



## **The 2001 Economic Impact of Connecticut's Travel and Tourism Industry**

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## Executive Summary

### In 2001:

- ***\$9.89 billion in travel & tourist spending in Connecticut that through multiplier effects:***
- ***generated \$9.46 billion in new GSP (6% of state total);***
- ***generated \$10.3 billion in new personal income (7% of state total);***
- ***generated 146,178 new jobs in CT (8.6% of state total);***
- ***generated \$1.4 billion in new state revenue (11% of state total);***
- ***generated \$951 million in new local revenue (14% of state total);***  
***and***
- ***employed more workers than Manufacturing and FIRE.***
- ***Connecticut's Travel & Tourism industry employment grew faster than its Manufacturing and FIRE employment over past 10 years***

The Connecticut Center for Economic Analysis (CCEA) at the University of Connecticut, in cooperation with the Connecticut Tourism Council and the Connecticut Office of Tourism, Department of Economic and Community Development, is pleased to present the second study of the economic impact of the travel and tourism industry on the Connecticut economy. This study expands the scope of establishments surveyed and includes results from a tourist and traveler intercept study that sets this work apart from earlier studies of Connecticut travel and tourism. In addition to all lodging establishments, and campgrounds, CCEA contacted all Connecticut marinas and boatyards to gain an understanding of the services they provide and the sales they generate. The intercept survey conducted by Witan Intelligence, Inc., surveyed tourists at Connecticut attractions, highway welcome centers and disbursed sites in the summer and fall of 2001 and winter and spring of 2002. These hard data and those from the Travel Industry Association of America, TravelScope, the Connecticut Vacation Guide survey, and Connecticut's Department of Revenue Services (DRS), as well as insights from several travel and tourism

studies, provide richer sources for this year’s work. The literature review describes some of the significant work done in other states and countries.

The extensive data collected and processed through several methodologies provides travel and tourism expenditures by type of visitor, by category of expenditure and by Connecticut county and tourism district. These expenditures represent lodging sales, transportation-related sales, retail sales, restaurant sales, and amusement and recreation sales. In turn, these sales drive the economic impact of travel and tourism in Connecticut via their flow through the economy as they in turn purchase labor (pay wages and salaries), purchase intermediate goods and services (e.g., raw food products, accounting services), pay rent and taxes, and pay the cost of goods sold (retail goods). Subsequent rounds of spending by people receiving direct and indirect wages and salaries generate a multiplier for the original sales. The sum of these multiplied changes (tourism-related sales) across all sectors of the Connecticut economy represents the impact of the travel and tourism industry.

Table I.2 below from the main report body shows traveler and tourist spending in each district by visitor accommodation (day trippers includes those passing through).

Tourism District	HMR	Campground	Friends & Relatives	Day Trippers	Marinas	Total	Percent
Central Connecticut	\$97.5	\$0.0	\$47.3	\$111.1	\$0.7	\$256.6	2.6%
Coastal Fairfield	\$392.8	\$0.7	\$73.9	\$188.6	\$87.8	\$743.8	7.5%
Connecticut River Valley	\$244.9	\$14.8	\$179.2	\$789.1	\$79.9	\$1,307.9	13.2%
Greater Hartford	\$424.3	\$14.3	\$209.6	\$462.3	\$2.8	\$1,113.3	11.3%
Greater New Haven	\$269.2	\$1.3	\$240.0	\$789.7	\$37.7	\$1,337.9	13.5%
Housatonic Valley	\$86.0	\$0.5	\$16.5	\$42.2	\$19.1	\$164.3	1.7%
Litchfield Hills	\$91.1	\$20.1	\$60.0	\$161.3	\$1.9	\$334.4	3.4%
North Central	\$118.3	\$3.8	\$58.4	\$129.3	\$0.8	\$310.6	3.1%
Northeast Connecticut	\$94.2	\$63.9	\$39.0	\$161.1	\$4.3	\$362.5	3.7%
Southeastern Connecticut	\$829.8	\$66.0	\$671.9	\$1,728.5	\$101.9	\$3,398.0	34.3%
Waterbury Region	\$104.1	\$3.8	\$103.3	\$339.4	\$12.4	\$563.1	5.7%
<b>State Total</b>	<b>\$2,752.2</b>	<b>\$189.0</b>	<b>\$1,699.3</b>	<b>\$4,902.6</b>	<b>\$349.3</b>	<b>\$9,892.4</b>	<b>100%</b>

Table I.3 below from the main report body shows the distribution of traveler and tourist spending in eight categories by type of accommodation.

<b>Expenditure Category</b>	<b>HMR</b>	<b>Campground</b>	<b>Friends &amp; Relatives</b>	<b>Day Trippers</b>	<b>Marinas</b>	<b>Total</b>	<b>Percent</b>
Recreation	\$371.7	\$18.7	\$402.7	\$1,103.2	\$0.0	\$1,896.3	19%
Meals	\$450.8	\$33.7	\$306.5	\$846.8	\$15.0	\$1,652.9	17%
Shopping	\$271.3	\$14.4	\$407.6	\$1,090.5	\$19.5	\$1,803.3	18%
Fuel	\$101.1	\$5.4	\$92.6	\$435.0	\$0.0	\$634.1	6%
Other Auto	\$184.8	\$1.8	\$59.0	\$63.8	\$0.0	\$309.5	3%
Local Transportation	\$73.7	\$1.0	\$21.4	\$72.7	\$6.4	\$175.3	2%
Lodging	\$737.6	\$33.2	\$221.8	\$0.0	\$0.5	\$993.1	10%
Wagers	\$561.1	\$80.7	\$187.7	\$1,290.5	\$0.0	\$2,120.0	21%
Marina Sales	\$0.0	\$0.0	\$0.0	\$0.0	\$308.0	\$308.0	3%
<b>State Total</b>	<b>\$2,752.2</b>	<b>\$189.0</b>	<b>\$1,699.3</b>	<b>\$4,902.6</b>	<b>\$349.3</b>	<b>\$9,892.4</b>	<b>100%</b>

Note: marina sales include membership fees, boat rentals, slip and mooring fees, boat repair, sail repair, notary services, chandlery services.

Table I.5 shows the breakdown of spending by expenditure category and by tourism district. Lodging expenditure includes DRS gross receipts data adjusted for exemptions and all other lodging-related expenditure such as house rentals, vacation property rentals, and motor home rentals.

<b>Tourism District</b>	<b>Recreation</b>	<b>Meals</b>	<b>Shopping</b>	<b>Fuel</b>	<b>Other Auto</b>	<b>Local Transp</b>	<b>Lodging</b>	<b>Wagers</b>	<b>Marina Sales</b>	<b>Total</b>
Central Connecticut	\$50.5	\$56.9	\$43.7	\$22.8	\$14.6	\$12.9	\$31.4	\$23.0	\$0.6	\$256.6
Coastal Fairfield	\$123.9	\$111.7	\$97.2	\$46.4	\$27.6	\$35.2	\$159.4	\$64.9	\$77.4	\$743.8
Connecticut River Valley	\$252.5	\$223.4	\$457.0	\$116.2	\$39.8	\$8.3	\$63.9	\$76.5	\$70.4	\$1,307.9
Greater Hartford	\$211.9	\$268.6	\$177.1	\$96.6	\$58.0	\$51.2	\$131.2	\$116.2	\$2.5	\$1,113.3
Greater New Haven	\$384.4	\$257.5	\$307.9	\$142.3	\$56.8	\$11.5	\$69.4	\$75.0	\$33.3	\$1,337.9
Housatonic Valley	\$27.2	\$24.8	\$21.8	\$10.3	\$6.0	\$7.6	\$35.0	\$14.8	\$16.8	\$164.3
Litchfield Hills	\$59.8	\$66.4	\$75.9	\$29.0	\$9.7	\$6.0	\$34.8	\$51.1	\$1.7	\$334.4
North Central	\$59.2	\$74.6	\$49.6	\$27.0	\$16.3	\$14.4	\$36.7	\$32.2	\$0.7	\$310.6
Northeast Connecticut	\$115.4	\$46.2	\$32.6	\$7.8	\$1.6	\$1.0	\$26.3	\$127.9	\$3.8	\$362.5
Southeastern Connecticut	\$450.3	\$413.3	\$406.9	\$75.2	\$56.0	\$23.8	\$379.3	\$1,503.3	\$89.8	\$3,398.0
Waterbury Region	\$161.1	\$109.5	\$133.5	\$60.4	\$23.1	\$3.4	\$25.9	\$35.3	\$10.9	\$563.1
<b>State Total</b>	<b>\$1,896.3</b>	<b>\$1,652.9</b>	<b>\$1,803.3</b>	<b>\$634.1</b>	<b>\$309.5</b>	<b>\$175.3</b>	<b>\$993.1</b>	<b>\$2,120.0</b>	<b>\$308.0</b>	<b>\$9,892.4</b>

This spending generated the economic impact of travel and tourism through multiplier effects in Connecticut in 2001. Table I.11 shows the total impact of this spending by district (the impact by county appears in the main body of the report) in terms of gross regional product and personal income. For the state as a whole, the \$9.47 billion in

GSP represents 6 % of Connecticut’s GSP in 2001; the \$10.25 billion in personal income represents more than 7% of Connecticut’s personal income in 2001.

Table I.12 presents the employment and population gains due to the travel and tourism industry in Connecticut. The 146,178 jobs represent 8.6% of the state’s employment in 2001. Table I.13 reports state and local revenues and expenditures due to travel and tourism activities in the state. State taxes and revenue (\$1.4 billion) represents about 11% of own source revenue for 2001. Local revenue (\$950.6 million) represents about 14% of own source revenue for 2001.

Tourism District	Gross Regional Product	Personal Income
Central Connecticut	\$306.1	\$273.1
Coastal Fairfield	\$1,201.3	\$1,290.6
Connecticut River Valley	\$1,043.0	\$1,167.7
Greater Hartford	\$1,360.4	\$1,297.0
Greater New Haven	\$1,180.6	\$1,289.5
Housatonic Valley	\$264.3	\$285.3
Litchfield Hills	\$379.2	\$467.3
North Central	\$379.0	\$360.1
Northeast Connecticut	\$511.3	\$727.8
Southeastern Connecticut	\$2,359.1	\$2,554.3
Waterbury Region	\$483.1	\$541.7
<b>State Total</b>	<b>\$9,467.4</b>	<b>\$10,254.5</b>

Tourism District	Total Employment	Population
Central Connecticut	3928	4769
Coastal Fairfield	12760	16085
Connecticut River Valley	16316	25233
Greater Hartford	18185	23632
Greater New Haven	18141	27199
Housatonic Valley	2820	3590
Litchfield Hills	5389	8929
North Central	5055	6546
Northeast Connecticut	11391	18858
Southeastern Connecticut	44557	59685
Waterbury Region	7637	11793
<b>State Total</b>	<b>146178</b>	<b>206319</b>

Tourism District	State Revenues	Local Revenues	State Expenditures	Local Expenditures
Central Connecticut	\$39.9	\$29.3	\$24.0	\$29.1
Coastal Fairfield	\$168.0	\$105.7	\$108.8	\$92.4
Connecticut River Valley	\$162.1	\$98.7	\$84.9	\$119.5
Greater Hartford	\$182.9	\$131.8	\$112.2	\$134.0
Greater New Haven	\$182.6	\$120.9	\$103.0	\$138.5
Housatonic Valley	\$37.2	\$23.4	\$24.1	\$20.5
Litchfield Hills	\$63.8	\$45.6	\$43.1	\$44.5
North Central	\$50.9	\$36.7	\$31.2	\$37.2
Northeast Connecticut	\$89.3	\$63.4	\$51.5	\$81.5
Southeastern Connecticut	\$351.6	\$243.8	\$138.1	\$289.6
Waterbury Region	\$76.8	\$51.4	\$43.9	\$59.1
<b>State Total</b>	<b>\$1,405.0</b>	<b>\$950.6</b>	<b>\$764.8</b>	<b>\$1,045.9</b>

The table below reports real growth in lodging sales (gross receipts adjusted for inflation) between 1993 and 1999 averaged 8% and was slightly larger than the national growth rate for this industry as reported by TIA. We obtained Department of Revenue Services' lodging gross receipts for 2000 and 2001, but we did not calculate economic impacts for the year 2000 because there was no study for that year. We calculate year-over-year trend growth based on constant 2001 dollars (adjusted for inflation) for lodging gross receipts not including exemptions.

Years	Lodging Revenue from DRS(Nominal Million Dollars)	Lodging Revenue from DRS(2001 Million Dollars)	Real Revenue Growth Rate(Percentage)	Tourism Total Revenue(2001 Million Dollars)	Gross State Product Impact(2001 Million Dollars)	Total Employment Impact (Jobs)
1993	\$308	\$360		\$3,280	\$2,598	56,586
1994	\$338	\$385	7.03%	\$3,510	\$2,781	60,562
1995	\$366	\$407	5.56%	\$3,705	\$2,936	63,927
1996	\$397	\$433	6.38%	\$3,941	\$3,123	68,005
1997	\$441	\$472	9.14%	\$4,302	\$3,408	74,221
1998	\$490	\$522	10.56%	\$4,756	\$3,768	82,056
1999	\$544	\$569	9.03%	\$5,186	\$4,108	89,470
2000	\$573	\$587	3.08%	NA	NA	NA
2001	\$568	\$568	-3.18%	\$9,892	\$9,467	146,178

We assume total tourism revenue, GSP and employment grow at the rate of historical lodging gross receipts relative to the 1999 actual study values. The negative real revenue growth (-3.18%) from 2000 to 2001 reflects the recession and the exacerbating effects of September 11. This in turn reflects the decline in business travel; however, the large increase in estimated total tourism revenue in 2001 reflects the broader scope of data acquired for this study and the putative increase in leisure travel. The following table presents the growth of travel and tourism in Connecticut with respect to other major sectors of the Connecticut economy. Travel and tourism have had the highest *employment* growth rate relative to the Manufacturing and Financial, Insurance and Real Estate (FIRE) sectors, while holding second place in output (value added) and sales growth relative to Manufacturing and FIRE.

Growth Rates in Manufacturing, FIRE, and Tourism Sectors by County and State: 1993-2001									
	Fairfield	New Haven	Hartford	Tolland	New London	Windham	Litchfield	Middlesex	Connecticut
Employment									
Manufacturing	-21.5%	-6.5%	-14.7%	-2.9%	-19.0%	9.6%	0.1%	0.7%	-12.8%
FIRE	30.4%	-0.1%	-3.8%	43.2%	15.1%	48.2%	35.5%	7.9%	9.3%
Tourism	9.4%	14.0%	6.9%	10.3%	67.0%	20.2%	23.5%	13.2%	17.2%
Output (92 \$)									
Manufacturing	34.6%	48.6%	43.9%	75.2%	52.5%	62.3%	61.4%	67.7%	45.6%
FIRE	39.4%	4.6%	6.2%	52.0%	36.0%	74.3%	51.3%	23.0%	20.0%
Tourism	28.2%	32.9%	23.0%	25.8%	94.7%	44.3%	29.9%	23.6%	34.9%
Demand (92 \$)									
Manufacturing	34.9%	51.3%	36.3%	39.5%	23.3%	101.6%	55.1%	39.3%	40.4%
FIRE	28.2%	-7.0%	-4.7%	38.2%	28.0%	57.5%	38.9%	30.4%	9.4%
Tourism	23.8%	21.6%	11.5%	18.5%	43.5%	33.3%	31.3%	23.6%	21.6%

Note: FIRE is a combination of Finance, Insurance, and Real Estate sectors. The travel & tourism sector, in this analysis, is defined as a combination of sectors such as Eating & Drinking, Hotels, Rest of Retail, Amusement & Recreation, Local & Interurban Transportation, Auto Repair, and Petroleum Products.

**Tourism has the highest (imputed) direct employment in 2001 relative to the Manufacturing and FIRE sectors in Connecticut!** The travel and tourism industry represents more than a fourth of FIRE’s value added and about one fifth of Manufacturing’s value added. The travel and tourism industry represents more than a third of FIRE’s sales and less than one fifth of Manufacturing’s sales. In relative terms, Connecticut’s travel and tourism industry employs a larger fraction of the state’s workers than Manufacturing or FIRE. Employment data are from the Bureau of Labor Statistics and total state employment equals private, nonfarm plus state government employment in 2001.

Tourism Sector Compared to Manufacturing and FIRE as Percentage of State Total 2001			
	Manufacturing	FIRE	Tourism
Employment	12.95%	8.16%	13.35%
Output	31.11%	23.10%	6.34%
Demand	34.71%	17.90%	6.67%

Our surveys uncovered more information than we sought; some lodging establishments, marinas and campgrounds recognized a neutral and friendly ear to mention their concerns with Connecticut’s high (12%) state lodging tax, regional tourism district structure, insufficient highway signage and need for dredging (for marinas) as major issues impeding their growth. Appendix 4 contains snippets of the typical comments received. We promised we would print them.

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## **Introduction**

The Connecticut Center for Economic Analysis (CCEA) at the University of Connecticut, in cooperation with the Connecticut Tourism Council and the Connecticut Office of Tourism, Department of Economic and Community Development, is pleased to present the second study of the economic impact of the travel and tourism industry on the Connecticut economy. This study expands the scope of establishments surveyed from previous studies and includes results from a tourist and traveler intercept study and sets this work apart from earlier Connecticut tourism studies. In addition to all lodging establishments, and campgrounds, CCEA contacted all Connecticut marinas and boatyards to gain an understanding of the services they provide and the sales they generate. The intercept survey conducted by Witan Intelligence, Inc., surveyed tourists at Connecticut attractions, state highway welcome centers and disbursed sites in the summer and fall of 2001 and winter and spring of 2002. These hard data and those from the Travel Industry Association of America, TravelScope, the Connecticut Vacation Guide survey, and Connecticut's Department of Revenue Services (DRS), as well as insights from several travel and tourism studies, provide richer sources for this year's work. The literature review in this study describes some of the significant work done in other states and countries.

The extensive data collected and processed through several methodologies provides travel and tourism expenditures by type of visitor, by category of expenditure and by Connecticut county and tourism district. These expenditures represent lodging sales, transportation-related sales, retail sales, restaurant sales, and amusement and recreation sales. In turn, these sales drive the economic impact of travel and tourism in Connecticut via their flow through the economy as they in turn purchase labor (pay wages and salaries), purchase intermediate goods and services (e.g., raw food products, accounting services), pay rent and taxes, and pay the cost of goods sold (retail goods). The subsequent rounds of spending by people receiving direct and indirect wages and salaries generate a multiplier for the original sales. The sum of these multiplied changes (tourism-related sales) across all sectors of the Connecticut economy represents the impact of the travel and tourism industry.

We define a tourist as one who departs from his/her normal commuting pattern to visit an attraction (e.g., museum, aquarium, beach, ski resort, leaf peeping, winery, antique shops), attend an event (e.g., athletic contest, concert, play), or participate in an activity (e.g., Schemitzun, GHO, conference). We thus have classified many Connecticut residents as tourists in their own state (see the literature review below). We regard their in-state travel and tourism spending however as recaptured in the sense that they could have left Connecticut for many other venues close by. Clearly, people coming from outside the state represent new money for Connecticut. We estimate that 79.8% of total Connecticut tourism revenues flows in from outside the state.

Defining the tourism industry is much more difficult. Tourists spend money in restaurants, gas stations, retail stores, amusement parks, at concerts and conferences as do locals. Some fraction of many types of business receives traveler and tourist dollars. Thus, the tourism 'sector' consists of parts of many sectors described by the Standard Industrial Classification code or the newer North American Industrial Classification code. CCEA's previous report described the checkered composition of the tourism sector. Because of the diverse and fractional composition of the tourism sector, it is difficult to estimate the direct employment or value added of the industry (what fraction of a restaurant's or gas station's employment or value added is attributable to tourism?). The sales approach taken here estimates the total impact (direct+indirect+induced effects) due to total traveler and tourist spending on all activities and in all venues in Connecticut. It is however a conservative estimate because we have not surveyed all attractions in the state, and we have not intercepted travelers and tourists at marinas, airports, train and bus stations, major sports events, concerts, museum block busters, or cultural and heritage events.

The table below reports *real* growth in lodging sales (gross receipts adjusted for inflation) from 1993 through 1999 averaged 8% and was slightly larger than the national growth rate for this industry as reported by TIA. We obtained DRS gross receipts for 2000 and 2001, but we did not calculate economic impacts for the year 2000 because there was no study for that year. We calculate trend growth (year over year rate) based on constant 2001 dollars (adjusted for inflation) representing lodging gross receipts.

