



The Economic Impact of Tourism in Guam



Tourism Satellite Account
Calendar Year 2010



April 2012



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Overview

Key impact results

- Tourism is an integral component of the Guam economy.
- The global economy has gone through a full economic cycle since the last analysis of the visitor economy in 2005. Guam tourism performance has broadly followed economic trends: spending and visitation hit their plateau in 2006 and 2007 and then declined in 2008 and 2009 with a tourism recovery in 2010.
- The industry signaled its recovery in 2010 with a 12.4% rise in visitor spending.
- In 2010, total tourism economy sales in Guam tallied \$1.4 billion.

Key impact results, continued

- This economic activity sustained 14,000 jobs, both directly and indirectly, representing 29% of total employment.
- The tourism sector directly represented \$800 million of Guam's Gross Domestic Product (GDP) in 2010.
- Including indirect and induced impacts, tourism in Guam generated \$150 million in taxes.
- Hotel occupancy taxes jumped over 12% to \$21.8 million in 2010.

The elevator speech

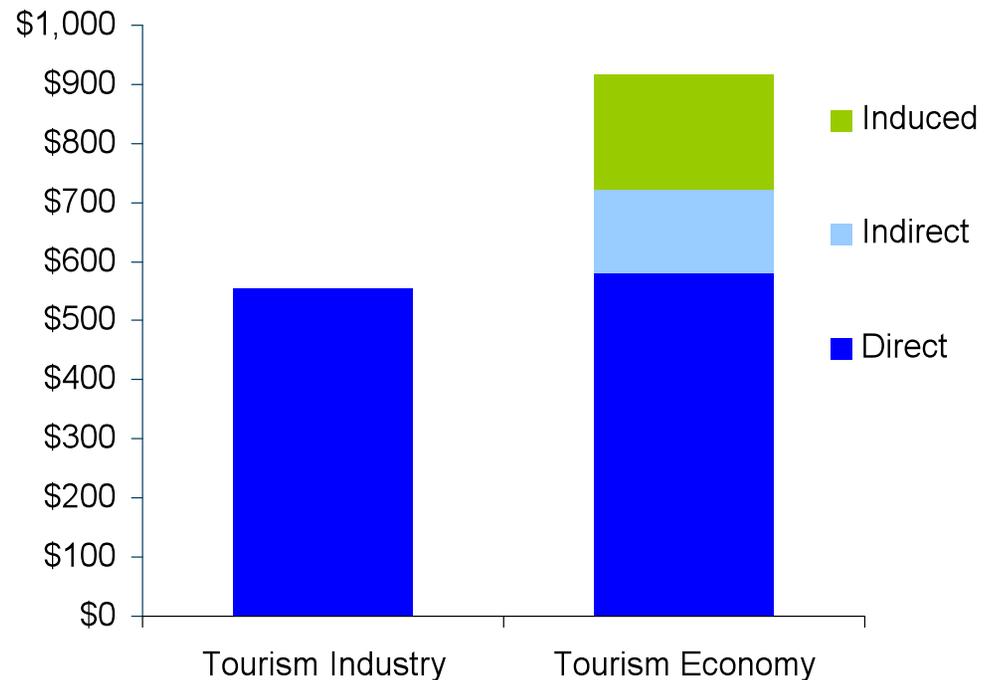
- Each visitor to Guam spends around \$1,100 on-island.
- For every \$72,000 in visitor spending on-island, one job on Guam is supported.
- It takes the spending of 64.5 visitors to support a job on Guam.
- Each visitor on Guam adds \$125 in tax revenues to the Government of Guam.
- The number of jobs supported by tourism on Guam is equal to putting two people in every hotel room on Guam AND having 3,000 people left over to serve them!!

Tourism impact summary: GDP

- The tourism industry directly generated \$550 million of Guam's GDP in 2010.
- The broader tourism economy, including direct, indirect and induced impacts, generated GDP of \$915 million. This is 20.4% of Guam's economy.

Tourism GDP Impact

2011, US\$ Millions



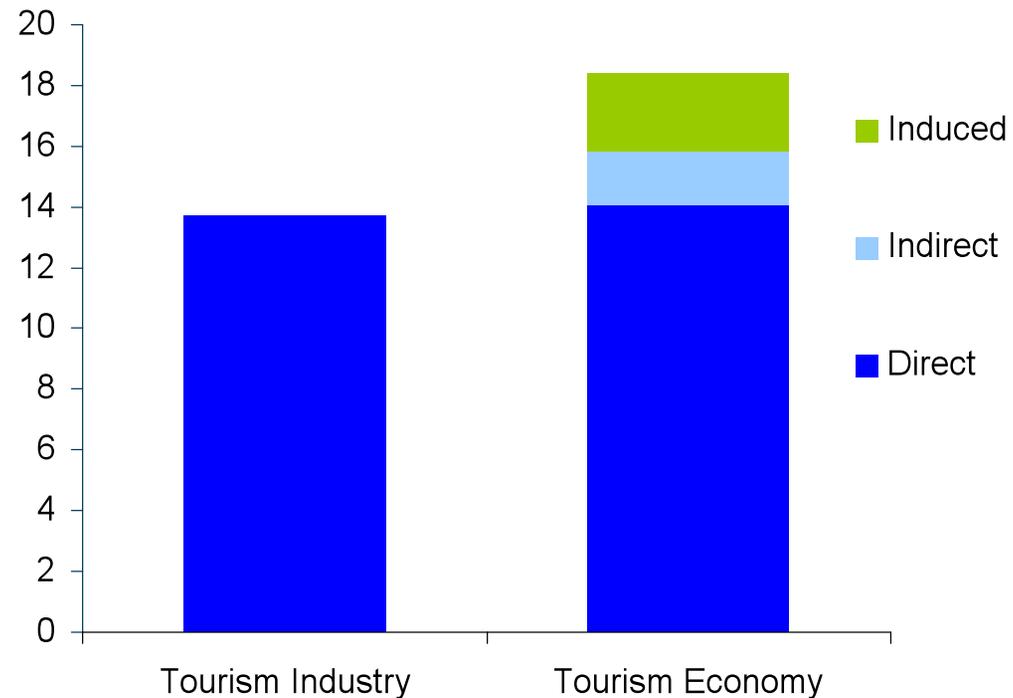
Source: Tourism Economics

Tourism impact summary: employment

- Tourism industry sales directly supported 13,700 jobs in 2010.
- The tourism economy, including direct, indirect and induced impacts, supported 18,404 jobs. This is 31.5% of all non-federal jobs on the island.

Tourism Employment Impact

2011, Thousands



Source: Tourism Economics

Industry specifics for 2010

- 2010 proved to be a classic recovery year for the tourism industry. With lower travel prices and a bit more economic stability, travel rebounded.
- Visits reached highs not seen since 2005.
- Korea and US visitors reached highs not seen in over a decade.
- As in most recoveries, employment growth did not match spending growth. Business sales may have recovered but the still-uncertain economic environment subdued tourism sector hiring and investing.

Structure of Analysis



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Why quantify the tourism economy?

- By monitoring tourism's economic impact, policy makers can make informed decisions regarding the funding and prioritization of tourism development.
- It can also carefully monitor its successes and future needs.
- In order to do this, tourism must be measured in the same categories as other economic sectors – i.e. tax generation, employment, wages, and gross domestic product.

Why is this a challenge?

- Most economic sectors such as financial services, insurance, or construction are easily defined within a country's national accounts statistics.
- Tourism is not so easily measured because it is not a single industry. It is a demand-side activity which affects multiple sectors to various degrees.
- Tourism spans nearly a dozen sectors including lodging, recreation, retail, real estate, air passenger transport, food & beverage, car rental, taxi services, travel agents...

The Tourism Satellite Account

- The TSA was conceived by the UN World Tourism Organization and has since been ratified by the UN, Eurostat, and OECD.
- The standard has been adopted by over fifty countries around the world and a growing number of US States.
- The TSA deals with the challenge of measuring tourism in two important ways:
 - Defines the tourism economy
 - Provides methodology for calculating tourism GDP in a way that is consistent with economic accounts

Benefits of a TSA

- Enables comparisons of the importance of tourism to other sectors of the economy in terms of GDP, employment, and income.
- Allows for benchmarking to other destinations.
- Tracks the economic contribution of tourism over time.
- Monitors strength by tracking capital investment .
- Allows for extension analysis for of the full impact of tourism.

