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ACI NORTH AMERICA
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The Economic Impact of U.S. Commercial Service Airports in 2024

March 2025

Image Source: Anchorage International Airport (ANC).

Image Source: John Glenn Columbus International Airport (CMH) - Columbus Regional Airport Authority.

Executive Summary

Commercial service airports in the U.S. are indispensable to the U.S. economy, moving people and products across the country and around the world.

In addition to the critical role that airports play in the U.S. transportation network, they also behave as significant economic engines on their own, supporting well-paying jobs and generating economic output that benefits the local, regional, and national economy.

This economic impact study quantifies the economic benefits from U.S. commercial service airports[1] in 2024. These impacts are measured in terms of employment, payroll, and economic output associated with on-airport activities and the spending of visitors that arrive by airline. The study relies on inputs from statewide and individual airport economic studies for use in an economic model accepted by the Federal Aviation Administration (FAA) and other government agencies for use in quantifying economic impacts.

The research incorporates more than 80 studies to obtain the data used to show that the 487 commercial service airports in the United States:

- Support 12.8 million jobs.
- Provide $619 billion in annual payroll.
- Produce $1.8 trillion of annual output.

These jobs are tied to the on-airport activity, such as airport operations, ground handling operations, ticket agents, security screening, terminal concessionaire services, and rental car operations. The jobs related to spending by visitors using airlines are found in the hospitality industry, such as hotel and restaurant jobs. Jobs connected to capital improvement projects (CIP) at the airport include engineers, architects, consultants, and construction workers.

This strong evidence stresses the economic importance of airports and how they contribute to the economy. This report looks at the economic environment in which the airports operate, details impacts at the state level, and explains how the study obtained these results.

1 As defined in the *National Plan of Integrated Airport Systems (NPIAS) 2025-2029* published by the FAA in September 2024.

Image Source: Anchorage International Airport (ANC).

U.S. Commercial Service Airports Economic Impact

This report quantifies the economic impact of the 487 commercial service airports in the U.S. in terms of employment, payroll, and economic output.

The methods used in this study mirror those used in the previous study undertaken by Airports Council International – North America (ACI-NA). The previous study used a base year of 2017 and analyzed the 493 commercial service airports that existed at that time. Before providing the detailed economic impact results and comparing them to the previous study, it is useful to examine the performance of the aviation industry.

The U.S. aviation industry, like any other, follows the business cycle, responding to growth and slowdowns in the economy. Naturally, this is a determining factor for how much economic impact the aviation industry has and provides valuable context for the economic impacts presented later in this report. Looking at how the U.S. economy has performed in the past 10 years helps to frame its performance economically in 2023.

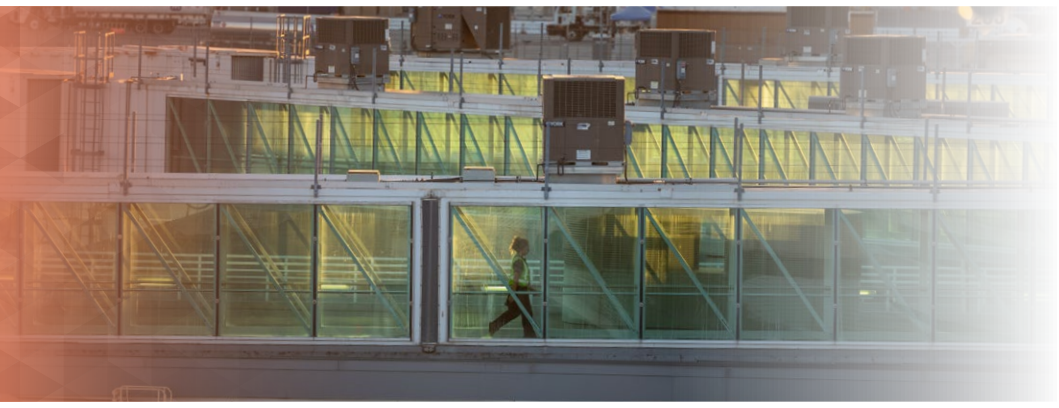
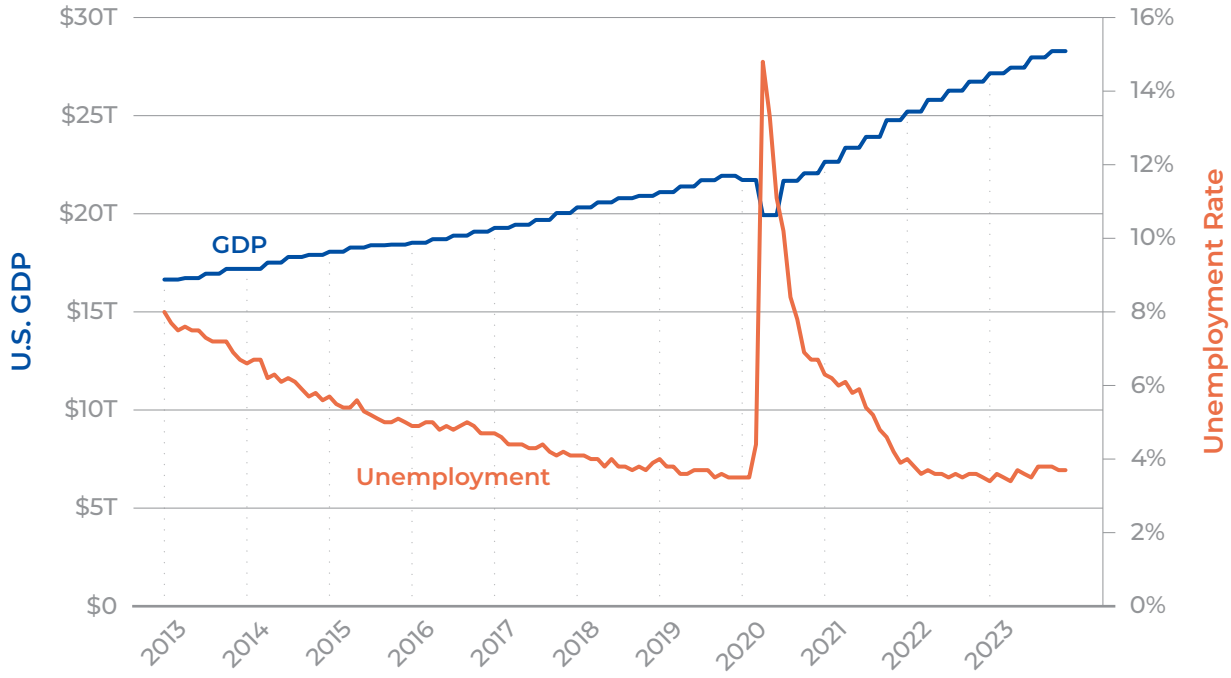


Image Source: Ontario International Airport (ONT).

U.S. Commercial Service

A look at the past 10 years shows that, with the exception of the COVID-19 pandemic in 2020 and 2021, the U.S. economy has experienced fairly steady growth and development. Gross domestic product (GDP) from 2013 to 2023 increased by $10.8 trillion dollars, or about 64 percent (**Figure 1**).

Figure 1
Economic Environment 2013-2023



Source: U.S. Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey - Unemployment Rate and U.S. Bureau of Economic Analysis, "Table 1.1.6. Real Gross Domestic Product, Chained Dollars."

During that time, the unemployment rate fell from approximately 8 percent to under 4 percent, demonstrating further that the economy was steadily improving.

The pandemic obviously interrupted that narrative. At its peak, unemployment spiked to nearly 15 percent, and GDP declined by $2 trillion. While that only amounted to about a 10 percent drop in GDP, the pandemic had a much greater impact on the aviation industry. Additionally, a lingering pilot shortage also slowed the recovery of the airline industry.

Image Source: Reno-Tahoe International Airport (RNO) - Ticketing Hall Expansion.

Pandemic Impacts

The COVID-19 pandemic had an unprecedented impact on the U.S. aviation industry. Air traveler fears of the disease combined with government actions to limit travel gutted the U.S. aviation industry. During the first year of the pandemic, airline passenger traffic in 2020 fell by 60 percent compared to 2019.

The U.S. government simultaneously imposed restrictions on the air travel industry while also granting regulatory relief to airlines and airports. At the same time, the FAA provided a wide range of temporary regulatory relief for airlines and airports, such as making operating capital available to airports.

Airports sought to reassure passengers about the safety of air travel through enhanced terminal cleaning protocols and the implementation of touchless technologies for both airline check in and concessionaire purchases.

Table 1 shows that 2020 activity was down significantly compared to 2019 activity. Revenue passenger miles dropped nearly 64 percent in 2020. Airline efforts to respond to the drop resulted in available seat miles falling by only 48 percent and flights declining by 40 percent, which drove load factors down to 59 percent for 2020, more than a 25-percentage point drop from 2019.

The one bright spot was seen in the cargo statistics. Revenue ton miles increased nearly 7 percent thanks to increased demand from home-confined consumers using e-commerce.

Table 1
Pandemic Impacts on the U.S. Aviation Industry

Airline Metric	2019	2020	Percent Change
Enplanements	902.7M	365.3M	**-59.5%**
Revenue Passenger Miles	1.0B	377.3M	**-63.9%**
Available Seat Miles	1.2B	644.3M	**-47.8%**
Passenger Load Factor	85%	59%	**-30.6%**
Scheduled Passenger Flights	8.4M	5.0M	**-40.5%**
Revenue Ton Miles	43.5B	46.4B	**6.8%**
Operating Revenue	$195.9B	$77.1B	**-60.6%**
Net Income	$14.8B	-$35.1B	**-337.2%**
Profit Margin	7.6%	-45.5%	**-698.7%**

Source: Bureau of Transportation Statistics, Transtats (https://www.transtats.bts.gov/).

Unfortunately, the improved performance of air cargo was not enough to offset the damage the pandemic wrought on the passenger side, as seen in the industry financial results. The industry as a whole experienced more than a 60 percent drop in operating revenue.

Overall Economic Impacts of U.S. Commercial Service Airports

The study led to two key findings. First, the 487 U.S. commercial service airports produced more than $1.8 trillion in economic output in 2024. Additionally, these airports support more than 12.8 million jobs with a total payroll of nearly $619 billion. The following sections detail these economic benefits by type of impact. Each type of impact – direct, multiplier, and total – is broken down by category of impact (**Table 2**).

IMPACT CATEGORIES

On-Airport

Impacts associated with airline, airport, terminal concession, rental car, and parking operations.

Visitor

Impacts from visitor spending that occurs off the airport, typically at hotels and restaurants.

Capital Improvements

Impacts taking place both on the airport (construction projects) and off the airport (planning and project design).

Direct Impacts

Direct impacts are the points where initial economic transactions take place. For this study, direct impacts take place on the airport, and off the airport as the result of visitor spending and activities associated with CIP.

