

REVISED



Guam

Tourism Economic Impact

Preliminary Results



THE POWER OF PERSPECTIVE

Prepared for:

Guam Visitors Bureau

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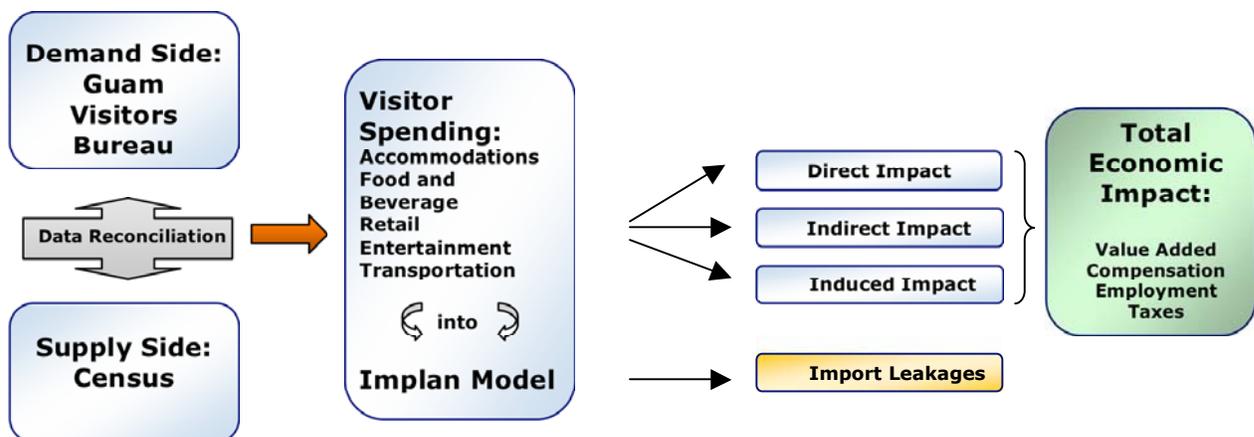
I. Methodology Overview

The purpose of this study is to estimate the economic benefits of tourism on the Island of Guam. For this study, travelers are defined as non-residents who have entered Guam by air or by water for a temporary stay.

The total economic impact of travelers is separated into three distinct parts: direct, indirect, and induced. The direct impacts represent the value added¹ of those sectors that interact directly with the visitor. The indirect impact represents the benefit to suppliers to those direct sectors. This would include, for example, Guam-based food suppliers to a local restaurant. The induced impact adds the impact of tourism-generated wages as they are spent in the Guam economy. The image of the iceberg represents the various impacts of tourism. Those industries that are part of the direct tourism sector represent the impact that is visible, i.e., above the surface of the water. But below the surface, traveler spending generates wages, employment, and taxes in a host of supporting industries. Although these are not seen, they are critical to understanding the full economic impact of tourism in Guam.



The economic impacts reported in this study are based on traveler spending as reported by the Guam Visitors Bureau. Global Insight cross-checked and augmented these data with Census data, employment data and its own tourism work. The IMPLAN Input-Output economic impact model for Hawaii was edited to reflect the island's differences and then used to estimate the direct, indirect, and induced impacts. The IMPLAN model accounts for import leakages to suppliers located outside of Guam.



¹ Value added of an industry is equal to the sum of wages, taxes, profits, and capital depreciation.

II. Executive Summary

A. Background and Purpose

Tourism has long been understood to be a vital component of the Guam economy. However, the true importance of tourism has eluded measurement as tourism defies traditional economic definitions. The reason for this is that tourism is, strictly speaking, not an industry but a series of activities. As such, tourism touches many different industries such as lodging, recreation, entertainment, retail trade, and transportation. The challenge lies in measuring the tourism share of these sectors.

Prior analysis of tourism's economic importance has been limited to "top-down" models based on limited local data. In contrast, this research leverages relevant data from multiple government agencies.

We are pleased to present here the findings of the Guam Economic Impact. This study provides a comprehensive and detailed account of the economic and tax impacts generated by traveler visiting Guam in calendar year 2005.

