

THE ECONOMIC IMPACT OF AVIATION IN PENNSYLVANIA STUDY

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Prepared for:

**THE PENNSYLVANIA DEPARTMENT OF
TRANSPORTATION BUREAU OF AVIATION**

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ECONOMIC IMPACT ANALYSIS OF PENNSYLVANIA AIRPORTS

INTRODUCTION

In today's global economy, airports provide three-fold benefits to their communities. First, airports support business and industry with outstanding connectivity of personnel and goods to the global economy. Second, airports stimulate economic activity in communities with well-paying jobs in the aviation industry and off-airport in the hospitality and other sectors. Third, airports are vital to a community's social fabric. All caliber of airports in the state are used continuously in Pennsylvania for air ambulance service, law enforcement, natural resource management, education, and community events. The Pennsylvania Department of Transportation's (PennDOT) Bureau of Aviation completed this economic impact study in 2011 to measure the value of airports and aviation-related activity in Pennsylvania. The study also documents other air transportation benefits which are not generated directly on airports.

Aviation benefits the Commonwealth in a variety of ways. Air transportation is essential for business retention and attraction. Airports also play a key role in economic development for many communities. In today's time-sensitive business environment, air transportation improves overall efficiency by enabling businesses to connect with customers and deliver their products to market.

Airports in Pennsylvania function as a gateway to the nation's air transportation system and the world's economy. Air transportation brings tourists to Pennsylvania, enabling them to enjoy the variety of attractions and activities in the Commonwealth. While visiting they spend money locally on food, lodging, and other items. Residents of the Commonwealth use airports for leisure travel to connect with family and friends and vacation destinations through time-saving air travel.

The primary focus of this study is to identify the economic impacts associated with commercial service and general aviation airports that serve communities throughout Pennsylvania. However, there are benefits associated with aviation-related activities that are found beyond the boundaries of the airport. This study estimates the economic impacts of these additional off-airport—yet aviation-related—activities.

Air transportation is not only important to businesses in Pennsylvania, it also helps to support tourism, agriculture, emergency medical services, the military, and public safety. Airports increase accessibility to better health care throughout the state, facilitating the transfer of patients to larger medical centers. Aircraft conducting law enforcement, military training, and search and rescue operations fly from Pennsylvania airports, both public and private. Airports help to support services which are vital to all citizens in the Commonwealth. Even if they never use an airport directly, citizens benefit from an improved quality of life that air transportation provides. Through simple things such as overnight package delivery and the ability to visit customers, family and friends, aviation in Pennsylvania helps promote safer, healthier, and more productive lives.

STUDY SUMMARY

The public-use airports in Pennsylvania included in this study are important transportation resources as well as critical economic catalysts. **Figure 1** shows the location of each of these airports. Airports in Pennsylvania support the air travel needs of Pennsylvania residents, businesses, and visitors. This report highlights the important economic contributions that the Commonwealth realizes from its airports by quantifying employment, payroll, and total economic activity. The analysis presented in this report considers the annual economic impacts accrued in 2010 associated with airport operations, on-airport construction, visitors who arrive via commercial airlines, and visitors who arrive on privately-owned general aviation aircraft.¹ These on-airport impacts are reported for each individual airport.

In 2010, Pennsylvania's system of public airports was comprised of 15 commercial service and 116 general aviation airports. PennDOT's Bureau of Aviation supports the operation and development of these 131 airports through grant funding, inspections, technical guidance, planning studies, education efforts, and communication with local, state, and federal officials. The Bureau of Aviation also works closely with various aviation associations, including the Aviation Council of Pennsylvania.

While there were 131 airports in Pennsylvania's system of public airports in 2010, it should be noted that some less active airports chose not to participate in this study for a variety of reasons. Based on this, all 15 commercial service airports and 113 of the general aviation airports were analyzed in this study.

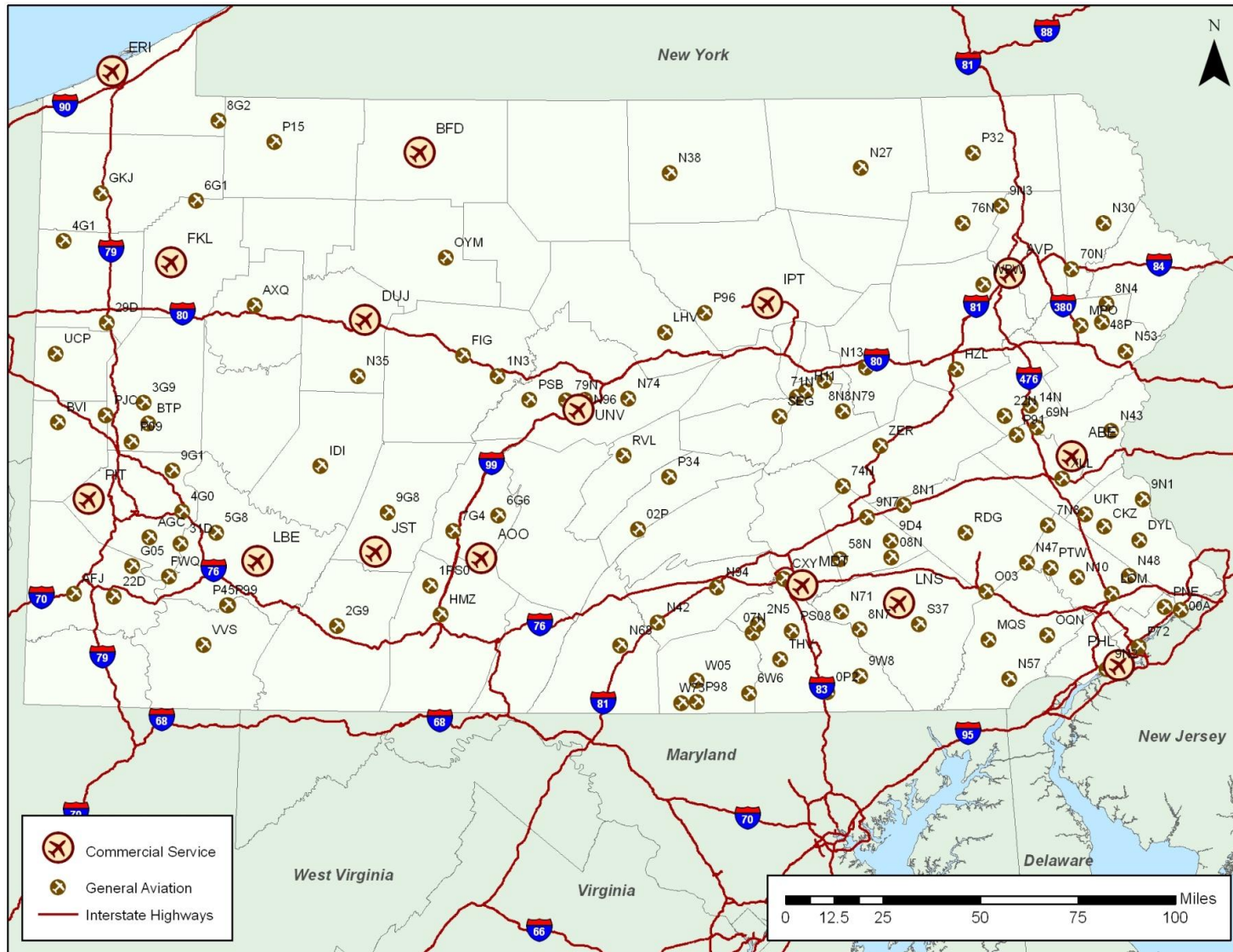
The public-use airports in this study generated \$23.6 billion in economic activity and supported more than 300,000 quality jobs in 2010. This included expenditures by hundreds of on-airport businesses and millions of visitors, as well as the multiplier effect associated with this spending. In addition, residents of the Commonwealth increasingly depend on civil aviation to support their health, welfare, and safety needs. In brief, the public-use airports included in the study:

- ✈ Supported approximately 304,462 jobs
- ✈ Generated \$9.2 billion in annual payroll
- ✈ Produced \$23.6 billion in annual economic activity

Clearly, the airports of Pennsylvania are a major catalyst to the state's economic growth.

¹ Airport economic impact studies represent a "snapshot" of economic impacts estimated for a particular period of time. This PennDOT Bureau of Aviation study represents a "snapshot" of economic impacts for calendar year 2010.

Figure 1: Pennsylvania Airports Included In Economic Impact Analysis



Source: Wilbur Smith Associates

Table 1 lists the total employment, payroll, and output for the 128 Pennsylvania study airports. These economic impacts include direct impacts from on-airport businesses and government agencies, capital improvement projects, off-airport businesses at Philadelphia International Airport and Pittsburgh International Airport, spending by visitors using commercial airlines and general aviation, and the multiplier impacts resulting from the re-circulation of money spent by all of the aforementioned activities. A more detailed breakout of this information can be found in **Appendix B**.

Table 1: Total Economic Impacts for Pennsylvania Airports

Associated City	Airport Name	Total Employment	Total Payroll	Total Output
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	6,086	\$190,561,000	\$528,297,100
Altoona	Altoona-Blair County Airport	287	\$10,145,000	\$31,986,900
Bradford	Bradford Regional Airport	149	\$5,126,900	\$15,135,800
DuBois	DuBois Regional Airport	251	\$9,541,200	\$28,645,200
Erie	Erie International Airport/Tom Ridge Field	2,051	\$61,109,700	\$164,700,700
Franklin	Venango Regional Airport	149	\$4,971,800	\$17,079,100
Harrisburg	Harrisburg International Airport	11,627	\$358,887,000	\$946,577,100
Johnstown	John Murtha Johnstown-Cambria County Airport	2,342	\$99,515,400	\$302,934,500
Lancaster	Lancaster Airport	657	\$23,582,300	\$76,395,500
Latrobe	Arnold Palmer Regional Airport	516	\$24,091,600	\$97,594,300
Philadelphia	Philadelphia International Airport	196,507	\$5,731,523,700	\$13,900,508,500
Pittsburgh	Pittsburgh International Airport	67,219	\$2,078,171,500	\$5,629,170,400
State College	University Park Airport	2,861	\$80,021,300	\$203,834,400
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	4,511	\$128,693,600	\$327,145,800
Williamsport	Williamsport Regional Airport	701	\$22,542,300	\$64,931,800
COMMERCIAL SERVICE AIRPORTS TOTAL		295,914	\$8,828,484,300	\$22,334,937,100
GENERAL AVIATION AIRPORTS				
Allentown	Allentown Queen City Municipal Airport	80	\$2,887,500	\$10,540,600
Bally	Butter Valley Golf Port	2	\$70,300	\$268,200
Beaver Falls	Beaver County Airport	175	\$4,204,200	\$12,927,700
Bedford	Bedford County Airport	54	\$1,840,200	\$7,912,000
Bellefonte	Bellefonte Airport	7	\$161,200	\$663,600
Bensalem	Total RF Heliport	2	\$40,900	\$82,000
Bethel	Grimes Airport	4	\$108,400	\$375,500
Bloomsburg	Bloomsburg Municipal Airport	26	\$899,100	\$3,812,500
Brogue	Baublitz Commercial Airport	2	\$64,900	\$283,600

Table 1: Total Economic Impacts for Pennsylvania Airports, continued

Associated City	Airport Name	Total Employment	Total Payroll	Total Output
GENERAL AVIATION AIRPORTS				
Butler	Butler County Airport/K. W. Scholter Field	228	\$9,223,200	\$39,239,700
Butler	Butler Farm Show Airport	1	\$14,700	\$182,900
Canadensis	Flying Dollar Airport	4	\$108,400	\$386,400
Carlisle	Carlisle Airport	48	\$1,874,000	\$6,953,300
Centre Hall	Penn's Cave Airport	2	\$63,700	\$187,000
Chambersburg	Franklin County Regional Airport	31	\$576,800	\$1,822,600
Clarion	Clarion County Airport	10	\$282,100	\$1,274,500
Clearfield	Clearfield-Lawrence Airport	20	\$743,000	\$3,380,600
Coatesville	Chester County G.O. Carlson Airport	586	\$25,070,300	\$84,840,700
Collegeville	Perkiomen Valley Airport	19	\$610,400	\$1,878,000
Columbia	McGinness Airport	2	\$54,200	\$186,200
Connellsville	Joseph A. Hardy Connellsville Airport	126	\$4,611,600	\$16,484,800
Corry	Corry-Lawrence Airport	25	\$1,176,700	\$4,849,100
Cresco	Rocky Hill Airport	1	\$27,100	\$94,400
Danville	Danville Airport	13	\$399,900	\$1,360,100
Dover	Lazy B Ranch Airport	1	\$35,100	\$71,100
Doylestown	Doylestown Airport	57	\$1,480,400	\$6,178,600
East Stroudsburg	Stroudsburg-Pocono Airport	85	\$3,806,500	\$13,997,000
Easton	Braden Airpark	50	\$1,360,900	\$8,212,600
Ebensburg	Ebensburg Airport	7	\$197,900	\$837,200
Eighty Four	Bandel Airport	4	\$108,400	\$372,600
Erwinna	Vansant Airport	7	\$254,000	\$810,900
Essington	Philadelphia Seaplane Base	0	\$0	\$53,900
Factoryville	Seamans Field	64	\$2,736,000	\$8,012,600
Fairfield	Mid Atlantic Soaring Center	0	\$100	\$47,100
Finleyville	Finleyville Airpark	2	\$50,100	\$238,500
Fredericksburg	Farmers Pride Airport	2	\$19,900	\$125,500
Germansville	Flying M Aerodrome	5	\$135,500	\$493,700
Gettysburg	Gettysburg Regional Airport	9	\$219,300	\$736,200
Gettysburg	Southern Adams County Heliport	6	\$198,100	\$521,100
Greenville	Greenville Municipal Airport	9	\$266,700	\$1,059,000
Grove City	Grove City Airport	27	\$693,100	\$3,019,700
Hanover	Hanover Airport	2	\$54,200	\$196,500
Harrisburg	Capital City Airport	234	\$10,763,600	\$42,242,700
Hazleton	Hazleton Municipal Airport	48	\$1,711,000	\$5,705,100
Honesdale	Cherry Ridge Airport	24	\$853,200	\$2,614,100
Honey Grove	Stottle Memorial Heliport	2	\$54,200	\$51,100

Table 1: Total Economic Impacts for Pennsylvania Airports, continued

Associated City	Airport Name	Total Employment	Total Payroll	Total Output
GENERAL AVIATION AIRPORTS				
Horsham	Horsham Valley Airways Inc. Heliport	16	\$625,100	\$3,019,000
Indiana	Indiana County/Jimmy Stewart Field Airport	88	\$2,752,200	\$10,819,900
Irwin	Inter County Airport	0	\$0	\$400
Jeannette	Greensburg Jeannette Regional Airport	9	\$419,400	\$1,686,700
Jersey Shore	Jersey Shore Airport	2	\$54,200	\$224,300
Kralltown	Bermudian Valley Airpark	4	\$108,400	\$387,500
Lebanon	Keller Brothers Airport	2	\$40,600	\$213,800
Lehighton	Beltzville Airport	4	\$100,200	\$415,900
Lehighton	Jake Arner Memorial Airport	58	\$2,653,100	\$11,002,000
Lock Haven	William T. Piper Memorial Airport	51	\$1,936,000	\$6,835,400
Mars	Lakehill Airport	0	\$0	\$1,800
Meadville	Port Meadville Airport	69	\$3,627,800	\$12,258,800
Mifflintown	Mifflintown Airport	13	\$327,900	\$1,199,300
Monongahela	Rostraver Airport	138	\$5,994,100	\$20,477,800
Monroeville	Pittsburgh-Monroeville Airport	0	\$0	\$16,200
Montrose	Husky Haven Airport	2	\$68,800	\$187,300
Morgantown	Morgantown Airport	10	\$390,700	\$1,867,000
Mount Joy/Marietta	Donegal Springs Airpark	24	\$829,400	\$3,486,900
Mount Pleasant	Mount Pleasant/Scottdale Airport	0	\$0	\$6,600
Mount Pleasant	W.P.H.S. Heliport	82	\$3,824,300	\$13,070,300
Mount Pocono	Pocono Mountains Municipal Airport	41	\$1,306,700	\$4,929,200
Myerstown	Deck Airport	26	\$998,100	\$3,471,600
New Castle	New Castle Municipal Airport	33	\$1,076,300	\$4,439,900
Newry	Blue Knob Valley Airport	4	\$191,200	\$674,100
Osterburg	Ickes Airport	0	\$1,900	\$8,400
Palmyra	Reigle Field	18	\$638,200	\$2,957,800
Perkasie	Pennridge Airport	21	\$742,000	\$3,159,200
Philadelphia	Northeast Philadelphia Airport	2,068	\$90,794,900	\$307,276,200
Philadelphia	Penn's Landing Heliport	22	\$788,100	\$2,763,400
Philadelphia	Wings Field	105	\$3,717,500	\$17,217,500
Philipsburg	Albert Airport	0	\$0	\$6,100
Philipsburg	Mid-State Airport	3	\$157,200	\$711,400
Pittsburgh	Allegheny County Airport	1,739	\$68,368,000	\$329,731,600
Pittsburgh	Rock Airport	4	\$105,700	\$569,100
Pittsfield	Brokenstraw Airport	2	\$66,000	\$281,000
Pottstown	Heritage Field Airport	106	\$4,924,900	\$18,147,800

Table 1: Total Economic Impacts for Pennsylvania Airports, continued

Associated City	Airport Name	Total Employment	Total Payroll	Total Output
GENERAL AVIATION AIRPORTS				
Pottstown	Pottstown Municipal Airport	16	\$384,100	\$1,827,000
Pottsville	Schuylkill County/Joe Zerbey Airport	58	\$1,696,500	\$4,691,200
Punxsutawney	Punxsutawney Municipal Airport	6	\$175,100	\$727,400
Quakertown	Quakertown Airport	62	\$1,852,500	\$6,460,900
Reading	Reading Regional Airport/Carl A. Spaatz Field	681	\$26,805,900	\$102,007,100
Reedsville	Mifflin County Airport	11	\$286,900	\$1,254,000
Selinsgrove	Penn Valley Airport	51	\$1,225,900	\$3,895,100
Shamokin	Northumberland County Airport	13	\$387,000	\$1,773,200
Shippensburg	Shippensburg Airport	0	\$0	\$3,700
Slatington	Slatington Airport	5	\$154,900	\$478,000
Smoketown	Smoketown Airport	45	\$1,769,200	\$5,631,600
Somerset	Somerset County Airport	21	\$585,100	\$2,466,600
St. Marys	St. Marys Municipal Airport	30	\$1,048,600	\$3,923,400
Sterling	Spring Hill Airport	5	\$136,100	\$702,800
Stewartstown	Shoestring Aviation Airfield	3	\$81,300	\$291,400
Sunbury	Sunbury Airport	2	\$54,200	\$189,900
Titusville	Titusville Airport	7	\$197,200	\$689,500
Toughkenamon	New Garden Airport	30	\$864,400	\$3,530,500
Towanda	Bradford County Airport	18	\$587,100	\$1,598,800
Tower City	Bendigo Airport	0	\$0	\$244,400
Tunkhannock	Skyhaven Airport	15	\$441,900	\$1,766,300
Unionville	Ridge Soaring Airport	12	\$297,600	\$1,203,200
Washington	Washington County Airport	247	\$11,151,400	\$42,736,800
Waynesburg	Greene County Airport	20	\$518,200	\$2,078,500
Wellsboro	Wellsboro Johnston Airport	3	\$24,900	\$390,300
Wellsville	Kampel Airport	1	\$73,700	\$155,700
West Chester	Brandywine Airport	94	\$3,821,400	\$9,445,400
Wilkes-Barre	Wilkes-Barre Wyoming Valley Airport	21	\$218,500	\$3,358,600
Williamsburg	Cove Valley Airport	2	\$54,200	\$183,700
York	York Airport	141	\$5,221,700	\$19,309,000
Zelienople	Zelienople Municipal Airport	51	\$1,836,400	\$8,223,000
GENERAL AVIATION AIRPORTS TOTAL		8,548	\$339,691,800	\$1,310,341,000
ALL AIRPORTS TOTAL		304,462	\$9,168,176,100	\$23,645,278,100

Source: Wilbur Smith Associates and IMPLAN multipliers

In addition, this study summarizes other benefits attributed to aviation in the Commonwealth. Some of these benefits are from aviation businesses that operate off-airport; an estimate of their economic impacts is included in this analysis. Other aspects of aviation provide benefits that go beyond the economic value associated with jobs, payroll, and output. These additional areas that were analyzed are:

Off-Airport Aerospace Industry – Pennsylvania has a significant number of businesses that support aviation through aircraft maintenance, aircraft manufacturing, and aircraft parts manufacturing, but these businesses are not located on an airport. An analysis of these businesses produced an estimate of jobs, payroll, and output.

Off-Airport Air Cargo Activity – Many businesses in Pennsylvania rely on air cargo. Due to the Commonwealth's geographic location, Pennsylvania airports handle significant volumes of air cargo. While many air cargo activities take place on airports, a considerable amount of the air cargo industry's processes and activities take place off-airport, sometimes several miles from an airport. Off-airport air cargo activity supports jobs, payroll, and annual economic output, which are estimated in this study.

Value Added Benefits from Off-Airport Aviation Dependent Businesses – In addition to the jobs and revenue associated with the businesses on airports in Pennsylvania, there are businesses throughout the Commonwealth that benefit from airports even though they are not located on the airport. This analysis examines how they benefit and to what degree they value Pennsylvania airports.

Air Ambulance Use On Airports – Air ambulance operators on Pennsylvania's airports provide important medical services such as moving critically ill or injured patients, delivering drugs and organs, and transporting healthcare workers. This analysis examined air ambulance activity in the Commonwealth and estimated the jobs, payroll, and annual economic output this activity supports.

Qualitative Airport Benefits – Airports provide contributions in forms other than jobs, payroll, and economic activity. This section highlights some of the airport benefits that are not easily assigned a number value.

These more detailed analyses provide examples of how Pennsylvania airports improve the livelihoods of the residents of the Commonwealth, over and above the jobs, payroll, and economic output that they generate.

Other findings included:

- ✧ Off-airport impacts from aerospace businesses and air cargo activity add another 32,541 jobs, \$1.7 billion in payroll, and \$7.6 billion in output.
- ✧ The total economic output and associated expenditures from Pennsylvania's airports and visitors who arrive by air comprised 4.2 percent of the state's 2010 estimated gross domestic product. When off-airport aviation impacts are included, the share of state gross domestic product related to aviation increases to 5.5 percent.

- ✈ Pennsylvania's airports serve as vital business links and support critical services such as medical care, agriculture support, search and rescue, law enforcement, recreation, and environmental services.

SOCIOECONOMIC OVERVIEW OF PENNSYLVANIA

The magnitude of the economic impact of Pennsylvania's airports is linked to the demand that is generated within the Commonwealth for aviation services. While some amount of air traffic is tied to the state's tourism activities, much of the growth in aviation activity in Pennsylvania is driven by its residents and businesses. As population, employment, and income levels rise in the Commonwealth, demand for airline travel, air cargo shipments, personal flying, and other aviation-related activities also typically rises. This section inventories Pennsylvania's general economic characteristics.

Population

In 1990, according to the U.S. Census Bureau, the population of Pennsylvania consisted of 11.9 million persons. By 2000, the population had grown to nearly 12.3 million, representing a compound annual growth rate (CAGR) of approximately 0.3 percent. From 2000 to 2010, Pennsylvania's annual population growth rate was 0.3 percent, increasing the state's population to an estimated 12.6 million—making Pennsylvania the sixth most populated state in the nation. By comparison, U.S. population grew 0.9 percent annually during the same period. Pennsylvania ranks 21st in the U.S. in total population growth since the year 2000.

While the Commonwealth has experienced overall growth, many counties in the state have not. Between 2000 and 2010, 55 percent, or 37 of the 67 counties in Pennsylvania, experienced a loss in population. Of the remaining counties, 25 experienced a CAGR greater than or equal to the statewide rate of 0.3 percent. With a CAGR of 3.4 percent annually, Forest County experienced the most rapid growth during this period.² Pike, Monroe, Chester, Franklin, York, Adams, and Northampton Counties also experienced relatively rapid annual growth since 2000.³ **Figure 2** graphically depicts the population CAGR for each Pennsylvania county from 2000 to 2010. As illustrated in the figure, the fastest growing counties are generally located in the eastern part of the state. Growth rates also tend to be the greatest in urban and exurban areas such as those that border Philadelphia, Pittsburgh, and areas located in proximity to the New York City metropolitan area.

Future population projections based on Woods & Poole Economics, Inc., data indicate that the population trends experienced from 2000 to 2010 will continue. Pennsylvania's population as a whole is expected to grow to approximately 13.2 million by 2020. This represents a total increase of 4.1 percent and a CAGR of 0.4 percent.

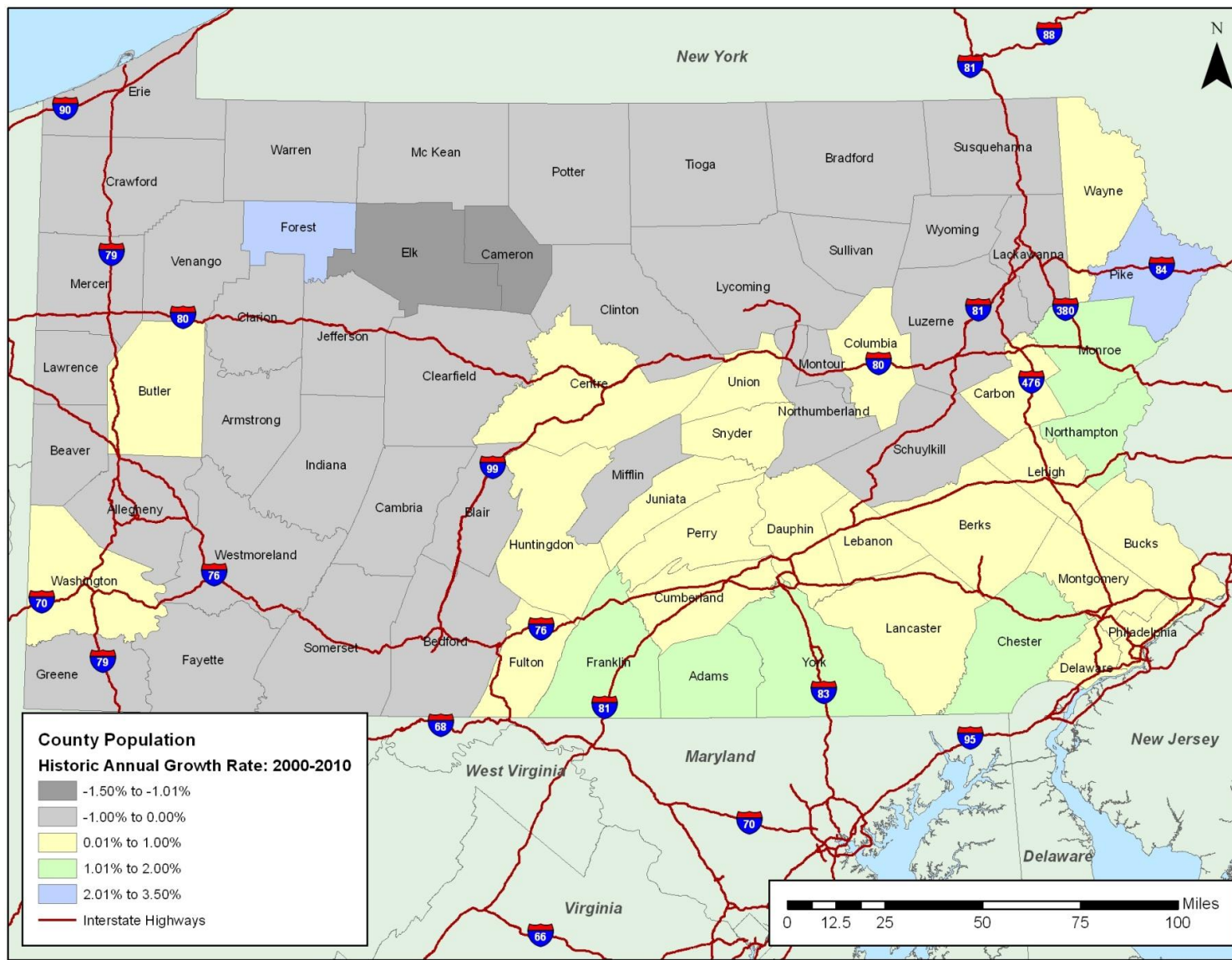
At the county level, 45 of the 67 counties are expected to increase in population. Of these counties, 26 are expected to experience a CAGR greater than or equal to the statewide

² Forest County's high growth rate can be largely attributed to the construction of a state correctional institution in 2004.

³ Population growth in York, Adams, and Franklin Counties has been impacted by expansion of the Washington, D.C. and Baltimore, Maryland metro areas into these counties where the cost of living is lower.

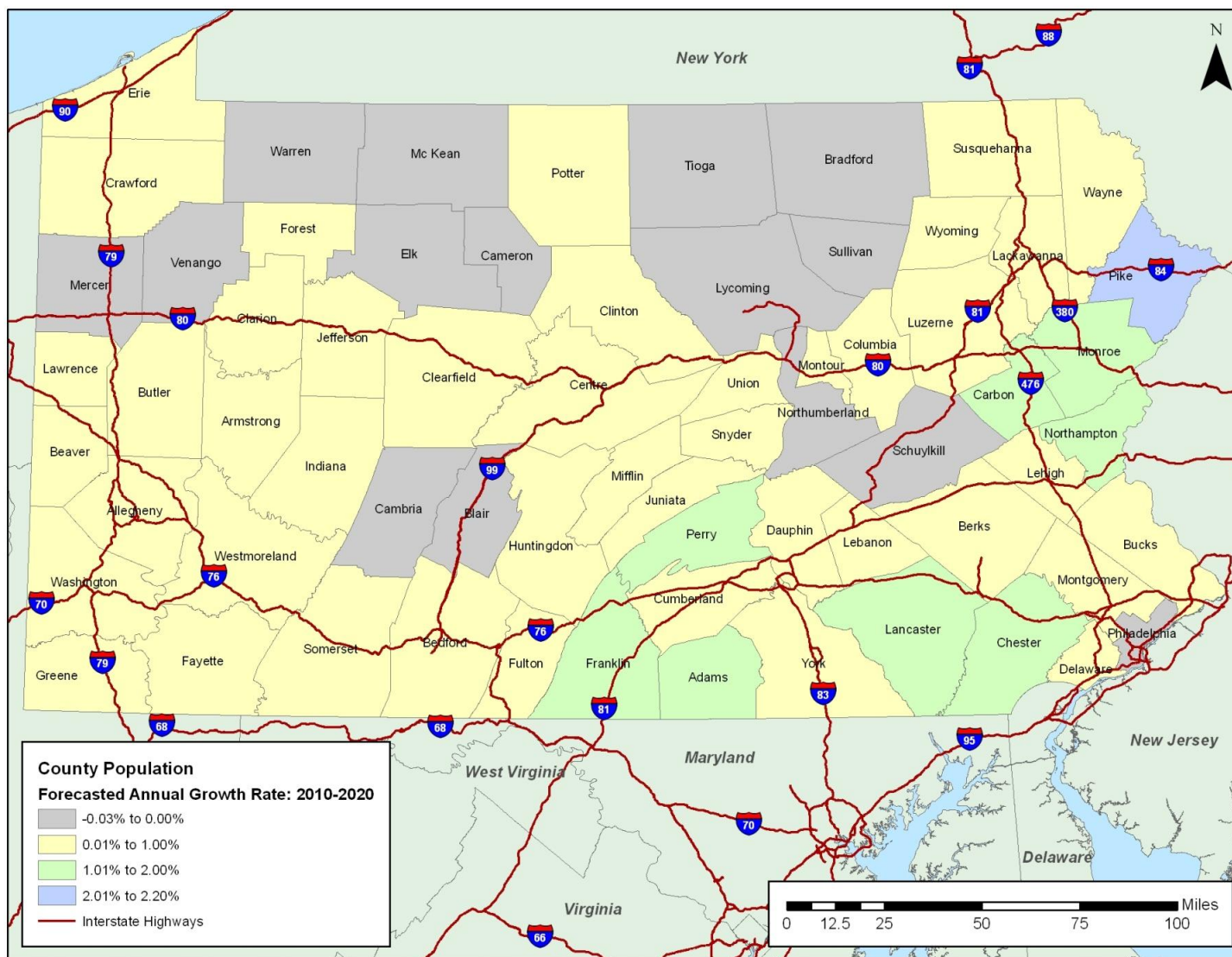
CAGR of 0.4 percent. Pike County is expected to have the fastest growing population, followed by Monroe, Franklin, Chester, Adams, Northampton, Carbon, Perry, and Lancaster Counties. Philadelphia and Allegheny Counties will remain the most populous counties in the Commonwealth with projected populations of 1.5 million and 1.2 million, respectively. **Figure 3** shows population growth rate forecasts for Pennsylvania by county from 2010 to 2020. Similar to historic growth, the highest projected growth rates are found in counties in the eastern half of the state near Philadelphia and New York City. High growth is also expected south of the Pennsylvania Turnpike between the Susquehanna River and I-70.

Figure 2: 2000-2010 Pennsylvania Population Growth



Source: Wilbur Smith Associates; U.S. Census Bureau

Figure 3: 2010-2020 Pennsylvania Population Growth Forecast



Source: Wilbur Smith Associates; Woods & Poole Economics, Inc.

Gross State Product and Industry Mix

Pennsylvania's Gross State Product (the state equivalent of Gross Domestic Product, or GDP) in 2010 was \$570 billion, ranking sixth in the U.S. This was an increase of 3.7 percent annually from \$396 billion in 2000. By comparison, the national Gross Domestic Product grew 3.9 percent annually during the same period. Over the past 30 years, the economy of Pennsylvania has shifted from reliance on heavy industry such as coal, steel, and railroads to one that is more diversified. Illustrating this trend is data from the Bureau of Economic Analysis (BEA) that shows the manufacturing sector comprised 17.4 percent of the Commonwealth's gross state product in 2000. As shown in **Table 2**, this sector, although still the largest in the Commonwealth, decreased to 12.7 percent of the gross state product in 2010.

Real estate is the second largest sector at 11.8 percent of the gross state product in 2010, while government, health care, finance and insurance, and professional and technical services are the next most productive industries at 10.3 percent, 10.1 percent, 8.9 percent, and 7.9 percent, respectively.

It should be noted that although not reflected in the data in Table 2, the mining industry, specifically the oil and gas extraction industry, has recently experienced significant growth in the Commonwealth. This is due to the abundance of Marcellus Shale throughout much of Pennsylvania. Marcellus Shale is a geological formation beneath the rolling hills and mountains of Appalachia from West Virginia, through central Pennsylvania, and into upstate New York. The shale is known to contain substantial quantities of natural gas that until recently were unable to be recovered economically.⁴ According to the Workforce Education and Development Initiative at Penn State University, production of natural gas in the Marcellus Shale will increase Pennsylvania's gross state product in the coming years by more than \$500 million a year.

⁴ *The Economic Impacts of the Marcellus Shale: Implications for New York, Pennsylvania, and West Virginia: A Report to the American Petroleum Institute*, Timothy J. Considine, Natural Resource Economics, Inc., July 14, 2010.

Table 2: Pennsylvania Gross State Product by Industry For 2010

Industry	Gross State Product	
	(In Millions)	Percent
Agriculture, Forestry, Fishing, and Hunting	\$3.05	0.54%
Mining	\$6.33	1.11%
Utilities	\$11.57	2.03%
Construction	\$18.93	3.32%
Manufacturing	\$72.21	12.68%
Wholesale Trade	\$32.56	5.71%
Retail Trade	\$32.56	5.72%
Transportation and Warehousing	\$16.32	2.87%
Information	\$22.46	3.94%
Finance and Insurance	\$50.88	8.93%
Real Estate, Rental, and Leasing	\$67.29	11.81%
Professional and Technical Services	\$45.14	7.92%
Management of Companies	\$16.48	2.89%
Administrative and Waste Service	\$13.68	2.40%
Educational Services	\$12.47	2.19%
Health Care and Social Assistance	\$57.52	10.10%
Arts, Entertainment, and Recreation	\$5.48	0.96%
Accommodation and Food Services	\$12.35	2.17%
Other Services	\$13.96	2.45%
Government	\$58.44	10.26%
Total	\$569.68	100.00%

Source: U.S. Bureau of Economic Analysis

Employment

According to the BEA, the workforce in Pennsylvania totaled nearly 7.1 million workers in 2009. This reflects an increase of 0.3 percent annually from the 6.9 million workers identified in the year 2000. In 2009, Pennsylvania experienced employment reduction in most of the major industry sectors due to the economic recession that officially began in December 2007. Between 2008 and 2009, employment in the Commonwealth decreased at a CAGR of 2.5 percent. **Table 3** presents employment in Pennsylvania categorized by industry for the year 2009.

Table 3: Pennsylvania Employment by Industry For 2009

Industry	Employment	Percent
Agriculture, Forestry, Fishing, and Hunting	91,145	1.3%
Mining	40,878	0.6%
Utilities	23,382	0.3%
Construction	367,261	5.2%
Manufacturing	598,714	8.4%
Wholesale Trade	246,987	3.5%
Retail Trade	759,182	10.7%
Transportation and Warehousing	253,481	3.6%
Information	116,843	1.6%
Finance and Insurance	377,759	5.3%
Real Estate, Rental, and Leasing	248,680	3.5%
Professional and Technical Services	466,760	6.6%
Management of Companies	116,450	1.6%
Administrative and Waste Service	335,566	4.7%
Educational Services	264,773	3.7%
Health Care and Social Assistance	986,071	13.9%
Arts, Entertainment, and Recreation	152,035	2.1%
Accommodation and Food Services	440,648	6.2%
Other Services	387,284	5.5%
Government	820,664	11.6%
Total	7,094,563	100.0%

Source: U.S. Bureau of Economic Analysis

Despite these short-term labor market indications, long-term employment projections through 2018 by the Pennsylvania Department of Labor and Industry's Center for Workforce Information and Analysis forecast employment growth, primarily in the health care and social assistance, professional services, business services, leisure, and hospitality industries.⁵ It is interesting to note that the Center for Workforce Information and Analysis considers aerospace product and parts manufacturing to be one of the top emerging industries (in terms of annual employment gain) in Pennsylvania through 2018, adding 100 jobs each year.

Natural gas extraction from Marcellus Shale has also been forecast to spur significant job growth in the Commonwealth. A recent economic impact study completed for the American Petroleum Institute estimates approximately 100,000 to 280,000 jobs could be generated by 2020 in Pennsylvania, West Virginia, and New York combined due to natural gas production from Marcellus Shale.⁶

⁵ *Economic Review of Pennsylvania 2009*, Center for Workforce Information & Analysis, August 2010.

⁶ *The Economic Impacts of the Marcellus Shale: Implications for New York, Pennsylvania, and West Virginia: A Report to the American Petroleum Institute*, Timothy J. Considine, Natural Resource Economics, Inc., July 14, 2010.

Per Capita Personal Income

Personal income can be used as an indication of how much residents will spend on the consumption of goods and services, including aviation. It can be assumed that the greater the amount of income, the greater the purchasing power one has. Per capita personal income for the Commonwealth of Pennsylvania was approximately \$30,100 in 2000, and grew to approximately \$41,200 by 2010. The change in this figure represents a CAGR of 3.2 percent. By comparison, per capita personal income for the U.S. as a whole grew from \$30,300 to \$40,600 in the same period, for a 3.0 percent CAGR. This ranks Pennsylvania on par with the national average, placing it 17th in terms of per capita income in the United States and 24th in terms of per capita income CAGR.

In 2009, the effects of the recession were reflected in Pennsylvania's per capita income, with it dropping from \$40,400 in 2008 to \$40,100, a 0.7 percent decrease. By comparison, on the national level, per capita income dropped 2.6 percent in the same period. As the economy improved, Pennsylvania's per capita income increased to \$41,200 in 2010, an increase of 2.4 percent from 2009, coinciding with the increase experienced in the national average during the same period.

Summary

Despite the impact of the recession, there are indications that Pennsylvania is poised for economic growth. Slow but steady population growth since 2000 in the Commonwealth is projected to continue through 2020. Employment grew at 0.7 percent annually between 2000 and 2007 before the recession and opportunities in most major industries are projected to improve in the future as the economy continues to grow and Pennsylvania's economy continues to diversify.

Growth measures such as these suggest continued significant demand for aviation services and air travel in Pennsylvania in the future. Projections of economic and demographic growth for the Commonwealth indicate that annual impacts presented in this report will continue in subsequent years.

STUDY APPROACH

The total economic impact of each airport in this analysis is quantified in terms of employment, payroll, and output. Output represents total spending or economic activity and accounts for the total value of aviation-related activities supported by the airports included in this analysis. This section presents the economic impact of the airports in terms of three aviation-dependent groups:

- ✈ Airport operations and on-airport activities
- ✈ Visitors traveling to Pennsylvania via commercial airlines
- ✈ Visitors traveling to/within Pennsylvania via general aviation aircraft

Airport operations and on-airport activities, as well as Pennsylvania visitors, are responsible for a significant percentage of the economic activity associated with the airports. However, other aspects of aviation make significant contributions to the Commonwealth's economy.

Other industry sectors that are not based on airports but still rely on aviation create economic impacts. These industries are off-airport aerospace and off-airport air cargo. Analyses were conducted to estimate the economic impact they provide in Pennsylvania. A separate non-aviation business survey identified the importance of aviation to non-aviation employers throughout the Commonwealth. Lastly, aviation serves a critical role in providing communities, especially those in rural areas, with access to medical services. An analysis was performed as part of this study to identify the economic impacts supported by air ambulance activity at the study airports.

The Economic Modeling Process

All economic impacts from the commercial service airports, general aviation airports, and heliports considered in this analysis were calculated using an input-output model. The input-output model considers economic impacts associated with on-airport activities, commercial service visitors, and general aviation visitors arriving at the airports. Impacts are discussed as:

Direct Impacts – Direct impacts include impacts associated with businesses located at the airport, which are directly related to the provision of aviation services. These impacts include the employment, payroll, and spending of businesses such as fixed base operators (FBOs), flight schools, aircraft repair facilities, and on-airport government entities, including airport management and operations staff. Capital expenditures for construction projects are also included in direct impacts.

Direct impacts also occur as a result of air travel (both scheduled commercial and general aviation), but generally take place off-airport. These impacts are attributed to the expenditures of visitors who arrive in Pennsylvania by aircraft. Visitor expenditures support employment and payroll in service-related industries such as lodging, food and beverage, retail, and entertainment. Certain visitor spending for aviation-related goods and services (such as avgas purchases by visiting general aviation pilots) is not accounted for in the visitor expenses. Instead, it is included in the appropriate FBO's economic impacts.