Years	Lodging Revenue from DRS(Nominal Million Dollars)	Lodging Revenue from DRS(2001 Million Dollars)	Real Revenue Growth Rate(Percentage)	Tourism Total Revenue(2001 Million Dollars)	Gross State Product Impact(2001 Million Dollars)	Total Employment Impact (Jobs)
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1996	\$397	\$433	6.38%	\$3,941	\$3,123	68,005
1997	\$441	\$472	9.14%	\$4,302	\$3,408	74,221
1998	\$490	\$522	10.56%	\$4,756	\$3,768	82,056
1999	\$544	\$569	9.03%	\$5,186	\$4,108	89,470
2000	\$573	\$587	3.08%	NA	NA	NA
2001	\$568	\$568	-3.18%	\$11,013	\$9,530	146,021

We assume total tourism revenue, GSP and employment grow at the rate of historical lodging gross receipts from the 1999 actual study values. The negative real revenue growth from 2000 to 2001 (-3.18%) reflects the recession and the exacerbating effects of September 11. This reflects the decline in business travel; however, the large increase in estimated total tourism revenue in 2001 reflects the broader scope of data acquired for this study and the putative increase in leisure travel.

The following table presents the growth of tourism and travel in Connecticut with respect to other major sectors of the Connecticut economy. Travel and tourism have had the highest employment growth rate relative to the Manufacturing and Financial, Insurance and Real Estate (FIRE) sectors, while holding second place in output (value added) and sales growth relative to Manufacturing and FIRE. We define for comparison purposes the direct employment, output and demand values for the travel and tourism industry to be fractions of its primary components (99% hotel sector, 80% eating and drinking sector, 60% retail, 90% amusement and recreation, 10% auto repair, 50% local and interurban transportation, and 10% petroleum products).

Growth Rates in Manufacturing, FIRE, and Tourism Sectors by County and State: 1993-2001									
	Fairfield	New Haven	Hartford	Tolland	New London	Windham	Litchfield	Middlesex	Connecticut
Employment									
Manufacturing	-21.5%	-6.5%	-14.7%	-2.9%	-19.0%	9.6%	0.1%	0.7%	-12.8%
FIRE	30.4%	-0.1%	-3.8%	43.2%	15.1%	48.2%	35.5%	7.9%	9.3%
Tourism	9.4%	14.0%	6.9%	10.3%	67.0%	20.2%	23.5%	13.2%	17.2%
Output (92 \$)									
Manufacturing	34.6%	48.6%	43.9%	75.2%	52.5%	62.3%	61.4%	67.7%	45.6%
FIRE	39.4%	4.6%	6.2%	52.0%	36.0%	74.3%	51.3%	23.0%	20.0%
Tourism	28.2%	32.9%	23.0%	25.8%	94.7%	44.3%	29.9%	23.6%	34.9%
Demand (92 \$)									
Manufacturing	34.9%	51.3%	36.3%	39.5%	23.3%	101.6%	55.1%	39.3%	40.4%
FIRE	28.2%	-7.0%	-4.7%	38.2%	28.0%	57.5%	38.9%	30.4%	9.4%
Tourism	23.8%	21.6%	11.5%	18.5%	43.5%	33.3%	31.3%	23.6%	21.6%

Note: FIRE is a combination of Finance, Insurance, and Real Estate sectors. The travel & tourism sector, in this analysis, is defined as a combination of sectors such as Eating & Drinking, Hotels, Rest of Retail, Amusement & Recreation, Local & Interurban Transportation, Auto Repair, and Petroleum Products.

The table below compares the size of Connecticut's travel and tourism industry (as defined above) with the actual size of the Manufacturing and FIRE sectors in terms of employment, value added (output) and sales (demand) in 1993 and 2001.

Levels of Variables for Manufacturing, FIRE, and Tourism Sectors by County and State 1993 and 2001 Connecticut																		
	Fairfield		New Haven		Hartford		Tolland		New London		Windham		Litchfield		Middlesex		Connecticut	
	1993	2001	1993	2001	1993	2001	1993	2001	1993	2001	1993	2001	1993	2001	1993	2001	1993	2001
Employment (1000s)																		
Manufacturing	86.8	68.2	63.8	59.7	84.1	71.8	4.2	4.1	25.0	20.7	8.6	9.4	17.0	17.0	12.9	13.0	302.5	263.8
FIRE	57.7	75.3	37.3	37.3	93.7	90.1	3.0	4.3	7.1	8.4	1.8	2.7	5.2	7.0	9.7	10.4	215.5	235.4
Tourism	62.7	68.6	51.9	59.1	67.3	72.0	7.5	8.3	24.6	42.1	6.1	7.3	10.9	13.5	10.8	12.2	243.2	285.1
Output (bil 92 \$)																		
Manufacturing	\$14.6	\$19.6	\$10.7	\$15.9	\$12.9	\$18.5	\$0.6	\$1.1	\$3.7	\$5.7	\$1.5	\$2.5	\$2.5	\$4.0	\$1.9	\$3.1	\$48.4	\$70.5
FIRE	\$13.8	\$19.3	\$7.9	\$8.3	\$17.1	\$18.2	\$0.6	\$0.9	\$1.5	\$2.0	\$0.3	\$0.6	\$0.9	\$1.3	\$1.5	\$1.8	\$43.6	\$52.4
Tourism	\$2.9	\$3.7	\$2.3	\$3.1	\$3.0	\$3.7	\$0.3	\$0.4	\$1.0	\$1.9	\$0.3	\$0.4	\$0.5	\$0.6	\$0.4	\$0.5	\$10.7	\$14.4
Demand (bil 92 \$)																		
Manufacturing	\$14.0	\$18.8	\$9.8	\$14.8	\$12.7	\$17.3	\$1.2	\$1.7	\$4.1	\$5.0	\$1.0	\$1.9	\$2.4	\$3.8	\$2.0	\$2.8	\$47.1	\$66.1
FIRE	\$8.0	\$10.2	\$7.4	\$6.9	\$10.9	\$10.4	\$0.7	\$0.9	\$1.6	\$2.0	\$0.5	\$0.7	\$1.0	\$1.4	\$1.2	\$1.6	\$31.2	\$34.1
Tourism	\$3.5	\$4.3	\$2.2	\$2.7	\$2.7	\$3.1	\$0.3	\$0.4	\$0.6	\$0.8	\$0.2	\$0.3	\$0.5	\$0.6	\$0.4	\$0.5	\$10.4	\$12.7

Tourism has the highest (imputed) direct employment in 2001 relative to the Manufacturing and FIRE sectors in Connecticut. The travel and tourism industry represents more than a fourth of FIRE's value added and about one fifth of Manufacturing's value added. The travel and tourism industry represents more than a third of FIRE's sales and less than one fifth of Manufacturing's sales. In relative terms, Connecticut's travel and tourism industry employs a larger fraction of the state's workers than Manufacturing or

FIRE, yet its value added and sales pale in comparison to these two industrial juggernauts. Employment data are from the Bureau of Labor Statistics and total state employment equals private, nonfarm plus state government employment in 2001.

<b>Tourism Sector Compared to Manufacturing and FIRE as Percentage of State Total 2001</b>			
	<b>Manufacturing</b>	<b>FIRE</b>	<b>Tourism</b>
<b>Employment</b>	12.95%	8.16%	13.35%
<b>Output</b>	31.11%	23.10%	6.34%
<b>Demand</b>	34.71%	17.90%	6.67%

We estimate as well the resiliency of the Connecticut tourism and travel industry by reducing each Connecticut 2-digit SIC sector's sales by 5%. This exercise reveals how Connecticut's industry sectors might respond to a terrorist attack that could reduce their demand (sales). Sectors that respond by more than 5% in terms of their value added are less resilient than those that respond less than 5%. In the table below, note that several sectors that we classify as strongly related to tourism suffer more than 5%, while the chemical, instruments, motor vehicles and medical suffer less. However, several tourism-related sectors suffer less than the service sectors in general and the construction sector.

Sectoral Response to a 5% Decrease in Sales by 49 two digit SIC Sectors

Sectors	Impact	Rank (Lowest to highest impact)	Tourism-Related Sectors
Chemicals	-4.80%	1	
Instruments	-4.88%	2	
Motor Vehicles	-4.91%	3	
Medical	-4.96%	4	
Electric Equipment	-5.04%	5	
Miscellaneous Manufacturing	-5.23%	6	
Petroleum Products	-5.23%	6	R
Paper	-5.26%	8	
Textiles	-5.28%	9	
Tobacco Manufacturing	-5.33%	10	
Furniture	-5.39%	11	R
Apparel	-5.41%	12	R
Hotels	-5.49%	13	P
Leather	-5.53%	14	
Food	-5.78%	15	R
Fabricated Metals	-5.82%	16	
Rest of Transportation Equipment	-5.92%	17	
Primary Metals	-6.21%	18	
Insurance	-6.34%	19	
Other Transportation	-6.81%	20	P
Local&Interurban Transportation	-6.90%	21	P
Amusement & Recreation	-7.52%	22	P
Education	-7.54%	23	
Motion Pictures	-8.02%	24	P
Non-Profit Organization	-8.03%	25	R
Real Estate	-8.05%	26	R
Banking	-8.14%	27	
Rest of Retail	-8.16%	28	P
Rubber	-8.38%	29	
Agri&For&Fish Serv	-8.61%	30	
Eating & Drinking	-8.85%	31	P
Private Household	-8.89%	32	
Trucking	-8.90%	33	
Communication	-8.98%	34	
Air Transportation	-9.01%	35	P
Personal Services & Repairs	-9.40%	36	R
Wholesale trade	-9.46%	37	
Credit & Finance	-9.47%	38	
Printing	-9.64%	39	
Public Utilities	-9.79%	40	
Machinery & Computer	-10.12%	41	
Auto Repair & Services	-10.62%	42	P
Miscellaneous Professional Services	-10.82%	43	
Lumber	-10.88%	44	
Miscellaneous Business Services	-11.76%	45	
Railroad	-11.92%	46	
Mining	-12.18%	47	
Stone,Clay,Etc.	-14.86%	48	
Construction	-16.14%	49	

Note: "P" refers to Primarily "tourism sector," and "R" refers to "tourism-related sector."

We estimate the effects of the horrific events of September 11, 2001 on the travel and tourism industry in Connecticut by comparing the last four months of 2001 with those of 2000. We assume that the growth pattern of lodging sales would have been the same in the final third of 2001 as it was in the final third of 2000 had the attacks not occurred despite the fact that 2000 was a recession year. Appendix 1 reports these results.

This report is structured as follows: we present first a review of the salient literature in which we present definitions of tourism and travel and several significant studies; we then describe CCEA's methodology and data sources; finally, we report the economic impact of travel and tourism in Connecticut by county and tourism district. Methodological details follow in Appendix 2. Appendix 3 contains the original lodging establishment survey, as well as the campground and marina survey instruments.

Our surveys uncovered more information than we sought; some lodging establishments, marinas and campgrounds recognized a neutral and friendly ear to mention their concerns with Connecticut's high (12%) state lodging tax, regional tourism district structure, insufficient highway signage and need for dredging (for marinas) as major issues impeding their growth. . Appendix 4 contains snippets of the typical comments received. We promised we would print them.

## **Part One: ECONOMIC IMPACT OF TOURISM: Literature Review**

### **INTRODUCTION**

Tourism is one of the thriving service sectors in almost every corner of the world. As real incomes have gone up, people indulge the common desire to see new places and explore new environments; for host areas, tourists generate sales, profits, job creation, tax revenues, and income. The most direct effects occur within the primary tourism—related sectors such as lodging, restaurants, transportation, amusements, and retail trade. Through secondary effects, tourism affects most sectors of the host economy, including durable and nondurable consumer goods and even capital goods. Tourism industries are labor and income intensive, translating a high proportion of sales in the above sectors into income and corresponding jobs (The Research Department of The Travel Industry Association of America, 1999).

Although tourism is a growing industry with significant effects on a regional economy, researchers have not settled on how to define tourism. From the perspective of its demand side, tourism could be defined narrowly, as only a segment of the travel market that comprises “free and independent travelers,” excluding business travelers. Alternatively, we can define tourism more broadly to include business travelers. Similarly, from the supply side, the challenge is determine what sectors should be included in the tourism industry. For instance, should recreational fishing and boating and all their supporting industries be part of the tourism industry? Before measuring the impact of tourism on an economy, we thus have to make clear what we are measuring. As discussed below, CCEA adopted a broad definition of tourism and in this report provides detailed segmentation analysis.

Once we resolve definitional issues, the second step is to deal with measuring the number of visitors and total tourism-related economic activity in order to provide an economic impact analysis. Official statistics do not offer any direct measures of travel and tourism because of the numerous industries that provide goods and services to travelers and tourists. Moreover, it is not easy to identify the economic activity that tourism generates in



the way it is for many conventional industries, such as iron and steel. Unlike most industries, the economic activities that support travel and tourism are not simply a collection of business firms and establishments producing and selling the same products or services. Travel and tourism includes, among others, all or part of the passenger airline industry, the hotel industry, the food and beverage industry—each selling a different set of products or services. Because expenditures on travel and tourism cut across many types of industries, they do not fit neatly into a single product SIC code (Standard Industrial Classification), or NAICS code (North American Industry Classification System), for which specific economic data exists; conversely, a single (or even several) SIC or NAICS code cannot accurately measure tourism and travel expenditures. Demand for travel and tourism services and goods drives tourism expenditures and affect many service industries, so it does not fit well into the new NAICS, which is still manufacturing and supply-based in its criteria (Leslie R. Doggett, Office of Travel and Tourism Industry, USA, 2002). This report addresses both the demand side and supply side of tourism by using comprehensive survey methodologies to account for total tourism—related economic activities.

In the sections that follow, the analysis first highlights the importance of tourism in the national and regional economy. There are different approaches to measuring the impact of tourism. Ultimately, the quality of tourism-related data, as well as the level of regional sophistication of impact models in terms of their abilities to accurately describe regional economic structure determines how accurately we measure the economic impact of tourism.

The second section deals with definitional issues. The third section surveys the literature that assesses the different methodologies available to measure total tourism-related economic activities. This clarifies a central research issue: how to measure total visitors and associated economic activities. The fourth section evaluates economic impact methodologies.

## Section 1: OVERVIEW OF TOURISM'S CONTRIBUTION TO THE ECONOMY

In the United States, the travel and tourism industry contributes substantially to the overall U.S. economy. Over the last ten years, travel and tourism has evolved from an emerging sector to an established leader in a modern services economy. Growing from a \$26 billion industry in 1986 to a \$90 billion one in 1996, travel and tourism's export contributions to the U.S. economy have grown nearly 250%. In that period, travel and tourism have taken their place as the number one services export, producing a trade surplus every year since 1989 (Office of Travel and Tourism Industry, USA, 2002). International visitation to the United States is often not thought of as an export. However, the truth is that with just under \$21 billion in inbound passenger fare receipts in 1996, visitor trip expenditures injected almost \$70 billion directly into the U.S. economy. Each international visitor to the United States represents an average export value of \$1,500 with 28% of his or her expenditures going to lodging, 18% to food service, 10% to entertainment, 30% to retail trade and 13% to local transportation. In 1996, a record 46.5 million international visitors made America their destination of choice, up 7% over 1995 (Leslie R. Doggett, Former Deputy Assistant Secretary for Tourism Industries, 2002).

These statistics demonstrate that international travel to the United States is an export just like the sale of agricultural products, automobiles, or consumer goods and that strength contributes strongly to U.S. GDP. As a result, tourism has an impact on U.S. job creation, supporting over 1 million American jobs in 1996. Over the past decade, the United States has held the number one position as the travel and tourism destination for total receipts generated worldwide and the second or third destination for the number of visitor arrivals. Forecasts by the Office of Travel and Tourism Industry, USA, indicate an annual growth rate of 3 - 4% between 1998 and 2001. It is important to note that a 1% upwards shift in the existing international travel market could generate an additional \$600 million of revenue to support thousands of new jobs in the United States. This export giant can help spur future growth for not only destinations and large corporations, but also for small and medium sized businesses, which comprise over 90% of the U.S. travel industry (Leslie R. Doggett, Former Deputy Assistant Secretary for Tourism Industries, 2002).

Another example for the importance of tourism in the U.S. economy is that, U.S. residents and international visitors spent a total of \$523.8 billion in 1999 on their travel in the United States, a 6.0 percent increase over 1998, comprising 5.6 percent of the nation's GDP in 1999. The diversity of the travel and tourism industry provides substantial benefits to a large number and wide range of business and their employees. Increased travelers' spending in 1999 supported robust growth in employment and payroll income. During 1999, the total employment generated by domestic and international travel spending in the U.S. reached almost 7.7 million, increasing 2.6 percent over 1998 (The Research Department of The Travel Industry Association of America, 1999).

Tax revenues generated by travel and tourism represent another significant contribution of travel to the U.S. economy. Domestic and international travelers' spending in the U.S. generated a total of \$93.6 billion for federal, state and local governments in 1999, up 6.1 percent over 1998. Governments at different levels collected revenue through various taxes on travel activities and travel-related receipts, such as excise taxes, sales taxes, income taxes and property taxes (The Research Department of The Travel Industry Association of America, 1999).

In Connecticut too, the travel and tourism industry plays an important role. Tourism and travel sales in 1999 created more than 89,000 jobs in all sectors. This represents almost 4.3% of Connecticut's workforce. In terms of gross state product (GSP), the travel and tourism industry is approaching the size of the state's construction industry and is now almost half the size of Connecticut's most famous industry, the insurance industry. Its share in GSP was 3.3% in 1999. This comparison underlines how important the absolute size and growth in tourism and travel are to the strength and vitality of the Connecticut's economy (see, *The Economic Impact of Lodging-Based Tourism in Connecticut*, CCEA, 2001).

## Section 2: DEFINING TOURISM

No single definition of tourism has gained universal acceptance. Many people believe that tourism is a service industry that takes care of visitors when they are away from home. Some restrict the definition of tourism by requiring a minimum number of miles traveled away from home, or overnight stays in paid accommodations, or travel for the purpose of pleasure or leisure. Others think that travel and tourism should not even be referred to as an industry.

Graburn and Nash highlight the complex nature of tourism. Graburn (1989, pp. 22-36) speaks of tourism as the “sacred journey” in western culture - a time of great expectations and disappointments and a way to define what it means to live a life. Nash (1989, pp. 37-52), on the other hand, views tourism as a “form of imperialism” - a dichotomy of haves and have-nots with lesser-developed countries (regions?) serving the pleasures of the more developed countries (regions?). Shames and Glover (1989) combine this duality by positing the notion that the “service experience” of tourism is a “social experience” and as such involves “human interaction” whose “nature or form is determined by the culture or cultures of the interacting individuals” (p. 2). The evolved definition of Smith and Eadington (1992) simply states, “tourism is in fact a significant social institution.”

Hunt and Layne (1991) acknowledge the problems of defining travel and tourism. They say that travel was the most accepted term until 1987; since then tourism is the accepted term, used to “singularly describe the activity of people taking trips away from home and the industry which has developed in response to this activity (p 11).”

Other experts, such as Gunn (1994) believe that tourism “encompasses all travel with the exception of commuting” (p. 4) and that it is more than just a service industry. McIntosh and Goeldner (1986) suggest that “tourism can be defined as the science, art, and business of attracting and transporting visitors, accommodating them, and graciously catering to their needs and wants” (p. ix.). They introduce the notion that tourism is interactive, arguing, “tourism may be defined as the sum of the phenomena and

relationships arising from the interaction of tourists, business suppliers, host governments, and host communities in the process of attracting and hosting these tourists and other visitors” (p. 4). D'Amore (1987), Taylor (1988), and Dann (1988) suggest that tourism is not only an interactive process but also a vehicle for world peace, attributing to tourism an even greater role than seeing it only as sum of the economic activities emanating from the interaction of visitors with local entities.

While acknowledging the diversity of definitions, CCEA defines tourism in a comprehensive way, including both ‘free and independent travelers’ as well as business travelers. The following definition, accepted by well-known international organizations and their representatives, captures this perspective: “Tourism is defined as the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes not related to the exercise of an activity remunerated from within the place visited” (Eurostat, OECD, WTO, UNSD, 2001). This definition is useful in a way that suggests further segmentation of visitors by place of origin, type of visitors, and pattern of expenditure.

### Section 3: ESTIMATING TOURISM-RELATED ECONOMIC ACTIVITIES

Central to any economic impact analysis is the ability to measure accurately total visitors to the region, and then perform segmentation analysis to capture special characteristics of each segment. Estimates or projections of tourist activity generally come from a demand model or some system for measuring the levels of tourism activity in an area. However developed, whether from projections or actually counts, carefully designed measurements of tourist activity and a proven demand model are the very foundations of meaningful analysis. This step is usually the weakest link in most tourism impact studies, as few regions have accurate counts of tourists, let alone good models for predicting changes in tourism activity or separating local visitors from outside the region (Daniel J. Stynes, 1998).

Methods based on judgments of the person estimating tourism numbers typically yield highly aggregate estimates, while estimates derived from formal models may estimate

spending within several categories. As one moves from judgment to secondary data to primary data and formal models, the methods become more complex and the time and expense of the study increases. The added cost should lead to measurements both more accurate and more detailed, although this is not always the case. In some cases, good judgment or existing data may be more accurate than a new visitor survey, particularly if the survey has a low response rate, small sample size, and measurement and sampling procedures that do not guarantee a representative sample or reliable measurements.