Important definitions

1. **Tourism Industry:** Measures the value of traveler activity within “tourism characteristic industries”. This concept measures only the direct impact of visitor-related spending in the travel industry.
2. **Tourism Economy:** Includes the “tourism industry” plus government spending and capital investment in support of tourism. This is the basis of the total economic impact analysis, including direct, indirect and induced impacts.

Illustrating the concepts

Travel & Tourism Industry

- The direct effect of visitor spending
- Focus of Tourism Satellite Account

Travel & Tourism Economic Impact

The flow-through effect of T&T all demand across the economy

- Expands the focus to measure the overall impact of T&T on all sectors of the economy



Detailed Island Results



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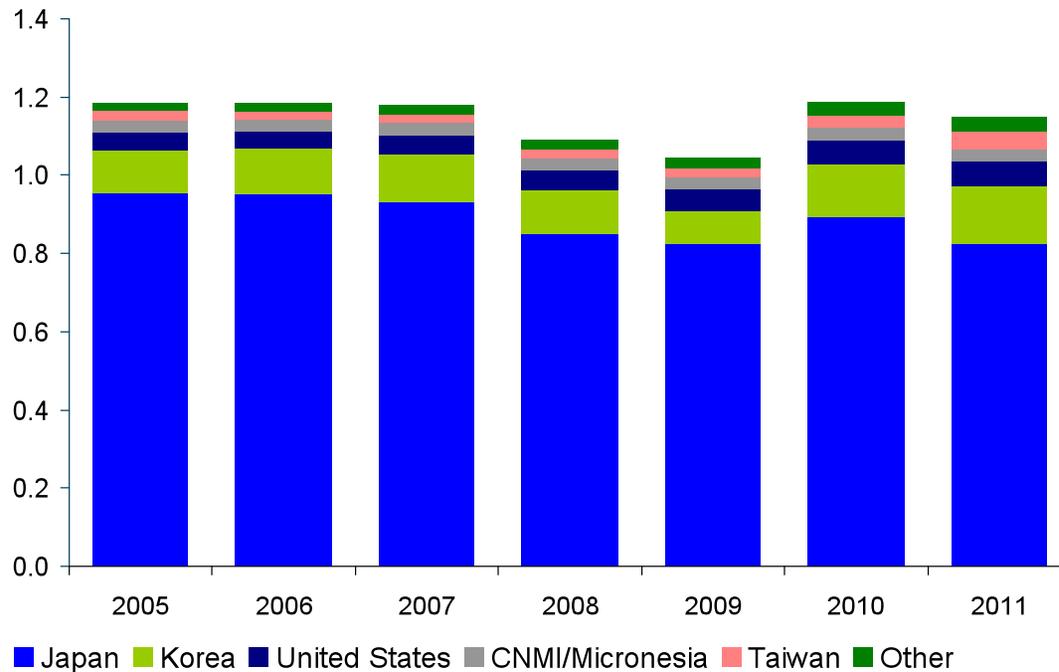
External environment

- Over the past half-decade, tourism has been tested by a volatile world economy:
 - Global financial crisis and ensuing recession
 - Commodity and oil price rises
 - Sharp exchange rate fluctuations
- And visitation to Guam has been affected by regional events:
 - Natural disasters
 - Opening of new source markets
- Guam visitor numbers reflect these changes.

Visitor trends

Guam Air Visitation

by Year, Millions



Source: GVB

- After falling from its pre-recession highs in 2005, visitation grew 13.7% in 2010.
- This rebound brought visitation to 1.2 million, representing a full recovery to 2007 levels.
- Korea and US visitor arrivals reached highs not seen in at least a decade.

Since the last report

- Guam tourism has evolved over the past five years:
 - Diversification away from the Japanese market: in 2005, 80% of visitors were from Japan, in 2010, 75% of visitors were from Japan (while overall visitation levels remained the same)
 - Expansion of markets
 - Relaxing of restrictions on Korean, Russian and (hopefully soon) Chinese markets.
 - Non-traditional markets now make up 1.3% of visitors, up from 0.7% in 2005.
 - Impact of financial crisis and recession of 2008-9
 - Guam saw visitation declines of 7% each year.
 - The recovery of 2010

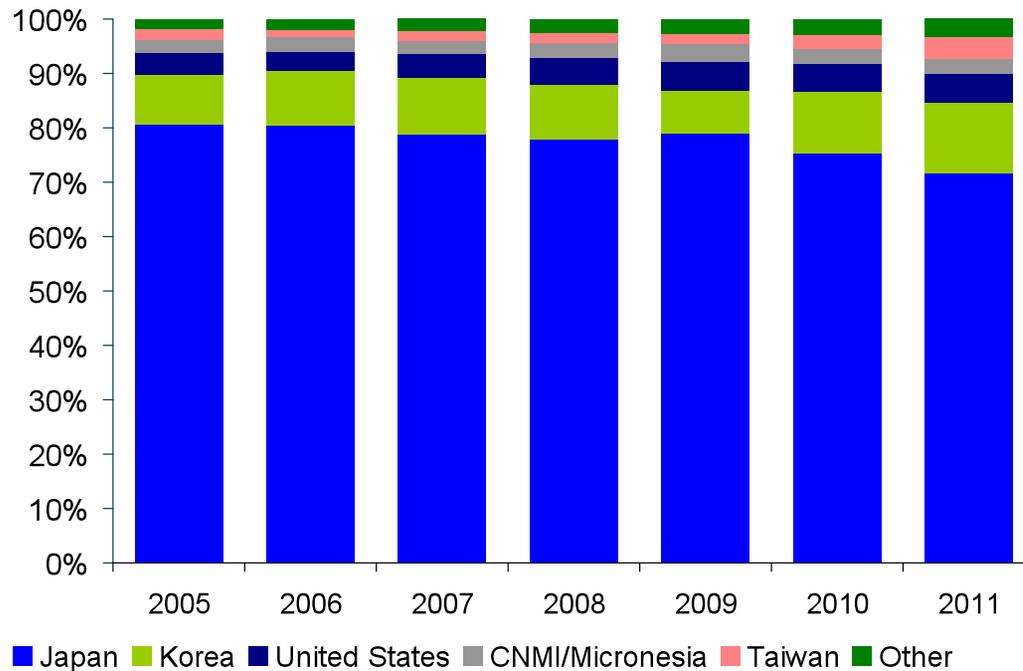
Key trends in 2010

- Visitation grew 13.7% in 2010.
- Japanese visitation grew 8.3% but growth was led by Korean (62%) and Taiwanese (42%) visitors.
- Per party spending grew for both Japanese and Korean visitors.
- Visitor spending in Guam rose by 12.4% in 2010. Spending increases were highest in accommodations and recreational sectors.
- Retail spending growth has not matched that of other sectors.

