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Aviation Activity Forecasts

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Chapter 6

Aviation Activity Forecasts

Forecasting aviation activity across the state of Florida is crucial for understanding the potential strains and demands that the Florida Aviation System may face in the future. The forecasts referred to in this chapter will be used to address future functionality of the airport system in the state and to ensure that every airport can serve appropriately in their role. The Florida Department of Transportation’s (FDOT) seven regional districts will use these projections to assess the need for development of aviation facilities that service general and commercial aviation activity. These forecasts include 106 airports that are both publicly owned and available for public use. This group of airports is generally recognized as the Florida Aviation System of Airports.

The multiple, Florida systemwide forecasts developed address aircraft operations, enplanements, and based aircraft for both commercial service and general aviation airports.

6.1 Forecast Methodologies

The forecasts evaluate historical growth and trends using several methodologies: trend analysis, regression analysis, and market share analysis. Trendline analysis employs historical growth trends in activity and applies them to current demand levels to produce projections of future aviation activity.

The socioeconomic factors play a vital role and have a direct impact on the long-term passenger and operational demand on Florida’s aviation system. In general, there is a correlation among areas of greater populations, employment, personal income per capita, and a strong aviation service demand. Specifically, these key socioeconomic indicators or drivers tend to have an influence on passenger enplanements and their future projections.

Market share analysis was conducted to project future aviation activity by comparing it to a higher-level forecast. In this case, the Southern Region Federal Aviation Administration (FAA) Terminal Area Forecast (TAF) serves as the basis of comparison for the Florida aviation system. The Southern Region of the FAA includes Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, Tennessee, South Carolina, Puerto Rico, and the U.S. Virgin Islands.

Figure 6-1. FAA Southern Region



Source: Federal Aviation Administration website, 2023

6.2 Recommended Forecast Scenarios

Figures 6-1 to 6-4 compare the forecasts. Tables 6-1 to 6-4 provide the forecast scenario data results for the years 2023, 2028, 2033, and 2043. In addition, tables present the Compound Annual Growth Rate (CAGR) for the 20-year period for each of the forecast scenarios. The recommended forecast scenario is highlighted for each forecast and is described in further detail on the following pages.

6.2.1 Based Aircraft

The recommended based aircraft forecast is the socioeconomic-population scenario. It yields the most aggressive growth rate when compared to the alternative forecast scenarios. Likewise, there has been a strong correlation between based aircraft and population over the past ten years. The socioeconomic-population forecast scenario for based aircraft results in a CAGR of 1.2 percent annually over the course of the forecast period. Figure 6-2 and Table 6-1 highlight the recommended forecast and compare it to the other forecast scenarios.

