Chapter 7. Aviation Activity Forecasts

7.1. Introduction

The purpose of forecasting aviation activity at a statewide level in Illinois is to provide IDOT with valuable insight related to aviation demand in the near- and long-term future. The IASP includes forecast analyses for enplanements, general aviation (GA) operations, commercial service operations, and based aircraft activity for the 85 system airports. A variety of methodologies are used to project future activity levels in Illinois and each forecast is evaluated closely to determine a preferred forecast methodology. Each activity forecast documented in this chapter was developed under the assumption that the Illinois aviation system will perform in an unconstrained environment through the 20-year planning horizon. It should be noted that forecasts developed through the IASP are not used to justify future funding, rather, they provide IDOT with a general estimate of what activity could look like in the future to help guide decisions. Forecasts are developed to justify future facility needs and should be evaluated at the individual airport level through the airport master plan process.

This chapter highlights various national trends that could affect future aviation demand, as well as the methodologies evaluated to forecast aviation activity in the state over the 20-year planning period. The following sections document the results of the analysis:

- Industry Trends
- Activity Forecasts
- Summary of Forecasts
- Terminal Area Forecast (TAF) Comparison
- Summary

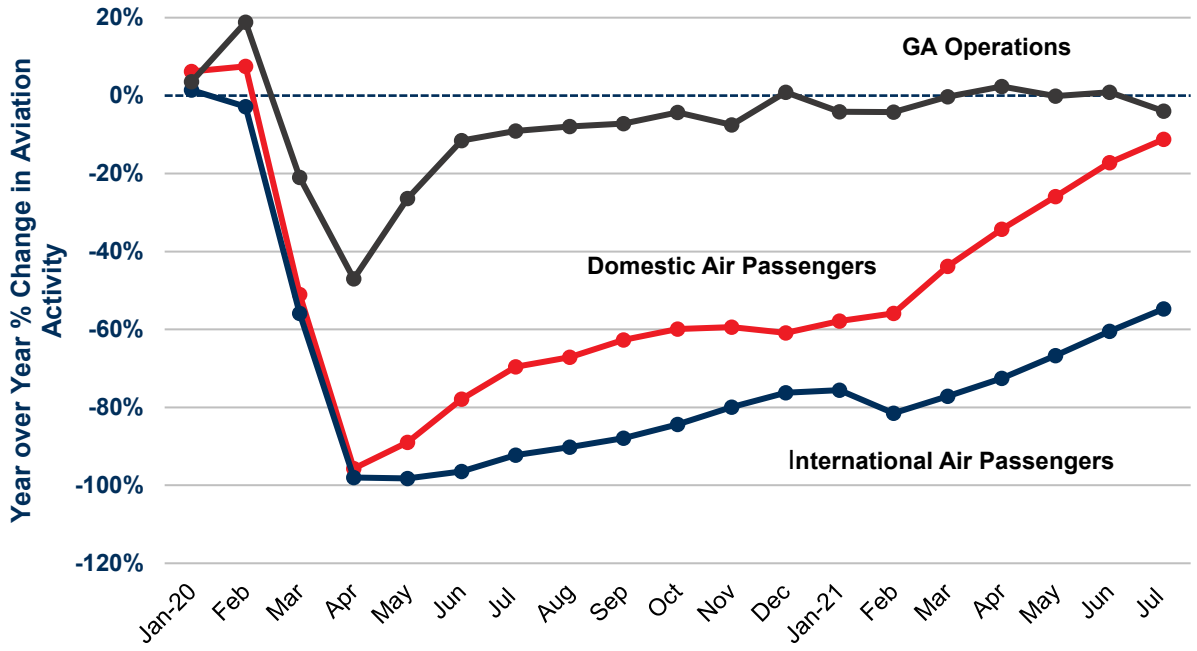
7.2. Industry Trends

Before projecting future activity in the state, it is helpful to understand the anticipated direction of the aviation industry during the forecast horizon. This section focuses on three main trends affecting the aviation industry: COVID-19, Emerging Technologies, and Socioeconomic Trends. This section highlights some of the anticipated changes that could impact the use and demand for airport facilities and infrastructure over the next 20 years.

7.2.1. COVID-19

In March 2020, commercial aviation was significantly impacted as lockdowns, stay-at-home orders, business closures and other restrictions drastically curtailed travel and commerce. **Figure 7.1** shows the impact of COVID-19 on the number of U.S. enplaned air passengers and GA operations. After initial declines, GA operations were resilient, with a near return or above pre-pandemic levels starting in December 2020. In terms of passengers, domestic passengers have experienced a stronger recovery compared to international passengers after both experiencing similar declines in April 2020. In the second half of 2020, it has been noted that the leisure segment of domestic air travel experienced a sharp recovery to 2019 levels. Despite the pandemic, many leisure travelers began to take trips to vacation destinations. This lower-yielding segment of air passengers accounts for a high proportion of current demand.

Figure 7.1. Commercial Aviation Activity Compared to 2019

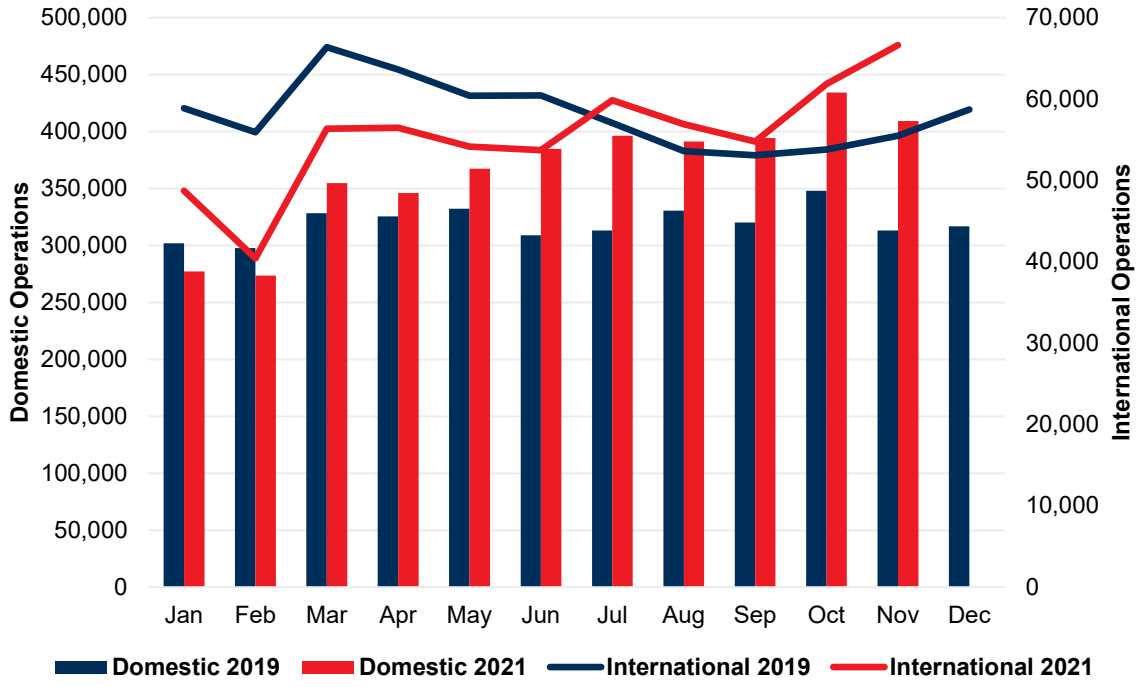


Sources: U.S. Bureau of Transportation Statistics; TransStats data on international and domestic segment passengers, all carrier types; FAA's Air Traffic Activity System (ATADS)

There may not be a full recovery for business travel on commercial airlines to 2019 levels; some companies have remained in remote operations and have cut back on trips between their own offices and facilities, relying instead on teleconferencing for regular meetings, leadership discussions, and professional training. Internal business travel makes up approximately 40 percent of corporate travel and it is not likely to resume quickly. External business travel is more likely to increase in response to rising economic activity. International travel restrictions continue to suppress demand in these markets.

While a significant portion of business travel during the pandemic was replaced by remote work and teleconferencing, especially travel on commercial airlines, the data suggests that some of this business travel migrated to private business jets as **Figure 7.2** indicates. It is not yet known whether preferences for use of private aircraft will persist as the pandemic moderates and business travel resumes.

Figure 7.2. Monthly Business Jet Operations, 2019 and 2021 Compared



Source: Enhanced Traffic Management System Counts (ETMSC)
Note: International flights include US to Foreign, Foreign to US, and all foreign operations.

7.2.2. Emerging Technologies

The airport business model is dependent on traditional sources of revenue including parking, ground transportation, and rental cars on the landside; landing fees based on the weight of aircraft, fuel taxes, leases, and fuel flowage fees on the airside. Each of these functional areas may be challenged by disruptive technologies that are likely to alter land use, operations, and revenue streams at Illinois airports. The recent experience with ridesharing companies, such as Uber and Lyft, are a prelude to some of the challenges airports will face in the next two decades in terms of how to accommodate changes to ground access, adoption of driverless vehicles by individuals, expansion of electric cars and other vehicles, including aircraft, rental car companies and ridesharing, and use of alternative fuels for aircraft. In this section these emerging technologies are highlighted as they may radically alter demand for parking garages, consolidated rental car facilities, electricity and charging stations, ground access, terminal buildings, and management of airspace as use of advanced air mobility (AAM) vehicles emerge. Furthermore, airport sponsors may need to re-evaluate and adjust rates and fee schedules to address the new ways airports are used and to fund future maintenance and capital projects.

7.2.2.1. Unmanned Aircraft Systems (UAS)

UAS technology is already widely used in a variety of applications, including search and rescue; aerial surveying; firefighting; photography; inspections of pipelines, powerlines, and wildlife; real estate tours, sporting events; recreational flying; and military reconnaissance and operations. UAS comes in a variety of sizes from 20 to 1,000 pounds. Wide adoption of UAS for commercial, government, and personal use presents challenges for airspace controls as many, if not most, small UAS devices land and takeoff from non-airport locations and are likely to share congested airspace near airports.

UAS that weight less than 55 pounds fall under the Federal Aviation Administration's (FAA's) Part 107 Small UAS regulations. Small UAS can operate without air traffic control (ATC) permissions in Class G airspace, but prior ATC authorization is required for operations in Class B, C, D, and E airspace. Small UAS typically fly below 3,500 feet. Larger UAS can fly at 18,000 feet or higher. These devices can and do operate from airports and may eventually be used to transport passengers and cargo. UAS have the potential to impact airports as they may require the use of airport facilities to operate in nearby airspace.

7.2.2.2. Autonomous Vehicles

Today, the largest non-aeronautical revenues at an airport are typically parking and rental cars. Demand for parking depends on air passengers who drive to the airport and park. A system of on-demand driverless vehicles that pick up and drop off air passengers could reduce the need for personal parking at airports. A fleet of driverless rental cars do not need to be stationed necessarily on prime airport property. The rental car process might involve use of a digital application that manages requests, contracts, payment, and dispatch. In addition to driverless rental cars, car sharing and peer-to-peer marketplace rental car options will affect rental car revenues at airports and airport curb management needs for drop-offs and pick-ups.

Driverless vehicles may replace short-haul air travel, previously provided by airlines. Some air travelers might opt to take a driverless vehicle from their home to a final destination and altogether skip ground access to the airport, a potential connecting flight, and surface transportation to the final destination.

In other ways, autonomous electric vehicles could support and replace baggage and cargo handling carts or other ground transportation services, such as airport parking shuttles and operation of passenger transport carts within terminals.

Airport sponsors own a considerable amount of valuable real estate devoted to parking, rental cars, and ground access. These facilities are typically planned within a 20-year cycle. However, due to the rapid advancement of technology, there is a need for flexibility in the design of airport facilities so that they can be more easily reconfigured, redeveloped, and/or repurposed.

7.2.2.3. Alternative Fuels, Including Electric Aircraft

The aviation industry has been focused for over a decade on development of alternative fuels (including electrification) to reduce aircraft emissions and achieve sustainability goals. The approval and use of sustainable aviation fuel (SAF) remains under development and in testing by some airlines. SAF will reduce reliance on Jet A fuel for turbine aircraft long-term, but for the immediate future, airlines are experimenting with dual systems on some aircraft.

For GA, the FAA in July 2021 approved an unleaded fuel for piston aircraft (G100UL). This new fuel is considered a 'drop-in' fuel, which means that a separate fueling system is not needed for piston aircraft. Illinois has an estimated 3,690 based aircraft (2020), many of which are powered by 100 low-lead (100LL) fuel. As supplies of G100UL become more available, fixed base operators (FBOs) and self-service fueling stations will convert to the new fuel.

As new fuel and propulsion technologies, such as sustainable aviation fuel (SAF), hydrogen, and electricity come online, airports will need to construct the infrastructure necessary to support these alternative fuels for aircraft, cars, busses, and other modes of travel that will rely on alternative fuel and charging sources.

7.2.3. Socioeconomic Trends

There are strong relationships between demand for aviation, the size of an individual air service market, and prevailing economic conditions. This section examines trends in population, employment, and Per Capita Personal Income (PCPI) in Illinois, including by district and region, that are used in preparation of the IASP forecasts.

