

The Economic Impact of Commercial Airports in 2010

January 2012

Prepared for:

Airports Council International – North America

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Executive Summary

Commercial airports in the U.S. are critical infrastructure assets that are important components of the country's transportation network. They enhance the movement of people, goods, and services throughout the country and around the world, allowing the economy to operate more effectively and efficiently.

This economic impact study summarizes the contribution that the 490 commercial airports in the U.S. make to the national economy. This analysis uses methodology approved by the Federal Aviation Administration (FAA) to tabulate the economic contributions in terms of employment, annual payroll, and annual output for the 2010 calendar year.

Using data from more than 75 state and individual airport economic impact studies, this analysis found that the 490 commercial airports in the U.S.:

- Support 10.5 million jobs
- Create an annual payroll of \$365 billion
- Produce an annual output of \$1.2 trillion

These are significant contributions to the national economy. Commercial airports are often economic engines that drive the local, state, and national economies. Airports are valuable assets that contribute to the growth of jobs and economic output across the country.

Commercial Airports' Economic Impact

Commercial airports have a vast economic impact in the U.S. The airports in this analysis help to accommodate the travel needs of business and leisure visitors in the U.S. and beyond. They play an integral role in shipping time-critical cargo. The airports themselves are also significant generators of economic activity. Airports help to support employment, payroll, and output for the nation's economy. This section discusses the combined economic impacts associated with employment, annual payroll, and total annual economic output for all 490 commercial airports in this study. The following section contains detailed tables showing the combined impacts of all commercial airports in each of the 50 U.S. states.

Overall Impacts

The total economic impact from commercial airports in the U.S. in 2010 is estimated at \$1.2 trillion in output. Those 490 airports supported 10.5 million jobs with a total payroll of \$365 billion. The following sections detail these impacts.

Direct Impacts

Table 1 shows the direct impacts of the 490 commercial airports, broken down into on-airport, capital improvement projects (CIP), and visitor categories.

Table 1: Direct Economic Impacts of Commercial Airports in the U.S.

Impact Measure	On-Airport	CIP	Visitor	U.S. Total
Employment	1,244,380	72,290	3,554,600	4,871,270
Payroll	\$58,013,226,000	\$2,647,390,000	\$79,641,557,000	\$140,302,173,000
Output	\$227,339,643,000	\$15,395,865,000	\$217,447,937,000	\$460,183,445,000

Source: CDM Smith and IMPLAN. Prepared January 2012.

More than 1.2 million jobs are found at the nation’s commercial airports. Visitor spending supports another 3.6 million jobs, while construction work employed more than 72, 000 workers in 2010 at these airports. Economic output from these airports exceeds \$227 million annually. Visitors that use these airports spend more than \$217 million annually, while construction projects add another \$15 million to the national economy.

Multiplier Impacts

Table 2 shows the multiplier impacts of the 490 commercial airports, broken down into on-airport, CIP and visitor categories. Multiplier impacts result from the recirculation of money from direct impacts. As can be seen, the multiplier impacts generate billions of dollars of economic output and support millions of jobs.

Table 2: Multiplier Impacts of Commercial Airports in the U.S.

Impact Measure	On-Airport	CIP	Visitor	U.S. Total
Employment	2,983,290	187,220	2,455,650	5,626,160
Payroll	\$113,155,355,000	\$4,264,661,000	\$107,607,799,000	\$225,027,815,000
Output	\$361,430,027,000	\$26,265,350,000	\$331,067,794,000	\$718,763,171,000

Source: CDM Smith and IMPLAN. Prepared January 2012.

Total Impacts

Table 3 summarizes the total impacts from commercial airports, showing the combined effects of the direct and multiplier impacts.

Table 3: Total Impacts of Commercial Airports in the U.S.

Impact Measure	On-Airport	CIP	Visitor	U.S. Total
Employment	4,227,670	259,510	6,010,250	10,497,430
Payroll	\$171,168,581,000	\$6,912,051,000	\$187,249,356,000	\$365,329,988,000
Output	\$588,769,670,000	\$41,661,215,000	\$548,515,731,000	\$1,178,946,616,000

Source: CDM Smith and IMPLAN. Prepared January 2012.

The total economic output of nearly \$1.2 trillion was split closely between on-airport output and visitor spending, with each supporting more than \$500 billion in output. Construction activity contributed another \$42 billion to the output. Visitor spending resulted in more than 6 million jobs, while on-airport activities accounted for more than 4 million jobs.

The impacts of all airports in each state are summed and shown by state in Table 4, in descending order of output. Not surprisingly, the states with the most economic output are those with a significant number of airports, one or more of which are large hub airports.

Table 4: Total Economic Impacts of Commercial Airports in the U.S.
(in descending order of Output)

State	Number of Airports	Jobs	Payroll	Output
CA	29	1,380,230	\$47,096,901,000	\$157,996,816,000
FL	21	1,209,580	\$39,870,632,000	\$125,850,286,000
TX	26	970,310	\$34,471,506,000	\$116,622,794,000
NY	16	974,110	\$28,343,957,000	\$85,968,063,000
GA	9	637,360	\$27,129,525,000	\$80,534,186,000
IL	10	454,280	\$18,282,773,000	\$50,673,207,000
VA	9	437,180	\$15,277,939,000	\$49,628,495,000
AZ	11	362,210	\$12,506,488,000	\$44,070,762,000
NV	5	313,640	\$11,766,736,000	\$40,533,175,000
CO	14	325,060	\$11,278,290,000	\$34,646,508,000
WA	12	230,980	\$7,126,974,000	\$32,977,801,000
NJ	2	230,960	\$9,336,145,000	\$30,870,992,000
PA	13	315,680	\$10,937,805,000	\$30,267,593,000
MN	9	148,610	\$6,310,044,000	\$24,913,504,000
HI	8	224,340	\$7,433,724,000	\$24,423,369,000
NC	10	170,430	\$8,427,171,000	\$23,591,262,000
MO	6	178,540	\$5,776,404,000	\$18,685,053,000
MI	16	179,290	\$6,533,485,000	\$18,608,708,000
TN	5	90,590	\$4,188,374,000	\$18,198,854,000
KY	4	136,370	\$3,713,041,000	\$14,038,514,000
MA	8	142,350	\$4,829,522,000	\$13,678,043,000
OH	7	136,500	\$4,658,754,000	\$13,608,778,000
AK	92	140,390	\$3,583,666,000	\$11,990,487,000
OR	8	93,420	\$2,871,308,000	\$10,772,625,000
WI	8	105,430	\$3,313,530,000	\$10,215,395,000
UT	6	98,300	\$3,400,507,000	\$9,495,047,000
IN	5	83,150	\$2,322,530,000	\$8,858,534,000
KS	7	39,750	\$2,152,634,000	\$8,846,916,000
MD	2	73,760	\$2,487,191,000	\$8,466,261,000
LA	7	72,690	\$2,099,017,000	\$6,312,449,000
OK	3	50,120	\$1,649,111,000	\$6,010,181,000

Table 4: Total Economic Impacts of Commercial Airports in the U.S. (cont.)
(in descending order of Output)

State	Number of Airports			
		Jobs	Payroll	Output
CT	2	66,050	\$1,878,724,000	\$5,556,297,000
NM	5	48,430	\$1,632,663,000	\$4,863,841,000
SC	6	48,920	\$1,512,064,000	\$3,953,528,000
NH	3	30,230	\$919,670,000	\$3,676,395,000
AL	6	35,910	\$1,200,600,000	\$3,341,001,000
NE	6	27,860	\$970,362,000	\$3,175,647,000
RI	3	33,040	\$1,082,228,000	\$3,068,923,000
AR	4	30,330	\$1,179,415,000	\$3,017,744,000
ID	6	27,590	\$995,581,000	\$2,791,507,000
MT	8	24,530	\$867,210,000	\$2,348,021,000
ME	6	21,020	\$621,184,000	\$2,187,894,000
WY	10	19,220	\$651,778,000	\$2,151,146,000
IA	8	16,880	\$598,205,000	\$1,824,820,000
MS	7	21,300	\$609,027,000	\$1,688,756,000
ND	8	12,110	\$515,751,000	\$1,402,058,000
VT	2	11,650	\$350,975,000	\$1,126,966,000
SD	5	8,090	\$342,409,000	\$865,123,000
WV	7	8,660	\$226,458,000	\$552,291,000
DE	0	0	\$0	\$0
Total	490	10,497,430	\$365,329,988,000	\$1,178,946,616,000

Note: Delaware does not have any commercial airports.