Multiplier Impacts – Multiplier impacts consist of indirect and induced impacts. Indirect and induced impacts are the impacts resulting from the re-circulation of on-airport and visitor spending impacts within the economy. This re-circulation is typically referred to as the multiplier effect. 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 Pennsylvania. As this money is spent several times, it eventually leaks beyond the boundaries of Pennsylvania, and thus no longer benefits the Commonwealth's citizens. The economic model uses parameters specific to Pennsylvania to estimate the leakage effect associated with these multiplier impacts.

Total Impacts – Total impacts are the sum of all direct (on-airport and visitor spending) and multiplier (indirect and induced) economic activities attributable to an airport or the system of airports.

The Impact Analysis for Planning (IMPLAN) model was used to measure the multiplier effect and to quantify indirect and induced impacts. An input-output model, in its most basic form, is a linear model that estimates purchases and sales between various sectors of the economy. This modeling process is considered to be one of the leading methods available for estimating the total economic impact of an industry (in this case, airports).

The IMPLAN model contains a large economic database that is used to generate input-output tables. IMPLAN multipliers and input-output tables specific to Pennsylvania's industrial sectors were obtained and used in this analysis. The model used for this analysis requires impact estimates for three separate components of the economy. These categories are:

Employment – Employment is based on the total of full-time jobs plus part-time jobs. In this analysis, two part-time positions are the equivalent of a single full-time position.

Payroll – Payroll represents the annual salary, wages, and benefits paid to all employees.

Economic Output (Spending) – Output for on-airport activities is typically assumed to be the sum of annual gross sales and average annual capital expenditures. While this assumption works well for profit-oriented tenants, it must be modified for organizations that do not generate sales, such as government tenants or corporate flight departments. In order to estimate the impact of these important tenant-related activities, output is assumed to be the sum of payroll, operating expenditures, and average annual capital improvement outlays. While airlines do generate sales, ticket revenue is usually transferred outside the area being modeled. This makes it difficult to assign that revenue to specific airports, so airlines are treated in a manner similar to organizations that do not generate sales. For visitors using an airport, output is assumed to equal total annual visitor spending.

It is important to note that payroll and output cannot be combined because elements of economic benefit related to payroll are also contained, to some extent, in the output estimate. Each of the three impact components (employment, payroll, and output) stands alone as a measure of an airport's or the airport system's total economic impact.

Data Requirements for the Economic Modeling Process

A number of data collection efforts were undertaken to gather information related to economic activity occurring at the Pennsylvania airports considered in this analysis. These data were inputs to the modeling process to identify total economic impacts. The following groups were part of the data gathering effort to estimate direct impacts:

Airport Operations – This group 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, Federal Aviation Administration (FAA), as well as various other state and federal agencies.

Commercial Service Visitors – This group includes estimated non-local passengers (visitors) arriving via commercial airlines. Average visitor spending for this group was estimated from passenger surveys conducted for this analysis at Pennsylvania’s commercial service airports.

General Aviation Visitors – Impacts from general aviation visitors are produced by non-local passengers arriving via private or business aircraft. General aviation visitors are associated with that portion of each airport’s itinerant general aviation operations that are transient (or visiting) in nature. Itinerant operations are those that leave the airport’s local airspace. Some itinerant operations at an airport are attributable to residents of the airport’s market area who fly their planes to more distant locations and subsequently return to their home airport. The remaining itinerant operations are attributed to visitors. Itinerant operations performed by visitors are considered transient operations. Impacts for this group were estimated using survey data from airports across Pennsylvania.

Construction Impacts – Each year, airports undertake capital improvement projects (CIP), such as runway rehabilitation or terminal improvements. On-airport businesses and other agencies also undertake capital improvement projects. These projects employ persons in jobs such as construction, architecture, engineering, and consulting. For this analysis, construction impacts are included in the direct impact category. The following steps were used to estimate construction impacts:

1. CIP data for 2008-2010 was gathered from airport managers as well as aviation-related businesses and government agencies located on each airport.
2. CIP data for the period was averaged to avoid showing peaks or troughs in construction activity.
3. The IMPLAN model indicates that every \$1 million spent annually on construction activity supports approximately 8.2 construction-related jobs in Pennsylvania. These jobs include construction workers, equipment operators, foremen, engineers, architects, and managers.
4. Data from the U.S. Bureau of Labor Statistics was used to determine average pay for construction workers in Pennsylvania, and this average was applied to each construction-related employee to determine payroll related to CIP activity.

Direct economic impacts presented in this report were estimated primarily through surveys undertaken specifically to support this study. IMPLAN multipliers were then applied to direct impacts to estimate subsequent multiplier impacts.

It is important to note that the two largest commercial service airports in the Commonwealth, Philadelphia International Airport and Pittsburgh International Airport, as well as Allegheny County Airport (Pittsburgh’s largest general aviation airport), completed economic impact studies on their own initiative within the past several years. Due to the relatively recent completion dates of these studies, data from these studies, in addition to other sources, were used to estimate the economic impacts of these airports. Most of the data collection methods described in the following section do not apply to Philadelphia International, Pittsburgh

International, or Allegheny County airports. Instead, the methodology used to update the economic impacts for these airports, based on their existing economic impact studies, is detailed in **Appendix A**. The updated economic impacts for Philadelphia International, Pittsburgh International, and Allegheny County airports and other data pertaining to them are included, however, in tables presented throughout this report.

Surveys, Data Collection Methods, and Model Assumptions

The model requires an extensive data gathering effort in order to estimate direct impacts. Those efforts and their results are explained, along with the assumptions needed to arrive at direct impacts.

The methods used to collect information from each group considered in the direct impacts are discussed in the ensuing sections, followed by an explanation of the multiplier impacts resulting from the re-circulation of the direct impacts.

Airport Operations and On-Airport Activities

Airport sponsors/owners were contacted to provide names, mailing addresses, and telephone numbers for each airport tenant. All airport tenant/businesses having aviation-related employees on Pennsylvania airports during 2010 were contacted to collect information regarding their economic activity. Since the purpose of this study was to measure the economic impacts of each Pennsylvania airport, a distinction was made between those on-airport tenants that depended on the airport and those that did not. For example, an insurance business located on an airport would not be designated as aviation-related since an insurance business does not need an airport to operate. A survey was provided to each aviation-related tenant and follow-up calls were made to obtain responses and to verify information on returned surveys. Airport tenants at each airport were grouped into 19 categories to aid in analysis. These categories consisted of:

- ✈ Airlines (passenger only)
- ✈ Air ambulance
- ✈ Air cargo
- ✈ Aircraft maintenance
- ✈ Airport management
- ✈ Air traffic control
- ✈ Charter
- ✈ Concessions
- ✈ Corporate flight departments
- ✈ FBOs
- ✈ Federal government
- ✈ Flight instruction
- ✈ Ground transportation
- ✈ Hangar rental/development
- ✈ Military
- ✈ Parking
- ✈ Rental car
- ✈ State/local government

✧ Transportation Security Administration

The survey sent to each airport tenant, including airport sponsors/managers, requested the following information:

- ✧ Type of aviation activity conducted by the business/tenant
- ✧ Number of full-time and part-time employees
- ✧ Estimated total annual wages and benefits paid to employees in 2010
- ✧ Estimated total capital improvement expenditures for each year, 2008 through 2010
- ✧ Estimated total operating expenses (excluding payroll and capital improvements previously identified) for 2010
- ✧ Estimated total gross sales (where applicable) by the business on the airport in 2010

A high response rate was desired for the airport tenant/business survey. Several rounds of follow-up telephone calls were made to non-responding entities and to airport managers to obtain the greatest response rate possible for on-airport employment. For airport tenant/businesses who did not supply complete information on payroll, expenses, and gross sales, estimates were made.

For purposes of estimating multiplier impacts, airport tenants were classified into one of three categories (aviation, concession, or government), based upon the nature of their business. This was done to facilitate subsequent modeling of IMPLAN multipliers. For this analysis, a set of aviation multipliers was used for airlines, aircraft maintenance, FBOs, air cargo, flight schools, and corporate flight departments. Retail, food and beverage, car rental, and parking tenants had a set of concession multipliers applied to estimate multiplier impacts. Government-related entities, including military units, received their own set of multipliers for estimating multiplier impacts. Impacts stemming from construction projects were broken out from each tenant so a set of construction-related multipliers could be used before adding those impacts back into the on-airport impacts.

Commercial Service Visitors

Airline flights to and from Pennsylvania's commercial service airports provide access for business- and leisure-related visitors. Visitors using commercial service airports as a gateway to the Commonwealth contribute to the economy through their expenditures for food, lodging, entertainment, transportation, retail sales, and other goods and services. Numerous service industries also benefit from the multiplier or spin-off effects stemming from visitor spending. Pennsylvania is home to 15 commercial service airports. The largest and busiest airports in Philadelphia and Pittsburgh provide air service to a multitude of domestic destinations, as well as international destinations in Europe, the Middle East, Canada, and Mexico. Harrisburg International Airport and Lehigh Valley International Airport provide air service to domestic destinations in the Midwest, South, and along the East Coast, as well as international destinations in Canada. Airports in Erie, Wilkes-Barre/Scranton, and State College are "spoke airports" that have scheduled airline service to hub airports such as Charlotte-Douglas International Airport, O'Hare International Airport, Philadelphia International Airport, Detroit Metropolitan Wayne County Airport, and Newark Liberty International Airport. Williamsport Regional Airport provides air service to Philadelphia International Airport. The smaller communities of Altoona, Bradford, DuBois, Johnstown,

Lancaster, and Franklin have more limited airline service subsidized through the FAA's Essential Air Service program. The city of Latrobe serves its region with air taxi service provided by L.J. Aviation at Arnold Palmer Regional Airport.⁷

The spending patterns of commercial service visitors to Pennsylvania were estimated based on the results of departing passenger surveys at 12 commercial service airports.⁸ More than 800 passengers were surveyed, with responses coming from each airport proportional to the number of enplaned passengers.

During passenger surveys, departing passengers were interviewed prior to boarding and asked several questions. Departing passengers were first asked to indicate whether they were a resident of the airport area or a visitor. Those passengers who indicated that they were visitors were asked several questions to determine the following:

- ✈ The purpose of their trip (e.g., business, personal, military)
- ✈ Duration of their stay
- ✈ Total expenditures during their stay in each of the following categories: lodging, food and beverage, rental car or taxi, retail, entertainment/recreation, and other
- ✈ The total number of people that accounted for the expenditure estimates they identified

For each commercial service airport, the following methodology was used to estimate commercial service visitor impacts.

Enplanement data for 2010 for each of the commercial service airports was obtained from airport management or the FAA. The percentage of visiting passengers was estimated for each airport, using a sampling of FAA origin and destination data from 2009 and 2010. This data for each airport is shown in **Table 4**. Visiting passengers ranged from 10 percent at Arnold Palmer Regional Airport to 61 percent at Venango Regional Airport.

⁷ In 2011, Spirit Airlines began service to Fort Lauderdale, Florida and Myrtle Beach, South Carolina from Arnold Palmer Regional Airport, which is not included in this analysis.

⁸ Passenger surveys were not conducted at PHL, PIT, or LBE.

Table 4: Enplanements & Percent Visitors at Pennsylvania Commercial Service Airports - 2010

Associated City	Airport Name	Enplanements	Percent Visitors	Visitors
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	414,427	38%	155,677
Altoona	Altoona-Blair County Airport	4,296	54%	2,327
Bradford	Bradford Regional Airport	2,962	49%	1,440
DuBois	DuBois Regional Airport	5,728	41%	2,340
Erie	Erie International Airport/Tom Ridge Field	127,184	42%	53,247
Franklin	Venango Regional Airport	1,380	61%	840
Harrisburg	Harrisburg International Airport	664,965	41%	275,306
Johnstown	John Murtha Johnstown-Cambria County Airport	8,457	43%	3,652
Lancaster	Lancaster Airport	6,410	55%	3,552
Latrobe	Arnold Palmer Regional Airport	11,000	10%	1,100
Philadelphia	Philadelphia International Airport	15,348,175	23%	3,560,354
Pittsburgh	Pittsburgh International Airport	4,098,384	40%	1,639,354
State College	University Park Airport	142,923	39%	55,312
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	213,422	42%	90,259
Williamsport	Williamsport Regional Airport	22,519	43%	9,589
COMMERCIAL SERVICE AIRPORTS TOTAL		21,072,232	28%	5,854,349

Source: Airport management and FAA

Using survey data gathered from departing airline passengers at each Pennsylvania commercial service airport, average length of stay and average daily expenditures were estimated for each airport. These estimates were applied to the number of annual visitors for each airport to determine total economic activity (or output) generated by commercial airline visitors on an annual basis.

The following example demonstrates the calculations used to estimate commercial service visitor impacts. For this presentation, rounded numbers are used and any variation in calculations is the result of rounding.

An estimated 127,184 enplaned passengers departed Erie International Airport during 2010. FAA origin and destination data indicates that 42 percent of these enplanements were visitors to the area, or approximately 53,250 visitors travelled through Erie International Airport.

127,184 enplanements x 42 percent visitors = 53,250 visitors

Survey data from Erie International Airport provided an estimated average spending of \$860 per visitor during their stay. This average was used to calculate visitors' annual spending (or output) of approximately \$45.8 million.

53,250 visitors x \$860 per visitor per stay = \$45.8 million

In order to estimate employment associated with commercial service visitor expenditures, Pennsylvania-specific employment ratios per \$1 million of visitor output were developed using the IMPLAN model. It was estimated that approximately 19.3 persons were employed in Pennsylvania as result of every \$1 million in commercial service visitor output. This results in an estimated 880 visitor-related jobs associated with the spending by visitors arriving via Erie International Airport on commercial airlines.

\$45.8 million x 19.3 ÷ \$1,000,000 = 880 jobs

In order to estimate payroll impacts associated with employment supported by commercial service visitors, average state wages for appropriate industry sectors were applied to the estimated number of employees supported by commercial airline visitor spending. Most visitor expenditures take place in the hotel/motel, food/beverage, entertainment, retail, and transportation sectors. Based on data obtained from the U.S. Bureau of Labor Statistics, an average payroll of \$21,600 per employee in Pennsylvania was assumed for these job categories.

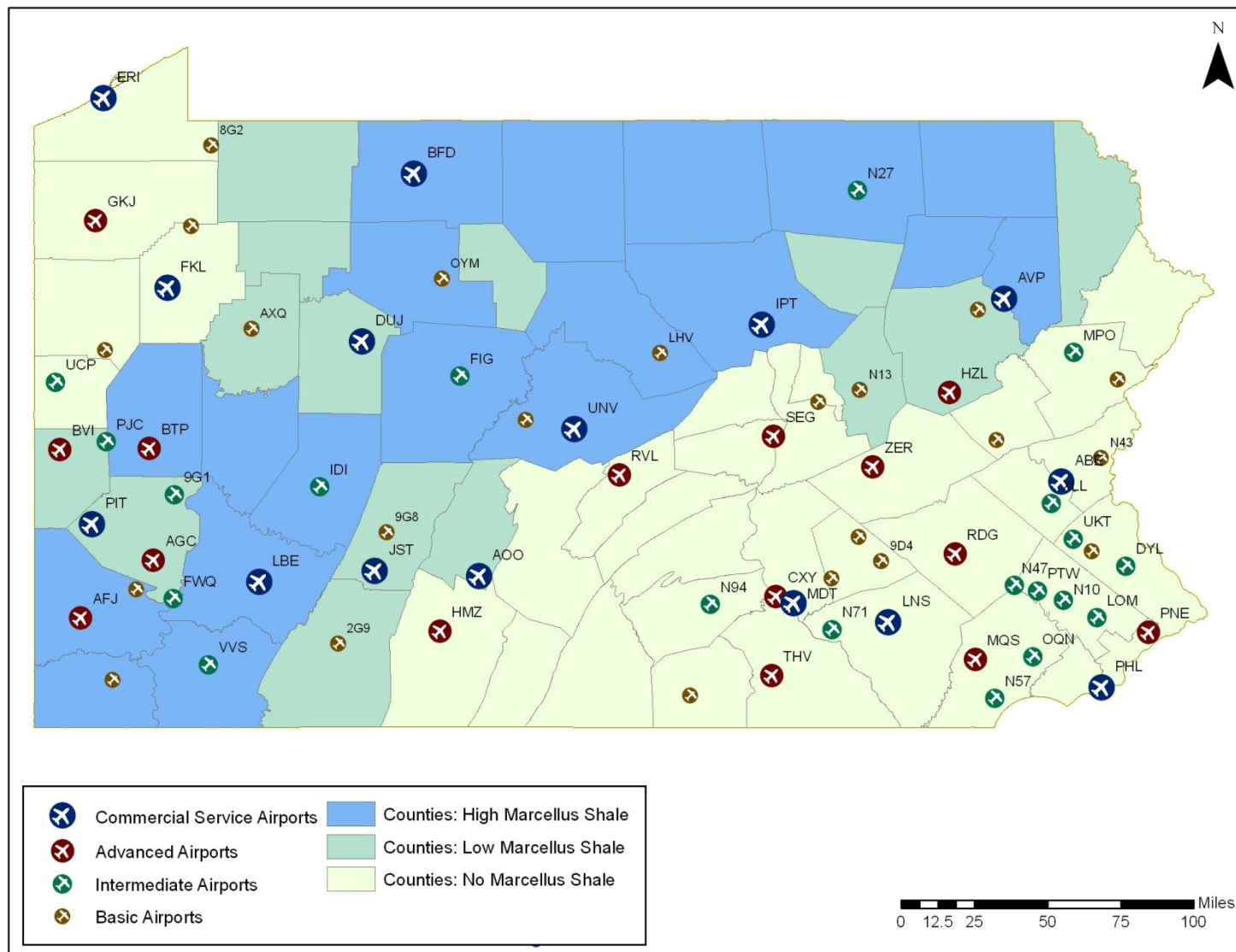
880 jobs x \$21,600 = \$19.0 million annual payroll

The same calculation was used for each commercial service airport, using the average expenditure per visitor per trip as appropriate. Detailed tables showing the commercial service visitor impacts at each commercial service airport can be found in **Appendix B**.

It is important to note that the commercial service visitor survey effort for this study revealed a higher average visitor expenditure at airports located in areas of Pennsylvania with Marcellus Shale natural gas extraction activity. Marcellus Shale natural gas drilling in Pennsylvania employs many out-of-state workers who work a rotating schedule that consists of arriving in the Commonwealth for approximately two-week periods and then returning to their home state for approximately two-week periods. Because the workers stay for longer periods of time in the Commonwealth than many other visitors, they have higher average expenditures per person. **Figure 4** shows the counties with Marcellus Shale extraction in Pennsylvania and the commercial service airports located within them. For this study, higher commercial service visitor average expenditures as a result of Marcellus Shale were applied at:

- ✈ Altoona-Blair County Airport
- ✈ Arnold Palmer Regional Airport
- ✈ Bradford Regional Airport
- ✈ DuBois Regional Airport
- ✈ John Murtha Johnstown-Cambria County Airport
- ✈ University Park Airport
- ✈ Wilkes-Barre/Scranton International Airport
- ✈ Williamsport Regional Airport

Figure 4: Pennsylvania Counties with Marcellus Shale



Source: Wilbur Smith Associates

General Aviation Visitors

General aviation refers to all segments of aircraft activity that are not related to the commercial airlines or the military. Some visitors to Pennsylvania use general aviation aircraft to enjoy both the leisure opportunities available in Pennsylvania as well as to conduct business.

The economic activity produced by general aviation visitors in Pennsylvania was determined by surveying transient pilots and passengers. Surveys were delivered to FBO managers throughout the state system of airports. The survey requested the following information:

- ✧ The airport where the survey was received
- ✧ The number of travelers in the aircraft
- ✧ The purpose of the trip
- ✧ The length of stay in the airport area
- ✧ The estimated expenditures during the trip
- ✧ The total number of travelers that accounted for the expenditure estimates they identified
- ✧ Further comments regarding the value of the Pennsylvania aviation system to the pilot and his or her business

This survey data was used to develop an estimate of visitor expenditures. These estimates included the average number of visitors per aircraft, and the average expenditure per visitor per trip. Recognizing that these averages vary at different types of airports, Pennsylvania's airports were grouped into one of six categories based on the airport's classification in the state system plan.⁹ Survey data within each group of airports was used to estimate the average number of visitors per arriving aircraft, how long those visitors stayed, and how much each spent during their stay.

Data from FAA 5010 forms for each airport were used to develop estimates at each airport of itinerant aircraft operations, which are operations by aircraft coming from another airport. Since many of these operations are aircraft that are returning to their home base, an estimate of true transient aircraft was needed. It was assumed that between 33 percent and 50 percent of itinerant aircraft operations were true transients, depending upon the airport. Together, all of these estimates were used to assess the level of general aviation visitor spending at each airport as illustrated in the following example. As with the commercial service visitor impact example above, rounded numbers are used and any variation in calculations is the result of rounding.

Beaver County Airport in Beaver Falls was estimated to have approximately 22,300 itinerant operations in 2010, or 11,150 annual itinerant arrivals (since it is assumed that all arrivals have a corresponding departure). Furthermore, it was estimated that 50 percent of these itinerant arrivals were true transient arrivals, or:

11,150 itinerant arrivals x 50 percent = 5,575 transient arrivals.

⁹ Airports and heliports not included in the state system plan were assigned to an appropriate group based on their facility type or annual number of aircraft operations.

Transient pilot survey data for the group of airports including Beaver County provided estimates of the average number of visitors per aircraft, including the pilot (2.7 visitors), and the average spending (\$130 per visitor per trip). These averages were used to calculate the total annual visitors (15,050 visitors) and the impacts of those visitors' spending in the region around Beaver County, or approximately \$2.0 million per year. It should be noted that visitor spending does not include purchases on the airport. For example, FBO services or fuel purchases are removed from this calculation to avoid double-counting. These are included in the direct impacts associated with each on-airport tenant.

$5,575 \text{ transient arrivals} \times 2.7 \text{ visitors per transient aircraft} = 15,050 \text{ visitors}$

$15,050 \text{ visitors} \times \$130 \text{ per visitor} = \$2.0 \text{ million annual spending by visitors to Beaver County Airport}$

To determine payroll and employment impacts resulting from this visitor spending (or output), multiplier ratios based on \$1 million of output were used. In other words, ratios developed by the IMPLAN model indicate that for every \$1 million of general aviation visitor output, approximately 18.1 full-time positions in other industries are created. Most of these jobs are in the service and retail sectors. Visitors using general aviation at Beaver County Airport would then support approximately 36 full-time positions.

$\$2.0 \text{ million} \times 18.1 \text{ jobs} \div \$1,000,000 = 36.0 \text{ jobs}$

The average annual statewide salary for service/retail industries (\$21,600) was then applied to the estimate of employment to calculate the payroll impacts associated with general aviation visitors. In this example, visitor-related payroll created by the 36.0 full-time positions is estimated to total approximately \$777,600.

$36.0 \text{ jobs} \times \$21,600 = \$777,600 \text{ annual payroll}$

The operational and visitor impact data for each study airport can be found in **Appendix B**.

Study Multipliers – Multiplier Impacts

Employment, payroll, and output impacts derived from on-airport businesses/tenants and activities, as well as visitors, comprise each airport's direct economic impacts. As these impacts enter the economy, they circulate among other sectors, creating multiplier impacts of additional spending beyond the direct impacts. This phenomenon is referred to the multiplier effect.

Multiplier effects arise from various interdependencies within an economic system. For example, the operation of an airport requires inputs in the form of supplies, equipment, and maintenance. These inputs generate a boost in sales for those businesses providing these services and products. Moreover, the goods and services themselves require inputs for their production. The process continues as a large number of impacts re-circulate through the

economy. The total requirement for goods and services is the multiple of the initial needs of the airports considered in this analysis; hence it is referred to using the term “multiplier.”

Multipliers for estimating multiplier impacts were derived from the IMPLAN model. The multipliers used in this analysis were developed specifically to measure the economic impacts that occur within different sectors of the Pennsylvania economy. **Table 5** summarizes the multipliers used for modeling the multiplier impacts of on-airport activities and visitor spending.

Table 5: Pennsylvania IMPLAN Multipliers by Economy Sector

Economy Sector	Employment Multiplier	Payroll Multiplier	Output Multiplier
Government	1.67	1.36	1.87
Construction C.I.P. (Note 1)	1.94	1.79	2.02
Concessions (Note 2)	1.34	1.66	1.88
Aviation (Note 3)	2.04	1.82	1.68
Commercial Service Visitor Expenditures (Note 4)	1.67	1.98	1.86
General Aviation Visitor Expenditures (Note 4)	1.59	1.89	1.84

Sources: Wilbur Smith Associates and IMPLAN multipliers.

Notes:

1. Construction multipliers are the weighted average of the Construct Other New Nonresidential Structures; Maintenance and Repair of Nonresidential Structures; and Architectural – Engineering and Related Services multipliers.
2. Concessions multipliers are the weighted average of the Food Services and Drinking Places; Business Support Services; and Miscellaneous Retail Store multipliers.
3. Aviation multipliers are the weighted average of the Aircraft Manufacturing; Aircraft Engine and Engine Parts Manufacturing; Other Aircraft Parts and Auxiliary Equipment Manufacturing; and Transport by Air multipliers.
4. Visitor expenditures multipliers are the weighted average of the Food Services and Drinking Places; Automotive Equipment Rental and Leasing; Hotels and Motels – Including Casino Hotels; and Miscellaneous Retail Store multipliers. Weightings were different for commercial service and general aviation visitor multipliers to reflect the difference in their spending habits.

The multipliers presented in Table 5 were used to estimate multiplier impacts in this analysis. For example, \$100 in first round expenditures (output) in the aviation sector supports a total output impact equivalent to \$168. In this example, the multiplier impacts would be \$68 (\$168 minus \$100).

The methodology discussed in this section was applied to each of the study airports. By following this methodology, estimates of total employment, annual payroll, and annual output/spending associated with each airport were developed.

EMPLOYMENT, PAYROLL, AND OUTPUT IMPACTS FOR STUDY AIRPORTS

The airports in this analysis accommodate the transportation needs of business and leisure visitors to Pennsylvania. The airports themselves are also significant generators of economic activity. Airports help to support jobs, payroll, and output for the Commonwealth’s economy. The following sections discuss economic impacts associated with employment, annual payroll, and total annual economic activity (output) for study airports. The combined impact of all of Pennsylvania’s airports is shown in each section. Detailed tables showing the impacts of each individual airport can be found in **Appendix B**.

Employment Impacts

The findings of this analysis indicate that airports in Pennsylvania are an important source of jobs. Employment, as defined in this analysis, is based on estimates where two part-time jobs are treated as one full-time job. Employment impacts are calculated for on-airport businesses/tenants and for visitor-related spending. On-airport activity includes private businesses and government agencies. For on-airport military units with an aviation-related mission, their employment was also considered. Spending for capital improvement projects (CIP) and other improvement and construction projects also contributes to on-airport employment.

As previously explained, Philadelphia International Airport (PHL), Pittsburgh International Airport (PIT), and Allegheny County Airport (AGC) completed economic impact studies on their own initiative within the past several years. These studies were used to estimate economic impacts for Philadelphia International, Pittsburgh International, and Allegheny County Airports in this PennDOT Bureau of Aviation study. For Philadelphia International and Pittsburgh International, the previous studies included impacts supported by off-airport aviation-related businesses such as freight forwarders, ground couriers, warehouses, the United States Postal Service, and airport parking providers, along with the on-airport impacts. Although this study includes off-airport aerospace businesses and off-airport air cargo activity in separate analyses, the off-airport employment impacts at Philadelphia International and Pittsburgh International only are included in this section in order to maintain consistency with the previous studies for those airports. The payroll and output impacts associated with the off-airport businesses at Philadelphia International and Pittsburgh International are also included in the payroll and output impacts sections below.

Employment from On-Airport Activity

Table 6 identifies the total number of jobs supported by on-airport aviation-related tenants and businesses at system airports. These jobs comprise those people who are engaged in the provision of aviation-related services on the airport, such as aircraft fuel sales, aircraft maintenance, flight training, concessions (e.g., restaurants and rental car agencies), and charter services. In the case of the Pennsylvania Air National Guard, Pennsylvania Army National Guard, and U.S. Marine Corps at Harrisburg International and John Murtha Johnstown-Cambria County Airports, the full and part-time military personnel associated with aviation-related activities were included, with the substantial number of drilling reservists treated as part-time employees. In addition, construction workers supported by airport CIPs were included in this analysis.

In total, there are 44,081 direct jobs supported by the operation of Pennsylvania's airports. It is important to note that this employment estimate does not include jobs associated with non-aviation businesses, which, for various reasons, are located on an airport.¹⁰ For instance, some airports have industrial or business parks that include companies that are not related to

¹⁰ Non-aviation on-airport businesses are included for Pittsburgh International (PIT) and Allegheny County (AGC) airports only. The recently completed economic impact study for PIT and AGC included non-aviation on-airport businesses, so these businesses are included here to maintain consistency with that study.

the airport or aviation in any way. Additionally, businesses were not included if they were not on airport property. The most significant example of this is the Sikorsky Global Helicopters' off-airport Heliplex in Coatesville, which is not included among the on-airport impacts.¹¹ Employment related to these businesses is not included in the employment estimate shown in Table 6.

Table 6: Pennsylvania On-Airport Employment

	Direct Employment	Multiplier Employment	Total Employment
Commercial Service Airports On-Airport Employment	40,532	38,176	78,708
General Aviation Airports On-Airport Employment	3,549	3,670	7,219
TOTAL ON-AIRPORT ACTIVITY EMPLOYMENT	44,081	41,846	85,927

Source: Wilbur Smith Associates and IMPLAN multipliers

Multiplier impacts are those jobs that are created by multiplier effects stemming from direct jobs associated with tenants and businesses at Pennsylvania's airports. For example, an employee of a fuel distributor may owe a portion of his job to an airport since the distributor sells fuel to the airport's FBO. As a result of on-airport tenant activity, additional multiplier employment is created. Multiplier impacts associated with the day-to-day operation of Pennsylvania's airports add 41,846 positions to the economy. When direct and multiplier employment is considered, Pennsylvania's airport tenants contributed 85,927 jobs to Pennsylvania's employment base. Of this total, 78,708 jobs are associated with the commercial service airports and 7,219 jobs are associated with the general aviation airports.

Employment from Off-Airport Activity at PHL and PIT

Table 7 identifies the total number of jobs supported by off-airport aviation-related businesses at Philadelphia International and Pittsburgh International. These jobs involve the provision of aviation-related services off-airport, such as off-airport airline offices, freight forwarding, warehousing, and airport parking provision. There are an estimated 4,005 direct jobs supported by these off-airport businesses at Philadelphia International and Pittsburgh International. Multiplier impacts include those jobs that exist due to the multiplier effect. Multiplier impacts result in 3,057 additional positions supported by the off-airport businesses. When direct and multiplier employment impacts are combined, approximately 7,062 jobs are supported by spending by off-airport aviation-related businesses at Philadelphia International and Pittsburgh International.

Table 7: Pennsylvania Employment from Off-Airport Businesses at PHL and PIT

	Direct Employment	Multiplier Employment	Total Employment
Off-Airport Employment	4,005	3,057	7,062

Source: Wilbur Smith Associates and IMPLAN multipliers

¹¹ Sikorsky Global Helicopters' Maintenance, Repair, and Overhaul (MRO) facility located on Chester County G.O. Carlson Airport is included in the on-airport impacts. The Heliplex's impacts are included in the off-airport aerospace industry analysis, found later in this report.

Employment from Commercial Service Visitor Spending

Visitors arriving via commercial airlines spend money, which supports jobs beyond those found at the airport. **Table 8** identifies the number of employees in Pennsylvania whose jobs are supported by the spending of visitors arriving on commercial airlines via Pennsylvania's fifteen commercial service airports.

Table 8: Pennsylvania Employment from Commercial Service Visitor Spending

	Direct Employment	Multiplier Employment	Total Employment
Commercial Service Visitor Employment	131,044	78,316	209,360

Source: Wilbur Smith Associates and IMPLAN multipliers

As previously discussed, it is possible to calculate visitor spending, and subsequently, the number of jobs supported by visitors. Direct jobs supported by visitor spending are attributed to a variety of sectors; however, most of the jobs are concentrated in the hotel/motel, restaurant, leisure and entertainment, and retail sectors.

There are an estimated 131,044 direct jobs supported by commercial service visitor spending. Multiplier impacts include those jobs that exist due to the multiplier effect. Multiplier impacts result in 78,316 additional positions supported by the spending of commercial service visitors. When direct and multiplier visitor-related employment impacts are combined, approximately 209,360 jobs are supported by spending from visitors to Pennsylvania who arrive via the commercial airlines.

Employment from General Aviation Visitor Spending

Similar to visitors using commercial airline service, intra-state and inter-state visitors using general aviation aircraft typically spend money while visiting, thereby helping to support additional employment. **Table 9** identifies the number of Pennsylvania jobs supported by spending from visitors using general aviation aircraft to travel to the Commonwealth.

Table 9: Pennsylvania Employment from General Aviation Visitor Spending

	Direct Employment	Multiplier Employment	Total Employment
Commercial Service Airport General Aviation Visitor Employment	494	290	784
General Aviation Airport Visitor Employment	836	493	1,329
TOTAL GENERAL AVIATION VISITOR EMPLOYMENT	1,330	783	2,113

Source: Wilbur Smith Associates and IMPLAN multipliers

Direct jobs associated with general aviation visitor spending are usually found off-airport and are attributed to a variety of sectors; however, most of these jobs are concentrated in the hotel/motel, restaurant, recreational and entertainment, and retail sectors. As a result of general aviation visitor expenditures in Pennsylvania, there are 1,330 direct jobs supported in Pennsylvania.

Multiplier employment includes those jobs that exist due to continued circulation of general aviation visitor expenditures. Multiplier impacts result in 783 additional jobs. When direct and multiplier general aviation visitor-related employment impacts are combined, 2,113 jobs are supported by the spending of visitors using general aviation aircraft in Pennsylvania.

Total Employment

Table 10 identifies the total number of jobs supported by activities at study airports. As a result of on-airport activities, off-airport businesses at Philadelphia International and Pittsburgh International, and spending by visitors using the study airports, there are 180,460 direct jobs. The multiplier effect adds 124,002 additional jobs. In total, 304,462 jobs are supported in Pennsylvania by aviation-related operators, businesses, and visitors to the study airports.

Table 10: Pennsylvania Total Airport Employment

	Total Direct Employment	Total Multiplier Employment	Total Employment
Commercial Service Airport Employment	176,075	119,839	295,914
General Aviation Airport Employment	4,385	4,163	8,548
TOTAL EMPLOYMENT	180,460	124,002	304,462

Source: Wilbur Smith Associates and IMPLAN multipliers

Payroll Impacts

Employment linked to study airports results in a significant annual payroll benefit to the Commonwealth's economy. Payroll impacts relate to the previously identified employment associated with on-airport businesses and their activities, off-airport businesses at Philadelphia International and Pittsburgh International, commercial service visitor spending, and general aviation visitor spending.

Payroll from On-Airport Activity

Table 11 identifies annual payroll impacts associated with on-airport activity at each of the study airports.

Table 11: Pennsylvania On-Airport Activity Payroll

	Direct Payroll	Multiplier Payroll	Total Payroll
Commercial Service Airports On-Airport Payroll	\$1,842,487,200	\$1,448,800,100	\$3,291,287,300
General Aviation Airports On-Airport Payroll	\$169,492,700	\$135,926,100	\$305,418,800
TOTAL ON-AIRPORT ACTIVITY PAYROLL	\$2,011,979,900	\$1,584,726,200	\$3,596,706,100

Source: Wilbur Smith Associates and IMPLAN multipliers

Payroll supported by airport construction projects and on-airport payroll from the Pennsylvania Air National Guard, Pennsylvania Army National Guard, and U.S. Marine Corps at Harrisburg International and John Murtha Johnstown-Cambria County Airports are also included.

This study shows that direct annual payroll impacts are over \$2.0 billion. This payroll impact ripples throughout the Pennsylvania economy, creating multiplier payroll impacts that can be measured through the IMPLAN model. The multiplier annual payroll impact related to on-airport tenants and businesses at the study airports, estimated through the IMPLAN multipliers, is approximately \$1.6 billion. Total payroll impacts produced by airports, which include direct and multiplier annual payroll, are approximately \$3.6 billion annually.

Payroll from Off-Airport Businesses at PHL and PIT

Table 12 identifies the annual payroll impact attributed to off-airport aviation-related businesses such as off-site airline offices, freight forwarders, warehouses, and airport parking lots at Philadelphia International and Pittsburgh International.

Table 12: Pennsylvania Payroll from Off-Airport Businesses at PHL and PIT

	Direct Payroll	Multiplier Payroll	Total Payroll
Off-Airport Payroll	\$125,331,000	\$116,046,600	\$241,377,600

Source: Wilbur Smith Associates and IMPLAN multipliers

This study shows that direct annual payroll impacts are over \$125.3 million. This payroll impact ripples throughout the Pennsylvania economy, creating multiplier payroll impacts that can be measured through the IMPLAN model. The multiplier annual payroll impact related to off-airport businesses at Philadelphia International and Pittsburgh International, estimated through the IMPLAN multipliers, is approximately \$116.0 million. Total payroll impacts produced by the off-airport businesses, which include direct and multiplier annual payroll, are approximately \$241.4 million annually.

Payroll from Commercial Service Visitor Spending

Table 13 identifies the annual payroll impact attributed to employees whose jobs are supported by spending by commercial service visitors using the study airports.

Table 13: Pennsylvania Annual Payroll from Commercial Service Visitor Spending

	Direct Payroll	Multiplier Payroll	Total Payroll
Commercial Service Visitor Payroll	\$2,849,497,600	\$2,426,095,100	\$5,275,592,700

Source: Wilbur Smith Associates and IMPLAN multipliers

Direct payroll consists of wages and benefits paid to employees working at restaurants, hotels/motels, retail businesses, and other service industries that are used by commercial service visitors. Direct annual payroll attributable to spending by commercial service visitors is estimated at almost \$2.8 billion.

As employees in the service industries spend their earnings, the money continues to circulate in Pennsylvania, generating additional employment and subsequent payroll. Annual multiplier payroll impacts associated with commercial service visitor-supported employment are estimated at over \$2.4 billion. When direct and multiplier annual payroll impacts stemming from commercial service visitor spending in Pennsylvania are combined, a total annual payroll impact of nearly \$5.3 billion is produced.

Payroll from General Aviation Visitor Spending

Table 14 identifies the payroll impacts attributed to spending by visitors using general aviation to reach Pennsylvania.

Table 14: Pennsylvania Annual Payroll from General Aviation Visitor Spending

	Direct Payroll	Multiplier Payroll	Total Payroll
Commercial Service Airport Payroll	\$10,761,700	\$9,465,000	\$20,226,700
General Aviation Airport Payroll	\$18,221,800	\$16,051,200	\$34,273,000
TOTAL GENERAL AVIATION VISITOR PAYROLL	\$28,983,500	\$25,516,200	\$54,499,700

Source: Wilbur Smith Associates and IMPLAN multipliers

Direct payroll includes salaries paid to employees working in visitor-related businesses and other service industries that are utilized by general aviation visitors. Direct annual payroll attributable to spending by general aviation visitors is estimated at approximately \$29.0 million.

As employees in the visitor-related industries spend their payroll, this spending continues to circulate, generating additional employment and subsequent payroll. The multiplier annual payroll impact associated with general aviation visitor spending is estimated at approximately \$25.5 million. When direct and multiplier payroll impacts stemming from general aviation visitor spending are combined, a total payroll impact of approximately \$54.5 million is produced.

Total Annual Payroll

The combined impacts of airport businesses/tenants, on-airport activities, off-airport businesses at Philadelphia International and Pittsburgh International, commercial service visitor, and general aviation visitor-related payroll in Pennsylvania are identified in **Table 15**. The collective direct annual payroll impact supported by the study airports is more than \$5.0 billion. With approximately \$4.2 billion in multiplier annual payroll impacts, nearly \$9.2 billion in total annual payroll is realized in Pennsylvania as a result of on-airport activity associated with the study airports, off-airport businesses at Philadelphia International and Pittsburgh International, and visitor spending.

Table 15: Pennsylvania Airports Total Annual Payroll

	Total Direct Payroll	Total Multiplier Payroll	Total Payroll
Commercial Service Airport Payroll	\$4,828,077,500	\$4,000,406,800	\$8,828,484,300
General Aviation Airport Payroll	\$187,714,500	\$151,977,300	\$339,691,800
TOTAL PAYROLL	\$5,015,792,000	\$4,152,384,100	\$9,168,176,100

Source: Wilbur Smith Associates and IMPLAN multipliers

Output Impacts

Output, or economic activity, is defined as annual gross sales and average annual capital expenditures for on- and off-airport businesses and activities. The exceptions are organizations such as corporate flight departments and government agencies that do not generate revenue. Airlines are also exceptions since it is difficult to attribute revenues to specific airports. Output for these types of organizations is defined as the sum of annual capital expenditures, payroll, and operating expenses. Output related to commercial service and general aviation visitors is defined as expenditures made during their visits. Annual economic output benefiting Pennsylvania's economy is discussed in this section.

Output from On-Airport Activity and Businesses

Table 16 identifies direct, multiplier, and total annual output for all on-airport activities. As aviation-related businesses and government entities located on each study airport spend money, these expenditures ripple through the Commonwealth's economy. For example, if an airport were to improve or expand its terminal to provide additional services, money would be spent on construction materials, labor, and other services.

Table 16: Pennsylvania On-Airport Activity Output

	Direct Output	Multiplier Output	Total Output
Commercial Service Airports On-Airport Output	\$5,209,426,900	\$4,810,058,800	\$10,019,485,700
General Aviation Airports On-Airport Output	\$688,877,500	\$539,774,900	\$1,228,652,400
TOTAL ON-AIRPORT OUTPUT	\$5,898,304,400	\$5,349,833,700	\$11,248,138,100

Source: Wilbur Smith Associates and IMPLAN multipliers

Total direct annual output from on-airport businesses and activities is estimated at nearly \$5.9 billion. Multiplier on-airport related output or spending impacts are estimated using IMPLAN multipliers and the IMPLAN model. Multiplier annual output is estimated at more than \$5.3 billion. When direct and multiplier impacts are combined, the total annual output for the study airports is in excess of \$11.2 billion.

Output from Off-Airport Businesses at PHL and PIT

Table 17 identifies direct, multiplier, and total annual output for off-airport aviation-related businesses at Philadelphia International and Pittsburgh International.

Table 17: Pennsylvania Output from Off-Airport Businesses at PHL and PIT

	Direct Output	Multiplier Output	Total Output
Off-Airport Output	\$407,702,900	\$386,894,700	\$794,597,600

Source: Wilbur Smith Associates and IMPLAN multipliers

Total direct annual output from off-airport freight forwarders, warehouses, ground couriers, and other businesses is estimated at more than \$407.7 million. Multiplier off-airport related output or spending impacts are estimated using IMPLAN multipliers and the IMPLAN model.

Multiplier annual output is estimated at \$386.9 million. When direct and multiplier impacts are combined, the total annual output for Philadelphia International and Pittsburgh International is approximately \$794.6 million.

