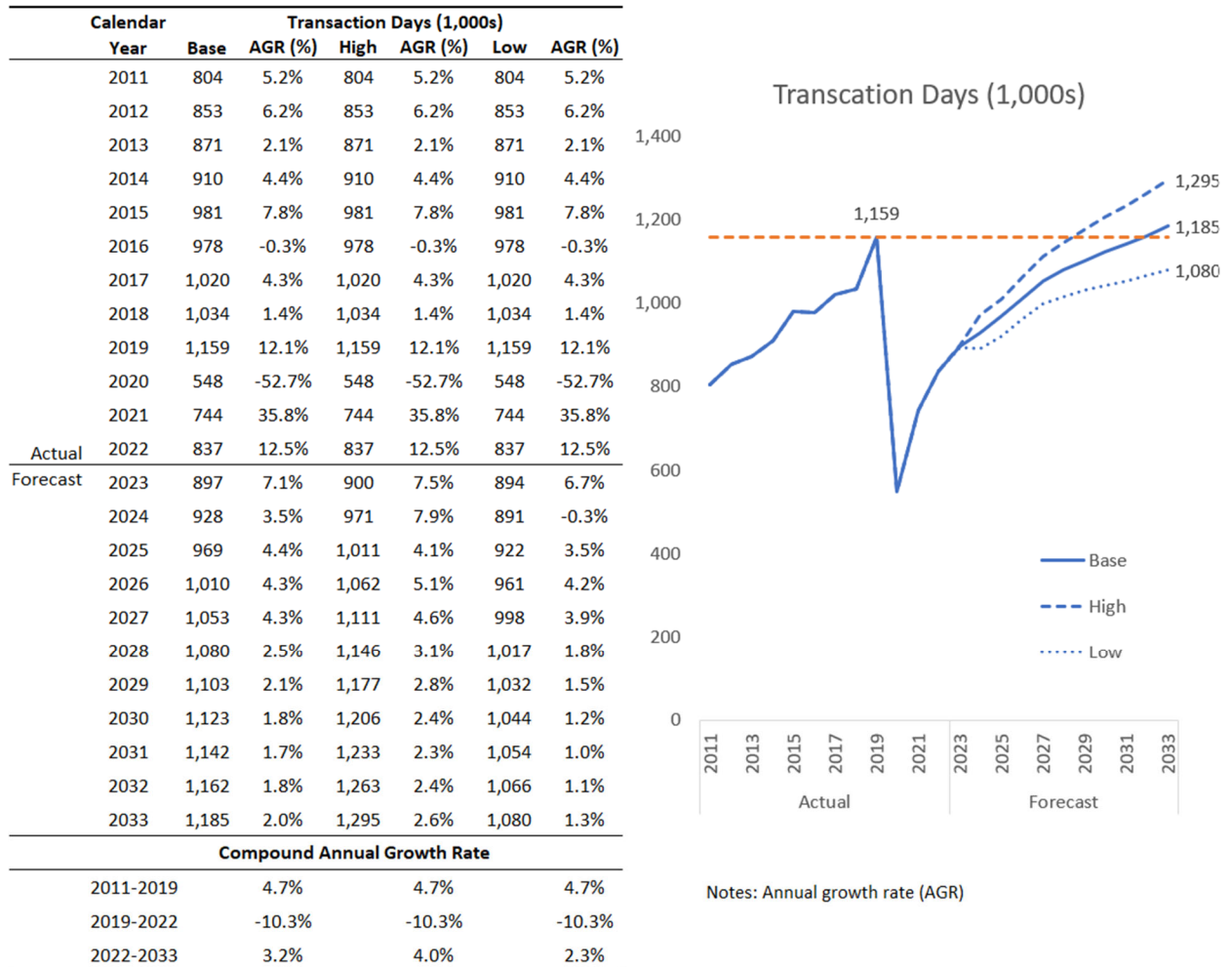
Figure 39 presents the forecast results for transaction days. Three scenarios are presented: Base, High, and Low. The difference in the forecast scenarios is driven by differences in the projected recovery speeds of ANC enplanements, the growth trajectories of the economic and income indicators, and average real daily rental rates. The underlying forecast trends for CFC and FMC are assumed to be the same for the three scenarios. Figure 39 presents the forecast results, which are summarized below:

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<sup>22</sup> There were several adjustments to the CFC and FMC in the past several years. Total combined CFC and FMC rate decreased from \$7.00 to \$6.50 per vehicle rental day in March 2019, increased to \$12.60 in January 2021, decreased to \$7.55 in April 2021, increased to \$8.60 in March 2023, and increased to \$10.10 in August 2023.

