



**AIRPORTS COUNCIL
INTERNATIONAL**

**AIRPORT CAPITAL DEVELOPMENT NEEDS
2013 - 2017**

January 2013

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BACKGROUND

Airports Council International-North America (ACI-NA) regularly updates its estimate of capital 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 close to 3,400 airports, 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.

ACI-NA conducts its assessment using the FAA's airport classifications. The reason for reporting results in this way is that larger and smaller airports have varying capacities to access different forms of capital. This is reflected in the structure of the federal Airport Improvement Program (AIP), the use and role of Passenger Facility Charges (PFCs), access to private capital markets that provide bond financing, and the fact that airports of different classes can internally generate net income for reinvestment. Definitions of the FAA's airport classifications used in this report are included in Appendix 4.

RESULTS IN BRIEF

The ACI-NA total estimate of airports' capital development needs for 2013 through 2017, adjusted for inflation,¹ is \$71.3 billion or \$14.3 billion annualized.² Fifty-four percent of the development is intended to accommodate growth in passenger and cargo activity as well as larger aircraft. Forty-three percent of the development is intended to rehabilitate existing infrastructure, maintain a state of good repair, and keep airports up to standards for the aircraft that use them.

This estimate is an 11 percent decrease over the 2011³ estimate of \$80.1 billion or \$16.0 billion annualized for 2011 through 2015. The estimate for large, medium and small hubs only⁴ is an 8.5 percent decrease over the last estimate. Additionally ACI-NA relies on the FAA National Plan of Integrated Airport System (NPIAS) 2012 estimate for development costs of non-hub, commercial service, reliever and general aviation airports, which are expected to decrease by 16 percent from the last report completed in 2010. Despite representing an overall decline in the amount of funding needed compared to the previous reports, the average annual of \$14.3 billion in needs is still significantly higher than the funding available through annual AIP grants and new PFC revenue⁵. It is clear that the existing federally-mandated funding system simply fails to meet U.S. airport capital needs for modernizing and expanding airport capacity which is critical for a safe, efficient and globally competitive aviation system.

ACI-NA attributes the decrease in airport capital needs to several factors, including the recent recession and current challenging economic conditions, airline consolidation and capacity reductions, projects having been completed or postponed beyond 2017, and declines in projects for the non-hub, commercial service, reliever and general aviation airports as estimated by FAA.

The ACI-NA total estimate includes all airport improvements that are planned within the next 5 years including those not eligible for AIP grants. Commercial airports⁶ account for \$57.9 billion (81.3 percent) of the total \$71.3 billion for planned investments. This includes:

- large hubs that account for \$37.0 billion (51.9 percent)
- medium hubs that account for \$9.3 billion (13.1 percent)
- small hubs that account for \$5.8 billion (8.1 percent)
- non-hubs that account for \$5.1 billion (7.2 percent), and
- other commercial service airports that account for \$0.7 billion (1.0 percent).

Non-commercial airports account for \$13.4 billion (18.7 percent) of the total \$71.3 billion. This includes:

- reliever airports that account for \$3.1 billion (4.4 percent) and
- other general aviation airports that account for \$10.2 billion (14.3 percent)

¹ ACI-NA used a 1.5 percent inflation adjustment.

² The ACI-NA total estimate of airports' capital development needs for the period 2013 through 2017, in 2012 constant dollars, not adjusted for inflation, is \$68.2 billion or \$13.6 billion annualized.

³ Estimates reflect the dollars at the time the report was prepared. 2011 report reflects 2010 dollars.

⁴ Development costs for large, medium and small hubs are based on ACI-NA Survey data. Development costs for non-hub, commercial service, reliever and general aviation airports are based on FAA 2012 NPIAS report.

⁵ Existing PFC collections are for projects already approved by FAA and can extend for up to 50 years.

⁶ ACI-NA used the FAA definitions for categories of airports. See Appendix 4.

The only growth by airport category from the previous estimate is for medium hub airports with 4.3 percent increase, leading to the expansion of their share of total development by 2 percent from the 2011 estimate. San Jose, Milwaukee, Cincinnati, Kansas City and Omaha airports all reported over 50 percent increase.

Large hubs recorded a decrease of 7.3 percent, from \$39.9 billion to \$37.0 billion. However due to more significant decreases by airports in other categories, their share of the total development increased from the 2011 estimate by 2 percent. Significant development was identified by Salt Lake City, Orlando, New York JFK, Tampa and Philadelphia international airports with over 100 percent increase as these airports undertake major capital improvement programs. Atlanta, Chicago, Los Angeles, Miami, New York LaGuardia and Newark, Washington Reagan National and Dulles international airports all reported over 50 percent decrease from the 2011 report due to the completion of major capital improvement projects since the last ACI-NA survey.

Small hubs, non-hub primary and other commercial service airports all reported double-digit decreases. Based on FAA estimates, commercial service airports reported the biggest decrease of 34.6 percent followed by small hubs with a 28.5 percent decrease.

The declines show that as a result of recent airline consolidation and cuts in airline service, airports are responding appropriately to reduced demand, deferring some of the capital projects previously planned. Small airports are particularly affected by the current downturn in the economy and a consolidating airline industry. The high and volatile fuel price and competition with other modes have led to airlines reducing short-haul flights (i.e., less than 500 miles) by 3,000 flights per day from June 2007 to June 2012⁷. It is anticipated that fewer flight options for small communities may continue for the foreseeable future.

⁷ The Office of Inspector General report “Aviation Industry Performance a Review of the Aviation Industry, 2008-2011”

ACI-NA ESTIMATE OF CAPITAL DEVELOPMENT NEEDS

As shown in Table 1, the total for each year from 2013 through 2017 ranges from \$15.0 billion in 2017 to \$12.9 billion in 2016⁸. Large hub airports account for the majority of these costs with 51.9 percent of the total followed by general aviation airports that account for 14.3 percent of the total.

Table 1: Airport Capital Development Cost Estimates by Year and Airport Category

Millions of Current Year Dollars

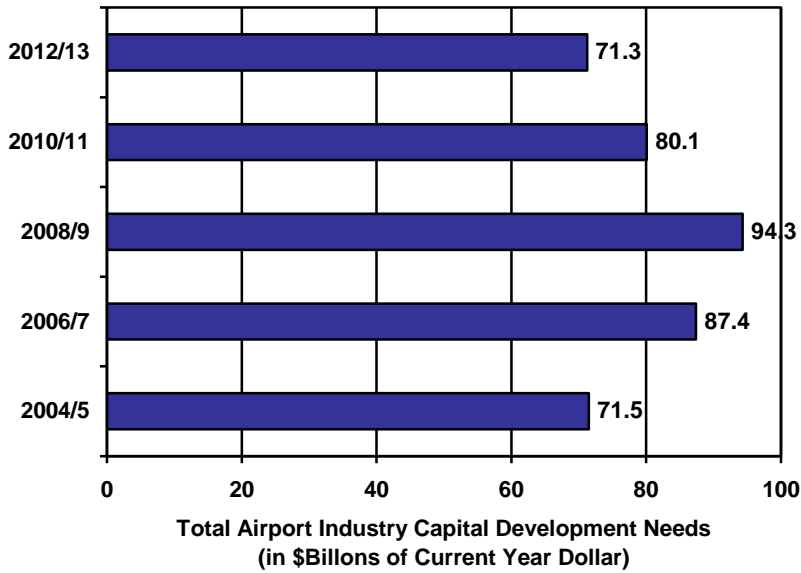
Airport Category	2013	2014	2015	2016	2017	2013-2017	Percent
Large hub	7,995	7,926	7,769	6,091	7,229	37,010	51.9%
Medium hub	1,660	1,673	1,446	1,811	2,716	9,305	13.1%
Small hub	1,457	1,226	896	1,065	1,120	5,764	8.1%
Non-hub	996	1,011	1,026	1,041	1,057	5,131	7.2%
Non-primary commercial service	136	138	140	142	144	701	1.0%
Reliever	608	617	627	636	646	3,134	4.4%
General aviation	1,985	2,015	2,045	2,075	2,107	10,226	14.3%
Total	14,836	14,605	13,948	12,862	15,019	71,270	100.0%
Annual Capital Needs 2013-17	-	-	-	-	-	14,254	-
Annual Capital Needs 2011-15	-	-	-	-	-	16,015	-
Annual Capital Needs 2009-13	-	-	-	-	-	18,861	-
Annual Capital Needs 2007-11						17,473	
Annual Capital Needs 2005-09						14,296	

Sources: ACI-NA survey and FAA NPIAS.

Figure 1 below shows that capital development needs have slowed down in recent years. The 2012 estimate of \$71.3 billion was the lowest of the five reports published by ACI-NA since 2005. ACI-NA attributes the slowdown to several factors, including the recent recession and current challenging economic conditions, airline consolidation and capacity reductions, and projects having been completed or postponed beyond 2017. Additionally, FAA has projected declined capital project needs for non-hubs, commercial service, reliever and general aviation airports; data which ACI-NA relies on for our reports.

⁸ See appendix 3 for an explanation of how ACI-NA calculated airports' capital development costs.