Output from Commercial Service Visitor Spending

Table 18 identifies the output attributed to commercial visitor spending.

Table 18: Pennsylvania Output from Commercial Service Visitor Spending

	Direct Output	Multiplier Output	Total Output
Commercial Service Visitor Output	\$6,188,665,800	\$5,283,621,900	\$11,472,287,700

Source: Wilbur Smith Associates and IMPLAN multipliers

Direct output is comparable to total annual visitor expenditures. Direct output from commercial service visitor spending is estimated at approximately \$6.2 billion. As the service industries re-spend this output, the spending continues to circulate resulting in multiplier impacts. Multiplier annual impacts related to commercial service visitor output or spending are estimated at nearly \$5.3 billion. In total, the combined annual output from commercial service visitor spending approaches \$11.5 billion.

Output from General Aviation Visitor Spending

Table 19 identifies the output attributed to general aviation visitors flying in and out of airports in Pennsylvania. Direct annual output is comparable to all general aviation visitor expenditures at these airports and is estimated at nearly \$70.7 million.

Table 19: Pennsylvania Output from General Aviation Visitor Spending

	Direct Output	Multiplier Output	Total Output
Commercial Service Airport Output	\$26,420,700	\$22,145,400	\$48,566,100
General Aviation Airport Output	\$44,233,700	\$37,454,900	\$81,688,600
TOTAL GENERAL AVIATION VISITOR OUTPUT	\$70,654,400	\$59,600,300	\$130,254,700

Source: Wilbur Smith Associates and IMPLAN multipliers

As the service industries re-spend direct output, money continues to circulate, resulting in multiplier impacts. The multiplier impacts related to general aviation visitor output are estimated at approximately \$59.6 million each year. The total annual output from spending by visitors arriving via general aviation visitors at Pennsylvania's airports is approximately \$130.3 million.

Total Annual Output

The total combined annual output related to on-airport activities, off-airport businesses at Philadelphia International and Pittsburgh International, and commercial service and general aviation visitor spending is presented in **Table 20**. Direct annual output measures nearly \$12.6 billion. Multiplier output impacts are estimated at nearly \$11.1 billion annually. Combined direct and multiplier output from on- airport activities, off-airport businesses at

Philadelphia International and Pittsburgh International, visitors, and the multiplier effect produce a total annual output estimate of approximately \$23.6 billion for the Commonwealth's economy, which comprises 4.2 percent of Pennsylvania's 2010 estimated gross state product of \$569.7 billion.

Table 20: Pennsylvania Airports Total Annual Output

	Total Direct Output	Total Multiplier Output	Total Output
Commercial Service Airport Output	\$11,832,216,300	\$10,502,720,800	\$22,334,937,100
General Aviation Airport Output	\$733,111,200	\$577,229,800	\$1,310,341,000
TOTAL OUTPUT	\$12,565,327,500	\$11,079,950,600	\$23,645,278,100

Source: Wilbur Smith Associates and IMPLAN multipliers

ADDITIONAL AREAS OF ECONOMIC BENEFIT

As detailed previously, certain areas of aviation provide benefits to Pennsylvania that are not captured in the traditional economic model described above and used to quantify the impacts of airports in Pennsylvania. These additional areas of economic benefit are:

- ✈ Off-airport aerospace industry
- ✈ Off-airport air cargo activity
- ✈ Aviation dependent businesses
- ✈ Air ambulance use on airports
- ✈ Qualitative airport benefits

This section describes the benefits associated with these specific areas and the methods used to estimate their nature and scope.

Off-Airport Aerospace Manufacturing Impacts

Aviation and aerospace companies make up a significant sector of the Pennsylvania economy. The Commonwealth has many established businesses that are engaged in the development, production, and manufacturing of aircraft, engines, aviation support systems, aircraft components, and other aviation and aerospace-related products. In many instances, these aviation-related businesses are located on-airport. However, a substantial portion of the aerospace manufacturing industry takes place at locations other than airports.

The largest aviation impacts that take place off-airport involve aerospace manufacturing and defense contractors. Companies such as Boeing, Lockheed Martin, and Sikorsky Global Helicopters operate large facilities supporting thousands of employees. Aviation systems and aircraft components manufacturers are common throughout the state and range in size from small enterprises with less than five employees to large aerospace firms employing hundreds of workers. Off-airport aerospace industry impacts are presented in **Table 21** below.

Table 21: Off-Airport Aerospace Industry Impacts

	Employment	Payroll	Output
Direct Impacts	11,782	\$799,997,800	\$4,536,070,000
Multiplier Impacts	13,756	\$497,320,000	\$1,959,927,600
TOTAL IMPACTS	25,538	\$1,297,317,800	\$6,495,997,600

Source: Wilbur Smith Associates and IMPLAN multipliers

Data collected indicates there are nearly 11,800 workers employed in the aerospace manufacturing sector earning approximately \$800 million annually with over \$4.5 billion in annual sales or output. When including the multiplier impacts, over 25,500 employees in the state are directly or indirectly tied to the aerospace sector with nearly \$6.5 billion annually contributed to the state's economy.

Off-Airport Air Cargo Activity Impacts

On-airport air cargo economic impacts are related primarily to the activities of integrated express carriers such as UPS, FedEx Express and their contract feeders, as well as to the activities of some small cargo carriers that operate in Pennsylvania. While most on-airport air cargo-related economic impacts are associated with commercial airports, there are a handful of general aviation airports in Pennsylvania that also accommodate air cargo operations and the movement of goods and freight. On-airport, direct, air cargo-related economic impacts for the Pennsylvania airport system are presented in **Table 22**.

Table 22: On-Airport Air Cargo Impacts (Excluding PHL and PIT)

	Employment	Payroll	Output
Direct Impacts	430	\$20,686,400	\$91,576,808
Multiplier Impacts	556	\$18,038,071	\$67,835,283
	986	38,724,471	159,412,091

Source: Wilbur Smith Associates and IMPLAN multipliers

Data collected indicates there are 430 workers employed in the air cargo sector earning approximately \$20.7 million annually with more than \$91.5 million in annual sales or output. When including the multiplier impacts, nearly 1,000 employees in the state are directly or indirectly tied to the air cargo sector with \$159.4 million annually contributed to the state's economy.

While there is a notable amount of air cargo activity and associated economic impact that takes place at commercial and general aviation airports in the state, there is also a significant amount of economic impact related to activities of various types of air cargo operators that takes place off-airport. To provide a more complete estimate of the total economic impact for all air cargo activities in Pennsylvania, one must look beyond the boundaries of airports to the various businesses that transport, sort, store, and deliver air cargo.

FedEx Express, UPS, and DHL (integrated express carriers) have a significant number of off-airport shipping centers to support their regional hubs and stations at Philadelphia International, Pittsburgh International, and Harrisburg International. Other local market

stations are located off-airport throughout the state, supporting the overnight and second-day parcel delivery services for their respective carrier. Their primary function is to move packages and parcels from the airports to the local customers and vice versa. **Table 23** presents off-airport air cargo related economic impacts associated with off airport integrated express carrier operations in Pennsylvania. These impacts are statewide and not assigned to a specific airport. As a result, these impacts are not accounted for in the individual airport economic impacts.

Table 23: Off-Airport Air Cargo Impacts (Excluding PHL and PIT)

	Employment	Payroll	Output
Direct Impacts	3,860	\$225,632,600	\$580,906,100
Multiplier Impacts	3,143	\$169,429,700	\$522,475,700
TOTAL IMPACTS	7,003	\$395,062,300	\$1,103,381,800

Source: Wilbur Smith Associates and IMPLAN multipliers

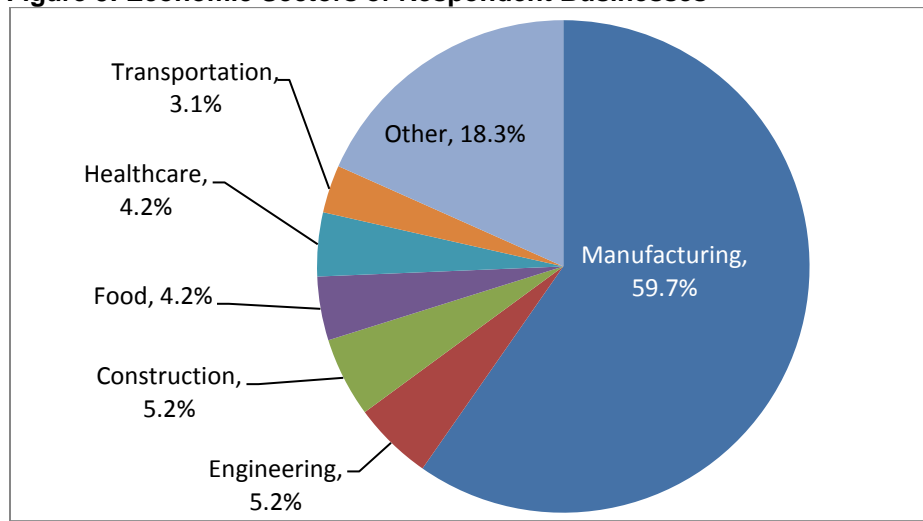
Data collected indicates there are nearly 3,860 workers employed in the air cargo sector off-airport earning approximately \$225.6 million annually with over \$580.9 million in annual sales or output. When including the multiplier impacts, more than 7,000 employees in the state are directly or indirectly tied to the off-airport air cargo sector with more than \$1.1 billion annually contributed to the state's economy.

Value Added Benefits from Off-Airport Aviation Dependent Businesses

The utilization of air travel and aviation services helps businesses throughout the U.S. increase their productivity and achieve their goals. Pennsylvania is no different—many businesses benefit greatly from the presence of the Commonwealth's system of airports. It was therefore necessary to measure this additional benefit that aviation provides to businesses in Pennsylvania. The following section details the results of a survey effort aimed at measuring these benefits.

Approximately 1,000 Pennsylvania businesses were sent surveys in order to measure their dependence upon aviation. Approximately 19 percent responded to the survey. While it is not possible to make exact measurements of the additional economic impact that this business use of aviation provides, it is possible to make broader assumptions about the benefits that aviation provides Pennsylvania's non-aviation businesses. The survey effort specifically targeted industry sectors known for their propensity to utilize airports. **Figure 5** summarizes the specific industry sectors that respondent visitors reported. The average size of respondent businesses was 121 full-time equivalent employees.

Figure 5: Economic Sectors of Respondent Businesses



Source: Wilbur Smith Associates, PA Business Use Survey

Businesses were asked to answer a number of questions about their use of aviation in order to assess the following:

- Dependence on commercial airline and general aviation service
- Reliance on air cargo
- Ways in which businesses benefit from aviation
- How the lack of aviation in Pennsylvania would affect the Commonwealth's businesses
- The level to which airports determine the locations of Pennsylvania businesses

The survey effort confirmed that many Pennsylvania businesses rely on the Commonwealth's airport system for the transportation of employees, clients, and suppliers as well as goods. Without aviation, many players in the Commonwealth's economy would be forced to scale back their business operations or leave the region altogether.

According to the U.S. Bureau of Labor Statistics, there are approximately 5.7 million employees in Pennsylvania (April 2011 estimates). The industrial sectors listed above account for 3.0 million of these jobs, or 52 percent of the statewide total. Survey results reveal that approximately 34 percent of the employment at surveyed businesses is dependent upon aviation. One can then assume that 34 percent of the 3.0 million employees in these sectors (approximately 1 million jobs) can be attributed to the airport utilization by these industries. These jobs represent nearly 20 percent of Pennsylvania's total workforce of 5.6 million employees.

Dependence on Commercial Service Aviation

In total, 159 of the 191 respondent businesses (84 percent) reported utilizing commercial service at least once in 2010. These businesses took an average of 67 trips annually, or 0.48 trips per employee. The average 2010 annual travel budget for these companies was

\$98,626, or \$758 per employee.¹² In addition, 129 businesses (68 percent) reported that clients utilize commercial service flights to visit their business location, with an average of 36 trips in 2010.¹³

Dependence on General Aviation

Surveyed businesses were also asked to report the nature and extent of their general aviation use. In total, 44 companies (23 percent) reported that clients use general aviation aircraft to visit their business location. Other ways in which surveyed businesses depend on general aviation are as follows:

- 10 percent of responding businesses reported owning a general aviation aircraft,
- 1 percent (two companies) reported having fractional ownership of a general aviation aircraft,
- 4 percent (seven companies) reported leasing or renting a general aviation aircraft, and
- 8 percent reported using general aviation charters and air taxis for their business needs.

Dependence on Air Cargo

Because the shipment of goods is a necessary function of aviation in the business world, surveyed companies were also asked to report their reliance upon air cargo services. In total, 74 percent of surveyed companies reported utilizing air cargo for business needs in 2010. Detailed results reveal that 50 percent shipped documents less than two pounds, 61 percent shipped parcels between two and 70 pounds, and 39 percent of respondent businesses shipped freight over 70 pounds in weight.

Dependence on Airports

Businesses surveyed in this part of the study were also asked a hypothetical question about the impact that their company would experience if aviation ceased to exist in Pennsylvania. Fifty-six percent of surveyed businesses reported that it would have some effect on their Pennsylvania business operations. Detailed results of this research follow:

- 5 percent of surveyed businesses report that a lack of aviation in Pennsylvania would cause all of their business operations in the Commonwealth to cease,
- 24 percent reported that operations would scale back,
- 16 percent reported that their company headquarters would relocate to outside Pennsylvania, and
- 15 percent gave other reasons (most commonly to utilize a nearby out-of-state airport).

¹² This is the final calculation after the removal of a statistical outlier.

¹³ This is the final calculation after the removal of a statistical outlier.

The final section of the business survey consisted of questions regarding the importance of certain factors and amenities considered by a business when contemplating relocation or expansion. The 13 possible factors, as ranked in importance by Pennsylvania businesses, are as follows:

1. Convenient highway access
2. Available trained workforce
3. Quality of life
4. Tax incentives
5. Proximity of suppliers
- 6. A commercial service airport**
7. Universities or R&D centers
8. Natural resources
- 9. A general aviation airport**
10. An urban business district
11. Historic location of business
12. Rail transportation facilities
13. Water transportation facilities

In total, 150 of the surveyed businesses (78 percent) reported that the existence of a commercial service airport is a considerable factor in the choice of business location. In addition, 103 businesses (54 percent) reported that the existence of a general aviation airport was of some significance when determining business location.

Commercial Service Passengers Business Travel

During the data collection phase of this study, surveys of commercial airline passengers were conducted at 11 of the Commonwealth's scheduled service airports during the months of November and December. In total, 840 passengers were surveyed on such topics as the purpose of their trip, the length of their stay in Pennsylvania (if visiting the Commonwealth), and the expenditures related to hotels, rental cars, retail, and food.

Of those surveyed, 37 percent reported to be traveling on business. Business passengers were further questioned as to in which industry they worked. **Table 24** details the results of industries reported by surveyed commercial passengers. Business travelers working in the energy sector were the dominant passenger type, accounting for 13 percent of all passengers travelling on business. Business travelers in the energy sector can most likely be attributed to the Marcellus Shale natural gas extraction activity in the Commonwealth. The second and third most common responses were travelers in the education and healthcare fields, each accounting for 12 percent of passengers traveling on business.

Table 24: Reported Industries of Business Travelers in Pennsylvania

Industry	Responses
Energy - Oil & Gas	13%
Education	12%
Healthcare	12%
Other/Undisclosed	10%
Transportation	7%

Manufacturing	7%
Sales/Marketing/Communications	7%
Finance, Insurance, Real Estate	6%
Government/Non-Profit	6%
Retail-Wholesale	5%
Computers/Software/IT	5%
Engineering	3%
Sports/Athletics	2%
Personnel/Management	2%
Construction	1%
Legal	1%
Maintenance	1%
Military	1%
TOTAL	100%

Source: Wilbur Smith Associates

In addition to reporting the industry they work in, commercial passengers travelling on business were also asked in the survey to report the nature of their business travel. **Table 25** details this data. For all business travelers—those visiting Pennsylvania as well as residents of the Commonwealth—sales was the most commonly reported reason for business travel. Conferences and facility/personnel management were also common responses. However, both of these reasons showed great disparity between resident travelers and those visiting Pennsylvania. During the time period of this survey effort, residents were more likely to leave the Commonwealth to attend a conference, while visitors were much more likely to be traveling for reasons of facility/personnel management. Business expansion and procurement of products ranked the lowest for both visiting and resident travelers and may be a reflection of an economy slowly recovering from an economic recession.

Table 25: Nature of Business Travel by Passengers in Pennsylvania

	Sales	Procurement	Conference	Facility/Personnel Management	Business Expansion	Training	Other
Visitor Business	25%	6%	6%	26%	6%	11%	19%
Resident Business	22%	4%	24%	6%	4%	14%	26%
All Business	24%	5%	15%	16%	5%	13%	23%

Source: Wilbur Smith Associates

Air Ambulance Use on Airports

In addition to being used for doctor and patient transport around the state, airports are also used by the healthcare industry to support a variety of medical teams and air ambulances. Analysis for this study indicates there are 25 airports with based air ambulances and crews or businesses involved in air ambulance support.

In purely economic terms, aviation use by the healthcare industry is a fraction of aviation's overall impact. However, air ambulance aviation serves a critical role in providing communities, especially those in rural areas, with access to medical facilities and trauma

units. In fact, several, but not all, air ambulances located in Pennsylvania are equipped and staffed to function as flying trauma units. **Table 26** presents the impacts associated with air ambulance use on Pennsylvania airports.

Table 26: Air Ambulance Impacts

	Employment	Payroll	Output
Direct Impacts	419	\$24,791,100	\$103,302,600
Multiplier Impacts	487	\$21,714,900	\$90,648,400
TOTAL IMPACTS	905	\$46,506,000	\$193,951,000

Source: Wilbur Smith Associates and IMPLAN multipliers

Data collected indicates there are nearly 420 workers employed in on-airport air ambulance bases earning approximately \$24.8 million annually with more than \$100 million in annual sales or output. When including the multiplier impacts, more than 900 employees in the state are directly or indirectly tied to the air ambulance sector with nearly \$194.0 million annually contributed to the state's economy. It is noteworthy that the ability to rapidly and safely move patients and medical personnel throughout Pennsylvania is an aviation benefit that cannot be measured solely in terms of jobs, payroll, and economic output. Lives are improved as a result of air ambulance service, and in many cases, saved. These outcomes, however, are difficult to assign an economic value.

Allegheny County Airport is an example of how a Pennsylvania airport supports emergency medical and air ambulance services. In 2008, CJ Systems, an air ambulance company based at the airport for a number of years, was acquired by Air Methods, a Denver-based air ambulance company. This acquisition gave Air Methods a presence in the eastern United States. Air Methods utilizes Allegheny County Airport for its aircraft maintenance, overhaul, and logistics center. STAT MedEvac is also based at the airport with fixed wing aircraft and helicopters and provides medical service support for air medical transport to patients with critical illness or injuries. The organization is directed by a consortium of regional hospitals, including Altoona Regional Health System, Children's Hospital of Pittsburgh of UPMC, UPMC Mercy, and UPMC Presbyterian Shadyside.

Qualitative Airport Benefits

Beyond the quantitative aspects of aviation impacts that have been discussed previously, there are also qualitative benefits that deserve consideration when the total value of an airport system is analyzed. Qualitative benefits are those activities which take place at an airport on a regular basis that add to the quality of life, but are difficult to assign a dollar value. Qualitative benefits typically enhance the health, welfare, or safety of individuals in the airport's market area. While it may be difficult to place a dollar value on such impacts, these benefits improve the quality of life of the Commonwealth's residents in a variety of ways.

The activities contributing to the qualitative benefits vary throughout the airport system, yet each airport contributes in some way to the quality of life of the residents of Pennsylvania. Some examples of the qualitative benefits of aviation at Pennsylvania system airports include:

- ✈ Providing police support
- ✈ Supporting aerial surveying, photography, and inspection operations
- ✈ Conducting search-and-rescue operations
- ✈ Supporting the U.S. military and other government organizations
- ✈ Assisting with prisoner transport
- ✈ Supporting statewide agricultural activities
- ✈ Providing youth outreach activities (e.g., Boy Scouts, Young Eagles)

Based on information provided by airports that responded to the survey efforts, **Table B-22** in **Appendix B** attempts to tabulate the qualitative benefits each airport provides. The activities listed in Table B-22 are not all inclusive, but instead account for the most common types of aviation operations at these airports. Other additional aviation activity likely takes place at these airports beyond what is shown in Table B-22.

What is most notable is no matter how large or small the contributions, all airports contribute in some way to the quality of life of the Commonwealth's residents.

ECONOMIC IMPACT SUMMARY

The airports considered in this analysis are a major catalyst for Pennsylvania's economy. In 2010, the annual economic activity of the airports was estimated at \$23.6 billion. This includes expenditures and operations associated with on-airport businesses and activities, off-airport aviation-related businesses at Philadelphia International and Pittsburgh International, and spending by thousands of visitors using general aviation and commercial airlines to reach Pennsylvania. This estimate also includes multiplier impacts measured using study multipliers from the economic input-output model.

Aviation benefits do not stop at the airport fence. This study also examined the impacts associated with two industries that exist because of airports but do not operate on them. Off-airport aerospace manufacturers and off-airport cargo businesses provide additional significant economic impacts.

Table 27 provides a summary of economic impacts for the Pennsylvania airports analyzed in this study and the off-airport industries examined. As shown, Pennsylvania's airports help to support a total of 304,462 jobs that have an annual payroll of nearly \$9.2 billion. The airports in Pennsylvania account for a total of approximately \$23.6 billion in total annual economic output. The off-airport aerospace and air cargo industries add another 32,541 jobs with a combined payroll of \$1.7 billion. The output from these industries is nearly \$7.6 billion. When the impacts of all aviation in Pennsylvania are added together, it accounts for 337,003 jobs, a \$10.9 billion payroll, and economic output of approximately \$31.2 billion.

Table 27: Economic Impact Summary for Airports in Pennsylvania

	Direct Impacts	Multiplier Impacts	Total Impacts
<i>Employment</i>			
Airport Impacts	180,460	124,002	304,462
Off-Airport Aerospace & Air Cargo Impacts	15,642	16,899	32,541
TOTAL EMPLOYMENT	196,102	140,901	337,003
<i>Payroll</i>			
Airport Impacts	\$5,015,792,000	\$4,152,384,100	\$9,168,176,100
Off-Airport Aerospace & Air Cargo Impacts	\$1,025,630,400	\$666,749,700	\$1,692,380,100
TOTAL PAYROLL	\$6,041,422,400	\$4,819,133,800	\$10,860,556,200
<i>Output</i>			
Airport Impacts	\$12,565,327,500	\$11,079,950,600	\$23,645,278,100
Off-Airport Aerospace & Air Cargo Impacts	\$5,116,976,100	\$2,482,403,300	\$7,599,379,400
TOTAL OUTPUT	\$17,682,303,600	\$13,562,353,900	\$31,244,657,500

Source: Wilbur Smith Associates and IMPLAN multipliers

This study also found that many non-aviation businesses in Pennsylvania rely on and benefit from their use of various aspects of the aviation industry. In particular, businesses in the manufacturing, engineering, construction, food, healthcare, and transportation sectors rely on commercial aviation, air cargo, and general aviation to support their business activities.

Lastly, in addition to the quantifiable impacts presented in this study, there are numerous quality of life benefits, such as air ambulance flights, that Pennsylvania's airports provide.

Key study findings are:

- ✈ Nearly 6.5 million visitors use the study airports to travel to Pennsylvania, with the majority coming through the Commonwealth's commercial service airports.
- ✈ Of the 6.5 million visitors who arrived in Pennsylvania via the study airports, nearly 602,500 arrived on general aviation aircraft.
- ✈ Approximately 337,000 Pennsylvania residents owe their jobs, directly or indirectly, to the study airports. These employees represent six percent of all the estimated 5.6 million jobs in Pennsylvania.
- ✈ The 337,000 jobs tied to aviation in Pennsylvania have an estimated annual payroll of nearly \$10.9 billion.
- ✈ The total economic impact identified in this analysis (\$31.2 billion) comprises 5.5 percent of Pennsylvania's estimated gross state product of \$569.7 billion.

As this economic impact analysis has shown, airports in Pennsylvania are major economic catalysts for the Commonwealth and for the communities they serve. In addition to economic impacts, airports provide communities with links to the national air transportation system, and they support many health, welfare, and safety services which improve the quality of life for all residents, businesses, and visitors.

APPENDIX A: INCORPORATING PREVIOUS AIRPORT ECONOMIC IMPACT STUDIES

Introduction

Three Pennsylvania airports, on their own initiative, completed economic impact studies between 2006 and 2009. The airports with existing economic impact studies include the following:

- ✈ Philadelphia International Airport
- ✈ Pittsburgh International Airport
- ✈ Allegheny County Airport (included in the Pittsburgh International Airport study)

The economic impact study for Philadelphia International Airport was released in 2006 and was based on 2005 data. The economic impact study for Pittsburgh International and Allegheny County Airports was released in 2009 and was based on 2007 data.

This appendix describes the methodology used to update the economic impacts of these airports, for incorporation into this study. The total updated economic impacts for each of the three airports are presented below.

Economic Update Approach

Similar to other study airports, the total economic impacts of each airport are quantified in terms of employment, payroll, and output. Output represents total spending or economic activity and accounts for the total value of aviation-related activities supported by the airports discussed in this appendix. This appendix presents the economic impacts of the airports in terms of four groups:

- ✈ Airport operations and on-airport activities
- ✈ Off-airport aviation-related businesses (Philadelphia International and Pittsburgh International Airports only)
- ✈ Visitors traveling to Pennsylvania via commercial airlines
- ✈ Visitors traveling to/within Pennsylvania via general aviation aircraft

Economic Impact Update Process

For each of the three airports, direct, multiplier, and total impacts were estimated in terms of employment, payroll, and output for airport operations and on-airport activities; off-airport aviation-related businesses (Philadelphia International and Pittsburgh International Airports only); and commercial service and general aviation visitors traveling to/within Pennsylvania. The discussion below details the process used to update the economic impacts for each airport.

Philadelphia International Airport

There were notable differences between the 2005 economic impact study for Philadelphia International Airport and this PennDOT Bureau of Aviation economic impact study in terms of how airport impacts were estimated. Various assumptions and modifications to the 2005 study's

methodology are required so that the economic impacts of Philadelphia International are presented in a manner consistent with this study's methodology.

Direct On-Airport Impacts – Direct employment impacts from the 2005 study remain unchanged. To update direct payroll impacts associated with airport tenants, estimates of payroll for each tenant category in the 2005 study are identified using ratios of payroll per employee. These ratios are derived from the consultant's in-house database compiled from airport economic impact studies conducted throughout the United States. The direct output impacts from the 2005 study are inflated to 2010 dollar values using the Bureau of Labor Statistics' (BLS) Consumer Price Index (CPI).

Capital Improvement Projects (CIP) expenditure data for 2008-2010, obtained from City of Philadelphia online reports, is used to estimate additional direct employment, payroll, and output impacts generated by on-airport construction projects. Employment and payroll impacts associated with CIP expenditures are identified using Pennsylvania-specific employment ratios per \$1 million of CIP output from the IMPLAN model and the BLS average state wage for construction-related workers in Pennsylvania (\$35,100).

Direct Visitor Impacts – Commercial service and general aviation visitor expenditures are identified using the same methodologies in the PennDOT study. For commercial service visitors, calendar year 2010 passenger enplanements and 2009-2010 visitor percentages are used to estimate annual visitor impacts. Data regarding average visitor spending is based on the consultant's in-house database of visitor spending at commercial service airports throughout the United States and Pennsylvania. For general aviation visitors, the number of annual true transient arrivals based on aircraft operations data from the airport's FAA 5010 Form is used to estimate annual visitors. Data regarding average visitor spending is based on the process used to categorize airports by general aviation visitor expenditures explained earlier in this report. Employment and payroll impacts associated with commercial service and general aviation visitor expenditures are identified using Pennsylvania-specific employment ratios per \$1 million of visitor output from the IMPLAN model and the BLS average state wage for workers in Pennsylvania in service sectors (\$21,600).

Off-Airport Impacts – The employment impacts (not including multiplier impacts) for freight forwarders, ground couriers, the United States Postal Service, and warehousing businesses from the 2005 study remain unchanged. To update payroll impacts (not including multiplier impacts) associated with these businesses, estimates of payroll for each business category are identified using ratios of payroll per employee. These ratios are derived from the consultant's in-house database compiled from airport economic impact studies conducted throughout the United States. The output impacts (not including multiplier impacts) from the 2005 study are inflated to 2010 dollars using the BLS' CPI.

Multiplier Impacts – Pennsylvania-specific IMPLAN multipliers are applied to the direct on-airport, direct visitor, and off-airport impacts to estimate multiplier impacts.

Total Impacts – Total impacts are estimated by summing the direct on-airport, direct visitor, off-airport, and multiplier impacts.

Pittsburgh International Airport

Direct On-Airport Impacts – Direct employment impacts from the 2007 study remain unchanged. The direct payroll and output impacts for airport tenants from the 2007 study are inflated to 2010 dollars using BLS' CPI.

CIP expenditure data for 2008-2010 provided by the Allegheny County Airport Authority (ACAA) was used to estimate additional direct employment, payroll, and output impacts generated by on-airport construction projects. Employment and payroll impacts associated with CIP expenditures are identified using Pennsylvania-specific employment ratios per \$1 million of CIP output from the IMPLAN model and the BLS average state wage for construction-related workers in Pennsylvania.

Direct Visitor Impacts – Commercial service and general aviation visitor expenditures are identified using similar methodologies detailed for these aviation impacts in this study. For commercial service visitors, calendar year 2010 passenger enplanements and 2009-2010 visitor percentages are used to estimate annual visitors. Data regarding average visitor spending from the 2007 study is inflated to 2010 dollars using BLS' CPI. For general aviation visitors, the number of annual true transient arrivals based on aircraft operations data from the ACAA is used to estimate annual visitors. Data regarding average visitor spending from the 2007 study is inflated to 2010 dollars using BLS' CPI. Employment and payroll impacts associated with commercial service and general aviation visitor expenditures were identified using Pennsylvania-specific employment ratios per \$1 million of visitor output from the IMPLAN model and the BLS average state wage for workers in Pennsylvania in service sectors.

Off-Airport Impacts – The employment impacts (not including multiplier impacts) for off-airport businesses such as airport parking providers from the 2007 study remain unchanged. The payroll and output impacts (not including multiplier impacts) for these businesses are inflated to 2010 dollars using BLS' CPI.

Multiplier Impacts – Pennsylvania-specific IMPLAN multipliers are applied to the direct on-airport, direct visitor, and off-airport impacts to estimate multiplier impacts.

Total Impacts – Total impacts were estimated by summing the direct on-airport, direct visitor, off-airport, and multiplier impacts.

Allegheny County Airport

Direct On-Airport Impacts – Direct employment impacts from the 2007 study are not changed. The direct payroll and output impacts for airport tenants from the 2007 study are inflated to 2010 dollars using BLS' CPI.

CIP expenditure data for 2008-2010 is estimated to measure direct employment, payroll, and output impacts generated by on-airport construction projects. Employment and payroll impacts associated with CIP expenditures were identified using Pennsylvania-specific employment ratios per \$1 million of CIP output from the IMPLAN model and the BLS average state wage for construction-related workers in Pennsylvania.

Direct Visitor Impacts –General aviation visitor expenditures are identified using a similar methodology detailed for this aviation group earlier in this report. The number of annual true transient arrivals based on aircraft operations data from the ACAA is used to estimate annual visitors. Data regarding average visitor spending from the 2007 study is inflated to 2010 dollars using BLS’ CPI. Employment and payroll impacts associated with general aviation visitor expenditures are identified using Pennsylvania-specific employment ratios per \$1 million of visitor output from the IMPLAN model and the BLS average state wage for workers in Pennsylvania in service sectors.

Multiplier Impacts – Pennsylvania-specific IMPLAN multipliers are applied to the direct on-airport and direct visitor impacts to estimate multiplier impacts.

Total Impacts – Total impacts are estimated by summing the direct on-airport, direct visitor, and multiplier impacts.

Updated Total Economic Impacts for Airports with Existing Economic Impact Studies

Table A-1 presents updated total economic impacts for Philadelphia International, Pittsburgh International, and Allegheny County Airports, based on the process described above. Total employment, payroll, and output (including multiplier impacts) are shown for each airport. Combined, the three airports support 265,465 total jobs in Pennsylvania with a total payroll of approximately \$7.9 billion. Total output is estimated at nearly \$19.9 billion.

Table A-1: Total Economic Impacts

Associated City	Airport Name	Total Employment	Total Payroll	Total Output
Philadelphia	Philadelphia International Airport	196,507	\$5,731,523,700	\$13,900,508,500
Pittsburgh	Pittsburgh International Airport	67,219	\$2,078,171,500	\$5,629,170,400
Pittsburgh	Allegheny County Airport	1,739	\$68,368,000	\$329,731,600
TOTAL IMPACTS		265,465	\$7,878,063,200	\$19,859,410,500

Summary

This appendix described the methodology used to update the economic impacts for Philadelphia International Airport, Pittsburgh International Airport, and Allegheny County Airport. These three airports are a major catalyst for Pennsylvania’s economy. In total, there are 265,465 total jobs supported by the airports. Total annual payroll associated with these jobs is estimated at nearly \$7.9 billion. Total annual output of all three airports combined is estimated at nearly \$19.9 billion.

APPENDIX B: ECONOMIC IMPACT TABLES

This section of the Pennsylvania airports economic impact study contains tables providing details of the 2010 economic impact for each individual Pennsylvania airport included in the study. The tables present information on the number of jobs, payroll, and economic output associated with each airport's tenants, general aviation visitors, and, where appropriate, commercial service visitors. Summary tables provide a combined total for jobs, payroll, and economic output. Additional details are provided for the estimates of visitor expenditures.

Table B-1: Estimates of General Aviation True Transient Arrivals at Pennsylvania Airports

Associated City	Airport Name	Itinerant GA Operations	True Transient Percent	GA True Transient Arrivals
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	35,371	50%	8,843
Altoona	Altoona-Blair County Airport	14,100	50%	3,525
Bradford	Bradford Regional Airport	7,350	50%	1,838
DuBois	DuBois Regional Airport	1,480	50%	370
Erie	Erie International Airport/Tom Ridge Field	9,984	50%	2,496
Franklin	Venango Regional Airport	9,375	50%	2,344
Harrisburg	Harrisburg International Airport	18,361	50%	4,590
Johnstown	John Murtha Johnstown-Cambria County Airport	9,416	50%	2,354
Lancaster	Lancaster Airport	48,713	50%	12,178
Latrobe	Arnold Palmer Regional Airport	20,524	50%	5,131
Philadelphia	Philadelphia International Airport	30,342	50%	7,586
Pittsburgh	Pittsburgh International Airport	13,845	75%	5,192
State College	University Park Airport	16,593	50%	4,148
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	27,917	50%	6,979
Williamsport	Williamsport Regional Airport	14,629	50%	3,657
COMMERCIAL SERVICE AIRPORTS TOTAL		278,001		71,231
GENERAL AVIATION AIRPORTS				
Allentown	Allentown Queen City Municipal Airport	4,420	33%	729
Bally	Butter Valley Golf Port	1,000	33%	165
Beaver Falls	Beaver County Airport	22,314	50%	5,579
Bedford	Bedford County Airport	4,700	50%	1,175
Bellefonte	Bellefonte Airport	4,260	33%	703
Bensalem	Total RF Heliport	1,500	33%	248
Bethel	Grimes Airport	550	33%	91
Bloomsburg	Bloomsburg Municipal Airport	2,750	33%	454
Broque	Baublitz Commercial Airport	850	33%	140
Butler	Butler County Airport/K. W. Scholter Field	13,261	50%	3,315
Butler	Butler Farm Show Airport	595	33%	98
Canadensis	Flying Dollar Airport	1,000	33%	165
Carlisle	Carlisle Airport	9,500	33%	1,568
Centre Hall	Penn's Cave Airport	150	33%	25
Chambersburg	Franklin County Regional Airport	3,235	33%	534
Clarion	Clarion County Airport	1,512	33%	249
Clearfield	Clearfield-Lawrence Airport	2,515	33%	415
Coatesville	Chester County G.O. Carlson Airport	31,661	50%	7,915
Collegeville	Perkiomen Valley Airport	5,440	33%	898
Columbia	McGinness Airport	175	33%	29
Connellsville	Joseph A. Hardy Connellsville Airport	7,971	33%	1,315

Table B-1: Estimates of General Aviation True Transient Arrivals at Pennsylvania Airports, cont.

Associated City	Airport Name	Itinerant GA Operations	True Transient Percent	GA True Transient Arrivals
GENERAL AVIATION AIRPORTS				
Corry	Corry-Lawrence Airport	720	33%	119
Cresco	Rocky Hill Airport	50	33%	8
Danville	Danville Airport	3,000	33%	495
Dover	Lazy B Ranch Airport	0	33%	0
Doylestown	Doylestown Airport	11,573	33%	1,910
East Stroudsburg	Stroudsburg-Pocono Airport	3,820	33%	630
Easton	Braden Airpark	8,776	33%	1,448
Ebensburg	Ebensburg Airport	2,000	33%	330
Eighty Four	Bandel Airport	366	33%	60
Erwinna	Vansant Airport	2,295	33%	379
Essington	Philadelphia Seaplane Base	300	33%	50
Factoryville	Seamans Field	7,391	33%	1,220
Fairfield	Mid Atlantic Soaring Center	120	33%	20
Finleyville	Finleyville Airpark	3,837	33%	633
Fredericksburg	Farmers Pride Airport	1,625	33%	268
Germansville	Flying M Aerodrome	2,163	33%	357
Gettysburg	Gettysburg Regional Airport	2,750	33%	454
Gettysburg	Southern Adams County Heliport	65	33%	11
Greenville	Greenville Municipal Airport	3,300	33%	545
Grove City	Grove City Airport	1,075	33%	177
Hanover	Hanover Airport	810	33%	134
Harrisburg	Capital City Airport	22,743	50%	5,686
Hazleton	Hazleton Municipal Airport	8,642	50%	2,161
Honesdale	Cherry Ridge Airport	8,318	33%	1,372
Honey Grove	Stottle Memorial Heliport	10	33%	2
Horsham	Horsham Valley Airways Inc. Heliport	700	33%	116
Indiana	Indiana County/Jimmy Stewart Field Airport	4,800	33%	792
Irwin	Inter County Airport	25	33%	4
Jeannette	Greensburg Jeannette Regional Airport	1,810	33%	299
Jersey Shore	Jersey Shore Airport	2,500	33%	413
Kralltown	Bermudian Valley Airpark	1,275	33%	210
Lebanon	Keller Brothers Airport	1,490	33%	246
Lehighton	Beltzville Airport	320	33%	53
Lehighton	Jake Arner Memorial Airport	6,249	33%	1,031
Lock Haven	William T. Piper Memorial Airport	10,400	33%	1,716
Mars	Lakehill Airport	110	33%	18
Meadville	Port Meadville Airport	4,420	50%	1,105
Mifflintown	Mifflintown Airport	524	33%	86
Monongahela	Rostraver Airport	19,399	33%	3,201
Monroeville	Pittsburgh-Monroeville Airport	984	33%	162
Montrose	Husky Haven Airport	250	33%	41
Morgantown	Morgantown Airport	250	33%	41
Mount Joy/Marietta	Donegal Springs Airpark	10,230	33%	1,688
Mount Pleasant	Mount Pleasant/Scottdale Airport	400	33%	66
Mount Pleasant	W.P.H.S. Heliport	623	33%	103
Mount Pocono	Pocono Mountains Municipal Airport	6,800	33%	1,122
Myerstown	Deck Airport	3,050	33%	503
New Castle	New Castle Municipal Airport	12,375	33%	2,042
Newry	Blue Knob Valley Airport	200	33%	33
Osterburg	Ickes Airport	0	33%	0
Palmyra	Reigle Field	6,000	33%	990

Table B-1: Estimates of General Aviation True Transient Arrivals at Pennsylvania Airports, cont.

