

# The Economic Impact of the National Museum of Naval Aviation

Final Report

Commissioned by: John H. Fetterman  
Vice Admiral, USN (Ret)  
President and CEO  
Naval Aviation Museum Foundation, Inc.  
P.O. Box 33014  
NAS Pensacola, FL 32508-3104

Conducted by: Guy Livingston  
The Haas Center for Business Research and Economic  
Development at the University of West Florida  
Pensacola, Florida

Contact: Guy Livingston  
850-474-2533  
[glivingston@uwf.edu](mailto:glivingston@uwf.edu)

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# Executive Summary

The University of West Florida's Haas Center for Business Research and Economic Development is pleased to submit the following report, assessing the economic importance of the National Museum of Naval Aviation to Pensacola. Using visitor-spending data collected under contract to the Pensacola Area Chamber of Commerce, combined with the Museum capital and operating budget data obtained from the financial statements of the Naval Aviation Museum Foundation, Inc., we have been able to update and improve previous estimates of the impact of the Museum to the local economy.

The National Museum of Naval Aviation has a considerable economic impact on the Northwest Florida region. The existence of the Museum provides not only quantifiable economic impacts on the region but it also provides educational and cultural services that are beneficial to the area but difficult to measure in dollar terms. The purpose of this report is to estimate the magnitude of the impact on the Northwest Florida economy that is attributable to the Museum, and clarify the impact that Museum activities have on the other industry sectors in the region.

The estimates provided in this report capture the local economic impact generated by the National Museum of Naval Aviation operating and capital budget, spending of wages paid to Museum employees, and expenditures of Museum visitors who come into the area from outside the Northwest Florida region. Standard multiplier techniques have been applied to these data to estimate the overall magnitude of the economic impact that the Museum exerts on the various sectors of the local economy, and to trace the relative impact on each industry sector. Estimates of total spending, employment, and wages are calculated. These estimates are for the two-county region that includes Escambia and Santa Rosa Counties, and all measures of impacts pertain to businesses and households located in this region. Each of the measures of economic impact

reflects the value generated by industry for one annual calendar year of production.

This study *underestimates* the impact of the Museum, as it does not measure the impact of many of the educational, professional, or cultural services that are available to the region due to the local presence of the Museum. In addition to the quantifiable economic impact associated with the Museum, there are also numerous intangible benefits. These benefits include the contribution that the Museum makes as a medium of informing and educating the public of the current and historical role of Naval Aviation. For example, the Emil Buehler Naval Aviation Library, with over 7,000 titles including almost 2,000 technical manuals, over 350,000 prints and slides, and over 600 VHS tapes offers the public the opportunity to conduct in-depth aviation research. The Foundation magazine, a semiannual scholarly publication, is another platform for disseminating Naval Aviation history. Benefit flows also include the availability of public seminars and conferences hosted by the Museum, including the Symposium of Naval Aviation, a two-day event attended each year by 3,000 people from around the world; and the Distinguished Lecturer Program, which offers the public the opportunity to hear presentations by astronauts, scientists, and other notable contributors to the field of aviation and space. Furthermore, the National Aviation Art Program provides a venue to aviation and space artists nationwide. The historical insight and professional pride that the Museum provides to the thousands of men and women who are currently training for careers in Naval Aviation at area Naval bases is immeasurable. The same can also be said about what the Museum means to the over 31,000 retired military, one of the largest concentrations of retired military in the nation, who live in the region. A plethora of professional, social, and cultural events would not occur in the area without the support and direction of the National Museum of Naval Aviation and the Naval Aviation Museum Foundation. Each of these contributions has a significant but difficult to measure economic and cultural impact on the region, which was not included in this analysis.

In this report, we summarize the results of our investigation into the economic

importance of the National Museum of Naval Aviation. Among the most important findings are that:

- ▶ The spending of Museum visitors for lodging, restaurants, shopping, entertainment and other goods and services, combined with the Museum and Foundation operating and capital budget, injects about \$47.7 million in direct spending each year that stays in the local economy.
- ▶ When the total impact of Museum-related spending is considered (i.e., when taking the “multiplier effect” into account), approximately \$70.8 million in total spending is generated each year in the two-county region.
- ▶ About 1,170 jobs are directly or indirectly supported by Museum-related spending in the regional economy along with annual incomes to area workforce totaling approximately \$27.3 million.
- ▶ Museum activities also have a sizable fiscal impact, generating an estimated \$1.3 million each year in local tax revenues, \$3.0 million in state tax revenues, and \$6.4 million in federal tax revenues.
- ▶ The primary characteristics that differentiate the local tourist that visits the National Museum of Naval Aviation from those that do not are that the Museum visitor is more likely to be married, has a higher income, stays longer in Pensacola and sees more attractions, and spends more while here. These characteristics allow the Museum visitor to have a larger impact on the local economy than does the non-Museum visitor.
- ▶ Museum visitors stay longer in Pensacola than non-Museum visitors by .75 days, and spend more during their visit on restaurants, entertainment, shopping, groceries, and especially lodging.
- ▶ They are more likely to be here on a longer vacation (46% of Museum visitors indicated this response versus 32% of non-Museum visitors), and less likely to be in the area on business (6.5% versus 9.9%).
- ▶ While in the area, they are more likely to visit other attractions, especially the historical district (55% of Museum visitors visit this attraction versus 31% of non-Museum visitors), the zoo (21% versus 11%), and historic forts (46% versus 17%).
- ▶ The Museum is an export industry, bringing money into the local community from outside the region. Over 82% of Museum visitors are residents of areas outside the 325 Zip Code, which covers Escambia, Santa Rosa, and Okaloosa Counties.
- ▶ Constructing the proposed \$30 million National Flight Academy will also produce a ripple effect on the local economy, resulting in an estimated \$47.6 million in total spending in the two-county region during the period of construction activities. About 481 jobs in the regional economy will be directly or indirectly supported by this construction along with incomes to area workforce totaling approximately \$17.4 million. The additional local tourism that the National Flight Academy induces combined with the increased Museum operating expenses will provide ongoing annual economic and fiscal benefits to the region in addition to those already estimated in this report.

The report begins by introducing the definitions, concepts, and scope of this regional economic impact analysis. We then describe the Pensacola regional economy to emphasize the economic importance of tourism to the Pensacola region. Then, we illustrate the characteristics of a Museum visitor that determine his economic impact. Next, we document the methodology used to estimate changes in economic activity attributable to the National Museum of Naval Aviation. We then provide the details of the overall magnitude of the economic impact that the Museum exerts on the other industry sectors of the local economy. This is followed by a fiscal impact calculation that provides our estimates of federal, state, and local tax revenues generated by the Museum. And finally, the result of a survey of Museum visitors is presented.

*Guy Livingston*  
*University of West Florida*

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# Introduction

## *Purpose, Definitions and Scope*

Since its founding in 1962, the National Museum of Naval Aviation has become an important contributor to the Pensacola regional economy. The purpose of this report is to present calculations of the magnitude of changes in economic activity arising from Museum-related spending in Pensacola. This report provides an excellent opportunity to examine the economic role that the Museum plays in the region and to enhance understanding of that role. The analysis describes the magnitude of the economic impact in Pensacola that is attributable to the Museum, and clarifies the impact that Museum-related spending has on the other industry sectors in the region.

Several measures of Museum-related economic activity are estimated, including total spending, income, tax revenues, and employment. *Total spending* is the value of production by industry related to Museum activities for one annual calendar year of production. Total spending includes the total value of purchases by intermediate (business to business) and final consumers (Museum visitors and households). The *income* figures that are reported are the sum of proprietor's income and wages and salaries accruing to workers in all local businesses that support the Museum. *Employment* figures represent the number of jobs supported by sales of goods and services to Museum visitors and by the increased level of inter-industry transactions resulting from Museum activities. The job estimates given include full time, part time and seasonal jobs.

For these economic impact calculations the region of interest is the Pensacola MSA, which includes two counties: Escambia and Santa Rosa. The selection of a particular geographic region influences both the amount of spending by local businesses that is captured and the size of the multiplier effects. In these calculations, only spending that takes place within the

Pensacola MSA is included as stimulating the changes in economic activity, and all measures of impacts pertain to businesses and households located in the MSA.

Each of the measures of economic impact reflects the value generated by industry for one annual calendar year of production. In actuality, most of the local economic impact associated with local spending changes will have occurred within this one-year time frame.

This report does not attempt to quantify quality of life issues, whether positive or negative, which are undoubtedly related to the real estate development, growing populations, or increased traffic that may result from the tourism industry. This report estimates only the gross impact of financial (spending) flows, ignoring ancillary non-financial costs (e.g. traffic congestion, crime, noise or pollution) and benefits (additional local shopping, restaurant or cultural activities) that are often associated with tourism. Each of these non-financial contributions has a significant but difficult to measure economic and cultural impact on the region, which was not included in this analysis.

The Museum-visitor spending data used in these calculations were generated from surveys administered by participating Visitor Information Centers in the Pensacola area over the period May 1, 2001 through April 30, 2002. Visitors to Pensacola completed 2,991 usable surveys over this period providing information on several broad areas, including basic visitor demographics, information on planning the area visit, characteristics of the area visit, as well as in-area spending patterns. For purposes of calculating economic impact, the study is particularly concerned with in-area spending patterns of overnight and day visitors. Visitor-reported daily spending for lodging, restaurant meals, shopping and entertainment, as well as other information were used to estimate total Museum-visitor spending impact.

The Museum visitor spending data were added to Museum operational spending calculations and used in a computer multiplier model to estimate the overall magnitude of the economic impact that the Museum exerts on the various sectors of the local economy. Use of these standard multiplier techniques permit

the generation of estimates of total local economic impact, including total inter-industry spending, employment, tax revenue and incomes associated with spending driven by Museum activities.

The next section of the report provides a brief overview of the Pensacola area economy to put into perspective the importance of the service, retail trade, and construction industries as major employers of the Pensacola area's workforce. Growth in each of these sectors is influenced by growth in the tourism industry, and each of these industries benefit from spending by the thousands of visitors who come to or stay longer in the area to visit the National Museum of Naval Aviation.

# Overview of Pensacola Area Economy

The Pensacola MSA is located in the most Northwestern part of the Florida panhandle, bordered on the west and north by Alabama, on the east by Okaloosa County, and on the south by the Gulf of Mexico. The climate is tropical, with the annual temperature averaging 68.4 degrees, and the sun shines approximately 343 days each year. The combination of miles of unspoiled white sand beaches with blue-green water, state and national parks, an historical district with some of the nations oldest buildings, a National Museum of Naval Aviation, and other attractions, give the Pensacola area a strong tourist appeal.

There are two counties within the MSA, Escambia and Santa Rosa. Pensacola MSA has an estimated 2002 population of 424,010, with approximately 157,070 households and a mean household income of \$66,426. Average annual employment for the area is 220,990 persons, who receive \$6,146,820,000 in total earnings. Total industry output for the MSA is approximately \$17,763,688,000. The population is 76% urban, 24% rural. The largest industry sector is the services sector, which employs an annual average of 73,340 persons, followed by retail trade (41,850), state and local government (21,710), construction (16,110), and military/DoD Civilians (23,446).<sup>1</sup>

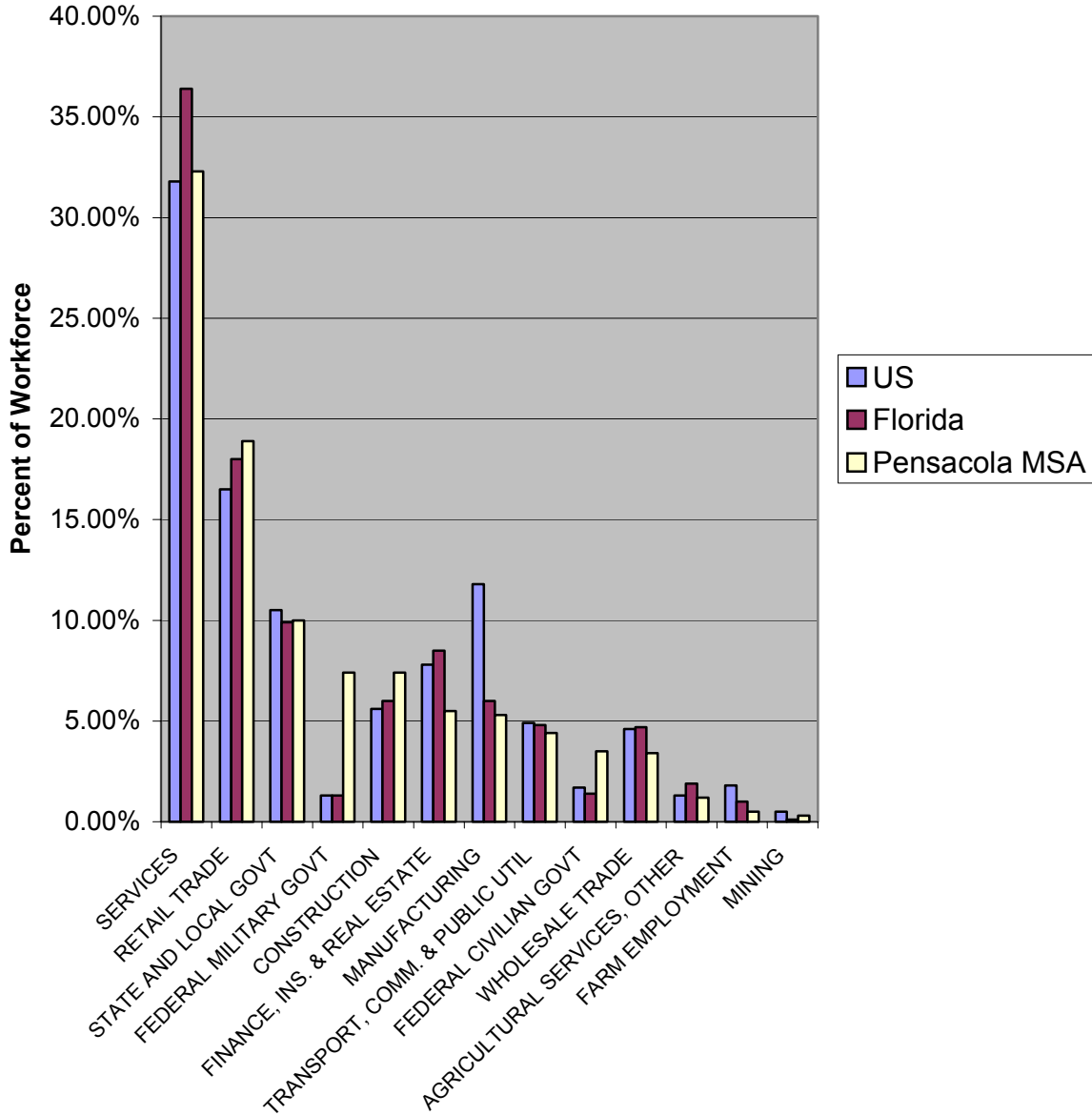
A review of employment data is a good way to identify and understand Pensacola's key industries. Employment data provides the number of people whose incomes depend directly on each particular industry. Employment data is also shown to provide an indication of which industries are growing and which are declining, as well as to reveal the importance of each industry to the local economy. Figure 1 compares relative employment by industry sector for the United States, Florida, and the Pensacola MSA. It shows the service industry employs the largest share of the MSA's workforce, and that the retail trade, government, and construction industries are also significant employers, reflecting

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<sup>1</sup> Claritas, Inc. Custom Summary Report of Escambia and Santa Rosa; Woods and Poole Economics 2002 for Pensacola MSA; C.O. NAS Pensacola letter dated November 14, 2001.  
Note: Highly dynamic military population with 36,000 student throughput annually.

a strong retail trade presence in Pensacola, as well as employment growth in residential and commercial construction.