Multiplier Impacts

Multiplier impacts occur as a result of the recirculation of direct impacts within the defined economy. Multiplier impacts continue until they leak out beyond the defined economy, ending the multiplier effect.

Total Impacts

Total impacts are the combination of direct and multiplier impacts yielding the total impacts attributable to U.S. commercial service airports and their associated activities.

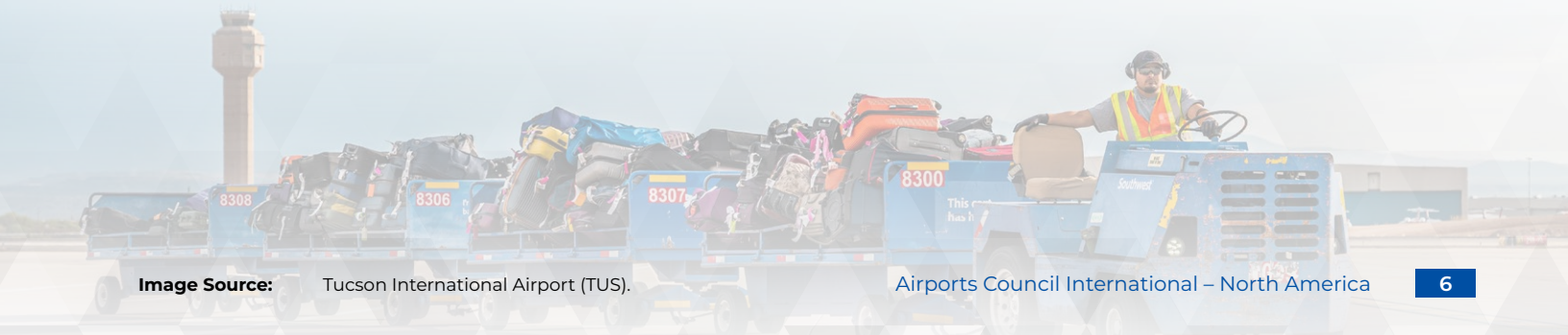


Image Source: Tucson International Airport (TUS).

Table 2
Overall Economic Impacts of Commercial Service Airports in the U.S.

	Impacts	On-Airport	Visitor	Capital Improvements	U.S. Total
Employment	Direct	1,393,300	5,074,000	58,700	6,526,000
	Multiplier	3,414,000	2,739,600	133,800	6,287,400
	Total	4,807,300	7,813,600	192,500	12,813,400
Payroll	Direct	$115.4B	$156.3B	$4.1B	$275.8B
	Multiplier	$188.1B	$146.9B	$7.5B	$342.5B
	Total	$303.5B	$303.2B	$11.6B	$618.3B
Output	Direct	$394.8B	$321.5B	$17.3B	$733.6B
	Multiplier	$552.7B	$527.3B	$30.8B	$1.1T
	Total	$947.5B	$848.9B	$48.1B	$1.8T

Source: Mead & Hunt and IMPLAN.

Direct Impacts

The 487 U.S. commercial service airports produce direct impacts, shown in **Table 2**. In terms of employment, the visitor category makes the largest employment contribution, with more than 5 million jobs. The on-airport category adds another 1.4 million jobs. With the additional 58,700 jobs from the CIP category, the total U.S. direct jobs attributed to commercial service airports amounts to 6.5 million positions, earning nearly $276 billion in annual payroll.

When looking at output, however, it is the on-airport category that contributes the most economic impact, with more than $395 billion in annual output. Visitors contribute nearly $322 billion through their off-airport spending, and CIP expenditures are more than $17 billion.

Multiplier Impacts

Multiplier impacts result from the recirculation of direct impacts. For example, as airport employees spend their salary for housing, food, and services, those expenditures circulate through the local and regional economy, resulting in increased spending, payroll, and employment throughout the economy.

Multiplier impacts re-circulate until they eventually leak beyond the geographic region being studied, which, in this case, is the United States. As can be seen, the multiplier impacts generate trillions of dollars of economic output and support millions of jobs.

Total Impacts

The total impacts for U.S. commercial service airports amount to 12.8 million jobs earning $618 billion and producing $1.8 trillion in annual output.

Table 3
Total Impacts of Commercial Service Airports in the U.S. (by State Output)

	Total Airports (change from 2017)	Employment	Payroll	Output
FL	21 (+1)	1,744,700	$79.4B	$259.6B
CA	29 (+3)	1,646,200	$76.5B	$230.7B
TX	26 (+2)	1,044,400	$49.5B	$146.1B
NY	18 (-2)	933,800	$44.5B	$110.4B
GA	8 (+1)	644,900	$33.0B	$99.7B
IL	12 (0)	579,400	$30.6B	$87.0B
AZ	9 (-1)	422,600	$22.2B	$73.8B
CO	13 (0)	513,900	$24.7B	$70.9B
NV	4 (-1)	381,100	$18.7B	$60.3B
NC	10 (-1)	464,000	$25.9B	$60.2B
WA	13 (0)	361,100	$18.0B	$54.3B
VA	9 (0)	358,600	$17.6B	$54.1B
NJ	3 (-1)	325,400	$17.3B	$49.7B
PA	13 (0)	321,300	$14.6B	$45.2B
TN	6 (+1)	193,500	$8.9B	$35.4B
MN	9 (+1)	166,700	$8.2B	$33.5B
HI	9 (0)	203,900	$9.8B	$32.7B
MA	6 (-1)	272,900	$11.5B	$30.8B
MI	17 (-2)	210,700	$10.4B	$26.4B
MD	3 (0)	186,500	$8.9B	$26.3B
OH	6 (-2)	133,500	$6.7B	$25.9B
UT	6 (-1)	169,100	$7.5B	$21.0B
MO	9 (+1)	143,700	$6.5B	$20.6B
SC	6 (0)	102,200	$4.9B	$17.2B
IN	4 (0)	102,300	$5.3B	$16.4B
OK	4 (+1)	97,400	$5.6B	$14.9B
OR	7 (0)	111,000	$5.1B	$14.1B
KY	5 (0)	118,300	$6.9B	$13.0B
AK	73 (-14)	112,700	$4.9B	$12.6B
NE	7 (+1)	90,300	$4.2B	$10.5B
WI	8 (0)	74,700	$3.1B	$10.2B
LA	7 (0)	72,500	$3.1B	$10.1B
KS	7 (0)	37,300	$2.3B	$8.3B
CT	2 (0)	52,400	$2.5B	$7.5B
AL	7 (+2)	45,800	$2.4B	$7.0B
ID	6 (0)	43,000	$1.7B	$6.2B
MT	12 (0)	36,400	$1.7B	$5.0B
RI	3 (0)	34,900	$1.6B	$4.7B
AR	7 (0)	34,900	$1.8B	$4.7B
NM	7 (+1)	33,300	$1.6B	$4.5B
MS	7 (+1)	29,100	$1.5B	$4.3B
ME	6 (0)	30,600	$1.3B	$4.0B
WY	9 (0)	29,100	$1.2B	$3.6B
IA	8 (+2)	23,600	$1.1B	$2.7B
ND	8 (0)	19,100	$0.8B	$2.5B
NH	3 (0)	20,800	$1.0B	$2.1B
SD	5 (+1)	14,700	$0.7B	$1.5B
VT	2 (0)	9,200	$0.5B	$1.3B
WV	7 (0)	11,000	$0.4B	$0.9B
DE	1 (+1)	4,900	$0.3B	$0.6B
Total	**487 (-6)**	**12,813,400**	**$618.3B**	**$1.8T**

Source: Mead & Hunt and IMPLAN.

Incremental Aviation Activity

As the aviation industry continues to recover from the pandemic and returns to normal operations, it is useful to understand how incremental changes in aviation activity impact a typical airport's economic impacts.

Based on the information gathered for this study, an increase in enplanements at an airport has two effects. First, additional enplanements, in general, increase the on-airport employment and output. The second effect is an increase in visitor spending, since some of those enplanements are likely to be visitors.

Every additional

1,000

enplanements results in...

	Additional Employment	Additional Output
On-Airport	1.2	$387.2K
Visitor	4.6	$290.5K
Total	**5.8**	**$677.7K**

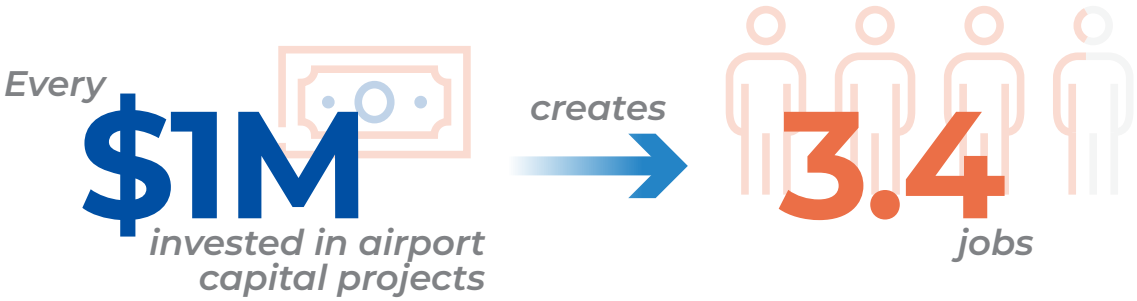
On average, 1,000 additional enplanements produce an additional $387,200 of output and support an additional 1.2 jobs. Those same 1,000 enplanements also lead to an average increase in visitor spending of $290,500, which supports an additional 4.6 jobs. Note that the on-airport output is greater than the visitor output even though there are fewer jobs associated with the on-airport category compared to the visitor category.

The difference in these impacts illustrates an important trend taking place at airports. Some is attributed to the difference in average pay scale between on-airport jobs and visitor-related jobs, which tend to be in the hospitality industry and are generally lower paying. But some of the difference is attributed to the increase in productivity of airport workers, which translates into a higher output per employee ratio.

Much of this increase in productivity comes from airports implementing technology. This includes everything from FAA technology upgrades for air traffic control (such as the System Wide Information Management Program), to improved baggage sorting systems, or even upgrades to lower cost LED light systems, where longer-lasting bulbs give maintenance workers more time to devote to more productive endeavors. In all of these examples, technology allows workers to accomplish more within the same working hours, boosting productivity and their output.

Incremental Airport Infrastructure Investment

The infrastructure found at airports is a significant investment that must be maintained to continue providing access to the aviation system. While just keeping up the facilities at a commercial service airport takes substantial funding, that money does produce economic impacts from the engineering, construction, and upkeep of airport infrastructure.



The jobs created by project investment are typically positions in the construction, engineering, architectural, or consulting field. Best of all, if the infrastructure improvement, such as a terminal expansion, leads to more enplanements, that produces even more economic output (as described above) and creates more jobs.