Associated City	Airport Name	Itinerant GA Operations	True Transient Percent	GA True Transient Arrivals
GENERAL AVIATION AIRPORTS				
Perkasie	Pennridge Airport	10,635	33%	1,755
Philadelphia	Northeast Philadelphia Airport	77,879	50%	19,470
Philadelphia	Penn's Landing Heliport	6,480	33%	1,069
Philadelphia	Wings Field	15,772	33%	2,602
Philipsburg	Albert Airport	10	33%	2
Philipsburg	Mid-State Airport	550	33%	91
Pittsburgh	Allegheny County Airport	50,172	35%	8,780
Pittsburgh	Rock Airport	655	33%	108
Pittsfield	Brokenstraw Airport	280	33%	46
Pottstown	Heritage Field Airport	13,950	33%	2,302
Pottstown	Pottstown Municipal Airport	2,275	33%	375
Pottsville	Schuylkill County/Joe Zerbey Airport	15,500	50%	3,875
Punxsutawney	Punxsutawney Municipal Airport	700	33%	116
Quakertown	Quakertown Airport	6,260	33%	1,033
Reading	Reading Regional Airport/Carl A. Spaatz Field	70,737	50%	17,684
Reedsville	Mifflin County Airport	2,100	50%	525
Selinsgrove	Penn Valley Airport	12,000	50%	3,000
Shamokin	Northumberland County Airport	9,050	33%	1,493
Shippensburg	Shippensburg Airport	100	33%	17
Slatington	Slatington Airport	4,620	33%	762
Smoketown	Smoketown Airport	4,412	33%	728
Somerset	Somerset County Airport	5,230	33%	863
St. Marys	St. Marys Municipal Airport	4,030	33%	665
Sterling	Spring Hill Airport	1,000	33%	165
Stewartstown	Shoestring Aviation Airfield	302	33%	50
Sunbury	Sunbury Airport	400	33%	66
Titusville	Titusville Airport	3,010	33%	497
Toughkenamon	New Garden Airport	3,650	33%	602
Towanda	Bradford County Airport	6,060	33%	1,000
Tower City	Bendigo Airport	1,030	33%	170
Tunkhannock	Skyhaven Airport	2,125	33%	351
Unionville	Ridge Soaring Airport	6,500	33%	1,073
Washington	Washington County Airport	15,436	50%	3,859
Waynesburg	Greene County Airport	3,473	33%	573
Wellsboro	Wellsboro Johnston Airport	1,510	33%	249
Wellsville	Kampel Airport	206	33%	34
West Chester	Brandywine Airport	24,965	33%	4,119
Wilkes-Barre	Wilkes-Barre Wyoming Valley Airport	4,125	33%	681
Williamsburg	Cove Valley Airport	20	33%	3
York	York Airport	21,800	50%	5,450
Zelienople	Zelienople Municipal Airport	5,874	33%	969
GENERAL AVIATION AIRPORTS TOTAL		725,175		147,627
ALL AIRPORTS TOTAL		1,003,176		218,858

Source: Wilbur Smith Associates, FAA 5010 Data, and Allegheny County Airport Authority

Table B-2: Estimates of General Aviation Visitors at Pennsylvania Airports

Associated City	Airport Name	GA True Transient Arrivals	Visitors per Arrival	Estimated GA Visitors
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	8,843	2.9	25,848
Altoona	Altoona-Blair County Airport	3,525	2.9	10,304
Bradford	Bradford Regional Airport	1,838	2.9	5,371
DuBois	DuBois Regional Airport	370	2.9	1,082
Erie	Erie International Airport/Tom Ridge Field	2,496	2.9	7,296
Franklin	Venango Regional Airport	2,344	2.9	6,851
Harrisburg	Harrisburg International Airport	4,590	2.9	13,418
Johnstown	John Murtha Johnstown-Cambria County Airport	2,354	2.9	6,881
Lancaster	Lancaster Airport	12,178	2.9	35,598
Latrobe	Arnold Palmer Regional Airport	5,131	2.9	14,998
Philadelphia	Philadelphia International Airport	7,586	2.9	22,173
Pittsburgh	Pittsburgh International Airport	5,192	3.6	18,691
State College	University Park Airport	4,148	2.9	12,126
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	6,979	2.9	20,401
Williamsport	Williamsport Regional Airport	3,657	2.9	10,690
COMMERCIAL SERVICE AIRPORTS TOTAL		71,231		211,728
GENERAL AVIATION AIRPORTS				
Allentown	Allentown Queen City Municipal Airport	729	2.7	1,983
Bally	Butter Valley Golf Port	165	1.8	297
Beaver Falls	Beaver County Airport	5,579	2.7	15,204
Bedford	Bedford County Airport	1,175	2.7	3,202
Bellefonte	Bellefonte Airport	703	1.8	1,265
Bensalem	Total RF Heliport	248	1.8	446
Bethel	Grimes Airport	91	1.8	163
Bloomsburg	Bloomsburg Municipal Airport	454	2.2	993
Brogue	Baublitz Commercial Airport	140	1.8	252
Butler	Butler County Airport/K. W. Scholter Field	3,315	2.7	9,036
Butler	Butler Farm Show Airport	98	1.8	177
Canadensis	Flying Dollar Airport	165	2.2	361
Carlisle	Carlisle Airport	1,568	2.7	4,262
Centre Hall	Penn's Cave Airport	25	2.2	54
Chambersburg	Franklin County Regional Airport	534	1.8	961
Clarion	Clarion County Airport	249	2.2	546
Clearfield	Clearfield-Lawrence Airport	415	2.7	1,128
Coatesville	Chester County G.O. Carlson Airport	7,915	2.7	21,573
Collegeville	Perkiomen Valley Airport	898	2.7	2,440
Columbia	McGinness Airport	29	1.8	52
Connellsville	Joseph A. Hardy Connellsville Airport	1,315	2.7	3,576
Corry	Corry-Lawrence Airport	119	2.2	260
Cresco	Rocky Hill Airport	8	1.8	15
Danville	Danville Airport	495	2.2	1,083
Dover	Lazy B Ranch Airport	0	1.8	0
Doylestown	Doylestown Airport	1,910	2.7	5,192
East Stroudsburg	Stroudsburg-Pocono Airport	630	2.2	1,379
Easton	Braden Airpark	1,448	2.2	3,168
Ebensburg	Ebensburg Airport	330	2.2	722
Eighty Four	Bandel Airport	60	1.8	109
Erwinna	Vansant Airport	379	1.8	682
Essington	Philadelphia Seaplane Base	50	1.8	89
Factoryville	Seamans Field	1,220	1.8	2,195

Table B-2: Estimates of General Aviation Visitors at Pennsylvania Airports, continued

Associated City	Airport Name	GA True Transient Arrivals	Visitors per Arrival	Estimated GA Visitors
GENERAL AVIATION AIRPORTS				
Fairfield	Mid Atlantic Soaring Center	20	1.8	36
Finleyville	Finleyville Airpark	633	2.2	1,385
Fredericksburg	Farmers Pride Airport	268	2.2	587
Germansville	Flying M Aerodrome	357	1.8	642
Gettysburg	Gettysburg Regional Airport	454	2.2	993
Gettysburg	Southern Adams County Heliport	11	1.8	19
Greenville	Greenville Municipal Airport	545	1.8	980
Grove City	Grove City Airport	177	2.2	388
Hanover	Hanover Airport	134	1.8	241
Harrisburg	Capital City Airport	5,686	2.7	15,496
Hazleton	Hazleton Municipal Airport	2,161	2.7	5,888
Honesdale	Cherry Ridge Airport	1,372	1.8	2,470
Honey Grove	Stottle Memorial Heliport	2	1.8	3
Horsham	Horsham Valley Airways Inc. Heliport	116	1.8	208
Indiana	Indiana County/Jimmy Stewart Field Airport	792	2.7	2,153
Irwin	Inter County Airport	4	1.8	7
Jeannette	Greensburg Jeannette Regional Airport	299	1.8	538
Jersey Shore	Jersey Shore Airport	413	1.8	743
Kralltown	Bermudian Valley Airpark	210	1.8	379
Lebanon	Keller Brothers Airport	246	1.8	443
Lehighton	Beltzville Airport	53	1.8	95
Lehighton	Jake Arner Memorial Airport	1,031	2.2	2,255
Lock Haven	William T. Piper Memorial Airport	1,716	2.2	3,754
Mars	Lakehill Airport	18	1.8	33
Meadville	Port Meadville Airport	1,105	2.7	3,012
Mifflintown	Mifflintown Airport	86	1.8	156
Monongahela	Rostraver Airport	3,201	2.7	8,702
Monroeville	Pittsburgh-Monroeville Airport	162	1.8	292
Montrose	Husky Haven Airport	41	1.8	74
Morgantown	Morgantown Airport	41	1.8	74
Mount Joy/Marietta	Donegal Springs Airpark	1,688	2.7	4,589
Mount Pleasant	Mount Pleasant/Scottdale Airport	66	1.8	119
Mount Pleasant	W.P.H.S. Heliport	103	1.8	185
Mount Pocono	Pocono Mountains Municipal Airport	1,122	2.7	3,050
Myerstown	Deck Airport	503	2.2	1,101
New Castle	New Castle Municipal Airport	2,042	2.7	5,551
Newry	Blue Knob Valley Airport	33	1.8	59
Osterburg	Ickes Airport	0	1.8	0
Palmyra	Reigle Field	990	2.2	2,166
Perkasie	Pennridge Airport	1,755	2.2	3,839
Philadelphia	Northeast Philadelphia Airport	19,470	2.7	53,065
Philadelphia	Penn's Landing Heliport	1,069	1.8	1,925
Philadelphia	Wings Field	2,602	2.7	7,075
Philipsburg	Albert Airport	2	1.8	3
Philipsburg	Mid-State Airport	91	2.2	199
Pittsburgh	Allegheny County Airport	8,780	3.7	32,486
Pittsburgh	Rock Airport	108	2.7	294
Pittsfield	Brokenstraw Airport	46	1.8	83
Pottstown	Heritage Field Airport	2,302	2.7	6,258
Pottstown	Pottstown Municipal Airport	375	2.7	1,021
Pottsville	Schuylkill County/Joe Zerbey Airport	3,875	2.7	10,561

Table B-2: Estimates of General Aviation Visitors at Pennsylvania Airports, continued

Associated City	Airport Name	GA True Transient Arrivals	Visitors per Arrival	Estimated GA Visitors
GENERAL AVIATION AIRPORTS				
Punxsutawney	Punxsutawney Municipal Airport	116	1.8	208
Quakertown	Quakertown Airport	1,033	2.7	2,808
Reading	Reading Regional Airport/Carl A. Spaatz Field	17,684	2.7	48,198
Reedsville	Mifflin County Airport	525	2.7	1,431
Selinsgrove	Penn Valley Airport	3,000	2.7	8,176
Shamokin	Northumberland County Airport	1,493	2.7	4,060
Shippensburg	Shippensburg Airport	17	1.8	30
Slatington	Slatington Airport	762	1.8	1,372
Smoketown	Smoketown Airport	728	1.8	1,310
Somerset	Somerset County Airport	863	2.2	1,888
St. Marys	St. Marys Municipal Airport	665	2.2	1,455
Sterling	Spring Hill Airport	165	1.8	297
Stewartstown	Shoestring Aviation Airfield	50	1.8	90
Sunbury	Sunbury Airport	66	1.8	119
Titusville	Titusville Airport	497	2.2	1,086
Toughkenamon	New Garden Airport	602	2.7	1,637
Towanda	Bradford County Airport	1,000	2.7	2,718
Tower City	Bendigo Airport	170	1.8	306
Tunkhannock	Skyhaven Airport	351	1.8	631
Unionville	Ridge Soaring Airport	1,073	1.8	1,931
Washington	Washington County Airport	3,859	2.7	10,518
Waynesburg	Greene County Airport	573	2.2	1,254
Wellsboro	Wellsboro Johnston Airport	249	1.8	448
Wellsville	Kampel Airport	34	1.8	61
West Chester	Brandywine Airport	4,119	2.7	11,199
Wilkes-Barre	Wilkes-Barre Wyoming Valley Airport	681	2.2	1,489
Williamsburg	Cove Valley Airport	3	1.8	6
York	York Airport	5,450	2.7	14,854
Zelienople	Zelienople Municipal Airport	969	2.7	2,635
GENERAL AVIATION AIRPORTS TOTAL		147,627		390,751
ALL AIRPORTS TOTAL		218,858		602,478

Source: Wilbur Smith Associates

Table B-3: Estimates of Annual Expenditures by General Aviation Visitors to Pennsylvania Airports

Associated City	Airport Name	Estimated GA Visitors	Avg. Visitor Spending per Trip	Annual GA Visitor Expenditures
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	25,848	\$110	\$2,843,300
Altoona	Altoona-Blair County Airport	10,304	\$110	\$1,133,400
Bradford	Bradford Regional Airport	5,371	\$110	\$590,800
DuBois	DuBois Regional Airport	1,082	\$110	\$119,000
Erie	Erie International Airport/Tom Ridge Field	7,296	\$110	\$802,600
Franklin	Venango Regional Airport	6,851	\$110	\$753,600
Harrisburg	Harrisburg International Airport	13,418	\$110	\$1,476,000
Johnstown	John Murtha Johnstown-Cambria County Airport	6,881	\$110	\$756,900
Lancaster	Lancaster Airport	35,598	\$110	\$3,915,800
Latrobe	Arnold Palmer Regional Airport	14,998	\$110	\$1,649,800
Philadelphia	Philadelphia International Airport	22,173	\$110	\$2,439,000
Pittsburgh	Pittsburgh International Airport	18,691	\$278	\$5,186,700
State College	University Park Airport	12,126	\$110	\$1,333,800
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	20,401	\$110	\$2,244,100
Williamsport	Williamsport Regional Airport	10,690	\$110	\$1,175,900
COMMERCIAL SERVICE AIRPORTS TOTAL		211,728	\$125	\$26,420,700
GENERAL AVIATION AIRPORTS				
Allentown	Allentown Queen City Municipal Airport	1,983	\$60	\$119,000
Bally	Butter Valley Golf Port	297	\$30	\$8,900
Beaver Falls	Beaver County Airport	15,204	\$130	\$1,976,500
Bedford	Bedford County Airport	3,202	\$130	\$416,300
Bellefonte	Bellefonte Airport	1,265	\$30	\$38,000
Bensalem	Total RF Heliport	446	\$100	\$44,600
Bethel	Grimes Airport	163	\$30	\$4,900
Bloomsburg	Bloomsburg Municipal Airport	993	\$30	\$29,800
Broque	Baublitz Commercial Airport	252	\$30	\$7,600
Butler	Butler County Airport/K. W. Scholter Field	9,036	\$130	\$1,174,600
Butler	Butler Farm Show Airport	177	\$30	\$5,300
Canadensis	Flying Dollar Airport	361	\$30	\$10,800
Carlisle	Carlisle Airport	4,262	\$60	\$255,700
Centre Hall	Penn's Cave Airport	54	\$30	\$1,600
Chambersburg	Franklin County Regional Airport	961	\$30	\$28,800
Clarion	Clarion County Airport	546	\$30	\$16,400
Clearfield	Clearfield-Lawrence Airport	1,128	\$60	\$67,700
Coatesville	Chester County G.O. Carlson Airport	21,573	\$130	\$2,804,500
Collegeville	Perkiomen Valley Airport	2,440	\$60	\$146,400
Columbia	McGinness Airport	52	\$30	\$1,600
Connellsville	Joseph A. Hardy Connellsville Airport	3,576	\$60	\$214,500
Corry	Corry-Lawrence Airport	260	\$30	\$7,800
Cresco	Rocky Hill Airport	15	\$100	\$1,500
Danville	Danville Airport	1,083	\$30	\$32,500
Dover	Lazy B Ranch Airport	0	\$30	\$0
Doylestown	Doylestown Airport	5,192	\$60	\$311,500
East Stroudsburg	Stroudsburg-Pocono Airport	1,379	\$30	\$41,400
Easton	Braden Airpark	3,168	\$30	\$95,000
Ebensburg	Ebensburg Airport	722	\$30	\$21,700
Eighty Four	Bandel Airport	109	\$30	\$3,300
Erwinna	Vansant Airport	682	\$30	\$20,400
Essington	Philadelphia Seaplane Base	89	\$100	\$8,900

Table B-3: Estimates of Annual Expenditures by General Aviation Visitors to Pennsylvania Airports, continued

Associated City	Airport Name	Estimated GA Visitors	Avg. Visitor Spending per Trip	Annual GA Visitor Expenditures
GENERAL AVIATION AIRPORTS				
Factoryville	Seamans Field	2,195	\$30	\$65,900
Fairfield	Mid Atlantic Soaring Center	36	\$100	\$3,600
Finleyville	Finleyville Airpark	1,385	\$30	\$41,500
Fredericksburg	Farmers Pride Airport	587	\$30	\$17,600
Germansville	Flying M Aerodrome	642	\$30	\$19,300
Gettysburg	Gettysburg Regional Airport	993	\$30	\$29,800
Gettysburg	Southern Adams County Heliport	19	\$100	\$1,900
Greenville	Greenville Municipal Airport	980	\$30	\$29,400
Grove City	Grove City Airport	388	\$30	\$11,600
Hanover	Hanover Airport	241	\$30	\$7,200
Harrisburg	Capital City Airport	15,496	\$130	\$2,014,500
Hazleton	Hazleton Municipal Airport	5,888	\$130	\$765,500
Honesdale	Cherry Ridge Airport	2,470	\$30	\$74,100
Honey Grove	Stottle Memorial Heliport	3	\$100	\$300
Horsham	Horsham Valley Airways Inc. Heliport	208	\$100	\$20,800
Indiana	Indiana County/Jimmy Stewart Field Airport	2,153	\$60	\$129,200
Irwin	Inter County Airport	7	\$30	\$200
Jeannette	Greensburg Jeannette Regional Airport	538	\$30	\$16,100
Jersey Shore	Jersey Shore Airport	743	\$30	\$22,300
Kralltown	Bermudian Valley Airpark	379	\$30	\$11,400
Lebanon	Keller Brothers Airport	443	\$30	\$13,300
Lehighton	Beltzville Airport	95	\$30	\$2,900
Lehighton	Jake Arner Memorial Airport	2,255	\$30	\$67,700
Lock Haven	William T. Piper Memorial Airport	3,754	\$30	\$112,600
Mars	Lakehill Airport	33	\$30	\$1,000
Meadville	Port Meadville Airport	3,012	\$130	\$391,500
Mifflintown	Mifflintown Airport	156	\$30	\$4,700
Monongahela	Rostraver Airport	8,702	\$60	\$522,100
Monroeville	Pittsburgh-Monroeville Airport	292	\$30	\$8,800
Montrose	Husky Haven Airport	74	\$30	\$2,200
Morgantown	Morgantown Airport	74	\$30	\$2,200
Mount Joy/Marietta	Donegal Springs Airpark	4,589	\$60	\$275,300
Mount Pleasant	Mount Pleasant/Scottdale Airport	119	\$30	\$3,600
Mount Pleasant	W.P.H.S. Heliport	185	\$100	\$18,500
Mount Pocono	Pocono Mountains Municipal Airport	3,050	\$60	\$183,000
Myerstown	Deck Airport	1,101	\$30	\$33,000
New Castle	New Castle Municipal Airport	5,551	\$60	\$333,100
Newry	Blue Knob Valley Airport	59	\$30	\$1,800
Osterburg	Ickes Airport	0	\$30	\$0
Palmyra	Reigle Field	2,166	\$30	\$65,000
Perkasie	Pennridge Airport	3,839	\$30	\$115,200
Philadelphia	Northeast Philadelphia Airport	53,065	\$130	\$6,898,400
Philadelphia	Penn's Landing Heliport	1,925	\$100	\$192,500
Philadelphia	Wings Field	7,075	\$60	\$424,500
Philipsburg	Albert Airport	3	\$30	\$100
Philipsburg	Mid-State Airport	199	\$30	\$6,000
Pittsburgh	Allegheny County Airport	32,486	\$242	\$7,861,700
Pittsburgh	Rock Airport	294	\$60	\$17,600
Pittsfield	Brokenstraw Airport	83	\$30	\$2,500
Pottstown	Heritage Field Airport	6,258	\$60	\$375,500

Table B-3: Estimates of Annual Expenditures by General Aviation Visitors to Pennsylvania Airports, continued

Associated City	Airport Name	Estimated GA Visitors	Avg. Visitor Spending per Trip	Annual GA Visitor Expenditures
GENERAL AVIATION AIRPORTS				
Pottstown	Pottstown Municipal Airport	1,021	\$60	\$61,200
Pottsville	Schuylkill County/Joe Zerbey Airport	10,561	\$130	\$1,373,000
Punxsutawney	Punxsutawney Municipal Airport	208	\$30	\$6,200
Quakertown	Quakertown Airport	2,808	\$60	\$168,500
Reading	Reading Regional Airport/Carl A. Spaatz Field	48,198	\$130	\$6,265,800
Reedsville	Mifflin County Airport	1,431	\$130	\$186,000
Selinsgrove	Penn Valley Airport	8,176	\$130	\$1,062,900
Shamokin	Northumberland County Airport	4,060	\$60	\$243,600
Shippensburg	Shippensburg Airport	30	\$30	\$900
Slatington	Slatington Airport	1,372	\$30	\$41,200
Smoketown	Smoketown Airport	1,310	\$30	\$39,300
Somerset	Somerset County Airport	1,888	\$30	\$56,600
St. Marys	St. Marys Municipal Airport	1,455	\$30	\$43,600
Sterling	Spring Hill Airport	297	\$30	\$8,900
Stewartstown	Shoestring Aviation Airfield	90	\$100	\$9,000
Sunbury	Sunbury Airport	119	\$30	\$3,600
Titusville	Titusville Airport	1,086	\$30	\$32,600
Toughkenamon	New Garden Airport	1,637	\$60	\$98,200
Towanda	Bradford County Airport	2,718	\$60	\$163,100
Tower City	Bendigo Airport	306	\$30	\$9,200
Tunkhannock	Skyhaven Airport	631	\$30	\$18,900
Unionville	Ridge Soaring Airport	1,931	\$100	\$193,100
Washington	Washington County Airport	10,518	\$130	\$1,367,300
Waynesburg	Greene County Airport	1,254	\$30	\$37,600
Wellsboro	Wellsboro Johnston Airport	448	\$30	\$13,500
Wellsville	Kampel Airport	61	\$30	\$1,800
West Chester	Brandywine Airport	11,199	\$60	\$671,900
Wilkes-Barre	Wilkes-Barre Wyoming Valley Airport	1,489	\$30	\$44,700
Williamsburg	Cove Valley Airport	6	\$30	\$200
York	York Airport	14,854	\$130	\$1,931,000
Zelienople	Zelienople Municipal Airport	2,635	\$60	\$158,100
GENERAL AVIATION AIRPORTS TOTAL		390,751	\$111	\$43,447,500
ALL AIRPORTS TOTAL		602,478	\$116	\$69,868,200

Source: Wilbur Smith Associates

Table B-4: Estimates of Commercial Service Visitors at Pennsylvania Airports

Associated City	Airport Name	Enplanements	Percent Visitors	Visitors
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	414,427	38%	155,677
Altoona	Altoona-Blair County Airport	4,296	54%	2,327
Bradford	Bradford Regional Airport	2,962	49%	1,440
DuBois	DuBois Regional Airport	5,728	41%	2,340
Erie	Erie International Airport/Tom Ridge Field	127,184	42%	53,247
Franklin	Venango Regional Airport	1,380	61%	840
Harrisburg	Harrisburg International Airport	664,965	41%	275,306
Johnstown	John Murtha Johnstown-Cambria County Airport	8,457	43%	3,652
Lancaster	Lancaster Airport	6,410	55%	3,552
Latrobe	Arnold Palmer Regional Airport	11,000	10%	1,100
Philadelphia	Philadelphia International Airport	15,348,175	23%	3,560,354
Pittsburgh	Pittsburgh International Airport	4,098,384	40%	1,639,354
State College	University Park Airport	142,923	39%	55,312
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	213,422	42%	90,259
Williamsport	Williamsport Regional Airport	22,519	43%	9,589
COMMERCIAL SERVICE AIRPORTS TOTAL		21,072,232	28%	5,854,349

Source: Airport management and FAA

Table B-5: Estimates of Commercial Service Visitor Expenditures at Pennsylvania Airports

Associated City	Airport Name	Annual Visitors	Avg. Expenditure per Visitor	Annual Visitor Expenditures
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	155,677	\$863	\$134,349,300
Altoona	Altoona-Blair County Airport	2,327	\$1,285	\$2,990,200
Bradford	Bradford Regional Airport	1,440	\$1,285	\$1,850,400
DuBois	DuBois Regional Airport	2,340	\$1,285	\$3,006,900
Erie	Erie International Airport/Tom Ridge Field	53,247	\$863	\$45,952,200
Franklin	Venango Regional Airport	840	\$863	\$724,900
Harrisburg	Harrisburg International Airport	275,306	\$863	\$237,589,100
Johnstown	John Murtha Johnstown-Cambria County Airport	3,652	\$1,285	\$4,692,800
Lancaster	Lancaster Airport	3,552	\$863	\$3,065,400
Latrobe	Arnold Palmer Regional Airport	1,100	\$1,285	\$1,413,500
Philadelphia	Philadelphia International Airport	3,560,354	\$1,235	\$4,396,314,700
Pittsburgh	Pittsburgh International Airport	1,639,354	\$706	\$1,157,335,800
State College	University Park Airport	55,312	\$1,285	\$71,075,900
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	90,259	\$1,285	\$115,982,800
Williamsport	Williamsport Regional Airport	9,589	\$1,285	\$12,321,900
COMMERCIAL SERVICE AIRPORTS TOTAL		5,854,349	\$1,057	\$6,188,665,800

Source: Wilbur Smith Associates

Table B-6: Pennsylvania On-Airport Employment

Associated City	Airport Name	Direct Employment	Multiplier Employment	Total Employment
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	904	751	1,655
Altoona	Altoona-Blair County Airport	88	70	158
Bradford	Bradford Regional Airport	40	32	72
DuBois	DuBois Regional Airport	84	67	151
Erie	Erie International Airport/Tom Ridge Field	294	245	539
Franklin	Venango Regional Airport	62	42	104
Harrisburg	Harrisburg International Airport	2,259	1,632	3,891
Johnstown	John Murtha Johnstown-Cambria County Airport	1,138	1,030	2,168
Lancaster	Lancaster Airport	233	212	445
Latrobe	Arnold Palmer Regional Airport	228	195	423
Philadelphia	Philadelphia International Airport	22,408	20,626	43,034
Pittsburgh	Pittsburgh International Airport	11,962	12,623	24,585
State College	University Park Airport	299	223	522
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	385	306	691
Williamsport	Williamsport Regional Airport	148	122	270
COMMERCIAL SERVICE AIRPORTS TOTAL		40,532	38,176	78,708
GENERAL AVIATION AIRPORTS				
Allentown	Allentown Queen City Municipal Airport	38	39	77
Bally	Butter Valley Golf Port	2	0	2
Beaver Falls	Beaver County Airport	60	58	118
Bedford	Bedford County Airport	20	21	41
Bellefonte	Bellefonte Airport	2	3	5
Bensalem	Total RF Heliport	0	0	0
Bethel	Grimes Airport	2	2	4
Bloomsburg	Bloomsburg Municipal Airport	12	12	24
Brogue	Baublitz Commercial Airport	1	1	2
Butler	Butler County Airport/K. W. Scholter Field	104	91	195
Butler	Butler Farm Show Airport	0	1	1
Canadensis	Flying Dollar Airport	2	2	4
Carlisle	Carlisle Airport	20	20	40
Centre Hall	Penn's Cave Airport	1	1	2
Chambersburg	Franklin County Regional Airport	15	14	29
Clarion	Clarion County Airport	6	4	10
Clearfield	Clearfield-Lawrence Airport	9	9	18
Coatesville	Chester County G.O. Carlson Airport	253	252	505
Collegeville	Perkiomen Valley Airport	7	7	14
Columbia	McGinness Airport	1	1	2
Connellsville	Joseph A. Hardy Connellsville Airport	60	60	120
Corry	Corry-Lawrence Airport	12	13	25
Cresco	Rocky Hill Airport	1	0	1
Danville	Danville Airport	6	5	11
Dover	Lazy B Ranch Airport	1	0	1
Doylestown	Doylestown Airport	24	23	47
East Stroudsburg	Stroudsburg-Pocono Airport	41	42	83

Table B-6: Pennsylvania On-Airport Employment, continued

Associated City	Airport Name	Direct Employment	Multiplier Employment	Total Employment
GENERAL AVIATION AIRPORTS				
Easton	Braden Airpark	23	24	47
Ebensburg	Ebensburg Airport	4	3	7
Eighty Four	Bandel Airport	2	2	4
Erwinna	Vansant Airport	3	4	7
Essington	Philadelphia Seaplane Base	0	0	0
Factoryville	Seamans Field	30	32	62
Fairfield	Mid Atlantic Soaring Center	0	0	0
Finleyville	Finleyville Airpark	0	0	0
Fredericksburg	Farmers Pride Airport	1	1	2
Germansville	Flying M Aerodrome	3	2	5
Gettysburg	Gettysburg Regional Airport	4	3	7
Gettysburg	Southern Adams County Heliport	3	3	6
Greenville	Greenville Municipal Airport	3	4	7
Grove City	Grove City Airport	14	13	27
Hanover	Hanover Airport	1	1	2
Harrisburg	Capital City Airport	92	85	177
Hazleton	Hazleton Municipal Airport	14	12	26
Honesdale	Cherry Ridge Airport	12	10	22
Honey Grove	Stottle Memorial Heliport	1	1	2
Horsham	Horsham Valley Airways Inc. Heliport	8	8	16
Indiana	Indiana County/Jimmy Stewart Field Airport	44	41	85
Irwin	Inter County Airport	0	0	0
Jeannette	Greensburg Jeannette Regional Airport	5	4	9
Jersey Shore	Jersey Shore Airport	1	1	2
Kralltown	Bermudian Valley Airpark	2	2	4
Lebanon	Keller Brothers Airport	1	1	2
Lehighton	Beltzville Airport	2	2	4
Lehighton	Jake Arner Memorial Airport	28	28	56
Lock Haven	William T. Piper Memorial Airport	24	24	48
Mars	Lakehill Airport	0	0	0
Meadville	Port Meadville Airport	29	29	58
Mifflintown	Mifflintown Airport	7	6	13
Monongahela	Rostraver Airport	64	60	124
Monroeville	Pittsburgh-Monroeville Airport	0	0	0
Montrose	Husky Haven Airport	1	1	2
Morgantown	Morgantown Airport	5	5	10
Mount Joy/Marietta	Donegal Springs Airpark	8	8	16
Mount Pleasant	Mount Pleasant/Scottdale Airport	0	0	0
Mount Pleasant	W.P.H.S. Heliport	40	42	82
Mount Pocono	Pocono Mountains Municipal Airport	19	17	36
Myerstown	Deck Airport	12	12	24
New Castle	New Castle Municipal Airport	12	11	23
Newry	Blue Knob Valley Airport	2	2	4
Osterburg	Ickes Airport	0	0	0
Palmyra	Reigle Field	8	8	16

Table B-6: Pennsylvania On-Airport Employment, continued

Associated City	Airport Name	Direct Employment	Multiplier Employment	Total Employment
GENERAL AVIATION AIRPORTS				
Perkasie	Pennridge Airport	9	9	18
Philadelphia	Northeast Philadelphia Airport	927	943	1,870
Philadelphia	Penn's Landing Heliport	8	9	17
Philadelphia	Wings Field	45	47	92
Philipsburg	Albert Airport	0	0	0
Philipsburg	Mid-State Airport	2	1	3
Pittsburgh	Allegheny County Airport	619	817	1,436
Pittsburgh	Rock Airport	2	2	4
Pittsfield	Brokenstraw Airport	1	1	2
Pottstown	Heritage Field Airport	46	49	95
Pottstown	Pottstown Municipal Airport	7	7	14
Pottsville	Schuylkill County/Joe Zerbey Airport	9	9	18
Punxsutawney	Punxsutawney Municipal Airport	3	3	6
Quakertown	Quakertown Airport	30	27	57
Reading	Reading Regional Airport/Carl A. Spaatz Field	271	231	502
Reedsville	Mifflin County Airport	3	3	6
Selinsgrove	Penn Valley Airport	13	8	21
Shamokin	Northumberland County Airport	4	3	7
Shippensburg	Shippensburg Airport	0	0	0
Slatington	Slatington Airport	2	1	3
Smoketown	Smoketown Airport	21	22	43
Somerset	Somerset County Airport	10	9	19
St. Marys	St. Marys Municipal Airport	17	11	28
Sterling	Spring Hill Airport	3	2	5
Stewartstown	Shoestring Aviation Airfield	2	1	3
Sunbury	Sunbury Airport	1	1	2
Titusville	Titusville Airport	2	3	5
Toughkenamon	New Garden Airport	14	13	27
Towanda	Bradford County Airport	6	7	13
Tower City	Bendigo Airport	0	0	0
Tunkhannock	Skyhaven Airport	7	8	15
Unionville	Ridge Soaring Airport	3	4	7
Washington	Washington County Airport	103	104	207
Waynesburg	Greene County Airport	12	6	18
Wellsboro	Wellsboro Johnston Airport	1	2	3
Wellsville	Kampel Airport	1	0	1
West Chester	Brandywine Airport	37	38	75
Wilkes-Barre	Wilkes-Barre Wyoming Valley Airport	9	10	19
Williamsburg	Cove Valley Airport	1	1	2
York	York Airport	43	42	85
Zelienople	Zelienople Municipal Airport	23	23	46
GENERAL AVIATION AIRPORTS TOTAL		3,549	3,670	7,219
ALL AIRPORTS TOTAL		44,081	41,846	85,927

Source: Wilbur Smith Associates and IMPLAN Multipliers

Table B-7: Off-Airport Employment at Philadelphia International and Pittsburgh International Airports

Associated City	Airport Name	Direct Employment	Multiplier Employment	Total Employment
COMMERCIAL SERVICE AIRPORTS				
Philadelphia	Philadelphia International Airport	3,799	2,901	6,700
Pittsburgh	Pittsburgh International Airport	206	156	362
COMMERCIAL SERVICE AIRPORTS TOTAL		4,005	3,057	7,062

Source: Wilbur Smith Associates and IMPLAN Multipliers

Table B-8: Pennsylvania General Aviation Visitor-Related Employment

Associated City	Airport Name	Direct Employment	Multiplier Employment	Total Employment
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	51	30	81
Altoona	Altoona-Blair County Airport	20	12	32
Bradford	Bradford Regional Airport	11	6	17
DuBois	DuBois Regional Airport	2	1	3
Erie	Erie International Airport/Tom Ridge Field	15	9	24
Franklin	Venango Regional Airport	14	8	22
Harrisburg	Harrisburg International Airport	27	16	43
Johnstown	John Murtha Johnstown-Cambria County Airport	14	8	22
Lancaster	Lancaster Airport	71	42	113
Latrobe	Arnold Palmer Regional Airport	30	18	48
Philadelphia	Philadelphia International Airport	44	26	70
Pittsburgh	Pittsburgh International Airport	109	64	173
State College	University Park Airport	24	14	38
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	41	24	65
Williamsport	Williamsport Regional Airport	21	12	33
COMMERCIAL SERVICE AIRPORTS TOTAL		494	290	784

GENERAL AVIATION AIRPORTS				
Allentown	Allentown Queen City Municipal Airport	2	1	3
Bally	Butter Valley Golf Port	0	0	0
Beaver Falls	Beaver County Airport	36	21	57
Bedford	Bedford County Airport	8	5	13
Bellefonte	Bellefonte Airport	1	1	2
Bensalem	Total RF Heliport	1	1	2
Bethel	Grimes Airport	0	0	0
Bloomsburg	Bloomsburg Municipal Airport	1	1	2
Broque	Baublitz Commercial Airport	0	0	0
Butler	Butler County Airport/K. W. Scholter Field	21	12	33
Butler	Butler Farm Show Airport	0	0	0
Canadensis	Flying Dollar Airport	0	0	0
Carlisle	Carlisle Airport	5	3	8
Centre Hall	Penn's Cave Airport	0	0	0
Chambersburg	Franklin County Regional Airport	1	1	2
Clarion	Clarion County Airport	0	0	0

Table B-8: Pennsylvania General Aviation Visitor-Related Employment, continued

Associated City	Airport Name	Direct Employment	Multiplier Employment	Total Employment
GENERAL AVIATION AIRPORTS				
Clearfield	Clearfield-Lawrence Airport	1	1	2
Coatesville	Chester County G.O. Carlson Airport	51	30	81
Collegeville	Perkiomen Valley Airport	3	2	5
Columbia	McGinness Airport	0	0	0
Connellsville	Joseph A. Hardy Connellsville Airport	4	2	6
Corry	Corry-Lawrence Airport	0	0	0
Cresco	Rocky Hill Airport	0	0	0
Danville	Danville Airport	1	1	2
Dover	Lazy B Ranch Airport	0	0	0
Doylestown	Doylestown Airport	6	4	10
East Stroudsburg	Stroudsburg-Pocono Airport	1	1	2
Easton	Braden Airpark	2	1	3
Ebensburg	Ebensburg Airport	0	0	0
Eighty Four	Bandel Airport	0	0	0
Erwinna	Vansant Airport	0	0	0
Essington	Philadelphia Seaplane Base	0	0	0
Factoryville	Seamans Field	1	1	2
Fairfield	Mid Atlantic Soaring Center	0	0	0
Finleyville	Finleyville Airpark	1	1	2
Fredericksburg	Farmers Pride Airport	0	0	0
Germansville	Flying M Aerodrome	0	0	0
Gettysburg	Gettysburg Regional Airport	1	1	2
Gettysburg	Southern Adams County Heliport	0	0	0
Greenville	Greenville Municipal Airport	1	1	2
Grove City	Grove City Airport	0	0	0
Hanover	Hanover Airport	0	0	0
Harrisburg	Capital City Airport	36	21	57
Hazleton	Hazleton Municipal Airport	14	8	22
Honesdale	Cherry Ridge Airport	1	1	2
Honey Grove	Stottle Memorial Heliport	0	0	0
Horsham	Horsham Valley Airways Inc. Heliport	0	0	0
Indiana	Indiana County/Jimmy Stewart Field Airport	2	1	3
Irwin	Inter County Airport	0	0	0
Jeannette	Greensburg Jeannette Regional Airport	0	0	0
Jersey Shore	Jersey Shore Airport	0	0	0
Kralltown	Bermudian Valley Airpark	0	0	0
Lebanon	Keller Brothers Airport	0	0	0
Lehighton	Beltzville Airport	0	0	0
Lehighton	Jake Arner Memorial Airport	1	1	2
Lock Haven	William T. Piper Memorial Airport	2	1	3
Mars	Lakehill Airport	0	0	0
Meadville	Port Meadville Airport	7	4	11
Mifflintown	Mifflintown Airport	0	0	0
Monongahela	Rostraver Airport	9	5	14
Monroeville	Pittsburgh-Monroeville Airport	0	0	0

Table B-8: Pennsylvania General Aviation Visitor-Related Employment, continued

Associated City	Airport Name	Direct Employment	Multiplier Employment	Total Employment
GENERAL AVIATION AIRPORTS				
Montrose	Husky Haven Airport	0	0	0
Morgantown	Morgantown Airport	0	0	0
Mount Joy/Marietta	Donegal Springs Airpark	5	3	8
Mount Pleasant	Mount Pleasant/Scottsdale Airport	0	0	0
Mount Pleasant	W.P.H.S. Heliport	0	0	0
Mount Pocono	Pocono Mountains Municipal Airport	3	2	5
Myerstown	Deck Airport	1	1	2
New Castle	New Castle Municipal Airport	6	4	10
Newry	Blue Knob Valley Airport	0	0	0
Osterburg	Ickes Airport	0	0	0
Palmyra	Reigle Field	1	1	2
Perkasie	Pennridge Airport	2	1	3
Philadelphia	Northeast Philadelphia Airport	125	73	198
Philadelphia	Penn's Landing Heliport	3	2	5
Philadelphia	Wings Field	8	5	13
Philipsburg	Albert Airport	0	0	0
Philipsburg	Mid-State Airport	0	0	0
Pittsburgh	Allegheny County Airport	196	107	303
Pittsburgh	Rock Airport	0	0	0
Pittsfield	Brokenstraw Airport	0	0	0
Pottstown	Heritage Field Airport	7	4	11
Pottstown	Pottstown Municipal Airport	1	1	2
Pottsville	Schuylkill County/Joe Zerbey Airport	25	15	40
Punxsutawney	Punxsutawney Municipal Airport	0	0	0
Quakertown	Quakertown Airport	3	2	5
Reading	Reading Regional Airport/Carl A. Spaatz Field	113	66	179
Reedsville	Mifflin County Airport	3	2	5
Selinsgrove	Penn Valley Airport	19	11	30
Shamokin	Northumberland County Airport	4	2	6
Shippensburg	Shippensburg Airport	0	0	0
Slatington	Slatington Airport	1	1	2
Smoketown	Smoketown Airport	1	1	2
Somerset	Somerset County Airport	1	1	2
St. Marys	St. Marys Municipal Airport	1	1	2
Sterling	Spring Hill Airport	0	0	0
Stewartstown	Shoestring Aviation Airfield	0	0	0
Sunbury	Sunbury Airport	0	0	0
Titusville	Titusville Airport	1	1	2
Toughkenamon	New Garden Airport	2	1	3
Towanda	Bradford County Airport	3	2	5
Tower City	Bendigo Airport	0	0	0
Tunkhannock	Skyhaven Airport	0	0	0
Unionville	Ridge Soaring Airport	3	2	5
Washington	Washington County Airport	25	15	40

Table B-8: Pennsylvania General Aviation Visitor-Related Employment, continued

Associated City	Airport Name	Direct Employment	Multiplier Employment	Total Employment
GENERAL AVIATION AIRPORTS				
Waynesburg	Greene County Airport	1	1	2
Wellsboro	Wellsboro Johnston Airport	0	0	0
Wellsville	Kampel Airport	0	0	0
West Chester	Brandywine Airport	12	7	19
Wilkes-Barre	Wilkes-Barre Wyoming Valley Airport	1	1	2
Williamsburg	Cove Valley Airport	0	0	0
York	York Airport	35	21	56
Zelienople	Zelienople Municipal Airport	3	2	5
GENERAL AVIATION AIRPORTS TOTAL		836	493	1,329
ALL AIRPORTS TOTAL				
		1,330	783	2,113

Source: Wilbur Smith Associates and IMPLAN Multipliers

Table B-9: Pennsylvania Commercial Service Visitor-Related Employment

Associated City	Airport Name	Direct Employment	Multiplier Employment	Total Employment
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	2,599	1,751	4,350
Altoona	Altoona-Blair County Airport	58	39	97
Bradford	Bradford Regional Airport	36	24	60
DuBois	DuBois Regional Airport	58	39	97
Erie	Erie International Airport/Tom Ridge Field	889	599	1,488
Franklin	Venango Regional Airport	14	9	23
Harrisburg	Harrisburg International Airport	4,597	3,096	7,693
Johnstown	John Murtha Johnstown-Cambria County Airport	91	61	152
Lancaster	Lancaster Airport	59	40	99
Latrobe	Arnold Palmer Regional Airport	27	18	45
Philadelphia	Philadelphia International Airport	92,278	54,425	146,703
Pittsburgh	Pittsburgh International Airport	26,481	15,618	42,099
State College	University Park Airport	1,375	926	2,301
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	2,244	1,511	3,755
Williamsport	Williamsport Regional Airport	238	160	398
COMMERCIAL SERVICE AIRPORTS TOTAL		131,044	78,316	209,360

Source: Wilbur Smith Associates and IMPLAN Multipliers

Table B-10: Pennsylvania Airports Total Employment

Associated City	Airport Name	Direct Employment	Multiplier Employment	Total Employment
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	3,554	2,532	6,086
Altoona	Altoona-Blair County Airport	166	121	287
Bradford	Bradford Regional Airport	87	62	149
DuBois	DuBois Regional Airport	144	107	251
Erie	Erie International Airport/Tom Ridge Field	1,198	853	2,051
Franklin	Venango Regional Airport	90	59	149
Harrisburg	Harrisburg International Airport	6,883	4,744	11,627
Johnstown	John Murtha Johnstown-Cambria County Airport	1,243	1,099	2,342
Lancaster	Lancaster Airport	363	294	657
Latrobe	Arnold Palmer Regional Airport	285	231	516
Philadelphia	Philadelphia International Airport	118,529	77,978	196,507
Pittsburgh	Pittsburgh International Airport	38,758	28,461	67,219
State College	University Park Airport	1,698	1,163	2,861
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	2,670	1,841	4,511
Williamsport	Williamsport Regional Airport	407	294	701
COMMERCIAL SERVICE AIRPORTS TOTAL		176,075	119,839	295,914
GENERAL AVIATION AIRPORTS				
Allentown	Allentown Queen City Municipal Airport	40	40	80
Bally	Butter Valley Golf Port	2	0	2
Beaver Falls	Beaver County Airport	96	79	175
Bedford	Bedford County Airport	28	26	54
Bellefonte	Bellefonte Airport	3	4	7
Bensalem	Total RF Heliport	1	1	2
Bethel	Grimes Airport	2	2	4
Bloomsburg	Bloomsburg Municipal Airport	13	13	26
Brogue	Baublitz Commercial Airport	1	1	2
Butler	Butler County Airport/K. W. Scholter Field	125	103	228
Butler	Butler Farm Show Airport	0	1	1
Canadensis	Flying Dollar Airport	2	2	4
Carlisle	Carlisle Airport	25	23	48
Centre Hall	Penn's Cave Airport	1	1	2
Chambersburg	Franklin County Regional Airport	16	15	31
Clarion	Clarion County Airport	6	4	10
Clearfield	Clearfield-Lawrence Airport	10	10	20
Coatesville	Chester County G.O. Carlson Airport	304	282	586
Collegeville	Perkiomen Valley Airport	10	9	19
Columbia	McGinness Airport	1	1	2
Connellsville	Joseph A. Hardy Connellsville Airport	64	62	126
Corry	Corry-Lawrence Airport	12	13	25
Cresco	Rocky Hill Airport	1	0	1
Danville	Danville Airport	7	6	13
Dover	Lazy B Ranch Airport	1	0	1
Doylestown	Doylestown Airport	30	27	57
East Stroudsburg	Stroudsburg-Pocono Airport	42	43	85