This report differs from the Tourism Satellite Account in that the economic impact of travelers on Guam does not count construction spending on behalf of tourism, nor Government agency spending. However, the economic impact report does include indirect and induced benefits from traveler spending while the TSA does not.

B. Key Findings

Figure II-1

Key Findings: Guam				
2005	Direct	Indirect	Induced	Total
Total Spending	-	-	-	\$1.15 billion
Economic Impact	\$393.9 million	\$134.3 million	\$135.9 million	\$664.0 million
Wages	\$202.6 million	\$82.0 million	\$93.4 million	\$378.0 million
Jobs	10,412	2,236	2,529	15,177
Tax Receipts				\$140.5 million

Source: Global Insight

Spending by travelers in Guam totaled \$1.15 billion in 2005.

- Travelers spent \$353.7 million on lodging, \$132.2 million at restaurants and other food service establishments, \$492.9 million in retail good stores, and \$170.6 million on a broad range of goods and services including transportation and entertainment.
- The economic impact of these expenditures (after import leakages) totaled \$664.0 million. This includes \$393.9 million in direct economic impact, \$134.3 million in indirect economic impact (supplier effect), and \$135.9 million in induced economic impact (income effect).

Traveler spending supported 15,177 Jobs and \$378.0 million in wages

- Traveler spending supported 15,177 jobs on Guam in 2005. Of these, 10,412 were directly employed by tourism sectors. Tourism generated an additional 2,236 indirect jobs and 2,529 induced jobs.
- \$378.0 million in wages were generated for these employees.

Travelers generated local tax revenue totaling \$140.5 million in 2005.

- Taking out Social Security Taxes, the Government of Guam received \$100 million in taxes from traveler spending in 2005.
- The \$1.15 billion in traveler spending netted \$36.3 million in receipts from the Gross Receipts Tax.

Travelers total economic impact on Guam ranges from 20% to over one-third of the total island economy.

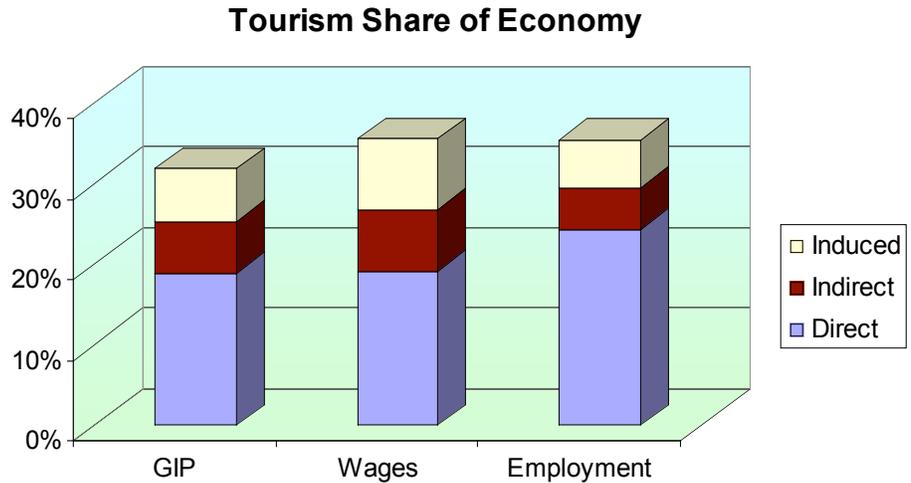
- Tourism's total economic contribution tallied \$664 million in 2005, comprising 20% of Guam Gross Domestic Product (GDP) – 32% of non-governmental GDP.
- This economic activity generated \$378 million in local wages or 36% of non-governmental wages.

- In terms of employment, tourism is the catalyst for 15,177 jobs, or 35.5% of the private (non-governmental) employment base.

Figure III-2

Tourism Share of Economy:

As a labor-intensive activity, tourism generates a higher percentage of wages and employment than of GDP.



This analysis provides perspective on the flow of a tourist dollar when spent in Guam. For every dollar spent, 34 cents goes toward the direct production of the service (or good). The 34 cents is the direct tourism value added as a share of total domestic demand. An additional 12 cents goes toward upstream local suppliers (utilities, business services or agriculture, for example). This captures the indirect value added share of domestic demand. The remaining 54 cents goes to off-shore suppliers, and captures import leakages.