Image Sources: Tulsa International Airport (TUL) - ATCT Construction. Austin-Bergstrom International Airport (AUS) - West Gate Expansion.

Image Source: Rapid City Regional Airport (RAP) - Terminal Expansion.

Consequences of Underfunding Airport Infrastructure

The American Society of Civil Engineers (ASCE) publishes a series of studies that looks at the consequences of not maintaining the nation's infrastructure. Entitled *Failure to Act*, these studies have focused on different infrastructure components over the years. In 2021, ASCE published *Failure to Act: Investment in Airports Takes Off, But Bumpy Skies Ahead*, an assessment of the impacts from forecasted airport investment.

The ASCE report explains that a lack of airport infrastructure funding results in airports foregoing expansion projects and deferring maintenance on necessary facilities. Typically, such actions do not result in immediate detrimental impacts. Rather, the result is a loss of future economic impacts that fail to materialize because of lost growth at the airport and less efficient airport operations. These inefficiencies hit both businesses and travelers, resulting in lower productivity throughout the economy, particularly in these areas:

- Aging infrastructure can result in critical failures that hamper airport operations.
- Inadequate facility upkeep shortens infrastructure life spans, with higher costs from the replacement of infrastructure that wears out prematurely.
- Airlines suffer from airport delays, leading to higher fuel, crew, and aircraft maintenance costs.
- Air cargo and affiliated shipping companies experience delays in cargo shipments, which negatively impacts those in need of these goods, especially businesses that rely on lean processes that leverage just-in-time manufacturing practices.
- Travelers incur increased costs from delayed flights and missed connections. Over the long term, travelers may opt out of trips due to uncertainty of delayed and connecting flights, yielding less revenue for airlines. Companies may find that less reliable air travel makes business operations less efficient.

Lower Infrastructure Spending Results in...

Aging Infrastructure

Critical Failures

Poor Customer Service

Replacement (instead of maintenance)

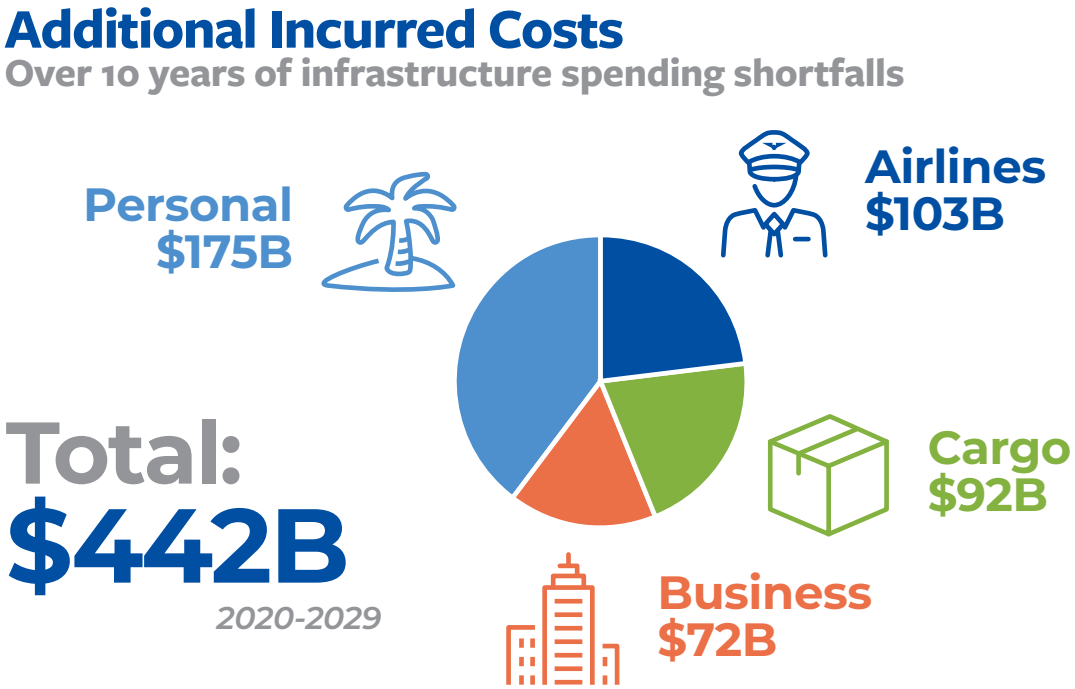
Decreased Capacity (Delays)

Airline Delays

Cargo/Shipping Delays

Traveller Delays

The ASCE report estimated the cumulative direct costs to these areas. Over the 10-year analysis period (2020 to 2029), direct costs add up to $442 billion.



Source: *Failure to Act: Investment in Airports Takes Off, But Bumpy Skies Ahead* with results converted to current dollars by Mead & Hunt.

Based on the forecasted accumulated infrastructure investment shortfall of $136.9 billion through 2029[2], the study estimated the direct costs per $1 million of infrastructure investment shortfall (**Table 4**). The data in this table shows the accumulated direct costs over the 10-year analysis period, based on the accumulated funding shortfall of $136.9 billion over the same time period. In general, these costs are minimal at the start of the period, but grow significantly toward the end.

Table 4
Direct Costs per $1 Million of Infrastructure Investment Shortfall

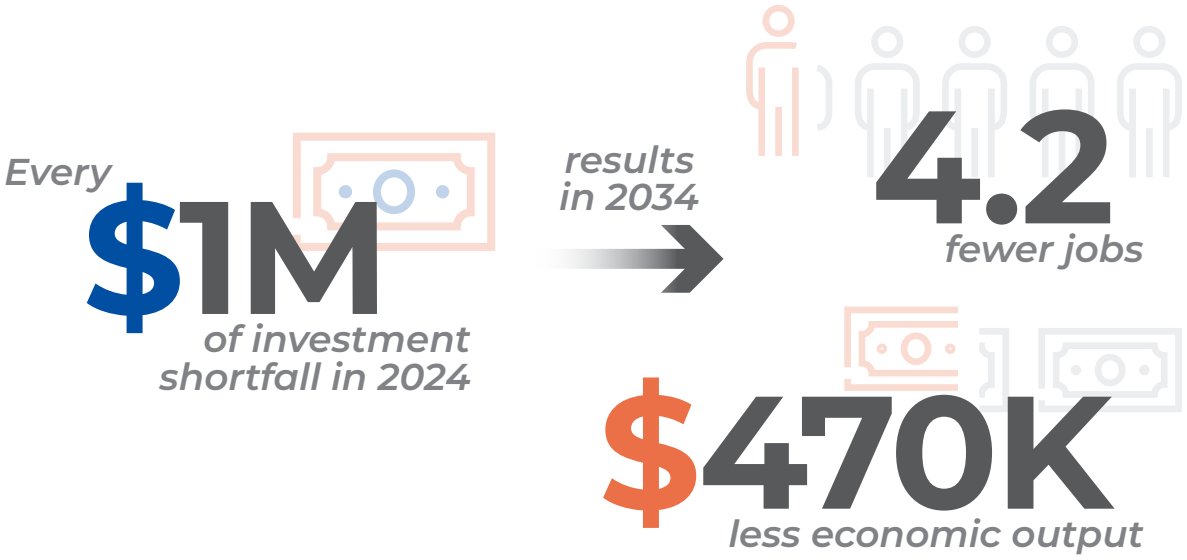
Category	2020-2029 per $1 Million of Infrastructure Investment Shortfall
Airlines	$750K
Air Cargo	$670K
Business Travel	$530K
Personal Travel	$1.3M
Totals	**$3.2M**

Source: *Failure to Act: Investment in Airports Takes Off, But Bumpy Skies Ahead*; ASCE and Mead & Hunt.

2 From *Failure to Act: Investment in Airports Takes Off, But Bumpy Skies Ahead*, adjusted to current dollars.

These direct costs are part of the inefficiency caused by infrastructure that is not improved upon and properly maintained. This inefficiency translates directly into lost economic growth in the form of fewer jobs and reduced economic output.

The study analyzed the ratios of losses in employment and output to each $1 million in infrastructure investment shortfall. Unlike the previous table, which showed the effects over the entire 10-year period, the below infographic shows the effects only during the tenth (final) year of the analysis period.



The ratios shown above can be used to estimate how the current funding shortfall impacts future economic growth. According to ACI-NA's *2023 U.S. Airport Infrastructure Needs Report*, U.S. commercial service airports require an annual average of $30 billion in infrastructure investment from 2023 to 2027. As this 2023 study has shown, CIP expenditures at U.S. airports were less than $20 billion in 2024, indicating that airport infrastructure is underfunded.

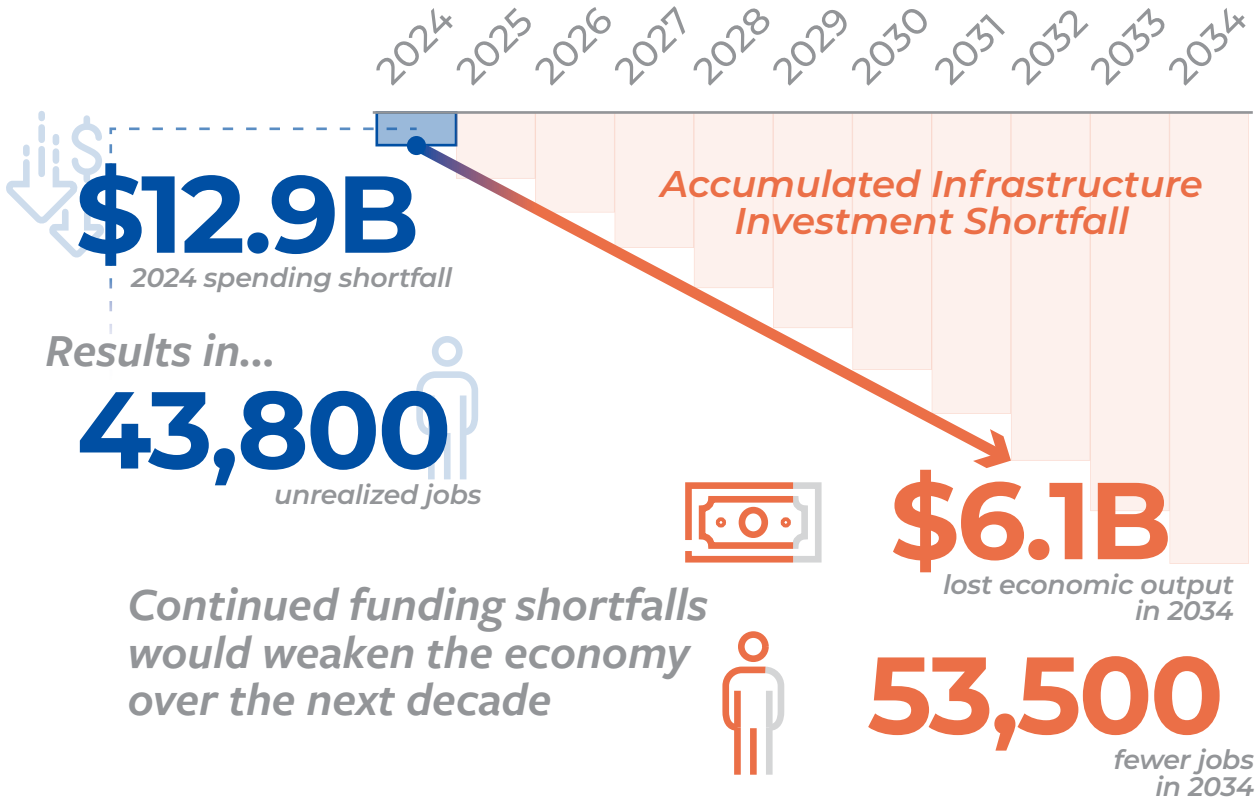
Table 5 shows that the estimated airport infrastructure investment shortfall in 2024 is $12.9 billion.