Figure 1: 5-Year Development Estimates from Published ACI-NA Capital Needs Report



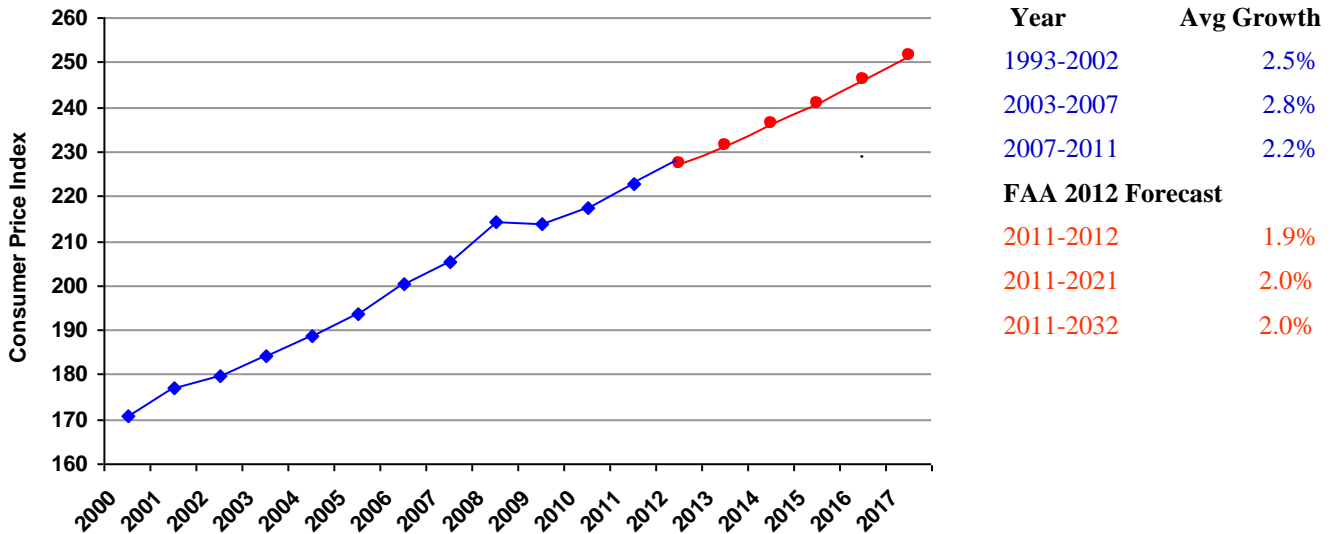
Source: ACI-NA surveys.

Note: 2012/13 estimate is for the years 2013-2017, 2010/11 estimate is for the years 2011-2015, 2008/9 estimate is for the years 2009-2013, 2006/7 estimate is for the years 2007-2011, 2004/5 estimate is for the years 2005-2009.

ACI-NA adjusted its capital development cost estimate to account for inflation because inflation decreases purchasing power. As shown in Figure 2, inflation is projected to continue in the 2013 through 2017 development cost estimate period, albeit at a much slower pace.

Figure 2: Consumer Price Index (CPI) Indicates Continued Inflation

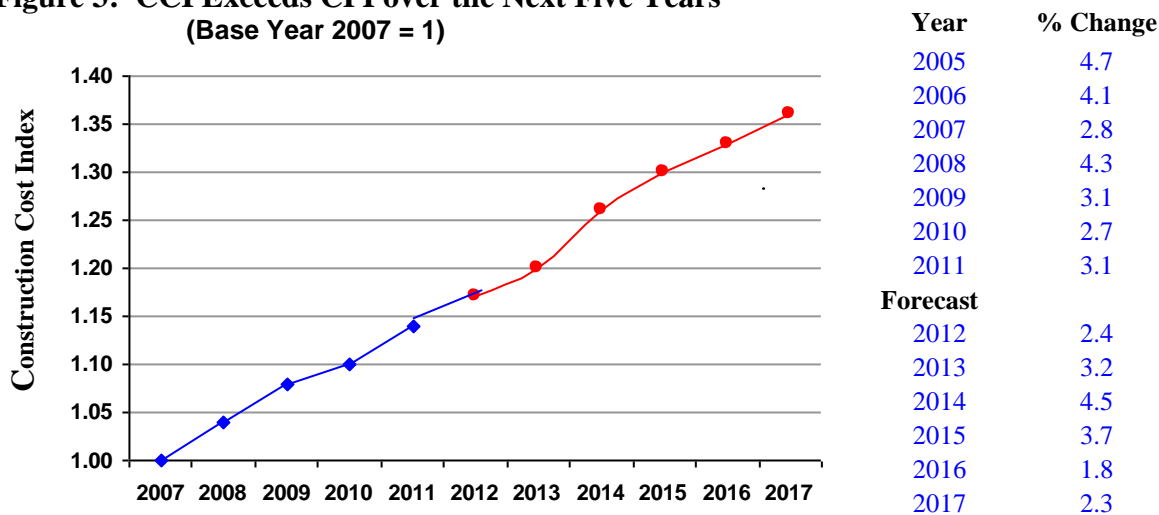
Base year is 1982-1984 = 100



Source: Actual Consumer Price Index from the US Dept. of Labor, Bureau of Labor Statistics, Forecast from the FAA 2012 Forecast Report based on HIS Global Insight 30-Year Focus, Third Quarter 2011

Compounding the general inflationary trend is the much higher inflation rate for construction material and components. As shown in Figure 3, the “ERN Construction Cost Index (CCI)”⁹ data shows significant construction cost escalation in recent years. For the period 2013-2017, the predicted growth rate ranges from 1.8 percent to 4.5 percent.

Figure 3: CCI Exceeds CPI over the Next Five Years
(Base Year 2007 = 1)



Source: Engineering News-Record/Global Insight.

ACI-NA surveyed respondents about their experiences with increasing construction costs. As shown in Table 2, 66 percent of all respondents to this question reported positive cost increase of at least one percent for development projects recently bid or re-estimated; eight percent of which reported over five percent increase, and 15 percent reported an increase of three to five percent.

Table 2: Rate of Annual Capital Cost Increases

Rate of annual cost increase for projects recently bid or re-estimated	Number of respondents	Percentage of respondents
Negative (cost decrease)	5	13%
No increase (0%)	8	21%
One to two percent	17	44%
Three to five percent	6	15%
Over five percent	3	8%
Total	39	100%

Source: ACI-NA survey.

As FAA points out in the 2012 NPIAS report, airport capital development needs are driven by current and forecast traffic; use and age of facilities; and changing aircraft technology which requires airports to update or replace equipment and infrastructure¹⁰.

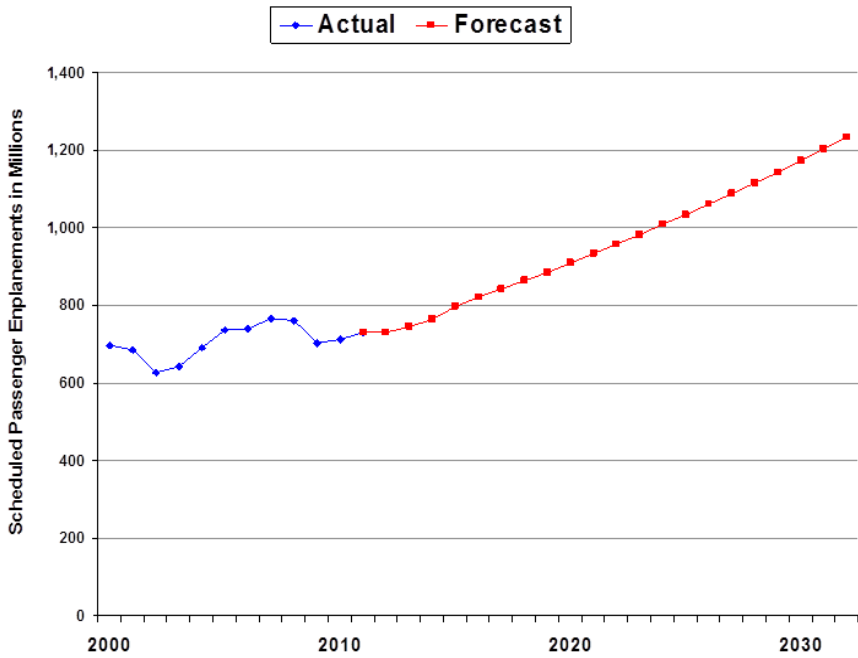
The demand for passenger and cargo service will continue to grow resulting in a corresponding increase in airport capital development costs. The FAA’s Aerospace Forecast Fiscal Years 2012-2032 predicts that US airlines will reach the one billion passengers-per-year mark by 2024. The industry will grow from 731

⁹ ENR Construction Cost Index, U.S. 20 City Average, Engineering News Record/Global Insight.

¹⁰ Executive Summary, FAA 2012 NPIAS report.

million passengers in 2011 to 1.2 billion in 2032 as shown in Figure 4 for passengers and more than double the cargo traffic measured by revenue ton miles as shown in Figure 5 for cargo.