Table B-10: Pennsylvania Airports Total Employment, continued

Associated City	Airport Name	Direct Employment	Multiplier Employment	Total Employment
GENERAL AVIATION AIRPORTS				
Easton	Braden Airpark	25	25	50
Ebensburg	Ebensburg Airport	4	3	7
Eighty Four	Bandel Airport	2	2	4
Erwinna	Vansant Airport	3	4	7
Essington	Philadelphia Seaplane Base	0	0	0
Factoryville	Seamans Field	31	33	64
Fairfield	Mid Atlantic Soaring Center	0	0	0
Finleyville	Finleyville Airpark	1	1	2
Fredericksburg	Farmers Pride Airport	1	1	2
Germansville	Flying M Aerodrome	3	2	5
Gettysburg	Gettysburg Regional Airport	5	4	9
Gettysburg	Southern Adams County Heliport	3	3	6
Greenville	Greenville Municipal Airport	4	5	9
Grove City	Grove City Airport	14	13	27
Hanover	Hanover Airport	1	1	2
Harrisburg	Capital City Airport	128	106	234
Hazleton	Hazleton Municipal Airport	28	20	48
Honesdale	Cherry Ridge Airport	13	11	24
Honey Grove	Stottle Memorial Heliport	1	1	2
Horsham	Horsham Valley Airways Inc. Heliport	8	8	16
Indiana	Indiana County/Jimmy Stewart Field Airport	46	42	88
Irwin	Inter County Airport	0	0	0
Jeannette	Greensburg Jeannette Regional Airport	5	4	9
Jersey Shore	Jersey Shore Airport	1	1	2
Kralltown	Bermudian Valley Airpark	2	2	4
Lebanon	Keller Brothers Airport	1	1	2
Lehighton	Beltzville Airport	2	2	4
Lehighton	Jake Arner Memorial Airport	29	29	58
Lock Haven	William T. Piper Memorial Airport	26	25	51
Mars	Lakehill Airport	0	0	0
Meadville	Port Meadville Airport	36	33	69
Mifflintown	Mifflintown Airport	7	6	13
Monongahela	Rostraver Airport	73	65	138
Monroeville	Pittsburgh-Monroeville Airport	0	0	0
Montrose	Husky Haven Airport	1	1	2
Morgantown	Morgantown Airport	5	5	10
Mount Joy/Marietta	Donegal Springs Airpark	13	11	24
Mount Pleasant	Mount Pleasant/Scottdale Airport	0	0	0
Mount Pleasant	W.P.H.S. Heliport	40	42	82
Mount Pocono	Pocono Mountains Municipal Airport	22	19	41
Myerstown	Deck Airport	13	13	26
New Castle	New Castle Municipal Airport	18	15	33
Newry	Blue Knob Valley Airport	2	2	4
Osterburg	Ickes Airport	0	0	0
Palmyra	Reigle Field	9	9	18

Table B-10: Pennsylvania Airports Total Employment, continued

Associated City	Airport Name	Direct Employment	Multiplier Employment	Total Employment
GENERAL AVIATION AIRPORTS				
Perkasie	Pennridge Airport	11	10	21
Philadelphia	Northeast Philadelphia Airport	1,052	1,016	2,068
Philadelphia	Penn's Landing Heliport	11	11	22
Philadelphia	Wings Field	53	52	105
Philipsburg	Albert Airport	0	0	0
Philipsburg	Mid-State Airport	2	1	3
Pittsburgh	Allegheny County Airport	815	924	1,739
Pittsburgh	Rock Airport	2	2	4
Pittsfield	Brokenstraw Airport	1	1	2
Pottstown	Heritage Field Airport	53	53	106
Pottstown	Pottstown Municipal Airport	8	8	16
Pottsville	Schuylkill County/Joe Zerbey Airport	34	24	58
Punxsutawney	Punxsutawney Municipal Airport	3	3	6
Quakertown	Quakertown Airport	33	29	62
Reading	Reading Regional Airport/Carl A. Spaatz Field	384	297	681
Reedsville	Mifflin County Airport	6	5	11
Selinsgrove	Penn Valley Airport	32	19	51
Shamokin	Northumberland County Airport	8	5	13
Shippensburg	Shippensburg Airport	0	0	0
Slatington	Slatington Airport	3	2	5
Smoketown	Smoketown Airport	22	23	45
Somerset	Somerset County Airport	11	10	21
St. Marys	St. Marys Municipal Airport	18	12	30
Sterling	Spring Hill Airport	3	2	5
Stewartstown	Shoestring Aviation Airfield	2	1	3
Sunbury	Sunbury Airport	1	1	2
Titusville	Titusville Airport	3	4	7
Toughkenamon	New Garden Airport	16	14	30
Towanda	Bradford County Airport	9	9	18
Tower City	Bendigo Airport	0	0	0
Tunkhannock	Skyhaven Airport	7	8	15
Unionville	Ridge Soaring Airport	6	6	12
Washington	Washington County Airport	128	119	247
Waynesburg	Greene County Airport	13	7	20
Wellsboro	Wellsboro Johnston Airport	1	2	3
Wellsville	Kampel Airport	1	0	1
West Chester	Brandywine Airport	49	45	94
Wilkes-Barre	Wilkes-Barre Wyoming Valley Airport	10	11	21
Williamsburg	Cove Valley Airport	1	1	2
York	York Airport	78	63	141
Zelienople	Zelienople Municipal Airport	26	25	51
GENERAL AVIATION AIRPORTS TOTAL		4,385	4,163	8,548
ALL AIRPORTS TOTAL		180,460	124,002	304,462

Source: Wilbur Smith Associates and IMPLAN Multipliers

Table B-11: Pennsylvania On-Airport Payroll

Associated City	Airport Name	Direct Payroll	Multiplier Payroll	Total Payroll
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	\$47,517,100	\$29,651,600	\$77,168,700
Altoona	Altoona-Blair County Airport	\$4,353,000	\$2,490,800	\$6,843,800
Bradford	Bradford Regional Airport	\$1,938,500	\$1,197,100	\$3,135,600
DuBois	DuBois Regional Airport	\$4,251,600	\$2,723,900	\$6,975,500
Erie	Erie International Airport/Tom Ridge Field	\$13,917,000	\$8,506,200	\$22,423,200
Franklin	Venango Regional Airport	\$2,359,600	\$1,440,500	\$3,800,100
Harrisburg	Harrisburg International Airport	\$104,002,700	\$56,903,400	\$160,906,100
Johnstown	John Murtha Johnstown-Cambria County Airport	\$56,926,000	\$38,120,000	\$95,046,000
Lancaster	Lancaster Airport	\$10,534,300	\$7,620,000	\$18,154,300
Latrobe	Arnold Palmer Regional Airport	\$12,373,900	\$9,335,600	\$21,709,500
Philadelphia	Philadelphia International Airport	\$994,038,600	\$842,777,600	\$1,836,816,200
Pittsburgh	Pittsburgh International Airport	\$551,573,100	\$424,177,400	\$975,750,500
State College	University Park Airport	\$13,081,400	\$7,071,500	\$20,152,900
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	\$18,754,700	\$12,158,900	\$30,913,600
Williamsport	Williamsport Regional Airport	\$6,865,700	\$4,625,600	\$11,491,300
COMMERCIAL SERVICE AIRPORTS TOTAL		\$1,842,487,200	\$1,448,800,100	\$3,291,287,300
GENERAL AVIATION AIRPORTS				
Allentown	Allentown Queen City Municipal Airport	\$1,549,500	\$1,256,300	\$2,805,800
Bally	Butter Valley Golf Port	\$40,800	\$29,500	\$70,300
Beaver Falls	Beaver County Airport	\$1,549,100	\$1,184,100	\$2,733,200
Bedford	Bedford County Airport	\$840,300	\$673,000	\$1,513,300
Bellefonte	Bellefonte Airport	Confidential	Confidential	Confidential
Bensalem	Total RF Heliport	Confidential	Confidential	Confidential
Bethel	Grimes Airport	Confidential	Confidential	Confidential
Bloomsburg	Bloomsburg Municipal Airport	Confidential	Confidential	Confidential
Broque	Baublitz Commercial Airport	Confidential	Confidential	Confidential
Butler	Butler County Airport/K. W. Scholter Field	\$4,635,400	\$3,729,700	\$8,365,100
Butler	Butler Farm Show Airport	Confidential	Confidential	Confidential
Canadensis	Flying Dollar Airport	Confidential	Confidential	Confidential
Carlisle	Carlisle Airport	\$920,500	\$749,200	\$1,669,700
Centre Hall	Penn's Cave Airport	Confidential	Confidential	Confidential
Chambersburg	Franklin County Regional Airport	\$307,200	\$228,700	\$535,900
Clarion	Clarion County Airport	\$173,000	\$109,100	\$282,100
Clearfield	Clearfield-Lawrence Airport	\$398,700	\$303,400	\$702,100
Coatesville	Chester County G.O. Carlson Airport	\$12,728,300	\$10,258,100	\$22,986,400
Collegeville	Perkiomen Valley Airport	\$268,700	\$219,100	\$487,800
Columbia	McGinness Airport	Confidential	Confidential	Confidential
Connellsville	Joseph A. Hardy Connellsville Airport	\$2,489,900	\$1,958,300	\$4,448,200
Corry	Corry-Lawrence Airport	\$649,000	\$527,700	\$1,176,700
Cresco	Rocky Hill Airport	Confidential	Confidential	Confidential
Danville	Danville Airport	\$199,400	\$159,600	\$359,000
Dover	Lazy B Ranch Airport	Confidential	Confidential	Confidential
Doylestown	Doylestown Airport	\$703,800	\$531,400	\$1,235,200
East Stroudsburg	Stroudsburg-Pocono Airport	\$2,072,900	\$1,692,700	\$3,765,600

Table B-11: Pennsylvania On-Airport Payroll, continued

Associated City	Airport Name	Direct Payroll	Multiplier Payroll	Total Payroll
GENERAL AVIATION AIRPORTS				
Easton	Braden Airpark	\$706,400	\$572,800	\$1,279,200
Ebensburg	Ebensburg Airport	\$114,000	\$83,900	\$197,900
Eighty Four	Bandel Airport	Confidential	Confidential	Confidential
Erwinna	Vansant Airport	\$140,000	\$114,000	\$254,000
Essington	Philadelphia Seaplane Base	Confidential	Confidential	Confidential
Factoryville	Seamans Field	\$1,483,700	\$1,211,400	\$2,695,100
Fairfield	Mid Atlantic Soaring Center	Confidential	Confidential	Confidential
Finleyville	Finleyville Airpark	Confidential	Confidential	Confidential
Fredericksburg	Farmers Pride Airport	\$10,900	\$9,000	\$19,900
Germansville	Flying M Aerodrome	Confidential	Confidential	Confidential
Gettysburg	Gettysburg Regional Airport	\$101,100	\$77,300	\$178,400
Gettysburg	Southern Adams County Heliport	Confidential	Confidential	Confidential
Greenville	Greenville Municipal Airport	\$124,500	\$101,300	\$225,800
Grove City	Grove City Airport	\$392,100	\$301,000	\$693,100
Hanover	Hanover Airport	Confidential	Confidential	Confidential
Harrisburg	Capital City Airport	\$5,589,500	\$3,703,100	\$9,292,600
Hazleton	Hazleton Municipal Airport	\$745,500	\$393,400	\$1,138,900
Honesdale	Cherry Ridge Airport	\$453,700	\$358,600	\$812,300
Honey Grove	Stottle Memorial Heliport	Confidential	Confidential	Confidential
Horsham	Horsham Valley Airways Inc. Heliport	Confidential	Confidential	Confidential
Indiana	Indiana County/Jimmy Stewart Field Airport	\$1,531,100	\$1,139,400	\$2,670,500
Irwin	Inter County Airport	Confidential	Confidential	Confidential
Jeannette	Greensburg Jeannette Regional Airport	\$230,900	\$188,500	\$419,400
Jersey Shore	Jersey Shore Airport	Confidential	Confidential	Confidential
Kralltown	Bermudian Valley Airpark	Confidential	Confidential	Confidential
Lebanon	Keller Brothers Airport	\$22,500	\$18,100	\$40,600
Lehighton	Beltzville Airport	\$55,300	\$44,900	\$100,200
Lehighton	Jake Arner Memorial Airport	\$1,447,700	\$1,164,500	\$2,612,200
Lock Haven	William T. Piper Memorial Airport	\$1,045,200	\$809,100	\$1,854,300
Mars	Lakehill Airport	Confidential	Confidential	Confidential
Meadville	Port Meadville Airport	\$1,858,000	\$1,483,800	\$3,341,800
Mifflintown	Mifflintown Airport	\$181,400	\$146,500	\$327,900
Monongahela	Rostraver Airport	\$3,151,500	\$2,474,800	\$5,626,300
Monroeville	Pittsburgh-Monroeville Airport	Confidential	Confidential	Confidential
Montrose	Husky Haven Airport	Confidential	Confidential	Confidential
Morgantown	Morgantown Airport	Confidential	Confidential	Confidential
Mount Joy/Marietta	Donegal Springs Airpark	Confidential	Confidential	Confidential
Mount Pleasant	Mount Pleasant/Scottdale Airport	Confidential	Confidential	Confidential
Mount Pleasant	W.P.H.S. Heliport	Confidential	Confidential	Confidential
Mount Pocono	Pocono Mountains Municipal Airport	\$687,700	\$496,400	\$1,184,100
Myerstown	Deck Airport	\$527,500	\$429,700	\$957,200
New Castle	New Castle Municipal Airport	\$459,400	\$371,700	\$831,100
Newry	Blue Knob Valley Airport	\$105,300	\$85,900	\$191,200
Osterburg	Ickes Airport	Confidential	Confidential	Confidential
Palmyra	Reigle Field	Confidential	Confidential	Confidential

Table B-11: Pennsylvania On-Airport Payroll, continued

Associated City	Airport Name	Direct Payroll	Multiplier Payroll	Total Payroll
GENERAL AVIATION AIRPORTS				
Perkasie	Pennridge Airport	Confidential	Confidential	Confidential
Philadelphia	Northeast Philadelphia Airport	\$48,193,800	\$37,493,400	\$85,687,200
Philadelphia	Penn's Landing Heliport	\$366,400	\$299,100	\$665,500
Philadelphia	Wings Field	\$1,868,100	\$1,522,500	\$3,390,600
Philipsburg	Albert Airport	Confidential	Confidential	Confidential
Philipsburg	Mid-State Airport	\$115,200	\$42,000	\$157,200
Pittsburgh	Allegheny County Airport	\$31,104,600	\$29,142,600	\$60,247,200
Pittsburgh	Rock Airport	Confidential	Confidential	Confidential
Pittsfield	Brokenstraw Airport	\$36,300	\$29,700	\$66,000
Pottstown	Heritage Field Airport	\$2,554,900	\$2,084,000	\$4,638,900
Pottstown	Pottstown Municipal Airport	\$189,100	\$154,100	\$343,200
Pottsville	Schuylkill County/Joe Zerbey Airport	\$384,600	\$290,400	\$675,000
Punxsutawney	Punxsutawney Municipal Airport	\$97,500	\$77,600	\$175,100
Quakertown	Quakertown Airport	\$981,800	\$748,100	\$1,729,900
Reading	Reading Regional Airport/Carl A. Spaatz Field	\$13,210,200	\$8,978,300	\$22,188,500
Reedsville	Mifflin County Airport	\$98,400	\$65,900	\$164,300
Selinsgrove	Penn Valley Airport	\$303,200	\$146,300	\$449,500
Shamokin	Northumberland County Airport	\$124,200	\$99,400	\$223,600
Shippensburg	Shippensburg Airport	Confidential	Confidential	Confidential
Slatington	Slatington Airport	\$62,800	\$51,200	\$114,000
Smoketown	Smoketown Airport	\$951,400	\$776,900	\$1,728,300
Somerset	Somerset County Airport	\$308,500	\$235,700	\$544,200
St. Marys	St. Marys Municipal Airport	\$592,000	\$415,700	\$1,007,700
Sterling	Spring Hill Airport	Confidential	Confidential	Confidential
Stewartstown	Shoestring Aviation Airfield	Confidential	Confidential	Confidential
Sunbury	Sunbury Airport	Confidential	Confidential	Confidential
Titusville	Titusville Airport	\$87,100	\$69,200	\$156,300
Toughkenamon	New Garden Airport	\$458,000	\$324,700	\$782,700
Towanda	Bradford County Airport	\$256,500	\$208,000	\$464,500
Tower City	Bendigo Airport	Confidential	Confidential	Confidential
Tunkhannock	Skyhaven Airport	\$244,300	\$197,600	\$441,900
Unionville	Ridge Soaring Airport	Confidential	Confidential	Confidential
Washington	Washington County Airport	\$5,616,500	\$4,513,400	\$10,129,900
Waynesburg	Greene County Airport	\$289,100	\$188,200	\$477,300
Wellsboro	Wellsboro Johnston Airport	Confidential	Confidential	Confidential
Wellsville	Kampel Airport	Confidential	Confidential	Confidential
West Chester	Brandywine Airport	\$1,836,300	\$1,494,800	\$3,331,100
Wilkes-Barre	Wilkes-Barre Wyoming Valley Airport	Confidential	Confidential	Confidential
Williamsburg	Cove Valley Airport	Confidential	Confidential	Confidential
York	York Airport	\$2,091,000	\$1,700,500	\$3,791,500
Zelienople	Zelienople Municipal Airport	\$949,900	\$763,900	\$1,713,800
GENERAL AVIATION AIRPORTS TOTAL		\$169,492,700	\$135,926,100	\$305,418,800
ALL AIRPORTS TOTAL		\$2,011,979,900	\$1,584,726,200	\$3,596,706,100

Source: Wilbur Smith Associates and IMPLAN Multipliers

Table B-12: Off-Airport Payroll at Philadelphia International and Pittsburgh International Airports

Associated City	Airport Name	Direct Payroll	Multiplier Payroll	Total Payroll
COMMERCIAL SERVICE AIRPORTS				
Philadelphia	Philadelphia International Airport	\$119,189,200	\$110,359,800	\$229,549,000
Pittsburgh	Pittsburgh International Airport	\$6,141,800	\$5,686,800	\$11,828,600
COMMERCIAL SERVICE AIRPORTS TOTAL		\$125,331,000	\$116,046,600	\$241,377,600

Source: Wilbur Smith Associates and IMPLAN Multipliers

Table B-13: Pennsylvania General Aviation Visitor-Related Payroll

Associated City	Airport Name	Direct Payroll	Multiplier Payroll	Total Payroll
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	\$1,101,600	\$982,300	\$2,083,900
Altoona	Altoona-Blair County Airport	\$432,000	\$385,200	\$817,200
Bradford	Bradford Regional Airport	\$237,600	\$211,900	\$449,500
DuBois	DuBois Regional Airport	\$43,200	\$38,500	\$81,700
Erie	Erie International Airport/Tom Ridge Field	\$324,000	\$288,900	\$612,900
Franklin	Venango Regional Airport	\$302,400	\$269,700	\$572,100
Harrisburg	Harrisburg International Airport	\$583,200	\$520,100	\$1,103,300
Johnstown	John Murtha Johnstown-Cambria County Airport	\$302,400	\$269,700	\$572,100
Lancaster	Lancaster Airport	\$1,533,600	\$1,367,600	\$2,901,200
Latrobe	Arnold Palmer Regional Airport	\$648,000	\$577,800	\$1,225,800
Philadelphia	Philadelphia International Airport	\$950,400	\$847,500	\$1,797,900
Pittsburgh	Pittsburgh International Airport	\$2,445,700	\$2,049,300	\$4,495,000
State College	University Park Airport	\$518,400	\$462,300	\$980,700
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	\$885,600	\$789,700	\$1,675,300
Williamsport	Williamsport Regional Airport	\$453,600	\$404,500	\$858,100
COMMERCIAL SERVICE AIRPORTS TOTAL		\$10,761,700	\$9,465,000	\$20,226,700
GENERAL AVIATION AIRPORTS				
Allentown	Allentown Queen City Municipal Airport	\$43,200	\$38,500	\$81,700
Bally	Butter Valley Golf Port	\$0	\$0	\$0
Beaver Falls	Beaver County Airport	\$777,600	\$693,400	\$1,471,000
Bedford	Bedford County Airport	\$172,800	\$154,100	\$326,900
Bellefonte	Bellefonte Airport	\$21,600	\$19,300	\$40,900
Bensalem	Total RF Heliport	\$21,600	\$19,300	\$40,900
Bethel	Grimes Airport	\$0	\$0	\$0
Bloomsburg	Bloomsburg Municipal Airport	\$21,600	\$19,300	\$40,900
Brogue	Baublitz Commercial Airport	\$0	\$0	\$0
Butler	Butler County Airport/K. W. Scholter Field	\$453,600	\$404,500	\$858,100
Butler	Butler Farm Show Airport	\$0	\$0	\$0
Canadensis	Flying Dollar Airport	\$0	\$0	\$0
Carlisle	Carlisle Airport	\$108,000	\$96,300	\$204,300
Centre Hall	Penn's Cave Airport	\$0	\$0	\$0
Chambersburg	Franklin County Regional Airport	\$21,600	\$19,300	\$40,900
Clarion	Clarion County Airport	\$0	\$0	\$0
Clearfield	Clearfield-Lawrence Airport	\$21,600	\$19,300	\$40,900

Table B-13: Pennsylvania General Aviation Visitor-Related Payroll, continued

Associated City	Airport Name	Direct Payroll	Multiplier Payroll	Total Payroll
GENERAL AVIATION AIRPORTS				
Coatesville	Chester County G.O. Carlson Airport	\$1,101,600	\$982,300	\$2,083,900
Collegeville	Perkiomen Valley Airport	\$64,800	\$57,800	\$122,600
Columbia	McGinness Airport	\$0	\$0	\$0
Connellsville	Joseph A. Hardy Connellsville Airport	\$86,400	\$77,000	\$163,400
Corry	Corry-Lawrence Airport	\$0	\$0	\$0
Cresco	Rocky Hill Airport	\$0	\$0	\$0
Danville	Danville Airport	\$21,600	\$19,300	\$40,900
Dover	Lazy B Ranch Airport	\$0	\$0	\$0
Doylestown	Doylestown Airport	\$129,600	\$115,600	\$245,200
East Stroudsburg	Stroudsburg-Pocono Airport	\$21,600	\$19,300	\$40,900
Easton	Braden Airpark	\$43,200	\$38,500	\$81,700
Ebensburg	Ebensburg Airport	\$0	\$0	\$0
Eighty Four	Bandel Airport	\$0	\$0	\$0
Erwinna	Vansant Airport	\$0	\$0	\$0
Essington	Philadelphia Seaplane Base	\$0	\$0	\$0
Factoryville	Seamans Field	\$21,600	\$19,300	\$40,900
Fairfield	Mid Atlantic Soaring Center	\$0	\$0	\$0
Finleyville	Finleyville Airpark	\$21,600	\$19,300	\$40,900
Fredericksburg	Farmers Pride Airport	\$0	\$0	\$0
Germansville	Flying M Aerodrome	\$0	\$0	\$0
Gettysburg	Gettysburg Regional Airport	\$21,600	\$19,300	\$40,900
Gettysburg	Southern Adams County Heliport	\$0	\$0	\$0
Greenville	Greenville Municipal Airport	\$21,600	\$19,300	\$40,900
Grove City	Grove City Airport	\$0	\$0	\$0
Hanover	Hanover Airport	\$0	\$0	\$0
Harrisburg	Capital City Airport	\$777,600	\$693,400	\$1,471,000
Hazleton	Hazleton Municipal Airport	\$302,400	\$269,700	\$572,100
Honesdale	Cherry Ridge Airport	\$21,600	\$19,300	\$40,900
Honey Grove	Stottle Memorial Heliport	\$0	\$0	\$0
Horsham	Horsham Valley Airways Inc. Heliport	\$0	\$0	\$0
Indiana	Indiana County/Jimmy Stewart Field Airport	\$43,200	\$38,500	\$81,700
Irwin	Inter County Airport	\$0	\$0	\$0
Jeannette	Greensburg Jeannette Regional Airport	\$0	\$0	\$0
Jersey Shore	Jersey Shore Airport	\$0	\$0	\$0
Kralltown	Bermudian Valley Airpark	\$0	\$0	\$0
Lebanon	Keller Brothers Airport	\$0	\$0	\$0
Lehighton	Beltzville Airport	\$0	\$0	\$0
Lehighton	Jake Arner Memorial Airport	\$21,600	\$19,300	\$40,900
Lock Haven	William T. Piper Memorial Airport	\$43,200	\$38,500	\$81,700
Mars	Lakehill Airport	\$0	\$0	\$0
Meadville	Port Meadville Airport	\$151,200	\$134,800	\$286,000
Mifflintown	Mifflintown Airport	\$0	\$0	\$0
Monongahela	Rostraver Airport	\$194,400	\$173,400	\$367,800
Monroeville	Pittsburgh-Monroeville Airport	\$0	\$0	\$0
Montrose	Husky Haven Airport	\$0	\$0	\$0

Table B-13: Pennsylvania General Aviation Visitor-Related Payroll, continued

Associated City	Airport Name	Direct Payroll	Multiplier Payroll	Total Payroll
GENERAL AVIATION AIRPORTS				
Morgantown	Morgantown Airport	\$0	\$0	\$0
Mount Joy/Marietta	Donegal Springs Airpark	\$108,000	\$96,300	\$204,300
Mount Pleasant	Mount Pleasant/Scottdale Airport	\$0	\$0	\$0
Mount Pleasant	W.P.H.S. Heliport	\$0	\$0	\$0
Mount Pocono	Pocono Mountains Municipal Airport	\$64,800	\$57,800	\$122,600
Myerstown	Deck Airport	\$21,600	\$19,300	\$40,900
New Castle	New Castle Municipal Airport	\$129,600	\$115,600	\$245,200
Newry	Blue Knob Valley Airport	\$0	\$0	\$0
Osterburg	Ickes Airport	\$0	\$0	\$0
Palmyra	Reigle Field	\$21,600	\$19,300	\$40,900
Perkasie	Pennridge Airport	\$43,200	\$38,500	\$81,700
Philadelphia	Northeast Philadelphia Airport	\$2,700,000	\$2,407,700	\$5,107,700
Philadelphia	Penn's Landing Heliport	\$64,800	\$57,800	\$122,600
Philadelphia	Wings Field	\$172,800	\$154,100	\$326,900
Philipsburg	Albert Airport	\$0	\$0	\$0
Philipsburg	Mid-State Airport	\$0	\$0	\$0
Pittsburgh	Allegheny County Airport	\$4,397,800	\$3,723,000	\$8,120,800
Pittsburgh	Rock Airport	\$0	\$0	\$0
Pittsfield	Brokenstraw Airport	\$0	\$0	\$0
Pottstown	Heritage Field Airport	\$151,200	\$134,800	\$286,000
Pottstown	Pottstown Municipal Airport	\$21,600	\$19,300	\$40,900
Pottsville	Schuylkill County/Joe Zerbey Airport	\$540,000	\$481,500	\$1,021,500
Punxsutawney	Punxsutawney Municipal Airport	\$0	\$0	\$0
Quakertown	Quakertown Airport	\$64,800	\$57,800	\$122,600
Reading	Reading Regional Airport/Carl A. Spaatz Field	\$2,440,800	\$2,176,600	\$4,617,400
Reedsville	Mifflin County Airport	\$64,800	\$57,800	\$122,600
Selinsgrove	Penn Valley Airport	\$410,400	\$366,000	\$776,400
Shamokin	Northumberland County Airport	\$86,400	\$77,000	\$163,400
Shippensburg	Shippensburg Airport	\$0	\$0	\$0
Slatington	Slatington Airport	\$21,600	\$19,300	\$40,900
Smoketown	Smoketown Airport	\$21,600	\$19,300	\$40,900
Somerset	Somerset County Airport	\$21,600	\$19,300	\$40,900
St. Marys	St. Marys Municipal Airport	\$21,600	\$19,300	\$40,900
Sterling	Spring Hill Airport	\$0	\$0	\$0
Stewartstown	Shoestring Aviation Airfield	\$0	\$0	\$0
Sunbury	Sunbury Airport	\$0	\$0	\$0
Titusville	Titusville Airport	\$21,600	\$19,300	\$40,900
Toughkenamon	New Garden Airport	\$43,200	\$38,500	\$81,700
Towanda	Bradford County Airport	\$64,800	\$57,800	\$122,600
Tower City	Bendigo Airport	\$0	\$0	\$0
Tunkhannock	Skyhaven Airport	\$0	\$0	\$0
Unionville	Ridge Soaring Airport	\$64,800	\$57,800	\$122,600
Washington	Washington County Airport	\$540,000	\$481,500	\$1,021,500
Waynesburg	Greene County Airport	\$21,600	\$19,300	\$40,900

Table B-13: Pennsylvania General Aviation Visitor-Related Payroll, continued

Associated City	Airport Name	Direct Payroll	Multiplier Payroll	Total Payroll
GENERAL AVIATION AIRPORTS				
Wellsboro	Wellsboro Johnston Airport	\$0	\$0	\$0
Wellsville	Kampel Airport	\$0	\$0	\$0
West Chester	Brandywine Airport	\$259,200	\$231,100	\$490,300
Wilkes-Barre	Wilkes-Barre Wyoming Valley Airport	\$21,600	\$19,300	\$40,900
Williamsburg	Cove Valley Airport	\$0	\$0	\$0
York	York Airport	\$756,000	\$674,200	\$1,430,200
Zelienople	Zelienople Municipal Airport	\$64,800	\$57,800	\$122,600
GENERAL AVIATION AIRPORTS TOTAL		\$18,221,800	\$16,051,200	\$34,273,000
ALL AIRPORTS TOTAL		\$28,983,500	\$25,516,200	\$54,499,700

Source: Wilbur Smith Associates and IMPLAN Multipliers

Table B-14: Pennsylvania Commercial Service Visitor-Related Payroll

Associated City	Airport Name	Direct Payroll	Multiplier Payroll	Total Payroll
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	\$56,138,400	\$55,170,000	\$111,308,400
Altoona	Altoona-Blair County Airport	\$1,252,800	\$1,231,200	\$2,484,000
Bradford	Bradford Regional Airport	\$777,600	\$764,200	\$1,541,800
DuBois	DuBois Regional Airport	\$1,252,800	\$1,231,200	\$2,484,000
Erie	Erie International Airport/Tom Ridge Field	\$19,202,400	\$18,871,200	\$38,073,600
Franklin	Venango Regional Airport	\$302,400	\$297,200	\$599,600
Harrisburg	Harrisburg International Airport	\$99,295,200	\$97,582,400	\$196,877,600
Johnstown	John Murtha Johnstown-Cambria County Airport	\$1,965,600	\$1,931,700	\$3,897,300
Lancaster	Lancaster Airport	\$1,274,400	\$1,252,400	\$2,526,800
Latrobe	Arnold Palmer Regional Airport	\$583,200	\$573,100	\$1,156,300
Philadelphia	Philadelphia International Airport	\$1,993,204,800	\$1,670,155,800	\$3,663,360,600
Pittsburgh	Pittsburgh International Airport	\$590,936,800	\$495,160,600	\$1,086,097,400
State College	University Park Airport	\$29,700,000	\$29,187,700	\$58,887,700
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	\$48,470,400	\$47,634,300	\$96,104,700
Williamsport	Williamsport Regional Airport	\$5,140,800	\$5,052,100	\$10,192,900
COMMERCIAL SERVICE AIRPORTS TOTAL		\$2,849,497,600	\$2,426,095,100	\$5,275,592,700

Source: Wilbur Smith Associates and IMPLAN Multipliers

Table B-15: Pennsylvania Airports Total Payroll

Associated City	Airport Name	Direct Payroll	Multiplier Payroll	Total Payroll
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	\$104,757,100	\$85,803,900	\$190,561,000
Altoona	Altoona-Blair County Airport	\$6,037,800	\$4,107,200	\$10,145,000
Bradford	Bradford Regional Airport	\$2,953,700	\$2,173,200	\$5,126,900
DuBois	DuBois Regional Airport	\$5,547,600	\$3,993,600	\$9,541,200
Erie	Erie International Airport/Tom Ridge Field	\$33,443,400	\$27,666,300	\$61,109,700
Franklin	Venango Regional Airport	\$2,964,400	\$2,007,400	\$4,971,800
Harrisburg	Harrisburg International Airport	\$203,881,100	\$155,005,900	\$358,887,000
Johnstown	John Murtha Johnstown-Cambria County Airport	\$59,194,000	\$40,321,400	\$99,515,400
Lancaster	Lancaster Airport	\$13,342,300	\$10,240,000	\$23,582,300
Latrobe	Arnold Palmer Regional Airport	\$13,605,100	\$10,486,500	\$24,091,600
Philadelphia	Philadelphia International Airport	\$3,107,383,000	\$2,624,140,700	\$5,731,523,700
Pittsburgh	Pittsburgh International Airport	\$1,151,097,400	\$927,074,100	\$2,078,171,500
State College	University Park Airport	\$43,299,800	\$36,721,500	\$80,021,300
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	\$68,110,700	\$60,582,900	\$128,693,600
Williamsport	Williamsport Regional Airport	\$12,460,100	\$10,082,200	\$22,542,300
COMMERCIAL SERVICE AIRPORTS TOTAL		\$4,828,077,500	\$4,000,406,800	\$8,828,484,300
GENERAL AVIATION AIRPORTS				
Allentown	Allentown Queen City Municipal Airport	\$1,592,700	\$1,294,800	\$2,887,500
Bally	Butter Valley Golf Port	\$40,800	\$29,500	\$70,300
Beaver Falls	Beaver County Airport	\$2,326,700	\$1,877,500	\$4,204,200
Bedford	Bedford County Airport	\$1,013,100	\$827,100	\$1,840,200
Bellefonte	Bellefonte Airport	\$87,900	\$73,300	\$161,200
Bensalem	Total RF Heliport	\$21,600	\$19,300	\$40,900
Bethel	Grimes Airport	\$59,700	\$48,700	\$108,400
Bloomsburg	Bloomsburg Municipal Airport	\$496,200	\$402,900	\$899,100
Broque	Baublitz Commercial Airport	\$36,200	\$28,700	\$64,900
Butler	Butler County Airport/K. W. Scholter Field	\$5,089,000	\$4,134,200	\$9,223,200
Butler	Butler Farm Show Airport	\$8,200	\$6,500	\$14,700
Canadensis	Flying Dollar Airport	\$59,700	\$48,700	\$108,400
Carlisle	Carlisle Airport	\$1,028,500	\$845,500	\$1,874,000
Centre Hall	Penn's Cave Airport	\$35,100	\$28,600	\$63,700
Chambersburg	Franklin County Regional Airport	\$328,800	\$248,000	\$576,800
Clarion	Clarion County Airport	\$173,000	\$109,100	\$282,100
Clearfield	Clearfield-Lawrence Airport	\$420,300	\$322,700	\$743,000
Coatesville	Chester County G.O. Carlson Airport	\$13,829,900	\$11,240,400	\$25,070,300
Collegeville	Perkiomen Valley Airport	\$333,500	\$276,900	\$610,400
Columbia	McGinness Airport	\$29,800	\$24,400	\$54,200
Connellsville	Joseph A. Hardy Connellsville Airport	\$2,576,300	\$2,035,300	\$4,611,600
Corry	Corry-Lawrence Airport	\$649,000	\$527,700	\$1,176,700
Cresco	Rocky Hill Airport	\$14,900	\$12,200	\$27,100
Danville	Danville Airport	\$221,000	\$178,900	\$399,900
Dover	Lazy B Ranch Airport	\$19,400	\$15,700	\$35,100
Doylestown	Doylestown Airport	\$833,400	\$647,000	\$1,480,400
East Stroudsburg	Stroudsburg-Pocono Airport	\$2,094,500	\$1,712,000	\$3,806,500

Table B-15: Pennsylvania Airports Total Payroll, continued

Associated City	Airport Name	Direct Payroll	Multiplier Payroll	Total Payroll
GENERAL AVIATION AIRPORTS				
Easton	Braden Airpark	\$749,600	\$611,300	\$1,360,900
Ebensburg	Ebensburg Airport	\$114,000	\$83,900	\$197,900
Eighty Four	Bandel Airport	\$59,700	\$48,700	\$108,400
Erwinna	Vansant Airport	\$140,000	\$114,000	\$254,000
Essington	Philadelphia Seaplane Base	\$0	\$0	\$0
Factoryville	Seamans Field	\$1,505,300	\$1,230,700	\$2,736,000
Fairfield	Mid Atlantic Soaring Center	\$0	\$100	\$100
Finleyville	Finleyville Airpark	\$26,700	\$23,400	\$50,100
Fredericksburg	Farmers Pride Airport	\$10,900	\$9,000	\$19,900
Germansville	Flying M Aerodrome	\$74,600	\$60,900	\$135,500
Gettysburg	Gettysburg Regional Airport	\$122,700	\$96,600	\$219,300
Gettysburg	Southern Adams County Heliport	\$109,000	\$89,100	\$198,100
Greenville	Greenville Municipal Airport	\$146,100	\$120,600	\$266,700
Grove City	Grove City Airport	\$392,100	\$301,000	\$693,100
Hanover	Hanover Airport	\$29,800	\$24,400	\$54,200
Harrisburg	Capital City Airport	\$6,367,100	\$4,396,500	\$10,763,600
Hazleton	Hazleton Municipal Airport	\$1,047,900	\$663,100	\$1,711,000
Honesdale	Cherry Ridge Airport	\$475,300	\$377,900	\$853,200
Honey Grove	Stottle Memorial Heliport	\$29,800	\$24,400	\$54,200
Horsham	Horsham Valley Airways Inc. Heliport	\$344,100	\$281,000	\$625,100
Indiana	Indiana County/Jimmy Stewart Field Airport	\$1,574,300	\$1,177,900	\$2,752,200
Irwin	Inter County Airport	\$0	\$0	\$0
Jeannette	Greensburg Jeannette Regional Airport	\$230,900	\$188,500	\$419,400
Jersey Shore	Jersey Shore Airport	\$29,800	\$24,400	\$54,200
Kralltown	Bermudian Valley Airpark	\$59,700	\$48,700	\$108,400
Lebanon	Keller Brothers Airport	\$22,500	\$18,100	\$40,600
Lehighton	Beltzville Airport	\$55,300	\$44,900	\$100,200
Lehighton	Jake Arner Memorial Airport	\$1,469,300	\$1,183,800	\$2,653,100
Lock Haven	William T. Piper Memorial Airport	\$1,088,400	\$847,600	\$1,936,000
Mars	Lakehill Airport	\$0	\$0	\$0
Meadville	Port Meadville Airport	\$2,009,200	\$1,618,600	\$3,627,800
Mifflintown	Mifflintown Airport	\$181,400	\$146,500	\$327,900
Monongahela	Rostraver Airport	\$3,345,900	\$2,648,200	\$5,994,100
Monroeville	Pittsburgh-Monroeville Airport	\$0	\$0	\$0
Montrose	Husky Haven Airport	\$37,900	\$30,900	\$68,800
Morgantown	Morgantown Airport	\$215,100	\$175,600	\$390,700
Mount Joy/Marietta	Donegal Springs Airpark	\$452,100	\$377,300	\$829,400
Mount Pleasant	Mount Pleasant/Scottdale Airport	\$0	\$0	\$0
Mount Pleasant	W.P.H.S. Heliport	\$2,105,200	\$1,719,100	\$3,824,300
Mount Pocono	Pocono Mountains Municipal Airport	\$752,500	\$554,200	\$1,306,700
Myerstown	Deck Airport	\$549,100	\$449,000	\$998,100
New Castle	New Castle Municipal Airport	\$589,000	\$487,300	\$1,076,300
Newry	Blue Knob Valley Airport	\$105,300	\$85,900	\$191,200
Osterburg	Ickes Airport	\$1,100	\$800	\$1,900
Palmyra	Reigle Field	\$350,500	\$287,700	\$638,200

Table B-15: Pennsylvania Airports Total Payroll, continued

Associated City	Airport Name	Direct Payroll	Multiplier Payroll	Total Payroll
GENERAL AVIATION AIRPORTS				
Perkasie	Pennridge Airport	\$408,300	\$333,700	\$742,000
Philadelphia	Northeast Philadelphia Airport	\$50,893,800	\$39,901,100	\$90,794,900
Philadelphia	Penn's Landing Heliport	\$431,200	\$356,900	\$788,100
Philadelphia	Wings Field	\$2,040,900	\$1,676,600	\$3,717,500
Philipsburg	Albert Airport	\$0	\$0	\$0
Philipsburg	Mid-State Airport	\$115,200	\$42,000	\$157,200
Pittsburgh	Allegheny County Airport	\$35,502,400	\$32,865,600	\$68,368,000
Pittsburgh	Rock Airport	\$58,200	\$47,500	\$105,700
Pittsfield	Brokenstraw Airport	\$36,300	\$29,700	\$66,000
Pottstown	Heritage Field Airport	\$2,706,100	\$2,218,800	\$4,924,900
Pottstown	Pottstown Municipal Airport	\$210,700	\$173,400	\$384,100
Pottsville	Schuylkill County/Joe Zerbey Airport	\$924,600	\$771,900	\$1,696,500
Punxsutawney	Punxsutawney Municipal Airport	\$97,500	\$77,600	\$175,100
Quakertown	Quakertown Airport	\$1,046,600	\$805,900	\$1,852,500
Reading	Reading Regional Airport/Carl A. Spaatz Field	\$15,651,000	\$11,154,900	\$26,805,900
Reedsville	Mifflin County Airport	\$163,200	\$123,700	\$286,900
Selinsgrove	Penn Valley Airport	\$713,600	\$512,300	\$1,225,900
Shamokin	Northumberland County Airport	\$210,600	\$176,400	\$387,000
Shippensburg	Shippensburg Airport	\$0	\$0	\$0
Slatington	Slatington Airport	\$84,400	\$70,500	\$154,900
Smoketown	Smoketown Airport	\$973,000	\$796,200	\$1,769,200
Somerset	Somerset County Airport	\$330,100	\$255,000	\$585,100
St. Marys	St. Marys Municipal Airport	\$613,600	\$435,000	\$1,048,600
Sterling	Spring Hill Airport	\$74,900	\$61,200	\$136,100
Stewartstown	Shoestring Aviation Airfield	\$44,800	\$36,500	\$81,300
Sunbury	Sunbury Airport	\$29,800	\$24,400	\$54,200
Titusville	Titusville Airport	\$108,700	\$88,500	\$197,200
Toughkenamon	New Garden Airport	\$501,200	\$363,200	\$864,400
Towanda	Bradford County Airport	\$321,300	\$265,800	\$587,100
Tower City	Bendigo Airport	\$0	\$0	\$0
Tunkhannock	Skyhaven Airport	\$244,300	\$197,600	\$441,900
Unionville	Ridge Soaring Airport	\$161,200	\$136,400	\$297,600
Washington	Washington County Airport	\$6,156,500	\$4,994,900	\$11,151,400
Waynesburg	Greene County Airport	\$310,700	\$207,500	\$518,200
Wellsboro	Wellsboro Johnston Airport	\$13,900	\$11,000	\$24,900
Wellsville	Kampel Airport	\$40,600	\$33,100	\$73,700
West Chester	Brandywine Airport	\$2,095,500	\$1,725,900	\$3,821,400
Wilkes-Barre	Wilkes-Barre Wyoming Valley Airport	\$119,900	\$98,600	\$218,500
Williamsburg	Cove Valley Airport	\$29,800	\$24,400	\$54,200
York	York Airport	\$2,847,000	\$2,374,700	\$5,221,700
Zelienople	Zelienople Municipal Airport	\$1,014,700	\$821,700	\$1,836,400
GENERAL AVIATION AIRPORTS TOTAL		\$187,714,500	\$151,977,300	\$339,691,800
ALL AIRPORTS TOTAL		\$5,015,792,000	\$4,152,384,100	\$9,168,176,100