This funding shortfall, based on the historical data of 2024, can be used to assess the impacts from continued infrastructure funding shortfalls. Using this for future years is a conservative estimate, since funding needs are likely to increase over time.

Table 5
Estimation of Airport Infrastructure Investment Shortfall in 2024

Category	2024
Infrastructure Needs	$30.2B
Infrastructure Funding	$17.3B
Infrastructure Investment Shortfall	**$12.9B**

Source: *2023 U.S. Airport Infrastructure Needs Report for 2023-2027* and Mead & Hunt.



Assuming this shortfall continues for the next 10 years, direct costs to airlines and the traveling public accumulate to a total of $41.6 billion, as seen in (**Table 6**).

In terms of annual economic impact, the $12.9 billion shortfall in airport infrastructure investment year after year results in a loss of $6.1 billion in economic output and 53,500 fewer jobs in 2034 (10 years from when the shortfall was first measured).

Clearly, the consequences of not improving and maintaining airport infrastructure are substantial over the long term. Airports can avoid these consequences through sufficient infrastructure investment that addresses efficiency and economic growth.

Table 6
Direct Costs Based on $12.9 Billion in Annual Airport Infrastructure Investment Shortfalls

Category	Over 10 Years
Airlines	$9.7B
Air Cargo	$8.6B
Business Travel	$6.8B
Personal Travel	$16.5B
Totals	**$41.6B**

Source: *Failure to Act: Investment in Airports Takes Off, But Bumpy Skies Ahead* and Mead & Hunt.

Detailed Tables of U.S. National Impacts

This section details the economic impacts of commercial service airports in each of the 50 U.S. states.

These tables show the three measures of economic impacts (employment, payroll, and output) by type (direct, multiplier, and total), broken out into the categories of on-airport, visitor, and capital improvement impacts. A detailed explanation of the methodology used to estimate these impacts follows these tables.

Employment

Table 7
Direct Employment of Commercial Service Airports in the U.S.

State	On-Airport	Visitor	CIP	State Total
AK	13,500	39,100	1,800	54,400
AL	6,800	12,800	800	20,400
AR	5,000	10,100	600	15,700
AZ	60,000	136,200	1,800	198,000
CA	135,700	752,500	5,800	894,000
CO	56,200	203,400	2,100	261,700
CT	4,300	23,800	200	28,300
DE	1,400	200	0	1,600
FL	153,500	777,000	5,700	936,200
GA	79,700	234,800	2,500	317,000
HI	19,700	84,800	1,600	106,100
IA	3,500	6,900	300	10,700
ID	6,700	12,700	100	19,500
IL	81,700	187,300	2,700	271,700
IN	14,200	33,800	400	48,400
KS	8,700	4,300	200	13,200
KY	18,600	33,100	1,000	52,700
LA	6,100	31,200	1,000	38,300
MA	14,900	140,800	1,400	157,100
MD	17,500	80,500	600	98,600
ME	1,700	15,600	200	17,500
MI	23,000	82,800	1,100	106,900
MN	23,600	54,000	700	78,300
MO	13,200	63,200	300	76,700
MS	5,000	6,700	500	12,200
MT	4,600	13,000	200	17,800
NC	78,900	120,100	2,100	201,100
ND	1,700	7,500	500	9,700
NE	6,500	43,700	100	50,300
NH	2,300	8,100	100	10,500
NJ	37,900	123,800	1,200	162,900
NM	3,800	12,600	300	16,700
NV	38,700	156,500	2,000	197,200
NY	123,600	323,300	2,900	449,800
OH	21,500	37,400	500	59,400
OK	18,300	21,100	500	39,900
OR	11,800	44,300	600	56,700
PA	33,500	130,800	1,300	165,600
RI	2,100	17,500	200	19,800
SC	11,300	39,900	600	51,800
SD	2,300	4,200	100	6,600
TN	16,700	85,400	1,400	103,500
TX	111,600	417,800	4,900	534,300
UT	12,800	77,800	1,500	92,100
VA	35,900	148,100	2,000	186,000
VT	1,600	2,400	100	4,100
WA	31,700	160,000	1,600	193,300
WI	6,400	33,700	200	40,300
WV	2,500	1,200	200	3,900
WY	1,100	16,200	200	17,500
Total	**1,393,300**	**5,074,000**	**58,700**	**6,526,000**

Source: Mead & Hunt and IMPLAN.

Table 8
Multiplier Employment of Commercial Service Airports in the U.S.

State	On-Airport	Visitor	CIP	State Total
AK	33,100	21,100	4,100	58,300
AL	16,600	6,900	1,900	25,400
AR	12,200	5,500	1,500	19,200
AZ	147,100	73,500	4,000	224,600
CA	332,600	406,300	13,300	752,200
CO	137,600	109,800	4,800	252,200
CT	10,700	12,900	500	24,100
DE	3,300	0	0	3,300
FL	376,000	419,600	12,900	808,500
GA	195,400	126,800	5,700	327,900
HI	48,200	45,800	3,800	97,800
IA	8,400	3,800	700	12,900
ID	16,500	6,800	200	23,500
IL	200,300	101,100	6,300	307,700
IN	34,800	18,200	900	53,900
KS	21,300	2,300	500	24,100
KY	45,400	17,900	2,300	65,600
LA	15,000	16,900	2,300	34,200
MA	36,400	76,100	3,300	115,800
MD	42,900	43,500	1,500	87,900
ME	4,200	8,400	500	13,100
MI	56,400	44,800	2,600	103,800
MN	57,800	29,100	1,500	88,400
MO	32,200	34,100	700	67,000
MS	12,100	3,600	1,200	16,900
MT	11,300	7,000	300	18,600
NC	193,100	64,900	4,900	262,900
ND	4,200	4,100	1,100	9,400
NE	16,100	23,600	300	40,000
NH	5,700	4,300	300	10,300
NJ	93,000	66,800	2,700	162,500
NM	9,300	6,700	600	16,600
NV	95,000	84,500	4,400	183,900
NY	302,800	174,500	6,700	484,000
OH	52,600	20,300	1,200	74,100
OK	44,800	11,500	1,200	57,500
OR	29,100	23,900	1,300	54,300
PA	82,100	70,600	3,000	155,700
RI	5,200	9,500	400	15,100
SC	27,600	21,500	1,300	50,400
SD	5,600	2,300	200	8,100
TN	40,800	46,100	3,100	90,000
TX	273,600	225,500	11,000	510,100
UT	31,500	42,000	3,500	77,000
VA	88,100	80,000	4,500	172,600
VT	3,800	1,200	100	5,100
WA	77,800	86,400	3,600	167,800
WI	15,800	18,200	400	34,400
WV	6,100	700	300	7,100
WY	2,500	8,700	400	11,600
Total	**3,414,000**	**2,739,600**	**133,800**	**6,287,400**

Source: Mead & Hunt and IMPLAN.

Table 9
Total Employment of Commercial Service Airports in the U.S.

State	On-Airport	Visitor	CIP	State Total
AK	46,600	60,200	5,900	112,700
AL	23,400	19,700	2,700	45,800
AR	17,200	15,600	2,100	34,900
AZ	207,100	209,700	5,800	422,600
CA	468,300	1,158,800	19,100	1,646,200
CO	193,800	313,200	6,900	513,900
CT	15,000	36,700	700	52,400
DE	4,700	200	0	4,900
FL	529,500	1,196,600	18,600	1,744,700
GA	275,100	361,600	8,200	644,900
HI	67,900	130,600	5,400	203,900
IA	11,900	10,700	1,000	23,600
ID	23,200	19,500	300	43,000
IL	282,000	288,400	9,000	579,400
IN	49,000	52,000	1,300	102,300
KS	30,000	6,600	700	37,300
KY	64,000	51,000	3,300	118,300
LA	21,100	48,100	3,300	72,500
MA	51,300	216,900	4,700	272,900
MD	60,400	124,000	2,100	186,500
ME	5,900	24,000	700	30,600
MI	79,400	127,600	3,700	210,700
MN	81,400	83,100	2,200	166,700
MO	45,400	97,300	1,000	143,700
MS	17,100	10,300	1,700	29,100
MT	15,900	20,000	500	36,400
NC	272,000	185,000	7,000	464,000
ND	5,900	11,600	1,600	19,100
NE	22,600	67,300	400	90,300
NH	8,000	12,400	400	20,800
NJ	130,900	190,600	3,900	325,400
NM	13,100	19,300	900	33,300
NV	133,700	241,000	6,400	381,100
NY	426,400	497,800	9,600	933,800
OH	74,100	57,700	1,700	133,500
OK	63,100	32,600	1,700	97,400
OR	40,900	68,200	1,900	111,000
PA	115,600	201,400	4,300	321,300
RI	7,300	27,000	600	34,900
SC	38,900	61,400	1,900	102,200
SD	7,900	6,500	300	14,700
TN	57,500	131,500	4,500	193,500
TX	385,200	643,300	15,900	1,044,400
UT	44,300	119,800	5,000	169,100
VA	124,000	228,100	6,500	358,600
VT	5,400	3,600	200	9,200
WA	109,500	246,400	5,200	361,100
WI	22,200	51,900	600	74,700
WV	8,600	1,900	500	11,000
WY	3,600	24,900	600	29,100
Total	**4,807,300**	**7,813,600**	**192,500**	**12,813,400**

Source: Mead & Hunt and IMPLAN.

