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Contribution of the North American Cruise Industry to the Florida Economy

Prepared for:

Florida-Caribbean Cruise Association

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Executive Summary

Business Research and Economic Advisors (BREA) was commissioned by the Florida-Caribbean Cruise Association (FCCA) to conduct an analysis of the impact of the North American cruise industry on the Florida economy. This analysis shows that the State of Florida is the primary beneficiary of these impacts in the United States.

The major findings of BREA's analysis include the following.

- The cruise industry and its passengers spent $7.8 billion on goods and services in the United States during 1999.
- Florida businesses received 37 percent of these expenditures for a total of $2.9 billion.
- This spending generated 33,884 direct employment opportunities among the cruise lines and its direct suppliers and a total of 83,611 jobs throughout the state when the indirect jobs are included.
- Accordingly, Florida accounted for 38 percent of the total jobs created by the industry throughout the United States.
- Similarly, Florida accounted for 34 percent of the direct and indirect wage income generated by the cruise industry throughout the nation.
- Florida cruise-related employees earned $2.4 billion in wages during 1999 while national cruise-related employees earned $7.0 billion in wages.
- In addition, the cruise lines, their passengers and the employees of the cruise lines and their suppliers, are a source of significant tax revenues for the state and local governments of Florida. BREA's analysis showed that cruise industry activity in Florida generated $71.1 million in direct tax payments during 1999.

BREA also analyzed the cruise industry's planned introduction of new cruise ships in the North American market through 2005. Based upon this analysis, BREA determined that the cruise industry will continue to expand its presence in Florida. In particular BREA estimated the following.

- The supply of bed days on ships homeporting in Florida will increase by 52 percent between 1999 and 2005 bringing the supply of bed days to over 31 million by 2005.
- In addition, passenger embarkations in 2005 will increase to more than 5.8 million in 2005 a 48 percent increase from 1999.

As shown in Table 1, the cruise industry and its passengers spent $7.8 billion on goods and services in the United States.[6] These purchases included transportation, lodging, retail items, etc. by passengers and food and beverages, ship maintenance and repair, travel agent commissions, etc. by the cruise lines. Our analysis of cruise line spending, passenger embarkations and the place-of-residence of passengers showed that almost 37 percent, $2.9 billion, of this spending directly benefited businesses in Florida.

Table 1
Summary of the Economic Impacts of the North American Cruise Industry in 1999

	U.S.	Florida	Share of U.S.
Passenger Embarkations (Millions)	4.71	3.92	83.2%
Direct Economic Impacts			
Passenger and Cruise Line Spending ($ Millions)	$7,810	$2,857	36.6%
Employment	81,063	33,884	41.8%
Wages and Salaries ($ Millions)	$2,353	$886	37.7%
Indirect Economic Impacts			
Employment	133,838	49,727	37.2%
Wages and Salaries ($ Millions)	$4,624	$1,469	31.8%
Total Economic Impacts			
Employment	214,901	83,611	38.9%
Wages and Salaries ($ Millions)	$6,977	$2,355	33.8%

The total economic impact of the passenger and cruise line spending in 1999 generated 83,611 jobs with $2.35 billion in wages and salaries throughout the state of Florida. The direct spending alone accounted for 33,884 jobs, including 10,065 on-shore employees of the cruise lines, with the remaining 49,727 Florida jobs created by the indirect and induced spending by Florida businesses and residents. A more detailed description of the Florida impacts is presented in the following sections of this report.

Direct Economic Impacts

The direct economic impacts of the cruise industry on the state of Florida are derived from a broad range of activities, including:

- staffing of cruise line headquarters,
- air transportation of out-of-state passengers,

[6] WEFA and BREA, The Contribution of the North American Cruise Industry to the U.S. Economy in 1999, prepared for the International Council of Cruise Lines, August 2000. Excludes $325 million in estimated interest payments.

- pre- and post-cruise tourism,
- provisioning of ships
- and advertising and marketing of cruises.

Table 2 shows the direct purchases, employment and wage income generated by the cruise industry in Florida for major business sectors. During 1999, we have estimated that the cruise industry generated over $2.8 billion in direct spending for goods and services provided by Florida businesses. In addition the cruise lines and their suppliers employed 33,884 workers and paid out wages of $886 million during 1999.

Table 2
Direct Economic Impacts of the Cruise Industry on the State of Florida in 1999

Sector	Industry Spending ($ Millions)	Employment	Wage Income ($ Millions)
Core Cruise Travel Sector	**$1,678.6**	**22,445**	**$605.3**
Cruise Lines	—	10,065	228.4
Port Services	755.1	4,354	134.2
Air Transportation	752.1	5,665	181.3
Transportation Services	171.4	2,361	61.4
Other Sectors	**$1,178.8**	**11,439**	**$281.0**
Business Services	232.6	3,856	78.4
Hotels and Lodging	86.9	1,848	33.5
Shipbuilding and Repair	112.4	940	40.3
Local Transportation	81.6	862	18.6
Fabricated Metal Products	120.9	796	22.8
Retail Trade	27.4	539	8.9
Entertainment & Amusements	33.1	335	7.7
Printing & Publishing	40.0	309	9.5
Food and Beverages	93.5	266	8.4
Warehousing	34.4	245	6.9
All Other Sectors	315.7	1,443	46.1
Total	**$2,857.3**	**33,884**	**$886.3**

The Core Cruise Travel Sector

The core cruise travel sector, which includes the cruise lines, airlines, travel agents and port service providers, generated $1.7 billion in direct spending in Florida that, in turn, generated 22,445 jobs and $605.3 million in wage income.[7] The core cruise travel sector

[7] Cruise line revenues are not included because the spending of these revenues by the cruise lines in the U.S. is included in the industry spending figures.

accounted for 59 percent of the direct spending by the passengers and the industry, 66 percent of the direct employment and 68 percent of the direct wage income.

