

MARCH 2021

BUILDING THE RUNWAY TO ECONOMIC GROWTH

ACI-NA 2021 INFRASTRUCTURE REPORT



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A Letter From CEO Kevin Burke

Kevin Burke
President and Chief
Executive Officer
Airports Council
International-North
America



Dear reader,

The COVID-19 pandemic upended the world as we know it and brought the U.S. economy to a screeching halt, profoundly reshaping certain industries. Among the hardest hit by the pandemic were our nation's airports, whose employees worked tirelessly to provide a safe flying environment for travelers despite steep and sustained losses in revenue. In fact, Airports Council International-North America (ACI-NA) has estimated airports will face at least \$40 billion in losses through March 2022. Even as we begin to see the end of the pandemic in sight, airports around the country are rapidly seeking to adapt to the new normal, requiring vast changes to the way we service the traveling public.

To figure out just how big the infrastructure needs of America's airports are, our 2021 Infrastructure Needs Report uses a combination of public and private data to determine project-level infrastructure needs, concerns, and priorities. Our report incorporates qualitative interview information from ACI-NA member airports as well as survey data from airports representing nearly all U.S. passenger boardings.

In the report, we capture not only how COVID-19 is impacting airport finances now, but how it will permanently alter our long-term aviation infrastructure. In addition to short-term solutions like plexiglass barriers and sanitizing stations, airports will need to make long-term changes to the structure of and technology throughout their terminals and security checkpoints. These measures have significantly increased costs for airports. Even with relief funds from Congress, which helped keep the lights on when revenue plummeted, our airports now face a backlog of at least \$115 billion in planned and necessary infrastructure projects over the next five years. These projects would help address critical needs while improving the passenger experience, increasing convenience, fostering competition, and hardening our health infrastructure to handle future health and safety challenges. This number doesn't take into account the billions of dollars in projects that airports have deferred beyond the five year timeframe of this report.

Thriving airports are critical to our national economy, and each one is an engine of economic activity for the local community. Modernizing airport infrastructure is even more crucial than ever to ensure economic recovery. The best way to adequately fund America's airports is by updating the Passenger Facility Charge, or PFC. Each dollar invested in airport infrastructure produces up to \$2.50 in economic growth. Modernizing the PFC would be a direct boon to local economies, jumpstarting our recovery in a way that does not cost taxpayers a dime, while giving airports the local control, flexibility, and long-term infrastructure funding solution they need. We can strengthen our economic recovery and inject millions into local economies, creating good jobs, simply by investing in our airport infrastructure by updating this outdated cap.

The airport industry stands ready to work with the administration, Congress, and stakeholders to ensure that airports have 21st century infrastructure to meet the demands of the traveling public and compete in a global economy.

Sincerely,

Kevin M. Burke
President & CEO
Airports Council International-North America



Executive Summary

Investing In Airport Infrastructure

Airports are essential to America's economic success. They have a footprint in every community in America, supporting \$1.4 trillion in annual economic output and 11.5 million jobs each year.

The COVID-19 pandemic has devastated airport finances. Passenger levels cratered in 2020, falling as far as 96 percent compared to 2019. Despite a modest bounce back from its lowest level, traffic is not projected to return to pre-pandemic levels until at least 2023, meaning airports face billions in lost revenue over the next several years.

Airports are essential to America's economic success. Airports have a footprint in every community in America, supporting \$1.4 trillion in annual economic output and 11.5 million jobs each year.

Airport infrastructure suffered from chronic underfunding even before this steep decline in air travelers. Instead of investing in larger, higher-impact projects that would modernize facilities and increase capacity, airports have been forced to prioritize smaller, immediate needs like maintenance of aging structures and systems. Because of this underfunding, airports have a backlog of \$115 billion in planned and much-needed infrastructure projects. There are also tens of billions of dollars in additional projects that have been delayed or canceled due to the pandemic and economic recession.

Airports have been unable to fund all of the large-scale projects they need to meet passenger needs because Congress has not modernized one of the main funding mechanisms for airports in more than two decades. One of the main sources of airport infrastructure funding is the

federally capped Passenger Facility Charge, or the PFC: a modest user fee on tickets. Congress last raised the maximum statutory PFC cap twenty years ago — before 9/11 — from \$3.00 to just \$4.50. In the two decades since then, construction and related costs have risen steadily, meaning that the real value of the PFC — what it's actually able to purchase — has declined by 40 percent.

Modernizing the PFC cap is the right way to fund infrastructure because it is responsive to local circumstances and traveling trends. An airport in a once-small town experiencing a rapid population boom could set a higher PFC; another airport that's just completed a major terminal renovation project could set a lower one. And because the PFC is a user fee, not a tax, it is paid only by those who actually use an airport and benefit directly from the improvements it funds.

Modernizing the PFC cap would enable airports to fund projects that would provide concrete benefits for travelers. Projects like replacing aging facilities, expanding new terminals, and improving access to transit can increase airport capacity and throughput, which allows for more competition among airlines, leading to lower ticket prices. The additional revenue from the PFC will also help stimulate the economy through shovel-ready projects that would put money into the pockets of local workers.

Airports are a community's gateway to the world, and they can be its gateway to growth as well. Funding infrastructure the right way will inject money into local economies and help all of America keep up with our constantly changing, increasingly interconnected world.

It's time for Congress to modernize the PFC.

INVESTING IN AIRPORTS ENHANCES THE PASSENGER EXPERIENCE



INCREASED
COMPETITION



ON-TIME
FLIGHTS



LOWER
AIRFARES



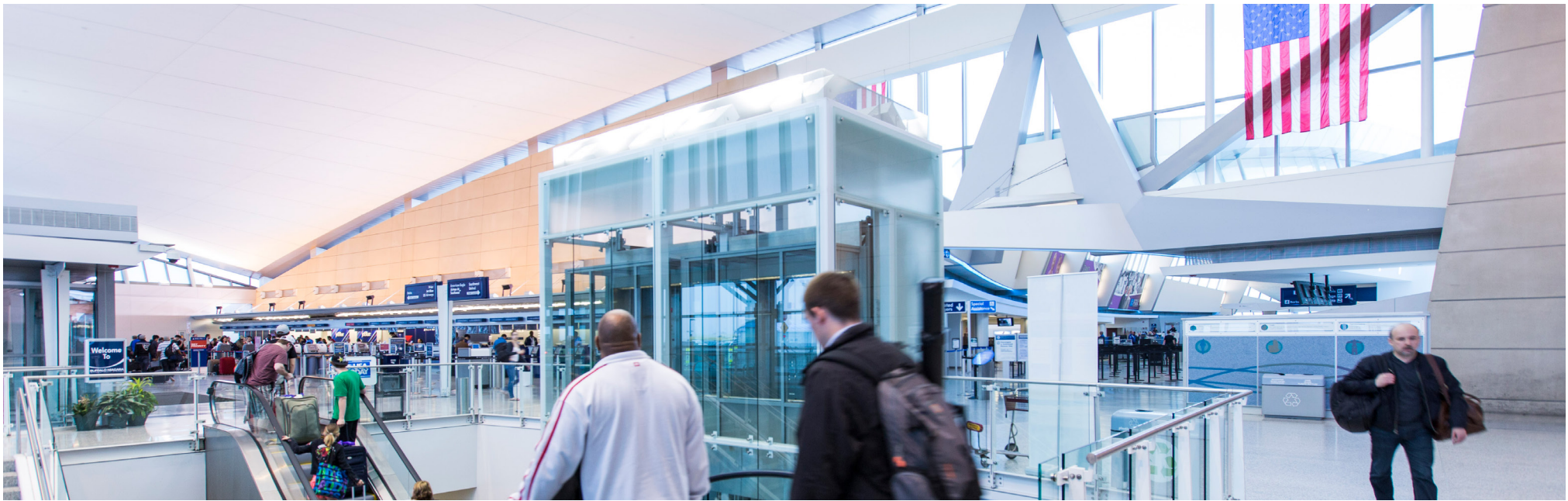
BAGGAGE SYSTEM
UPGRADES



FASTER, SHORTER
LINES



MORE
GATES



Airports Are Leading The COVID-19 Recovery

AIRPORTS HAVE MOBILIZED AS PART OF THE COVID-19 RESPONSE

Over the past year, airports have moved swiftly to respond to and mitigate the spread of COVID-19. For many airports, this has meant:

- Implementing new protocols and systems that can reduce the risk of contagion
- Procuring additional cleaning supplies, personal protective equipment, and hospital-grade electrostatic sprayers
- Installing plexiglass shields at key locations throughout terminal buildings
- Upgrading airport filtration and ventilation systems
- Investing in touchless technologies throughout the airport
- Altering boarding areas and queuing to accommodate for physical distancing

These measures have significantly increased costs for airports, even after taking into consideration relief funds from Congress. Moreover, airports have drawn from their own resources to offer aid to other businesses impacted by COVID-19, offering rent relief and other financial accommodations to concessionaires like food and beverage merchants, bookstores, and other retailers. This has taken a financial toll; ACI-NA expects U.S. airports will face at least \$40 billion in losses from March 2020 to March 2022 as a result of the pandemic.

Through the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) and additional federal aid, airports received funds that helped them stay operational. But it is important to remember that the emergency funds received so far have helped airports retain employees and service preexisting debt, but did not help with the backlog of infrastructure improvements or address the need for long-term upgrades to health infrastructure.

AIRPORT SPOTLIGHT: HOW THREE AIRPORTS ACROSS AMERICA ARE RESPONDING TO COVID-19

"We have to be in a position to build our infrastructure for similar emergencies to come."

ASHEVILLE REGIONAL AIRPORT (AVL)

ASHEVILLE, NC

Asheville, a small hub located in western North Carolina serving over 4,000 passengers per day, was one of the fastest-growing airports in the country until COVID-19 hit. The airport was already feeling squeezed, with passengers packed in "like a can of sardines"; now, a new \$150+ million terminal, intended to meet the rise in traffic, has been delayed due to COVID-19. Looking ahead to the next disaster, the airport has already begun to incorporate pandemic-related thinking into the design for the new terminal.

"Having a fiscally conservative approach enabled us to brace for the drastic revenue drop, but innovative solutions and support will be what enables us to weather this storm in the long run."

JOHN GLENN COLUMBUS INTERNATIONAL AIRPORT (CMH)

COLUMBUS, OH

Columbus, a mid-size airport in the heart of Ohio, typically uses revenues, partnerships, and grants to supplement infrastructure funding. But when COVID-19 hit, the decreased passenger traffic and revenues necessitated new levels of expense management, capital deferment, and other innovative solutions. As each airport is different, and each chooses to fund its infrastructure differently, flexible, local funding solutions like the PFC can ensure airports have access to funding solutions that meet their unique needs.

"Airports have a lot of service-oriented employees. When a crisis like this happens, they get disproportionately impacted."

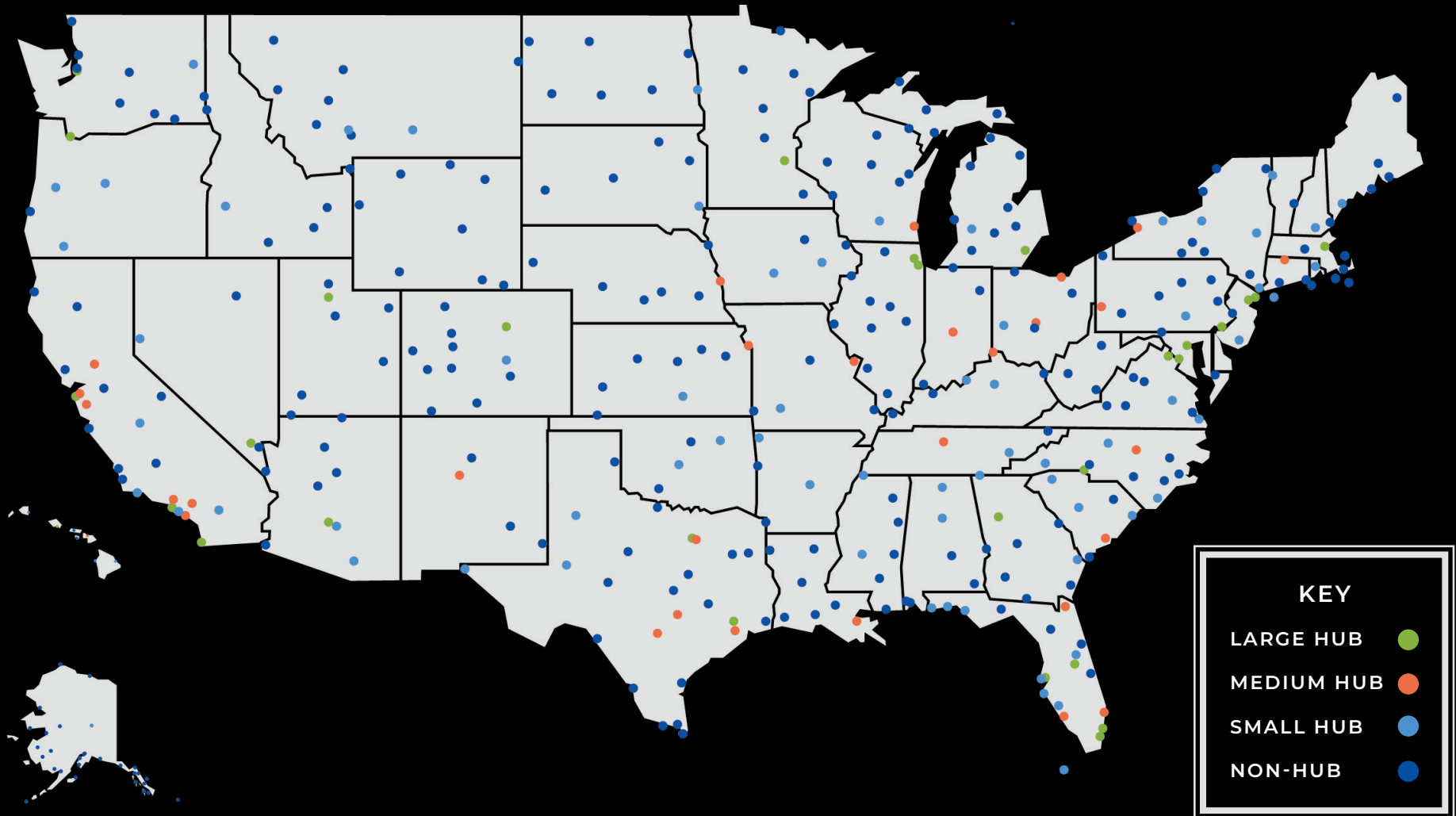
SAN FRANCISCO INTERNATIONAL AIRPORT (SFO)