7.2.3.1. Illinois Districts and Regions

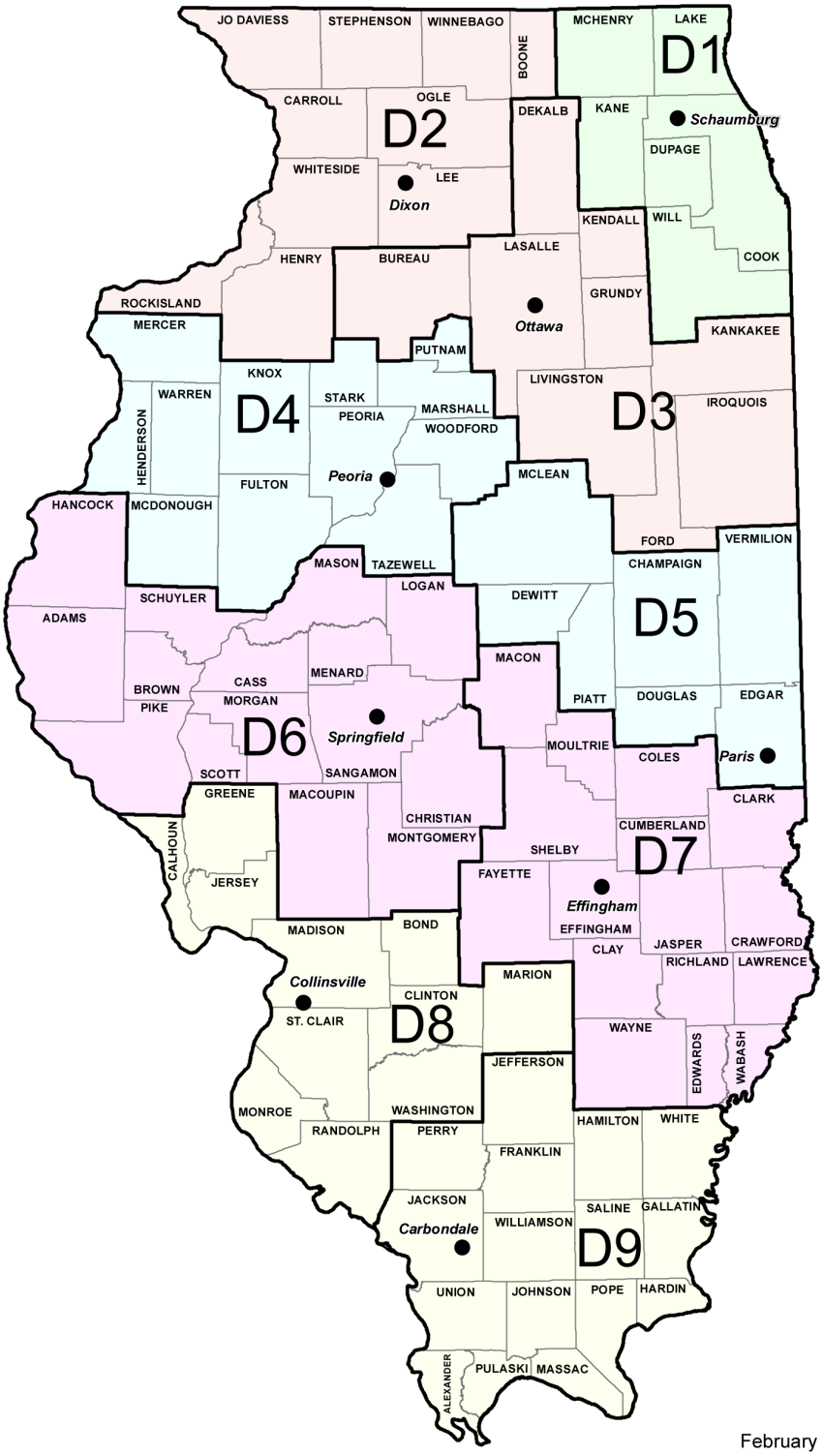
IDOT has divided the state into nine districts and five regions. Individual districts are a subset of the state's five regions. **Table 7.1** describes the regions and their associated 2019 population levels. Region 1 in the northeast corner of the state encompasses the Chicago O'Hare International (ORD) and Chicago Midway International (MDW) airports and contains 65.5 percent of total Illinois population or 8.6 million people. Region 2 is the second largest, but much smaller than the Chicago metropolitan area with 1.4 million people and two commercial airports—Chicago Rockford International (RFD) and Quad City International (MLI). Bloomington, Peoria, and Champaign/Urbana support three commercial service airports in Region 3. Region 4 encompasses the cities of Decatur, Quincy, and Springfield. It has the largest land area and the smallest population at 929,393 in 2019. Region 5 contains the cities of Belleville and Marion, each with a commercial service airport. MidAmerica St. Louis (BLV) is located in Belleville and Veterans Airport of Southern Illinois (MWA) is located in Marion. **Figure 7.3** shows the IDOT Districts and Regions and the counties contained in each.

Table 7.1. Population by IDOT Region

Region	IDOT Districts	2019 Population	% Share of Total Population	Associated Cities
1	1	8,623,356	65.5%	Chicago
2	2 and 3	1,415,654	10.8%	Chicago/Rockford, Moline
3	4 and 5	1,094,270	8.3%	Bloomington/Normal, Champaign/Urbana, Peoria
4	6 and 7	929,393	7.1%	Decatur, Quincy, Springfield
5	8 and 9	1,105,031	8.4%	Belleville, Marion
	Total	**13,167,704**	**100.0%**	

Sources: Woods and Poole Economics Inc., Illinois Department of Transportation, Office of Planning and Programming

Figure 7.3. IDOT Districts and Regions



February 2017

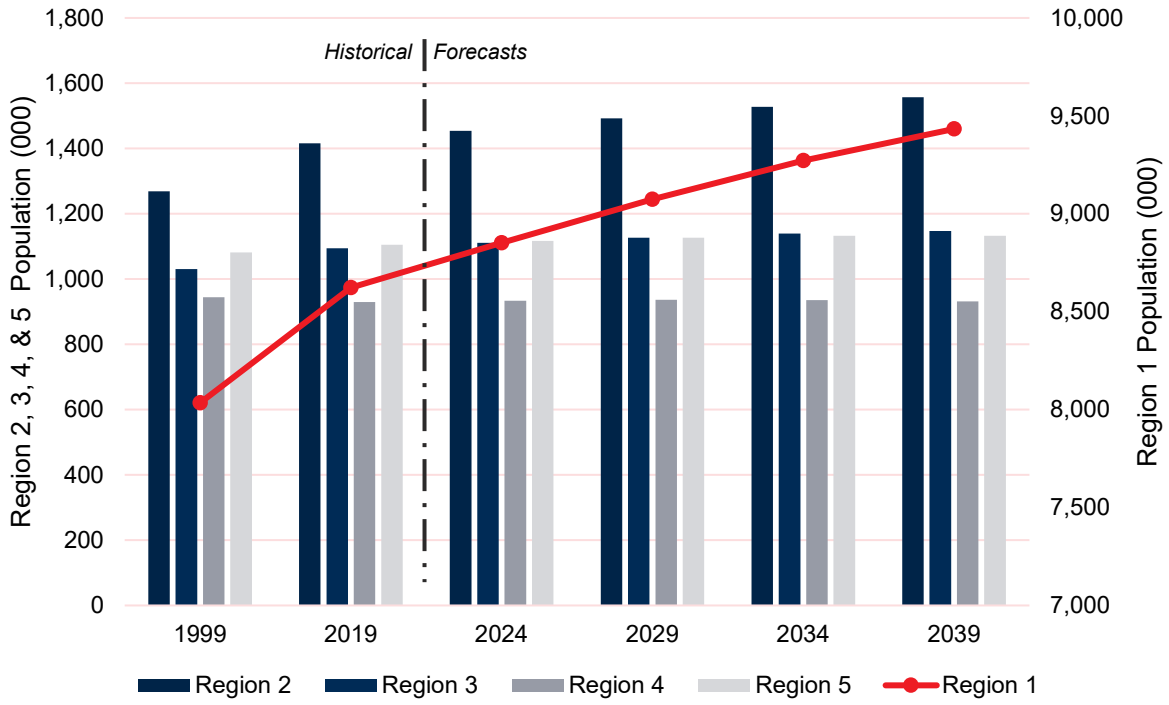
Source: IDOT

7.2.3.2. Population Trends

Population is an indicator of local market size, growth trends and market potential. In 2019, the state of Illinois had an estimated population of 13.2 million. **Figure 7.4** and **Table 7.2** present historical and projected population growth in each IDOT region. Overall, the State of Illinois has grown at an average annual rate of 0.32 percent during the 20-year period 1999 to 2019. During the same period, population in the entire U.S. grew much more rapidly at an average annual rate of 0.90 percent. Population growth in Illinois is expected to increase at a slightly higher rate over the forecast period than in the prior 20 years in Illinois.

Not all IDOT regions have or are expected to grow at the same rate. Region 2 was the fastest growing area during the last 20 years. Region 4 experienced a decline in population. Northern and northeast Illinois are projected to be the fastest growing areas (Regions 1 and 2) during the forecast period of 2019-2039. However, even in those regions, the U.S. is expected to grow in population at a rate double that of northern Illinois. At the end of the forecast period, total Illinois population is estimated at 14.2 million, up from 13.2 million in 2019.

Figure 7.4. Population Growth and Forecasts by IDOT Region (in thousands)



Source: Woods and Poole Economics Inc.

Table 7.2. Population Growth and Forecasts by IDOT Region

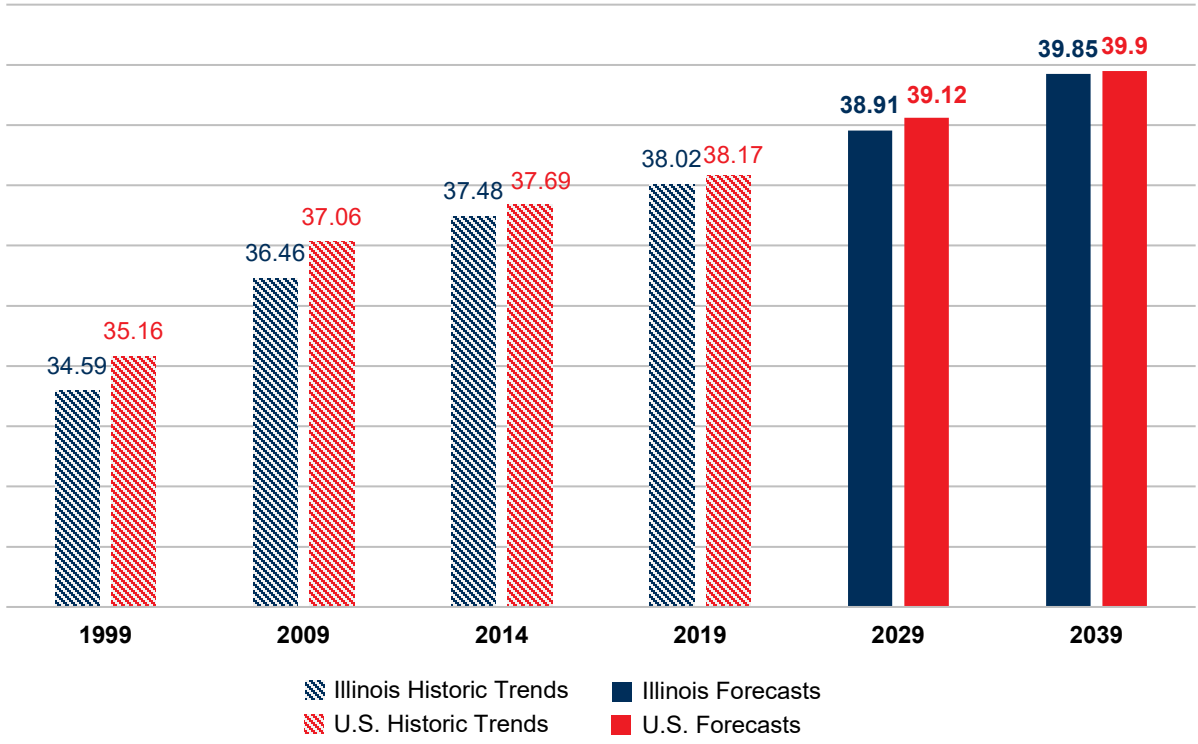
Region	Population						CAGR			
	Historical Trends		Forecast Years				Historical Trends	Forecast Years		
	1999	2019	2024	2029	2034	2039	1999-2019	2019-2024	2019-2029	2019-2039
Region 1	8,034,547	8,623,356	8,851,342	9,073,676	9,272,151	9,433,045	0.35%	0.52%	0.51%	0.45%
Region 2	1,268,511	1,415,654	1,454,041	1,492,237	1527,362	1,557,246	0.55%	0.54%	0.53%	0.48%
Region 3	1,030,227	1,094,270	1,111,269	1127,064	1139,446	1,146,850	0.30%	0.31%	0.30%	0.23%
Region 4	944,327	929,393	933,485	936,249	935,910	931,286	-0.08%	0.09%	0.07%	0.01%
Region 5	1,081,408	1,105,031	1,116,658	1126,422	1132,127	1,132,274	0.11%	0.21%	0.19%	0.12%
Illinois	12,359,020	13,167,704	13,466,795	13,755,648	14,006,996	14,200,701	0.32%	0.45%	0.44%	0.38%
U.S.	279,040,168	333,598,080	349,344,326	365,567,728	381,547,625	396,688,138	0.90%	0.93%	0.92%	0.87%

Source: Woods and Poole Economics Inc.

7.2.3.3. Age Trends

Figure 7.5 shows the median age of Illinois residents and the U.S. population as a whole. Twenty years ago, the Illinois median age was younger than the rest of the U.S. Over time, the median age of Illinois residents has increased and approached national averages. By the end of the forecast period, the median age of residents in Illinois is virtually identical to that of the U.S. as a whole.

Figure 7.5. Median Age of Illinois and U.S. Population



Source: Woods and Poole Economics Inc.

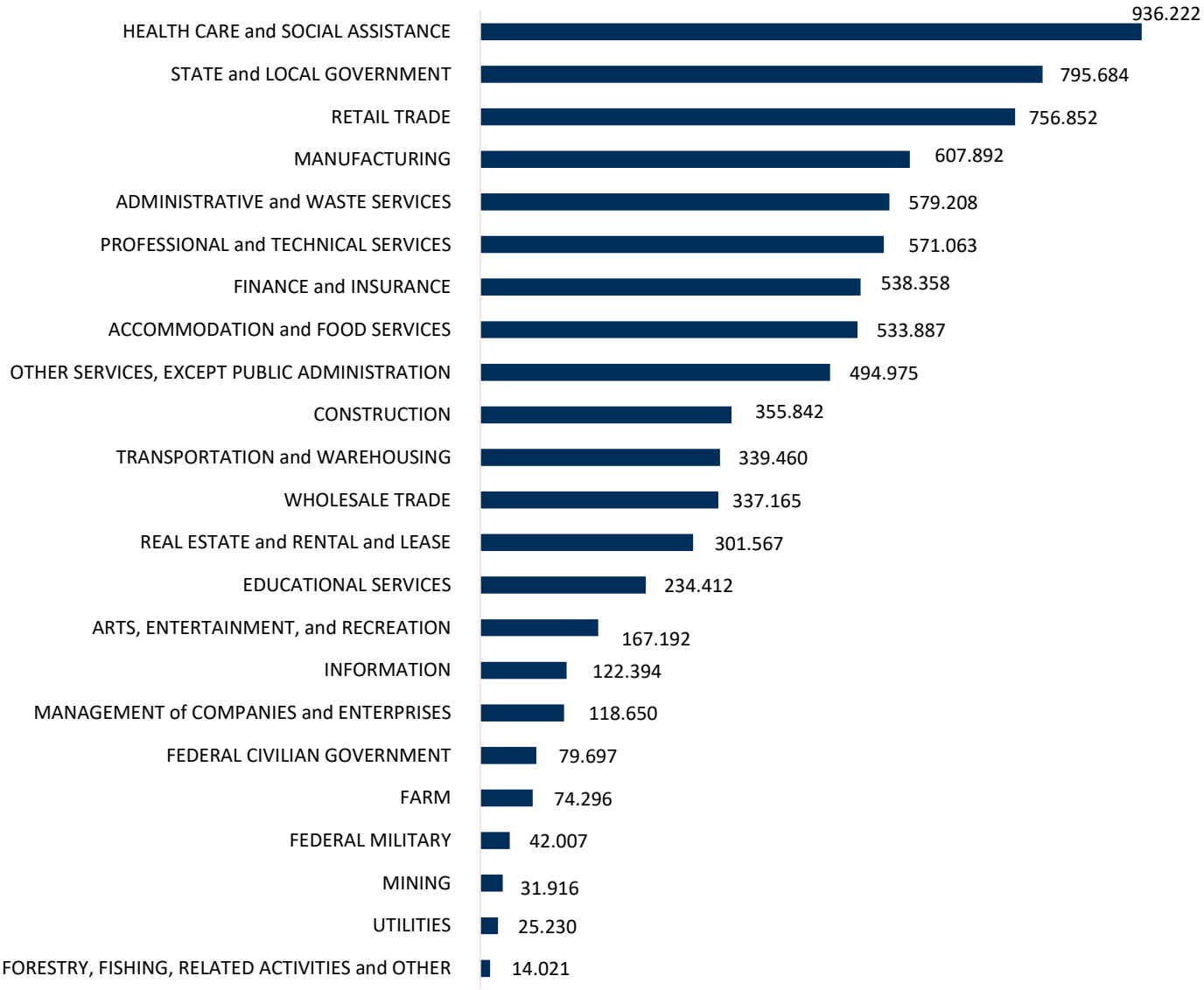
7.2.3.4. Employment Trends

Within Illinois, Region 1 is expected to increase jobs faster than other parts of the state. Overall, jobs in Illinois are forecast to grow by 1.5 million over the forecast period from 8 million jobs to 9.5 million, even though the population is forecasted to growth by one million. By 2039, Region 1 will support 6.8 million of the 9.5 million jobs in the state

Figure 7.6 presents a profile of Illinois employment by industry for 2019. Health care and social assistance, state and local government, and retail trade are the largest industries in the state. Health care represents 11.6 percent of all jobs; state and local government, 9.9 percent; and retail trade, 9.4 percent. This top-ranking distribution of jobs by industry closely parallels the U.S. and accounts for 31 percent of all jobs in the state. Manufacturing is the fourth largest industry in Illinois supporting 7.5 percent of Illinois jobs. Manufacturing employment has a larger share of local jobs in Illinois than the U.S. where manufacturing jobs represent 6.6 percent of all employment. The Illinois economy also supports a higher concentration of jobs in finance and insurance, as well as transportation and warehousing than national averages. **Table 7.3** presents a comparison of employment for all sectors of the economy in Illinois and the U.S.