Visitation by market

Guam Air Visitation

by Year, Millions

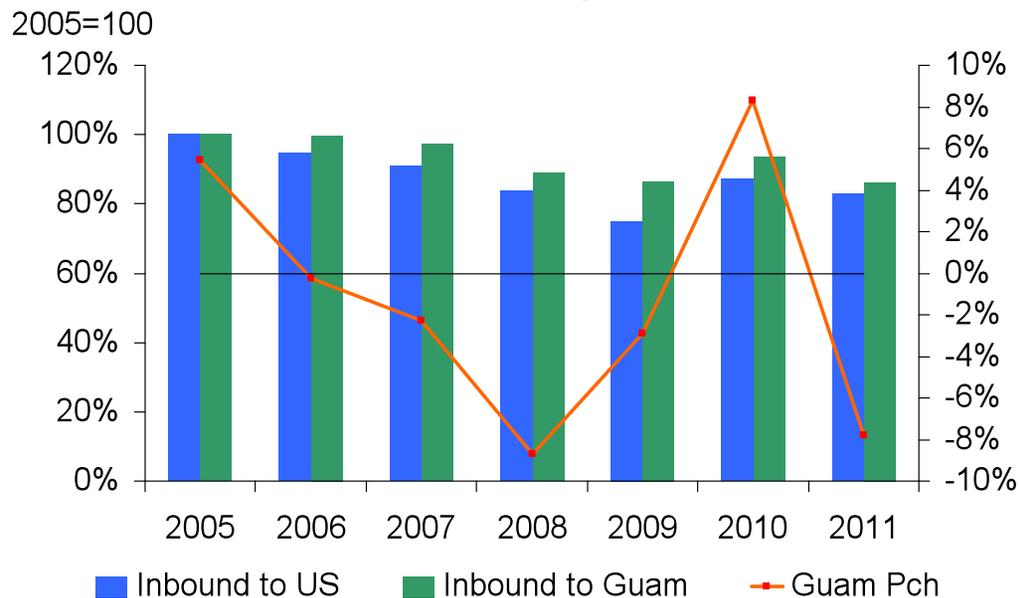


Source: GVB

- Visitation has slowly been diversifying away from the dominant Japanese visitor.
- The percentage of Japanese visitors fell to 75% in 2010 while Korea grew to over 11% of total visitation.

Perspective on the Japanese market

Visit Share and Growth - Japan

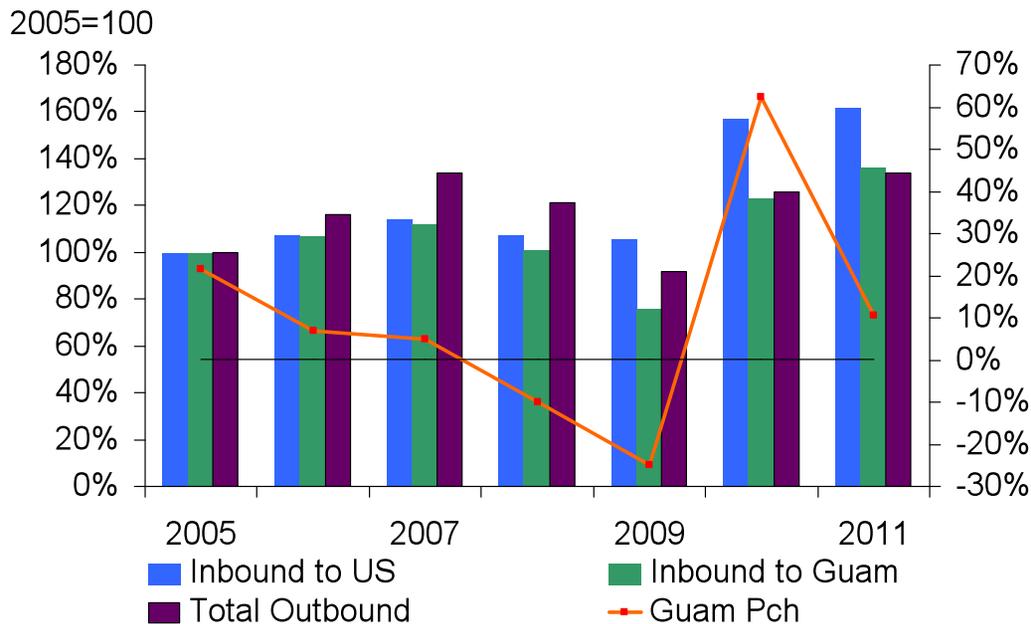


Source : Tourism Economics, GVB

- Declines in Japanese visitation are not unique to Guam, Japanese inbound to US has fallen even more.
- By indexing Japanese visitation to 2005 levels, the chart shows Guam has outperformed Japanese visitation to the US as a whole.
- Guam's share of Japanese visitors to the US grew from 24.6% in 2005 to 26.4% in 2010.

Perspective on the Korean market

Visit Share and Growth - Korea



Source : Tourism Economics, GVB

- Guam kept pace with Korean outbound to the US through 2008.
- Korea joined US visa-waiver program in late 2008, resulting in large increases in travel to the US in 2010 and 2011.
- Once the market settled, Guam has gained back some of the Korean market share.

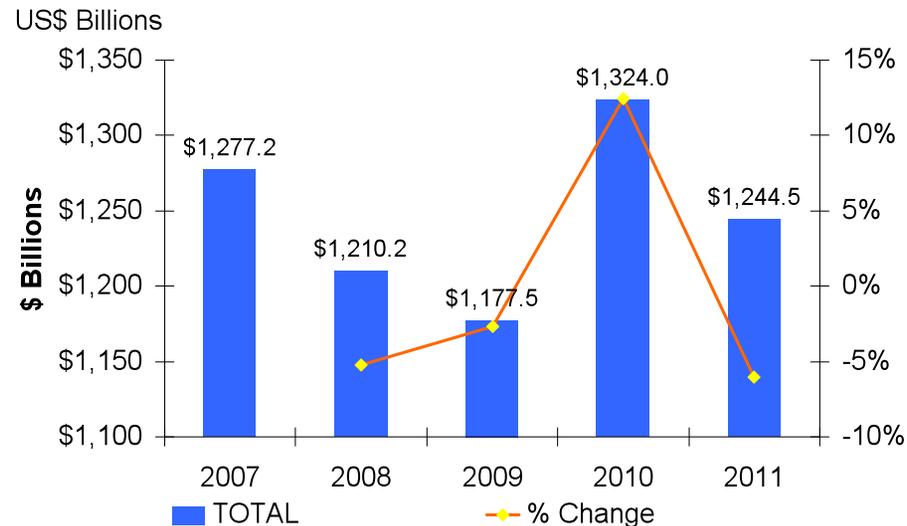
A recovery in tourism spending

- Tourism spending rebounded from the effects of the recession, increasing 12.4% in 2010.

Tourism Industry Sales (US\$ Million)						
Sector	2007	2008	2009	2010	2011	% Change
Hotel	\$349	\$356	\$346	\$393	\$352	13.6%
Retail	\$470	\$405	\$404	\$453	\$439	12.1%
F&B	\$131	\$152	\$130	\$134	\$134	3.0%
Rec	\$179	\$141	\$144	\$170	\$146	17.5%
Trans	\$35	\$37	\$34	\$40	\$33	17.3%
Air	\$114	\$119	\$118	\$134	\$140	12.9%
TOTAL	\$1,277	\$1,210	\$1,178	\$1,324	\$1,244	12.4%

- Tourism spending reached pre-recession levels with this rebound.