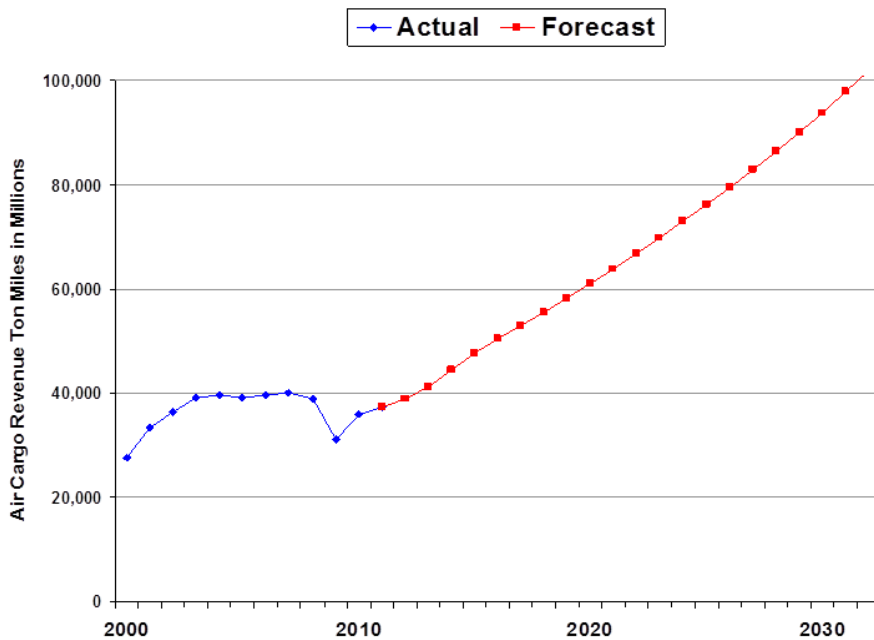
Figure 4: FAA Projects Continued Strong Growth in Passengers



Year	Enpl.
2000	697.6
2001	683.4
2002	625.8
2003	642.0
2004	689.9
2005	737.0
2006	740.0
2007	765.3
2008	759.1
2009	704.4
2010	712.6
2011	730.7
FAA 2012 Forecast	
2015	795.7
2020	910.1
2024	1,007.9
2025	1,033.9
2030	1,172.9

Source: FAA.

Figure 5: FAA Projects Continued Growth in Air Cargo



Year	Rev Ton Miles
2000	30,057
2001	28,485
2002	27,763
2003	33,514
2004	36,463
2005	39,219
2006	39,669
2007	40,032
2008	39,025
2009	31,005
2010	35,928
2011	37,252
FAA 2012 Forecast	
2015	47,607
2020	61,116
2025	76,195
2030	93,863

Source: FAA.

PROJECT DEVELOPMENT COSTS BY LOCATION AND TYPE

To help provide a broad perspective on the various capital development projects and associated financing that airports are considering for 2013 through 2017, ACI-NA asked respondents to provide information on project costs by location and type. Project location indicates whether projects are for the airside, terminal, or landside areas of the airport. Project type indicates whether projects are for access, airfield capacity, airfield standards, terminal development, environmental projects, airfield reconstruction, safety, security, or for construction of a new airport.

Development Costs by Location

As shown in Table 3, for 2013 through 2017, terminal projects represent 42.8 percent of the total capital development costs for all 117 responding airports¹¹, followed by airside projects that represent 40.1 percent of total costs and landside projects that represent 16.6 percent of total costs. This information is based on the ACI-NA survey sample.

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
Airside	40.1%	33.9%	55.4%	54.5%
Terminal	42.8%	50.0%	23.6%	26.4%
Landside	16.6%	16.1%	18.5%	19.0%
Summary*	100.0%	74.8%	17.5%	5.6%

Source: ACI-NA survey.

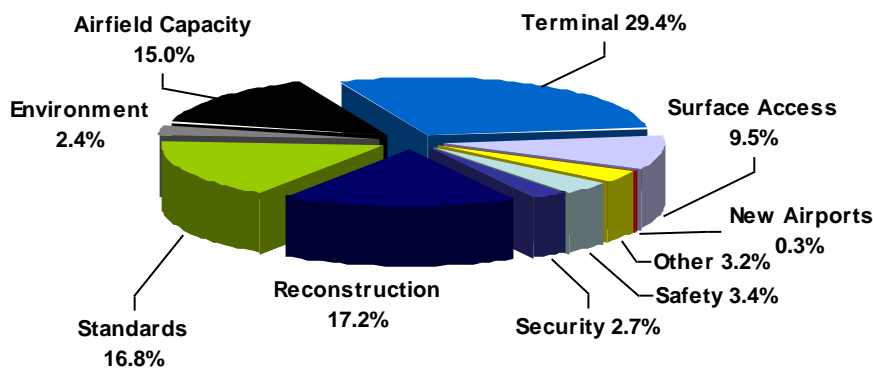
Note: Summary excludes projects without specified location code or projects located in multiple locations without breakdown.

Development Costs by Project Type

Figure 6 below shows that terminal projects to accommodate more passengers, larger aircraft, new security requirements, and increased competition among airlines account for 29.4 percent of the total development needs of all airports for the estimate period of 2013 through 2017, followed by reconstruction projects at 17.2 percent which is to replace or rehabilitate airport facilities.

¹¹ See Appendix 5 for a full list of airport respondents.

Figure 6: Airport Capital Needs by Type of Development



Source: ACI-NA survey.

As shown in Table 4, for 2013 through 2017 for large hub airports, terminal projects are the dominant project type representing 45.1 percent of all projects, followed by capacity projects at 18.1 percent. According to the FAA NPIAS report, about 50 to 60 percent of the terminal projects are eligible for AIP grants¹². Revenue-generating areas that are leased by a single tenant or used by concessions, such as gift shops and restaurants, are excluded. Projects such as gates and related areas are eligible for the PFC Program but are ineligible under the Federal grant program.

For medium hub airport respondents, reconstruction projects are the dominant project type representing 28.9 percent of all projects, followed by terminal projects at 21.6 percent. Small hub airport respondents reported that their dominant project type is capacity projects at 27.9 percent, followed by terminal projects at 22.2 percent and reconstruction projects at 20.6 percent. This information is based on the ACI-NA survey sample.

Table 4: Development Costs by Project Type

Airport Category	Safety	Sec.	Recon.	Stnds.	Env.	Cap.	Term.	Access	New Airports	Other	Percent
Large hub	2.7%	3.1%	7.7%	3.9%	2.2%	18.1%	45.1%	13.7%	0.4%	3.1%	100.0%
Medium hub	3.7%	2.4%	28.9%	5.7%	4.8%	16.1%	21.6%	8.5%	0.0%	8.3%	100.0%
Small hub	5.5%	2.8%	20.6%	5.8%	3.3%	27.9%	22.2%	7.5%	1.5%	2.9%	100.0%
Non-hub	9.6%	1.2%	29.3%	34.6%	2.8%	3.9%	14.6%	3.1%	0.0%	1.0%	100.0%
Comm service	6.9%	2.1%	41.1%	43.5%	0.6%	1.3%	2.5%	1.5%	0.0%	0.4%	100.0%
Reliever	3.4%	1.8%	30.7%	50.1%	1.8%	6.6%	2.1%	2.7%	0.0%	0.8%	100.0%
General aviation	1.1%	2.5%	27.2%	59.1%	0.9%	4.5%	1.3%	2.3%	0.0%	1.0%	100.0%
Total	3.4%	2.7%	17.2%	16.8%	2.4%	15.0%	29.4%	9.5%	0.3%	3.2%	100.0%

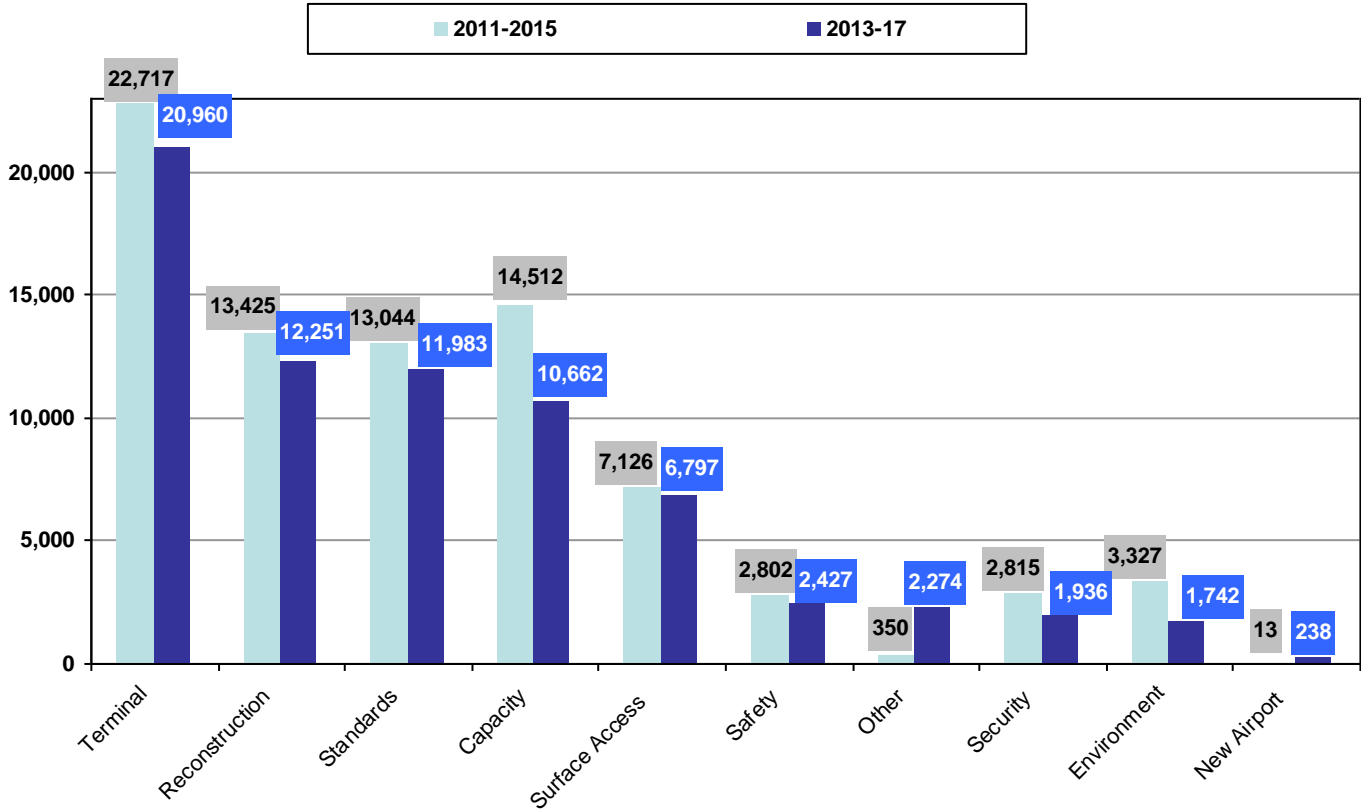
Sources: ACI-NA survey and FAA NPIAS.