The Chicago area, Region 1, supports almost 70 percent of all jobs in the state. The other regions support between seven and nine percent of the remaining 30 percent of jobs. **Figure 7.7** and **Table 7.4** show historical employment by region from 1999 to 2019 and projected employment out to 2039. Job growth in Illinois is slightly below average annual growth in jobs for the U.S. Within Illinois, Region 1 is expected to increase jobs faster than other parts of the state. Overall, jobs in Illinois are forecast to grow by 1.5 million over the forecast period from 8 million jobs to 9.5 million, even though the population is forecasted to growth by one million. By 2039, Region 1 will support 6.8 million of the 9.5 million jobs in the state

Figure 7.6. Illinois Employment, 2019 (thousands of jobs)



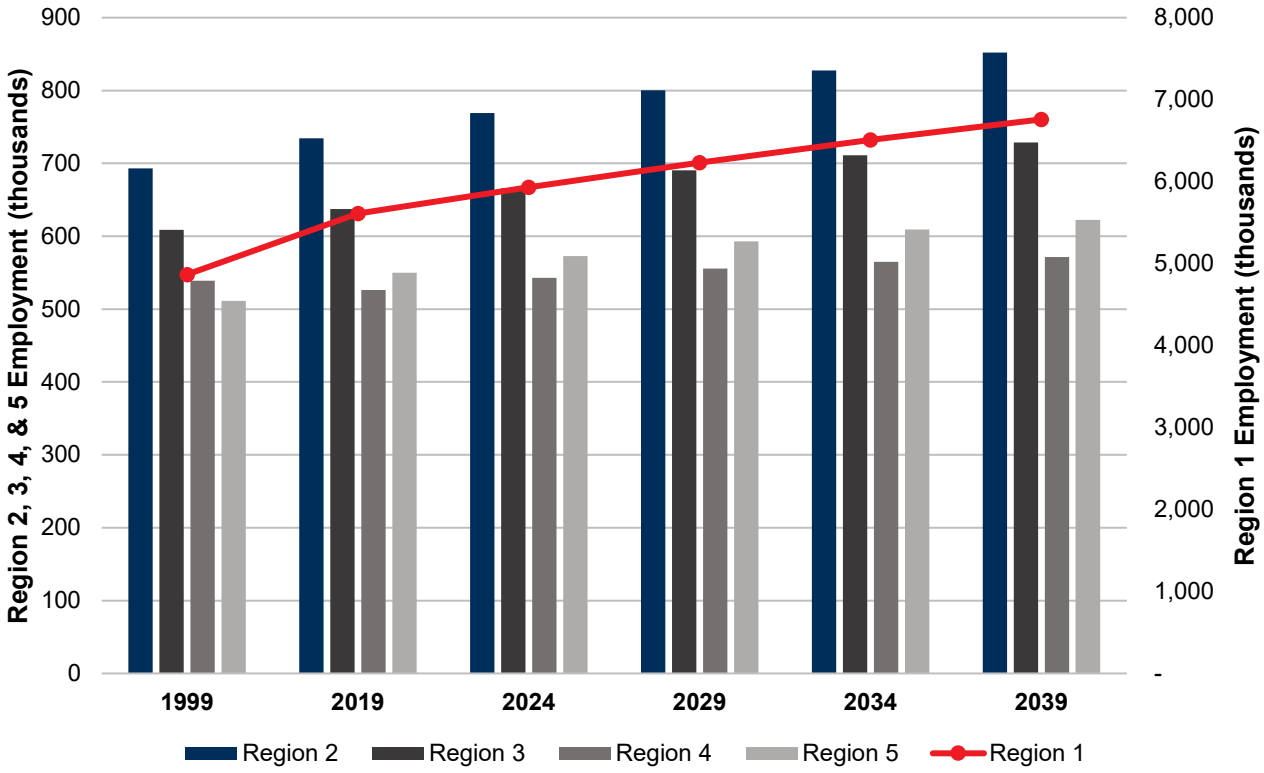
Source: Woods and Poole Economics Inc.

Table 7.3. Comparison of U.S. and Illinois Employment, 2019

Industry	2019		Percent of Total Employment	
	Illinois	U.S.	Illinois	U.S.
Health Care and Social Assistance	936,222	23,169,594	11.6%	11.6%
State and Local Government	795,684	20,742,288	9.9%	10.3%
Retail Trade	756,852	20,347,578	9.4%	10.1%
Manufacturing	607,892	13,294,266	7.5%	6.6%
Administrative and Waste Services	579,208	12,630,283	7.2%	6.3%
Professional and Technical Services	571,063	13,697,486	7.1%	6.8%
Finance and Insurance	538,358	11,056,856	6.7%	5.5%
Accommodation and Food Services	533,887	14,582,374	6.6%	7.3%
Other Services, Except Public Administration	494,975	11,730,866	6.1%	5.8%
Construction	355,842	10,758,948	4.4%	5.4%
Transportation and Warehousing	339,460	6,383,483	4.2%	3.2%
Wholesale Trade	337,165	6,876,435	4.2%	3.4%
Real Estate and Rental and Lease	301,567	8,946,062	3.7%	4.5%
Educational Services	234,412	4,949,645	2.9%	2.5%
Arts, Entertainment, and Recreation	167,192	4,502,920	2.1%	2.2%
Information	122,394	3,414,918	1.5%	1.7%
Management of Companies and Enterprises	118,650	2,568,367	1.5%	1.3%
Federal Civilian Government	79,697	2,842,820	1.0%	1.4%
Farm	74,296	2,699,281	0.9%	1.3%
Federal Military	42,007	1,987,557	0.5%	1.0%
Mining	31,916	1,780,071	0.4%	0.9%
Utilities	25,230	601,699	0.3%	0.3%
Forestry, Fishing, Related Activities and Other	14,021	991,626	0.2%	0.5%
Total	**8,057,990**	**200,555,423**	**100.0%**	**100.0%**

Source: Woods and Poole Economics Inc.

Figure 7.7. Employment Growth and Forecasts by IDOT Region (thousands of jobs)



Sources: Woods and Poole Economics inc. and Illinois Department of Transportation, Office of Planning and Programming

Table 7.4. Employment Growth and Forecasts (Number of Jobs)

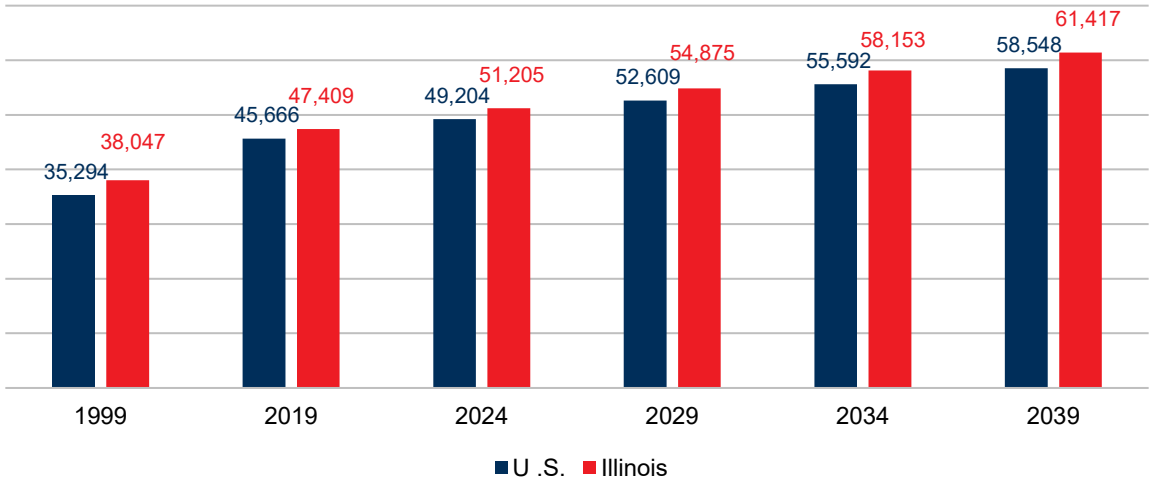
Region	Employment (thousands)						CAGR			
	Historical Date		Forecast Years				Historical Data	Forecast Years		
	1999	2019	2024	2029	2034	2039	1999-2019	2019-2024	2019-2029	2019-2039
Region 1	4,867,047	5,609,659	5,930,568	6,232,782	6,508,451	6,759,460	0.71%	1.12%	1.06%	0.94%
Region 2	693,034	734,495	769,047	800,211	827,635	852,003	0.29%	0.92%	0.86%	0.74%
Region 3	608,881	637,526	665,889	690,635	711,290	728,563	0.23%	0.87%	0.80%	0.67%
Region 4	539,092	526,360	542,737	555,662	564,955	571,285	-0.12%	0.61%	0.54%	0.41%
Region 5	511,196	549,950	572,940	592,817	609,136	622,522	0.37%	0.82%	0.75%	0.62%
Illinois	7,219,250	8,057,900	8,481,181	8,872,108	9,221,467	9,533,833	0.55%	1.03%	0.97%	0.84%
U.S.	161,531,413	200,555,423	214,840,158	228,826,297	242,288,089	255,383,792	1.09%	1.39%	1.33%	1.22%

Sources: Woods and Poole Economics Inc.; Illinois Department of Transportation, Office of Planning and Programming

7.2.3.5. Income Trends

Using inflation-adjusted dollars it is possible to compare per capita income growth from one period to the next. **Figure 7.8** shows per capita income adjusted to 2009 dollars. Illinois has historically had a larger per capita income than the U.S.

Figure 7.8. Per Capita Income for U.S. and Illinois, 2009 dollars



Sources: Woods and Poole Economics inc. and Illinois Department of Transportation, Office of Planning and Programming

7.2.4. Industry Trends Summary

Shock events are low probability, high impact events that have occurred fairly frequently in recent history. Hurricane Katrina, 9/11, and the Great Recession each significantly disrupted the aviation industry. The aftermath of 9/11 transformed security regiments and the interior of every commercial air terminal in the U.S. Most recently, the COVID-19 pandemic hobbled every nation and economy in sudden and unexpected ways, including a devastating impact on commercial air service.

As system plans, such as the IASP are forward-looking documents, future shock events and emerging technologies will undoubtedly impact the Illinois aviation system. It is therefore important to consider their risk as the IASP is implemented and used as a guiding document.

7.3. Activity Forecasts

The development of accurate and reliable forecasts is dependent upon accurate foundational baseline data and the verification of forecast results' authenticity through the implementation of multiple forecasting methodologies. The forecasts developed for the IASP are based on base year airport existing conditions data from the data collection year (i.e., 2019, 2020). Activity forecasts for the IASP were developed from the baseline year of 2019 for 2024, 2029, and 2039. The baseline year of 2019 or 2020 was used depending on the activity indicator. The following subsections outline the baseline data and methodologies used to develop forecasts for the following airport activity indicators:

- Commercial service operations
- Enplanements
- GA operations
- Based aircraft

7.3.1. Commercial Service Operations Forecasts

Commercial service operations consist of the total number of air carrier and air taxi operations at commercial service airports. General Aviation and military operations are not included in commercial service operations. Commercial service operations are distinct from GA operations at commercial service airports and thus are impacted differently by various internal and external factors. Due to this, commercial service operations are forecasted separately from GA operations at commercial service airports. Commercial service operations data for IASP commercial service airports was collected from the FAA's TAF. Terminal Area Forecast data from 2019 was used to establish a baseline for the forecasts. The following five methodologies were used to forecast commercial service operations:

- Population Methodology
- Per Capita Personal Income Methodology
- Socioeconomic Blend Methodology
- FAA Aerospace Forecast Methodology
- Terminal Area Forecast Methodology

The results of the five commercial service operations forecast methodologies are presented in **Figure 7.9** and **Table 7.5**. The Population Methodology, PCPI Methodology, and Socioeconomic Blend Methodology all assume that the ratios and relationships between the socioeconomic indicator and commercial service operations remain constant throughout the 20-year planning horizon.

7.3.1.1. Option #1: Population Methodology

The Population Methodology used Illinois' current and projected county population growth rates to develop a population to commercial service operations ratio that reflects comparable growth patterns between the two variables. Population growth rates were obtained for each county in Illinois from Woods and Poole Economics Inc. The county population growth rates were applied to base year commercial service operations to develop operation forecasts for the 20-year planning horizon.

7.3.1.2. Option #2: Per Capita Personal Income Methodology

The PCPI Methodology used Illinois counties' current and projected PCPI, as reported by Woods and Poole Economics Inc., to develop a PCPI to commercial service operations ratio that reflects comparable growth factors between the two variables. The projected PCPI growth rates for each county in Illinois was applied to the airport base year commercial operations to develop operation forecasts for the 20-year planning horizon.

7.3.1.3. Option #3: Socioeconomic Blend Methodology

The Socioeconomic Blend Methodology averages the Population and PCPI methodologies to develop a growth rate for each county. The Socioeconomic Blend methodology captures growth rates based on both population and PCPI trends in Illinois counties. The blended growth rate for each county is applied to airport base year commercial service operations to develop operations forecasts for the 20-year planning horizon.

