



FINAL REPORT

ECONOMIC IMPACT STUDY
Sacramento County Airport System

Prepared for

Sacramento County Airport System
Sacramento, California

January 2011



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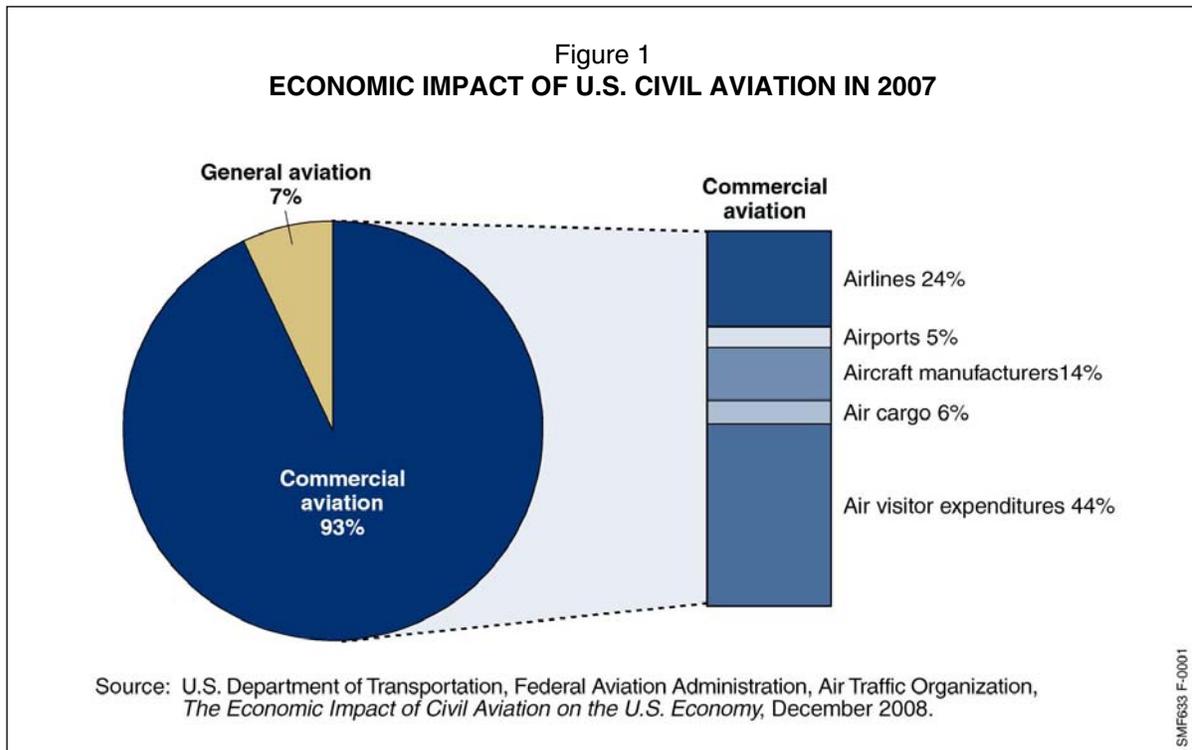
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SUMMARY

Airports are important on a local, regional, national, and global basis because they provide an essential role in the movement of passengers and cargo, facilitate commerce and national defense, and link communities with one another. As globalization continues, the competitiveness of national economies and industries increasingly depends on airports and aviation infrastructure.

THE ECONOMIC IMPORTANCE OF U.S. AIRPORTS

The U.S. civil aviation sector (including air transportation, aircraft manufacturing, and air-based travel and tourism) collectively generated more than \$1.3 trillion in economic activity in 2007 (the most recent year available), which accounted for 11.5 million U.S. jobs and \$396 billion in payroll expenditures.* As shown on Figure 1, commercial aviation accounted for 93% of this contribution, with \$1.2 trillion in output, \$349 billion in earnings, and 10.9 million jobs. In 2007, the U.S. civil aviation sector accounted for 5.6% of Gross Domestic Product (GDP), reflecting the importance of commercial aviation to the U.S. economy.



*U.S. Department of Transportation, Federal Aviation Administration, Air Traffic Organization, *The Economic Impact of Civil Aviation on the U.S. Economy*, December 2009. U.S. civil aviation sector share of GDP was based on an estimate of value-added economic activity of nearly \$786 billion in 2007.

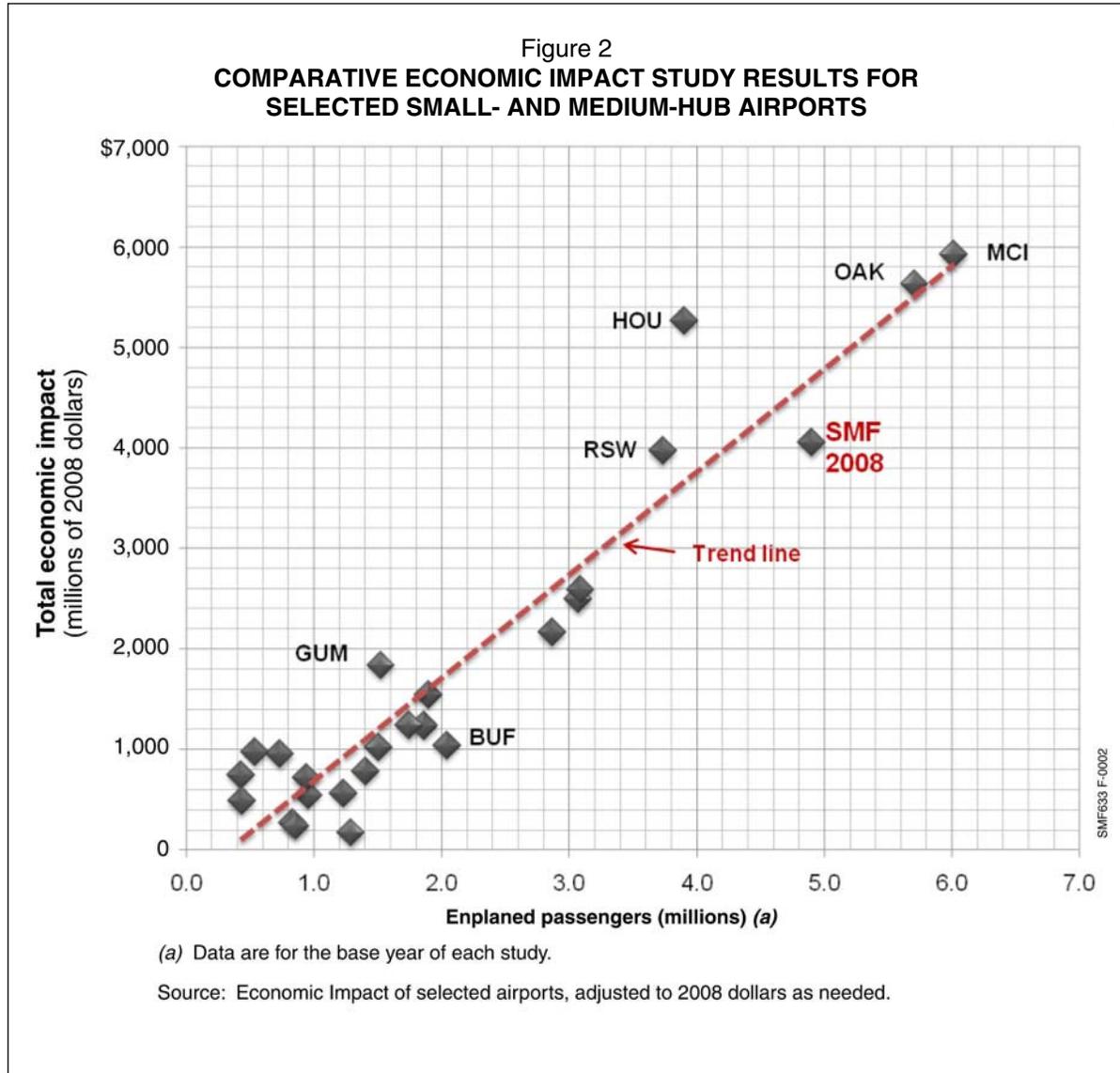
The United States accounts for approximately 40% of commercial aviation and 50% of general aviation in the world. According to the Federal Aviation Administration (FAA), there are nearly 20,000 airports in the United States, 26% of which are public-use facilities (open to the public) and 74% private-use (closed to the public). In 2008, there were 383 primary commercial service airports in the United States, which accounted for 99% of passengers; including 30 airports classified as large-hubs, 37 as medium-hubs, 72 as small-hubs, and 244 as non-hubs.*

A comparison of the economic impact generated by individual small- and medium-hub airports indicates that there is a relationship between the numbers of enplaned passengers and the total economic impact, as shown on Figure 2. Factors contributing to differences in the economic impact of airports include the size of the population, the characteristics of the economy, and the type of airline and aviation services provided.

The economic importance of airports stems not only from the fact that they are major generators of economic activity but also because they can act as a catalyst for a wide range of economic activities. An airport can act as a strategic catalyst by:

- Influencing business location decisions
- Attracting new investment from U.S. and overseas companies
- Retaining and securing the expansion of existing businesses in the face of competition from other areas
- Promoting the export success of businesses located in the area
- Enhancing the competitiveness of the economy through the fast and efficient delivery of passenger and freight services
- Attracting high technology businesses that have a high demand for air travel and the shipment of goods
- Acting as centers of employment and training in a region by generating demand for a wide range of skills
- Integrating isolated communities with the global community

*U.S. Department of Transportation, Federal Aviation Administration, *National Plan of Integrated Airport Systems (NPIAS), 2009-2013*, Report to Congress, September 30, 2008 (mandatory update every two years).



PURPOSE AND SCOPE

The purpose of this economic impact study is to estimate the current economic impact of the Sacramento County Airport System (SCAS)* on the economy of the Sacramento Area. The Sacramento County Airport System includes Sacramento International Airport (SMF), Mather Airport, Executive Airport, and Franklin Field. (Note that the economic impact of Franklin Field was not evaluated as part of this study.) The Sacramento Primary Area consists of El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba counties.

*The Airport System is owned by the County (except for Mather Airport and Executive Airport, which are leased), operated as a self-sufficient enterprise by a County department known as the Sacramento County Airport System and administered by the Director of Airports. The Director of Airports reports to the County Executive, who, in turn, reports to the County Board of Supervisors. The five elected members of the County Board of Supervisors oversee the operation of SCAS.

The scope of the study included (1) identifying the current direct employment and expenditures by airport-related businesses, (2) ascertaining the level of expenditures by air visitors, and (3) estimating the total impact of those expenditures on the regional economy in 2008.

THE ECONOMIC IMPORTANCE OF THE SACRAMENTO COUNTY AIRPORT SYSTEM

The Sacramento County Airport System plays an important role in the economies of the Sacramento Area and the State of California. In addition to its economic benefits, the System performs a critical air transportation role by facilitating the development of airline service, particularly low cost carrier service and supporting the role of Sacramento as the capital of California and the hub of government and commerce in Northern California. The System is a critical component of the State's infrastructure for the movement of people and goods, for facilitating regional, national, and global commerce, and for linking the Sacramento Area with the world community. In 2008, the System handled a total of 10 million passengers and 79,000 tons of air cargo, and was served by 20 passenger airlines with an average of 159 daily departures to 40 destinations. As shown in Table 1, System activity in 2008 generated:

- Approximately 11,000 jobs in the Sacramento Area
- \$4.2 billion in total economic impact in the Sacramento Area (including total air visitor expenditures), accounting for 3.6% of the \$117.5 billion Gross Domestic Product of the Sacramento Area
- \$3,183.1 million in air visitor expenditures

Table 1
ESTIMATED 2008 ECONOMIC IMPACT
Sacramento County Airport System

	Employment	Payroll (millions)	Total economic impact (millions) (a)
On-airport	4,170	\$208.1	\$ 515.9
Off-airport	6,830	234.4	523.1
Air visitor expenditures	(a)	(b)	3,183.1
Total	11,000	\$442.5	\$4,222.1

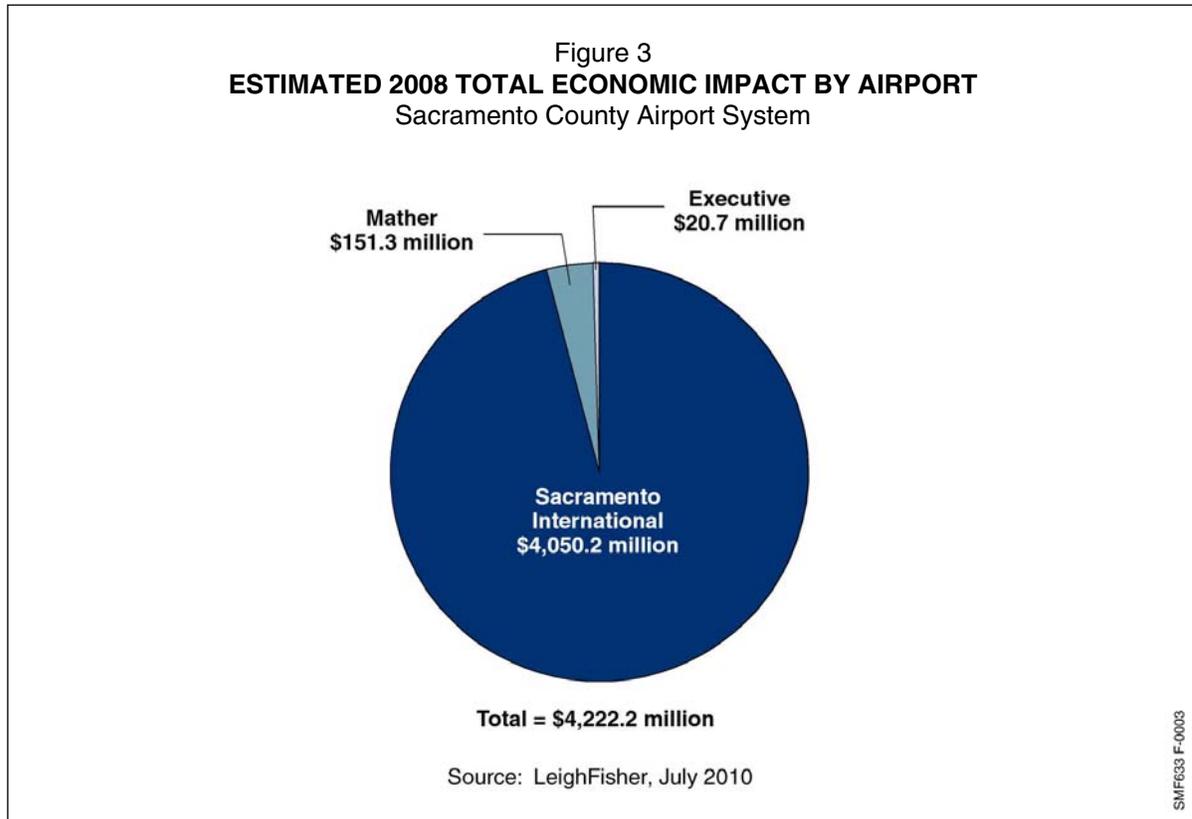
Note: Payroll includes wages and benefits.

(a) Includes payroll expenditures.

(b) Air visitor expenditures were estimated based on responses to a survey of airline passengers conducted at Sacramento International Airport in June 2007. Employment and payroll were not calculated because data are not available to allocate the share of payroll expenditures from total air visitor expenditures.

Source: LeighFisher, July 2010.

Figure 3 present the estimated 2008 total economic impact of the Sacramento County Airport System on the economy of the Sacramento Area, including the economic impact by airport. Sacramento International Airport accounted for 95.9% of the total economic impact of the Sacramento County Airport System in 2008, reflecting its role as the primary commercial airport providing passenger and cargo service and as a gateway for visitors to the Sacramento Area. Mather accounted for 3.6% of the total economic impact of the Sacramento County Airport System in 2008, with Sacramento Executive accounting for the remaining 0.5% of total.



CURRENT ECONOMIC IMPACT

The total economic impact is the sum of on-airport and off-airport impacts. The direct impact is that generated at the site of economic activity—in this case, the airports in the System—by the organizations who operate at the airports and by the visitors who arrive in the Sacramento Area via SMF. The indirect impact results off-site in supplying industries that provide the services, materials, or machinery to support the initial direct economic activity. An example of a business with an indirect impact would be a food wholesaler that sells supplies to on-airport concessionaires. The induced impact is the off-airport impact above and beyond the combined direct and indirect impacts of an economic activity, where successive rounds of individual and household spending create additional income, also known as the “multiplier” effect.

Table 2 presents the estimated 2008 direct and total economic impact of the Sacramento County Airport System on the economy of the Sacramento Area, including the economic impact by airport. A description of the analytical methodology and a glossary of the technical terms used in this report are provided in Appendices A and B, respectively. Figure 4 illustrates the relationship among the direct, indirect, and induced economic impacts of an airport.