Methods to measure tourism-related economic activities vary depending on the available resources, unit of analysis, scope of the project, and detail of requested analysis. Very often, none of the methods individually provides a reliable estimate of total tourism-related economic activities. They need to be supplemented by one or more other methods to describe fully the scope of the tourism industry. We can group existing methods into three broad categories: (1) Bed Tax Revenue, (2) Surveys, and (3) Visitor Counts/Traffic Counts. We briefly highlight below the salient features of each approach and address the limitations of each when taken individually.

### **(1) Bed Tax Revenue Method (Lodging Tax)**

The bed tax is collected at city, county, and state levels, and rates are readily available. The lodging tax is one of the most objective methods to measure tourism-related economic activities. In this method, one needs to know average room rates, tax rates and total tax revenues. From these variables, one can calculate total paid hotel nights in the region. In calculating total paid hotel nights, a researcher should be aware of the exemptions to the bed tax for military personnel, government employees, non-profit employees and visitors staying more than 30 days. In Connecticut, hotels located on Native American land collect the room tax for the Tribal Government.

In order to account for other visitors, however, we need supplemental information from other sources. The bed tax data does not inform us what percent of visitors is business and what percent is leisure. Furthermore, a researcher must rely on aggregate visitor expenditure pattern data to do sectoral analysis in the absence of random intercept surveys.

National level current expenditure surveys are often useful approximations for this purpose, but the issue of reliability of these estimates for the study region is questionable. Similarly, to account for other visitors (day-trippers, those staying with friends and relatives, campers), a researcher must rely on survey results at the national level or in different regions and apply those percentages to the study area.

The bed tax method is a reliable way of estimating total economic activity when complemented by lodging surveys and intercept surveys in the study region. A random intercept survey is required for visitor segmentation and purchasing patterns as each segment's spending pattern differs widely from each other.

## **(2) Surveys**

Surveys can be grouped under two broad categories: supply side and demand side. We review the methods commonly used under each category. Examples of supply side surveys are the lodging surveys (hotel/motel, campgrounds) and the marina survey. Demand side surveys include intercept surveys, phone surveys, and mail-in household surveys. We briefly review each approach by giving examples from actual studies.

### 2.1. Lodging and Marina Surveys

The lodging survey is an important supplement to the bed tax revenue method described above. This survey gives the researcher important information about the characteristics of visitors, party size and length of stay, as well as lodging establishments' purchasing pattern, employment profile, and occupancy rate. Similarly, marina surveys provide information that is useful in performing visitor segmentation analysis. Ultimately, however, these surveys must be supplemented with other surveys to provide accurate estimates of total tourism-related economic activities. Below is an example of the application of the lodging survey method in measuring tourism-related economic activities in Connecticut in 1999.

In 2000 in its Lodging-Based Tourism Impact Study, the Connecticut Center for Economic analysis (CCEA) surveyed hotels, motels, and resorts (HMRs) in Connecticut

between March 15, and April 14, 2000, and campgrounds between March 15 and May 9, 2000. The response rate for HMRs was 58% (280 hotels, motels, and lodging managers out of 484 HMRs responded) and for campgrounds 66%, (36 campgrounds responded out of 55 surveyed).

CCEA used this survey data to estimate expenditures in different sectors by the type of accommodation used. The methodology used to get these expenditure estimations is the same used in a previous study of Connecticut tourism that Dr. James Rovelstad completed in the early 1990s (The Connecticut Center for Economic Analysis, 2001). CCEA uses data on the average party size, average occupancy rate, and average length of stay from the surveys to build the individual revenue estimations for HMRs and campgrounds separately. For non-respondents, CCEA estimates this data using county averages for each variable. The basic formula to obtain the revenues of these establishments is:

where R= Sales revenues (at the state, county or town level) for all hotels, motels, and

$$R = \sum_{i=1}^n r_{hi}$$

resorts for the year, n = number of HMRs,  $r_{hi}$ =sales revenues for the  $i^{\text{th}}$  HMR,  $h_i = i^{\text{th}}$  HMR, and,  $r_{hi} = N_{hi} * O_{hi} * U_{hi} * P_{hi}$ , where  $N_{hi}$  = number of nights per year the  $i^{\text{th}}$  HMR is open,  $O_{hi}$  = average annual occupancy rate (or county average, if this question is not answered in the survey),  $U_{hi}$  = number of rooms or units, and  $P_{hi}$  = average room rate depending on size of rooms.

The methodology used to estimate campground revenues is the same as the HMR revenue estimation method. Instead of room rates and the number of rooms, CCEA used the site rate and the average number of campsites in each campground facility.

The results of the surveys of establishments and this method provide the revenues for HMRs and campgrounds, which are expenditures, made exclusively for lodging in these categories. Apart from intercept surveys, there is no direct way to estimate tourism—related expenditures in other categories, such as restaurant, transportation, or retail sales, but one can use inductive logic to estimate other categories using Travel Industry Association’s TravelScope tourism survey for Connecticut. Using Rovelstad’s formula,



CCEA estimated the expenditures in different categories by the type of accommodation used. According to Rovelstad's research, the estimated proportion of total expenditures for campground fees is 9.4%. CCEA used 35.2% as the proportion of total expenditures for Lodging (HMRs). The fraction of Food/Restaurant, Recreation and other expenditure categories is in proportion to total expenditure.

Rovelstad's study estimates traveler category expenditures at the county level for 'Visiting Friends and Relatives' based on the number of households in each county as a percentage of households in a state. Following the same methodology, CCEA's study projects "DT" (Day Trippers), "Passing Through and Other" expenditures from HMR expenditures using the number of households in each county as a percentage of the state total. The number of households in each county as a percentage of total households in Connecticut used in the 1999 study is the same as in 1995 study. The formula is:

Total Sales to Travelers in year 1999:

= Total lodging sales in 1999/Lodging purchases as a % of Total Average Purchases per Party-Day.

In this formula, the estimated proportion of total expenditures for campground fees is 9.4%, and the estimated proportion of total expenditures for commercial lodging is 35.2%. As explained previously, even though covering all visitor categories in the expenditure model is important to get an accurate picture of the expenditure pattern and the impact of the tourism industry in the state or the region, it is not easy to get the expenditure figures for visitors who are staying with friends and relatives and who are passing through. In the absence of any credible alternative, the study by CCEA uses the proportions of total expenditures from Rovelstad's study in each visitor category.

As this example illustrates, the lodging survey is necessary but not sufficient enough to capture whole range of tourism related activities. A timely face-to-face intercept survey provides the missing link in the lodging survey. A marina survey is similar to the lodging survey, generating unique information about the characteristics of these establishments. Furthermore, a marina angler survey augments the findings related to marinas.

## 2.2. Telephone and Field-Intercept Surveys

In telephone surveys, houses are selected randomly from a telephone directory and people are asked about their interest of traveling to events and locations in a tourist region. The questions are asked about the travel party sizes, length of stay, amount of expenditure, and spending patterns. Information on the number and types of events/sites visited during the year by a household, the mode of transportation, miles traveled to reach the events/sites, type of lodging used, times of the year the visits occurred, and the likelihood of returning to the events/sites are collected.

This is one of the least expensive methods of collecting tourism-related expenditure data. However, the response rate is very low as many households are not available on the spur of the moment and many are unwilling to share their information.

Field-intercept surveys are done at selected events, attractions, or locations throughout the region. Event attendees are selected randomly and given survey forms, which they complete providing similar information as for the Telephone Survey.

### *Alabama Study Surveys:*

The State of Alabama used both of these methods in 2000. Alabama researchers conducted telephone surveys of 800 in-state households in two separate ways; half the surveys were done during June 2000, the other half during September 2000. The telephone survey results indicated that the households contacted had attended an average of 1.1 events within the year 1999 in Alabama. The most visited places were festivals and entertainment events, with 23.9% of respondents visiting these places. The other popular places were parks and nature sites: 11% of the respondents went there. Alabamans traveled an average of 77.3 miles one way to reach these locations, and the personal automobile was the overwhelmingly favored mode of transport to reach the sites, used by 93.8% of respondents.

In the field intercept methodology, the Alabama researchers selected 2400 event attendees. The survey results provided information similar to the telephone survey, such as

travel party size, length of stay, and spending volumes and patterns. Other information collected by the surveys included: the number of room nights per travel party for those groups staying in hotels; the mode of transportation and the number of miles traveled to reach the event/site; type of lodging used; other activities that would be engaged in while visiting the area and the source by which a survey respondent had been informed about the event or site. Another good example of the use of this methodology occurred in New Zealand.

*New Zealand's Domestic Travel Survey and International Visitors Survey Methodology:*

The Domestic Travel Survey measures the travel patterns of New Zealanders. Data collected includes day trips, overnight trips, and nights away, places in which visitors stay, main purpose of their trip, transport used, activities undertaken and expenditures.

Each month approximately 1,000 New Zealand residents are interviewed, via telephone, on their travel experiences within New Zealand. This methodology is similar to that discussed above but it is an improved version because it explicitly defines categories. The results are published annually.

For international visitors, the IVS (International Visitors Survey) interviewers use the methodology of using a face-to-face surveys of international visitors to New Zealand aged 15 years or older (92% of international visitors were aged 15+ years during year ended March 1999). The sample is selected from departing visitors at New Zealand's three largest international airports; Auckland, Wellington and Christchurch (98% of international visitors departed from these airports during the year ending March 1999). Interviews occurred on a representative selection of days per month throughout the year.

The IVS interviewers wait at the exit from the aviation security checkpoint. All passengers including first class, business class, and VIPs must pass this point. Every 18th person who exits the Aviation Security checkpoint is selected and is approached by one of the multilingual IVS interviewers and asked a series of screening questions. These questions eliminate New Zealanders, people on armed forces or diplomatic business and

those aged less than 15 years of age. If the person qualifies for the survey, they are asked to take part in the survey. Very few people refuse to take part (10.8% of eligible selected people refused to take part during the 12-month survey period).

The interview is conducted using CAPI (Computer Assisted Personal Interviewing), done on notebook personal computers. The IVS interviewers are multilingual and paper based translation exists for the majority of languages spoken in New Zealand's major overseas travel markets (less than 2% of eligible selected people could not be interviewed due to language problems during the 12 months survey period).

By way of incentive, interviewees are given the chance to win a New Zealand holiday. The prize currently includes a return airfare to New Zealand (for one). In addition, during the September and December 2001 quarters, the prize also includes free rental of a Maui Motor-home, passes to Kelly Tarltons and the Waitomo Caves, a Fiordland Red Boat Cruise and a Holiday Rewards Discount Card. There is one chance each quarter to win this holiday in New Zealand.

CM Research Ltd., with the assistance of the New Zealand Tourism Board and Statistics New Zealand, does the data collection, data processing, and data analysis. The data collection procedures, data processing specifications and data analysis is independently audited in Australia. Over 5,000 interviews are conducted annually. These are then scaled up to reflect the actual number of visitors departing over the same period. The sample is checked and, if necessary, treated for outliers.

Data from the International Visitors Survey is used by Statistics New Zealand to calculate the travel credits component of the New Zealand national accounts and by Statistics New Zealand to calculate the contribution of tourism to the New Zealand economy as part of the Tourism Satellite Account.

The intercept survey method is one of the best methods to obtain detailed information about the trip characteristics. It is especially well suited for focused studies

such as the economic impact of certain attractions in a region. However, to estimate region—wide total tourism activities, a researcher must acquire additional data to calculate total volume of visitors in the region.

### **2.3. Mail Survey Methodology:**

One of the prominent surveys in this category is Travel Industry Association of America's TravelScope randomly selected household surveys. The results of these household surveys are then extrapolated to whole states to calculate total domestic and international visitors to each state. However crude and with the possibility of a large margin of error, these calculations are an important tool to compare trends across the states and provide aggregate visitor information for a state in the absence of more reliable survey data.

#### *Virginia Study*

In 1997-98, the Virginia Tourism Corporation conducted a survey of travelers using the National Family Opinion Research, Inc.'s (NFO) multi-card panel study methodology. Each month in 1997 and again in 1998, surveys were mailed to 10,000 households in the entire USA, asking about travel to Virginia in the previous month. The NFO has over 400,000 household panel members. In total, 240,000 pre-recruited households in the NFO panel across the U.S. were mailed a questionnaire about travel in Virginia.

Using a pre-recruited panel, the mail survey methodology offered an affordable method of producing a very large random sample of Virginia visitors from a survey population that is representative of the U.S. population in several demographic and geographic variables.

### **(3) Visitor and Traffic Counts**

This is an effective method to estimate total visitors to certain attractions. It can be also useful in calculating total visitor volume to a region by counting the total traffic at the major border crossings along the main interstate highways. However, this type of

information must be supplemented by survey data that allows researchers to perform visitor segmentation analysis and the spending pattern of each segment.

#### (4) Summary

A close look at survey methods demonstrates that a single method is not enough to capture a complete set of economic activities in an economy, unless a study is confined to the analysis of a specific attraction. In most cases, whatever disadvantage a survey may have can be overcome by introducing an additional survey.

As we later discuss, the Connecticut Center for Economic Analysis utilizes a mix of survey methods to calculate a reliable estimate of total tourism-related economic activities in Connecticut in a way that allows researchers to perform highly detailed visitor segmentation analysis. Availability of other sources is important for CCEA's analysis as these sources allow us to crosscheck our results.

## **Section 4: METHODOLOGIES FOR ESTIMATING ECONOMIC IMPACT OF TOURISM**

The next task, after collecting the data on tourist expenditures, is to project their overall impact on the economy. There are basically two approaches to calculate the economic impact of tourism-related activities: (1) Satellite Account, and (2) Input/Output models. The idea behind economic impact analysis is to measure indirect (business to business) and induced (household spending) effects of a given level of direct tourism related-spending in an economy.

### **1. Satellite Account Approach:**

This method was developed by World Travel and Tourism Council (WTTC, 1996). This system is useful for estimating the overall economic significance of tourism at the national or state level; it is not very useful for estimating the impacts of particular policies and actions at local levels. The advantage of the satellite accounting approach is it uses existing economic data and embeds tourism in an accepted system of accounts. The drawback is that the information necessary to extract tourism activity from national economic accounts is often neither incomplete nor collected consistently. In addition, satellite methods are much more difficult to apply below the national level or for subcategories of tourism activity. National accounts are organized around a set of industries or commodities. The problem is that tourism is more a form of demand than either a supplier industry or a type of commodity. Restaurants serve both tourists and local residents; the system of accounts has no easy way to distinguish one from the other.

The basic procedure in satellite accounting is to allocate a “share” of sales of each commodity or industry to tourism. These shares, however, can vary widely for different regions. Information to estimate them generally comes from various sources, including surveys of households or tourists. Many of these surveys are not carried out on a consistent basis and are subject to a variety of sampling and measurement errors. Tourist shares also depend considerably on how tourism is defined: usually all trips of 100 miles or more over night. This approach focuses on national and statewide accounting of tourism’s economic

significance. The satellite tourism account identifies the contribution of travel and tourism to GNP and GSP (Gross State Product). Using the standard national system of accounts, researchers identify the portions of sales, taxes, and investment attributable directly to travel and tourism. The WTTC system does not use multipliers or attempt to estimate secondary effects. It does, however, capture a great deal of travel-related economic activity, not covered by visitor trip spending, such as durable goods purchases (e.g., boats and RV's), construction and investment in tourism, and government expenditures.

## 2. Input/Output Models:

In order to measure the indirect and induced effect of tourism, a variety of input/output methods is used. We briefly summarize each one of them below.

### *The National Park Service's "Money Generation Model"*

This is a simple fill-in-form for generating economic impacts. This is an extremely simple approach, but it captures the essential elements, of an economic impact analysis. The person estimating the impact of tourism enters the number of visits (visitors) into the area chosen for study purposes, average spending per visitor, and an aggregate sales multiplier of total visitors' spending on a simple work sheet to generate estimates of the direct and total sales effects (induced or indirect effect) of visitor spending.

For estimating visitor spending the following categories are considered:

1. Trip spending by visitors
2. Durable goods purchases of visitors and households in the area
3. Government or organizational spending
  - a) Construction and development
  - b) Operations and maintenance



Each kind of spending is generally measured separately, and in most situations, only one type is of primary interest. Trip spending is most easily gathered in conjunction with on-site visitor surveys, durable goods purchases are best measured through household surveys or secondary sources, and construction and government or organizational purchases are generally acquired from internal records of the organization. A trip encompasses the time from when the party leaves their permanent home or in some cases some other temporary residence (seasonal home) until the time they return or otherwise terminate the given trip. In estimating impacts on a particular region, spending should be measured from when the visitor enters the region to when they leave, being careful to also include any pre-paid expenses that accrue to businesses in the region.

For trip spending, the following details are considered:

- a. Lodging divided between campgrounds and motel/hotel
- b. Food and beverages divided between restaurant meals and groceries
- c. Transportation divided between auto/RV gas and oil, other auto-related expenses (repairs, parts etc), and public transportation where appropriate (air, rail, taxi...)
- d. Recreation and entertainment fees and admissions
- e. Souvenirs, and other retail purchases

These details define the key sectors directly impacted and facilitate bridging the spending data to sectors in a regional economic model. Retail purchases may be further broken down to yield more complete reports of spending or tie more directly to production sectors of interest (e.g., sporting goods, film, clothing, books and maps, etc.)

Aggregate sales multipliers generally come from an economic base or input-output model of the region's economy. In many cases, multipliers are borrowed (often improperly) or adjusted from published multipliers or other studies. Perhaps the multiplier for producing an output such as cars or computers would be different from the multiplier for promoting tourism. Tourism is a service activity and so its multiplier would most likely

be different from the state level input-output multiplier that includes manufacturing as well. One should not take a multiplier estimated for one region and apply it in a region with quite different economic structure. Generally, multipliers are higher for larger regions with more diversified economies, lower for smaller regions with more limited economic development. Sales effects are converted to income and jobs using simple ratios of income to sales and jobs to sales. Tax effects of visitor spending can also be estimated by applying local tax rates to sales estimates. With sound judgment in choosing the parameters, the MGM model can yield reasonable estimates of economic impacts at minimum cost. However, this approach provides little detail on spending categories or which sectors of the economy benefit from direct or secondary (induced) effects. The aggregate nature of the approach also makes it difficult to adjust recommended spending multipliers to different applications. Hence, it does not appear to be useful for Connecticut's purposes.

*The Bureau of Economic Analysis' (BEA) RIMS II Method:*

This method illustrates how to apply published multipliers to estimate economic impacts. This approach starts with visitor spending (from surveys or secondary sources) divided into a number of spending categories and makes use of sector specific multipliers to estimate direct and total sales as well as income and employment effects. Multipliers from this model are used to estimate secondary effects. BEA reports multipliers for 39 sectors for each state in the second edition of their report (USDC 1992). This method uses sales margins to properly account for retail purchases of goods and makes use of disaggregate sector-specific multipliers for each state. Multipliers for sub-state regions can be acquired from BEA or other sources. The weakness of this method is that secondary effects cannot be disaggregated to individual sectors.

*The MI-REC (Micro-IMPLAN Recreation Economic Impact Estimation System) / IMPLAN System:*

This system combines spreadsheets for estimating spending with the IMPLAN input-output modeling system. IMPLAN uses county level data to estimate 528 sector input-output modeling system. IMPLAN generates a complete set of economic accounts

for the region including multipliers and trade flows. MI-REC spreadsheets estimate visitor spending for up to 33 categories based on the number and types of visitors attracted to an area. Spending is then put into the IMPLAN model sectors to estimate direct, indirect and induced effects in terms of sales, income and employment. Users may estimate spending via visitor surveys or use the MI-REC database of spending profiles, compiled from previous studies. The system also includes price indices to update spending data easily to a current year.

*TEIM (Travel Economic Impact Model):*

The U.S. Trade Data Center (USTDC, 1997) developed this model. It has been used widely to estimate tourism and travel impacts at state and national levels. The TEIM is not readily applied to estimate the impacts of particular policies and actions at the local level. It relies on national travel surveys to estimate trip volume and spending on a state-by-state basis. TEIM is an input-output model, and the number of sectors depends up on the number of sectors in the state input-output model. Local estimates of impacts are obtained using simple allocation formulas to distribute statewide impacts to counties and cities within the state. These local estimates do not account well for the distinct types of tourism activity or spending patterns in different sub-regions of a state. Hence, it is not very useful for making local estimates of tourism impact.

*REMI Model:*

REMI is a dynamic, multi-sector, regional model developed specifically for the Connecticut Center for Economic Analysis. The REMI model includes all of the major inter-industry linkages among 466 private industries aggregated into 49 major industrial sectors. With the addition of farming and three public sectors (state and local government, civilian federal government, and military), there are 53 sectors represented in the model.