The cruise lines accounted for the largest component of the direct impacts of the industry on the Florida economy. Florida is the home of corporate or administrative offices for fifteen cruise lines, including Carnival, Royal Caribbean International, Norwegian, Disney and Cunard and Seabourn.[8] We have estimated that the fifteen cruise lines employed 10,065 shoreside employees in the state during 1999 and paid shoreside wages of $228.4 million. These Florida-based cruise lines accounted for 42 percent of the total industry shoreside employment and wages in the United States.

The cruise industry spent $755 million for port services in the state. These included such services as piloting services, port charges and towing services. We have estimated that this spending generated another 4,354 jobs paying $134.2 million in wages at the state's ports and among port service providers.

As discussed in the introduction, we have estimated that Florida ports handled 3.9 million cruise passenger embarkations during 1999.[9] As shown in **Table 3** the Port of Miami and Port Canaveral are the state's dominant cruise ports having a combined total of 2.9 million embarkations, almost 75 percent of the all Florida passenger boardings.

Table 3
Estimated Cruise Embarkations
Florida Ports - 1999

Port	**Cruise Embarkations**
Canaveral	1,375,000
Everglades	600,000
Manatee	35,000
Miami	1,530,000
Palm Beach	175,000
Tampa	205,000
Total	**3,920,000**

Cruise embarkations provide a stimulus to the state's economy in several ways. Within the core cruise travel sector, cruise passengers directly affect the air transportation sector. Data obtained through our survey of the cruise industry and discussions with cruise industry executives indicate that approximately 70 percent of Florida cruise passengers travel to their port of embarkation via air transportation. Based on this information and

[8] The ten remaining cruise lines are Regal, Renaissance, Commodore, Costa, Premier, Cape Canaveral, Radisson Seven Seas, Silversea, Star Clipper and Windjammer Barefoot.
[9] Excludes one-day cruises and passenger disembarkations. Estimates are based upon data reported by CLIA, Cruise Industry News and port authorities.

reported payments to the airlines for passenger air travel, we have estimated that the air transportation sector received direct spending of $752 million by passengers and cruise lines.[10] As shown in Table 2, these expenditures for air transportation produced 5,665 jobs in Florida with total wage income of $181.3 million.

The final component of the core cruise travel sector is transportation services. This primarily includes travel agents and tour operators. We have estimated that $171.4 million was paid to businesses in this sector by the cruise industry. The majority of these payments were commissions paid by the cruise lines to Florida travel agents. Our analysis of direct vendor payments showed that more than 125 travel agencies throughout the state of Florida received commissions from the cruise industry. Overall, the cruise industry was responsible for the generation of 2,361 jobs in the transportation services sector paying $61.4 million in wage income.

Other Direct Impacts

During 1999 Florida businesses outside the core cruise travel sector received just under $1.2 billion in direct spending by the cruise lines and their passengers. These expenditures produced 11,439 jobs in the state paying wage income of $281 million. Table 2 shows the direct impacts on the ten noncore sectors of the Florida economy that received the highest employment impacts. Below we discuss the direct expenditures, employment, wage income and the primary type of businesses for each of these sectors that were impacted by the purchases of the cruise lines and their passengers.

- Business Services ($232.6 million in direct expenditures, 3,856 jobs, $78.4 million in wage income): advertising & marketing agencies, computer hardware and software consulting services, manpower and training agencies, security services, equipment rental and payroll services.

- Hotels and Lodging ($86.9 million, 1,848 jobs, $33.5 million): lodging and dining expenses at hotels during pre- and post-cruise stays by cruise passengers in Florida.

- Shipbuilding and Repair ($112.4 million, 940 jobs, $40.3 million): drydock and ship repair services, manufacture of lifeboats. The principal activity of businesses in this sector is the renovation and repair of cruise ships.

- Local Transportation ($81.6 million, 862 jobs, $18.6 million): provision of transportation services within the port area, such as tour buses, taxis and limousine services.

[10] Spending on air transportation was split evenly between state-of-residence and state of cruise embarkations. Data on the place of residence of cruise passengers was obtained from CLIA.

- Fabricated Metal Products ($120.9 million, 796 jobs, $22.8 million): the purchase of a broad range of manufactured products used on and in the maintenance of cruise ships such as: cabin doors, locks and safes, marine rigging, general plumbing supplies, miscellaneous hardware and tools, storage and shelving and miscellaneous fabricated metal products.

- Retail Trade ($27.4 million, 539 jobs, $8.9 million): the purchase of food and beverages, souvenirs, clothing and other retail items by cruise passengers during pre- and post-cruise stays in Florida.

- Entertainment and Amusements ($33.1 million, 335 jobs, $7.7 million): purchases by the cruise lines of artwork for cruise ships, theatrical and entertainment productions on cruise ships, payments to professional entertainment and sports organizations for special services such as theme cruises and payments for music systems.

- Printing and Publishing ($40 million, 309 jobs, $9.5 million): includes the purchase of brochures and cruise schedules, nautical maps, signage, special graphics, name tags, etc.

- Food and Beverages ($93.5 million, 266 jobs, $8.4 million): cruise line purchases of alcoholic and nonalcoholic beverages and food consumed on the cruise ships by passengers and crew.