Source: CDM Smith and IMPLAN. Prepared January 2012.

The total economic output tied to commercial airports in the U.S. of \$1.2 trillion is a significant amount. When compared to the U.S. gross domestic product (GDP) of \$14.5 trillion, impacts related to commercial airports contribute more than 8 percent of the total GDP. The 10.5 million workers that depend upon commercial airports and their related activity comprise more than 7 percent of the U.S. work force, which stood at 139 million at the end of 2010.

Detailed Tables

This section details the economic impacts of commercial airports in each of the 50 U.S. states. Note that since there are no commercial airports in Delaware, there are no impacts in this state. These tables show the three measures of economic impacts (employment, payroll, and output) by type (direct, multiplier, and total), broken out into the categories of on-airport, CIP, and visitor impacts. A detailed explanation of the methodology used to estimate these impacts follows these tables.

Table 5: Direct Employment of Commercial Airports in the U.S.

State	On-Airport	CIP	Visitor	U.S. Total
AK	27,980	1,280	24,080	53,340
AL	4,700	380	11,000	16,080
AR	4,710	310	7,810	12,830
AZ	44,180	390	124,620	169,190
CA	140,610	10,780	510,870	662,260
CO	30,550	1,630	127,400	159,580
CT	9,300	140	20,070	29,510
DE	0	0	0	0
FL	84,970	10,720	521,870	617,560
GA	68,160	1,430	236,960	306,550
HI	27,010	700	76,930	104,640
IA	3,700	140	2,250	6,090
ID	4,440	180	7,020	11,640
IL	75,680	5,150	105,670	186,500
IN	12,670	250	23,190	36,110
KS	9,550	460	3,350	13,360
KY	22,960	2,850	28,460	54,270
LA	16,990	700	7,360	25,050
MA	12,430	740	57,640	70,810
MD	11,970	290	18,970	31,230
ME	2,940	150	6,200	9,290
MI	31,000	1,480	40,600	73,080
MN	30,140	770	25,700	56,610
MO	22,440	590	59,250	82,280
MS	3,110	130	6,070	9,310
MT	4,020	680	4,990	9,690
NC	31,610	1,280	34,560	67,450
ND	2,450	240	1,720	4,410
NE	3,600	180	8,860	12,640
NH	2,460	90	12,760	15,310
NJ	30,770	2,800	68,830	102,400
NM	4,020	190	20,170	24,380
NV	28,730	7,490	111,880	148,100
NY	136,520	5,070	291,040	432,630
OH	24,350	710	30,300	55,360
OK	6,460	180	16,290	22,930

Table 5: Direct Employment of Commercial Airports in the U.S. (cont.)

State	On-Airport	CIP	Visitor	U.S. Total
OR	13,480	1,110	25,810	40,400
PA	40,240	2,230	101,100	143,570
RI	2,060	520	14,300	16,880
SC	4,090	220	20,240	24,550
SD	1,500	90	1,590	3,180
TN	9,570	550	33,190	43,310
TX	102,780	3,130	360,700	466,610
UT	13,690	250	30,080	44,020
VA	30,970	1,770	192,550	225,290
VT	1,660	100	3,340	5,100
WA	29,880	1,280	73,840	105,000
WI	14,430	210	32,930	47,570
WV	1,440	120	1,980	3,540
WY	1,410	160	8,210	9,780
Total	1,244,380	72,290	3,554,600	4,871,270

Source: CDM Smith and IMPLAN. Prepared January 2012.

Table 6: Multiplier Employment of Commercial Airports in the U.S.

State	On-Airport	CIP	Visitor	U.S. Total
AK	67,090	3,320	16,640	87,050
AL	11,250	980	7,600	19,830
AR	11,300	800	5,400	17,500
AZ	105,920	1,020	86,080	193,020
CA	337,130	27,930	352,910	717,970
CO	73,250	4,210	88,020	165,480
CT	22,290	380	13,870	36,540
DE	0	0	0	0
FL	203,710	27,780	360,530	592,020
GA	163,420	3,690	163,700	330,810
HI	64,740	1,820	53,140	119,700
IA	8,870	370	1,550	10,790
ID	10,630	470	4,850	15,950
IL	181,450	13,330	73,000	267,780
IN	30,360	660	16,020	47,040
KS	22,880	1,190	2,320	26,390
KY	55,060	7,380	19,660	82,100
LA	40,750	1,800	5,090	47,640
MA	29,790	1,920	39,830	71,540
MD	28,690	740	13,100	42,530
ME	7,040	400	4,290	11,730
MI	74,320	3,830	28,060	106,210
MN	72,250	2,000	17,750	92,000
MO	53,800	1,530	40,930	96,260
MS	7,440	350	4,200	11,990
MT	9,650	1,750	3,440	14,840
NC	75,780	3,320	23,880	102,980
ND	5,890	630	1,180	7,700
NE	8,630	460	6,130	15,220
NH	5,880	220	8,820	14,920
NJ	73,760	7,260	47,540	128,560
NM	9,620	490	13,940	24,050
NV	68,870	19,380	77,290	165,540
NY	327,310	13,120	201,050	541,480
OH	58,370	1,830	20,940	81,140
OK	15,480	460	11,250	27,190

Table 6: Multiplier Employment of Commercial Airports in the U.S. (cont.)

State	On-Airport	CIP	Visitor	U.S. Total
OR	32,310	2,880	17,830	53,020
PA	96,470	5,790	69,850	172,110
RI	4,950	1,330	9,880	16,160
SC	9,820	570	13,980	24,370
SD	3,580	230	1,100	4,910
TN	22,940	1,410	22,930	47,280
TX	246,410	8,110	249,180	503,700
UT	32,840	660	20,780	54,280
VA	74,270	4,600	133,020	211,890
VT	3,980	260	2,310	6,550
WA	71,650	3,320	51,010	125,980
WI	34,580	540	22,740	57,860
WV	3,450	300	1,370	5,120
WY	3,370	400	5,670	9,440
Total	2,983,290	187,220	2,455,650	5,626,160

Source: CDM Smith and IMPLAN. Prepared January 2012.

Table 7: Total Employment of Commercial Airports in the U.S.

State	On-Airport	CIP	Visitor	U.S. Total
AK	95,070	4,600	40,720	140,390
AL	15,950	1,360	18,600	35,910
AR	16,010	1,110	13,210	30,330
AZ	150,100	1,410	210,700	362,210
CA	477,740	38,710	863,780	1,380,230
CO	103,800	5,840	215,420	325,060
CT	31,590	520	33,940	66,050
DE	0	0	0	0
FL	288,680	38,500	882,400	1,209,580
GA	231,580	5,120	400,660	637,360
HI	91,750	2,520	130,070	224,340
IA	12,570	510	3,800	16,880
ID	15,070	650	11,870	27,590
IL	257,130	18,480	178,670	454,280
IN	43,030	910	39,210	83,150
KS	32,430	1,650	5,670	39,750
KY	78,020	10,230	48,120	136,370
LA	57,740	2,500	12,450	72,690
MA	42,220	2,660	97,470	142,350
MD	40,660	1,030	32,070	73,760
ME	9,980	550	10,490	21,020
MI	105,320	5,310	68,660	179,290
MN	102,390	2,770	43,450	148,610
MO	76,240	2,120	100,180	178,540
MS	10,550	480	10,270	21,300
MT	13,670	2,430	8,430	24,530
NC	107,390	4,600	58,440	170,430
ND	8,340	870	2,900	12,110
NE	12,230	640	14,990	27,860
NH	8,340	310	21,580	30,230
NJ	104,530	10,060	116,370	230,960
NM	13,640	680	34,110	48,430
NV	97,600	26,870	189,170	313,640
NY	463,830	18,190	492,090	974,110
OH	82,720	2,540	51,240	136,500
OK	21,940	640	27,540	50,120

Table 7: Total Employment of Commercial Airports in the U.S. (cont.)