**Figure 1 - Employment by Industry Sector for the U.S., Florida, and Pensacola**



Source: Woods and Poole Economics 2000

## **Historical Employment Trends**

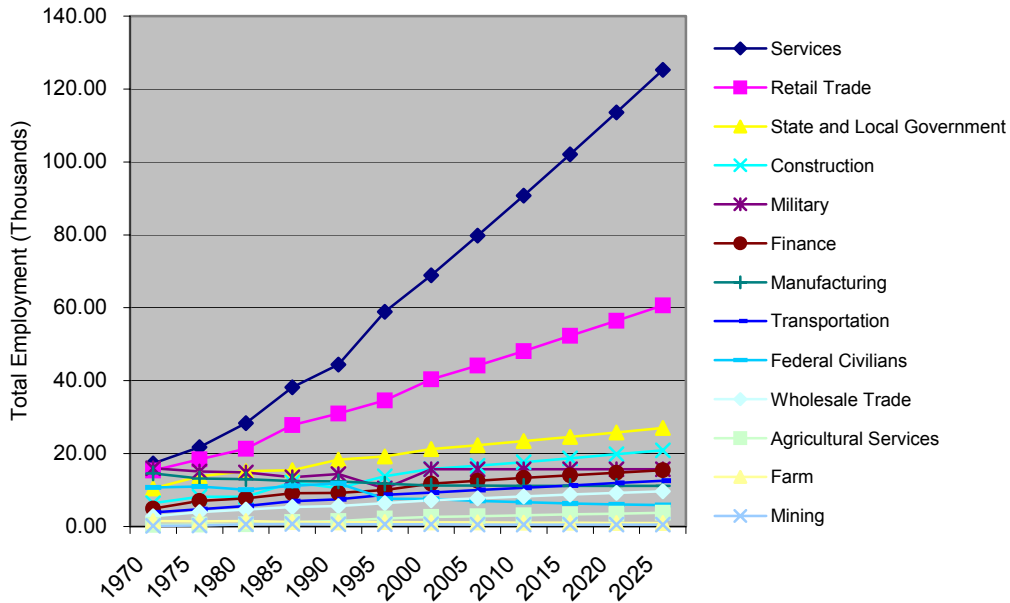
Table 1 and Figure 2 below show trends in employment from 1970 to present, and projections to 2025, broken out by major industry sector. While sectors such as manufacturing, federal civilians, and transportation, communication and public utilities are projected to stay relatively stable over this period; other sectors are forecast to grow substantially, both on sheer numbers and as a share of Pensacola employment. Most notable in Figure 2 is the expansion of employment over the past few decades in services, construction, and retail trade. These industries are strongly impacted by tourism, and their growth trends are projected to continue into the next decade.

**Table 1 - Pensacola Employment Projections Through 2025 (Thousands of Persons)**

	1970	1975	1980	1985	1990	1995	2000	2005	2010	2015	2020	2025
TOTAL EMPLOYMENT (THOUSANDS)	104.53	119.35	131.91	155.32	168.51	185.52	213.58	231.71	250.43	269.75	289.49	309.54
Farm	1.49	1.43	1.48	1.21	1.12	1.25	1.17	1.12	1.08	1.04	0.99	0.96
Agricultural Services	0.44	0.53	0.62	1.24	1.47	2.21	2.60	2.82	3.06	3.31	3.54	3.76
Mining	0.16	0.30	0.63	0.67	0.63	0.58	0.59	0.54	0.53	0.54	0.55	0.56
Construction	6.44	8.19	8.18	12.14	10.53	13.82	15.76	16.66	17.68	18.74	19.82	20.92
Manufacturing	14.60	13.13	13.01	12.50	12.41	11.79	11.27	11.21	11.16	11.13	11.13	11.15
Trans, Communications, Public Utilities	3.90	4.71	5.63	6.90	7.49	8.71	9.35	9.99	10.62	11.27	11.93	12.57
Wholesale Trade	2.83	3.96	4.69	5.34	5.66	6.39	7.22	7.77	8.28	8.76	9.23	9.67
Retail Trade	15.39	18.40	21.37	27.83	31.02	34.58	40.34	44.14	48.14	52.28	56.47	60.66
Finance, Insurance, Real Estate (FIRE)	4.92	7.07	7.76	9.17	9.20	10.00	11.80	12.58	13.30	14.02	14.74	15.47
Services	17.27	21.80	28.36	38.18	44.40	58.88	68.92	79.77	90.79	102.07	113.56	125.26
Federal Civilians	10.67	10.93	10.12	11.17	11.81	7.64	7.56	7.05	6.64	6.32	6.06	5.86
Military	15.95	15.12	14.87	13.52	14.41	10.45	15.75	15.73	15.72	15.71	15.70	15.69
State and Local Government	10.48	13.78	15.20	15.45	18.36	19.24	21.26	22.34	23.43	24.58	25.78	27.03

Source: Woods and Poole Economics 2000

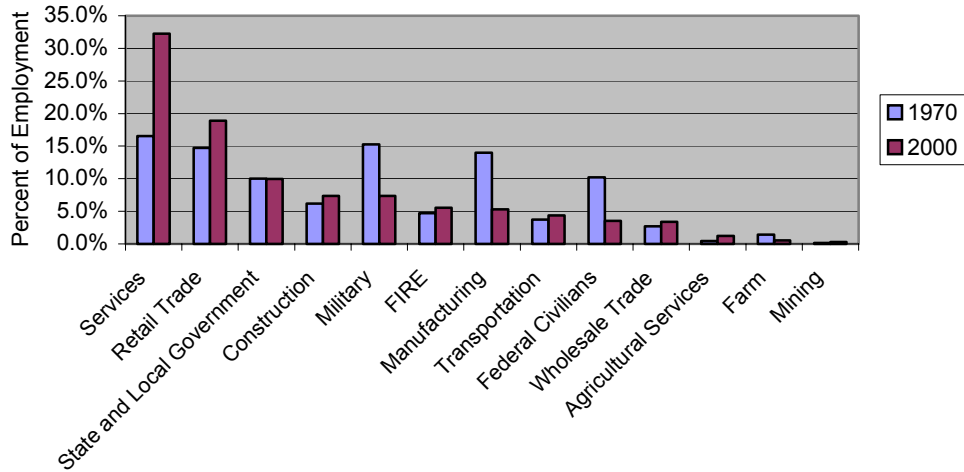
**Figure 2 - Pensacola Employment Projections Through 2025 by Industry**



Source: Woods and Poole Economics 2000

Figure 3 shows what this differential job growth has meant for the share of MSA employment for different sectors. Here, the 1970-2000 period is shown. Over the past three decades, manufacturing employment has dropped from 14.0% of total employment to only 5.3% of employment. Meanwhile, employment in retail trade has increased over time (eating and drinking places are included under retail trade), and the share of retail in total employment has grown from 14% to 18%. The share of service employment, which includes hotel and lodging places, as well as a wide variety of business and personal services, grew by more than half, from 16.5% to 32.3% of total MSA employment over the period. In addition, construction and finance, insurance and real estate sectors grew slightly as a share of total employment, while military and federal civilian share of total employment dropped sharply.

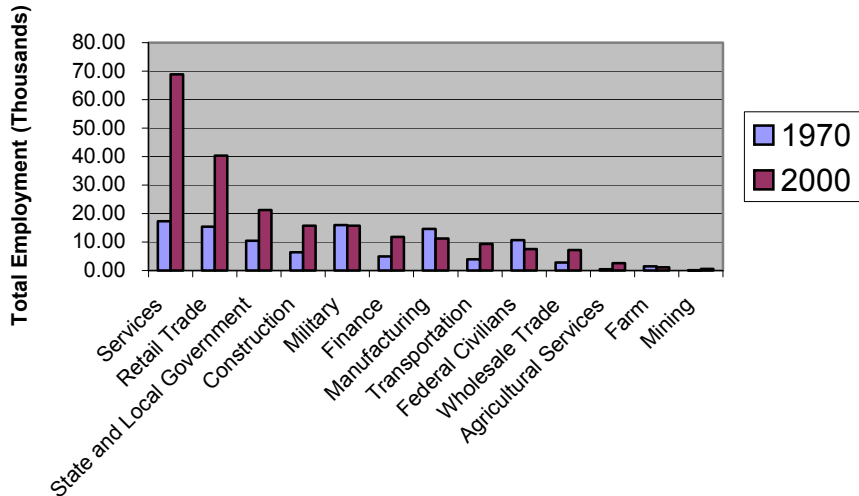
**Figure 3 - Changes in Percent of Employment by Industry Sector, 1970-2000**



Source: Woods and Poole Economics 2000

Figure 4 shows changes in the actual number of persons employed during the same 1970 thru 2000 time period for each major industry sector in the Pensacola area.

**Figure 4 – Changes in Number of Persons Employed by Industry Between 1970-2000**

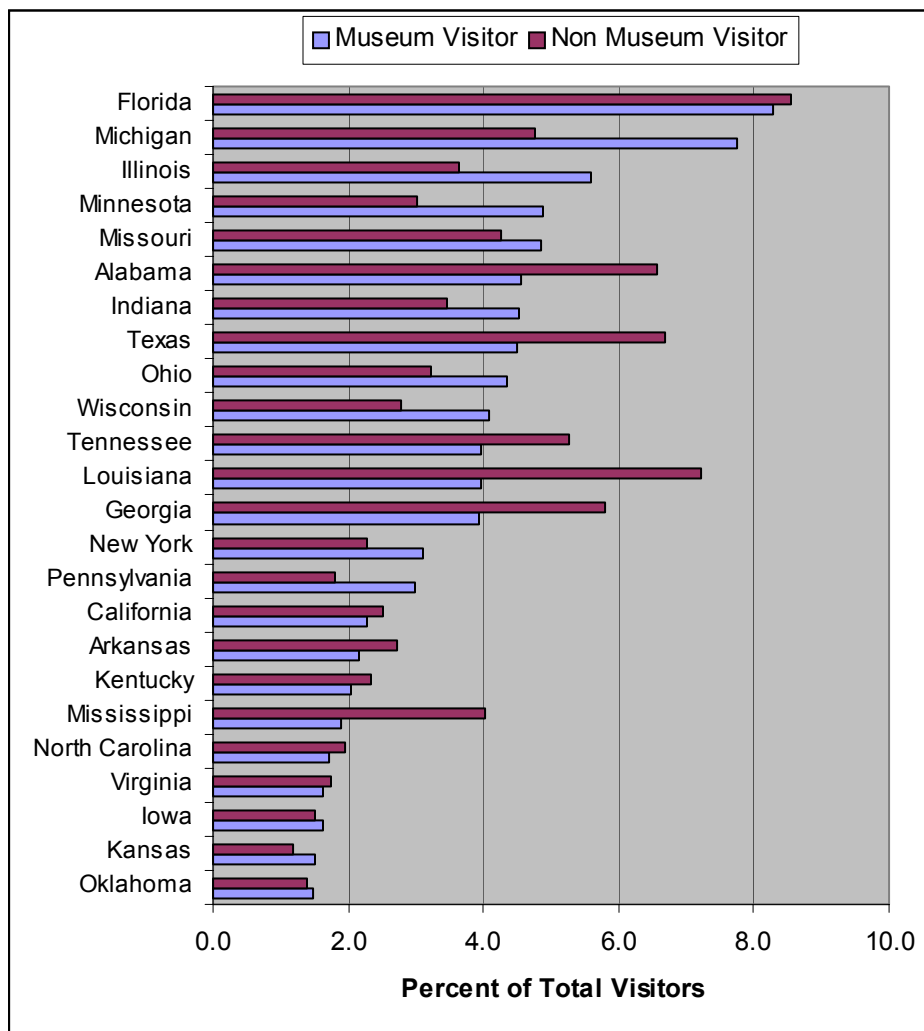


Source: Woods and Poole Economics 2000

# Museum Visitor Characteristics

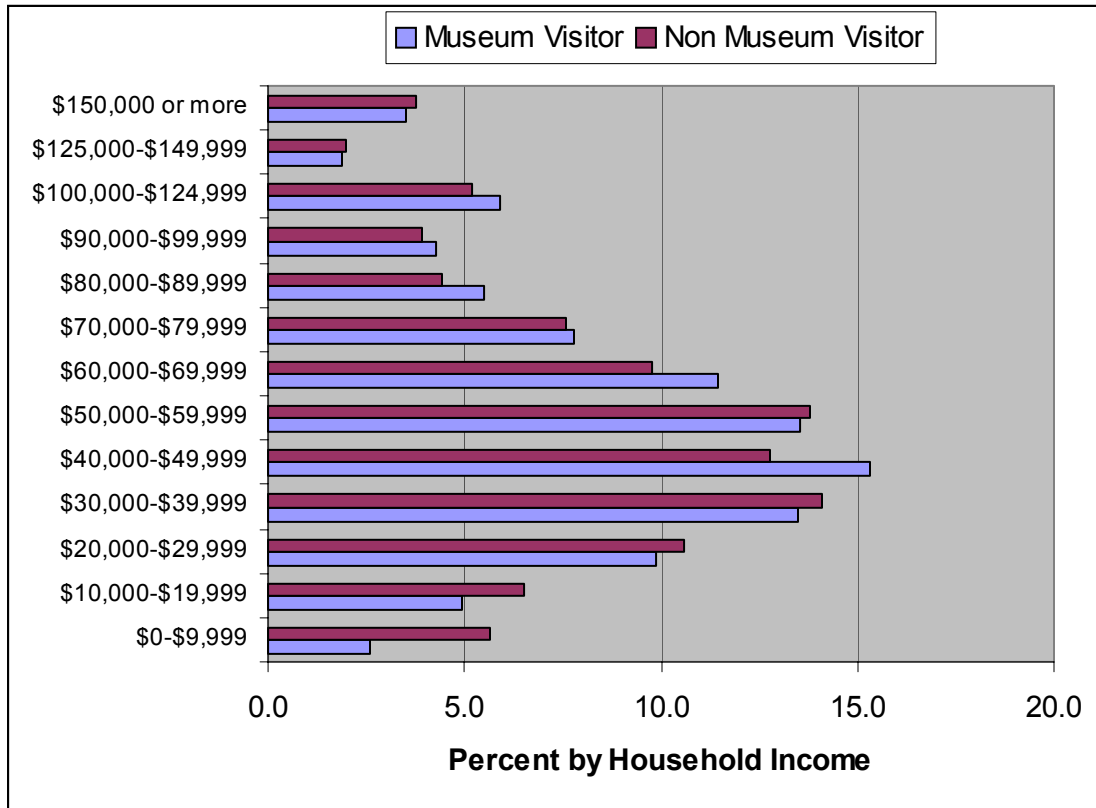
The visitor demographics, spending data, and other survey information collected from visitors to our area makes it possible to assess the characteristics of Museum visitors and their economic importance to Pensacola. Using tourism survey data collected under contract to the Pensacola Area Chamber of Commerce, we are able to describe the Museum visitor, and show how Museum visitors differ from area tourists who do not visit the National Museum of Naval Aviation. Figure 5, which shows the residence of Museum visitors, illustrates the national popularity of the Museum.