- **Scenario 1 (Base):** Based on year-to-date data through September, transaction days in 2023 are projected to rise by 7.1 percent year over year. Beyond 2023, the growth in transaction days is expected to slow slightly as the U.S. labor market cools and unemployment rises. Transaction days are expected to eventually exceed pre-pandemic levels by 2030 and reach around 1.2 million by the end of 2033. The 2022-2023 compound annual growth rate is expected to be about 3.2 percent, which is approximately 1.5 percent points lower than the historical growth rate of 4.7 percent from 2011 to 2019.
- **Scenario 2 (High)** – Transaction days are expected to rise by 7.5 percent in 2023, around 0.4 percentage points faster than the Base scenario. Transaction days are expected to exceed pre-pandemic levels by 2028. After 2028, transaction days are expected to continue exhibiting moderately strong growth, eventually reaching almost 1.3 million by the end of 2033. The 2022-2033 compound annual growth rate is projected to be 4.0 percent, around 0.8 percentage points faster than the Base scenario but 0.7 percentage points lower than the 2011-2019 average.
- **Scenario 3 (Low)** – Transaction days are expected to rise by 6.7 percent in 2023, around 0.4 percentage points slower than the Base scenario. Rising unemployment, among other factors, is expected to dampen the demand for rental cars in 2024, yielding a -0.3-percent growth year over year. Beyond 2023, transaction days are expected to begin to slowly recover. In 2033, transaction days are expected to be close to 1.1 million, around 800,000 fewer than the 2019 pre-pandemic level. The 2022-2033 compound annual growth rate is projected to be 2.3 percent, around 1.0 percentage point lower than the Base scenario and 2.4 percentage points lower than the 2011-2019 average.

Figure 39 | Forecasts of Transaction Days



The 2023 forecast is based on Airport records from January to September and projections by Unison Consulting, Inc. from October to December.

Source: Unison Consulting, Inc.

One reason for the slower recovery in transaction days, relative to enplanements, is the changes in the relationship between transaction days and enplanements induced by the pandemic. Before the pandemic, transaction days per enplanement at ANC had been steadily increasing, rising from 324 transaction days per 1,000 enplanements in 2011 to 404 transaction days per 1,000 enplanements in 2019. From 2015 to 2019, transaction days per 1,000 enplanements averaged 372 in the five years leading up to the pandemic. During the pandemic, the measure first rose sharply due to travel restrictions in 2020, rising to 467 transaction days per 1,000 enplanements, and then fell sharply in 2021 and 2022, dropping to 329 and 318 transaction days per 1,000 enplanements, respectively.

The decline is expected to reverse in 2023. Based on year-to-date data through September, transaction days per 1,000 enplanements are currently around 333. They are expected to rise slowly throughout the forecast period, though never exceeding the 2019 level. In the Base scenario, one thousand enplanements are expected to generate 371 transaction days on average, nearing the

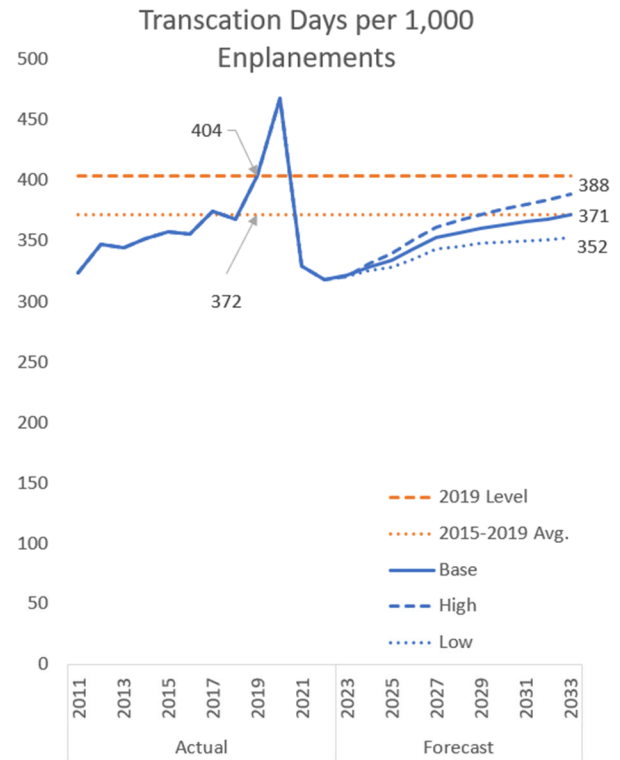
2015-2019 average. In the High and Low scenarios, we expect 388 and 352 transaction days per 1,000 enplanements on average, which are higher and lower than the 2015-2019 average, respectively.

