

## 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 were used to project future activity levels and each forecast was evaluated closely to determine a preferred 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 system plan 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 developed to justify future facility needs 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 various methodologies evaluated to forecasts aviation activity in the state over the 20-year planning period. The following sections are presented as follows:

- ◆ Industry Trends
- ◆ Activity Forecasts
- ◆ Summary of Forecasts
- ◆ TAF Comparison
- ◆ Summary

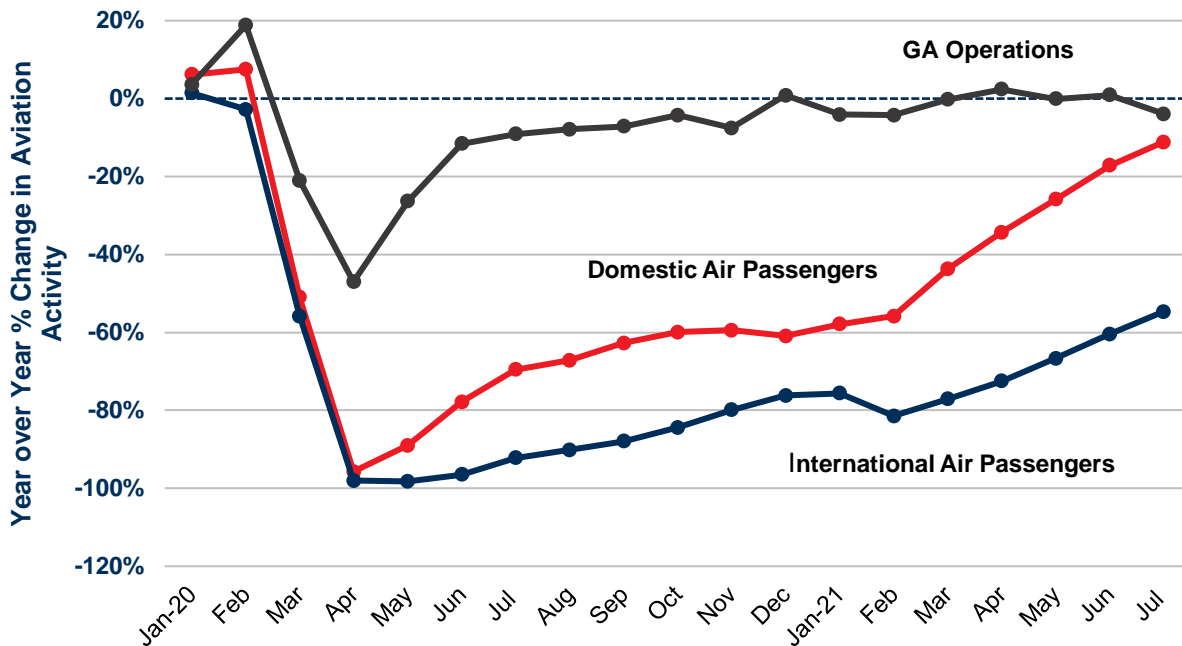
### 7.2 Industry Trends

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

#### 7.1.1. 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 enplaned air passengers and general aviation (GA) operations. After initial declines, GA operations were resilient but international enplanements were not. In the second half of 2020, 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**

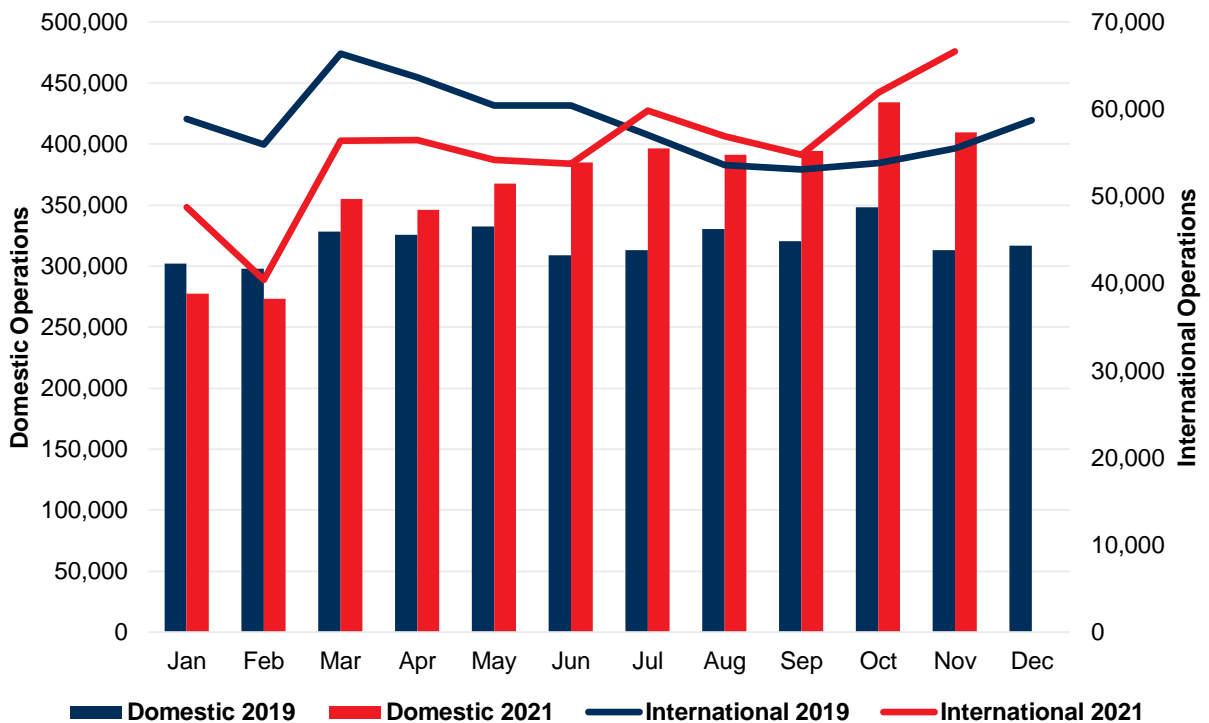


Sources: U.S. Bureau of Transportation Statistics; TransStats data on international and domestic segment passengers, all carrier types; FAA's Air Traffic Activity System (ATADS).

There may not be a full recovery for business travel 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 about 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, the data suggests that some of the business travel migrated to private business jets as **Figure 7.2** indicates. It is not known yet 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.

## 7.1.2. 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 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 Transport Network Companies (TNCs) 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, rental car companies and TNCs, 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, 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.

### 7.1.2.1. Unmanned Aircraft Systems (UAS)

UAS technology is already widely used in a variety of applications for 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 but can share congested air space near airports.

UAS that weight less than 55 pounds fall under the 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 ft. Larger UAS can fly at 18,000 ft. or higher. These devices can and do operate from airports and may eventually be used to transport passengers and cargo to/from airports. UAS have the potential to impact airports as they may require the use of airport facilities to operate nearby airspace.

#### ***7.1.2.2. 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.

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 final destination and skip altogether 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. The velocity of technological change, however, has introduced the need to introduce flexibility of design into airport facilities so they can more easily be reconfigured, redeveloped, and repurposed.