**Figure 5 - Top 25 States of Origin for Museum Visitors**



The primary characteristics that differentiate the tourist that visits the National Museum of Naval Aviation from those that do not are that the Museum visitor is older, is more likely to be married, has a higher income, stays longer in Pensacola and sees more attractions, and spends more while here.<sup>2</sup> These characteristics allow the Museum visitor to have a larger impact on the local economy.

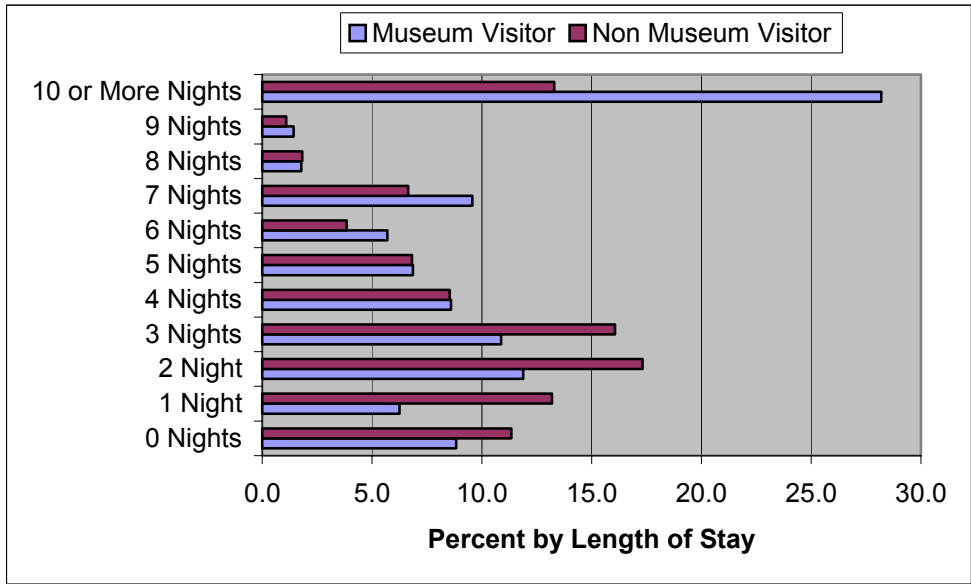
**Figure 6 - Total Household Income of Museum Visitors**



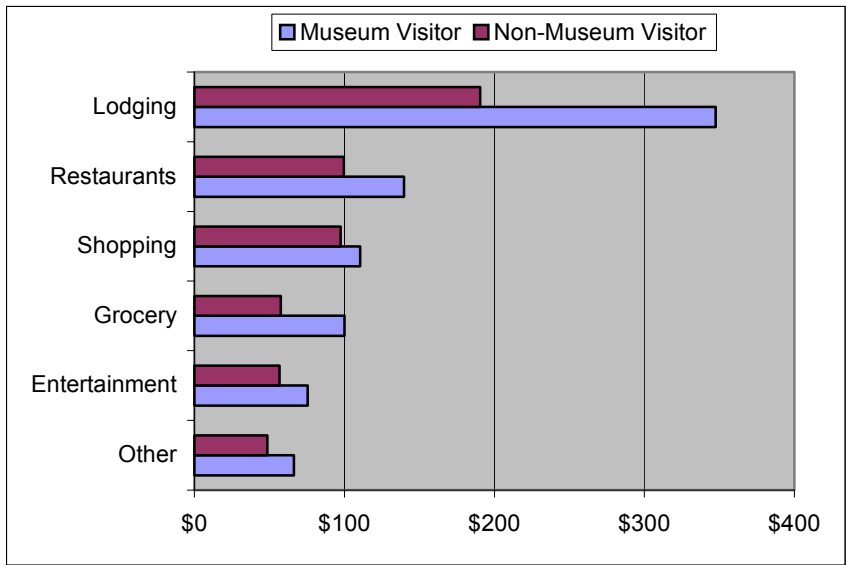
The average age of a Museum visitor (head of the visiting party) is 48 years, compared to 41 for non-Museum visitors. Their average household income is \$62,434 versus \$59,142 (see Figure 6). Museum visitors stay longer by .75 days, and spend more during their visit on restaurants, entertainment, shopping, groceries, and especially lodging.

<sup>2</sup> Visitor Information Survey and Industry Tracking System (VISIT) May 1, 2001 through April 30, 2002

**Figure 7 - Length of Stay in the Pensacola Area**

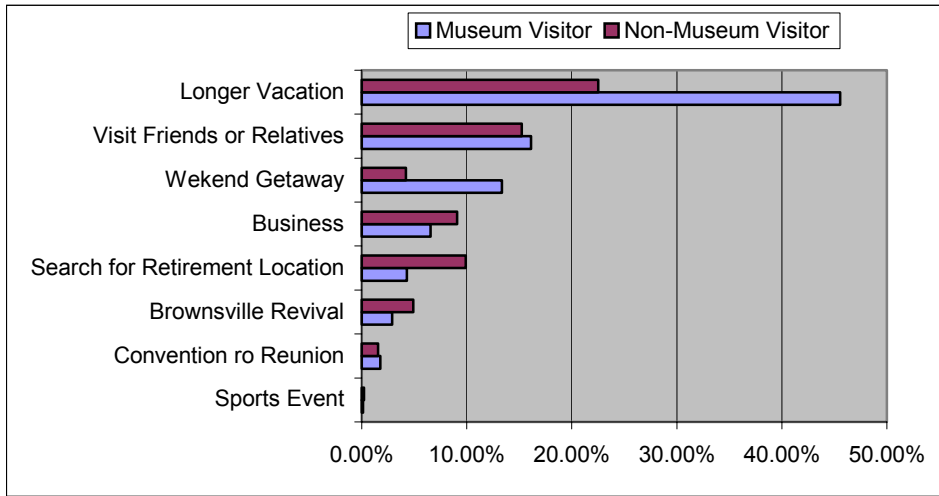


**Figure 8 - Total Spending by Travel Party Per Visit**



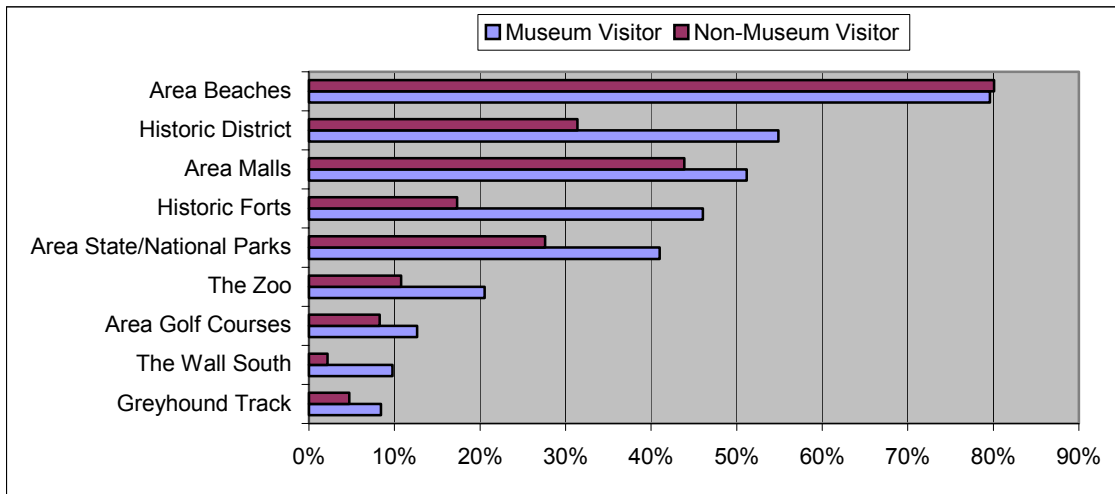
They are more likely to be here on a longer vacation (46% of Museum visitors indicated this response versus 32% of non-Museum visitors), and less likely to be in the area on business (6.5% versus 9.9%).

**Figure 9 - Purpose of Visit**

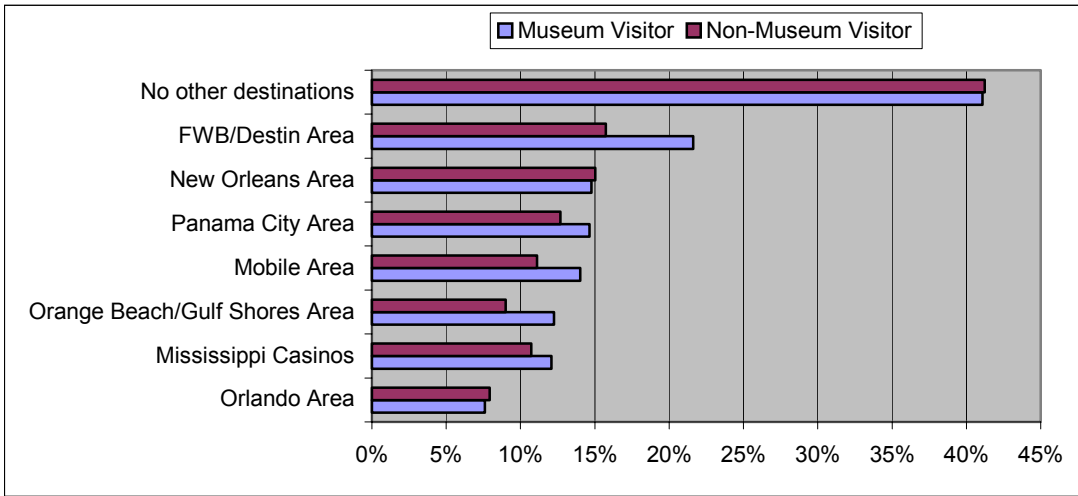


While in the area, they are more likely to visit other attractions, especially the historical district (55% versus 31%), the zoo (21% versus 11%), and historic forts (46% versus 17%). This characteristic increases their overall economic impact on the area.

**Figure 10 - Other Attractions Planning To Visit During Stay**

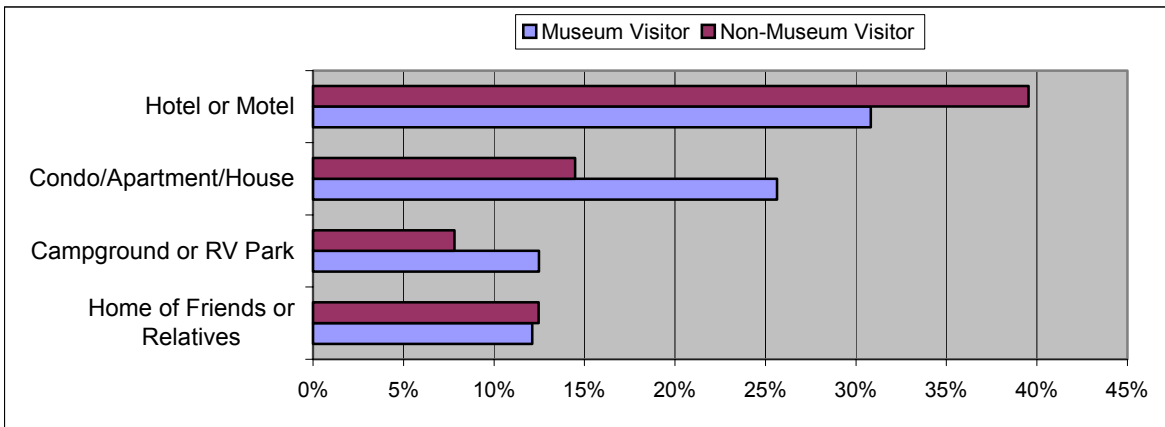


**Figure 11 - Other destinations visiting on this trip**



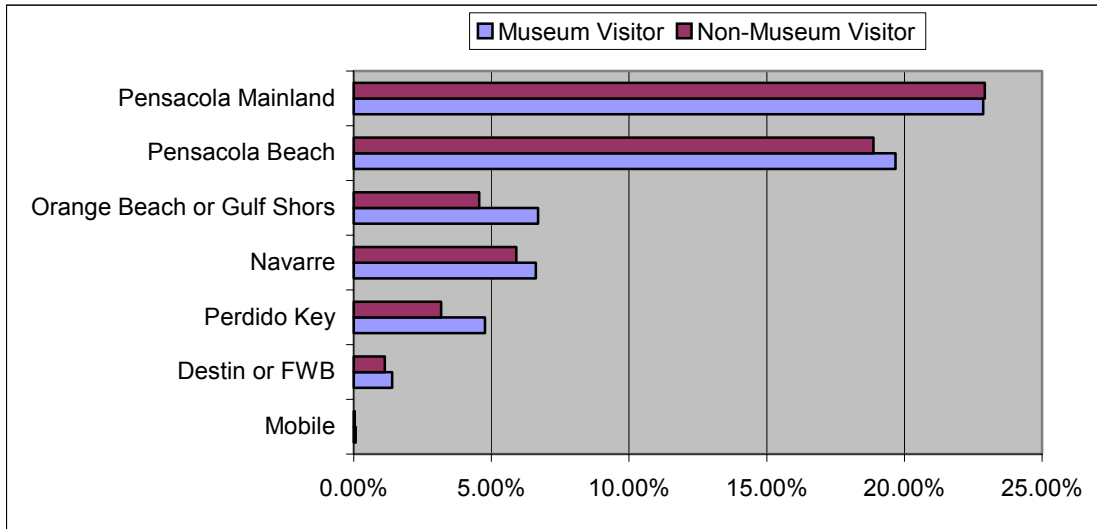
With Museum visitors, both male and female heads of household are more likely to be involved in the decision to visit Pensacola, and in planning the trip. Museum visitors are also much more likely to plan the trip 3 to 6 months in advance than are non-Museum visitors, and they are more likely to use a wide variety of information sources in their planning, including the auto club, Internet, Florida State Tourism Office, and the area Chamber of Commerce.