Figure 40 | Forecasts of Transaction Days per Enplanement

Calendar Year	Transaction Days Per 1,000 Enplanement						
	Base	AGR (%)	High	AGR (%)	Low	AGR (%)	
2011	324	1.6%	324	1.6%	324	1.6%	
2012	347	7.3%	347	7.3%	347	7.3%	
2013	344	-1.0%	344	-1.0%	344	-1.0%	
2014	352	2.2%	352	2.2%	352	2.2%	
2015	357	1.6%	357	1.6%	357	1.6%	
2016	356	-0.3%	356	-0.3%	356	-0.3%	
2017	374	5.2%	374	5.2%	374	5.2%	
2018	368	-1.7%	368	-1.7%	368	-1.7%	
2019	404	9.7%	404	9.7%	404	9.7%	
2020	467	15.7%	467	15.7%	467	15.7%	
2021	329	-29.6%	329	-29.6%	329	-29.6%	
Actual	2022	318	-3.5%	318	-3.5%	318	-3.5%
Forecast	2023	321	1.1%	321	1.1%	321	1.0%
	2024	328	2.3%	331	3.0%	325	1.3%
	2025	334	1.7%	340	2.7%	328	0.9%
	2026	343	2.7%	350	3.2%	335	2.1%
	2027	353	2.8%	361	3.1%	343	2.4%
	2028	357	1.2%	367	1.5%	346	0.8%
	2029	360	1.0%	372	1.3%	348	0.6%
	2030	363	0.7%	376	1.1%	349	0.3%
	2031	365	0.6%	380	1.0%	350	0.2%
	2032	368	0.8%	384	1.1%	351	0.3%
	2033	371	0.9%	388	1.2%	352	0.5%

Compound Annual Growth Rate			
2011-2019	2.8%	2.8%	2.8%
2019-2022	-7.7%	-7.7%	-7.7%
2022-2033	1.4%	1.8%	0.9%



Notes: Annual growth rate (AGR)

The 2023 forecast is based on Airport records from January to September and projections by Unison Consulting, Inc. from October to December.

Source: Unison Consulting, Inc.

## SECTION 9 | FINANCIAL PROJECTIONS AND RECOMMENDATIONS

This section presents the financial projections and recommendations for BY2025. Due to the uncertainties in the current economic and industry environment, three transaction day forecast scenarios were presented in Section 8 above. This section summarizes the financial projections for BY2025, the recommended CFC and FMC rates based on the Base transaction day forecast, the application of Revenues pursuant to the Indenture, and the calculation of Debt Service Coverage.

Under the terms of the CFC Statute and the Commissioner's Order, the State is required to set the CFC at a level sufficient to (1) pay the debt service requirements on the Series 2005 Bonds, (2) maintain reserve requirements, and (3) meet any other obligations with respect to the Series 2005 Bonds. The FMC must be maintained at a level sufficient to generate annual collections to (1) pay the specified portions of the annual Operations and Maintenance (O&M) Expenses of the Consolidated Facility, including a portion of the real property tax obligations, and (2) provide ongoing funding for the O&M Fund.

### 9.1 | Debt Service

The annual debt service requirements on the Series 2005 Bonds are summarized in Table 7. Annual debt service requirements increase periodically throughout the life of the bonds. Annual debt service increased by approximately \$1.0 million to \$5.3 million in BY2020. Annual debt service will increase two more times before bond maturity in 2035: up to \$5.8 million in BY2026 and again to \$6.7 million in BY2031.