SAN FRANCISCO, CA

Airports are a major source of quality, service-oriented jobs across the country. Many airports have starting wages significantly higher than the local minimum wage: SFO's airport minimum wage is over 16 percent higher than the minimum wage of the city of San Francisco. Beyond entry-level jobs, many airports have invested significant resources into training their highly technically-skilled workforces — making them hard to replace. While airports are working to avoid layoffs, without additional funding or relief, airports — and airport-based workers — will continue to struggle.

THE STATE OF AIRPORT INFRASTRUCTURE

COMMERCIAL SERVICE AIRPORTS IN THE U.S.



Modernizing The PFC Statutory Cap Is The Right Way To Restore Funding For Airport Infrastructure

AIRPORT INFRASTRUCTURE FUNDING IS COBBLED TOGETHER FROM MANY DIFFERENT SOURCES, EACH WITH ITS OWN UNIQUE CONSTRAINTS AND CHALLENGES

Airports have five major sources of financing for infrastructure projects: the federal Airport Improvement Program (AIP); a simple local user fee on tickets called the Passenger Facility Charge (PFC); bonds and other forms of debt; state and local grants; and airport operating revenue from tenant leases and other revenue-generating activities.

Airport Improvement Program funding, the largest source of revenue after airport-generated income, has remained flat for over a decade. In most cases, AIP funds are restricted to “airside” projects like improving runways, taxiways, and aprons where aircraft are parked, unloaded or loaded, refilled, or boarded. When airports need to fund projects that cover most of an airport’s operations and facilities, like new terminals and gates for expanded capacity, or air filtration systems to keep passengers breathing clean air, they can’t use AIP funds. While AIP grants are an important funding source for some airport projects, the strict restrictions on their use, as well as their required federal apportionment, means AIP money cannot be counted on to fund many of the most pressing projects at most airports.

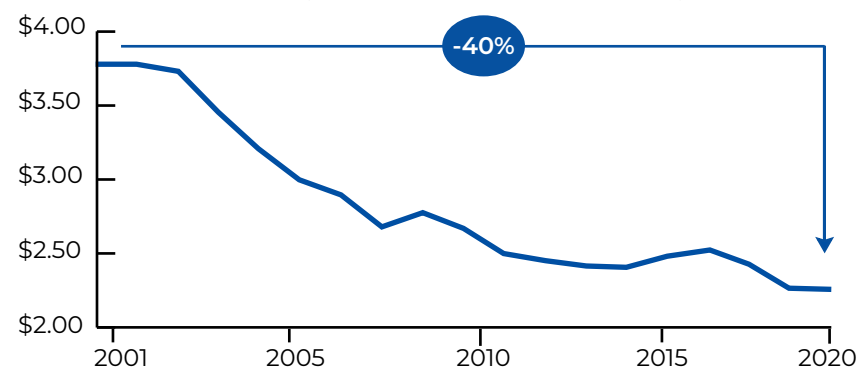
The Passenger Facility Charge is a small user fee on tickets that goes directly to the airports used by travelers. PFC revenues can be used for a much broader range of projects than AIP funds, such as “landside” projects that involve everything accessible to the public, like access roadways, transit connections, or terminals. However, the federal government caps the PFC at a level that is not commensurate with current revenue needs. The statutory cap was last raised in 2000 from \$3.00 to \$4.50. Accounting for increases in construction costs, the buying power of the PFC has nearly halved since the cap was last raised.

Bonds and other forms of debt have been important tools for airports to finance infrastructure projects, but they come with a high price tag. Because airport infrastructure funding has been deficient for so long, airports have been forced to take on debt just to fund existing maintenance and projects. Continuing to take on more debt is not sustainable. Many airports already have some level of debt that they must continually service to maintain their credit ratings, and some have already reached their borrowing capacity. With rising construction costs, a lack of funding from other sources, and increasing debt service obligations, airports need other sources of revenue if they are to continue to invest in infrastructure.

Approximately \$8.2 billion in airport bond principal and interest payments are due each year, with total outstanding debt for U.S. commercial airports standing at roughly \$107 billion at the end of the 2019 fiscal year. Airports have continued servicing their debt despite decreased revenues from the COVID-19 pandemic, deepening their financial strain.

The Buying Power Of The PFC Has Nearly Halved Since The Cap Was Last Raised

INFLATION-ADJUSTED PFC (BASED ON PRODUCER PRICE INDEX)



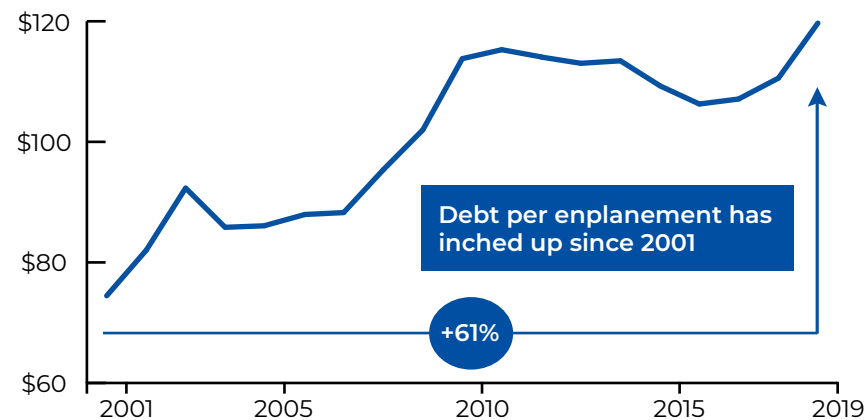
Source: FAA, BLS

State and local grants are only a small fraction of all airport infrastructure funding. They typically must be approved by state or local policymakers on an ad hoc basis and are often constrained and unreliable for long-term infrastructure planning.

Other revenue-generating activities, like rental leases and concession fees, are used to fund airport operations like paying employees and keeping the lights on — leaving very little left over for long-term infrastructure investments.

Airports Are More Dependent On Debt Financing For Critical Infrastructure As Other Funding Sources Have Fallen Behind

DEBT PER ENPLANEMENT



Source: FAA

“Airports are all suffering — if we’re going to accommodate an expanding volume of travelers, then we’re going to have to increase the PFC. This is all about strengthening the economy.”
Orlando International Airport (MCO)

THE PFC IS THE BEST WAY TO FUND AIRPORT INFRASTRUCTURE BECAUSE IT IS:

- Flexible funding administered by local airports to suit their individual projects and unique needs
- A user fee that goes directly to the airports that it is funding
- A way for the federal government to fund infrastructure without spending money from the U.S. Treasury
- Immediate funding for projects that will create jobs and boost GDP

MODERNIZING THE STATUTORY CAP ON THE PFC WILL HELP FUND AIRPORTS NOW AND IN THE FUTURE

The PFC statutory cap is too low for today’s infrastructure needs and demands. COVID-19 has only made things worse as low passenger levels are temporarily but substantially driving down PFC revenue further.

Modernizing the federal cap on the PFC is the fastest way to invest billions of dollars in local infrastructure across the country — supporting the economy, communities, and American competitiveness. Unlike other sources of airport funding, the PFC maximizes flexibility for airports without costing taxpayers a dime. **If Congress wants to fund aviation infrastructure, modernizing the PFC cap is the best way to do it.**

Sources: Bureau of Transportation Statistics, Transtats; FAA, Form 5100-127; FAA, CATS Database

Airports Are The Engines Of Local And National Economy

"The airport is the front door to our community."

- Asheville Regional Airport (AVL)

"Airports are a major contributor to the success of this rapidly growing region."

- Dallas/Fort Worth International Airport (DFW)

"Airlines come and go, but airports are pieces of infrastructure that are owned by communities. We have to protect infrastructure for our community."

- Philadelphia International Airport (PHL)

THE FRONT DOOR TO COMMUNITIES

From large, bustling international hubs, to the mid-size hubs that anchor a region, to the smaller local airports that help connect close-knit communities to the rest of the country, airports are vital to our social and economic fabric. They are engines of economic activity, helping spur economic growth for their communities.

Airports are responsible for over \$1.4 trillion in economic activity each year. On top of the \$549 billion annually that airports directly contribute to economic output via on-airport employment, capital improvements, and visitor spending, airports contribute an additional \$858 billion each year through indirect benefits that ripple throughout their communities, driving local and regional growth.

AIRPORT INFRASTRUCTURE DIRECTLY FUNDS LOCAL COMMUNITIES

Airports can facilitate economic growth by making a community more appealing to job seekers and job creators alike. But they also facilitate economic growth through a more direct way: infrastructure spending. Money spent on

infrastructure projects doesn't sit in an account somewhere gathering dust, or disappear into government — or corporate — pockets: It goes directly to local builders, planners, and workers who actually carry out the projects.

Infrastructure produces a great return on investment. Each dollar invested in infrastructure produces an additional \$1–\$2.50 in growth. Indexing the PFC to inflation in 2000 (the last time the PFC was raised) would have added nearly an additional \$10 billion directly to local economies in 2019 alone.

The PFC not only functions as a locally responsive and reliable funding source: It does not cost taxpayers a dime. As a user fee, the PFC is paid solely by the people who actually use an airport, flying to, from, or through that community.

Sources: The Center for Budget and Policy Priorities; Bureau of Economic Analysis; FAA; ACI-NA



11.5 MILLION JOBS



1.4 TRILLION IN ANNUAL ECONOMIC OUTPUT



825 MILLION PASSENGERS



FOR EVERY \$1 INCREASE IN THE PFC CAP, U.S. GDP WOULD INCREASE BY AS MUCH AS \$2.3 BILLION

**"OUR NEW PLANNED
TERMINAL WILL PROVIDE
MORE ROOM AND
EFFICIENCY TO FOSTER
ADDITIONAL AIRLINE
SERVICE FOR THE REGION."
- KANSAS CITY
INTERNATIONAL AIRPORT
(MCI)**



**KANSAS CITY INTERNATIONAL
AIRPORT (MCI)
KANSAS CITY, MO**

TERMINAL: \$1.5B

The new terminal is over one million square feet, making it the largest single infrastructure project in the city's history. It will have a lasting economic impact on the region in the form of supporting new jobs and opportunities for local and small businesses, as well as creating a first-class traveler experience for airport users. The terminal will open with 39 gates, with the ability to expand to 50 gates in the future. When complete, the facility will replace the airport's dated and aging terminals, which opened in 1972.

CASE STUDIES: HELPING LOCAL INDUSTRIES THRIVE

A photograph of the Austin skyline, featuring several tall skyscrapers under a clear sky. The image is used as a background for the first case study panel.

AUSTIN-BERGSTROM INTERNATIONAL AIRPORT (AUS)

SERVING THE NEEDS OF A GROWING METRO

Austin is a city on the rise: its metro-area population has more than doubled since 2000. All of those new residents, tourists, businesses, students, and government leaders have altered AUS' needs. For years, AUS has been planning a \$4 billion infrastructure project that would drastically improve its capacity, including 15 new gates, two additional taxiways, new concessions, and new ticketing and security areas. While the airport is now determining how to adapt the planned expansion to a post-COVID reality, it will need to be able to fund major capacity expansions to prepare for passengers' return to Austin.

A photograph of the Sacramento skyline, showing a mix of modern and older buildings. The image is used as a background for the second case study panel.

SACRAMENTO INTERNATIONAL AIRPORT (SMF)

SUPPORTING FOREIGN INVESTMENT

Sacramento has seen an increase in international traffic in recent years — despite only having two international gates, while most nearby airports have at least four. The airport is exploring ways to expand capacity to meet growing international interest in the city, such as by creating new gates or adapting existing runways. SMF has also been instrumental to Sacramento's growing importance in the local warehousing and logistics industry, working with commercial developers to bring cargo-related projects to fruition.