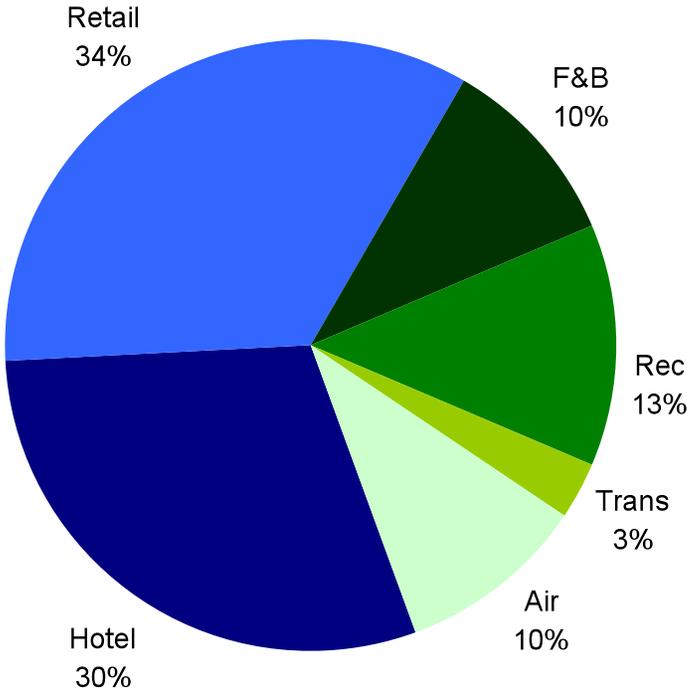
Tourism Industry Sales



Source : Tourism Economics

Tourism spending by sector

Tourism Industry Sales By Sector



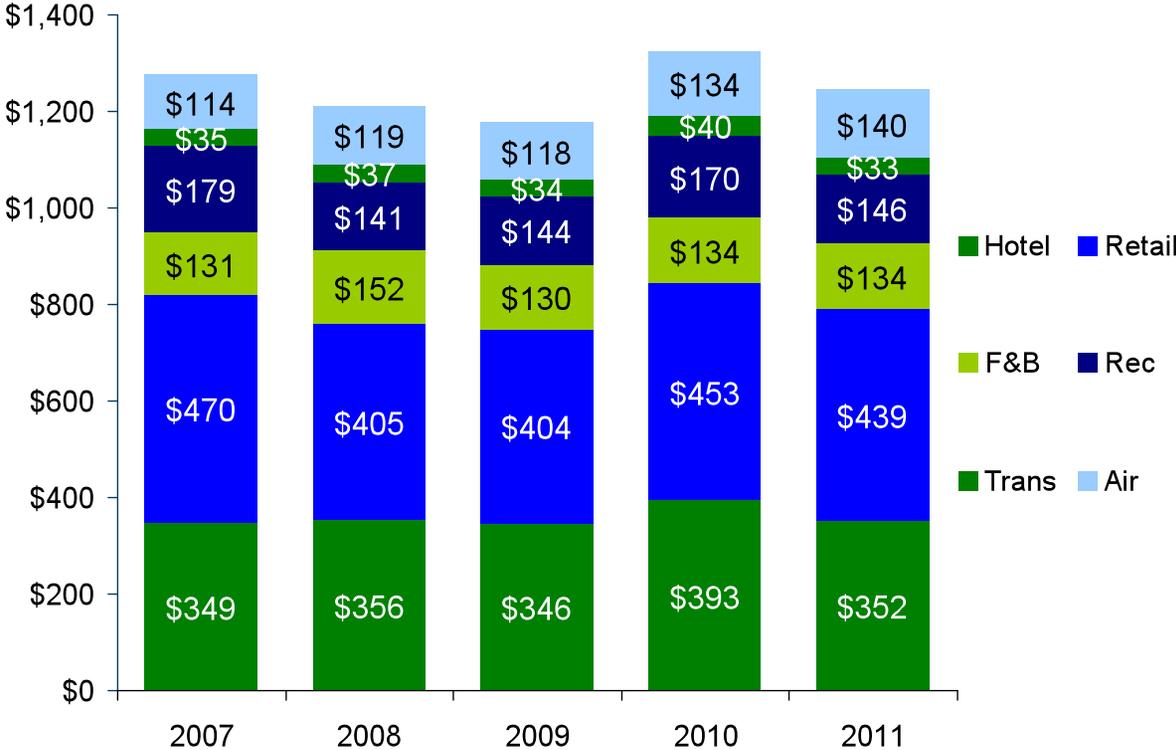
Source : Tourism Economics

- Shopping is a major draw – in 2010, 34% of the visitor dollar was spent shopping.
- Accommodations, including food and beverage onsite, captured the second largest share of spending in Guam.

Tourism spending by sector

Guam's Tourism Industry Sales

by Year, Millions of \$

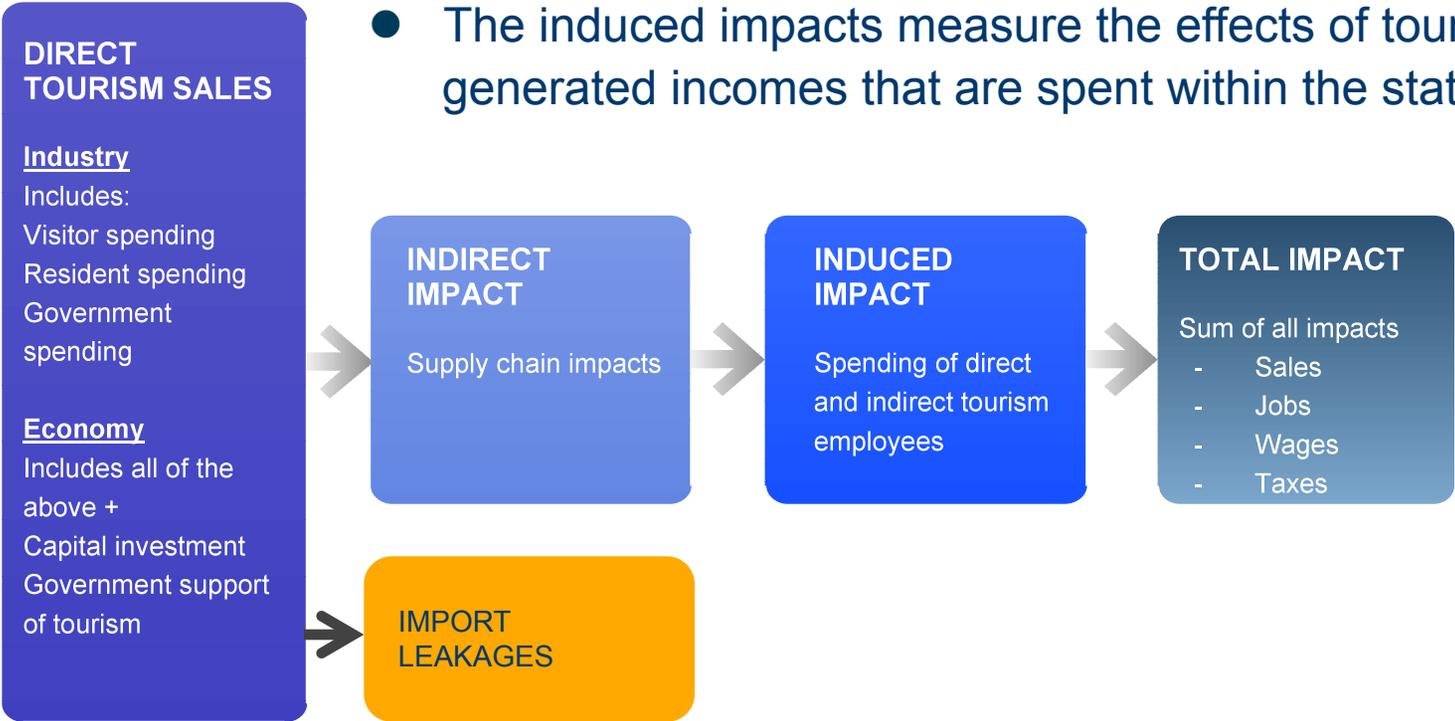


Source: GVB, Tourism Economics

- Visitor spending at hotels rose to almost \$400 million in 2010.
- Retail spending began to recover in 2010 but remains below historic levels.

Translating sales into impact

- Direct tourism sales flow through the Guam economy, generating GDP, jobs, wages, and taxes.
- The indirect impacts measure supply chain (b2b) activity generated by tourism sales.
- The induced impacts measure the effects of tourism-generated incomes that are spent within the state.



Guam Tourism Industry Impacts (Direct)



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Tourism industry impacts

Tourism Impacts		
	GDP	Jobs
Agriculture, Fishing, Mining	-	-
Construction and Utilities	-	-
Manufacturing	-	-
Wholesale Trade	-	-
Air Transport	46.6	127
Other Transport	5.9	177
Retail Trade	99.9	2,613
Gasoline Stations	1.7	77
Communications	-	-
Finance, Insurance and Real Estate	6.7	165
Business Services	36.6	1,272
Education and Health Care	-	-
Recreation and Entertainment	30.3	697
Lodging	220.9	5,231
Food & Beverage	65.5	2,656
Personal Services	12.5	448
Government	27.3	256
TOTAL	553.7	13,716

- Tourism GDP is the value added of those sectors directly interacting with travelers.
- The narrow definition of the tourism industry counts only tourism consumption, which excludes capital investment and general government support of tourism. This definition is consistent with economic accounts for other industries.
- On this basis, tourism industry GDP was \$554 million in 2010, accounting for 12% of total Guam GDP.