An analysis of direct tourism sales and total tourism employment reveals that one job is created for every \$75,732 in direct tourism-related spending. This is the ratio of total tourism domestic demand to total tourism employees.

III. Detailed Results

A. Total Spending by Travelers

Travelers spent \$1.15 billion in Guam in 2005. These expenditures included \$493 million spent on retail goods, \$353.7 million on lodging, \$132.2 million on food and beverages, and \$170.6 million on shopping and entertainment. Figure III-1 lists the total expenditures by travelers on Guam in 2005.

Figure III-1

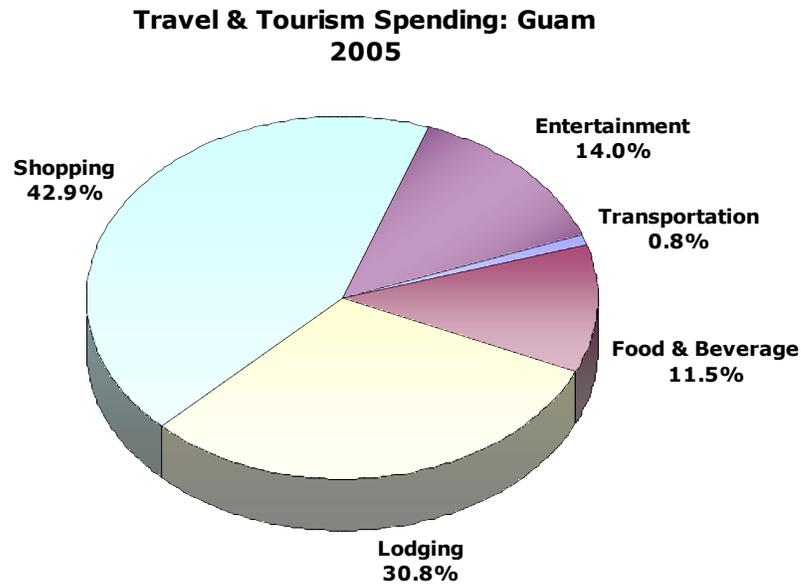
Expenditure Category	2005 (million \$)
Transportation	9.5
Lodging	353.7
Food & Beverage	132.2
Shopping	492.9
Entertainment	161.1
Total	1,149.4

Source: Global Insight, Guam Visitors Bureau

Guam shopping is one of the major draws to tourists and an important part of the Guam economy. Retail spending on Guam comprises almost 43% of all tourism spending. Spending in and on lodging venues takes up about 31 cents of the tourist dollar with entertainment spending comprising 14% of tourism spending. Spending at restaurants and other food establishments for visitors on Guam garners 11.5 cents in 2005.

Figure III-2 shows the major spending categories and their percentage of all dollars spent from visitors on Guam.

Figure III-2



B. Economic Impact (Value Added) of Tourism

As shown in Figure III-3, travel & tourism consists of many different standard industries as defined by the North American Industry Classification System (NAICS). A share of the retail, transportation, restaurant, lodging, and entertainment industries directly contributes to the travel sector.

In 2005, Guam tourism directly generated over \$394 million of economic value in sectors “touching” the visitor.

Additional sectors benefited as suppliers to direct tourism industries, with an indirect tourism-generated economic impact of over \$134 million. The induced impact of tourism reached \$136 million as tourism wages were spent within Guam.

In total, travelers to and from Guam generated \$664 million of economic value in Guam.