A photograph of the Philadelphia skyline, dominated by the Comcast City building (One Liberty Place). The image is used as a background for the third case study panel.

PHILADELPHIA INTERNATIONAL AIRPORT (PHL)

FACILITATING THE RISE OF E-COMMERCE

The rise of e-commerce and demand for quick, cheap delivery have made many cities — and their airports — emerging powerhouses in cargo. Philadelphia International Airport (PHL) — located near major ports across the eastern seaboard — has the potential to be a major cargo hub, particularly for materials like sensitive medical equipment that must be shipped by air from many Pennsylvania-based biomedical device companies. The airport is currently underutilized by shippers, largely due to lack of specialized cargo facilities that need proper funding to be built.

"THE AVIATION INDUSTRY IS REALLY AN ECONOMIC ENGINE FOR EVERY CITY AND HELPS WITH GROWTH AND MODERNIZATION OF THE CITY." - AUSTIN-BERGSTROM INTERNATIONAL AIRPORT

Airports And Their Infrastructure Have Been Left Behind

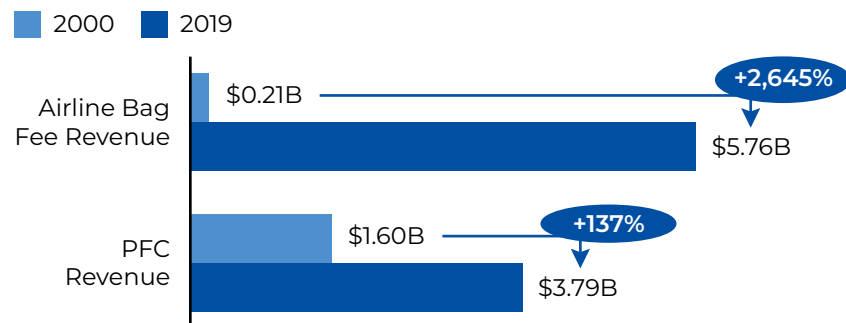
AIRPORT REVENUES HAVE SLOWED...

For airports, increased passenger levels over the last few decades, combined with antiquated infrastructure, has compounded the stress on the existing system. Despite the fact that airports bear most of the cost for improving and maintaining air travel infrastructure, the statutory cap on the Passenger Facility Charge (PFC) — a major source of infrastructure funding — has been stuck at the same level for 20 years.

Previous attempts to modernize the statutory cap on the PFC and increase funding for critical airport infrastructure projects have been thwarted by misguided claims that modernizing the PFC would raise ticket prices and put a damper on travel. In reality, increases in flying costs have been driven by airlines, not airports. **On a per-enplanement basis, airline revenues dwarf airport revenues, with airlines collecting \$11 for every \$1 airports receive.**

Airlines collected nearly \$6 billion in 2019 from bag fees alone, a 27-fold increase from 2000, while revenue from the PFC has seen only a modest increase due to more people flying. Moreover, the PFC actually goes toward projects that improve everyone's experience at the airport, passengers and airlines alike.

Total Airline Baggage Fee & Passenger Facility Charge Revenue In 2000 And 2019



Source: FAA, BTS

...LEADING TO AGING AIRPORT FACILITIES, MASSIVE INFRASTRUCTURE NEEDS AND CONCERNS, AND INCREASED EXPENSES

Slowing revenues due to COVID-19 and increased operating expenses have forced airports to make unenviable choices between fixing a leaky roof, installing new air filtration systems, or expanding gate capacity. The result: Airports are forced to prioritize immediate, short-term needs, leading to aging terminals and an extensive and growing list of infrastructure needs.

Across the country, the average airport terminal is over 40 years old, meaning many of these facilities were built well before 9/11 and have needed to undergo multiple rounds of complex infrastructure changes. Aging facilities are being forced to accommodate additional security measures, the demand for greater convenience, and the need for accessibility. **As airports continue to age, they are also facing increasing maintenance costs.** Depreciation, which accounts for wear and tear, has nearly tripled in the last two decades — another indication that airports have a significant need to replace and upgrade facilities and equipment.

“ACROSS THE COUNTRY, THE AVERAGE AIRPORT TERMINAL IS OVER 40 YEARS OLD

Old infrastructure isn't just an aesthetic concern, but a functional, safety, and business concern. Older airports face the threat of airlines cutting service or pulling out entirely, citing aging facilities that lack modern features and amenities. On the other hand, plans for a new facility at one medium-sized hub in the Midwest have increased airline interest in the region, potentially bringing additional travelers to the area and boosting economic activity.

“Airports are part of national critical infrastructure. It’s important that we address the multitude of infrastructure needs both at our airport and throughout the industry, and that’s going to take resources.”
- Pittsburgh International Airport (PIT)

Adequate airport capacity is also important to maintaining American cities’ presence on the world stage. Milwaukee’s Mitchell International Airport (MKE) consistently has more airplanes coming in and out of its International Arrivals facility than it can handle. When international passengers are welcomed to Milwaukee, they are often left waiting in packed hallways or in their cramped aircraft due to limited immigration and customs processing capacity. Similarly, a modernization of the PFC would directly help Los Angeles World Airports make significant additional infrastructure investments to help prepare for when the city welcomes the world for the 2028 Olympic Games.

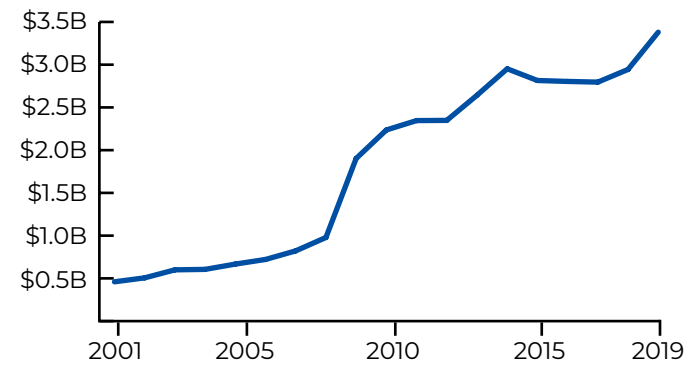
Airports also need to move forward with safety-related projects. With the introduction of newer larger jet aircraft, airports need greater runway capacity. In some cases such as Hollywood Burbank Airport (BUR), the only viable option is to replace and relocate passenger terminal infrastructure — all of which is a costly investment. While the current terminal is within Federal Aviation Administration (FAA) standards, the project is vital to ensure that the airport operates as safely as possible. Other airports also have unique needs that need funding, such as increasing capacity to de-ice airplanes and clear runways in the winter.

There is nearly \$115 billion in planned infrastructure projects needed to keep our nation’s airports functional and up-to-date. These projects go beyond new terminals; a significant share of these needs are related to basic maintenance projects needed for safety and reliability.

Sources: FAA Form 5100-127; Bureau of Transportation Statistics, Transtats; ACI-NA

Airport Depreciation Is Increasing As Facilities Age...

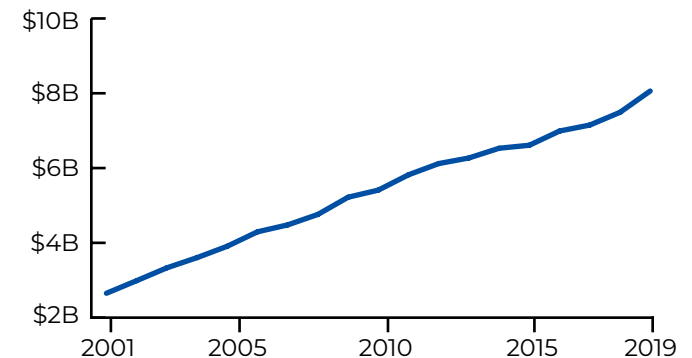
TOTAL AIRPORT DEPRECIATION ACROSS HUB SIZES, PER YEAR



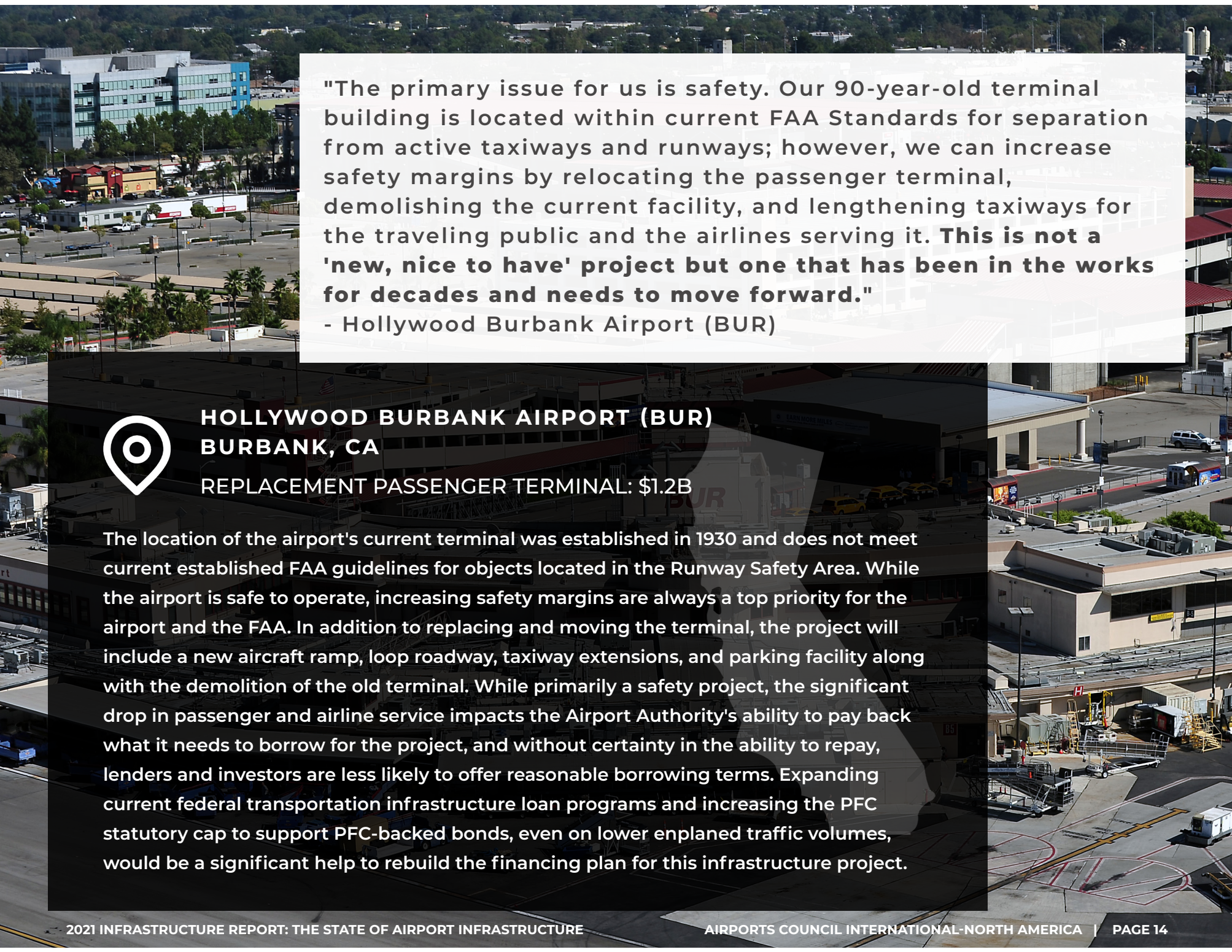
Source: FAA

...And Aging Facilities Have Increased Maintenance Costs

TOTAL AIRPORT MAINTENANCE & REPAIR COSTS ACROSS HUB SIZES, PER YEAR



Source: FAA



"The primary issue for us is safety. Our 90-year-old terminal building is located within current FAA Standards for separation from active taxiways and runways; however, we can increase safety margins by relocating the passenger terminal, demolishing the current facility, and lengthening taxiways for the traveling public and the airlines serving it. **This is not a 'new, nice to have' project but one that has been in the works for decades and needs to move forward.**"

- Hollywood Burbank Airport (BUR)



HOLLYWOOD BURBANK AIRPORT (BUR) BURBANK, CA

REPLACEMENT PASSENGER TERMINAL: \$1.2B

The location of the airport's current terminal was established in 1930 and does not meet current established FAA guidelines for objects located in the Runway Safety Area. While the airport is safe to operate, increasing safety margins are always a top priority for the airport and the FAA. In addition to replacing and moving the terminal, the project will include a new aircraft ramp, loop roadway, taxiway extensions, and parking facility along with the demolition of the old terminal. While primarily a safety project, the significant drop in passenger and airline service impacts the Airport Authority's ability to pay back what it needs to borrow for the project, and without certainty in the ability to repay, lenders and investors are less likely to offer reasonable borrowing terms. Expanding current federal transportation infrastructure loan programs and increasing the PFC statutory cap to support PFC-backed bonds, even on lower enplaned traffic volumes, would be a significant help to rebuild the financing plan for this infrastructure project.