Why sales and GDP differ

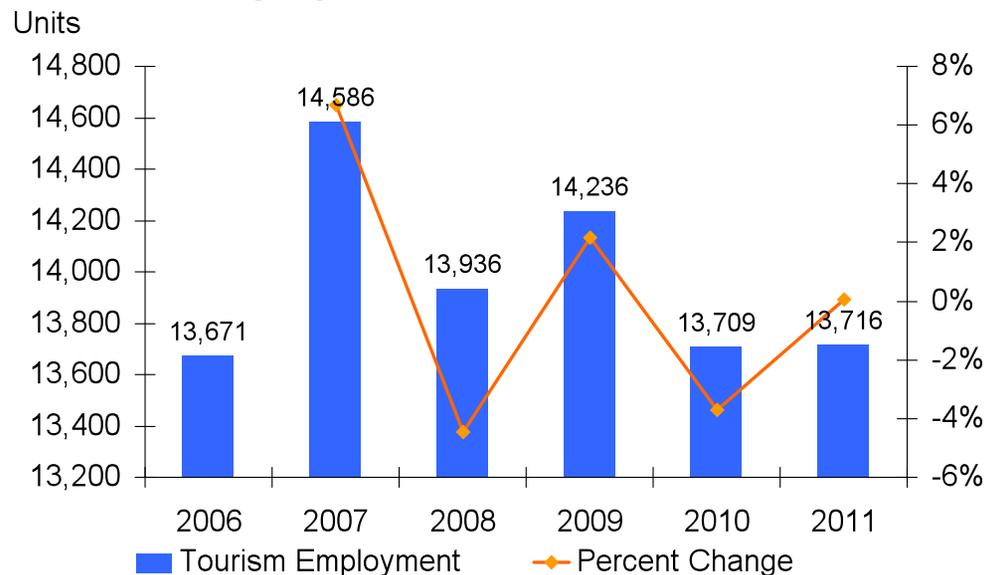
- Tourism industry sales in Guam equals \$1.3 billion while GDP only measures \$554 million.
- GDP (Gross domestic product) is less than sales because it measures only the locally-produced value of goods and services consumed by visitors
 - This includes the local labor, capital depreciation, and the profits of tourism-related companies that are based in Guam.
 - The costs of imported goods (gasoline, food or retail goods) that come from out-of-state are excluded from the GDP calculation.
 - In addition, business profits from non-local companies are also excluded. For example, Hyatt profits leave the economy.

Signs of a tourism employment recovery

Tourism Employment						
	2006	2007	2008	2009	2010	2011
Tourism Employment	13,671	14,586	13,936	14,236	13,709	13,716
Percent Change		6.7%	-4.5%	2.2%	-3.7%	0.1%

- While spending recovered, tourism employment still lags previous highs as employers hesitate to hire new workers.
- However, 2011 data show the beginnings of an employment recovery.

Tourism Employment

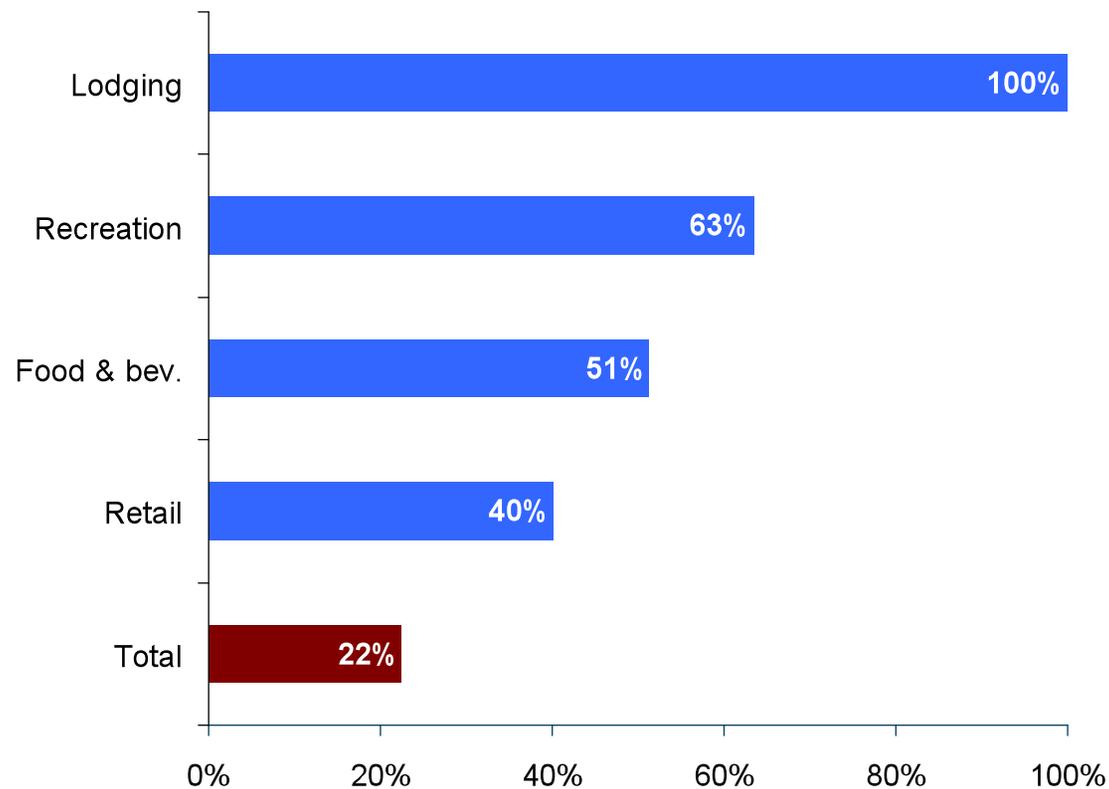


Source : Tourism Economics

Tourism intensity for key sectors

- Tourism generates a significant share of industry activity. Nearly two-thirds of all recreation, half of food & beverage, and 40% of retail employment is sustained by tourism activity.

Tourism Employment Intensity by Industry



Ranking tourism employment

- The Guam tourism industry directly employed 13,716 persons in 2010. This narrow measurement of tourism includes only those jobs directly supported by visitor activity and allows for inter-industry ranking.
- On this basis, tourism is the largest employer on the Island of Guam.

Employment Ranking		
Guam		
Rank	Industry	2010
1	Tourism	13,716
2	Government of Guam	12,054
3	Accommodation and Food Services	10,340
4	Construction	6,974
5	Retail Trade	6,497
6	Federal Government	3,841
7	Administrative and Support and Waste Management and Remediation Services	3,395
8	Transportation and Warehousing	2,634
9	Health Care and Social Assistance	2,537
10	Professional, Scientific, and Technical Services	2,443
11	Wholesale Trade	1,842
12	Finance and Insurance	1,812
13	Other Services (except Public Administration)	1,733
14	Manufacturing	1,525
15	Information	1,478

Guam Tourism Economy Impacts

(direct, indirect, and induced)



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Tourism economy sales

- The Tourism Satellite Account looks at a broader range of tourism-related expenditures.

2010 Tourism Economy Sales				
(US\$ Million)				
Domestic Visitor	International Visitor	Gov't Support	CAPEX	Total
\$68.4	\$1,255.6	\$54.2	\$23.0	\$1,401.2

- Non-visitor private consumption expenditures (PCE) represent tourism consumer durables such as an RV, boat, or furniture for a vacation home.
- Government support for tourism includes the airport operations and GVB spending and other budget items in broad support of tourism.
- Capital investment (CAPEX) includes construction of hotels and attractions, as well as tourism equipment and infrastructure.
- Total tourism economy sales tallied \$1.4 billion in 2010.