Table 2
DIRECT AND TOTAL ECONOMIC IMPACT BY AIRPORT
Sacramento County Airport System

	Sacramento International Airport	Mather Airport	Sacramento Executive Airport	Sacramento County Airport System
Employment				
Direct (a)	3,290	740	140	4,170
Total (b)	8,380	2,250	370	11,000
Payroll (millions)				
Direct (a)	\$ 161.6	\$ 38.4	\$ 8.0	\$ 208.1
Total (b)	343.5	82.4	16.6	\$ 442.5
Total expenditures (millions)				
Direct (a) (c)	\$ 428.0	\$ 77.4	\$10.6	\$ 515.9
Total (b) (c)	867.1	151.3	20.7	1,039.0
Visitor expenditures (millions)				
Direct (d)	\$1,614.2	\$--	\$--	\$1,614.2
Total (b)	3,183.1	--	--	3,183.1

Note: The study area includes the seven counties of El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba.

Payroll includes wages and benefits.

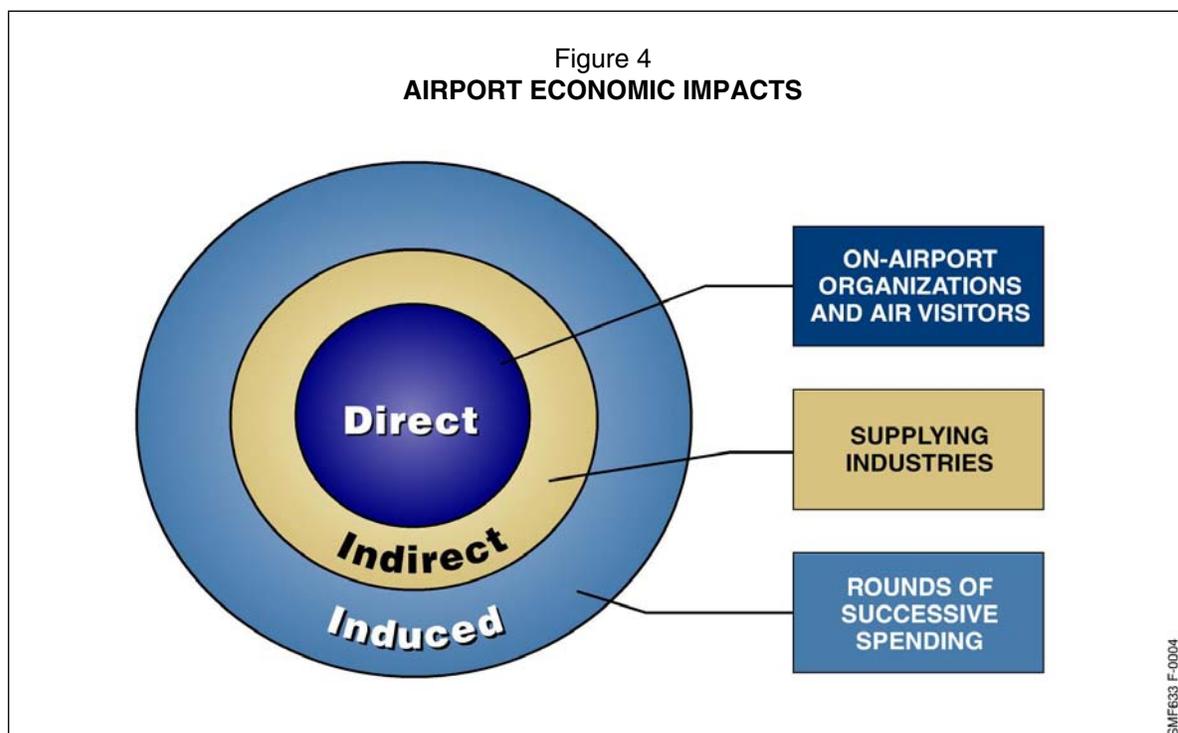
(a) Based on a survey of on-airport organizations conducted in 2008 and 2009.

(b) Based on the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II) for the study area noted above.

(c) Includes payroll expenditures.

(d) Based on responses to the Sacramento County Airport System Airline Passengers survey conducted at Sacramento International Airport in June 2007.

Source: LeighFisher, July 2010.



On-airport Economic Impact

The current direct expenditures of on-airport organizations—airlines, passenger terminal concessionaires, fixed base operators, ground transportation and tour operators, government agencies, and others—were measured by means of a survey conducted with the assistance of the Sacramento County Airport System staff. LeighFisher conducted the on-airport organization surveys in 2009 and tabulated and analyzed survey results.* Meta Research, a Sacramento-based market research firm, conducted the June 2007 enplaning passenger survey which provided the air visitor expenditures used in this report.

From the survey of on-airport organizations, it was estimated that 4,170 people were employed at the three airports in the System in 2008, making it the one of the largest employers in the Sacramento Area, and representing a total payroll of \$208.1 million.

As shown in Table 3 and on Figure 5, the passenger and cargo airlines together accounted for 28% of System employment and the passenger terminal concessionaires and terminal services (food and beverage, rental car, and others) accounted for 19%. Fixed base operators (FBOs), ground transportation providers, government agencies, and other businesses accounted for the remaining 53%. Total direct expenditures of on-airport organizations for payroll and goods and services in 2008 were estimated to be \$515.9 million.

*The 2009 survey results were augmented by the responses to an on-airport organization survey conducted in 2008 by Sacramento Regional Research Institute.

Table 3
TOTAL EMPLOYMENT IMPACT BY AIRPORT
 Sacramento County Airport System
 2008

	Total employment (a)			
	Sacramento International Airport	Mather Airport	Sacramento Executive Airport	Sacramento County Airport System
On-airport activity				
Passenger airlines	2,230	--	--	2,230
Cargo airlines/freight forwarders	290	1,340	--	1,630
Car rentals	670	-- (b)	--	670
Concessionaires/terminal services	600	--	-- (b)	600
Fixed base operators/aviation support	1,450	530	270	2,250
Ground transportation	610	-- (b)	--	610
Government agencies	2,390	260	40	2,690
Other	<u>140</u>	<u>120 (b)</u>	<u>60 (b)</u>	<u>320</u>
TOTAL ECONOMIC IMPACT IN 2008	8,380	2,250	370	11,000

Notes: Includes direct, indirect, and induced economic impacts.

Includes full and part-time employment.

The study area includes the seven counties of El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba. Employment related to air visitor expenditures was not calculated as part of this study.

(a) Based on the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II) for the study area noted above.

(b) Categories are combined to protect the confidentiality of the survey responses.

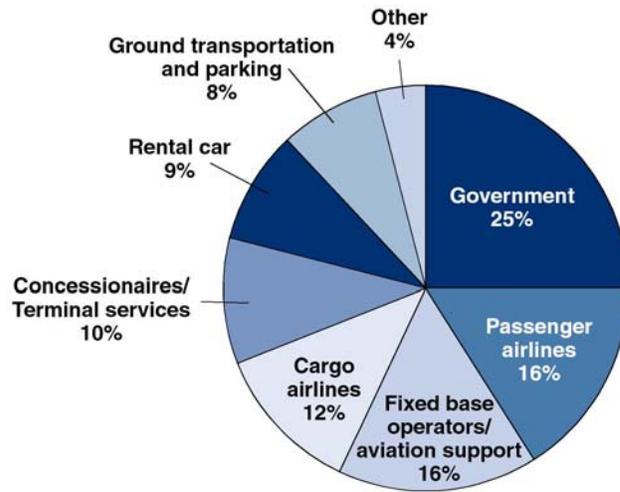
Source: LeighFisher, July 2010.

Off-airport Economic Impact

Off-airport economic activity was estimated for businesses related to System activity, such as air freight forwarders, travel agencies, hotels, and companies in the region that rely on the System for business travel or shipment of goods. Total expenditures by directly related off-airport businesses for payroll and goods and services in 2008 were estimated to be \$523.1 million in the Sacramento Area. Air visitors* arriving in the region through Sacramento International Airport contributed an additional \$3,183.1 million to the economy of the Sacramento Area. Based on visitor spending data obtained in enplaning passenger survey, air visitors to the Sacramento Area spent an average of \$675 per person per visit in 2008. As shown on Figure 6, lodging accounted for the largest share of visitor spending in 2008 (30%), followed by spending for food and beverages (28%).

*Meta Research, *Sacramento International Airport: Enplaning Passenger Survey*, June 2007. An air visitor is defined as an enplaned passenger who does not reside in the counties of El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba.

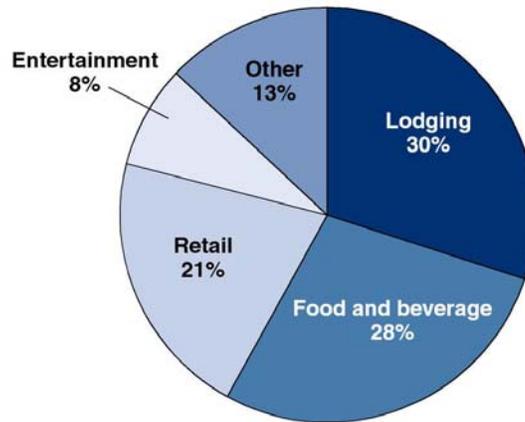
Figure 5
ON-AIRPORT EMPLOYMENT IN 2008
(4,170 jobs)



Source: LeighFisher, July 2010, based on surveys of on-Airport organizations.

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Figure 6
AIR VISITOR SPENDING IN 2008
(\$675 average per person spending)



Note: The study area includes the seven counties El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba.

Source: LeighFisher, July 2010,

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Total Economic Impact

As shown in Table 4, the total economic impact of the Sacramento County Airport System on the Sacramento Area was estimated to be \$4,222.1 million in 2008, \$442.5 million of which was payroll paid to the estimated 11,000 people whose jobs were attributable to the System.

	Total expenditures (millions) (a)			
	Sacramento International Airport	Mather Airport	Sacramento Executive Airport	Sacramento County Airport System
On-airport activity				
Passenger airlines	\$ 4.27	\$ --	\$ --	\$ 174.27
Cargo airlines/freight forwarders	8.2	90.4	--	98.6
Car rentals	109.3	-- (b)	--	109.3
Concessionaires/terminal services	74.5	--	-- (b)	74.5
Fixed base operators/aviation support	70.1	25.6	10.9	106.6
Ground transportation	28.6	-- (b)	--	28.6
Government agencies	399.6	25.9	2.8	428.2
Other	<u>2.4</u>	<u>9.4 (b)</u>	<u>7.0 (b)</u>	<u>18.9</u>
Total	\$ 867.1	\$151.3	\$20.7	\$1,039.0
Air visitor activity				
Direct (c)	<u>1,614.2</u>	n.a.	n.a.	<u>1,614.2</u>
Total (a)	3,183.1	n.a.	n.a.	3,183.1
TOTAL ECONOMIC IMPACT IN 2008				
With direct visitor expenditures	\$2,481.2	\$151.3	\$20.7	\$2,653.2
With total visitor expenditures	4,050.2	151.3	20.7	4,222.1
<hr/>				
Notes: n.a. = not available.				
The study area includes the seven counties of El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba.				
Includes direct, indirect, and induced economic impacts.				
Payroll includes wages and benefits.				
(a) Based on the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II) for the study area noted above.				
(b) Categories are combined to protect the confidentiality of the survey responses.				
(c) Based on responses to the Sacramento County Airport System Airline Passengers survey conducted at Sacramento International Airport in June 2007.				
Source: LeighFisher, July 2010.				

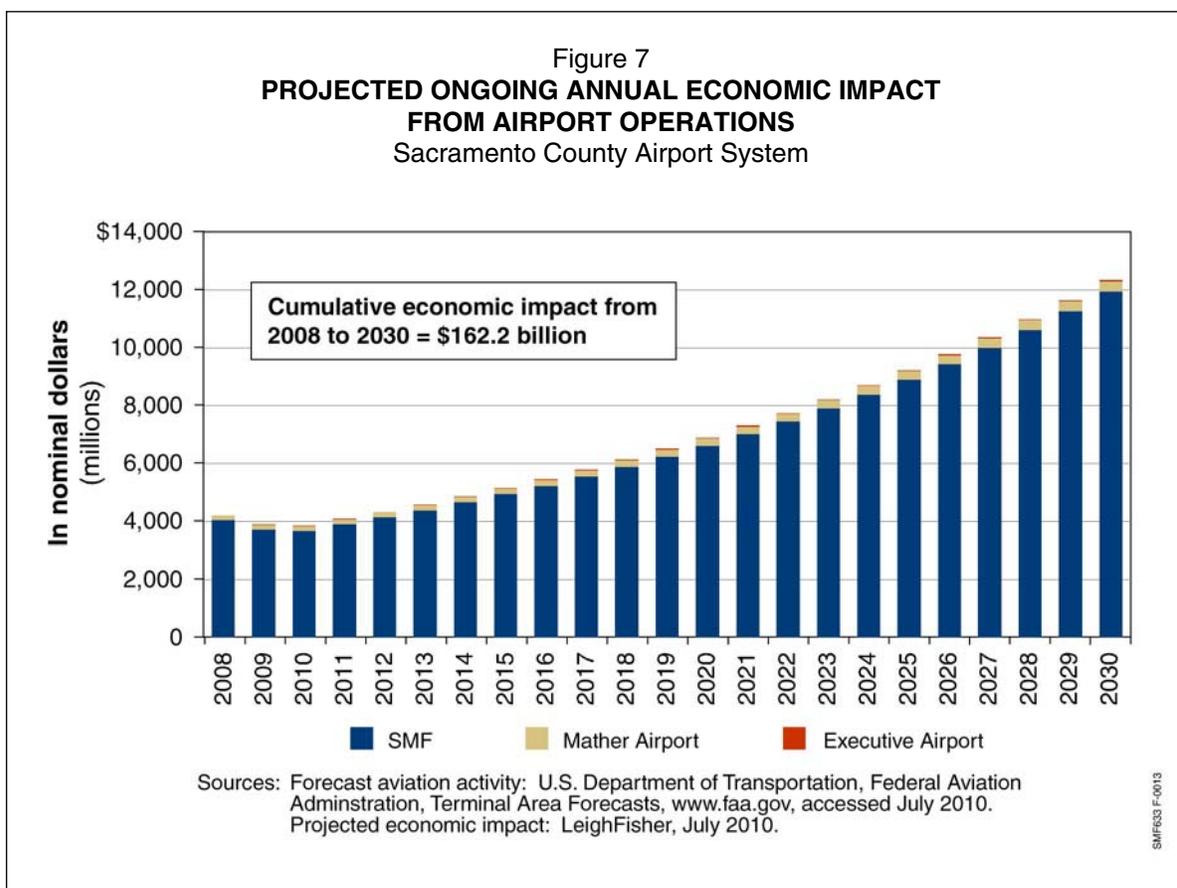
PROJECTED ECONOMIC IMPACT

Continued future growth in aviation activity at the airports in the System is expected to lead to increased employment, expenditures, and total economic impact of government agencies and other businesses at SCAS airports. The future economic impact of the Sacramento County Airport System on the Sacramento Area was projected using the Federal Aviation Administration's (FAA) 2009 Terminal Area Forecast (TAF) for SMF, Mather Airport, and Executive Airport. The FAA 2009 TAF

was released in December 2009 using 2008 base year data and provides updated forecasts for the three SCAS airports.

Projected Ongoing Annual Economic Impact

The ongoing annual economic impact from SCAS operations was projected to increase in proportion to aviation activity. The FAA forecasts the number of enplaned passengers at SMF to increase an average of 2.3% per year between 2008 (the base year) and 2030. The number of aircraft operations at Mather Airport and Executive Airport is forecast to increase an average of 1.5% and 0.8% per year, respectively, between 2008 and 2030, based on the FAA 2009 TAF. The annual ongoing economic contribution associated with the FAA 2009 TAF is expected to reach \$12.4 billion in 2030 (in nominal dollars), as shown on Figure 7, reflecting regional economic and aviation activity growth during this period.



Projected Cumulative Economic Impact

The projected cumulative economic contribution of the Sacramento County Airport System on the economy of the Sacramento Area totaled \$162.2 billion for the period from 2008 through 2030.

Projected Economic Impact of SMF's Terminal Modernization Program

The Terminal Modernization Program (TMP) for Sacramento International Airport is the second phase in a multi-phased planning effort to identify (plan and design) and implement the future vision for SMF. The TMP was developed to identify preliminary facilities requirements and terminal complex alternatives and evaluate those alternatives and the selection of a preferred terminal development concept. The TMP will be implemented over a seven year period, which started in 2007, and is expected to be completed in 2013. The total construction costs of the TMP are \$1.3 billion, reported as the direct impacts in Table 5. The projected total economic impact of SMF's TMP is \$2.8 billion, generating \$0.9 billion in payroll in the Sacramento region and supporting 21,500 jobs.

Table 5
PROJECTED ECONOMIC IMPACT OF THE TERMINAL MODERNIZATION PROGRAM
Sacramento County Airport System

	Direct	Total (a)
Total output (millions)	\$1,275.3 (b)	\$2,763.6
Payroll (millions)	\$ 408.4 (c)	\$ 885.1
Employment	8,100 (c)	21,500

Note: Data are presented in 2007 dollars.
The expected duration of the construction period is seven years.
The study area includes the seven counties of El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba.