COVID-19 Has Devastated Airport Finances And Forced Project Postponements Or Cancellations

"We went from 50,000 people a day to 500 from pre-COVID to Spring 2020."
- Nashville International Airport (BNA)

"This has been financially devastating to the aviation industry."
- Raleigh-Durham International Airport (RDU)

"We've seen a precipitous drop in revenue. This has had a significant and dramatic effect on our ability to fund and advance infrastructure projects."
- Port Authority of New York and New Jersey (EWR, JFK, LGA)

COVID-19 HAS DEVASTATED AIRPORT FINANCES

COVID-19 has had a severe impact across our economy, but its effects have been particularly acute for the aviation industry and U.S. airports. Airports have seen a dramatic decline in passenger traffic and an associated drop in revenues.

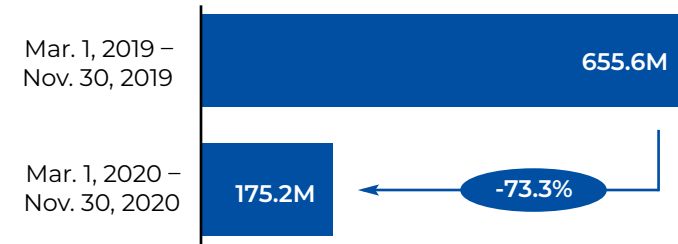
U.S. Airports are expected to lose **at least \$40 billion** through March 2022 due to the COVID-19 pandemic — and losses are expected to climb if passenger traffic remains depressed. These trends are unsustainable, and the longer they go on, the more assistance our airports will need. Unfortunately, current government assistance has not been sufficient.

“ U.S. AIRPORTS ARE EXPECTED TO LOSE AT LEAST \$40 BILLION THROUGH MARCH 2022 DUE TO THE COVID-19 PANDEMIC

Funding from the Coronavirus Aid, Relief, and Economic Security (CARES) Act and other federal aid packages was a lifeline for many, but those funds are only barely helping airports survive in the short term; airports nationwide still face enormous financial and operational hurdles. Many airports, including large, medium, and small hubs across the country, are using their federal emergency funds simply to partially offset revenue losses and, much like the average consumer, trying to maintain minimums on debt payments.

Airports Have Experienced A 73% Drop In Passengers...

TOTAL TSA SCREENINGS, MARCH – NOVEMBER



Source: TSA

...And A Related, Precipitous Decline In Revenues

TOTAL EXPECTED REVENUE LOSSES FOR U.S. AIRPORTS AND GOVERNMENT RELIEF



Source: ACI-NA (Data as of March 15, 2021)

Even as revenue losses mount, airports still need to keep the lights on and provide for the health, safety, and security of the public, employees, and tenants, all while ensuring bills are paid. One big cost for airports is debt service. Like many healthy businesses, airports are financially responsible institutions that use debt on a regular basis to finance long-term infrastructure investments. The economic crisis is straining the ability of airports to meet current debt service obligations.

“Literally everything has been stopped except for preventative maintenance projects.”
- Raleigh-Durham International Airport (RDU)

“The pandemic has forced us to prioritize maintaining necessary operations levels and those infrastructure projects that were already under construction. Any projects not yet out of the ground, we’ve temporarily stopped.”
- Los Angeles World Airports (LAX and VNY)

COVID-19 is not only making it harder for airports to service their existing debt: It is making future borrowing more expensive. In response to COVID-19, some rating agencies have downgraded airport credit ratings, making it more expensive for airports to borrow the funds they need for infrastructure projects. Across small to large hubs, airports are running out of borrowing capacity to continue critical operations and infrastructure projects.

REVENUE SHORTFALLS HAVE FORCED AIRPORTS TO POSTPONE OR CANCEL CRITICAL INFRASTRUCTURE PROJECTS

Many airports only have the financial ability to move forward with projects that are critical for basic maintenance and safety, while longer-term needs are pushed off. Due to COVID-19-induced funding shortfalls, large hubs alone **have deferred projects worth \$12.2 billion, projects that would increase capacity, competition, and convenience.**

Some airports, like Des Moines International Airport (DSM), are only continuing with the few projects that are directly funded by the government. Airports like Spokane International Airport (GEG) have scaled back their projects. Others, like the Los Angeles World Airports, have temporarily halted some longer-term projects not already under construction to prioritize maintaining current projects and critical operations.

LaGuardia Airport (LGA) and Newark Liberty International Airport (EWR) are just two [examples](#) of airports that have had to delay, defer, or cut their infrastructure projects in response to the crisis. San Francisco International Airport (SFO) has suspended more than 100 infrastructure projects totaling \$1.9 billion, including the [construction](#) of its planned new Harvey Milk Terminal 1, which when completed will revolutionize the guest experience and offer a world-class, environmentally-friendly travel experience. Dallas/Fort Worth

International Airport (DFW) has also put a new terminal on hold, and one large hub even had to push off a project to help fix a leaky roof because of a lack of available funding.

San Francisco International (SFO) has suspended more than 100 infrastructure projects totaling \$1.9 billion, including the construction of its planned new Harvey Milk Terminal 1

Syracuse Hancock International Airport (SYR) postponed a long-overdue infrastructure overhaul of its 37-year-old parking deck that would finally add additional parking capacity to the airport so travelers don’t have to hike down side streets in the snow: “We’ve had to push this project because of everything that’s happened recently, but we’re running out of time to fix this, and even with postponing, our needs are not going away.” Some airports have even been forced to permanently scale back the size of their planned projects. For example, Orlando International Airport (MCO) needed to cut down the size of its gate expansion project, reducing future competition and passengers’ options.

Airports’ long-term needs aren’t going away. While projects can be deferred, that only puts America’s airports and their infrastructure further behind. Deficiencies will only get worse, and nothing can get better if these deferrals are forced to continue.

"WE'VE DEFERRED SOME MAJOR CAPITAL PROJECTS SUCH AS MODERNIZING A THIRTY-YEAR-OLD BAGGAGE SYSTEM. YOU KEEP DIGGING A BIGGER HOLE WHEN YOU HAVE TO PUT OFF GROWTH PROJECTS TO PRIORITIZE BASIC INFRASTRUCTURE LIKE MECHANICAL, ELECTRICAL, AND PLUMBING. REVENUES SIMPLY AREN'T THERE RIGHT NOW AND WE HAVE TO MAKE WISE CHOICES."
- PHILADELPHIA INTERNATIONAL AIRPORT (PHL)

PROJECT SPOTLIGHT



SYRACUSE HANCOCK INTERNATIONAL AIRPORT (SYR) SYRACUSE, NY

PARKING & TRAFFIC CIRCULATION OVERHAUL: \$160M+

The project is a revitalization of the airport's parking and traffic circulation to help improve flow and increase convenience while replacing a structure that consistently lacked the capacity to accommodate pre-pandemic traffic levels. When completed, it will increase passenger circulation into and out of the airport, enhance wayfinding, increase capacity, and create an overall easier and more enjoyable customer experience.

PROJECT SPOTLIGHT



TAMPA INTERNATIONAL AIRPORT (TPA) TAMPA, FL

EAST AIR CARGO EXPANSION: \$72.28M

This project will expand the airport's cargo capacity and enable the construction of a critical new passenger terminal. Although approved, the project has been deferred due to the impacts on passenger levels from the COVID-19 pandemic. Construction is expected to begin before 2025. The project includes significant improvements, including a new cargo building, new taxiway, aircraft parking apron, and other supporting facilities. This effort will allow the airport to reclaim an area temporarily being used for Amazon and UPS cargo operations for a new, 16-gate international and domestic terminal.



NASHVILLE INTERNATIONAL AIRPORT (BNA) NASHVILLE, TN

CONCOURSE A EXPANSION: \$620M

In order to accommodate record passenger traffic, the airport has undertaken a major capital improvement program to add more gates, security lines, parking, roadway access, concessions, and other needed amenities and infrastructure requirements. But, a major component of that capital program — the expansion of Concourse A to net 10 new gates — cannot go forward under existing funding formulas. An increase in the Passenger Facility Charge (PFC) statutory cap would enable this much-needed project to move forward and would help facilitate the economic growth anticipated for Middle Tennessee and beyond.

RUNWAY EXTENSION: \$500M

The proposed \$500 million runway extension of runway 2Left/20Right will allow the airport to obtain non-stop service to Asia. This is a goal of the state-wide business community and would support the large concentration of automotive manufacturers and other industries in Tennessee with Asian ties. However, the project will not likely proceed without a substantial increase in the PFC cap. The potential economic impact from non-stop service to Asia would be enormous — expected to approach \$100 million annually.

Airports Are Leaders In Emerging Health Infrastructure, But Need Help

AIRPORTS ARE STEPPING UP AND IMPLEMENTING ADDITIONAL SAFETY MEASURES — ALL OF WHICH ARE ADDING TO OPERATING EXPENSES

Airports serve as gateways that connect communities across America and the world, but they are more than just gateways for travel: They are gateways for protecting and safeguarding public health. As such, airports have become leaders in health infrastructure in the wake of the pandemic.

Airports are implementing safety measures right now despite immense financial shortfalls, paying for most of these projects out of pocket — further diverting funds away from other infrastructure projects that improve the passenger experience and facilitate economic growth. Additionally, most expect many of these new measures to stick around for the long haul, further adding to already expanding operating expenses. And unlike many other businesses and industries, airports have been good stewards of public resources and have worked diligently to avoid laying people off, while others in the travel industry are shedding jobs.

“Increased cleaning at airports is probably going to be around forever.”

- John Glenn Columbus International Airport (CMH)

“9/11 changed a lot of things for airports. So will this pandemic.”

- Seattle-Tacoma International Airport (SEA)

AIRPORTS ARE ALREADY STEPPING UP AND ADDRESSING THE HEALTH INFRASTRUCTURE CHALLENGES POSED BY THIS CRISIS BY:

- Procuring additional cleaning supplies, personal protective equipment, and hospital-grade electrostatic sprayers
- Enhancing cleaning and sanitization procedures and frequency
- Installing plexiglass barriers at various locations, like ticket counters, checkpoints, gates, and restrooms
- Upgrading airport filtration and ventilation systems
- Expanding space and investing in touchless technologies throughout the airport, and improving overall airport technological capacity
- Altering boarding areas and queuing to accommodate for physical distancing
- Some airports are even looking into implementing virtual queuing systems to identify bottlenecks and help redirect and manage the flow of passengers efficiently throughout the airport

THE HEALTH INFRASTRUCTURE WE PUT IN PLACE NOW WILL SERVE US FOR DECADES; LET'S MAKE SURE WE BUILD IT RIGHT

Airports had to overcome overcrowding and high-touch environments with out-of-date facilities because they lack proper infrastructure funding. With proper funding through an increased PFC cap, the health infrastructure we put in place now will serve us for decades.

Airports are on the front lines of the country's health infrastructure, and they will need to continue to adapt, redesign terminals, implement new technologies and procedures, and be ready to accommodate the return to full traffic levels. But they will also need to be ready for the next public health & safety challenge. Improving our broader health infrastructure is just as important of an investment as fixing roads and bridges for our long-term economic recovery and safety — and airports should be a key part

of that effort. **This new health safety paradigm will require substantial long-term and ongoing investments in up-to-date technologies and facilities for decades to come.**

Passengers will have different expectations in a post-COVID environment for personal space, air filtration, and security that airports need to address, and many are already attempting to incorporate this thinking into their infrastructure planning.

Sources: ACI-NA; FAA, Form 5100-127 Data; FAA, CARES Act Data; TSA, COVID-19 Screening Data

“We have to be in a position to build our infrastructure for similar emergencies to come.”
- Asheville Regional Airport (AVL)

PROJECT SPOTLIGHT



ASHEVILLE REGIONAL AIRPORT (AVL) ASHEVILLE, NC

TERMINAL EXPANSION & MODERNIZATION PROJECT: \$210M

The design of this project includes significant attention to the passenger experience in a post-pandemic era, with a focus on smart use of space that creates a sense of openness, flexibility for use over time, appropriate locations for reduced-touch services (such as self-serve kiosks for check-in, bag check, concessions), and a calming sense of place. As the design began just prior to the pandemic, the airport was able to adapt and incorporate important decisions from this pandemic to appropriately plan for this new era of the air travel journey.



DALLAS/FORT WORTH INTERNATIONAL AIRPORT (DFW) DALLAS, TX

SMART RESTROOM IMPLEMENTATION & HVAC
UPGRADES: \$6.55M

The airport has continued implementation of "Smart Restrooms" throughout its terminals, offering a touchless experience that will continue to be of benefit long after COVID-19. Currently, there are nearly 140 restrooms with the completed installation. Among the tools available now are:

- Auto soap dispensers
- Single-touch paper towel dispensers
- Auto faucets
- Digital screens at restroom entries that display stalls available
- Lights and sensors for occupancy

The airport has also moved forward with HVAC system upgrades, including the addition of ultraviolet light technology that will improve the air quality within its facilities. The use of these technologies along with other health & safety best practices significantly reduces exposure risk to passengers and prevents the spread of COVID-19.