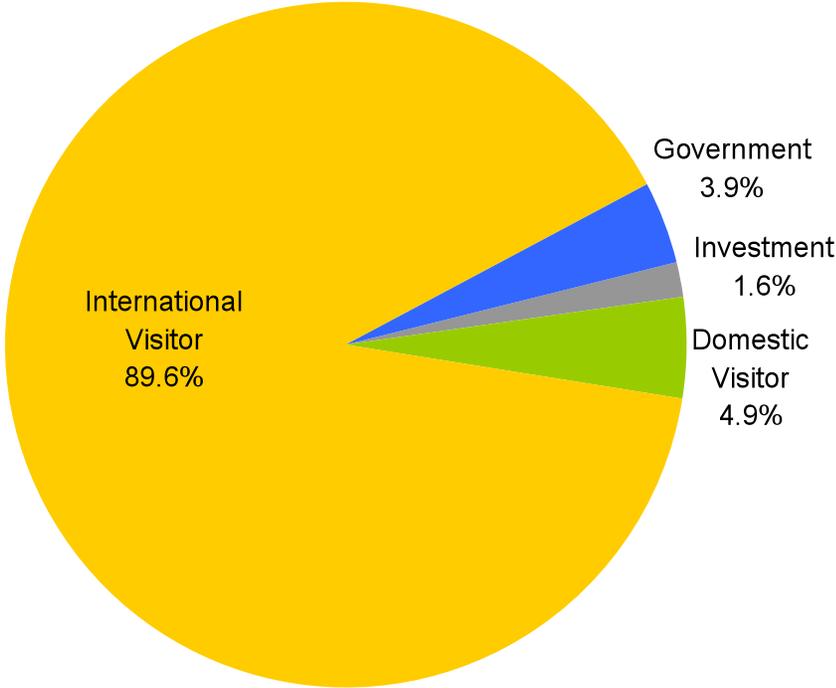
Tourism industry and economy sales

- The direct impact of tourism is driven by tourism industry sales only. This allows for apples-to-apples comparisons with other industries.
- The total economic impact of tourism includes investment in support of tourism, government spending and non-visitor private consumption expenditures (PCE).

Tourism Sales, 2010		
Guam		
	Industry	Economy
Lodging	\$393.0	\$393.0
Food	\$134.4	\$134.4
Recreation	\$169.5	\$169.5
Shopping	\$453.2	\$453.2
Air	\$133.8	\$133.8
Other Transport	\$40.0	\$40.0
Non-Visitor PCE	\$0.0	\$0.0
Investment	\$0.0	\$23.0
Government	\$33.8	\$54.2
TOTAL	\$1,357.9	\$1,401.2

Tourism economy sales by source

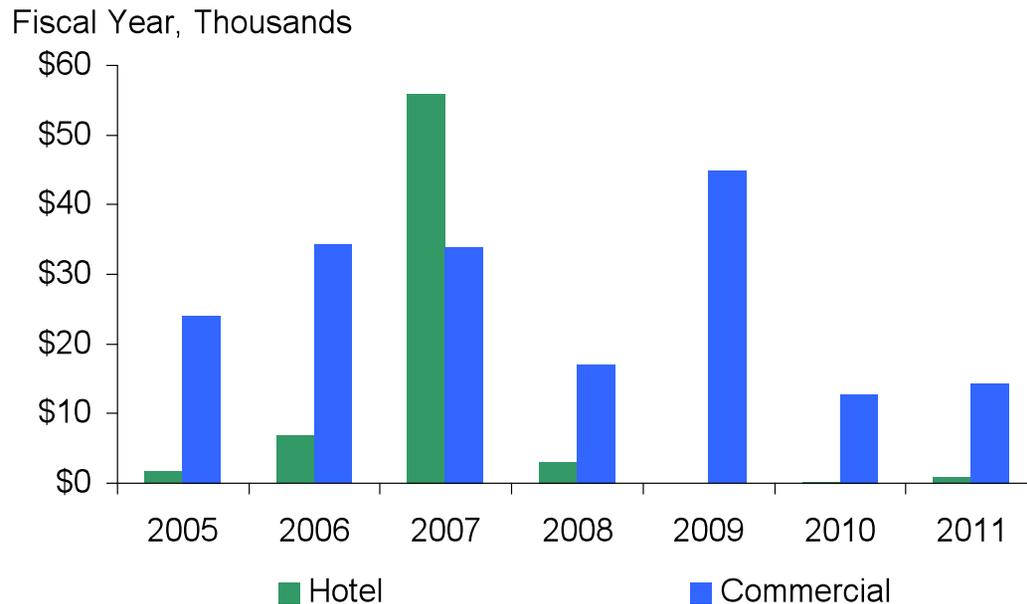
Tourism Economy Sales Share by Source



- International visitor markets comprise the majority (90%) of tourism sales in Guam.
- Domestic visitor markets contributed 5% of tourism sales last year.
- Governmental spending in support of tourism contributed 4% of tourism sales.

Tourism capital investment

Investment



Source : Tourism Economics, GVB

- Tourism-related capital investment reached its peak in 2007.
- Falling visitor numbers and the recession brought investment in new hotel properties to a standstill in both 2009 and 2010.
- Capital investment grew only slightly from the recessionary levels in 2009 as construction remain subdued.

Tourism economy GDP impact

- Total tourism economy sales include capital investment and general government support of tourism. By this broad definition, tourism activity directly contributed \$580 million to GDP in 2010.
- In total, including all direct tourism demand, indirect and induced impacts, the tourism sector generated GDP of \$915 million. This is 20.4% of the island economy.

Tourism economy GDP impact

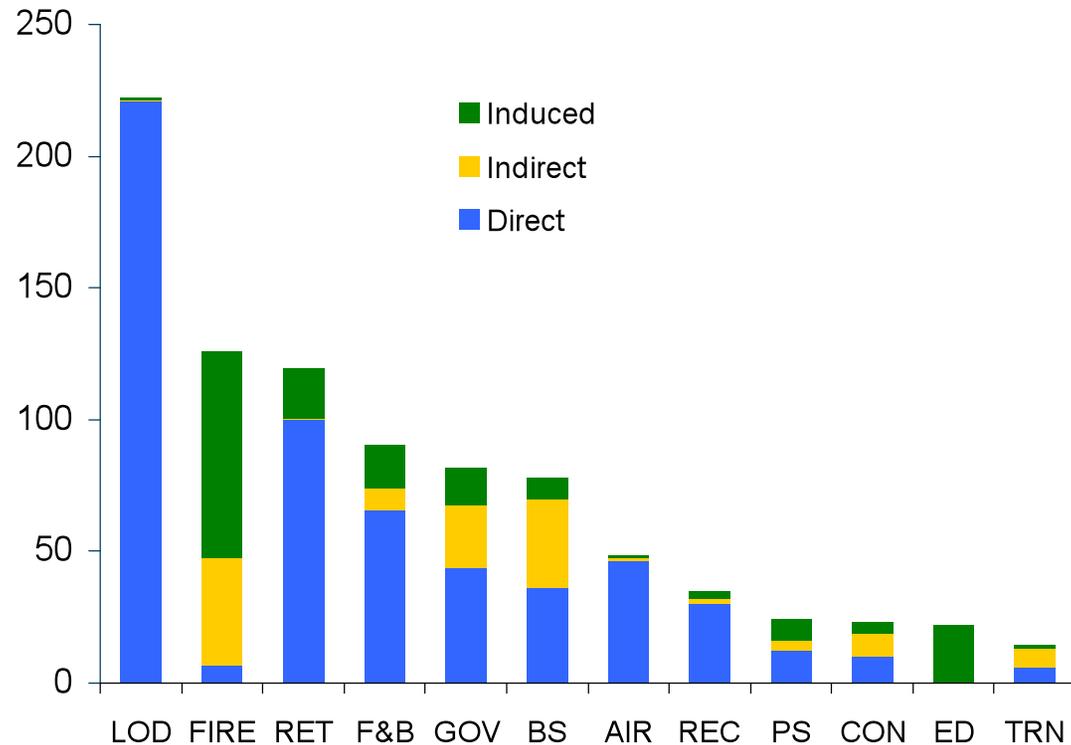
Total Tourism GDP (Value Added) Impact				
(US\$ Million)				
	Direct	Indirect	Induced	Total
Agriculture, Fishing, Mining	-	0.4	0.8	1.2
Construction and Utilities	10.2	8.6	4.2	23.0
Manufacturing	-	4.4	3.4	7.8
Wholesale Trade	-	2.8	6.6	9.4
Air Transport	46.6	0.6	1.2	48.4
Other Transport	5.9	7.1	1.6	14.6
Retail Trade	99.9	0.6	18.9	119.3
Gasoline Stations	1.7	0.0	1.0	2.7
Communications	-	6.3	4.1	10.3
Finance, Insurance and Real Estate	6.7	40.4	78.5	125.6
Business Services	36.6	33.3	7.9	77.8
Education and Health Care	-	0.0	22.1	22.1
Recreation and Entertainment	30.3	1.6	3.1	34.9
Lodging	220.9	0.5	1.1	222.5
Food & Beverage	65.5	8.6	16.0	90.2
Personal Services	12.5	3.6	8.3	24.4
Government	43.8	23.4	14.3	81.5
TOTAL	580.4	142.7	193.1	916.2

Tourism economy GDP impact

- All sectors of the Guam economy benefit from tourism activity directly and/or indirectly.