**Figure 12 - What type of lodging are you staying in?**



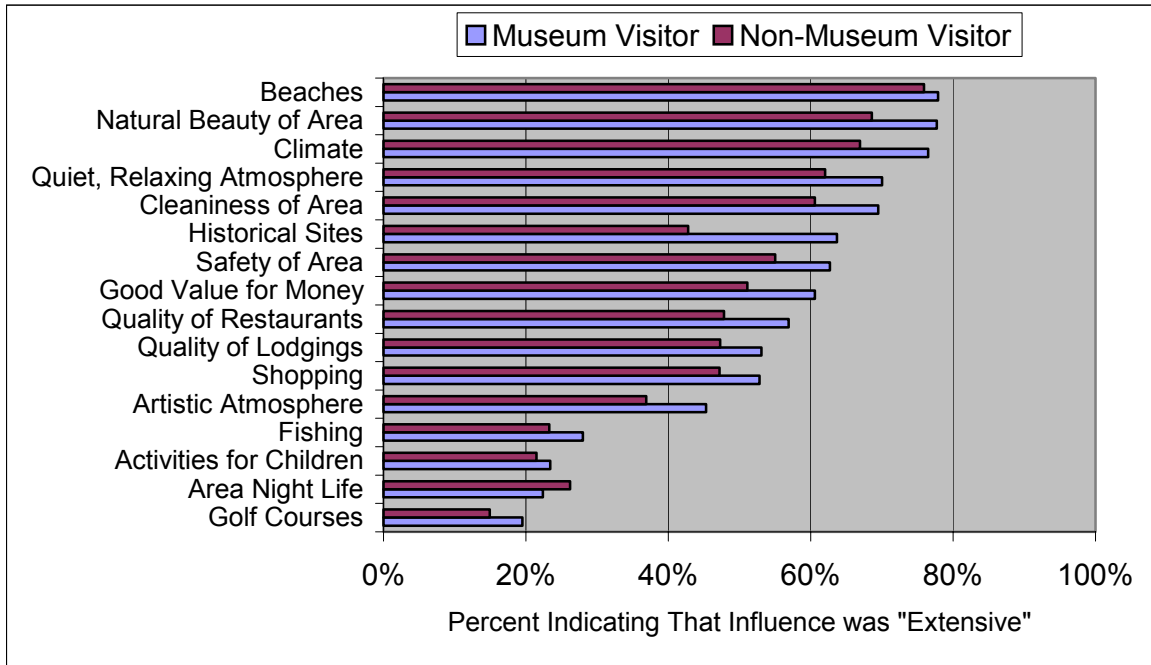
They are less likely to stay in a hotel or motel, and more likely than non-Museum visitors to stay in a condominium, apartment, or house.

**Figure 13 - Location of Lodging**



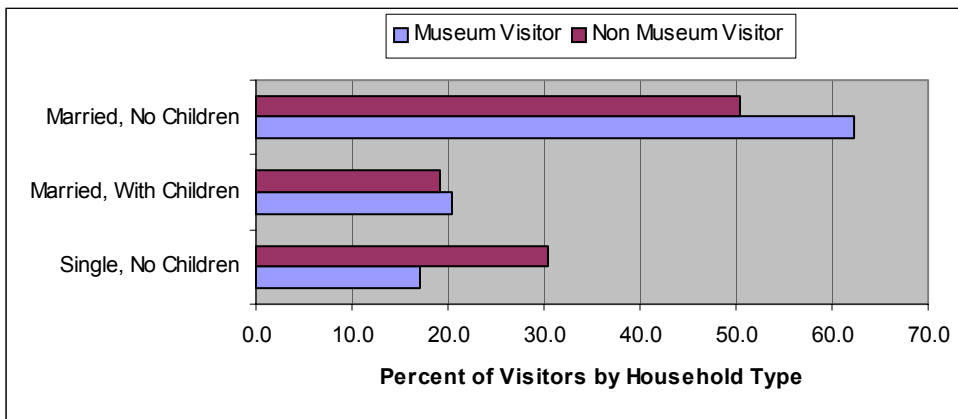
Like all visitors to the area, they travel to Pensacola primarily by automobile (82%), and are influenced to visit Pensacola primarily by the beaches, natural beauty and climate. Over 89% of Museum visitors are White, 2% are African-American (versus 5.4% of non-Museum visitors), and 1.4% are Hispanic (versus 3% of non-Museum visitors).

**Figure 14 - Factors Influencing Decision to Visit**



Visitors to the National Museum of Naval Aviation are generally older than area tourists indicating that they did not visit the Museum, and are more likely to be married (see Figures 15-16).

**Figure 15 - Household Type**



**Figure 16 - Age Bracket**

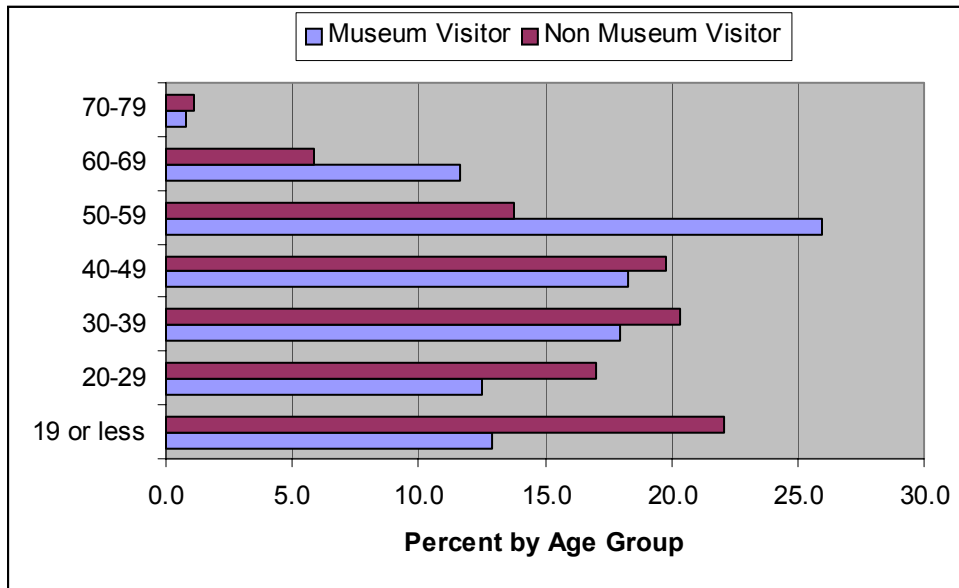
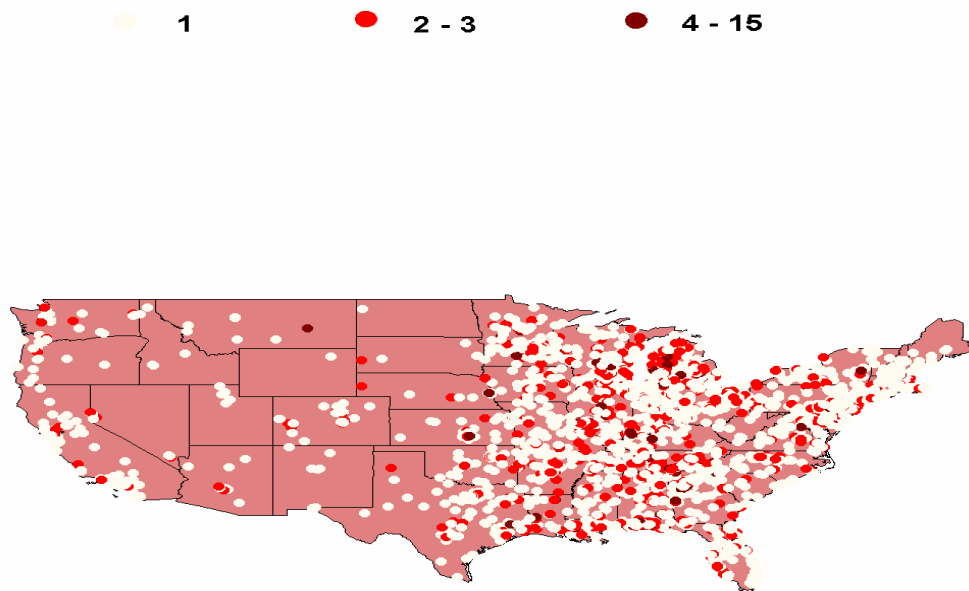


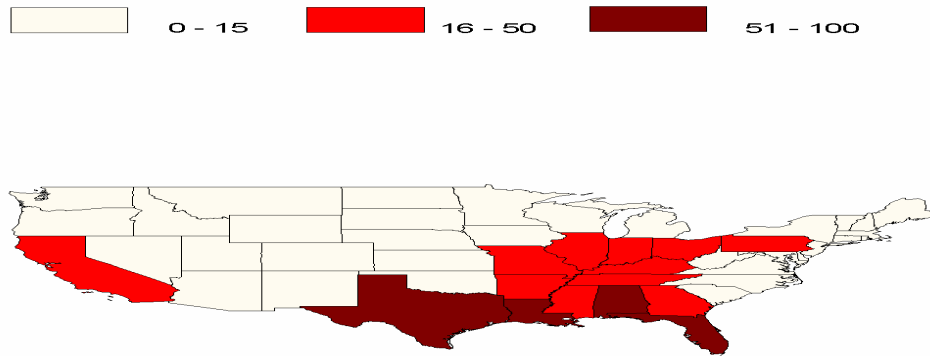
Figure 17 provides the residence given by visitors to the National Museum of Naval Aviation between May 1, 2001 and April 30, 2002. Similar to other locations in Northwest Florida, Pensacola is primarily a driving destination, drawing visitors from across the South and Southeast during the peak summer season, and from northern states during the winter months (see Figures 18-19).

**Figure 17 - Residence by Zip Code of Visitors to the Museum From May 1, 2001-April 30, 2002**

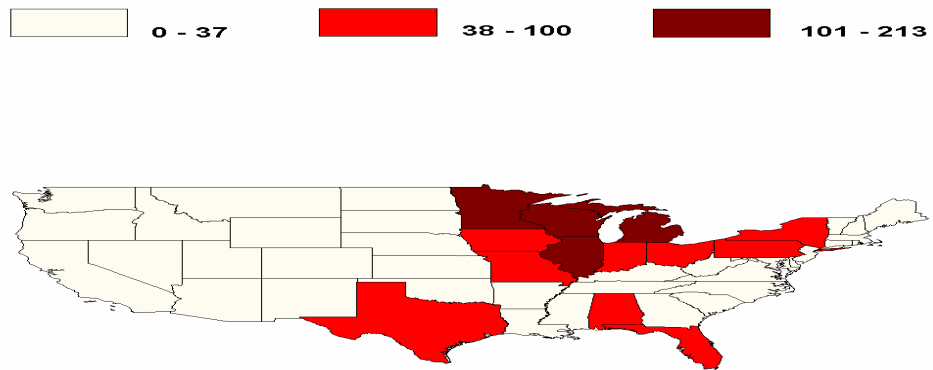


Source: Visitor Information Survey and Industry Tracking System (VISIT) May 1, 2001 through April 30, 2002

**Figure 18 - Residence of Summer Visitors to the Museum**



**Figure 19 - Residence of Winter Visitors to the Museum**



# Methodology

Estimation of the impact of the National Museum of Naval Aviation on the Pensacola regional economy requires the identification of those activities that would not have occurred in the region had it not been for the existence of the Museum. Activities that would be eliminated or significantly reduced if the Museum had never been built in Pensacola include:

1. Spending by Museum visitors on lodging, restaurants, groceries, entertainment, transportation, shopping, and other purchases.
2. Spending of the Museum capital and operating budget.
3. Additional economic activity stimulated by visitor spending and capital and operating budget spending described in items (1) and (2). This is the “multiplier effect.”

Visitor expenditures per day for lodging, restaurants, entertainment, grocery items, shopping, and other spending categories were derived from surveys collected by participating Visitor Information Centers in the Pensacola area over the period May 1, 2001 through April 30, 2002, and analyzed by the Haas Center for Business Research and Economic Development at the University of West Florida. During the recent twelve-month survey period, visitors to Pensacola spent on average \$73 per person per day. Table 2 below provides a comparison of the spending patterns reported by visitors to the Pensacola area with those reported by visitors to the rest of the State of Florida. This comparison indicates that the visitors to our area, which is primarily a driving destination with 84% of tourists arriving by automobile, spend about 13.4% per party per day less than the average Florida automobile tourist. The difference in spending is primarily in the “entertainment” category.

**Table 2 - Comparing Pensacola Tourist With Average Florida Tourist**

Spending Category	State of Florida Total	Florida Airplane Traveler	Florida Auto Traveler	Pensacola Visitor
Average expenditure per person per day	\$117.80	\$157.30	\$87.20	\$73.00
Food	\$23.10	\$26.90	\$20.50	\$18.00
Room	\$24.80	\$32.00	\$20.10	\$19.33
Shopping	\$15.30	\$17.80	\$13.80	\$16.67
Entertainment	\$16.50	\$18.30	\$15.70	\$9.33
Travel party size (average persons)	2.6	2.2	2.9	3.0
Total party expenditure per day	\$306.28	\$346.06	\$252.88	\$219.00
Paid lodging	65.1	65.8	65.3	73.0%
Unpaid lodging	31.3	31.2	31	27.0%

Source: Florida Statistical Abstract 2000, Haas Center Analysis

The purpose of this study is to estimate how much of this spending is attributable to the National Museum of Naval Aviation. Analysis of the available data indicates that the primary characteristic of the Museum visitor is that he stays longer in Pensacola. Whereas most visitors to Pensacola indicate that the main factor influencing their decision to visit Pensacola is the area beaches, the Museum provides a strong incentive to the visitor to increase their length of stay. A multiple regression model developed by the Haas Center using several visitor characteristics including age, income, purpose of visit, household type, and whether or not the tourist visited the Museum showed that a Museum visit was the single best predictor of length of stay. The model indicates that Museum visitors stay in the area .75 days longer than non-Museum visitors. To estimate the amount of area tourism spending that is attributable to the Museum, this analysis assumes that each visitor to the Museum will stay, on average, .75 days longer in the area, and spend .75 times the daily average tourist expenditure. As shown in Table 2 above, the daily average tourist expenditure is \$73. Multiplying \$73 by .75 indicates that the average Museum visitor will spend \$54.75 more while visiting Pensacola than he would have if the Museum were not here. To estimate tourist spending that is attributable to the Museum, we multiplied the annual number of Museum visitors by \$54.75 (shown in Table 3 below). The

National Museum of Naval Aviation provides Museum visitor counts. Between 1997 and 2001 the Museum averaged 916,484 visitors per year.