Figure 6-2. Statewide Based Aircraft Forecast Scenarios

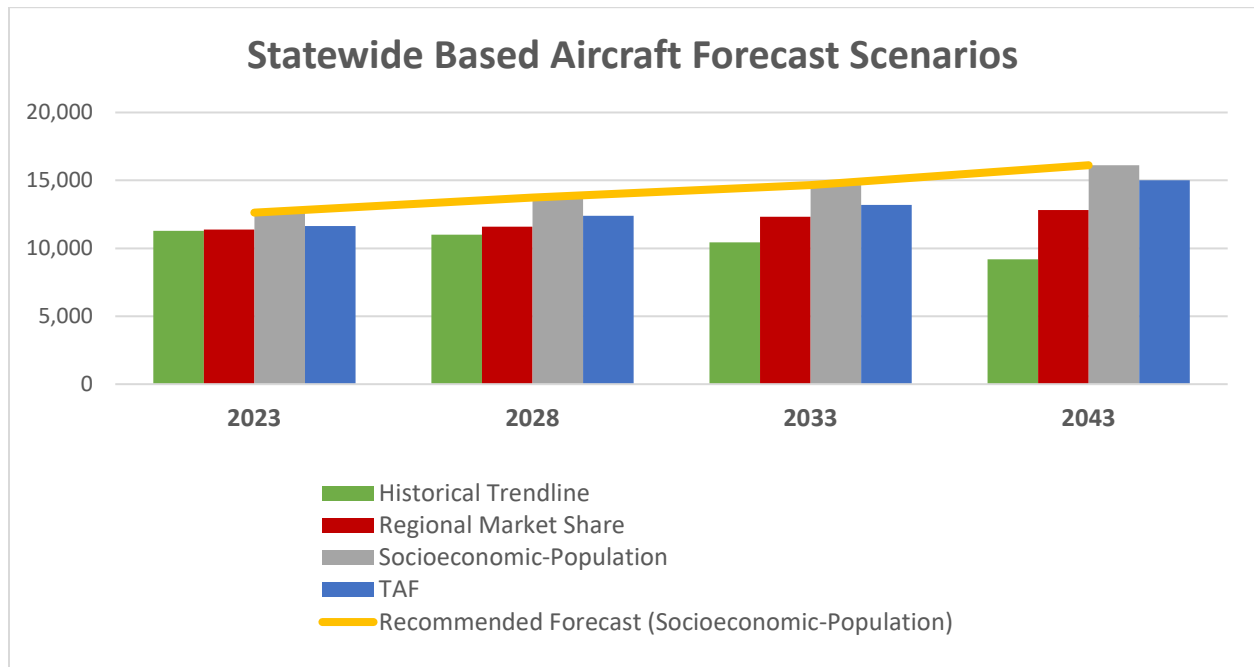


Table 6-1. Statewide Based Aircraft Forecast Scenarios

	Forecast Scenarios	2023	2028	2033	2043	CAGR
Based Aircraft	Historical Trendline	11,287	11,007	10,438	9,193	-1.0%
	Regional Market Share	11,385	11,594	12,313	12,819	0.6%
	Socioeconomic-Population	12,629	13,748	14,656	16,118	1.2%
	TAF	11,635	12,392	13,197	15,017	1.3%

6.2.2 General Aviation (GA) Operations

The historical trendline forecast is the recommended forecast for GA operations. It is the most aggressive forecast of the four scenarios presented but represents consistent growth in GA operations within the state of Florida over the past decade. This recommended forecast results in a CAGR of 1.0 percent annually over the 20-year forecast period. **Figure 6-3** and **Table 6-2** provide a comparative display of the GA operations forecast.