Figure 7 below shows that development costs decrease across all project types except for new airports where FAA 2012 NPIAS report identifies 25 proposed airports that are anticipated to be developed over the 5-year period, including 19 new general aviation airports, 4 non-primary commercial service, and 2 new primary airports. Of the two new primary airports, one would replace the existing airport in Hailey, Idaho, which is

¹² See page 72 of the FAA NPIAS report 2013-2017.

constrained. The other new primary airport is proposed to help meet the demand for aviation in the Chicago area.

Figure 7: Change in Development Cost from Last ACI-NA Report



Source: ACI-NA surveys.
 Note: see Table 13 for total cost by project type.

PROJECT FINANCING

For project financing, respondents were first asked to divide all projects into two broad categories: committed projects for which financing is secured or expected, and uncommitted projects which are essential to meet current and future traffic growth and facility demand but with inadequate funding. Uncommitted projects have been included in the airport master plan, airport layout plan, or capital plan that are essential to meet current or future air traffic growth and facility demand. Airports generally believe that airlines will support these projects or will not block them through majority-in-interest (MII) disapproval, and for which airports expect to obtain all environmental and other approvals.

Respondents were further requested to specify the breakdown of funding sources from bonds, PFC- backed bonds or PFC pay-as-you-go, AIP entitlement or discretionary grants, state or local funds, cash/retained earnings, TSA grants, and Customer Facility Charges (CFC).

In terms of project costs, Table 6 below shows that large and medium hub airports each have approximately 65 percent of their projects with financing already secured or expected. Committed projects represented a higher percentage of about 81 percent for small hub airports.

Table 5: Committed vs. Uncommitted Projects by Hub Size

Airport Category	Committed Projects	Uncommitted Projects	Total
Large hub	65.1%	34.9%	100.0%
Medium hub	64.9%	35.1%	100.0%
Small hub	81.2%	18.8%	100.0%

Source: ACI-NA survey.

Table 6 shows that bonds, PFCs (PFC-backed bonds and pay-as-you-go combined), and AIP grants (entitlement and discretionary combined) are the three major funding sources for committed projects. Together, they comprised close to 80 percent of all the committed projects for large, medium and small hub airports, as shown in Figure 8.

Table 6: Funding Sources for Committed Projects by Hub Size

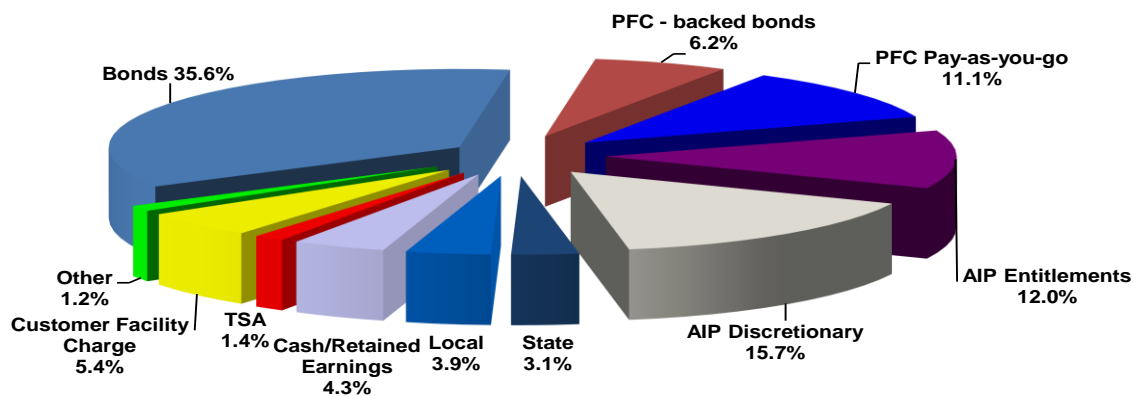
Airport Category	Bonds	PFC Backed bonds	PFC Pay-go	AIP Enti.	AIP Dis.	State	Local	Cash/Retain	TSA	CFC	Other	Total ¹
Large hub	50.3%	7.8%	12.2%	4.5%	7.7%	2.5%	4.8%	3.7%	1.7%	4.5%	0.2%	100.0%
Medium hub	18.5%	4.1%	14.0%	13.1%	15.7%	3.9%	3.6%	8.4%	1.5%	14.2%	3.0%	100.0%
Small hub	10.9%	8.6%	7.5%	22.9%	21.2%	3.8%	2.4%	8.0%	1.6%	5.5%	7.6%	100.0%
Summary	35.6%	6.2%	11.1%	12.0%	15.7%	3.1%	3.9%	4.3%	1.4%	5.4%	1.2%	100.0%

Source: ACI-NA survey.

Note: Total excludes projects without specified funding sources.

Glossary: AIP Enti. – AIP Entitlement, AIP Dis. – AIP Discretionary, Cash/Retain. – Cash/Retained Earnings, CFC – Customer Facility Charge.

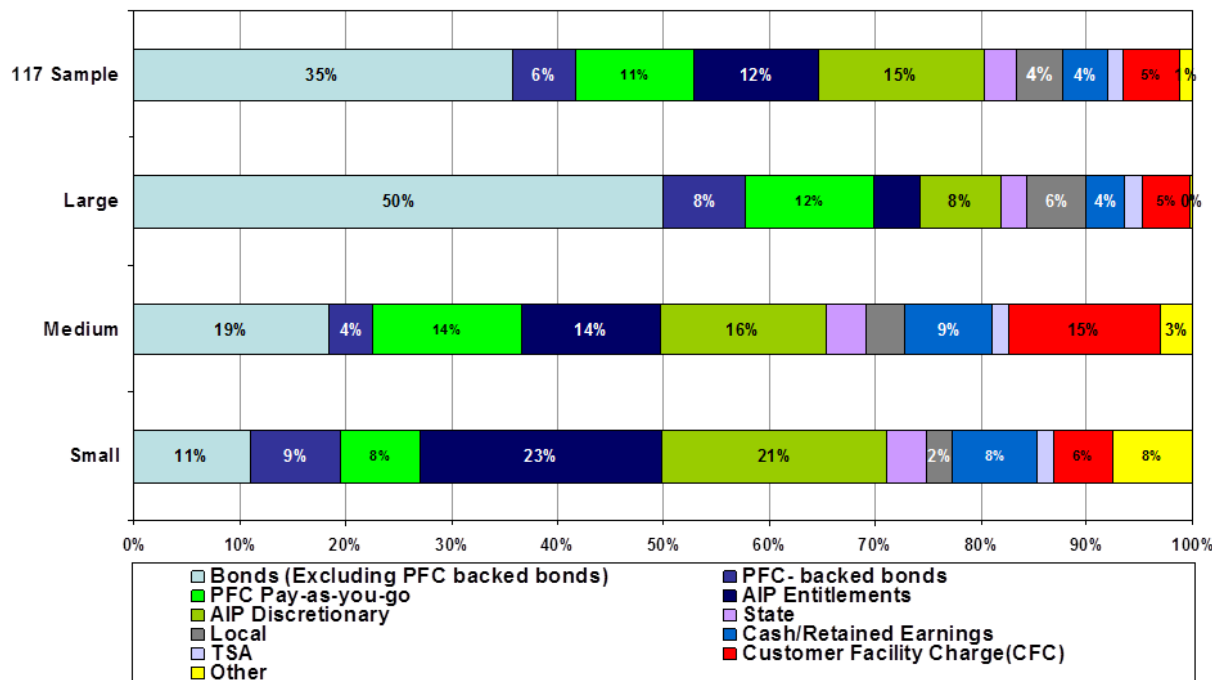
Figure 8: Funding Sources for Committed Projects



Source: ACI-NA survey.

Figure 9 shows that bonds and PFCs are the two primary sources of funding for large hubs, representing 70 percent of the total cost; bonds and AIP grants are the two primary sources for medium hub airports, accounting for 48 percent of the total cost; whereas AIP grants are used to fund 44 percent of projects for small hubs. Large and medium hubs typically have strong credit ratings, allowing these airports to raise funds through the capital market. Airports below the small hub category, namely non-hub primary and non-primary commercial service airports have limited revenue sources and tend to rely more heavily on grants than larger airports to finance capital improvements.

Figure 9: ACI-NA Capital Needs Funding Sources by Hub Size



Source: ACI-NA survey.

According to Table 7 and Figure 10, airports are anticipating using bonds (excluding PFC-backed bonds) as the primary source of funding for terminal projects, accounting for 54.2 percent of the total project cost. PFCs (PFC-backed bonds and PFC pay-go combined) are used to fund around 21.6 percent of terminal projects and 17.2 percent of air side projects. AIP (entitlement and discretionary combined) will be used to fund 53.6 percent of airside projects, 6.9 percent of terminal projects, and only 4.5 percent landside projects.