#### ***7.1.2.3. 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 general aviation, 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 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 as well as conventional fossil fuels during an anticipated transition period,

### 7.1.3. 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 that are used in preparation of the IASP forecasts.

#### 7.1.3.1. Illinois Districts and Regions

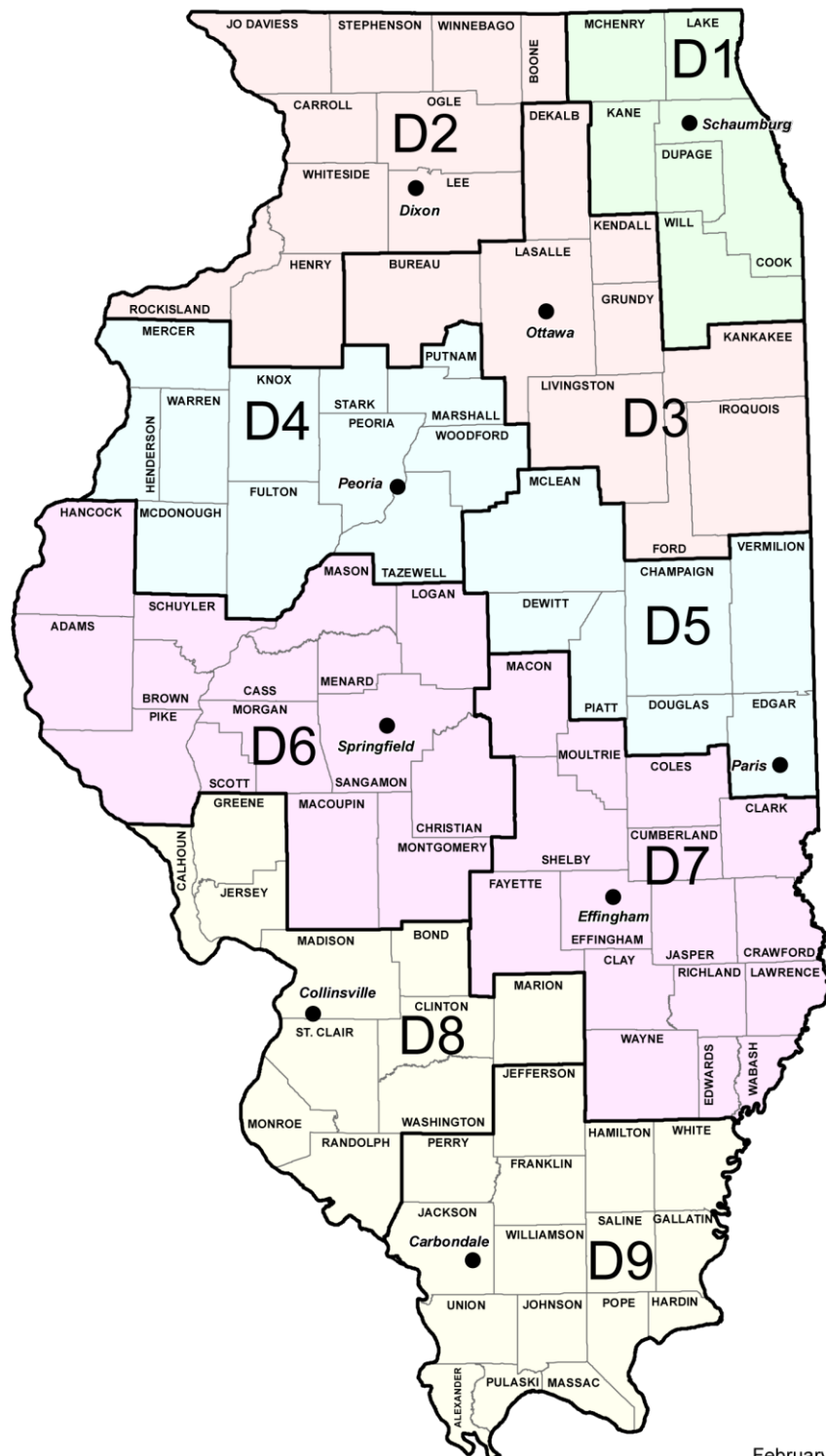
IDOT has divided the state into nine districts and five regions. Individual districts are a subset of the state's five regions. **Table 7.1** Error! Reference source not found. describes the regions. Region 1 in the northeast corner of the state encompasses the Chicago O'Hare International (ORD) and 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. **Figure 7.3** shows the IDOT Districts and Regions and the counties contained in each.

**Table 7.1. Population by IDOT Region**

Region	2019 Population	% Share of Total Population	Associated Cities
1	8,623.356	65.5%	Chicago
2	1,415.654	10.8%	Chicago/Rockford, Moline
3	1,094.270	8.3%	Bloomington/Normal, Champaign/Urbana, Peoria
4	929.393	7.1%	Decatur, Quincy, Springfield
5	1,105.031	8.4%	Belleville, Marion
<b>Total</b>	<b>13,167.704</b>	<b>100.0%</b>	

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

**Figure 7.3. IDOT Districts and Regions**



February 2017

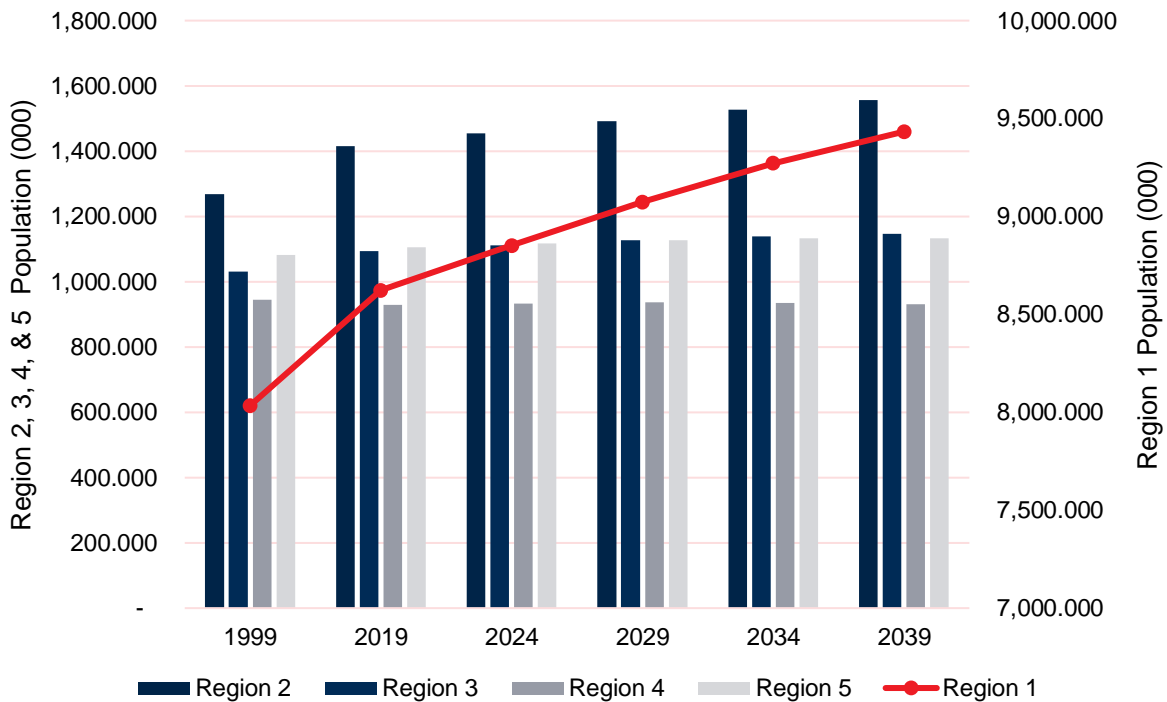
Source: IDOT

### 7.1.3.2. 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%. Population growth in Illinois is expected to increase at a slightly higher rate over the forecast period.