- Warehousing ($34.4 million, 245 jobs, $6.9 million): includes the purchasing of local trucking and warehousing services for goods that are stored prior to loading on cruise ships.

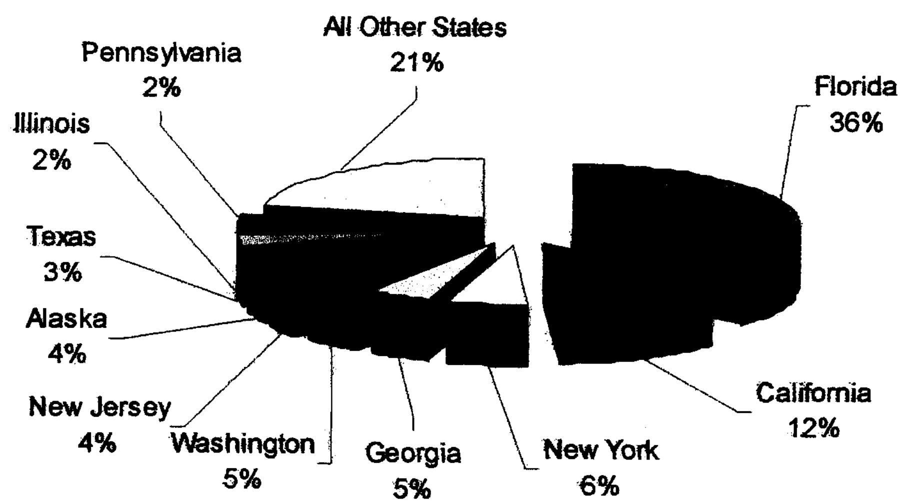
The remaining direct expenditures impact virtually all sectors of the Florida economy and include agriculture, construction, insurance, apparel manufacturing and engineering services to name a few.

As indicated in **Figure 1**, Florida businesses received 36 percent of the direct purchases by the cruise industry and its passengers in the U.S. and significantly outpaced all other states. California businesses received the second highest share of direct expenditures but were well behind Florida businesses with a 12 percent share.

Indirect Economic Impacts

The indirect economic benefits derived from the cruise industry result in part from the additional spending by the suppliers to the cruise industry. For example, food processors must purchase raw foodstuffs for processing, utility services, such as, electricity and water, to run equipment and add to food products, transportation services to deliver finished products to the cruise lines or wholesalers, insurance for property and employees and so forth. To estimate the indirect impacts economic multipliers specific to Florida industries were used.[11] These multipliers reflect the industry mix within Florida and account for the fact that a certain percentage of goods and services purchased by Florida industries must be imported from out-of-state and therefore do not generate economic activity within the state. Using food processing as an example again, food processors in Florida might purchase raw beef from meat packers in Iowa. In this case the value of the beef is an import and does not generate economic benefits in Florida.

Figure 1
Total Direct Purchases by the N.A. Cruise Industry, 1999
U.S. Total = $7.8 Billion



In addition to the indirect impacts generated by the purchase of business goods and services by cruise industry suppliers, the employees of the cruise lines and the suppliers generate indirect economic benefits through their purchases of consumer goods and services, including such goods as autos, food, clothing, furniture, health care and so forth. The value of these indirect impacts was estimated using a Florida household income multiplier.

Our analysis showed that the North American cruise industry generated another 49,727 jobs in Florida through the indirect spending by businesses and employees. Business expenditures generated an estimated 35,320 jobs while employee spending on consumer goods generated 14,407 jobs. In addition, these jobs generated $1.5 billion in wage income for these workers. As shown in **Table 4**, the indirect economic impacts touch virtually every industry in the state. The top five sectors account for approximately 75 percent of the indirect impacts of the cruise industry.

[11] Industry-specific RIMS II multipliers for Florida were purchased form the Bureau of Economic Analysis and were used to estimate the indirect economic impacts for the state.

The transportation sector remains the most significantly impacted sector within the state with 13,712 indirect jobs paying $454.5 million in wages. This reflects the strong inter-industry linkages within the transportation sector, as well as, the heavy usage of a variety of transportation services to supply businesses with their inputs and to deliver consumer goods to retail outlets.

Table 4
Indirect Economic Impacts of the Cruise Industry on the State of Florida in 1999

	Direct Purchases ($ Millions)	Indirect Employment	Indirect Wages ($ Millions)
Agriculture and Mining	1.6	1,388	21.6
Construction	16.4	1,085	36.9
Manufacturing	561.3	8,020	266.7
Nondurable Goods	160.3	2,628	88.3
Durable Goods	401.0	5,392	178.4
Transportation	1,794.6	13,712	454.5
Communications	13.9	422	11.4
Utilities	17.1	360	15.3
Wholesale & Retail Trade	27.4	7,433	232.4
Finance, Insurance & Real Estate	10.2	2,274	128.8
Hotels & Lodging	86.9	2,611	59.9
Business Services	233.2	7,932	139.8
Engineering & Management Services	19.7	546	27.3
Personal & Other Services	48.7	3,394	58.6
Government	26.1	550	15.7
Total	**$2,857.1**	**49,727**	**$1,468.9**

This is followed by the business service sector with 7,932 jobs and $139.8 million in wage income. These impacts result from the strong demand for business consulting services, especially computer consulting, equipment rental, manpower services and security and building maintenance services.

The wholesale and retail sector benefited from the demand for consumer goods created by the spending of workers in the cruise industry and its suppliers. This sector gained 7,433 indirect jobs paying $232.4 million in wage income as a result of these consumer expenditures.