Total Tourism GDP Impact

\$ million



LOD	Lodging	AIR	Air Transport
FIRE	Finance, Insurance and Real Estate	REC	Recreation and Entertainment
RET	Retail Trade	PS	Personal Services
F&B	Food & Beverage	CON	Construction and Utilities
GOV	Government	ED	Education and Health Care
BS	Business Services	TRN	Other Transport

Tourism economy employment

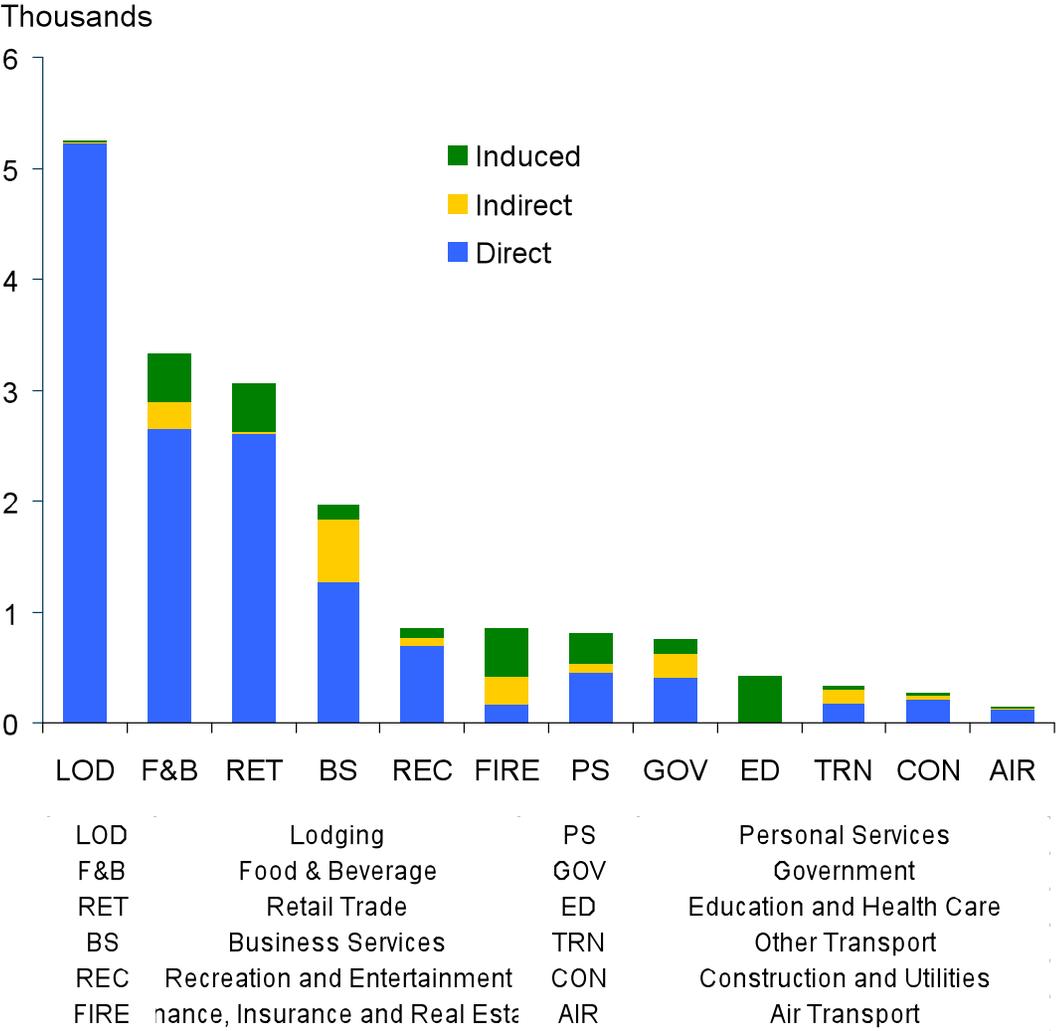
Total Tourism Employment Impact				
	Direct	Indirect	Induced	Total
Agriculture, Fishing, Mining	-	23	32	55
Construction and Utilities	211	36	15	261
Manufacturing	-	33	37	70
Wholesale Trade	-	30	69	99
Air Transport	127	5	11	143
Other Transport	177	123	28	328
Retail Trade	2,613	12	441	3,065
Gasoline Stations	77	1	18	96
Communications	-	37	26	63
Finance, Insurance and Real Estate	165	256	435	856
Business Services	1,272	560	135	1,966
Education and Health Care	-	1	418	419
Recreation and Entertainment	697	69	91	856
Lodging	5,231	5	12	5,248
Food & Beverage	2,656	242	423	3,321
Personal Services	448	83	274	805
Government	409	213	130	753
TOTAL	14,081	1,736	2,596	18,413

- The tourism sector directly and indirectly supported 18,413 jobs, or 31% of all employment in Guam last year.

Tourism economy employment

- The restaurant, lodging, and retail sectors employed the most persons in the tourism sector.
- Secondary benefits are realized across the entire economy through the supply chain and incomes as they are spent.