Not all IDOT regions are growing at the same rate. Region 2 was the fastest growing area during the last 20 years. Region 4 declined 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**



Source: Woods and Poole Economics Inc.



**Table 7.2. Population Growth and Forecasts by IDOT Region**

Population (thousands)							CAGR			
	1999	2019	2024	2029	2034	2039	1999-2019	2019-2024	2019-2029	2019-2039
<b>Region 1</b>	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%
<b>Region 2</b>	1,268.511	1,415.654	1,454.041	1,492.237	1,527.362	1,557.246	0.55%	0.54%	0.53%	0.48%
<b>Region 3</b>	1,030.227	1,094.270	1,111.269	1,127.064	1,139.446	1,146.850	0.30%	0.31%	0.30%	0.23%
<b>Region 4</b>	944.327	929.393	933.485	936.249	935.910	931.286	-0.08%	0.09%	0.07%	0.01%
<b>Region 5</b>	1,081.408	1,105.031	1,116.658	1,126.422	1,132.127	1,132.274	0.11%	0.21%	0.19%	0.12%
<b>Illinois</b>	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%
<b>U.S.</b>	279,040.168	333,598.08	349,344.33	365,567.73	381,547.63	396,688.138	0.90%	0.93%	0.92%	0.87%

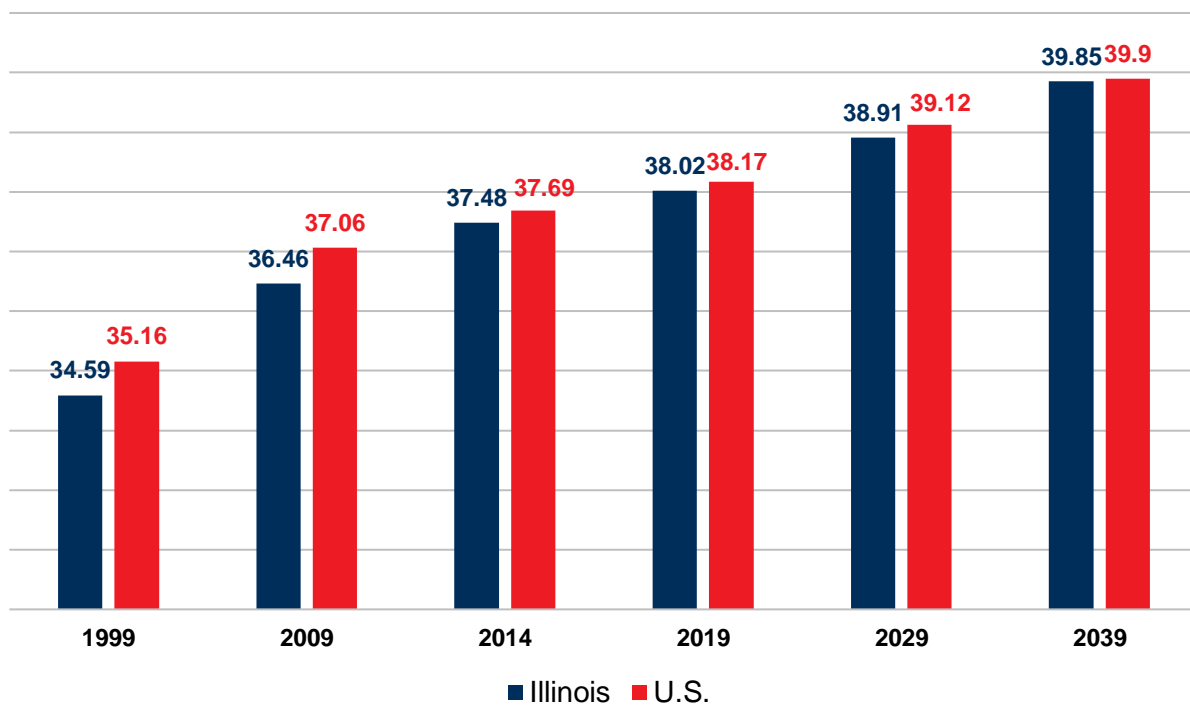
Source: Woods and Poole Economics Inc.



### 7.1.3.3. 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 United States. 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.

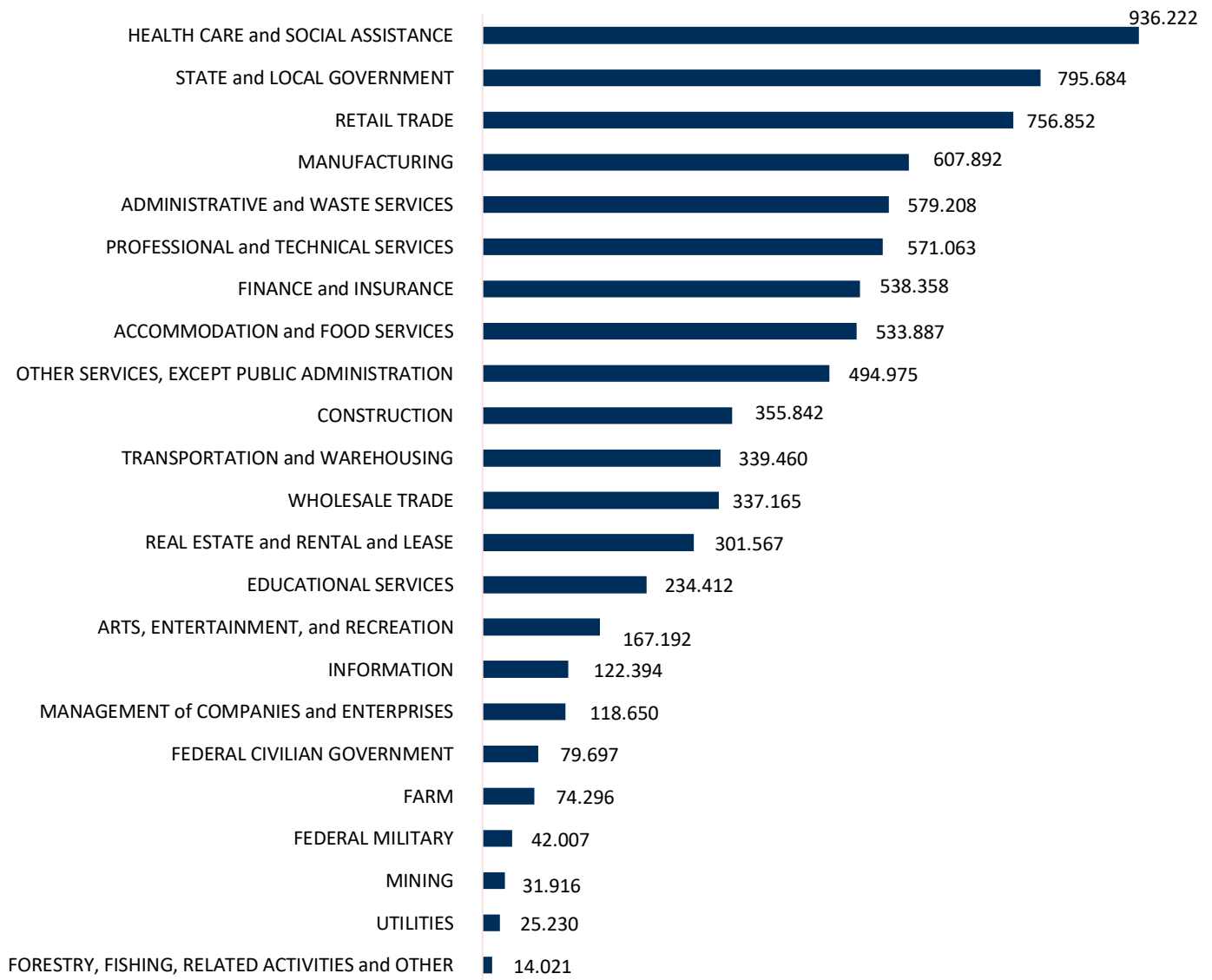
7.1.3.4. **Employment Trends.** Within Illinois, Region I is expected to increase jobs faster than other parts of the state. Overall, jobs in Illinois are forecast to grow by 1.5 million over the forecast period from 8 million jobs to 9.5 million. By 2039, Region 1 will support 6.8 million of the 9.5 million jobs in the state