Figure 6-3. Statewide GA Operations Forecast Scenarios

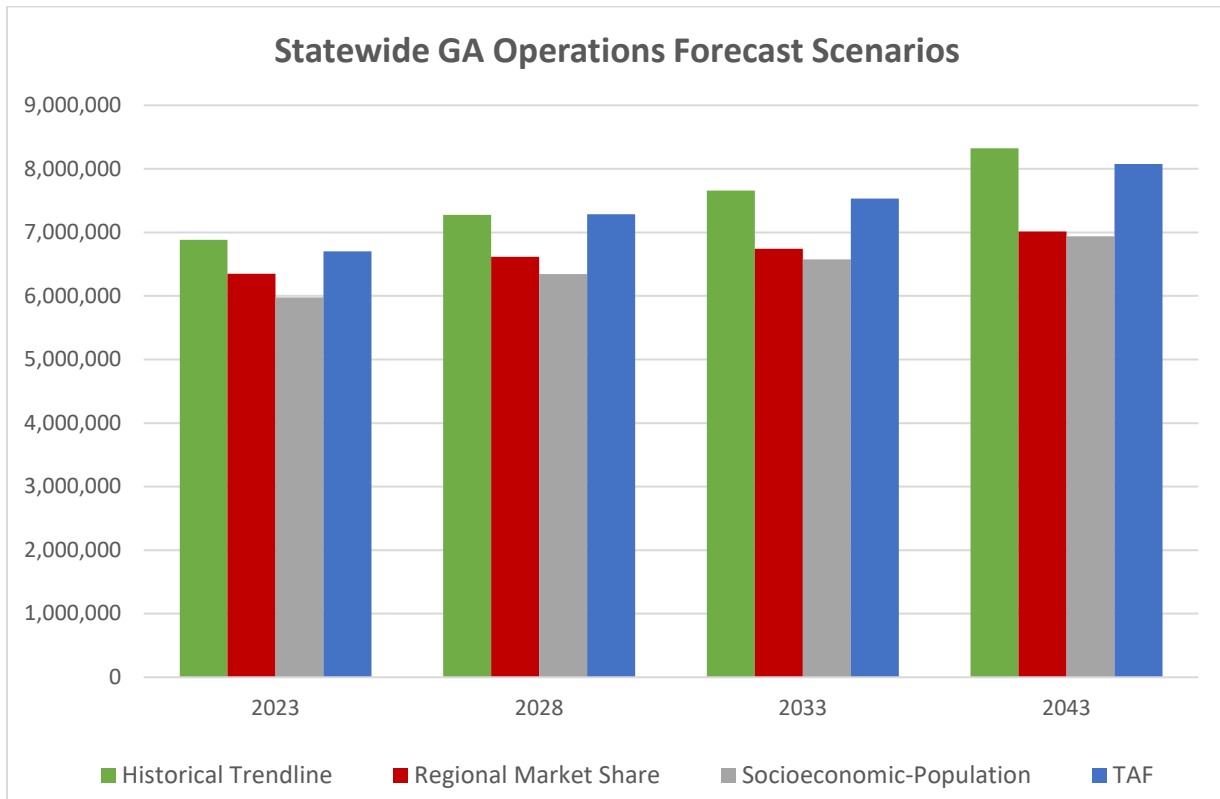


Table 6-2. Statewide GA Operations Forecast Scenarios

GA Operations	Forecast Scenarios	2023	2028	2033	2043	CAGR
	Historical Trendline	6,884,315	7,277,803	7,658,240	8,322,191	1.0%
	Regional Market Share	6,349,310	6,617,576	6,741,660	7,015,799	0.5%
	Socioeconomic-Population	5,979,445	6,344,369	6,573,862	6,937,903	0.8%
	TAF	6,704,703	7,286,087	7,531,358	8,078,515	0.9%

6.2.3 Commercial/Air Taxi Operations

Out of the six forecast scenarios presented for the commercial/air taxi operations forecast, the socioeconomic-employment based forecast is the recommended forecast. The correlation between employment and commercial/air taxi operations is 0.93, providing a high-level of confidence in this recommendation. This forecast does not yield the highest or the lowest annual growth rate but is moderate with a CAGR of 2.3 percent. **Figure 6-4** and **Table 6-3** present enplanement forecast scenarios and the resultant recommended commercial/air taxi operations forecast.