The Regional Purchase Coefficient (RPC) shown in Table 3 represents the proportion of local demand purchased from local producers. For example, an RPC of 0.25 for a given commodity means that for each \$1 of local demand, 25% will be purchased from local producers. RPC's are based on the characteristics of the region and describe the actual trade flows for the region mathematically. The greater the RPC, the greater the level of local economic activity that is occurring, and the larger the economic multiplier will be. The RPC's used in this study indicate the percentage of Museum-visitor spending that occurs within the Pensacola MSA. Spending that occurs outside the Pensacola MSA is not included in the reported economic impacts. Table 3 lists Museum-visitor spending per category and provides the regional purchase coefficients that were applied to that spending in this study.

**Table 3 - Museum-Visitor Spending Patterns**

<b>Tourist Spending Patterns – Spending Per Day Per Visitor</b>			
<b>Spending Category</b>	<b>Daily Total</b>	<b>Annual Total</b>	<b>RPC<sup>3</sup></b>
Lodging	\$14.50	\$13,289,018	100%
Grocery	\$5.00	\$4,582,420	94.1%
Restaurant	\$8.50	\$7,790,114	89.9%
Entertainment	\$7.00	\$6,415,388	79.8%
Shopping	\$12.50	\$11,456,050	95.0%
Other	\$7.25	\$6,644,509	71.2%
<b>Total Spending Per Visitor Per Day</b>	<b>\$54.75</b>	<b>\$50,177,499</b>	

Source: Visitor Information Survey and Industry Tracking System (VISIT) May 1, 2001 through April 30, 2002

The Naval Aviation Museum Foundation, Inc. Fiscal 2001 budget of was provided by O'Sullivan Creel, LLP, Certified Public Accountants & Consultants. The National Museum of Naval Aviation Fiscal 2000 O&MN Operation Budget was provided by the Foundation. Museum expenditures used in this study are shown in Table 4.

<sup>3</sup> Regional Purchase Coefficient (RPC) for the Pensacola MSA; IMPLAN Professional Social Accounting & Impact Analysis Software

**Table 4 - Museum Related Expenditures**

<b>Budget</b>	<b>Amount</b>
Naval Aviation Museum Foundation, Inc. FY2001 Budget	\$5,743,244
National Museum of Naval Aviation O&MN Operation Budget FY2000	\$1,819,000
NAS Pensacola Support to Museum FY2000	\$920,000
Average Annual Museum Construction Spending 1990-2002	\$2,485,417
Average Annual Visitor Count 1997-2001	916,484

## **Understanding Economic Multipliers**

There are several key concepts that must be used to get a correct estimate of the total economic impact arising from tourism spending. One of these is the regional purchase coefficients mentioned above. The RPC indicates what share of total visitor spending is done within the county, for each of the spending categories. Another key concept of impact analysis is the price margin that separates wholesale from retail prices. Since this analysis involves retail prices in some spending categories and wholesale prices in others, the total spending (final demand) values needed to be subdivided into either retail or wholesale prices. Wholesale prices are those paid in business-to-business transactions, retail prices are those paid at the consumer level. Margins represent the difference between producer and purchaser prices. Margining assigns direct expenditures to the correct industry sector multipliers by splitting a purchaser price into the appropriate producer values. In this study the dollar value of impacts resulting from purchase by retail consumers are split appropriately so as to capture the portion going to the retailer, to the wholesaler, to transportation providers, and to the manufacturer.

Economic impact analysis describes the effects of tourism using economic measures such as spending, employment, labor income, and tax revenue. Economic activities such as tourism generate spending in our local area, and cause jobs to be created that pay income to area residents and generate tax revenue that flows to government. However, quantifying these effects can be difficult, and the calculated economic impact should be considered an estimate

based the best information available at the time.

Conceptually, the total economic impact of an event can be separated into three different types of effects. First is the direct effect of spending; which is the impact of new spending on first tier suppliers. Thus, ten dollars spent by a visitor at a local restaurant counts as a direct effect of ten dollars. This direct spending has the advantage that it can be counted relatively easily, but it does not capture the “multiplier effect” of the additional economic activity set in motion by the purchase of the meal.

To the direct effect must be added the indirect effect of spending. In order to produce the ten-dollar meal, the restaurant must purchase certain inputs from other businesses. To the extent that these inputs are local, these purchases represent additional local spending. For example, the restaurant may purchase two dollars worth of food inputs from the local produce market for every ten-dollar meal sold. The produce market may have paid a local farmer one dollar for the goods that are then sold to the restaurant, and the farmer may have paid 10 cents for local inputs into the farm. The indirect effect measures the cumulative local purchases from other businesses that are generated from the ten dollars spent on the meal. Because much of this spending goes either immediately or eventually to businesses outside of Pensacola, the indirect effect tends to be smaller than the direct effect. A reasonable estimate of the indirect effect of a ten-dollar meal might be five dollars.

To the direct and indirect effects must be added the induced effect, which measures the additional spending that occurs across the economy because of the income paid by all of the businesses involved, directly or indirectly, in producing the meal. There is a flow of wages received by the waiters, cooks, produce store clerks, and others who play a part in putting that meal in front of the visitor. These people receive most of those wages as take-home pay, and they spend most of that take-home pay and save some. To the extent that their spending generates jobs in the local economy, there is additional economic impact attributable to the meal. However, much of that pay may go to a mortgage or car payment that leaves the local economy. In fact, most of the

grocery store spending will leave the local economy to pay for food produced elsewhere in the country. But the part that pays the local banker administering the car loan, or the clerk at the local store, or other local employees, represents a local economic impact of that ten-dollar meal. A reasonable value for the induced effect might be three dollars.

Thus, the total local economic impact of the ten dollar meal would be eighteen dollars, representing the initial purchase (the direct effect), plus the local purchases made from other businesses in producing the meal (the indirect effect), plus the local purchases resulting from the spending by households who received wage income while producing the meal (the induced effect). Here, “the multiplier” is said to be 1.8, meaning that every dollar spent on that category (restaurant meals) has a total impact of \$1.80 on the local economy, once the direct, indirect and induced effects are accounted for.

The multiplier effect can also be seen in the number of jobs created by visitor spending. The number of jobs created includes those employees working directly in businesses that serve visitors, people working for companies that support operations of these businesses, and those who become employed as a result of the wage base associated with the tourism industry locally.

In order to say that the multiplier is 1.8 (versus some other number like 1.2 or 3.7), the U.S. Department of Commerce, Bureau of Economic Analysis, uses actual historical data, specific to each county in the country, to describe how goods and services are produced in each county. These tables show the amount of inputs from other industries used to produce a dollar’s worth of output in a particular industry. A number of commercial firms have elaborated on these basic input-output tables and used them to produce software that models these economic relationships. These are called economic impact models, or Input-Output models. The Haas Center owns several of these models and uses *IMPLAN Professional Social Accounting & Impact Analysis Software* (IMPLAN), which is the most widely used model, in most economic impact studies.

# Economic Impact of the National Museum of Naval Aviation

The National Museum of Naval Aviation has a direct quantifiable impact that includes wages paid to Museum employees, Museum operating and capital expenditures, and the spending by tourists who visit the Museum. However, the total economic impact to the immediate community is much greater. The individuals working at the Museum spend much of their pay in the local economy. The Museum spends millions with local businesses for construction, maintenance, advertising, professional services, and office equipment and supplies. Additionally, Museum visitors often stay overnight in the area and spend money at hotels, restaurants, retail stores, and other entertainment attractions throughout the region. This spending ends up in the pockets of employees of hotels, consulting firms, hospitals, maintenance companies, banks, insurance companies, and construction firms, all of who in turn re-spend the dollars. The tables below provide estimates of spending that would not occur in the region were it not for the presence of the Museum, and trace the impact that Museum-related spending activities have on the other industry sectors in the region.

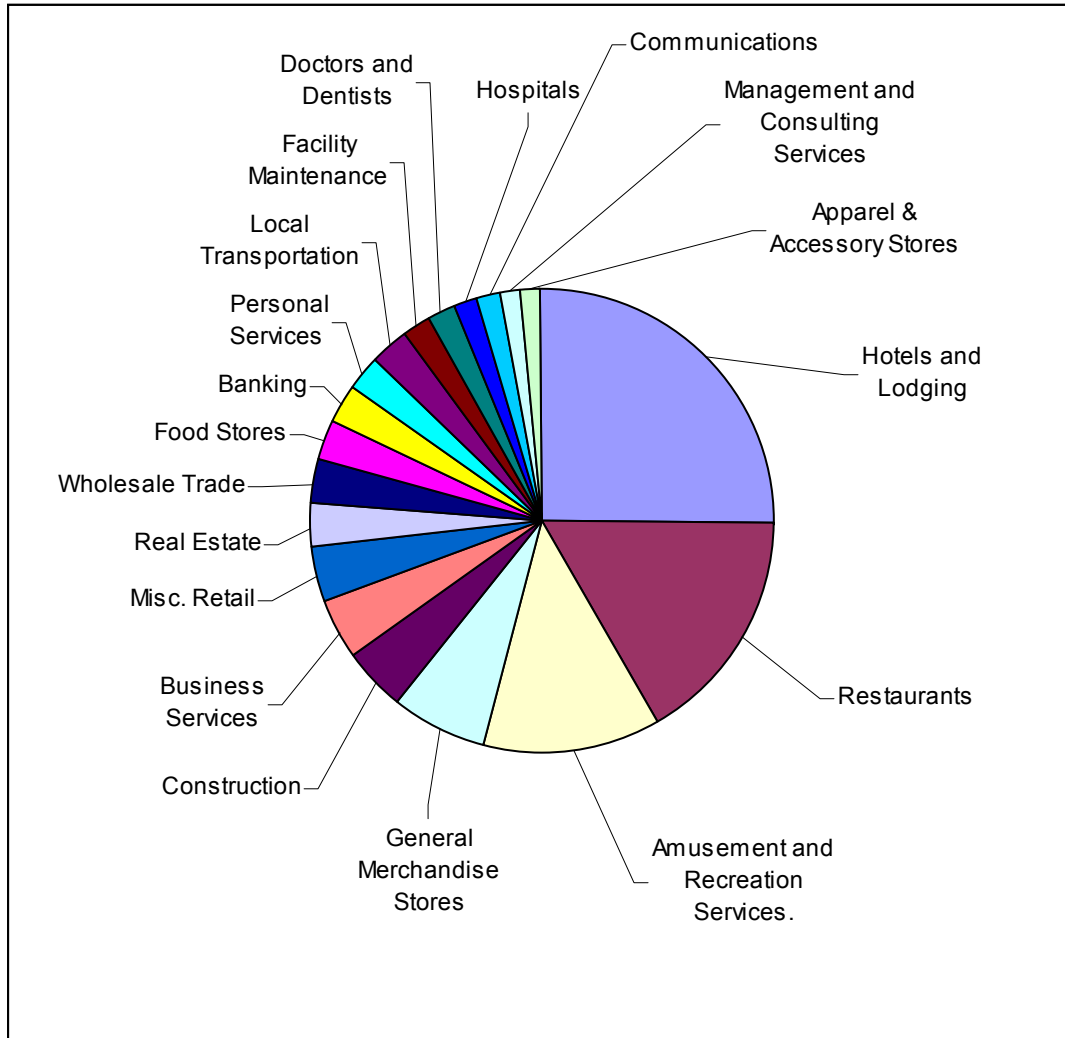
The spending of Museum visitors for lodging, restaurants, shopping, entertainment and other goods and services, combined with the Museum and Foundation operating and capital budget, injects about \$47.7 million in direct spending each year that stays in the local economy. When the total impact of Museum-related spending is considered (i.e., when taking the “multiplier effect” into account), approximately \$70.8 million in total spending is generated each year in the two-county region. About 1,170 jobs are directly or indirectly supported by Museum-related spending in the regional economy along with annual incomes to area workforce totaling approximately \$27.3 million.

A summary of the estimated annual economic impact of the National Museum of Naval Aviation, delineating the direct, indirect, and induced impact of is presented in Table 5 below.

**Table 5 - Estimated Annual Economic Impact of the National Museum of Naval Aviation**

<b>Estimated Annual Economic Impact of the National Museum of Naval Aviation in the Pensacola MSA</b>				
<b>Estimated Visitor Spending Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
Total Spending (Output)	\$37,020,501	\$9,470,096	\$9,829,624	\$56,320,221
Incomes Generated	\$15,143,720	\$3,955,266	\$3,791,595	\$22,850,582
<b>Estimated Naval Aviation Foundation Budget Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
Total Spending (Output)	\$4,075,690	\$532,940	\$763,686	\$5,372,316
Incomes Generated	\$1,250,523	\$229,055	\$294,549	\$1,774,127
<b>Estimated Foundation and Museum Wage Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
Total Spending (Output)	\$3,104,922	\$452,628	\$436,922	\$3,994,472
Incomes Generated	\$664,913	\$184,256	\$168,536	\$1,017,706
<b>Estimated Museum Operation Budget and NAS Pensacola Support Impact</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
Total Spending (Output)	\$1,006,000	\$115,426	\$102,517	\$1,223,942
Incomes Generated	\$145,111	\$52,818	\$39,535	\$237,464
<b>Estimated Impact of Museum Construction</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
Total Spending (Output)	\$2,485,417	\$818,404	\$617,693	\$3,921,514
Incomes Generated	\$830,619	\$357,418	\$238,181	\$1,426,218
<b>Estimated Overall Impact of the National Museum of Naval Aviation</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
Total Spending (Output)	\$47,692,531	\$11,389,492	\$11,750,441	\$70,832,465
Incomes Generated	\$18,034,887	\$4,778,812	\$4,532,397	\$27,346,096
Jobs Supported	876.6	134.6	159.4	1,170.6

**Figure 20 - Distribution by Industry Sector of the Economic Impact of the Museum**



Museum-related spending impacts are seen primarily in the hotel and lodging, restaurant, recreation, retail merchandise, construction, and professional business services industries. Other industry sectors that see a large economic impact due to Museum-related spending include real estate, wholesale trade, banking and personal services. Figure 20 above and Table 6 below show the industry sectors that are most affected in terms of total spending output stimulated by the Museum.