Payroll

Table 10
Direct Payroll of Commercial Service Airports in the U.S. (in millions of $)

State	On-Airport	Visitor	CIP	State Total
AK	$833	$1,205	$124	$2,162
AL	$570	$395	$56	$1,021
AR	$393	$312	$44	$749
AZ	$5,212	$4,194	$123	$9,529
CA	$11,537	$23,177	$406	$35,120
CO	$4,630	$6,265	$146	$11,041
CT	$375	$734	$14	$1,123
DE	$104	$5	$1	$110
FL	$12,129	$23,932	$396	$36,457
GA	$7,024	$7,232	$173	$14,429
HI	$1,664	$2,612	$114	$4,390
IA	$254	$213	$21	$488
ID	$358	$391	$7	$756
IL	$7,162	$5,768	$191	$13,121
IN	$1,219	$1,041	$27	$2,287
KS	$754	$131	$15	$900
KY	$1,809	$1,019	$69	$2,897
LA	$392	$962	$71	$1,425
MA	$1,078	$4,338	$100	$5,516
MD	$1,497	$2,481	$44	$4,022
ME	$108	$480	$14	$602
MI	$1,994	$2,551	$79	$4,624
MN	$1,852	$1,662	$46	$3,560
MO	$1,024	$1,946	$22	$2,992
MS	$369	$206	$36	$611
MT	$322	$400	$11	$733
NC	$6,940	$3,700	$149	$10,789
ND	$106	$232	$35	$373
NE	$576	$1,347	$9	$1,932
NH	$205	$248	$9	$462
NJ	$3,691	$3,812	$84	$7,587
NM	$313	$387	$19	$719
NV	$3,396	$4,820	$136	$8,352
NY	$9,351	$9,956	$204	$19,511
OH	$1,666	$1,153	$36	$2,855
OK	$1,599	$651	$36	$2,286
OR	$904	$1,363	$40	$2,307
PA	$2,482	$4,028	$92	$6,602
RI	$186	$540	$12	$738
SC	$909	$1,229	$40	$2,178
SD	$158	$129	$6	$293
TN	$1,355	$2,629	$96	$4,080
TX	$8,973	$12,867	$338	$22,178
UT	$974	$2,395	$105	$3,474
VA	$3,163	$4,561	$139	$7,863
VT	$131	$73	$5	$209
WA	$3,072	$4,928	$111	$8,111
WI	$402	$1,037	$12	$1,451
WV	$117	$38	$10	$165
WY	$74	$498	$13	$585
Total	**$115,406**	**$156,273**	**$4,086**	**$275,765**

Source: Mead & Hunt and IMPLAN.

Table 11
Multiplier Payroll of Commercial Service Airports in the U.S. (in millions of $)

State	On-Airport	Visitor	CIP	State Total
AK	$1,357	$1,132	$228	$2,717
AL	$930	$371	$103	$1,404
AR	$641	$293	$81	$1,015
AZ	$8,495	$3,942	$224	$12,661
CA	$18,806	$21,786	$743	$41,335
CO	$7,546	$5,889	$268	$13,703
CT	$611	$690	$26	$1,327
DE	$171	$4	$2	$177
FL	$19,770	$22,497	$723	$42,990
GA	$11,450	$6,798	$318	$18,566
HI	$2,712	$2,456	$208	$5,376
IA	$415	$201	$38	$654
ID	$583	$367	$12	$962
IL	$11,675	$5,422	$349	$17,446
IN	$1,987	$978	$49	$3,014
KS	$1,229	$124	$29	$1,382
KY	$2,949	$958	$128	$4,035
LA	$639	$905	$130	$1,674
MA	$1,756	$4,078	$182	$6,016
MD	$2,439	$2,332	$80	$4,851
ME	$176	$451	$27	$654
MI	$3,251	$2,399	$145	$5,795
MN	$3,018	$1,563	$85	$4,666
MO	$1,670	$1,829	$41	$3,540
MS	$602	$194	$65	$861
MT	$525	$376	$21	$922
NC	$11,312	$3,478	$272	$15,062
ND	$173	$218	$64	$455
NE	$940	$1,266	$17	$2,223
NH	$333	$234	$16	$583
NJ	$6,017	$3,584	$153	$9,754
NM	$509	$363	$33	$905
NV	$5,535	$4,530	$249	$10,314
NY	$15,242	$9,359	$372	$24,973
OH	$2,714	$1,084	$66	$3,864
OK	$2,606	$612	$66	$3,284
OR	$1,473	$1,282	$74	$2,829
PA	$4,045	$3,786	$168	$7,999
RI	$303	$507	$22	$832
SC	$1,482	$1,155	$73	$2,710
SD	$258	$122	$12	$392
TN	$2,210	$2,472	$175	$4,857
TX	$14,625	$12,095	$620	$27,340
UT	$1,588	$2,252	$193	$4,033
VA	$5,156	$4,288	$253	$9,697
VT	$215	$68	$9	$292
WA	$5,006	$4,633	$204	$9,843
WI	$655	$975	$22	$1,652
WV	$191	$36	$20	$247
WY	$120	$468	$25	$613
Total	**$188,111**	**$146,902**	**$7,483**	**$342,496**

Source: Mead & Hunt and IMPLAN.

Table 12
Total Payroll of Commercial Service Airports in the U.S. (in millions of $)

State	On-Airport	Visitor	CIP	State Total
AK	$2,190	$2,337	$352	$4,879
AL	$1,500	$766	$159	$2,425
AR	$1,034	$605	$125	$1,764
AZ	$13,707	$8,136	$347	$22,190
CA	$30,343	$44,963	$1,149	$76,455
CO	$12,176	$12,154	$414	$24,744
CT	$986	$1,424	$40	$2,450
DE	$275	$9	$3	$287
FL	$31,899	$46,429	$1,119	$79,447
GA	$18,474	$14,030	$491	$32,995
HI	$4,376	$5,068	$322	$9,766
IA	$669	$414	$59	$1,142
ID	$941	$758	$19	$1,718
IL	$18,837	$11,190	$540	$30,567
IN	$3,206	$2,019	$76	$5,301
KS	$1,983	$255	$44	$2,282
KY	$4,758	$1,977	$197	$6,932
LA	$1,031	$1,867	$201	$3,099
MA	$2,834	$8,416	$282	$11,532
MD	$3,936	$4,813	$124	$8,873
ME	$284	$931	$41	$1,256
MI	$5,245	$4,950	$224	$10,419
MN	$4,870	$3,225	$131	$8,226
MO	$2,694	$3,775	$63	$6,532
MS	$971	$400	$101	$1,472
MT	$847	$776	$32	$1,655
NC	$18,252	$7,178	$421	$25,851
ND	$279	$450	$99	$828
NE	$1,516	$2,613	$26	$4,155
NH	$538	$482	$25	$1,045
NJ	$9,708	$7,396	$237	$17,341
NM	$822	$750	$52	$1,624
NV	$8,931	$9,350	$385	$18,666
NY	$24,593	$19,315	$576	$44,484
OH	$4,380	$2,237	$102	$6,719
OK	$4,205	$1,263	$102	$5,570
OR	$2,377	$2,645	$114	$5,136
PA	$6,527	$7,814	$260	$14,601
RI	$489	$1,047	$34	$1,570
SC	$2,391	$2,384	$113	$4,888
SD	$416	$251	$18	$685
TN	$3,565	$5,101	$271	$8,937
TX	$23,598	$24,962	$958	$49,518
UT	$2,562	$4,647	$298	$7,507
VA	$8,319	$8,849	$392	$17,560
VT	$346	$141	$14	$501
WA	$8,078	$9,561	$315	$17,954
WI	$1,057	$2,012	$34	$3,103
WV	$308	$74	$30	$412
WY	$194	$966	$38	$1,198
Total	**$303,517**	**$303,175**	**$11,569**	**$618,261**

Source: Mead & Hunt and IMPLAN.

Output

Table 13
Direct Output of Commercial Service Airports in the U.S. (in millions of $)

State	On-Airport	Visitor	CIP	State Total
AK	$1,895	$2,478	$527	$4,900
AL	$1,732	$813	$239	$2,784
AR	$1,025	$642	$187	$1,854
AZ	$20,639	$8,629	$520	$29,788
CA	$41,662	$47,686	$1,720	$91,068
CO	$14,629	$12,890	$621	$28,140
CT	$1,389	$1,510	$60	$2,959
DE	$250	$10	$4	$264
FL	$52,056	$49,241	$1,676	$102,973
GA	$24,307	$14,880	$735	$39,922
HI	$7,160	$5,375	$482	$13,017
IA	$544	$439	$88	$1,071
ID	$1,671	$804	$29	$2,504
IL	$22,246	$11,868	$808	$34,922
IN	$4,326	$2,142	$114	$6,582
KS	$3,100	$270	$66	$3,436
KY	$2,787	$2,097	$294	$5,178
LA	$1,676	$1,980	$301	$3,957
MA	$2,525	$8,926	$422	$11,873
MD	$5,114	$5,104	$185	$10,403
ME	$510	$988	$61	$1,559
MI	$4,832	$5,250	$335	$10,417
MN	$9,971	$3,420	$197	$13,588
MO	$4,052	$4,004	$94	$8,150
MS	$1,140	$425	$151	$1,716
MT	$1,102	$824	$48	$1,974
NC	$15,972	$7,613	$630	$24,215
ND	$335	$477	$148	$960
NE	$1,288	$2,771	$39	$4,098
NH	$274	$511	$38	$823
NJ	$11,649	$7,844	$354	$19,847
NM	$919	$796	$79	$1,794
NV	$13,536	$9,916	$577	$24,029
NY	$22,459	$20,485	$862	$43,806
OH	$8,004	$2,373	$152	$10,529
OK	$4,571	$1,339	$152	$6,062
OR	$2,572	$2,805	$170	$5,547
PA	$9,258	$8,288	$389	$17,935
RI	$677	$1,111	$50	$1,838
SC	$4,187	$2,528	$169	$6,884
SD	$322	$266	$26	$614
TN	$8,345	$5,410	$406	$14,161
TX	$30,106	$26,473	$1,434	$58,013
UT	$2,798	$4,929	$447	$8,174
VA	$11,520	$9,385	$588	$21,493
VT	$358	$149	$21	$528
WA	$10,905	$10,140	$472	$21,517
WI	$1,858	$2,134	$52	$4,044
WV	$227	$79	$44	$350
WY	$293	$1,024	$56	$1,373
Total	**$394,773**	**$321,541**	**$17,319**	**$733,633**

Source: Mead & Hunt and IMPLAN.

