

**The Economic Impact
Of Travel on
Massachusetts Counties
2010**

A Study Prepared for the
Massachusetts Office of Travel and Tourism
By the
Research Department of the
U.S. Travel Association
Washington, D.C.
October 2011

PREFACE

This study was conducted by the Research Department of the U.S. Travel Association for the *Massachusetts Office of Travel and Tourism*. The study presents estimates of travel economic impact on Massachusetts in 2010 at the state and county levels. Estimates include travel expenditures, travel-generated employment and payroll income, as well as tax revenues for state and local governments. Direct domestic travel impacts are provided for the state and the 14 counties, while the international travelers' impact and the multiplier impact on Massachusetts are provided at the state level only. For the purpose of comparison, historical impact data are displayed in this report.

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INTRODUCTION

The study presents estimates of travel's economic impact on Massachusetts in 2010 at the state and county levels. Estimates include travel expenditures, travel-generated employment and payroll income, as well as tax revenues for state and local governments. Direct domestic travel impacts are provided for the state and the 14 counties. Additionally, international travelers' impact and the multiplier impact on Massachusetts are provided at the state level only. For the purpose of comparison, historical impact data is displayed in this report.

All estimates of the economic impact of travel contained in this report are the product of the U.S. Travel Association's Travel Economic Impact Model (TEIM), a proprietary economic model developed expressly to indicate the expenditures, employment, payroll, and tax revenue generated by travel away from home in the United States.

The TEIM was created to capture the highly complex nature of the U.S. travel industry at national, regional, state and local levels. The TEIM was designed so that economic impact estimates could be compared across all fifty states and the District of Columbia, thereby allowing states and localities to assess their market share nationally, regionally or within the state.

The domestic component of TEIM is based on national surveys conducted by the U.S. Travel Association and other travel-related data developed by the U.S. Travel Association, various government agencies and well-known travel organizations each year. A summary of the methodology is provided in Appendix A.

The international travel expenditure estimates are based on the Office of Travel and Tourism Industries' (OTTI) Survey of International Air Travelers to the U.S. and data provided to OTTI from Canada and Mexico. Other estimates of the economic impact of international visitors to the U.S. are generated by TEIM by incorporating the estimated international travelers' expenditures with the data series utilized to produce the domestic estimates.

U.S. residents traveling in Massachusetts includes both state residents and out-of-state visitors traveling away from home overnight in paid accommodations, or on day or overnight trips to places 50 miles or more away from home. Travel commuting to and from work; travel by those operating an airplane, bus, truck, train or other forms of common carrier transportation; military travel on active duty; and travel by students away at school are all excluded from this model. In addition, the payroll and employment estimates represent impact generated in the private sector and exclude government payroll and employment.

Since additional data relating to travel and its economic impact in 2010 will become available subsequent to this study, U.S. Travel Association reserves the right to revise these estimates in the future.

EXECUTIVE SUMMARY

Total Impact of Travel

- In 2010, total domestic and international travel output in Massachusetts, including direct, indirect and induced output, amounted to \$24.7 billion, up 7.9 percent from 2009.
- Domestic and international travel supported a total of 197,700 jobs for the travel industry and other industry sectors in Massachusetts during 2010, a 0.7 percent decrease from 2009.
- Employees supported directly and indirectly by travel in Massachusetts earned a total of \$6.6 billion in 2010, up 2.3 percent from 2009.

Direct Impact of Travel

- Domestic and international travelers directly spent \$15.5 billion in Massachusetts during 2010, up 8.2 percent from 2009. Domestic traveler spending increased 8.5 percent, while international traveler spending increased 6.3 percent.
- Payroll income generated by direct traveler spending in Massachusetts totaled nearly \$3.5 billion during 2010, up 2.0 percent from 2009.
- Travel expenditures directly generated 121,700 jobs within Massachusetts in 2010, up 0.2 percent from 2009. Travel-generated jobs in Massachusetts comprised 3.8 percent of the total non-farm employment in the state during 2010.
- On average, every \$127,567 spent in Massachusetts by domestic and international travelers generated one job in 2010.
- Traveler spending in Massachusetts directly generated nearly \$2.4 billion in tax revenue for federal, state and local governments in 2010, up 6.8 percent from 2009.
- Suffolk County, which includes the city of Boston, received \$6.4 billion in domestic travel expenditures, which leads all Massachusetts counties during 2010.

TRAVEL IMPACT ON THE U.S. ECONOMY IN 2010

Following the longest and deepest downturn since the Great Depression, 2010 was a year of recovery for the U.S. economy. There were fluctuations in major economic indicators, but by and large, the economy showed signs of improvement. Real GDP in chained 2005 dollars grew 3.0 percent from 2009, the strongest annual rate of GDP growth since 2005. Yet, the U.S. economy showed signs of slowing down in the second half of 2010. After growing at an annual rate of 3.9 percent during the first half of the year, real GDP advanced at a slower 2.4 percent pace during the second half of 2010. Much of this slowdown was due to declines in residential investment and business inventories, as well as a slowdown in business investment, which together more than offset improvements in consumer spending and exports.

In terms of employment, the economic recovery remained soft in 2010. A total of 940,000 non-farm jobs were added during the 12 months of 2010. Still, by the end of the year, total U.S. non-farm employment remained 7.7 million, or 5.6%, below the peak achieved in January of 2008. The national unemployment rate continued to climb in 2010, rising from 9.3 percent in 2009 to 9.6 percent, the highest level since 1983.

The Consumer Price Index (CPI), an indicator of the level of price inflation, rose 1.6 percent in 2010, while the U.S. Travel Association's Travel Price Index (TPI) increased at a faster rate of 3.8 percent during the same period. The rising prices on motor fuel and airline fares were the major factors that resulted in the much faster increase in the Travel Price Index.

Performance of the U.S. economy in the first half of the year 2011 was disappointing. The annual growth rate of Real GDP increased just 0.4 percent in the first quarter and 1.3 percent in the second quarter. The subdued performance of the U.S. economy during the first half of the year was due to slowdowns in consumer spending, business investment and exports as well as a decline in government consumption expenditures, while residential investment remained stagnant. Since Real GDP growth has been slower than anticipated so far in 2011, many forecasts for the full-year have been downgraded to a growth rate of 2.0 percent or slightly less. Many research organizations believe that the unemployment rate will remain above 9 percent for 2011. According to the U.S. Travel Association's forecast, the Consumer Price Index and Travel Price Index are projected to increase 2.9 percent and 6.0 percent, respectively, in 2011. Combined with the anticipated modest growth of travel demand and higher cost of travel, total traveler spending is expected to increase 7.7 percent in 2011.

U.S. Travel Volume in 2010

U.S. domestic travel including leisure and business travel increased 3.5 percent to a total of 1.96 billion person-trips in 2010. A person-trip is defined as one person on a trip away from home overnight in paid accommodations, or on a day or overnight trip to places 50 miles or more, one-way, away from home. Total domestic person-trips are expected to increase 2.1 percent in 2011.

Domestic leisure travel, which includes visits to friends and relatives as well as trips taken for outdoor recreation and entertainment purposes, increased 3.5 percent in 2010 as compared to 2009, totaling 1.52 billion person-trips and is expected to increase 2.4 percent in 2011. Leisure travel accounted for 77.2 percent of all U.S. domestic travel in 2010. After five consecutive years of decline, domestic business travel grew 3.7 percent in 2010 to 447.8 million person-trips. Domestic business travel is forecasted to increase 1.2 percent in 2011.

International inbound travelers, including visitors from overseas, Canada and Mexico, made 59.8 million visits to the United States in 2010, up 8.8 percent from 2009. These international travelers spent \$103.5 billion (excluding passenger air fares paid to U.S. airlines) in the U.S. during 2010, up 9.9 percent from 2009. Total international arrivals to the U.S. are expected to increase 3.5 percent to 61.9 million in 2011 and total expenditures in the U.S. (excluding international passenger fares paid to U.S. airlines) are expected to reach \$113.9 billion, up 10.0 percent from 2010.

Travel Expenditures in 2010

After a substantial decline in 2009, domestic and international travel spending in the U.S. increased 7.7 percent over 2009 to \$758.7 billion in 2010. Leisure travelers' spending increased 7.4 percent while business travel spending was up 8.4 percent in the year. However, travel spending in 2010 was still lower than in 2008.

Domestic travelers directly spent \$655.2 billion in 2010, a 7.4 percent increase from 2009. This increase reflected a higher travel volume, as well as a rise in travel costs largely driven by high and rising motor fuel prices and airline fares. Domestic travel expenditures are forecasted to grow 7.3 percent in 2011.

International travelers spent \$103.5 billion in the U.S. during 2010, up 9.9 percent from 2009. In addition, international travelers paid a total of \$30.9 billion to U.S. air carriers on international passenger fares in 2010, an increase of 18.5 percent from 2009. As a result, \$31.6 billion was generated as a U.S. travel trade surplus in 2010, the largest surplus in the past 50 years and \$10.6 billion more than 2009. International travelers' spending in the U.S. is expected to increase 10.0 percent in 2011.

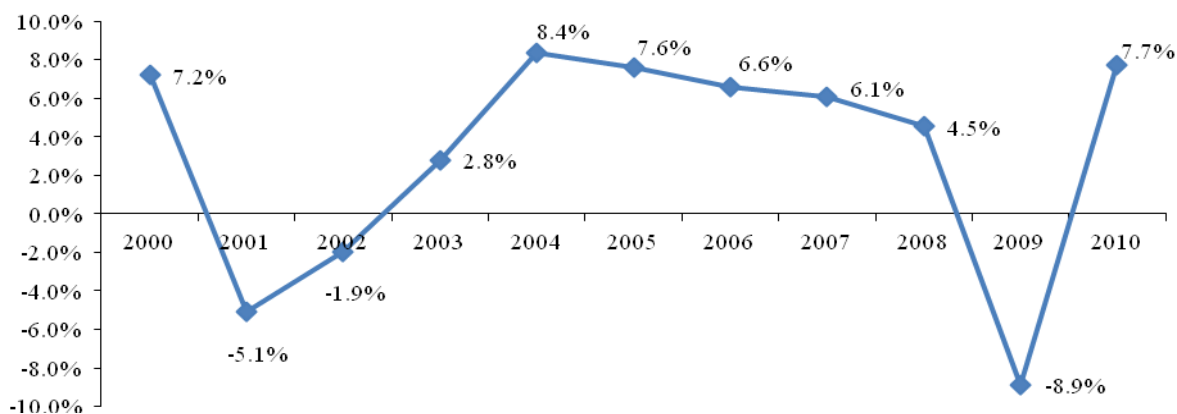
Real travel and tourism spending in chained 2005 dollars increased 3.7 percent in 2010, after two consecutive years of decline. Price for travel goods and services increased 3.9 percent in 2010 after a decrease of 6.3 percent in 2009, according to the U.S. Travel Association's Travel Price Index (TPI).

Table 1: Travel Expenditures in the U.S., 2009 and 2010

<u>Industry Sector</u>	2009 Travel Spending in The U.S. (\$ Billions)	2010p Travel Spending in The U.S. (\$ Billions)	% 2010p/2009 Travel Spending in The U.S. (Percent Change)
<i>Domestic Travel</i>			
Public Transportation	\$114.1	\$128.1	12.3%
Auto Transportation	112.0	127.7	14.0%
Lodging	101.9	108.5	6.5%
Foodservice	160.0	166.8	4.3%
Entertainment/Recreation	74.0	74.1	0.2%
General Retail	48.2	49.8	3.3%
<u>Domestic Total</u>	<u>\$610.2</u>	<u>\$655.2</u>	<u>7.4%</u>
International Total*	\$94.2	\$103.5	9.9%
Grand Total	\$704.4	\$758.7	7.7%

Source: U.S. Travel Association. P: preliminary. * Excludes receipts on international passenger fares

**Changes of Direct Travel Expenditures*
in the U.S., 2000-2010p**



Source: U.S. Travel Association. P: preliminary. * Excludes international passenger fare payments.

Travel Employment in 2010

The job market in the U.S. has been struggling after the recession ended at the middle of 2009, the nation's unemployment rate hit 9.6 percent in 2010, the highest since 1983 and it will remain above 9.0 percent in the rest of 2011. Total non-farm employment in the U.S. decreased 0.8 percent in the year. In 2010, travel directly generated nearly 7.4 million U.S. jobs, a slight decline of 0.2 percent from 2009, after a decrease of 4.2 percent in 2009. Travel generated jobs accounted for 5.7 percent of total non-farm employment in the U.S. in 2010.

In the current sluggish economy, with stubbornly high unemployment and weak job growth, travel and tourism has proven itself to be one of the most efficient job-creating industries. From December 2009, almost 77,000 jobs were added to travel and tourism industry, accounted for 8.2 percent of all jobs added to non-farm private industries. Between March 2010 and July 2011, job growth in the travel industry was 84 percent faster than the rest of the economy. So far in 2011, the travel industry is responsible for creating 1 out of every 9 new jobs in the United States.