State	On-Airport	CIP	Visitor	U.S. Total
OR	45,790	3,990	43,640	93,420
PA	136,710	8,020	170,950	315,680
RI	7,010	1,850	24,180	33,040
SC	13,910	790	34,220	48,920
SD	5,080	320	2,690	8,090
TN	32,510	1,960	56,120	90,590
TX	349,190	11,240	609,880	970,310
UT	46,530	910	50,860	98,300
VA	105,240	6,370	325,570	437,180
VT	5,640	360	5,650	11,650
WA	101,530	4,600	124,850	230,980
WI	49,010	750	55,670	105,430
WV	4,890	420	3,350	8,660
WY	4,780	560	13,880	19,220
Total	4,227,670	259,510	6,010,250	10,497,430

Source: CDM Smith and IMPLAN. Prepared January 2012.

Table 8: Direct Payroll of Commercial Airports in the U.S.

State	On-Airport	CIP	Visitor	U.S. Total
AK	\$743,067,000	\$46,967,000	\$539,572,000	\$1,329,606,000
AL	\$198,207,000	\$13,915,000	\$246,457,000	\$458,579,000
AR	\$250,184,000	\$11,364,000	\$175,052,000	\$436,600,000
AZ	\$2,001,144,000	\$14,413,000	\$2,792,022,000	\$4,807,579,000
CA	\$6,491,973,000	\$394,931,000	\$11,445,946,000	\$18,332,850,000
CO	\$1,495,142,000	\$59,567,000	\$2,854,489,000	\$4,409,198,000
CT	\$273,679,000	\$5,298,000	\$449,737,000	\$728,714,000
DE	\$0	\$0	\$0	\$0
FL	\$3,848,208,000	\$392,728,000	\$11,692,606,000	\$15,933,542,000
GA	\$4,917,966,000	\$52,206,000	\$5,309,192,000	\$10,279,364,000
HI	\$1,123,247,000	\$25,751,000	\$1,723,555,000	\$2,872,553,000
IA	\$158,026,000	\$5,187,000	\$50,360,000	\$213,573,000
ID	\$206,264,000	\$6,601,000	\$157,269,000	\$370,134,000
IL	\$4,143,003,000	\$188,575,000	\$2,367,544,000	\$6,699,122,000
IN	\$364,918,000	\$9,294,000	\$519,563,000	\$893,775,000
KS	\$654,812,000	\$16,818,000	\$75,152,000	\$746,782,000
KY	\$657,952,000	\$104,339,000	\$637,700,000	\$1,399,991,000
LA	\$557,391,000	\$25,506,000	\$164,955,000	\$747,852,000
MA	\$583,661,000	\$27,132,000	\$1,291,531,000	\$1,902,324,000
MD	\$495,026,000	\$10,478,000	\$425,007,000	\$930,511,000
ME	\$94,838,000	\$5,602,000	\$138,970,000	\$239,410,000
MI	\$1,441,437,000	\$54,219,000	\$909,746,000	\$2,405,402,000
MN	\$1,654,765,000	\$28,309,000	\$575,774,000	\$2,258,848,000
MO	\$880,817,000	\$21,601,000	\$1,327,498,000	\$2,229,916,000
MS	\$93,651,000	\$4,894,000	\$136,074,000	\$234,619,000
MT	\$182,959,000	\$24,762,000	\$111,748,000	\$319,469,000
NC	\$2,197,512,000	\$46,956,000	\$774,427,000	\$3,018,895,000
ND	\$136,324,000	\$8,865,000	\$38,440,000	\$183,629,000
NE	\$164,835,000	\$6,550,000	\$198,589,000	\$369,974,000
NH	\$81,114,000	\$3,116,000	\$285,905,000	\$370,135,000
NJ	\$1,844,648,000	\$102,586,000	\$1,542,075,000	\$3,489,309,000
NM	\$187,056,000	\$6,893,000	\$452,015,000	\$645,964,000
NV	\$1,747,975,000	\$274,170,000	\$2,506,640,000	\$4,528,785,000
NY	\$4,246,221,000	\$185,524,000	\$6,520,660,000	\$10,952,405,000
OH	\$1,015,017,000	\$25,913,000	\$678,935,000	\$1,719,865,000
OK	\$262,422,000	\$6,479,000	\$364,892,000	\$633,793,000

Table 8: Direct Payroll of Commercial Airports in the U.S. (cont.)

State	On-Airport	CIP	Visitor	U.S. Total
OR	\$476,353,000	\$40,697,000	\$578,256,000	\$1,095,306,000
PA	\$1,829,595,000	\$81,823,000	\$2,265,246,000	\$4,176,664,000
RI	\$94,769,000	\$18,891,000	\$320,392,000	\$434,052,000
SC	\$144,007,000	\$8,027,000	\$453,485,000	\$605,519,000
SD	\$84,774,000	\$3,239,000	\$35,653,000	\$123,666,000
TN	\$809,329,000	\$19,970,000	\$743,594,000	\$1,572,893,000
TX	\$5,141,920,000	\$114,635,000	\$8,081,540,000	\$13,338,095,000
UT	\$607,209,000	\$9,332,000	\$673,953,000	\$1,290,494,000
VA	\$1,682,894,000	\$64,939,000	\$4,314,054,000	\$6,061,887,000
VT	\$56,065,000	\$3,646,000	\$74,872,000	\$134,583,000
WA	\$1,055,634,000	\$46,950,000	\$1,654,396,000	\$2,756,980,000
WI	\$528,373,000	\$7,685,000	\$737,722,000	\$1,273,780,000
WV	\$37,589,000	\$4,294,000	\$44,378,000	\$86,261,000
WY	\$69,254,000	\$5,753,000	\$183,919,000	\$258,926,000
Total	\$58,013,226,000	\$2,647,390,000	\$79,641,557,000	\$140,302,173,000

Source: CDM Smith and IMPLAN. Prepared January 2012.

Table 9: Multiplier Payroll of Commercial Airports in the U.S.

State	On-Airport	CIP	Visitor	U.S. Total
AK	\$1,449,359,000	\$75,658,000	\$729,043,000	\$2,254,060,000
AL	\$386,605,000	\$22,415,000	\$333,001,000	\$742,021,000
AR	\$487,986,000	\$18,307,000	\$236,522,000	\$742,815,000
AZ	\$3,903,249,000	\$23,217,000	\$3,772,443,000	\$7,698,909,000
CA	\$12,662,656,000	\$636,191,000	\$15,465,204,000	\$28,764,051,000
CO	\$2,916,289,000	\$95,956,000	\$3,856,847,000	\$6,869,092,000
CT	\$533,814,000	\$8,533,000	\$607,663,000	\$1,150,010,000
DE	\$0	\$0	\$0	\$0
FL	\$7,505,967,000	\$632,643,000	\$15,798,480,000	\$23,937,090,000
GA	\$9,592,540,000	\$84,099,000	\$7,173,522,000	\$16,850,161,000
HI	\$2,190,904,000	\$41,483,000	\$2,328,784,000	\$4,561,171,000
IA	\$308,231,000	\$8,357,000	\$68,044,000	\$384,632,000
ID	\$402,320,000	\$10,633,000	\$212,494,000	\$625,447,000
IL	\$8,080,967,000	\$303,775,000	\$3,198,909,000	\$11,583,651,000
IN	\$711,776,000	\$14,971,000	\$702,008,000	\$1,428,755,000
KS	\$1,277,217,000	\$27,093,000	\$101,542,000	\$1,405,852,000
KY	\$1,283,342,000	\$168,079,000	\$861,629,000	\$2,313,050,000
LA	\$1,087,197,000	\$41,088,000	\$222,880,000	\$1,351,165,000
MA	\$1,138,436,000	\$43,707,000	\$1,745,055,000	\$2,927,198,000
MD	\$965,553,000	\$16,879,000	\$574,248,000	\$1,556,680,000
ME	\$184,982,000	\$9,024,000	\$187,768,000	\$381,774,000
MI	\$2,811,537,000	\$87,341,000	\$1,229,205,000	\$4,128,083,000
MN	\$3,227,635,000	\$45,604,000	\$777,957,000	\$4,051,196,000
MO	\$1,718,042,000	\$34,796,000	\$1,793,650,000	\$3,546,488,000
MS	\$182,667,000	\$7,884,000	\$183,857,000	\$374,408,000
MT	\$356,863,000	\$39,889,000	\$150,989,000	\$547,741,000
NC	\$4,286,268,000	\$75,640,000	\$1,046,368,000	\$5,408,276,000
ND	\$265,901,000	\$14,282,000	\$51,939,000	\$332,122,000
NE	\$321,512,000	\$10,551,000	\$268,325,000	\$600,388,000
NH	\$158,214,000	\$5,020,000	\$386,301,000	\$549,535,000
NJ	\$3,598,004,000	\$165,256,000	\$2,083,576,000	\$5,846,836,000
NM	\$364,855,000	\$11,103,000	\$610,741,000	\$986,699,000
NV	\$3,409,442,000	\$441,659,000	\$3,386,850,000	\$7,237,951,000
NY	\$8,282,295,000	\$298,858,000	\$8,810,399,000	\$17,391,552,000
OH	\$1,979,800,000	\$41,744,000	\$917,345,000	\$2,938,889,000
OK	\$511,857,000	\$10,437,000	\$493,024,000	\$1,015,318,000

Table 9: Multiplier Payroll of Commercial Airports in the U.S. (cont.)