The REMI model is based on a nationwide *input-output* (I/O) model that the U.S. Department of Commerce developed and continues to maintain. Modern input-output models are largely the result of groundbreaking research by Nobel laureate Wassily Leontief. Such models focus on the inter-relationships between industries, and provide

information about how changes in specific variables—whether economic variables such as employment or prices in a certain industry or other variables like population—affect factor markets, intermediate goods production, and final goods production and consumption.

The REMI Connecticut model takes the U.S. I/O “table” results and scales them according to traditional regional relationships and current conditions, allowing the relationships to adapt dynamically at reasonable rates to changing conditions.

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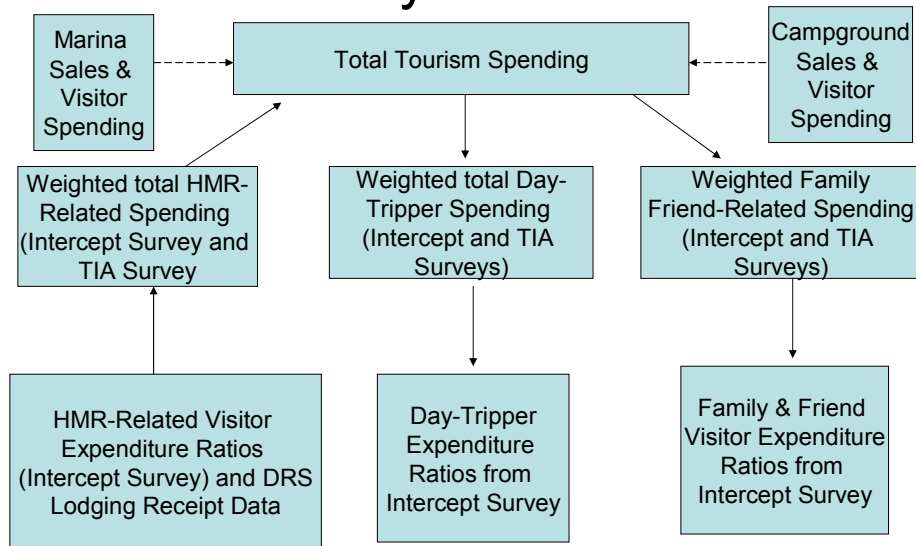
## **Part Two: THE ECONOMIC IMPACT OF TOURISM IN CONNECTICUT**

### **Data Sources and Methodology**

In this analysis, the Connecticut Center for Economic Analysis (CCEA) uses two kinds of survey data to estimate the total impact of tourism-related spending on the Connecticut economy:

- CCEA surveyed all Connecticut lodging establishments (Hotels, Motels, and Resorts (HMRs), Campgrounds, and Marinas). CCEA asked managers specific questions about their establishments, ranging from occupancy rates in different months and seasons, average room rate, average occupancy rates, total sales in 2001, number of part- and full-time employees, and so on.
- The second survey CCEA used is the field-intercept survey, conducted by Witan Intelligence Strategies, Inc. In this survey, visitors, randomly chosen, in pre-selected attractions in different Connecticut locations were asked specific questions about their trip, such as where they stay, the number of people in their party, their satisfaction level, how much they spend in various categories (recreation, meals, lodging, etc.), how long they stay, and so on. Sixteen intercept sites were recruited and over 6,000 visitors interviewed during the summer and fall of 2001 and the winter and spring of 2002. Respondents to these surveys provided information about their specific spending patterns. We were able to identify the spending patterns in eight expenditure categories: shopping (retail), lodging, meals, recreation, wagers, fuel, spending for vehicle parts, maintenance, parking, and local transportation. The intercept survey classified visitors as staying with friends and relatives, day trippers, and those staying in a lodging establishment. Travelers and tourists passing through are classified as day trippers.

# Summary Framework



## Modeling Strategy

In CCEA’s model, our basic purpose is to estimate total visitor spending according to the places visitors stay or their type of trip:

- Hotels, Motels, Resorts (HMRs)
- Day Trippers
- People staying with friends and Relatives
- Campgrounds, and
- Marinas

In the next five sub-sections, visitor spending calculations for these visitor types are explained in more detail. In CCEA’s calculations, we first focused on the three accommodation types for which we have detailed information about visitor spending amounts and patterns from the intercept surveys: HMR visitors, day trippers, visitors staying with friends and family. The starting point for those calculations is the “HMR room occupancy gross receipts” obtained from Department of Revenue Services (DRS).

Additionally we used two important ratios throughout CCEA’s calculations:

- The first ratio measures the share of each type of visitor spending in the total spending of the first three types of visitors (visitors who stay in HMRs, day trippers, and



visitors who stay with friends and family); we call it “spending ratio by visitor type.” To calculate these ratios from the intercept surveys, we use information provided by each type of visitor about his/her average spending per day.

Weighted Spending Ratios by Visitor Type (from Intercept and TIA TravelScope Household Surveys)			
	Day Tripper	Friends & Relatives	HMR Visitors
Fairfield	29%	11%	60%
Hartford	43%	18%	39%
Litchfield	58%	16%	25%
Middlesex	67%	11%	22%
New Haven	68%	17%	15%
New London	56%	19%	25%
Tolland	27%	23%	50%
Windham	79%	8%	14%

- The second ratio is the “spending ratio by expenditure categories” (eight expenditure categories mentioned in the table below). It measures the share of each expenditure type in total spending by visitors. Ratios are specific to each visitor type, for example, day trippers do not spend on lodging, but they spend more than the other visitor types for recreation and meals, while visitors staying in HMRs spend more for lodging than the others. Therefore, these ratios provide specific information about the spending patterns of each visitor type obtained from the intercept surveys. However, the ratio for wagers is not used for calculating actual visitor spending in this category, because it overstates the quantity of money from this source that actually flows into the economy. For wager spending estimates we use Department of Special Revenue data for all wager spending including Lotto games, pari-mutuel, dog track and Jai Lai venues, but not casino wager spending for which we use estimates from DSR for slot revenue and a conservative fraction of the slot handle (about 3%) for table game revenue.

We estimate campground and marina total sales from CCEA’s “establishment surveys.” However, this is not the total spending generated by campers or marina visitors, or it is not enough to determine the distribution among different expenditure categories. We need the “spending ratio by expenditure category” for these two groups of visitors. For

campers, we assume that their spending pattern is same as for HMR visitors; therefore, for each county, we use the “spending ratios by expenditure category” of the HMR visitors in each county. To calculate total marina visitor spending, we use the trip expenditure pattern from Marine Angler Expenditure Survey for Connecticut as reported in Scott Steinback and Brad Gentner, (June 2001), Marine Angler Expenditures in the Northeast Region, 1998.

Traveler and tourist expenditure for wages affects the economy by flowing into the Pequot Fund that is distributed to towns and municipalities, and into the Connecticut General Fund, by flowing into wages and salaries of casino and restaurant employees, and by purchasing goods and services used in casino operations.

#### 1. Calculation of Total Spending for Visitors Who Stay in HMRs:

To calculate the total spending by visitors who stay in commercial lodging establishments, we use gross receipts data from Department of Revenue Services (DRS). Even though in CCEA’s lodging surveys, the establishments’ managers were asked about their total revenue from room sales, the response rate to those surveys was quite low (about 26%), and most of the respondents did not answer the revenue question. Therefore, it is not possible to use CCEA survey results to calculate total spending for visitors staying in HMRs. We use DRS town level data for “room occupancy gross receipts,” and summed it to get totals by counties. The room occupancy tax is 12% of the gross receipts, however, there are exemptions, for example, military personnel, members of most non-profit organizations, government officials, and people who are staying long term (more than a month) do not pay the room occupancy tax. Therefore, we augment the DRS data to get actual lodging spending figures for HMRs.

Next, we calculate the spending patterns by the three types of visitors for which we have more detailed data from the intercept surveys (HMR visitors, visitors staying with friends and family, and, day trippers). From these surveys, we know the total amount of money spent per person during their entire trip to the surveyed attractions in Connecticut. Additionally, we know on average how long people stay in different counties in Connecticut (average number of nights spent). Using these facts, we first determine the

total average *per person per day spending* for each visitor type, then calculate the spending share of each three visitor types in total spending (“spending ratios by visitor type”).

For the three types of visitors, we have only total lodging spending for those staying in HMRs, by county (from DRS). However, during their visit, people spend other than for lodging (day trippers do not spend for lodging), such as meals, recreation, souvenirs, renting cars, buying gas, and so on. Therefore, DRS data is not total HMR visitor spending; it is only the total spending for “lodging.” The way to derive total spending is to determine visitors’ spending patterns. As mentioned, in the intercept surveys, visitors were asked how they allocate their total spending among different categories (shopping, lodging, meals, recreation, wagers, fuel, other auto, and local transportation). Using this data, we calculate the spending ratios for each of those eight expenditure categories (spending in each category divided by total average spending) (“spending ratios by expenditure categories”). Using these ratios and the knowledge of total lodging spending for those who stayed in HMRs, we can calculate the total spending (including all eight categories) for this visitor type. For example, in Fairfield County, from the intercept surveys we know HMR visitors spend about 40% for lodging, and from DRS data we know that total lodging spending is \$206 million in Fairfield County. Therefore, the total spending of visitors who stay in HMRs in Fairfield County is calculated to be about \$521 million. The \$521 million total spending is allocated among the eight spending categories based on the spending ratios by expenditure categories calculated as described above.

The next step is to calculate total spending (without the breakdown among different spending categories) for the three types of visitors (excluding campers and marina visitors). For this calculation, we use two different types of information:

- ✓ Total spending of at least one of those visitor types, and
- ✓ The share of spending by this visitor type in the whole (spending ratio by trip type)

In the previous step we calculate the total spending of HMR visitors, and in the step before that, we calculate the spending ratios by trip type using the intercept surveys. With this information, we calculate the total spending. For example, in Fairfield County, we know that HMR visitors comprise about 60% of total spending among the three types of

travelers, and in the previous step, we estimate that visitors who stay in HMRs spend about \$521 million in total. If this \$521 million is 60% of total spending of the three types of visitors, the total spending of the three visitor types should be \$868 million.

### 2. Calculation of Total Spending of Day Trippers:

The total spending calculated in the previous section is divided among the three types of visitors based on their spending ratios. For example, in Fairfield County, day trippers' spending is about 29% of total tourist and traveler spending (about \$868 million as calculated in previous section) in the three visitor categories. Therefore, day trippers in Fairfield County spend about \$251 million in total.

Total spending, then, is allocated among the eight spending categories based on the spending ratios obtained from the intercept surveys. The difference for day trippers is that they do not spend for lodging.

### 3. Calculation of Total Spending for Visitors Who Stay with Friends and Family:

Total spending calculations are the same as for day trippers. Spending ratios (the distribution of total spending across eight categories) are different from the other visitor types based on the intercept survey results. For example, in Fairfield County, visitors who stay with friends and family make about 11% of total spending among those three types of visitors. Visitors staying with friends and family spend about \$96 million, 11% of \$868 million. We distribute this amount among the eight spending categories based on the spending ratios calculated.

### 4. Calculation of Total Spending for Visitors Who Stayed in Campgrounds:

CCEA does not have detailed information from intercept surveys for campers and marina visitors. Therefore, we could not include their spending among the three visitor types considered in the previous three sub-sections. We calculate total spending by campers and marina visitors separately.

As mentioned above, CCEA conducted separate surveys for campgrounds and marinas similar to those for HMRs. For both HMRs and marinas, we do not have spending ratios for each of the eight expenditure categories. For campgrounds, through the establishment surveys, we have total campground sales to campers in 2001. We regard this as their ‘lodging’ spending (because this money rents a campsite) for campers. At this point, we assume that campers’ spending pattern is the same as that of HMR visitors. After making this assumption, the remainder of the calculations is the same as for HMR visitors’ total spending estimation. For example, in Fairfield County, campers spend about \$341 thousand for campsite rentals. Using the same spending ratios as for HMR visitors, we conclude that campsite rentals (‘lodging’ as it is assumed) contribute about 40% of campers’ total trip spending. This means that their total spending for all categories will be around \$852 thousand. Based on spending ratios from the intercept surveys, we distribute this amount among the other spending categories.

##### 5. Calculations of Total Spending for Visitors Who Visit Marinas:

We allocate marina visitor spending in five expenditure categories: lodging, meals, shopping, local transportation, and marina-related spending (marina sales include membership fees, boat rentals, slip and mooring fees, boat repair, sail repair, notary services, chandlery services). We assume marina visitors spending on wagers and ‘other auto’ is negligible.

We calculate total marina visitor sales using data from CCEA’s marina survey as well as online data for marinas. For the first four expenditure categories above, we use visitor spending from the Marine Angler Expenditures in the Northeast Region (Scott Steinback and Brad Gentner, U.S. Department of Commerce, 1998). We distribute the reported state level spending to counties based on the numbers of marinas in each county.

## Tourism Revenues

Using several methodologies, we calculate total sales (revenues) from Connecticut's travel and tourism industry to be \$9892.4 billion in 2001 dollars. Table I.1 gives the total spending (direct impact) of travel and tourism in each county and in the state as a whole by type of visitor accommodation, and for day trippers and for those staying with friends and relatives and those who visited marinas. According to Table I.1, New London attracts the greatest portion of visitor spending (35% of total visitor spending in Connecticut accrues to New London County), followed by New Haven and Hartford Counties (25% and 17%, respectively). Figure I.1 shows the distribution of travel expenditures among Connecticut's counties. The county with the smallest share of travel and tourism spending is Tolland followed by Litchfield County (1.7% and 1.9%, respectively).

There are substantial differences among the counties in their tourism revenue. New London County receives the most HMR and day tripper spending and spending by those who stayed with friends and relatives (\$852.3 million, \$1,775.5 million and \$690.2 million, respectively). New London County ranks first in campground spending for 2001 (\$67.7 million).

<b>County</b>	<b>HMR</b>	<b>Campground</b>	<b>Friends &amp; Relatives</b>	<b>Day Trippers</b>	<b>Marinas</b>	<b>Total</b>	<b>Percent</b>
Fairfield	\$516.3	\$0.9	\$97.1	\$247.8	\$115.4	\$977.5	10%
Hartford	\$633.3	\$0.1	\$307.5	\$721.7	\$4.6	\$1,667.2	17%
Litchfield	\$43.2	\$23.7	\$31.9	\$84.7	\$0.0	\$183.4	2%
Middlesex	\$136.5	\$14.2	\$70.0	\$427.1	\$66.2	\$713.9	7%
New Haven	\$450.1	\$2.3	\$453.6	\$1,502.9	\$56.9	\$2,465.9	25%
New London	\$852.3	\$67.7	\$690.2	\$1,775.5	\$104.6	\$3,490.5	35%
Tolland	\$67.7	\$24.9	\$39.2	\$40.0	\$0.0	\$171.9	2%
Windham	\$52.8	\$55.1	\$9.8	\$102.9	\$1.5	\$222.1	2%
<b>State Total</b>	<b>\$2,752.2</b>	<b>\$189.0</b>	<b>\$1,699.3</b>	<b>\$4,902.6</b>	<b>\$349.3</b>	<b>\$9,892.4</b>	<b>100%</b>

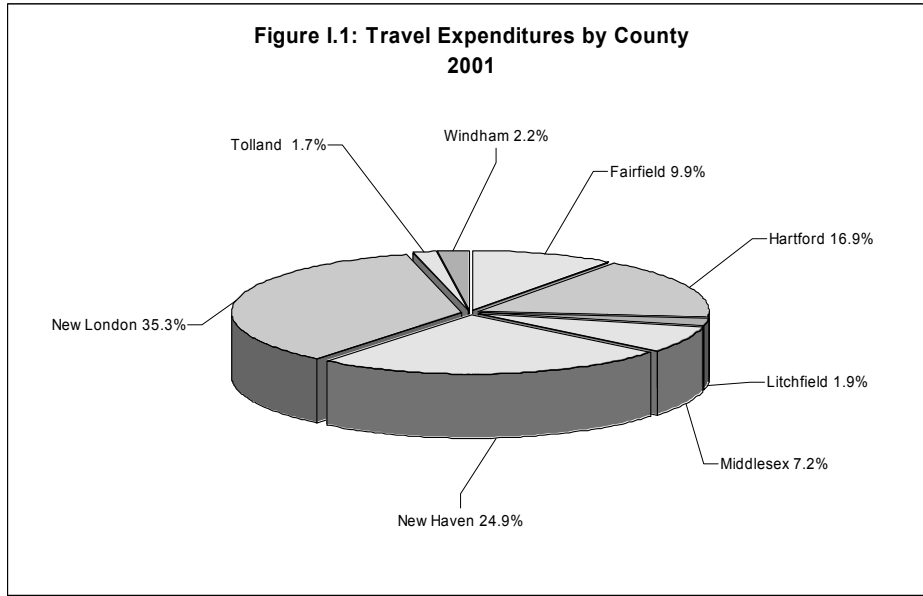


Table I.2 provides the same information by tourism district.<sup>1</sup> Among tourism districts, Southeastern Connecticut has the highest spending fraction (34.3%), while Housatonic Valley has the lowest (1.7%).

Tourism District	HMR	Campground	Friends & Relatives	Day Trippers	Marinas	Total	Percent
Central Connecticut	\$97.5	\$0.0	\$47.3	\$111.1	\$0.7	\$256.6	2.6%
Coastal Fairfield	\$392.8	\$0.7	\$73.9	\$188.6	\$87.8	\$743.8	7.5%
Connecticut River Valley	\$244.9	\$14.8	\$179.2	\$789.1	\$79.9	\$1,307.9	13.2%
Greater Hartford	\$424.3	\$14.3	\$209.6	\$462.3	\$2.8	\$1,113.3	11.3%
Greater New Haven	\$269.2	\$1.3	\$240.0	\$789.7	\$37.7	\$1,337.9	13.5%
Housatonic Valley	\$86.0	\$0.5	\$16.5	\$42.2	\$19.1	\$164.3	1.7%
Litchfield Hills	\$91.1	\$20.1	\$60.0	\$161.3	\$1.9	\$334.4	3.4%
North Central	\$118.3	\$3.8	\$58.4	\$129.3	\$0.8	\$310.6	3.1%
Northeast Connecticut	\$94.2	\$63.9	\$39.0	\$161.1	\$4.3	\$362.5	3.7%
Southeastern Connecticut	\$829.8	\$66.0	\$671.9	\$1,728.5	\$101.9	\$3,398.0	34.3%
Waterbury Region	\$104.1	\$3.8	\$103.3	\$339.4	\$12.4	\$563.1	5.7%
<b>State Total</b>	<b>\$2,752.2</b>	<b>\$189.0</b>	<b>\$1,699.3</b>	<b>\$4,902.6</b>	<b>\$349.3</b>	<b>\$9,892.4</b>	<b>100%</b>

<sup>1</sup> In this study, we allocate spending at the tourism district level, in addition to the county level. Conversions from county to tourism district are based on personal income. Knowing the towns in each county and tourism district, we calculate total personal income for the towns in a given tourism district, belonging to a certain county (numerator). We calculate total personal income for the whole county (denominator). The ratio we need is the quotient. This simply tells us what percent of personal income in the Greater New Haven Tourism District, for example, belongs to towns in New Haven County.

Table I.3 and Figure I.2 display the distribution of traveler spending by expenditure category, such as for recreation, meals, shopping, fuel and accommodation type used (HMRs, campgrounds, marinas, friends and family, and, day trippers). According to Table I.3 and Figure I.2, day trippers contributed the most to Connecticut travel revenues in 2001 (49.6%), followed by HMR visitors and those who stayed with family and friends (27.8% and 17.2%, respectively). Among expenditure categories, wagger spending is the largest part (about 21% of total travel and tourism spending in Connecticut). It is important to note that 79% of traveler and tourist spending (almost \$8 billion) in Connecticut is non-wagger spending. The largest non-wagger spending category is recreation (19%). For HMR visitors, the largest spending item is lodging itself; it is retail spending for people staying with friends and relatives, and wagers for day trippers. Campers and marina visitors spent the least among all visitor types considered in 2001.