The indirect impacts of the cruise industry generated 5,392 jobs in the durable goods manufacturing sector which paid $178.4 million in wage income to these workers. The impacted industries included consumer durable goods industries, such as autos, furniture and household electronics, and producers of business durable goods, such as computers, industrial machinery and trucks and buses.

The fifth most heavily impacted sector was personal and other services with 3,394 indirect jobs paying $58.6 million in wage income. This is a broadly defined industry and includes educational and social services, medical services, legal services and associations.

Total Economic Impacts

The total economic impacts shown in **Table 5** are the sum of the direct and indirect impacts. As the table shows, the estimated $2.9 billion in spending by the cruise industry and its passengers in Florida during 1999 generated 83,611 jobs throughout the state and just under $2.4 billion in wages and salaries. As shown in Table 1, the cruise industry and its passengers generated direct employment of 33,884 and direct wage income of $886 million. Thus, we have estimated that the North American cruise industry has an employment multiplier of 2.5 and an income multiplier of 2.7 in Florida. These are just slightly lower than the corresponding national multipliers of 2.7 and 3.0 implied by the national analysis reported by WEFA and BREA.[12]

Table 5
Total Economic Impacts of the Cruise Industry on the State of Florida in 1999

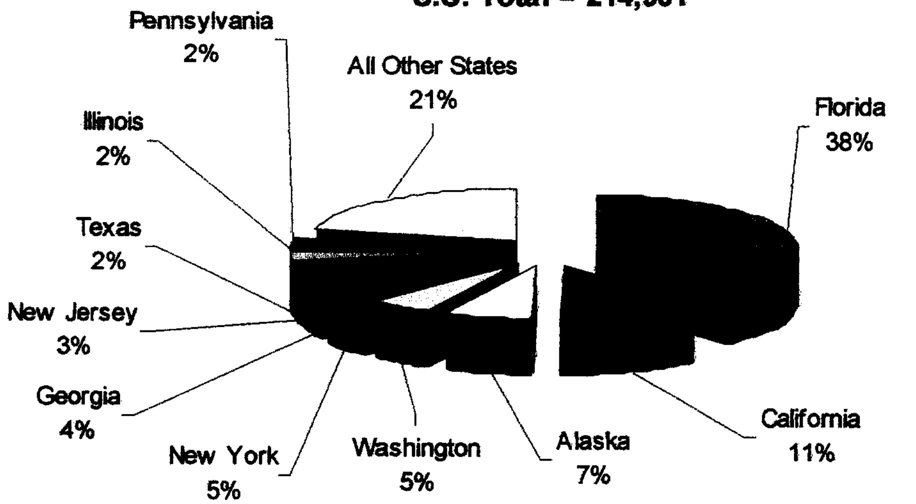
	Direct Purchases ($ Millions)	Total Employment	Total Wages ($ Millions)
Agriculture and Mining	1.6	1,388	21.6
Construction	16.4	1,196	40.0
Manufacturing	561.3	11,120	373.4
Nondurable Goods	160.3	3,361	110.4
Durable Goods	401.0	7,759	263.0
Transportation	1,794.6	37,263	1,085.3
Communications	13.9	470	13.5
Utilities	17.1	430	18.6
Wholesale & Retail Trade	27.4	7,972	241.4
Finance, Insurance & Real Estate	10.2	2,284	129.1
Hotels & Lodging	86.9	4,460	93.4
Business Services	233.2	11,791	218.2
Engineering & Management Services	19.7	744	33.7
Personal & Other Services	48.7	3,942	71.4
Government	26.1	551	15.7
Total	**$2,857.1**	**83,611**	**$2,355.3**

As shown in **Figure 2**, Florida accounted for 38 percent of the total (direct plus indirect) jobs generated by the North American passenger cruise industry in the United States during 1999. California had the second highest share of the national impacts but was well behind Florida with 11 percent. California is similar to Florida in that it is the location of the headquarters of several cruise lines; it possesses several homeports for the cruise industry; and it is a major source of cruise passengers. Nonetheless, it falls well behind Florida in all these categories. Cruise line headquarters employment in California is one-third of that in Florida. Cruise embarkations in California are only 15 percent of the

[12] WEFA and BREA, The Contribution of the North American Cruise Industry to the U.S. Economy in 1999, prepared for the International Council of Cruise Lines, August 2000.

cruise embarkations at Florida's ports. And California residents account for about 20 percent fewer cruise passengers than Florida residents.

Figure 2
Total Jobs Generated by the N.A. Cruise Industry, 1999
U.S. Total = 214,901



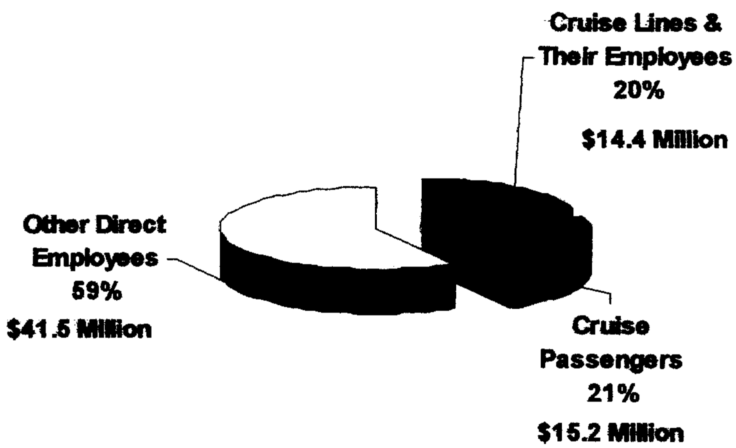
State and Local Tax Payments

State and local governments also benefit from the activities of the cruise industry. The primary sources of governmental revenues in the state of Florida are the sales and use and property taxes. We have estimated that the state and local governments of Florida received $71.1 million in tax and nontax payments as a result of the direct economic impacts of the cruise industry. As shown in **Figure 3** approximately 40 percent these payments were generated by the direct spending of the cruise lines, their employees and their passengers while the remainder came from spending of the Florida employees of other businesses directly impacted by the cruise industry.