Table 2: Travel-Generated Employment in the U.S., 2009 and 2010

<u>Industry Sector</u>	2009 Travel-Generated Employment (Thousands)	2010p Travel-Generated Employment (Thousands)	2010p Percent Change Over 2009 (%)
<u>Domestic Travel</u>			
Public Transportation	875.2	877.0	0.2%
Auto Transportation	250.7	248.6	-0.8%
Lodging	1,148.5	1,135.7	-1.1%
Foodservice	2,604.2	2,587.6	-0.6%
Entertainment/Recreation	1,140.0	1,124.4	-1.4%
General Retail	317.6	311.3	-2.0%
Travel Planning	163.8	157.7	-3.7%
<u>Domestic Total</u>	<u>6,500.0</u>	<u>6,442.4</u>	<u>-0.9%</u>
International Total*	893.6	934.8	4.6%
Grand Total	7,393.6	7,377.1	-0.2%

Sources: U.S. Travel Association, BLS

Table 3: Overall U.S. Economic Developments, 2008-2010

<u>Sector</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
Nominal gross domestic product (\$ Billions)	\$14,291.5	\$13,939.0	\$14,526.5
Real gross domestic product (\$ Billions)*	\$13,161.9	\$12,703.1	\$13,088.0
Real disposable personal income (\$Billions)*	\$10,119.5	\$9,882.7	\$10,061.6
Real personal consumption expenditures (\$ Billions)*	\$9,211.7	\$9,037.5	\$9,220.9
Consumer price index**	215.3	214.5	218.1
Travel Price Index**	257.7	241.5	250.7
Non-farm payroll employment (Millions)	136.8	130.8	129.8
Unemployment rate (%)	5.8	9.3	9.6

Percentage change from previous year

Nominal gross domestic product	1.9%	-2.5%	4.2%
Real gross domestic product	-0.3%	-3.5%	3.0%
Real disposable personal income	2.4%	-2.3%	1.8%
Real personal consumption expenditures	-0.6%	-1.9%	2.0%
Consumer price index	3.8%	-0.4%	1.6%
Travel Price Index	5.6%	-6.3%	3.8%
Non-farm payroll employment	-0.6%	-4.4%	-0.8%

Sources: U.S. Dept. of Commerce, U.S. Dept. of Labor, U.S. Census Bureau, U.S. Travel Association

* Chained 2005 dollars

** 1982-84=100

Table 4: U.S. Travel Trends, 2006-2010

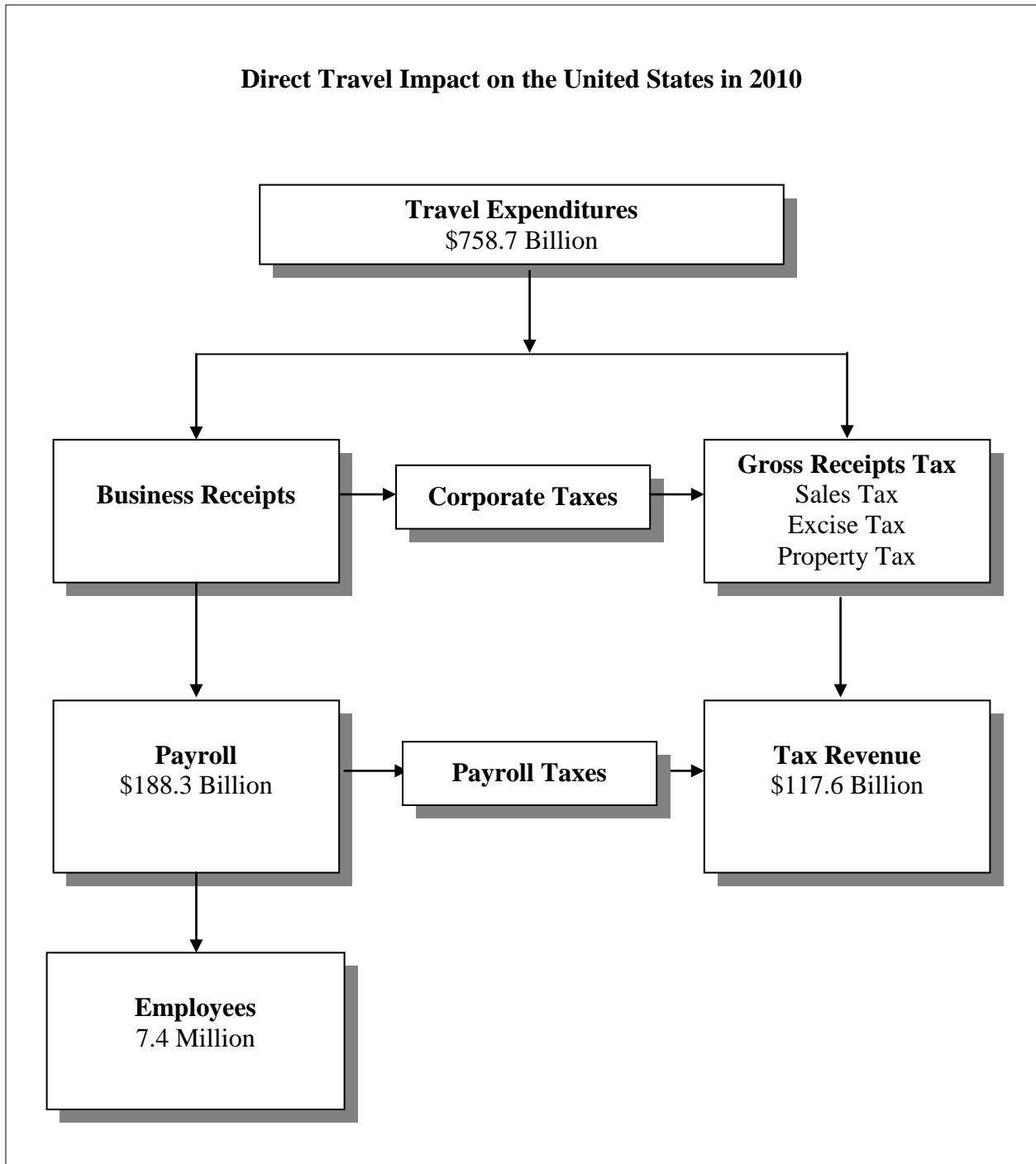
Category	2006	2007	2008	2009	2010
Total travel expenditures (\$ billions)	\$697.1	\$739.3	\$772.9	\$704.4	\$758.7
<i>U.S. travelers' expenditures (\$ billions)</i>	\$610.9	\$642.0	\$662.4	\$610.2	\$655.2
<i>International travelers' expenditures in the U.S.* (\$ billions)</i>	\$86.2	\$97.4	\$110.4	\$94.2	\$103.5
Travel price index**	233.5	244.0	257.7	241.5	250.7
Travel-generated employment*** (thousands)	7,543.4	7,699.9	7,719.4	7,393.6	7,377.1
Percentage change from previous year					
Total travel expenditures	6.6%	6.1%	4.5%	-8.9%	7.7%
<i>U.S. travelers' expenditures</i>	6.8%	5.1%	3.2%	-7.9%	7.4%
<i>International travelers' expenditures in the U.S.</i>	4.9%	13.0%	13.4%	-14.7%	9.9%
Travel price index	4.9%	4.5%	5.6%	-6.3%	3.8%
Travel-generated employment	0.5%	2.1%	0.3%	-4.2%	-0.2%

Sources: U.S. Travel Association, BEA and BLS.

* International traveler spending does not include international passenger fares.

** 1982-84=100.

*** Includes employment generated by both domestic and international traveler expenditures.



Source: U.S. Travel Association, BEA

TRAVEL IMPACT ON MASSACHUSETTS - 2010

TRAVEL IMPACT ON MASSACHUSETTS - 2010

Travel Expenditures

Domestic and international travelers in Massachusetts directly spent \$15.5 billion on transportation, lodging, food, entertainment and recreation, and retail shopping during 2010, representing an increase of 8.2 percent from 2009. Domestic travelers spent nearly \$13.5 billion, while international travelers spent close to \$2.1 billion, up 8.5 percent and 6.3 percent, respectively, from 2009.

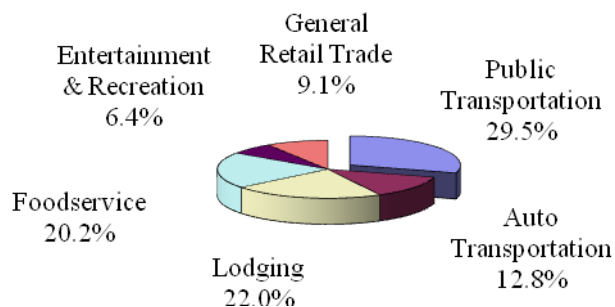
In 2010, domestic and international travelers spent nearly \$4.6 billion on public transportation, up 10.8 percent from 2009.

Domestic and international travelers spent nearly \$3.4 billion on lodging during 2010, an increase of 10.3 percent from 2009. According to Smith Travel Research, hotel room demand increased by 8.9 percent in 2010 while the average daily room rate increased at a slower pace of 2.1 percent.

Spending on foodservice by domestic and international travelers totaled more than \$3.1 billion, up 5.5 percent from 2009.

Domestic and international travel spending on auto transportation increased by 7.8 percent in 2010 to nearly \$2.0 billion, partially reflecting a rise in gasoline prices.

Travel Spending in Massachusetts in 2010 by Industry Sector



1. Auto transportation sector includes privately-owned vehicles that are used for trips (e.g., automobiles, trucks, campers or other recreational vehicles), gasoline service stations, and automotive rental.

2. Foodservice sector includes restaurants, grocery stores and other eating and drinking establishments.

3. Public transportation sector comprises air, intercity bus, rail, boat or ship, and taxicab or limousine service.

4. Lodging sector consists of hotels and motels, campgrounds, and ownership or rental of vacation or second homes.

5. General retail trade sector includes gifts, clothes, souvenirs and other incidental retail purchases.

6. Entertainment and recreation sector includes amusement parks and attractions, attendance at nightclubs, movies, legitimate shows, sports events, and other forms of entertainment and recreation while traveling.

Table 5: Direct Travel Expenditures in Massachusetts by Industry Sector, 2009-2010

<i>2010 Expenditures</i>	Domestic (\$ Millions)	International (\$ Millions)	Total (\$ Millions)	% of Total
Public Transportation	\$4,322.0	\$253.7	\$4,575.7	29.5%
Auto Transportation	1,952.6	29.5	1,982.0	12.8%
Lodging	2,728.3	687.5	3,415.8	22.0%
Foodservice	2,748.8	395.1	3,143.8	20.2%
Entertainment & Recreation	826.0	171.0	997.0	6.4%
General Retail Trade	897.2	518.2	1,415.4	9.1%
Total	\$13,475.0	\$2,054.9	\$15,529.9	100.0%
2009 Expenditures				
Public Transportation	\$3,893.3	\$237.8	\$4,131.1	28.8%
Auto Transportation	1,811.9	26.6	1,838.4	12.8%
Lodging	2,467.5	628.0	3,095.5	21.6%
Foodservice	2,601.6	379.3	2,980.9	20.8%
Entertainment & Recreation	791.2	164.0	955.2	6.7%
General Retail Trade	853.7	497.8	1,351.5	9.4%
Total	\$12,419.2	\$1,933.5	\$14,352.6	100.0%
Percentage change 2010 over 2009				
	Domestic (%)	International (%)	Total (%)	
Public Transportation	11.0%	6.7%	10.8%	
Auto Transportation	7.8%	10.8%	7.8%	
Lodging	10.6%	9.5%	10.3%	
Foodservice	5.7%	4.2%	5.5%	
Entertainment & Recreation	4.4%	4.2%	4.4%	
General Retail Trade	5.1%	4.1%	4.7%	
Total	8.5%	6.3%	8.2%	

Source: U.S. Travel Association

Travel Expenditures in Massachusetts, 2006-2010

Table 6: Travel Expenditures in Massachusetts by Industry Sector, 2006-2010
(Expenditures in millions of dollars)