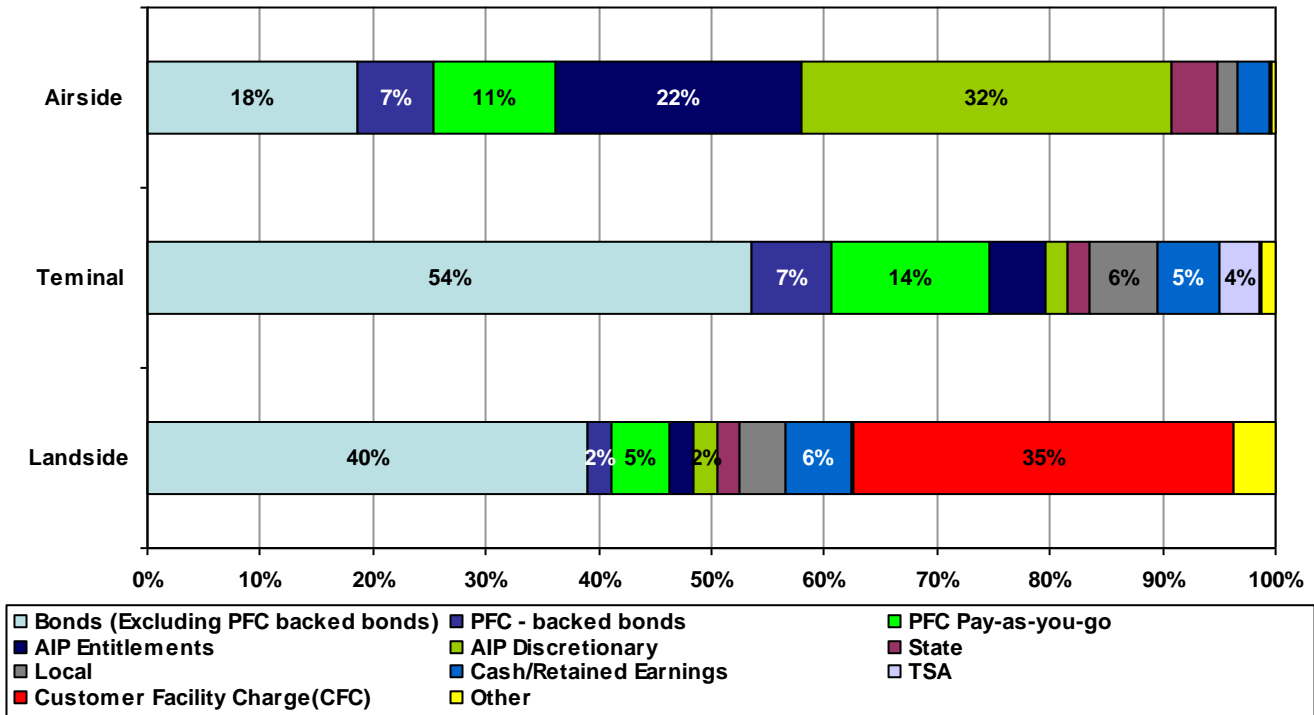
Table 7: Funding Sources for Committed Projects by Project Location

Project Location	Bonds	PFC backed bonds	PFC pay-go	AIP Enti.	AIP Dis.	State	Local	Cash/Retain	TSA	CFC	Other	Total ¹
Airside	18.3%	6.7%	10.5%	21.5%	32.1%	4.1%	1.8%	2.8%	0.0%	0.2%	0.3%	100.0%
Terminal	54.2%	7.3%	14.3%	4.9%	2.0%	2.1%	6.1%	5.5%	3.6%	0.2%	1.3%	100.0%
Landside	40.5%	2.2%	5.3%	2.3%	2.2%	2.0%	4.3%	6.0%	0.3%	34.9%	3.8%	100.0%
Summary	34.9%	6.1%	10.9%	11.7%	15.4%	3.1%	3.8%	4.2%	1.4%	5.3%	1.2%	100.0%

Source: ACI-NA survey.

Note 1: Total excludes projects without specified funding sources. Glossary: AIP Enti. – AIP Entitlement, AIP Dis. – AIP Discretionary, Cash/Retain. – Cash/Retained Earnings, CFC – Customer Facility Charge.

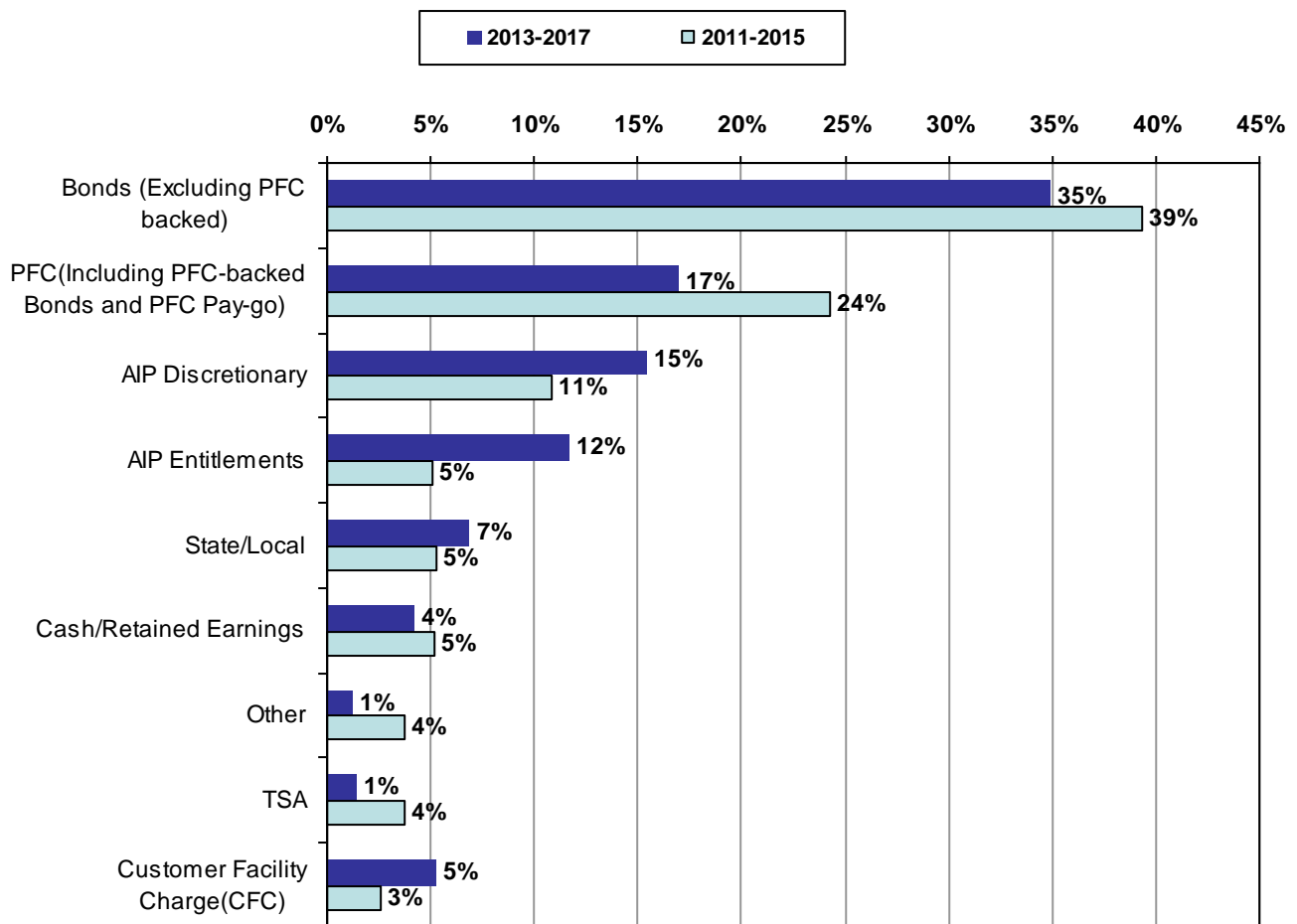
Figure 10: ACI-NA Capital Needs Funding Sources by Project Location



Source: ACI-NA survey.

According to Figure 11, in comparing the 2013-2017 estimate to the 2011-2015 estimate, increases are anticipated to occur in the use of AIP grants, State/local and CFCs; whereas airports are anticipating using less PFCs, bonds, TSA grants, and cash/retained earnings. Despite the fact that AIP funding was reduced in the FAA Modernization and Reform Act of 2012, airports reiterated the importance of entitlements, resulting in a 6.9 percent while PFC funds saw the greatest decrease of 7.3 percent. This reflects the decreasing value of capped PFC funding and the fact that US airports are too highly leveraged.

Figure 11: ACI-NA Capital Needs Funding Sources 2011-2015 vs. 2013-2017



Source: ACI-NA survey.

COMPARISON OF ACI-NA AND FAA ESTIMATES

The ACI-NA Capital Needs Survey is far more comprehensive than the FAA NPIAS survey, which is reported every two years. It is critical to understand the differences in the ACI-NA and FAA estimates because of the importance of the data in both surveys in developing federal policy, funding levels for the AIP and federally approved cap on the local PFC. It is also important to understand the estimates in weighing AIP funding levels in concert with other funding sources for airport development.

ACI-NA’s survey captures important information that the FAA estimate fails to capture, including:

- Development eligible under the PFC Program but ineligible under the AIP grant program, such as gates and related areas;
- Airport-funded air traffic control facilities and airport or TSA-funded security projects;
- AIP-ineligible projects, including parking facilities, hangars, cargo buildings, the revenue producing portions of passenger terminals, and improvements to highway and transit systems beyond the airport property line; and

- AIP-eligible projects that airports did not report to the FAA because there is a low probability of obtaining additional AIP discretionary grants.