Figure III-3

Guam Travel & Tourism: 2005 Economic Impact (Value Added)				
Industry (NAICS)	Direct (million \$)	Indirect (million \$)	Induced (million \$)	Total (million \$)
Lodging	190.6	0.8	1.3	192.7
Retail Trade	79.5	5.3	14.8	99.6
Food & Beverage	52.0	2.4	6.1	60.5
Air Transportation	57.1	0.0	0.0	57.1
Finance, Insurance & Real Estate	6.5	29.7	17.6	53.8
Prof. & Business Services	0.0	41.4	9.5	50.9
Public Administration	0.2	10.4	31.9	42.5
Education & Health Services	0.0	0.4	26.4	26.8
Wholesale Trade & Utilities	0.0	14.7	10.0	24.8
Other Services	0.0	10.3	8.4	18.7
Information	0.0	8.2	3.8	12.0
Non-Air Transportation	7.3	0.8	1.0	9.1
Manufacturing	0.0	3.4	2.4	5.9
Construction	0.0	4.2	0.7	4.9
Entertainment	0.5	1.3	1.1	3.0
Agriculture, Forestry & Fishing	0.0	1.0	0.8	1.8
Natural Resources & Mining	0.0	0.0	0.0	0.0
Total	393.9	134.3	135.9	664.0

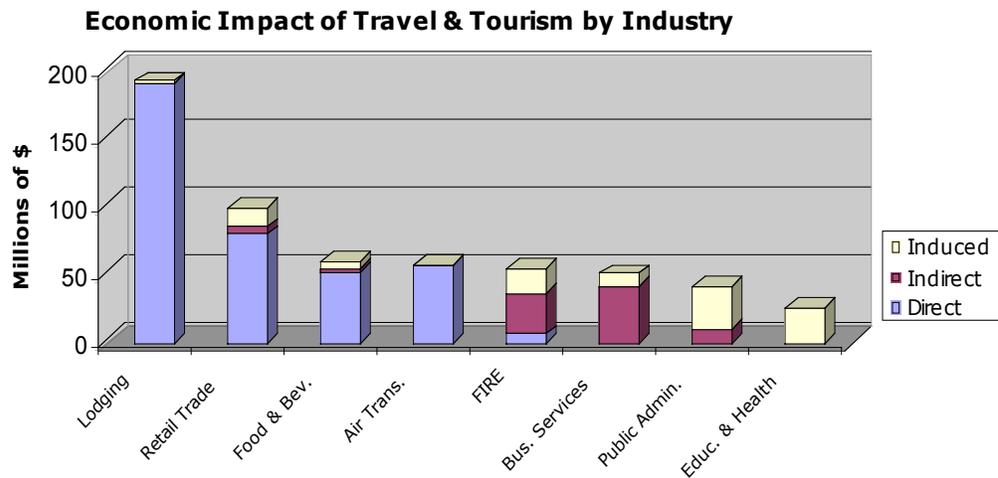
Source: Global Insight

While the largest economic impacts will be to the core tourism businesses like hotels and restaurants, Figure III-4 illustrates the fact that certain industries not directly involved in travel and tourism saw significant economic benefits, sometimes larger than industries directly linked to tourism in Guam. Note that the FIRE sector shows an economic impact similar to the food and beverage sector. But while the tourists directly support 86% of the total tourism Food and Beverage sector impact, the FIRE sector receives almost 88% of its tourism impact from being a supplier to industries directly linked to tourism. In fact, tourism spending creates \$30 million in indirect economic impact in the FIRE sector and \$18 million in induced impacts. This clearly shows the linkages between the tourism industry and the rest of the economy in Guam.

The Business Services sector generates \$41 million in indirect economic impact from traveler spending on Guam. This is 6.2% of the TOTAL impact of tourism spending, a significant amount.

Tourism's impact is significant to the suppliers of goods and services to businesses that directly touch the visitor.

Figure III-4



C. Economic Impact (Value Added) of Tourism

Wages and salaries generated by traveler spending on Guam are shown in Figure III-5. In 2005, directly paid wages and salaries to tourism sectors reached \$202.6 million; indirect production generated \$82.0 million in compensation; and induced wages tallied \$93.4 million. In total, workers received \$378 million in wages and benefits as a result of Guam traveler activity.

To put this in perspective, in 2005 the Department of Education's compensation totals (wages + benefits) were about \$150 million. Tourism directly brings in over \$202 million in compensation.