- (a) Based on the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II) for the study area noted above.
- (b) Construction estimates (direct impacts) provided by the Sacramento County Airport System staff. Includes expenditures for a parking garage which has been deferred until approximately 2018.
- (c) Estimated using annual salary data for the study area from the Department of Labor, Bureau of Labor Statistics, www.bls.gov, accessed December 2010. Reflects cumulative job years.

Source: LeighFisher, December 2010.

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Chapter 1

INTRODUCTION

This report presents an analysis of the current economic impacts of the Sacramento County Airport System (the System) on the region it serves. The Sacramento County Airport System includes Sacramento International (SMF), Mather, and Executive airports. To provide the context for the economic impact study for the System, this chapter sets forth the scope of work, and discusses the methodology used to measure the economic impacts of the System.

SCOPE OF STUDY

LeighFisher* was retained by the Sacramento County Airport System to conduct an independent study of the economic impacts associated with the Sacramento County Airport System in 2008.

In completing the economic impact study, the following subtasks were performed:

- Conducted surveys of on-airport businesses to update and validate employment and expenditure data for the airports in the System.
- Completed an inventory of off-airport economic benefits of air travel, such as for tourism. Incorporated expenditure data for visitors to the airport service region from passenger surveys conducted by Meta Research, a Sacramento-based market research firm, in June 2007.
- Using the Regional Input-Output Modeling System (RIMS II) developed by the U.S. Department of Commerce, an input/output model was developed for the Sacramento Primary Area (El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba counties) to define the relationship among Airport activity, employment and expenditures, and economic impact. Based on data collected in the surveys, these results were used to estimate the economic impact of the System on the Sacramento Area.

ECONOMIC IMPACT METHODOLOGY

Definition of Terms

The total economic impact of an airport is the sum of related direct, indirect, and induced impacts.

- *Direct Economic Impact.* The direct economic impact is the impact generated on-site—in this case, the airports in the System—by the organizations who operate at the airports and by the visitors who arrive in the Sacramento Area via SMF. The on-airport direct impacts include the

*Formerly Jacobs Consultancy.

employment, payroll, and local expenditures of all enterprises located at the airports—airlines, terminal concessionaires, general aviation businesses, ground transportation providers, government agencies such as the Federal Aviation Administration (FAA), and other businesses. These enterprises have a direct and quantifiable impact on the economy of the region served by the System.

- ***Indirect Economic Impact.*** The indirect economic impact of the System is the impact resulting off-site, and includes the employment and expenditures of (1) supplying industries that provide the services, materials, or machinery to support industries that derive business from on-airport businesses, such as wholesale food distributors, office supply firms, and jet fuel suppliers and (2) businesses serving visitors arriving at SMF, such as hotels and motels, restaurants, rental car companies, travel agencies, and taxicab operators.
- ***Induced Economic Impact.*** The induced economic impact of the System is the off-airport impact above and beyond the combined direct and indirect impacts of an economic activity, where additional income is created by successive rounds of individual and household spending known as the “multiplier” effect.

The direct, indirect, induced, and total economic impacts of the System are measured in terms of total dollar expenditures, payroll, and employment. The estimates of the System’s current economic impact presented in this report were derived from surveys of on-airport businesses conducted in 2009 and the passenger surveys mentioned earlier.

The results of this study are intended to be estimates of economic impact, stated in terms of expenditures and jobs related to operations at the airports in the System. They should not be interpreted as benefits of airport operations in the sense that such expenditures or employment would not occur if the airports were not in existence; they simply represent dollar flows and jobs in the economy related to activity at the airports in the System.

Economic Impact of the Sacramento County Airport System

As discussed in greater detail in Appendix A, the methodology used to evaluate the current economic impact of each airport in the System involved (1) developing primary data on the direct economic impact of on-airport businesses from the surveys, (2) supplementing these data with relevant regional, State, and national economic indicators, and (3) using models and other statistical techniques to estimate the indirect and induced economic impacts of on-airport activity.

Direct Economic Impact. Surveys of on-airport organizations were used to obtain employment and expenditure data for analysis of direct on-airport economic impacts; expenditures for services and supplies, capital improvements, and local taxes; and other expenditures contributing to the System’s economic impact.

The 57% overall response rate to the on-airport organization surveys conducted at the airports in the System was better than the 33% to 35% average response rate for a survey of this type. The employment, payroll, and total economic impact estimates provided in this report, therefore, reflect an above-average sample size. The economic impact of organizations that either did not respond to the survey or provided only partial information was estimated based on survey information obtained from similar responding organizations, and, if available, responses by these organizations to economic impact studies for other airports, as described in Appendix A.

Indirect, Induced, and Total Economic Impact. Data from the on-airport organization survey conducted in 2009 and passenger surveys conducted in 2007 by Meta Research were used to estimate the total direct employment, payroll, and economic impacts of airport activity in 2008. These estimates of direct impact were categorized by industry sector and used as inputs to an economic impact model which calculates the indirect and induced economic impact. The total economic impact of each airport in the System is the sum of the direct, indirect, and induced impacts. The economic impact model used for this study is structured to reflect the economy of the Sacramento Area and was obtained from the U.S. Department of Commerce, Bureau of Economic Analysis.

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Chapter 2

THE ECONOMIC IMPORTANCE OF AIRPORTS

Airports are important because they perform an essential role in the movement of passengers and cargo, facilitate commerce and national defense, and link communities with one another—on a local, regional, national, and global basis. As globalization continues, the competitiveness of national economies and industries will increasingly depend on airports and aviation infrastructure.

COMMERCIAL AVIATION CONTRIBUTION TO THE U.S. ECONOMY

The U.S. civil aviation sector (including air transportation, related manufacturing, and air-based travel and tourism) collectively generated more than \$1.3 trillion of total economic impact in 2007 (the most recent year available), which accounted for 11.5 million U.S. jobs and \$396 billion in payroll expenditures, as shown in Table 6. In 2007, the U.S. civil aviation sector accounted for 5.6% of Gross Domestic Product (GDP).^{*} Commercial aviation accounted for most of this contribution, with \$1.2 trillion in total economic impact, \$371 billion in earnings, and 10.9 million jobs. The importance of commercial aviation to the U. S. economy is reflected in its contribution to national output, personal earnings, and employment.

Table 6
U.S. CIVIL AVIATION ECONOMIC IMPACT IN 2007

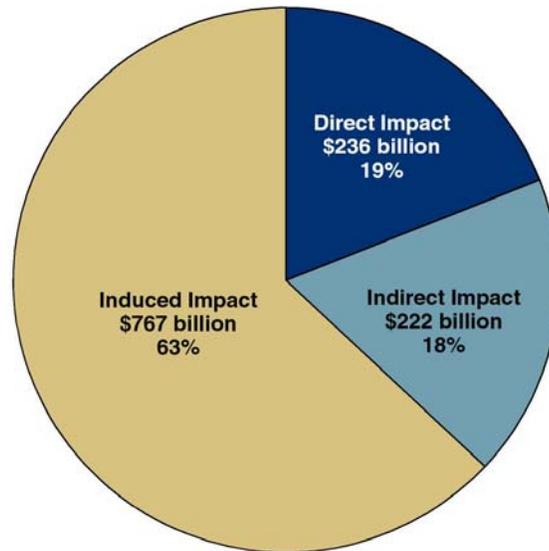
	Employment (thousands)	Payroll (billions)	Total economic impact (billions)
Commercial aviation	10,881	\$ 371	\$1,225
General aviation	<u>631</u>	<u>25</u>	<u>90</u>
Total	11,512	\$ 396	\$1,315

Source: U.S. Department of Transportation, Federal Aviation Administration, Air Traffic Organization, *The Economic Impact of Civil Aviation on the U.S. Economy*, December 2009.

The primary contributions of commercial aviation to the U.S. economy are related to (1) airlines and supporting services (commercial and noncommercial), (2) aircraft, engines, and parts manufacturing, and (3) air visitor travel and other trip-related expenditures. In the above referenced study, U.S. commercial aviation accounted for \$236 billion in direct economic impacts (19% of total impacts), as shown on Figure 8.

^{*}Based on an estimate of value-added economic activity of nearly \$786 billion in 2007.

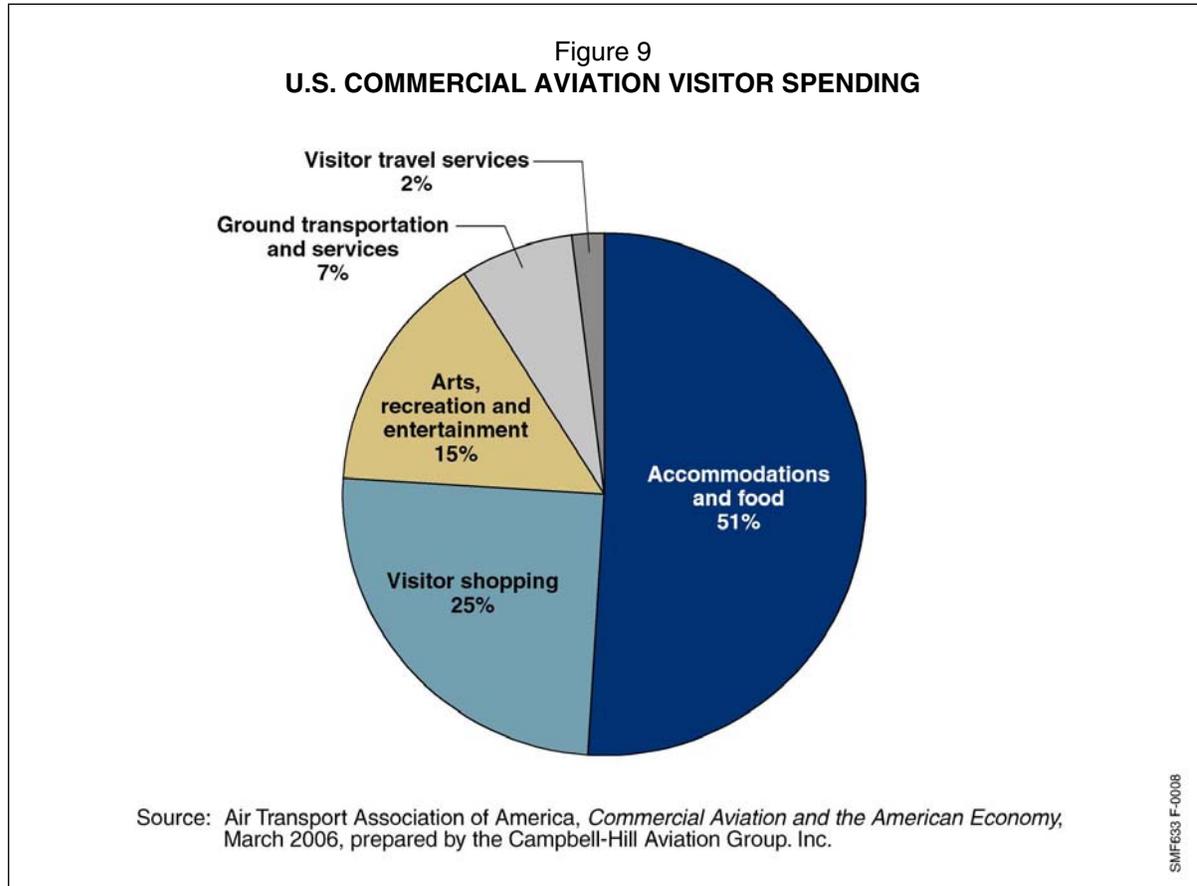
Figure 8
TOTAL ECONOMIC IMPACT OF U.S. COMMERCIAL AVIATION IN 2007



Source: U.S. Department of Transportation, Federal Aviation Administration, Air Traffic Organization, *The Economic Impact of Civil Aviation on the U.S. Economy*, December 2009.

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In the FAA study, the direct impacts of commercial service include the activity of airlines, airports, aircraft manufacturers, and the air cargo industry. Indirect impacts include the expenditures of airline passengers other than air fares and the associated charges paid to airlines and travel arrangers. Indirect expenditures result from money spent for lodging, food, and entertainment, local and other travel, and tourist items. Induced (or secondary) impacts result from expenditures made by industries identified in the measurement of direct and indirect (primary) impacts to supporting businesses and entities, as well as the spending of direct and indirect employees. Air visitor expenditures accounted for the largest share of the induced impact, with \$345 billion in output and more than 3.7 million jobs. The above referenced study did not report the type of air visitor expenditures. Figure 9 presents the shares of air visitor expenditures by type based on an earlier economic impact study of U.S. commercial aviation.



THE DIRECT ECONOMIC IMPACT OF AIRPORTS

The United States accounts for approximately 40% of commercial aviation and 50% of general aviation in the world. According to the FAA, there are nearly 20,000 airports in the United States, 26% of which are public-use facilities (open to the public) and 74% private-use (closed to the public). In 2008, there were 383 primary commercial service airports which accounted for 99% of passengers in the United States; including 30 airports classified as large-hubs, 37 as medium-hubs, 72 as small-hubs, and 244 as non-hubs.*

Similar to other major industries, airports make a major and direct contribution to their surrounding areas, providing direct employment, economic prosperity, and stability to regions. To understand the economic contribution an airport makes to a region, its economic value needs to be quantified. The direct economic impact of an airport is estimated by considering the economic value of the activities of companies operating on-site at the airport or adjacent to the airport whose operations directly support on-site activity. Economic value can be described generally as the

*U.S. Department of Transportation, Federal Aviation Administration, National Plan of Integrated Airport Systems (NPIAS), 2009-2013, Report to Congress, September 30, 2008 (mandatory update every two years).

employment, income or value added, output and tax revenues generated by the companies and agencies operating at an airport.

A study of 23 European airports sponsored by Airports Council International (ACI) concluded that on-airport employment averaged approximately 1,100 employees per million passengers (enplaned and deplaned) for the airports studied*. The results of this study confirmed the findings of a 1992 ACI study that “airports are major economic assets offering major economic returns and benefits. Decisions made in respect of airports are decisions that affect local regional and economic performance.”

A comparison of the economic impact of selected small- and medium-hub U.S. airports is presented in Table 7. Of the 24 selected airports listed, Sacramento International Airport ranked 4th with a total output of \$4,050 million in 2008. The average number of on-airport employees per million passengers (enplaned and deplaned) was 329 for SMF, lower than the average of 626 for the airports listed in Table 6. In addition, the total output for SMF averaged \$405 million per million passengers, somewhat lower than the average for the selected small- and medium-hub U.S. airports (\$434 million). Differences in these metrics reflect the varying characteristics of the population and economic base of individual airports and the type of airline and aviation services provided.

*Airports Council International Europe, *Creating Employment and Prosperity in Europe: A Study of the Social and Economic Contribution of Airports*, September 1998.

Table 7
COMPARATIVE DATA ON ECONOMIC IMPACTS OF SELECTED U.S. AIRPORTS
 Ranked in terms of total output

Airport	Hub size	Study year	Study year total passengers (millions) (a)	On-airport employment	On-airport jobs per million passengers	Total output (millions of 2008 dollars)	Output per million passengers (millions of 2008 dollars)
Kansas City International	M	2006	10.9	5,845	535	\$5,923	\$542
Oakland International	M	2000	11.4	10,700	937	5,626	493
Houston William P. Hobby	M	2003	7.8	6,227	798	5,266	675
Sacramento International Airport	M	2008	10.0	3,290	329	4,050	405
Southwest Florida International	M	2005	7.5	2,500	335	3,969	531
Albuquerque International Sunport	M	2001	6.2	3,400	550	2,589	419
Port Columbus International	M	2004	6.1	5,828	949	2,494	406
Providence-T.F. Green	M	2005	5.7	2,014	352	2,162	377
A.B. Won Pat Guam International	S	2006	3.1	2,490	815	1,839	602
Norfolk International	M	2004	3.8	1,685	444	1,547	408
Omaha Eppley Field	M	2002	3.5	1,774	508	1,240	355
Manchester-Boston Regional	M	2008	3.7	1,900	510	1,236	332
Buffalo Niagara International	M	2003	4.1	2,239	549	1,039	255
Spokane International	S	2004	3.0	1,312	435	1,022	339
Fresno Yosemite International	S	2004	1.1	2,100	1,950	977	907
Portland International	S	2005	1.5	1,070	729	954	649
Albany International	S	2003	2.8	2,109	750	787	280
Long Island MacArthur International	S	2003	1.9	1,210	644	714	380
Rochester International	S	2003	2.5	1,238	502	567	230
Syracuse Hancock International	S	2003	1.9	1,910	1,001	547	287
Bangor International	S	2005	0.9	1,583	1,825	486	560
Hilo International	S	1997	1.7	1,320	791	265	159
Des Moines International	S	1998	1.7	1,380	801	241	140
Lihue	S	1997	2.6	879	341	176	68

(a) Includes enplaned and deplaned passengers.

Source: Published economic contribution studies of individual airports listed, adjusted to 2008 dollars.

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Chapter 3

AIRPORT ROLE AND SERVICE

This chapter presents discussions of the airport service region, regional economic trends, and the regional service roles of the airports in the Sacramento County Airport System, including airline service, passengers, cargo, based aircraft, and aircraft operations. The information in this chapter presents a description of airport activity and provides the basis for the economic impacts presented in Chapter 4.