7.3.1.4. Option #4: FAA Aerospace Forecast Methodology

The FAA Aerospace Forecast Methodology used systemwide scheduled passenger traffic data and growth rates from the *2019-2039 FAA Aerospace Forecast*. The FAA Aerospace Forecast growth rate was applied to the 2019 baseline commercial service operations to develop forecasts for the 20-year planning horizon. The FAA's forecasts show a slower rate of growth for airports served by regional

carriers than airports served by mainline air carriers. The following growth rates were utilized to generate future commercial service operations forecasts:

- If an airport is served mostly by regional air carriers: 1.6 percent growth rate was applied
- If an airport is served mostly by mainline air carriers: 1.8 percent growth rate was applied

The purpose of these specific growth rate percentages was to model the operational growth by type of carrier operating at each commercial service airport. This method assumed that the airport's operations will grow or decline at the same rates of growth or decline predicted nationally for the type of carrier.

7.3.1.5. Option #5: Terminal Area Forecast Methodology

The TAF is the FAA's official forecast of aviation activity for airports in the National Plan of Integrated Airport Systems (NPIAS). The TAF is prepared and published annually to meet the FAA's planning and budgetary needs. The TAF uses various approaches to forecast commercial service operations depending on the number of passenger enplanements. The following details the forecast methodology used by the FAA to develop the TAF. Terminal Area Forecast data was collected for each airport for 2019 to 2039 from the TAF published in 2019.

Terminal Area Forecast Method

As reported by the FAA, "The forecasts of passenger enplanements and commercial service operations at airport with more than 100,000 enplanements in FY 2018 are based on a bottoms-up approach. The domestic enplanements are forecast by generating origin and destination (O&D) market demand forecasts using the DB1B (quarterly 10 percent sample) data to model passenger flow on a quarterly basis. The O&D forecasts are then combined with DOT T-100 segment data to generate passenger forecasts by airport pair and segment pair. The segment pair passenger forecasts are assigned to aircraft equipment in order to produce segment pair operation forecasts. The quarterly segment pair forecasts are aggregated to produce annual airport forecasts.

Separate models are used to forecast international passenger enplanements and operations and cargo operations. The international passenger enplanements are forecast on a quarterly basis using time series analysis and T-100 segment data. The segment pair passenger enplanement forecasts are used to generate pair operations forecasts. The cargo operations forecasts are also generated on a quarterly basis using time series analysis and T-100 segment data. The segment pair forecasts for international passenger enplanements and operations and cargo operations are aggregated to the market pair and airport level on an annual basis.

The short run (two-year) forecasts of passenger enplanements and operations are produced using models at the airport level. These models incorporate the use of future airline schedules.

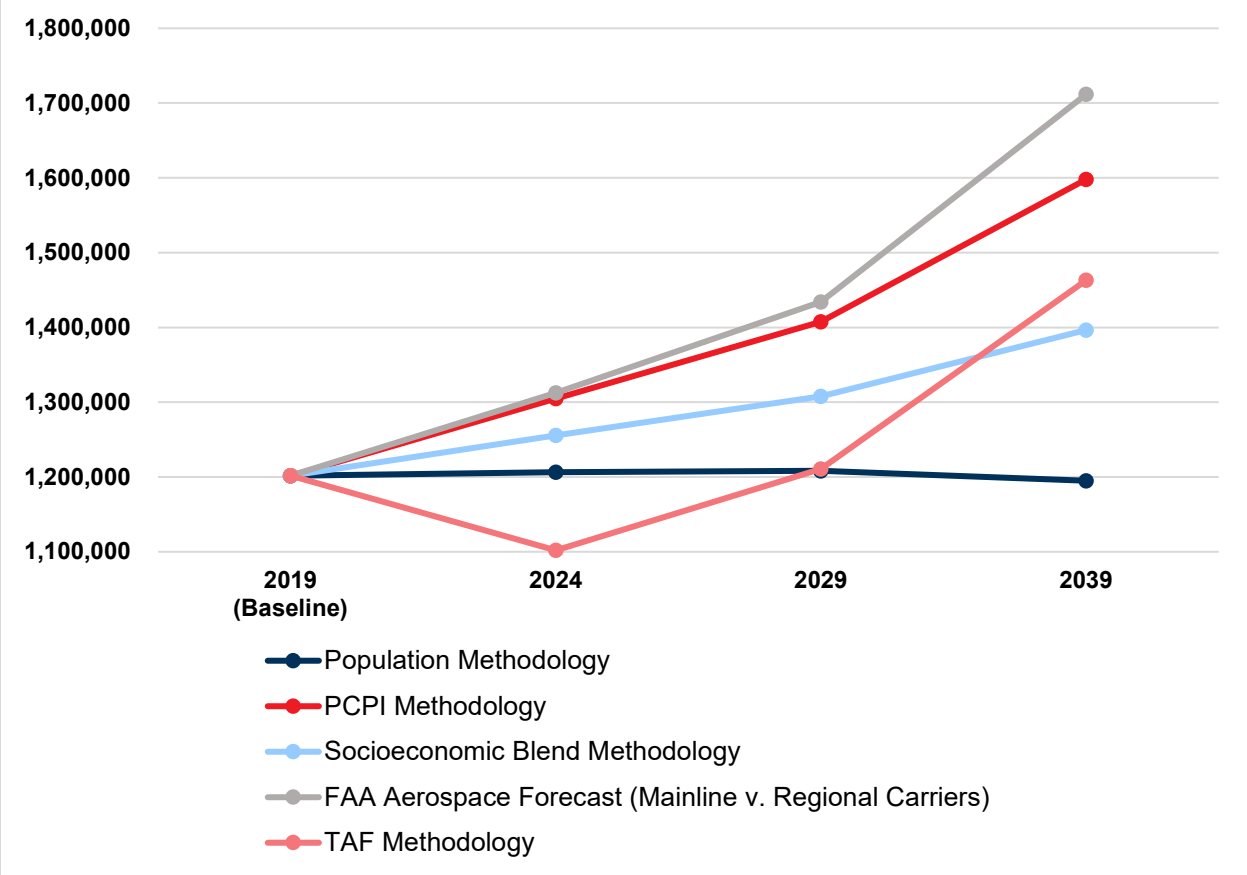
The forecasts of passenger enplanements at FAA facilities with fewer than 100,000 enplanements in FY 2018 are based on analysis of historic trends. The commercial operations forecasts are based on the enplanement forecasts, trends analysis, and enplanements per operation. In addition, the commercial forecasts for these airports may be prorated in comparison to national forecasts by trend category.[119]

[119] "FAA Forecast Process for 2019 TAF"

7.3.1.6. Preferred Commercial Service Operations Forecast Methodology

Figure 7.9 and **Table 7.5** summarize the commercial service operations forecast projections for Illinois from 2019 to 2039. Five methodologies were used to develop statewide enplanement forecasts through the 20-year planning horizon. Three of the five methodologies project growth in commercial service operations systemwide through the planning horizon. The FAA Aerospace Forecast Methodology predicts commercial service operations exceeding 1.7 million in 2039. The PCPI Methodology and Socioeconomic Blend Methodology project more modest growth in commercial service operations through the planning horizon. The Population Methodology projects a slight decrease in systemwide commercial service operations through the planning horizon. The TAF Methodology results in overall growth in systemwide commercial service operations following a projected decreased in commercial service operations prior to 2025. The **TAF Methodology** was selected as the preferred commercial service operations forecast methodology because it considers the most nuanced airport factors resulting in a forecast specific to the type of commercial service activity that each individual IASP airport supports.

Figure 7.9. Systemwide Commercial Service Operations Forecasts (2019 – 2039)



Sources: FAA TAF, 2019 – 2039; FAA Aerospace Forecast, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

Table 7.5. Commercial Service Operations Forecasts (2019 – 2039)

Airport Information			Base Year	Population Methodology			PCPI Methodology			Socioeconomic Blend Methodology			FAA Aerospace Forecast Methodology			TAF Methodology		
Associated City	**Airport Name**	**FAA ID**	**2019**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**
Belleville	MidAmerica St. Louis	BLV	**2,000**	2,000	2,000	2,000	2,200	2,300	2,600	2,100	2,200	2,300	2,000	2,000	2,000	**2,400**	**2,600**	**3,000**
Bloomington/ Normal	Central IL Regional Airport at Bloomington-Normal	BMI	**6,300**	6,600	6,800	7,300	6,900	7,400	8,400	6,800	7,100	7,900	6,800	7,300	8,300	**5,400**	**5,600**	**6,300**
Champaign/ Urbana	University of Illinois-Willard	CMI	**13,600**	14,000	14,400	15,000	14,700	15,700	17,600	14,400	15,100	16,300	14,600	15,600	18,500	**8,700**	**9,200**	**10,200**
Chicago	Chicago Midway International	MDW	**200,400**	201,000	201,100	198,400	217,700	234,900	267,100	209,400	218,000	232,800	219,100	239,500	286,300	**210,200**	**227,800**	**270,600**
Chicago	Chicago O'Hare International	ORD	**909,700**	912,300	912,700	900,500	988,300	1,066,500	1,212,500	950,300	989,600	1,056,500	994,700	1,087,500	1,300,000	**812,800**	**899,600**	**1,098,400**
Chicago	Chicago/Rockford International	RFD	**19,700**	20,100	20,400	20,700	21,200	22,700	25,100	20,700	21,600	22,900	21,200	22,900	26,900	**21,600**	**23,200**	**26,800**
Decatur	Decatur	DEC	**4,100**	4,100	4,000	3,900	4,400	4,700	5,200	4,300	4,400	4,600	4,600	5,100	6,100	**4,600**	**4,700**	**5,000**
Marion	Veterans Airport of Southern Illinois	MWA	**7,700**	7,900	8,200	8,500	8,400	9,000	10,100	8,200	8,600	9,300	8,200	8,700	10,000	**8,000**	**8,500**	**9,300**
Moline	Quad City International	MLI	**15,100**	15,200	15,200	15,100	16,300	17,500	19,600	15,800	16,400	17,400	16,300	17,800	20,800	**8,300**	**8,800**	**10,300**
Peoria	General Downing-Peoria International	PIA	**14,900**	15,000	15,200	15,200	16,000	17,100	19,000	15,500	16,200	17,100	16,000	17,500	20,500	**11,600**	**12,400**	**14,400**
Quincy	Quincy Regional-Baldwin Field	UIN	**3,800**	3,800	3,800	3,800	4,100	4,500	5,000	4,000	4,200	4,400	4,300	4,800	5,800	**3,800**	**3,800**	**3,800**
Springfield	Abraham Lincoln Capital	SPI	**4,400**	4,500	4,500	4,600	4,800	5,100	5,700	4,700	4,800	5,200	4,900	5,400	6,400	**4,500**	**4,600**	**4,900**
Total Commercial Service Operations			**1,201,700**	1,206,500	1,208,300	1,195,000	1,305,000	1,407,400	1,597,900	1,255,750	1,307,850	1,396,450	1,312,700	1,434,100	1,711,600	**1,101,900**	**1,210,800**	**1,463,000**

Sources: FAA TAF, 2019 – 2039; FAA Aerospace Forecast, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

7.3.2. Enplanements Forecasts

Enplanements are revenue passenger boardings on commercial service flights. Enplanement activity forecasting is important for understanding future demand in terms of terminal building capacity, apron size and availability, and airfield design at commercial service airports. Enplanement data for Illinois' commercial service airports was collected from the FAA's TAF. Terminal Area Forecast data from 2019 was used to establish a baseline for the enplanement forecasts. The following four methodologies were used to estimate enplanements over the 20-year planning horizon:

- Population Methodology
- PCPI Methodology
- Socioeconomic Blend Methodology
- Terminal Area Forecast Methodology

The results of the four enplanement forecast methodologies are presented in **Figure 7.10** and **Table 7.6**. The Population Methodology, PCPI Methodology, and Socioeconomic Blend Methodology all assume that the ratios and relationships between the socioeconomic indicator and enplanements remain constant throughout the 20-year planning horizon.

7.3.2.1. Option #1: Population Methodology

The Population Methodology used Illinois' current and projected county population growth rates to develop a population to enplanement ratio that reflects comparable growth patterns between the two variables. Population growth rates were obtained for each Illinois county from Woods and Poole Economics Inc. The county population growth rates were applied to 2019 enplanements to develop commercial service enplanement forecasts for the 20-year planning horizon.

7.3.2.2. Option #2: Per Capita Personal Income Methodology

The PCPI Methodology used Illinois' current and projected county-level PCPI as reported by Woods and Poole Inc. to develop a PCPI to enplanement ratio that reflects comparable growth factors between the two variables. The projected PCPI growth rates for each county in Illinois were applied to each airport's base year enplanements to estimate commercial service enplanement for the 20-year planning horizon.

7.3.2.3. Option #3: Socioeconomic Blend Methodology

The Socioeconomic Blend Methodology averages the Population and PCPI methodologies to develop a growth rate for each county based on the trends for both indicators in Illinois counties. The averaged, blended growth rate for each county was applied to airport's base year enplanements to estimate commercial service enplanement forecasts for the 20-year planning horizon.

7.3.2.4. Option #4: Terminal Area Forecast Methodology

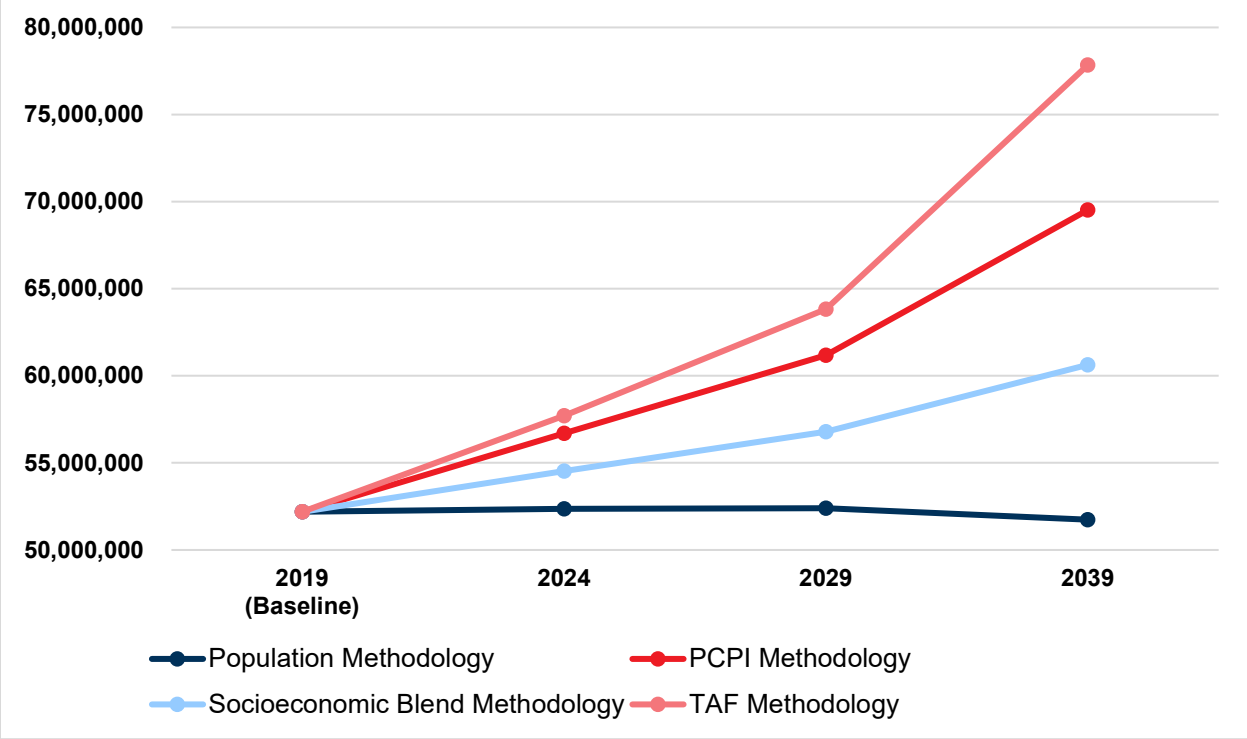
Terminal Area Forecast Methodology utilized the FAA's TAF to predict enplanement activity. Terminal Area Forecast data was collected for each IASP airport for 2019 to 2039, from the TAF published in 2019, which used the same methodology as described in Section 7.1.5.5.