**Table 6 - Distribution by Industry Sector of the Economic Impact of the Museum**

Industry	Direct	Indirect	Induced	Total Spending Generated	Incomes Supported	Jobs Supported
Hotels and Lodging	\$13,307,122	\$111,093	\$118,980	\$13,537,195	\$5,487,991	265.7
Restaurants	\$7,916,241	\$122,741	\$668,519	\$8,707,501	\$3,358,931	240.8
Amusement and Recreation Services.	\$6,438,969	\$11	\$115,591	\$6,554,572	\$2,806,747	80.4
General Merchandise Stores	\$3,330,552	\$10,818	\$252,089	\$3,593,459	\$1,686,730	102.8
Construction	\$2,400,000	\$0	\$0	\$2,400,000	\$806,321	20.7
Business Services	\$1,382,504	\$701,936	\$139,833	\$2,224,273	\$677,198	23.9
Misc. Retail	\$1,756,364	\$25,377	\$251,271	\$2,033,013	\$1,007,115	59.4
Real Estate	\$37,098	\$1,062,403	\$598,374	\$1,697,876	\$228,133	9.3
Wholesale Trade	\$110,416	\$793,011	\$705,860	\$1,609,287	\$664,785	12.6
Food Stores	\$1,260,532	\$12,446	\$307,348	\$1,580,326	\$929,015	43.7
Banking	\$169,411	\$659,266	\$579,384	\$1,408,060	\$293,982	6.5
Personal Services	\$1,339,425	\$2,717	\$53,595	\$1,395,737	\$265,659	23.1
Local Transportation	\$1,337,051	\$18,552	\$39,125	\$1,394,727	\$689,993	31.3
Facility Maintenance	\$408,721	\$578,426	\$136,767	\$1,123,914	\$660,601	17.2
Doctors and Dentists	\$170,300	\$0	\$822,892	\$993,192	\$592,249	10.2
Hospitals	\$113,265	\$2,710	\$755,344	\$871,319	\$505,922	14.7
Communications	\$32,686	\$515,132	\$301,340	\$849,158	\$199,806	3.8
Management and Consulting Services	\$190,080	\$557,873	\$96,504	\$844,457	\$361,749	10.9
Apparel & Accessory Stores	\$571,277	\$8,787	\$133,216	\$713,280	\$281,000	14.5
Accounting and Bookkeeping	\$572	\$577,811	\$83,652	\$662,035	\$470,046	11.3
Auto Dealers & Service Stations	\$76,528	\$79,554	\$403,873	\$559,955	\$255,169	6.8
Credit Agencies	\$12,207	\$387,956	\$130,955	\$531,119	\$376,934	8.6
Personnel Supply Services	\$1,010	\$441,190	\$72,777	\$514,977	\$454,718	18.2
Motor Freight Transport and Warehousing	\$15,293	\$349,512	\$146,695	\$511,499	\$167,301	4.7
Electric Services	\$242,292	\$129,618	\$102,568	\$474,478	\$92,305	1.4
Legal Services	\$26,767	\$200,262	\$243,712	\$470,741	\$340,383	4.1
Services To Buildings	\$194,144	\$219,641	\$43,076	\$456,860	\$199,480	9.8
Advertising	\$232,775	\$192,151	\$29,501	\$454,428	\$234,438	3.7
Computer and Data Processing Services	\$19,866	\$347,790	\$86,516	\$454,171	\$297,638	4.4
Other Industries	\$4,599,063	\$3,280,710	\$4,331,086	\$12,210,858	\$2,953,755	106
<b>Total</b>	<b>\$47,692,531</b>	<b>\$11,389,492</b>	<b>\$11,750,441</b>	<b>\$70,832,465</b>	<b>\$27,346,096</b>	<b>1,170.6</b>

Source: IMPLAN Professional Social Accounting & Impact Analysis Software

# Economic Impact of Constructing the Proposed National Flight Academy

Plans are currently underway to develop a National Flight Academy. This Academy will provide a one-week school for 6<sup>th</sup> through 12<sup>th</sup> grade students. It will introduce them to high technology using aviation as the main theme and relating the technology to basic mathematics and science. Table 7 below provides estimates of the local economic impact that will arise from the construction of the proposed National Flight Academy. These estimates are based on a construction cost estimate of \$30 million provided by the Naval Aviation Museum Foundation, Inc. Assuming that these are externally generated funds spent within the local community, using local contractors with wages going to residents of the Pensacola area, we estimate that constructing the Flight Academy will result in approximately \$47.6 million in total spending in the two-county region during the period of construction activities. About 481 jobs in the regional economy will be directly or indirectly supported by this construction along with incomes to area workforce totaling approximately \$17.4 million. These are “one time” economic impacts that will occur during the period of construction activity.

**Table 7 - Estimated Economic Impact of Constructing the National Flight Academy**

<b>Estimated Economic Impact of Constructing the National Flight Academy</b>				
<b>Estimated Impact of Constructing the National Flight Academy</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
Total Spending (Output)	\$30,000,000	\$10,057,631	\$7,523,315	\$47,580,946
Incomes Generated	\$10,079,009	\$4,389,849	\$2,900,972	\$17,369,830
Jobs Supported	258.6	120.5	102.1	481.20

In Table 8 below we estimate the impact that constructing the National Flight Academy will have on other industries in the Pensacola region in terms of new spending generated, new incomes supported, and new jobs created.

**Table 8 - Distribution of the Impact of Constructing the National Flight Academy**

Industry	Direct	Indirect	Induced	Total Spending Generated	Incomes Supported	Jobs Supported
New Industrial and Commercial Buildings	\$30,000,000	\$0	\$0	\$30,000,000	\$10,079,009	258.6
Engineering- Architectural Services	\$0	\$2,512,392	\$16,316	\$2,528,708	\$1,160,154	27.0
Wholesale Trade	\$0	\$1,471,915	\$451,710	\$1,923,626	\$794,637	15.1
Banking	\$0	\$372,727	\$370,273	\$743,000	\$155,127	3.4
Automotive Dealers & Service Stations	\$0	\$470,743	\$258,240	\$728,983	\$332,194	8.9
Management and Consulting Services	\$0	\$635,484	\$61,738	\$697,222	\$298,677	9.0
Real Estate	\$0	\$238,162	\$381,673	\$619,835	\$83,283	3.4
Motor Freight Transport and Warehousing	\$0	\$445,759	\$93,987	\$539,746	\$176,540	4.9
Doctors and Dentists	\$0	\$0	\$526,876	\$526,876	\$314,181	5.4
Other Business Services	\$0	\$414,118	\$89,556	\$503,675	\$153,348	5.4
Hospitals	\$0	\$1,540	\$482,026	\$483,566	\$280,777	8.2
Eating & Drinking	\$0	\$36,470	\$428,303	\$464,773	\$179,287	12.9
Communications- Except Radio and TV	\$0	\$271,437	\$192,653	\$464,090	\$109,200	2.0
Accounting- Auditing and Bookkeeping	\$0	\$334,968	\$53,566	\$388,534	\$275,860	6.6
Personnel Supply Services	\$0	\$286,237	\$46,584	\$332,821	\$293,877	11.7
Miscellaneous Retail	\$0	\$150,172	\$160,750	\$310,922	\$154,025	9.1
Legal Services	\$0	\$152,444	\$155,571	\$308,015	\$222,719	2.7
Food Stores	\$0	\$73,653	\$196,425	\$270,078	\$158,769	7.5
General Merchandise Stores	\$0	\$64,013	\$161,544	\$225,557	\$105,874	6.5
Computer and Data Processing Services	\$0	\$155,487	\$55,371	\$210,858	\$138,185	2.0
Building Materials & Gardening	\$0	\$123,602	\$75,905	\$199,506	\$106,079	4.0
Credit Agencies	\$0	\$108,147	\$83,882	\$192,029	\$136,283	3.1
Equipment Rental and Leasing	\$0	\$166,866	\$16,439	\$183,305	\$63,348	1.2
Maintenance and Repair Other Facilities	\$0	\$83,678	\$87,568	\$171,246	\$100,653	2.6
Insurance Carriers	\$0	\$46,960	\$122,192	\$169,152	\$34,800	6.2
Other State and Local Government Enterprises	\$0	\$31,767	\$119,923	\$151,690	\$32,562	0.8
Automobile Repair and Services	\$0	\$48,663	\$94,669	\$143,332	\$48,684	1.7
Furniture & Home Furnishings Stores	\$0	\$64,484	\$77,921	\$142,405	\$71,176	2.8
Other	\$0	\$1,295,742	\$1,939,558	\$3,235,300	\$1,310,521	48.3
<b>Total</b>	<b>\$30,000,000</b>	<b>\$10,057,631</b>	<b>\$7,523,315</b>	<b>\$47,580,946</b>	<b>\$17,369,830</b>	<b>481.2</b>

Once the construction of the Flight Academy is complete, additional tourist activity will be generated, and operating budgets will likely need to be increased to staff and maintain the new facility. The Foundation projects a 50% increase in

visitation upon opening of the Flight Academy. The additional local tourism that the Flight Academy induces combined with the increased operating expenses will provide ongoing annual economic and fiscal benefits to the region in addition to those already estimated in this report.

# Estimating Public Revenues – Taxes Generated

In addition to providing jobs and sales for area businesses, Museum operating expenditures and Museum-related tourism are an important source of tax revenue for federal, state, and local governments. The Museum purchases goods and services from local businesses that pay corporate profits tax. Employees of the Museum and of businesses that support the Museum pay personal income taxes. Visitors staying in area motels and condominiums pay tourist occupancy tax (bed tax) on all accommodations that are rented for periods of less than six months. These revenues are used to fund tourist-related projects. Additionally, Museum visitors who stay in the area will spend on entertainment, dining, transportation, and retail shopping; paying sales taxes, license and permit fees, fines and penalties, and other use taxes. We estimate that approximately \$1,293,839 in local tax revenue is generated each year due to Museum related activities. An additional \$3,018,959 in tax revenue goes to the State of Florida annually, and we estimate that almost \$6.4 million per year in federal tax revenue is attributable to the National Museum of Naval Aviation. Table 7 below provides estimates of Museum-related tax revenues.

**Table 9 - Estimated Museum Related Tax Revenues**

Level of Government	Transfers	Employee Compensation	Proprietary Income	Household Expenditures	Corporations	Indirect Business Taxes	Total
Federal Government Non-Defense	Corporate Profits Tax				\$876,556		\$876,556
	Indirect Bus Tax: Custom Duty					\$85,428	\$85,428
	Indirect Bus Tax: Excise Taxes					\$291,880	\$291,880
	Indirect Bus Tax: Fed Non-Taxes					\$70,300	\$70,300
	Personal Tax: Estate and Gift Tax						\$0
	Personal Tax: Income Tax			\$2,804,223			\$2,804,223
	Personal Tax: Non-Taxes (Fines- Fees)			\$27,858			\$27,858
	Social Ins Tax- Employee Contribution	\$1,042,205	\$116,604				\$1,158,809

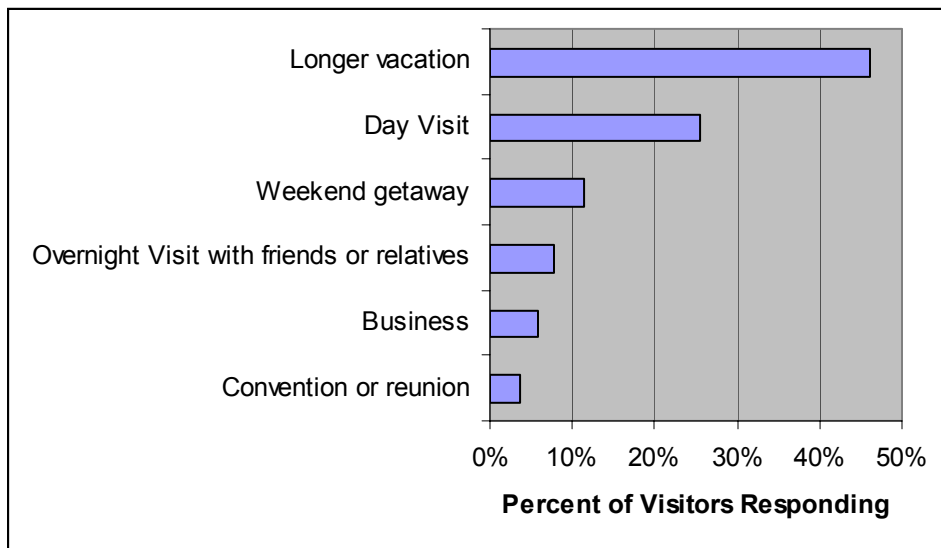
Level of Government	Transfers	Employee Compensation	Proprietary Income	Household Expenditures	Corporations	Indirect Business Taxes	Total
	Social Ins Tax- Employer Contribution	\$1,083,358					\$1,083,358
Federal Government Total		\$2,125,563	\$116,604	\$2,832,081	\$876,556	\$447,609	\$6,398,414
State/Local Government Non-Education	Corporate Profits Tax				\$97,223		\$97,223
	Dividends				\$1,455		\$1,455
	Indirect Bus Tax: Motor Vehicle License					\$32,375	\$32,375
	Indirect Bus Tax: Other Taxes					\$215,752	\$215,752
	Indirect Bus Tax: Property Tax					\$1,374,184	\$1,374,184
	Indirect Bus Tax: S/L Non-Taxes					\$242,245	\$242,245
	Indirect Bus Tax: Sales Tax					\$2,186,754	\$2,186,754
	Indirect Bus Tax: Severance Tax					\$5,035	\$5,035
	Personal Tax: Estate and Gift Tax						\$0
	Personal Tax: Income Tax						\$0
	Personal Tax: Motor Vehicle License			\$37,336			\$37,336
	Personal Tax: Non-Taxes (Fines- Fees			\$65,076			\$65,076
	Personal Tax: Other Tax (Fish/Hunt)			\$2,205			\$2,205
	Personal Tax: Property Taxes			\$12,961			\$12,961
	Social Ins Tax- Employee Contribution	\$7,955					\$7,955
	Social Ins Tax- Employer Contribution	\$32,239					\$32,239
State/Local Government Total		\$40,195	\$0	\$117,580	\$98,678	\$4,056,345	\$4,312,797
Total		\$2,189,969	\$116,604	\$2,949,661	\$975,235	\$4,503,954	\$10,735,423

Source: IMPLAN Professional Social Accounting & Impact Analysis Software

# Survey Responses of Museum Visitors

Information provided in this section is based on data collected from recent visitors of the Museum during the time period of July 12 through July 15, 2002. Grace Cavaness, Danillo Gopez, Buffie Wilcox and Steve Boothby, Customer Service Representatives for the Museum, supervised data collection. The method of data collection used was a written survey instrument of nine questions (see Appendix) distributed to a random sample of visitors as they walked through the Museum. The number of usable survey responses is 384. The total visitor count for the survey period was 13,493 persons.