State	On-Airport	CIP	Visitor	U.S. Total
OR	\$929,131,000	\$65,559,000	\$781,312,000	\$1,776,002,000
PA	\$3,568,643,000	\$131,807,000	\$3,060,691,000	\$6,761,141,000
RI	\$184,848,000	\$30,430,000	\$432,898,000	\$648,176,000
SC	\$280,887,000	\$12,930,000	\$612,728,000	\$906,545,000
SD	\$165,353,000	\$5,217,000	\$48,173,000	\$218,743,000
TN	\$1,578,604,000	\$32,169,000	\$1,004,708,000	\$2,615,481,000
TX	\$10,029,364,000	\$184,664,000	\$10,919,383,000	\$21,133,411,000
UT	\$1,184,367,000	\$15,034,000	\$910,612,000	\$2,110,013,000
VA	\$3,282,501,000	\$104,610,000	\$5,828,941,000	\$9,216,052,000
VT	\$109,355,000	\$5,873,000	\$101,164,000	\$216,392,000
WA	\$2,059,024,000	\$75,630,000	\$2,235,340,000	\$4,369,994,000
WI	\$1,030,597,000	\$12,379,000	\$996,774,000	\$2,039,750,000
WV	\$73,318,000	\$6,918,000	\$59,961,000	\$140,197,000
WY	\$135,081,000	\$9,269,000	\$248,502,000	\$392,852,000
Total	\$113,155,355,000	\$4,264,661,000	\$107,607,799,000	\$225,027,815,000

Source: CDM Smith and IMPLAN. Prepared January 2012.

Table 10: Total Payroll of Commercial Airports in the U.S.

State	On-Airport	CIP	Visitor	U.S. Total
AK	\$2,192,426,000	\$122,625,000	\$1,268,615,000	\$3,583,666,000
AL	\$584,812,000	\$36,330,000	\$579,458,000	\$1,200,600,000
AR	\$738,170,000	\$29,671,000	\$411,574,000	\$1,179,415,000
AZ	\$5,904,393,000	\$37,630,000	\$6,564,465,000	\$12,506,488,000
CA	\$19,154,629,000	\$1,031,122,000	\$26,911,150,000	\$47,096,901,000
CO	\$4,411,431,000	\$155,523,000	\$6,711,336,000	\$11,278,290,000
CT	\$807,493,000	\$13,831,000	\$1,057,400,000	\$1,878,724,000
DE	\$0	\$0	\$0	\$0
FL	\$11,354,175,000	\$1,025,371,000	\$27,491,086,000	\$39,870,632,000
GA	\$14,510,506,000	\$136,305,000	\$12,482,714,000	\$27,129,525,000
HI	\$3,314,151,000	\$67,234,000	\$4,052,339,000	\$7,433,724,000
IA	\$466,257,000	\$13,544,000	\$118,404,000	\$598,205,000
ID	\$608,584,000	\$17,234,000	\$369,763,000	\$995,581,000
IL	\$12,223,970,000	\$492,350,000	\$5,566,453,000	\$18,282,773,000
IN	\$1,076,694,000	\$24,265,000	\$1,221,571,000	\$2,322,530,000
KS	\$1,932,029,000	\$43,911,000	\$176,694,000	\$2,152,634,000
KY	\$1,941,294,000	\$272,418,000	\$1,499,329,000	\$3,713,041,000
LA	\$1,644,588,000	\$66,594,000	\$387,835,000	\$2,099,017,000
MA	\$1,722,097,000	\$70,839,000	\$3,036,586,000	\$4,829,522,000
MD	\$1,460,579,000	\$27,357,000	\$999,255,000	\$2,487,191,000
ME	\$279,820,000	\$14,626,000	\$326,738,000	\$621,184,000
MI	\$4,252,974,000	\$141,560,000	\$2,138,951,000	\$6,533,485,000
MN	\$4,882,400,000	\$73,913,000	\$1,353,731,000	\$6,310,044,000
MO	\$2,598,859,000	\$56,397,000	\$3,121,148,000	\$5,776,404,000
MS	\$276,318,000	\$12,778,000	\$319,931,000	\$609,027,000
MT	\$539,822,000	\$64,651,000	\$262,737,000	\$867,210,000
NC	\$6,483,780,000	\$122,596,000	\$1,820,795,000	\$8,427,171,000
ND	\$402,225,000	\$23,147,000	\$90,379,000	\$515,751,000
NE	\$486,347,000	\$17,101,000	\$466,914,000	\$970,362,000
NH	\$239,328,000	\$8,136,000	\$672,206,000	\$919,670,000
NJ	\$5,442,652,000	\$267,842,000	\$3,625,651,000	\$9,336,145,000
NM	\$551,911,000	\$17,996,000	\$1,062,756,000	\$1,632,663,000
NV	\$5,157,417,000	\$715,829,000	\$5,893,490,000	\$11,766,736,000
NY	\$12,528,516,000	\$484,382,000	\$15,331,059,000	\$28,343,957,000
OH	\$2,994,817,000	\$67,657,000	\$1,596,280,000	\$4,658,754,000
OK	\$774,279,000	\$16,916,000	\$857,916,000	\$1,649,111,000

Table 10: Total Payroll of Commercial Airports in the U.S. (cont.)

State	On-Airport	CIP	Visitor	U.S. Total
OR	\$1,405,484,000	\$106,256,000	\$1,359,568,000	\$2,871,308,000
PA	\$5,398,238,000	\$213,630,000	\$5,325,937,000	\$10,937,805,000
RI	\$279,617,000	\$49,321,000	\$753,290,000	\$1,082,228,000
SC	\$424,894,000	\$20,957,000	\$1,066,213,000	\$1,512,064,000
SD	\$250,127,000	\$8,456,000	\$83,826,000	\$342,409,000
TN	\$2,387,933,000	\$52,139,000	\$1,748,302,000	\$4,188,374,000
TX	\$15,171,284,000	\$299,299,000	\$19,000,923,000	\$34,471,506,000
UT	\$1,791,576,000	\$24,366,000	\$1,584,565,000	\$3,400,507,000
VA	\$4,965,395,000	\$169,549,000	\$10,142,995,000	\$15,277,939,000
VT	\$165,420,000	\$9,519,000	\$176,036,000	\$350,975,000
WA	\$3,114,658,000	\$122,580,000	\$3,889,736,000	\$7,126,974,000
WI	\$1,558,970,000	\$20,064,000	\$1,734,496,000	\$3,313,530,000
WV	\$110,907,000	\$11,212,000	\$104,339,000	\$226,458,000
WY	\$204,335,000	\$15,022,000	\$432,421,000	\$651,778,000
Total	\$171,168,581,000	\$6,912,051,000	\$187,249,356,000	\$365,329,988,000

Source: CDM Smith and IMPLAN. Prepared January 2012.

Table 11: Direct Output of Commercial Airports in the U.S.