Cruise Passengers

Spending by cruise passengers for lodging, food and beverages and other retail items generated $15.2 million in state and local government revenues or 21 percent of the total direct tax payments during 1999. Tax revenues generated from lodging expenditures accounted for approximately two-thirds of the tax revenues received by state and local governments from passenger spending. In a report prepared by PricewaterhouseCoopers for the FCCA,[13] PwC estimated that approximately one-third of the cruise passengers in Florida stayed one or more nights prior to or after their cruise. The average stay of these passengers was 1.25 nights.[14] Our analysis, based on these data and data collected directly from the cruise lines, indicates that cruise passengers spent $86.9 million on lodging in Florida. This is an average of $60.57 per passenger for the estimated 1.43 million passengers who spent one or more nights in Florida. Lodging expenditures are subject to a 6 percent state tax and a county surcharge that generally ranges between 4 and 7.5 percent. Using a weighted average tax rate of 11.7 percent,[15] we estimated that cruise passengers generated $10.2 million in lodging taxes ($86.9 million x 11.7%).

Figure 3
Direct Tax Payments Paid to Florida State and Local Governments
$71.1 Million in 1999



Cruise passengers, including those who arrive the day of the cruise as well as those who spend one or more nights, also purchase food and beverages and other retail items. We have estimated that the average passenger spent just over $20 on such retail items. Thus, we have estimated that the 3.9 million Florida cruise passengers spent $79.7 million on taxable retail goods. These goods are subject to the state 6 percent sales and use tax and thus generated an additional $5.0 million in tax revenues.

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[13] PricewaterhouseCoopers, The Economic Contribution of the Cruise Industry, prepared for the Florida-Caribbean Cruise Association, December 2000.

[14] The PwC report was based upon a survey of passengers at the Port of Miami and Port Everglades. The survey data suggested that 40 percent of Miami passengers and 28 percent of Port Everglades passengers stayed one or more nights. The average stay of Miami passengers was 1.2 nights and 1.4 nights among Port Everglades passengers. We used a weighted average of these figures and applied them to all Florida cruise passengers.

[15] We calculated a weighted average tax rate for four counties. The counties and their tax rates are: Brevard (10%), Broward (11%), Dade (13.5%) and Hillsborough (11.75%). The weights were each county's share of cruise passenger embarkations.

Cruise Lines and Their Employees

The contribution of the cruise lines and their employees to state and local government revenues comes through the purchase of taxable goods and services and miscellaneous fees such as licenses and motor vehicle registration fees and property taxes. Data from the Bureau of Economic Analysis of the U.S. Department of Commerce shows that Florida residents paid approximately 6.3 percent of their personal income in the form of personal tax and nontax payments to the state and local governments of Florida.[16] As shown in our analysis of the direct economic impacts of the cruise industry, the cruise lines employed 10,065 persons with aggregate wages of $228.4 million during 1999. Using the 6.3 percent rate and survey responses by the cruise lines, we have estimated that cruise lines and their employees paid $14.4 million in personal tax and nontax payments as well as corporate property and sales and use taxes to the state and local governments of Florida and accounted for 30 percent of the direct state and local tax impacts.

Other Direct Tax Payments

While it is not possible to estimate the sales and use taxes paid by the individual businesses for the inputs to the goods and services delivered to the cruise lines, we can provide an estimate of the state and local personal tax and nontax payments made by their employees. In Table 2 we show the direct employment and wage impacts of the cruise industry. As noted above the cruise lines employed 10,065 workers, subtracting these from total direct employment, there are an additional 23,819 employees of Florida businesses whose employment is directly related to the cruise industry. These workers received wage income of $658 million during 1999. Using the 6.3 percent average rate for personal tax and nontax payments discussed above, we have estimated that the remaining direct employment created by the cruise industry also generated $41.5 million in state and local government personal tax and nontax payments in Florida during 1999 or 51 percent of the total direct state and local tax impact.

The Florida Cruise Industry in 2005

The North American Cruise industry is in the midst of the most ambitious expansion in its history. This most recent phase of expansion began in 1997 when the industry added a net of eight new ships with an aggregate capacity of 8,047 lower berths. This represented a 7.4 percent increase in berth capacity. Between 1997 and 1999, the industry added 18 more ships and more than 29,800 lower berths. Thus, in the two-year period the industry increased the number of ships by 13.7 percent and the number of lower berths by 25.2

[16] U. S. Department of Commerce, Bureau of Economic Analysis, State Personal Income, 1929 – 1999. Personal tax and nontax payments in Florida include sales and use taxes, motor vehicle license fees, motor vehicle registration fees, hunting and fishing licenses, personal property taxes and other miscellaneous fees.

percent.[17] As these percentages indicate the industry is not only expanding its fleet but it is adding larger ships to its fleet.