Figure 6-4. Statewide Commercial/Air Taxi Operations Forecast Scenarios

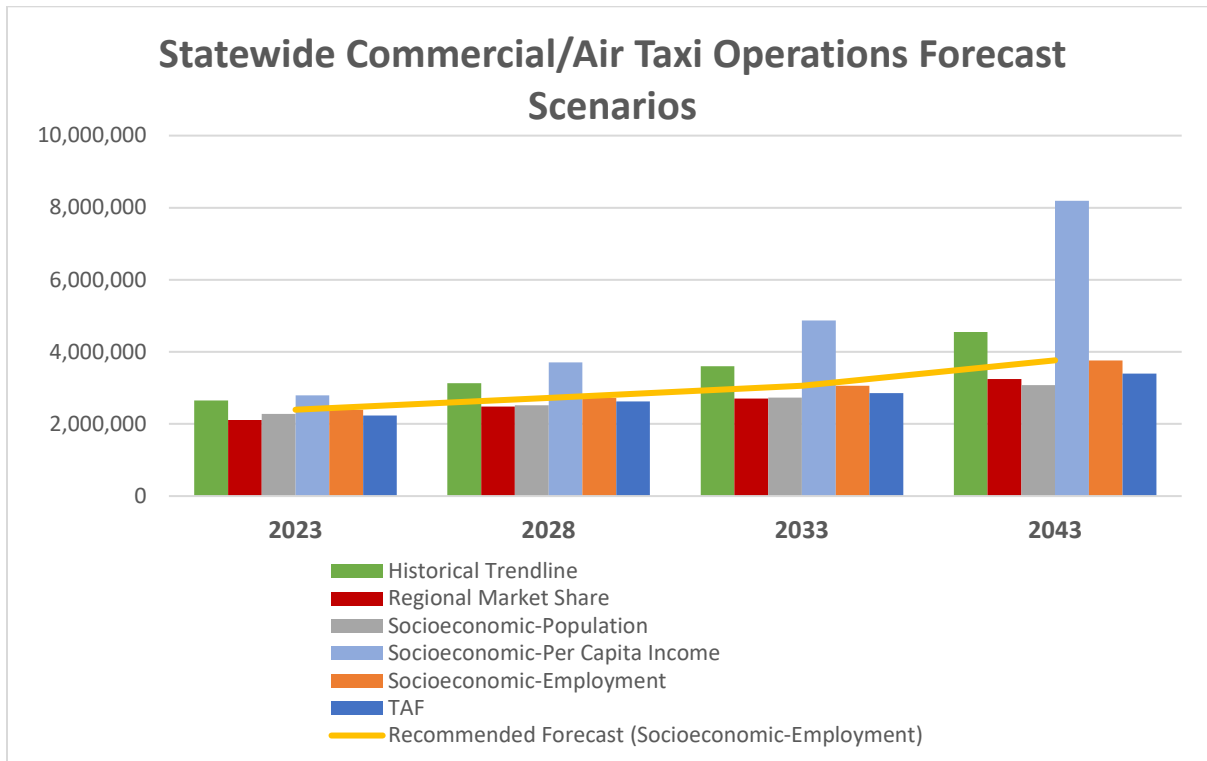


Table 6-3. Statewide Commercial/Air Taxi Operations Forecast Scenarios

Commercial/Air Taxi Ops	Forecast Scenarios	2023	2028	2033	2043	CAGR
	Historical Trendline	2,654,246	3,128,836	3,603,498	4,553,028	2.73%
	Regional Market Share	2,108,798	2,484,125	2,709,540	3,248,654	2.18%
	Socioeconomic-Population	2,276,900	2,519,084	2,734,501	3,080,662	1.52%
	Socioeconomic-Per Capita Income	2,797,274	3,707,910	4,873,159	8,195,982	5.52%
	Socioeconomic-Employment	2,396,624	2,726,598	3,063,478	3,766,544	2.29%
	TAF	2,233,413	2,622,319	2,859,028	3,399,001	2.12%

6.2.4 Enplanements

Like commercial/air taxi operations forecast, six forecast scenarios are also presented for enplanements. Regional market share forecast for enplanements is the recommended enplanement forecast for the 2043 FASP. Since 2012, enplanements have consistently represented more than 40 percent of the market share in the Southern Region. The market share forecast predicts that enplanements are going to grow to exceed 166 million in the State of Florida by 2043, yielding a CAGR of 2.6 percent. **Figure 6-5** and **Table 6-4** present enplanement forecast scenarios and the resultant recommended forecast.