	2006	2006	2006	2007	2007	2007	2008	2008	2008	2009	2009	2009	2009	2009	2009
Expenditures	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Public Transportation	4,168.6	216.4	4,385.0	4,392.9	231.9	4,624.8	4,419.0	265.3	4,684.3	3,893.3	237.8	4,131.1	4,322.0	253.7	4,575.7
Auto Transportation	1,802.0	22.1	1,824.1	1,908.7	24.6	1,933.3	2,016.5	29.2	2,045.8	1,811.9	26.6	1,838.4	1,952.6	29.5	1,982.0
Lodging	2,644.0	571.8	3,215.8	2,856.6	641.9	3,498.5	2,851.4	712.6	3,564.0	2,467.5	628.0	3,095.5	2,728.3	687.5	3,415.8
Foodservice	2,403.8	296.8	2,700.6	2,548.3	327.7	2,876.0	2,605.4	375.9	2,981.3	2,601.6	379.3	2,980.9	2,748.8	395.1	3,143.8
Entertainment & Rec.	733.2	135.7	868.9	769.4	148.6	918.0	790.2	165.7	955.9	791.2	164.0	955.2	826.0	171.0	997.0
General Retail Trade	840.6	376.2	1,216.8	870.5	423.4	1,293.9	857.0	488.5	1,345.5	853.7	497.8	1,351.5	897.2	518.2	1,415.4
Total	12,592.2	1,619.1	14,211.3	13,346.5	1,798.1	15,144.6	13,539.5	2,037.3	15,576.8	12,419.2	1,933.5	14,352.6	13,475.0	2,054.9	15,529.9
% Change*	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Public Transportation	8.0%	15.6%	8.3%	5.4%	7.2%	5.5%	0.6%	14.4%	1.3%	-11.9%	-10.4%	-11.8%	11.0%	6.7%	10.8%
Auto Transportation	7.2%	21.7%	7.3%	5.9%	11.2%	6.0%	5.6%	18.9%	5.8%	-10.1%	-9.1%	-10.1%	7.8%	10.8%	7.8%
Lodging	10.3%	19.9%	11.9%	8.0%	12.2%	8.8%	-0.2%	11.0%	1.9%	-13.5%	-11.9%	-13.1%	10.6%	9.5%	10.3%
Foodservice	5.8%	15.4%	6.8%	6.0%	10.4%	6.5%	2.2%	14.7%	3.7%	-0.1%	0.9%	0.0%	5.7%	4.2%	5.5%
Entertainment & Rec.	7.0%	12.9%	7.9%	4.9%	9.5%	5.7%	2.7%	11.5%	4.1%	0.1%	-1.0%	-0.1%	4.4%	4.2%	4.4%
General Retail Trade	5.8%	14.5%	8.3%	3.6%	12.5%	6.3%	-1.5%	15.4%	4.0%	-0.4%	1.9%	0.4%	5.1%	4.1%	4.7%
Total	7.7%	16.6%	8.6%	6.0%	11.1%	6.6%	1.4%	13.3%	2.9%	-8.3%	-5.1%	-7.9%	8.5%	6.3%	8.2%
% of Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Public Transportation	33.1%	13.4%	30.9%	32.9%	12.9%	30.5%	32.6%	13.0%	30.1%	31.3%	12.3%	28.8%	32.1%	12.3%	29.5%
Auto Transportation	14.3%	1.4%	12.8%	14.3%	1.4%	12.8%	14.9%	1.4%	13.1%	14.6%	1.4%	12.8%	14.5%	1.4%	12.8%
Lodging	21.0%	35.3%	22.6%	21.4%	35.7%	23.1%	21.1%	35.0%	22.9%	19.9%	32.5%	21.6%	20.2%	33.5%	22.0%
Foodservice	19.1%	18.3%	19.0%	19.1%	18.2%	19.0%	19.2%	18.5%	19.1%	20.9%	19.6%	20.8%	20.4%	19.2%	20.2%
Entertainment & Rec.	5.8%	8.4%	6.1%	5.8%	8.3%	6.1%	5.8%	8.1%	6.1%	6.4%	8.5%	6.7%	6.1%	8.3%	6.4%
General Retail Trade	6.7%	23.2%	8.6%	6.5%	23.5%	8.5%	6.3%	24.0%	8.6%	6.9%	25.7%	9.4%	6.7%	25.2%	9.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: U.S. Travel Association

* Compared with previous year and not adjusted by inflation rate.

TRAVEL IMPACT ON MASSACHUSETTS – 2010

Travel-Generated Payroll

Travel-generated payroll is the wage and salary income paid to employees directly serving travelers within the industry sectors from which travelers purchase goods and services. One dollar of travel spending generates different amounts of payroll income within the various travel industry sectors depending on the labor content and the wage structure of each sector.

Payroll income generated by domestic and international travel in Massachusetts increased 2.0 percent from 2009, totaling close to \$3.5 billion in 2010.

Among this total, payroll income directly generated by domestic travel was nearly \$3.0 billion, a 2.2 percent increase from 2009. International travelers' spending in state directly generated \$483.1 million in payroll income for Massachusetts' travel industry employees, up 1.1 percent from 2009.

On average, every dollar spent by domestic and international travelers produced \$0.22 in payroll income for Massachusetts' residents during 2010.

Compared with 2009, travel-generated payroll for the entertainment & recreation sector showed the most growth among seven sectors investigated, up 3.8 percent. Payroll for the lodging sector increased 2.7 percent from 2009.

The average payroll income generated by travel in Massachusetts stood at \$28,551 in 2010, an increase of 1.8 percent from 2009. The increase was mostly driven by payroll growth in the lodging, entertainment & recreation, and travel planning sectors.

**Travel-Generated Payroll in Massachusetts
in 2010 by Industry Sector**

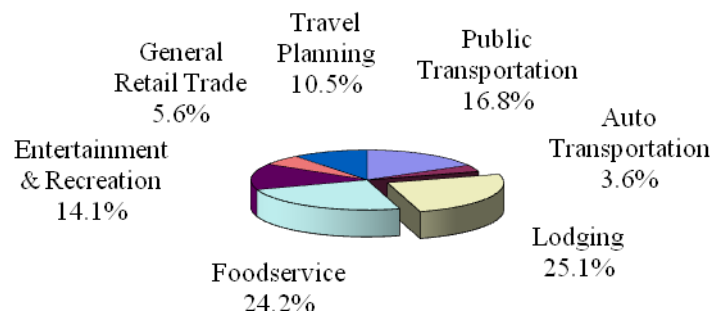


Table 7: Travel-Generated Payroll in Massachusetts by Industry Sector, 2009-2010

<i>2010 Payroll</i>	Domestic (\$ Millions)	International (\$ Millions)	Total (\$ Millions)	% of Total
Public Transportation	\$555.3	\$29.7	\$585.0	16.8%
Auto Transportation	122.6	2.1	124.7	3.6%
Lodging	696.0	174.9	870.9	25.1%
Foodservice	733.3	109.3	842.6	24.2%
Entertainment & Recreation	404.2	87.0	491.2	14.1%
General Retail Trade	115.0	80.0	195.0	5.6%
Travel Planning *	366.3	0.0	366.3	10.5%
Total	\$2,992.6	\$483.1	\$3,475.7	100.0%

2009 Payroll

Public Transportation	\$544.7	\$30.3	\$575.0	16.9%
Auto Transportation	124.2	2.1	126.3	3.7%
Lodging	676.6	171.7	848.3	24.9%
Foodservice	724.4	109.5	833.9	24.5%
Entertainment & Recreation	389.4	84.0	473.4	13.9%
General Retail Trade	114.4	80.4	194.8	5.7%
Travel Planning *	355.9	0.0	355.9	10.4%
Total	\$2,929.5	\$478.0	\$3,407.5	100.0%

**Percentage change
2010 over 2009**

	Domestic (%)	International (%)	Total (%)
Public Transportation	1.9%	-2.0%	1.7%
Auto Transportation	-1.3%	1.5%	-1.3%
Lodging	2.9%	1.8%	2.7%
Foodservice	1.2%	-0.2%	1.0%
Entertainment & Recreation	3.8%	3.6%	3.8%
General Retail Trade	0.5%	-0.4%	0.1%
Travel Planning *	2.9%		2.9%
Total	2.2%	1.1%	2.0%

Source: U.S. Travel Association

*Refers to payroll income that goes to travel agents, tour operators, and other travel service employees who arrange passenger transportation, lodging, tours and other related services.

Travel-Generated Payroll in Massachusetts, 2006-2010

Table 8: Direct Travel Payroll in Massachusetts by Industry Sector, 2006-2010

(Payroll in millions of dollars)

	2006	2006	2006	2007	2007	2007	2008	2008	2008	2009	2009	2009	2010	2010	2010
Payroll	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Public Trans.	548.5	26.0	574.5	593.1	28.5	621.6	567.4	31.0	598.5	544.7	30.3	575.0	555.3	29.7	585.0
Auto Trans.	126.0	1.8	127.8	127.7	1.9	129.6	125.9	2.1	128.0	124.2	2.1	126.3	122.6	2.1	124.7
Lodging	701.3	151.3	852.5	744.0	166.7	910.7	751.1	187.2	938.3	676.6	171.7	848.3	696.0	174.9	870.9
Foodservice	702.0	89.9	791.9	734.8	98.0	832.7	744.9	111.4	856.3	724.4	109.5	833.9	733.3	109.3	842.6
Entertainment & Rec.	380.3	73.2	453.6	398.2	80.0	478.2	407.5	88.9	496.3	389.4	84.0	473.4	404.2	87.0	491.2
General Retail Trade	117.8	63.6	181.4	120.5	70.7	191.2	114.8	78.8	193.6	114.4	80.4	194.8	115.0	80.0	195.0
Travel Planning	400.0		400.0	418.7		418.7	439.1		439.1	355.9		355.9	366.3		366.3
Total	2,976.0	405.7	3,381.6	3,137.0	445.8	3,582.8	3,150.6	499.5	3,650.1	2,929.5	478.0	3,407.5	2,992.6	483.1	3,475.7
% Change*	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Public Trans.	-0.5%	3.0%	-0.3%	8.1%	9.9%	8.2%	-4.3%	8.8%	-3.7%	-4.0%	-2.4%	-3.9%	1.9%	-2.0%	1.7%
Auto Trans.	1.3%	8.2%	1.4%	1.4%	6.4%	1.4%	-1.4%	10.9%	-1.2%	-1.4%	-0.3%	-1.4%	-1.3%	1.5%	-1.3%
Lodging	3.8%	8.4%	4.6%	6.1%	10.2%	6.8%	1.0%	12.3%	3.0%	-9.9%	-8.3%	-9.6%	2.9%	1.8%	2.7%
Foodservice	4.0%	8.7%	4.5%	4.7%	9.0%	5.2%	1.4%	13.7%	2.8%	-2.8%	-1.7%	-2.6%	1.2%	-0.2%	1.0%
Entertainment & Rec.	4.4%	7.2%	4.8%	4.7%	9.3%	5.4%	2.3%	11.1%	3.8%	-4.4%	-5.5%	-4.6%	3.8%	3.6%	3.8%
General Retail Trade	-6.3%	-2.5%	-5.0%	2.3%	11.2%	5.4%	-4.8%	11.6%	1.3%	-0.3%	1.9%	0.6%	0.5%	-0.4%	0.1%
Travel Planning	9.0%		9.0%	4.7%		4.7%	4.9%		4.9%	-19.0%		-19.0%	2.9%		2.9%
Total	3.2%	6.0%	3.5%	5.4%	9.9%	5.9%	0.4%	12.0%	1.9%	-7.0%	-4.3%	-6.6%	2.2%	1.1%	2.0%
% of Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Public Trans.	18.4%	6.4%	17.0%	18.9%	6.4%	17.3%	18.0%	6.2%	16.4%	18.6%	6.3%	16.9%	18.6%	6.1%	16.8%
Auto Trans.	4.2%	0.4%	3.8%	4.1%	0.4%	3.6%	4.0%	0.4%	3.5%	4.2%	0.4%	3.7%	4.1%	0.4%	3.6%
Lodging	23.6%	37.3%	25.2%	23.7%	37.4%	25.4%	23.8%	37.5%	25.7%	23.1%	35.9%	24.9%	23.3%	36.2%	25.1%
Foodservice	23.6%	22.2%	23.4%	23.4%	22.0%	23.2%	23.6%	22.3%	23.5%	24.7%	22.9%	24.5%	24.5%	22.6%	24.2%
Entertainment & Rec.	12.8%	18.0%	13.4%	12.7%	17.9%	13.3%	12.9%	17.8%	13.6%	13.3%	17.6%	13.9%	13.5%	18.0%	14.1%
General Retail Sales	4.0%	15.7%	5.4%	3.8%	15.8%	5.3%	3.6%	15.8%	5.3%	3.9%	16.8%	5.7%	3.8%	16.6%	5.6%
Travel Planning	13.4%		11.8%	13.3%		11.7%	13.9%		12.0%	12.1%		10.4%	12.2%		10.5%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: U.S. Travel Association

* Compared with previous year.

TRAVEL IMPACT ON MASSACHUSETTS - 2010

Travel-Generated Employment

The most impressive contribution that travel and tourism make to the Massachusetts economy is the number of businesses and jobs it supports. These jobs include a large number of executive and managerial positions, as well as service-oriented occupations.

Domestic and international traveler spending in Massachusetts directly generated 121,700 jobs, up 0.2 percent from 2009. Employment generated by domestic traveler spending was up 0.4 percent, while employment generated by international traveler spending was down 0.9 percent.

On average, every \$127,567 spent by domestic and international travelers in Massachusetts directly supported one job in 2010.

These travel-generated jobs comprised 3.8 percent of total non-agricultural employment in Massachusetts during 2010. Without these jobs generated by travel, Massachusetts's 2010 unemployment rate of 8.5 percent would have been 3.5 percentage points higher, increasing it to 12 percent.