7.3.2.5. Preferred Enplanement Forecast Methodology

Figure 7.10 and **Table 7.6** summarize the enplanement forecast projections for Illinois from 2019 to 2039. Three of the four methodologies project growth in enplanement activity systemwide through the planning horizon. The TAF methodology estimates that enplanements will exceed 77 million in 2039. The PCPI Methodology and Socioeconomic Blend Methodology project more modest growth in enplanements

through the 20-year planning horizon at 69.5 million enplanements and 60.6 million enplanements, respectively. The Population Methodology projects a slight decrease in systemwide enplanement activity through the planning horizon, likely due to the decrease in population around Cook County. The **TAF Methodology** was ultimately selected as the preferred enplanement forecast because it considers the most nuanced airport factors resulting in a forecast specific to the type of enplanement activity that each individual IASP airport supports.

Figure 7.10. Systemwide Illinois Airport Enplanements Forecasts (2019 – 2039)



Sources: FAA TAF, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

Table 7.6. Enplanements Forecasts (2019 – 2039)

Airport Information			Base Year	Population Methodology			PCPI Methodology			Socioeconomic Blend Methodology			TAF Methodology		
Associated City	**Airport Name**	**FAA ID**	**2019**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**
Belleville	MidAmerica St. Louis	BLV	**151,700**	152,400	152,700	151,500	164,900	177,700	199,800	158,700	165,200	175,700	**185,100**	**199,500**	**235,300**
Bloomington/ Normal	Central IL Regional Airport at Bloomington-Normal	BMI	**207,900**	216,800	225,700	241,600	226,600	244,600	277,200	221,700	235,200	259,400	**226,900**	**237,200**	**263,200**
Champaign/ Urbana	University of Illinois-Willard	CMI	**102,700**	105,700	108,700	113,600	111,000	118,900	133,000	108,400	113,800	123,300	**128,900**	**137,400**	**160,200**
Chicago	Chicago Midway International	MDW	**10,187,100**	10,215,900	10,220,300	10,084,000	11,067,500	11,943,000	13578100	10,641,700	11,081,700	11,831,100	**10,678,300**	**11,643,500**	**14,029,300**
Chicago	Chicago O'Hare International	ORD	**40,631,300**	40,746,300	40,763,900	40,220,200	44,142,900	47,634,700	54156300	42,444,600	44,199,300	47,188,300	**45,463,900**	**50,520,400**	**61,892,600**
Chicago	Chicago/Rockford International	RFD	**112,500**	114,600	116,400	118,500	121,200	129,500	143400	117,900	123,000	131,000	**145,400**	**155,300**	**181,300**
Decatur	Decatur	DEC	**8,900**	8,800	8,700	8,500	9,600	10,300	11400	9,200	9,500	10,000	**9,300**	**9,700**	**10,700**
Marion	Veterans Airport of Southern Illinois	MWA	**10,700**	11,000	11,300	11,900	11,600	12,500	14000	11,300	11,900	13,000	**10,900**	**11,200**	**11,800**
Moline	Quad City International	MLI	**357,000**	358,400	359,400	357,400	386,000	414,200	463100	372,200	386,800	410,300	**378,700**	**400,800**	**470,500**
Peoria	General Downing-Peoria International	PIA	**338,300**	341,700	344,500	346,200	364,400	389,300	432400	353,100	366,900	389,300	**388,500**	**417,000**	**487,600**
Quincy	Quincy Regional-Baldwin Field	UIN	**10,000**	10,000	10,000	9,900	10,900	11,700	13200	10,500	10,900	11,600	**9,300**	**9,300**	**9,300**
Springfield	Abraham Lincoln Capital	SPI	**73,300**	74,400	75,400	76,500	79,200	84,900	94500	76,800	80,200	85,500	**76,500**	**79,800**	**86,900**
	Total Enplanements		**52,190,700**	52,330,300	52,397,000	51,739,800	56,695,800	61,171,300	69,516,400	54,062,650	56,784,150	60,628,100	**57,701,700**	**63,821,100**	**77,838,700**

Sources: FAA TAF, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

7.3.3. General Aviation Operations Forecasts

General Aviation operations are all local and itinerant operations outside of commercial service and military operations. General Aviation operations occur at both GA and commercial service airports and may include operations, such as flight training, emergency response, aerial application, business and corporate flights, and recreational flying. General Aviation operations data for Illinois' airports were collected from the FAA TAF for NPIAS airports. General Aviation operations at non-NPIAS airports are self-reported. It should be noted that official GA operation counts are only available from airports with Air Traffic Control Towers (ATCTs). There are only 18 airports with ATCTs in the Illinois system. The operations at airports without ATCTs are largely self-reported estimates by airports. Terminal Area Forecast data from 2019 was used to establish a baseline for the GA operations forecasts at the state's NPIAS airports. For non-NPIAS airports, the 2019 baseline was established from GA operations reported by airports on the *IASP Inventory & Data Form*. The following five methodologies were used to develop GA operations forecast estimates:

- Population Methodology
- Per Capita Personal Income Methodology
- Socioeconomic Blend Methodology
- General Aviation Hours Flown Forecast Methodology
- Terminal Area Forecast Methodology

The results of the five GA forecast methodologies are presented in **Figure 7.11** and **Table 7.8**. The Population Methodology, PCPI Methodology, and Socioeconomic Blend Methodology all assume that the ratios and relationships between the socioeconomic indicator and GA operations remain constant throughout the 20-year planning horizon.

7.3.3.1. Option #1: Population Methodology

The Population Methodology uses Illinois' current and projected county population growth rates to estimate a population to GA operations ratio that reflects comparable growth patterns between the two variables. Population growth rates were obtained for each county in Illinois from Woods and Poole Economics Inc. The county population growth rates were applied to each airport's 2019 GA operations to estimate activity for the 20-year planning horizon.

7.3.3.2. Option #2: Per Capita Personal Income Methodology

The PCPI Methodology uses Illinois counties' current and projected PCPI as reported by Woods and Poole Economics Inc. to develop a PCPI to GA operations ratio that reflects comparable growth factors between the two variables. The projected PCPI growth rates for each county in Illinois were applied to the airport base year GA operations to develop operation forecasts for the 20-year planning horizon.

7.3.3.3. Option #3: Socioeconomic Blend Methodology

The Socioeconomic Blend Methodology averages the Population and PCPI methodologies to develop a growth rate by county. The Socioeconomic Blend methodology captures individual county growth rates based on both population and PCPI trends. The blended growth rate for each county was applied to airport base year GA operations to develop GA operation forecasts for the 20-year planning horizon.

7.3.3.4. Option #4: General Aviation Hours Flown Forecast Methodology

The FAA releases the FAA Aerospace Forecasts on an annual basis. The report forecasts various segments of the industry for use in workload planning and evaluating the impact of various trends.

Included in the *2019-2039 FAA Aerospace Forecast* is a GA flown forecasts, which projects total GA flight hours of GA in the US. Per the *FAA Aerospace Forecast*, the number of GA hours flown is forecast to increase an average of 0.8 percent per year through 2039 from 25.9 million in 2019 to 30.3 million, as the newer aircraft fly more hours each year.

The GA hours flown methodology for Illinois assumes a correlation between Illinois GA operations and the forecasted national GA flight hours from the *2019 FAA Aerospace Forecast*. The GA Hours Forecast Methodology utilized an average annual growth rate of GA hours flown from all aircraft types. The average annual growth rate was applied to the 2019 baseline data to develop GA operations forecasts for the 20-year planning horizon. **Table 7.7** illustrates how the GA Hours Flown Methodology applied the trend generated from total nationwide GA hours flown and was used to develop the first three years of this GA operations forecast.

Table 7.7. Applying GA Hours Flown Trend to GA Operations (2019-2022)

	2019 (baseline)	2020	2021	2022
GA Hours Flown	25,853	26,039	26,169	26,297
AAGR		1.01%	1.00%	1.00%
GA Operations	1,928,000	1,941,500	1,951,300	1,961,100

Sources: IASP Inventory Form, 2020; FAA Aerospace Forecast, 2019 – 2039; Kimley-Horn, 2021

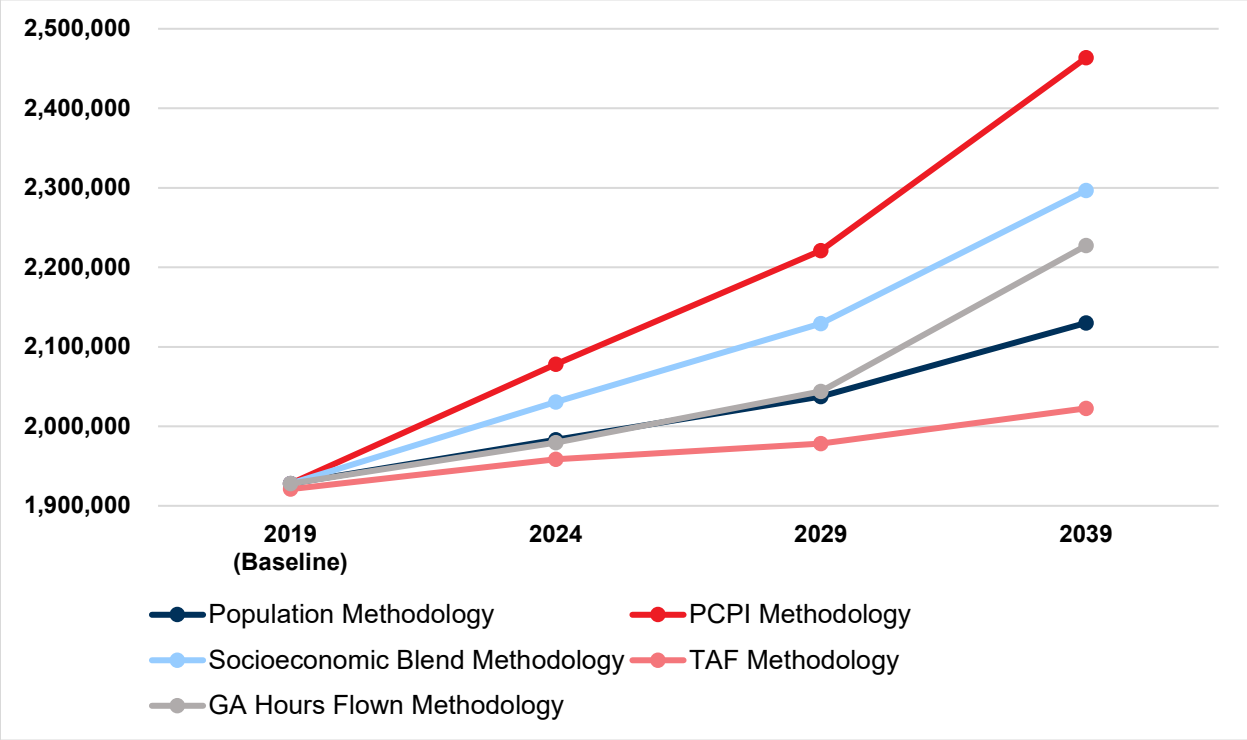
7.3.3.5. Option #5: Terminal Area Forecast Methodology

The TAF Methodology used the FAA's TAF data to predict future aviation activity. Terminal Area Forecast data for GA operations were collected for each IASP airport for 2019 to 2039 from the TAF published in 2019. It should be noted at the TAF methodology assumes no growth for non-towered airports unless an approved forecast from an airport master plan is integrated into the TAF, which does not routinely happen.

7.3.3.6. Preferred GA Operations Forecast Methodology

Figure 7.11 and **Table 7.8** summarize the GA operations forecast projections for Illinois from 2019 to 2039. All five methodologies project growth in GA operations activity systemwide through the 20-year planning horizon. The PCPI methodology predicts the most growth with GA operations exceeding 2.4 million in 2039. The Population Methodology, Socioeconomic Blend Methodology, TAF Methodology, and GA Hours Forecast Methodology all project modest growth in systemwide GA operations through the planning horizon. The **GA Hours Forecast Methodology** was selected as the preferred GA operations forecast methodology. Based on our discussions with airport managers and pilots during the inventory process, it was noted that activity witnessed in Illinois' aviation system is comparable to nationwide activity. With this understanding, and the fact that the GA hours forecast methodology represents a mainstream and conservative methodology, the GA Hours Forecast Methodology was selected as the preferred GA operations forecast methodology.