For example, the cost for projects at large hub airports in the NPIAS totals \$15.0 billion while the ACI-NA estimate totals \$37.0 billion. Within this category, the NPIAS totals \$1.5 billion for terminal projects while the ACI-NA estimate totals \$16.7 billion. The difference in this case is because the NPIAS does not include the revenue generating portions of terminals such as development of facilities for non-aeronautical revenue.

Another example is the cost for airport-implemented security projects. Within this category, the NPIAS totals \$0.7 billion while the ACI-NA estimate totals \$1.9 billion. The difference in this case is because the NPIAS only captures security projects funded with AIP grants while the ACI-NA estimate captures security projects funded by airports and the TSA.

The ACI-NA estimate of \$71.3 billion is greater than the FAA estimate of \$42.5 billion for several reasons.¹³ First, the ACI-NA estimate includes all future projects while the FAA estimate includes only future AIP-eligible projects. Second, the ACI-NA estimate includes both projects that have identified and non-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 report¹⁴. Third, the ACI-NA estimate uses more recent data than that used by the FAA. Fourth, the ACI-NA estimate is adjusted for inflation, while the FAA estimate is not.¹⁵

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 capital 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 what capital development 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 our nation's competitive position in the global economy.

¹³ Both the ACI-NA and the FAA estimates are for 2013 through 2017. The ACI-NA survey was completed in 2012 and the FAA estimate is based on airport master and state system planning documents available through FY2011.

¹⁴ See page vi of the FAA NPIAS report 2013-2017.

¹⁵ The Government Accountability Office testimony *Airport Finance: Preliminary Analysis of Proposed Changes in the Airport Improvement Program May Not Resolve Funding Needs for Smaller Airports*, GAO-07-617T (Washington, D.C.; March 28, 2007) also explains the differences between the ACI-NA and FAA estimates, including variances related to estimating approach, definition, measurement, and timing.

CONCLUSION

The current economic downturn and airline industry consolidation clearly has had an impact on airport capital development plans. The development cost estimate for 2013-2017 for large, medium and small hub airports combined shows a decrease of 8 percent from the estimate for 2011-2015 and 16 percent decrease for non-hubs, commercial service, reliever and general aviation airports combined. The recent economic environment has forced airports to postpone or cancel some of the capital projects previously planned. Smaller airports are particularly affected by the changing airline industry dynamics.

Airport capital development needs are driven by current and forecast aviation activity; use and age of airport facilities and the need to modernize aging infrastructure; and changing aircraft technology which requires airports to update or replace equipment and infrastructure. Airport capital needs are not only correlated with the passenger and cargo activity level, but also affected by how airlines use airport infrastructure. For example, use of regional aircraft to increase frequency and better match capacity would still require the same runway access in the peak period as larger aircraft with more seating capacity even as total passengers carried grows at a slower rate.

Airport operators have a responsibility to make needed investments in modernizing aging airport facilities so that they can ensure efficient, safe and secure operations for the traveling public and other aeronautical users. Without adequate investment, the ability of airports to fully serve the public and the community as a growth engine is diminished.

ACI-NA's survey of planned capital development and inventory of airport projects shows that additional investment is required across all categories of airports in America's national airport system. This investment requirement covers the full range of development necessary, from airfield improvements to terminal expansion to new security systems. Driving these investment requirements is aging airport infrastructure and expected increases in demand over the long term.

It is important to understand that the existing federally-mandated funding system fails to meet U.S. airport capital needs for modernizing and expanding airport capacity which is critical for a safe, efficient and globally competitive aviation system. This data also makes the case for an increase in the local user fee used by airports to fund development – PFC. The value of the PFC has declined dramatically in inflation adjusted terms since the PFC ceiling was set by Congress in 2000.

APPENDIX 1: SCOPE AND METHODOLOGY

The 2012 ACI-NA survey was based on the 2010/11 survey instrument that was developed with input from the FAA and the GAO. This included the various definitions in the survey, such as project type codes.

ACI-NA surveyed all of its airport members in the United States. One hundred and seventeen (117) airports responded. ACI-NA staff followed-up with respondents as necessary to answer questions about the survey and ensure accuracy of respondents answers.

Respondents were asked to identify all capital development projects and associated costs for calendar years 2013 through 2017, and to report these costs in 2012 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.

Information on costs for capital development projects were divided into two sections: committed and uncommitted. For each section, airports were requested to list the ten largest projects in terms of costs and list the rest of the project costs as “all other projects.”

Committed projects included those projects for which financing was secured or was expected to be secured, and environmental and other required approvals had been obtained or were expected to be obtained. These are projects that airlines supported or did not block through such actions as Majority in Interest (MII) disapproval.


Uncommitted projects included projects in airport master, layout, or capital plans that were essential to meet current or future air traffic growth and facility demand, but that could not proceed due to inadequate funding. Respondents were to include only projects they expected the airlines would support or would not block through such actions as MII disapproval, and for which they expected to obtain all environmental and other approvals. Survey respondents were not to include any “wish list” projects.

For both committed and uncommitted projects, respondents were asked to identify projects by location and type. Location codes included whether a project was airside, terminal, or landside. Type codes included whether a project was access, airfield capacity, airfield standards, environment, new airport, airfield reconstruction, safety, terminal, or security. 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. In cases where multiple codes applied for either project location or type, respondents were asked to provide the cost percentage for each code.

For both committed and uncommitted projects, respondents were also asked to identify the funding sources for projects by calendar year 2013 through 2017, and by the percentage each applicable funding source was to provide. Funding sources included bonds, PFC-backed bonds and PFC pay-as-you-go, AIP entitlements, AIP discretionary, state/local, cash/retained earnings, TSA, customer facility charges, and other funding. Respondents were asked to report the funding sources by the percentage each source would provide for projects.

This ACI-NA survey also included a question regarding the rate of annual cost increases airports have been experiencing for projects recently bid or re-estimated by the respondent, and a question regarding the amount of non-AMT bond issued in 2012.

APPENDIX 2: ACI-NA 2012 AIRPORT CAPITAL DEVELOPMENT NEEDS SURVEY INSTRUMENT



2012 ACI-NA Airport Capital Development Needs Survey (2013-2017)

General Information
 Please complete a form for each commercial airport in your organization. It is very important to provide the respondents contact information. This person will be the official contact for your airport for this survey. All correspondence, including survey results, will be directed to this person.

Organization _____
 Airport 3-letter Code _____
 Respondent's Name _____
 Respondent's Title _____
 Phone _____
 Fax _____
 Email _____

Guide to Completing the Survey
 Please identify all capital development projects and costs between calendar years 2013-2017. All costs should be expressed in 2012 constant year millions of U.S. dollars (i.e. \$500,000=0.5 or \$1,000,000=1.0). Total costs should include interest, construction and management costs, architectural and engineering costs, and contingency costs.

Project Location Codes
 Use the project location codes to indicate whether the project is an inside, terminal, or landside project. If multiple codes apply, include the project cost percentage by each code. (i.e. A-50%, L-25%, T-25%)

Type	Code	Definitions/Examples of Projects
Aside	A	Runway, taxiway, apron, etc.
Landside	L	Curbside, access roads, parking, airport transit or people movers, etc.
Terminal	T	Common areas, concession space, baggage claim, federal inspection facilities, gates, etc.

Project Type Codes
 Use the project type codes to indicate whether the project is an access, airfield capacity, airfield standards, environment, new airport, airfield reconstruction, safety, terminal, or security project. If multiple codes apply, include the project cost percentage by each code. (i.e. C-50%, D-25%, E-25%).

Type	Code	Definitions/Examples of Projects
Access	A	Any airport ground access/roadways, highways, transit, roads to parking and rental car facilities, public transportation facilities.
Airfield Capacity	C	Development that will improve an airport for the primary purpose of reducing delay and/or accommodating more passengers, cargo, aircraft operations, or based aircraft, e.g. new runways, taxiways, and aprons; extensions and upgrades to runways, taxiways, and aprons; and land acquisition and site preparation.
Airfield Standards	D	Development to bring an existing airport up to design criteria recommended by FAA, e.g. runway and taxiway relocation to serve aircraft that are larger and faster than what the airport was originally designed for and upgrades to aircraft parking areas.
Environment	E	Projects designed to achieve an acceptable balance between airport operational requirements, environmental requirements, and the expectations of residents of the surrounding area for a quiet and clean environment, e.g. relocation of households, soundproofing of residences and public buildings, noise-monitoring equipment, sound barriers, land acquisition of noise mitigation, compliance with federal or local environmental standards such as waste treatments.
New Airport	N	Renew or replacement airport for communities that generate a substantial demand for air transportation, and either do not have an airport or have an airport that cannot be improved to meet minimum standards of safety and efficiency.
Other	O	Any other projects that are not eligible for AP.
Airfield Reconstruction	R	Development to replace or rehabilitate airport facilities, primarily pavement and lighting systems that have deteriorated due to weather or use and that have reached the end of their useful lives, e.g. rehabilitation of airfield pavements, replacement of airfield lighting systems, other rehabilitation of airport facilities.
Safety	S	Development that is required by Federal regulation, airport certification procedures, or design standards and is intended primarily for the protection of human life, e.g. obstruction lighting removal, acquisition of fire and rescue equipment, and improvements to runway safety areas.
Terminal	T	Development to accommodate more passengers and different aircraft/terminal building modifications. Do not include any terminal security projects.
Security	U	Development that is required by Federal regulation, airport certification procedures, or design standards and intended primarily for the protection of human life, e.g. access control systems, perimeter fencing, security devices, explosive detection system (EDS) equipment installation, Advanced Imaging Technology (AIT) equipment installation, and other security enhancements.