Domestic and international traveler spending on foodservice, including restaurants and other eating and drinking places, provided more jobs than any other travel industry sector, up 0.6 percent from 2009 to 46,300 jobs. The labor intensiveness of these businesses contributes to the high level of travel employment in this sector.

Travel-Generated Employment in Massachusetts in 2010 by Industry Sector

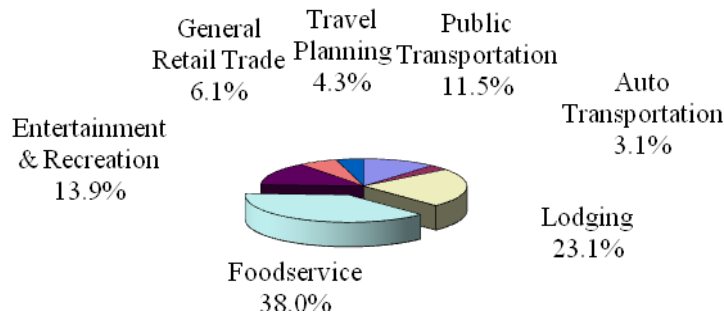


Table 9: Travel-Generated Employment in Massachusetts by Industry Sector, 2009-2010

<i>2010 Employment</i>	Domestic (Thousands)	International (Thousands)	Total (Thousands)	% of Total
Public Transportation	13.2	0.7	14.0	11.5%
Auto Transportation	3.7	0.1	3.8	3.1%
Lodging	23.1	5.1	28.2	23.1%
Foodservice	40.8	5.5	46.3	38.0%
Entertainment & Recreation	14.1	2.8	16.9	13.9%
General Retail Trade	4.5	2.9	7.4	6.1%
Travel Planning *	5.3	0.0	5.3	4.3%
Total	104.7	17.0	121.7	100.0%
2009 Employment				
Public Transportation	13.1	0.8	13.8	11.4%
Auto Transportation	3.8	0.1	3.9	3.2%
Lodging	23.3	5.2	28.4	23.4%
Foodservice	40.5	5.5	46.0	37.8%
Entertainment & Recreation	13.9	2.8	16.6	13.7%
General Retail Trade	4.6	2.9	7.5	6.2%
Travel Planning *	5.3	0.0	5.3	4.3%
Total	104.4	17.2	121.5	100.0%
Percentage change 2010 over 2009				
	Domestic (%)	International (%)	Total (%)	
Public Transportation	1.4%	-2.5%	1.2%	
Auto Transportation	-3.5%	-0.8%	-3.5%	
Lodging	-0.8%	-1.8%	-1.0%	
Foodservice	0.8%	-0.7%	0.6%	
Entertainment & Recreation	1.8%	1.6%	1.7%	
General Retail Trade	-0.9%	-1.8%	-1.2%	
Travel Planning *	0.0%		0.0%	
Total	0.4%	-0.9%	0.2%	

Source: U.S. Travel Association

* Refers to jobs created in travel arrangement firms such as travel agencies, wholesale and retail tour companies, and other travel-related service businesses.

Travel-Generated Employment in Massachusetts, 2006-2010

Table 10: Direct Travel Employment in Massachusetts by Industry Sector, 2006-2010
(Employment in thousands)

	2006	2006	2006	2007	2007	2007	2008	2008	2008	2009	2009	2009	2010	2010	2010
Employment	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Public Trans.	13.8	0.7	14.5	14.2	0.7	14.9	14.0	0.8	14.8	13.1	0.8	13.8	13.2	0.7	14.0
Auto Trans.	4.2	0.1	4.2	4.1	0.1	4.1	4.0	0.1	4.0	3.8	0.1	3.9	3.7	0.1	3.8
Lodging	25.0	4.7	29.8	25.3	5.0	30.3	25.3	5.5	30.9	23.3	5.2	28.4	23.1	5.1	28.2
Foodservice	41.4	4.8	46.1	42.1	5.0	47.1	41.7	5.6	47.3	40.5	5.5	46.0	40.8	5.5	46.3
Entertainment & Rec.	14.3	2.5	16.8	14.4	2.7	17.0	14.4	2.9	17.3	13.9	2.8	16.6	14.1	2.8	16.9
General Retail Trade	5.1	2.5	7.6	5.0	2.7	7.7	4.7	2.9	7.7	4.6	2.9	7.5	4.5	2.9	7.4
Travel Planning	6.7		6.7	6.6		6.6	6.8		6.8	5.3		5.3	5.3		5.3
Total	110.5	15.3	125.8	111.7	16.1	127.8	110.9	17.8	128.8	104.4	17.2	121.5	104.7	17.0	121.7
% Change*	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Public Trans.	-2.0%	1.4%	-1.9%	2.6%	4.4%	2.7%	-1.1%	12.4%	-0.5%	-7.0%	-5.5%	-7.0%	1.4%	-2.5%	1.2%
Auto Trans.	0.5%	7.3%	0.6%	-2.3%	2.6%	-2.2%	-3.0%	9.1%	-2.8%	-2.6%	-1.5%	-2.6%	-3.5%	-0.8%	-3.5%
Lodging	-0.3%	4.1%	0.4%	1.1%	5.1%	1.8%	0.0%	10.9%	1.8%	-8.1%	-6.4%	-7.8%	-0.8%	-1.8%	-1.0%
Foodservice	1.1%	5.7%	1.6%	1.6%	5.9%	2.1%	-0.9%	11.2%	0.4%	-2.8%	-1.8%	-2.7%	0.8%	-0.7%	0.6%
Entertainment & Rec.	1.3%	4.1%	1.7%	0.7%	5.1%	1.4%	0.3%	8.8%	1.6%	-3.9%	-5.0%	-4.1%	1.8%	1.6%	1.7%
General Retail Trade	-1.6%	2.5%	-0.3%	-1.7%	6.8%	1.0%	-5.8%	10.4%	-0.2%	-3.4%	-1.2%	-2.6%	-0.9%	-1.8%	-1.2%
Travel Planning	-2.7%		-2.7%	-1.1%		-1.1%	2.1%		2.1%	-22.4%		-22.4%	0.0%		0.0%
Total	0.0%	4.2%	0.5%	1.1%	5.6%	1.6%	-0.7%	10.6%	0.7%	-5.9%	-3.8%	-5.6%	0.4%	-0.9%	0.2%
% of Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Public Trans.	12.5%	4.4%	11.5%	12.7%	4.4%	11.7%	12.7%	4.5%	11.5%	12.5%	4.4%	11.4%	12.6%	4.3%	11.5%
Auto Trans.	3.8%	0.4%	3.4%	3.6%	0.4%	3.2%	3.6%	0.4%	3.1%	3.7%	0.4%	3.2%	3.5%	0.4%	3.1%
Lodging	22.7%	31.1%	23.7%	22.7%	30.9%	23.7%	22.8%	31.0%	24.0%	22.3%	30.2%	23.4%	22.0%	29.9%	23.1%
Foodservice	37.4%	31.1%	36.7%	37.7%	31.2%	36.8%	37.6%	31.4%	36.7%	38.8%	32.0%	37.8%	39.0%	32.1%	38.0%
Entertainment & Rec.	12.9%	16.6%	13.4%	12.9%	16.5%	13.3%	13.0%	16.2%	13.4%	13.3%	16.0%	13.7%	13.5%	16.5%	13.9%
General Retail Sales	4.6%	16.3%	6.1%	4.5%	16.5%	6.0%	4.3%	16.5%	6.0%	4.4%	16.9%	6.2%	4.3%	16.8%	6.1%
Travel Planning	6.1%		5.3%	5.9%		5.2%	6.1%		5.3%	5.0%	0.0%	4.3%	5.0%	0.0%	4.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100%	100%	100%

Source: U.S. Travel Association

* Compared with previous year and not adjusted by inflation rate.

TRAVEL IMPACT ON MASSACHUSETTS - 2010

Travel-Generated Tax Revenue

Travel tax receipts are the federal, state and local tax revenues attributable to travel spending in Massachusetts. Travel-generated tax revenue is a significant economic benefit, as governments use these funds to support the travel infrastructure and help support a variety of public programs.

In 2010, domestic and international traveler spending in Massachusetts generated nearly \$2.4 billion in tax revenue for federal, state and local governments, up 6.8 percent from 2009. Domestic traveler spending generated \$2.0 billion, while international traveler spending generated \$329.1 million - up 7.2 percent and 4.7 percent, respectively, from 2009.

Of the total \$2.0 billion in tax revenue, the federal government received 57.3 percent or nearly \$1.4 billion, up 4.6 percent from 2009. Each dollar spent by domestic and international travelers in Massachusetts produced 8.7 cents for federal tax coffers.

Domestic and international traveler spending in Massachusetts also generated \$623 million in tax revenue for the state treasury through state sales and excise taxes, and taxes on personal and corporate income during 2010, up 8.5 percent from 2009. This \$623 million comprised 26.4 percent of all travel-generated tax revenue collected in the state. On average, each travel dollar produced 4 cents in state tax receipts.

Local governments in Massachusetts directly benefited from travel as well. Travel taxes collected by local governments increased 12.3 percent to nearly \$384 million in 2010 through various kinds of county or city taxes such as local hotel occupancy tax, sales tax and property tax related to travel, etc. This growth includes the increase of local room tax rate in some counties. Each domestic travel dollar produced 2.5 cents for local tax coffers.

**Travel-Generated Tax Revenue in Massachusetts
in 2010 by Level of Government**

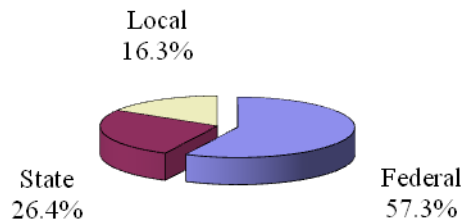


Table 11: Travel-Generated Tax Revenue in Massachusetts by Level of Government, 2009-2010

2010 Tax Revenue	Domestic (\$ Millions)	International (\$ Millions)	Total (\$ Millions)	% of Total
Federal	\$1,148.8	\$201.5	\$1,350.3	57.3%
State	538.9	83.8	622.7	26.4%
Local	339.9	43.8	383.6	16.3%
Total	\$2,027.6	\$329.1	\$2,356.6	100.0%
2009 Tax Revenue				
Federal	\$1,094.6	\$196.0	\$1,290.6	58.5%
State	495.2	78.6	573.8	26.0%
Local	301.8	39.7	341.5	15.5%
Total	\$1,891.7	\$314.3	\$2,206.0	100.0%
Percentage change 2010 over 2009				
	Domestic (%)	International (%)	Total (%)	
Federal	5.0%	2.8%	4.6%	
State	8.8%	6.6%	8.5%	
Local	12.6%	10.3%	12.3%	
Total	7.2%	4.7%	6.8%	

Source: U.S. Travel Association

Travel-Generated Tax Revenue in Massachusetts, 2006-2010

Table 12: Direct Travel Tax Revenue in Massachusetts by Industry Sector, 2006-2010
(Tax Revenues in millions of dollars)

	2006	2006	2006	2007	2007	2007	2008	2008	2008	2009	2009	2009	2010	2010	2010
Tax Revenue	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Federal	1,142.1	168.9	1,311.0	1,199.4	185.8	1,385.2	1,198.7	207.4	1,406.2	1,094.6	196.0	1,290.6	1,148.8	201.5	1,350.3
State	489.9	64.3	554.2	516.9	71.0	588.0	518.5	79.6	598.1	495.2	78.6	573.8	538.9	83.8	622.7
Local	300.4	32.6	333.0	319.1	36.3	355.4	323.5	41.1	364.6	301.8	39.7	341.5	339.9	43.8	383.6
Total	1,932.4	265.8	2,198.1	2,035.4	293.2	2,328.5	2,040.7	328.1	2,368.8	1,891.7	314.3	2,206.0	2,027.6	329.1	2,356.6
% Change*	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Federal	4.7%	10.8%	5.4%	5.0%	10.0%	5.7%	-0.1%	11.6%	1.5%	-8.7%	-5.5%	-8.2%	5.0%	2.8%	4.6%
State	5.1%	11.1%	5.7%	5.5%	10.6%	6.1%	0.3%	12.0%	1.7%	-4.5%	-1.2%	-4.1%	8.8%	6.6%	8.5%
Local	7.1%	13.3%	7.7%	6.2%	11.3%	6.7%	1.4%	13.2%	2.6%	-6.7%	-3.5%	-6.3%	12.6%	10.3%	12.3%
Total	5.2%	11.2%	5.8%	5.3%	10.3%	5.9%	0.3%	11.9%	1.7%	-7.3%	-4.2%	-6.9%	7.2%	4.7%	6.8%
% of Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total	Dom	Int'l	Total
Federal	59.1%	63.6%	59.6%	58.9%	63.4%	59.5%	58.7%	63.2%	59.4%	57.9%	62.4%	58.5%	56.7%	61.2%	57.3%
State	25.4%	24.2%	25.2%	25.4%	24.2%	25.3%	25.4%	24.3%	25.2%	26.2%	25.0%	26.0%	26.6%	25.5%	26.4%
Local	15.5%	12.3%	15.1%	15.7%	12.4%	15.3%	15.9%	12.5%	15.4%	16.0%	12.6%	15.5%	16.8%	13.3%	16.3%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: U.S. Travel Association

* Compared with previous year and not adjusted by inflation rate.