Figure 6-5. Statewide Enplanement Scenarios

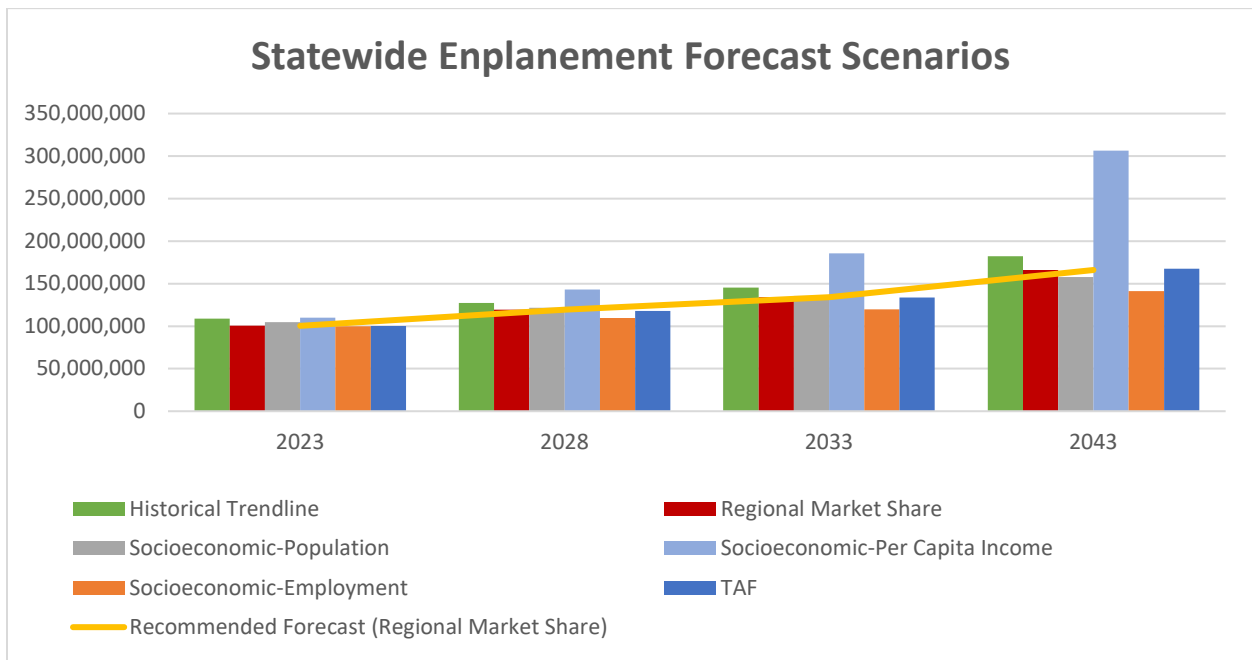


Table 6-4. Statewide Enplanement Forecast Scenarios

	Forecast Scenarios	2023	2028	2033	2043	CAGR
Enplanements	Historical Trendline	108,884,896	127,191,602	145,498,308	182,111,721	2.6%
	Regional Market Share	100,414,423	119,467,756	133,898,928	166,052,220	2.6%
	Socioeconomic-Population	104,583,708	121,480,137	135,398,253	157,801,735	2.1%
	Socioeconomic-Per Capita Income	109,884,343	143,080,522	185,521,657	306,343,412	5.3%
	Socioeconomic-Employment	99,899,614	109,809,045	119,854,715	141,138,221	1.7%
	TAF	100,394,115	118,069,071	133,517,517	167,574,724	2.6%

6.3 Forecast Summary

Table 6-5 presents the forecast summary for aviation activity in the State of Florida through 2043. The full analysis of system forecasts can be found within **Appendix D – Aviation Activity Forecasts**.

Table 6-5. FASP 2043 Forecast Summary

Aviation Activity	2023	2028	2033	2043	CAGR
Based Aircraft	12,629	13,748	14,656	16,118	1.2%
GA Operations	6,884,315	7,277,803	7,658,240	8,322,191	1.0%
Commercial/Air Taxi Operations	2,396,624	2,726,598	3,063,478	3,766,544	2.3%
Enplanements	100,414,423	119,467,756	133,898,928	166,052,220	2.6%