State	On-Airport	CIP	Visitor	U.S. Total
AK	\$2,909,537,000	\$273,135,000	\$1,473,210,000	\$4,655,882,000
AL	\$550,077,000	\$80,921,000	\$672,910,000	\$1,303,908,000
AR	\$630,647,000	\$66,090,000	\$477,951,000	\$1,174,688,000
AZ	\$9,504,294,000	\$83,817,000	\$7,623,147,000	\$17,211,258,000
CA	\$28,168,007,000	\$2,296,716,000	\$31,251,237,000	\$61,715,960,000
CO	\$5,424,840,000	\$346,411,000	\$7,793,705,000	\$13,564,956,000
CT	\$917,226,000	\$30,808,000	\$1,227,932,000	\$2,175,966,000
DE	\$0	\$0	\$0	\$0
FL	\$15,112,799,000	\$2,283,906,000	\$31,924,702,000	\$49,321,407,000
GA	\$16,660,052,000	\$303,606,000	\$14,495,859,000	\$31,459,517,000
HI	\$4,690,464,000	\$149,757,000	\$4,705,879,000	\$9,546,100,000
IA	\$539,165,000	\$30,167,000	\$137,500,000	\$706,832,000
ID	\$619,531,000	\$38,386,000	\$429,396,000	\$1,087,313,000
IL	\$12,124,244,000	\$1,096,657,000	\$6,464,181,000	\$19,685,082,000
IN	\$1,982,334,000	\$54,047,000	\$1,418,579,000	\$3,454,960,000
KS	\$3,113,978,000	\$97,807,000	\$205,190,000	\$3,416,975,000
KY	\$3,090,760,000	\$606,783,000	\$1,741,133,000	\$5,438,676,000
LA	\$1,843,742,000	\$148,331,000	\$450,383,000	\$2,442,456,000
MA	\$1,681,930,000	\$157,786,000	\$3,526,310,000	\$5,366,026,000
MD	\$2,075,130,000	\$60,934,000	\$1,160,410,000	\$3,296,474,000
ME	\$441,194,000	\$32,577,000	\$379,433,000	\$853,204,000
MI	\$4,436,509,000	\$315,310,000	\$2,483,910,000	\$7,235,729,000
MN	\$7,916,552,000	\$164,633,000	\$1,572,054,000	\$9,653,239,000
MO	\$3,553,232,000	\$125,619,000	\$3,624,510,000	\$7,303,361,000
MS	\$260,463,000	\$28,462,000	\$371,528,000	\$660,453,000
MT	\$458,989,000	\$144,004,000	\$305,110,000	\$908,103,000
NC	\$6,764,405,000	\$273,070,000	\$2,114,443,000	\$9,151,918,000
ND	\$385,275,000	\$51,557,000	\$104,955,000	\$541,787,000
NE	\$658,279,000	\$38,091,000	\$542,215,000	\$1,238,585,000
NH	\$640,291,000	\$18,122,000	\$780,616,000	\$1,439,029,000
NJ	\$7,195,810,000	\$596,589,000	\$4,210,377,000	\$12,002,776,000
NM	\$634,100,000	\$40,084,000	\$1,234,152,000	\$1,908,336,000
NV	\$7,318,891,000	\$1,594,434,000	\$6,843,961,000	\$15,757,286,000
NY	\$14,726,390,000	\$1,078,909,000	\$17,803,570,000	\$33,608,869,000
OH	\$3,291,712,000	\$150,698,000	\$1,853,719,000	\$5,296,129,000
OK	\$1,310,939,000	\$37,679,000	\$996,276,000	\$2,344,894,000

Table 11: Direct Output of Commercial Airports in the U.S. (cont.)

State	On-Airport	CIP	Visitor	U.S. Total
OR	\$2,374,509,000	\$236,673,000	\$1,578,832,000	\$4,190,014,000
PA	\$5,165,806,000	\$475,839,000	\$6,184,876,000	\$11,826,521,000
RI	\$218,165,000	\$109,858,000	\$874,777,000	\$1,202,800,000
SC	\$271,802,000	\$46,680,000	\$1,238,166,000	\$1,556,648,000
SD	\$219,552,000	\$18,835,000	\$97,345,000	\$335,732,000
TN	\$4,928,225,000	\$116,134,000	\$2,030,259,000	\$7,074,618,000
TX	\$22,842,783,000	\$666,657,000	\$22,065,291,000	\$45,574,731,000
UT	\$1,817,292,000	\$54,273,000	\$1,840,115,000	\$3,711,680,000
VA	\$7,295,615,000	\$377,652,000	\$11,778,803,000	\$19,452,070,000
VT	\$213,885,000	\$21,202,000	\$204,426,000	\$439,513,000
WA	\$8,048,669,000	\$273,035,000	\$4,517,052,000	\$12,838,756,000
WI	\$1,935,863,000	\$44,691,000	\$2,014,226,000	\$3,994,780,000
WV	\$69,143,000	\$24,974,000	\$121,166,000	\$215,283,000
WY	\$306,546,000	\$33,459,000	\$502,160,000	\$842,165,000
Total	\$227,339,643,000	\$15,395,865,000	\$217,447,937,000	\$460,183,445,000

Source: CDM Smith and IMPLAN. Prepared January 2012.

Table 12: Multiplier Output of Commercial Airports in the U.S.

State	On-Airport	CIP	Visitor	U.S. Total
AK	\$4,625,652,000	\$465,968,000	\$2,242,985,000	\$7,334,605,000
AL	\$874,526,000	\$138,051,000	\$1,024,516,000	\$2,037,093,000
AR	\$1,002,618,000	\$112,750,000	\$727,688,000	\$1,843,056,000
AZ	\$15,110,155,000	\$142,992,000	\$11,606,357,000	\$26,859,504,000
CA	\$44,782,174,000	\$3,918,198,000	\$47,580,484,000	\$96,280,856,000
CO	\$8,624,541,000	\$590,977,000	\$11,866,034,000	\$21,081,552,000
CT	\$1,458,228,000	\$52,558,000	\$1,869,545,000	\$3,380,331,000
DE	\$0	\$0	\$0	\$0
FL	\$24,026,691,000	\$3,896,344,000	\$48,605,844,000	\$76,528,879,000
GA	\$26,486,551,000	\$517,952,000	\$22,070,166,000	\$49,074,669,000
HI	\$7,457,012,000	\$255,485,000	\$7,164,772,000	\$14,877,269,000
IA	\$857,177,000	\$51,465,000	\$209,346,000	\$1,117,988,000
ID	\$984,945,000	\$65,487,000	\$653,762,000	\$1,704,194,000
IL	\$19,275,414,000	\$1,870,897,000	\$9,841,814,000	\$30,988,125,000
IN	\$3,151,562,000	\$92,204,000	\$2,159,808,000	\$5,403,574,000
KS	\$4,950,677,000	\$166,859,000	\$312,405,000	\$5,429,941,000
KY	\$4,913,765,000	\$1,035,172,000	\$2,650,901,000	\$8,599,838,000
LA	\$2,931,225,000	\$253,053,000	\$685,715,000	\$3,869,993,000
MA	\$2,673,973,000	\$269,183,000	\$5,368,861,000	\$8,312,017,000
MD	\$3,299,092,000	\$103,953,000	\$1,766,742,000	\$5,169,787,000
ME	\$701,421,000	\$55,576,000	\$577,693,000	\$1,334,690,000
MI	\$7,053,269,000	\$537,919,000	\$3,781,791,000	\$11,372,979,000
MN	\$12,585,925,000	\$280,864,000	\$2,393,476,000	\$15,260,265,000
MO	\$5,649,014,000	\$214,306,000	\$5,518,372,000	\$11,381,692,000
MS	\$414,090,000	\$48,556,000	\$565,657,000	\$1,028,303,000
MT	\$729,712,000	\$245,671,000	\$464,535,000	\$1,439,918,000
NC	\$10,754,214,000	\$465,858,000	\$3,219,272,000	\$14,439,344,000
ND	\$612,519,000	\$87,956,000	\$159,796,000	\$860,271,000
NE	\$1,046,548,000	\$64,983,000	\$825,531,000	\$1,937,062,000
NH	\$1,017,950,000	\$30,916,000	\$1,188,500,000	\$2,237,366,000
NJ	\$11,440,072,000	\$1,017,781,000	\$6,410,363,000	\$18,868,216,000
NM	\$1,008,107,000	\$68,383,000	\$1,879,015,000	\$2,955,505,000
NV	\$11,635,749,000	\$2,720,105,000	\$10,420,035,000	\$24,775,889,000
NY	\$23,412,369,000	\$1,840,619,000	\$27,106,206,000	\$52,359,194,000
OH	\$5,233,243,000	\$257,091,000	\$2,822,315,000	\$8,312,649,000
OK	\$2,084,162,000	\$64,280,000	\$1,516,845,000	\$3,665,287,000

Table 12: Multiplier Output of Commercial Airports in the U.S. (cont.)