Source: Wilbur Smith Associates and IMPLAN Multipliers

Table B-16: Pennsylvania On-Airport Output

Associated City	Airport Name	Direct Output	Multiplier Output	Total Output
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	\$155,259,100	\$117,990,400	\$273,249,500
Altoona	Altoona-Blair County Airport	\$13,634,700	\$10,708,500	\$24,343,200
Bradford	Bradford Regional Airport	\$5,935,000	\$4,674,000	\$10,609,000
DuBois	DuBois Regional Airport	\$12,814,900	\$10,020,200	\$22,835,100
Erie	Erie International Airport/Tom Ridge Field	\$42,038,200	\$35,739,500	\$77,777,700
Franklin	Venango Regional Airport	\$7,704,500	\$6,641,400	\$14,345,900
Harrisburg	Harrisburg International Airport	\$279,266,000	\$222,803,900	\$502,069,900
Johnstown	John Murtha Johnstown-Cambria County Airport	\$170,955,200	\$121,861,700	\$292,816,900
Lancaster	Lancaster Airport	\$35,916,700	\$27,580,500	\$63,497,200
Latrobe	Arnold Palmer Regional Airport	\$53,263,300	\$38,669,900	\$91,933,200
Philadelphia	Philadelphia International Airport	\$2,542,871,500	\$2,435,322,500	\$4,978,194,000
Pittsburgh	Pittsburgh International Airport	\$1,768,013,900	\$1,683,372,600	\$3,451,386,500
State College	University Park Airport	\$38,530,300	\$30,687,500	\$69,217,800
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	\$60,650,100	\$46,701,900	\$107,352,000
Williamsport	Williamsport Regional Airport	\$22,573,500	\$17,284,300	\$39,857,800
COMMERCIAL SERVICE AIRPORTS TOTAL		\$5,209,426,900	\$4,810,058,800	\$10,019,485,700
GENERAL AVIATION AIRPORTS				
Allentown	Allentown Queen City Municipal Airport	\$5,868,800	\$4,453,000	\$10,321,800
Bally	Butter Valley Golf Port	\$139,700	\$112,100	\$251,800
Beaver Falls	Beaver County Airport	\$5,375,800	\$3,918,600	\$9,294,400
Bedford	Bedford County Airport	\$4,191,800	\$2,954,900	\$7,146,700
Bellefonte	Bellefonte Airport	Confidential	Confidential	Confidential
Bensalem	Total RF Heliport	Confidential	Confidential	Confidential
Bethel	Grimes Airport	Confidential	Confidential	Confidential
Bloomsburg	Bloomsburg Municipal Airport	Confidential	Confidential	Confidential
Brogue	Baublitz Commercial Airport	Confidential	Confidential	Confidential
Butler	Butler County Airport/K. W. Scholter Field	\$21,864,000	\$15,216,500	\$37,080,500
Butler	Butler Farm Show Airport	Confidential	Confidential	Confidential
Canadensis	Flying Dollar Airport	Confidential	Confidential	Confidential
Carlisle	Carlisle Airport	\$3,788,300	\$2,695,000	\$6,483,300
Centre Hall	Penn's Cave Airport	Confidential	Confidential	Confidential
Chambersburg	Franklin County Regional Airport	\$984,700	\$785,000	\$1,769,700
Clarion	Clarion County Airport	\$634,700	\$609,700	\$1,244,400
Clearfield	Clearfield-Lawrence Airport	\$1,809,600	\$1,446,600	\$3,256,200
Coatesville	Chester County G.O. Carlson Airport	\$47,183,600	\$32,501,700	\$79,685,300
Collegeville	Perkiomen Valley Airport	\$947,600	\$661,300	\$1,608,900
Columbia	McGinness Airport	Confidential	Confidential	Confidential
Connellsville	Joseph A. Hardy Connellsville Airport	\$8,886,100	\$7,204,400	\$16,090,500
Corry	Corry-Lawrence Airport	\$2,805,000	\$2,029,800	\$4,834,800
Cresco	Rocky Hill Airport	Confidential	Confidential	Confidential
Danville	Danville Airport	\$670,700	\$629,700	\$1,300,400
Dover	Lazy B Ranch Airport	Confidential	Confidential	Confidential
Doylestown	Doylestown Airport	\$3,080,500	\$2,525,500	\$5,606,000
East Stroudsburg	Stroudsburg-Pocono Airport	\$8,310,300	\$5,610,600	\$13,920,900

Table B-16: Pennsylvania On-Airport Output, continued

Associated City	Airport Name	Direct Output	Multiplier Output	Total Output
GENERAL AVIATION AIRPORTS				
Easton	Braden Airpark	\$4,666,700	\$3,371,300	\$8,038,000
Ebensburg	Ebensburg Airport	\$409,200	\$388,100	\$797,300
Eighty Four	Bandel Airport	Confidential	Confidential	Confidential
Erwinna	Vansant Airport	\$451,200	\$322,200	\$773,400
Essington	Philadelphia Seaplane Base	Confidential	Confidential	Confidential
Factoryville	Seamans Field	\$4,701,700	\$3,189,800	\$7,891,500
Fairfield	Mid Atlantic Soaring Center	Confidential	Confidential	Confidential
Finleyville	Finleyville Airpark	Confidential	Confidential	Confidential
Fredericksburg	Farmers Pride Airport	\$55,600	\$37,500	\$93,100
Germansville	Flying M Aerodrome	Confidential	Confidential	Confidential
Gettysburg	Gettysburg Regional Airport	\$359,200	\$322,200	\$681,400
Gettysburg	Southern Adams County Heliport	Confidential	Confidential	Confidential
Greenville	Greenville Municipal Airport	\$587,200	\$417,800	\$1,005,000
Grove City	Grove City Airport	\$1,703,700	\$1,294,700	\$2,998,400
Hanover	Hanover Airport	Confidential	Confidential	Confidential
Harrisburg	Capital City Airport	\$22,266,500	\$16,273,100	\$38,539,600
Hazleton	Hazleton Municipal Airport	\$2,319,500	\$1,978,400	\$4,297,900
Honesdale	Cherry Ridge Airport	\$1,447,400	\$1,030,500	\$2,477,900
Honey Grove	Stottle Memorial Heliport	Confidential	Confidential	Confidential
Horsham	Horsham Valley Airways Inc. Heliport	Confidential	Confidential	Confidential
Indiana	Indiana County/Jimmy Stewart Field Airport	\$5,371,500	\$5,210,900	\$10,582,400
Irwin	Inter County Airport	Confidential	Confidential	Confidential
Jeannette	Greensburg Jeannette Regional Airport	\$989,200	\$667,900	\$1,657,100
Jersey Shore	Jersey Shore Airport	Confidential	Confidential	Confidential
Kralltown	Bermudian Valley Airpark	Confidential	Confidential	Confidential
Lebanon	Keller Brothers Airport	\$103,400	\$86,000	\$189,400
Lehighton	Beltzville Airport	\$239,400	\$171,200	\$410,600
Lehighton	Jake Arner Memorial Airport	\$6,460,700	\$4,416,900	\$10,877,600
Lock Haven	William T. Piper Memorial Airport	\$3,871,400	\$2,757,000	\$6,628,400
Mars	Lakehill Airport	Confidential	Confidential	Confidential
Meadville	Port Meadville Airport	\$6,658,900	\$4,880,200	\$11,539,100
Mifflintown	Mifflintown Airport	\$659,000	\$531,700	\$1,190,700
Monongahela	Rostraver Airport	\$11,405,300	\$8,112,800	\$19,518,100
Monroeville	Pittsburgh-Monroeville Airport	Confidential	Confidential	Confidential
Montrose	Husky Haven Airport	Confidential	Confidential	Confidential
Morgantown	Morgantown Airport	Confidential	Confidential	Confidential
Mount Joy/Marietta	Donegal Springs Airpark	Confidential	Confidential	Confidential
Mount Pleasant	Mount Pleasant/Scottdale Airport	Confidential	Confidential	Confidential
Mount Pleasant	W.P.H.S. Heliport	Confidential	Confidential	Confidential
Mount Pocono	Pocono Mountains Municipal Airport	Confidential	Confidential	Confidential
Myerstown	Deck Airport	\$2,004,100	\$1,406,800	\$3,410,900
New Castle	New Castle Municipal Airport	\$2,164,300	\$1,663,300	\$3,827,600
Newry	Blue Knob Valley Airport	\$400,400	\$270,400	\$670,800
Osterburg	Ickes Airport	Confidential	Confidential	Confidential
Palmyra	Reigle Field	Confidential	Confidential	Confidential

Table B-16: Pennsylvania On-Airport Output, continued

Associated City	Airport Name	Direct Output	Multiplier Output	Total Output
GENERAL AVIATION AIRPORTS				
Perkasie	Pennridge Airport	Confidential	Confidential	Confidential
Philadelphia	Northeast Philadelphia Airport	\$174,144,000	\$120,451,300	\$294,595,300
Philadelphia	Penn's Landing Heliport	\$1,434,200	\$975,300	\$2,409,500
Philadelphia	Wings Field	\$9,716,800	\$6,720,400	\$16,437,200
Philipsburg	Albert Airport	Confidential	Confidential	Confidential
Philipsburg	Mid-State Airport	\$373,600	\$326,800	\$700,400
Pittsburgh	Allegheny County Airport	\$155,742,700	\$157,715,200	\$313,457,900
Pittsburgh	Rock Airport	Confidential	Confidential	Confidential
Pittsfield	Brokenstraw Airport	\$165,000	\$111,400	\$276,400
Pottstown	Heritage Field Airport	\$10,346,700	\$7,110,800	\$17,457,500
Pottstown	Pottstown Municipal Airport	\$996,500	\$718,000	\$1,714,500
Pottsville	Schuylkill County/Joe Zerbey Airport	\$1,246,900	\$920,400	\$2,167,300
Punxsutawney	Punxsutawney Municipal Airport	\$359,300	\$356,700	\$716,000
Quakertown	Quakertown Airport	\$3,367,300	\$2,783,900	\$6,151,200
Reading	Reading Regional Airport/Carl A. Spaatz Field	\$51,611,200	\$38,877,800	\$90,489,000
Reedsville	Mifflin County Airport	\$471,700	\$440,400	\$912,100
Selinsgrove	Penn Valley Airport	\$1,022,300	\$918,900	\$1,941,200
Shamokin	Northumberland County Airport	\$698,500	\$626,900	\$1,325,400
Shippensburg	Shippensburg Airport	Confidential	Confidential	Confidential
Slatington	Slatington Airport	\$238,200	\$164,100	\$402,300
Smoketown	Smoketown Airport	\$3,318,800	\$2,240,600	\$5,559,400
Somerset	Somerset County Airport	\$1,290,600	\$1,072,000	\$2,362,600
St. Marys	St. Marys Municipal Airport	\$2,126,600	\$1,716,700	\$3,843,300
Sterling	Spring Hill Airport	Confidential	Confidential	Confidential
Stewartstown	Shoestring Aviation Airfield	Confidential	Confidential	Confidential
Sunbury	Sunbury Airport	Confidential	Confidential	Confidential
Titusville	Titusville Airport	\$312,100	\$317,500	\$629,600
Toughkenamon	New Garden Airport	\$1,807,400	\$1,542,600	\$3,350,000
Towanda	Bradford County Airport	\$727,300	\$571,700	\$1,299,000
Tower City	Bendigo Airport	Confidential	Confidential	Confidential
Tunkhannock	Skyhaven Airport	\$972,500	\$759,100	\$1,731,600
Unionville	Ridge Soaring Airport	Confidential	Confidential	Confidential
Washington	Washington County Airport	\$23,628,300	\$16,595,100	\$40,223,400
Waynesburg	Greene County Airport	\$1,090,100	\$919,300	\$2,009,400
Wellsboro	Wellsboro Johnston Airport	Confidential	Confidential	Confidential
Wellsville	Kampel Airport	Confidential	Confidential	Confidential
West Chester	Brandywine Airport	\$4,748,900	\$3,461,400	\$8,210,300
Wilkes-Barre	Wilkes-Barre Wyoming Valley Airport	Confidential	Confidential	Confidential
Williamsburg	Cove Valley Airport	Confidential	Confidential	Confidential
York	York Airport	\$9,362,200	\$6,397,200	\$15,759,400
Zelienople	Zelienople Municipal Airport	\$4,632,400	\$3,300,000	\$7,932,400
GENERAL AVIATION AIRPORTS TOTAL		\$688,877,500	\$539,774,900	\$1,228,652,400
ALL AIRPORTS TOTAL		\$5,898,304,400	\$5,349,833,700	\$11,248,138,100

Source: Wilbur Smith Associates and IMPLAN Multipliers

Table B-17: Off-Airport Output at Philadelphia International and Pittsburgh International Airports

Associated City	Airport Name	Direct Output	Multiplier Output	Total Output
COMMERCIAL SERVICE AIRPORTS				
Philadelphia	Philadelphia International Airport	\$386,586,600	\$366,856,100	\$753,442,700
Pittsburgh	Pittsburgh International Airport	\$21,116,300	\$20,038,600	\$41,154,900
COMMERCIAL SERVICE AIRPORTS TOTAL		\$407,702,900	\$386,894,700	\$794,597,600

Source: Wilbur Smith Associates and IMPLAN Multipliers

Table B-18: Pennsylvania General Aviation Visitor-Related Output

Associated City	Airport Name	Direct Output	Multiplier Output	Total Output
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	\$2,843,300	\$2,383,400	\$5,226,700
Altoona	Altoona-Blair County Airport	\$1,133,400	\$950,100	\$2,083,500
Bradford	Bradford Regional Airport	\$590,800	\$495,200	\$1,086,000
DuBois	DuBois Regional Airport	\$119,000	\$99,800	\$218,800
Erie	Erie International Airport/Tom Ridge Field	\$802,600	\$672,800	\$1,475,400
Franklin	Venango Regional Airport	\$753,600	\$631,700	\$1,385,300
Harrisburg	Harrisburg International Airport	\$1,476,000	\$1,237,200	\$2,713,200
Johnstown	John Murtha Johnstown-Cambria County Airport	\$756,900	\$634,500	\$1,391,400
Lancaster	Lancaster Airport	\$3,915,800	\$3,282,400	\$7,198,200
Latrobe	Arnold Palmer Regional Airport	\$1,649,800	\$1,382,900	\$3,032,700
Philadelphia	Philadelphia International Airport	\$2,439,000	\$2,044,500	\$4,483,500
Pittsburgh	Pittsburgh International Airport	\$5,186,700	\$4,346,100	\$9,532,800
State College	University Park Airport	\$1,333,800	\$1,118,000	\$2,451,800
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	\$2,244,100	\$1,881,100	\$4,125,200
Williamsport	Williamsport Regional Airport	\$1,175,900	\$985,700	\$2,161,600
COMMERCIAL SERVICE AIRPORTS TOTAL		\$26,420,700	\$22,145,400	\$48,566,100
GENERAL AVIATION AIRPORTS				
Allentown	Allentown Queen City Municipal Airport	\$119,000	\$99,800	\$218,800
Bally	Butter Valley Golf Port	\$8,900	\$7,500	\$16,400
Beaver Falls	Beaver County Airport	\$1,976,500	\$1,656,800	\$3,633,300
Bedford	Bedford County Airport	\$416,300	\$349,000	\$765,300
Bellefonte	Bellefonte Airport	Confidential	Confidential	Confidential
Bensalem	Total RF Heliport	Confidential	Confidential	Confidential
Bethel	Grimes Airport	Confidential	Confidential	Confidential
Bloomsburg	Bloomsburg Municipal Airport	Confidential	Confidential	Confidential
Brogue	Baublitz Commercial Airport	Confidential	Confidential	Confidential
Butler	Butler County Airport/K. W. Scholter Field	\$1,174,600	\$984,600	\$2,159,200
Butler	Butler Farm Show Airport	Confidential	Confidential	Confidential
Canadensis	Flying Dollar Airport	Confidential	Confidential	Confidential
Carlisle	Carlisle Airport	\$255,700	\$214,300	\$470,000
Centre Hall	Penn's Cave Airport	Confidential	Confidential	Confidential
Chambersburg	Franklin County Regional Airport	\$28,800	\$24,100	\$52,900
Clarion	Clarion County Airport	\$16,400	\$13,700	\$30,100
Clearfield	Clearfield-Lawrence Airport	\$67,700	\$56,700	\$124,400

Table B-18: Pennsylvania General Aviation Visitor-Related Output, continued

Associated City	Airport Name	Direct Output	Multiplier Output	Total Output
GENERAL AVIATION AIRPORTS				
Coatesville	Chester County G.O. Carlson Airport	\$2,804,500	\$2,350,900	\$5,155,400
Collegeville	Perkiomen Valley Airport	\$146,400	\$122,700	\$269,100
Columbia	McGinness Airport	Confidential	Confidential	Confidential
Connellsville	Joseph A. Hardy Connellsville Airport	\$214,500	\$179,800	\$394,300
Corry	Corry-Lawrence Airport	\$7,800	\$6,500	\$14,300
Cresco	Rocky Hill Airport	Confidential	Confidential	Confidential
Danville	Danville Airport	\$32,500	\$27,200	\$59,700
Dover	Lazy B Ranch Airport	Confidential	Confidential	Confidential
Doylestown	Doylestown Airport	\$311,500	\$261,100	\$572,600
East Stroudsburg	Stroudsburg-Pocono Airport	\$41,400	\$34,700	\$76,100
Easton	Braden Airpark	\$95,000	\$79,600	\$174,600
Ebensburg	Ebensburg Airport	\$21,700	\$18,200	\$39,900
Eighty Four	Bandel Airport	Confidential	Confidential	Confidential
Erwinna	Vansant Airport	\$20,400	\$17,100	\$37,500
Essington	Philadelphia Seaplane Base	Confidential	Confidential	Confidential
Factoryville	Seamans Field	\$65,900	\$55,200	\$121,100
Fairfield	Mid Atlantic Soaring Center	Confidential	Confidential	Confidential
Finleyville	Finleyville Airpark	Confidential	Confidential	Confidential
Fredericksburg	Farmers Pride Airport	\$17,600	\$14,800	\$32,400
Germansville	Flying M Aerodrome	Confidential	Confidential	Confidential
Gettysburg	Gettysburg Regional Airport	\$29,800	\$25,000	\$54,800
Gettysburg	Southern Adams County Heliport	Confidential	Confidential	Confidential
Greenville	Greenville Municipal Airport	\$29,400	\$24,600	\$54,000
Grove City	Grove City Airport	\$11,600	\$9,700	\$21,300
Hanover	Hanover Airport	Confidential	Confidential	Confidential
Harrisburg	Capital City Airport	\$2,014,500	\$1,688,600	\$3,703,100
Hazleton	Hazleton Municipal Airport	\$765,500	\$641,700	\$1,407,200
Honesdale	Cherry Ridge Airport	\$74,100	\$62,100	\$136,200
Honey Grove	Stottle Memorial Heliport	Confidential	Confidential	Confidential
Horsham	Horsham Valley Airways Inc. Heliport	Confidential	Confidential	Confidential
Indiana	Indiana County/Jimmy Stewart Field Airport	\$129,200	\$108,300	\$237,500
Irwin	Inter County Airport	Confidential	Confidential	Confidential
Jeannette	Greensburg Jeannette Regional Airport	\$16,100	\$13,500	\$29,600
Jersey Shore	Jersey Shore Airport	Confidential	Confidential	Confidential
Kralltown	Bermudian Valley Airpark	Confidential	Confidential	Confidential
Lebanon	Keller Brothers Airport	\$13,300	\$11,100	\$24,400
Lehighton	Beltzville Airport	\$2,900	\$2,400	\$5,300
Lehighton	Jake Arner Memorial Airport	\$67,700	\$56,700	\$124,400
Lock Haven	William T. Piper Memorial Airport	\$112,600	\$94,400	\$207,000
Mars	Lakehill Airport	Confidential	Confidential	Confidential
Meadville	Port Meadville Airport	\$391,500	\$328,200	\$719,700
Mifflintown	Mifflintown Airport	\$4,700	\$3,900	\$8,600
Monongahela	Rostraver Airport	\$522,100	\$437,600	\$959,700
Monroeville	Pittsburgh-Monroeville Airport	Confidential	Confidential	Confidential
Montrose	Husky Haven Airport	Confidential	Confidential	Confidential

Table B-18: Pennsylvania General Aviation Visitor-Related Output, continued

Associated City	Airport Name	Direct Output	Multiplier Output	Total Output
GENERAL AVIATION AIRPORTS				
Morgantown	Morgantown Airport	Confidential	Confidential	Confidential
Mount Joy/Marietta	Donegal Springs Airpark	Confidential	Confidential	Confidential
Mount Pleasant	Mount Pleasant/Scottdale Airport	Confidential	Confidential	Confidential
Mount Pleasant	W.P.H.S. Heliport	Confidential	Confidential	Confidential
Mount Pocono	Pocono Mountains Municipal Airport	\$183,000	\$153,400	\$336,400
Myerstown	Deck Airport	\$33,000	\$27,700	\$60,700
New Castle	New Castle Municipal Airport	\$333,100	\$279,200	\$612,300
Newry	Blue Knob Valley Airport	\$1,800	\$1,500	\$3,300
Osterburg	Ickes Airport	Confidential	Confidential	Confidential
Palmyra	Reigle Field	Confidential	Confidential	Confidential
Perkasie	Pennridge Airport	Confidential	Confidential	Confidential
Philadelphia	Northeast Philadelphia Airport	\$6,898,400	\$5,782,500	\$12,680,900
Philadelphia	Penn's Landing Heliport	\$192,500	\$161,400	\$353,900
Philadelphia	Wings Field	\$424,500	\$355,800	\$780,300
Philipsburg	Albert Airport	Confidential	Confidential	Confidential
Philipsburg	Mid-State Airport	\$6,000	\$5,000	\$11,000
Pittsburgh	Allegheny County Airport	\$8,647,900	\$7,625,800	\$16,273,700
Pittsburgh	Rock Airport	Confidential	Confidential	Confidential
Pittsfield	Brokenstraw Airport	\$2,500	\$2,100	\$4,600
Pottstown	Heritage Field Airport	\$375,500	\$314,800	\$690,300
Pottstown	Pottstown Municipal Airport	\$61,200	\$51,300	\$112,500
Pottsville	Schuylkill County/Joe Zerbey Airport	\$1,373,000	\$1,150,900	\$2,523,900
Punxsutawney	Punxsutawney Municipal Airport	\$6,200	\$5,200	\$11,400
Quakertown	Quakertown Airport	\$168,500	\$141,200	\$309,700
Reading	Reading Regional Airport/Carl A. Spaatz Field	\$6,265,800	\$5,252,300	\$11,518,100
Reedsville	Mifflin County Airport	\$186,000	\$155,900	\$341,900
Selinsgrove	Penn Valley Airport	\$1,062,900	\$891,000	\$1,953,900
Shamokin	Northumberland County Airport	\$243,600	\$204,200	\$447,800
Shippensburg	Shippensburg Airport	Confidential	Confidential	Confidential
Slatington	Slatington Airport	\$41,200	\$34,500	\$75,700
Smoketown	Smoketown Airport	\$39,300	\$32,900	\$72,200
Somerset	Somerset County Airport	\$56,600	\$47,400	\$104,000
St. Marys	St. Marys Municipal Airport	\$43,600	\$36,500	\$80,100
Sterling	Spring Hill Airport	Confidential	Confidential	Confidential
Stewartstown	Shoestring Aviation Airfield	Confidential	Confidential	Confidential
Sunbury	Sunbury Airport	Confidential	Confidential	Confidential
Titusville	Titusville Airport	\$32,600	\$27,300	\$59,900
Toughkenamon	New Garden Airport	\$98,200	\$82,300	\$180,500
Towanda	Bradford County Airport	\$163,100	\$136,700	\$299,800
Tower City	Bendigo Airport	Confidential	Confidential	Confidential
Tunkhannock	Skyhaven Airport	\$18,900	\$15,800	\$34,700
Unionville	Ridge Soaring Airport	Confidential	Confidential	Confidential
Washington	Washington County Airport	\$1,367,300	\$1,146,100	\$2,513,400
Waynesburg	Greene County Airport	\$37,600	\$31,500	\$69,100

Table B-18: Pennsylvania General Aviation Visitor-Related Output, continued

Associated City	Airport Name	Direct Output	Multiplier Output	Total Output
GENERAL AVIATION AIRPORTS				
Wellsboro	Wellsboro Johnston Airport	Confidential	Confidential	Confidential
Wellsville	Kampel Airport	Confidential	Confidential	Confidential
West Chester	Brandywine Airport	\$671,900	\$563,200	\$1,235,100
Wilkes-Barre	Wilkes-Barre Wyoming Valley Airport	Confidential	Confidential	Confidential
Williamsburg	Cove Valley Airport	Confidential	Confidential	Confidential
York	York Airport	\$1,931,000	\$1,618,600	\$3,549,600
Zelienople	Zelienople Municipal Airport	\$158,100	\$132,500	\$290,600
GENERAL AVIATION AIRPORTS TOTAL		\$44,233,700	\$37,454,900	\$81,688,600
ALL AIRPORTS TOTAL		\$70,654,400	\$59,600,300	\$130,254,700

Source: Wilbur Smith Associates and IMPLAN Multipliers

Table B-19: Pennsylvania Commercial Service Visitor-Related Output

Associated City	Airport Name	Direct Output	Multiplier Output	Total Output
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	\$134,349,300	\$115,471,600	\$249,820,900
Altoona	Altoona-Blair County Airport	\$2,990,200	\$2,570,000	\$5,560,200
Bradford	Bradford Regional Airport	\$1,850,400	\$1,590,400	\$3,440,800
DuBois	DuBois Regional Airport	\$3,006,900	\$2,584,400	\$5,591,300
Erie	Erie International Airport/Tom Ridge Field	\$45,952,200	\$39,495,400	\$85,447,600
Franklin	Venango Regional Airport	\$724,900	\$623,000	\$1,347,900
Harrisburg	Harrisburg International Airport	\$237,589,100	\$204,204,900	\$441,794,000
Johnstown	John Murtha Johnstown-Cambria County Airport	\$4,692,800	\$4,033,400	\$8,726,200
Lancaster	Lancaster Airport	\$3,065,400	\$2,634,700	\$5,700,100
Latrobe	Arnold Palmer Regional Airport	\$1,413,500	\$1,214,900	\$2,628,400
Philadelphia	Philadelphia International Airport	\$4,396,314,700	\$3,768,073,600	\$8,164,388,300
Pittsburgh	Pittsburgh International Airport	\$1,157,335,800	\$969,760,400	\$2,127,096,200
State College	University Park Airport	\$71,075,900	\$61,088,900	\$132,164,800
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	\$115,982,800	\$99,685,800	\$215,668,600
Williamsport	Williamsport Regional Airport	\$12,321,900	\$10,590,500	\$22,912,400
COMMERCIAL SERVICE AIRPORTS TOTAL		\$6,188,665,800	\$5,283,621,900	\$11,472,287,700

Source: Wilbur Smith Associates and IMPLAN Multipliers

Table B-20: Pennsylvania Airports Total Output

Associated City	Airport Name	Direct Output	Multiplier Output	Total Output
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	\$292,451,700	\$235,845,400	\$528,297,100
Altoona	Altoona-Blair County Airport	\$17,758,300	\$14,228,600	\$31,986,900
Bradford	Bradford Regional Airport	\$8,376,200	\$6,759,600	\$15,135,800
DuBois	DuBois Regional Airport	\$15,940,800	\$12,704,400	\$28,645,200
Erie	Erie International Airport/Tom Ridge Field	\$88,793,000	\$75,907,700	\$164,700,700
Franklin	Venango Regional Airport	\$9,183,000	\$7,896,100	\$17,079,100
Harrisburg	Harrisburg International Airport	\$518,331,100	\$428,246,000	\$946,577,100
Johnstown	John Murtha Johnstown-Cambria County Airport	\$176,404,900	\$126,529,600	\$302,934,500
Lancaster	Lancaster Airport	\$42,897,900	\$33,497,600	\$76,395,500
Latrobe	Arnold Palmer Regional Airport	\$56,326,600	\$41,267,700	\$97,594,300
Philadelphia	Philadelphia International Airport	\$7,328,211,800	\$6,572,296,700	\$13,900,508,500
Pittsburgh	Pittsburgh International Airport	\$2,951,652,700	\$2,677,517,700	\$5,629,170,400
State College	University Park Airport	\$110,940,000	\$92,894,400	\$203,834,400
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	\$178,877,000	\$148,268,800	\$327,145,800
Williamsport	Williamsport Regional Airport	\$36,071,300	\$28,860,500	\$64,931,800
COMMERCIAL SERVICE AIRPORTS TOTAL		\$11,832,216,300	\$10,502,720,800	\$22,334,937,100
GENERAL AVIATION AIRPORTS				
Allentown	Allentown Queen City Municipal Airport	\$5,987,800	\$4,552,800	\$10,540,600
Bally	Butter Valley Golf Port	\$148,600	\$119,600	\$268,200
Beaver Falls	Beaver County Airport	\$7,352,300	\$5,575,400	\$12,927,700
Bedford	Bedford County Airport	\$4,608,100	\$3,303,900	\$7,912,000
Bellefonte	Bellefonte Airport	\$386,600	\$277,000	\$663,600
Bensalem	Total RF Heliport	\$44,600	\$37,400	\$82,000
Bethel	Grimes Airport	\$223,700	\$151,800	\$375,500
Bloomsburg	Bloomsburg Municipal Airport	\$2,145,600	\$1,666,900	\$3,812,500
Brogue	Baublitz Commercial Airport	\$142,600	\$141,000	\$283,600
Butler	Butler County Airport/K. W. Scholter Field	\$23,038,600	\$16,201,100	\$39,239,700
Butler	Butler Farm Show Airport	\$102,800	\$80,100	\$182,900
Canadensis	Flying Dollar Airport	\$229,600	\$156,800	\$386,400
Carlisle	Carlisle Airport	\$4,044,000	\$2,909,300	\$6,953,300
Centre Hall	Penn's Cave Airport	\$109,300	\$77,700	\$187,000
Chambersburg	Franklin County Regional Airport	\$1,013,500	\$809,100	\$1,822,600
Clarion	Clarion County Airport	\$651,100	\$623,400	\$1,274,500
Clearfield	Clearfield-Lawrence Airport	\$1,877,300	\$1,503,300	\$3,380,600
Coatesville	Chester County G.O. Carlson Airport	\$49,988,100	\$34,852,600	\$84,840,700
Collegeville	Perkiomen Valley Airport	\$1,094,000	\$784,000	\$1,878,000
Columbia	McGinness Airport	\$111,000	\$75,200	\$186,200
Connellsville	Joseph A. Hardy Connellsville Airport	\$9,100,600	\$7,384,200	\$16,484,800
Corry	Corry-Lawrence Airport	\$2,812,800	\$2,036,300	\$4,849,100
Cresco	Rocky Hill Airport	\$56,200	\$38,200	\$94,400
Danville	Danville Airport	\$703,200	\$656,900	\$1,360,100
Dover	Lazy B Ranch Airport	\$39,300	\$31,800	\$71,100
Doylestown	Doylestown Airport	\$3,392,000	\$2,786,600	\$6,178,600
East Stroudsburg	Stroudsburg-Pocono Airport	\$8,351,700	\$5,645,300	\$13,997,000

Table B-20: Pennsylvania Airports Total Output, continued

Associated City	Airport Name	Direct Output	Multiplier Output	Total Output
GENERAL AVIATION AIRPORTS				
Easton	Braden Airpark	\$4,761,700	\$3,450,900	\$8,212,600
Ebensburg	Ebensburg Airport	\$430,900	\$406,300	\$837,200
Eighty Four	Bandel Airport	\$222,100	\$150,500	\$372,600
Erwinna	Vansant Airport	\$471,600	\$339,300	\$810,900
Essington	Philadelphia Seaplane Base	\$28,900	\$25,000	\$53,900
Factoryville	Seamans Field	\$4,767,600	\$3,245,000	\$8,012,600
Fairfield	Mid Atlantic Soaring Center	\$27,800	\$19,300	\$47,100
Finleyville	Finleyville Airpark	\$134,700	\$103,800	\$238,500
Fredericksburg	Farmers Pride Airport	\$73,200	\$52,300	\$125,500
Germansville	Flying M Aerodrome	\$292,800	\$200,900	\$493,700
Gettysburg	Gettysburg Regional Airport	\$389,000	\$347,200	\$736,200
Gettysburg	Southern Adams County Heliport	\$310,900	\$210,200	\$521,100
Greenville	Greenville Municipal Airport	\$616,600	\$442,400	\$1,059,000
Grove City	Grove City Airport	\$1,715,300	\$1,304,400	\$3,019,700
Hanover	Hanover Airport	\$116,600	\$79,900	\$196,500
Harrisburg	Capital City Airport	\$24,281,000	\$17,961,700	\$42,242,700
Hazleton	Hazleton Municipal Airport	\$3,085,000	\$2,620,100	\$5,705,100
Honesdale	Cherry Ridge Airport	\$1,521,500	\$1,092,600	\$2,614,100
Honey Grove	Stottle Memorial Heliport	\$30,400	\$20,700	\$51,100
Horsham	Horsham Valley Airways Inc. Heliport	\$1,800,200	\$1,218,800	\$3,019,000
Indiana	Indiana County/Jimmy Stewart Field Airport	\$5,500,700	\$5,319,200	\$10,819,900
Irwin	Inter County Airport	\$200	\$200	\$400
Jeannette	Greensburg Jeannette Regional Airport	\$1,005,300	\$681,400	\$1,686,700
Jersey Shore	Jersey Shore Airport	\$131,700	\$92,600	\$224,300
Kralltown	Bermudian Valley Airpark	\$230,200	\$157,300	\$387,500
Lebanon	Keller Brothers Airport	\$116,700	\$97,100	\$213,800
Lehighton	Beltzville Airport	\$242,300	\$173,600	\$415,900
Lehighton	Jake Arner Memorial Airport	\$6,528,400	\$4,473,600	\$11,002,000
Lock Haven	William T. Piper Memorial Airport	\$3,984,000	\$2,851,400	\$6,835,400
Mars	Lakehill Airport	\$1,000	\$800	\$1,800
Meadville	Port Meadville Airport	\$7,050,400	\$5,208,400	\$12,258,800
Mifflintown	Mifflintown Airport	\$663,700	\$535,600	\$1,199,300
Monongahela	Rostraver Airport	\$11,927,400	\$8,550,400	\$20,477,800
Monroeville	Pittsburgh-Monroeville Airport	\$8,800	\$7,400	\$16,200
Montrose	Husky Haven Airport	\$110,500	\$76,800	\$187,300
Morgantown	Morgantown Airport	\$1,114,400	\$752,600	\$1,867,000
Mount Joy/Marietta	Donegal Springs Airpark	\$2,054,700	\$1,432,200	\$3,486,900
Mount Pleasant	Mount Pleasant/Scottdale Airport	\$3,600	\$3,000	\$6,600
Mount Pleasant	W.P.H.S. Heliport	\$7,800,700	\$5,269,600	\$13,070,300
Mount Pocono	Pocono Mountains Municipal Airport	\$2,519,900	\$2,409,300	\$4,929,200
Myerstown	Deck Airport	\$2,037,100	\$1,434,500	\$3,471,600
New Castle	New Castle Municipal Airport	\$2,497,400	\$1,942,500	\$4,439,900
Newry	Blue Knob Valley Airport	\$402,200	\$271,900	\$674,100
Osterburg	Ickes Airport	\$4,300	\$4,100	\$8,400
Palmyra	Reigle Field	\$1,754,900	\$1,202,900	\$2,957,800

Table B-20: Pennsylvania Airports Total Output, continued

Associated City	Airport Name	Direct Output	Multiplier Output	Total Output
GENERAL AVIATION AIRPORTS				
Perkasie	Pennridge Airport	\$1,782,600	\$1,376,600	\$3,159,200
Philadelphia	Northeast Philadelphia Airport	\$181,042,400	\$126,233,800	\$307,276,200
Philadelphia	Penn's Landing Heliport	\$1,626,700	\$1,136,700	\$2,763,400
Philadelphia	Wings Field	\$10,141,300	\$7,076,200	\$17,217,500
Philipsburg	Albert Airport	\$3,600	\$2,500	\$6,100
Philipsburg	Mid-State Airport	\$379,600	\$331,800	\$711,400
Pittsburgh	Allegheny County Airport	\$164,390,600	\$165,341,000	\$329,731,600
Pittsburgh	Rock Airport	\$338,000	\$231,100	\$569,100
Pittsfield	Brokenstraw Airport	\$167,500	\$113,500	\$281,000
Pottstown	Heritage Field Airport	\$10,722,200	\$7,425,600	\$18,147,800
Pottstown	Pottstown Municipal Airport	\$1,057,700	\$769,300	\$1,827,000
Pottsville	Schuylkill County/Joe Zerby Airport	\$2,619,900	\$2,071,300	\$4,691,200
Punxsutawney	Punxsutawney Municipal Airport	\$365,500	\$361,900	\$727,400
Quakertown	Quakertown Airport	\$3,535,800	\$2,925,100	\$6,460,900
Reading	Reading Regional Airport/Carl A. Spaatz Field	\$57,877,000	\$44,130,100	\$102,007,100
Reedsville	Mifflin County Airport	\$657,700	\$596,300	\$1,254,000
Selinsgrove	Penn Valley Airport	\$2,085,200	\$1,809,900	\$3,895,100
Shamokin	Northumberland County Airport	\$942,100	\$831,100	\$1,773,200
Shippensburg	Shippensburg Airport	\$2,100	\$1,600	\$3,700
Slatington	Slatington Airport	\$279,400	\$198,600	\$478,000
Smoketown	Smoketown Airport	\$3,358,100	\$2,273,500	\$5,631,600
Somerset	Somerset County Airport	\$1,347,200	\$1,119,400	\$2,466,600
St. Marys	St. Marys Municipal Airport	\$2,170,200	\$1,753,200	\$3,923,400
Sterling	Spring Hill Airport	\$417,100	\$285,700	\$702,800
Stewartstown	Shoestring Aviation Airfield	\$173,100	\$118,300	\$291,400
Sunbury	Sunbury Airport	\$113,000	\$76,900	\$189,900
Titusville	Titusville Airport	\$344,700	\$344,800	\$689,500
Toughkenamon	New Garden Airport	\$1,905,600	\$1,624,900	\$3,530,500
Towanda	Bradford County Airport	\$890,400	\$708,400	\$1,598,800
Tower City	Bendigo Airport	\$140,500	\$103,900	\$244,400
Tunkhannock	Skyhaven Airport	\$991,400	\$774,900	\$1,766,300
Unionville	Ridge Soaring Airport	\$699,400	\$503,800	\$1,203,200
Washington	Washington County Airport	\$24,995,600	\$17,741,200	\$42,736,800
Waynesburg	Greene County Airport	\$1,127,700	\$950,800	\$2,078,500
Wellsboro	Wellsboro Johnston Airport	\$221,700	\$168,600	\$390,300
Wellsville	Kampel Airport	\$90,900	\$64,800	\$155,700
West Chester	Brandywine Airport	\$5,420,800	\$4,024,600	\$9,445,400
Wilkes-Barre	Wilkes-Barre Wyoming Valley Airport	\$1,970,300	\$1,388,300	\$3,358,600
Williamsburg	Cove Valley Airport	\$109,600	\$74,100	\$183,700
York	York Airport	\$11,293,200	\$8,015,800	\$19,309,000
Zelienople	Zelienople Municipal Airport	\$4,790,500	\$3,432,500	\$8,223,000
GENERAL AVIATION AIRPORTS TOTAL		\$733,111,200	\$577,229,800	\$1,310,341,000
ALL AIRPORTS TOTAL		\$12,565,327,500	\$11,079,950,600	\$23,645,278,100