Table 14
Multiplier Output of Commercial Service Airports in the U.S. (in millions of $)

State	On-Airport	Visitor	CIP	State Total
AK	$2,654	$4,065	$937	$7,656
AL	$2,424	$1,332	$424	$4,180
AR	$1,435	$1,052	$332	$2,819
AZ	$28,894	$14,150	$927	$43,971
CA	$58,327	$78,205	$3,061	$139,593
CO	$20,481	$21,139	$1,105	$42,725
CT	$1,945	$2,476	$107	$4,528
DE	$351	$16	$7	$374
FL	$72,879	$80,755	$2,984	$156,618
GA	$34,029	$24,402	$1,308	$59,739
HI	$10,025	$8,815	$858	$19,698
IA	$763	$720	$156	$1,639
ID	$2,339	$1,317	$52	$3,708
IL	$31,145	$19,463	$1,438	$52,046
IN	$6,057	$3,512	$202	$9,771
KS	$4,339	$443	$116	$4,898
KY	$3,901	$3,438	$524	$7,863
LA	$2,346	$3,247	$535	$6,128
MA	$3,535	$14,638	$751	$18,924
MD	$7,160	$8,371	$330	$15,861
ME	$713	$1,619	$109	$2,441
MI	$6,765	$8,609	$598	$15,972
MN	$13,960	$5,608	$349	$19,917
MO	$5,673	$6,566	$167	$12,406
MS	$1,597	$696	$268	$2,561
MT	$1,544	$1,350	$85	$2,979
NC	$22,361	$12,484	$1,123	$35,968
ND	$469	$783	$264	$1,516
NE	$1,803	$4,545	$70	$6,418
NH	$385	$839	$67	$1,291
NJ	$16,309	$12,864	$631	$29,804
NM	$1,287	$1,305	$139	$2,731
NV	$18,950	$16,263	$1,026	$36,239
NY	$31,444	$33,596	$1,536	$66,576
OH	$11,205	$3,891	$271	$15,367
OK	$6,400	$2,197	$272	$8,869
OR	$3,602	$4,601	$303	$8,506
PA	$12,962	$13,592	$693	$27,247
RI	$948	$1,821	$90	$2,859
SC	$5,861	$4,146	$301	$10,308
SD	$451	$435	$47	$933
TN	$11,684	$8,872	$721	$21,277
TX	$42,150	$43,417	$2,552	$88,119
UT	$3,916	$8,082	$795	$12,793
VA	$16,127	$15,390	$1,045	$32,562
VT	$501	$245	$37	$783
WA	$15,267	$16,631	$840	$32,738
WI	$2,600	$3,500	$91	$6,191
WV	$319	$130	$79	$528
WY	$410	$1,679	$101	$2,190
Total	**$552,692**	**$527,312**	**$30,824**	**$1,110,828**

Source: Mead & Hunt and IMPLAN.

Table 15
Total Output of Commercial Service Airports in the U.S. (in millions of $)

State	On-Airport	Visitor	CIP	State Total
AK	$4,549	$6,543	$1,464	$12,556
AL	$4,156	$2,145	$663	$6,964
AR	$2,460	$1,694	$519	$4,673
AZ	$49,533	$22,779	$1,447	$73,759
CA	$99,989	$125,891	$4,781	$230,661
CO	$35,110	$34,029	$1,726	$70,865
CT	$3,334	$3,986	$167	$7,487
DE	$601	$26	$11	$638
FL	$124,935	$129,996	$4,660	$259,591
GA	$58,336	$39,282	$2,043	$99,661
HI	$17,185	$14,190	$1,340	$32,715
IA	$1,307	$1,159	$244	$2,710
ID	$4,010	$2,121	$81	$6,212
IL	$53,391	$31,331	$2,246	$86,968
IN	$10,383	$5,654	$316	$16,353
KS	$7,439	$713	$182	$8,334
KY	$6,688	$5,535	$818	$13,041
LA	$4,022	$5,227	$836	$10,085
MA	$6,060	$23,564	$1,173	$30,797
MD	$12,274	$13,475	$515	$26,264
ME	$1,223	$2,607	$170	$4,000
MI	$11,597	$13,859	$933	$26,389
MN	$23,931	$9,028	$546	$33,505
MO	$9,725	$10,570	$261	$20,556
MS	$2,737	$1,121	$419	$4,277
MT	$2,646	$2,174	$133	$4,953
NC	$38,333	$20,097	$1,753	$60,183
ND	$804	$1,260	$412	$2,476
NE	$3,091	$7,316	$109	$10,516
NH	$659	$1,350	$105	$2,114
NJ	$27,958	$20,708	$985	$49,651
NM	$2,206	$2,101	$218	$4,525
NV	$32,486	$26,179	$1,603	$60,268
NY	$53,903	$54,081	$2,398	$110,382
OH	$19,209	$6,264	$423	$25,896
OK	$10,971	$3,536	$424	$14,931
OR	$6,174	$7,406	$473	$14,053
PA	$22,220	$21,880	$1,082	$45,182
RI	$1,625	$2,932	$140	$4,697
SC	$10,048	$6,674	$470	$17,192
SD	$773	$701	$73	$1,547
TN	$20,029	$14,282	$1,127	$35,438
TX	$72,256	$69,890	$3,986	$146,132
UT	$6,714	$13,011	$1,242	$20,967
VA	$27,647	$24,775	$1,633	$54,055
VT	$859	$394	$58	$1,311
WA	$26,172	$26,771	$1,312	$54,255
WI	$4,458	$5,634	$143	$10,235
WV	$546	$209	$123	$878
WY	$703	$2,703	$157	$3,563
Total	**$947,465**	**$848,853**	**$48,143**	**$1,844,461**

Source: Mead & Hunt and IMPLAN.

All Measures

Table 16
Total Economic Impacts of Commercial Service Airports in the U.S. (Payroll and Output in millions of $)

State	Employment	Payroll	Output
AK	112,700	$4,879	$12,556
AL	45,800	$2,425	$6,964
AR	34,900	$1,764	$4,673
AZ	422,600	$22,190	$73,759
CA	1,646,200	$76,455	$230,661
CO	513,900	$24,744	$70,865
CT	52,400	$2,450	$7,487
DE	4,900	$287	$638
FL	1,744,700	$79,447	$259,591
GA	644,900	$32,995	$99,661
HI	203,900	$9,766	$32,715
IA	23,600	$1,142	$2,710
ID	43,000	$1,718	$6,212
IL	579,400	$30,567	$86,968
IN	102,300	$5,301	$16,353
KS	37,300	$2,282	$8,334
KY	118,300	$6,932	$13,041
LA	72,500	$3,099	$10,085
MA	272,900	$11,532	$30,797
MD	186,500	$8,873	$26,264
ME	30,600	$1,256	$4,000
MI	210,700	$10,419	$26,389
MN	166,700	$8,226	$33,505
MO	143,700	$6,532	$20,556
MS	29,100	$1,472	$4,277
MT	36,400	$1,655	$4,953
NC	464,000	$25,851	$60,183
ND	19,100	$828	$2,476
NE	90,300	$4,155	$10,516
NH	20,800	$1,045	$2,114
NJ	325,400	$17,341	$49,651
NM	33,300	$1,624	$4,525
NV	381,100	$18,666	$60,268
NY	933,800	$44,484	$110,382
OH	133,500	$6,719	$25,896
OK	97,400	$5,570	$14,931
OR	111,000	$5,136	$14,053
PA	321,300	$14,601	$45,182
RI	34,900	$1,570	$4,697
SC	102,200	$4,888	$17,192
SD	14,700	$685	$1,547
TN	193,500	$8,937	$35,438
TX	1,044,400	$49,518	$146,132
UT	169,100	$7,507	$20,967
VA	358,600	$17,560	$54,055
VT	9,200	$501	$1,311
WA	361,100	$17,954	$54,255
WI	74,700	$3,103	$10,235
WV	11,000	$412	$878
WY	29,100	$1,198	$3,563
Total	**12,813,400**	**$618,261**	**$1,844,461**

Source: Mead & Hunt and IMPLAN.

Image Source: Seattle-Tacoma International Airport (SEA) - Port of Seattle.

Image Source: Austin-Bergstrom International Airport (AUS) - Dan Herron.

Comparison Between 2017 and 2024 Studies

Overall, U.S. commercial service airports have increased their reported economic impacts since 2017. State by state impacts reflect the lingering effects of the pandemic and variations in economic impact study timeframes.

This study employed the same methodology used in the 2017 study to allow for comparisons between the two. Normally, one would expect significant growth from the aviation industry over a seven-year period. However, the COVID-19 pandemic during the interim years greatly impacted the aviation industry, with some sectors recovering sooner than others.

Numerous factors can drive changes in results between the two studies. Among these factors are:

- Both reports used the most current economic studies available for each state and adjusted the dollar amounts to current dollars based on inflation. These results are a snapshot in time of the state airport system and reflect the conditions at the time the study was conducted. Several states updated their studies during or right after COVID-19 hit the aviation industry, and their aviation system had not fully recovered from the pandemic. Other states updated studies from a decade (or older) ago and reflect the substantial changes that have occurred over that time span.
- More than two-thirds of U.S. states (35 out of 50) made updated economic impact studies available for this study. This provided a wealth of information but also introduced a greater variety in study methodologies. This presented challenges of evaluating how similar the measurements were in each study. In cases where the measurement was significantly different than what was measured by most state studies, the result was discarded in favor of a regression analysis result.
- The number of commercial service airports in the U.S. dropped by six to a total of 487 commercial service airports. Half the states maintained their number of airports, while the other half gained as many as three airports or lost up to two. Alaska is the exception, with the loss of 14 commercial service airports since 2017.
- While the methodologies used in both studies are the same, changes in data caused changes in the regression model used to estimate impacts. Changes in data also resulted in changes to the ratios found in the IMPLAN model.
- Results are reported in current dollars for each study, so no inflation adjustment was made to either result. Based on Consumer Price Index (CPI) data from the U.S. Bureau of Labor Statistics, the CPI increased 28 percent from 2017 to 2024.

Overall, direct impacts increased compared to 2017, despite the negative impacts from the pandemic.

Table 17
2017 to 2024 Comparison of Direct Impacts

Impact Measure	2017	2024	Percent Change
Employment	5,707,000	6,526,000	14%
Payroll	$181.1B	$275.8B	52%
Output	$548.9B	$733.6B	34%

Source: Mead & Hunt and IMPLAN.

Table 17 shows direct employment rose 14 percent since the 2017 study. Direct output increased by 34 percent, while direct payroll jumped 52 percent. The increases in payroll and output were aided, in part, by inflation, especially during the pandemic. Upward pressure on payroll also came from the difficulty businesses had finding available workers after the pandemic.

Table 18 illustrates how the median income for a sampling of careers shot up after the pandemic. Jobs requiring basic skills, such as cashiers and retail sales, increased by 41 and 45 percent, respectively. Thanks in part to a shortage of pilots and union contract negotiations, flight crews increased their wages by 60 percent. Air transportation workers saw a 35 percent increase in wages from 2017 to 2023.

Table 18
Comparison of Median Annual Wages from 2017 to 2023

Wage Earner Category	2017	2024	Percent Change
Cashiers	$21,050	$29,740	41%
Retail Sales	$23,210	$33,680	45%
Construction Laborers	$34,530	$45,300	31%
Airline Pilots, Copilots, and Flight Engineers	$137,330	$219,140	60%
Air Transportation Workers	$72,310	$97,320	35%

Source: Bureau of Labor Statics, National Occupational Employment and Wage Estimates.