Section I: Committed Capital Development Projects 2013-2017

List the ten largest projects by total project cost, including those projects for which financing is secured or expected and environmental and other required approvals have been obtained or are expected. Multi-year project costs should be listed in the year when the money is anticipated to be spent. For projects done for a Federal agency including those the agency usually pays for it but cannot in this case, please note "yes" or "no" in the appropriate category below. These projects would include funding for an air traffic control tower, Federal Inspection Service (FIS) facility, navigational aids, in-line baggage screening systems, and quarantine facilities.

Project Name	Total Project Cost (2012 Constant Year Millions of US Dollars)	Does the project cost include an escalation for construction inflation since the last estimate was done? (Yes/No)	If no, when was the last estimate done?	Project Location Code	Project Type Code	Is the Project/AP eligible? (Yes/No)	Projects Done for Federal Agencies (Yes/No) (e.g. ATC tower)	Total Cost by Calendar Year (2012 Constant Year Millions of US Dollars)										Funding Sources (Please report numbers in percentage, the total should add up to 100%. Please only report funding sources for 2013-2017)																			
								2013	2014	2015	2016	2017	2013-17	Bonds (excluding PFC backed bonds)	PFC backed bonds	Pay-as-you-go	AP Entitlements	AP Discretionary	State	Local	Cash/Retained Earnings	TSA	Customer Facility Charge (CFC)	Other													
								2013	2014	2015	2016	2017	Subtotal	%	%	%	%	%	%	%	%	%	%	%	%												
1	\$							\$	\$	\$	\$	\$	\$0	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%					
2	\$							\$	\$	\$	\$	\$	\$0	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%				
3	\$							\$	\$	\$	\$	\$	\$0	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%			
4	\$							\$	\$	\$	\$	\$	\$0	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%		
5	\$							\$	\$	\$	\$	\$	\$0	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%		
6	\$							\$	\$	\$	\$	\$	\$0	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%		
7	\$							\$	\$	\$	\$	\$	\$0	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%		
8	\$							\$	\$	\$	\$	\$	\$0	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	
9	\$							\$	\$	\$	\$	\$	\$0	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
10	\$							\$	\$	\$	\$	\$	\$0	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
All Other Projects	\$							\$	\$	\$	\$	\$	\$0	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
TOTAL	\$0.00							\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	

Section II: Uncommitted Capital Development Projects 2013-2017

Include the projects in your master plan, airport layout plan, or capital plan that are essential to meet current or future air traffic growth and facility demand, but that cannot proceed because of inadequate funding. Include projects that you expect airlines will support or will not block through MITI disapproval, and for which you expect to obtain all environmental and other approvals. Multi-year project costs should be listed in the year when the money is anticipated to be spent. For projects done for a Federal agency including those the agency usually pays for it but cannot in this case, please note "yes" or "no" in the appropriate category below. These projects would include funding for an air traffic control tower, Federal Inspection Service (FIS) facility, navigational aids, in-line baggage screening systems, and quarantine facilities.

Project Name	Total Project Cost (2012 Constant Year Millions of US Dollars)	Does the project cost include an escalation for construction inflation since the last estimate was done? (Yes/No)	If no, when was the last estimate done?	Project Location Code	Project Type Code	Is the Project AP eligible? (Yes/No)	Projects Done for Federal Agencies (Yes/No) (e.g. ATC tower)	Total Cost by Year (2012 Constant Year Millions of US Dollars)					Funding Sources (Please report numbers in percentage, the total should add up to 100%. Please only report funding sources for 2013-2017)																	
								2013	2014	2015	2016	2017	Subtotal 2013-17	Bonds (excluding PFC backed bonds)	PFC backed bonds	PFC Pay-as-you-go	AIP Entitlements	AIP Discretionary	State	Local	Cash/Retained Earnings	TSA	CFC	Other (Explain)						
								\$	\$	\$	\$	\$	\$	%	%	%	%	%	%	%	%	%	%	%	%					
1	\$							\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
2	\$							\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
3	\$							\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
4	\$							\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
5	\$							\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
6	\$							\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
7	\$							\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8	\$							\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
9	\$							\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
10	\$							\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
All Other Projects	\$							\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
TOTAL	\$0.00							\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Section III: Additional Questions

1. For projects recently bid or re-estimated, what rate of annual cost increases have you been experiencing? (Please enter number in percentage)

2. Of the new money bonds issued in 2012, how much is non-AMT bond? (Please enter number in dollar amount)

Thank you for completing this survey questionnaire!

Please contact Lijiang Gu at (202) 861-8084 with any questions.

Please e-mail completed survey form to lgu@aci-nra.org by October 1, 2012.

APPENDIX 3: HOW ACI-NA CALCULATED CAPITAL DEVELOPMENT COSTS

ACI-NA calculated airports' capital development needs using the ACI-NA survey and the FAA NPIAS. Specifically, ACI-NA used its survey data to calculate costs for large, medium, and small 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 2011 enplanement data, which is the latest available information, to make calculations.

The total capital development costs for large, medium, and small hub airports was based on responses from 28 large hub, 30 medium hub, and 29 small hub airports. As shown in Table 9, this represents 96 percent of all passengers enplaned at large hubs, 88 percent of all passengers enplaned at medium hubs, and 46 percent of all passengers enplaned at small hubs in 2011.

Table 8: ACI-NA Sample Compared to Industry Total

Airport Category	Number of respondents	Total number of airports in the category	Respondents percentage of all airports in the category	Respondents percentage of total 2011 enplanements in the category	Respondents percentage of total 2011 enplanements
Large hub	28	29	97%	96%	67.7%
Medium hub	30	36	83%	88%	15.9%
Small hub	29	72	40%	46%	3.9%
All other	30	3,193	<1%	9%	0.3%
Total	117	3,330	-	-	87.7%

As shown in Table 9, ACI-NA then calculated the total capital development costs per 2011 enplanement for the respondent large, medium, and small hub airports.

Table 9: ACI-NA Sample Capital Development Costs Per Enplanement

Airport Category	Total costs for 2013-2017 in millions of 2012 constant dollars	Total 2011 enplanements by category	Cost per enplanement in 2012 constant dollars
Large hub	34,125	490,379,075	69.59
Medium hub	7,827	114,790,299	68.18
Small hub	2,538	28,020,473	90.59

As shown in Table 10, this cost per enplanement in 2012 constant dollars was then used as the unit cost to estimate the capital development costs for all large, medium, and small hub airports.

Table 10: Total Capital Development Costs Estimate for Large, Medium, and Small Hub Airports

2012 Constant Dollars			
Airport Category	Total 2011 enplanements	Cost per enplanement in 2012 constant dollars	Total 2013-2017 capital development costs in millions of 2012 constant dollars
Large hub	509,401,610	69.59	35,449
Medium hub	130,073,866	68.18	8,869
Small hub	60,989,464	90.59	5,525

Table 11 shows the total capital development costs for all airports in the national airport system in 2012 constant dollars using 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 11: Total Capital Development Costs Estimate

2012 Constant Dollars

Airport Category	Total number of airports by category in national airport system	Total 2013- 2017 capital development costs in millions of 2012 constant dollars	Percentage of Total
Large hub	29	\$ 35,449	52.0%
Medium hub	35	8,869	13.0%
Small hub	74	5,525	8.1%
Non-hub	249	4,906	7.2%
Commercial service	121	670	1.0%
Reliever	268	2,996	4.4%
General aviation	2,563	9,777	14.3%
Total	3,330	68,192	100%¹

Note 1 - Figures do not sum to 100 percent due to rounding

Taking the escalating construction cost into consideration, ACI-NA made a 1.5 percent inflation adjustment to the total estimate in 2012 constant dollars to reflect total capital needs in current year dollars. As shown in Table 12, total industry capital needs are estimated to be \$71.3 billion in current year dollars. Average annual capital needs for the years 2013 through 2017 are 11 percent lower than for the years 2011-2015 estimated in the ACI-NA survey done almost two years ago.

Table 12: Total Industry Estimate

Millions of Current Year Dollars

Airport Category	2013	2014	2015	2016	2017	2013-2017	Percent
Large hub	7,995	7,926	7,769	6,091	7,229	37,010	51.9%
Medium hub	1,660	1,673	1,446	1,811	2,716	9,305	13.1%
Small hub	1,457	1,226	896	1,065	1,120	5,764	8.1%
Non-hub	996	1,011	1,026	1,041	1,057	5,131	7.2%
Commercial service	136	138	140	142	144	701	1.0%
Reliever	608	617	627	636	646	3,134	4.4%
General aviation	1,985	2,015	2,045	2,075	2,107	10,226	14.3%
Total	14,836	14,605	13,948	12,862	15,019	71,270	100.0%
Annual Capital Needs 2013-17	-	-	-	-	-	14,254	-
Annual Capital Needs 2011-15	-	-	-	-	-	16,015	-
Annual Capital Needs 2009-13	-	-	-	-	-	18,861	-
Annual Capital Needs 2007-11	-	-	-	-	-	17,473	-
Annual Capital Needs 2005-09	-	-	-	-	-	14,296	-

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 ACI-NA survey results for large, medium, and small hub airports and using the NPIAS data for non-hub, commercial service, reliever, and general aviation airports. As shown in Table 13, 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 as shown in Table 13.