**Table I.3**  
**Traveler Expenditure Patterns by**  
**Expenditure Category and Accommodation Used (2001 \$ million)**  
**Connecticut, 2001**

<b>Expenditure Category</b>	<b>HMR</b>	<b>Campground</b>	<b>Friends &amp; Relatives</b>	<b>Day Trippers</b>	<b>Marinas</b>	<b>Total</b>	<b>Percent</b>
<b>Recreation</b>	\$371.7	\$18.7	\$402.7	\$1,103.2	\$0.0	\$1,896.3	19%
<b>Meals</b>	\$450.8	\$33.7	\$306.5	\$846.8	\$15.0	\$1,652.9	17%
<b>Shopping</b>	\$271.3	\$14.4	\$407.6	\$1,090.5	\$19.5	\$1,803.3	18%
<b>Fuel</b>	\$101.1	\$5.4	\$92.6	\$435.0	\$0.0	\$634.1	6%
<b>Other Auto</b>	\$184.8	\$1.8	\$59.0	\$63.8	\$0.0	\$309.5	3%
<b>Local Transportation</b>	\$73.7	\$1.0	\$21.4	\$72.7	\$6.4	\$175.3	2%
<b>Lodging</b>	\$737.6	\$33.2	\$221.8	\$0.0	\$0.5	\$993.1	10%
<b>Wagers</b>	\$561.1	\$80.7	\$187.7	\$1,290.5	\$0.0	\$2,120.0	21%
<b>Marina Sales</b>	\$0.0	\$0.0	\$0.0	\$0.0	\$308.0	\$308.0	3%
<b>State Total</b>	<b>\$2,752.2</b>	<b>\$189.0</b>	<b>\$1,699.3</b>	<b>\$4,902.6</b>	<b>\$349.3</b>	<b>\$9,892.4</b>	<b>100%</b>



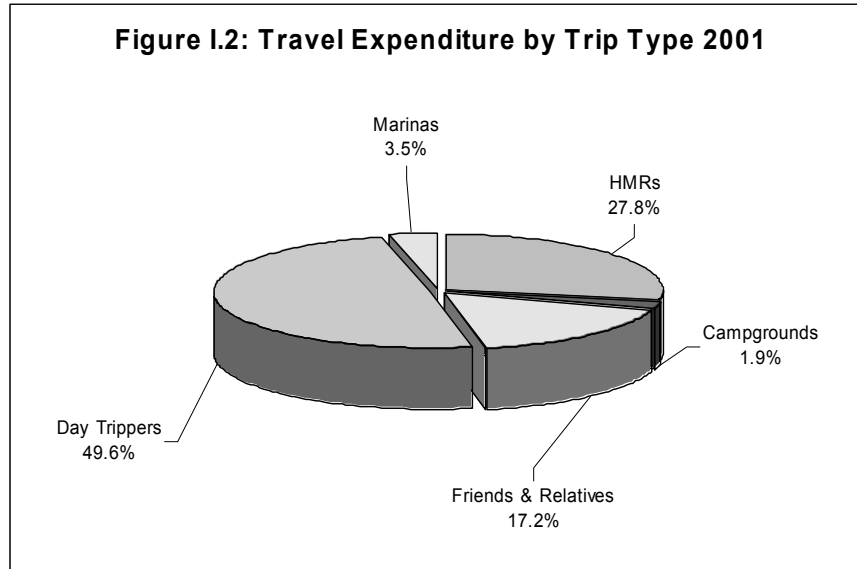
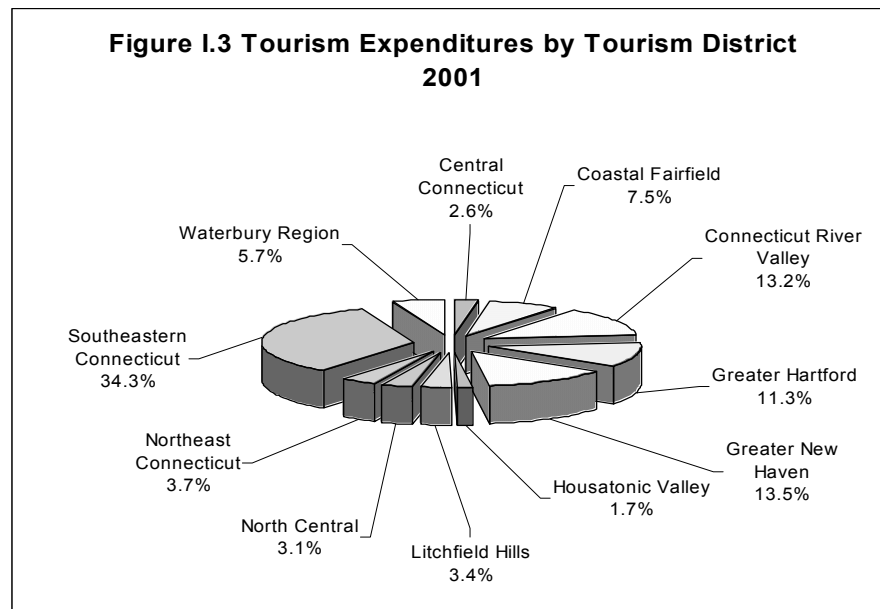


Table I.4 shows the distribution of total tourism spending among different expenditure categories by county for 2001. Wager spending includes pari-mutuel betting parlors, dog track betting, Jai Alai betting, charitable gaming betting, and casino slots and gaming betting. We include 29.5% of Connecticut Lottery games' revenue (\$247,757,195 in 2001) because we assume that some of that revenue flows from out-of-state people due to border effects. According to the Department of Special Revenue, in 2001, \$372,242,805 was wagered in pari-mutuel venues (Jai Alai, greyhound racing and off-track betting) in Hartford, Fairfield, New Haven and Windham counties. We estimate that house winnings of \$1.9 billion occurred in New London County from casino betting in 2001. We estimate that \$400 million flows out of the state to debt service and investments, such as the Native American Bank. This means that total wager revenue flowing into the state economy was \$2.12 billion in 2001. We allocate wager revenue to counties and districts based on the share of total wagers in the state captured in each county (from Department of Special Revenue data). We distribute revenue from the Lottery and charitable gaming activities evenly among the counties and tourism districts as they take place in disbursed sites. Another \$400 million flows to towns and municipalities through the Pequot Fund.

Table I.4 Travel And Tourism Expenditures by Expenditure Category by County (2001 \$ millions) Connecticut, 2001										
County	Recreation	Meals	Shopping	Fuel	Other Auto	Local Transp	Lodging	Wagers	Marina Sales	Total
Fairfield	\$162.8	\$146.9	\$127.8	\$61.0	\$36.2	\$46.2	\$209.5	\$85.3	\$101.8	\$977.5
Hartford	\$328.4	\$369.6	\$284.3	\$148.4	\$94.9	\$84.1	\$204.1	\$149.4	\$4.1	\$1,667.2
Litchfield	\$21.1	\$33.7	\$48.3	\$13.8	\$0.6	\$0.0	\$21.7	\$44.2	\$0.0	\$183.4
Middlesex	\$77.7	\$107.7	\$317.0	\$51.6	\$14.3	\$4.5	\$38.6	\$44.2	\$58.3	\$713.9
New Haven	\$725.4	\$480.5	\$581.4	\$268.4	\$105.5	\$15.7	\$105.0	\$133.8	\$50.2	\$2,465.9
New London	\$462.6	\$424.6	\$418.0	\$77.3	\$57.6	\$24.5	\$389.6	\$1,544.2	\$92.3	\$3,490.5
Tolland	\$21.0	\$76.3	\$7.0	\$10.9	\$0.3	\$0.1	\$12.1	\$44.2	\$0.0	\$171.9
Windham	\$97.3	\$13.7	\$19.6	\$2.7	\$0.0	\$0.3	\$12.6	\$74.6	\$1.4	\$222.1
<b>State Total</b>	<b>\$1,896.3</b>	<b>\$1,652.9</b>	<b>\$1,803.3</b>	<b>\$634.1</b>	<b>\$309.5</b>	<b>\$175.3</b>	<b>\$993.1</b>	<b>\$2,120.0</b>	<b>\$308.0</b>	<b>\$9,892.4</b>

Table I.5 shows the breakdown of spending by expenditure categories and by tourism district. Lodging expenditure includes DRS gross receipts data adjusted for exemptions and all other lodging-related expenditure such as house rentals, vacation property rentals, and motor home rentals. Expenditures are first calculated at the county level, because REMI requires county level input, and then distributed to the district level using an allocation based on income shares of districts in counties using towns as building blocks. Therefore, district level spending in the lodging category may be slightly different (+/- 10%) than experience would indicate. The district level breakdown does not drive the economic impact in any case.

Table I.5 Travel And Tourism Expenditures by Expenditure Category by Tourism District (2001 \$ millions) Connecticut, 2001										
Tourism District	Recreation	Meals	Shopping	Fuel	Other Auto	Local Transp	Lodging	Wagers	Marina Sales	Total
Central Connecticut	\$50.5	\$56.9	\$43.7	\$22.8	\$14.6	\$12.9	\$31.4	\$23.0	\$0.6	\$256.6
Coastal Fairfield	\$123.9	\$111.7	\$97.2	\$46.4	\$27.6	\$35.2	\$159.4	\$64.9	\$77.4	\$743.8
Connecticut River Valley	\$252.5	\$223.4	\$457.0	\$116.2	\$39.8	\$8.3	\$63.9	\$76.5	\$70.4	\$1,307.9
Greater Hartford	\$211.9	\$268.6	\$177.1	\$96.6	\$58.0	\$51.2	\$131.2	\$116.2	\$2.5	\$1,113.3
Greater New Haven	\$384.4	\$257.5	\$307.9	\$142.3	\$56.8	\$11.5	\$69.4	\$75.0	\$33.3	\$1,337.9
Housatonic Valley	\$27.2	\$24.8	\$21.8	\$10.3	\$6.0	\$7.6	\$35.0	\$14.8	\$16.8	\$164.3
Litchfield Hills	\$59.8	\$66.4	\$75.9	\$29.0	\$9.7	\$6.0	\$34.8	\$51.1	\$1.7	\$334.4
North Central	\$59.2	\$74.6	\$49.6	\$27.0	\$16.3	\$14.4	\$36.7	\$32.2	\$0.7	\$310.6
Northeast Connecticut	\$115.4	\$46.2	\$32.6	\$7.8	\$1.6	\$1.0	\$26.3	\$127.9	\$3.8	\$362.5
Southeastern Connecticut	\$450.3	\$413.3	\$406.9	\$75.2	\$56.0	\$23.8	\$379.3	\$1,503.3	\$89.8	\$3,398.0
Waterbury Region	\$161.1	\$109.5	\$133.5	\$60.4	\$23.1	\$3.4	\$25.9	\$35.3	\$10.9	\$563.1
<b>State Total</b>	<b>\$1,896.3</b>	<b>\$1,652.9</b>	<b>\$1,803.3</b>	<b>\$634.1</b>	<b>\$309.5</b>	<b>\$175.3</b>	<b>\$993.1</b>	<b>\$2,120.0</b>	<b>\$308.0</b>	<b>\$9,892.4</b>



### **REMI Methodology**

In this study, we use the Connecticut Economic Model (REMI) to calculate the economic impact of travel and tourism spending on the Connecticut economy. The REMI model is a dynamic, multi-sector, regional model developed specifically for the Connecticut Center for Economic Analysis. This model provides detail on all eight counties in the State of Connecticut and any combination of these counties. The REMI model includes the major inter-industry linkages among 466 private industries aggregated into 49 major industrial sectors. With the addition of farming and three public sectors (state and local government, civilian federal government, and military), there are 53 sectors represented in the model for eight Connecticut counties.

The REMI model measures the Connecticut economy in its present form as a baseline forecast. Changes in the economy (that is, the direct impacts or shocks) are either added or subtracted from that baseline forecast depending on the nature of the change. Because the tourism sector *already exists* in the baseline model, the most accurate measure of tourism's current impact is measured by *counterfactually* removing the tourism sector from the model economy. The results measure the losses to the economy resulting from the disappearance of the tourism sector that we interpret as the positive impact of the tourism

sector by reversing the signs. We report results (impact) as positive numbers to show the contribution of tourism-related expenditure on the Connecticut economy.

We counterfactually subtract expenditures in nine tourism-related sectors from each county:

- *Recreation* includes expenditures made for recreational purposes, such as admission fees, equipment rental, etc., that are input into REMI's consumer spending category for such expenditures.
- *Meals* include all food-related spending, which is part of REMI's consumer spending on food and beverages.
- *Shopping* includes all retail spending distributed in REMI among various kinds of consumer goods.
- *Gasoline* expenditure enters REMI under the category "consumer spending on gasoline and oil."
- In addition to gasoline, we include *other auto* expenses that in REMI is distributed between the "auto repairs" and "vehicle tires and parts" categories.
- *Local transportation* includes expenditures ranging from auto rentals to commuter and rail transportation.
- *Lodging* expenditure includes HMRs, bed and breakfasts and all other kinds of commercial lodging establishments. In addition, this category includes spending for house rentals, vacation properties, motor home rentals and all lodging-related spending not elsewhere classified. As there is no REMI category for campground spending, we place this expenditure including camp, cabin and tent rentals under the lodging category. Therefore, total expenditure in this category exceeds DRS gross receipts data.
- *Wagers* includes gaming spending in the casinos in New London County, as well as the dog tracks and the pari-mutuel betting parlors around the state. About \$400 million of casino slot revenue goes to the Pequot Fund. This Fund is distributed to towns and municipalities in each county, and we assume for this analysis that it increases local spending (it may be used to reduce property taxes in a revenue-neutral sense). We allocate the Fund to Connecticut's counties based on their

population share. The remainder of wage spending represents additional recreation and hotel spending (sales) in several counties.

- *Marinas'* spending flows into the “water transportation” sector in REMI model. Marina sales include membership fees, boat rentals, slip and mooring fees, boat repair, sail repair, notary services, and chandlery services.

Table I.6 exhibits this information in more detail. Percentages in this table explain how total spending is distributed in REMI among more detailed sectors, and are calculated based on the “Consumer Expenditure Survey, 2001” ([www.bls.gov/cex/home.htm](http://www.bls.gov/cex/home.htm)). For example, all *recreation* spending goes to the “amusement and recreation sector” in REMI, while spending in the “*other auto*” category divides equally between “automobile parking, repair and services,” and “vehicles and parts.” Only in New London County are inputs different because we place the remainder of total house winnings (less \$400 million for the Pequot Fund) in this county as an additional increase in the hotel and amusement/recreation sector sales.

**Table I.6  
Expenditure Categories and Associated REMI Sectors**

Spending Category	REMI Category	Ratio as Percent of actual spending in the category
<b>Recreation</b>	Amusement and Recreation Services, Nec	100%
<b>Meal</b>	Consumer Spending (Food and Beverages)	100%
<b>Shopping</b>	Clothing and Shoes	36%
	Miscellaneous Repair Shops and Related Services	6%
	Medical Care	8%
	Tobacco	6%
	Books	2%
	Newspapers	2%
	Beauty and Barber Shops	2%
	Laundry, Cleaning, and Shoe Repair	5%
	Household Operation	2%
	Other Non-durables	27%
	Toys and Sporting Goods	4%
<b>Fuel</b>	Consumer Spending (Gasoline and Oil)	100%
<b>Other Auto</b>	Automobile Parking, Repair, and Services	50%
	Vehicles and Parts	50%
<b>Local Transportation</b>	Rental	70%
	Commuter Rail	10%
	Railway	10%
	Other Intercity	10%
<b>Lodging</b>	Hotels	100%
<b>Marinas</b>	Water Transportation	100%
<b>Share from Pequot Fund Based on Population Ratios</b>	State Spending	Depends on the ratio of county's population to total State population
<b>Rest of Expected Wager Spending (only for New London County)</b>	Amusement and Recreation Services, Nec	40%
	Hotels	60%

Nec=not elsewhere classified

## **Economic Impact Results**

We report long run macroeconomic values reflecting the economy's adjustment to the (*counterfactual*) permanent disappearance of Connecticut's tourism industry. The value for each economic variable reported is its change from the baseline forecast, that is, the economy containing tourism-related spending for 2001. The values reported represent the total change, that is, the sum of the direct, indirect and induced effects of counterfactually subtracting the tourism sector from Connecticut's economy. The direct effect is essentially the tourism sector's own employment, procurement and tax payments. Indirect effects include primarily the business-to-business activity that results from the procurement of goods and services tourism-related businesses use in producing their output (e.g., raw food, beverages, and legal services). The induced effects arise from the rounds of spending of employees working in the tourism sector (those who are employed in HMRs, campgrounds, souvenir shops and etc.) generate as they purchase goods and services, and the rounds of spending tourism sector's vendors' employees generate as they spend their incomes.

### *Results at the County Level*

Table I.7 shows the fiscal results of tourism-related spending for Connecticut as a whole and for each county. State and local revenues, at average rates, are the increases in various taxes and fees as a result of tourism-related spending in Connecticut. At the state level, reported local revenues are local revenues aggregated across the state. At the county level, local revenues are county level aggregates.<sup>2</sup> State revenues for the counties are a proportion of total state revenue allocated to a county. We report state and local expenditures similarly; they are net of transfer payments and represent (state and local) government final demand, that is, their purchases of goods and services including wages and salaries.

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<sup>2</sup> In this study, we report results at the tourism district level, in addition to the county level. Conversions from county to tourism district are based on personal income. Knowing the towns in each county and tourism district, we calculate total personal income for the towns in a given tourism district, belonging to a certain county (numerator). We calculate total personal income for the whole county (denominator). The ratio we need is the quotient. This simply tells us what percent of personal income in the Greater New Haven Tourism District, for example, belongs to towns in New Haven County.

Table I.7 Impact on State and Local Revenues and Expenditures by County (Million 2001\$)				
County	State Revenues	Local Revenues	State Expenditures	Local Expenditures
Fairfield	\$220.8	\$138.9	\$143.0	\$121.4
New Haven	\$324.0	\$215.5	\$180.2	\$252.4
Hartford	\$259.0	\$190.3	\$155.6	\$188.9
Tolland	\$44.0	\$27.9	\$30.6	\$33.2
New London	\$361.2	\$250.4	\$141.9	\$297.5
Windham	\$67.5	\$48.9	\$39.2	\$64.4
Litchfield	\$44.5	\$31.9	\$32.8	\$29.5
Middlesex	\$84.1	\$46.8	\$41.5	\$58.7
<b>State Total</b>	<b>\$1,405.0</b>	<b>\$950.6</b>	<b>\$764.8</b>	<b>\$1,045.9</b>

According to Table I.7, state and local revenues and expenditures increase in all counties and the state as a whole. In terms of these fiscal variables, except for state expenditures, the largest impact is in New London County with \$361 million, \$250 million and \$297 million increases, respectively, while the impact in all fiscal variables, except for local expenditure, is smallest in Tolland County. State revenues, in the entire state, increase by about \$1.4 billion (about 11% in 2001) as a result of tourism-related spending. In total, local expenditures exceed total local revenues. Some counties' exhibit excess revenue over expenditure; some the other way round. Local fiscals are influenced greatly by changes in population that demand more or less public services: as population increases, there is greater demand for public services, and ostensibly a larger base to raise necessary revenue. Figure I.4 portrays the same picture in detail.



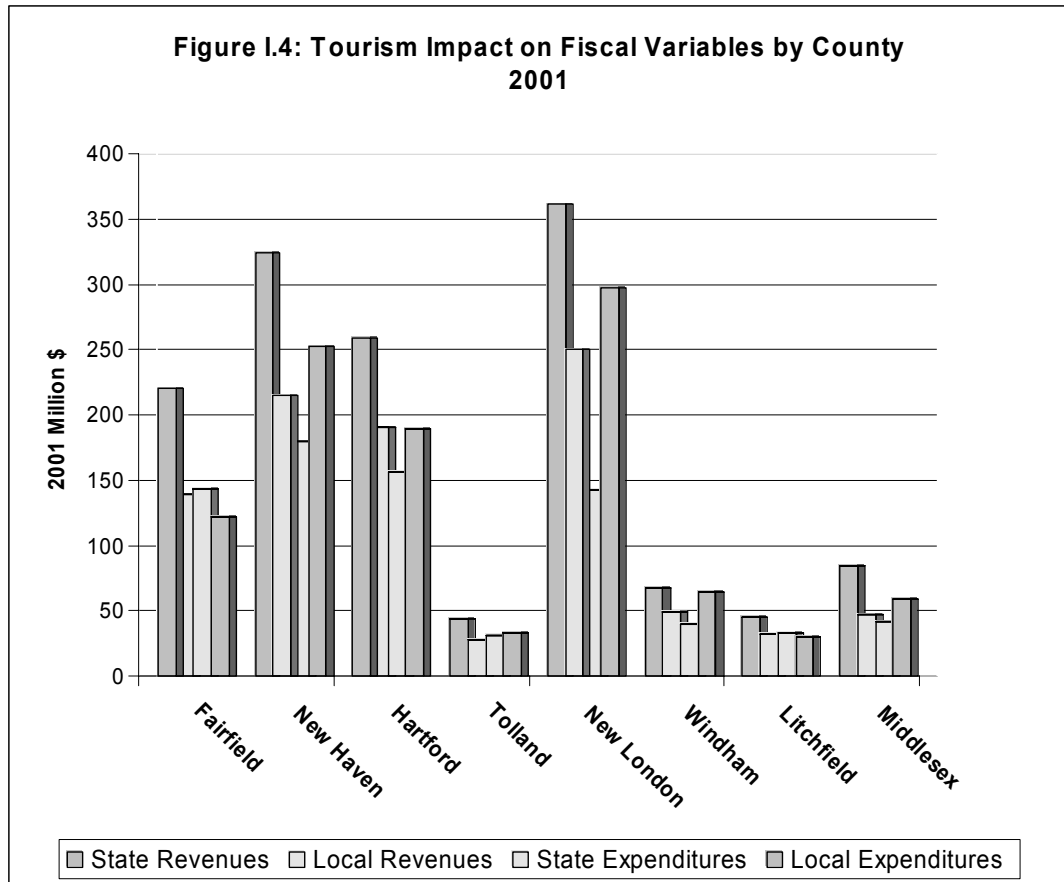


Table I.8 and Figure I.5 present Connecticut’s tourism sector impact in terms of key economic variables (Gross Regional Product, Personal Income). Gross regional product is the value of all goods and services produced in the region within a year on a value added basis. At the state level, this is gross state product (GSP). Personal income is income received from all sources before taxes. We express all monetary quantities in 2001 dollars. Tourism-related activities increase GSP in the state as a whole by \$9.47 billion (6% of GSP in 2001), while personal income increases more than \$10 billion (7% of personal income in 2001). The largest impacts are in New London County (\$2.4 billion and \$2.6 billion increases in Gross Regional Product and Personal Income, respectively).