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

**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 represents 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** Error! Reference source not found. 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 I 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. 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)**



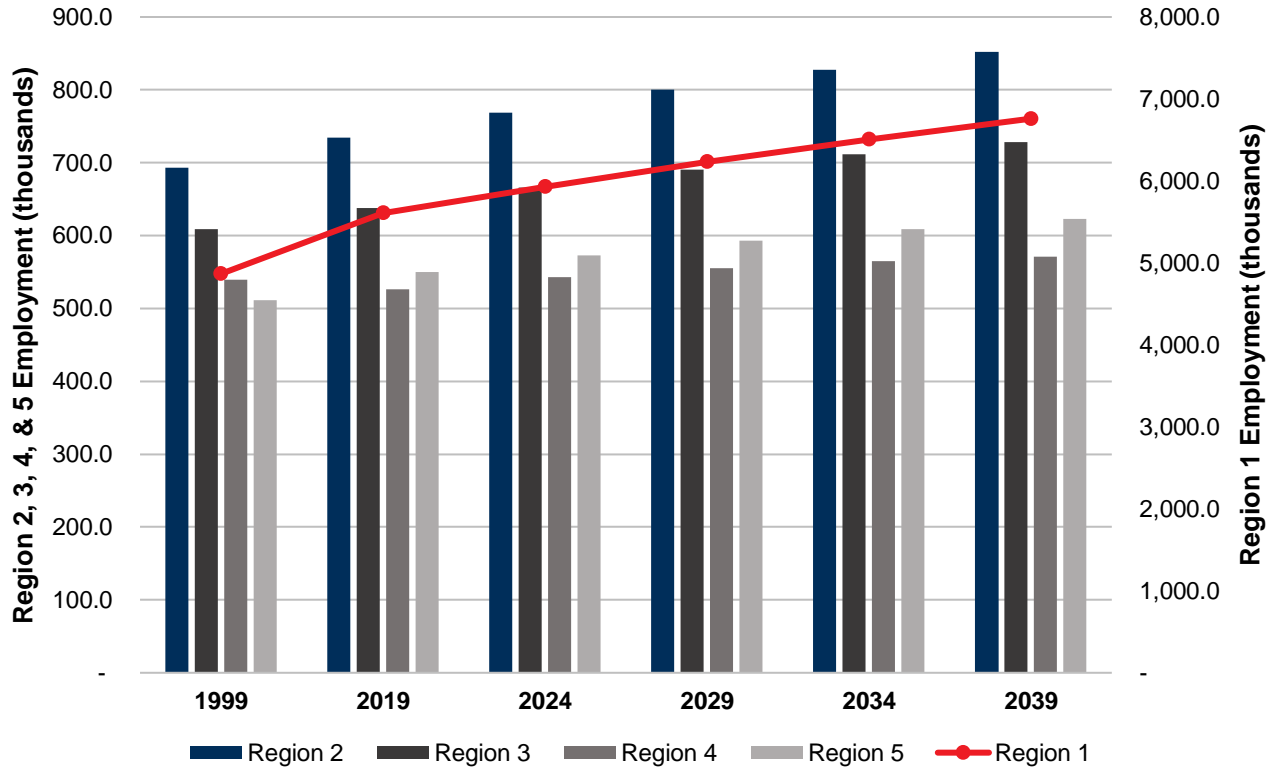
Source: Woods and Poole Economics Inc.

**Table 7.3. Comparison of U.S. and Illinois Employment, 2019 (thousands of jobs)**

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%
<b>Total</b>	<b>8,057.990</b>	<b>200,555.423</b>	<b>100.0%</b>	<b>100.0%</b>

Source: Woods and Poole Economics Inc.

**Figure 7.7. Employment (thousands) by IDOT Region**



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



**Table 7.4. Employment Growth and Forecasts (thousands of jobs)**

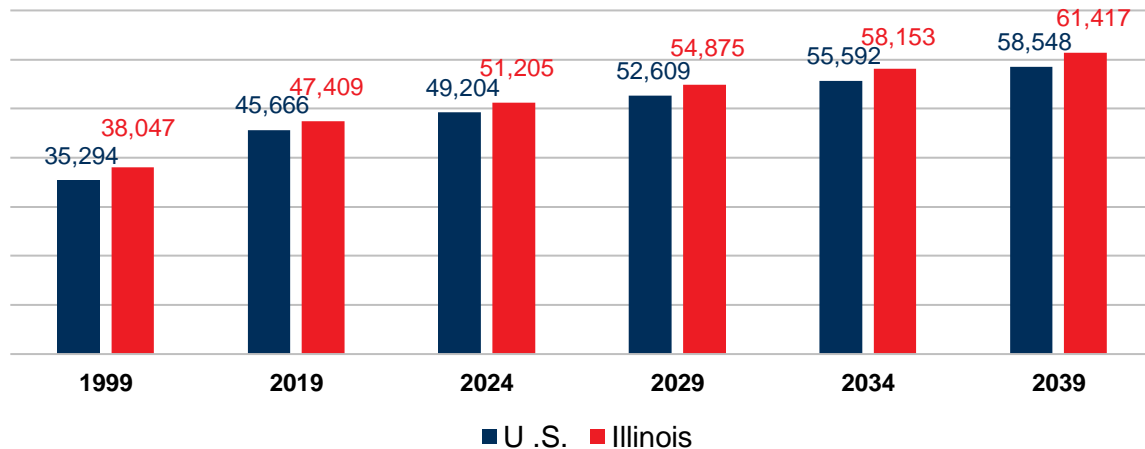
Region	Employment (thousands)						CAGR			
	1999	2019	2024	2029	2034	2039	1999-2019	2019-2024	2019-2029	2019-2039
<b>Region 1</b>	4,867.05	5,609.66	5,930.57	6,232.78	6,508.45	6,759.46	0.71%	1.12%	1.06%	0.94%
<b>Region 2</b>	693.03	734.50	769.05	800.21	827.64	852.00	0.29%	0.92%	0.86%	0.74%
<b>Region 3</b>	608.88	637.53	665.89	690.64	711.29	728.56	0.23%	0.87%	0.80%	0.67%
<b>Region 4</b>	539.09	526.36	542.74	555.66	564.96	571.29	-0.12%	0.61%	0.54%	0.41%
<b>Region 5</b>	511.20	549.95	572.94	592.82	609.14	622.52	0.37%	0.82%	0.75%	0.62%
<b>Illinois</b>	7,219.25	8,057.99	8,481.18	8,872.11	9,221.47	9,533.83	0.55%	1.03%	0.97%	0.84%
<b>U.S.</b>	161,531.41	200,555.42	214,840.16	228,826.30	242,288.09	255,383.79	1.09%	1.39%	1.33%	1.22%

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

### 7.1.3.5. Income Trends

Prior to the pandemic, PCPI correlated with the propensity to travel by air. Using inflation-adjusted dollars it is possible to compare PCPI growth from one period to the next. **Figure 7.8** shows PCPI adjusted to 2009 dollars. Illinois has historically had a larger PCPI than the U.S.