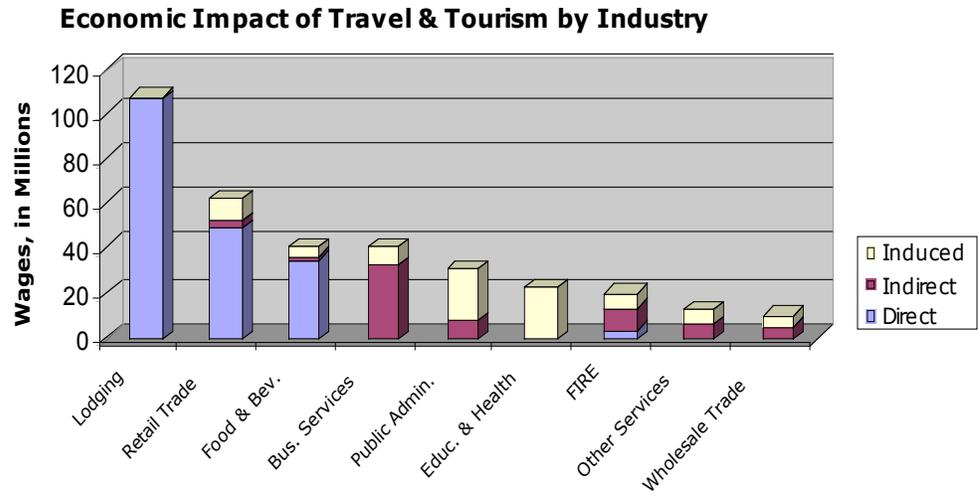
Figure III-5

Guam Travel & Tourism: 2005 Wages				
Industry (NAICS)	Direct (million \$)	Indirect (million \$)	Induced (million \$)	Total (million \$)
Lodging	107.1	0.5	0.7	108.3
Retail Trade	49.5	3.4	9.8	62.7
Food & Beverage	35.7	1.6	4.1	41.5
Prof. & Business Services	0.0	33.2	7.7	41.0
Public Administration	0.2	7.7	23.8	31.7
Education & Health Services	0.0	0.4	23.4	23.8
Finance, Insurance & Real Estate	4.1	10.0	6.9	21.0
Other Services	0.0	7.2	6.1	13.3
Wholesale Trade & Utilities	0.0	6.1	4.7	10.8
Information	0.0	4.2	2.0	6.2
Non-Air Transportation	4.1	0.6	0.6	5.2
Construction	0.0	3.5	0.6	4.1
Manufacturing	0.0	2.1	1.5	3.6
Entertainment	0.4	1.0	1.0	2.5
Air Transportation	1.4	0.0	0.0	1.4
Agriculture, Forestry & Fishing	0.0	0.6	0.4	0.9
Natural Resources & Mining	0.0	0.0	0.0	0.0
Total	202.6	82.0	93.4	378.0

Source: Global Insight

Notice the wages paid to workers in the professional services sector, as denoted by 'Bus. Services' in Figure III-6 below. Even though this sector is not directly linked to tourism spending and has less total employment impact than many sectors, wages and benefits paid to its employees are as large as the direct compensation of workers in the retail trade sector. The higher compensation numbers in the professional services sector mean \$41 million was paid to employees in that industry as a result of tourism spending on Guam.

Figure III-6



D. Employment Supported by Tourism

Figure III-7 shows the total employment by industry supported by Guam traveler spending. Tourism directly supported 10,412 full-time and part-time jobs throughout Guam in 2005 — primarily in lodging, restaurants, transportation, and entertainment. The indirect impact of travelers’ dollars supports another 2,236 jobs. An additional 2,529 jobs are generated by the spent wages of direct and indirect tourism employees.

Figure III-7

Guam Travel & Tourism: 2005 Employment					
Industry (NAICS)	Direct	Indirect	Induced	Total	% of Total
Lodging	5,898	26	41	5,965	39.3%
Food & Beverage	2,198	101	256	2,554	16.8%
Retail Trade	1,945	146	362	2,453	16.2%
Prof. & Business Services	0	940	211	1,151	7.6%
Education & Health Services	0	13	565	578	3.8%
Finance, Insurance & Real Estate	119	259	173	551	3.6%
Public Administration	3	120	372	495	3.3%
Other Services	1	205	264	469	3.1%
Non-Air Transportation	181	27	24	232	1.5%
Wholesale Trade & Utilities	0	98	89	187	1.2%
Entertainment	31	71	61	163	1.1%
Information	0	75	36	111	0.7%
Manufacturing	0	57	42	99	0.7%
Construction	0	59	10	70	0.5%
Agriculture, Forestry & Fishing	0	37	23	60	0.4%
Air Transportation	37	0	0	37	0.2%
Natural Resources & Mining	0	1	1	1	0.0%
Total	10,412	2,236	2,529	15,177	100.0%