Recall the GRP and Personal Income impacts are the result of total traveler and tourist spending in each county. The principal reason for differences in county spending patterns is attributable to the difference in day tripper versus HMR visitor spending. For example, HMR visitor spending in Fairfield County is \$516 million, the third highest for all

counties; however, day tripper spending is \$247 million, the fourth lowest in the counties. For New Haven County, these numbers are \$450 million and \$1,502.9 million. Total spending for Fairfield County is \$977.5 million that ranks fourth behind New London, New Haven and Hartford counties in that order. We attribute this to the large fraction of business travelers and a small fraction of day trippers (leisure travelers) in Fairfield County relative to the much larger fraction of day trippers in New London, New Haven and Hartford counties. For the state as a whole, the \$9.47 billion increase in GSP represents 6% of Connecticut's GSP in 2001; the \$10.25 billion increase in personal income represents more than 7% of Connecticut's personal income in 2001.

County	Gross Regional Product	Personal Income
Fairfield	\$1,578.8	\$1,696.1
New Haven	\$2,072.9	\$2,268.3
Hartford	\$1,989.0	\$1,774.6
Tolland	\$261.4	\$379.0
New London	\$2,423.3	\$2,623.9
Windham	\$374.3	\$552.7
Litchfield	\$224.0	\$338.6
Middlesex	\$543.6	\$621.3
<b>State Total</b>	<b>\$9,467.4</b>	<b>\$10,254.5</b>

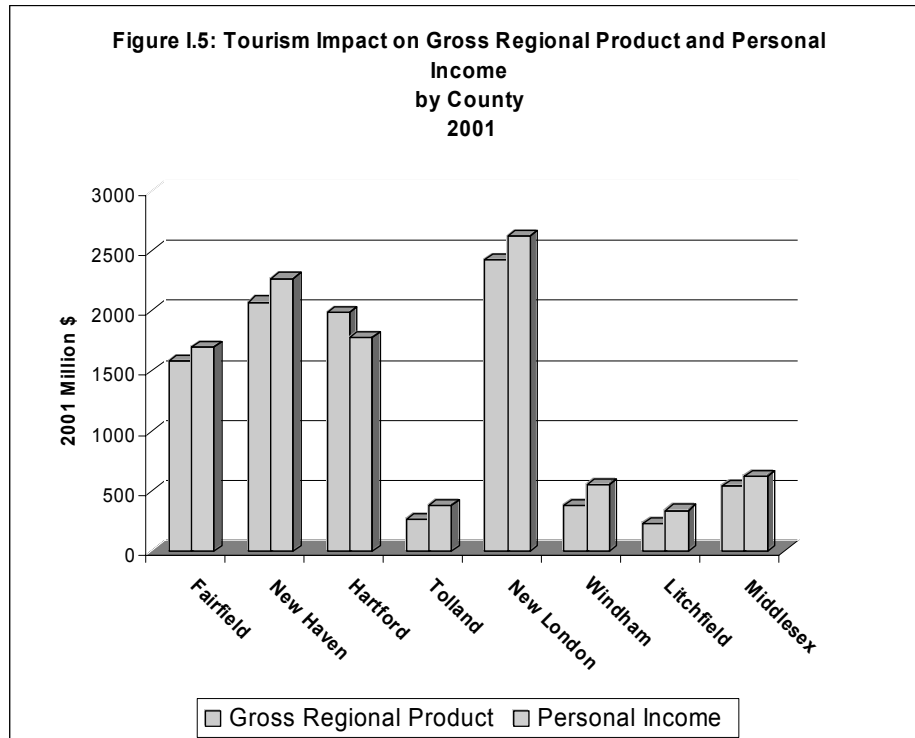
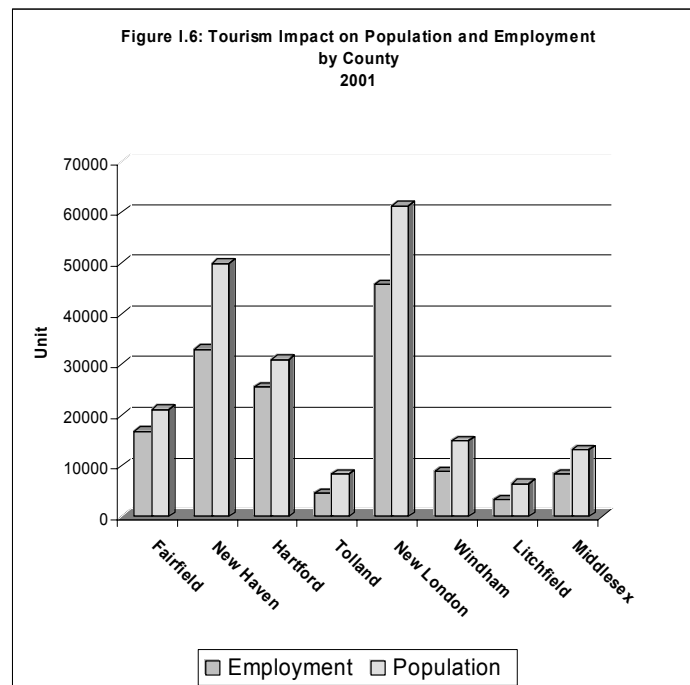


Table I.9 relates the tourism sector’s economic impact in terms of employment and population. We report total employment in terms of jobs created. Population reflects the in-migration of workers (and their families) to work in tourism-related businesses (HMRs, campgrounds, marinas, etc.) and to work in other firms affected by tourism sector operations. Tourism-related spending in 2001 increases population in Connecticut by 206,319, while creating more than 146,178 (about 8.6% in 2001) new jobs overall in the state. This is because the increases in personal income and economic activity induce people to move to Connecticut because of increased job opportunities. The smallest job increase occurs in Tolland County (4,633 new jobs), while the largest impact, occurs in New London County (more than 45,770 new jobs). Recall the discussion above as to the differences in total visitor spending that drive all facets of the economic impact including employment. Figure I.6 displays these results graphically.

Table I.9 Impact on Employment and Population by County (Units)		
County	Total	
	Employment	Population
Fairfield	16,770	21,140
New Haven	32,930	49,950
Hartford	25,520	30,990
Tolland	4,633	8,338
New London	45,770	61,310
Windham	8,887	14,910
Litchfield	3,285	6,481
Middlesex	8,383	13,200
<b>State Total</b>	<b>146,178</b>	<b>206,319</b>



Results at the Tourism District Level

We provide the results at the tourism district level. The conversion from county result to tourism district result is based on the share of personal income apportioned from the counties in each tourism district.

Table I.10 illustrates the impact of tourism-related spending on fiscal variables for the eleven tourism districts. A significant portion of the statewide fiscal impact occurs in

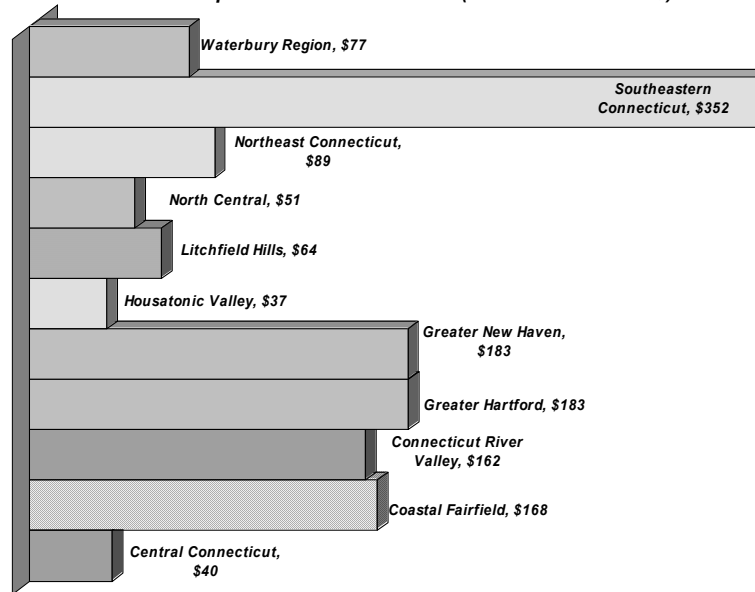
the Southeastern Connecticut District as Figures I.7 and I.8 illustrate. This is understandable if we consider that almost 35% of all tourism-related spending occurs in this district, as shown in Figure I.3 above.

Table I.10

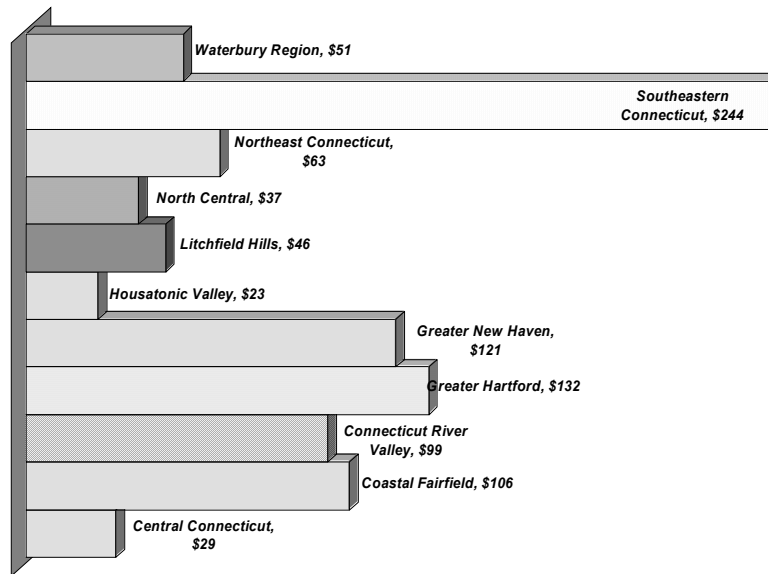
Impact on State and Local Revenues and Expenditures by Tourism District (Million 2001\$)

Tourism District	State Revenues	Local Revenues	State Expenditures	Local Expenditures
Central Connecticut	\$39.9	\$29.3	\$24.0	\$29.1
Coastal Fairfield	\$168.0	\$105.7	\$108.8	\$92.4
Connecticut River Valley	\$162.1	\$98.7	\$84.9	\$119.5
Greater Hartford	\$182.9	\$131.8	\$112.2	\$134.0
Greater New Haven	\$182.6	\$120.9	\$103.0	\$138.5
Housatonic Valley	\$37.2	\$23.4	\$24.1	\$20.5
Litchfield Hills	\$63.8	\$45.6	\$43.1	\$44.5
North Central	\$50.9	\$36.7	\$31.2	\$37.2
Northeast Connecticut	\$89.3	\$63.4	\$51.5	\$81.5
Southeastern Connecticut	\$351.6	\$243.8	\$138.1	\$289.6
Waterbury Region	\$76.8	\$51.4	\$43.9	\$59.1
<b>State Total</b>	<b>\$1,405.0</b>	<b>\$950.6</b>	<b>\$764.8</b>	<b>\$1,045.9</b>

**Figure I.7**  
Impact on State Revenues (Million Fixed 2001\$)



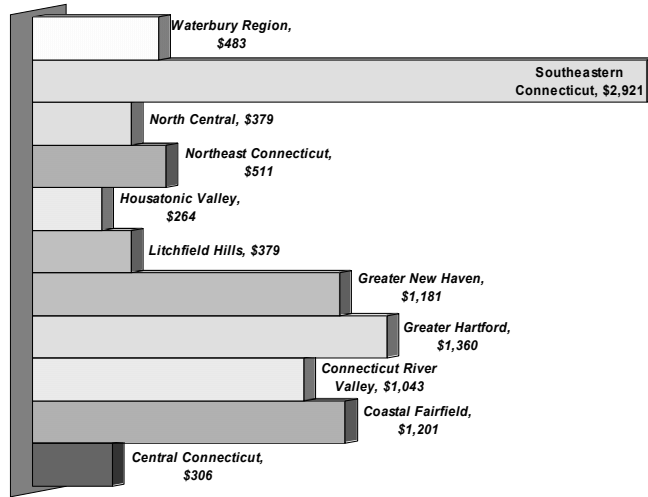
**Figure I.8**  
**Impact on Local Revenues (Million Fixed 2001\$)**



In terms of Gross Regional Product and Personal Income, tourism-related spending has its largest impact in the Southeastern Connecticut District. This district captures 25% of the total state benefit in terms of these measures of personal wellbeing as portrayed in Figures I.9 and I.10.

Table I.11 Impact on Gross Regional Product and Personal Income by Tourism District (Million 2001\$)		
Tourism District	Gross Regional Product	Personal Income
Central Connecticut	\$306.1	\$273.1
Coastal Fairfield	\$1,201.3	\$1,290.6
Connecticut River Valley	\$1,043.0	\$1,167.7
Greater Hartford	\$1,360.4	\$1,297.0
Greater New Haven	\$1,180.6	\$1,289.5
Housatonic Valley	\$264.3	\$285.3
Litchfield Hills	\$379.2	\$467.3
North Central	\$379.0	\$360.1
Northeast Connecticut	\$511.3	\$727.8
Southeastern Connecticut	\$2,359.1	\$2,554.3
Waterbury Region	\$483.1	\$541.7
<b>State Total</b>	<b>\$9,467.4</b>	<b>\$10,254.5</b>

**Figure I.9: Impact on Gross Regional Product  
(Million Fixed 2001\$)**



**Figure I.10: Impact on Personal Income  
(Million fixed 2001\$)**

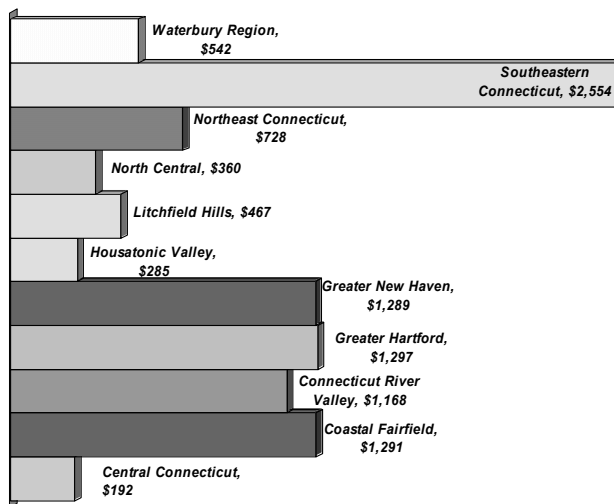
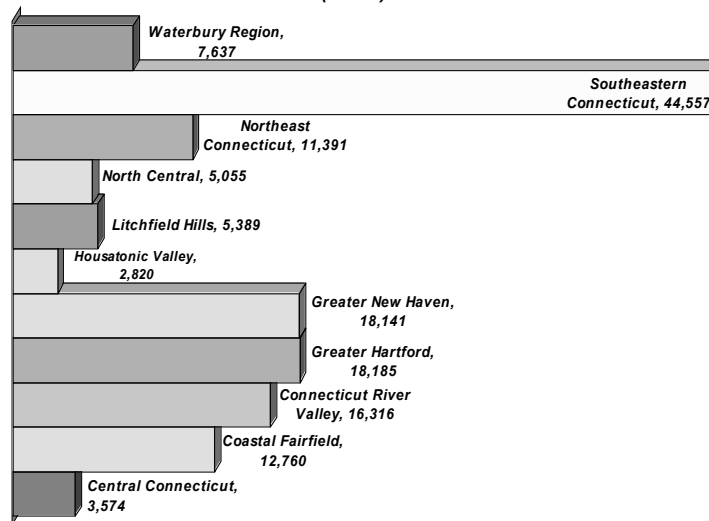


Table I.12 and Figure I.11 portray the impact of tourism-related spending on **total** employment and population at the tourism district level. The largest increase in jobs is in the Southeastern Connecticut District (more than 44,000 new jobs are created because of

tourism-related spending), and the smallest impact is in the Housatonic Valley District (2,820 new jobs).

Tourism District	Total	
	Employment	Population
Central Connecticut	3,928	4,769
Coastal Fairfield	12,760	16,085
Connecticut River Valley	16,316	25,233
Greater Hartford	18,185	23,632
Greater New Haven	18,141	27,199
Housatonic Valley	2,820	3,590
Litchfield Hills	5,389	8,929
North Central	5,055	6,546
Northeast Connecticut	11,391	18,858
Southeastern Connecticut	44,557	59,685
Waterbury Region	7,637	11,793
<b>State Total</b>	<b>146,178</b>	<b>206,319</b>

Figure I.11: Impact on Employment (Units)

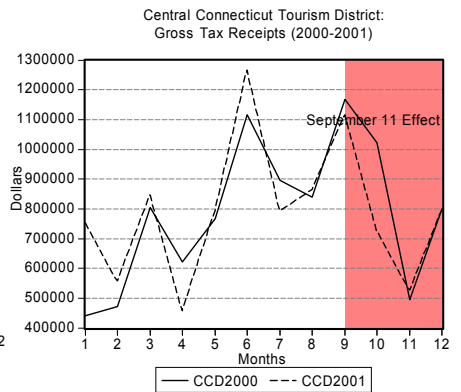
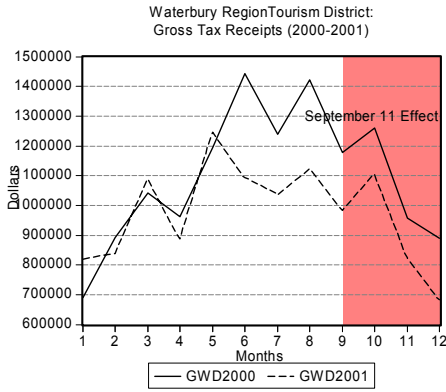
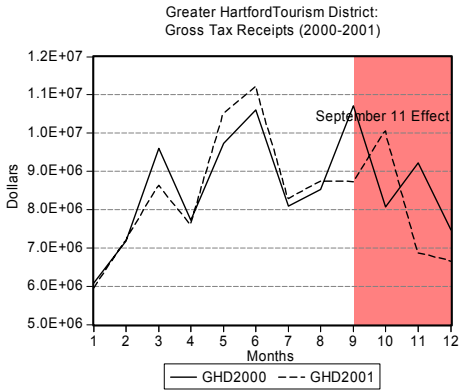
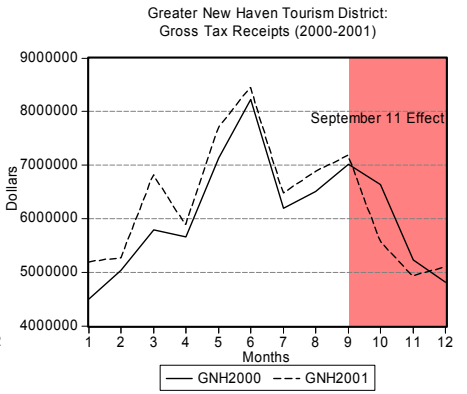
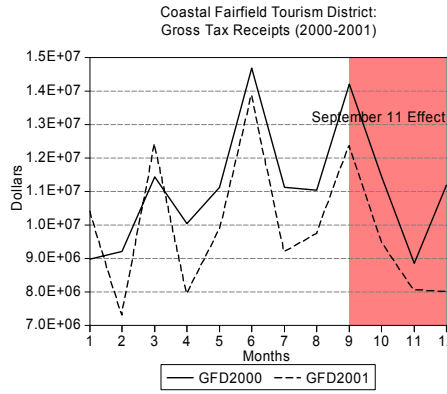
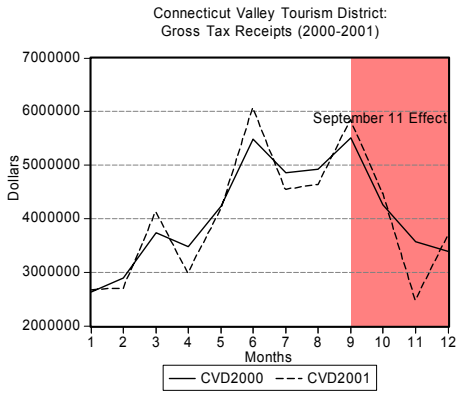




## **Appendix 1: The Effects of September 11, 2001**

## The Effects of the September 11, 2001 Attacks on Connecticut Travel and Tourism

We estimate here how the attacks in September 11, 2001 affected Connecticut's travel and tourism sector. We use monthly lodging gross receipts data (SIC sector 70) from DRS for 2000 and 2001. We calculate the month over month gross receipts growth rate for the year 2000. We assume that if September 11 had not occurred, the same monthly growth rate for lodging gross receipts would have occurred in each of the last four months of 2001 as for 2000 *all else equal*. Therefore, for the months of September through December 2001, we apply year 2000 monthly growth rates for the months September through December 2000 to HMR sales only (the composition of other tourist and traveler spending is unchanged by 9/11). Using those adjusted HMR revenues for 2001, we recalculate REMI inputs to run the model again. ***Thus, we have a partial equilibrium result because we do not adjust the spending of other types of travelers.*** In particular, we have no direct, quantitative evidence that leisure travel increased more in some districts relative to others as a result of 9/11. In this section, the results are comparisons to a hypothetical situation in which there was no September 11. The graphs below superimpose actual monthly gross receipts data for each tourism district for 2000 and 2001.