**Figure 7.8. Per Capita Personal Income, U.S. Versus Illinois, 2009 dollars**



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

### 7.1.4. 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.

As system plans 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 system plans are 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 or 2020 with projections for 2024, 2029, and 2039. The following subsections outline the baseline data and methodologies used to develop forecasts for the following airport activity indicators:

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

### 7.1.5. Enplanement Forecasts

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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 Federal Aviation Administration's (FAA) Terminal Area Forecast (TAF). TAF 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
- ◆ Per Capita Personal Income Methodology
- ◆ Socioeconomic Blend Methodology
- ◆ Terminal Area Forecast Methodology

#### ***7.1.5.1. Option #1: Population Methodology***

The Population Methodology used Illinois' current and projected 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 county in Illinois 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. The Population Methodology assumes the population to enplanement ratio will remain constant throughout the 20-year planning horizon. The results of the Population Methodology enplanement forecasts are presented in comparison with the other enplanement forecast methodologies in **Figure 7.9** and **Table 7.5**.

#### ***7.1.5.2. Option #2: Per Capita Personal Income Methodology***

The Per Capita Personal Income (PCPI) Methodology used Illinois' current and projected 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. The PCPI Methodology assumes that the PCPI to enplanement ratio will remain constant through the planning horizon. The results of the PCPI Methodology enplanement forecasts are presented in comparison with the other enplanement forecast methodologies in **Figure 7.9** and **Table 7.5**.

#### ***7.1.5.3. Option #3: Socioeconomic Blend Methodology***

The Socioeconomic Blend Methodology averages the Population and PCPI methodologies to develop a growth rate. The Socioeconomic Blend methodology captures growth rates based on both population and PCPI trends in Illinois counties. The averaged, blended growth rate for each county was applied to airport base year enplanements to estimate commercial service enplanement forecasts for the 20-year planning horizon. The Socioeconomic Blend Methodology assumes that the ratio between enplanements and blended socioeconomic growth rate will remain constant through the planning horizon. The results of the Socioeconomic Blend Methodology enplanement forecasts are presented in comparison with the other enplanement forecast methodologies in **Figure 7.9** and **Table 7.5**.

#### ***7.1.5.4. Option #4: Terminal Area Forecast Methodology***

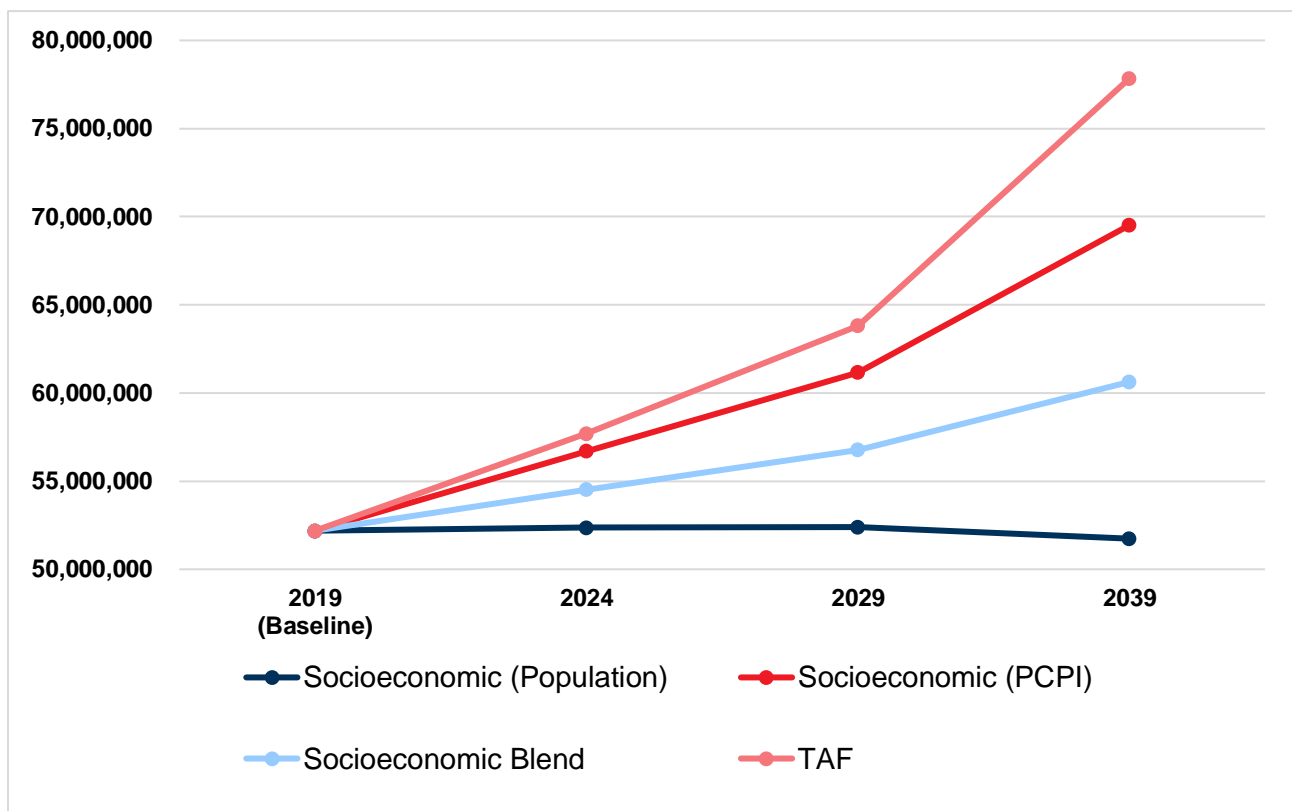
The Terminal Area Forecast (TAF) Methodology utilized the FAA's TAF to predict enplanement activity. The TAF is the FAA's official forecast of aviation activity for airports in the National Plan of Integrated Airport Systems (NPIAS). The TAF is prepared annually to meet the FAA's planning and budgetary

needs. As such, the TAF is updated and published by the FAA every year. TAF data was collected for each IASP airport for 2019 to 2039. The results of the TAF Methodology enplanement forecasts are presented in comparison with the other enplanement forecast methodologies in **Figure 7.9** and **Table 7.5**.