AIRPORT SERVICE REGION

As shown on Figure 10, the primary area served by SMF (referred to as the Sacramento Area) consists of the following seven counties: El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba.* For nearly all residents of and visitors to the Sacramento Area, SMF is relatively closer, both in terms of geographical distance and drive time, than competing airports in the Bay Area and the Reno/Tahoe area, especially considering traffic congestion to Bay Area airports and mountain driving conditions to Reno.

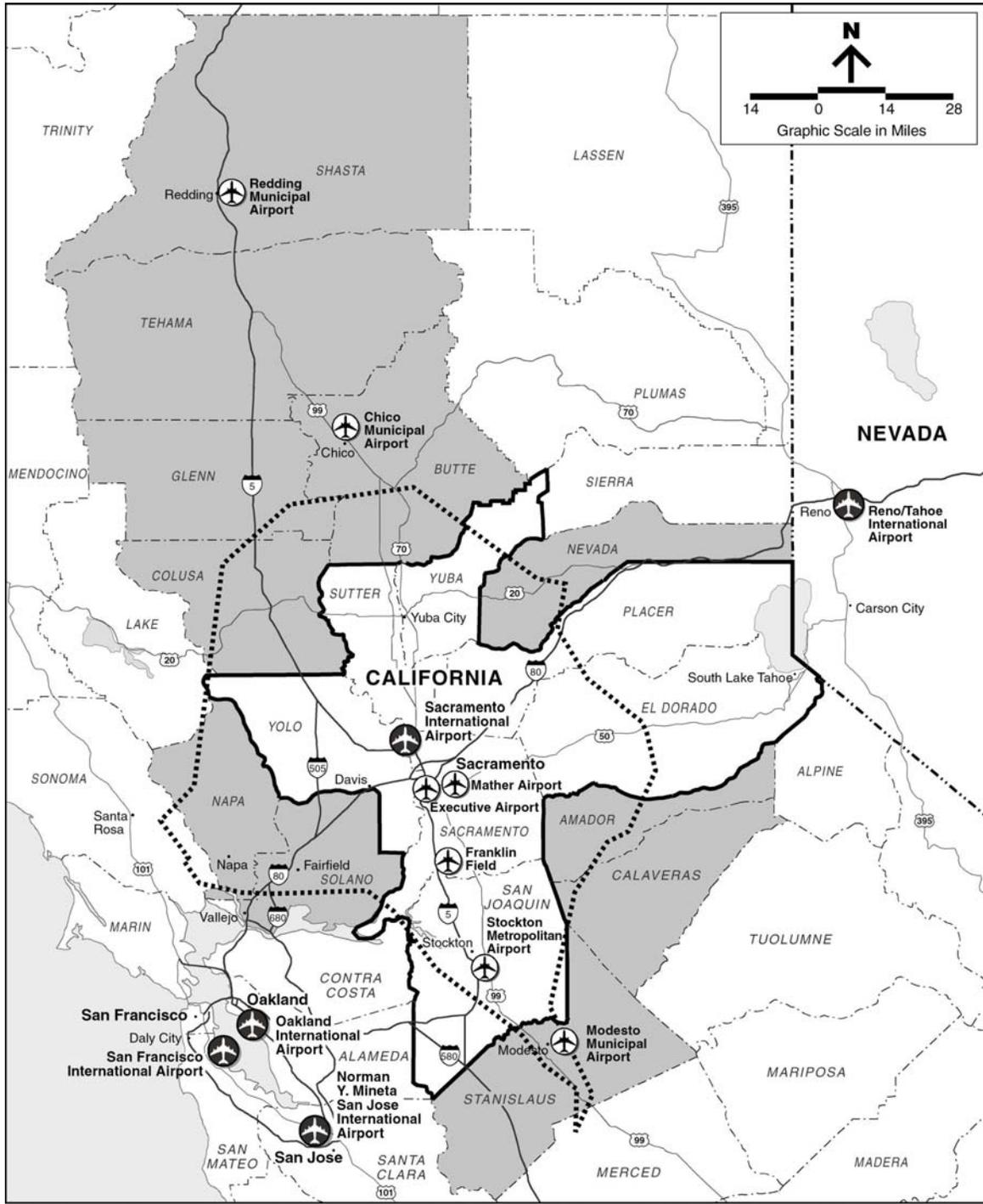
SMF also draws passengers from an 11-county outlying area. For the purpose of this Report, these 11 counties (Amador, Butte, Calaveras, Colusa, Glenn, Napa, Nevada, Shasta, Solano, Stanislaus, and Tehama) are referred to as the secondary air service area. Residents of the northern part of the secondary air service area, including the cities of Redding and Chico, would have to drive directly past SMF to reach the next-closest major airport—Oakland International Airport (OAK)—which is 90 road-miles to the southwest. For residents of other areas, such as Napa County, SMF is further than Bay Area airports, but it can be a more convenient option in terms of drive time.

The identification of counties in the Sacramento Area and the secondary air service area is supported by airport catchment area studies conducted for the Sacramento County Airport System by Sabre Airline Solutions in 2005 and GRA, Inc. in 2007. The GRA report identifies a “line of indifference,” which is the point where potential customers find driving to SMF or to the closest alternative airport to be equally convenient.

As shown in Table 8, the population of the Sacramento Area was nearly 3.0 million in 2009, concentrated primarily in Sacramento and San Joaquin counties. The 11-county secondary airport service area contained an additional 1.7 million people in 2009.

*These seven counties represent three contiguous Metropolitan Statistical Areas (MSAs): the Sacramento—Arden-Arcade—Roseville MSA composed of El Dorado, Placer, Sacramento and Yolo counties; the Stockton MSA composed of San Joaquin County; and the Yuba City MSA composed of Sutter and Yuba counties.

Figure 10
AIRPORT SERVICE REGION



- LEGEND**
- Primary air service area
 - Secondary air service area
 - ✈ Major air carrier airport
 - ✈ Other airport
 - Line of indifference*
 - State boundary
 - County boundary
 - Interstate highway
 - Other major roads

* Line of indifference denotes the Census tracts within which potential customers (residents and visitors) are indifferent about using Sacramento International Airport or one of the three Bay Area airports (Oakland, San Francisco, or Norman Y. Mineta San Jose International Airports), *Defining the Sacramento Catchment Area*, GRA Inc., April 2007.

Table 8
AIRPORT SERVICE REGION POPULATION

County	2009 Population	Percent of total
Primary area		
Sacramento	1,400,949	29.7%
San Joaquin	674,860	14.3
Placer	348,552	7.4
Yolo	199,407	4.2
El Dorado	178,447	3.8
Sutter	92,614	2.0
Yuba	<u>72,925</u>	<u>1.5</u>
Subtotal	2,967,754	62.9%
Secondary area		
Stanislaus	510,385	10.8%
Solano	407,234	8.6
Butte	220,577	4.7
Shasta	181,099	3.8
Napa	134,650	2.9
Nevada	97,751	2.1
Tehama	61,138	1.3
Calaveras	46,731	1.0
Amador	37,876	0.8
Glenn	28,299	0.6
Colusa	<u>21,321</u>	<u>0.5</u>
Subtotal	<u>1,747,061</u>	<u>37.1%</u>
Estimated airport service region	4,714,815	100.0%

Source: U.S. Department of Commerce, Bureau of the Census,
www.census.gov, accessed July 2010.

REGIONAL ECONOMIC TRENDS

The development and diversity of the economic base of an airport service region is important to airline traffic growth at the airport serving the region. This is particularly true where the industries in the region rely on the airport for passenger and cargo service. Sacramento is the capital of California and the hub of government and commerce within the Sacramento River Valley region between the San Francisco Bay Area (the Bay Area) to the west and the Sierra Nevada mountain range to the east.

Table 9 presents historical trends in population, nonagricultural employment, and per capita income in the Sacramento Area, the State of California and the United States from 1990 through 2009. Between 1990 and 2009, population in the Sacramento Area increased an average of 1.9% per year, faster than the average of 1.1% per year for the State and the nation.

Nonagricultural employment in the Sacramento Area increased an average of 1.5% per year between 1990 and 2009, faster than the average of 0.6% per year for the State and the average of 0.9% per year for the nation. From 2000 to 2009, nonagricultural employment in the Sacramento Area increased at a slower rate than during the 1990s (an average of 0.5% per year), reflecting the effects of the 2001 economic recession and the current recession which began in December 2007.

Between 1990 and 2008 (the most recent year available), Sacramento Area per capita income (in 2000 dollars) increased an average of 1.1% per year; lower than the rate for the State (1.2% per year) and the nation (1.3% per year). The average per capita income (in 2000 dollars) in the Sacramento Area was \$30,688, lower than that for the State and the nation in 2008.

Figure 11 shows a comparative distribution of nonagricultural employment by industry sector for the Sacramento Area in 2000 and in 2009, and for the State and the nation in 2009. Employment in services (41.6%), including health, education, professional, business, and other services and in the trade sector (14.9%) accounted for 55.5% of total nonagricultural employment in the Sacramento Area in 2009.

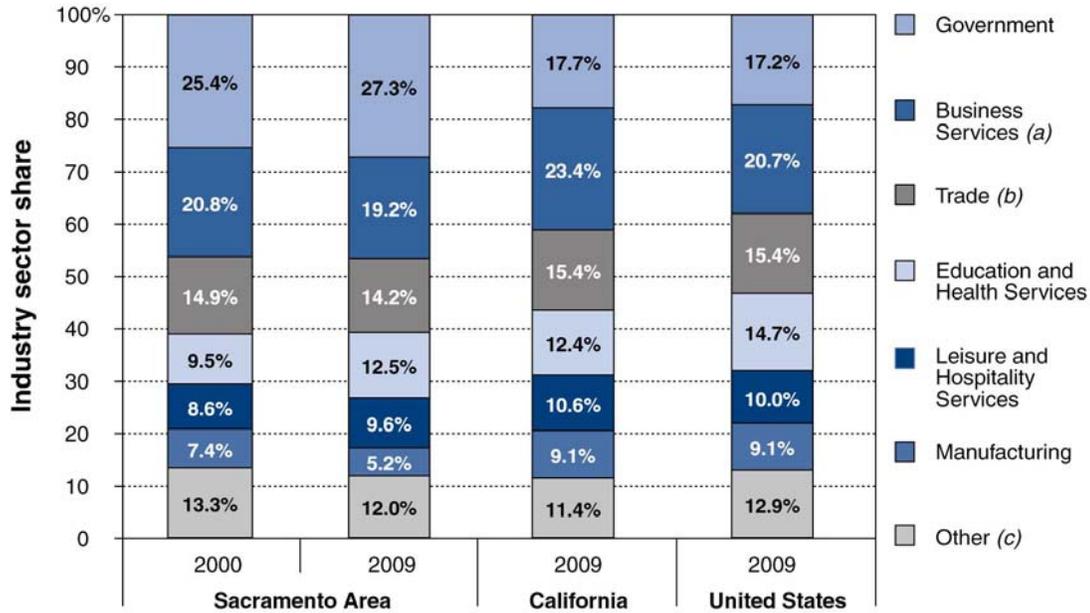
Table 9
HISTORICAL SOCIOECONOMIC DATA
 Sacramento Area, State of California, and United States
 1990-2009

	Population (thousands)			Nonagricultural employment (thousands)			Per capita income in 2000 dollars		
	Sacramento Area	State of California	United States	Sacramento Area	State of California	United States	Sacramento Area	State of California	United States
1990	2,084	29,881	248,710	802	12,500	109,487	\$25,314	\$28,243	\$25,593
2000	2,500	33,872	282,172	1,020	14,488	131,785	29,477	33,519	30,318
2008	2,935	36,580	304,375	1,128	14,981	136,790	30,688	35,073	32,125
2009	2,968	36,962	307,007	1,065	14,079	130,920	n.a.	33,972	31,414
Average annual percent increase (decrease)									
1990-2000	1.8%	1.3 %	1.3%	2.4 %	1.5 %	1.9%	1.5%	1.7 %	1.7%
2000-2008	2.0	1.0	1.0	1.3	0.4	0.5	0.5	0.6	0.7
2008-2009	1.1	1.0	0.9	(5.6)	(6.0)	(4.3)	n.a.	(3.1)	(2.2)
1990-2008	1.9	1.1	1.1	1.9	1.0	1.2	1.1	1.2	1.3
1990-2009	1.9	1.1	1.1	1.5	0.6	0.9	n.a.	1.0	1.1

Note: The Sacramento Area includes the seven counties of El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba.
 n.a. = Not available.

Sources: Population: U.S. Department of Commerce, Bureau of the Census, www.census.gov, accessed July 2010.
 Nonagricultural employment: U.S. Department of Labor, Bureau of Labor Statistics, www.bls.gov, accessed July 2010.
 Per capita income: U.S. Department of Commerce, Bureau of Economic Analysis, www.bea.gov, accessed July 2010. Data for the State and nation are preliminary.

Figure 11
COMPARATIVE DISTRIBUTION OF NONAGRICULTURAL EMPLOYMENT



Note: The Sacramento Area includes the seven counties of El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba.
 (a) Includes professional and business services, finance and information.
 (b) Includes wholesale and retail trade.
 (c) Other includes mining, logging and construction, transport and utilities, and other services.

Source: US Department of Labor, Bureau of Labor Statistics www.bls.gov, accessed July 2010.

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REGIONAL SERVICE ROLE

The Sacramento County Airport System consists of SMF, Mather Airport, Executive Airport, and Franklin Field. SMF is the principal air carrier airport serving the County and a wide region surrounding the County, and is located about 12 miles northwest of downtown Sacramento. Mather Airport, a former U.S. Air Force Base, is located 12 miles east of downtown Sacramento and serves cargo airlines and general aviation. Executive Airport, located about 5 miles south of downtown Sacramento, is a general aviation airport with no scheduled airline service. Franklin Field, located about 15 miles south of downtown Sacramento, is a general aviation airport used primarily for training.* The following sections provide a discussion of the regional service role of SMF, Mather Airport, and Executive Airport.

*As noted earlier, the economic impact of Franklin Field was not evaluated as part of this study.

Sacramento International Airport

The primary role of SMF is to provide air transportation and related services to accommodate the demand generated in the Sacramento Area, the surrounding area served by SMF, and the State of California. SMF performs a critical air transportation role in the region by facilitating the development of airline service, particularly low cost carrier service, and in providing a transportation link to the State's capital and a gateway to northern California. SMF is a critical component of the State's infrastructure for the movement of people and goods, for facilitating regional, national, and global commerce, and for linking the Sacramento Area with the world community.

Passenger Origins. The share of air visitors traveling through SMF increased from 49.5% in 2002* to 60.9% in 2007, contributing, in part, to the increase in air visitor expenditures described in Chapter 4. Figure 12 presents the origins of passengers using SMF in 2007 based on the results of the passenger survey. Sacramento Area residents accounted for 39.1% of total enplaned passengers in 2007. As shown on Figure 12, air visitors to the Sacramento Area accounted for the remaining 60.9% in 2007, with 32.2% of enplaned passengers residing in other parts of the United States, 15.3% from northern California, 11.4% from southern California, and 2.2% from outside the United States. In 2007, the purpose of travel for 62.3% of passengers at SMF was leisure-related, 27.5% was business-related, and 10.2% was for both leisure and business.

Airlines Serving SMF. As of July 2010, a total of 14 passenger airlines provided scheduled passenger service at SMF, as shown in Table 10. Included in the total are seven major and national airlines, three low cost carriers three regional and commuter airlines, and one foreign-flag airline. Two airlines provided all-cargo service.

*Martin Associates, "The Local and Regional Economic Impacts of the Sacramento County Airport System," October 1, 2003.

Enplaned Passengers. The number of enplaned passengers at SMF increased an average of 4.8% per year between 1990 and 2009, exceeding growth in the nation as a whole during this period (an average of 2.2% per year), as shown in Table 11 and Figure 13. This period included the expansion of service by Southwest Airlines at SMF starting in 1991 and other low cost carriers (e.g., Frontier and JetBlue). Since 1990, much of the growth in passenger traffic at SMF has been driven by low cost carriers, with mainline activity remaining relatively unchanged. Since 2000, regional affiliate and international passenger traffic has also increased at SMF.