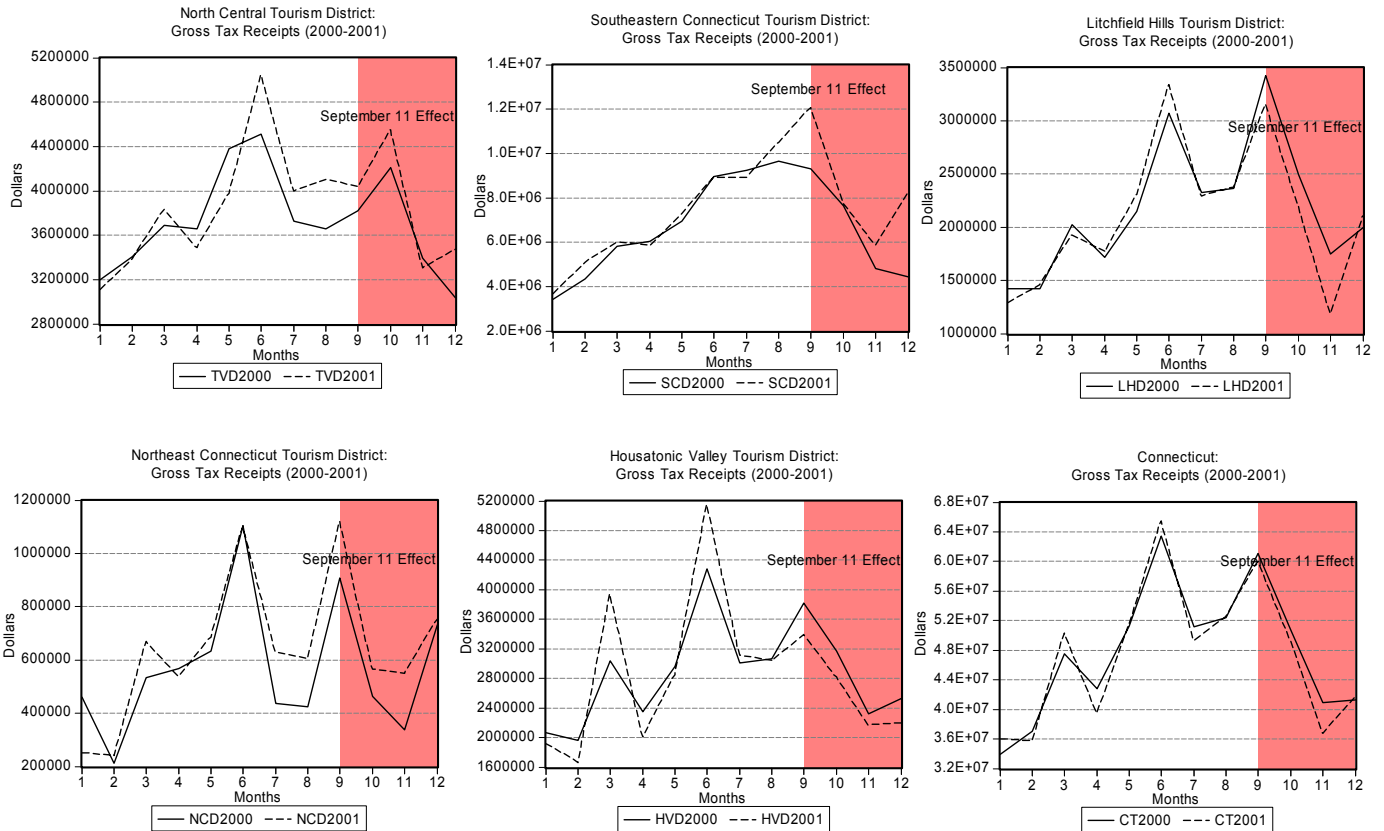


Table I.13 shows the economic impact of tourism-related spending for the state as a whole, with and without September 11.

Table I.13 Economic Impact of September 11, 2001 on Tourism and Travel			
	Connecticut Total		September 11 Effect
	With 9/11	Without 9/11	Loss or Gain?
State Revenues (Million 2001\$)	\$1,405	\$1,417	-\$12
Local Revenues (Million 2001\$)	\$951	\$958	-\$7
State Expenditures (Million 2001\$)	\$765	\$768	-\$3
Local Expenditures (Million 2001\$)	\$1,046	\$1,055	-\$9
Gross Regional Product (Million 2001\$)	\$9,467	\$9,546	-\$78
Personal Income (Million 2001\$)	\$10,254	\$10,342	-\$87
Employment (Units)	146,178	147,436	-1,258
Population (Units)	206,319	208,213	-1,894

Because we account only for changes in HMR visitor spending, the results reported here understate and skew the true impact of 9/11 on Connecticut's travel and tourism industry. It is likely that the composition of the types of travelers and tourists changed as well as their spending patterns.

## **Appendix 2: Detailed Methodology**

## **Data and Methodology for Tourism Impact Study**

The economic impact of tourism is driven by spending patterns of visitors in five categories: hotels, motels and resorts (HMR), day trippers (DT), those visitors staying with their family and friends (VFR), marinas, and campgrounds.

We calculate visitor spending in eight expenditure categories (shopping, lodging, meals, recreation, wagers, fuel, other auto, and local transportation) in each county. We use variety of methods and data sources to estimate visitor spending. We call CCEA's method of estimation the "accommodation mode" as lodging revenues are driving the entire estimation process.

### **I. Data Sources**

We use three sources of data:

- 1) Travel Industry Association (TIA) TravelScope Household Survey for Connecticut in 2001.
- 2) Lodging gross receipts (taxable revenue) from the Department of Revenue Services (DRS), one of the most reliable data sources with regard to HMR room sales revenue.
- 3) Surveys (lodging establishments and field-intercept surveys).

We conducted mail and phone surveys of lodging establishments including HMR, marinas and campgrounds (Appendix 4 contains a sample survey). Because the response rate to the mail survey was low, we conducted a phone survey of randomly selected lodging establishments. The combined response rate for HMRS is 24%, for marinas is 13%, and for (public and private) campgrounds is 27%.

In order to get an updated visitor spending pattern, Witan Intelligence, Inc. conducted field-intercept surveys in the summer and fall of 2001 and the winter and spring of 2002. Questions in the intercept survey reflect spending in the eight expenditure categories. Sixteen intercept sites were recruited and over 6,000 visitors interviewed. The surveys took place on weekdays and weekends at each site. Sites included:

<p style="text-align: center;"><b>Northwest</b></p> <p>Connecticut Welcome Center /Danbury Litchfield region (<i>Village, White Flower Farm</i>) Quassy Amusement Park (summer) Mohawk Ski Resort (winter)</p>	<p style="text-align: center;"><b>Northeast</b></p> <p>Mark Twain House New England Air Museum Windham/Tolland region (Putnam, Willington) Heublein Tower (fall)</p>
<p style="text-align: center;"><b>Southwest</b></p> <p>Connecticut Welcome Center / Darien Maritime Aquarium of Norwalk Yale University</p>	<p style="text-align: center;"><b>Southeast</b></p> <p>Essex Steam Train &amp; Riverboat Hammonasset Beach Park (summer) Mashantucket Pequot Museum Mystic Seaport Westbrook Factory Outlets Mohegan Sun Foxwoods Resort Casino Mystic Aquarium</p>

## **II. Methods to Estimate the Visitor Expenditures**

We calculate travel and tourism expenditures of five types of visitors: HMR, DT, VFR, marinas, and campgrounds. We apply different methods to capture their spending as accurately as possible.

### ***II.1. Total Spending of Visitors Who Stay in HMRS in each County:***

We calculate HMR-related visitor spending utilizing the DRS gross lodging receipts (hotel sales), the CCEA lodging establishment survey, and intercept survey by county. If we know what fraction of the HMR-related visitor spending goes to lodging, we can easily calculate total spending of HMR visitors by expenditure category. The following subsections explain the procedure of CCEA’s calculation in more detail.



*II.1.a. Annual HMR lodging spending (DRS annual gross lodging Receipts and Adjustments for Exemptions)*

The DRS gross lodging receipt represents only the taxable amount and does not include exemptions.<sup>3</sup> Exemptions are calculated as 12% of gross taxable receipts<sup>4</sup> in all counties, except Hartford (government center) and New London (military establishments) counties, where exemptions are set at 20%. Furthermore, hotel revenue on Mashantucket Pequot Tribal Nation land (Foxwoods Hotel and Two Trees Inn) is not included in DRS data, and we add it to the annual HMR lodging receipts in New London County.

$$ALS_{HMR,i} = \frac{\sum_{k=1}^{12} HS_{HMR,i,k}}{0.88} \quad (1)$$

where  $ALS_{HMR,i}$  = annual HMR lodging spending in the  $i$ th county, and

$HS_{i,k}$  = hotel sales in the  $k$ th month for the  $i$ th county.

For New London, we use the following formula to get the Annual HMR Lodging Spending:

$$ALS_{HMR,i} = \frac{\sum_{k=1}^{12} HS_{HMR,i,k}}{0.8} + Revenue_{Foxwood's\ Hotels} \quad (2)$$

For Hartford, we use the following formula:

$$ALS_{HMR,HF} = \frac{\sum_{k=1}^{12} HS_{HMR,HF,k}}{0.8} \quad (3)$$

*II.1.b. Spending ratios for each expenditure category by visitor type (HMR, DT, and VFR)*

From the intercept survey, we calculate the average spending per visitor in each expenditure category and the total average spending per day per visitor in each county. We

<sup>3</sup> There are four types of entities or persons who may claim exemption from state hotel tax: nonprofit organizations, military, government, and permanent residents (people who are staying 30 days or longer).

<sup>4</sup> 12 % exemption rate is consistent with the estimates of Source Strategies, Inc. for the Office of Texas Comptroller. For details, see Texas Tourism Division at <http://www.research.travel.state.tx.us/hotelreport.asp>.

calculate spending ratios for each county by dividing the overall visitor spending in each expenditure category by the overall total visitor spending.<sup>5</sup>

*II.1.c. Annual spending for each expenditure category except lodging by HMR visitors*

Once we have the ratios for each expenditure category, we can calculate the total amount of spending for HMR visitors. Then we distribute this total spending into the other seven expenditure categories as follows:

$$AST_{HMR,i} = \frac{ALS_{HMR,i}}{SSR_{HMR,i,l}} \quad (4)$$

$$ASC_{HMR,i,j} = AST_{HMR,i} \times SSR_{HMR,i,j} \quad (5)$$

where  $AST_{HMR,i}$  = annual total spending by HMR visitors in the *ith* county,

$ASC_{HMR,i,j}$  = annual HMR spending in the *jth* expenditure category of the *ith* county (except lodging spending for HMR visitors, as we obtain data from DRS and adjusted as explained above),

$ALS_{HMR,i}$  = annual lodging spending of HMR visitors in the *ith* county (see formulas 1-3),

$SSR_{HMR,i,j}$  = HMR spending ratio in the *jth* expenditure category in the *ith* county (from intercept survey, see step b),

$SSR_{HMR,i,l}$  = HMR spending ratio in the lodging category in the *ith* county (from intercept survey, see step b).

For example, if we know that 20% of total spending goes to lodging category and annual lodging expenditure is \$1 million, we obtain total HMR visitor spending as \$5 million (= \$1 million/20%). Furthermore, we distribute this total spending into each expenditure category other than lodging by multiplying the spending ratios in each category by \$5 million.

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<sup>5</sup> The visitors who are from the same county are excluded from our analysis even though they might represent a recapture for that county.

## II.2. Spending by Day Trippers in each County

From TIA TravelScope, we gather the average statewide ratio of visitors by type of accommodation for HMR, DT and VFR. Using TIA ratios and total average spending from the CCEA intercept survey, we obtain the weighted spending ratio for each of the three types of visitors (HMR, DT, and VFR). From the annual total HMR spending and the weighted spending ratios in each county, we calculate total visitor spending (the sum of HMR, DT, and VFR).

Once we have the total visitor spending (including HMR, DT, VFR), we are able to obtain the spending by DT and VFR using the weighted spending ratios. Finally, we distribute the amount of spending by each type of visitor into each expenditure category according to the spending ratios. The detailed procedure is as follows:

### II.2.a. Total visitor (HMR, DT, and VFR) spending in each county

#### II.2.a.i. Weighted spending ratios

$$WSR_{t,i} = \frac{TAS_{t,i} \times F_t}{\sum_{t=1}^3 (TAS_{t,i} \times F_t)}, \quad (6)$$

where  $WSR_{t,i}$  = weighted spending ratio of the  $t$ th type of visitors for the  $i$ th county,

$TAS_{t,i}$  = total average spending per day per visitor of the  $t$ th type of visitor in the  $i$ th county (from intercept survey), and

$F_t$  = frequency for the  $t$ th type of visitors (0.43 for the DT, 0.27 for VFR, and 0.3 for HMR based on TIA data (percentage of visitors by type of accommodation for 3rd quarter, 2001)).

#### II.2.a.ii. Total visitor (HMR, DT, VFR) spending

$$TVS_{3,i} = \frac{AST_{HRM,i}}{WSR_{HRM,i}}, \quad (7)$$

where  $TVS_{3,i}$  = Total visitor (HMR, DT, VFR) spending in the  $i$ th county

$AST_{HMR,i}$  = annual total spending by HMR visitors in the *ith* county (see formula 4), and

$WSR_{HMR,i}$  = weighted spending ratio of HMR for the *ith* county.

### II.2.b. Total spending by DT

$$AST_{DT,i} = TVS_i \times WSR_{DT,i}, \quad (8)$$

where  $AST_{DT,i}$  = annual total spending by DT visitors in the *ith* county,

$TVS_{3,i}$  = total visitor (HMR, DT, VFR) spending in the *ith* county, and

$WSR_{DT,i}$  = weighted spending ratio of DT for the *ith* county.

### II.2.c. Spending in each sector by DT

$$ASC_{DT,i,j} = AST_{DT,i} \times SSR_{DT,i,j}, \quad (9)$$

where  $ASC_{DT,i,j}$  = annual DT spending in the *jth* expenditure category of the *ith* county,

$AST_{DT,i}$  = total visitor spending by DT visitors in the *ith* county, and

$SSR_{DT,i,j}$  = spending ratio in *jth* expenditure category in *ith* county for DT (from intercept survey, as step b of the procedure for total spending of visitors who stay in HMRs).

## II.3. Spending by people staying with Family and Friends in each county

The VFR spending calculation follows the same procedure as that for DT. Using steps (b) and (c) in the procedure for DT, we obtain spending in each sector by VFR.

### II.3.a. Total spending by VFR

$$AST_{VFR,i} = TVS_{3,i} \times WSR_{VFR,i}, \quad (10)$$

where  $AST_{VFR,i}$  = annual total spending by VFR visitors in the *ith* county,

$TVS_{3,i}$  = total visitor (HMR, DT, VFR) spending in the *ith* county, and

$WSR_{VFR,i}$  = weighted spending ratio of VFR for the *ith* county.

### II.3.b. Spending in each sector by VFR

$$ASC_{VFR,i,j} = AST_{VFR,i} \times SSR_{VFR,i,j}, \quad (11)$$

where  $ASC_{VFR,i,j}$  = annual VFR spending in the  $j$ th expenditure category of the  $i$ th county,

$AST_{VFR,i}$  = total visitor spending by VFR visitors in the  $i$ th county, and

$SSR_{DT,i,j}$  = spending ratio in  $j$ th expenditure category in  $i$ th county for VFR (from intercept survey, as step (b) of the procedure for total spending of HMR visitors).

### II.4. Spending in Marinas in each county

We allocate marina visitor spending in five expenditure categories: lodging, meals, shopping, local transportation, and marina-related spending (marina sales include membership fees, boat rentals, slip and mooring fees, boat repair, sail repair, notary services, chandlery services). We assume marina visitors spending on wagers and ‘other auto’ is negligible.

We calculate total marina sales using data from the marina survey, as well as online data for marinas. For the other four expenditure categories above, we use visitor spending from the Marine Angler Expenditures in the Northeast Region (Scott Steinback and Brad Gentner, U.S. Department of Commerce, 1998). We distribute this state level spending to counties based on the numbers of marinas in each county as follows:

$$ASC_{MARINE,i,j} = SS_{MARINE,j,y} \times PS_{MARINE,i,y} \quad (12)$$

where  $ASC_{MARINE,i,j,y}$  = annual marina visitors spending in the  $j$ th expenditure category of the  $i$ th county (except total marina sales),

$SS_{MARINE,j,y}$  = state total marina spending in the  $j$ th expenditure category, and

$PS_{MARINE,i,y}$  = marina share in the  $i$ th county.

We calculate total marina spending using the marina survey and extrapolate the findings to all marinas.

## II.5. Campground Spending in each county

To estimate campground revenues, we use the campground survey, as well as data from campgrounds' websites. In terms of spending ratios, we treat campground visitor spending pattern as the same as that of HMR. We obtain annual campground spending for each expenditure category in a similar way as that for HMR and DT category spending.

### II.5.a. Campground revenues from campground survey

We calculate campground revenues using the following formula based on the campground operation data from lodging survey and online information:

$$CR_c = \sum_{k=winter, spring, summer, fall} \sum_{p=weekend, weekdays} OR_k \times W_p \times Per, \quad (13)$$

where  $CR_c$  = camping revenues from the  $cth$  campground,

$OR_k$  = occupancy rate in the  $kth$  season,

$W_p$  = weekend or weekdays, and

$Per$  = percentage of sites open.

### II.5.b. Total revenues from campgrounds

We obtain total revenues by summing up the revenues from all 66 campgrounds in step (a):

$$TR_{i,camping} = \sum_{c=1}^{66} CR_{c,i}, \quad (14)$$

where  $TR_{i,camping}$  = total revenues from camping for the  $ith$  county, and

$CR_{c,i}$  = camping revenues from the  $cth$  campground in the  $ith$  county.

### II.5.c. Annual campground visitor spending for each sector except camp sales and rentals in each county

Using the same logic as for other visitor types, spending in each category follows using the spending ratios in each category:

$$AST_{CAMP,i} = \frac{TR_{i,camping}}{SSR_{CAMP,i,camping}}, \quad (15)$$

$$ASC_{CAMP,i,j} = AST_{CAMP,i} \times SSR_{CAMP,i,j}, \quad (16)$$

where  $AST_{CAMP,i}$  = annual total spending by HMR visitors in the  $ith$  county,

$TR_{i,camping}$  = total revenues from camping in the  $ith$  county,

$SSR_{CAMP,i,j}$  = spending ratio in the  $jth$  expenditure category in the  $ith$  county for campgrounds (assuming they are the same as those in HMR), and

$ASC_{CAMP,i,j}$  = annual campground spending in the  $jth$  expenditure category in the  $ith$  county.

### **II.6. Total Annual Spending in each sector in each county**

Once we have the spending in each category for all the five visitor types, we add them up within each category by county.

$$TSC_{s,i,j} = \sum_{t=1}^5 ASC_{t,i,j}, \quad (17)$$

where  $TSC_{i,j}$  = total annual spending by each type of visitor (HMR, DT, VFR, marinas, or campgrounds) for the  $jth$  expenditure category in the  $ith$  county, and

$ASC_{t,i,j}$  = annual spending in  $jth$  expenditure category of  $ith$  county for the  $tth$  type of visitor.

We then convert these expenditure categories to REMI policy variables.