Total Tourism Employment Impact



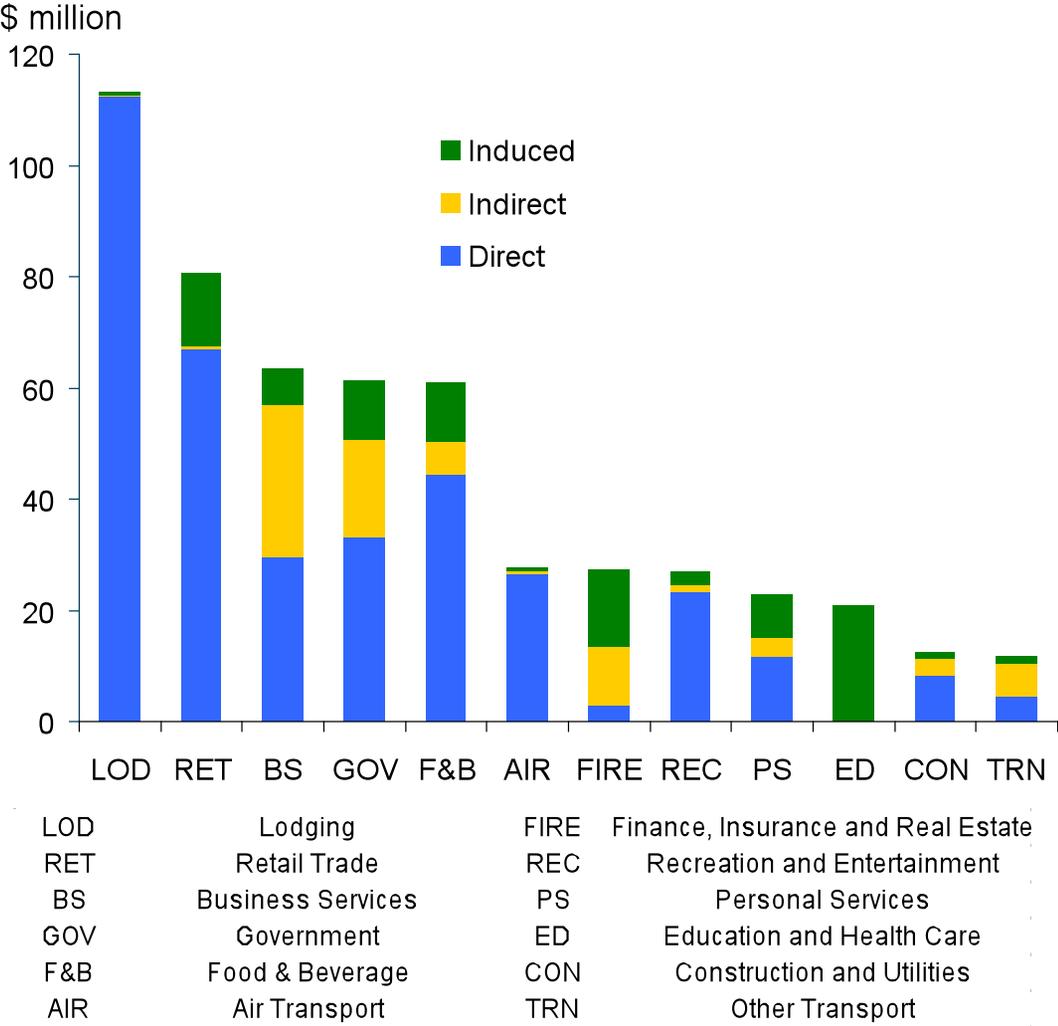
Tourism economy labor income

Total Tourism Labor Income Impact				
(US\$ Million)				
	Direct	Indirect	Induced	Total
Agriculture, Fishing, Mining	-	0.4	0.7	1.1
Construction and Utilities	8.3	3.0	1.3	12.6
Manufacturing	-	1.8	1.7	3.5
Wholesale Trade	-	1.6	3.7	5.3
Air Transport	26.6	0.3	0.7	27.7
Other Transport	4.5	6.1	1.2	11.7
Retail Trade	67.0	0.4	13.4	80.8
Gasoline Stations	1.0	0.0	0.6	1.6
Communications	-	2.4	1.5	3.9
Finance, Insurance and Real Estate	2.9	10.4	14.0	27.3
Business Services	29.4	27.5	6.5	63.4
Education and Health Care	-	0.0	20.8	20.8
Recreation and Entertainment	23.3	1.3	2.4	27.0
Lodging	112.4	0.2	0.6	113.2
Food & Beverage	44.4	5.8	10.9	61.1
Personal Services	11.6	3.3	7.9	22.9
Government	33.0	17.7	10.8	61.5
TOTAL	364.4	82.5	98.8	545.7

Tourism economy labor income

- While direct spending is the largest contributor of labor income, labor income from the tourism supply chain in business services and finance sectors is a major contributor.
- Secondary benefits are realized across the entire economy through the supply chain and incomes as they are spent.

Total Tourism Labor Income Impact



Tourism economy tax generation

Traveler Generated	
(US\$ Million)	
Tax Type	2010
Corporate	9.6
Indirect Business	8.4
Personal Income	20.1
Social Security	36.5
Hotel Occupancy Tax	21.8
Gross Receipts Tax	41.9
Special Revenues	10.2
TOTAL	148.5

- Taxes of \$148.5 million were directly and indirectly generated by tourism in 2010.
- Hotel occupancy taxes rose to \$21.8 million.
- Each household in Guam would need to be taxed an additional \$3,100 per year to replace the tourism taxes received by the government of Guam.

Methodology and Background



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Methods and data sources

- Visitor expenditure estimates are calculated using data from Japan and Korean exit surveys provided by Guam Visitors Bureau. These are broken out by sectors (lodging, transport at destination, food & beverage, retail, and recreation).
- Tourism Economics then adjusts these levels of spending based on a range of known measures of tourism activity:
 - Overseas visitor spending (source: OTTI, TE)
 - Canada visitor spending (source: Statistics Canada, TE)
 - Bed tax receipts
 - Spending on air travel which accrues to all airports and locally-based airlines
 - Gasoline purchases by visitors (source: TE calculation)
 - Smith Travel Research data on hotel revenues
 - Construction Value by McGraw-Hill Construction
 - Industry data on employment, wages, GDP, and sales (source: BEA, BLS, Census)

Methods and data sources

- An IMPLAN model was compiled for the Hawaii TSA. This traces the flow of visitor-related expenditures through the local economy and their effects on employment, wages, and taxes. IMPLAN also quantifies the indirect (supplier) and induced (income) impacts of tourism.
- All results are benchmarked and cross-checked and adjusted based on the following:
 - US Bureau of Labor Statistics and Bureau of Economic Analysis (employment and wages by industry)
 - US Census (business sales by industry)
- The source of the employment and wage data is the Regional Economic Information System (REIS), Bureau of Economic Analysis, U.S. Department of Commerce. All employment rankings are based on Bureau of Labor Statistics (ES202/QCEW) data.

Why Sales and GDP differ

- Tourism industry sales in Guam equals \$1.3B yet GDP only measures \$550 million. Why??
- What is GDP?: Gross domestic product (GDP). The market value of goods and services produced by labor and property in Guam
 - Guam gets GDP credit for tourism sales that end up in payments to labor that work in the hotels, restaurants and retail stores and that boost the profits of the local shops that serve tourists.
 - Guam does NOT get GDP credit from the cost of the gasoline or food or retail items that come from off-island to supply the gas stations, restaurants and shops that sell to tourists.
 - Guam does NOT get credit for business profits from off-island companies. As an example, K-Mart profits leave the island.

Because of these reasons, Sales will always be higher than GDP.

Definitions

- **Direct Impact:** The economic impact – including jobs and income – from the initial sales made by travelers. Examples include sales made by travelers at lodging properties, souvenir shops, restaurants, gas stations, amusement parks, museums, etc.
- **Indirect Impact:** The economic impact from the production, employment, and income occurring in other businesses/industries that supply the businesses making initial/direct sales to travelers. Examples include a restaurant’s food supplier or a hotel’s laundry service.
- **Induced Impact:** The economic impact from the spending by households in the local economy as the result of the earnings from a business that directly or indirectly interacts with travelers. Examples include a hotel desk clerk using the wages he earned to pay for his groceries or the accountant who works for a company that supplies napkins to a restaurant frequented by travelers using her wages to purchase flowers from her local florist.

Selected recent economic impact clients

Associations / Companies

Center for Exhibition Industry Research (Economic Impact of Visa Restrictions)

DMAI (Event Impact Calculator for 80 CVBs)

US Travel Association (Impact of travel promotion)

InterContinental Hotels

States

California

Georgia

Maryland

New York

North Carolina

Ohio

Pennsylvania

Wisconsin

Cities

Baltimore, MD

Columbus, OH

Kansas City, MO

London, United Kingdom

New York City

Omaha, NE

Orlando, FL

Philadelphia, PA

Pittsburgh, PA

Rockford, IL

Countries / Provinces

Bahamas

Bermuda

Cayman Islands

Dubai

Ontario Canada

St. Lucia

United Kingdom



About Tourism Economics

- Tourism Economics, headquartered in Philadelphia, is an Oxford Economics company dedicated to providing high value, robust, and relevant analyses of the tourism sector that reflects the dynamics of local and global economies. By combining quantitative methods with industry knowledge, Tourism Economics designs custom market strategies, project feasibility analysis, tourism forecasting models, tourism policy analysis, and economic impact studies.
- Our staff have worked with over 100 destinations to quantify the economic value of tourism, forecast demand, guide strategy, or evaluate tourism policies.
- Oxford Economics is one of the world's leading providers of economic analysis, forecasts and consulting advice. Founded in 1981 as a joint venture with Oxford University's business college, Oxford Economics is founded on a reputation for high quality, quantitative analysis and evidence-based advice. For this, it draws on its own staff of 40 highly-experienced professional economists; a dedicated data analysis team; global modeling tools; close links with Oxford University, and a range of partner institutions in Europe, the US and in the United Nations Project Link.
- For more information: info@tourismeconomics.com.



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For more information:

Adam Sacks, President

adam@tourismeconomics.com

Christopher Pike, Senior Economist

cpike@tourismeconomics.com