As of 1999, we have estimated that the North American cruise industry had a capacity of approximately 52 million bed days.[18] Based upon an analysis of cruise schedules and cruise ship homeports, we have estimated that cruise ships homeporting all or part of the year at U.S. ports in 1999 had an aggregate capacity of 31 million bed days (74% of the global capacity). Furthermore, we estimated that cruise ships homeporting in Florida had an aggregate capacity of 21 million bed days, or 67 percent of the aggregate U.S. capacity.

The number of ships homeporting in Florida and their aggregate capacity is expected to continue to increase into 2005. In **Table 6** we show the planned additions to the North American fleet by cruise line and size of ship. Current plans of the cruise lines call for a net addition of 47 cruise ships and 76,935 lower berths by the 2005 calendar year. This represents a 31 percent increase in ships and a 52 percent increase in lower berths.

Table 6
Planned Additions to Lower Berth Capacity
North American Passenger Cruise Industry, 2000 - 2005

Cruise Line	Less than 500	500 - 999	1,000 - 1,999	2000 and Over	Total
Carnival				12,438	**12,438**
Celebrity			7,800		**7,800**
Holland America			6,416		**6,416**
Norwegian				6,000	**6,000**
Princess			5,850	7,800	**13,650**
Royal Caribbean				14,508	**14,508**
Other	2,723	6,188	7,920	2,112	**18,943**
Total	**2,723**	**6,188**	**27,986**	**42,858**	**79,755**
Net Withdrawals					2,820
Net Additions					**76,935**

Source: CLIA, The Cruise Industry - An Overview, Marketing Edition, February 2000.

As indicated in Table 6, megaships, 2,000 or more lower berths, will account for 56 percent of the increased capacity. Another 36 percent of the increased capacity will come from ships with between 1,000 and 1,999 lower berths. Most of these ships will have 1,800 or more lower berths. Three cruise lines, Carnival, Norwegian and Royal Caribbean, will only be adding new ships with a capacity of 2000 or more lower berths.

[17] WEFA and BREA, The Contribution of the North American Cruise Industry to the U.S. Economy in 1999, prepared for the International Council of Cruise Lines, August 2000.
[18] This estimate was developed by multiplying the number of lower berths, 148,237, by 350 days. It is generally assumed that two weeks of each year is required for maintenance and refurbishment of each cruise ship.

Based upon current schedules and conversations with individuals familiar with the cruise industry, we have estimated that approximately one-third of the new ships, primarily ships with 1,800 or more lower berths, will utilize Florida homeports during all or part of 2005. These ships will add 10.5 million bed days to the Florida capacity, a 52 percent increase over the 1999 estimated bed day capacity. Thus, we have estimated that by 2005 Florida ports will account for 76 percent of the cruise industry's U.S. bed day capacity.

As noted above, 3.9 million passengers embarked on cruises from Florida ports during 1999. With a projected 52 percent increase in the Florida capacity, we expect that Florida passenger embarkations will increase by 48 percent. The slower growth in passengers is the result of a slight increase in the average length of a cruise and a decline in the capacity utilization rate. Thus, we expect that the cruise industry will board 5.8 million passengers from Florida ports during 2005.

The Economic Impact of the Cruise Industry in 2005

Table 7 provides a summary of the projected economic impacts of the cruise industry on the Florida economy in 2005. As discussed above we anticipate that the Florida passenger embarkations will increase to 5.8 million by 2005, a 48 percent increase over 1999. We have also projected that these passengers and the cruise lines will spend almost $4.0 billion in 2005, a 40 percent increase over 1999. As a result of this spending we expect that the cruise industry and its direct suppliers will employ 46,629 workers and pay wages of $1.2 billion in 2005.[19]

Table 7
Summary of the Economic Impacts of the North American Cruise Industry in 2005

	1999	2005	Percent Change
Passenger Embarkations (Millions)	3.92	5.80	48.0%
Direct Economic Impacts			
Passenger and Cruise Line Spending ($1999 Millions)	$2,857	$3,987	39.6%
Employment	33,884	46,629	37.6%
Wages and Salaries ($1999 Millions)	$886	$1,223	38.0%
Indirect Economic Impacts			
Employment	49,727	69,230	39.2%
Wages and Salaries ($1999 Millions)	$1,469	$2,050	39.6%
Total Economic Impacts			
Employment	83,611	115,859	38.6%
Wages and Salaries ($1999 Millions)	$2,355	$3,273	39.0%

[19] All dollar figures reported in this section of the report are in 1999 dollars. We have made no assumptions concerning inflation over the intervening period or imposed any increase in wage rates based upon increased productivity.

Overall we anticipate that during 2005, the cruise industry will be responsible for the generation of almost 116,000 jobs (direct plus indirect impacts) in the State of Florida. In addition these workers will receive annual wages of $3.3 billion in 2005. A more detailed description of the Florida impacts is presented in the following sections of this report.

Direct Economic Impacts

As discussed earlier in this report the direct economic impacts of the cruise industry result from the spending of the cruise passengers and the cruise lines. The impacts shown in **Table 8** include the direct purchases of the passengers and the cruise lines and the employment and wage income in the Florida business sectors from which the passengers and cruise lines purchased goods and services.