As Travel Rebounds, Airports Will Need The Right Infrastructure To Accommodate Capacity

AIRPORT INFRASTRUCTURE FUNDING SHOULD BE TIED TO PASSENGER USE

Airports have seen unprecedented levels of enplanements in recent years, especially in fast-growing regions. They are under immense pressure to build new terminal buildings, construct more parking garages, and expand their infrastructure so that they can handle increased traffic once passenger levels return to their pre-pandemic levels.

This growth is not just limited to large hubs. In 2019, Syracuse Hancock International Airport (SYR), a regional airport, saw its highest traffic levels in nearly three decades.

COVID-19 may have caused a temporary drop-off in passenger levels, but airports need to be prepared for their return. From 2000 through 2019, passenger enplanements increased by nearly 32 percent, to about 937 million enplanements. Airports need to be in a position to support the increased movement of people and goods to enable a stronger economy. **Without these much-needed investments, limited capacity and outdated facilities will hold airports and our economy back.**

BETWEEN 2015 AND 2019, ASHEVILLE REGIONAL AIRPORT (AVL) IN NORTH CAROLINA SAW A 75 PERCENT INCREASE IN PASSENGER LEVELS, BECOMING ONE OF THE FASTEST-GROWING AIRPORTS IN THE COUNTRY:

"BUT OUR TERMINAL IS HALF THE SIZE THAT IT NEEDS TO BE...PASSENGERS [AT AVL] ARE PACKED LIKE A CAN OF SARDINES. THEY DON'T HAVE ENOUGH SPACE TO SIT AND WAIT TO BOARD THEIR AIRCRAFT."

"We have to have facilities to accommodate the return to traffic. And we need to have the ability to accommodate the return to traffic to accommodate the return to jobs."

- San Francisco International Airport (SFO)

"Last year, we put 52 million passengers through a 50-year-old terminal that was designed for 30 million passengers."

- Seattle-Tacoma International Airport (SEA)

"We just don't have enough space here. When passenger levels return, we'll eventually need additional space to handle the unprecedented capacity we've previously seen here."

- Raleigh-Durham International Airport (RDU)

AIRPORTS WANT TO IMPROVE PASSENGER EXPERIENCE AND BECOME WORLD-CLASS HUBS

Airports across the country want to upgrade customer experience. **From investing in projects to adding nursing rooms, children's play areas, and other high-demand services, airports are expected to become more than just transit hubs.** Additionally, planned airport projects will help increase access and connectivity, cut commute times, increase efficiency and on-time departures, increase flights and passenger options,

and help get passengers where they need to be faster by cutting down security and baggage wait times.

Airports need additional resources — like a modernized statutory PFC cap — to build the terminals, gates, and ramps necessary to attract new air carriers and accommodate expanded service by incumbent carriers. The traveling public will have more choices and lower airfares when airports can build facilities that provide more airline options and more service alternatives.

In addition to the impact on local economies, deferred airport investment over the past two decades has challenged the ability of airports to deal with the evolving threats posed to aviation security. We live in vastly different times than when most U.S. airports were built, and the airports we have right now were not designed and outfitted for a post-9/11 world that requires us to maximize both efficiency and security, including cybersecurity.

Projects like the new International Arrivals Facility and North Satellite Modernization projects in Seattle will improve service, giving the airport the room to grow as the region continues to prosper, while giving

passengers the space they need and reducing wait times. New York-area airports have earmarked more than \$4 billion to expand train service to various airports, improving connectivity to the city and cutting down on passenger commute times to and from the airports. A new terminal in Kansas City will be more efficient for the airlines and TSA and will, in turn, provide a greatly improved customer experience; the new terminal will include nursing rooms, family restrooms, an inclusive child play area, pet and service animal relief areas, and a sensory room for children and adults — all elements the previous facility didn't offer.

U.S. airport infrastructure generally ranks poorly against other countries' airports, but it does not have to be this way. Beyond meeting the basics, planned airport infrastructure projects will have many benefits, not only for travelers but also for the regions in which they operate. With additional revenue, airports can dramatically improve customer experience by ensuring seamless curb-to-gate travel, adopting touchless technologies, and diversifying and expanding retail choices in their buildings, among many other planned projects.

PROJECT SPOTLIGHT



NEWARK LIBERTY INTERNATIONAL AIRPORT (EWR) NEWARK, NJ

AIRTRAIN REPLACEMENT: \$2.05B

The proposed project would replace the existing AirTrain system, which has reached the end of its useful life. The new system will help meet passenger demands and enable world-class operations that provide for a 21st century customer experience for airport visitors and employees. The existing system carried more than 11 million riders in 2019 at the airport and provides access to NJ Transit and Amtrak.



SEATTLE-TACOMA INTERNATIONAL AIRPORT (SEA) SEATTLE, WA

NORTH SATELLITE MODERNIZATION PROJECT: \$710M

This project is the expansion and renovation of a 46-year-old facility to better serve passengers with more choices and amenities for an enhanced travel experience. This investment by the Port of Seattle and Alaska Airlines will be built to preserve resources and meet strict sustainability standards. The entire venue will give way to natural light and views of the airfield and mountains befitting of a world-class airport.

NEW INTERNATIONAL ARRIVALS FACILITY (IAF): \$986M

This will be a new multi-level, 450,000-square-foot facility. An iconic aerial walkway spanning 780 feet across and 85 feet above the existing taxi lane will connect arriving international passengers to the new IAF. The IAF was designed to increase capacity and will:

- Nearly double the number of international-capable gates
- More than double passenger capacity to 2,600 passengers per hour
- Incorporate enhanced technologies for faster passport check clearance
- Increase the size and number of bag claim carousels from four to seven
- Reduce the minimum passenger connection time from 90 to 75 minutes



FORT LAUDERDALE-HOLLYWOOD INTERNATIONAL AIRPORT (FLL) FORT LAUDERDALE, FLORIDA

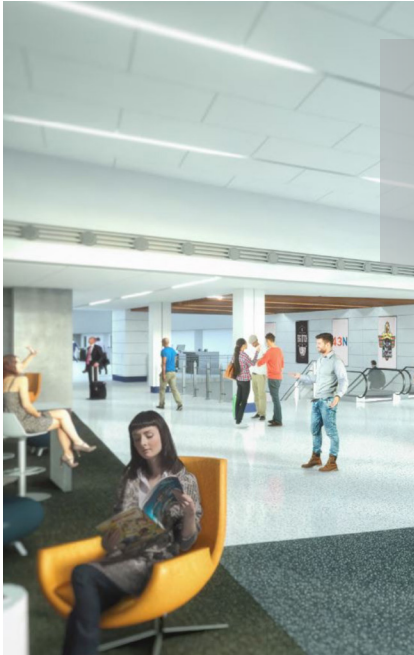
NEW TERMINAL 5: \$300M

This new terminal will provide additional landside, terminal, and gate capacity to serve projected near-term demand. The facility will be able to accommodate up to 5 million arriving and departing passengers annually, providing the airport with additional capacity and flexibility to meet demand while other capacity-enhancing projects are programmed, designed, and constructed. The terminal will provide five additional domestic gates and will connect to the adjacent terminal with a new multi-level pedestrian bridge, providing airlines the ability to operate from both terminals through secure connectivity.

TERMINAL CONNECTORS: \$100M

These connectors will be a game-changer for the airport, as all its terminals will be connected post-security, enabling passengers to move freely. This connectivity will allow for increased concessions exposure, growth management with flexibility in gate utilization, and wayfinding to enable passengers to enter any security checkpoint that is convenient for them.

PROJECT SPOTLIGHT



BUFFALO NIAGARA INTERNATIONAL AIRPORT (BUF) BUFFALO, NY

TERMINAL ENHANCEMENT PROJECT: \$64.4M

The overall project will allow passengers to get around the airport easily and efficiently, improve terminal access, and increase security, while enhancing the passenger experience. Once complete, visitors will find less congestion at the security entrance, with even bigger improvements for exiting passengers. The new design will sport two egress areas and a new enclosed and expanded federal inspection area for international flights. Additionally, the project includes a refurbished baggage claim area that will have not just one additional baggage return belt, but also four completely new machines, each of which will provide 50 percent more surface area than before.

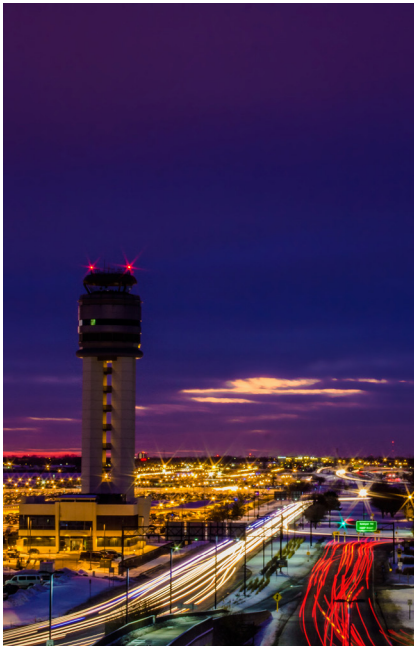
PROJECT SPOTLIGHT



LAGUARDIA AIRPORT (LGA) QUEENS, NY

CONSTRUCTION OF AIRTRAIN: \$2.05B

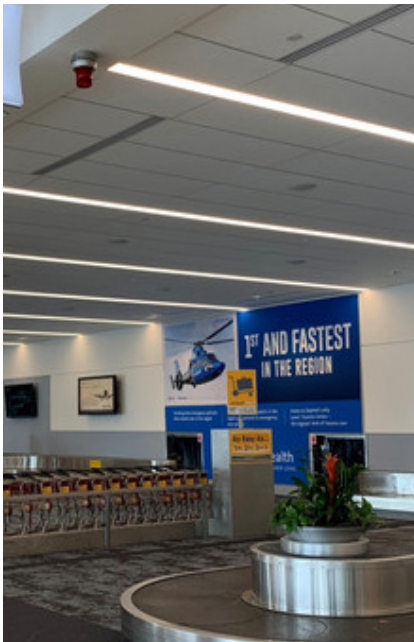
The proposed project would create a convenient, easy-to-use rail connection that offers travelers and employees reliable, predictable travel times to the airport. The airport is the only major airport on the East Coast lacking rail. The proposed project would have two on-airport stations and include critical connections to the Long Island Rail Road and the New York City Subway.



JOHN GLENN COLUMBUS INTERNATIONAL AIRPORT (CMH) COLUMBUS, OH

TERMINAL DEVELOPMENT PROJECT: \$1.3–\$1.5B

The proposed project consists of a new passenger terminal and adjacent parking garage. The new terminal will replace the existing facility, of which significant components are 70 years old. The new terminal will be designed to have one centralized passenger screening checkpoint, modern concession facilities, and aircraft gates sized for maximum flexibility, allowing the airport to grow alongside the Columbus region.



DAYTON INTERNATIONAL AIRPORT (DAY) DAYTON, OH

BAGGAGE CLAIM RENOVATION: \$4.3M

The airport's baggage claim renovation is scheduled to take place five years from now as part of the final phase of its larger Airport Terminal Modernization Program. The project will modernize the carousels and add capacity to meet the designed goal of increasing the efficiency with which passengers receive their baggage from the baggage claim.



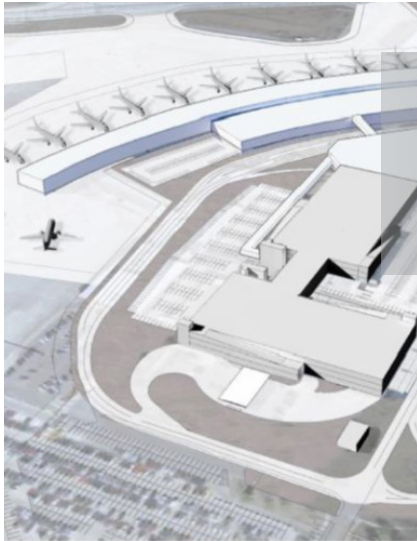
SALT LAKE CITY INTERNATIONAL AIRPORT (SLC) **SALT LAKE CITY, UT** NEW TERMINAL BUILDING: \$768M



The airport's new terminal building is a more efficient and sustainable state-of-the-art facility with the ability to meet changing passenger needs for decades to come. It consolidates all air-carrier passenger-processing operations into a single, multi-level terminal building, replacing three older unit terminals. Accommodating both domestic and international flights, the terminal includes areas for all essential spaces needed for passenger and airline operations.

NEW BAGGAGE-HANDLING SYSTEM: \$199M

The terminal building includes a new baggage system that consists of both inbound and outbound baggage-handling equipment. The new consolidated outbound system has baggage entry points at the ticketing level of the terminal, the terminal curb, and remote check-in counters. The outbound baggage system includes a fully-integrated centralized in-line baggage screening matrix including six explosive detection system machines. The second phase of construction will extend the outbound sortation system to remote Concourse B via high speed conveyors.



DES MOINES INTERNATIONAL AIRPORT (DSM) DES MOINES, IA

NEW TERMINAL: \$500M

The airport's new terminal will serve as a more effective and efficient transportation facility for travelers. It will create opportunities to grow air service options while expanding and adapting to the evolving needs of the region. With modern amenities and technologies, the new terminal will aid in attracting and retaining talent and act as an economic engine for the community.