State	On-Airport	CIP	Visitor	U.S. Total
OR	\$3,775,051,000	\$403,764,000	\$2,403,796,000	\$6,582,611,000
PA	\$8,212,722,000	\$811,782,000	\$9,416,568,000	\$18,441,072,000
RI	\$346,844,000	\$187,418,000	\$1,331,861,000	\$1,866,123,000
SC	\$432,117,000	\$79,636,000	\$1,885,127,000	\$2,396,880,000
SD	\$349,049,000	\$32,133,000	\$148,209,000	\$529,391,000
TN	\$7,835,011,000	\$198,125,000	\$3,091,100,000	\$11,124,236,000
TX	\$36,316,005,000	\$1,137,317,000	\$33,594,741,000	\$71,048,063,000
UT	\$2,889,174,000	\$92,590,000	\$2,801,603,000	\$5,783,367,000
VA	\$11,598,744,000	\$644,274,000	\$17,933,407,000	\$30,176,425,000
VT	\$340,040,000	\$36,171,000	\$311,242,000	\$687,453,000
WA	\$12,795,967,000	\$465,798,000	\$6,877,280,000	\$20,139,045,000
WI	\$3,077,682,000	\$76,243,000	\$3,066,690,000	\$6,220,615,000
WV	\$109,925,000	\$42,606,000	\$184,477,000	\$337,008,000
WY	\$487,354,000	\$57,081,000	\$764,546,000	\$1,308,981,000
Total	\$361,430,027,000	\$26,265,350,000	\$331,067,794,000	\$718,763,171,000

Source: CDM Smith and IMPLAN. Prepared January 2012.

Table 13: Total Output of Commercial Airports in the U.S.

State	On-Airport	CIP	Visitor	U.S. Total
AK	\$7,535,189,000	\$739,103,000	\$3,716,195,000	\$11,990,487,000
AL	\$1,424,603,000	\$218,972,000	\$1,697,426,000	\$3,341,001,000
AR	\$1,633,265,000	\$178,840,000	\$1,205,639,000	\$3,017,744,000
AZ	\$24,614,449,000	\$226,809,000	\$19,229,504,000	\$44,070,762,000
CA	\$72,950,181,000	\$6,214,914,000	\$78,831,721,000	\$157,996,816,000
CO	\$14,049,381,000	\$937,388,000	\$19,659,739,000	\$34,646,508,000
CT	\$2,375,454,000	\$83,366,000	\$3,097,477,000	\$5,556,297,000
DE	\$0	\$0	\$0	\$0
FL	\$39,139,490,000	\$6,180,250,000	\$80,530,546,000	\$125,850,286,000
GA	\$43,146,603,000	\$821,558,000	\$36,566,025,000	\$80,534,186,000
HI	\$12,147,476,000	\$405,242,000	\$11,870,651,000	\$24,423,369,000
IA	\$1,396,342,000	\$81,632,000	\$346,846,000	\$1,824,820,000
ID	\$1,604,476,000	\$103,873,000	\$1,083,158,000	\$2,791,507,000
IL	\$31,399,658,000	\$2,967,554,000	\$16,305,995,000	\$50,673,207,000
IN	\$5,133,896,000	\$146,251,000	\$3,578,387,000	\$8,858,534,000
KS	\$8,064,655,000	\$264,666,000	\$517,595,000	\$8,846,916,000
KY	\$8,004,525,000	\$1,641,955,000	\$4,392,034,000	\$14,038,514,000
LA	\$4,774,967,000	\$401,384,000	\$1,136,098,000	\$6,312,449,000
MA	\$4,355,903,000	\$426,969,000	\$8,895,171,000	\$13,678,043,000
MD	\$5,374,222,000	\$164,887,000	\$2,927,152,000	\$8,466,261,000
ME	\$1,142,615,000	\$88,153,000	\$957,126,000	\$2,187,894,000
MI	\$11,489,778,000	\$853,229,000	\$6,265,701,000	\$18,608,708,000
MN	\$20,502,477,000	\$445,497,000	\$3,965,530,000	\$24,913,504,000
MO	\$9,202,246,000	\$339,925,000	\$9,142,882,000	\$18,685,053,000
MS	\$674,553,000	\$77,018,000	\$937,185,000	\$1,688,756,000
MT	\$1,188,701,000	\$389,675,000	\$769,645,000	\$2,348,021,000
NC	\$17,518,619,000	\$738,928,000	\$5,333,715,000	\$23,591,262,000
ND	\$997,794,000	\$139,513,000	\$264,751,000	\$1,402,058,000
NE	\$1,704,827,000	\$103,074,000	\$1,367,746,000	\$3,175,647,000
NH	\$1,658,241,000	\$49,038,000	\$1,969,116,000	\$3,676,395,000
NJ	\$18,635,882,000	\$1,614,370,000	\$10,620,740,000	\$30,870,992,000
NM	\$1,642,207,000	\$108,467,000	\$3,113,167,000	\$4,863,841,000
NV	\$18,954,640,000	\$4,314,539,000	\$17,263,996,000	\$40,533,175,000
NY	\$38,138,759,000	\$2,919,528,000	\$44,909,776,000	\$85,968,063,000
OH	\$8,524,955,000	\$407,789,000	\$4,676,034,000	\$13,608,778,000
OK	\$3,395,101,000	\$101,959,000	\$2,513,121,000	\$6,010,181,000

Table 13: Total Output of Commercial Airports in the U.S. (cont.)

State	On-Airport	CIP	Visitor	U.S. Total
OR	\$6,149,560,000	\$640,437,000	\$3,982,628,000	\$10,772,625,000
PA	\$13,378,528,000	\$1,287,621,000	\$15,601,444,000	\$30,267,593,000
RI	\$565,009,000	\$297,276,000	\$2,206,638,000	\$3,068,923,000
SC	\$703,919,000	\$126,316,000	\$3,123,293,000	\$3,953,528,000
SD	\$568,601,000	\$50,968,000	\$245,554,000	\$865,123,000
TN	\$12,763,236,000	\$314,259,000	\$5,121,359,000	\$18,198,854,000
TX	\$59,158,788,000	\$1,803,974,000	\$55,660,032,000	\$116,622,794,000
UT	\$4,706,466,000	\$146,863,000	\$4,641,718,000	\$9,495,047,000
VA	\$18,894,359,000	\$1,021,926,000	\$29,712,210,000	\$49,628,495,000
VT	\$553,925,000	\$57,373,000	\$515,668,000	\$1,126,966,000
WA	\$20,844,636,000	\$738,833,000	\$11,394,332,000	\$32,977,801,000
WI	\$5,013,545,000	\$120,934,000	\$5,080,916,000	\$10,215,395,000
WV	\$179,068,000	\$67,580,000	\$305,643,000	\$552,291,000
WY	\$793,900,000	\$90,540,000	\$1,266,706,000	\$2,151,146,000
Total	\$588,769,670,000	\$41,661,215,000	\$548,515,731,000	\$1,178,946,616,000

Source: CDM Smith and IMPLAN. Prepared January 2012.

Table 14: Total Economic Impacts of Commercial Airports in the U.S.