Figure 7.11. Systemwide GA Operations Forecasts (2019 – 2039)



Sources: IASP Inventory Form, 2020; FAA TAF, 2019 – 2039; FAA Aerospace Forecast, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

Table 7.8. General Aviation Operations Forecast (2019 – 2039)

Airport Information			Base Year	Population Methodology			PCPI Methodology			Socioeconomic Blend Methodology			TAF Methodology			GA Hours Flown Methodology		
Associated City	Airport Name	FAA ID	2019	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039
Commercial Service																		
Belleville	MidAmerica St. Louis	BLV	**10,100**	10,100	10,200	10,100	11,000	11,800	13,300	10,600	11,000	11,700	10,100	10,100	10,100	**10,400**	**10,700**	**11,700**
Bloomington/Normal	Central IL Regional Airport at Bloomington-Normal	BMI	**15,600**	16,300	16,900	18,100	17,000	18,400	20,800	16,700	17,700	19,500	15,300	15,400	15,700	**16,000**	**16,500**	**18,000**
Champaign/Urbana	University of Illinois-Willard	CMI	**38,700**	39,800	41,000	42,800	41,800	44,800	50,100	40,800	42,900	46,500	40,000	40,200	40,700	**39,700**	**41,000**	**44,700**
Chicago	Chicago Midway International	MDW	**33,300**	33,400	33,400	33,000	36,200	39,000	44,400	34,800	36,200	38,700	32,900	32,900	32,900	**34,200**	**35,300**	**38,500**
Chicago	Chicago O'Hare International	ORD	**4,800**	4,800	4,800	4,800	5,200	5,600	6,400	5,000	5,200	5,600	4,400	4,400	4,400	**4,900**	**5,100**	**5,500**
Chicago	Chicago/Rockford International	RFD	**19,100**	19,500	19,800	20,100	20,600	22,000	24,300	20,100	20,900	22,200	19,300	19,300	19,300	**19,600**	**20,300**	**22,100**
Decatur	Decatur	DEC	**23,400**	23,200	23,000	22,200	25,300	27,000	29,900	24,300	25,000	26,100	25,900	25,800	25,800	**24,000**	**24,800**	**27,000**
Marion	Veterans Airport of Southern Illinois	MWA	**11,900**	12,300	12,600	13,200	12,900	13,900	15,500	12,600	13,300	14,400	12,700	12,800	13,000	**12,200**	**12,600**	**13,700**
Moline	Quad City International	MLI	**18,900**	19,000	19,000	18,900	20,400	21,900	24,500	19,700	20,500	21,700	19,200	19,300	19,400	**19,400**	**20,000**	**21,800**
Peoria	General Downing-Peoria International	PIA	**17,000**	17,200	17,300	17,400	18,300	19,600	21,700	17,800	18,500	19,600	17,900	18,000	18,000	**17,500**	**18,000**	**19,600**
Quincy	Quincy Regional-Baldwin Field	UIN	**15,600**	15,600	15,600	15,500	17,000	18,300	20,600	16,300	17,000	18,100	15,600	15,600	15,600	**16,000**	**16,500**	**18,000**
Springfield	Abraham Lincoln Capital	SPI	**16,400**	16,600	16,900	17,100	17,700	19,000	21,100	17,200	18,000	19,100	16,300	16,300	16,400	**16,800**	**17,400**	**18,900**
General Aviation																		
Alton/St. Louis	St. Louis Regional	ALN	**26,400**	26,700	27,000	27,200	28,400	30,200	33,100	27,600	28,600	30,200	27,400	27,800	28,600	**27,100**	**28,000**	**30,500**
Beardstown	Greater Beardstown	K06	**3,000**	3,000	3,000	2,900	3,300	3,500	4,000	3,200	3,300	3,500	3,000	3,000	3,000	**3,100**	**3,200**	**3,500**
Benton	Benton Municipal	H96	**7,600**	7,700	7,700	7,700	8,200	8,800	9,600	8,000	8,300	8,700	7,600	7,600	7,600	**7,800**	**8,100**	**8,800**
Bolingbrook	Bolingbrook's Clow International	1C5	**48,000**	53,300	59,000	71,400	51,100	54,100	59,100	52,200	56,600	65,300	48,000	48,000	48,000	**49,300**	**50,900**	**55,500**
Cahokia/St Louis	St. Louis Downtown	CPS	**87,800**	88,200	88,400	87,700	95,400	102,900	115,700	91,800	95,700	101,700	91,000	92,600	96,100	**90,100**	**93,100**	**101,400**
Cairo	Cairo Regional	CIR	**8,500**	8,300	8,200	7,700	9,300	10,100	11,200	8,800	9,200	9,500	8,500	8,500	8,500	**8,700**	**9,000**	**9,800**
Canton	Ingersoll	CTK	**19,000**	18,800	18,600	17,900	20,700	22,200	24,600	19,800	20,400	21,300	19,000	19,000	19,000	**19,500**	**20,100**	**21,900**
Carbondale/ Murphysboro	Southern Illinois	MDH	**69,100**	69,700	70,200	70,300	75,200	81,000	90,800	72,500	75,600	80,600	73,700	73,900	74,400	**70,900**	**73,300**	**79,800**
Carmi	Carmi Municipal	CUL	**13,500**	13,400	13,300	12,900	14,700	15,900	18,100	14,100	14,600	15,500	13,500	13,500	13,500	**13,900**	**14,300**	**15,600**
Casey	Casey Municipal	1H8	**7,800**	7,800	7,900	7,800	8,400	8,900	9,700	8,100	8,400	8,800	7,800	7,800	7,800	**8,000**	**8,300**	**9,000**
Centralia	Centralia Municipal	ENL	**26,000**	26,000	25,900	25,500	28,200	30,200	33,300	27,100	28,100	29,400	26,000	26,000	26,000	**26,700**	**27,600**	**30,000**
Chicago	Lansing Municipal	IGQ	**53,900**	54,100	54,100	53,400	58,600	63,200	71,800	56,400	58,700	62,600	53,900	53,900	53,900	**55,300**	**57,100**	**62,300**

Airport Information			Base Year	Population Methodology			PCPI Methodology			Socioeconomic Blend Methodology			TAF Methodology			GA Hours Flown Methodology		
Associated City	**Airport Name**	**FAA ID**	**2019**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**
Chicago/Aurora	Aurora Municipal	ARR	**63,200**	67,100	71,100	78,600	67,800	72,300	80,200	67,500	71,700	79,400	66,500	66,500	66,500	**64,900**	**67,000**	**73,000**
Chicago/Lake in the Hills	Lake in the Hills	3CK	**34,000**	36,500	39,000	44,100	36,200	38,100	41,500	36,400	38,600	42,800	34,000	34,000	34,000	**34,900**	**36,000**	**39,300**
Chicago/Prospect Heights/Wheeling	Chicago Executive	PWK	**58,600**	58,800	58,800	58,000	63,700	68,700	78,100	61,300	63,800	68,100	59,000	59,000	59,000	**60,200**	**62,100**	**67,700**
Chicago/Romeoville	Lewis University	LOT	**101,800**	113,000	125,200	151,500	108,400	114,700	125,400	110,700	120,000	138,500	111,300	121,700	145,600	**104,500**	**107,900**	**117,600**
Chicago/Schaumburg	Schaumburg Regional	06C	**44,600**	46,300	48,000	50,900	48,200	51,800	58,800	47,300	49,900	54,900	44,600	44,600	44,600	**45,800**	**47,300**	**51,500**
Chicago/Waukegan	Waukegan National	UGN	**40,300**	42,100	43,800	46,900	43,200	46,000	51,300	42,700	44,900	49,100	41,300	41,800	42,800	**41,400**	**42,700**	**46,600**
Chicago/West Chicago	DuPage	DPA	**121,700**	126,400	131,000	138,800	131,600	141,400	160,500	129,000	136,200	149,700	127,000	127,800	129,400	**124,900**	**129,000**	**140,600**
Danville	Vermilion Regional	DNV	**17,000**	17,100	17,100	17,000	18,100	19,000	20,200	17,600	18,100	18,600	17,000	17,000	17,000	**17,500**	**18,000**	**19,600**
DeKalb	DeKalb Taylor Municipal	DKB	**25,900**	26,800	27,700	29,100	27,900	29,700	32,900	27,400	28,700	31,000	25,900	25,900	25,900	**26,600**	**27,500**	**29,900**
Dixon	Dixon Municipal-Charles R. Walgreen Field	C73	**40,000**	40,100	40,100	39,500	43,100	46,100	50,800	41,600	43,100	45,200	40,000	40,000	40,000	**41,100**	**42,400**	**46,200**
Effingham	Effingham County Memorial	1H2	**20,000**	20,200	20,400	20,600	21,400	22,600	24,500	20,800	21,500	22,600	20,000	20,000	20,000	**20,500**	**21,200**	**23,100**
Fairfield	Fairfield Municipal	FWC	**7,500**	7,500	7,600	7,600	8,000	8,400	9,000	7,800	8,000	8,300	7,500	7,500	7,500	**7,700**	**8,000**	**8,700**
Flora	Flora Municipal	FOA	**9,500**	9,500	9,500	9,400	10,300	11,000	12,000	9,900	10,300	10,700	9,500	9,500	9,500	**9,800**	**10,100**	**11,000**
Freeport	Albertus	FEP	**20,400**	20,400	20,300	19,900	22,100	23,700	26,200	21,300	22,000	23,100	22,400	24,700	29,800	**20,900**	**21,600**	**23,600**
Galesburg	Galesburg Municipal	GBG	**11,100**	11,000	10,800	10,400	12,100	13,000	14,600	11,600	11,900	12,500	11,100	11,100	11,100	**11,400**	**11,800**	**12,800**
Greenville	Greenville	GRE	**22,000**	22,200	22,400	22,500	24,000	26,000	29,400	23,100	24,200	26,000	22,000	22,000	22,000	**22,600**	**23,300**	**25,400**
Greenwood/Wonder Lake	Galt Field	10C	**40,000**	42,900	45,900	51,900	42,500	44,900	48,800	42,700	45,400	50,400	40,000	40,000	40,000	**41,100**	**42,400**	**46,200**
Harrisburg	Harrisburg-Raleigh	HSB	**16,200**	16,300	16,300	16,100	17,700	19,200	21,500	17,000	17,800	18,800	16,200	16,200	16,200	**16,600**	**17,200**	**18,700**
Harvard	Dacy	0C0	**20,000**	21,500	23,000	25,900	21,300	22,400	24,400	21,400	22,700	25,200	20,000	20,000	20,000	**20,500**	**21,200**	**23,100**
Havana	Havana Regional	9I0	**1,400**	1,400	1,400	1,300	1,500	1,600	1,800	1,500	1,500	1,600	1,400	1,400	1,400	**1,400**	**1,500**	**1,600**
Jacksonville	Jacksonville Municipal	IJX	**11,000**	11,000	11,000	10,900	11,900	12,800	14,200	11,500	11,900	12,600	11,000	11,000	11,000	**11,300**	**11,700**	**12,700**
Joliet	Joliet Regional	JOT	**22,300**	24,800	27,400	33,200	23,800	25,100	27,500	24,300	26,300	30,400	22,300	22,300	22,300	**22,900**	**23,600**	**25,800**
Kankakee	Greater Kankakee	IKK	**46,000**	46,900	47,700	48,700	49,700	53,300	59,000	48,300	50,500	53,900	46,000	46,000	46,000	**47,200**	**48,800**	**53,100**
Kewanee	Kewanee Municipal	EZI	**12,000**	12,100	12,200	12,200	12,800	13,600	14,700	12,500	12,900	13,500	12,000	12,000	12,000	**12,300**	**12,700**	**13,900**
Lacon	Marshall County	C75	**17,600**	17,500	17,400	16,900	19,000	20,300	22,300	18,300	18,900	19,600	17,600	17,600	17,600	**18,100**	**18,700**	**20,300**
Lawrenceville	Lawrenceville-Vincennes International	LWV	**30,700**	31,000	31,200	31,200	33,200	35,600	39,300	32,100	33,400	35,300	30,700	30,700	30,700	**31,500**	**32,500**	**35,500**
Lincoln	Logan County	AAA	**5,600**	5,600	5,500	5,300	6,000	6,500	7,100	5,800	6,000	6,200	5,600	5,600	5,600	**5,700**	**5,900**	**6,500**
Litchfield	Litchfield Municipal	3LF	**13,800**	13,900	13,900	13,800	14,900	16,000	17,700	14,400	15,000	15,800	13,800	13,800	13,800	**14,200**	**14,600**	**15,900**
Macomb	Macomb Municipal	MQB	**6,500**	6,500	6,400	6,200	7,000	7,500	8,200	6,800	7,000	7,200	6,500	6,500	6,500	**6,700**	**6,900**	**7,500**
Mattoon/Charleston	Coles County Memorial	MTO	**30,000**	30,400	30,700	31,000	32,100	34,100	37,100	31,300	32,400	34,100	30,000	30,000	30,000	**30,800**	**31,800**	**34,700**
Metropolis	Metropolis Municipal	M30	**12,000**	12,100	12,200	12,300	13,100	14,100	15,700	12,600	13,200	14,000	12,000	12,000	12,000	**12,300**	**12,700**	**13,900**

Airport Information			Base Year	Population Methodology			PCPI Methodology			Socioeconomic Blend Methodology			TAF Methodology			GA Hours Flown Methodology		
Associated City	**Airport Name**	**FAA ID**	**2019**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**
Monee	Bult Field	C56	**13,200**	14,700	16,200	19,600	14,100	14,900	16,300	14,400	15,600	18,000	13,200	13,200	13,200	**13,600**	**14,000**	**15,200**
Monmouth	Monmouth Municipal	C66	**4,800**	4,800	4,700	4,500	5,200	5,600	6,200	5,000	5,200	5,400	4,800	4,800	4,800	**4,900**	**5,100**	**5,500**
Morris	Morris Municipal-James R. Washburn Field	C09	**41,000**	43,600	46,300	51,400	44,000	46,800	51,900	43,800	46,600	51,700	41,000	41,000	41,000	**42,100**	**43,500**	**47,400**
Mount Carmel	Mount Carmel Municipal	AJG	**10,000**	10,100	10,200	10,200	10,800	11,600	12,800	10,500	10,900	11,500	10,000	10,000	10,000	**10,300**	**10,600**	**11,600**
Mount Sterling	Mount Sterling Municipal	I63	**3,000**	3,000	3,100	3,100	3,300	3,600	4,000	3,200	3,400	3,600	3,000	3,000	3,000	**3,100**	**3,200**	**3,500**
Mount Vernon	Mount Vernon Outland	MVN	**17,100**	17,200	17,300	17,200	18,700	20,200	22,900	18,000	18,800	20,100	17,100	17,100	17,100	**17,600**	**18,100**	**19,800**
Olney-Noble	Olney-Noble	OLY	**5,300**	5,300	5,300	5,300	5,700	6,000	6,500	5,500	5,700	5,900	5,300	5,300	5,300	**5,400**	**5,600**	**6,100**
Paris	Edgar County	PRG	**6,900**	6,800	6,800	6,500	7,500	8,100	9,000	7,200	7,500	7,800	6,900	6,900	6,900	**7,100**	**7,300**	**8,000**
Paxton	Paxton	1C1	**6,000**	6,000	5,900	5,800	6,400	6,800	7,400	6,200	6,400	6,600	Not in TAF	Not in TAF	Not in TAF	**6,200**	**6,400**	**6,900**
Pekin	Pekin Municipal	C15	**7,000**	7,100	7,200	7,300	7,500	8,000	8,700	7,300	7,600	8,000	7,000	7,000	7,000	**7,200**	**7,400**	**8,100**
Peoria	Mount Hawley Auxiliary	3MY	**21,200**	21,400	21,600	21,700	22,800	24,400	27,100	22,100	23,000	24,400	23,700	26,600	33,400	**21,800**	**22,500**	**24,500**
Peru	Illinois Valley Regional-Walter A. Duncan Field	VYS	**20,600**	20,700	20,800	20,600	22,200	23,800	26,300	21,500	22,300	23,500	20,600	20,600	20,600	**21,100**	**21,800**	**23,800**
Pinckneyville	Pinckneyville-Du Quoin	PJY	**8,000**	8,000	8,000	7,800	8,600	9,200	10,200	8,300	8,600	9,000	8,000	8,000	8,000	**8,200**	**8,500**	**9,200**
Pittsfield	Pittsfield Penstone Municipal	PPQ	**6,700**	6,600	6,500	6,200	7,300	7,800	8,600	7,000	7,200	7,400	6,700	6,700	6,700	**6,900**	**7,100**	**7,700**
Pontiac	Pontiac Municipal	PNT	**9,600**	9,600	9,500	9,300	10,400	11,100	12,400	10,000	10,300	10,900	9,600	9,600	9,600	**9,900**	**10,200**	**11,100**
Poplar Grove	Poplar Grove	C77	**66,000**	69,800	73,700	80,800	69,900	73,400	78,600	69,900	73,600	79,700	66,000	66,000	66,000	**67,800**	**70,000**	**76,200**
Rantoul	Rantoul National Aviation Center-Frank Elliott Field	TIP	**20,000**	20,600	21,200	22,100	21,600	23,200	25,900	21,100	22,200	24,000	20,000	20,000	20,000	**20,500**	**21,200**	**23,100**
Robinson	Crawford Co	RSV	**10,700**	10,800	10,800	10,800	11,500	12,300	13,500	11,200	11,600	12,200	10,700	10,700	10,700	**11,000**	**11,300**	**12,400**
Rochelle	Rochelle Municipal Airport-Koritz Field	RPJ	**12,000**	12,100	12,200	12,300	12,900	13,700	15,100	12,500	13,000	13,700	12,000	12,000	12,000	**12,300**	**12,700**	**13,900**
Rushville	Schuy-Rush	5K4	**1,000**	1,000	1,000	1,000	1,100	1,200	1,300	1,100	1,100	1,200	Not in TAF	Not in TAF	Not in TAF	**1,000**	**1,100**	**1,200**
Salem	Salem-Leckrone	SLO	**18,000**	18,000	18,000	17,600	19,500	20,900	23,000	18,800	19,500	20,300	18,000	18,000	18,000	**18,500**	**19,100**	**20,800**
Savanna	Tri-Township	SFY	**4,000**	3,900	3,900	3,700	4,300	4,600	5,100	4,100	4,300	4,400	4,000	4,000	4,000	**4,100**	**4,200**	**4,600**
Shelbyville	Shelby County	2H0	**15,400**	15,500	15,500	15,500	16,400	17,300	18,700	16,000	16,400	17,100	15,400	15,400	15,400	**15,800**	**16,300**	**17,800**
Sparta	Sparta Community-Hunter Field	SAR	**25,500**	25,500	25,500	25,100	27,600	29,500	32,400	26,600	27,500	28,800	25,500	25,500	25,500	**26,200**	**27,000**	**29,500**
Sterling/Rockfalls	Whiteside County-Jos H Bittorf Field	SQI	**32,000**	32,200	32,300	32,200	34,500	36,900	40,700	33,400	34,600	36,500	32,000	32,000	32,000	**32,900**	**33,900**	**37,000**
Taylorville	Taylorville Municipal	TAZ	**8,900**	8,900	8,900	8,800	9,600	10,300	11,500	9,300	9,600	10,200	8,900	8,900	8,900	**9,100**	**9,400**	**10,300**
Tuscola	Tuscola	K96	**6,000**	6,100	6,100	6,100	6,400	6,700	7,200	6,300	6,400	6,700	6,000	6,000	6,000	**6,200**	**6,400**	**6,900**
Vandalia	Vandalia Municipal	VLA	**10,000**	10,100	10,200	10,200	10,600	11,200	11,900	10,400	10,700	11,100	10,000	10,000	10,000	**10,300**	**10,600**	**11,600**
	Total GA Operations		**1,928,000**	1,983,100	2,037,500	2,130,000	2,077,900	2,220,900	2,463,500	2,030,500	2,129,200	2,296,750	1,958,600	1,978,200	2,022,600	**1,979,500**	**2,043,800**	**2,227,300**