HARTSFIELD-JACKSON ATLANTA INTERNATIONAL AIRPORT (ATL) ATLANTA, GA

CONCOURSE T-NORTH EXTENSION: \$340M

This concourse extension will add five new gates to the end of the airport's Concourse T, providing increased gate capacity and additional room for passengers, employees, and concessionaires. The project is a large undertaking, as it will impact major roadways, parking lots, a fire station, and a Delta Air Lines ground support equipment facility. Early enabling work on the project started in September 2018, and the five-gate expansion of the passenger facility complex is anticipated to be complete by December 2022.

PROJECT SPOTLIGHT

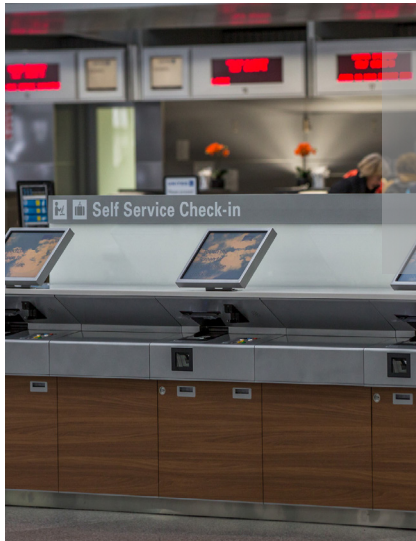


SACRAMENTO INTERNATIONAL AIRPORT (SMF) SACRAMENTO, CA

SECURITY CHECKPOINT EXPANSION: \$15.6M

The project will add two additional security check lanes to the airport, expanding the passenger queuing area by 2,900 square feet to provide a more spacious environment for customers and constructing an additional 1,920 square feet of space for the installation of four TSA-approved automated exit corridor security lanes. This project allows the airport to accommodate current and future passenger traffic and positions the airport as an integral part of the Sacramento region's recovery from the impacts of COVID-19.

PROJECT SPOTLIGHT



SAN FRANCISCO INTERNATIONAL AIRPORT (SFO) SAN FRANCISCO, CA

TECHNOLOGY IMPROVEMENT PROJECTS: \$125.34M

These improvements will enhance the connectivity and capability of systems for both passengers and airport staff. Initiatives include improvements in information and management systems, digital signage, and Wi-Fi performance and accessibility. This project ensures that the airport delivers the experience travelers expect from a hub serving a region of innovation.

AIRPORTS NEED TO ADAPT TO THE CHANGING NATURE OF TRANSPORTATION AND TRAVEL

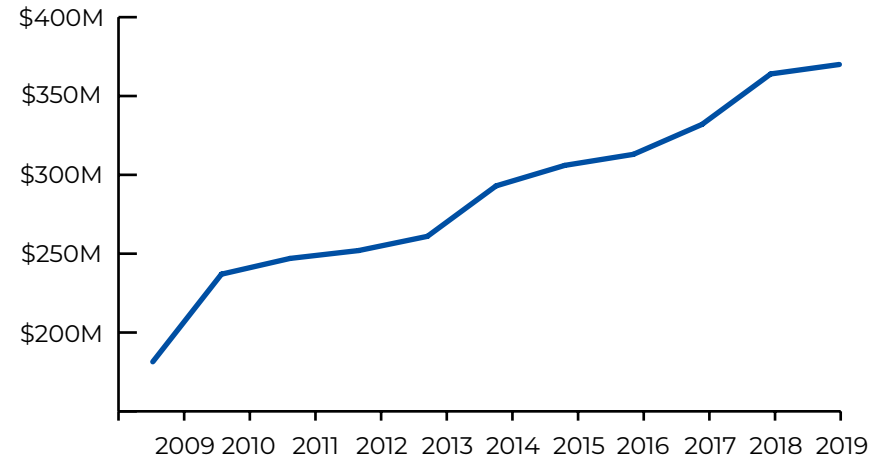
It is not just passenger growth and aging infrastructure that airports need to fix; they must also adapt to and capitalize on the changing nature of transportation and travel.

Increasing Demand For Cargo: With the rise of e-commerce and increasing demand for quick delivery times, cargo is increasingly becoming a way for airports to earn additional revenue, diversify their revenue streams, and bolster the local economy. But many airports are not capable of handling this increased demand without new infrastructure. Despite having a green site for cargo, Philadelphia International Airport (PHL) captures only nine percent of cargo volumes in the region. If it had better facilities, it would have been able to better serve this market; businesses and consumers in the surrounding region could also benefit from faster movement of goods. Overall, increased cargo is helping replace lost revenue from passenger flights, but keeping this increase going requires investing in more infrastructure to expand capacity.

The ACI World Annual Traffic Forecast (WATF) predicts cargo traffic, as measured by metric tons, will increase by about 26 percent from 2019 to 2040.

Cargo Is Increasingly Important For Airports

TOTAL AIRPORT LANDING FEES FROM CARGO, PER YEAR



Source: FAA

PROJECT SPOTLIGHT



SAVANNAH/HILTON HEAD INTERNATIONAL AIRPORT (SAV) SAVANNAH, GA

NEW INTERMODAL CARGO CENTER: \$60M

The project will offer growth opportunities for the airport's current air cargo providers, as well as provide additional space for new tenants. It will allow expanded ramp parking to handle up to five Boeing 767 aircraft with room for ground service equipment storage, in addition to the 60,000 square feet of cargo tenant space. With close access to local highways, businesses could expect to have shipments sorted and on the road within two hours of a flight landing. Additionally, the facility will be situated close to the local Customs and Border Protection office, allowing for quick access to shipment clearance. If business in the area warranted an international cargo flight, the new facility would make processing and distributing goods from that flight much easier.



PITTSBURGH INTERNATIONAL AIRPORT (PIT) PITTSBURGH, PA

CONCOURSE T-NORTH EXTENSION: \$340M

The project will expand cargo handling capacity with more space for aircraft and warehousing while providing a first-class facility designed to meet the needs of the industry today and in the future. In addition, the project will increase the speed of cargo to the end customer and allow for other cost efficiencies.

PROJECT SPOTLIGHT



INDIANAPOLIS INTERNATIONAL AIRPORT (IND) INDIANAPOLIS, IN

BELLY CARGO FACILITY EXPANSION: \$9.3M

The expansion of the airport's cargo facilities will allow for additional airline growth by providing added capacity for sorting, storage, and transit of the cargo carried in the bellies of passenger aircraft. Previous estimates note that belly cargo represents 50 percent of global air freight capacity, and thus, any increase in airline activity — especially international traffic — will generate a commensurate demand for belly cargo handling that this project will ensure the airport is prepared to serve.

PROJECT SPOTLIGHT



COLUMBIA METROPOLITAN AIRPORT (CAE) WEST COLUMBIA, SC

CARGO COMPLEX EXPANSION: \$14.5M

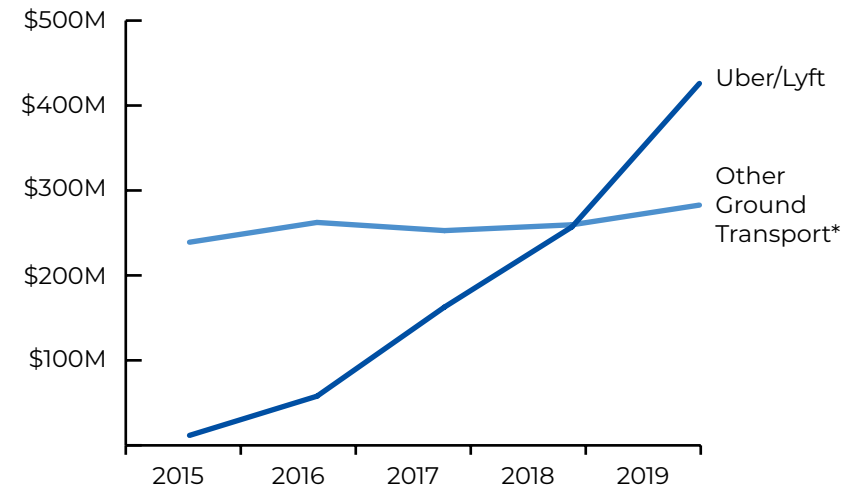
The proposed cargo complex expansion is intended to supplement the capacity of the airport's existing cargo carriers and also provide an interface for all cargo airlines and freight forwarders. This new location has the potential to bolster the state's cold-chain infrastructure in support of the region's growing pharmaceutical industry. The project will service a growing network of industries reliant on overnight distribution, which themselves support jobs across a range of skill levels. The initial phase of the project will modernize existing cargo facilities, upsize the existing apron to service a larger fleet of aircraft, and install a state-of-the-art cargo processing building.

Alternative Transportation To And From Airports: Another growing opportunity for airports is the increasing use of ridesharing, which requires infrastructure changes. Although parking has remained a steady source of revenue, rental car usage has declined as usage of rideshare services like Uber and Lyft has increased. Airports need additional funding to expand their spaces and build better facilities to accommodate new trends.

Sources: Bureau of Transportation Statistics, Transtats; FAA Form 5100-127

Alternative Sources Of Transportation Revenue, Like Ridesharing, Are Increasing

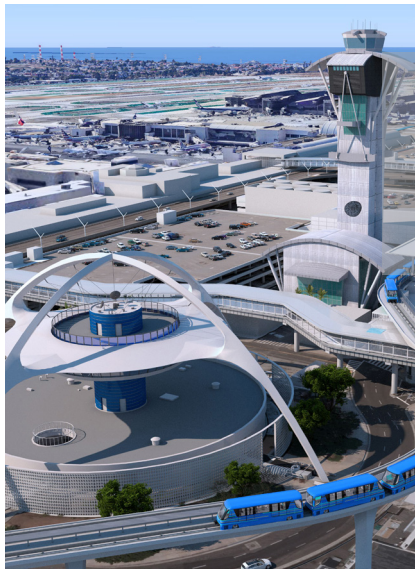
TOTAL AIRPORT REVENUE, PER YEAR



Source: ACI-NA Financial Benchmarking Survey

* Includes limos, shuttles, and taxis, among other ground transportation methods. Does not include public parking.

PROJECT SPOTLIGHT



LOS ANGELES INTERNATIONAL AIRPORT (LAX) LOS ANGELES, CA

LANDSIDE ACCESS MODERNIZATION PROGRAM: \$5.5B

The \$5.5 billion Landside Access Modernization Program is focused on improving access to one of the world's busiest airports by reducing traffic congestion in and around the airport and providing new options for parking and pick-up/drop-off for its travelers. The centerpiece is a 2.25-mile elevated Automated People Mover. The project also includes intermodal transportation facilities, connections to the regional transportation systems, and a consolidated rent-a-car facility.

2021–2025 Projects By The Numbers

Infrastructure Needs By Airport Size

Conservatively adjusted for inflation, ACI-NA estimates that airports' infrastructure needs for 2021 through 2025 are \$115.4 billion, or, on average, \$23.1 billion per year. This represents a 10 percent decline from the 2019 infrastructure needs estimate, due to the significant impact of COVID-19 on air travel demand, the crisis-induced deferral of critical infrastructure projects beyond the studied 2021–2025 window, the weakening of the U.S. economy driven by the public health crisis, and the expected slow and gradual recovery.

About 59.8 percent of this development is intended to accommodate growth in passenger and cargo activity, and 33.1 percent is intended to rehabilitate existing infrastructure, maintain a state of good repair, and keep airports up to standards for the aircraft that use them.

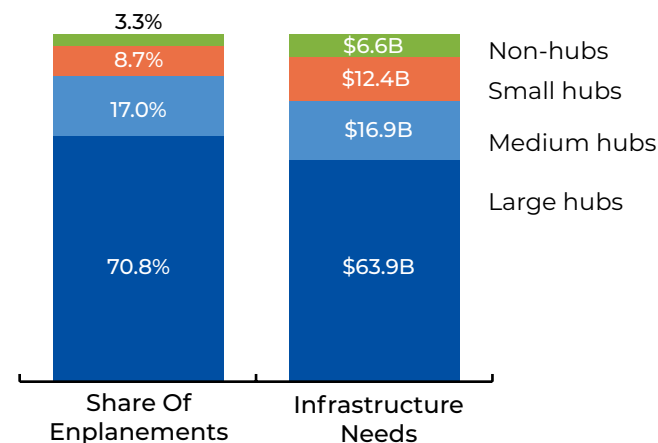
The infrastructure needs for large, medium, and small hubs declined 13.7 percent since the last estimate. For non-hub, non-primary commercial service, reliever and general aviation airports, ACI-NA relied on the FAA National Plan of Integrated Airport System (NPIAS) 2021–2025 estimate for development costs, which are expected to increase by 10.2 percent since the previous report. Due to the evolving nature of the COVID-19 pandemic and when information was collected, some data may not reflect the full impact of the pandemic on aviation activity.