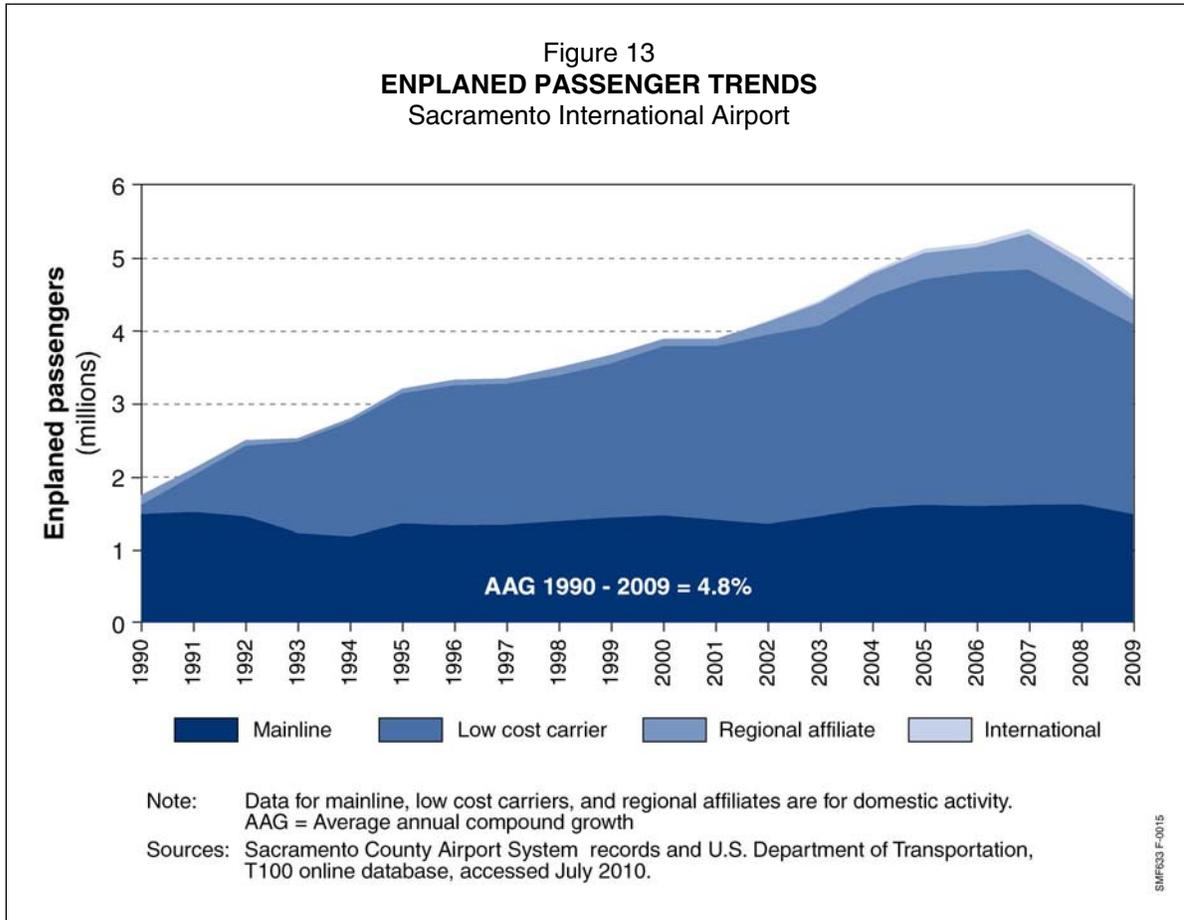


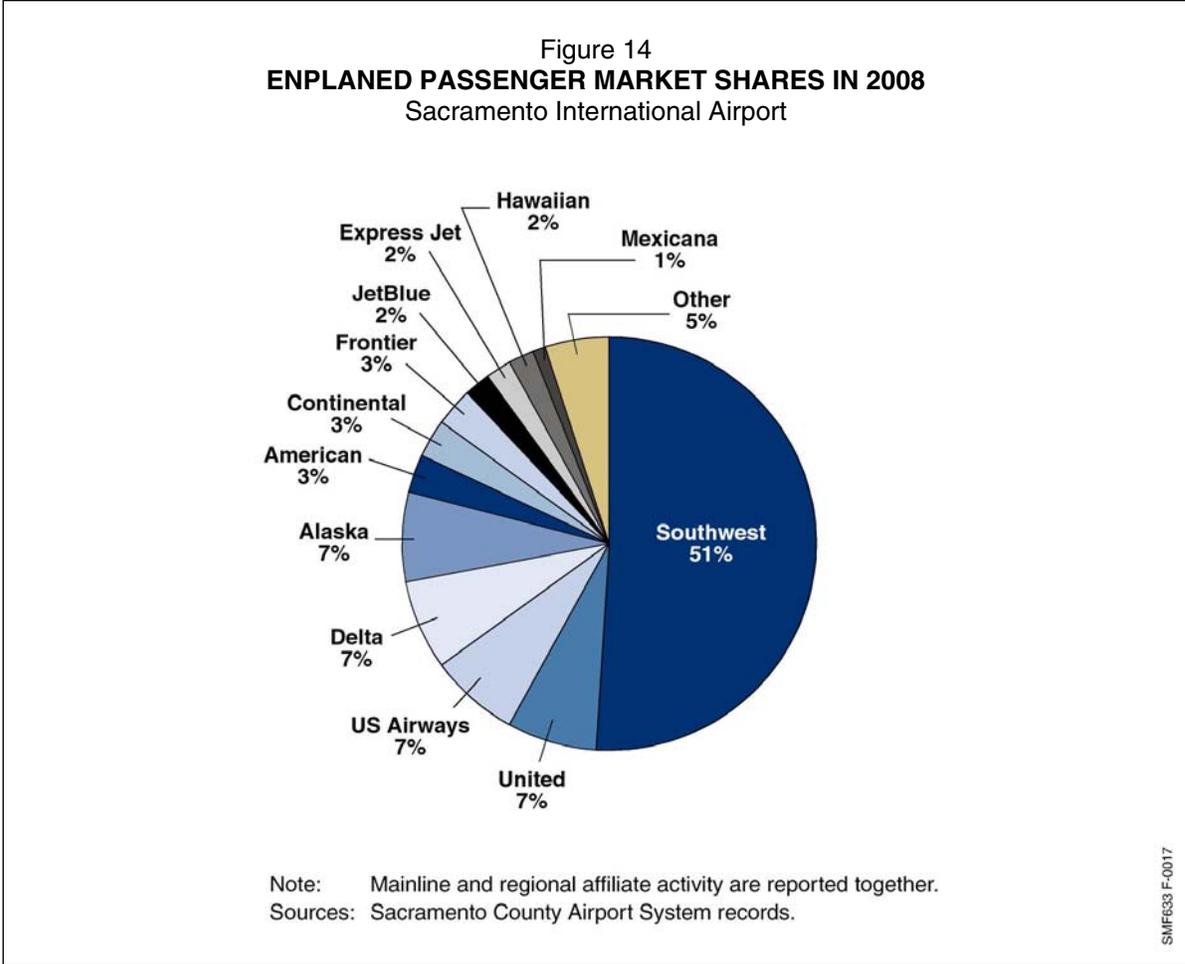
Table 11
HISTORICAL ENPLANED PASSENGERS
 Sacramento International Airport and the United States

Year	SMF		United States	
	Enplaned passengers	Percent increase (decrease)	Enplaned passengers	Percent increase (decrease)
1990	1,815,896	--%	457,126,741	--%
1991	2,175,982	19.8	445,582,404	(2.5)
1992	2,562,497	17.8	467,683,985	5.0
1993	2,661,316	3.9	480,254,905	2.7
1994	2,963,948	11.4	521,516,928	8.6
1995	3,352,235	13.1	544,232,232	4.4
1996	3,492,892	4.2	578,144,887	6.2
1997	3,483,640	(0.3)	597,653,608	3.4
1998	3,600,689	3.4	619,478,030	3.7
1999	3,777,446	4.9	638,596,504	3.1
2000	3,967,523	5.0	670,112,980	4.9
2001	4,018,471	1.3	624,449,965	(6.8)
2002	4,255,462	5.9	614,742,482	(1.6)
2003	4,389,082	3.1	649,546,281	5.7
2004	4,796,137	9.3	703,706,603	8.3
2005	5,104,404	6.4	734,955,348	4.4
2006	5,184,712	1.6	736,933,510	0.3
2007	5,379,667	3.8	761,133,338	3.3
2008	4,988,439	(7.3)	732,297,287	(3.8)
2009	4,456,943	(10.7)	695,659,589	(5.3)
Average annual percent increase (decrease)				
1990-2000	8.1		3.9	
2000-2007	4.4		1.8	
2007-2009	(9.0)		(4.4)	
1990-2009	4.8		2.2	

Note: SMF enplaned passenger data from 1990 through 2003 based on total passengers (enplaned and deplaned).

Source: Sacramento County Airport System records and U.S. Department of Transportation, T100 online database, accessed April 2010.

Figure 14 presents the shares of enplaned passengers at SMF in 2008 (the base year of this study). Southwest accounted for the largest share, with 51%, followed by United, US Airways, Delta, and Alaska, each with 7%. (Data for Delta and Northwest are reported together.)



Passenger Airline Service. The low cost carriers serving SMF provided a total of 76 daily flights from SMF in July 2010, the major airlines offered 35 daily flights, the regional affiliates offered 29 daily flights, and a foreign-flag airline (Mexicana) provided 2 daily flights, for an average of 142 daily departures, as shown in Table 12. Southwest Airlines accounted for the largest share of activity in July 2010, with 53% of scheduled departing seats and 49% of scheduled airline departures. United Airlines and its regional affiliate accounted for the second largest share of scheduled departing seats (9%) and departures (15%) at SMF in July 2010.

Table 12
AIR TRAFFIC PROFILE
 Sacramento International Airport
 July 2010

	Average daily scheduled		Seats per
	Seats	Departures	departure
Major/national airlines			
Delta Air Lines	1,258	8	159
United Airlines	1,033	6	169
US Airways	951	7	140
Alaska Airlines	921	6	154
American Airlines	555	4	140
Continental Airlines	489	3	165
Hawaiian Airlines	<u>252</u>	<u>1</u>	<u>252</u>
	5,459	35	157
Low cost carriers			
Southwest Airlines	9,386	69	136
Frontier Airlines	513	4	129
JetBlue Airlines	<u>450</u>	<u>3</u>	<u>150</u>
	10,349	76	137
Regional affiliates			
Skywest			
United Express	613	15	42
Delta Connection	197	4	50
Horizon (Alaska Airlines)	718	10	71
Mesa (US Airways)	<u>25</u>	<u>(a)</u>	<u>86</u>
	1,553	29	54
Foreign-flag			
Mexicana Airlines	<u>235</u>	<u>2</u>	<u>143</u>
Airport total	17,596	142	125

(a) Less than one daily departure.

Source: Official Airline Guides, Inc., online database, accessed July 2010.

Domestic Origin-Destinations. Table 13 presents the SMF's top 25 domestic origin-destination passenger markets in 2009, each of which accounts for approximately 1% or more of total 2009 domestic passengers beginning their trip at SMF. These 25 domestic destinations accounted for 78.4% of total originating passengers in 2009. Los Angeles was the largest origin-destination market, with a 25.2% share of total originating passengers in 2009, and is served by an average of 37 daily flights. San Diego was the second largest market in 2009, with an 8.5% share, followed by Las Vegas (5.3%), Seattle (4.7%), Portland (4.5%), and Phoenix (4.0%).

Table 13
DOMESTIC PASSENGER ORIGINS AND DESTINATIONS AND AIRLINE SERVICE
 Sacramento International Airport
 2009

	Distance (Air miles)	Percentage of total originating passengers	Average daily nonstop departures (July 2010)		
			Jet	Regional jet/ turboprop	Total
Los Angeles (a)	375	25.2%	33	4	37
San Diego	481	8.5	11	--	11
Las Vegas	397	5.3	8	--	8
Seattle	605	4.7	9	--	9
Portland	478	4.5	6	5	11
Phoenix	646	4.0	10	--	10
Denver	908	3.4	10	2	12
Washington, DC (b)	2,352	2.3	1	--	1
Chicago (c)	1,777	2.3	3	--	3
Dallas/Fort Worth (d)	1,446	1.9	4	--	4
New York (e)	2,514	1.8	1	--	1
Salt Lake City	532	1.5	2	4	6
Houston (f)	1,607	1.4	3	--	3
Minneapolis	1,514	1.3	3	--	3
Orlando	2,400	1.3	--	--	--
Honolulu	2,457	1.2	1	--	1
Philadelphia	2,451	1.1	1	--	1
Kansas City	1,446	1.0	--	--	--
Atlanta	2,087	0.9	2	--	2
St. Louis	1,683	0.9	--	--	--
San Antonio	481	0.8	--	--	--
Spokane	650	0.8	--	1	1
Miami	2,552	0.8	--	--	--
Nashville	1,913	0.8	--	--	--
Detroit	2,008	0.7	1	--	1
Subtotal		78.4%	109	16	125
Other domestic markets		21.6	2	13	15
Total		100.0%	111	29	140

(a) Burbank Bob Hope, Long Beach, Los Angeles International, Ontario International and Orange County John Wayne.

(b) Baltimore-Washington Thurgood Marshall International, Washington Dulles International, Reagan Washington National airports.

(c) Chicago Midway and O'Hare International.

(d) Dallas/Ft. Worth International and Dallas Love Field.

(e) Newark, John F. Kennedy and La Guardia

(f) Houston Bush Intercontinental and Houston Hobby.

Source: U.S. Department of Transportation, *Origin-Destination Survey of Airline Passenger Traffic, Domestic*, for 2009. Official Airline Guides, online database, July 2010. International service was also provided to Los Cabos and Guadalajara.

Air Cargo. Table 14 presents historical trends in air cargo tonnage handled at SMF, Mather Airport, and the United States from 1999 through 2009. The development of Mather as a cargo airport contributed to regional growth in air cargo tonnage in the late 1990s. In 2000 and 2001, Kitty Hawk Air cargo had a contract with the U.S. Postal Service (USPS) to carry U.S. mail, accounting for most of the cargo increase at Mather in those years. In 2001, the USPS awarded a new U.S. mail contract to FedEx, leading to the cessation of Kitty Hawk's operations at Mather and contributing to a decline in cargo tonnage at Mather in 2002. From 2002 to 2008, total cargo tonnage at the two airports increased an average of 1.9% per year, with cargo activity at Mather Airport increasing an average increase of 3.8% per year during this period. In comparison, air cargo tonnage for the nation as a whole decreased an average of 0.8% per year between 2002 and 2008. In 2009, however, cargo tonnage decreased 2.6% year-over-year at SMF and 47.0% at Mather due to the national economic recession and significant declines in activity by FedEx and ABX Air/DHL. From 1999 to 2009, the total air cargo tonnage at SMF and Mather Airport decreased an average of 3.8% per year, compared with an average decrease of 2.1% per year for the nation as a whole.

Table 14
HISTORICAL AIR CARGO
Sacramento County Airport System

Calendar year	SMF		Mather Airport		SCAS		United States	
	Metric tons	Percent increase (decrease)	Metric tons	Percent increase (decrease)	Metric tons	Percent increase (decrease)	Metric tons	Percent increase (decrease)
1999	60,655	--%	96,804	--%	157,459	--%	29,969,594	--%
2000	61,483	1.4	167,528	73.1	229,011	45.4	30,790,710	2.7
2001	60,210	(2.1)	110,715	(33.9)	170,925	(25.4)	27,293,150	(11.4)
2002	70,657	17.4	56,069	(49.4)	126,727	(25.9)	28,133,844	3.1
2003	71,245	0.8	54,545	(2.7)	125,790	(0.7)	28,351,042	0.8
2004	67,466	(5.3)	57,750	5.9	125,217	(0.5)	29,894,104	5.4
2005	70,224	4.1	59,136	2.4	129,360	3.3	30,095,576	0.7
2006	67,688	(3.6)	61,403	3.8	129,091	(0.2)	30,419,297	1.1
2007	79,196	17.0	74,646	21.6	153,843	19.2	29,296,597	(3.7)
2008	71,958	(9.1)	69,945	(6.3)	141,903	(7.8)	26,772,937	(8.6)
2009	70,059	(2.6)	37,070	(47.0)	107,129	(24.5)	24,220,966	(9.5)
Percent increase (decrease)								
1999-2002	5.2		(16.6)		(7.0)		(2.1)	
2002-2008	0.3		3.8		1.9		(0.8)	
2008-2009	(2.6)		(47.0)		(24.5)		(9.5)	
1999-2009	1.5		(9.2)		(3.8)		(2.1)	

Note: Includes enplaned and deplaned air cargo

Source: SCAS, 1999 - 2003: PB Aviation, Sacramento Airport Master Plan, Appendix A, updated forecast, April 15, 2005.

SCAS, 2004-2009: Sacramento County Airport System records.

United States: Airports Council International, North America Rankings and Worldwide Traffic Report, for years noted.

Mather Airport

Mather was established in 1918 as a military base and pilot training school. The base was closed after World War I, but reactivated in 1941 as a training field. In 1958, the Strategic Air Command B-52 wing was assigned to the base. In the 1970s, Mather provided inter-service and international undergraduate navigator training. Base expansion and improvement continued throughout the 1980s, but ceased when the decision to close Mather was announced by the Department of Defense in 1988. In 1993, the Air Force issued a Record of Decision for disposal of the base and aviation facilities were transitioned to Sacramento County. On May 5, 1995, Mather was officially reopened as a civilian airport.

Following Mather's re-opening in May 1995, the majority of all-cargo carriers operating at Sacramento International Airport (International) relocated to Mather because of (1) limited apron space at International, (2) the need to develop independent sort facilities, and (3) Mather's location relative to growing markets along the Interstate 50 corridor. Two air cargo carriers currently operate at Mather: Airborne Express and United Parcel Service (UPS). In 2009, Mather accommodated 37,070 metric tons of airfreight.

In addition to air cargo service, Mather also accommodated about 28% of regional general aviation demand. As shown in Table 15, a total of 53,875 general aviation operations were performed at Mather in 2009. Of the total, approximately 50% is corporate general aviation, 40% is recreational, and 10% is air taxi. Mather's based general aviation aircraft are primarily used for corporate and government aviation; however, some based aircraft are used for recreational purposes. Trajen Flight Support and Mather Aviation provide services to general aviation users.