MULTIPLIER IMPACT OF TRAVEL SPENDING IN MASSACHUSETTS

Travelers in Massachusetts produce "secondary" impacts over and above that of their original expenditures previously detailed. These secondary outputs (sales), employment and earnings (wage and salary income) arise from "indirect" and "induced" impacts.

Indirect impacts occur as travel industry business operators, such as restaurateurs, purchase goods, such as food and beverages, and services, such as electricity and building maintenance, from local suppliers. These purchases generate additional output or sales indirectly.

Induced impact occurs as a result of the employees of businesses, and their suppliers, spending part of their earnings in the area. This spending generates sales in addition to the indirect impact.

The sum of the indirect and induced effects comprises the total secondary impact in the state. The ratio of the sum of primary output generated plus secondary output to initial expenditures alone is commonly termed the sales or output "multiplier".

During the secondary impact process, wage and salary income (earnings) is generated in addition to that produced by the initial travel expenditures as the suppliers employ labor to produce the additional output. The "earnings multiplier" is the ratio of the total primary and secondary earnings generated by the initial travel spending to that spending. Just as additional earnings are created, employment is also generated during the secondary impact process. The "employment multiplier" represents the number of jobs provided, directly and indirectly, for each one million dollars of output or expenditures generated.

Table 13 summarizes the direct, indirect and induced, and total impacts of travel spending on the Massachusetts economy from 2006 to 2010. Table 14 shows the comparison of expenditure, earnings, and employment multipliers for the same period.

In 2010, the \$15.5 billion spent directly by domestic and international travelers in Massachusetts generated \$24.7 billion in total output, up 7.9 percent from 2009. The ratio of total output to the initial spending is 1.59, the output multiplier. This indicates that the average travel dollar generated an additional 59 cents in secondary sales.

In addition to nearly \$3.5 billion in payroll income generated by direct travel spending, nearly \$3.2 billion in earnings was produced by secondary impact in 2010. The ratio of total earnings generated to the initial spending is 0.43, the earnings multiplier.

In addition, travel in Massachusetts directly and indirectly supported a total of 197,700 jobs in 2010. The ratio of total employment generated to initial spending is 12.73, the employment multiplier. This means that every one million dollars spent by domestic and international travelers in Massachusetts supported 13 jobs in the state during 2010.

Multiplier Impact of Travel Spending in Massachusetts

Table 13: Multiplier Impact of Traveler Spending in Massachusetts, 2006-2010

Year	Impact Measure	Direct Impact	Indirect & Induced Impact	Total Impact
2010	Expenditures (millions)	\$15,529.9	\$9,215.2	\$24,745.1
	Earnings (millions)	\$3,475.7	\$3,155.0	\$6,630.8
	Employment (thousands)	121.7	76.0	197.7
2009	Expenditures (millions)	\$14,352.6	\$8,572.8	\$22,925.4
	Earnings (millions)	\$3,407.5	\$3,074.6	\$6,482.1
	Employment (thousands)	121.5	77.6	199.1
2008	Expenditures (millions)	\$15,576.8	\$9,106.5	\$24,683.3
	Earnings (millions)	\$3,650.1	\$3,314.3	\$6,964.5
	Employment (thousands)	128.8	83.9	212.7
2007	Expenditures (millions)	\$15,144.6	\$8,959.4	\$24,103.9
	Earnings (millions)	\$3,582.8	\$3,264.5	\$6,847.3
	Employment (thousands)	127.8	83.5	211.4
2006	Expenditures (millions)	\$14,211.3	\$8,376.9	\$22,588.3
	Earnings (millions)	\$3,381.6	\$3,074.3	\$6,456.0
	Employment (thousands)	125.8	82.0	207.9

Sources: U.S. Department of Commerce, Bureau of Economic Analysis, RIMS II; U.S. Travel Association

Table 14: Multipliers of Travel in Massachusetts, 2006-2010

<i>Multipliers</i>	2006	2007	2008	2009	2010
Output Multiplier	1.59	1.59	1.58	1.60	1.59
Earning Multiplier	0.45	0.45	0.45	0.45	0.43
Employment Multiplier	14.6	14.0	13.7	13.9	12.7

Sources: U.S. Department of Commerce, Bureau of Economic Analysis, RIMS II; U.S. Travel Association

DOMESTIC TRAVEL IMPACT ON MASSACHUSETTS COUNTIES - 2010

During 2010, domestic travelers spent nearly \$13.5 billion while traveling in Massachusetts, up 8.5 percent from 2009. These expenditures directly generated nearly \$3.0 billion in payroll income and 104,700 jobs for Massachusetts' residents. Tax revenue generated by this spending amounted to \$538.9 million for the state government and \$339.9.8 million for local governments.

Travel expenditures occurred throughout all fourteen counties in Massachusetts. The top five counties in Massachusetts received nearly \$10.8 billion in direct domestic traveler expenditures and accounted for 79.8 percent of the state total. Additionally, travel directly generated \$2.4 billion in payroll income (80.3 percent) in the top five counties, as well as 83,000 jobs (79.3 percent) in 2010. Domestic traveler expenditures in the top five counties also generated \$399.2 million in tax revenue for the state treasury and \$260.6 million tax revenue for local governments in 2010. The top five counties in Massachusetts contributed 75.1 percent of the total tax revenue for the state treasury and local governments.

Domestic Travel Impact on Top 5 Counties

Suffolk County, which includes the city of Boston, led all counties in direct domestic travel expenditures, payroll income and jobs directly generated by travel in 2010. Direct domestic travel expenditures in Suffolk County totaled \$6.4 billion, accounting for 47.6 percent of the state total, up 10.8 percent from 2009. These expenditures generated over \$1.2 billion in payroll income and 40,300 jobs for the county residents, up 2.6 percent and 1.1 percent, respectively, from 2009.

Middlesex County ranked second with \$2.0 billion in domestic travel spending in 2010, up 7.9 percent from 2009. These expenditures represented a 14.6 percent of the state total. Payroll income and jobs directly attributable to domestic travel spending totaled \$530.3 million and 19,200 jobs.

Norfolk County received \$838.1 million from domestic travelers, 6.2 percent of the state total and up 5.9 percent from 2009. These travel expenditures benefited the county with \$257.6 million in payroll income and 9,000 jobs.

In fourth place, Barnstable County posted \$812.7 million in domestic expenditures, 6.0 percent of the state total. Expenditures generated \$213.6 million in payroll as well as 8,400 jobs within the county.

Essex County ranked fifth with \$690.8 million in domestic travel spending in 2010, an 8.8 percent increase from 2009. Domestic traveler spending in Essex County generated \$162.4 million payroll income and 6,100 jobs during 2010.

Domestic Travel Impact on Massachusetts - Top 5 Counties

Table 15: Domestic Travel Impact in Massachusetts - Top 5 Counties, 2009-2010

2010 Impact

<u>County</u>	<u>Expenditures (\$ Millions)</u>	<u>Payroll (\$ Millions)</u>	<u>Employment (Thousands)</u>	<u>State Tax Receipts (\$ Millions)</u>	<u>Local Tax Receipts (\$ Millions)</u>
Suffolk	\$6,408.0	\$1,238.0	40.3	\$170.7	\$120.4
Middlesex	2,004.0	530.3	19.2	111.1	54.0
Norfolk	838.1	257.6	9.0	45.4	18.6
Barnstable	812.7	213.6	8.4	34.7	49.2
<u>Essex</u>	<u>690.8</u>	<u>162.4</u>	<u>6.1</u>	<u>37.3</u>	<u>18.3</u>
Five County Total	\$10,753.6	\$2,401.9	83.0	\$399.2	\$260.6
State Totals	\$13,475.0	\$2,992.6	104.7	\$538.9	\$339.9
Share of Top 5 Counties	79.8%	80.3%	79.3%	74.1%	76.7%

2009 Impact

Suffolk	5,781.23	1,206.95	39.83	152.68	103.91
Middlesex	1,856.80	520.51	19.21	102.06	47.91
Norfolk	791.57	256.65	9.06	42.51	16.81
Barnstable	\$785.18	\$212.46	8.53	\$33.20	\$45.51
<u>Worcester</u>	<u>647.93</u>	<u>133.81</u>	<u>5.22</u>	<u>34.80</u>	<u>14.01</u>
Five County Total	\$9,862.7	\$2,330.4	81.9	\$365.2	\$228.2
State Total	\$12,419.2	\$2,929.5	104.4	\$495.2	\$301.8
Share of Top 5 Counties	79.4%	79.5%	78.4%	73.8%	75.6%

**Percent Change
2010 over 2009**

Suffolk	10.8%	2.6%	1.1%	11.8%	15.9%
Middlesex	7.9%	1.9%	0.2%	8.9%	12.8%
Norfolk	5.9%	0.4%	-0.4%	6.8%	10.7%
Barnstable	3.5%	0.5%	-1.3%	4.4%	8.2%
<u>Essex</u>	<u>8.8%</u>	<u>3.5%</u>	<u>1.6%</u>	<u>9.7%</u>	<u>13.7%</u>
Five County Total	9.0%	3.1%	1.5%	9.3%	14.2%
State Total	8.5%	2.2%	0.4%	8.8%	12.6%

Source: U.S. Travel Association

COUNTY TABLES

The following tables list the results of the County Economic Impact Component of U.S. Travel Association's Travel Economic Impact Model for Massachusetts in 2009 and 2010 estimates by county. The estimates presented are for direct domestic travel expenditures and related economic impact. Detailed international impact data is not available at the county level.

Table A	Counties listed alphabetically, with 2010 travel expenditures, travel-generated payroll and employment, and state tax revenue and the local tax revenue for each
Table B	Ranks the counties in order of 2010 travel expenditures from highest to lowest
Table C	Percent distribution for each impact measure in 2010
Table D	Percent change in 2010 over 2009 estimates for each of the measures of economic impact.
Table E	Counties listed alphabetically, with 2009 travel expenditures, travel-generated payroll and employment, and state tax revenue and local tax revenue shown for each
Table F	Annual domestic travel expenditures and percentage change over previous year by county from 2006 to 2010
Table G	Domestic travel-generated payroll and percentage change over previous year by county from 2006 to 2010
Table H	Domestic travel-generated employment and percentage change over previous year by county from 2006 to 2010
Table I	Domestic travel-generated tax revenue and percentage change over previous year by county for state government from 2006 to 2010
Table J	Domestic travel-generated tax revenue and percentage change over previous year by county for local government from 2006 to 2010

Table A: Alphabetical by County, 2010

2010 Domestic Travel Impact on Massachusetts					
Table A: Alphabetical by County, Preliminary 2010					
<u>County</u>	<u>Expenditures (\$ Millions)</u>	<u>Payroll (\$ Millions)</u>	<u>Employment (Thousands)</u>	<u>State Tax Receipts (\$ Millions)</u>	<u>Local Tax Receipts (\$ Millions)</u>
Barnstable	\$812.66	\$213.62	8.42	\$34.65	\$49.23
Berkshire	327.25	84.95	3.45	16.56	9.17
Bristol	384.36	82.24	2.94	20.78	7.60
Dukes	112.29	28.45	1.16	4.35	6.65
Essex	690.84	162.44	6.10	37.34	18.29
Franklin	50.73	9.69	0.36	2.91	1.69
Hampden	442.86	97.96	3.14	24.74	8.87
Hampshire	102.42	22.77	0.83	5.61	2.83
Middlesex	2,003.99	530.29	19.25	111.09	54.05
Nantucket	140.46	29.59	0.98	4.13	4.93
Norfolk	838.10	257.59	9.02	45.39	18.60
Plymouth	474.98	95.96	3.58	23.48	22.09
Suffolk	6,408.03	1,237.97	40.26	170.69	120.38
Worcester	686.02	139.08	5.24	37.16	15.50
Statewide	\$13,474.99	\$2,992.62	104.73	\$538.88	\$339.88

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Table B: Ranking of Counties by Expenditure Levels, 2010