Table 7 | Series 2005 Debt Service Schedule

Bond Year	Series A			Series B			Total Debt Service
	Principal	Interest	Total	Principal	Interest	Total	
2006	\$740,000	\$2,433,022	\$3,173,022	\$0	\$0	\$0	\$3,173,022
2007	200,000	2,565,056	2,765,056	0	0	0	2,765,056
2008	210,000	2,556,054	2,766,054	0	0	0	2,766,054
2009	215,000	2,546,565	2,761,565	0	0	0	2,761,565
2010	225,000	2,536,598	2,761,598	0	0	0	2,761,598
2011	0	2,531,468	2,531,468	850,000	0	850,000	3,381,468
2012	0	2,531,468	2,531,468	850,000	0	850,000	3,381,468
2013	0	2,531,468	2,531,468	850,000	0	850,000	3,381,468
2014	0	2,531,468	2,531,468	850,000	0	850,000	3,381,468
2015	0	2,531,468	2,531,468	850,000	0	850,000	3,381,468
2016	0	2,531,468	2,531,468	1,033,799	734,978	1,768,777	4,300,244
2017	0	2,531,468	2,531,468	980,454	785,589	1,766,042	4,297,510
2018	0	2,531,468	2,531,468	932,627	835,926	1,768,553	4,300,020
2019	0	2,531,468	2,531,468	884,800	881,615	1,766,415	4,297,882
2020	0	2,531,468	2,531,468	831,454	916,068	1,747,522	4,278,990
2021	0	2,531,468	2,531,468	1,250,860	1,516,917	2,767,777	5,299,244
2022	0	2,531,468	2,531,468	1,188,317	1,579,845	2,768,162	5,299,629
2023	0	2,531,468	2,531,468	1,127,614	1,637,777	2,765,390	5,296,858
2024	0	2,531,468	2,531,468	1,072,429	1,696,437	2,768,865	5,300,333
2025	0	2,531,468	2,531,468	1,019,083	1,750,917	2,770,000	5,301,468
2026	3,370,000	2,443,005	5,813,005	0	0	0	5,813,005
2027	3,545,000	2,261,486	5,806,486	0	0	0	5,806,486
2028	3,730,000	2,070,518	5,800,518	0	0	0	5,800,518
2029	3,925,000	1,869,574	5,794,574	0	0	0	5,794,574
2030	4,135,000	1,657,999	5,792,999	0	0	0	5,792,999
2031	5,260,000	1,410,065	6,670,065	0	0	0	6,670,065
2032	5,540,000	1,123,865	6,663,865	0	0	0	6,663,865
2033	5,830,000	822,560	6,652,560	0	0	0	6,652,560
2034	6,140,000	505,355	6,645,355	0	0	0	6,645,355
2035	6,465,000	342,645	6,807,645	0	0	0	6,807,645
<b>TOTAL</b>	<b>\$49,530,000</b>	<b>\$65,116,377</b>	<b>\$114,646,377</b>	<b>\$14,571,435</b>	<b>\$12,336,069</b>	<b>\$26,907,503</b>	<b>\$141,553,881</b>

## 9.2 | Operations and Maintenance (O&M) Expenses

Pursuant to the Lease, the Company is required to prepare and submit to the Airport a proposed budget for the next Bond Year that indicates the projected expenditures from the O&M Fund (paid for by the FMC) and the Renewal and Replacement (R&R) Fund no later than November 1 of each year. The Company’s BY2025 budget of O&M Expenses (totaling approximately \$2.4 million) is displayed in Table 8.

Table 8 | BY2025 Budgeted O&M Expenses

	<b>BY 2025</b>
HVAC	\$ 47,136
Elevator/Escalator Maintenance	75,216
Facility Management	380,880
Fuel Maintenance	53,333
Custodial and Pest Control Services	377,867
Concrete Sealing/Crack Repair	80,000
Door/Keys/Locks Hardware, Maintenance and Repair	11,648
Lighting and Signage Supplies and Maintenance	22,950
Electrical Service	2,400
Snow Removal and Grounds Maint.	224,845
Tools and Supplies	24,000
Plumbing Repairs	16,800
Security, Fire and Life Safety	110,464
Painting and Wall Repair	30,000
Transition Plate	0
Miscellaneous Services	0
<b>Total Operating and Maintenance Expenses</b>	<b>\$1,457,539</b>
<b>Utilities</b>	
Electricity	\$ 155,000
Natural Gas	203,000
Water and Sewer	26,040
Trash/Recycling	58,400
<b>Total Utilities</b>	<b>\$442,440</b>
<b>General Expenses</b>	
Insurance	\$ 185,052
Asset Management	48,480
Senior Management	24,408
Management Fee	59,928
Professional Services	6,000
Accounting Services	36,612
Network/IT/Telephone/Internet	29,297
Office Expenses	6,000
<b>Total General Expenses</b>	<b>\$395,777</b>
<b>Contingency</b>	<b>\$ 60,000</b>
<b>Total Expenses</b>	<b>\$2,355,756</b>

### 9.3 | Recommended CFC and FMC Rates for BY2025

The CFC was increased to \$9.80 in BY2022 in order to collect a sufficient amount to cover the annual requirements and restore the balance in the Coverage Fund, which had been depleted to meet the financial requirements in BY2021. Airport management decided to apply CARES Act funds to the BY2022 financial requirements. As a result, effective April 1, 2021, the CFC was decreased to \$4.75.

At the beginning of BY2023, the CFC was increased to \$5.15 per transaction day, based on the analysis and recommendations presented in the BY2023 Rate Report. However, BY2023 CFC collections were lower than projected. In March 2023, approximately \$1.2 million was withdrawn from the Coverage Fund to meet financial obligations. Based on actual transaction days for the period from March 2, 2023 through October 31, 2023, and the projected transaction days for the remainder of BY2024, the Coverage Fund balance will not be restored in BY2024. As a result, it is assumed the minimum required balance in the Coverage Fund will be restored in BY2025. The suggested BY2025 CFC is set at a level to meet the debt service requirements and to reestablish the minimum required balance in the Coverage Fund.