### **II.7 Method to Estimate Visitor Expenditures without 9/11 Effects**

We use lodging gross receipts (from DRS) from 2000 to calculate the lodging gross receipts without 9/11 effects. CCEA's calculation is based on the 2000 and 2001 monthly gross receipts growth rate. All else equal, we assume the hotel sales in each county/tourism district would grow at the same monthly growth rate (September through December, 2001) as that in 2000, if there were no 9/11. In this way, we obtain the predicted hotel sales without 9/11 effects. Then we follow the same procedure as for "with 9/11 effects" to obtain lodging spending without 9/11 effects. For example, calculate Hotel Sales in September 2001 for the  $ith$  county:

$$HS_{i,9,01} = HS_{i,8,01}(1 + g_{i,9,00}), \quad (18)$$

where  $HS_{i,k,y}$  = hotel sales in the  $k$ th month of the  $y$ th year for the  $i$ th county,

$g_{i,k,y}$  = growth rate of hotel sales in the  $k$ th month of the  $y$ th year for the tourism district to which the  $i$ th county belongs (assume the same growth rate for counties and the corresponding tourism districts in each period).

Once we obtain spending for HMR without 9/11, we follow the same procedure as described above and derive REMI input without 9/11.



### **Appendix 3: Sample Lodging, Marina and Campground Surveys**

## Connecticut Hotels/Motels/Resorts Survey 2001

- Q1. In which Connecticut town is your facility located? \_\_\_\_\_.
- Q2. Which category best describes your business...Is it a Hotel; a Resort Hotel; a Resort with Cottages and Cabins; a Motor Hotel or Motel; a Bed and Breakfast, a Hotel with Cottages; Condos or Apartments; a Guest House, a Country Inn; or is it something else?
- 1) Hotel [Skip to Q2a.]
  - 2) Resort Hotel [Skip to Q2a.]
  - 3) Resort (Cottages and Cabins) [Skip to Q2b.]
  - 4) Motor Hotel or Motel [Skip to Q2a.]
  - 5) Bed and Breakfast [Skip to Q2a.]
  - 6) Hotel and Cottages [Skip to Q2b.]
  - 7) Condos or Apartments [Skip to Q2b.]
  - 8) Guest House [Skip to Q2a.]
  - 9) Country Inn [Skip to Q2a.]
  - 10) Something else \_\_\_\_\_ [Skip to Q2a.]

### **(If Hotel, Motel, Country Inn, or Bed and Breakfast)**

Q2a. How many rooms were available on average in your facility during 2001?  
\_\_\_\_\_. [Go to Q3.]

### **(If Cabin, Cottage, Condo, or Apartment)**

Q2b. How many single-party units were available on average in your facility during 2001? \_\_\_\_\_.

- Q3. What was the **average** number of persons per night occupying one room or unit in 2001? \_\_\_\_\_.
- Q4. About what percent of your total business in 2001 came from guests who live in Connecticut? \_\_\_\_\_%. (If 100%, skip to Q6)
- Q5. For your **out-of-state** guest parties in 2001, what percentage would you say came from each of the following areas:
- Q5a. Other New England States (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island)? \_\_\_\_\_%.
- Q5b. The New York Metropolitan Area, including New York City, Long Island, and Westchester? \_\_\_\_\_%.
- Q5c. New York State, NOT including New York City Metro Area? \_\_\_\_\_%.

- Q5d. New Jersey? \_\_\_\_\_ %.
- Q5e. Pennsylvania? \_\_\_\_\_ %.
- Q5f. Other States? \_\_\_\_\_ %.
- Q5g. Foreign Countries including Canada and Mexico? \_\_\_\_\_ %.
- Q6. What months were you open for business in 2001?  
\_\_\_\_\_.
- Q7. What was the average percentage occupancy of your rooms or units in:
- Q7a. January 2001? \_\_\_\_\_ %.
- Q7b. February 2001? \_\_\_\_\_ %.
- Q7c. March 2001? \_\_\_\_\_ %.
- Q7d. April 2001? \_\_\_\_\_ %.
- Q7e. May 2001? \_\_\_\_\_ %.
- Q7f. June 2001? \_\_\_\_\_ %.
- Q7g. July 2001? \_\_\_\_\_ %.
- Q7h. August 2001? \_\_\_\_\_ %.
- Q7i. September 2001? \_\_\_\_\_ %.
- Q7j. October 2001? \_\_\_\_\_ %.
- Q7k. November 2001? \_\_\_\_\_ %.
- Q7l. December 2001? \_\_\_\_\_ %.
- Q8. For each of the seasons, what was the average occupancy on WEEKENDS in 2001?
- Q8a. Weekends in Winter: \_\_\_\_\_ %
- Q8b. Weekends in Spring: \_\_\_\_\_ %
- Q8c. Weekends in Summer: \_\_\_\_\_ %
- Q8d. Weekends in Autumn: \_\_\_\_\_ %

- Q9. What was the average occupancy on WEEKDAYS in 2001?  
 Q9a. Weekdays in Winter: \_\_\_\_\_%  
 Q9b. Weekdays in Spring: \_\_\_\_\_%  
 Q9c. Weekdays in Summer: \_\_\_\_\_%  
 Q9d. Weekdays in Autumn: \_\_\_\_\_%
- Q10. Approximately what was the **average** number of nights guests stayed in your facility in 2001? \_\_\_\_\_.
- Q11. Approximately what were your total room sales for calendar year 2001?  
 \$\_\_\_\_\_.
- Q11a. What percent of that is accounted for by room sales? \_\_\_\_\_%
- Q12. Approximately what were your total sales for the Second Quarter of 2001?  
 \$\_\_\_\_\_.
- Q12a. What percent of that is accounted for by room sales? \_\_\_\_\_%
- Q13. For the Third Quarter 2001? \$\_\_\_\_\_.
- Q13a. What percent of that is accounted for by room sales? \_\_\_\_\_%
- Q14. And for the Fourth Quarter 2001? \$\_\_\_\_\_.
- Q14a. What percent of that is accounted for by room sales? \_\_\_\_\_%

For the next two questions, non-capital purchases means expenditure on goods and services, including commissions, fees and interest payments, but not including labor expenses (wages, payroll tax, fringes). For questions 17 and 18, capital purchases means expenditure on new vehicles, new construction (repair comes under non-capital expenditure), new computers or other equipment required in your business. 'Within Connecticut' means you issued payment to a Connecticut address even if the company is a large national firm or bank.

- Q15. As a percentage of your total spending, about what percent of your **non-capital** purchases did you make within Connecticut in 2001? \_\_\_\_\_%.
- Q16. In dollar terms, about how much money did you spend on **non-capital** purchases in Connecticut in 2001? \$\_\_\_\_\_.
- Q17. As a percentage of your total spending, about what percent of your **capital** expenditures did you make within Connecticut in 2001?  
 \_\_\_\_\_%.
- Q18. In dollar terms, about how much money did you spend on **capital** purchases in Connecticut in 2001? \$\_\_\_\_\_.

- Q19. How many full-time employees on average did your business employ in Connecticut in 2001? \_\_\_\_\_
- Q20. How many part-time and seasonal employees on average did your business employ in Connecticut in 2001? \_\_\_\_\_
- Q21. What was your Connecticut payroll in 2001? \_\_\_\_\_.

**RESPONSES TO QUESTIONS 22a. - 22d. should add to 100%**

- Q22. Approximately, what percentage of your rooms rentals were accounted for by
- (a) people on vacation or leisure trips \_\_\_\_\_ %
  - (b) conventions or meetings \_\_\_\_\_ %
  - (c) business other than conventions and meetings? \_\_\_\_\_ %
  - (d) something other than the categories previously mentioned? \_\_\_\_\_ %
- Q23. What was your average room rate per night, including state taxes, in 2001?  
\$ \_\_\_\_\_
- Q24. What percent of rooms did you rent to members of tour groups in 2001?  
\_\_\_\_\_ %

Thank you very much for your effort in providing this information for Connecticut tourism!

## Connecticut MARINA SURVEY 2001

- Q1. In what Connecticut town is your marina physically located? \_\_\_\_\_.
- Q2. Which **one** of the following categories **best** describes your marina operations?
1. Full-Service Marina
  2. Boat Dealer/Repair Shop
  3. Boat Storage
  4. Other (Please Specify) \_\_\_\_\_
- Q3. How many total slips and moorings on average did you have open for use in 2001?  
\_\_\_\_\_ slips and \_\_\_\_\_ moorings.
- Q4. What was the **average** size of a boating party (number of persons per boat) in 2001?  
\_\_\_\_\_ persons.
- Q5. About what percentage of your total business in 2001 came from recreational boaters who live in Connecticut? \_\_\_\_\_% (If 100%, skip to Q7)
- Q6. Thinking about your out-of-state recreational boaters in 2001, about what percent of them came from the following areas?
- Q6a. Other New England States (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island)? \_\_\_\_\_ %.
- Q6b. The New York Metropolitan Area, including New York City, Long Island, and Westchester? \_\_\_\_\_ %.
- Q6c. New York State, NOT including New York City Metro Area? \_\_\_\_\_ %.
- Q6d. New Jersey? \_\_\_\_\_ %.
- Q6e. Pennsylvania? \_\_\_\_\_ %.
- Q6f. All Other States within the USA? \_\_\_\_\_ %.
- Q6g. Foreign Countries including Canada and Mexico? \_\_\_\_\_ %.
- Q7. What months were you open for business in 2001? \_\_\_\_\_.
- Q8. What was the average percentage occupancy rate of your slips and moorings in...
- Q8a. January 2001 \_\_\_\_\_ %
- Q8b. February 2001 \_\_\_\_\_ %

- Q8c. March 2001 \_\_\_\_\_ %
- Q8d. April 2001 \_\_\_\_\_ %
- Q8e. May 2001 \_\_\_\_\_ %
- Q8f. June 2001 \_\_\_\_\_ %
- Q8g. July 2001 \_\_\_\_\_ %
- Q8h. August 2001 \_\_\_\_\_ %
- Q8i. September 2001 \_\_\_\_\_ %
- Q8j. October 2001 \_\_\_\_\_ %
- Q8k. November 2001 \_\_\_\_\_ %
- Q8l. December 2001 \_\_\_\_\_ %

Q9. For each of the seasons, what was the average occupancy on WEEKENDS in 2001?

- Q9a. Weekends in Winter: \_\_\_\_\_ %
- Q9b. Weekends in Spring: \_\_\_\_\_ %
- Q9c. Weekends in Summer: \_\_\_\_\_ %
- Q9d. Weekends in Autumn: \_\_\_\_\_ %

Q10. What was the average occupancy on WEEKDAYS in 2001?

- Q9a. Weekdays in Winter: \_\_\_\_\_ %
- Q9b. Weekdays in Spring: \_\_\_\_\_ %
- Q9c. Weekdays in Summer: \_\_\_\_\_ %
- Q9d. Weekdays in Autumn: \_\_\_\_\_ %

Q11. Approximately what was the average length of stay (number of days/nights) of a typical recreational boater in 2001? \_\_\_\_\_ days/nights.

Q12. Approximately what were your total sales for calendar year 2001?  
\$ \_\_\_\_\_.

Q12a. What percent of these total sales is accounted for by:

- a) Seasonal slips and moorings? \_\_\_\_\_ %
- b) Transient slips and moorings? \_\_\_\_\_ %
- c) Professional service fees (hauling and blocking)? \_\_\_\_\_ %
- d) Labor (repair and reconditioning)? \_\_\_\_\_ %
- e) Rental (Boat and Kayak)? \_\_\_\_\_ %
- f) Shop (Food, Ship's Store and Fuel)? \_\_\_\_\_ %
- g) Other (e.g., Brokerage)? \_\_\_\_\_ %

Q13. Approximately what were your total sales for the Second Quarter of 2001?  
\$ \_\_\_\_\_.

Q13a. What percent of these total sales is accounted for by:

- a) Seasonal slips and moorings? \_\_\_\_\_ %
- b) Transient slips and moorings? \_\_\_\_\_ %
- c) Professional service fees (hauling and blocking)? \_\_\_\_\_ %

- d) Labor (repair and reconditioning)? \_\_\_\_\_%
- e) Rental (Boat and Kayak)? \_\_\_\_\_%
- f) Shop (Food, Ship's Store and Fuel)? \_\_\_\_\_%
- g) Other (e.g., Brokerage)? \_\_\_\_\_%

Q14. For the Third Quarter 2001? \$ \_\_\_\_\_.

Q14a. What percent of this is accounted for by:

- a) Seasonal slips and moorings? \_\_\_\_\_%
- b) Transient slips and moorings? \_\_\_\_\_%
- c) Professional service fees (hauling and blocking)? \_\_\_\_\_%
- d) Labor (repair and reconditioning)? \_\_\_\_\_%
- e) Rental (Boat and Kayak)? \_\_\_\_\_%
- f) Shop (Food, Ship's Store and Fuel)? \_\_\_\_\_%
- g) Other (e.g., Brokerage)? \_\_\_\_\_%

Q15. And for the Fourth Quarter 2001? \$ \_\_\_\_\_.

Q15a. What percent of this is accounted for by:

- a) Seasonal slips and moorings? \_\_\_\_\_%
- b) Transient slips and moorings? \_\_\_\_\_%
- c) Professional service fees (hauling and blocking)? \_\_\_\_\_%
- d) Labor (repair and reconditioning)? \_\_\_\_\_%
- e) Rental (Boat and Kayak)? \_\_\_\_\_%
- f) Shop (Food, Ship's Store and Fuel)? \_\_\_\_\_%
- g) Other (e.g., Brokerage)? \_\_\_\_\_%

For the next two questions, non-capital purchases means expenditure on goods and services, including commissions, fees and interest payments, but not including labor expenses (wages, payroll tax, fringes). For questions 18 and 19, capital purchases means expenditure on new vehicles, new construction (repair comes under non-capital expenditure), new computers or other equipment required in your business. 'Within Connecticut' means you issued payment to a Connecticut address even if the company is a large national firm or bank.

Q16. As a percentage of your total spending, about what percent of your *non-capital* purchases did you make within Connecticut in 2001?  
 \_\_\_\_\_%.

Q17. In dollar terms, about how much money did you spend on *non-capital* purchases in Connecticut in 2001? \$ \_\_\_\_\_.



- Q18. As a percentage of your total spending, about what percent of your *capital* expenditures did you make within Connecticut in 2001?  
\_\_\_\_\_ %.
- Q19. In dollar terms, about how much money did you spend on *capital* purchases in Connecticut in 2001? \$\_\_\_\_\_.
- Q20. How many full-time employees on average did your business employ in Connecticut in 2001? \_\_\_\_\_
- Q21. How many part-time and seasonal employees on average did your business employ in Connecticut in 2001? \_\_\_\_\_
- Q22. What was your Connecticut payroll in 2001? \_\_\_\_\_.

**THE RESPONSES TO QUESTIONS 23a. – 23c. SHOULD TOTAL 100%**

- Q23. Approximately, what percentage of your slips and moorings were accounted for by  
 (a) Seasonal slip and mooring \_\_\_\_\_ %  
 (b) Transient Slip and mooring \_\_\_\_\_ %  
 (c) something other than the categories listed above? \_\_\_\_\_?
- Q24. What was your average slip rate per night, including taxes, in 2001? \_\_\_\_\_
- Q25. What was your average mooring rate per night, including taxes, in 2001? \_\_\_\_\_
- Q26. What percent of your customers pay membership fee? \_\_\_\_\_%

Thank you very much for your effort in providing this information for Connecticut tourism!

## Short Connecticut CAMPGROUNDS SURVEY 2001

Q1. In what Connecticut town is your campground physically located?

\_\_\_\_\_.

Q2. Which **one** of the following categories **best** describes your camping operations?

- 1) A privately owned campground, nearly all short-stay campers (4 weeks or less)
- 2) A privately owned campground, nearly all campers rent seasonally (more than 4 weeks)
- 3) A privately owned campground, mix of short stay and seasonal campers
- 4) A State Park/State Forest campground
- 5) Another publicly owned campground
- 6) A campground in which sites are rented or leased semi-permanently
- 7) A campground for special groups (e.g. church, YMCA, youth groups, etc)
- 8) A campground for people living in mobile homes
- 9) A campground for other non-transient residents

Q3. How many total campsites on average did you have open for use in 2001? \_\_\_\_\_ sites. Percent open during winter \_\_\_\_? Percent open during summer \_\_\_\_?

Q4. What was the **average** size of a camping party (number of persons per night) using a single \_\_\_\_\_ campsite in 2001? \_\_\_\_\_ persons.

Q5. Thinking about your camping parties in 2001, about what percent of them came from the following areas?

Q5a. Connecticut? \_\_\_\_\_% (If 100%, skip to Q7)

Q5b. Other New England States (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island)? \_\_\_\_\_%.

Q5c. The New York Metropolitan Area, including New York City, Long Island, and Westchester? \_\_\_\_\_%.

Q5d. New York State and New Jersey, NOT including New York City Metro Area? \_\_\_\_\_%.

Q5e. Pennsylvania? \_\_\_\_\_%.

Q5f. All Other States within the USA? \_\_\_\_\_%.

Q5g. Foreign Countries including Canada and Mexico? \_\_\_\_\_%.

- Q6. What months were you open for business in 2001? \_\_\_\_\_.
- Q7. For each of the seasons, what was the average occupancy (of available sites) on WEEKENDS in 2001?
- Q9a. Weekends in Winter: \_\_\_\_\_%
- Q9b. Weekends in Spring: \_\_\_\_\_%
- Q9c. Weekends in Summer: \_\_\_\_\_%
- Q9d. Weekends in Autumn: \_\_\_\_\_%
- Q8. What was the average occupancy (of available sites) on WEEKDAYS in 2001?
- Q9a. Weekdays in Winter: \_\_\_\_\_%
- Q9b. Weekdays in Spring: \_\_\_\_\_%
- Q9c. Weekdays in Summer: \_\_\_\_\_%
- Q9d. Weekdays in Autumn: \_\_\_\_\_%
- Q9. What was your average campsite rate per night, including taxes, in 2001? \_\_\_\_\_.
- Q10. Approximately what was the average length of stay (number of nights) of a typical camping party in 2001? \_\_\_\_\_ nights.
- Q11. Approximately what were your total sales for calendar year 2001?  
\$ \_\_\_\_\_.

**THE RESPONSES TO QUESTIONS 12a. - 12d. SHOULD TOTAL 100%**

- Q12. Approximately, what percentage of your campsites in 2001 were accounted for by
- (d) people on vacation or leisure trips \_\_\_\_\_%
- (e) members of groups (e.g., family reunions) \_\_\_\_\_%
- (f) conventions or meetings \_\_\_\_\_%
- (g) business other than conventions or meetings (e.g., client or customer visits)?  
\_\_\_\_\_%
- (h) something other than the categories listed above (e.g., weddings, special ceremonies)? \_\_\_\_\_%?
- Q13. If you rented travel trailers, what percent and dollar volume did that represent in 2001? \_\_\_\_\_% and \$ \_\_\_\_\_.
- Q14. If you rented cabins, what percent and dollar volume did that represent in 2001?  
\_\_\_\_\_% and \$ \_\_\_\_\_.

Thank you very much for your effort in providing this information for Connecticut tourism! If you have any comments for the district or the state, please let us know.

## **Appendix 4: Survey Comments**

## Comments from Connecticut hotels, motels, and resorts

The overall consensus among many owners/managers of Connecticut hotels, motels, and resorts is to decrease the occupancy tax. The tax currently is at 12%. Many owners/managers complained that the tax discourages visitors from other states to stay in Connecticut. Moreover, owners/managers from certain areas such as Litchfield do not want their visitor's bureau consolidated with other district visitor's bureaus in the state. They also want the Department of Tourism to concentrate on areas NOT on the shoreline such as Mystic. In addition, Stamford owners and managers addressed that their area needs more leisure events, because most of their visitors come for business events. They would like to target more people on vacation. Examples of comments received:

"Decrease the occupancy tax. 12% occupancy tax is too high" ~ Numerous owners/managers

"Casinos are not safe. Take care of the Capitol. Need safety for Hartford. SAFETY!!! Homicide rate needs to decrease."~Old Saybrook

"Great Job! Mystic is well performed" ~Old Saybrook

"State of Connecticut needs to draw more people with leisure events to draw people. Department of Tourism needs to do more. Need more leisure events."~ Stamford.

"Litchfield travel bureau: please do not consolidate with other travel districts Sales tax is too high. Discourage people to stay." ~Litchfield

"We need to decrease occupancy tax. Too high. We pay property tax as well!" ~New Milford

"Don't concentrate just on the shoreline such as the Mystic Area. We need more concentration in Litchfield Hills. Reduce Occupancy tax"~ Litchfield

"Madison needs more bed and breakfasts. We turn so many people down." ~Madison

"Leave visitor's bureaus alone. Do not consolidate visitor's bureaus especially Litchfield Hills. Restore funding to tourism. Currently, there is a cap in funding in the Litchfield area. Please remove the cap." ~Salisbury

**For some campgrounds, the issue is signage. Owners say that the state places signs for orchards, but will not place a sign for a campground.**

**For some marinas the issue is dredging; "At this rate, I won't have a marina because boats will not be able to come in. Can the state help me with that?"**