2010 Domestic Travel Impact on Massachusetts					
Table B: Ranking of Counties by Expenditure Levels, Preliminary 2010					
<u>County</u>	<u>Expenditures (\$ Millions)</u>	<u>Payroll (\$ Millions)</u>	<u>Employment (Thousands)</u>	<u>State Tax Receipts (\$ Millions)</u>	<u>Local Tax Receipts (\$ Millions)</u>
Suffolk	6,408.03	1,237.97	40.26	170.69	120.38
Middlesex	2,003.99	530.29	19.25	111.09	54.05
Norfolk	838.10	257.59	9.02	45.39	18.60
Barnstable	\$812.66	\$213.62	8.42	\$34.65	\$49.23
Essex	690.84	162.44	6.10	37.34	18.29
Worcester	686.02	139.08	5.24	37.16	15.50
Plymouth	474.98	95.96	3.58	23.48	22.09
Hampden	442.86	97.96	3.14	24.74	8.87
Bristol	384.36	82.24	2.94	20.78	7.60
Berkshire	327.25	84.95	3.45	16.56	9.17
Nantucket	140.46	29.59	0.98	4.13	4.93
Dukes	112.29	28.45	1.16	4.35	6.65
Hampshire	102.42	22.77	0.83	5.61	2.83
Franklin	50.73	9.69	0.36	2.91	1.69
Statewide	\$13,474.99	\$2,992.62	104.7	\$538.88	\$339.88

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Table C: Percent Distribution by County, 2010

2010 Domestic Travel Impact on Massachusetts					
Table C: Percent Distribution by County, Preliminary 2010					
<u>County</u>	<u>Expenditures</u>	<u>Payroll</u>	<u>Employment</u>	<u>State Tax</u>	<u>Local Tax</u>
Barnstable	6.03%	7.14%	8.04%	6.43%	14.49%
Berkshire	2.43%	2.84%	3.30%	3.07%	2.70%
Bristol	2.85%	2.75%	2.81%	3.86%	2.24%
Dukes	0.83%	0.95%	1.10%	0.81%	1.96%
Essex	5.13%	5.43%	5.82%	6.93%	5.38%
Franklin	0.38%	0.32%	0.34%	0.54%	0.50%
Hampden	3.29%	3.27%	3.00%	4.59%	2.61%
Hampshire	0.76%	0.76%	0.79%	1.04%	0.83%
Middlesex	14.87%	17.72%	18.38%	20.62%	15.90%
Nantucket	1.04%	0.99%	0.94%	0.77%	1.45%
Norfolk	6.22%	8.61%	8.61%	8.42%	5.47%
Plymouth	3.52%	3.21%	3.42%	4.36%	6.50%
Suffolk	47.55%	41.37%	38.44%	31.67%	35.42%
Worcester	5.09%	4.65%	5.01%	6.90%	4.56%
Statewide	100.00%	100.00%	100.00%	100.00%	100.00%

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Table D: Percent Change over 2009

2010 Domestic Travel Impact on Massachusetts					
Table D: Percent Change over 2009					
<u>County</u>	<u>Expenditures</u>	<u>Payroll</u>	<u>Employment</u>	<u>State Tax</u>	<u>Local Tax</u>
Barnstable	3.5%	0.5%	-1.3%	4.4%	8.2%
Berkshire	5.9%	0.1%	-1.2%	6.8%	10.7%
Bristol	6.3%	3.5%	1.0%	7.2%	11.1%
Dukes	7.1%	2.4%	1.8%	8.1%	12.0%
Essex	8.8%	3.5%	1.6%	9.7%	13.7%
Franklin	7.3%	1.7%	1.5%	8.3%	12.2%
Hampden	5.6%	5.4%	-0.9%	6.5%	10.3%
Hampshire	6.5%	1.3%	-0.1%	7.4%	11.3%
Middlesex	7.9%	1.9%	0.2%	8.9%	12.8%
Nantucket	2.6%	0.2%	-0.6%	3.5%	7.3%
Norfolk	5.9%	0.4%	-0.4%	6.8%	10.7%
Plymouth	6.4%	0.4%	-0.9%	7.3%	11.2%
Suffolk	10.8%	2.6%	1.1%	11.8%	15.9%
Worcester	5.9%	3.9%	0.4%	6.8%	10.7%
Statewide	8.5%	2.2%	0.4%	8.8%	12.6%

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Table E: Alphabetical by County, 2009

2010 Domestic Travel Impact on Massachusetts					
Table E: Alphabetical by County, 2009					
<u>County</u>	<u>Expenditures (\$ Millions)</u>	<u>Payroll (\$ Millions)</u>	<u>Employment (Thousands)</u>	<u>State Tax Receipts (\$ Millions)</u>	<u>Local Tax Receipts (\$ Millions)</u>
Barnstable	\$785.18	\$212.46	8.53	\$33.20	\$45.51
Berkshire	308.96	84.87	3.49	15.50	8.28
Bristol	361.50	79.45	2.92	19.37	6.84
Dukes	104.81	27.78	1.14	4.02	5.94
Essex	634.88	156.99	6.00	34.03	16.08
Franklin	47.26	9.53	0.35	2.69	1.50
Hampden	419.55	92.93	3.17	23.24	8.04
Hampshire	96.16	22.49	0.83	5.22	2.55
Middlesex	1,856.80	520.51	19.21	102.06	47.91
Nantucket	136.85	29.52	0.99	3.99	4.60
Norfolk	791.57	256.65	9.06	42.51	16.81
Plymouth	446.49	95.55	3.61	21.89	19.86
Suffolk	5,781.23	1,206.95	39.83	152.68	103.91
Worcester	647.93	133.81	5.22	34.80	14.01
Statewide	\$12,419.16	\$2,929.50	104.35	\$495.20	\$301.84

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Table F: Domestic Travel Expenditures by County, 2006-2010

Table F: Domestic Travel Expenditures by County, 2006-2010					
<i>Expenditures (in \$ millions)</i>					
County	2006	2007	2008	2009	2010
Barnstable	\$793.9	\$818.1	\$847.4	\$785.2	\$812.7
Berkshire	319.0	335.8	337.2	309.0	327.3
Bristol	362.1	373.4	384.8	361.5	384.4
Dukes	109.2	112.9	113.2	104.8	112.3
Essex	635.4	660.2	675.7	634.9	690.8
Franklin	46.4	48.3	51.5	47.3	50.7
Hampden	409.8	426.6	436.6	419.5	442.9
Hampshire	96.0	102.4	102.8	96.2	102.4
Middlesex	1,854.2	1,976.7	2,013.3	1,856.8	2,004.0
Nantucket	158.3	164.8	162.4	136.8	140.5
Norfolk	769.8	820.3	828.6	791.6	838.1
Plymouth	444.6	477.8	477.4	446.5	475.0
Suffolk	5,955.3	6,357.2	6,419.8	5,781.2	6,408.0
Worcester	638.1	671.9	688.9	647.9	686.0
State Totals	\$12,592.2	\$13,346.5	\$13,539.5	\$12,419.2	\$13,475.0
<i>Percentage Change Over Previous Year</i>					
County	2006/2005	2007/2006	2008/2007	2009/2008	2010/2009
Barnstable	3.4%	3.0%	3.6%	-7.3%	3.5%
Berkshire	5.3%	5.3%	0.4%	-8.4%	5.9%
Bristol	7.7%	3.1%	3.1%	-6.1%	6.3%
Dukes	5.6%	3.3%	0.3%	-7.4%	7.1%
Essex	4.8%	3.9%	2.4%	-6.0%	8.8%
Franklin	5.5%	4.2%	6.5%	-8.2%	7.3%
Hampden	5.3%	4.1%	2.3%	-3.9%	5.6%
Hampshire	6.1%	6.7%	0.3%	-6.4%	6.5%
Middlesex	8.0%	6.6%	1.8%	-7.8%	7.9%
Nantucket	2.4%	4.1%	-1.5%	-15.7%	2.6%
Norfolk	6.9%	6.6%	1.0%	-4.5%	5.9%
Plymouth	6.4%	7.5%	-0.1%	-6.5%	6.4%
Suffolk	9.5%	6.7%	1.0%	-9.9%	10.8%
Worcester	5.9%	5.3%	2.5%	-6.0%	5.9%
State Totals	7.7%	6.0%	1.4%	-8.3%	8.5%

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Table G: Domestic Travel-Generated Payroll by County, 2006-2010

Table G: Domestic Travel-Generated Payroll by County, 2006-2010					
<i>Payroll (in \$ millions)</i>					
County	2006	2007	2008	2009	2010
Barnstable	\$208.5	\$218.1	\$227.0	\$212.5	\$213.6
Berkshire	85.9	89.7	91.7	84.87	84.95
Bristol	78.2	81.8	83.7	79.45	82.24
Dukes	26.8	28.0	28.2	27.78	28.45
Essex	157.6	161.8	165.4	156.99	162.44
Franklin	8.7	9.0	9.7	9.53	9.69
Hampden	91.1	95.1	95.7	92.93	97.96
Hampshire	22.2	23.9	23.8	22.49	22.77
Middlesex	515.4	542.7	558.6	520.51	530.29
Nantucket	31.5	33.8	32.3	29.52	29.59
Norfolk	253.5	264.0	265.9	256.65	257.59
Plymouth	96.7	101.8	101.1	95.55	95.96
Suffolk	1,266.7	1,349.5	1,326.6	1,206.95	1,237.97
Worcester	133.3	137.8	140.8	133.81	139.08
State Totals	\$2,976.0	\$3,137.0	\$3,150.6	\$2,929.5	\$2,992.6
<i>Percentage Change Over Previous Year</i>					
County	2006/2005	2007/2006	2008/2007	2009/2008	2010/2009
Barnstable	-0.3%	4.6%	4.1%	-6.4%	0.5%
Berkshire	1.4%	4.4%	2.2%	-7.4%	0.1%
Bristol	4.7%	4.6%	2.4%	-5.1%	3.5%
Dukes	1.0%	4.5%	0.9%	-1.6%	2.4%
Essex	1.5%	2.7%	2.2%	-5.1%	3.5%
Franklin	0.6%	4.1%	7.4%	-1.4%	1.7%
Hampden	1.8%	4.4%	0.6%	-2.9%	5.4%
Hampshire	3.1%	7.4%	-0.4%	-5.5%	1.3%
Middlesex	2.7%	5.3%	2.9%	-6.8%	1.9%
Nantucket	-3.3%	7.3%	-4.4%	-8.7%	0.2%
Norfolk	3.8%	4.1%	0.8%	-3.5%	0.4%
Plymouth	4.0%	5.4%	-0.7%	-5.5%	0.4%
Suffolk	4.6%	6.5%	-1.7%	-9.0%	2.6%
Worcester	1.7%	3.4%	2.2%	-5.0%	3.9%
State Totals	3.2%	5.4%	0.4%	-7.0%	2.2%

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Table H: Domestic Travel-Generated Employment by County, 2006-2010

Table H: Domestic Travel-Generated Employment by County (in thousands), 2006-2010*Employment (in thousands)*

County	2006	2007	2008	2009	2010
Barnstable	8.9	8.9	9.0	8.5	8.4
Berkshire	3.7	3.7	3.7	3.5	3.5
Bristol	3.1	3.1	3.0	2.9	2.9
Dukes	1.1	1.1	1.1	1.1	1.2
Essex	6.3	6.3	6.3	6.0	6.1
Franklin	0.4	0.4	0.4	0.4	0.4
Hampden	3.3	3.3	3.2	3.2	3.1
Hampshire	0.9	0.9	0.9	0.8	0.8
Middlesex	20.2	20.4	20.4	19.2	19.2
Nantucket	1.1	1.1	1.1	1.0	1.0
Norfolk	9.4	9.4	9.3	9.1	9.0
Plymouth	3.8	3.8	3.8	3.6	3.6
Suffolk	42.9	43.7	43.3	39.8	40.3
Worcester	5.5	5.5	5.4	5.2	5.2
State Totals	110.5	111.7	110.9	104.4	104.7

Percentage Change Over Previous Year

County	2006/2005	2007/2006	2008/2007	2009/2008	2010/2009
Barnstable	-2.7%	0.5%	0.9%	-5.4%	-1.3%
Berkshire	-1.9%	0.1%	-0.1%	-6.4%	-1.2%
Bristol	0.6%	0.2%	-0.7%	-4.1%	1.0%
Dukes	-0.4%	-0.3%	-0.7%	0.2%	1.8%
Essex	-1.7%	-0.8%	-0.3%	-4.0%	1.6%
Franklin	-2.8%	0.5%	1.9%	-6.2%	1.5%
Hampden	-2.0%	0.3%	-1.8%	-1.9%	-0.9%
Hampshire	-0.7%	3.0%	-3.2%	-4.4%	-0.1%
Middlesex	1.1%	1.3%	-0.3%	-5.8%	0.2%
Nantucket	-4.8%	1.2%	-4.5%	-7.0%	-0.6%
Norfolk	-0.1%	0.1%	-1.5%	-2.4%	-0.4%
Plymouth	0.3%	1.2%	-1.1%	-4.5%	-0.9%
Suffolk	1.1%	2.0%	-0.9%	-8.0%	1.1%
Worcester	-1.8%	-0.6%	-1.0%	-4.0%	0.4%
State Totals	0.0%	1.1%	-0.7%	-5.9%	0.4%

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Table I: Domestic Travel-Generated Tax Revenue for MA State Government by County, 2006-2010