Table 9 | Estimated Surplus in BY2024 CFC Collections

Funds Available for Debt Service as of 11/30/2023:	
11/30/2023 Balance in Revenue Fund	\$1,270,957
11/30/2023 Balance in Principal Account	2,104,357
11/30/2023 Balance in Interest Account	645,539
Total Funds Available as of 11/30/2023	\$4,020,853
Estimated Monthly CFC Deposits Available as of 2/28/2024	
November 2023 CFCs (deposited in October 2023)	\$304,000
December 2023 CFCs (deposited in January 2024)	\$306,000
January 2024 CFCs (deposited in February 2024)	\$256,000
Estimated CFC Deposits Prior to 2/28/2024	\$610,000
Total Estimated Funds Available as of 2/28/2024	\$4,630,853
3/1/2024 Debt Service Payment	
Principal	(\$2,962,128)
Interest	(1,072,429)
Total 3/1/2024 Debt Service Payment	(4,034,557)
Estimated Surplus/(Deficiency) to meet 3/1/2024 Debt Service Payment	\$596,296
Estimated Coverage Fund Withdrawal and Replenishment:	
Coverage Fund Balance as of 11/30/2023	\$976,695
Minus Anticipated Withdrawal to cover 3/1/2024 Debt Service Payment	\$0
Estimated Coverage Fund Balance after Withdrawal	\$976,695
Estimated Deposit to replenish Coverage Fund Balance	1,157,501
Required Coverage Fund Balance	\$2,134,196

The FMC level was \$2.40 in BY2023. For BY2024, it was initially decreased to \$2.00 and then increased to \$3.50 effective August 1, 2023. The FMC collections are estimated to be sufficient to cover the BY2024 financial requirements.

Table 10 presents the calculations of the recommended CFC and FMC rates for BY2025, using the Low, Base, and High forecasts of transaction days.

Table 10 | Calculation of Recommended BY2025 CFC and FMC Levels

	Transaction Day Forecast Scenarios		
	Low	Base	High
<b>Amount to be Recovered by CFC</b>			
Annual Debt Service <sup>1</sup>	\$5,301,468	\$5,301,468	\$5,301,468
Deposits to the Administrative Expense Fund	47,500	47,500	47,500
Deposits to the Renewal & Replacement Fund	(0)	(0)	(0)
Deposit to Coverage Fund <sup>2</sup>	1,157,501	1,157,501	1,157,501
Less: Interest Earnings on Amounts on Deposit	(49,978)	(49,978)	(49,978)
Net Amount to be Recovered	\$6,456,490	\$6,456,490	\$6,456,490
Forecasted Transaction Days	891,470	930,206	974,549
Calculated Minimum Required CFC	\$7.24	\$6.94	\$6.63
<b>Recommended CFC for BY2025</b>	<b>\$8.00</b>	<b>\$8.00</b>	<b>\$8.00</b>
Collections Based on Recommended CFC (BY2025)	\$7,131,758	\$7,441,650	\$7,796,389
Surplus (Shortage) of Available Funds from Prior BY	(\$475,283)	(\$429,925)	(\$385,707)
Surplus (Shortage) of Available Funds in Current BY	\$199,985	\$555,235	\$954,192
<b>Amount to be Recovered by FMC</b>			
Projected Deposits to Administrative Expense Fund <sup>3</sup>	2,167,530	2,167,530	2,167,530
Calculated Minimum Required FMC	\$2.43	\$2.33	\$2.22
<b>Recommended FMC for BY 2025</b>	<b>\$2.60</b>	<b>\$2.60</b>	<b>\$2.60</b>
<b>Combined Recommended CFC and FMC for BY2025</b>	<b>\$10.60</b>	<b>\$10.60</b>	<b>\$10.60</b>

<sup>1</sup> From Table 8.

<sup>2</sup> Amount required to restore the Coverage Fund to equal the Coverage Fund Requirement.

<sup>3</sup> Total of amounts projected to be required to be deposited into the O&M Fund during BY2025 to cover budgeted O&M Expenses and maintain the O&M Fund Required balance of \$462,000 (see Table 15).

Based on the Base transaction day forecast, our recommendations for BY2025 CFC and FMC rate adjustments are as follows:

- **We recommend increasing the CFC level to \$8.00 per transaction day for BY2025.** At \$8.00, assuming the Base transaction day forecast, BY2025 CFC collections are projected to total approximately \$7.4 million, which is anticipated to cover the BY2025 requirements pursuant to the Indenture and address the shortage of funds expected in BY2024.
- **We recommend decreasing the FMC to \$2.60 per transaction day for BY2025.** O&M Expenses are budgeted to equal approximately \$2.4 million in BY2025. It is estimated that

the O&M Fund Required balance of \$462,000 will be met in BY2024 (see Table 14). Under all transaction day forecast scenarios, the recommended FMC rate will be sufficient to meet the BY2025 financial requirements and to maintain the O&M Fund Required balance of \$462,000. Table 11, Table 12, and Table 13 present the projected BY2025 monthly transaction days, CFC collections, and FMC collections under the Low, Base, and High transaction day scenarios, respectively.