State	Employment	Payroll	Output
AK	140,390	\$3,583,666,000	\$11,990,487,000
AL	35,910	\$1,200,600,000	\$3,341,001,000
AR	30,330	\$1,179,415,000	\$3,017,744,000
AZ	362,210	\$12,506,488,000	\$44,070,762,000
CA	1,380,230	\$47,096,901,000	\$157,996,816,000
CO	325,060	\$11,278,290,000	\$34,646,508,000
CT	66,050	\$1,878,724,000	\$5,556,297,000
DE	0	\$0	\$0
FL	1,209,580	\$39,870,632,000	\$125,850,286,000
GA	637,360	\$27,129,525,000	\$80,534,186,000
HI	224,340	\$7,433,724,000	\$24,423,369,000
IA	16,880	\$598,205,000	\$1,824,820,000
ID	27,590	\$995,581,000	\$2,791,507,000
IL	454,280	\$18,282,773,000	\$50,673,207,000
IN	83,150	\$2,322,530,000	\$8,858,534,000
KS	39,750	\$2,152,634,000	\$8,846,916,000
KY	136,370	\$3,713,041,000	\$14,038,514,000
LA	72,690	\$2,099,017,000	\$6,312,449,000
MA	142,350	\$4,829,522,000	\$13,678,043,000
MD	73,760	\$2,487,191,000	\$8,466,261,000
ME	21,020	\$621,184,000	\$2,187,894,000
MI	179,290	\$6,533,485,000	\$18,608,708,000
MN	148,610	\$6,310,044,000	\$24,913,504,000
MO	178,540	\$5,776,404,000	\$18,685,053,000
MS	21,300	\$609,027,000	\$1,688,756,000
MT	24,530	\$867,210,000	\$2,348,021,000
NC	170,430	\$8,427,171,000	\$23,591,262,000
ND	12,110	\$515,751,000	\$1,402,058,000
NE	27,860	\$970,362,000	\$3,175,647,000
NH	30,230	\$919,670,000	\$3,676,395,000
NJ	230,960	\$9,336,145,000	\$30,870,992,000
NM	48,430	\$1,632,663,000	\$4,863,841,000
NV	313,640	\$11,766,736,000	\$40,533,175,000
NY	974,110	\$28,343,957,000	\$85,968,063,000
OH	136,500	\$4,658,754,000	\$13,608,778,000
OK	50,120	\$1,649,111,000	\$6,010,181,000

Table 14: Total Economic Impacts of Commercial Airports in the U.S. (cont.)

State	Employment	Payroll	Output
OR	93,420	\$2,871,308,000	\$10,772,625,000
PA	315,680	\$10,937,805,000	\$30,267,593,000
RI	33,040	\$1,082,228,000	\$3,068,923,000
SC	48,920	\$1,512,064,000	\$3,953,528,000
SD	8,090	\$342,409,000	\$865,123,000
TN	90,590	\$4,188,374,000	\$18,198,854,000
TX	970,310	\$34,471,506,000	\$116,622,794,000
UT	98,300	\$3,400,507,000	\$9,495,047,000
VA	437,180	\$15,277,939,000	\$49,628,495,000
VT	11,650	\$350,975,000	\$1,126,966,000
WA	230,980	\$7,126,974,000	\$32,977,801,000
WI	105,430	\$3,313,530,000	\$10,215,395,000
WV	8,660	\$226,458,000	\$552,291,000
WY	19,220	\$651,778,000	\$2,151,146,000
Total	10,497,430	\$365,329,988,000	\$1,178,946,616,000

Source: CDM Smith and IMPLAN. Prepared January 2012.

Study Approach and Methods Used

Like any economic impact study, this analysis relied on specific methodologies, definitions, and assumptions to arrive at the impact estimates previously presented. This study began by defining the scope of analysis to include all of the economic impacts associated with commercial airports in the U.S. Commercial airports were defined as any airport listed in the National Plan of Integrated Airport Systems (NPIAS)¹ designated by the FAA as a commercial service airport, which meant any airport with at least 2,500 annual passenger enplanements on scheduled airlines. The NPIAS identifies 503 commercial service airports, of which 490 are in the U.S. The other 13 are in American Samoa, Guam, the Northern Marianas, Puerto Rico, and the U.S. Virgin Islands and were not part of this analysis.

The analysis of 490 commercial airports involved gathering data from existing studies, estimating data for any airports that did not have existing studies, and entering that data into an economic model to develop economic impact estimates for each airport. The results of that analysis were aggregated and reported by state in this report. With one exception, every state in the U.S. is served by multiple commercial airports. Delaware does not have any commercial airports.

It should be kept in mind that these impact estimates are only as accurate as the data that was available. Every effort was made to collect similar data for each airport to ensure data consistency within the study. For example, general aviation visitor impacts were deleted from existing studies when it was possible to do so. However, not all studies provided the same level of detail, so it is impossible to determine that all of the data has the same underlying assumptions and basis for every

¹ NPIAS airports are considered significant components of the national aviation system and are therefore eligible for federal funding.

individual airport. These uncertainties, however, tend to be smoothed out when the individual airport results are aggregated at the state level.

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

Measures of Economic Impact

Commercial airports contribute to the U.S. economy by supporting businesses at the airport, providing transportation for visitors and residents, moving air cargo, and by supporting extensive infrastructure improvement and expansion projects. The total economic impact of the airports in this analysis is quantified in terms of employment, payroll, and output, as defined below:

- **Employment** – the number of employees that have jobs that can be tied to commercial airports. These are expressed in full-time equivalents, where two part-time jobs are assumed to equal one full-time job.
- **Payroll** – the annual wages, salaries, and benefits associated with the jobs that are tied to commercial airports.
- **Economic Output** – the economic activity generated by commercial airports and associated activity. Economic output is defined as the annual average capital improvement project expenditures plus annual revenues generated by a company, or, in the case of organizations that do not generate revenues (e.g., air traffic control), their annual operating expenses.

In broad terms, two groups are responsible for generating economic impacts at commercial airports. One of these groups consists of businesses and organizations engaged in airport activities at commercial airports. The other group consists of visitors traveling via commercial airlines to and from commercial airports that spend money during their visit.

This study estimates the impacts stemming from the economic activities of these two groups for each of the 490 commercial airports.

Types of Economic Impact

The economic activity generated by the two groups discussed above, results in three types of economic impact. These three types of economic impact are common to most economic studies and are described below:

- **Direct Impacts** – Direct impacts are those that are tied to the initial point of economic activity generated by commercial airports – the purchase of aviation goods and services on the airport, on-airport construction, and the spending by airline passengers passing through the region. On-airport activity includes the benefits associated with businesses and government organizations located at the airport, which are directly related to the provision of aviation services. On-airport impacts include the employment, payroll, and spending of businesses such as airlines, ground handling services, retail and food vendors, airport management, operations staff, and government organizations. Capital expenditures of these businesses and government organizations are also included in direct impacts. Visitors contribute to direct impacts through their off-airport spending (any on-airport spending by visitors is

included in the on-airport impacts), such as might take place at restaurants or hotels. Direct impacts account for the initial point where money first starts circulating in the economy.

- **Multiplier Impacts** – Multiplier impacts result from the re-circulation and re-spending of direct impacts within the economy. This re-spending of money can occur multiple times and takes two forms - indirect and induced. Indirect impacts occur when businesses spend their revenue on business expenses. Induced impacts occur when employees spend their earnings on goods and services. For example, as airport employees spend their salary for housing, food, and services, those expenditures circulate through the economy resulting in increased spending, payroll, and employment throughout the economy. Multiplier impacts re-circulate until they eventually leak beyond the geographic region being studied – in this case, the U.S.
- **Total Impacts** – Total impacts are the sum of all direct and multiplier economic impacts attributable to an airport or the system of airports.

The approach for this study involved obtaining direct impacts from either previous studies or by estimating them using regression analysis. These direct impacts were then entered into a linear economic model to estimate multiplier impacts. For each of the 490 airports, this study developed direct impacts for the following categories:

- **On-Airport Activity** – This category includes airport tenants that are businesses with employees, such as airlines, FBOs, flight schools, concessionaires, airport restaurants, and governmental agencies. Governmental agencies include public airport sponsors, air traffic controllers, other FAA units, as well as various other state and federal agencies. Direct impacts for employment, payroll and output were obtained from existing studies, or estimated as described later.
- **Capital Improvement Programs (CIP)** – Each year, airports undertake capital improvements, such as runway rehabilitation or terminal improvements. In addition, businesses and other agencies undertake capital improvement projects. These projects employ people in jobs such as construction, architecture, engineering, and consulting. For this analysis, direct CIP output was obtained from existing studies, or estimated through regression analysis. The direct employment and payroll associated with the CIP expenditures were derived from ratios developed in the economic model. All airports used the same ratios.
- **Commercial Service Visitors** – This category includes estimated non-local passengers (visitors) arriving via commercial airlines. The direct output of this group was assumed equal to their spending on hotel, food and beverage, transportation (but not including airfare or rental car, which were captured in the on-airport impacts), retail and entertainment expenses during their trip. This spending supports jobs primarily in the hospitality industry. For this analysis, direct visitor output was obtained from existing studies, or estimated through regression analysis. The direct employment and payroll associated with visitor expenditures were derived from ratios developed in the economic model. All airports used the same ratios.