Source: Wilbur Smith Associates and IMPLAN Multipliers

Table B-21: Pennsylvania Airports Total Economic Impacts

Associated City	Airport Name	Total Employment	Total Payroll	Total Output
COMMERCIAL SERVICE AIRPORTS				
Allentown	Lehigh Valley International Airport	6,086	\$190,561,000	\$528,297,100
Altoona	Altoona-Blair County Airport	287	\$10,145,000	\$31,986,900
Bradford	Bradford Regional Airport	149	\$5,126,900	\$15,135,800
DuBois	DuBois Regional Airport	251	\$9,541,200	\$28,645,200
Erie	Erie International Airport/Tom Ridge Field	2,051	\$61,109,700	\$164,700,700
Franklin	Venango Regional Airport	149	\$4,971,800	\$17,079,100
Harrisburg	Harrisburg International Airport	11,627	\$358,887,000	\$946,577,100
Johnstown	John Murtha Johnstown-Cambria County Airport	2,342	\$99,515,400	\$302,934,500
Lancaster	Lancaster Airport	657	\$23,582,300	\$76,395,500
Latrobe	Arnold Palmer Regional Airport	516	\$24,091,600	\$97,594,300
Philadelphia	Philadelphia International Airport	196,507	\$5,731,523,700	\$13,900,508,500
Pittsburgh	Pittsburgh International Airport	67,219	\$2,078,171,500	\$5,629,170,400
State College	University Park Airport	2,861	\$80,021,300	\$203,834,400
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	4,511	\$128,693,600	\$327,145,800
Williamsport	Williamsport Regional Airport	701	\$22,542,300	\$64,931,800
COMMERCIAL SERVICE AIRPORTS TOTAL		295,914	\$8,828,484,300	\$22,334,937,100
GENERAL AVIATION AIRPORTS				
Allentown	Allentown Queen City Municipal Airport	80	\$2,887,500	\$10,540,600
Bally	Butter Valley Golf Port	2	\$70,300	\$268,200
Beaver Falls	Beaver County Airport	175	\$4,204,200	\$12,927,700
Bedford	Bedford County Airport	54	\$1,840,200	\$7,912,000
Bellefonte	Bellefonte Airport	7	\$161,200	\$663,600
Bensalem	Total RF Heliport	2	\$40,900	\$82,000
Bethel	Grimes Airport	4	\$108,400	\$375,500
Bloomsburg	Bloomsburg Municipal Airport	26	\$899,100	\$3,812,500
Brogue	Baublitz Commercial Airport	2	\$64,900	\$283,600
Butler	Butler County Airport/K. W. Scholter Field	228	\$9,223,200	\$39,239,700
Butler	Butler Farm Show Airport	1	\$14,700	\$182,900
Canadensis	Flying Dollar Airport	4	\$108,400	\$386,400
Carlisle	Carlisle Airport	48	\$1,874,000	\$6,953,300
Centre Hall	Penn's Cave Airport	2	\$63,700	\$187,000
Chambersburg	Franklin County Regional Airport	31	\$576,800	\$1,822,600
Clarion	Clarion County Airport	10	\$282,100	\$1,274,500
Clearfield	Clearfield-Lawrence Airport	20	\$743,000	\$3,380,600
Coatesville	Chester County G.O. Carlson Airport	586	\$25,070,300	\$84,840,700
Collegeville	Perkiomen Valley Airport	19	\$610,400	\$1,878,000
Columbia	McGinness Airport	2	\$54,200	\$186,200
Connellsville	Joseph A. Hardy Connellsville Airport	126	\$4,611,600	\$16,484,800
Corry	Corry-Lawrence Airport	25	\$1,176,700	\$4,849,100
Cresco	Rocky Hill Airport	1	\$27,100	\$94,400
Danville	Danville Airport	13	\$399,900	\$1,360,100
Dover	Lazy B Ranch Airport	1	\$35,100	\$71,100
Doylestown	Doylestown Airport	57	\$1,480,400	\$6,178,600
East Stroudsburg	Stroudsburg-Pocono Airport	85	\$3,806,500	\$13,997,000
Easton	Braden Airpark	50	\$1,360,900	\$8,212,600
Ebensburg	Ebensburg Airport	7	\$197,900	\$837,200
Eighty Four	Bandel Airport	4	\$108,400	\$372,600
Erwinna	Vansant Airport	7	\$254,000	\$810,900
Essington	Philadelphia Seaplane Base	0	\$0	\$53,900

Table B-21: Pennsylvania Airports Total Economic Impacts, continued

Associated City	Airport Name	Total Employment	Total Payroll	Total Output
GENERAL AVIATION AIRPORTS				
Factoryville	Seamans Field	64	\$2,736,000	\$8,012,600
Fairfield	Mid Atlantic Soaring Center	0	\$100	\$47,100
Finleyville	Finleyville Airpark	2	\$50,100	\$238,500
Fredericksburg	Farmers Pride Airport	2	\$19,900	\$125,500
Germansville	Flying M Aerodrome	5	\$135,500	\$493,700
Gettysburg	Gettysburg Regional Airport	9	\$219,300	\$736,200
Gettysburg	Southern Adams County Heliport	6	\$198,100	\$521,100
Greenville	Greenville Municipal Airport	9	\$266,700	\$1,059,000
Grove City	Grove City Airport	27	\$693,100	\$3,019,700
Hanover	Hanover Airport	2	\$54,200	\$196,500
Harrisburg	Capital City Airport	234	\$10,763,600	\$42,242,700
Hazleton	Hazleton Municipal Airport	48	\$1,711,000	\$5,705,100
Honesdale	Cherry Ridge Airport	24	\$853,200	\$2,614,100
Honey Grove	Stottle Memorial Heliport	2	\$54,200	\$51,100
Horsham	Horsham Valley Airways Inc. Heliport	16	\$625,100	\$3,019,000
Indiana	Indiana County/Jimmy Stewart Field Airport	88	\$2,752,200	\$10,819,900
Irwin	Inter County Airport	0	\$0	\$400
Jeannette	Greensburg Jeannette Regional Airport	9	\$419,400	\$1,686,700
Jersey Shore	Jersey Shore Airport	2	\$54,200	\$224,300
Kralltown	Bermudian Valley Airpark	4	\$108,400	\$387,500
Lebanon	Keller Brothers Airport	2	\$40,600	\$213,800
Lehighton	Beltzville Airport	4	\$100,200	\$415,900
Lehighton	Jake Arner Memorial Airport	58	\$2,653,100	\$11,002,000
Lock Haven	William T. Piper Memorial Airport	51	\$1,936,000	\$6,835,400
Mars	Lakehill Airport	0	\$0	\$1,800
Meadville	Port Meadville Airport	69	\$3,627,800	\$12,258,800
Mifflintown	Mifflintown Airport	13	\$327,900	\$1,199,300
Monongahela	Rostraver Airport	138	\$5,994,100	\$20,477,800
Monroeville	Pittsburgh-Monroeville Airport	0	\$0	\$16,200
Montrose	Husky Haven Airport	2	\$68,800	\$187,300
Morgantown	Morgantown Airport	10	\$390,700	\$1,867,000
Mount Joy/Marietta	Donegal Springs Airpark	24	\$829,400	\$3,486,900
Mount Pleasant	Mount Pleasant/Scottdale Airport	0	\$0	\$6,600
Mount Pleasant	W.P.H.S. Heliport	82	\$3,824,300	\$13,070,300
Mount Pocono	Pocono Mountains Municipal Airport	41	\$1,306,700	\$4,929,200
Myerstown	Deck Airport	26	\$998,100	\$3,471,600
New Castle	New Castle Municipal Airport	33	\$1,076,300	\$4,439,900
Newry	Blue Knob Valley Airport	4	\$191,200	\$674,100
Osterburg	Ickes Airport	0	\$1,900	\$8,400
Palmyra	Reigle Field	18	\$638,200	\$2,957,800
Perkasie	Pennridge Airport	21	\$742,000	\$3,159,200
Philadelphia	Northeast Philadelphia Airport	2,068	\$90,794,900	\$307,276,200
Philadelphia	Penn's Landing Heliport	22	\$788,100	\$2,763,400
Philadelphia	Wings Field	105	\$3,717,500	\$17,217,500
Philipsburg	Albert Airport	0	\$0	\$6,100
Philipsburg	Mid-State Airport	3	\$157,200	\$711,400
Pittsburgh	Allegheny County Airport	1,739	\$68,368,000	\$329,731,600
Pittsburgh	Rock Airport	4	\$105,700	\$569,100
Pittsfield	Brokenstraw Airport	2	\$66,000	\$281,000
Pottstown	Heritage Field Airport	106	\$4,924,900	\$18,147,800
Pottstown	Pottstown Municipal Airport	16	\$384,100	\$1,827,000
Pottsville	Schuylkill County/Joe Zerbey Airport	58	\$1,696,500	\$4,691,200

Table B-21: Pennsylvania Airports Total Economic Impacts, continued

Associated City	Airport Name	Total Employment	Total Payroll	Total Output
GENERAL AVIATION AIRPORTS				
Punxsutawney	Punxsutawney Municipal Airport	6	\$175,100	\$727,400
Quakertown	Quakertown Airport	62	\$1,852,500	\$6,460,900
Reading	Reading Regional Airport/Carl A. Spaatz Field	681	\$26,805,900	\$102,007,100
Reedsville	Mifflin County Airport	11	\$286,900	\$1,254,000
Selinsgrove	Penn Valley Airport	51	\$1,225,900	\$3,895,100
Shamokin	Northumberland County Airport	13	\$387,000	\$1,773,200
Shippensburg	Shippensburg Airport	0	\$0	\$3,700
Slatington	Slatington Airport	5	\$154,900	\$478,000
Smoketown	Smoketown Airport	45	\$1,769,200	\$5,631,600
Somerset	Somerset County Airport	21	\$585,100	\$2,466,600
St. Marys	St. Marys Municipal Airport	30	\$1,048,600	\$3,923,400
Sterling	Spring Hill Airport	5	\$136,100	\$702,800
Stewartstown	Shoestring Aviation Airfield	3	\$81,300	\$291,400
Sunbury	Sunbury Airport	2	\$54,200	\$189,900
Titusville	Titusville Airport	7	\$197,200	\$689,500
Toughkenamon	New Garden Airport	30	\$864,400	\$3,530,500
Towanda	Bradford County Airport	18	\$587,100	\$1,598,800
Tower City	Bendigo Airport	0	\$0	\$244,400
Tunkhannock	Skyhaven Airport	15	\$441,900	\$1,766,300
Unionville	Ridge Soaring Airport	12	\$297,600	\$1,203,200
Washington	Washington County Airport	247	\$11,151,400	\$42,736,800
Waynesburg	Greene County Airport	20	\$518,200	\$2,078,500
Wellsboro	Wellsboro Johnston Airport	3	\$24,900	\$390,300
Wellsville	Kampel Airport	1	\$73,700	\$155,700
West Chester	Brandywine Airport	94	\$3,821,400	\$9,445,400
Wilkes-Barre	Wilkes-Barre Wyoming Valley Airport	21	\$218,500	\$3,358,600
Williamsburg	Cove Valley Airport	2	\$54,200	\$183,700
York	York Airport	141	\$5,221,700	\$19,309,000
Zelienople	Zelienople Municipal Airport	51	\$1,836,400	\$8,223,000
GENERAL AVIATION AIRPORTS TOTAL		8,548	\$339,691,800	\$1,310,341,000
ALL AIRPORTS TOTAL		304,462	\$9,168,176,100	\$23,645,278,100

Source: Wilbur Smith Associates and IMPLAN Multipliers

Table B-22: Qualitative Benefits of Pennsylvania Airports

Legend: D = Daily W = Weekly M = Monthly S = Seasonal N = Never Blank = No Response		Recreational flying	Agricultural spraying	Corporate/business activity	Aerial inspections	Air cargo	Flight training	Touch-&-go/cross country flight training	Aviation career training	Gateway for resort visitors	Aerial sightseeing	Real estate tours	Prisoner transport	Military exercises/training	Police/law enforcement	Search & rescue	Civil Air Patrol	Environmental patrol	Emergency medical evacuation/patient transfer	Medical doctor transport	Forest/wildland firefighting	Aerial photography/surveying	Aerial advertising	Youth outreach
Associated City	Airport Name																							
COMMERCIAL SERVICE AIRPORTS																								
Allentown	Lehigh Valley International Airport	D	N	D	S	N	D	D	D	S	M	N	N	D	W	S	W	M	M	M	N	W	N	M
Altoona	Altoona-Blair County Airport	D	S	D	D	M	D	D	D	M	D	M	M	D	M	M	W	M	W	M	S	M	S	S
Bradford	Bradford Regional Airport	D	S	W	M	W	W	W	S	M	S	S	M	M	M	S	S	S	M	S	S	S	N	S
DuBois	DuBois Regional Airport	D	S	D	M	M	N	W	N	S	N	N	N	M	M	N	N	S	W	N	N	N	N	M
Erie	Erie International Airport/Tom Ridge Field	D		D	M	D	D	D	D	M	W			M	M	W	W		W	M		M		S
Franklin	Venango Regional Airport	M	N	D	M	D	W	W	D	D	S	W	M	D	D	S	S	M	W	D	N	M	S	S
Harrisburg	Harrisburg International Airport	D	S	D	S	D	D	W		S	S		M		M		W		D	S		S	N	S
Johnstown	John Murtha Johnstown-Cambria County Airport	D	N	W	W	N	D	D	N	N	N	N	N	N	D		W	N	M	M	N	M	N	W
Lancaster	Lancaster Airport	D	S	D	M	D	D	D	D	D	D	M	W	D	W	S	S	S	M	M	N	S	N	S
Latrobe	Arnold Palmer Regional Airport	D	N	D	N	D	D	D	D	D	N	N	N	W	M	N	N	N	W	N	N	S	N	S
Philadelphia	Philadelphia International Airport	D	N	D	M	W	W	D	N	M	M	M	M	M	D	M	M	S	W	M	S	M	N	M
Pittsburgh	Pittsburgh International Airport	D	N	D	D	N	D	D	D	D	S	S	N	M	S		S	M	N	M	N	S	S	S
State College	University Park Airport	M	N	D	M	D	W	W	D	D	S	W	M	M	D	S	S	M	W	D	N	M	S	S
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	D	N	D	S	D	D	D	D	W	S	N	N	S	N	N	S	N	D	N	N	S	N	M
Williamsport	Williamsport Regional Airport	D	S	D	M	D	D	W	D	S	S		W	W	D	S	W		D	D	S	M	N	M
GENERAL AVIATION AIRPORTS																								
Allentown	Allentown Queen City Municipal Airport	D	N	D	M	N	D	D	D	D	W	N	N	S	M	S	N	N	W	N	S	M	N	S
Bally	Butter Valley Golf Port	D		S			W	W		S						M	M							
Beaver Falls	Beaver County Airport	D	S	W	S	N	D	D	D	N	S	S	S	N	S	N	M	N	M	N	N	S	N	M
Bedford	Bedford County Airport	D	S	D	W	M	W	W	W	W	M	M	N	W	W	S	W	S	M	S	S	M	N	S
Bellefonte	Bellefonte Airport	D	S	D			D	D															S	S
Bensalem	Total RF Heliport	N	N	M	N	N	W	W	N	N	M	N	N	N	M	N	N	N	N	N	N	M	N	N
Bethel	Grimes Airport	D		S			W	W		S	S					M	M							

Table B-22: Qualitative Benefits of Pennsylvania Airports, continued

Legend: D = Daily W = Weekly M = Monthly S = Seasonal N = Never Blank = No Response		Recreational flying	Agricultural spraying	Corporate/business activity	Aerial inspections	Air cargo	Flight training	Touch-&-go/cross country flight training	Aviation career training	Gateway for resort visitors	Aerial sightseeing	Real estate tours	Prisoner transport	Military exercises/training	Police/law enforcement	Search & rescue	Civil Air Patrol	Environmental patrol	Emergency medical evacuation/patient transfer	Medical doctor transport	Forest/wildland firefighting	Aerial photography/surveying	Aerial advertising	Youth outreach
Associated City	Airport Name																							
GENERAL AVIATION AIRPORTS																								
Bloomsburg	Bloomsburg Municipal Airport	W	S	S	S	N	D	W	N	S	S	N	N	M	M	N	N	S	S	N	S	N	N	S
Brogue	Baublitz Commercial Airport	D	S	M	N	N	W	W	N	S	S	N	N	W	N	N	N	S	N	N	N	N	N	S
Butler	Butler County Airport/K. W. Scholter Field	D	N	D	M	M	D	W	S	S	S	N	N	N	M	S	W	S	D	N	N	M	N	S
Butler	Butler Farm Show Airport	D	N	M	N	N	W	W	M	S	W	S	N	N	N	N	S	N	N	N	N	S	N	S
Canadensis	Flying Dollar Airport	D		S			W	W		S						M	M							
Carlisle	Carlisle Airport	D		W	M		D	W		M	W	S		W	M		M		D	W		S		S
Centre Hall	Penn's Cave Airport	S		M				W		W				M										
Chambersburg	Franklin County Regional Airport	D	S	N	N	N	N	S	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Clarion	Clarion County Airport	D	S	W	M	M	D	D	S	W	W	S	S	M	M	M	M	S	M	S	S	M	S	M
Clearfield	Clearfield-Lawrence Airport	D	S	W	S	M	W	W	N	S	W	S	M	W	W	S	S	S	D	M	S	S	N	W
	Chester County G.O. Carlson Airport																							
Coatesville		D	N	D	N	N	D	D	N	W	N	N	N	M	M	S	S	N	M	M	N	S	N	N
Collegeville	Perkiomen Valley Airport	D	N	W	N	W	D	D	D	M	W	M	N	N	M	N	N	N	W	N	N	W	S	S
Columbia	McGinness Airport	D		S			W	W		S						M	M							
Connellsville	Joseph A. Hardy Connellsville Airport	D	S	D	W	N	D	D	N	D	M	M	N	S	M	S	S	M	W	M	S	W	S	N
Corry	Corry-Lawrence Airport	W	N	W		M	N	W		S		N	N	M	S	S	W		D	D	N	N	N	
Cresco	Rocky Hill Airport	D		S			W	W		S						M	M							
Danville	Danville Airport	D	S	W			D	D		W									W					S
Dover	Lazy B Ranch Airport	D	S	W			M								S	S						M		
Doylestown	Doylestown Airport	D	N	D	W	M	D	W	M	S	M	N	N	N	M	N	W	N	S	N	N	W	N	S
East Stroudsburg	Stroudsburg-Pocono Airport	D		S			W	W		S						M	M							
Easton	Braden Airpark	D	S	D	M	S	D	W	D	M	D	M	S	S	M	S	S	S	S	S	S	S		M
Ebensburg	Ebensburg Airport	D	S	W	W		D	D	D					W	S	S	S	S	M	S	S	S	N	N
Eighty Four	Bandel Airport	D		S			W	W		S						M	M							
Erwinna	Vansant Airport	D		S			W	W		S						M	M							

Table B-22: Qualitative Benefits of Pennsylvania Airports, continued

Legend: D = Daily W = Weekly M = Monthly S = Seasonal N = Never Blank = No Response		Recreational flying	Agricultural spraying	Corporate/business activity	Aerial inspections	Air cargo	Flight training	Touch-&-go/cross country flight training	Aviation career training	Gateway for resort visitors	Aerial sightseeing	Real estate tours	Prisoner transport	Military exercises/training	Police/law enforcement	Search & rescue	Civil Air Patrol	Environmental patrol	Emergency medical evacuation/patient transfer	Medical doctor transport	Forest/wildland firefighting	Aerial photography/surveying	Aerial advertising	Youth outreach
Associated City	Airport Name																							
GENERAL AVIATION AIRPORTS																								
Essington	Philadelphia Seaplane Base	S																						
Factoryville	Seamans Field	D	N	D	S	M	D	D	W	S	W	M	N	N	S	S	S	S	N	N	N	S	N	M
Fairfield	Mid Atlantic Soaring Center	D					D																	D
Finleyville	Finleyville Airpark	D	N	M	N	N	M	M	N	N	S	N	N	N	N	N	N	N	M	N	N	M	S	S
Fredericksburg	Farmers Pride Airport	D	N	M	N	N	M	W	N	S	S	N	N	W	M	M	S	N	M	N	N	S	N	S
Germansville	Flying M Aerodrome	D		S			W	W		S						M	M							
Gettysburg	Gettysburg Regional Airport	D		S			D	D		S						M	M							
Gettysburg	Southern Adams County Heliport	D		S			W	W		S	S					M	M							
Greenville	Greenville Municipal Airport	D	S	M	M	N	M	W	N	M	N	N	N	N	M	N	M	N	S	N	S	M	N	S
Grove City	Grove City Airport	D	S	W	M	N	W	D	N	M	N	S	N	M	M	N	M	M	D	D	N	S	N	M
Hanover	Hanover Airport	D		S			W	W		S						M	M							
Harrisburg	Capital City Airport	D	S	D	S	S	D	D	D		W	W	S	N	D	N	W	N	M	M	N	W	N	S
Hazleton	Hazleton Municipal Airport	D	S	D	W			W				M		W	D	D	D		W		S			
Honesdale	Cherry Ridge Airport	D		S			W	W		S						M	M							
Honey Grove	Stottle Memorial Heliport																		S					
Horsham	Horsham Valley Airways Inc. Heliport	D		S			W	W		S	S					M	M							
Indiana	Indiana County/Jimmy Stewart Field Airport	D	S	D	W	M	D	D	D	S	M	S	M	W	W	W	W	M	M	M	S	M	N	M
Irwin	Inter County Airport	S																						
Jeannette	Greensburg Jeannette Regional Airport	D		S			D	D		S						M	M							
Jersey Shore	Jersey Shore Airport	D		S			W	W		S						M	M							
Kralltown	Bermudian Valley Airpark	D						W	D					S			S					S	S	S
Lebanon	Keller Brothers Airport	D	S	W	N	N	W	D	N	N	M	N	N	M	M	N	N	N	N	N	N	N	N	N
Lehigh	Beltzville Airport	D	N	N	N	N	W	W	W	W	N	N	N	M	N	S	N	N	M	N	S			M
Lehigh	Jake Arner Memorial Airport	D	N	M	N	N	D	W	N	M	W	N	N	M	M	N	N	N	D	M	N	N	N	N

Table B-22: Qualitative Benefits of Pennsylvania Airports, continued

Legend: D = Daily W = Weekly M = Monthly S = Seasonal N = Never Blank = No Response		Recreational flying	Agricultural spraying	Corporate/business activity	Aerial inspections	Air cargo	Flight training	Touch-&-go/cross country flight training	Aviation career training	Gateway for resort visitors	Aerial sightseeing	Real estate tours	Prisoner transport	Military exercises/training	Police/law enforcement	Search & rescue	Civil Air Patrol	Environmental patrol	Emergency medical evacuation/patient transfer	Medical doctor transport	Forest/wildland firefighting	Aerial photography/surveying	Aerial advertising	Youth outreach
Associated City	Airport Name																							
GENERAL AVIATION AIRPORTS																								
Lock Haven	William T. Piper Memorial Airport	D	S	W	S	S	W	W	S	W	S	M	S	M	M	S	M	S	M	M	S	M	N	M
Mars	Lakehill Airport	D		S			W	W		S						M	M							
Meadville	Port Meadville Airport	D	N	D	S	N		W		S	S		N			N	W	N	D	D	N	N	N	
Mifflintown	Mifflintown Airport	D	S	D	N	N	D	D	S	D	W	W	N	W	D	S	S	N	D	W	N	N	N	M
Monongahela	Rostraver Airport	D	N	W	N	N	N	M	N	N	N	N	N	N	N	M	M	N	D	N	N	N	N	M
Monroeville	Pittsburgh-Monroeville Airport	D		S			W	W		S						M	M							
Montrose	Husky Haven Airport	D	N	N	N	N	D	D	D	N	M	S	N	S	S	N	N	N	N	N	N	W	N	N
Morgantown	Morgantown Airport	D		S			W	W		S						M	M							
Mount Joy/Marietta	Donegal Springs Airpark	D		S			W	W		S						M	M							
Mount Pleasant	Mount Pleasant/Scottdale Airport	S																						
Mount Pleasant	W.P.H.S. Heliport	S		D																				
Mount Pocono	Pocono Mountains Municipal Airport	D	S	D	W		D	D		W	W		M	W	M	M	M		M	M	S	W		
Myerstown	Deck Airport	W	S	D	M	S	D	D	D	S	S	S	N	N	M	S	S	N	S	N	N	N	N	M
New Castle	New Castle Municipal Airport	D	N	D	W	W	D	D	D	W	W	N	N	N	M	M		S		M	S	S	M	M
Newry	Blue Knob Valley Airport	W	S	D	S	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Osterburg	Ickes Airport	D	N	N	N	N	W	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Palmyra	Reigle Field	D		S			W	W		S						M	M							
Perkasie	Pennridge Airport	D		S			W	W		S						M	M							
Philadelphia	Northeast Philadelphia Airport	D	N	D	M	W	D	D	D	S	D	M	M	M	D	N	M	S	W	W	N	D	N	M
Philadelphia	Penn's Landing Heliport	D		S			W	W		S	S					M	M							
Philadelphia	Wings Field	D	N	D	N	N	D	S	N	N	N	N	N	N	N	N	N	N	D	N	N	N	N	M
Philipsburg	Albert Airport	W	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Philipsburg	Mid-State Airport	D		S			W	W		S						M	M				S			
Pittsburgh	Allegheny County Airport	D	N	D	W	D	D	D	D	D	M	W	W	W	D	M	M	M	D	D	N	W	S	S

Table B-22: Qualitative Benefits of Pennsylvania Airports, continued

Legend: D = Daily W = Weekly M = Monthly S = Seasonal N = Never Blank = No Response		Recreational flying	Agricultural spraying	Corporate/business activity	Aerial inspections	Air cargo	Flight training	Touch-&-go/cross country flight training	Aviation career training	Gateway for resort visitors	Aerial sightseeing	Real estate tours	Prisoner transport	Military exercises/training	Police/law enforcement	Search & rescue	Civil Air Patrol	Environmental patrol	Emergency medical evacuation/patient transfer	Medical doctor transport	Forest/wildland firefighting	Aerial photography/surveying	Aerial advertising	Youth outreach
Associated City	Airport Name																							
Pittsburgh	Rock Airport	D		S			W	W		S						M	M							
GENERAL AVIATION AIRPORTS																								
Pittsfield	Brokenstraw Airport	D	N	M	N	N	D	D	N	M	W	M	N	N	S	N	N	M	N	N	M	S	N	S
Pottstown	Heritage Field Airport	D	N	D	S	D	D	D	N	N	S	N	S	N	M	N	W	N	D	N	N	S	N	N
Pottstown	Pottstown Municipal Airport	D	S	W	W	M	D	D	W	W	M	M	N	M	M	M	M	M	M	M	S	M	S	S
Pottsville	Schuylkill County/Joe Zerbey Airport	D	S	D	M	N	D	D	D	D	D	D	M	D	W	D	S	S	D	M	S	D	N	D
Punxsutawney	Punxsutawney Municipal Airport	D	S	W	S	N	D	D	S	S	S	N	N	W	M	S	S	S	M	M	N	M	N	S
Quakertown	Quakertown Airport	D	N	M	S	M	D	D	W	S	D	M	N	M	M	W	W	N	M	M	N	M	N	M
Reading	Reading Regional Airport/Carl A. Spaatz Field	D	S	D	W	S	D	D	N	S	W	N	N	D	D	M	W	N	D	N	S	S	S	S
Reedsville	Mifflin County Airport	D	S	M	S	N	W	W	N	S	N	N	N	N	N	S	S	N	S	N	N	S	N	S
Selinsgrove	Penn Valley Airport	D	S	D	W	N	D	D	W	S	D	N	M	W	W	N	W	S	M	N	S	M	N	M
Shamokin	Northumberland County Airport	D	N	W	N	N	W	W	N	S	S	N	N	M	W	N	N	N	M	N	S	N	N	S
Shippensburg	Shippensburg Airport	D		S			W	W		S						M	M							
Slatington	Slatington Airport	D	S	M	N	N	D	W	W	S	S	S	N	S	S	S	S	N	S	S	S	S	S	S
Smoketown	Smoketown Airport	D		S			W	W		S						M	M							
Somerset	Somerset County Airport	W	S	M	M	N	S	S	N	M	S	N	S	M	M	S	M	S	S	S	S	S	N	N
St. Marys	St. Marys Municipal Airport	D	S	M	M	M	D	W	S	S	M	S	N	M	S	S	M	M	S	S	S	M	N	M
Sterling	Spring Hill Airport	W	S	W	N	N	M	S	S	S	S	S	N	M	M	N	S	N	N	N	N	S	N	N
Stewartstown	Shoestring Aviation Airfield	D		S			W	W		S						M	M							
Sunbury	Sunbury Airport	D		S			W	W		S						M	M							
Sunbury	Sunbury Seaplane Base	D		S			W	W		S						M	M							
Titusville	Titusville Airport	D	N	W	S	N	D	D	N	D	D	M	N	S	D	N	W	N	D	M	S	M	N	S
Toughkenamon	New Garden Airport	D	N	W	M	N	D	D	W	M	M	N	N	W	M	N	S	S	N	N	N	S	W	M
Towanda	Bradford County Airport	D	S	D	D	N	D	D	M	W	W	S	S	M	M	S	S	S	M	S	S	W	N	S
Tower City	Bendigo Airport	D	S	M	N	N	W	W	N	M	S	N	N	W	N	N	N	S	M	N	N	M	N	S

Table B-22: Qualitative Benefits of Pennsylvania Airports, continued

Legend: D = Daily W = Weekly M = Monthly S = Seasonal N = Never Blank = No Response		Recreational flying	Agricultural spraying	Corporate/business activity	Aerial inspections	Air cargo	Flight training	Touch-&-go/cross country flight training	Aviation career training	Gateway for resort visitors	Aerial sightseeing	Real estate tours	Prisoner transport	Military exercises/training	Police/law enforcement	Search & rescue	Civil Air Patrol	Environmental patrol	Emergency medical evacuation/patient transfer	Medical doctor transport	Forest/wildland firefighting	Aerial photography/surveying	Aerial advertising	Youth outreach
Associated City	Airport Name																							
Tunkhannock	Skyhaven Airport	D	S	W	S	N	D	W	D	W	W	M	N	S	M	N	N	S	M	M	N	W	N	W
Unionville	Ridge Soaring Airport	D		S			D	D		S	W					M	M							
GENERAL AVIATION AIRPORTS																								
Washington	Washington County Airport	D	S	D	M	M	D	D	N	W	S	S	M	W	W	N	S	N	D	W	N	W	S	S
Waynesburg	Greene County Airport	D	S	M	M	N	S	S	N	N	S	M	N	S	M	S	N	S	W	N	N	W	N	N
Wellsboro	Wellsboro Johnston Airport	S	S	W	M	N	S	W	N	S	N	N	N	N	N	N	N	N	M	M	S	N	N	N
Wellsville	Kampel Airport	S	N	N	N	N	S	S	N	N	N	N	N	S	N	N	N	N	N	N	N	S	N	N
West Chester	Brandywine Airport	D	N	W	N	N	D	D	N	N	W	N	N	N	N	N	M	N	D	N	N	M	M	N
Wilkes-Barre	Wilkes-Barre Wyoming Valley Airport	D	S	W	M	N	D	D	M	W	W	W	M	M	M	M	M	S	M	S	S	S	S	S
Williamsburg	Cove Valley Airport	D		S			W	W		S						M	M							
York	York Airport	D	S	D	W	W	D	D	W	D	W	W	M	W	W	W	W	S	D	M	N	M	S	M
Zelienople	Zelienople Municipal Airport	D	N	D	S	N	D	D		S	N		N	N	M	M	M	M	M	M	N	N	N	S

Source: Wilbur Smith Associates

APPENDIX C: AIRPORT VALUATION

As part of the PennDOT, Bureau of Aviation, 2011 Economic Impact of Aviation in Pennsylvania Study, Wilbur Smith Associates (WSA) was given the task of estimating the cost of building a select number of airports in the system by applying current construction and property costs as well as current building, design and environmental standards. By evaluating the current cost of replacing the facilities, a value can be established for the aviation assets in the State. Developing an estimate of each airport's value provides the Pennsylvania public, airport stakeholders, as well as public policy decision makers an understandable value of their category of airport as well as the aggregate value of Pennsylvania's system of airports. Airport values presented are in 2011 dollar values and are based on Pennsylvania construction cost averages.

Methodology

Twelve airports representing a cross section of all categories of airports throughout the state were selected for the valuation. This includes basic, intermediate, advanced and commercial service airports. It is important to note that Pittsburgh and Philadelphia International Airports were not included in this valuation. The following airports were included in this valuation:

Commercial Service:

Erie International Airport
Johnstown/Cambria County Airport
University Park Airport

Intermediate:

Doylestown Airport
Pocono Mountain Airport
Zelienople Municipal Airport

Advanced:

Chester County Airport
Port Meadville Airport
Washington County Airport

Basic:

Gettysburg Regional Airport
Grove City Airport
Wilkes-Barre/Wyoming Valley Airport

WSA utilized a two-step process to complete the airport valuation task. The first step developed average cost estimates or "drivers" for typical airport facilities and equipment. These cost estimates were used to build asset estimates for each airport. The second step applied these values to each existing on-airport facility assessed in the valuation. Assets and average construction costs are in 2011 dollars and are presented in the following categories:

1. Land – A range of per acre values established by local comparable properties either recently sold or currently for sale. A variety of sources were used to develop property value ranges including: on-line real estate search engines, local county tax and property offices and PennDOT's 2001 Airport Properties Directory. Both residential and commercial/industrial properties were considered in this study. In most cases, the highest property value represented in the range was for industrial or commercial land of less than one acre. The lowest value in the range was presented by residential property of more than one acre.
2. Runway, Taxiway, Apron – A per square foot value assigned to airfield pavement areas. The thickness and strength of airfield pavement influences its cost.

Consideration of the types of aircraft using each airport and associated pavement strength was included in the development of pavement costs.

3. Hangars and Buildings – A per square foot or unit values for landside structures. This includes the cost for T-hangars, box hangars, corporate hangars, and community hangars as well as all other buildings on the airport such as terminal buildings, maintenance facilities, storage buildings and other airport-owned buildings.
4. Nav aids, Lights and Equipment – Units costs for approach and lighting systems and airport operations equipment. The cost of equipment and infrastructure to support precision and non-precision approaches, runway and taxiway lights as well as fire fighting, snow removal, grounds maintenance and other airport owned vehicles and equipment.
5. Engineering/Environmental Contingency – adjustment to account for engineering, planning, permitting and environmental mitigation. This includes the cost of planning, designing, engineering and permitting the airport as well as studying and mitigating any environmental impacts.
6. Airport Reference Code (ARC) Adjustment – Larger and busier airports typically have higher facility costs that were not included in this analysis. Not every level of infrastructure detail such as utilities, parking lots, drainage, access roads, and runway safety area grading and development could be analyzed. To adjust for facility values of less identifiable infrastructure assets, a simple calculation was developed based on each airport's Airport Reference Code (ARC), a coding system that relates airport design criteria to the operational and physical characteristics of the airplanes that are intended to operate at an airport.

Table C-1 identifies the increase given to each Airport Category. For example, if an airport was determined to have a facility aggregate value of \$10,000,000 and the airport has an Aircraft Category C, then its value was multiplied by 10 percent to adjust it a total value of \$11,000,000. Again, this is to assist in determining less identifiable infrastructure such as utilities, parking lots, access roads and runway safety areas and assumes higher airports with a higher Aircraft Category as part of their ARC are larger facilities with more extensive infrastructure.

Table C-1: ARC Adjustments

If Aircraft Category A = Aggregate Value x 0%
If Aircraft Category B = Aggregate Value x 10%
If Aircraft Category C = Aggregate Value x 20%

Source: Wilbur Smith Associates

Infrastructure Facility Analysis

Table C-2 identifies average infrastructure unit cost estimates for each facility type analyzed.

Table C-2: Costs Per Facility Item

Cost Criteria	Estimated Costs	Unit
Runway Pavement - ARC A	\$17.50	SF
Runway Pavement - ARC B	\$19.50	SF
Runway Pavement - ARC C	\$21.50	SF
Runway/Taxiway Turf Surface	\$5.90	SF
Taxiway Pavement- ARC A & B	\$647.50	LF
Taxiway Pavement - ARC C	\$1,025.00	LF
Aircraft Apron Pavement	\$15.50	SF
Land Clearing, Grubbing and Leveling	\$20,000.00	AC
MIRL/HIRL (Runway Lighting)	\$63.30	LF
T-Hangar Units	\$20,000.00	EA
Conventional Hangar	\$97.00	SF
Tower-ATCT	\$5,500,000.00	EA
ASOS/AWOS	\$120,000.00	EA
PAX Terminal Bldg-Commercial Svc Airports only	\$420.00	SF
GA Terminal Bldg	\$250,000.00	EA
Auto Parking	\$9.50	SF
Fuel Farm - ARC C	\$350,000.00	EA
Fuel Farm - ARC B	\$250,000.00	EA
Nav aids ILS/MALSR	\$2,388,000.00	EA
Nav aids VOR, NDB, DME, or GPS	\$180,000.00	EA
VGSIs	\$120,000.00	EA
Rotating Beacon	\$48,000.00	EA
ARFF (Fire Fighting) Equipment	\$250,000.00	EA
ARFF Bldg	\$180,000.00	EA
Snow Removal Equipment	\$150,000.00	EA
Maint Bldg	\$120,000.00	EA
Mowers/Trucks	\$42,000.00	EA

Source: Wilbur Smith Associates

Specific criteria for estimating the value of some of the airport facilities are presented as follows:

Runways - Runway construction costs were based on per square foot costs of construction. This value represents the cost of building a runway on terrain assumed to be fairly level. In addition, costs varied depending on runway surface type such as asphalt, dirt/gravel, or concrete as well as pavement strength and thickness associated with the airport ARC.

Taxiways - Taxiway construction costs were based on per linear foot costs of construction. Aerial photos were used to ascertain the taxiway system length for each airport.

Aircraft Apron - Aircraft apron construction costs were based on a construction per square foot value. This value represents the cost of building an apron on terrain assumed to be fairly level. Aerial photos were used to ascertain the apron area for each airport.

Clearing, grubbing and Leveling – In order to account for unique terrain issues found throughout Pennsylvania, construction costs for earthwork are based on overall airport acreage.

T-hangar – T-hangar construction costs are based on average construction costs of a 10-bay T-hangar unit. Aerial photos were used to ascertain the number of T-hangars located on each airport.

Conventional Hangars – Conventional hangar construction costs are based on average per square foot construction costs of a 60-foot by 60-foot conventional hangar. Aerial photos and interviews/surveys with airport managers were used to ascertain the square footage hangars located on each airport.

Air Traffic Control Tower (ATCT) – Three airports in this valuation have an ATCT. A unit cost of \$5.5 million per tower was used based on current ATCT development projects.

ASOS/AWOS Weather Reporting Equipment – Automated weather equipment range in cost between \$100,000 and \$140,000. An average of \$120,000 was used.

Commercial Service Passenger Terminal Building – A per square foot cost of \$420 was used to estimate the costs of a new commercial service passenger terminal building. This is based on similar basic level airport terminal facilities constructed recently. Aerial photography was used to calculate the approximate square footage of existing terminal buildings.

General Aviation (GA) Terminal Building – A one-size-fits-all GA terminal building cost of \$250,000 was used in this analysis. GA Terminal buildings usually accommodate the traveling public using general aviation as well as FBO businesses and airport administration functions.

Fuel Farm – Since the size of fuel farms can vary greatly between types or categories of airports, two values for their cost were based on their ARC.

NAVAIDs – Estimates of airport navigational equipment were provided. An airport with an instrument landing system (ILS) and associated approach lighting system is currently estimated to be almost \$2.4 million. Equipment associated with non-precision approaches cost approximately \$180,000.

ARFF, Snow and Mowing Equipment and Associated Buildings – Cost estimates associated with various other airport facilities were also provided. These include aircraft rescue and fire fighting (ARFF), snow and mowing equipment, as well as storage buildings for this equipment.

The second step applied these values to each existing on-airport facility included in the valuation. Tools utilized for the process included:

- Aerial photos of airports
- Airport master plans
- Airport Capital Improvement Program (CIP) data
- Pennsylvania airport directory and aviation aeronautical charts
- Airport-related construction cost estimates from other states (for comparison)
- FAA 5010 forms and FAA Airport Facility Directory (AFD)
- Surveys and interviews with airport managers

Airport Valuation Results

The valuation of the twelve airports assessed in this study demonstrates that the cost for each airport in the system varies based upon the size and category of the airport, facilities and services offered and location.

Table C-3 illustrates the estimated range of values associated with each category of airport studied.

Table C-3: Airport Value Range

Airport Category	Valuation Range
Primary Commercial Service	\$190M - \$255M
Non-Primary Commercial Service	\$165M - \$190M
Advanced	\$40M - \$125M
Intermediate	\$35M - \$70M
Basic	\$10M - \$30M

The range above shows estimated values rounded to the nearest million dollars and is derived from **Table C-4** which provides a more detailed view of the cost categories and valuations for each airport included in the analysis.

Also, following in subsequent pages (after Table C-4), individual airport valuation summary sheets document facility attributes, value indicators and contributions each airport in this valuation provides to the community.

Table C-4: Airport Valuations

Airport Name	Airport Reference Code (ARC)	Low Cost Land and Land Development	High Cost Land and Land Development	Runway Taxiway Apron	Hangars Buildings Auto Parking	NAVAIDS Lights Equipment/Fuel	Engineering Environmental Contingencies	ARC Adjustment	Lower Range Airport Valuation	Upper Range Airport Valuation
Chester County	C-II	\$16,896,000	\$41,536,000	\$24,399,000	\$17,379,899	\$4,499,820	\$17,562,944	\$17,562,944	\$98,300,607	\$122,940,607
Doylestown	B-I	\$11,200,000	\$37,600,000	\$8,017,270	\$3,949,189	\$1,442,153	\$10,201,722	\$5,100,861	\$39,911,196	\$66,311,196
Erie International	C-III	\$21,600,000	\$53,100,000	\$52,057,600	\$43,681,500	\$9,037,443	\$31,575,309	\$31,575,309	\$189,527,160	\$221,027,160
Gettysburg Regional	A-I	\$1,593,000	\$5,782,000	\$4,136,950	\$2,008,154	\$466,230	\$2,478,667	\$0	\$10,683,001	\$14,872,001
Grove City	A-I	\$3,900,000	\$9,450,000	\$8,845,000	\$1,648,100	\$1,154,850	\$4,219,590	\$0	\$19,767,540	\$25,317,540
Johnstown/Cambria	B-II	\$18,200,000	\$40,950,000	\$54,123,918	\$44,083,250	\$6,704,924	\$29,172,418	\$14,586,209	\$166,870,719	\$189,620,719
Pocono Mountains	B-II	\$7,700,000	\$20,075,000	\$19,216,407	\$2,936,700	\$2,181,763	\$8,881,974	\$4,440,987	\$45,357,831	\$57,732,831
Port Meadville	B-II	\$6,500,000	\$20,250,000	\$13,342,110	\$6,225,000	\$1,778,563	\$8,319,135	\$4,159,567	\$40,324,375	\$54,074,375
Washington County	B-II	\$11,228,000	\$24,820,000	\$18,147,913	\$20,997,000	\$3,716,753	\$13,536,333	\$6,768,167	\$74,394,165	\$87,986,165
Wilkes-Barre Wyoming Valley	B-I	\$4,455,000	\$9,180,000	\$7,042,737	\$2,664,000	\$835,638	\$3,944,475	\$1,972,237	\$20,914,087	\$25,639,087
University Park	C-III	\$47,171,000	\$102,021,000	\$42,041,750	\$30,855,000	\$5,258,173	\$36,835,185	\$36,835,185	\$198,996,293	\$253,846,293
Zelienople Municipal	B-II	\$10,754,000	\$30,564,000	\$12,206,630	\$5,485,000	\$1,174,259	\$9,885,978	\$4,942,989	\$44,448,856	\$64,258,856
TOTAL		\$161,197,000	\$395,328,000	\$263,577,284	\$181,912,792	\$38,250,570	\$176,613,729	\$127,944,455	\$949,495,829	\$1,183,626,829

Source: Wilbur Smith Associates

Chester County G O Carlson Airport Coatesville, Pennsylvania

AIRPORT LOCATION AND FACILITIES

AIRPORT DESCRIPTION	
System Role	Advanced
Primary Runway Length	5,400 feet
Primary Runway Width	100 feet
Approximate Acreage	352
Taxiway Type	Full Parallel
Approach Type	Precision
Based Aircraft	93

Chester County Airport is located about three miles west of the City of Coatesville in southeastern Pennsylvania, about 50 miles west of Center City Philadelphia, and 30 miles east of Lancaster. Existing aviation facilities at the airport include a paved 5,400-foot runway with precision approach capabilities. The airport serves 93 based aircraft, including 19 jets. It has 65 T-hangar units and over 150,000 square feet of conventional hangar space to

accommodate a variety of aircraft maintenance and manufacturing as well as Med-Evac operations.