## Purpose of Visit to Pensacola

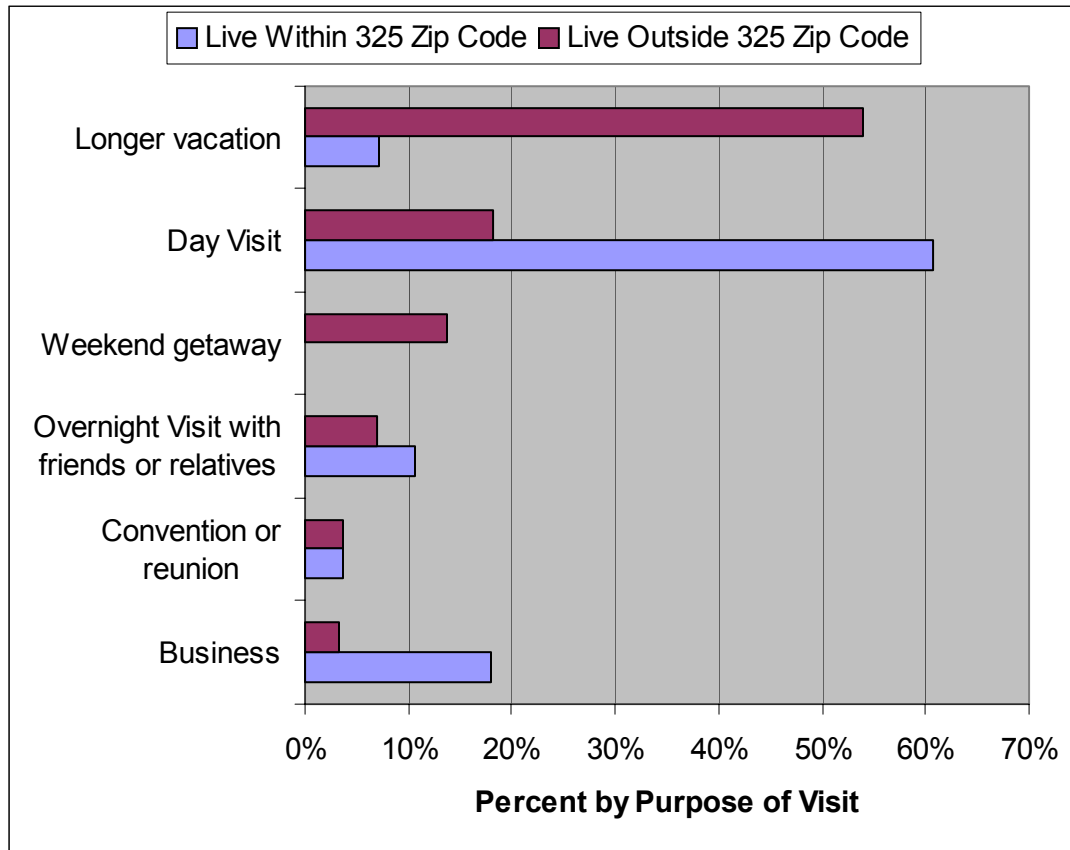


**Figure 21 - Purpose of Visit to Pensacola**

In order to improve our understanding of Museum visitor characteristics, respondents were asked to describe the main purpose of their Pensacola visit. As shown in Figure 21 above, the most common response is that the visitor is on vacation. Almost 83% of the visitors to the National Museum of Naval Aviation live outside the 325 zip code region, which covers Escambia, Santa Rosa, and Okaloosa Counties. Approximately 68% of out-of-area visitors are in Pensacola

for a weekend getaway or longer vacation (see Figure 22). Local visitors are primarily in the area for a day visit (61%), or on business (18%).

**Figure 22 - Purpose of Visit by Residence**



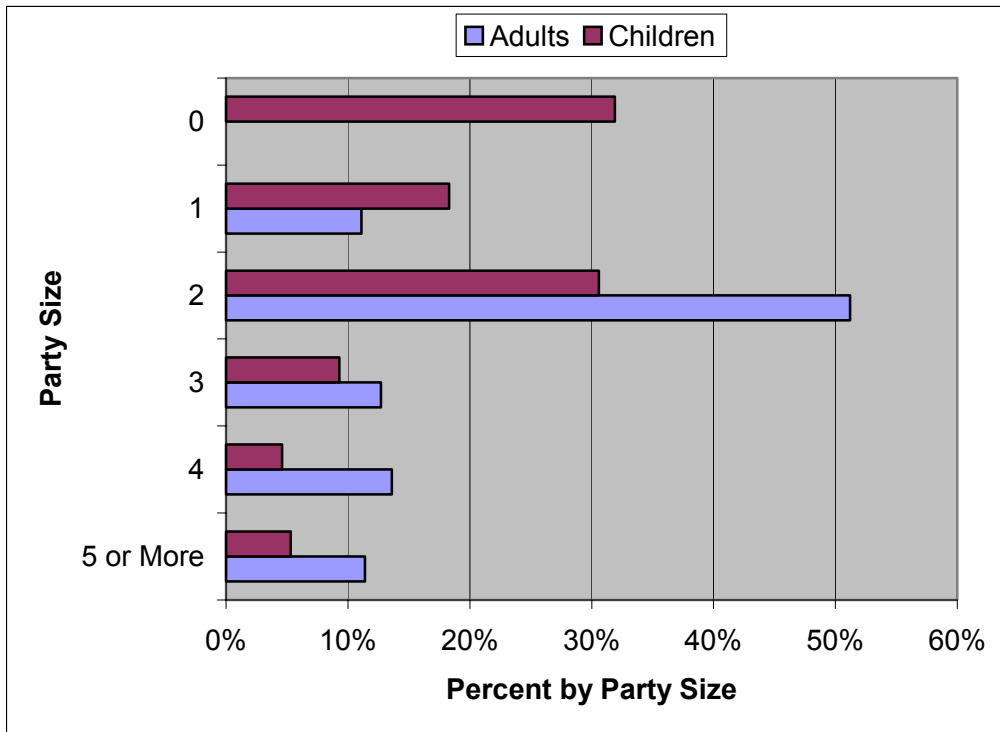
## Size of Visiting Party

Respondents were asked how many people were in their travel party. As shown in Table 8 and Figure 23, the average party size is 2.91 adults and 1.83 children. Over two thirds (68%) of the visiting parties bring children, clearly indicating the family appeal of the Museum.

**Table 10 - Size of Visiting Party**

Measure	Adults in travel party	Children in travel party
Mean	2.91	1.83
Median	2	1
Mode	2	0

**Figure 23 - Size of Visiting Party**



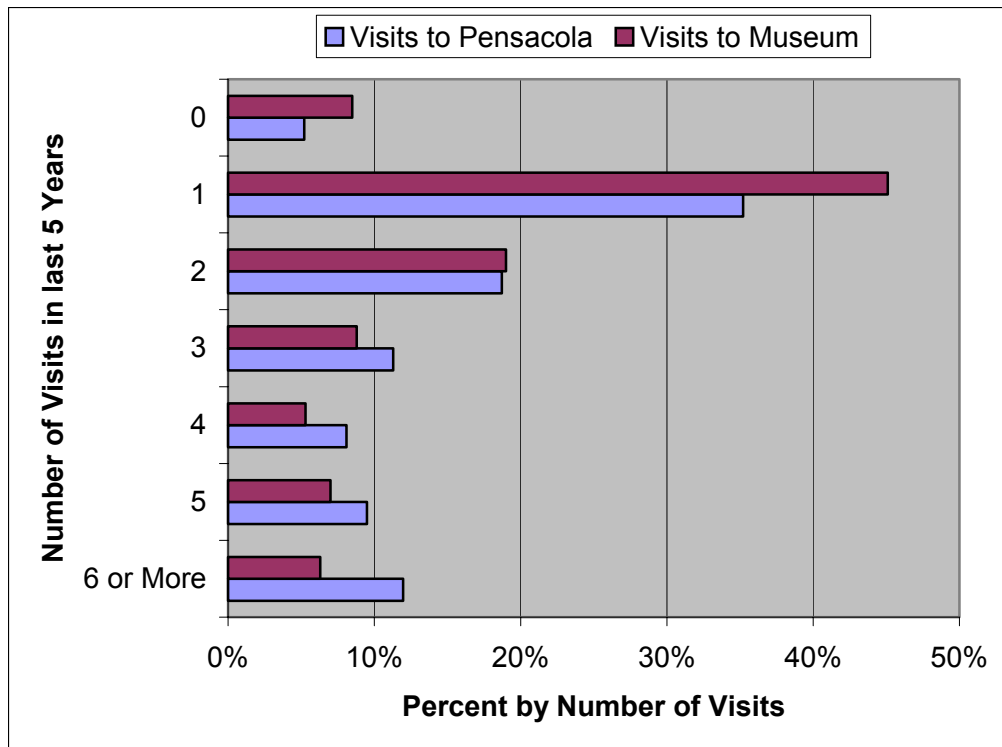
## Number of Visits in the Last Five Years

Respondents were asked how many times in the last five years that they have visited both Pensacola and the National Museum of Naval Aviation. As shown in Table 9 and Figure 24, about 54% of Museum visitors are making their first visit to the Museum. The majority of those who make repeated trips to Pensacola will also make repeated visits to the Museum.

**Table 11 - Number of Visits in the Last Five Years**

Measure	Number of visits to Pensacola area	Number of visits to Museum
Mean	2.91	2.43
Median	2	1
Mode	1	1

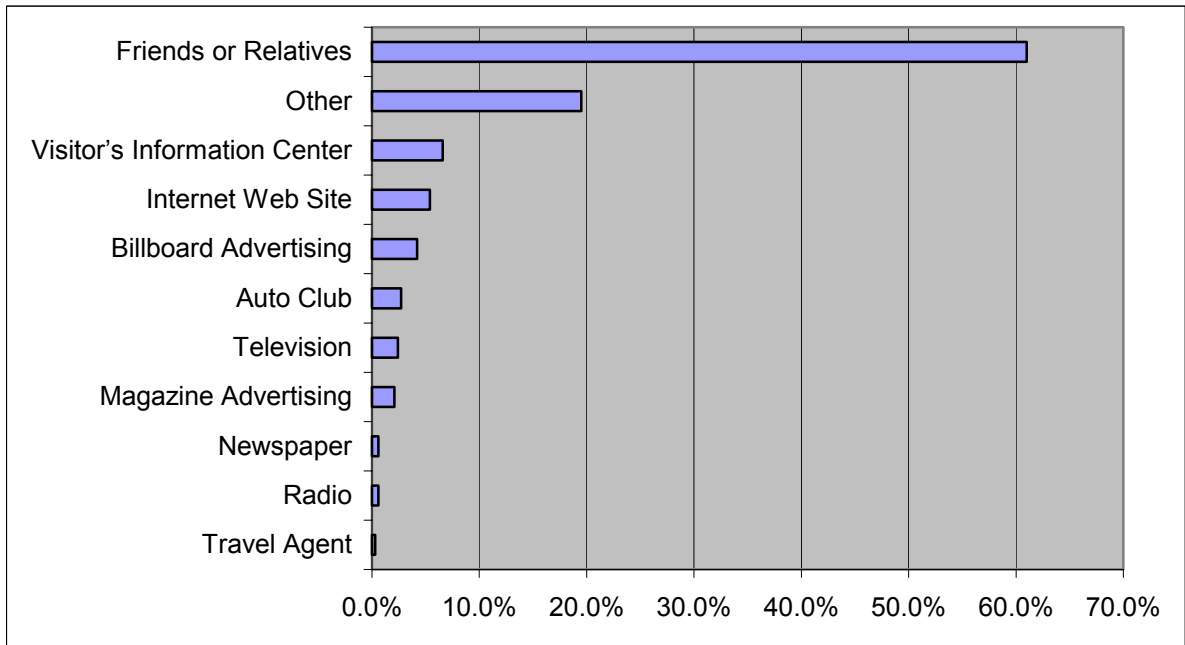
**Figure 24 - Visits in Last Five Years**



## How Visitors First Learned of the Museum

Almost one million people visit the National Museum of Naval Aviation each year. As illustrated in Figure 25, over 60% of those responding to our survey indicated that they first learned about the Museum from friends or relatives. The majority of those who selected “other” specified that they were in the military, or had been in the military, or had previously lived in the Pensacola area. The remaining 25% of visitors indicated that they first learned about the Museum from a Visitor Information Center, the Internet, or other form of advertising (some respondents checked more than one response).

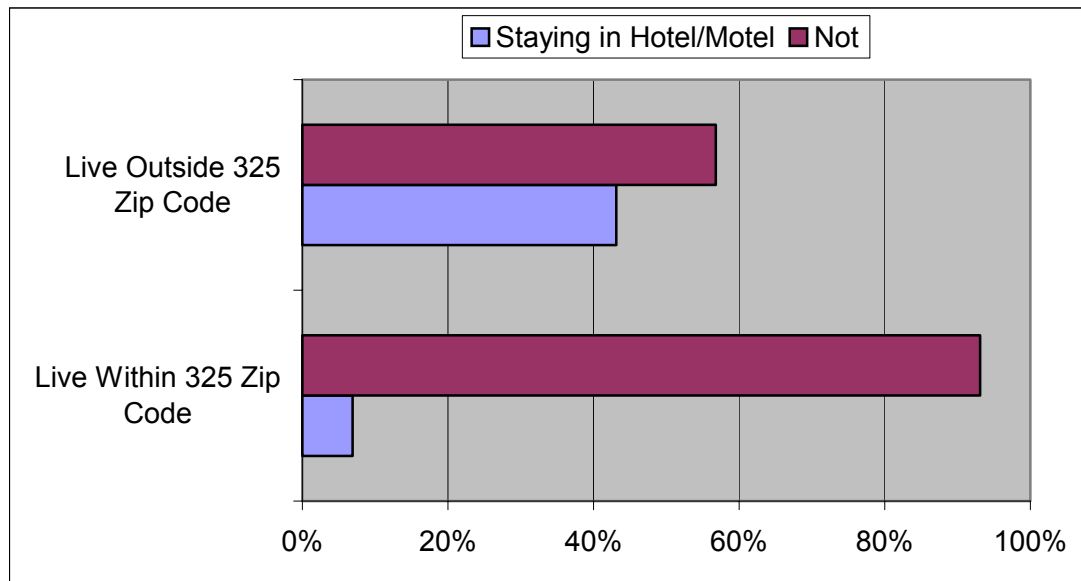
**Figure 25 - How did you first learn about the Museum**



## Are Museum Visitors Staying in a Local Hotel/Motel?

An important aspect of the economic impact of the National Museum of Naval Aviation is its ability to attract visitors from outside the area to Pensacola where they spend money for lodging, restaurants, other forms of entertainment, retail goods and other services. Almost 83% of the visitors to the National Museum of Naval Aviation live outside the 325 zip code region, which covers Escambia, Santa Rosa, and Okaloosa Counties. Of these non-local Museum visitors, 43% indicated that they are staying in a Pensacola Area hotel/motel (see Figure 26).