Table 8
Direct Economic Impacts of the Cruise Industry on the State of Florida in 2005

Sector	Industry Spending ($ Millions)	Employment	Wage Income ($ Millions)
Core Cruise Travel Sector	**$2,292.7**	**30,329**	**$820.0**
Cruise Lines	——	12,735	289.0
Port Services	1,006.3	6,480	194.2
Air Transportation	1,058.0	7,968	255.1
Transportation Services	228.4	3,146	81.8
Other Sectors	**$1,694.2**	**16,300**	**$403.0**
Business Services	317.8	5,269	107.1
Hotels and Lodging	128.7	2,736	49.6
Shipbuilding and Repair	171.3	1,432	61.4
Local Transportation	120.8	1,276	27.5
Fabricated Metal Products	184.3	1,213	34.7
Retail Trade	34.8	684	11.3
Entertainment & Amusements	48.7	492	11.3
Printing & Publishing	54.7	422	13.0
Food and Beverages	138.5	394	12.4
Warehousing	47.0	335	9.4
All Other Sectors	447.6	2,047	65.1
Total	**$3,986.9**	**46,629**	**$1,223.0**

The Core Cruise Travel Sector

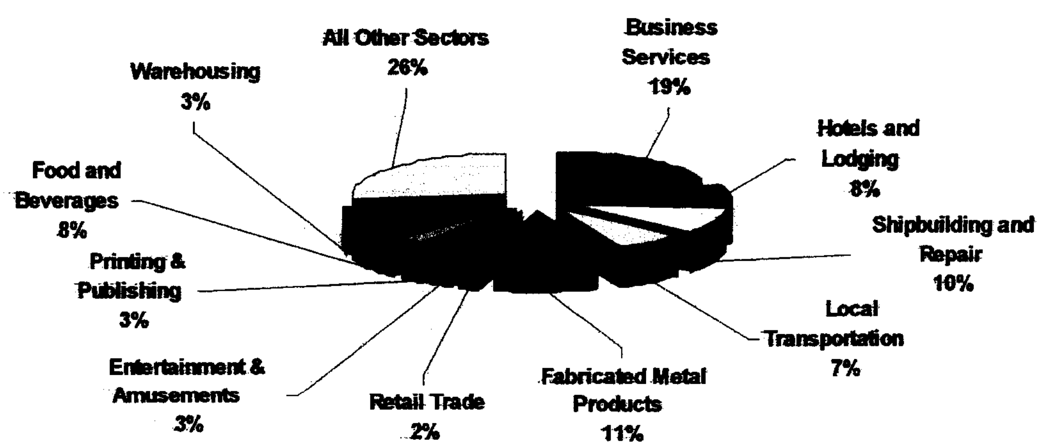
The core cruise travel sector, which includes the cruise lines, airlines, travel agents and port service providers, is expected to generate almost $4.0 billion in direct spending in Florida during 2005. This, in turn, is projected to generate 46,629 jobs and $1.2 billion in wage income. The core cruise travel sector is anticipated to account for 58 percent of the direct spending by the passengers and the industry, 65 percent of the direct employment and 67 percent of the direct wage income. Each of these percentages is slightly lower than the 1999 percentages. This decline is the result of the relatively slower growth in direct onshore employment and wages by the cruise lines, 26 percent over the 1999 –2005 period, compared to the 40 percent growth in passenger and cruise line spending over the six-year period.

We have estimated that direct employment in the core cruise sector will increase from 22,445 persons in 1999 to 30,329 in 2005, a 35 percent increase. Employment among the Florida-based cruise lines will grow somewhat more slowly, 26.5 percent, increasing from 10,065 employees in 1999 to 12,735 employees in 2005. The core cruise sector will also generate $820 million in annual wages during 2005, an increase of $215 million from 1999.

Other Direct Impacts

We have projected that Florida businesses outside the core cruise travel sector will receive just under $1.7 billion in direct spending by the cruise lines and their passengers in 2005. This presents a 44 percent increase from the 1999 figure of $1.2 billion. We anticipate that these expenditures will produce 16,300 jobs in the state paying annual wage income of $403 million. Table 8 shows the direct impacts on the ten noncore sectors of the Florida economy that received the highest employment impacts. The percentage distribution of the noncore cruise travel sector spending is shown in **Figure 4**. As the figure indicates the Business Service, Shipbuilding and Repair and Fabricated Metal Products industries are expected to account for 40 percent of the noncore direct spending in Florida during 2005.

Figure 4
Distribution of Direct Cruise Industry Spending
$1.2 Billion Projected for 2005
(Excludes Core Cruise Travel Sector)



Indirect Economic Impacts

Our analysis of the indirect impacts of the cruise industry in Florida during 2005 assumes that there are no major changes in the industrial structure of the Florida economy. Based upon the direct spending of the cruise industry described above we have estimated that this spending will generate another 69,248 jobs in Florida in 2005. In addition, these jobs are expected to generate $2.0 billion in wage income for these workers. As shown in **Table 9**, the indirect economic impacts touch virtually every industry in the state. **Figure 5** shows that the top five sectors will account for 80 percent of the indirect jobs created in 2005.

Table 9
Indirect Economic Impacts of the Cruise Industry on the State of Florida in 2005

	Direct Purchases ($ Millions)	Indirect Employment	Indirect Wages ($ Millions)
Agriculture and Mining	2.2	1,940	30.2
Construction	22.6	1,499	51.1
Manufacturing	817.9	11,845	397.4
Nondurable Goods	229.7	3,734	126.2
Durable Goods	588.2	8,111	271.2
Transportation	2,460.4	18,699	620.5
Communications	19.0	575	15.6
Utilities	23.4	522	22.2
Wholesale & Retail Trade	34.8	9,831	311.5
Finance, Insurance & Real Estate	15.1	3,233	179.2
Hotels & Lodging	128.7	3,868	88.7
Business Services	318.7	10,847	191.1
Engineering & Management Services	27.0	817	39.9
Personal & Other Services	81.3	4,804	80.3
Government	35.8	768	21.9
Total	**$3,986.9**	**69,248**	**$2,049.6**

The transportation sector is expected to remain the most significantly impacted sector within the state during 2005 with 18,699 indirect jobs paying $620.5 million in wages. This reflects the strong inter-industry linkages within the transportation sector, as well as, the heavy usage of a variety of transportation services to supply businesses with their inputs and to deliver consumer goods to retail outlets.