VALUE INDICATORS

Developing an estimate of select airports throughout the state provides the public, airport stakeholders, as well as policy decision makers an understandable value of their airports. By estimating the current cost of replacing the facilities, a value can be established for Chester County Airport. Assets and average construction costs are in 2011 dollars (rounded to the nearest million) and are presented in the following categories:

1. Land – range of per acre value for land established by local comparable properties either recently sold or currently for sale.
2. Runway, Taxiway, Apron – per square foot value assigned to airfield pavement areas.
3. Hangars and Buildings – per square foot or unit values for landside structures.
4. Nav aids, Lights and Equipment – units costs for approach and lighting systems and airport operations equipment.
5. Engineering/Environmental Contingency – adjustment to account for engineering, planning, permitting and environmental mitigation.
6. ARC Adjustment – adjustment for facility values of less identifiable infrastructure assets such as utilities, parking lots, drainage, access roads, runway safety area grading, etc.

KEY AIRPORT VALUES	
Land	\$17,000,000 - \$42,000,000
Runway, Taxiway, Apron	24,000,000
Hangars and Buildings	17,000,000
Nav aids, Lights, Equipment	4,000,000
Eng./Env. Contingency	18,000,000
ARC Adjustment	18,000,000
TOTAL	\$98,000,000 - \$123,000,000

VALUE TO THE COMMUNITY

Chester County Airport provides a wide range of services to the surrounding area that attracts many unique types of businesses, tenants and users. The following facts about the airport's operation help demonstrate its value to the community.

1. Chester County Airport is a publicly-owned, reliever airport located close to Philadelphia.
2. Over 95% of corporate aircraft operations are from Fortune 500 companies.
3. The largest corporations at the airport: Sikorsky Helicopters (150 employees), Sureflight - aircraft finishing (15) and EraMed - air medical (12).



Source: Google Earth, Approximate Property Line - - - - -

4. Celebrities fly into and out of the airport for guest appearances at nearby QVC Studios.
5. Brandywine Hospital has flights to the airport in support of transplant operations.
6. The PA DCNR has an agreement with the airport to allow staging and filling of fixed wing firefighting aircraft.
7. Universal Aviation Management is an on-site aircraft broker providing shared aircraft ownership.

Doylestown Airport Doylestown, Pennsylvania

AIRPORT LOCATION AND FACILITIES

AIRPORT DESCRIPTION	
System Role	Intermediate
Primary Runway Length	3,004 feet
Primary Runway Width	60 feet
Approximate Acreage	200
Taxiway Type	Full Parallel
Approach Type	Non-Precision
Based Aircraft	157

Doylestown Airport is located about two miles north of the City of Doylestown in southeastern Pennsylvania, about 30 miles north of the Center City Philadelphia, and 30 miles south of Allentown. Existing aviation facilities at the airport include a paved 3,004-foot runway with non-precision approach capabilities. The airport serves 157 based aircraft, including 11 multi-engine aircraft and three helicopters. It has 115 T-hangar units and over 10,000

square feet of conventional hangar space to accommodate the full range of services offered by the fixed base operator.

VALUE INDICATORS

Developing an estimate of select airports throughout the state provides the public, airport stakeholders, as well as policy decision makers an understandable value of their airports. By estimating the current cost of replacing the facilities, a value can be established for Doylestown Airport. Assets and average construction costs are in 2011 dollars (rounded to the nearest million) and are presented in the following categories:

1. Land – range of per acre value for land established by local comparable properties either recently sold or currently for sale.
2. Runway, Taxiway, Apron – per square foot value assigned to airfield pavement areas.
3. Hangars and Buildings – per square foot or unit values for landside structures.
4. Nav aids, Lights and Equipment – units costs for approach and lighting systems and airport operations equipment.
5. Engineering/Environmental Contingency – adjustment to account for engineering, planning, permitting and environmental mitigation.
6. ARC Adjustment – adjustment for facility values of less identifiable infrastructure assets such as utilities, parking lots, drainage, access roads, runway safety area grading, etc.

KEY AIRPORT VALUES	
Land	\$11,000,000 - \$38,000,000
Runway, Taxiway, Apron	8,000,000
Hangars and Buildings	4,000,000
Nav aids, Lights, Equipment	1,000,000
Eng./Env. Contingency	10,000,000
ARC Adjustment	5,000,000
TOTAL	\$39,000,000 - \$66,000,000

VALUE TO THE COMMUNITY

Doylestown Airport provides a full range of services necessary to meet the needs of a large population of single and multi-engine general aviation aircraft. The following facts about the airport's operation demonstrate its value to the community.

1. Doylestown Airport is a publicly-owned, reliever airport located close to Philadelphia.
2. The airport's one on-site business tenant is Leading Edge Aviation, a fixed base operator.
3. Compared to other airports in the state, DYL has a very large number of based aircraft, most have less than 100.
4. Corporate flight operations are common with activity from companies like Merck, Bimbo Bakeries and Greater Media.
5. The airport is adjacent to a 35-acre industrial park with 12 businesses located in it.
6. The airport promotes/runs a number of community events during the year to generate interest in aviation and the airport.



Source: Google Earth, Approximate Property Line - - - - -

Erie International Airport Erie, Pennsylvania

AIRPORT LOCATION AND FACILITIES

AIRPORT DESCRIPTION	
System Role	Commercial
Primary Runway Length	6,500 feet
Primary Runway Width	150 feet
Approximate Acreage	450
Taxiway Type	Full Parallel
Approach Type	Precision
Based Aircraft	39

Erie International Airport is located five miles southwest of the City of Erie in northwestern Pennsylvania, near the coast of Lake Erie. Existing aviation facilities at the airport include a paved 6,500-foot runway with precision approach capabilities, secondary runway measuring 3,507 feet by 150 feet and a passenger terminal building. The airport serves 39 based aircraft, including two jets. It has 28 T-hangar units and almost 90,000

square feet of conventional hangar space to accommodate a variety of aircraft maintenance and manufacturing as well as facilities necessary to support commercial passenger service.

VALUE INDICATORS

Developing an estimate of select airports throughout the state provides the public, airport stakeholders, as well as policy decision makers an understandable value of their airports. By estimating the current cost of replacing the facilities, a value can be established for Erie International Airport. Assets and average construction costs are in 2011 dollars (rounded to the nearest million) and are presented in the following categories:

1. Land – range of per acre value for land established by local comparable properties either recently sold or currently for sale.
2. Runway, Taxiway, Apron – per square foot value assigned to airfield pavement areas.
3. Hangars and Buildings – per square foot or unit values for landside structures.
4. Nav aids, Lights and Equipment – units costs for approach and lighting systems and airport operations equipment.
5. Engineering/Environmental Contingency – adjustment to account for engineering, planning, permitting and environmental mitigation.
6. ARC Adjustment – adjustment for facility values of less identifiable infrastructure assets such as utilities, parking lots, drainage, access roads, runway safety area grading, etc.

KEY AIRPORT VALUES	
Land	\$22,000,000 - \$53,000,000
Runway, Taxiway, Apron	52,000,000
Hangars and Buildings	44,000,000
Nav aids, Lights, Equipment	9,000,000
Eng./Env. Contingency	32,000,000
ARC Adjustment	32,000,000
TOTAL	\$191,000,000 - \$222,000,000

VALUE TO THE COMMUNITY

Erie International Airport provides a wide range of services to the surrounding area that attracts many unique types of businesses, tenants and users, including airline passengers. The following facts about the airport's operation help demonstrate its value to the community.

1. Erie International Airport is a publicly-owned, primary commercial service airport providing the region with access to the national air transportation system.
2. Continental Connection, Delta, and US Airways Express offer flights to connecting hubs in Cleveland, Detroit, and Philadelphia, respectively.
3. Several on-site businesses provide aircraft and passenger support services essential to the airport's operation.
4. Companies that utilize the airport regularly include Snap Tite, Lord Corp., FedEx, General Electric, Erie Insurance, and Troyer Farms.
5. Extensive fixed wing and helicopter air ambulance operations from Critical Care Medflight and the Center for Emergency Medicine of Western Pennsylvania.



Source: Google Earth, Approximate Property Line - - - - -

Gettysburg Regional Airport Gettysburg, Pennsylvania

AIRPORT LOCATION AND FACILITIES

AIRPORT DESCRIPTION	
System Role	Basic
Primary Runway Length	3,100 feet
Primary Runway Width	60 feet
Approximate Acreage	59
Taxiway Type	Partial
Approach Type	Non-Precision
Based Aircraft	9

Gettysburg Regional Airport is located two miles west of the City of Gettysburg in south central Pennsylvania, about 37 miles southwest of the Harrisburg. Existing aviation facilities at the airport include a paved 3,100-foot runway with non-precision approach capabilities. The airport serves 9 based aircraft and has 18,000 square feet of hangar space to accommodate aircraft and maintenance operations. Gettysburg Regional

Airport is owned and operated by the Susquehanna Area Regional Airport Authority (SARAA), which also owns and operates three other airports in the region.

VALUE INDICATORS

Developing an estimate of select airports throughout the state provides the public, airport stakeholders, as well as policy decision makers an understandable value of their airports. By estimating the current cost of replacing the facilities, a value can be established for Gettysburg Regional Airport. Assets and average construction costs are in 2011 dollars (rounded to the nearest million) and are presented in the following categories:

1. Land – range of per acre value for land established by local comparable properties either recently sold or currently for sale.
2. Runway, Taxiway, Apron – per square foot value assigned to airfield pavement areas.
3. Hangars and Buildings – per square foot or unit values for landside structures.
4. Nav aids, Lights and Equipment – units costs for approach and lighting systems and airport operations equipment.
5. Engineering/Environmental Contingency – adjustment to account for engineering, planning, permitting and environmental mitigation.
6. ARC Adjustment – adjustment for facility values of less identifiable infrastructure assets such as utilities, parking lots, drainage, access roads, runway safety area grading, etc.

KEY AIRPORT VALUES	
Land	\$2,000,000 - \$6,000,000
Runway, Taxiway, Apron	4,000,000
Hangars and Buildings	2,000,000
Nav aids, Lights, Equipment	1,000,000
Eng./Env. Contingency	2,000,000
ARC Adjustment	-
TOTAL	\$11,000,000 - \$15,000,000

VALUE TO THE COMMUNITY

Gettysburg Regional Airport provides facilities and services to support the general aviation needs of the local community and region. The following facts about the airport's operation help demonstrate its value to the community.

1. Gettysburg Regional Airport is a publicly-owned, basic general aviation airport located close to Gettysburg and greater Harrisburg.



Source: Google Earth, Approximate Property Line - - - - -

2. SARAA offers services at the airport, including 24-hour self-service fueling, limited aircraft maintenance, tie-down aircraft parking and hangar storage.
3. Cumberland Valley Aviation operates a flight school at the airport.
4. The most notable attraction to the airport is Gettysburg National Military Park, featuring the historic Gettysburg U.S. Civil War Battlefield. The airport acts as a gateway for park visitors arriving by aircraft and as the origin for air tours of the historic site.

Grove City Airport Grove City, Pennsylvania

AIRPORT LOCATION AND FACILITIES

AIRPORT DESCRIPTION	
System Role	Basic
Primary Runway Length	4,500 feet
Primary Runway Width	75 feet
Approximate Acreage	150
Taxiway Type	Turnaround
Approach Type	Non-Precision
Based Aircraft	6

Grove City Airport is located three miles west of Grove City in western Pennsylvania, about 60 miles north of Pittsburgh. Existing aviation facilities at the airport include a paved 4,500-foot runway with non-precision approach capabilities. The airport serves 6 based aircraft and experiences about 6,000 operations annually. It has 10 T-hangar units and 11,000 square feet of conventional hangar space to accommodate a variety of aircraft

maintenance operations.

VALUE INDICATORS

Developing an estimate of select airports throughout the state provides the public, airport stakeholders, as well as policy decision makers an understandable value of their airports. By estimating the current cost of replacing the facilities, a value can be established for Grove City Airport. Assets and average construction costs are in 2011 dollars (rounded to the nearest million) and are presented in the following categories:

1. Land – range of per acre value for land established by local comparable properties either recently sold or currently for sale.
2. Runway, Taxiway, Apron – per square foot value assigned to airfield pavement areas.
3. Hangars and Buildings – per square foot or unit values for landside structures.
4. Nav aids, Lights and Equipment – units costs for approach and lighting systems and airport operations equipment.
5. Engineering/Environmental Contingency – adjustment to account for engineering, planning, permitting and environmental mitigation.
6. ARC Adjustment – adjustment for facility values of less identifiable infrastructure assets such as utilities, parking lots, drainage, access roads, runway safety area grading, etc.

KEY AIRPORT VALUES	
Land	\$4,000,000 - \$9,000,000
Runway, Taxiway, Apron	9,000,000
Hangars and Buildings	2,000,000
Nav aids, Lights, Equipment	1,000,000
Eng./Env. Contingency	4,000,000
ARC Adjustment	-
TOTAL	\$20,000,000 - \$25,000,000

VALUE TO THE COMMUNITY

Grove City Airport provides facilities and services to support the general aviation needs of the local community and region. The following facts about the airport's operation help demonstrate its value to the community.

1. Grove City Airport is a publicly-owned, basic general aviation airport located in the outer area surrounding Pittsburgh.
2. Corporate flights are a frequent activity at Grove City Airport. Hawbaker Construction, Interstate Chemical, Petroleum Products, and Oregon Aero are companies that conduct regular operations and keep aircraft based at the airport.
3. Quality Avionics provides avionics sales and service.
4. STAT Medivac conducts medical evacuation and other medical flight operations on a daily basis.
5. Grove City Airport supports a number of activities including skydiving on weekends during the warmer months and two annual events held at the airport in the spring and fall, one hosted by airport staff and the other hosted by the Experimental Aircraft Association.



Source: Google Earth, Approximate Property Line - - - - -

John Murtha Johnstown-Cambria County Airport Johnstown, Pennsylvania

AIRPORT LOCATION AND FACILITIES

AIRPORT DESCRIPTION	
System Role	Commercial
Primary Runway Length	7,003 feet
Primary Runway Width	150 feet
Approximate Acreage	650
Taxiway Type	Full Parallel
Approach Type	Precision
Based Aircraft	24

Johnstown-Cambria County Airport is located three miles northeast of the City of Johnstown in western Pennsylvania, approximately 67 miles east of Pittsburgh. Existing aviation facilities at the airport include a paved 7,003-foot runway with precision approach capabilities, secondary runway measuring 4,386 feet by 100 feet and a passenger terminal building. The airport serves 24 based aircraft, including one jet. It has 30 T-hangar

units and 238,000 square feet of hangar space to accommodate a variety of aircraft maintenance and manufacturing as well as facilities necessary to support military operations and commercial passenger service.

VALUE INDICATORS

Developing an estimate of select airports throughout the state provides the public, airport stakeholders, as well as policy decision makers an understandable value of their airports. By estimating the current cost of replacing the facilities, a value can be established for Johnstown-Cambria County Airport. Assets and average construction costs are in 2011 dollars (rounded to the nearest million) and are presented in the following categories:

1. Land – range of per acre value for land established by local comparable properties either recently sold or currently for sale.
2. Runway, Taxiway, Apron – per square foot value assigned to airfield pavement areas.
3. Hangars and Buildings – per square foot or unit values for landside structures.
4. Nav aids, Lights and Equipment – units costs for approach and lighting systems and airport operations equipment.
5. Engineering/Environmental Contingency – adjustment to account for engineering, planning, permitting and environmental mitigation.
6. ARC Adjustment – adjustment for facility values of less identifiable infrastructure assets such as utilities, parking lots, drainage, access roads, runway safety area grading, etc.

KEY AIRPORT VALUES	
Land	\$18,000,000 - \$41,000,000
Runway, Taxiway, Apron	54,000,000
Hangars and Buildings	44,000,000
Nav aids, Lights, Equipment	7,000,000
Eng./Env. Contingency	29,000,000
ARC Adjustment	15,000,000
TOTAL	\$167,000,000 - \$190,000,000

VALUE TO THE COMMUNITY

Chester County Airport provides a wide range of service to the surrounding area that attracts many unique types of businesses, tenants and users. The following facts about the airport's operation help demonstrate its value to the community.

1. Johnstown-Cambria County Airport is a publicly-owned, non-primary commercial service airport serving western and central Pennsylvania.
2. Colgan Air, operating as United Express, provides service to Washington-Dulles International Airport on a route shared by Altoona-Blair County Airport.
3. A total of 11 on-site business tenants, including MTT Aviation, the fixed base operator, are located at the airport.
4. The following companies use the airport with regular frequency and keep aircraft based on-site: JWF, GAP Air, RockWell, Skodie Aviation, HRI, Laurel Aviation, Appalachian and PBMJ.
5. The Pennsylvania Army National Guard Attack Reconnaissance Battalion, 258th Air Traffic Control Squadron of the Pennsylvania Air National Guard, Marine Wing Support Squadron 471, and the Marine Light Attack Helicopter Squadron 775 are all based at Johnstown-Cambria County Airport.



Source: Google Earth, Approximate Property Line - - - - -

Pocono Mountains Municipal Airport Mount Pocono, Pennsylvania

AIRPORT LOCATION AND FACILITIES

AIRPORT DESCRIPTION	
System Role	Intermediate
Primary Runway Length	5,001 feet
Primary Runway Width	75 feet
Approximate Acreage	275
Taxiway Type	Partial
Approach Type	Non-Precision
Based Aircraft	29

Pocono Mountains Municipal Airport is located two miles northwest of the City of Pocono Mountain in eastern Pennsylvania, about 50 miles north of Allentown and 40 miles southeast of Wilkes-Barre. Existing aviation facilities at the airport include a paved 5,001-foot runway with non-precision approach capabilities as well as a secondary runway measuring 4,000 feet by 100 feet. The airport serves 29 based aircraft. It has 8 T-hangar

units and almost 24,000 square feet of conventional hangar space to accommodate a variety of aircraft storage and maintenance operations.

VALUE INDICATORS

Developing an estimate of select airports throughout the state provides the public, airport stakeholders, as well as policy decision makers an understandable value of their airports. By estimating the current cost of replacing the facilities, a value can be established for Pocono Mountains Municipal Airport. Assets and average construction costs are in 2011 dollars (rounded to the nearest million) and are presented in the following categories:

1. Land – range of per acre value for land established by local comparable properties either recently sold or currently for sale.
2. Runway, Taxiway, Apron – per square foot value assigned to airfield pavement areas.
3. Hangars and Buildings – per square foot or unit values for landside structures.
4. Nav aids, Lights and Equipment – units costs for approach and lighting systems and airport operations equipment.
5. Engineering/Environmental Contingency – adjustment to account for engineering, planning, permitting and environmental mitigation.
6. ARC Adjustment – adjustment for facility values of less identifiable infrastructure assets such as utilities, parking lots, drainage, access roads, runway safety area grading, etc.

KEY AIRPORT VALUES	
Land	\$8,000,000 - \$20,000,000
Runway, Taxiway, Apron	19,000,000
Hangars and Buildings	3,000,000
Nav aids, Lights, Equipment	2,000,000
Eng./Env. Contingency	9,000,000
ARC Adjustment	4,000,000
TOTAL	\$45,000,000 - \$57,000,000

VALUE TO THE COMMUNITY

Pocono Mountains Municipal Airport provides a wide range of service to the surrounding area that attracts many unique types of businesses, tenants and users. The following facts about the airport's operation help demonstrate its value to the community.

1. Pocono Mountains Municipal Airport is a publicly-owned, general aviation airport located in the eastern mountain region.
2. The following local companies use the airport with regular frequency: Weiler Corporation, Dien Properties, Keystone Aerial Surveys, and Papillon & Moyers.
3. The airport has two on-site business tenants: GW Aviation and Hi Tech Helicopters which offers helicopter flight instruction.
4. The airport is utilized as a gateway for visitors to access regional attractions such as Mount Airy Casino, Great Wolf Lodge, Camelback Skiing and NASCAR during race week.
5. Tobyhanna Army Depot utilized the airport by establishing a temporary radar facility to test a mobile airplane landing system used in Iraq and Afghanistan.



Source: Google Earth, Approximate Property Line - - - -

Port Meadville Airport Meadville, Pennsylvania

AIRPORT LOCATION AND FACILITIES

AIRPORT DESCRIPTION	
System Role	Advanced
Primary Runway Length	5,001 feet
Primary Runway Width	75 feet
Approximate Acreage	250
Taxiway Type	Full Parallel
Approach Type	Non-Precision
Based Aircraft	27

Port Meadville Airport is located about three miles west of the City of Meadville in northwestern Pennsylvania, about 40 miles south of Erie and 90 north of Pittsburgh. Existing aviation facilities at the airport include a paved 5,001-foot runway with non-precision approach capabilities. The airport serves 27 based aircraft, including three jets. It has 9 T-hangar units and 57,000 square feet of conventional hangar space to accommodate a

variety of aircraft maintenance and manufacturing operations.

VALUE INDICATORS

Developing an estimate of select airports throughout the state provides the public, airport stakeholders, as well as policy decision makers an understandable value of their airports. By estimating the current cost of replacing the facilities, a value can be established for Port Meadville Airport. Assets and average construction costs are in 2011 dollars (rounded to the nearest million) and are presented in the following categories:

1. Land – range of per acre value for land established by local comparable properties either recently sold or currently for sale.
2. Runway, Taxiway, Apron – per square foot value assigned to airfield pavement areas.
3. Hangars and Buildings – per square foot or unit values for landside structures.
4. Nav aids, Lights and Equipment – units costs for approach and lighting systems and airport operations equipment.
5. Engineering/Environmental Contingency – adjustment to account for engineering, planning, permitting and environmental mitigation.
6. ARC Adjustment – adjustment for facility values of less identifiable infrastructure assets such as utilities, parking lots, drainage, access roads, runway safety area grading, etc.

KEY AIRPORT VALUES	
Land	\$7,000,000 - \$20,000,000
Runway, Taxiway, Apron	13,000,000
Hangars and Buildings	6,000,000
Nav aids, Lights, Equipment	2,000,000
Eng./Env. Contingency	8,000,000
ARC Adjustment	4,000,000
TOTAL	\$40,000,000 - \$53,000,000

VALUE TO THE COMMUNITY

Port Meadville Airport provides a wide range of services to the surrounding area that attracts many unique types of businesses, tenants and users. The following facts about the airport's operation help demonstrate its value to the community.

1. Port Meadville Airport is a publicly-owned, general aviation airport located in the northwest Pennsylvania region.
2. The airport is home to six on-site business tenants, one of which, All Points Aviation Services, offers a wide range of services including maintenance, aircraft recovery, sales, and flight training.
3. STAT Medivac is located at Port Meadville and provides medical evacuation and transport operations throughout the area.
4. The following companies keep aircraft based at the airport and conduct frequent flight operations: Aimsworth Enterprises, Greenleaf, Aerostar Inc., and Great Lakes Case and Cabinets.



Source: Google Earth, Approximate Property Line - - - -

University Park Airport State College, Pennsylvania

AIRPORT LOCATION AND FACILITIES

AIRPORT DESCRIPTION	
System Role	Commercial
Primary Runway Length	6,701 feet
Primary Runway Width	150 feet
Approximate Acreage	1,097
Taxiway Type	Full Parallel
Approach Type	Precision
Based Aircraft	61

University Park Airport is located three miles north of the City of State College in central Pennsylvania, 88 miles northwest of Harrisburg. Existing aviation facilities at the airport include a paved 6,701-foot runway with precision approach capabilities, as well as a passenger terminal building and new air traffic control tower. The airport serves 62 based aircraft, including 5 jets. It has 6 T-hangar units and over 15,000 square feet of

conventional hangar space to accommodate a variety of aircraft storage and maintenance operations. The airport is owned and operated by Pennsylvania State University and the terminal building is managed by Centre County Airport Authority.

VALUE INDICATORS

Developing an estimate of select airports throughout the state provides the public, airport stakeholders, as well as policy decision makers an understandable value of their airports. By estimating the current cost of replacing the facilities, a value can be established for University Park Airport. Assets and average construction costs are in 2011 dollars (rounded to the nearest million) and are presented in the following categories:

1. Land – range of per acre value for land established by local comparable properties either recently sold or currently for sale.
2. Runway, Taxiway, Apron – per square foot value assigned to airfield pavement areas.
3. Hangars and Buildings – per square foot or unit values for landside structures.
4. Nav aids, Lights and Equipment – units costs for approach and lighting systems and airport operations equipment.
5. Engineering/Environmental Contingency – adjustment to account for engineering, planning, permitting and environmental mitigation.
6. ARC Adjustment – adjustment for facility values of less identifiable infrastructure assets such as utilities, parking lots, drainage, access roads, runway safety area grading, etc.

KEY AIRPORT VALUES	
Land	\$47,000,000 - \$102,000,000
Runway, Taxiway, Apron	42,000,000
Hangars and Buildings	31,000,000
Nav aids, Lights, Equipment	5,000,000
Eng./Env. Contingency	37,000,000
ARC Adjustment	37,000,000
TOTAL	\$199,000,000 - \$254,000,000

VALUE TO THE COMMUNITY

University Park Airport provides a wide range of services to the surrounding area that attracts many unique types of businesses, tenants and users, including airline passengers. The following facts about the airport's operation help demonstrate its value to the community.

1. University Park Airport is a publicly-owned, primary commercial service airport providing the region with access to the national air transportation system.
2. Three airlines, Delta, United Express, and US Airways Express, offer several daily flights to hubs in Detroit, Washington D.C., and Philadelphia.
3. Due to the high level of general aviation services and proximity to the university, University Park Airport sees corporate flight activity on a daily basis. The following companies utilize the facility with regular frequency: Raytheon (based corporate flight department), Semcoa, Blackberry Aviation, Shaner Hotel Group, AirNet Systems, Aviaterra, and Wiggins Airways (FedEx Express).



Source: Google Earth, Approximate Property Line - - - - -

Washington County Airport Washington, Pennsylvania

AIRPORT LOCATION AND FACILITIES

AIRPORT DESCRIPTION	
System Role	Advanced
Primary Runway Length	5,004 feet
Primary Runway Width	100 feet
Approximate Acreage	365
Taxiway Type	Full Parallel
Approach Type	Precision
Based Aircraft	70

Washington County Airport is located three miles southwest of the City of Washington in southwestern Pennsylvania, about 30 miles southwest of Pittsburgh. Existing aviation facilities at the airport include a paved 5,004-foot runway with precision approach capabilities. The airport serves 70 based aircraft, including eight jets. It has 30 T-hangar units and 200,000 square feet of conventional hangar space to accommodate a

variety of aircraft maintenance and manufacturing operations.

VALUE INDICATORS

Developing an estimate of select airports throughout the state provides the public, airport stakeholders, as well as policy decision makers an understandable value of their airports. By estimating the current cost of replacing the facilities, a value can be established for Washington County Airport. Assets and average construction costs are in 2011 dollars (rounded to the nearest million) and are presented in the following categories:

1. Land – range of per acre value for land established by local comparable properties either recently sold or currently for sale.
2. Runway, Taxiway, Apron – per square foot value assigned to airfield pavement areas.
3. Hangars and Buildings – per square foot or unit values for landside structures.
4. Nav aids, Lights and Equipment – units costs for approach and lighting systems and airport operations equipment.
5. Engineering/Environmental Contingency – adjustment to account for engineering, planning, permitting and environmental mitigation.
6. ARC Adjustment – adjustment for facility values of less identifiable infrastructure assets such as utilities, parking lots, drainage, access roads, runway safety area grading, etc.

KEY AIRPORT VALUES	
Land	\$11,000,000 - \$25,000,000
Runway, Taxiway, Apron	18,000,000
Hangars and Buildings	21,000,000
Nav aids, Lights, Equipment	4,000,000
Eng./Env. Contingency	14,000,000
ARC Adjustment	7,000,000
TOTAL	\$75,000,000 - \$89,000,000

VALUE TO THE COMMUNITY

Washington County Airport provides a wide range of services to the surrounding area that attracts many unique types of businesses, tenants and users. The following facts about the airport's operation help demonstrate its value to the community.

1. Washington County Airport is a publicly-owned, general aviation airport close to Pittsburgh.
2. Seven businesses are located on the airport, including two fixed base operators.
3. Increased corporate operations due to Marcellus Shale energy companies using the facility have added to the already high amount of business activity.
4. The following companies utilize Washington County Airport with regular frequency: Washington/Penn Plastics (based corporate flight department), Chapman Corporation (based corporate flight department), Meadows Casino, and Tangier Outlets.



Source: Google Earth, Approximate Property Line - - - - -

Wilkes-Barre / Wyoming Valley Airport Wilkes-Barre, Pennsylvania

AIRPORT LOCATION AND FACILITIES

AIRPORT DESCRIPTION	
System Role	Basic
Primary Runway Length	3,375 feet
Primary Runway Width	75 feet
Approximate Acreage	135
Taxiway Type	Partial
Approach Type	Non-Precision
Based Aircraft	50

Wilkes-Barre/Wyoming Valley Airport is located three miles north of the City of Wilkes-Barre in northeastern Pennsylvania. Existing aviation facilities at the airport include a paved 3,375-foot runway with non-precision approach capabilities as well as a secondary turf runway measuring 2,191 feet by 100 feet. The airport serves 50 based aircraft. It has 28 T-hangar units and 15,000 square feet of conventional hangar space to accommodate a variety of aircraft storage and maintenance operations. The airport is used as an

alternative to more congested airports in the area.

VALUE INDICATORS

Developing an estimate of select airports throughout the state provides the public, airport stakeholders, as well as policy decision makers an understandable value of their airports. By estimating the current cost of replacing the facilities, a value can be established for Wilkes-Barre/Wyoming Valley Airport. Assets and average construction costs are in 2011 dollars (rounded to the nearest million) and are presented in the following categories:

1. Land – range of per acre value for land established by local comparable properties either recently sold or currently for sale.
2. Runway, Taxiway, Apron – per square foot value assigned to airfield pavement areas.
3. Hangars and Buildings – per square foot or unit values for landside structures.
4. Nav aids, Lights and Equipment – units costs for approach and lighting systems and airport operations equipment.
5. Engineering/Environmental Contingency – adjustment to account for engineering, planning, permitting and environmental mitigation.
6. ARC Adjustment – adjustment for facility values of less identifiable infrastructure assets such as utilities, parking lots, drainage, access roads, runway safety area grading, etc.

KEY AIRPORT VALUES	
Land	\$4,000,000 - \$9,000,000
Runway, Taxiway, Apron	7,000,000
Hangars and Buildings	3,000,000
Nav aids, Lights, Equipment	1,000,000
Eng./Env. Contingency	4,000,000
ARC Adjustment	2,000,000
TOTAL	\$21,000,000 - \$26,000,000

VALUE TO THE COMMUNITY

Chester County Airport provides a wide range of service to the surrounding area that attracts many unique types of businesses, tenants and users. The following facts about the airport's operation help demonstrate its value to the community.

1. Wilkes-Barre/Wyoming Valley Airport is a publicly-owned, general aviation airport located in Wilkes-Barre.
2. The airport is also often used for aerial photography and surveying, aerial inspections, real estate tours, and aerial advertising.
3. Local businesses that use the airport include: Woody's Fireplace, Belrick Corporation, and Grasshopper.
4. The airport is used by local law enforcement and emergency agencies, and the Civil Air Patrol for search and rescue operations; local television and radio stations for news and traffic reporting; and aviation-related education and career training.



Source: Google Earth, Approximate Property Line - - - -

Zelienople Municipal Airport Zelienople, Pennsylvania

AIRPORT LOCATION AND FACILITIES

AIRPORT DESCRIPTION	
System Role	Intermediate
Primary Runway Length	4,933 feet
Primary Runway Width	75 feet
Approximate Acreage	283
Taxiway Type	Full Parallel
Approach Type	Non-Precision
Based Aircraft	23

Zelienople Municipal Airport is located one mile west of the City of Zelienople in western Pennsylvania, about 30 miles north of Pittsburgh. Existing aviation facilities at the airport include a paved 4,933-foot runway with non-precision approach capabilities. The airport serves 23 based aircraft, including 2 jets. It has 28 T-hangar units and 45,000 square feet of conventional hangar space to accommodate a variety of aircraft storage and

maintenance operations.

VALUE INDICATORS

Developing an estimate of select airports throughout the state provides the public, airport stakeholders, as well as policy decision makers an understandable value of their airports. By estimating the current cost of replacing the facilities, a value can be established for Zelienople Municipal Airport. Assets and average construction costs are in 2011 dollars (rounded to the nearest million) and are presented in the following categories:

1. Land – range of per acre value for land established by local comparable properties either recently sold or currently for sale.
2. Runway, Taxiway, Apron – per square foot value assigned to airfield pavement areas.
3. Hangars and Buildings – per square foot or unit values for landside structures.
4. Nav aids, Lights and Equipment – units costs for approach and lighting systems and airport operations equipment.
5. Engineering/Environmental Contingency – adjustment to account for engineering, planning, permitting and environmental mitigation.
6. ARC Adjustment – adjustment for facility values of less identifiable infrastructure assets such as utilities, parking lots, drainage, access roads, runway safety area grading, etc.

KEY AIRPORT VALUES	
Land	\$11,000,000 - \$31,000,000
Runway, Taxiway, Apron	12,000,000
Hangars and Buildings	5,000,000
Nav aids, Lights, Equipment	1,000,000
Eng./Env. Contingency	10,000,000
ARC Adjustment	5,000,000
TOTAL	\$44,000,000 - \$64,000,000

VALUE TO THE COMMUNITY

Zelienople Municipal Airport provides facilities and services to support the general aviation needs of the local community and region. The following facts about the airport's operation help demonstrate its value to the community.

1. Zelienople Municipal Airport is a publicly-owned, general aviation airport located close to Pittsburgh.
2. The airport has two on-site business tenants, including the fixed base operator, Pittsburgh Jet Center.
3. Regular operations include law enforcement flights, Civil Air Patrol operations, environmental patrol, and medical transfer and evacuation.
4. Zelienople Municipal Airport is also used as a gateway for hunting and fishing in the region, as well as for area attractions such as Moraine State Park.



Source: Google Earth, Approximate Property Line - - - - -

APPENDIX D: STATUS OF MCVILLE AIRPORT

McVile Airport is a privately-owned airport that is temporarily closed and chose not to participate in the Economic Impact Study. The airport has been closed since 2007 and is currently being used for a strip mining operation for coal. McVile Airport is located approximately eight miles northeast of Freeport in Armstrong County, Pennsylvania. The airport had two turf runways, Runway 3/21 and Runway 18/36, measuring 2,325 feet and 2,900 feet in length, respectively.

There are plans to reopen the airport as a larger and redesigned facility once the strip mining operations are complete and reclamation takes place. During the airport's closure, Armstrong Aviation Services, a flight training and charter business based at McVile Airport and the only business there, has temporarily relocated to Rock Airport in nearby Tarentum, Pennsylvania to continue flight instruction and charter services. As a result of McVile Airport's current status, economic impacts that would normally be associated with McVile Airport are temporarily associated with Rock Airport. This study estimated that approximately 50 percent of the economic impacts supported by Rock Airport in 2010 would normally be attributed to McVile Airport.

APPENDIX E: PENNSYLVANIA AIRPORT ECONOMIC IMPACT 2000 VS. 2010 VARIANCES

Introduction

WSA compared the results of the economic impact from the 2000 study and the preliminary results of the 2010 study. The comparison identifies impact variances for airports that experienced a decline in employment as they relate to on-airport businesses and government agencies, airport sponsor, commercial service visitors, and general aviation visitors. **Table E-1** summarizes the primary reason for the declines. Multiplier impacts are not analyzed in Table E-1.

Table E-1: Pennsylvania Airport Economic Impact Variances, 2000 Study vs. 2010 Study

Associated City	Airport Name	Primary Variance Reason: Employment
COMMERCIAL SERVICE AIRPORTS		
Allentown	Lehigh Valley International Airport	Enplanements down from 481,200 (50% VISITORS) to 420,749 (37% visitors).
Altoona	Altoona-Blair County Airport	FAA FSS Closed, enplanements down from 16,200 (40% VISITORS) to 4,950 (47% visitors).
Bradford	Bradford Regional Airport	Enplanements down from 12,868 (40% VISITORS) to 3,000 (48% visitors).
DuBois	DuBois Regional Airport	Enplanements down from 18,181 (40% VISITORS) to 6,000 (39% visitors).
Erie	Erie International Airport/Tom Ridge Field	Enplanements down from 167,558 (40% VISITORS) to 126,778 (42% visitors).
Franklin	Venango Regional Airport	Enplanements down from 6,920 (40% VISITORS) to 1,954 (43% visitors).
Harrisburg	Harrisburg International Airport	Enplanements down from 757,000 (45% VISITORS) to 671,479 (41% visitors).
Johnstown	John Murtha Johnstown-Cambria County Airport	Enplanements down from 22,800 (40% VISITORS) to 8,300 (44% visitors).
Lancaster	Lancaster Airport	Enplanements down from 19,600 (40% VISITORS) to 7,400 (48% visitors).
Latrobe	Arnold Palmer Regional Airport	Enplanements down from 31,568 (40% VISITORS) to 11,100 (10% visitors)
State College	University Park Airport	Enplanements down from 125,800 (50% VISITORS) to 138,280 (40% visitors).
Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International Airport	Enplanements down from 238,193 (50% VISITORS) to 220,144 (41% visitors).
Williamsport	Williamsport Regional Airport	FAA automated FSS down 26 employees, enplanements down from 46,900 (40% VISITORS) to 22,300 43% visitors.
GENERAL AVIATION AIRPORTS		
Beaver Falls	Beaver County Airport	Major aviation tenant down 20+ employees, GA visitor jobs down 10
Bloomsburg	Bloomsburg Municipal Airport	GA visitor jobs down 3
Carlisle	Carlisle Airport	GA visitor jobs down 9
Centre Hall	Penn's Cave Airport	Major aviation tenant staff reduced from 6 in 2000 to 1 in 2011
Clarion	Clarion County Airport	GA visitor jobs down 3
Clearfield	Clearfield-Lawrence Airport	On airport jobs up by 6 but GA visitor jobs down 14
Collegeville	Perkiomen Valley Airport	Airport management reduced staff significantly, although two new tenants on heliport.
Ebensburg	Ebensburg Airport	A rental car firm counted in 2000 study but is not now on airport (across highway). Visitor impacts down
Erwinna	Vansant Airport	Reduction in airport management positions
Factoryville	Seamans Field	Major aviation tenant down 3 employees from 2000 study, GA Visitor jobs down 3
Greenville	Greenville Municipal Airport	City reported 4 employees related to airport in 2000 and 0 in 2010.
Harrisburg	Capital City Airport	Major aviation tenant staff reductions

Table E-1: Pennsylvania Airport Economic Impact Variances, 2000 Study vs. 2010 Study, continued

Associated City	Airport Name	Primary Variance Reason: Employment
GENERAL AVIATION AIRPORTS		
Hazleton	Hazleton Municipal Airport	11 Tenants in 2000, 6 Tenants in 2010, ie Koro Aviation no longer at airport 6 employees lost
Lock Haven	William T. Piper Memorial Airport	Eight tenants in 2000 and 6 in 2011
Mount Joy/Marietta	Donegal Springs Airpark	Major aviation tenant down 11 employees from 2000 study, GA Visitor jobs down 3
Mount Pleasant	W.P.H.S. Heliport	Reduction in major aviation tenant staff
Mount Pocono	Pocono Mountains Municipal Airport	Only slight decline in employment
Perkasie	Pennridge Airport	GA visitor jobs down 15
Philadelphia	Penn's Landing Heliport	Airport management reduced staff significantly
Philadelphia	Wings Field	Only slight decline in employment
Reading	Reading Regional Airport/Carl A. Spaatz Field	303 jobs in hospitality sector cannot be attributed to Reading Regional as airport lost airline service since last study.
Titusville	Titusville Airport	GA visitor jobs down 13
Waynesburg	Greene County Airport	Airport restaurant employment down from 2000 as are visitor impacts
Zelienople	Zelienople Municipal Airport	Major aviation tenant has approximately half the employees of 2000 study

Source: Wilbur Smith Associates

Commercial Service Airports

Overall, Commercial Service (CS) visitor employment impacts declined at all CS airports with the exception of University Park Airport and Wilkes-Barre/Scranton International Airport. This is primarily the result of significant reductions in passenger enplanements at these airports. Passenger enplanement reductions for airports presented in this analysis can be attributed to the recession as well as low cost carrier airlines' growing operations in Pittsburgh, Philadelphia, Baltimore, and Cleveland, thereby attracting passengers from more distant markets.

Employment related to on-airport activity (businesses and agencies, airport sponsor, and construction) saw increases at all but two CS airports: Williamsport Regional Airport and Altoona-Blair County Airport. Both of these airports experienced reductions in FAA staff while Altoona-Blair County also saw a decrease in airline workers and FedEx ceased operations at the airport. Seven of the 13 CS airports experienced a decline in employment related to general aviation visitor impacts.

John Murtha Johnstown-Cambria County Airport saw a significant increase in employment as military presence at the airport increased and DRS Technologies added approximately 400 aerospace manufacturing jobs.

Annual total output at all CS airports experienced an increase, but some experienced decreases in output related to visitors, however; increased output for on-airport activity pushed the total output into the positive column.

General Aviation Airports

General aviation (GA) airports with five or more on-airport employees in the 2000 study are presented in this analysis. Approximately two dozen GA airports experienced declines in overall employment. Beaver County Airport, Capital City Airport, Donegal Springs Airpark, Hazelton Municipal Airport, Perkiomen Valley Airport, W.P.H.S. Heliport, and William T. Piper Memorial Airport all experienced losses of 10 or more employees with W.P.H.S. Heliport experiencing a loss of 50. Declines in GA on-airport jobs can be attributed to increases in aviation fuel costs and declining traffic and the overall economic recession. GA visitor impacts also declined at many GA airports impacting jobs in the off-airport hospitality sector. Reading Regional Airport commercial service visitor impacts are not attributable to Reading Regional in 2010 due to the fact that airline service was lost at the airport. Visitors are likely to arrive via airlines but are assigned to other surrounding airports such as Philadelphia International Airport, Lehigh Valley International Airport, and Harrisburg International Airport.

Eight of the 24 GA facilities experienced a decline in annual output with two heliports dominating the decline. Hazelton Municipal Airport's tenant count declined from 11 to 6 and, resultantly, had a smaller annual output impact in 2010 than year 2000.

APPENDIX F: AIRPORT SUMMARIES

This section of *The Economic Impact of Aviation in Pennsylvania Study* contains summaries for 101 of the largest study airports.