The ACI-NA total estimate includes all airport improvements that are planned within the next five years, including those not eligible for federally-awarded AIP grants. Commercial-service airports, which accounted for 99.8 percent of passenger enplanements in 2019, account for \$99.8 billion (86.5 percent) of the total \$115.4 billion for planned investments, while non-commercial-service airports, with 0.2 percent of the 2019 enplanements, account for \$15.6 billion (13.5 percent) of the total \$115.4 billion. Within the commercial-service airports:

- Large hub airports, with 70.8 percent of all enplanements, account for \$63.9 billion (55.4 percent);
- Medium hub airports, with 17.0 percent of all enplanements, account for \$16.9 billion (14.7 percent);
- Small hub airports, with 8.7 percent of all enplanements, account for \$12.4 billion (10.7 percent), and;
- Non-hub airports, with 3.3 percent of all enplanements, account for \$6.6 billion (5.7 percent).

Large hubs reported the most significant decrease since the last estimate of 21.2 percent, from \$81.1 billion to \$63.9 billion, and decreased their share of total development needs by 7.9 percent. About 60 percent of large hubs reported decreases in their development needs for various reasons. Some were due to the completion or partial completion of major terminal projects, such as in Salt Lake City, Orlando, San Francisco, and Los Angeles.

Airport Infrastructure Needs By Share Of Total Enplanements



Source: ACI-NA; FAA

The majority of the decrease in development needs — nearly 70 percent — was driven by large hubs deferring their projects due to pandemic-induced financial strain. Some airports are deferring major projects or scaling down their projects due to the impact of public health emergencies, including Dallas/Fort Worth International Airport (DFW), Newark Liberty International Airport (EWR), and LaGuardia Airport (LGA), and airports continue to reevaluate projects that go beyond the timeline of this study.

Nevertheless, significant development needs were identified at airports in Miami, Fort Lauderdale, Minneapolis, Las Vegas, and Chicago, with more than a 40 percent increase in needs as these airports undertake major infrastructure improvement programs.

Medium hubs reported a moderate decrease of 3.4 percent, from \$17.5 billion to \$16.9 billion, while increasing their share of total development by about one percent from the 2019 estimate. Infrastructure needs increases of more than 50 percent were reported at medium hub airports including Houston William P. Hobby Airport (HOU), Southwest Florida International Airport (RSW), San Antonio International Airport (SAT), Dallas Love Field Airport (DAL), Kahului Airport (OGG), and Austin-Bergstrom International Airport (AUS), as these airports undertake major infrastructure improvement programs.

Small hubs reported the most significant increase in infrastructure needs, increasing their overall needs from \$9.4 billion to \$12.4 billion, and thereby increasing their share to 10.7 percent. Major developments at airports in Grand Rapids, Atlantic City, Hilo, Lihue, Asheville, Dayton, Greenville-Spartanburg, and Huntsville resulted in an increase of over 50 percent in their infrastructure improvement programs.

INFRASTRUCTURE NEEDS BY YEAR

Total infrastructure needs for each year from 2021–2025 range from \$18.7 billion in 2025 to \$26.7 billion in 2022, with average annual needs of \$23.1 billion. Large hub airports account for the majority of these costs, with 55.4 percent of the total, followed by medium hub and non-commercial service airports.

Table 1: Airport Infrastructure Cost Estimates By Year And Airport Category

MILLIONS OF CURRENT YEAR DOLLARS

Airport Category	2021	2022	2023	2024	2025	21-25	Percent
Large hub	16,864.9	14,908.1	13,254.6	9,778.8	9,061.8	63,868.0	55.4%
Medium hub	3,073.6	4,475.0	3,283.2	3,209.4	2,893.3	16,934.5	14.7%
Small hub	2,151.7	2,952.8	3,136.4	1,944.2	2,209.6	12,394.6	10.7%
Non-hub	1,272.6	1,291.7	1,311.1	1,330.8	1,350.7	6,557.0	5.7%
Other*	3,034.1	3,079.9	3,126.1	3,173.0	3,220.6	15,634.1	13.5%
Total	26,397.1	26,707.4	24,111.4	19,436.2	18,736.0	115,388.2	100%

Source: ACI-NA; FAA, NPIAS Report

*Note: "Other" includes non-commercial service airports and 6 proposed airports based on FAA NPIAS report (2021-2025).

Table 2: Average Annual Cost Estimate From Published ACI-NA Infrastructure Needs Reports

MILLIONS OF CURRENT YEAR DOLLARS

Estimate Period	Average Annual Infrastructure Needs	Percent Change From Previous Report
2021-2025	\$23,078	-9.9%
2019-2023	\$25,626	28.3%
2017-2021	\$19,974	31.9%
2015-2019	\$15,148	6.3%
2013-2017	\$14,254	-11.0%
2011-2015	\$16,015	-15.1%
2009-2013	\$18,861	8.0%
2007-2011	\$17,472	-

Source: ACI-NA



Infrastructure Needs By Project Type

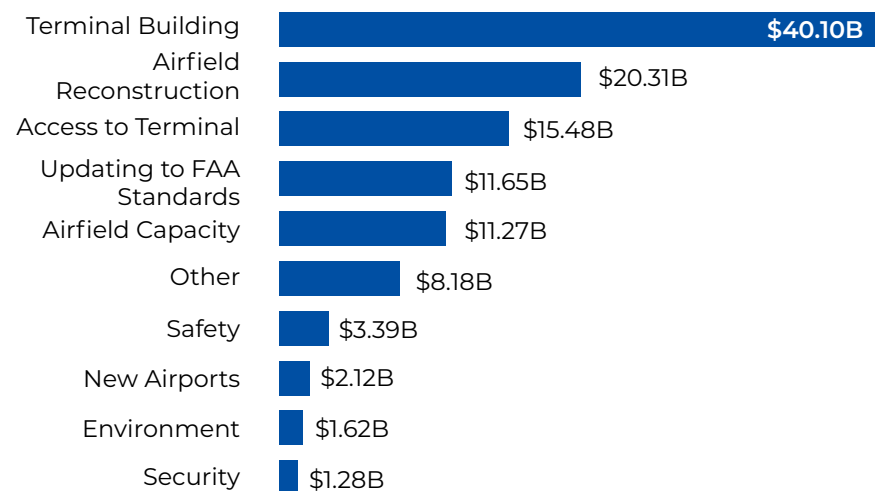
Terminal projects represent 52.2 percent of the total infrastructure development costs, followed by airside projects that represent 25.1 percent of total costs and ground access projects that represent 22.7 percent of total costs. Projects located in the terminal continue to represent over half of airports' infrastructure needs.

According to ACI-NA's survey, terminal building projects account for 34.8 percent of the total development needs of all airports for 2021–2025 and are the dominant project type for large, medium, and small hub airports. Such projects are needed to accommodate more passengers and larger aircraft, implement new security requirements, facilitate increased competition among airlines, and enhance the passenger experience. Airfield reconstruction projects that include sealing, rehabilitation, and reconstruction of airfield pavement represent 17.6 percent. Surface projects to improve access options and relieve ground access congestion make up 13.4 percent of all projected airport developments.

For large hub airports, terminal building projects are the dominant project type representing 44.8 percent of all projects, followed by surface access projects at 17.4 percent and capacity projects at 12.8 percent. For medium hub airports, terminal building projects are also the dominant project type, representing 36.1 percent of all projects, followed by projects

enhancing access to terminals at 20.4 percent and reconstruction projects at 20.3 percent. Terminal building projects are also the dominant project type for small hubs at 34.2 percent, followed by reconstruction projects at 15.7 percent.

Figure 6: Infrastructure Needs By Type Of Development



Source: ACI-NA; FAA, NPIAS Report.

Table 3: Development Costs By Project Location

Project Location	Percentage For All Respondents	Percentage For Large Hub Respondents	Percentage For Medium Hub Respondents	Percentage For Small Hub Respondents
Terminal	52.3%	54.3%	49.2%	37.8%
Airside	25.1%	21.5%	32.4%	43.8%
Ground Access	22.7%	24.3%	18.4%	18.4%
Total*	100.0%	100.0%	100.0%	100.0%

Source: ACI-NA

*Note: Summary excludes projects without a specified location code

When runway pavement is in a state of good maintenance, it minimizes damage to aircraft and avoids the high costs of major rehabilitation. However, airfield pavement needs regular preventative maintenance to seal cracks and repair damage, thus decreasing the frequency of major rehabilitation cycles. These reconstruction projects are needed to meet the FAA's long standing goal of ensuring that at least 93 percent of paved runways at airports in the NPIAS are maintained in excellent, good, or fair condition.

Standards projects include development that is needed to bring an existing airport into compliance with design criteria recommended by the FAA. Many airports were designed and built to serve relatively small and slow

aircraft. They now serve larger and faster turboprop and jet aircraft, and as a result, the cost for this project type has increased as airports have had to relocate runways and taxiways to provide greater clearance for aircraft with larger wingspans, improve taxiway geometry to correct confusing layouts, and adapt aircraft parking areas to accommodate larger aircraft. Since ACI-NA's last estimate, the number of reconstruction and standards projects have increased, while all other types of projects have decreased.

Additionally, the FAA 2021–2025 NPIAS report identifies six proposed airports that are anticipated to be developed over the five-year period, including one new primary airport, two non-primary commercial service airports, and three general aviation airports.

Table 4: Development Costs By Project Type

Airport Category	Safety	Security	Reconstruction	Standards	Environment	Capacity	Terminal Building	Access to Terminal	New Airports	Other	Total
Large hub	1.2%	1.3%	8.6%	1.8%	1.3%	12.8%	44.8%	17.4%	2.8%	8.1%	100.0%
Medium hub	2.8%	0.3%	20.3%	5.1%	2.8%	5.7%	36.1%	20.4%	0.0%	6.6%	100.0%
Small hub	8.6%	2.7%	15.7%	10.2%	1.1%	9.7%	34.2%	4.8%	0.0%	13.0%	100.0%
Non-hub	5.1%	0.7%	39.4%	34.6%	1.3%	2.7%	13.5%	2.1%	0.0%	0.5%	100.0%
Other	4.9%	0.2%	44.6%	39.9%	0.6%	5.1%	1.5%	1.4%	0.2%	1.7%	100.0%
Total	2.9%	1.1%	17.6%	10.1%	1.4%	9.8%	34.8%	13.4%	1.8%	7.1%	100.0%

Source: ACI-NA; FAA, NPIAS Report.

Appendices

About This Report

Airports Council International-North America (ACI-NA) thanks its member airports for their contribution and input to this report. Without their participation, ACI-NA would not have been able to create this report and the important information on the airport development costs required for the national airport system of the United States.

ACI-NA regularly updates its estimate of infrastructure development needs for the airports that comprise the national airport system of the United States, as defined by the Federal Aviation Administration (FAA).

The national airport system is composed of 3,310 airports that are considered significant to national air transportation, ranging from the largest commercial service airports to small general aviation airports. Development projects at these airports generally fall within five categories: (1) expanding an airport's capacity beyond its current design to meet growth in demand for aviation services; (2) upgrading infrastructure to accommodate the introduction of different aircraft types; (3) reconstructing aging airport infrastructure; (4) bringing an airport up to FAA-mandated design standards to achieve full productivity of aircraft using the airport; and (5) addressing safety, security, and environmental concerns.

Scope And Methodology

2020/21 ACI-NA SURVEYS

The 2020/21 ACI-NA Airport Infrastructure Needs Survey was based on the 2020 survey instrument. To ensure the ACI-NA data was fully comparable with the FAA, ACI-NA used the same definitions for project type as the FAA uses in its NPIAS report.

ACI-NA surveyed all of its airport members in the United States. Ninety-two (92) airports — representing 91 percent of all enplanements in the United States — responded. ACI-NA staff followed up with respondents as necessary to answer questions about the survey and ensure the accuracy of respondents' answers.

Respondents were asked to identify all infrastructure development projects and associated costs for calendar years 2021 through 2025, and to report these costs in 2020 constant year dollars. Costs included interest, construction and management costs, architectural and engineering costs, and contingency costs. Costs for multi-year projects were listed in the year when the money was expected to be spent.

Airports were requested to list the twenty largest projects in terms of costs and list the rest of the project costs as "all other projects." Airport respondents were asked to include all projects in the airport master plan, airport layout plan, or capital plan with or without secured financing. Airport respondents were asked to include projects done for a federal agency funded by airports such as air traffic control towers, Federal Inspection Service (FIS) facilities, navigational aids, in-line baggage screening systems, and quarantine facilities.

Respondents were also asked to identify projects by location and type. Location codes included whether a project was airside, terminal, or ground access. Type codes included whether a project was surface access, airfield capacity, airfield standards, environment, new airport, airfield reconstruction, safety, terminal, or security. In cases where multiple codes

applied for either project location or type, respondents were asked to provide the cost percentage for each code.

This report also includes historical data from the ACI-NA Financial Benchmarking Survey, a proprietary survey ACI-NA conducts to obtain additional information about the state of the industry. More information about the Financial Benchmarking Survey can be found at airportscouncil.org.

ADDITIONAL SOURCES

To provide a broader understanding of airport infrastructure, data from the ACI-NA Infrastructure Needs Survey was supplemented via qualitative and quantitative data obtained via a variety of additional sources.