Executive Airport

Executive Airport is also a designated reliever airport for SMF under the FAA's NPIAS and has tie-down and hangar facilities to accommodate 500 general aviation aircraft. Executive Airport occupies 540 acres of land. In 2009, a total of 89,119 operations were performed at Executive Airport, including 84,339 general aviation operations (95% of total), as shown in Table 15. Executive Airport is leased by the County from the City of Sacramento for a term of 25 years. The lease is currently being renewed every year and the earliest expiration date is beyond FY 2034.

Table 15
HISTORICAL AIRCRAFT OPERATIONS
 Sacramento County Airport System

	Air carrier	Air taxi/ commuter	General aviation	Military	Total	Percent increase (decrease)
SMF						
2000	87,665	20,387	35,630	6,287	149,969	--%
2001	90,239	22,688	33,462	5,253	151,642	1.1
2002	95,709	25,231	33,149	4,113	158,202	4.3
2003	100,732	19,943	34,736	3,810	159,221	0.6
2004	106,388	18,428	35,419	3,980	164,215	3.1
2005	109,492	18,624	37,125	3,018	168,259	2.5
2006	118,766	21,314	32,085	2,996	175,161	4.1
2007	124,300	26,325	27,732	1,680	180,037	2.8
2008	107,366	25,073	20,939	1,782	155,160	(13.8)
2009	94,932	16,705	17,026	2,257	130,920	(15.6)
Mather Airport						
2000	3,280	3,681	10,772	2,452	20,185	--%
2001	8,270	13,257	50,010	12,030	83,567	314.0
2002	4,764	13,404	52,957	13,904	85,029	1.7
2003	4,490	10,910	44,968	10,341	70,709	(16.8)
2004	4,692	11,817	54,191	9,885	80,585	14.0
2005	4,648	11,064	59,437	10,435	85,584	6.2
2006	4,706	10,941	54,405	8,994	79,046	(7.6)
2007	4,998	11,272	58,331	13,016	87,617	10.8
2008	7,688	12,254	48,229	14,831	83,002	(5.3)
2009	6,535	11,889	53,875	17,905	90,204	8.7
Executive Airport						
2000	--	5,931	110,485	235	116,651	--%
2001	3	4,141	118,285	412	122,841	5.3
2002	10	4,728	103,642	505	108,885	(11.4)
2003	--	5,445	128,322	467	134,234	23.3
2004	--	5,185	123,035	509	128,729	(4.1)
2005	440	2,374	114,284	675	117,773	(8.5)
2006	--	2,932	107,840	452	111,224	(5.6)
2007	1	3,530	95,761	633	99,925	(10.2)
2008	--	5,013	92,404	345	97,762	(2.2)
2009	36	4,334	84,339	410	89,119	(8.8)

Sources: U.S. Department of Transportation, Federal Aviation Administration, Air Traffic Activity System (ATADS), online database, accessed July 2010.

Chapter 4

ECONOMIC IMPACT OF THE AIRPORT

This chapter presents the impact of the Sacramento County Airport System, including SMF, Mather Airport, and Executive Airport, on the economy of the Sacramento Area in 2008. As previously mentioned, the economic impact of an airport can be measured in terms of the direct, indirect, and induced impact of airport activity on the overall economy of these areas. (The detailed methodology used for evaluating the impact of the System on the economy of the Sacramento Area is presented in Appendix A).

DIRECT ECONOMIC IMPACT

In this evaluation, direct economic impact is generated at the site of economic activity—in this case, the airports in the System—by the organizations who operate at each airport and by the visitors who arrive in the Sacramento Area via SMF. The on-airport direct economic impacts include the employment, payroll, and local expenditures of all organizations located at each airport, including passenger airlines, cargo airlines, fixed base operators, passenger terminal concessionaires, government agencies, rental car companies, and other aviation support businesses.

The on-airport economic impacts—measured in terms of employment, payroll, and expenditures—on the economy of the Sacramento Area were determined by conducting a survey in 2009 of all on-airport organizations.*

Employment

Table 16 presents a summary of on-airport employment and payroll by type of organization and shows on-airport tenant expenditures by type of organization for the Sacramento County Airport System. The data reported represent a combination of data furnished by survey respondents and estimates to account for nonresponses. (A list of on-airport organizations surveyed is provided in Appendix A.)

As shown in Table 16, 4,170 people were employed by on-airport organizations at SCAS airports in 2008. Passenger and cargo airlines together accounted for 28% of the on-airport employees, terminal concessionaires for 10%, and rental car companies for 8%. Government agencies, comprised primarily of TSA and airport employees, accounted 25% of the total. Employees working for other on-airport organizations such as FBOs, aviation support, and ground transport companies accounted for the remaining 29% of the total.

Tables 17, 18, and 19 present on-airport employment and payroll by type of organization for SMF, Mather Airport, and Executive Airport.

*The 2009 survey results were augmented by the responses to an on-airport organization survey conducted in 2008 by Sacramento Regional Research Institute.

Table 16
ESTIMATED ON-AIRPORT ECONOMIC IMPACT BY TYPE OF ORGANIZATION
 Sacramento County Airport System
 2008

Type of business	Number of on-airport employees	Local expenditures (millions)		
		Payroll (a)	+ Expenditures (b)	= Direct economic impact
Airlines				
Passenger	680	\$ 35.9	\$ 52.3	\$ 88.2
Cargo airlines/freight forwarders	<u>500</u>	<u>23.9</u>	<u>26.7</u>	<u>50.6</u>
	1,180	\$ 59.8	\$ 78.9	\$138.8
Terminal concessionaires				
Concessionaires/Terminal services	400	\$ 12.2	\$ 27.2	\$ 39.4
Rental car companies	<u>360</u>	<u>12.8</u>	<u>42.5</u>	<u>55.3</u>
	760	\$ 25.0	\$ 69.6	\$ 94.7
Other				
Ground transportation and parking	350	\$ 14.1	\$ 1.3	\$ 15.4
Fixed base operators/aviation support	680	29.4	24.8	54.2
Government agencies	1,030	74.1	131.0	205.1
Other industries	<u>170</u>	<u>5.5</u>	<u>2.2</u>	<u>7.7</u>
	<u>2,220</u>	<u>\$123.2</u>	<u>\$159.3</u>	<u>\$282.5</u>
Total	4,170	\$208.1	\$307.9	\$515.9

Notes: Includes Sacramento International, Mather, and Sacramento Executive airports.
 The number of on-airport employees is expressed as full time equivalents.

(a) Includes wages and benefits.

(b) Includes any other local expenditure.

Source: LeighFisher, July 2010, based on surveys of on-airport organizations.

Table 17
ESTIMATED ON-AIRPORT ECONOMIC IMPACT BY TYPE OF ORGANIZATION
 Sacramento International Airport
 2008

Type of business	Number of on-airport employees	Local expenditures (millions)		
		Payroll (a)	+ Expenditures (b)	= Direct economic impact
Airlines				
Passenger	680	\$ 35.9	\$ 52.3	\$ 88.2
Cargo airlines/freight forwarders	<u>90</u>	<u>3.1</u>	<u>1.0</u>	<u>4.2</u>
	770	\$ 39.1	\$ 53.3	\$ 92.4
Terminal concessionaires				
Concessionaires/Terminal services	390	\$ 12.0	\$ 27.0	\$ 39.0
Rental car companies	<u>360</u>	<u>12.6</u>	<u>42.2</u>	<u>54.8</u>
	750	\$ 24.6	\$ 69.2	\$ 93.8
Other				
Ground transportation and parking	320	\$ 13.1	\$ 1.2	\$ 14.3
Fixed base operators/aviation support	440	20.7	14.8	35.5
Government agencies	920	62.9	127.8	190.7
Other industries	<u>90</u>	<u>1.2</u>	<u>0.0</u>	<u>1.2</u>
	<u>1,770</u>	<u>\$ 98.0</u>	<u>\$143.8</u>	<u>\$241.8</u>
Total	3,290	\$161.6	\$266.4	\$428.0

Note: The number of on-airport employees is expressed as full time equivalents.

(a) Includes wages and benefits.

(b) Includes any other local expenditure.

Source: LeighFisher, July 2010, based on surveys of on-airport organizations.

Table 18
ESTIMATED ON-AIRPORT ECONOMIC IMPACT BY TYPE OF ORGANIZATION
 Mather Airport
 2008

Type of business	Number of on-airport employees	Local expenditures (millions)		
		Payroll (a)	+ Expenditures (b)	= Direct economic impact
Airlines				
Cargo airlines/freight forwarders	410	\$20.8	\$25.6	\$46.4
Other				
Fixed base operators/aviation support	160	4.7	8.5	13.1
Government agencies	100	10.0	3.0	13.0
Car rental, ground transportation, and other (c)	<u>70</u>	<u>2.9</u>	<u>1.9</u>	<u>4.8</u>
	<u>330</u>	<u>\$17.6</u>	<u>\$13.4</u>	<u>\$31.0</u>
Total	740	\$38.4	\$39.0	\$77.4

Note: The number of on-airport employees is expressed as full time equivalents.

(a) Includes wages and benefits.

(b) Includes any other local expenditure.

(c) Categories are combined to protect the confidentiality of the survey responses.

Source: LeighFisher, July 2010, based on surveys of on-airport organizations.

Table 19
ESTIMATED ON-AIRPORT ECONOMIC IMPACT BY TYPE OF ORGANIZATION
 Executive Airport
 2008

Type of business	Number of on-airport employees	Local expenditures (millions)		
		Payroll (a)	+ Expenditures (b)	= Direct economic impact
Fixed base operators/aviation support	80	4.0	1.5	5.6
Government agencies	20	1.2	0.2	1.4
Concessionaires/terminal services and other (a)	<u>40</u>	<u>2.8</u>	<u>0.8</u>	<u>3.6</u>
Total	140	\$8.0	\$2.5	\$10.6

Note: The number of on-airport employees is expressed as full time equivalents.

(a) Includes wages and benefits.

(b) Includes any other local expenditure.

(c) Categories are combined to protect the confidentiality of the survey responses.

Source: LeighFisher, July 2010, based on surveys of on-airport organizations.

Payroll

Wages paid to employees of on-airport organizations at SCAS airports totaled \$208.1 million in 2008, corresponding to an average salary per employee of approximately \$50,000. According to the Bureau of Economic Analysis, the average per capita income (in 2008 dollars) in the Sacramento Area was \$38,344 in 2008, lower than the average salary per employee for the SCAS airports.

Expenditures

Overall expenditures by on-airport organizations at SCAS airports were \$515.9 million in 2008, including \$208.1 million in payroll expenditures and an additional \$307.9 million for other local expenditures.

Air Passenger Visitors

The expenditures of air passenger visitors in the Sacramento Area were based on a survey of enplaning passengers at SMF in 2007. Air passenger visitors were asked to estimate their total expenditures on various items, including lodging, food and beverages, retail stores, and other items.

The total expenditures of air passenger visitors are derived from the number of enplaning passengers, the percentage of visitors (in relation to residents) using SMF, and the average expenditure per person per trip*, as follows:

$$\text{Air visitor expenditures in 2008} = \text{number of enplaned passengers in 2008} \times \text{percent visitors} \times \text{average expenditure per person per trip}^{**}$$

According to SCAS, the number of enplaned passengers at SMF was 4,988,439 in 2008. According to the passenger survey, approximately 60% of the passengers were air visitors. The average air visitor spent a total of \$675 (excluding transportation) during his or her trip to the Sacramento Area, according to the survey results. On the basis of this information, direct air passenger visitor expenditures were estimated to be \$1,614.2 million in 2008. Table 20 presents a breakdown of estimated visitor expenditures (by type of expenditure) based on information collected in the enplaning passenger survey.

Type of expenditure (a)	Direct economic impact (in millions)			Total economic impact (in millions) (b)
	2008	Percent of total	Average expenditure per person per trip	
Lodging	\$ 476.8	30.0%	\$295	\$ 901.0
Food and beverage	449.0	28.0	150	946.1
Retail	344.2	21.0	115	653.7
Entertainment	134.7	8.0	45	272.5
Other	<u>209.5</u>	<u>13.0</u>	<u>70</u>	<u>409.8</u>
Total	\$1,614.2	100.0%	\$675	\$3,183.1

Notes: The study area includes the seven counties of El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba.
Based on responses to a survey of airline passengers conducted at Sacramento International Airport in June 2007, visitors (non-residents of the study area) are estimated to account for 61% of total enplaned passengers, the average length of stay is estimated to be 5 days, and 54% of visitors stay in hotels during their trip.

(a) Does not include estimates of expenditures for transportation, including rental cars, which are included in the survey of on-airport organizations.

(b) Based on the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II) for the study area noted above.

Source: LeighFisher, July 2010, except as noted.

*Estimates of expenditures for transportation, including rental cars, are already included in the on-airport economic impacts and, therefore, are not included in the average expenditure per person per trip.

** Meta Research, Sacramento International Airport: Enplaning Passenger Survey, June 2007. An air visitor is defined as an enplaned passenger who does not reside in the counties of El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba. The estimate of visitor lodging expenditures was adjusted to reflect that 54% of visitors stay in hotels during their trip.

INDIRECT AND INDUCED ECONOMIC IMPACT

As discussed previously, the indirect and induced impacts are defined in this study as the additional local economic activity that is generated specifically because of the airport's presence, including related employment, payroll, and employer expenditures. This "multiplier effect" measures the extent to which the indirect and induced impacts flow from the direct impact. (See Appendix A for further discussion of methodology.)

The indirect and induced impacts of SCAS airports on the economy of the Sacramento Area totaled an estimated \$2,092.1 million in 2008:

- Off-airport companies providing supplies and services to businesses located on-airport employed totaled 6,830 in 2008 for a total indirect economic impact of \$523.1 million locally.
- The induced impact of visitors arriving at SMF contributed an additional \$1,569.0 million locally.

TOTAL ECONOMIC IMPACT

Total economic impact is the sum of direct, indirect, and induced impacts. The multiplier effect measures the extent to which the indirect and induced impacts flow from the direct impact. Thus, the direct employment and expenditures of on-airport employers and all visitors "multiply" themselves throughout the regional economy, resulting in the total impact (or contribution) of airport activity.

The overall contribution of SCAS activity on the economy of the Sacramento Area is summarized in Table 21. The total economic impact—direct, indirect, and induced—of expenditures is estimated to be \$4,222.1 million in 2008, as calculated using the input-output analysis described in Appendix A.

The total impact on employment estimated to result from direct employment is also presented in Table 21. In 2008, a total of 11,000 direct, indirect, and induced jobs is estimated to result from the direct employment of 4,170.

The total economic impact in terms of payroll is estimated to be \$442.5 million in 2008, or 10.5% of the total output of \$4,222.1 million.

Tables 22, 23, and 24 present the total economic impacts for SMF, Mather Airport, and Executive Airport.

Table 21
DIRECT AND TOTAL ECONOMIC IMPACT BY TYPE OF ORGANIZATION
 Sacramento County Airport System
 2008

	Employment		Payroll (millions)		Total expenditures (millions)	
	Direct	Total	Direct	Total	Direct	Total
On-airport activity						
Passenger airlines	680	2,230	\$ 35.9	\$ 79.0	\$ 88.2	\$ 174.3
Cargo airlines/freight forwarders	500	1,640	23.9	51.9	50.6	98.6
Car rentals	360	680	12.8	21.1	55.3	110.1
Concessionaires/terminal services	400	610	12.2	21.9	39.4	75.3
Fixed base operators/aviation support	680	2,250	29.4	64.5	54.2	106.6
Ground transportation	350	660	14.1	23.2	15.4	30.7
Government	1,030	2,680	74.1	170.6	205.1	428.2
Other	<u>170</u>	<u>250</u>	<u>5.5</u>	<u>10.3</u>	<u>7.7</u>	<u>15.1</u>
Total	4,170	11,000	\$208.1	\$442.5	\$ 515.9	\$1,039.0
Air visitor expenditures (a)	n.a.	n.a.	n.a.	n.a.	\$1,614.2	\$3,183.1
TOTAL ECONOMIC IMPACT IN 2008						
With direct visitor expenditures	4,170	11,000	\$208.1	\$442.5	\$2,130.1	\$2,653.2
With total visitor expenditures	4,170	11,000	208.1	442.5	2,130.1	4,222.1

Notes: n.a. = not available

Includes Sacramento International, Mather, and Sacramento Executive airports.

The study area includes the seven counties of El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba.

The number of direct (on-airport) employees is expressed as full time equivalents.

Total expenditures include payroll expenditures.

Payroll includes wages and benefits.

Air visitor expenditures were estimated based on responses to a survey of airline passengers conducted at Sacramento International Airport in June 2007. Employment and payroll were not calculated because data are not available to allocate the share of payroll expenditures from total air visitor expenditures.

(a) Based on responses to the Sacramento County Airport System Airline Passengers survey conducted at Sacramento International Airport in June 2007.

Source: LeighFisher, July 2010.