Table 11 | BY2025 Monthly Transaction Days, CFCs, and FMCs – Low Forecast

	Transaction		CFC		FMC
	Days	CFC Rate	Collections	FMC Rate	Collections
March 2024	55,478	\$8.00	\$443,822	\$2.60	\$144,242
April 2024	53,278	\$8.00	\$426,226	\$2.60	\$138,523
May 2024	80,747	\$8.00	\$645,977	\$2.60	\$209,942
June 2024	102,215	\$8.00	\$817,723	\$2.60	\$265,760
July 202	129,204	\$8.00	\$1,033,633	\$2.60	\$335,931
August 2024	134,886	\$8.00	\$1,079,091	\$2.60	\$350,705
September 2024	98,508	\$8.00	\$788,063	\$2.60	\$256,120
October 2024	61,626	\$8.00	\$493,009	\$2.60	\$160,228
November 2024	47,359	\$8.00	\$378,872	\$2.60	\$123,133
December 2024	46,946	\$8.00	\$375,568	\$2.60	\$122,060
January 2025	38,382	\$8.00	\$307,059	\$2.60	\$99,794
February 2025	42,839	\$8.00	\$342,715	\$2.60	\$111,382
<b>Totals</b>	<b>891,470</b>	<b>N/A</b>	<b>\$7,131,758</b>	<b>N/A</b>	<b>\$2,317,821</b>

Table 12 | BY2025 Monthly Transaction Days, CFCs, and FMCs – Base Forecast

	Transaction		CFC		FMC
	Days	CFC Rate	Collections	FMC Rate	Collections
March 2024	57,773	\$8.00	\$462,184	\$2.60	\$150,210
April 2024	55,491	\$8.00	\$443,932	\$2.60	\$144,278
May 2024	83,428	\$8.00	\$667,425	\$2.60	\$216,913
June 2024	105,913	\$8.00	\$847,306	\$2.60	\$275,375
July 202	133,378	\$8.00	\$1,067,025	\$2.60	\$346,783
August 2024	139,000	\$8.00	\$1,112,003	\$2.60	\$361,401
September 2024	102,326	\$8.00	\$818,605	\$2.60	\$266,047
October 2024	65,211	\$8.00	\$521,690	\$2.60	\$169,549
November 2024	50,685	\$8.00	\$405,480	\$2.60	\$131,781
December 2024	50,377	\$8.00	\$403,018	\$2.60	\$130,981
January 2025	41,093	\$8.00	\$328,743	\$2.60	\$106,841
February 2025	45,530	\$8.00	\$364,240	\$2.60	\$118,378
<b>Totals</b>	<b>930,206</b>	<b>N/A</b>	<b>\$7,441,650</b>	<b>N/A</b>	<b>\$2,418,536</b>

Table 13 | BY2025 Monthly Transaction Days, CFCs, and FMCs – High Forecast

	<b>Transaction Days</b>	<b>CFC Rate</b>	<b>CFC Collections</b>	<b>FMC Rate</b>	<b>FMC Collections</b>
March 2024	60,571	\$8.00	\$484,564	\$2.60	\$157,483
April 2024	58,179	\$8.00	\$465,433	\$2.60	\$151,266
May 2024	86,790	\$8.00	\$694,319	\$2.60	\$225,654
June 2024	110,392	\$8.00	\$883,137	\$2.60	\$287,019
July 202	138,494	\$8.00	\$1,107,950	\$2.60	\$360,084
August 2024	144,053	\$8.00	\$1,152,421	\$2.60	\$374,537
September 2024	106,833	\$8.00	\$854,664	\$2.60	\$277,766
October 2024	69,187	\$8.00	\$553,500	\$2.60	\$179,887
November 2024	54,377	\$8.00	\$435,019	\$2.60	\$141,381
December 2024	54,103	\$8.00	\$432,824	\$2.60	\$140,668
January 2025	41,782	\$8.00	\$334,256	\$2.60	\$108,633
February 2025	49,788	\$8.00	\$398,303	\$2.60	\$129,449
<b>Totals</b>	<b>974,549</b>	<b>N/A</b>	<b>\$7,796,389</b>	<b>N/A</b>	<b>\$2,533,827</b>

Table 14 shows the actual, projected, and estimated deposits, interest earnings, expenditures, and balances in the Administrative Expense Fund, the R&R Fund, the O&M Fund, and the Coverage Fund based on the O&M and R&R budgets. Per the Indenture, the R&R Fund is to be used to pay for capital improvements, repairs, and replacements to the Consolidated Facility and must maintain a balance of \$1 million. If the balance falls below \$1 million, the required \$1.0 million balance must be met within 18 months.