ACI-NA conducted interviews with executives at member airports over the course of Fall 2020, eliciting qualitative information and context on infrastructure challenges, the impact of COVID-19, and the role that airports play within their regions' economic growth and development. These interviews have been aggregated or de-identified to maintain anonymity where appropriate.

Additional quantitative data was obtained through publicly available sources as identified throughout this report. Unless noted otherwise, historical data represents nominal dollar amounts and has not been adjusted for inflation.

DATA EXTRAPOLATION AND NORMALIZATION

Data collected from the ACI-NA Financial Benchmarking Survey and FAA Form 5100-127 has been extrapolated to account for nonresponse. Airport responses for each dataset were used to generate an estimated per-hub average for a given variable for a given year, then extrapolated across the population of all airports of a particular hub size based on FAA enplanement data for that year.

Calculating Infrastructure Development Costs

ACI-NA calculated airports' infrastructure development needs using the ACI-NA survey and public airport data, primarily the FAA NPIAS. Specifically, ACI-NA used its survey data to calculate costs for medium, small, and most large hub airports and used the FAA NPIAS data to calculate costs for non-hub, commercial service, reliever, and general aviation airports. ACI-NA also used FAA 2019 enplanement data, the latest available, to make calculations.

The total infrastructure development costs for large, medium, and small hub airports were based on data for 30 large hub, 32 medium hub, and 25 small hub airports; data for ACI-NA members was collected via survey, while data for non-member large hub airports was collected via public sources. This represents 100 percent of all passengers enplaned at large and medium hubs and 38 percent of all passengers enplaned at small hubs in 2019. (Table 5)

ACI-NA then calculated the total infrastructure development costs per 2019 enplanement for the sample's large, medium, and small hub airports. (Table 6)

This cost per enplanement in 2020 constant dollars was then used as the unit cost to estimate the infrastructure development costs for all small hub airports. No estimate was needed for large and medium hubs. (Table 7)

The total infrastructure development costs for all airports in the national airport system in 2020 constant dollars uses the ACI-NA estimate for large, medium, and small hub airports and the FAA NPIAS data for non-hub, commercial service, reliever, and general aviation airports. ACI-NA used the NPIAS data due to the small number of non-hub, commercial service, reliever, and general aviation airports in the ACI-NA survey sample.

Table 5: ACI-NA Sample Compared To Industry Total

Airport Category	Number Of Airports In ACI-NA Sample	Total Number Of Airports In The Category	Respondents' Percentage Of All Airports In The Category	Respondents' Percentage Of Total 2019 Enplanements In The Category	Respondents' Percentage Of Total 2019 Enplanements
Large hub	30	30	100%	100%	70.8%
Medium hub	32	32	100%	100%	17.0%
Small hub	25	74	33.8%	38%	3.3%
Non-hub	5	267	-	-	-
Other	-	2,907	-	-	-
Total	92	3,310*	-	-	91.1%

Sources: FAA, Enplanements; FAA, NPIAS Report.

Table 6: ACI-NA Sample Infrastructure Development Costs Per Enplanement

Airport Category	Total Costs For 2021-2025 In Millions Of 2020 Constant Dollars	Total 2019 Enplanements By Category	Cost Per Enplanement In 2020 Constant Dollars
Large hub	61,387	663,402,989	92.5
Medium hub	16,221	159,125,491	101.9
Small hub	4,478	30,890,793	145.0

Source: ACI-NA

Table 7: Total Infrastructure Development Costs Estimate For Large, Medium, And Small Hub Airports

Airport Category	Total 2019 Enplanements	Cost Per Enplanement In 2020 Constant Dollars	Total 2021-2025 Infrastructure Development Costs In Millions Of 2020 Constant Dollars
Large hub	663,402,989	92.5	61,387
Medium hub	159,125,491	101.9	16,221
Small hub	81,872,201	145.0	11,868

Source: ACI-NA

Table 8: Total Infrastructure Development Costs Estimate

Airport Category	Total Number Of Airports By Category In National Airport System	Total 2021-2025 Infrastructure Development Costs In Millions Of 2020 Constant Dollars	Percentage Of Total
Large hub	30	61,387	55.4%
Medium hub	32	16,221	14.7%
Small hub	74	11,868	10.7%
Non-hub	267	6,269	5.7%
Other	2,907	14,948	13.5%
Total	3,310	110,693	100.0%

Source: ACI-NA; FAA, NPIAS Report

Taking the escalation of construction costs into consideration, ACI-NA made a 1.5 percent inflation adjustment — a conservative adjustment compared to other metrics of inflation — to the total estimate in 2020 constant dollars to reflect total infrastructure needs in current year dollars. ACI-NA has estimated total industry infrastructure needs to be \$115.4 billion in current year dollars. Average annual infrastructure needs for the years 2021–2025 are 9.9 percent lower than for the years 2019–2023 estimated in the ACI-NA survey done almost two years ago.

Besides calculating the total developments costs, ACI-NA also calculated development costs by project type. To do this, ACI-NA first determined the percentage distribution by project type using sample statistics for large, medium, and small hub airports and using the NPIAS data for non-hub and all other airports. The project type percentage distribution was then multiplied by the total industry estimate for each category of airport to determine the total costs by project type.

Table 9: ACI Total Costs By Project Type

Airport Category	Safety	Security	Reconstruction	Standards	Environment	Capacity	Terminal Building	Access	New Airports	Other	Total	Percent
Large hub	\$758	\$830	\$5,488	\$1,132	\$836	\$8,147	\$28,627	\$11,091	\$1,801	\$5,159	\$63,868	55.4%
Medium hub	\$471	\$53	\$3,437	\$857	\$467	\$965	\$6,119	\$3,451	\$-	\$1,115	\$16,935	14.7%
Small hub	\$1,062	\$329	\$1,951	\$1,264	\$139	\$1,207	\$4,242	\$591	\$-	\$1,610	\$12,395	10.7%
Non-hub	\$337	\$48	\$2,584	\$2,271	\$88	\$176	\$885	\$139	\$-	\$30	\$6,557	5.7%
Other	\$759	\$24	\$6,848	\$6,122	\$87	\$778	\$225	\$210	\$318	\$262	\$15,634	13.5%
Total	\$3,387	\$1,284	\$20,308	\$11,647	\$1,617	\$11,274	\$40,098	\$15,481	\$2,119	\$8,176	\$115,388	100%
Percent	2.9%	1.1%	17.6%	10.1%	1.4%	9.8%	34.8%	13.4%	1.8%	7.1%	100%	-

Source: ACI-NA; FAA, NPIAS Report

Difference Between ACI-NA And FAA Estimates

The ACI-NA Infrastructure Needs Survey is far more comprehensive than the FAA NPIAS survey, which is also issued every two years. It is critical to understand the differences between the ACI-NA and FAA estimates because of the importance of the data in both surveys in developing federal policy for funding airport development.

The ACI-NA estimate of \$115.4 billion is greater than the FAA NPIAS estimate of \$43.6 billion for several reasons:

- The ACI-NA estimate includes all future projects, while the FAA estimate includes only future AIP-eligible projects. Both the ACI-NA and the FAA estimates are for 2021 through 2025. The ACI-NA survey was completed in 2020 constant dollars, and the FAA estimate is based on airport master and state system planning documents available through the end of 2019 in 2019 constant dollars.
- Additional projects captured in the ACI-NA estimate but not included in the NPIAS report include:
 - Development eligible under the PFC program but ineligible under the AIP grant program, such as terminal areas related to the movement of passengers and their baggage, but leased by airlines (holdrooms, baggage claim, baggage makeup, etc.);
 - AIP-ineligible projects, including parking facilities, hangars, cargo buildings, the revenue producing portions of passenger terminals, and certain improvements to highway and transit airport access systems;
 - AIP-eligible projects that airports did not report to the FAA because the airport believes there is a low probability of obtaining additional AIP discretionary grants; and
 - Airport-funded air traffic control facilities and airport or TSA-funded security projects such as the in-line checked baggage screening system.
- The ACI-NA estimate includes both projects that have identified and not identified funding sources, while the FAA estimate only includes

projects that do not have identified funding sources. This results in current projects with approved PFC collections not being included in the NPIAS report;

- The ACI-NA estimate uses more recent data than that used by the FAA;
- The ACI-NA estimate is adjusted for inflation, while the FAA estimate is not; and
- The ACI-NA estimate includes contingency costs (provision for increases in costs based on changes in design or construction uncertainty) while the FAA estimate does not.

For example, the cost for projects at large hub airports in the NPIAS totals \$12.8 billion, while the ACI-NA estimate totals \$63.9 billion. Within this airport category, the NPIAS totals \$3.2 billion for terminal building type projects while the ACI-NA estimate totals \$28.6 billion. The difference in this case is because the NPIAS generally does not include gates and related areas, or the revenue generating portions of terminals such as development of facilities for non-aeronautical revenue. Additionally, even though FAA estimates that about 50 to 60 percent of the overall costs of terminal projects are eligible for AIP grants, airports do not typically report terminal projects to FAA due to the low probability of getting federal grants for such projects.

The ACI-NA and FAA estimates are the two main sources for Congress and other stakeholders to review in considering the funding necessary for airport infrastructure development going forward as part of the FAA reauthorization process. As in the past, decisions on funding reach well beyond the actual authorization period and impact the infrastructure improvements that can be achieved to address aviation demand. Additionally, these decisions have a direct and long-term bearing on the ability of communities to generate jobs and commerce as well as ensure our nation's competitive position in the global economy.

FAA Definitions Of Airport Categories

FAA defines airports by categories of airport activities, including commercial service, reliever, and general aviation airports, as shown below:

Categories of Airport Activities		
Statutory Definition	Criteria	Also Referred To As:
Commercial Service	Publicly owned airports with at least 2,500 annual enplanements and scheduled air carrier service (§47102(7)). Primary airports are a commercial service airport with more than 10,000 annual enplanements (§47102(16)).	
Large Hub	Receives 1% or more of the annual U.S. commercial enplanements	Primary
Medium Hub	Receives 0.25 to 1.0% of the annual U.S. commercial enplanements	Primary
Small Hub	Receives 0.05 to 0.25% of the annual U.S. commercial enplanements	Primary
Non-hub	Receives less than 0.05% but more than 10,000 of the annual U.S. commercial enplanements	Primary
Nonprimary, Commercial Service, Non-hub	Also referred to as non-hub nonprimary, these airports have scheduled passenger service and between 2,500 and 10,000 annual enplanements	Nonprimary
Reliever	An airport designated by the Secretary of Transportation to relieve congestion at a commercial service airport and to provide more general aviation access to the overall community (§47102(23)).	Nonprimary
General Aviation	A public-use airport that does not have scheduled service or has scheduled service with fewer than 2,500 passenger boardings each year (§47102(8)).	Nonprimary

Source: FAA

DEFINITION OF AIRPORT CATEGORIES

1. Commercial Service Airports are publicly owned airports that have at least 2,500 passenger boardings each calendar year and receive scheduled passenger service. Passenger boardings refer to revenue passenger boardings on an aircraft in service in air commerce whether or not in scheduled service. The definition also includes passengers who continue on an aircraft in international flight that stops at an airport in any of the 50 states for a non-traffic purpose, such as refueling or aircraft maintenance rather than passenger activity. Passenger boardings at airports that receive scheduled passenger service are also referred to as enplanements.

1. Nonprimary Commercial Service Airports are Commercial Service Airports that have at least 2,500 and no more than 10,000 passenger boardings each year.

2. Primary Airports are Commercial Service Airports that have more than 10,000 passenger boardings each year. Hub categories for Primary Airports are defined as a percentage of total passenger boardings within the United States in the most current calendar year ending before the start of the current fiscal year. For example, calendar year 2014 data is used for fiscal year 2016 since the fiscal year began nine months after the end of that calendar year. The table above depicts the formulas used for the definition of airport categories based on statutory provisions cited within the table, including Hub Type described in 49 USC 47102.

2. Cargo Service Airports are airports that, in addition to any other air transportation services that may be available, are served by aircraft providing air transportation of only cargo with a total annual landed weight of more than 100 million pounds. "Landed weight" means the weight of aircraft transporting only cargo in intrastate, interstate, and foreign air transportation. An airport may be both a commercial service and a cargo service airport.

3. Reliever Airports are airports designated by the FAA to relieve congestion at Commercial Service Airports and to provide improved general aviation access to the overall community. These may be publicly or privately owned.

4. General Aviation Airports are public-use airports that do not have scheduled service or have fewer than 2,500 annual passenger boardings (49 USC 47102(8)). Approximately 88 percent of airports included in the NPIAS are general aviation.

Please note that in this report, ACI-NA defines airport category based on FAA calendar year 2019 enplanements, while the latest FAA NPIAS report for 2021-2025 categorized airports based on FAA Calendar Year 2018 enplanements.

Number Of Airports For Each Airport Category For CY 2019 And 2018

Airport Category	2019	2018
Large Hub	30	30
Medium Hub	32	31
Small Hub	74	69
Non-hub	267	266
Nonprimary Commercial Service	*	123
Reliever	*	250
General Aviation	*	2,535
Subtotal	*	3,310

Source: FAA

*2019 Data not yet available

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