The direct impacts generate multiplier impacts, which, when added to the direct impacts, produce the total impacts (**Table 19**). Total employment increased by 12 percent over the 2017 total employment to 12.8 million jobs. Payroll rose 44 percent from 2017 to a total of $618 billion.

Table 19
2017 to 2024 Comparison of Total Impacts

Impact Measure	2017	2024	Percent Change
Employment	11,450,000	12,813,400	12%
Payroll	$428.4B	$618.3B	44%
Output	$1.4T	$1.8T	31%

Source: Bureau of Labor Statics, National Occupational Employment and Wage Estimates.

The 2024 total output of $1.84 trillion was 31 percent more than the total output in 2017.

Image Source: Tucson International Airport (TUS).

Image Source: Fairbanks International Airport (FAI).

Study Approach and Methods Used

This study relied on statewide and individual airport economic impact studies produced over the past 20 years. The study estimated impacts for each of the U.S. commercial service airports to produce results at the state and national level.

This study built upon the previous ACI-NA economic impact study of commercial service airports. Similar to that previous study, this study started with the airports identified as primary or commercial service airports in the *2025 – 2029 National Plan of Integrated Airport Systems (NPIAS)* report. The NPIAS identifies airports with at least 2,500 annual passenger enplanements on scheduled airlines as primary or nonprimary commercial service airports, collectively referred to as commercial service airports in this report. There are 502 commercial airports listed in the 2025 - 2029 NPIAS, of which 487 are in the United States. The other 15 are in American Samoa, Guam, the Northern Marianas, Puerto Rico, and the U.S. Virgin Islands and were not part of this analysis.

This study gathered the available data on the 487 commercial service airports from statewide and individual airport economic impact studies. The study found data for 357 of the commercial service airports, leaving 130 airports without direct impact data. Of those 130 airports, 72 were in Alaska, one of the few states without a statewide aviation economic impact study. The only other states lacking a statewide aviation economic impact study were Connecticut and Hawaii.

As explained later, the study used an alternative method for obtaining direct impacts for these airports without data.

For the airports that did have direct impact data in previous studies, the study made use of quality checks and validation on the data from each economic study to ensure accuracy and consistency of measurements. For example, several studies reported direct impacts that combined on-airport, visitor, and capital project impacts. This required an estimate of the breakout of this combined impact into the subcomponents since the economic model treated each subcomponent differently.

Another area that studies treated inconsistently was military impacts. Some studies included military impacts and sufficient details so that the study could remove the military impacts from the commercial service airports. Other studies indicated military impacts were part of the study, but did not provide sufficient detail to allow the removal of their impacts from the commercial service airports. However, based on the magnitude of the military impacts in the studies that provided those details, the study concluded that the military impacts were unlikely to have a material effect on the overall results. Furthermore, the study took an overall conservative approach in its assessment of economic impacts, so that these uncertainties tend to smooth out when the individual airport results are aggregated to the state level. The accuracy of this data was also important because this data was used in the estimation analysis for the 130 airports lacking direct impact data.

The following sections explain in more detail the framework, methodology, and assumptions used in the development of these estimates of economic impact.

Image Sources: Tucson International Airport (TUS).

Seattle-Tacoma International Airport (SEA) - Port of Seattle.

John Glenn Columbus International Airport (CMH) - Columbus Regional Airport Authority.

Measures of Economic Impact

Three measures of economic impact are used in this study to evaluate the economic impact of commercial service airports. While there are various metrics used in economic studies, this study focused on three basic measures to avoid complicating the analysis. Those three measures were **employment**, **payroll**, and **economic output**.

Employment

This is a measure of the number of employees with jobs associated with activity at commercial service airports, either directly or indirectly. It is expressed in full-time equivalents, where two part-time jobs are assumed to equal one full-time job.

Payroll

This accounts for the annual wages, salaries, and benefits associated with the jobs that are tied to commercial service airports, measured in dollars.

Output

This is the economic activity generated by the operation of commercial service airports and all their related activity, measured in dollars. Economic output is defined as the annual revenue generated by a company, or, in the case of organizations that do not generate revenue (e.g., air traffic control), their annual operating expenses.

In general, economic impacts at commercial service airports are generated by airport management, by businesses and organizations engaged in airport activities at commercial service airports, and by visitors traveling via commercial airlines to and from commercial service airports who spend money off airport during their visit.

This study estimates the impacts stemming from the economic activities described above for each of the 487 commercial service airports and then rolls those results up to the state and national level.

Image Source: Des Moines International Airport (DSM).

Categories of Economic Impact

The study obtained data used for the three measures described above from the following three categories.

On-Airport Activity

This category includes airport tenants that are businesses with employees, such as airlines, rental car agencies, ground handlers, concessionaires, and governmental agencies. Governmental agencies include public airport sponsors, air traffic controllers, other FAA units, as well as various other state and federal agencies.

Commercial Service Visitors

This category includes the estimated impacts resulting from non-local passengers (visitors) arriving via commercial airlines. The data collected for this group consisted of their total spending on hotel, food and beverage, transportation (but not including airfare or rental car, which were captured in the on-airport impacts), retail, and entertainment expenses during their visit to the region. This spending supports jobs primarily in the hospitality industry.

Capital Improvements

Each year airports undertake CIP, such as runway rehabilitation or terminal improvements. In addition, businesses and other agencies invest in CIP. These projects employ people in jobs such as construction, architecture, engineering, and consulting.

Image Source: John Glenn Columbus International Airport (CMH) - Columbus Regional Airport Authority.

Types of Economic Impact

The economic activity generated by the groups discussed above results in three types of economic impacts that are estimated with the use of an economic input-output model. These three types of economic impact are common to most economic studies and are described below.

Direct Impacts

Direct impacts account for the initial point where commercial service airport-related money first starts circulating in the economy. This includes activity such as the purchase of aviation goods and services on the airport, on-airport construction, and the off-airport spending by airline passengers visiting the region. On-airport impacts include the employment, payroll, and spending of businesses such as airlines, ground handling services, retail and food vendors, airport management, operations staff, government organizations, and other on-airport organizations that provide aviation services.

Visitors contribute to direct impacts through their off-airport spending (any on-airport spending by visitors is included in the on-airport impacts) that supports employment at restaurants, hotels, and other venues where they make purchases. Capital expenditures of these businesses and government organizations are also included in direct impacts, which support construction, engineering, and consulting jobs.

Multiplier Impacts

Multiplier impacts result from the re-circulation and re-spending of direct impacts within the economy. This re-spending of money can occur multiple times and takes two forms - indirect and induced. Indirect impacts occur when businesses spend their revenue on business expenses. Induced impacts occur when employees spend their earnings on goods and services. For example, as airport employees spend their salary for housing, food, and services, those expenditures circulate through the local economy resulting in increased spending, payroll, and employment throughout the economy. Multiplier impacts re-circulate until they eventually leak beyond the geographic region being studied – in this case, the United States.

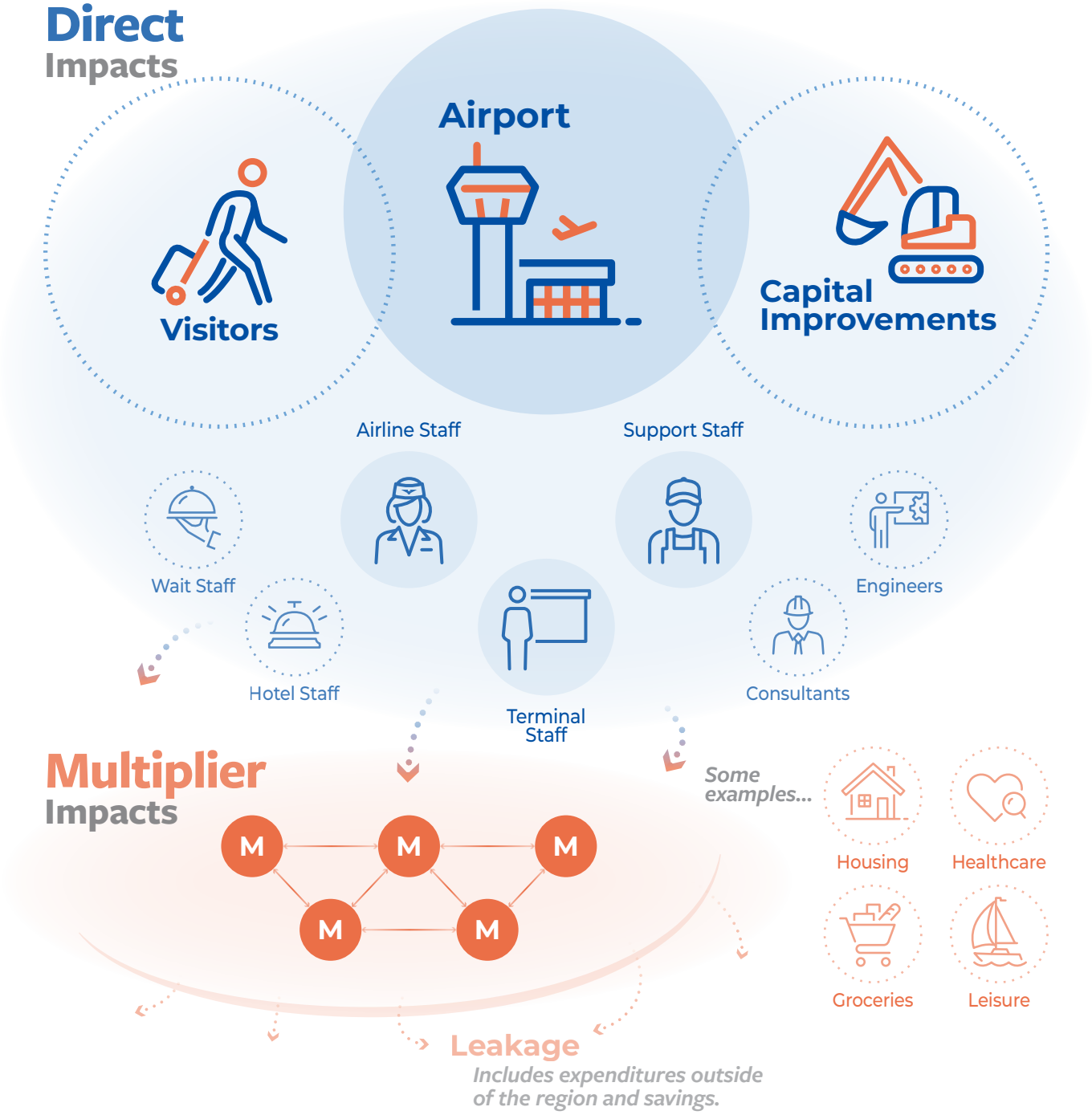
Total Impacts

Total impacts are the sum of all direct and multiplier economic impacts attributable to an airport or the system of airports.