#### 7.1.5.5. Preferred Enplanement Forecast Methodology

**Figure 7.9** and **Table 7.5** 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 the Chicagoland area. 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 7.9. Systemwide Enplanement Forecasts (2019 – 2039)**



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





Table 7.5. Enplanement 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

### 7.1.6. GA Operations Forecasts

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GA operations are all local and itinerant operations outside of commercial service and military operations. GA 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. GA operations data for Illinois' airports were collected from the FAA TAF for NPIAS airports. GA 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. TAF 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 determine GA operations forecast estimates:

- ◆ Population Methodology
- ◆ PCPI Methodology
- ◆ Socioeconomic Blend Methodology
- ◆ TAF Methodology
- ◆ GA Hours Forecast Methodology

#### 7.1.6.1. 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. The Population Methodology assumes the population to GA operations ratio will remain constant through the planning horizon. The results of the Population Methodology GA forecasts are presented in comparison with the other GA operations forecast methodologies in **Figure 7.10** and **Table 7.6**.

#### 7.1.6.2. Option #2: Per Capita Personal Income Methodology

The Per Capita Personal Income (PCPI) Methodology uses Illinois' 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. The PCPI Methodology assumes that the PCPI to GA operations ratio will remain constant through the planning horizon. The results of the PCPI Methodology GA operations forecasts are presented in comparison with the other GA operations forecast methodologies in **Figure 7.10** and **Table 7.6**.

#### 7.1.6.3. Option #3: Socioeconomic Blend Methodology

The Socioeconomic Blend Methodology averages the Population and PCPI methodologies to develop a growth rate. 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 GA operations to develop GA operation forecasts for the 20-year planning horizon. The Socioeconomic Blend Methodology assumes that the ratio between GA operations and blended socioeconomic growth

rate will remain constant through the planning horizon. The results of this forecast is presented in comparison with the other GA operations forecast methodologies in **Figure 7.10** and **Table 7.6**.

#### ***7.1.6.4. Option #4: Terminal Area Forecast Methodology***

The Terminal Area Forecast (TAF) Methodology used the FAA's TAF data to predict future aviation activity. TAF data for GA operations were collected for each IASP airport for 2019 to 2039. The results of the TAF Methodology GA operations forecasts are presented in comparison with the other GA operations forecast methodologies in **Figure 7.10** and **Table 7.6**.

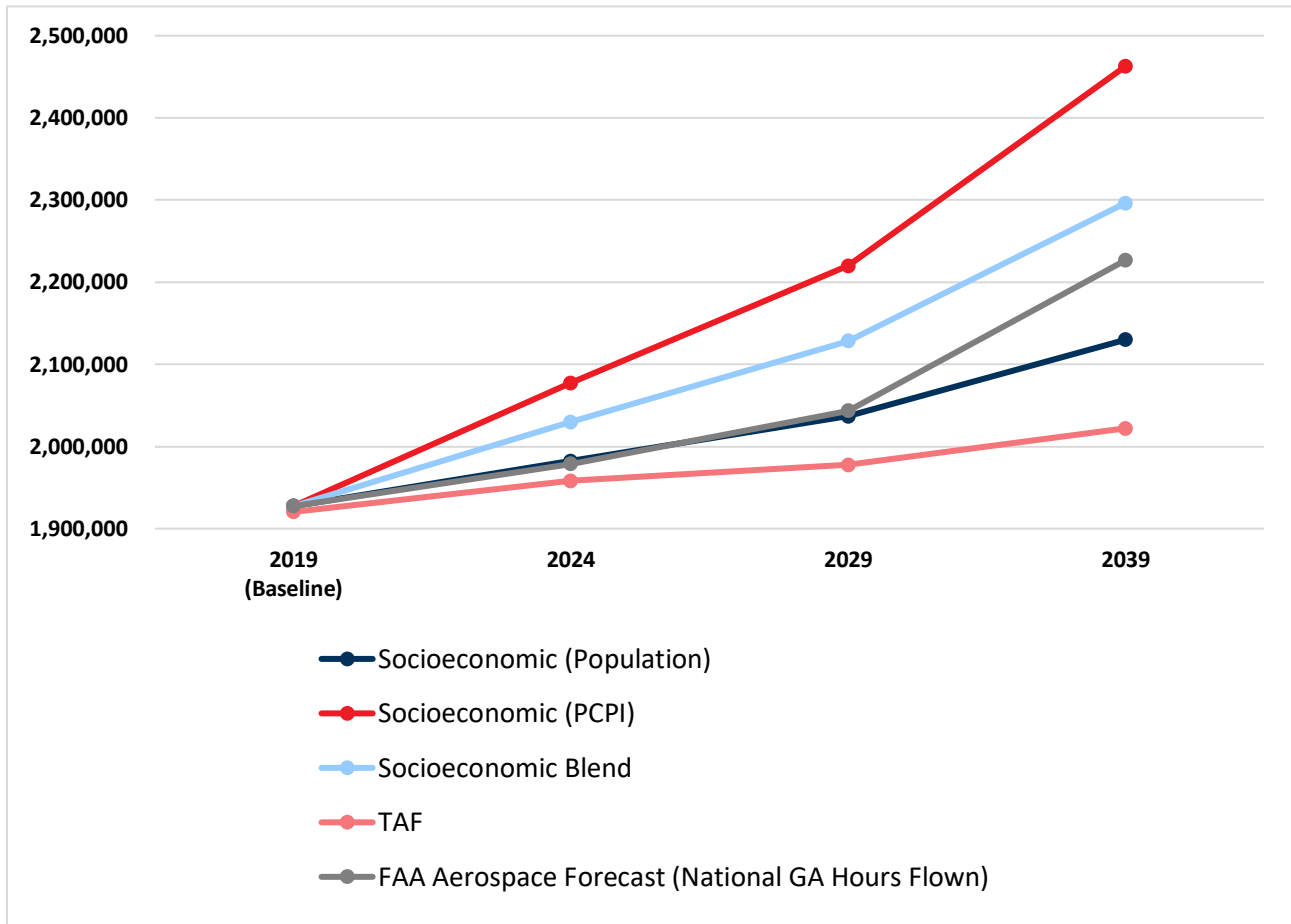
#### ***7.1.6.5. Option #5: GA Hours Forecast Methodology***

Every two years the FAA releases the FAA Aerospace Forecasts. The report forecasts various segments of the industry. Included in the FAA Aerospace Forecasts from 2021-2041 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 GA operations 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 2019 baseline data to develop GA operations forecasts for the 20-year planning horizon. The results of the GA Hours Methodology are presented in comparison with the other GA operations forecast methodologies in **Figure 7.10** and **Table 7.6**.

#### ***7.1.6.6. Preferred GA Operations Forecast Methodology***

**Figure 7.10** and **Table 7.6** 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 because hours flown are tracked and reported by pilots.

**Figure 7.10. Systemwide GA Operation Forecast (2019 – 2039)**



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



Table 7.6. GA Operations Forecast (2019 – 2039)

Airport Information			Base Year	Population Methodology			PCPI Methodology			Socioeconomic Blend Methodology			TAF Methodology			GA Hours Forecast 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



Airport Information			Base Year	Population Methodology			PCPI Methodology			Socioeconomic Blend Methodology			TAF Methodology			GA Hours Forecast Methodology		
Associated City	Airport Name	FAA ID	2019	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039
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
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





Airport Information			Base Year	Population Methodology			PCPI Methodology			Socioeconomic Blend Methodology			TAF Methodology			GA Hours Forecast Methodology		
Associated City	Airport Name	FAA ID	2019	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039
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
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



Airport Information			Base Year	Population Methodology			PCPI Methodology			Socioeconomic Blend Methodology			TAF Methodology			GA Hours Forecast Methodology		
Associated City	Airport Name	FAA ID	2019	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039	2024	2029	2039
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: 2020 IASP Airport Management Survey; FAA TAF, 2019 - 2039; FAA Aerospace Forecast, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021



### 7.1.7. Commercial Service Operations Forecast

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Commercial service operations consist of the total number of air carriers and air taxi operations at commercial service airports. GA 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. TAF 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
- ◆ Terminal Area Forecast Methodology
- ◆ FAA Aerospace Forecast Methodology

#### **7.1.7.1. Option #1: Population Methodology**

The Population Methodology used Illinois' current and projected 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. The Population Methodology assumes the population to commercial service operations ratio will remain constant through the planning horizon. The results of the Population Methodology commercial service operations forecasts are presented in comparison with the other commercial service operations forecast methodologies in **Figure 7.11** and **Table 7.7**.