For the majority of airports, the direct impacts associated with the categories listed above were obtained from previous economic impact studies. However, some of the airports, especially ones without significant amounts of commercial airline service, did not have any economic studies from which to draw the direct impact data. For these airports, direct impacts were estimated using regression analysis.

Regression Analysis

Data for the direct economic impacts were collected from available studies for as many airports as possible. A large portion of airport impact measures were derived from studies produced in-house by CDM Smith, while the remainder were produced by various industry consulting firms. ACI provided access to 39 airport economic impact studies and an additional 30 were obtained through web searches. Recent studies conducted by CDM Smith in 20 states include direct impact data for more than 100 commercial airports. From all of these data sources, direct impact data were found for 272 out of the 490 commercial airports. This data was reviewed and any results that were not suitable because the underlying assumptions were incompatible with this study were discarded. Payroll and output results from studies dated prior to 2010 were adjusted for inflation using standard Consumer Price Index inflation rates from the Bureau of Labor Statistics. Direct impact data for the other airports and for any discarded data was estimated using regression analysis.

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

For this analysis, the missing direct economic data (dependent variables) were estimated using correlations that were found with data sets for each airport (independent variable). A number of independent variables were obtained for each airport and included passenger enplanements, various types of aircraft operations, and the population, employment, and total income tied to each airport’s associated city.

The correlations between these dependent and independent variables were evaluated to obtain the highest correlation value for each dependent variable. **Table 15** shows each dependent variable, its corresponding independent variable, and the correlation coefficient between the two. On-Airport Employment and On-Airport Output show two independent variables because data for each of the first two listed independent variables was not available for all 490 airports in the study, so the second independent variable was used in a limited number of cases. As the table shows, with the exception of the “backup” independent variable for on-airport employment, all of the correlation coefficients were 0.93 or higher, indicating a very high degree of correlation between the variable sets.

Table 15: Correlation Analysis

Dependent Variable	Independent Variable	Correlation Coefficient
On-Airport Employment	Air Carrier and Air Taxi Operations ¹	0.94
	Associated City Employment	0.59
On-Airport Payroll	NPIAS 2015 Enplanement Forecast	0.93
On-Airport Output	Air Carrier Operations ¹	0.96
	Payroll	0.96
CIP Expenditures	Employment	0.96
Visitor Expenditures	Total Passengers ²	0.93

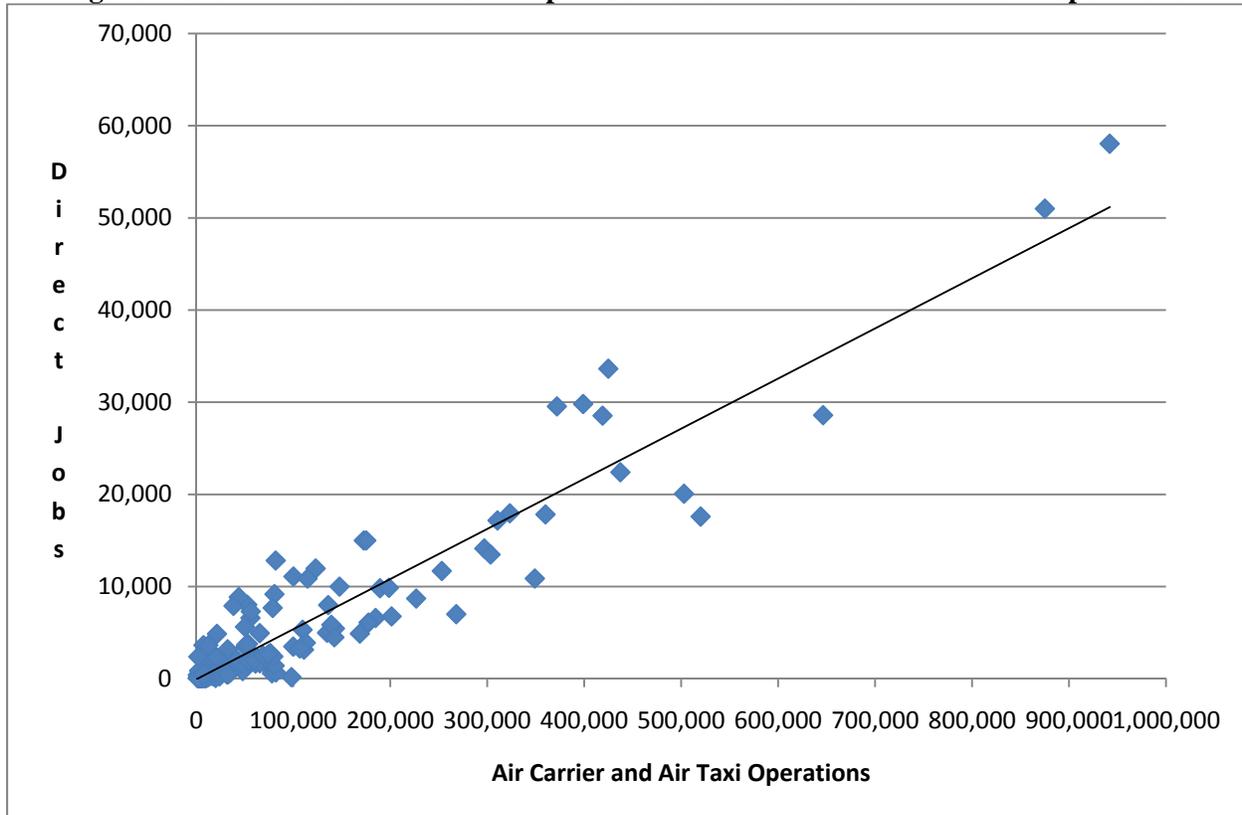
¹ From FAA ATADS data for 2010

² From 2010 ACI Annual Worldwide Airport Traffic Report, or NPIAS 2015 Enplanement Forecast if ACI data not available

Source: CDM Smith. Prepared January 2012.

Once it was determined which independent variable had the highest correlation with each dependent variable, scatter plots were made for each dependent variable. An example of a scatter plot is shown in **Figure 1**, which demonstrates the correlation between direct on-airport jobs and the number of air carrier and air taxi operations. A trend line is plotted showing the best fitting linear relationship between the two data sets.

Figure 1: Scatter Plot of Direct On-Airport Jobs and Air Carrier and Air Taxi Operations



Source: CDM Smith and FAA ATADS 2010 data. Prepared January 2012.

Each scatter plot was analyzed for outlier data, which was removed to strengthen the correlation. The equation for the best fitting linear relationship was determined and this equation was used to estimate dependent variables where needed.

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

IMPLAN Economic Model

For this study, it was necessary to use an economic model to estimate the multiplier impacts. The economic studies that were reviewed for this study used multipliers that reflected the induced and indirect impacts within a local geographic region or within a state. This study measured the impacts of commercial airports within the nation as a whole, which is why the multiplier impacts from other studies could not be used. When measured at the national level, the multiplier impact is higher than

state or local multipliers impacts, since the larger geographic area captures more recirculation of the initial economic input before it leaks beyond the country's borders.

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

The IMPLAN model contains a large economic database used to generate input-output tables. It includes data from sources such as Dun and Bradstreet, the U.S. Department of Commerce, and the U.S. Census Bureau. IMPLAN multipliers and data tables specific to industrial sectors throughout the U.S. were obtained and used in this analysis.

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

Summary

This study examined more than 75 state and individual airport economic impact studies to obtain direct economic impact data for 272 out of the 490 commercial airports analyzed. A detailed, highly correlated regression analysis was developed that estimated direct impact data for the other airports as needed. These direct impact results were used as input for an IMPLAN economic impact model that produced the multiplier impacts found within the U.S.

This analysis found that the 490 commercial airports in the U.S.:

- Support 10.5 million jobs
- Create an annual payroll of \$365 billion
- Produce an annual output of \$1.2 trillion

These economic impacts are a significant contributor to the national economy. Not only do these airports provide vital transportation links that permit the rapid, efficient, and cost-effective movement of people, goods and services, they account for more than 8 percent of the national GDP and support more than 7 percent of the country's work force.