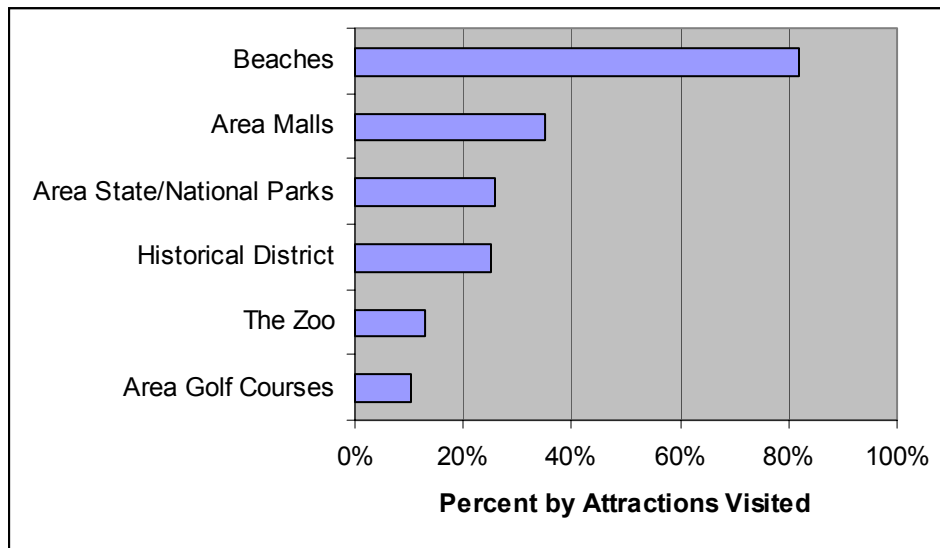
**Figure 26 - Are you staying in a Pensacola area hotel/motel**



## Other Attractions Visiting During Stay in Pensacola

In addition to spending on lodging, Museum visitors attend other local attractions. A large percentage of Museum visitors also take advantage of the restaurants, shops and entertainment found at area beaches (see Figure 27).

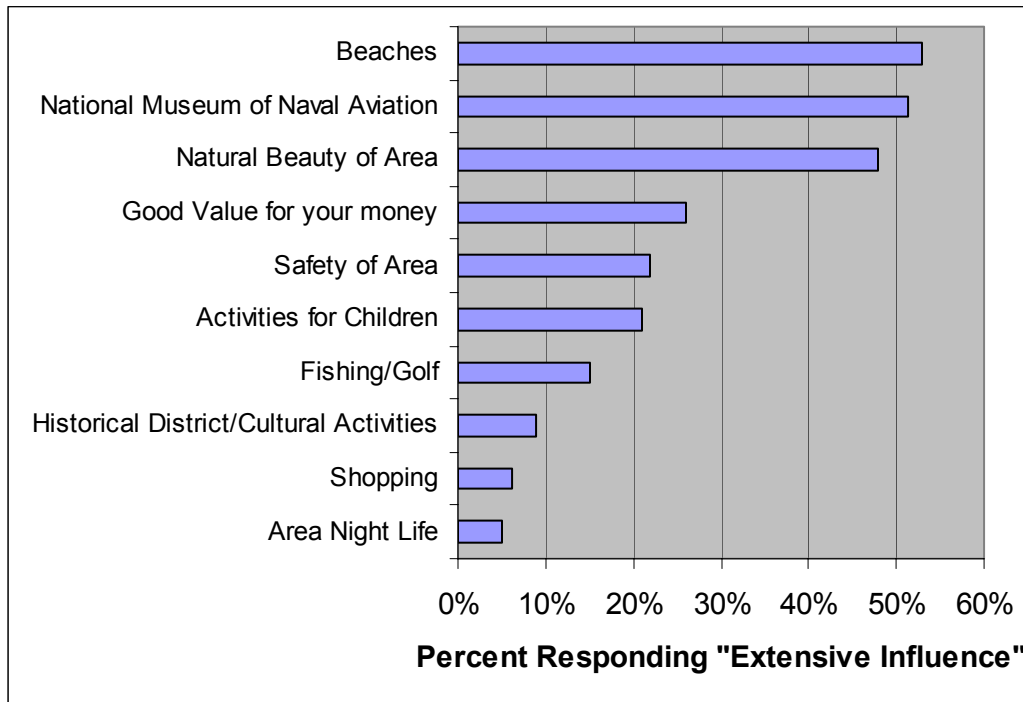
**Figure 27 - Other Attractions Visiting During Stay in Pensacola**



## Influences on Decision to Visit Pensacola

In order to improve our understanding of Museum visitor characteristics, respondents were asked to describe the main influences on their decision to visit the Pensacola area. Figure 28 shows the percent of respondents that listed each factor as an “extensive influence” on their decision to visit Pensacola.

**Figure 28 - Influence on Decision to Visit Area**



# Summary

This study provides estimates of the impact of the National Museum of Naval Aviation on the Pensacola regional economy by identifying those economic activities that would be lost to the region were it not for the local presence of the Museum. An average of 916,484 people visited the National Museum of Naval Aviation each year during the period 1997-2001. The primary characteristics that differentiate the tourist that visits the National Museum of Naval Aviation from those that do not are that the Museum visitor stays longer in the Pensacola area and spends more while here. These characteristics allow the Museum visitor to have a larger impact on the local economy. Over 82% of these visitors reside outside the 325 Zip Code, indicating that the Museum is an export industry bringing money into the local economy. The Museum is responsible for approximately \$70.8 million in retail and business-to-business spending each year, and either directly or indirectly supports about 1,170 jobs in the two-county region. These economic impacts result from two basic types of spending flows: visitor spending while in the area, and, the Museum capital and operating budget. Museum-related spending impacts are seen primarily in the hotel and lodging, restaurants, amusement and recreation services, general merchandise and construction industries. Other industry sectors that see a large economic impact due to Museum-related spending include business services, miscellaneous retail, real estate, and wholesale trade. The fiscal impact of Museum activities on the region is also significant. We estimate that approximately \$1,293,839 in local tax revenue is generated each year due to Museum related activities. An additional \$3,018,959 in State tax revenue is generated annually, and we estimate that almost \$6.4 million in federal tax revenue is generated annually by the Museum capital and operating budget and Museum-related visitor spending. The National Museum of Naval Aviation plays an important role in the economy of the Northwest Florida region, not only through financial expenditures but also through intangible, non-pecuniary contributions. In addition to the economic impact, the Museum provides a variety of educational and cultural benefits to the

community. Each of these contributions has a significant impact on the region, but because they are difficult to measure in dollar terms they were not included in this analysis. Consequently, this study underestimates the impact of the Museum, as it does not measure the impact of the many educational, professional, or cultural services that would not occur in the area without the support and direction of the National Museum of Naval Aviation and the Naval Aviation Museum Foundation.

# APPENDIX

## Glossary Of Terms

Glossary of Terms	
Term	Definition
Analysis of Economic Impact	An economic impact analysis identifies the economic contribution of a single event (e.g. injection of tourist dollars for a particular tourist attraction within a specified region) to the remaining industry sectors within the same region.
Direct effects	The effects of stimuli on economic activity are broken down into three components: direct, indirect, and induced. Direct effects are the changes in the industries to which a final demand change (the stimulus being measured in the study) was made. Industries producing goods and services for consumption purchase goods and services from other producers for final use (final demand).
Employment	Employment includes total wage and salary employees as well as self employed jobs in a region. It includes both full-time and part-time workers and is measured in annual average jobs. Data used to determine employment are ES202, Regional Economic Information System (REIS), and County Business Patterns.
Final Demand	Final demands consist of purchases of goods and services for final consumption as opposed to an intermediate purchase where the good will be further remanufactured.
Indirect Business Taxes	Indirect business taxes consist of excise taxes, property taxes, fees, licenses, and sales taxes paid by businesses. These taxes occur during the normal operation of businesses but do not include taxes on profit or income. Indirect business tax numbers are derived from U.S. Bureau of Economic Analysis Gross State Product data.
Indirect effects	The effects of stimuli on economic activity are broken down into three components: direct, indirect, and induced. Indirect effects are the changes in inter-industry purchases as they respond to the new demands of the directly affected industries. These indirect purchases continue until leakage from the region stop the cycle.
Induced effects	The effects of stimuli on economic activity are broken down into three components: direct, indirect, and induced. Induced effects typically reflect changes in spending from households as income increases or decreases due to the changes in production.

Glossary of Terms	
Term	Definition
Input-Output Model	A regional economic analysis begins by identifying the relationships among different sectors in a region and then applying the appropriate multipliers in order to determine the amount of impact a change in input to one industry sector will cause in the output of that sector and subsequent sectors. This multiplying affect demonstrates how one dollar is spent and re-spent within the same region. More specifically, regional multipliers can be used to approximate the changes in output, income and employment in all industry sectors resulting from a change in spending in one sector.
Institutions	A type of final demand sector. Includes personal consumption expenditures or purchases made by households; federal, state, and local government purchases; investment purchases; and trade.
Labor Income	The terms Labor Income and wages are used interchangeably in this study. Labor Income includes changes in employee compensation and proprietor income resulting from the change in final demand measured by the study. Employee compensation is wage and salary payments as well as benefits including health and life insurance, retirement payments, and any other non-cash compensation. It includes all income to workers paid by employers. Proprietary income consists of payments received by self-employed individuals as income. This is income recorded on Federal Tax Form 1040C. Proprietary income includes income received by private business owners, doctors, lawyers, and so forth. Any income a person receives for payment of self-employed work is counted. Income estimates are derived using ES202, County Business Patterns and Regional Economic Information System (REIS) data.
Margins	Represents the difference between producer and purchaser prices. Producer prices are the prices of the goods at the site of production for commodity industries. Purchaser prices are prices paid by the end user of the good or service at a retail store.
Multipliers	Industries respond to meet final demands directly or indirectly by supplying goods and services to industries responding directly. Each industry that produces goods and services generates demands for other goods and services. These demands ripple through the economy, multiplying the original economic impact.

Glossary of Terms	
Term	Definition
Output Impact	Total Industry Output is the value of production by industry for an annual calendar year production. Output is measured either by the total value of purchases by intermediate and final consumers, or by intermediate outlays plus value added. Output can also be thought of as value of sales plus or minus inventory. Most output data is from the Bureau of Economic Analysis output series and the Annual Survey of Manufacturers. Construction output is derived from the current Annual Survey of Construction Put-In-Place. State estimates are from the Census and Survey of Construction Activity.
Regional Purchase Coefficients (RPC)	Ratios representing the portion of regional demands purchased from local producers. RPC's are used to estimate the trade flows of the model before multipliers are generated. The portion of the specific impact that is imported will not have an indirect or induced effect.

Glossary of Terms	
Term	Definition
State and Local Government Taxes	<p>State and local government income and expenditures by specific category come from the Annual Survey of State and Local Government Expenditures and include the following:</p> <ul style="list-style-type: none"> <li>Property Tax</li> <li>Total Sales Tax</li> <li>Alcoholic Beverage Tax</li> <li>Amusement License</li> <li>Corporate License</li> <li>Hunting</li> <li>Motor Vehicle Tax</li> <li>Motor Vehicle Operators</li> <li>PU License</li> <li>Occupational Business License</li> <li>Other License</li> <li>Individual Income Tax</li> <li>Corporate Income Tax</li> <li>Death and Gift Tax</li> <li>Document Stock Tax</li> <li>Severance Tax</li> <li>Taxes NEC</li> <li>Interest Earnings</li> <li>Fines Forfeits</li> <li>Rents</li> <li>Royalties</li> <li>State Education Transfers</li> <li>Local Education Transfers</li> <li>State Local Social Security</li> <li>Federal Grants in Aid</li> <li>State and Local Borrowing</li> <li>Corporate Interest</li> <li>Personal Interest</li> <li>Federal Education Transfers</li> <li>Total Education Operations</li> <li>State and Local Sales</li> <li>State and Local Non-education Purchases</li> <li>Federal Transfers Data</li> </ul>
Tax Impacts Report	<p>This report describes taxes related to the chosen impact analysis. Income information is combined with tax information to estimate taxes generated by a change in final demand. These estimates are based on the average for all industries within the model; the average taxes associated with each household income class; the average taxes and transfers associated with each of the government institutions defined by the model. See “State and Local Government Taxes”</p>

Glossary of Terms	
Term	Definition
Total economic output	The effects of stimuli on economic activity are broken down into three components: direct, indirect, and induced. The total effect is the sum of direct, indirect, and induced effects, and is a measure of total inter-industry sales and purchases.
Value Added	Payments made by industry to workers, interest, profits and indirect business taxes.

# Museum Survey Instrument

## HAVE A SOFT DRINK ON US!

Present the completed Museum survey to your server at the Cubi Bar Café and receive a complimentary soft drink. Only one survey per party.

## MUSEUM SURVEY

1. Which of these best describes the main purpose of your current Pensacola visit (check one)?

- ▶ Business
- ▶ Weekend getaway
- ▶ Longer vacation
- ▶ Convention or reunion
- ▶ Overnight Visit friends or relatives
- ▶ Day Visit

2. How did you first learn about the National Museum of Naval Aviation?

- ▶ Friends or Relatives
- ▶ Internet Web Site
- ▶ Travel Agent
- ▶ Auto Club
- ▶ Visitor's Information Center
- ▶ Billboard Advertising
- ▶ Magazine Advertising
- ▶ Television
- ▶ Radio
- ▶ Newspaper
- ▶ Other (please specify) \_\_\_\_\_

3. Are you, or have you been, staying in a Pensacola area hotel/motel?

- ▶ Yes
- ▶ No

4. Which of the following attractions have you visited or plan to visit during your stay in the area?

- ▶ Beaches
- ▶ The Zoo
- ▶ Historical District
- ▶ Area State/National Parks
- ▶ Area Malls
- ▶ Area Golf Courses

5. Please rate the influence of each of the following activities on your decision to visit the area:

**1=No Influence, 2=Slight Influence, 3=Moderate Influence, 4=Extensive Influence**

- \_\_\_\_\_ National Museum of Naval Aviation
- \_\_\_\_\_ Beaches
- \_\_\_\_\_ Shopping
- \_\_\_\_\_ Historical District/Cultural Activities
- \_\_\_\_\_ Activities for Children
- \_\_\_\_\_ Area Night Life
- \_\_\_\_\_ Fishing/Golf
- \_\_\_\_\_ Safety of Area
- \_\_\_\_\_ Good Value for your money
- \_\_\_\_\_ Natural Beauty of Area

6. Number of visitors in your party:

- \_\_\_\_\_ Adults
- \_\_\_\_\_ Children

7. Over the last five years, counting this trip, how many times have you visited the Pensacola area? \_\_\_\_\_ The National Museum of Naval Aviation?

\_\_\_\_\_

8. In which zip code do you reside? \_ \_ \_ \_ \_

9. Will you recommend the National Museum of Naval Aviation to family, friends, and other acquaintances visiting Pensacola?

- ▶ Yes
- ▶ No

**Thank you for your assistance!**