Sources: IASP Inventory Form, 2020; FAA TAF, 2019 – 2039; FAA Aerospace Forecast, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

7.3.4. Based Aircraft Forecasts

Based aircraft are operational and airworthy aircraft based on an airport for most of the year. Baseline based aircraft counts for nonprimary NPIAS airports were sourced from the FAA's National Based Aircraft Inventory Program (basedaircraft.com). These data were selected over airport-reported or other online sources of based aircraft as they are counts used by the FAA to determine NPIAS eligibility, allocate appropriate federal funding, and determine systemwide improvement needs. For non-NPIAS and primary airports, which are not included in the FAA's National Based Aircraft Inventory Program, baseline data was collected for based aircraft reported by airports on the IASP Inventory & Data Form. Note that due to the delay in preparing the aviation forecasts due to the COVID-19 pandemic, based aircraft reports are from 2020 instead of 2019. As a result, based aircraft forecasts are 19-year forecasts (2020-2039) instead of 20-year forecasts (2019-2039) like those prepared for all other indicators. The following five methodologies were used to estimate future based aircraft activity:

- Population Methodology
- Per Capita Personal Income Methodology
- Socioeconomic Blend Methodology
- Terminal Area Forecast Methodology
- GA Hours Forecast Methodology

The results of the five based aircraft forecast methodologies are presented in **Figure 7.12** and **Table 7-12**. The Population Methodology, PCPI Methodology, and Socioeconomic Blend Methodology all assume that the ratios and relationships between the socioeconomic indicator and based aircraft remain constant throughout the 20-year planning horizon.

7.3.4.1. Option #1: Population Methodology

The Population Methodology uses Illinois' current and projected population growth rates to develop a population to based aircraft ratio that reflects comparable growth patterns between the two variables. Population growth rates were obtained for each county in Illinois from Woods and Poole Economics Inc. The county population growth rates were applied to base year-based aircraft activity to develop based aircraft forecasts for the 20-year planning horizon.

7.3.4.2. Option #2: Per Capita Personal Income Methodology

The PCPI Methodology uses Illinois's current and projected PCPI, as reported by Woods and Poole Economics Inc., to develop a PCPI to based aircraft ratio that reflects comparable growth factors between the two variables. The project PCPI growth rates for each county in Illinois was applied to the airport base year-based aircraft activity to develop forecasts for the 20-year planning horizon.

7.3.4.3. Option #3: Socioeconomic Blend Methodology

The Socioeconomic Blend Methodology averages the Population and PCPI methodologies to develop a growth rate for each county. The Socioeconomic Blend methodology captures growth rates based on both population and PCPI trends in Illinois counties. The blended growth rate for each county was applied to airport base year-based aircraft activity to develop based aircraft forecasts for the 20-year planning horizon.

7.3.4.4. Option #4: Terminal Area Forecast Methodology

The TAF Methodology used FAA TAF data to predict future aviation activity. TAF data was collected for each airport from 2019 to 2039. It should be noted that there can be significant variances in based aircraft

between sources. This can be noticed when applying TAF forecasts to a basedaircraft.com-base year. In some cases, based aircraft counts in 2020 from basedaircraft.com are lower than TAF counts in 2019; so when applying the TAF methodology, a large spike can be noticed between the base year (2019) and the first forecast year (2024).

7.3.4.5. Option #5: GA Hours Forecast Methodology

The FAA releases the FAA Aerospace Forecasts on an annual basis. The report forecasts various segments of the industry. Included in the *2019-2039 FAA Aerospace Forecast* is a GA-hours forecasts which projects total flight hours of GA pilots in the US. The GA hours methodology for Illinois assumes a correlation between Illinois based aircraft and the forecasted national GA flight hours. The GA Hours Forecast Methodology utilized an average annual growth rate of GA hours flown from all aircraft types. The average annual growth rate was applied to the 2020 baseline data to develop based aircraft forecasts for the 20-year planning horizon. **Table 7-9** illustrates how the GA Hours Flown Methodology applied the trend generated from total nationwide GA hours flown and was used to develop the first three years of this based aircraft forecast.

Table 7.9. Applying GA Hours Flown Trend to Based Aircraft (2019-2022)

	2020 (baseline)	2021	2022	2023
GA Hours Flown	25,853	26,039	26,169	26,297
AAGR		1.01%	1.00%	1.00%
Based Aircraft	3,690	3,699	3,720	3,740

Sources: IASP Inventory Form, 2020; FAA Aerospace Forecast, 2019 – 2039; Kimley-Horn, 2021

7.3.4.6. Preferred Based Aircraft Forecast Methodology

Figure 7.12 and **Table 7.12** summarize the based aircraft forecast projections for Illinois airports from 2020 to 2039. All five methodologies project growth in based aircraft systemwide through the planning horizon. The TAF methodology predicts the most growth with based aircraft exceeding 4,900 in 2039. The Population Methodology, Socioeconomic Blend Methodology, PCPI Methodology, and GA Hours Forecast Methodology all project more modest growth in systemwide based aircraft through the planning horizon. The **Socioeconomic Blend Methodology** was selected as the preferred based aircraft forecast methodology. Socioeconomic conditions are often used as an indicator of a population group's propensity to travel or own an aircraft. For purposes of the IASP, socioeconomic conditions were evaluated and correlated to airport activity at the Illinois county level. Statewide, the population methodology resulted in modest growth (0.48 percent CAGR), but the PCPI methodology resulted in significant growth (1.23 percent). At the individual airport level, it is likely that one socioeconomic variable (e.g., population, PCPI, etc.) could be chosen and justified to correlate aviation activity. At the systemwide level, it is challenging to pick one socioeconomic variable that works for all airports in the state. Therefore, the socioeconomic blend methodology was chosen which applied the average growth rate (0.87 percent) of the population and PCPI variables. This methodology provides a conservative, yet realistic forecast estimate of based aircraft in Illinois' airport system.

Table 7.10 and **Table 7.11** provide additional context to how activity indicators have historically trended compared to population and PCPI. It should be noted that all forecast methodologies are applying future growth trends and not a historical trend line to determine the forecasted aviation activity in Illinois.

Table 7.10. Historical Operations vs Socioeconomic Trend Comparison

Metrics	CAGR		
	1999-2009	2009-2019	1999-2019
General Aviation Operations (TAF)	-3.05%	-0.62%	-1.85%
Population	0.35%	0.29%	0.32%
PCPI	1.28%	1.40%	1.34%

Sources: FAA TAF, 1999 – 2019; Woods & Poole, 2021; Kimley-Horn, 2022

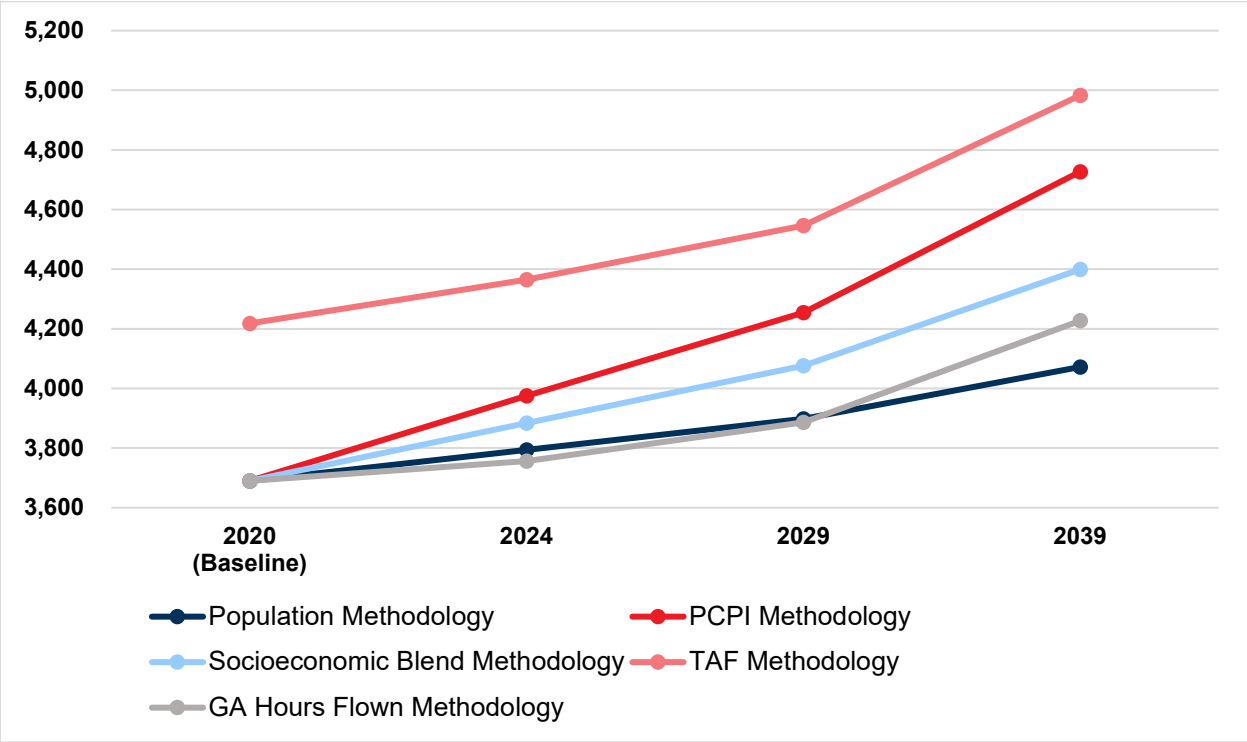
Table 7.11. Historical Operations vs Socioeconomic Trend Comparison[120]

Metrics	CAGR		
	1999-2009	2009-2019	1999-2019
Enplanements (TAF)	-0.24%	2.59%	1.16%
Population	-0.13%	0.16%	0.01%
PCPI	1.33%	1.14%	1.23%

Sources: FAA TAF, 1999 – 2019; Woods & Poole, 2021; Kimley-Horn, 2022

[120] This comparison only evaluates Illinois' commercial service airports when determining the historical CAGR for enplanements recorded in the TAF, population, and PCPI.

Figure 7.12. Systemwide Based Aircraft Forecasts (2020 – 2039)



Sources: basedaircraft.com, 2020; IASP Inventory Form, 2020; FAA TAF, 2019 – 2039; FAA Aerospace Forecast, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

Table 7.12. Based Aircraft Forecasts (2020 – 2039)