#### **7.1.7.2. Option #2: Per Capita Personal Income Methodology**

The Per Capita Personal Income (PCPI) Methodology used Illinois' 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. The PCPI Methodology assumes that the PCPI to commercial service operations ratio will remain constant through the planning horizon. The results of the PCPI Methodology commercial service operations forecasts are presented in comparison with the other commercial service operations forecast methodologies in **Figure 7.11** and **Table 7.7**.

#### **7.1.7.3. Option #3: Socioeconomic Blend Methodology**

The Socioeconomic Blend Methodology averages the Population and PCPI methodologies to develop a growth rate. 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. The Socioeconomic Blend Methodology assumes that the ratio between commercial service operations and blended socioeconomic growth rate will remain constant through the planning horizon. The results of the Socioeconomic Blend Methodology commercial service operations forecasts are presented in comparison with the other commercial service operations forecast methodologies in **Figure 7.11** and **Table 7.7**.

#### **7.1.7.4. Option #4: Terminal Area Forecast Methodology**

The TAF Methodology used the FAA TAF to predict future aviation activity. TAF data was collected for each airport for 2019 to 2039. The results of the TAF Methodology commercial service operations forecasts are presented in comparison with the other commercial service operations forecast methodologies in **Figure 7.11** and **Table 7.7**.

#### **7.1.7.5. Option #5: FAA Aerospace Forecast (Mainline v. Regional Carriers) Methodology**

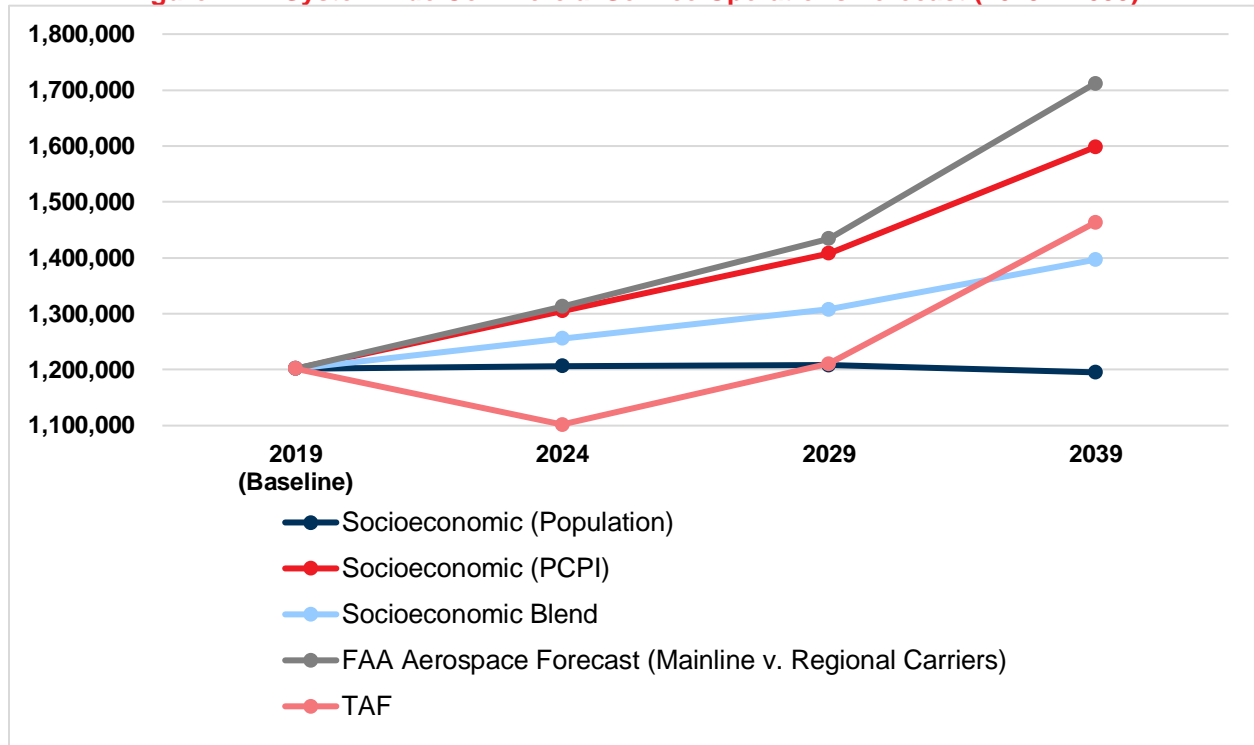
The FAA Aerospace Forecast (Mainline v. Regional Carriers) Methodology used systemwide scheduled passenger traffic data and growth rates from the 2019-2029 *FAA Aerospace Forecast*. The FAA Aerospace Forecast growth rate was applied to the 2019 baseline commercial service operations to develop forecasts for the 20-year planning horizon. The results of the FAA Aerospace Forecast Methodology commercial service operations forecasts are presented in comparison with the other commercial service operations forecast methodologies in **Figure 7.11** and **Table 7.7**.

#### **7.1.7.6. Preferred Commercial Service Forecast Methodology**

**Figure 7.11** and **Table 7.7** 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 20-year 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 decrease in commercial service operations prior to 2025. The **TAF Methodology** was selected as the preferred commercial services 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 7.11. Systemwide Commercial Service Operations Forecast (2019 – 2039)**



Sources: FAA TAF, 2019 - 2029; FAA Aerospace Forecast, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021



Table 7.7. Commercial Service Operations Forecast (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	2,100	2,100	2,300	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	6,500	6,700	7,300	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	14,000	14,400	15,700	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	205,700	212,500	231,500	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	933,900	964,500	1,050,900	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	20,200	20,900	22,800	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	4,200	4,300	4,700	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	7,900	8,200	8,900	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	15,500	16,000	17,400	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	15,300	15,800	17,200	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	3,900	4,000	4,400	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	4,500	4,700	5,100	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	1,233,700	1,274,100	1,388,200	1,101,900	1,210,800	1,463,000

Sources: FAA TAF, 2019 - 2029; FAA Aerospace Forecast, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

### 7.1.8. Based Aircraft Forecast

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Based aircraft are operational and air-worthy aircraft based on an-airport for most of the year. Baseline based aircraft counts for nonprimary 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 National Plan of Integrated Airport Systems (NPIAS) eligibility, allocate appropriate federal funding, and determine systemwide improvement needs. However, aviation forecasting was delayed due to the COVID-19 pandemic so 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). For non-NPIAS and primary airports, baseline data was collected for based aircraft reported by airports on the IASP Inventory & Data Form. The following five methodologies were used to estimate future based aircraft activity:

- ◆ Population Methodology
- ◆ PCPI Methodology
- ◆ Socioeconomic Blend Methodology
- ◆ TAF Methodology
- ◆ GA Hours Forecast Methodology

#### **7.1.8.1. Option #1: Population Methodology**

The Population Methodology uses Illinois' current and projected population growth rates to develop a population to based aircraft 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 based aircraft activity to develop operation forecasts for the 20-year planning horizon. The Population Methodology assumes the population to based aircraft ratio will remain constant through the planning horizon. The results of the Population Methodology based aircraft forecasts are presented in comparison with the other based aircraft forecast methodologies in **Figure 7.12** and **Table 7.8**.