Table I: Domestic Travel-Generated Tax Revenue for MA State Government by County , 2006-2010					
<i>Tax Revenue for State Government (in \$ millions)</i>					
County	2006	2007	2008	2009	2010
Barnstable	\$33.0	\$33.9	\$34.6	\$33.2	\$34.7
Berkshire	15.7	16.5	16.4	\$15.5	\$16.6
Bristol	19.1	19.6	19.9	\$19.4	\$20.8
Dukes	4.1	4.2	4.2	\$4.0	\$4.3
Essex	33.4	34.6	35.0	\$34.0	\$37.3
Franklin	2.6	2.7	2.8	\$2.7	\$2.9
Hampden	22.3	23.1	23.4	\$23.2	\$24.7
Hampshire	5.1	5.4	5.4	\$5.2	\$5.6
Middlesex	100.1	106.4	107.0	\$102.1	\$111.1
Nantucket	4.5	4.7	4.6	\$4.0	\$4.1
Norfolk	40.6	43.1	43.0	\$42.5	\$45.4
Plymouth	21.4	22.9	22.6	\$21.9	\$23.5
Suffolk	154.4	164.4	163.9	\$152.7	\$170.7
Worcester	33.6	35.3	35.8	\$34.8	\$37.2
State Totals	\$489.9	\$516.9	\$518.5	\$495.2	\$538.9
<i>Percentage Change Over Previous Year</i>					
County	2006/2005	2007/2006	2008/2007	2009/2008	2010/2009
Barnstable	1.2%	2.7%	2.3%	-4.1%	4.4%
Berkshire	3.2%	5.0%	-0.9%	-5.2%	6.8%
Bristol	5.5%	2.8%	1.7%	-2.8%	7.2%
Dukes	3.4%	3.0%	-1.0%	-4.2%	8.1%
Essex	2.6%	3.6%	1.1%	-2.8%	9.7%
Franklin	3.3%	3.9%	5.1%	-5.0%	8.3%
Hampden	3.1%	3.8%	1.0%	-0.6%	6.5%
Hampshire	3.9%	6.4%	-1.0%	-3.2%	7.4%
Middlesex	5.8%	6.3%	0.6%	-4.6%	8.9%
Nantucket	0.3%	3.8%	-2.8%	-12.8%	3.5%
Norfolk	4.7%	6.3%	-0.3%	-1.2%	6.8%
Plymouth	4.2%	7.2%	-1.4%	-3.2%	7.3%
Suffolk	7.2%	6.4%	-0.3%	-6.8%	11.8%
Worcester	3.7%	5.0%	1.2%	-2.7%	6.8%
State Totals	5.1%	5.5%	0.3%	-4.5%	8.8%

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Table J: Domestic Travel-Generated Tax Revenue for Local Governments in Massachusetts by County, 2006-2010

Table J: Domestic Travel-Generated Tax Revenue for Local Governments in Massachusetts by County (in \$ millions), 2006-2010					
<i>Tax Revenue for Local Governments (in \$ millions)</i>					
County	2006	2007	2008	2009	2010
Barnstable	\$45.2	\$46.8	\$48.4	\$45.5	\$49.2
Berkshire	8.4	8.9	8.9	\$8.3	\$9.2
Bristol	6.7	7.0	7.2	\$6.8	\$7.6
Dukes	6.1	6.3	6.3	\$5.9	\$6.6
Essex	15.8	16.5	16.9	\$16.1	\$18.3
Franklin	1.4	1.5	1.6	\$1.5	\$1.7
Hampden	7.7	8.1	8.2	\$8.0	\$8.9
Hampshire	2.5	2.7	2.7	\$2.5	\$2.8
Middlesex	47.0	50.4	51.2	\$47.9	\$54.0
Nantucket	5.2	5.5	5.4	\$4.6	\$4.9
Norfolk	16.1	17.2	17.3	\$16.8	\$18.6
Plymouth	19.4	21.0	20.9	\$19.9	\$22.1
Suffolk	105.2	112.9	113.7	\$103.9	\$120.4
Worcester	13.6	14.3	14.7	\$14.0	\$15.5
State Totals	\$300.4	\$319.1	\$323.5	\$301.8	\$339.9
<i>Percentage Change Over Previous Year</i>					
County	2006/2005	2007/2006	2008/2007	2009/2008	2010/2009
Barnstable	3.5%	3.6%	3.4%	-6.0%	8.2%
Berkshire	5.4%	5.8%	0.2%	-7.0%	10.7%
Bristol	7.8%	3.6%	2.8%	-4.7%	11.1%
Dukes	5.7%	3.9%	0.1%	-6.0%	12.0%
Essex	4.9%	4.4%	2.1%	-4.7%	13.7%
Franklin	5.6%	4.7%	6.3%	-6.8%	12.2%
Hampden	5.4%	4.6%	2.1%	-2.5%	10.3%
Hampshire	6.2%	7.2%	0.1%	-5.1%	11.3%
Middlesex	8.2%	7.2%	1.6%	-6.4%	12.8%
Nantucket	2.5%	4.7%	-1.7%	-14.5%	7.3%
Norfolk	7.0%	7.1%	0.8%	-3.1%	10.7%
Plymouth	6.5%	8.0%	-0.3%	-5.1%	11.2%
Suffolk	9.6%	7.3%	0.8%	-8.6%	15.9%
Worcester	6.0%	5.8%	2.3%	-4.6%	10.7%
State Totals	7.1%	6.2%	1.4%	-6.7%	12.6%

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APPENDICES

Appendix A: Travel Economic Impact Model

Introduction

The Travel Economic Impact Model (TEIM) was developed by the research department at U.S. Travel Association to provide annual estimates of the impact of the travel activity of U.S. residents on national, state and county economies in this country. It is a disaggregated model comprised of a variety of travel categories (described in Appendix B: Glossary of Terms). The TEIM estimates travel expenditures and the resulting business receipts, employment, personal income, and tax receipts generated by these expenditures.

The TEIM has the capability of estimating the economic impact of various types of travel, such as business and vacation, by transport mode and type of accommodations used, and other trip and traveler characteristics. The County Impact Component of the TEIM allows estimates of the economic impact of travel at the county and city level.

Definition of Terms

There is no commonly accepted definition of travel in use at this time. For the purposes of the estimates herein, *travel* is defined as activities associated with all overnight and day trips to places 50 miles away or more, one way, from the traveler's origin and any overnight trips away from home in paid accommodations.

The word *tourism* is avoided in this report because of its vague meaning. Some define tourism as all travel away from home while others use the dictionary definition that limits tourism to personal or pleasure travel.

The *travel industry*, as used herein, refers to the collection of 18 types of businesses that provide goods and services to the traveler or potential traveler at the retail level (see Glossary of Terms). With the exception of Amtrak and second home ownership and rental, these business types are defined by the Office of Management and Budget in the 1997 North American Industry Classification System (NAICS) and well as in its predecessor, the 1987 Standard Industrial Classification System (SIC). In each case, the relevant NAICS and SIC codes are included.

Travel *expenditure* is assumed to take place whenever traveler exchanges money for an activity considered part of his/her trip. Total travel expenditures are separated into related categories representing traveler purchases of goods and services at the retail level. One category, travel agents, receives no travel expenditures as these purchases are allocated to the category (i.e. air transportation) actually providing the final good or service to the traveler. Travel expenditures are allocated among states by simulating where the exchange of money for goods or service actually took place. By their nature, some travel expenditures are assumed to occur at the traveler's origin, some at his/her destination, and some enroute.

Economic impact is represented by measures of spending, employment, payroll, business receipts and tax revenues generated by traveler spending. *Payroll* includes all forms of compensation, such as salaries, wages, commissions, bonuses, vacation allowances, sick leave pay and the value of payments in kind paid during the year to all employees. Payroll is reported before deductions for social security, income tax insurance, union dues, etc. This definition follows that used by the U.S. Census Bureau in the quinquennial Census of Service Industries.

Employment represents the number of jobs generated by traveler spending, both full and part-time. As such, it is consistent with the U.S. Department of Labor series on nonagricultural payroll employment. *Tax revenues* include corporate income, individual income, sales and gross receipts, and excise taxes by level of government. *Business receipts* reflect travel expenditures less the sales and excise taxes imposed on those expenditures.

Description of the Model

Estimates of Travel Expenditures

Total travel expenditures includes spending by travelers on goods and services during their trips, such as lodging, transportation, meals, entertainment, retail shopping. The TEIM covers 18 categories of activities. Generally, the TEIM combines the activity levels for trips to places within the United States with the appropriate average costs of each unit of travel activity, (e.g., cost per mile by mode of transport, cost per night by type of accommodation), to produce estimates of the total amount spent on each of 18 categories of travel related goods and services by state. For example, the number of nights spent by travel parties in hotels in Massachusetts is multiplied by the average cost per night per travel party of staying in a hotel in the state to obtain the estimate of traveler expenditures for hotel accommodations. The estimates derived through the cost factor method are also validated through three additional methods: Household travel spending ratio method: the ratio of out of town spending to total household spending; Trip expenditure ratio method: the ratio of each travel spending category in a trip to that trip's total expenditures; and economic and business statistics validations.

The data on domestic travel activity levels (e.g., number of miles traveled by mode of transportation, the number of nights spent away from home by type of accommodation) are based on national travel surveys conducted by U.S. Travel Association, The Bureau of Labor Statistics' Survey of Consumer Expenditures, Smith Travel Research's Hotel and Motel Survey, etc. Average cost data are purchased and collected from various organizations and government agencies. Total sales, revenue and other data collected from state, local and federal governments and other organizations are employed to compare, adjust and update the spending database of TEIM, as well as linking spending to other impact components.

The international travel expenditure estimates are based on Tourism Industries' (OTTI) Survey of International Air Travelers and data provided to OTTI from Canada and Mexico. Other estimates of the economic impact of international visitors to the U.S. are generated by TEIM by incorporating the estimated international traveler expenditures with the data series utilized to produce the domestic estimates.

Estimates of Business Receipts, Payroll and Employment

The Economic Impact Component of the TEIM estimates travel generated business receipts, employment, and payroll. Basically, the 18 travel categories are associated with a type of travel-related business. For example, traveler spending on commercial lodging in a state is related to the business receipts, employment and payroll of hotels, motels and motor hotels (SIC 701; NAICS 7211) in the state. It is assumed that travel spending in each category, less sales and excise taxes, equals business receipts for the related business type as defined by the U.S. Census Bureau.

It is assumed that each job in a specific type of business in a state is supported by some amount of business receipts and that each dollar of wages and salaries is similarly supported by some dollar volume of business receipts. The ratios of employment to business receipts are computed for each industry in

each state. These ratios are then multiplied by the total amount of business receipts generated by traveler spending in a particular type of business to obtain the measures of travel generated employment and payroll of each type of business in each state. For example, the ratio of employees to business receipts in state commercial lodging establishments is multiplied by travel generated business receipts of these establishments to obtain traveler generated employment in commercial lodging. A similar process is used for the payroll estimates. The total sales, payroll and employment data of each travel related industry (by SIC and NAICS) are provided by and collected from state, local and federal governments, such as the Bureau of Labor Statistics, the Bureau of Economic Analysis, Census Bureau and The Bureau of Transportation Statistics.

Estimates of Tax Revenues

The Fiscal Impact Component of the TEIM is used to estimate traveler generated tax revenues of federal, state and local governments. The yield of each type of tax is related to the best measure of the relevant tax base available for each state consistent with the output of the Economic Impact Component. The ratios of yield to base for each type of tax in each state are then applied to the appropriate primary level output to obtain estimates of tax receipts generated by travel. For example, the ratio of Massachusetts State personal income tax collections to payroll in the state is applied to total travel generated payroll to obtain the estimate of state personal income tax receipts attributable to traveler spending in Massachusetts.

Estimates for Counties and Local Areas

Local area travel impact estimates are derived by distributing the state estimates to the area using proper proportions of each related category in the area. The proportions of a local area are calculated based on a set of data collected from federal, state and local governments and private organizations. The data can be gathered at the zip-code level. Consumer survey data is not used in local impact estimates due to the issue of small sample size.

The data used to estimate the local area shares includes sales, employment, payroll and taxes for all travel-related industry categories. Local data provided by states such as sales/tax receipts, employment and wages, attraction attendances, etc. are critical inputs. County and local sales, establishments, employment and payroll data derived from Economic Census, County Business Patterns and the Quarterly Census of Employment and Wages (QCEW) are also used in the model.

Limitations of the Study

This study is designed to indicate the impact of U.S. traveler expenditures on employment, payroll, business receipts and tax revenue in each of the states. These impact estimates reflect the limitations inherent in the definition of travel expenditures. Two important classes of travel-related expenses have not been estimated due to various reasons. Consumers purchase certain goods and services in anticipation of a trip away from home. These include sports equipment (tennis racquet, skis, scuba gear, etc.), travel books and guides, and services such as language lessons and lessons for participatory sports (tennis, skiing, underwater diving, etc.). The magnitude of these purchases in preparation for a trip cannot be quantified due to lack of sound, relevant data.