Table 22
DIRECT AND TOTAL ECONOMIC IMPACT BY TYPE OF ORGANIZATION
 Sacramento International Airport
 2008

	Employment		Payroll (millions)		Total expenditures (millions)	
	Direct	Total	Direct	Total	Direct	Total
On-airport activity						
Passenger airlines	680	2,230	\$ 35.9	\$ 79.0	\$ 88.2	\$ 174.3
Cargo airlines/freight forwarders	90	290	3.1	6.9	4.2	8.2
Car rentals	360	670	12.6	20.9	54.8	109.3
Concessionaires/terminal services	390	600	12.0	21.4	39.0	74.5
Fixed base operators/aviation support	440	1,450	20.7	45.6	35.5	70.1
Ground transportation and parking	320	610	13.1	21.6	14.3	28.6
Government	920	2,390	62.9	145.9	190.7	399.6
Other	90	140	1.2	2.3	1.2	2.4
	3,290	8,380	\$161.6	\$343.5	\$ 428.0	\$ 867.1
Total	n.a.	n.a.	n.a.	n.a.	\$1,614.2	\$3,183.1
	680	2,230	\$ 35.9	\$ 79.0	\$ 88.2	\$ 174.3
Air visitor expenditures (a)	90	290	3.1	6.9	4.2	8.2
TOTAL ECONOMIC IMPACT IN 2008						
With direct visitor expenditures	3,290	8,380	\$161.6	\$343.5	\$2,042.2	\$2,481.2
With total visitor expenditures	3,290	8,380	161.6	343.5	2,042.2	4,050.2

Notes: n.a. = not available.

The study area includes the seven counties of El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba.

The number of direct (on-airport) employees is expressed as full time equivalents.

Total expenditures include payroll expenditures.

Payroll includes wages and benefits.

Air visitor expenditures were estimated based on responses to a survey of airline passengers conducted at Sacramento International Airport in June 2007. Employment and payroll were not calculated because data are not available to allocate the share of payroll expenditures from total air visitor expenditures.

(a) Based on responses to the Sacramento County Airport System Airline Passengers survey conducted at Sacramento International Airport in June 2007.

Source: LeighFisher, July 2010.

Table 23
DIRECT AND TOTAL ECONOMIC IMPACT BY TYPE OF ORGANIZATION
Mather Airport
2008

	Employment		Payroll (millions)		Total expenditures (millions)	
	Direct	Total	Direct	Total	Direct	Total
Cargo airlines/freight forwarders	410	1,340	\$20.8	\$45.0	\$46.4	\$ 90.4
Fixed base operators/aviation support	160	530	4.7	10.2	13.1	25.6
Government agencies	100	260	10.0	22.0	13.0	25.9
Car rentals, ground transportation, and other (a)	<u>70</u>	<u>120</u>	<u>2.9</u>	<u>5.2</u>	<u>4.8</u>	<u>9.4</u>
TOTAL ECONOMIC IMPACT IN 2008	740	2,250	\$38.4	\$82.4	\$77.4	\$151.3

Notes: The study area includes the seven counties of El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba.

The number of direct (on-airport) employees is expressed as full time equivalents.

Total expenditures include payroll expenditures.

Payroll includes wages and benefits.

(a) Categories are combined to protect the confidentiality of the survey responses.

Source: LeighFisher, July 2010.

Table 24
DIRECT AND TOTAL ECONOMIC IMPACT BY TYPE OF ORGANIZATION
Executive Airport
2008

	Employment		Payroll (millions)		Total expenditures (millions)	
	Direct	Total	Direct	Total	Direct	Total
Fixed base operators/aviation support	80	270	\$4.0	\$ 8.7	\$ 5.6	\$10.9
Government	20	40	1.2	2.7	1.4	2.8
Concessionaires/terminal services and other (a)	<u>40</u>	<u>60</u>	<u>2.8</u>	<u>5.2</u>	<u>3.6</u>	<u>7.0</u>
TOTAL ECONOMIC IMPACT IN 2008	140	370	\$8.0	\$16.6	\$10.6	\$20.7

Notes: The study area includes the seven counties of El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba.

The number of direct (on-airport) employees is expressed as full time equivalents.

Total expenditures include payroll expenditures.

Payroll includes wages and benefits.

(a) Categories are combined to protect the confidentiality of the survey responses.

Source: LeighFisher, July 2010.

TAX IMPACTS

Table 25 presents estimated State and local tax impacts for the Sacramento County Airport System in 2008. State and local tax impacts are based on state and local tax burdens for the State of California, which are developed from data provided by the Tax Foundation.* The total tax impact—State and local—of expenditures is estimated to be \$357.7 million in 2008. Of the local taxes related to the total economic impact of the System, with total visitor expenditures, it is estimated that approximately 40%, or \$15 million, are collected by Sacramento County.**

Table 25
ESTIMATED STATE AND LOCAL TAX IMPACTS
 Sacramento County Airport System
 2008

	Estimated State and local taxes (millions)			
	Sacramento International Airport	Mather Airport	Sacramento Executive Airport	Sacramento County Airport System
Total economic impact, with direct visitor expenditures				
State (a) (b)	\$204.7	\$12.5	\$1.7	\$218.9
Local (a) (c)	<u>21.4</u>	<u>0.7</u>	<u>(d)</u>	<u>22.1</u>
	\$226.1	\$13.2	\$1.7	\$241.0
Total economic impact, with total visitor expenditures				
State (a) (b)	\$305.8	\$12.5	\$1.7	\$320.0
Local (a) (c)	<u>37.1</u>	<u>0.7</u>	<u>(d)</u>	<u>37.8</u>
	\$342.9	\$13.2	\$1.7	\$357.7

Note: Taxes are paid from gross personal income and purchases and are not additive to total economic impacts.

(a) The Tax Foundation, *2010 Facts and Figures*, www.taxfoundation.org. The Tax Foundation is an educational organization formed in 1937 to provide American citizens with a better understanding of the tax system and the effects of tax policy.

(b) Includes personal income and sales taxes.

(c) Includes local sales taxes.

(d) Represents approximately \$40,000.

Source: LeighFisher, July 2010, except as noted.

AIRLINE CREW IMPACTS

Table 26 presents the direct and total economic impacts related to overnight airline crew activity. Since most of the airlines operating out of SMF do not have locally based airline crews, the overnight stays by airline crew contribute to local hotel occupancy and the overall economic activity in the Sacramento Area. According to SCAS, an estimated 62,000 airline crew members remained overnight in the Sacramento Area in 2008. As shown in Table 26, each airline crew member spent a

*The Tax Foundation is an educational organization formed in 1937 to provide American citizens with a better understanding of the tax system and the effects of tax policy. (www.taxfoundation.org).

** Estimated based on Sacramento County's share of regional sales and use tax receipts.

total of \$157 during his or her trip to the Sacramento Area. On the basis of this information, direct airline crew member expenditures were estimated to be \$9.6 million in 2008. Table 26 presents a breakdown of estimated airline crew member expenditures (by type of expenditure).

Table 26
OVERNIGHT AIRLINE CREW IMPACTS
Sacramento International Airport
2008

Type of expenditure (a)	Direct economic impact (in millions)			
	2008	Percent of total	Average overnight airline crew expenditure (a)	Total economic impact (in millions) (b)
Lodging	\$ 6.0	62.4%	\$98 (c)	\$11.4
Restaurants	2.3	24.2	38	4.9
Transportation	0.9	9.6	15	1.9
Other	<u>0.4</u>	<u>3.8</u>	<u>6</u>	<u>0.7</u>
Total	\$9.6	100.0%	\$157	\$18.9

Notes: Estimate of the number of overnight crew stays was provided by Sacramento County Airport System, based on the number of aircraft type remaining overnight at Sacramento International Airport and the associated number of crew members for each aircraft type.

Overnight airline crew impacts are included in the direct and total economic impacts for Sacramento International Airport.

The study area includes the seven counties of El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba.

(a) Based on U.S. General Services Administration (www.gsa.gov) domestic per diem rates in 2008 for meals and incidental expenses in Sacramento, except as noted. It is assumed that crew members allocate 65% of the per diem for non-lodging expenditures to meals, 25% to transportation, and the remaining 10% to other expenditures.

(b) Based on the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Input-Output Modeling System (RIMS II) for the study area noted above.

(c) PKF Consulting, *Trends in the Hotel Industry*, December 2008. Represents the average daily room rate for the Sacramento region in 2008.

Source: LeighFisher, July 2010, except as noted.

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Chapter 5

PROJECTED ECONOMIC IMPACT

The future economic impact is expected to increase with forecast growth in aviation activity in the Sacramento County Airport System and lead to increased employment, expenditures, and total economic contribution of government agencies and other businesses at SCAS airports. In this assessment, the future economic impact of the System on the Sacramento Area was projected using the FAA 2009 TAF for SMF, Mather Airport, and Executive Airport. The FAA 2009 TAF was released in December 2009 using 2008 base year data and provides updated forecasts for the three SCAS airports.

This chapter summarizes the FAA 2009 TAF for the SCAS airports and the projected economic impact of the System from 2008 through 2030 for (1) the ongoing annual economic contribution of SCAS operations and (2) the cumulative economic contribution of the System.

FAA 2009 TAF

The FAA forecasts the number of enplaned passengers at SMF to increase an average of 2.3% per year between 2008 (the base year) and 2030, as shown on Figure 15. This forecast growth rate reflects decreases in 2009 and 2010 related to the current national economic recession and recovery period as well as recent airline industry capacity reductions. As shown on Figure 16, the number of aircraft operations at Mather Airport and Executive Airport is forecast to increase an average of 1.5% and 0.8% per year, respectively, between 2008 and 2030, including forecast decreases in 2009 and 2010 at Executive Airport.

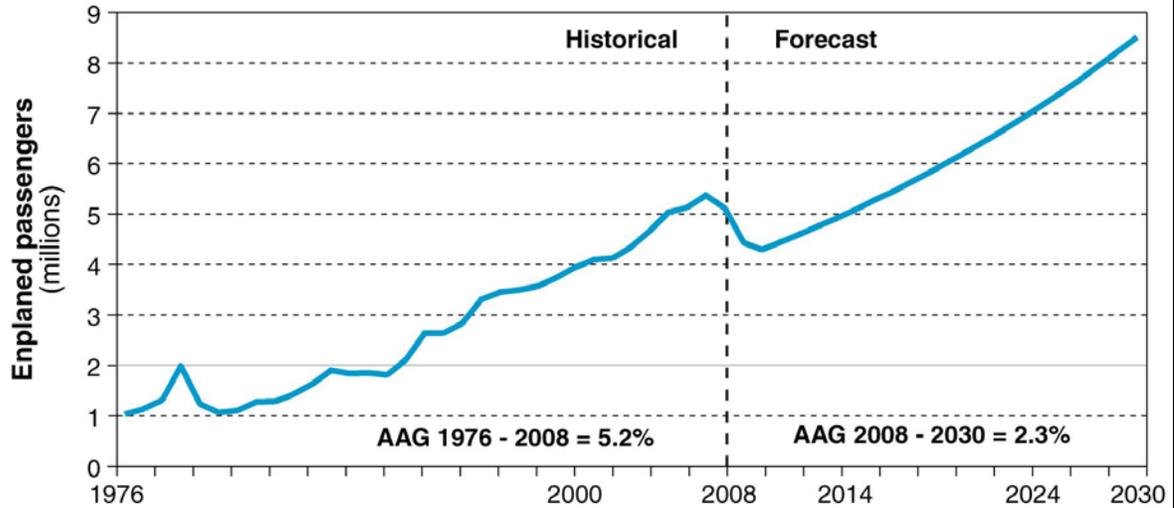
PROJECTED ONGOING ANNUAL ECONOMIC IMPACT

The ongoing annual economic impact from SCAS operations was projected to increase in proportion to aviation activity. The FAA forecasts the number of enplaned passengers at SMF to increase an average of 2.5% per year between 2008 (the base year) and 2030. The number of aircraft operations at Mather Airport and Executive Airport is forecast to increase an average of 1.5% and 0.8% per year, respectively, between 2008 and 2030, based on the FAA 2009 TAF. The annual ongoing economic contribution associated with the FAA 2009 TAF is expected to reach \$12.4 billion in 2030 (in nominal dollars), as shown in Table 27, reflecting regional economic and aviation activity growth during this period.

PROJECTED CUMULATIVE ECONOMIC CONTRIBUTION

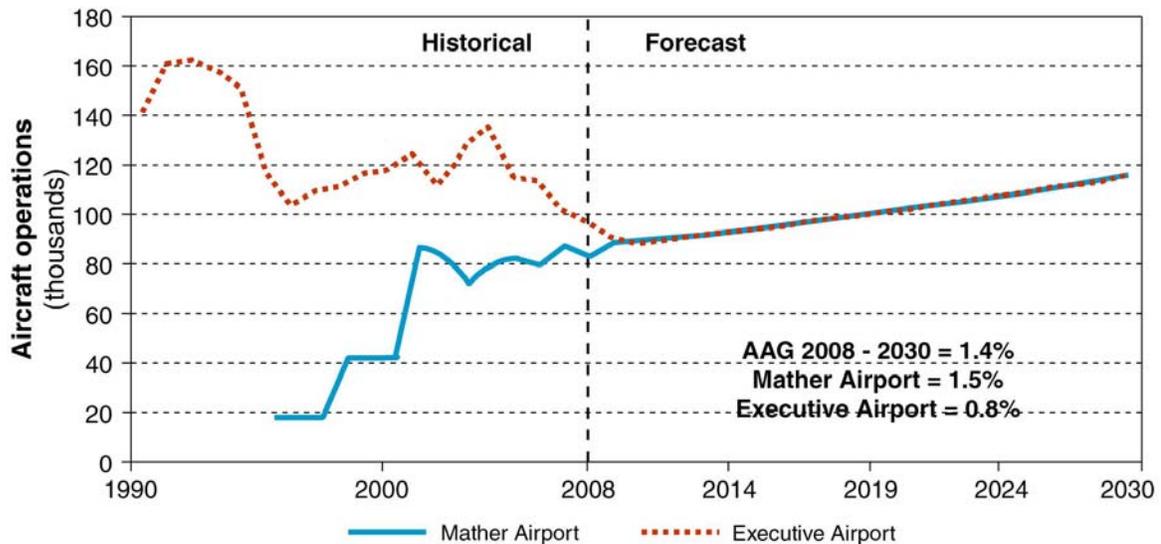
The projected cumulative economic contribution of the Sacramento County Airport System on the economy of the Sacramento Area totaled \$162.2 billion for the period from 2008 through 2030.

Figure 15
HISTORICAL AND FORECAST ENPLANED PASSENGERS
 Sacramento International Airport



Note: Data are for Federal Fiscal Years ending September 30.
 AAG = Average annual compound growth
 Sources: U.S. Department of Transportation, Federal Aviation Administration, Terminal Area Forecasts, www.faa.gov, accessed July 2010.

Figure 16
HISTORICAL AND FORECAST AIRCRAFT OPERATIONS
 Mather Airport and Executive Airport



Note: Data are for Federal Fiscal Years ending September 30.
 AAG = Average annual compound growth
 Sources: U.S. Department of Transportation, Federal Aviation Administration, Terminal Area Forecasts, www.faa.gov, accessed July 2010.

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Table 27
**PROJECTED ONGOING AND CUMULATIVE
TOTAL ECONOMIC IMPACT: 2008 - 2030**
Sacramento County Airport System
In millions of nominal dollars

Year	SMF	Mather Airport	Executive Airport	Total
Estimated				
2008	\$ 4,050.2	\$ 151.3	\$ 20.7	\$ 4,222.1
2009	3,709.1	168.5	19.3	3,897.0
Projected				
2010	3,676.2	170.0	19.6	3,865.7
2011	3,898.6	176.5	20.4	4,095.4
2012	4,134.5	183.2	21.1	4,338.9
2013	4,384.9	190.3	22.0	4,597.1
2014	4,650.5	197.6	22.8	4,870.9
2015	4,932.3	205.2	23.7	5,161.2
2016	5,231.3	213.0	24.6	5,469.0
2017	5,548.5	221.2	25.6	5,795.3
2018	5,885.1	229.8	26.6	6,141.4
2019	6,242.3	238.6	27.6	6,508.5
2020	6,621.2	247.9	28.7	6,897.8
2021	7,023.4	257.5	29.8	7,310.6
2022	7,450.0	267.5	30.9	7,748.4
2023	7,902.8	277.9	32.1	8,212.8
2024	8,383.2	288.7	33.4	8,705.3
2025	8,892.9	300.0	34.7	9,227.7
2026	9,433.9	311.8	36.0	9,781.7
2027	10,007.9	324.0	37.4	10,369.3
2028	10,617.0	336.8	38.9	10,992.6
2029	11,263.3	350.0	40.4	11,653.7
2030	11,949.2	363.8	42.0	12,355.0
Cumulative (2008 - 2030)	\$155,888.2	\$5,671.3	\$658.0	\$162,217.5

Note: An inflation rate of 2.5% per year was applied to the average economic impact per passenger between 2008 and 2030.

Sources: Forecast aviation activity: U.S. Department of Transportation, Federal Aviation Administration, Terminal Area Forecasts, www.faa.gov, accessed July 2010.
Projected economic impact: LeighFisher, July 2010.