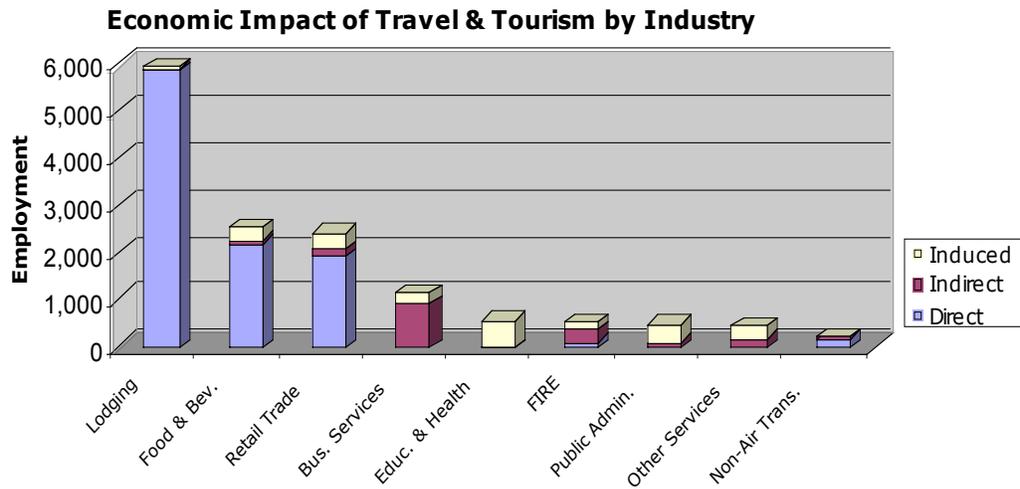
Source: Global Insight

The Professional & Business Services industry realizes the highest number of tourism-generated jobs that are not directly related to travelers—1,151.

It is interesting to note that, while retail trade comprises 43% of all spending, due to the large sales per worker number, only 16% of all the jobs created on Guam from tourism are in Retail Trade. It is the opposite case in the lodging industry. Lodging employment is 39% of the total number of jobs, yet only 31% of the spending goes to hotels.

As is shown in the following graph, the majority of the employment from visitor spending is highest in industries that directly touch the visitor. This is a bit different from our other graphs, where we saw certain industries not directly involved in the visitor experience benefited more than industries directly related to tourism.

Figure III-8



E. Tourism Taxes

Guam is a unique taxing authority, following what is regarded as a mirrored tax system in which many of the federal taxes are paid to the territory of Guam. In addition, Guam does not levy a sales tax but has a gross receipts tax on all final sales. Because of tourism, Guam derives significant taxes from companies, households, and the travelers themselves. Businesses and households pay income, sales, and excise taxes. Travelers pay tourism-specific taxes along with general sales taxes.

Tourism on Guam generated \$140.5 million in local taxes in 2005. Payroll taxes, income taxes, the gross receipts tax and the hotel tax make up the majority of the taxes received.

Figure III-10 lists 2005 Federal and State and Local taxes.

Figure III-10

Guam Visitor Tourism: 2005 Tax Revenue Generation	
Tax	2005 (\$)
Guam	
Corporate Income	14,440,530
Personal Income	26,439,541
Social Security & Other Taxes	40,559,615
Hotel Tax	18,946,882
Gross Receipts Tax	36,325,549
Excise & Fees	3,770,886
Sales Taxes	0
Guam Total	140,483,002

Source: Global Insight

Guam Household Savings

Ignoring Social Security taxes, if tourism did not exist each of the 38,769 households on Guam would have to pay an additional \$2,577 in taxes in order to maintain the current level of tax receipts.