Figure 2 is a graphic depiction of what the economic impact model captures to better illustrate the concepts previously described. It shows how the employment measure is evaluated. Employment from each of the three categories flows into both direct and multiplier impacts. The sum of the direct and multiplier employment yields total employment, as shown at the bottom of the figure.

For the majority of airports (approximately 75 percent), the direct impacts associated with the categories listed above were obtained from existing economic impact studies. However, some of the airports, especially ones without significant amounts of commercial airline service, did not have any economic studies from which to draw the direct impact data. For these airports, direct impacts were estimated using regression analysis, which is detailed in the following section.

Figure 2
Economic Impact Modeling



Direct
+ Multiplier
Total Impacts

Regression Analysis

Using the data found in more than 80 reports, summaries, and fact sheets, the study compiled a database of direct economic impacts for the majority of the U.S. commercial service airports.

From all these data sources, direct impact data were found for 357 out of the 487 commercial service airports. The study reviewed this data and discarded any results that were not suitable because the underlying assumptions were incompatible with this study, or because it was determined that the impacts measured did not align with this study's measurements. Payroll and output results from studies dated prior to 2024 were adjusted to 2024 dollars using standard Consumer Price Index inflation rates from the Bureau of Labor Statistics. This data served as the basis for a regression analysis estimate of direct impacts for the approximately 25 percent of airports that did not have an adequate economic impact study.

Regression analysis is a method of estimating a dependent variable from an independent variable when there is a high degree of correlation between the two. The degree of correlation is expressed with a correlation coefficient, where a coefficient of zero indicates no relationship between the variables and a coefficient of one indicates a perfect relationship between the two variables.

For this analysis, the missing direct economic data (dependent variables) were estimated using correlations that were found with data sets for each airport (independent variable). Several independent variables were tested for each dependent variable, and the independent variable that produced the highest correlation was used in the regression analysis.

Table 20 shows each dependent variable, its corresponding independent variable, and the correlation coefficient between the two. As the table shows, with the exception of the independent variable for CIP expenditures, all of the correlation coefficients were 0.90 or higher, indicating a very high degree of correlation between the variable sets. In the case of Visitor Expenditures, the independent variable used was Rental Car Revenues, which produced a correlation coefficient of 0.91. However, not all 487 airports reported rental car revenue, so for those airports, the FAA CY2023 Enplanement data was used as the independent variable, which produced a slightly lower correlation coefficient of 0.89.

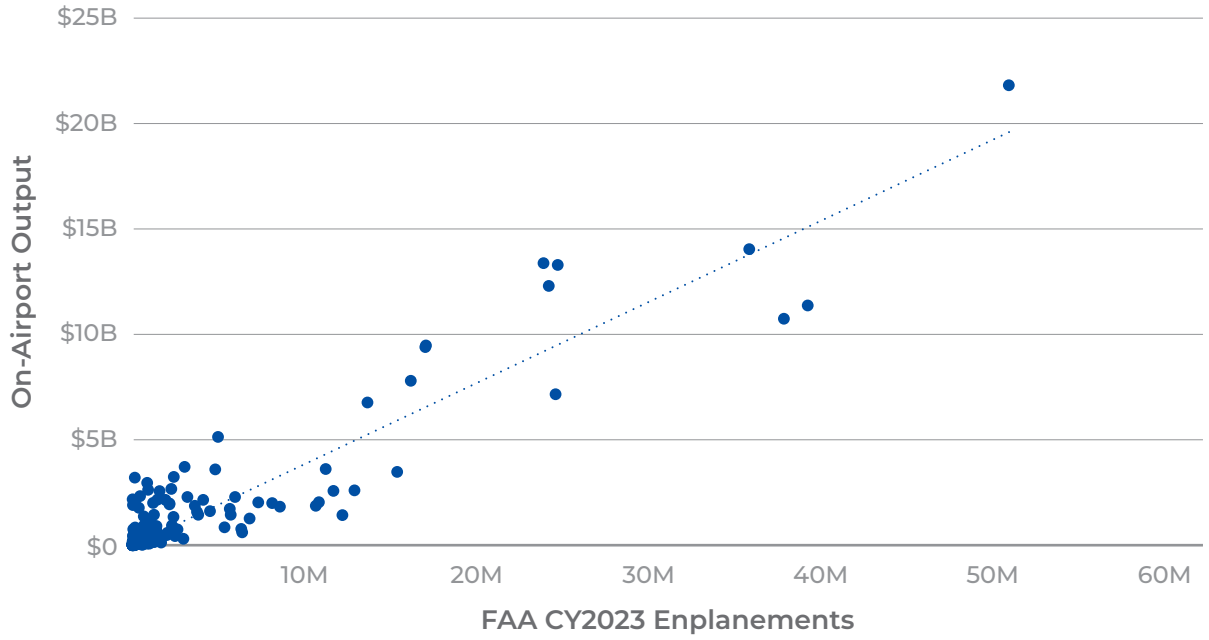
Table 20
Correlation Analysis

Dependent Variable	Independent Variable	Correlation Coefficient
On-Airport Employment	FAA CY 2023 Enplanements	0.91
On-Airport Payroll	On-Airport Employment	0.96
On-Airport Output	FAA CY 2023 Enplanements	0.93
Capital Improvement Expenditures	TAF Commercial Operations (FY2023)	0.87
Visitor Expenditures	Rental Car Revenues/FAA CY2023 Enplanements	0.91/0.89

Source: Mead & Hunt and FAA.

After confirming that each independent variable had a suitably high correlation with each dependent variable, scatter plots were made for each dependent variable. An example of a scatter plot is shown in **Figure 3**, which demonstrates the correlation between direct on-airport output and the number of FAA CY 2023 enplanements. A trend line is plotted showing the best fitting linear relationship between the two data sets.

Figure 3
Scatter Plot of Direct On-Airport Output Against FAA CY2023 Enplanements



Source: Mead & Hunt and FAA.

Each scatter plot was analyzed for outlier data, which was removed to strengthen the correlation. The equation for the best fitting linear relationship was determined, and this equation was used to estimate values for dependent variables of airports missing this direct impact data.

Once direct impact data was available for all dependent variables, the data was entered into an economic model to estimate multiplier impacts.

IMPLAN Economic Model

For this study, it was necessary to use an economic model to estimate the multiplier impacts and certain direct impacts. Both direct employment and payroll associated with visitor expenditures were derived from ratios developed in the economic model that were applied to the visitor spending total. Similarly, ratios from the economic model were applied to CIP direct output to obtain direct CIP employment and payroll.

The economic studies that were reviewed for this study used multipliers that reflected the induced and indirect impacts within a local geographic region or within a state. This study measured the impacts of commercial service airports within the nation as a whole, which is why the multiplier impacts from other studies could not be used. When measured at the national level, the multiplier impact is higher than state or local multiplier impacts, since the larger geographic area captures more recirculation of the initial economic input before it leaks beyond the country's borders.

The Impact Analysis for Planning (IMPLAN) input/output model was used to quantify multiplier impacts. IMPLAN is a linear model that estimates purchases and sales between hundreds of sectors of the economy. The U.S. Forest Service, in cooperation with several other government agencies, initially developed the IMPLAN system to generate regional non-survey input-output models for regions as small as a single county. This modeling process is considered one of the leading methods currently available for estimating the total economic impact of an industry and has been used to estimate economic impacts for individual airports and systems of airports throughout the country.

The IMPLAN model and its underlying assumptions have been used to estimate the economic impacts of numerous other airports in various state and individual airport economic impact studies. It is a well-accepted methodology of estimating economic impacts attributed to airports.

The IMPLAN model contains a large economic database used to generate input-output tables. It includes data from sources such as Dun and Bradstreet, the U.S. Department of Commerce, and the U.S. Census Bureau. IMPLAN multipliers and data tables specific to the aviation industry and its related business segments were obtained and used in this analysis just as they were in the previous study.

The IMPLAN model uses direct impacts as inputs that produce multiplier impacts as outputs. The study's approach was to use the direct impacts from an existing statewide or individual airport economic impact study (adjusting payroll and output for inflation to 2024 dollars) and assume that those known conditions were a good representation of the airport. In some cases, based on data validation checks, the direct data was deemed unreliable and replaced with direct impact estimates using regression analysis, as described previously.

Multiplier tables determine multiplier impacts based on the direct impacts, and those multiplier tables change every year due to changes in overall economic conditions and the reactions that businesses and consumers have to those conditions. In general, multipliers change when the expenditure patterns of businesses change – affecting indirect impacts – or when the expenditure patterns of households change – affecting induced impacts.

Table 21 presents the overall multipliers resulting from the economic impact models used in 2017 and 2024. In other words, the ratio of total employment to direct employment in 2017 for all 493 airports was 2.01. In 2024, that ratio dropped slightly to 1.96.

Table 21
Comparison of Overall Multipliers from 2017 to 2024

Multiplier Measure	2017	2024	Percent Change
Employment	2.01	1.96	-2%
Payroll	2.36	2.24	-5%
Output	2.56	2.51	-2%

Source: Mead & Hunt and IMPLAN.

The payroll and output multipliers for 2024 also declined slightly as compared to 2017. These declines reflect the many changes in the economy that occurred between 2017 and 2024. The small degree of change indicates that the 2024 economy is very similar to the 2017 economy, with possibly some residual effects of the pandemic still lingering. Some of the factors that can put negative pressure on multipliers include:

- Businesses investing less in expansion. This is particularly true during inflationary periods when materials and labor are more expensive, resulting in businesses scaling back or foregoing expansion plans. The worker shortage experienced by airlines and maintenance facilities also limits expansion options.
- Households that lack confidence in the economy tend to spend less and save more. Savings is one form of money leaking out of the economy (since it is not being spent on goods or services), which drives down multipliers.
- Businesses outsourcing overseas to a greater extent cause greater leakage, which reduces multipliers.

Image Source: Tucson International Airport (TUS).

Image Source: Santa Barbara Airport (SBA).

Summary

The 487 U.S. commercial service airports supported 12.8 million jobs that earned $619 billion in 2024. These activities produced more than $1.8 trillion in economic output.

The reported total impacts of U.S. commercial service airports have increased since the 2017 study. Total employment experienced a modest increase of 14 percent, reflecting to some degree the lingering effects of the pandemic.

Total payroll showed the greatest percentage increase, rising 44 percent, which was the result of inflationary pressures coupled with a shortage of worker availability.

Total output rose 31 percent from 2017 levels in line with inflation, along with some modest growth. The aviation industry is nearly completely recovered from the pandemic, so future growth in output can be expected.