Table 14 | Funds Established Pursuant to the Trust Indenture

Description	Administrative Expense Fund	Renewal and Replacement Fund	Operation & Maintenance Fund	Coverage Fund
<b>BY2023</b>				
Beginning Balance	\$52,394	\$693,397	\$771,970	\$2,134,196
Estimated Deposits	43,436	0	1,981,089	0
Estimated Interest Earnings	577	11,820	14,401	0
Estimated Withdrawals <sup>1</sup>	(92,750)	0	(2,149,988)	0
Projected Balance as of March 1, 2023	\$3,657	\$705,218	\$617,471	\$2,134,196
<b>BY2024</b>				
Beginning Balance	\$3,657	\$705,218	\$617,471	\$2,134,196
Projected Deposits	105,336	261,385	2,370,271	0
Projected Interest Earnings	532	33,396	16,082	0
Projected Withdrawals <sup>1</sup>	(58,180)	0	(2,308,486)	(1,157,501)
Projected Balance as of March 1, 2024	\$51,345	\$999,999	\$695,338	\$976,695
<b>BY2025</b>				
Beginning Balance	\$51,345	\$999,999	\$695,338	\$976,695
Projected Deposits	47,500	(0)	2,167,530	1,157,501
Projected Interest Earnings	500	33,396	16,082	0
Projected Withdrawals <sup>1</sup>	(48,000)	0	(2,355,756)	0
Projected Balance as of March 1, 2025	\$51,345	\$1,033,395	\$523,194	\$2,134,196

<sup>1</sup> Estimated withdrawals from the O&M Fund for BY2024 and BY2025 assume O&M Expenses will equal the budgeted amounts for each year. The ending BY2025 balance in the O&M Fund is projected to equal the O&M Fund Required balance of \$462,000.

#### 9.4 | Application of CFC Revenues and Calculation of Debt Service Coverage

The application of revenues and the debt service coverage calculation are presented in Table 16. Revenues consist of (1) CFC collections and (2) the earnings on monies and investments in the Revenue Fund, the Bond Fund, the Issuance Fund, the Administrative Expense Fund, and the Coverage Fund. The amounts shown for BY2023 reflect actual amounts, and the amounts shown for BY2024 and BY2025 reflect estimated and projected amounts, respectively.

The Indenture requires that the CFC rate be set each Bond Year at a level estimated to be sufficient to fund the debt service requirements and other funding requirements set forth in the Indenture for that Bond Year. The debt service coverage ratio was 1.36 in BY2023. The debt service coverage is projected to equal 1.19 in BY2024 because of the withdrawal from the Coverage Fund in BY2023. In BY2025, the debt service coverage is projected to increase to 1.82 with the replenishment of the Coverage Fund.

Table 15 | Application of CFC Revenues and Debt Service Coverage

	Actual 2023	Projected 2024 <sup>3</sup>	Projected 2025
<b>Revenues<sup>1</sup></b>			
CFC Collections	\$4,333,088	\$5,304,953	\$7,441,650
Interest Earnings <sup>2</sup>	26,799	50,010	49,978
Total Revenues	\$4,359,886	\$5,354,963	\$7,491,629
<b>Application of Revenues</b>			
Deposits to Bond Fund:			
Interest Account	\$3,659,081	\$3,603,896	\$3,550,551
Principal Account	1,127,614	1,696,437	1,750,917
Total Deposits to Bond Fund	\$4,786,695	\$5,300,333	\$5,301,468
Deposits to Administrative Expense Fund	\$43,436	\$105,336	\$47,500
Deposits to Renewal and Replacement Fund	0	261,385	(0)
Deposits to Coverage Fund	0	0	1,157,501
Increase (Decrease) in Excess CFCs in Revenue Fund	(470,244)	(312,091)	985,160
Total Application of Revenues	\$4,359,886	\$5,354,963	\$7,491,629
<b>Debt Service Coverage</b>			
Total Revenues	\$4,359,886	\$5,354,963	\$7,491,629
Balance in Coverage Fund	2,134,196	976,695	2,134,196
Total for Calculation	\$6,494,082	\$6,331,658	\$9,625,824
Annual Debt Service Requirement	\$4,786,695	\$5,300,333	\$5,301,468
<b>Debt Service Coverage Ratio</b>	<b>1.36</b>	<b>1.19</b>	<b>1.82</b>