#### **7.1.8.2. Option #2: Per Capita Personal Income Methodology**

The Per Capita Personal Income (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. The PCPI Methodology assumes that the PCPI to based aircraft ratio will remain constant through the planning horizon. The results of the PCPI Methodology based aircraft forecasts are presented in comparison with the other based aircraft forecast methodologies in **Figure 7.12** and **Table 7.8**.

#### **7.1.8.3. Option #3: Socioeconomic Blend Methodology**

The Socioeconomic Blend Methodology averages the Population and PCPI methodologies to develop a growth rate. 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 operations forecasts for the 20-year planning horizon. The Socioeconomic Blend Methodology assumes that the ratio between based aircraft and blended socioeconomic growth rate will remain constant through the planning horizon. The results of the

Socioeconomic Blend Methodology based aircraft forecasts are presented in comparison with the other based aircraft forecast methodologies in **Figure 7.12** and **Table 7.8**.

#### ***7.1.8.4. 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 2020 to 2039. The results of the TAF Methodology based aircraft forecasts are presented in comparison with the other based aircraft forecast methodologies in **Figure 7.12** and **Table 7.8**. 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 2020; so when applying the TAF methodology, a large spike can be noticed between the base year (2020) and the first forecast year (2024).

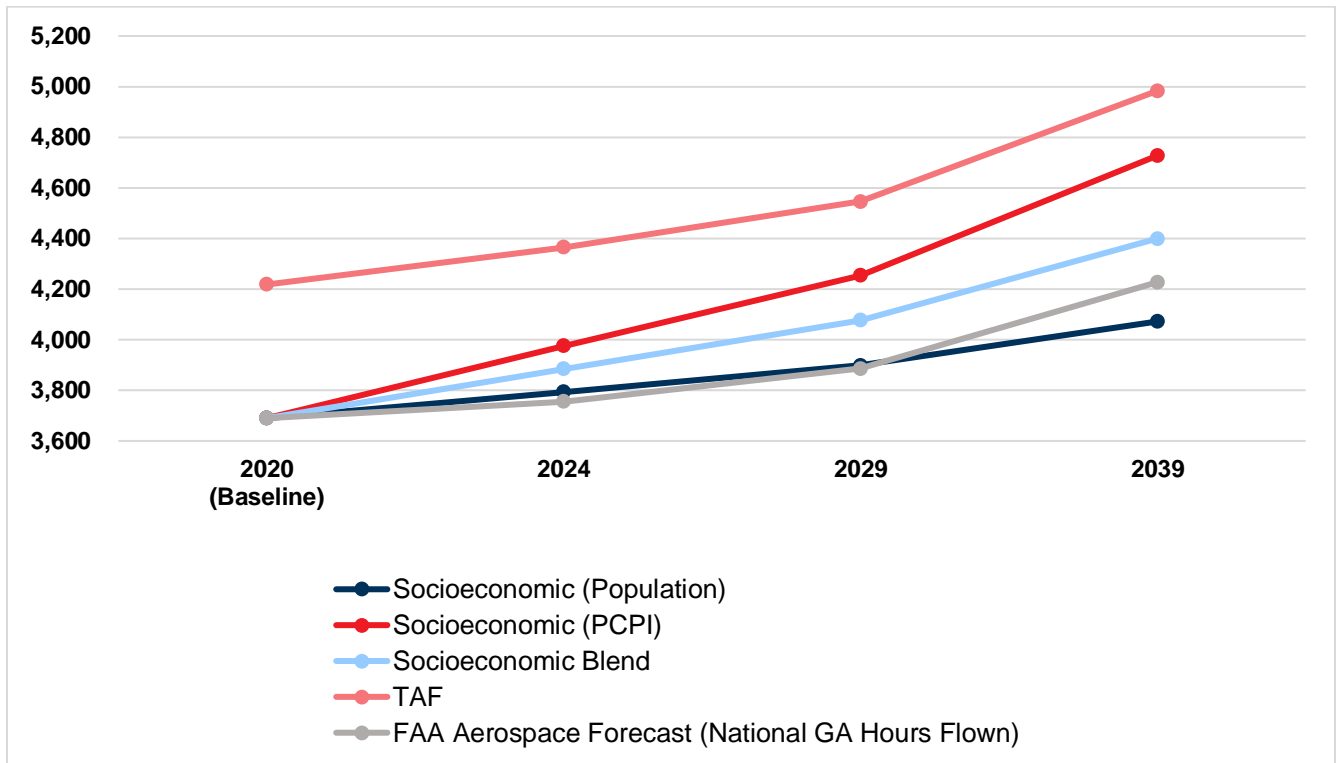
#### ***7.1.8.5. Option #5: GA Hours Forecast Methodology***

Every two years the FAA releases the FAA Aerospace Forecasts. The report forecasts various segments of the industry. Included in the FAA Aerospace Forecasts from 2021-2041 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 2019 baseline data to develop based aircraft forecasts for the 20-year planning horizon. The results of the GA Hours Forecast Methodology for based aircraft forecasts are presented in comparison with the other base aircraft forecast methodologies in **Figure 7.12** and **Table 7.8**.

#### ***7.1.8.6. Preferred Based Aircraft Forecast Methodology***

**Figure 7.12** and **Table 7.8** summarize the based aircraft forecast projections for Illinois from 2020 to 2039. All five methodologies project growth in based aircraft systemwide through the planning horizon. The TAF methodology predicts 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 because it provides a conservative, realistic forecast estimate for the entire state where trends solely based on population or PCPI vary widely across areas of Illinois.

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



Sources: basedaircraft.com, 2020; 2020 IASP Airport Management Survey; FAA TAF, 2019 - 2039; FAA Aerospace Forecast, 2019 - 2039; Woods & Poole, 2021; Kimley-Horn, 2021





Table 7.8. Based Aircraft Forecast (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



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
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
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

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
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 TAF	Not in TAF	Not in TAF	8	8	9	9	9	9
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

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
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; 2020 IASP Airport Management Survey; FAA TAF, 2019 - 2039; FAA Aerospace Forecast, 2019 – 2039; Woods & Poole, 2021; Kimley-Horn, 2021

## 7.4 Summary of Forecasts

As shown in **Table 7.9**, growth is anticipated 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 7.9. Forecast Summary**

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

Sources: *basedaircraft.com*; 2020 IASP Airport Management Survey; 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 in **Table 7.10** and **Table 7.11**, 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 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 v FAA TAF).

**Table 7.10. 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%
AAGR 2019-2039		0.72%	0.26%	0.47%

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

**Table 7.11. 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%
AAGR 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 system plan forecasts in their planning, but should rely on their own, airport-commissioned forecasts to justify facility needs.