Airport Information			Base Year	Population Methodology			PCPI Methodology			TAF Methodology			GA Hours Forecast Methodology			Socioeconomic Blend Methodology		
Associated City	**Airport Name**	**FAA ID**	**2020**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**
Commercial Service																		
Belleville	MidAmerica St. Louis	BLV	**1**	1	1	1	1	1	1	23	23	23	1	1	1	**1**	**1**	**1**
Bloomington/Normal	Central IL Regional Airport at Bloomington-Normal	BMI	**82**	86	89	95	89	96	109	88	89	92	84	86	94	**88**	**93**	**102**
Champaign/Urbana	University of Illinois-Willard	CMI	**75**	77	79	83	81	87	97	93	98	108	76	79	86	**79**	**83**	**90**
Chicago	Chicago Midway International	MDW	**40**	40	40	40	43	47	53	40	40	40	41	42	46	**42**	**44**	**47**
Chicago	Chicago O'Hare International	ORD	**0**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	**0**
Chicago	Chicago/Rockford International	RFD	**114**	116	118	120	123	131	145	121	131	151	116	120	131	**120**	**125**	**133**
Decatur	Decatur	DEC	**50**	50	49	48	54	58	64	63	68	78	51	53	57	**52**	**54**	**56**
Marion	Veterans Airport of Southern Illinois	MWA	**46**	47	49	51	50	54	60	46	46	46	47	48	53	**49**	**52**	**56**
Moline	Quad City International	MLI	**85**	85	86	85	92	99	110	94	99	109	87	89	97	**89**	**93**	**98**
Peoria	General Downing-Peoria International	PIA	**55**	56	56	56	59	63	70	69	69	69	56	58	63	**58**	**60**	**63**
Quincy	Quincy Regional-Baldwin Field	UIN	**54**	54	54	54	59	63	71	41	41	41	55	57	62	**57**	**59**	**63**
Springfield	Abraham Lincoln Capital	SPI	**169**	171	174	176	183	196	218	185	200	232	172	178	194	**177**	**185**	**197**
General Aviation																		
Alton/St Louis	St. Louis Regional	ALN	**37**	37	38	38	40	42	46	52	57	69	38	39	42	**39**	**40**	**42**
Beardstown	Greater Beardstown	K06	**10**	10	10	10	11	12	13	4	4	4	10	11	11	**11**	**11**	**12**
Benton	Benton Municipal	H96	**9**	9	9	9	10	10	11	10	10	10	9	9	10	**10**	**10**	**10**
Bolingbrook	Bolingbrook's Clow International	1C5	**63**	70	78	94	67	71	78	79	79	79	64	66	72	**69**	**75**	**86**
Cahokia/St Louis	St. Louis Downtown	CPS	**110**	110	111	110	120	129	145	139	149	169	112	116	126	**115**	**120**	**128**
Cairo	Cairo Regional	CIR	**15**	15	14	14	16	18	20	20	20	20	15	16	17	**16**	**16**	**17**
Canton	Ingersoll	CTK	**18**	18	18	17	20	21	23	31	31	31	18	19	21	**19**	**20**	**20**
Carbondale/Murphysboro	Southern Illinois	MDH	**71**	72	72	72	77	83	93	85	100	133	72	75	81	**75**	**78**	**83**
Carmi	Carmi Municipal	CUL	**23**	23	23	22	25	27	31	13	13	13	23	24	26	**24**	**25**	**27**
Casey	Casey Municipal	1H8	**15**	15	15	15	16	17	19	13	13	13	15	16	17	**16**	**16**	**17**
Centralia	Centralia Municipal	ENL	**39**	39	39	38	42	45	50	26	26	26	40	41	45	**41**	**42**	**44**
Chicago	Lansing Municipal	IGQ	**51**	51	51	50	55	60	68	101	101	101	52	54	58	**53**	**56**	**59**
Chicago/Aurora	Aurora Municipal	ARR	**196**	208	220	244	210	224	249	345	370	441	200	206	225	**209**	**222**	**247**
Chicago/Lake in the Hills	Lake in the Hills	3CK	**105**	113	121	136	112	118	128	114	119	129	107	111	120	**113**	**120**	**132**
Chicago/Prospect Heights/Wheeling	Chicago Executive	PWK	**215**	216	216	213	234	252	287	199	224	274	219	226	247	**225**	**234**	**250**
Chicago/Romeoville	Lewis University	LOT	**144**	160	177	214	153	162	177	143	145	150	147	152	165	**157**	**170**	**196**

Airport Information			Base Year	Population Methodology			PCPI Methodology			TAF Methodology			GA Hours Forecast Methodology			Socioeconomic Blend Methodology		
Associated City	**Airport Name**	**FAA ID**	**2020**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**
Chicago/Schaumburg	Schaumburg Regional	06C	**66**	69	71	75	71	77	87	77	77	77	67	69	76	**70**	**74**	**81**
Chicago/Waukegan	Waukegan National	UGN	**120**	125	131	140	129	137	153	158	168	188	122	126	138	**127**	**134**	**147**
Chicago/West Chicago	DuPage	DPA	**255**	265	275	291	276	296	336	264	267	275	260	268	292	**271**	**286**	**314**
Danville	Vermilion Regional	DNV	**59**	59	59	59	63	66	70	67	67	67	60	62	68	**61**	**63**	**65**
DeKalb	DeKalb Taylor Municipal	DKB	**72**	75	77	81	77	83	92	65	75	95	73	76	83	**76**	**80**	**87**
Dixon	Dixon Municipal-Charles R. Walgreen Field	C73	**18**	18	18	18	19	21	23	24	24	24	18	19	21	**19**	**20**	**21**
Effingham	Effingham County Memorial	1H2	**18**	18	18	19	19	20	22	18	18	18	18	19	21	**19**	**19**	**21**
Fairfield	Fairfield Municipal	FWC	**13**	13	13	13	14	15	16	13	13	13	13	14	15	**14**	**14**	**15**
Flora	Flora Municipal	FOA	**9**	9	9	9	10	10	11	12	12	12	9	9	10	**10**	**10**	**10**
Freeport	Albertus	FEP	**48**	48	48	47	52	56	62	72	82	102	49	51	55	**50**	**52**	**55**
Galesburg	Galesburg Municipal	GBG	**27**	27	26	25	29	32	35	39	49	69	28	28	31	**28**	**29**	**30**
Greenville	Greenville	GRE	**37**	37	38	38	40	44	50	50	50	50	38	39	42	**39**	**41**	**44**
Greenwood/Wonder Lake	Galt Field	10C	**32**	34	37	42	34	36	39	48	48	48	33	34	37	**34**	**37**	**41**
Harrisburg	Harrisburg-Raleigh	HSB	**15**	15	15	15	16	18	20	20	20	20	15	16	17	**16**	**17**	**18**
Harvard	Dacy	0C0	**31**	33	36	40	33	35	38	39	39	39	32	33	36	**33**	**36**	**39**
Havana	Havana Regional	9I0	**13**	13	13	12	14	15	17	15	15	15	13	14	15	**14**	**14**	**15**
Jacksonville	Jacksonville Municipal	IJX	**30**	30	30	30	32	35	39	30	30	30	31	32	34	**31**	**33**	**35**
Joliet	Joliet Regional	JOT	**60**	67	74	89	64	68	74	71	71	71	61	63	69	**66**	**71**	**82**
Kankakee	Greater Kankakee	IKK	**37**	38	38	39	40	43	47	102	107	117	38	39	42	**39**	**41**	**43**
Kewanee	Kewanee Municipal	EZI	**20**	20	20	20	21	23	24	22	22	22	20	21	23	**21**	**22**	**22**
Lacon	Marshall County	C75	**41**	41	40	39	44	47	52	40	40	40	42	43	47	**43**	**44**	**46**
Lawrenceville	Lawrenceville-Vincennes International	LWV	**20**	20	20	20	22	23	26	68	68	68	20	21	23	**21**	**22**	**23**
Lincoln	Logan County	AAA	**13**	13	13	12	14	15	17	31	36	46	13	14	15	**14**	**14**	**15**
Litchfield	Litchfield Municipal	3LF	**33**	33	33	33	36	38	42	39	39	39	34	35	38	**35**	**36**	**38**
Macomb	Macomb Municipal	MQB	**27**	27	27	26	29	31	34	25	25	25	28	28	31	**28**	**29**	**30**
Mattoon/Charleston	Coles County Memorial	MTO	**57**	58	58	59	61	65	71	58	58	58	58	60	65	**60**	**62**	**65**
Metropolis	Metropolis Municipal	M30	**14**	14	14	14	15	16	18	14	14	14	14	15	16	**15**	**15**	**16**
Monee	Bult Field	C56	**64**	71	79	95	68	72	79	71	71	71	65	67	73	**70**	**76**	**87**
Monmouth	Monmouth Municipal	C66	**9**	9	9	9	10	10	12	11	11	11	9	9	10	**10**	**10**	**11**
Morris	Morris Municipal-James R. Washburn Field	C09	**62**	66	70	78	67	71	78	50	50	50	63	65	71	**67**	**71**	**78**
Mount Carmel	Mount Carmel Municipal	AJG	**17**	17	17	17	18	20	22	19	19	19	17	18	19	**18**	**19**	**20**
Mount Sterling	Mount Sterling Municipal	I63	**10**	10	10	10	11	12	13	9	9	9	10	11	11	**11**	**11**	**12**
Mount Vernon	Mount Vernon Outland	MVN	**32**	32	32	32	35	38	43	43	43	43	33	34	37	**34**	**35**	**38**
Olney-Noble	Olney-Noble	OLY	**15**	15	15	15	16	17	18	18	18	18	15	16	17	**16**	**16**	**17**
Paris	Edgar County	PRG	**14**	14	14	13	15	16	18	13	13	13	14	15	16	**15**	**15**	**16**
Paxton	Paxton	1C1	**8**	8	8	8	9	9	10	Not in	Not in	Not in	8	8	9	**9**	**9**	**9**

Airport Information			Base Year	Population Methodology			PCPI Methodology			TAF Methodology			GA Hours Forecast Methodology			Socioeconomic Blend Methodology		
Associated City	**Airport Name**	**FAA ID**	**2020**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**	**2024**	**2029**	**2039**
										TAF	TAF	TAF						
Pekin	Pekin Municipal	C15	**46**	47	47	48	49	52	57	44	44	44	47	48	53	**48**	**50**	**53**
Peoria	Mount Hawley Auxiliary	3MY	**52**	53	53	53	56	60	66	54	54	54	53	55	60	**55**	**57**	**60**
Peru	Illinois Valley Regional-Walter A. Duncan Field	VYS	**38**	38	38	38	41	44	49	42	42	42	39	40	44	**40**	**41**	**44**
Pinckneyville	Pinckneyville-Du Quoin	PJY	**20**	20	20	20	22	23	25	32	32	32	20	21	23	**21**	**22**	**23**
Pittsfield	Pittsfield Penstone Municipal	PPQ	**9**	9	9	8	10	10	12	11	11	11	9	9	10	**10**	**10**	**10**
Pontiac	Pontiac Municipal	PNT	**17**	17	17	17	18	20	22	19	19	19	17	18	19	**18**	**19**	**20**
Poplar Grove	Poplar Grove	C77	**0**	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**	**0**
Rantoul	Rantoul National Aviation Center-Frank Elliott Field	TIP	**14**	14	15	15	15	16	18	12	12	12	14	15	16	**15**	**16**	**17**
Robinson	Crawford Co	RSV	**16**	16	16	16	17	18	20	15	15	15	16	17	18	**17**	**17**	**18**
Rochelle	Rochelle Municipal Airport-Koritz Field	RPJ	**33**	33	34	34	35	38	41	22	22	22	34	35	38	**34**	**36**	**38**
Rushville	Schuy-Rush	5K4	**5**	5	5	5	5	6	7	Not in TAF	Not in TAF	Not in TAF	5	5	6	**5**	**6**	**6**
Salem	Salem-Leckrone	SLO	**10**	10	10	10	11	12	13	11	11	11	10	11	11	**11**	**11**	**12**
Savanna	Tri-Township	SFY	**9**	9	9	8	10	10	11	10	10	10	9	9	10	**10**	**10**	**10**
Shelbyville	Shelby County	2H0	**18**	18	18	18	19	20	22	22	22	22	18	19	21	**19**	**19**	**20**
Sparta	Sparta Community-Hunter Field	SAR	**30**	30	30	30	32	35	38	31	31	31	31	32	34	**31**	**33**	**34**
Sterling/Rockfalls	Whiteside County-Jos H. Bittorf Field	SQI	**41**	41	41	41	44	47	52	45	45	45	42	43	47	**43**	**44**	**47**
Taylorville	Taylorville Municipal	TAZ	**14**	14	14	14	15	16	18	20	20	20	14	15	16	**15**	**15**	**16**
Tuscola	Tuscola	K96	**0**	0	0	0	0	0	0	3	3	3	0	0	0	**0**	**0**	**0**
Vandalia	Vandalia Municipal	VLA	**10**	10	10	10	11	11	12	20	20	20	10	11	11	**11**	**11**	**11**
	Total Based Aircraft		**3,690**	3,794	3,898	4,072	3,975	4,254	4,727	4,365	4,546	4,940	3,756	3,886	4,227	**3,885**	**4,076**	**4,400**

Sources: basedaircraft.com; IASP Inventory Form, 2020; FAA TAF, 2019 – 2039; FAA Aerospace Forecast, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

7.4. Summary of Forecasts

As shown in **Table 7.13**, growth is anticipated statewide for all the IASP activity indicators through the 20-year planning horizon. All the forecasts presented in this chapter are considered unconstrained with the assumption that the projected demand is supported by increasing in population and investment in the aviation industry.

Table 7.13. IASP Forecast Summary

Forecast	Preferred Methodology	Base Year	2024	2029	2034	2039	CAGR
Commercial Service Operations	TAF	1,201,800	1,102,000	1,210,800	1,334,600	1,463,100	0.99%
Enplanements	TAF	52,190,800	57,701,600	63,821,200	70,703,400	77,838,700	2.02%
General Aviation Operations	National GA Hours Flown	1,927,400	1,978,700	2,043,500	2,123,200	2,226,600	0.72%
Based Aircraft	Socioeconomic Blend (Population & PCPI)	3,690	3,885	4,076	4,242	4,400	0.87%

Sources: basedaircraft.com; 2020 IASP Inventory & Data Form; FAA TAF, 2019 – 2039; FAA Aerospace Forecast, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

7.5. TAF Comparison

The IASP forecasts were developed based on current and historic data and trends to project activity and demand specific to Illinois' aviation system. The FAA requires that airport and system forecasts be compared to the most recently available TAF to ensure the development of realistic aviation activity forecasts. The comparison of IASP forecasts for GA Aviation Operations and Based Aircraft activity to the TAF are provided in **Table 7.14** and **Table 7.15**, respectively. The IASP forecasts for Commercial Service Operations and Enplanements are not compared to the TAF because the preferred methodology used for those forecasts was the TAF Methodology. Therefore, those forecasts are, by nature of the preferred methodology, consistent with TAF projections.

The preferred methodology for statewide GA operations is in-line with the 2019 TAF, with only a one percent difference in the first five years and slightly over three percent difference by 2029. The based aircraft forecasts are approximately 10 percent lower than TAF projections in the first five and 10 years, primarily due to a discrepancy in data between FAA sources (basedaircraft.com versus FAA TAF).

Table 7.14. IASP GA Operations Forecast vs TAF Comparison (2019 – 2039)

Forecast Timeframe	Forecast Year	FAA Aerospace Forecast (National GA Hours Flown)	2019 TAF	Percent Difference
Base Year	2019	1,927,410	1,920,410	0.36%
Base Year + 5 Years	2024	1,978,653	1,957,991	1.06%
Base Year + 10 Years	2029	2,043,498	1,977,663	3.33%
Base Year + 15 Years	2034	2,123,194	1,998,977	6.21%
Base Year + 20 Years	2039	2,226,617	2,022,102	10.11%
CAGR 2019-2039		0.72%	0.26%	0.47%

Sources: FAA Aerospace Forecasts, 2021 – 2041; FAA TAF, 2019; Kimley-Horn, 2022

Table 7.15. IASP Based Aircraft Forecast vs TAF Comparison (2019 – 2039)

Forecast Timeframe	Forecast Year	Socioeconomic Blend Forecast	2019 TAF	Percent Difference
Base Year	2020	3,690	4,218	-12.52%
Base Year + 5 Years	2025	3,927	4,401	-10.78%
Base Year + 10 Years	2030	4,111	4,585	-10.34%
Base Year + 15 Years	2035	4,276	4,778	-10.52%
Base Year + 20 Years	2040	4,428	4,983	-11.14%
CAGR 2020-2040		0.87%	0.80%	0.08%

Sources: Woods and Poole Economics Inc.; FAA TAF, 2019; Kimley-Horn, 2022

7.6. Summary

The IASP aviation activity forecasts were developed to project reasonable demand changes with the state's aviation system over a 20-year planning horizon. The forecasts developed for the IASP project modest growth in enplanements, based aircraft, and GA and commercial operations. As noted previously, airports should consider the IASP forecasts in their planning, but should rely on their own, airport-commissioned forecasts to justify facility needs.