Table 13: ACI-NA Total Costs by Project Type

Millions of Current Year Dollars

Airport Type	Safety	Sec.	Recon	Stnds.	Env.	Cap.	Term.	Access	New Airports	Other	Total	Percent
Large Hub	1,009	1,166	2,840	1,427	805	6,682	16,698	5,081	148	1,155	37,010	51.9%
Medium Hub	342	222	2,687	533	447	1,500	2,008	792	4	770	9,305	13.1%
Small Hub	317	159	1,189	332	193	1,609	1,281	433	86	165	5,764	8.1%
Non-hub	492	60	1,501	1,774	145	199	751	157	0	52	5,131	7.2%
Commercial												
Service	48	15	288	305	4	9	18	10	0	3	701	1.0%
Reliever	107	56	963	1,568	56	207	66	86	0	24	3,134	4.4%
GA	113	258	2,783	6,044	91	456	138	237	0	106	10,226	14.3%
Total	2,427	1,936	12,251	11,983	1,742	10,662	20,960	6,797	238	2,274	71,270	100.0%
Percent	3.4%	2.7%	17.2%	16.8%	2.4%	15.0%	29.4%	9.5%	0.3%	3.2%	100.0%	

APPENDIX 4: FAA DEFINITIONS OF AIRPORT CATEGORIES

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

Airport Classifications		Hub Type: Percentage of Annual Passenger Boardings	Common Name
See Definitions of Airport Categories below for more information.			
Commercial Service: Publicly owned airports that have at least <u>2,500</u> passenger boardings each calendar year and receive scheduled passenger service §47102(7)	Primary: Have more than <u>10,000</u> passenger boardings each year §47102(11)	Large: 1% or more	Large Hub
		Medium: At least 0.25%, but less than 1%	Medium Hub
		Small: At least 0.05%, but less than 0.25%	Small Hub
		Non-hub: More than 10,000, but less than 0.05%	Non-hub Primary
	Nonprimary	Non-hub: At least 2,500 and no more than 10,000	Nonprimary Commercial Service
Nonprimary (Except Commercial Service)		Not Applicable	Reliever §47102(18)

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 2001 data are used for fiscal year 2003 since the fiscal year began 9 months after the end of that calendar year. The table below depicts the formulae used for the definition of airport categories based on statutory provisions cited within the table, including Hub Type described in 49 USC 47102.

2. **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.
3. **General Aviation Airports** are the largest single group of airports in the U.S. system. The category also includes privately owned, public use airports that enplane 2500 or more passengers annually and receive scheduled airline service.

APPENDIX 5: RESPONDENTS 2011 PASSENGER TRAFFIC STATISTICS

Airport	Code	Category	Calendar Year 2011 Enplanements
Hartsfield - Jackson Atlanta International	ATL	L	44,414,121
Chicago O'Hare International	ORD	L	31,892,301
Los Angeles International	LAX	L	30,528,737
Dallas/Fort Worth International	DFW	L	27,518,358
Denver International	DEN	L	25,667,499
John F Kennedy International	JFK	L	23,664,832
San Francisco International	SFO	L	20,056,568
McCarran International	LAS	L	19,872,617
Phoenix Sky Harbor International	PHX	L	19,750,306
George Bush Intercontinental/Houston	IAH	L	19,306,660
Miami International	MIA	L	18,342,158
Orlando International	MCO	L	17,250,415
Newark Liberty International	EWR	L	16,814,092
Seattle-Tacoma International	SEA	L	15,971,676
Minneapolis-St Paul International/Wold-Chamberlain	MSP	L	15,895,653
Detroit Metropolitan Wayne County	DTW	L	15,716,865
Philadelphia International	PHL	L	14,883,180
General Edward Lawrence Logan International	BOS	L	14,180,730
La Guardia	LGA	L	11,989,227
Fort Lauderdale/Hollywood International	FLL	L	11,332,466
Baltimore/Washington International Thurgood Marshall	BWI	L	11,067,319
Washington Dulles International	IAD	L	11,044,383
Salt Lake City International	SLC	L	9,701,756
Chicago Midway International	MDW	L	9,134,576
Ronald Reagan Washington National	DCA	L	9,053,004
Honolulu International	HNL	L	8,689,699
San Diego International	SAN	L	8,465,683
Tampa International	TPA	L	8,174,194
Portland International	PDX	M	6,808,486
Lambert-St Louis International	STL	M	6,159,090
Kansas City International	MCI	M	5,011,000
William P Hobby	HOU	M	4,753,554
Nashville International	BNA	M	4,673,047
General Mitchell International	MKE	M	4,671,976
Metropolitan Oakland International	OAK	M	4,550,526
Austin-Bergstrom International	AUS	M	4,436,661
Cleveland-Hopkins International	CLE	M	4,401,033
Sacramento International	SMF	M	4,370,895
Memphis International	MEM	M	4,344,213
Louis Armstrong New Orleans International	MSY	M	4,255,411
John Wayne Airport-Orange County	SNA	M	4,247,802
Norman Y. Mineta San Jose International	SJC	M	4,108,006
Pittsburgh International	PIT	M	4,070,614

San Antonio International	SAT	M	3,992,304
Dallas Love Field	DAL	M	3,852,886
Southwest Florida International	RSW	M	3,748,366
Indianapolis International	IND	M	3,670,396
Cincinnati/Northern Kentucky International	CVG	M	3,422,466
Port Columbus International	CMH	M	3,134,379
Palm Beach International	PBI	M	2,877,158
Albuquerque International Sunport	ABQ	M	2,768,435
Jacksonville International	JAX	M	2,700,514
Kahului	OGG	M	2,683,933
Buffalo Niagara International	BUF	M	2,582,597
Ted Stevens Anchorage International	ANC	M	2,354,987
Ontario International	ONT	M	2,271,458
Eppley Airfield	OMA	M	2,047,055
Reno/Tahoe International	RNO	M	1,821,051
Tucson International	TUS	S	1,779,679
Norfolk International	ORF	S	1,606,695
Spokane International	GEG	S	1,487,913
El Paso International	ELP	S	1,458,965
Birmingham-Shuttlesworth International	BHM	S	1,429,282
Boise Air Terminal/Gowen Field	BOI	S	1,395,554
Guam International	GUM	S	1,369,586
Manchester	MHT	S	1,342,308
Kona International at Keahole	KOA	S	1,295,389
Charleston AFB/International	CHS	S	1,247,459
James M Cox Dayton International	DAY	S	1,247,333
Lihue	LIH	S	1,203,525
Gerald R. Ford International	GRR	S	1,126,552
Des Moines International	DSM	S	932,828
Greenville Spartanburg International	GSP	S	880,994
Myrtle Beach International	MYR	S	848,230
Palm Springs International	PSP	S	759,510
Dane County Regional-Truax Field	MSN	S	741,365
Sarasota/Bradenton International	SRQ	S	657,157
Burlington International	BTV	S	636,019
Jackson-Evers International	JAN	S	615,622
Fresno Yosemite International	FAT	S	615,320
Huntsville International-Carl T Jones Field	HSV	S	614,601
Hilo International	ITO	S	605,251
Phoenix-Mesa Gateway	IWA	S	521,437
Quad City International	MLI	S	412,470
Bozeman Yellowstone International	BZN	S	397,870
Baton Rouge Metropolitan, Ryan Field	BTR	S	396,403
Wilmington International	ILM	S	395,156
Asheville Regional	AVL	N	361,617
Juneau International	JNU	N	355,499
Roanoke Regional/Woodrum Field	ROA	N	320,961

Roanoke Regional/Woodrum Field	TLH	N	305,686
Yeager	CRW	N	282,704
Glacier Park International	GPI	N	179,064
Evansville Regional	EVV	N	169,426
Niagara Falls International	IAG	N	98,982
Abraham Lincoln Capital	SPI	N	71,862
Laurence G Hanscom Field	BED	N	10,893
North Las Vegas	VGT	GA	55,161
Worcester Regional	ORH	GA	53,541
Henderson Executive	HND	R	16,946
Rickenbacker International	LCK	GA	7,597
Rutland Southern Vermont Regional Airport	RUT	CS	5,997
Charles B. Wheeler Downtown Airport	MKC	R	2,121
William H. Morse State	DDH	GA	17
Newport State	EFK	GA	16
Morrisville-Stowe State	MVL	GA	15
Edward F Knapp State	MPV	GA	12
San Bernardino International Airport	SBD	R	11
Sacramento Executive Airport	SAC	R	10
Hartness State (Springfield)	VSF	GA	7
Spokane Airport	SFF	R	6
Sacramento Mather Airport	MHR	R	5
Middlebury State Airport	6B0	GA	5
Oxnard Airport	OXR	CS	3
Bolton Field	TZR	R	0
Caledonia County	CDA	GA	0
Franklin County State	FSO	GA	0

Source: FAA

Please note that in this report, ACI-NA defines airport category based on FAA calendar year 2011 enplanements, while the latest FAA NPIAS report for 2013-2017 categorized airports based on FAA Calendar Year 2010 enplanements.

Number of Airports for Each Airport Category for CY 2010 and 2011

Airport Category	2010	2011
Large Hub	29	29
Medium Hub	36	35
Small Hub	74	74
Non-hub	239	249
Commercial service	121	121
Reliever	268	268
General aviation	2,563	2,563
Subtotal	3,330	3,339

APPENDIX 6: ABOUT THIS REPORT

The 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.

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