The second type of spending not covered due to lack of sufficient data is the purchase of major consumer durables generally related to outdoor recreation on trips. Further research is required in this area to determine to what extent pre-trip spending on consumer durable products can justifiably be included within a travel economic impact study.

Brief Illustrations of TEIM Formula

Estimates of Travel Expenditure

- Travel spending in category i = level of the travel activity i * per unit cost of the activity i
Example: Spending on hotel rooms = nights stayed in hotel * average hotel room rate
- Total Travel Spending = \sum Travel Spending in category i , $i=1,2,3,\dots,18$

Estimates of Business Receipts, Payroll and Employment

For Category i

- Travel business receipts = estimated travel spending – (sales and excise taxes)
- Travel-generated payroll
= Total payroll of the industry / total sales of the industry * travel business receipts
- Travel-generated employment
= Total employment of the industry / total payroll of the industry * travel-generated payroll
- Total business receipts, payroll and employment are equal to the sum of all categories of each measurement respectively.

Estimates of Tax Revenues

The types of tax revenue included in the estimations:

- Retail sales and excise taxes
For each travel related industry:
Sales tax or excise tax revenue =
(tax rate (federal, state and local)) * estimated travel spending of the category
- Individual income tax
For each travel related industry:
Travel-generated personal income tax revenue =
(total state PI tax collection / total state PI) * estimated travel-generated personal income
- Corporate income tax and property tax are estimated in the same way.
- Total tax receipts for the federal, state and local government are equal to the sum of all kinds of taxes of all industries.

Estimates of Travel Economic Impact of counties (CTEIM)

- County share = measurement of the county / sum of all counties for the same measurement.
- Travel Impact on the county = county share * the state total (estimated by TEIM).

Appendix B: Glossary of Terms – TEIM

Automobile Transportation Expenditure. This category includes a prorated share of the fixed costs of owning an automobile, truck, camper, or other recreational vehicles, such as insurance, license fees, tax, and depreciation costs. Also included are the variable costs of operating an automobile, truck, camper, or other recreational vehicles on a trip, such as gasoline, oil, tires, and repairs. The costs of renting an automobile or other motor vehicle are included in this category as well.

Entertainment/Recreation Expenditure. Traveler spending on recreation facility user fees, admissions at amusement parks and attractions, attendance at nightclubs, movies, legitimate shows, sports events, and other forms of entertainment and recreation while traveling.

Food Expenditure. Traveler spending in commercial eating facilities and grocery stores or carry-outs, as well as on food purchased for off-premise consumption.

Incidental Purchase Expenditure. Traveler spending on retail trade purchases including gifts for others, medicine, cosmetics, clothing, personal services, souvenirs, and other items of this nature.

Lodging Expenditure. Traveler spending on hotels and motels, B&Bs, campgrounds and trailer parks, rental of vacation homes and other types of lodging.

Public Transportation Expenditures. This includes traveler spending on air, bus, rail and boat/ship transportation, and taxicab or limousine service between airports and central cities.

Travel-generated Tax Receipts. Those federal, state and local tax revenues attributable to travel in a defined area. For a given state locality, all or some of the taxes may apply. "Local" includes county, city or municipality, and township units of government actually collecting the receipts and not the level that may end up receiving it through intergovernmental transfers.

Federal. These receipts include corporate income taxes, individual income taxes, employment taxes, gasoline excise taxes, and airline ticket taxes.

State. These receipts include corporate income taxes, individual income taxes, sales and gross receipts taxes, and excise taxes.

Local. These include county and city receipts from individual and corporate income taxes, sales, excise and gross receipts taxes, and property taxes.

Appendix C: Travel Related Industry by NAICS

Travel industry categories: With the transition to NAICS, the U.S. Travel Association has adjusted its selection of the travel-related business types using the new NAICS codes and brought its travel economic research into conformity with NAICS. For measurement purposes, U.S. Travel Association's Travel Economic Impact Model tracks business activity in seven (7) major travel-related industry groups. The industry groups and subcategories used in the model are outlined below, followed by a detailed table of NAICS Codes. The share of travel in each of listed industries will depend on travel spending estimates for the related categories and are different from industries and areas.

Automobile Transportation: Gasoline service stations, passenger car rental, motor vehicle/parts dealers, automotive repairs and maintenance.

Entertainment/Recreation industry: Entertainment, art and recreation industry.

Foodservice industry: Eating & drinking places, and grocery stores.

Retail Trade industry: General merchandise group stores and miscellaneous retail stores, including gift and souvenir shops, and other retail stores.

Lodging industry: This industry includes hotels, motels, and motor hotels, camps and trailer parks.

Public Transportation industry: Air transportation, taxicab companies, interurban & rural bus transportation, railroad passenger transportation (Amtrak) and water passenger transportation. Also is the "dummy" industry of "other transportation."

Travel Arrangement industry: This includes travel agencies, tour operators, and other travel arrangement & reservation services.

TRAVEL RELATED INDUSTRY BY NAICS

Accommodations

7211 Traveler Accommodations
7212 Recreational Vehicle Parks & Campgrounds

Auto Transportation

532111 Passenger Car Rental
447 Gasoline Stations
4411 Automobile Dealers
4412 Other Motor Vehicle Dealers
4413 Automotive Parts, Accessories and Tire Stores
8111 Automotive Repair and Maintenance

Entertainment and Recreation

711 Performing Arts, Spectator Sports & Related Industries
712 Museums, Historical Sites & Similar Institutions
713 Amusement, Gambling & Recreation

Food

7221 Full service Restaurants
7222 Limited Service Eating Places
7224 Drinking Places
445 Food and Beverage stores

Public Transportation

481 Passenger Air Transportation
4881 Airport Support Activities
4821 Rail Transportation
4852 Interurban and Rural Bus Transportation
4853 Taxi & Limousine Services
485510 Charter Bus
483112 Deep Sea Passenger Transportation
483114 Coastal and Great Lakes Passenger Transportation
483212 Inland Water Passenger Transportation
487 Scenic & Sightseeing Transportation

Retail

451 Sporting Goods, Hobby, Book, and Music Stores
452 General Merchandise Stores
453 Miscellaneous Store Retailers
443 Electronics and Appliance Stores
444 Building Material and Garden Equipment and Supplies Dealers
446 Health and Personal Care Stores
448 Clothing and Clothing Accessories Stores

Travel Arrangement

5615 Travel Arrangement & Reservation Services (includes travel agencies and tour operators)

Appendix D: Sources of Data

This appendix presents the sources of data used in this report.

Organizations

Air Transport Association
American Automobile Association
Amtrak
American Society of Travel Agents
Bureau of Census, U.S. Department of Commerce
Bureau of Economic Analysis, U.S. Department of Commerce
Bureau of Labor Statistics, U.S. Department of Labor
Bureau of Transportation Statistics, U.S. Department of Commerce
Federal Aviation Administration, U.S. Department of Transportation
Federal Highway Administration, U.S. Department of Transportation
National Park Service
Massachusetts Office of Travel and Tourism
Massachusetts Department of Revenue
Smith Travel Research
OTTI/International Trade Administration, U.S. Department of Commerce
U.S. Travel Association

Appendix E: RIMS II

REGIONAL INPUT-OUTPUT MODELING SYSTEM

A BRIEF DESCRIPTION

Regional Economic Analysis Division
Bureau of Economic Analysis
U.S. Department of Commerce
Washington, D.C. 20230
(202) 523-0594

RIMS II

Many types of public sector and private sector decisions require an evaluation of probable regional effects. For example, Federal requirements for environmental impact statements and the urban impact of Federal policies necessitate regional impact analyses. A growing concern, therefore, about the effects of public and private decisions has created a demand for regional economic models.

As a result of this demand, economic impact models have been developed for many States and regions. These models vary considerably in terms of structure, reliability, sectoral and geographical detail, flexibility in application, and cost of development and use. In general, the models that provide the most reliable and industrially-detailed secondary impact estimates are the most expensive to construct, while the less costly models that can be used in numerous small-area studies often provide less accurate estimates.

In response to the growing need for improved techniques for regional impact analysis, the Regional Economic Analysis Division of the Bureau of Economic Analysis (BEA) developed the Regional Industrial Multiplier System (RIMS) in the mid-1970's. RIMS was designed to estimate input-output type multipliers for use in estimating the secondary regional impacts of public and private economic development policies. RIMS was capable of estimating multipliers for any region composed of one or more contiguous counties and for any of the 478 industrial sectors in the 1967 BEA national input-output (I-O) table. A significant improvement over the more summary measures often used in regional impact analysis, RIMS was capable of providing reliable multiplier estimates without the high cost of gathering survey data.

The Regional Input-Output Modeling System (RIMS II) is a major revision of RIMS. The basic differences between RIMS II and RIMS are the use of more recent national I-O tables (1987), the use of more detailed and more current data for regionalizing the national I-O tables, and greater flexibility in the derivation of regional impact estimates through the use of a matrix inversion technique that provides industrially-disaggregated impacts. RIMS II developmental research is focused currently on estimating regional transaction tables, and comparing RIMS II estimates of state-specific imports and exports with survey-based estimates from the Census Bureau's Commodity Transportation Survey. RIMS II is also being adapted to analyze the regional and industrial impacts of defense procurement.

RIMS II METHODOLOGY

In order to estimate impacts such as those presented above, RIMS II uses the BEA national I-O tables that show the input and output structure of 500 industries. Since firms in all national industries are not found in each region, some direct requirements that are not produced in a study region are identified, using Bureau of Economic Analysis (BEA) 4-digit Standard Industrial Classification (SIC) county earnings data. The earnings data are used as proxies for the industry-specific input and output data which are seldom available at the small-area level. Using the same earning data, the resulting regional I-O table then can be aggregated to the level of industrial detail appropriate for the impact study. More specifically, the RIMS II approach can be viewed as three-step process. In the first step, the national I-O matrix is made region-specific by using corresponding 4-digit SIC location quotients (LQ's). The LQ's are used to estimate the extent to which requirements are supplied by firms within the region. For this purpose, RIMS II employs LQ's based on two types of data. According to this mixed- LQ Approach, BEA county personal income data, by place of residence, are used for the calculation of LQ's in the service sectors, while BEA earnings data, by place of work, are used for the LQ's in the nonservice sectors.

The second step involves estimations of the household row and the household column of the matrix. The household-row coefficients are estimated based on value-added gross-output ratios from the national I-O table and introduced into each industry's coefficient column. A household column is constructed, based on national consumption and savings rate data and national and regional tax rate data.

The last step in the RIMS II estimating procedure is to calculate the multipliers. Since it is most often necessary to trace the impact of changes in final demand on numerous individual directly-and indirectly-affected industries, RIMS II applications employ the Leontief inversion approach for obtaining multipliers. This inversion process produces output and earnings multipliers for all additionally affected industries.

ACCURACY OF RIMS II

Empirical test of the accuracy of RIMS II multipliers indicates that RIMS II yields estimates that are not substantially different from those generated by regional I-O models based on the costly gathering of survey data. For example, a comparison of 224 industry-specific multipliers from survey based tables for Illinois, Washington, and West Virginia indicate that the RIMS II average multipliers overestimate the average multipliers from the survey based tables by approximately 5 percent, and, for the majority of individual industry-specific multipliers is less than 10 percent. In addition, RIMS II and survey multipliers show a statistically-similar distribution of affected industries.

ADVANTAGES OF RIMS II

There are numerous advantages to RIMS II. First, it is possible to provide estimates of economic impact without building a complete survey I-O model for each region under study, since RIMS II produces multipliers that are derived from secondary data sources. Second, the RIMS II multipliers are derived from a limited number of secondary data sources, thus eliminating the costs associated with the compilation of data from a wide variety of these sources. Third, because of the disaggregated sectoring plan employed by RIMS II, analysis may be performed at a detailed industrial level, thereby avoiding aggregation errors that often occur when different industries are combined. Fourth, the RIMS II multipliers are based on a consistent set of procedures across areas, thus making comparisons among areas more meaningful than would be the case if the results were obtained from incompatible impact models designed only for an individual area. Fifth, the multipliers can be updated to reflect the most recent local area earning and personal income data.

The industrial output and personal earnings impacts estimated by RIMS II can be crucial for estimating effects not directly specified by RIMS II itself. For example, the estimation of regional, fiscal, labor migration and environmental effects often depends on the estimation of the regional output and earnings impact of the initial stimulus. Since many of these important effects are often best analyzed on a case-by-case basis, one of the major advantages of using RIMS II is that valuable research resources can be spent on the analysis of these effects, rather than on the construction of an impact model. Therefore, when using RIMS II, a cost-effective impact study might devote most of its research budget to specifying initial impacts in industry specific detail, and analyzing the implications for other important aspects of regional economic activity of the RIMS II estimates impacts.

This overview briefly describes RIMS II multiplier, the multiplier-estimation procedures, and some of the advantages and uses for RIMS II. For additional information, see *Regional Multipliers, A User Handbook for the Regional Input-Output Modeling System (RIMS II)*, third edition. This handbook is produced by the U.S. Department of Commerce and available from the U.S. Government Printing Office.