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Appendix A

METHODOLOGY Economic Impact Study Sacramento County Airport System

The methodology used to evaluate the current economic impact of the Sacramento County Airport System involved (1) developing primary data on the direct economic impact of on-airport organizations and (2) using models and other statistical techniques to estimate the indirect and induced economic impacts of on-airport activity.

The primary sources of information used in this evaluation were: (1) on-airport data generated by surveys of on-airport organizations conducted by LeighFisher in 2009, (2) relevant regional, State, and national economic indicators, (3) surveys of SMF passengers conducted in 2007, and (4) inputs from other reports related to the airports prepared by LeighFisher (formerly Jacobs Consultancy).

ASSESSMENT OF CURRENT DIRECT ECONOMIC IMPACTS

The direct economic impact of the Sacramento County Airport System is the impact generated on-site at each airport, and includes the employment, payroll, and local expenditures of all enterprises located at the airports—airlines, terminal concessionaires, general aviation businesses, ground transportation providers, government agencies, and other businesses. These enterprises have a direct and quantifiable impact on the economy of the region.

On-airport Business Survey

A survey form entitled “Economic Impact Study, Airport Tenant Survey” (reprinted on the following pages) was used to obtain employment and expenditure data for analysis of direct on-airport economic impacts. SCAS staff provided guidance on the survey content and design.

The survey form was designed to elicit information on employment and associated wage data; expenditures on capital improvements, local taxes; and other expenditures contributing to the System’s economic impact.

Survey forms were emailed and/or faxed to the organizations listed in Table A-1 in 2009 under a cover letter signed by the Airport Director, Mr. Hardy Acree. The letter stated the importance of the survey and provided the name of a contact if there were any questions concerning the survey. Respondents were advised that all company-specific data provided would be kept confidential and that only industry totals would be reported.



**Sacramento County Airport System
Economic Impact Study
Airport Tenant Survey**

Business or agency	
Phone number	
Email address	
Person completing this survey	

SACRAMENTO COUNTY AIRPORT SYSTEM

1. At which airport(s) in Sacramento County do you operate your business or agency? (Check all that apply.)

- Executive Airport
- Mather Airport
- Sacramento International Airport

If your business or agency operates at more than one airport, please indicate the airport where your primary operation is located.

ON-AIRPORT ACTIVITIES

2. Which aviation activity applies to your on-airport business or agency? (Check all that apply.)

- | | |
|--|--|
| <input type="checkbox"/> Passenger airline | <input type="checkbox"/> Ground transportation (other than rental car) |
| <input type="checkbox"/> Airport terminal concession | <input type="checkbox"/> Aviation support (maintenance, ground handling) |
| <input type="checkbox"/> Fixed base operator (FBO) | <input type="checkbox"/> Flight instruction |
| <input type="checkbox"/> Corporate flight department | <input type="checkbox"/> Air taxi/charter operator |
| <input type="checkbox"/> Government agency | <input type="checkbox"/> Tour operator |
| <input type="checkbox"/> Cargo carrier/freight forwarder | <input type="checkbox"/> Other (Please specify below.) |
| <input type="checkbox"/> Rental car | <input style="width: 200px;" type="text"/> |

ON-AIRPORT EMPLOYMENT AND PAYROLL IN 2008

3. In 2008, how many people did your business or agency employ FULL-TIME (40 hours per week) and PART-TIME (less than 40 hours per week) at airports in Sacramento County?

4. Please estimate the total annual payroll, including wages and benefits, paid in 2008 to the full-time and part-time employees reported below.

If your business or agency operates at more than one airport, please provide information for each airport.

	Full-time employees	Part-time employees	Total payroll (wages and benefits)
Executive Airport	<input style="width: 100px; height: 20px;" type="text"/>	<input style="width: 100px; height: 20px;" type="text"/>	<input style="width: 100px; height: 20px;" type="text"/>
Mather Airport	<input style="width: 100px; height: 20px;" type="text"/>	<input style="width: 100px; height: 20px;" type="text"/>	<input style="width: 100px; height: 20px;" type="text"/>
Sacramento International Airport	<input style="width: 100px; height: 20px;" type="text"/>	<input style="width: 100px; height: 20px;" type="text"/>	<input style="width: 100px; height: 20px;" type="text"/>

5. On average, how many hours per week do your part-time employees work?



**Sacramento County Airport System
Economic Impact Study
Airport Tenant Survey (page 2 of 2)**

EXPENDITURES IN 2008

In order to quantify the economic importance of the Sacramento County Airport System, it is important to understand the expenditures and taxes of your business or agency at each airport. **The data your business or agency provides will be kept completely confidential and will only be presented in aggregate terms.**

6. Please indicate how much your business paid in property taxes, State taxes, capital improvements, and additional operating expenses (excluding payroll expenditures reported in Question 4, taxes, and capital improvements).
If your business or agency operates at more than one airport, please provide information for each airport.

	Property taxes (possessory interest taxes)	State taxes	Capital improvements	Additional operating expenses
Executive Airport				
Mather Airport				
Sacramento International Airport				

Please describe the types of additional operating expenses reported above.

ADDITIONAL ECONOMIC BENEFITS AND SERVICES

Please comment on any additional economic benefits and services that your business or agency provides to the Sacramento Region and the State of California.

THANK YOU

Thank you for your assistance in completing this survey. If you have any questions regarding this survey or the Economic Impact Study of the Sacramento County Airport System, please contact Linda Perry of Jacobs Consultancy at (650) 375-5311 or linda.perry@jacobs-consultancy.com.

You may return your completed survey in pdf format to the email address listed above, via fax to (650) 343-5220, or by regular mail to: Linda Perry, Jacobs Consultancy, 555 Airport Boulevard, Suite 300, Burlingame, California, 94010.

To complete the online version of this survey, please copy the following link to your internet browser.
http://www.surveymonkey.com/s.aspx?sm=yDEkzQNZKMKz_2bQJTxlRkw_3d_3d

Throughout 2009, repeated emails, telephone calls and facsimile requests were made to organizations that had not yet responded. Additional follow-up calls were made until a significant of on-airport businesses had responded.

On-airport Organizations Surveyed. The names and addresses of the on-airport organizations to be surveyed were compiled with the assistance of SCAS staff.

Survey Responses. Table A-2 summarizes the response rate for the on-airport organizations surveyed, by type of organization. Of the SCAS on-airport organizations surveyed, 84 completed the survey form, for an overall response rate of 57%, which is better than the 33% to 35% average response rate for a survey of this type.

Of the 15 passenger airlines sent the survey form, 11 responded to the survey; of the 16 all-cargo airlines and freight forwarders sent the survey form, 4 responded, for an overall airline response rate of 48%. Of the 31 passenger terminal concessionaires, including food and beverage and other businesses, 18 provided information and 11 of the 24 rental car, parking, and ground handling companies surveyed (46%) responded.

Of the 35 fixed base operators and commercial aviation businesses, 24, or 69%, responded. These businesses include aircraft maintenance, aircraft sales, aviation training, charter service operators, and various other commercial aviation businesses.

Fourteen out of eighteen government agencies completed the survey form, for an 78% response rate and 22% of the other miscellaneous businesses responded.

Partial Responses and Nonresponses. The economic impact of organizations that either did not respond to the survey or provided only partial information was estimated using survey information obtained from similar responding organizations. For those airlines that did not respond to the survey, employment and expenditures were estimated on the basis of the responses by similar responding airlines and the nonresponding airline's passenger numbers. The average number of employees per passenger for the responding airlines was used to estimate the number of employees for the nonresponding airlines. Similarly, the average expenditures (services, materials and supplies, capital, and others) per passenger for the responding airlines were used to estimate expenditures for nonresponding airlines. Payroll for nonresponding airlines was estimated using a similar process, but the metric of average salary per employee was used instead. A similar methodology was adopted to estimate employment levels, as well as payroll and other costs at other on-airport businesses.

Table A-1
ON-AIRPORT ORGANIZATIONS SURVEYED
 Sacramento County Airport System

Passenger airlines	Fixed base operators/aviation support
Air Canada	Airborne Electronics
Alaska Airlines	Airline Transport Professionals
American Airlines	Allied Aviation Services, Inc.
Continental Airlines	American Academy of Aeronautics
Delta Airlines	ARCO Products Company
Express Jet	ARINC, Inc.
Frontier Airlines	Aircraft Service International Group
Hawaiian Airlines	Atkin Air, LLC
Horizon Air	Atlantic Aviation
JetBlue Airways	Beneto, Inc.
Mexicana Airlines	Cessna Aircraft Company
Northwest	Executive Air Repair
Southwest Airlines	Executive Autopilots
United Airlines / United Express	GAT Airline Ground Support
US Airways	Gate Gourmet, Inc.
	Hallmark Aviation Services
	Hire Air, LLC
	IASCO
	Integrated Airline Services, Inc.
	Ivan Air
	Jett Care, Inc.
	KAG West/BP West Coast Products, LLC
	Los Rios Community College District
	LSG Skychefs
	Mather Aviation
	Pacific Coast Jet Charter, Inc.
	Pacific Western Aviation
	Sac Exec Helicopters
	Sacramento Aviation Management
	Sacramento International Jet Center
	Sacramento Jet Center
	Sky Walk
	Trajen Flight Support
	Worldwide Flight Services
	Rental cars
	Alamo Rent-a-Car
	Avis Rent-a-Car
	Budget Rent-a-Car
	Dollar Rent A Car
	Enterprise Rent a Car
	Hertz Corporation, The
	National Rent-a-Car
	Payless Car Rental
	Senator Ford Inc. Car Rental
	West Point Capital dba Rex Rent A Car
Cargo airlines/freight forwarders	
Air Transport International, LLC	
Air Cargo Carriers, Inc.	
Airborne Express	
Ameriflight, LLC	
ASTAR Air Cargo, Inc.	
DHL Express (USA)	
Evergreen Aviation	
Fed Ex	
Lynxs CargoPorts	
Martinaire Aviation, LLC	
Redding Aero Enterprises, Inc	
United Parcel Service Airlines	
West Air Industries	
Concessionaires/terminal services	
American Tower Corporation	
Aviators Restaurant	
Butter London	
Canteen Vending	
Clear Channel Interspace Airports	
Cyber Express International	
Forever Silver	
Host Hotel	
InMotion	
Kellee Communications	
Massage Bar	
Nelson's Books	
Paradies Shop, The	
SBC - AT&T	
Shoe Shine Palace	

Table A-1 (page 2 of 2)
ON-AIRPORT ORGANIZATIONS SURVEYED
 Sacramento County Airport System

<u>Concessionaires/terminal services (continued)</u>	<u>Ground transportation and parking</u>
SmarteCarte	AMPCO Air Park
The Golden 1 Credit Union	ADI Shuttle
Travelex Currency Services	Sacramento Independent Taxi Owner Association (SITOA)
Union Bank of California	Super Shuttle
Universal Money Centers	
Vino Volo	
<u>Government agencies</u>	
California Department of Fish and Game Air Services	
FAA Flight Inspection Field Office	
Federal Aviation Administration (Tower)	
Sacramento County Airports System	
Sacramento County Department of General Services	
Sacramento County Department of Probation	
Sacramento County Sheriff's Department	
Transportation Security Administration	
United State Postal Services	
United States Air Force	
U.S. Department of Agriculture APHIS Wildlife Services	
U.S. Department of Justice Aviation Operations	
<u>Other entities</u>	
Alrai Trading Company	
American Aerial Mapping	
Bastiao Farms, Inc	
Bennett Brothers Ranch	
California Electronic Asset Recovery (CEAR)	
CFI (Carter Flygare)	
Copenbarger & Copenbarger	
Executive Flyers	
Geonex dba Cartwright Aerial Surveys, Inc.	
Golden Interstate Sweeping & NorCal	
Intel Corporation	
J.M. Bianchi Farms	
Jackson Lewis, LLP	
MDC, Inc.	
Media plane dba REACH, Inc.	
Myers Pacific Aviation and Marine Insurance	
Olympic Security Services, Inc.	
Placer Fire Equipment, Inc.	
Quality Services Unlimited	
Radman Aerial Surveys	
River City Baggage Delivery	
Sacramento Mineral Society	
Safety Center, Inc.	
Wickland Pipelines LLC	
Yeung Farms	

Sources: Sacramento County Airport System, on-airport tenant list and surveys of on-airport tenants conducted in 2008 by the Sacramento Regional Research Institute and in 2009 by LeighFisher.

Table A-2
ON-AIRPORT ORGANIZATION SURVEY RESPONSES
 Sacramento County Airport System

	<u>Total surveyed</u>	<u>Number of survey responses</u>	<u>Response rate (percent)</u>
Sacramento International Airport			
Passenger airlines	15	11	73%
Cargo airlines	6	2	33
Rental cars	10	3	30
Ground transportation and parking	3	2	67
Fixed base operators/aviation support	15	7	47
Concessionaires/terminal services	21	12	57
Government agencies	7	6	86
Other	<u>9</u>	<u>2</u>	<u>22</u>
Total /average	86	45	52%
Mather Airport			
Cargo airlines/freight forwarders	10	2	20%
Fixed base operators/aviation support	9	8	89
Government agencies	7	5	71
Car rentals, ground transportation, and other (a)	<u>11</u>	<u>6</u>	<u>55</u>
Total /average	37	21	57%
Executive Airport			
Fixed base operators/aviation support	11	9	82%
Government agencies	4	3	75
Concessionaires/terminal services and other (a)	<u>10</u>	<u>6</u>	<u>60</u>
Total /average	<u>25</u>	<u>18</u>	<u>72%</u>
SCAS Total /average	148	84	57%

(a) Categories are combined to protect the confidentiality of the survey responses.

Sources: Sacramento County Airport System, on-airport tenant list and surveys of on-airport tenants conducted in 2008 by the Sacramento Regional Research Institute and in 2009 by LeighFisher.

ASSESSMENT OF CURRENT INDIRECT AND INDUCED ECONOMIC IMPACTS

In addition to the direct impact, the total economic impact of airport activity includes indirect and induced economic impacts, as defined below.

- **Indirect impacts.** The indirect economic impact of the airports in the System is the impact resulting off-site, and includes the employment and expenditures of (1) supplying industries that provide the services, materials, or machinery to support industries that derive business from on-airport businesses, such as wholesale food distributors, office supply firms, and jet fuel suppliers and (2) businesses serving visitors arriving at SMF, such as hotels and motels, restaurants, rental car companies, travel agencies, and

taxicab operators. An airline produces a direct economic impact; the oil company that sells oil to the airline or the hotel that serves airline passengers produces an indirect economic impact.

- **Induced impacts.** The goods and services purchased by households as a result of the employment and wages paid to industries with both direct and indirect airport-related economic impacts. Household spending (personal consumption) by both airline and oil company employees produces an induced economic impact.

Regional input-output model analysis is a technique designed to measure the indirect and induced effects of a change in the direct economic impact of a region's economy. A regional input-output model was used in this analysis for the Sacramento Area, consisting El Dorado, Placer, Sacramento, San Joaquin, Sutter, Yolo, and Yuba counties. The Regional Input-Output Modeling System (RIMS II) used for this assessment is maintained by the U.S. Department of Commerce, Bureau of Economic Analysis. The model, based on a national input-output model created by the U.S. Department of Commerce, is adjusted for the specific regions, such as the Sacramento Area. The adjustments were designed to account for the differences between the economies of these regions and the nation as a whole. In some cases, coefficients in the model were adjusted to account for the airport-specific nature of certain on-airport businesses. The coefficients in the model express the change in output, wages, or employment generated by a unit change in input (the direct economic impacts).

The total impact of airport activity (direct, indirect, and induced) was measured in terms of total economic impact, which economists call output or sales, payroll, and employment.

- **Total economic impact dollars.** The value of output, or sales, measured in dollars. The survey of on-airport employers produced an estimate of total expenditures (including payroll), which was assumed to equal output. This assumption is equivalent to assuming zero profits (revenues = expenses), and ensures conservative results.
- **Employment.** The number of jobs.
- **Payroll.** Total wages or salaries.

As discussed previously, data from the on-airport organization surveys were used to estimate the direct employment, income, and output of airport activity in 2008. These estimates of direct impact were categorized by industry sector and used as inputs to the Sacramento Area RIMS II model. The total economic impacts calculated by the model are discussed in the main body of this report.

Appendix B

GLOSSARY Economic Impact Study Sacramento County Airport System

The following technical terms are used with consistent meaning throughout this report:

Direct impact	The economic impact generated at the site of economic activity, in this case, the Sacramento County Airport System, including SMF, Mather Airport, and Executive Airport.
Indirect impact	The impact resulting off-site in supplying industries that provide the services, material, or machinery to support the initial direct activity.
Induced impact	The impact above and beyond the combined direct and indirect impacts of an economic activity, where additional income is created by successive rounds of spending known as the “multiplier” effect.
Multiplier	The process by which re-spending of incomes from direct and indirect activities results in additional income within the region. Most of the take-home income earned by employees is spent locally. This spending becomes new income for others in the economy, who, in turn, re-spend some portion of what they earn. Successive rounds of spending create more jobs and increase business sales and personal income.
Personal income	Wages and salaries earned by employees in payment for their services.
Total economic impact	The sum of direct, indirect, and induced impacts.

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