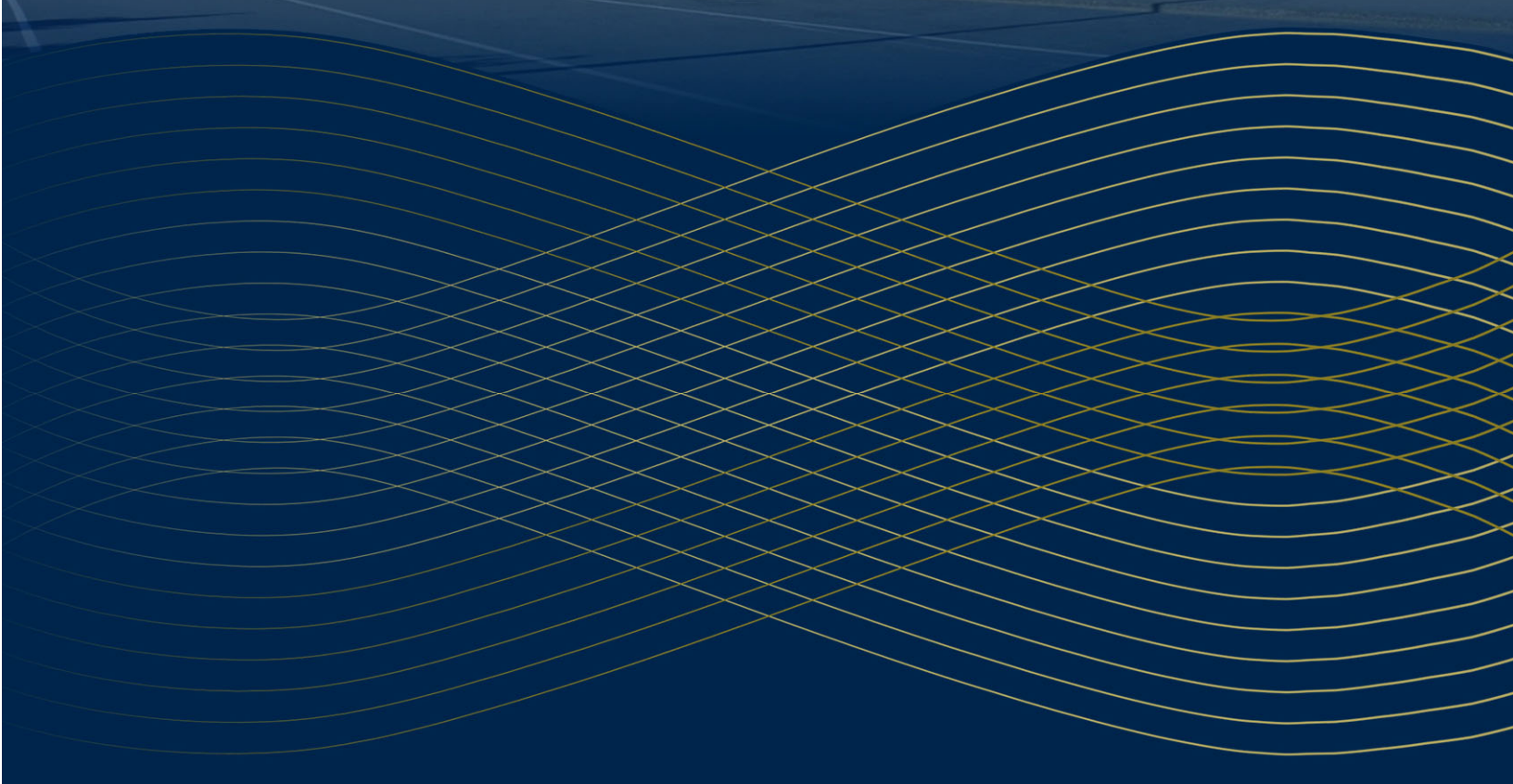
<sup>1</sup> FMC collections are not included in Revenues under the Indenture because they are not pledged for the payment of debt service on the Bonds.

<sup>2</sup> Interest from the Revenue Fund, Bond Fund, Issuance Fund, Administrative Expense Fund, and Coverage Fund is included.

<sup>3</sup> Projected based on eight months of actual fund data and actual CFC collection data.

## 9.5 | Recommendations

For BY2025, we recommend an increase in the CFC rate to \$8.00 and a decrease in the FMC rate to \$2.60, effective March 2, 2024. This will result in an increase in the combined CFC and FMC rate to \$10.60. These recommendations are based on the information available as of the date of this Report. We recommend that the CFC and FMC collections be monitored monthly because the business environment is continually changing.



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