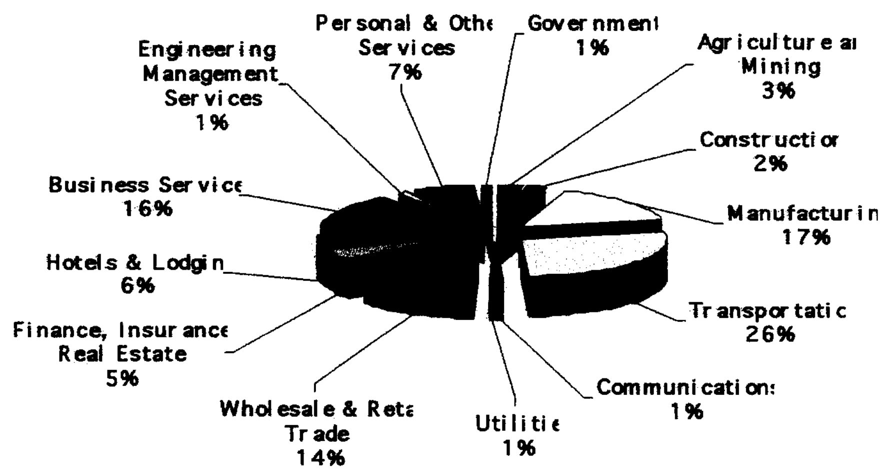
This is followed by the manufacturing sector with 11,845 jobs and $397.4 million in wage income. Durable goods industries are expected to account for almost 70 percent of the indirect jobs created in the manufacturing sector.

The business service sector, which includes equipment leasing, office cleaning and security services and equipment repair services, is expected to add 10,847 jobs paying $191.1 million in wages during 2005 through the indirect impacts of the cruise industry.

The wholesale and retail sector is expected to add 9,831 indirect jobs paying $311.5 million in wage income as a result of these consumer expenditures. These jobs are expected to be split evenly between the wholesale and retail sectors.

The fifth most heavily impacted sector is expected to be the personal and other services with 4,804 indirect jobs paying $80.3 million in wage income. This is a broadly defined industry and includes educational and social services, medical services, legal services and associations.

Figure 5
Distribution of Indirect Employment Impacts
69,248 Jobs Projected for 2005



Total Economic Impacts

The projected total economic impacts for 2005 shown in **Table 10** are the sum of the direct and indirect impacts. As the table shows, the estimated $4.0 billion in spending by the cruise industry and its passengers in Florida during 2005 is expected to generate 115,859 jobs throughout the state and just under $3.3 billion in annual wages and salaries. As shown in Table 8, the cruise industry and its passengers are anticipated to generate direct employment of 46,611 and direct wage income of $1.2 billion. Thus, we have estimated that the North American cruise industry will have an employment multiplier of 2.5 and an income multiplier of 2.7 in Florida.

Table 10
Total Economic Impacts of the Cruise Industry on the State of Florida in 2005

	Direct Purchases ($ Millions)	Total Employment	Total Wages ($ Millions)
Agriculture and Mining	2.2	1,940	30.2
Construction	22.6	1,652	55.2
Manufacturing	817.9	16,257	553.1
Nondurable Goods	229.7	4,729	157.1
Durable Goods	588.2	11,528	396.0
Transportation	2,460.4	50,639	1,477.5
Communications	19.0	642	18.4
Utilities	23.4	601	26.0
Wholesale & Retail Trade	34.8	10,515	322.8
Finance, Insurance & Real Estate	15.1	3,246	179.7
Hotels & Lodging	128.7	6,604	138.2
Business Services	318.7	16,119	298.3
Engineering & Management Services	27.0	1,040	47.0
Personal & Other Services	81.3	5,835	104.2
Government	35.8	769	22.0
Total	**$3,986.9**	**115,859**	**$3,272.6**

[redacted]

BREA specializes in custom market analyses for clients throughout the private and public sectors. These unique market analyses integrate economic, financial, and demographic trends with primary market research, proprietary client data, and advanced statistical and modeling techniques. This approach results in comprehensive and actionable analysis, databases and models designed to support planning, sales and marketing, and public relations within client organizations.

BREA's principals each have more than twenty-five years of experience in consulting and forecasting with a wide range of international product and service companies, including consumer products, leisure, retailing, gaming, business services, telecommunications, utility and financial services. Their consulting assignments provide critical analysis and insight into market dynamics, product demand, economic trends, consumer behavior and public policy.

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Segmentation Analyses: segmenting demand attributes by product line, consumer demographics (age, income, region, etc.) and business characteristics using market research, government statistics and proprietary databases.

Statistical and Econometric Modeling: developing quantitative models relating market and product demand to key economic factors and demographic market/consumer attributes. Models can be used for forecasting, trend analysis and divergence/convergence analysis.

Market Studies and Trend Analyses: detailed descriptions of markets (defined as products, regions, industries, consumer segments, etc.) and comprehensive analyses of underlying market forces (such as economic and financial conditions, competitive environment, technology, etc.).

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