

FLORIDA DEFENSE INDUSTRY ECONOMIC IMPACT ANALYSIS

Final Report

Commissioned by: Enterprise Florida, Inc.

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There are many individuals who have provided time, energy and support for this study. Thanks to Colonel Rocky McPherson, USMC (Retired), Enterprise Florida, for serving as an information nexus, facilitator, and project coordinator. The contribution of Mr. Jim Breitenfeld for compiling and supplying base-specific background information is gratefully acknowledged.

The contribution of Jennifer Whitfield is acknowledged. Her many hours of outstanding work on this study are gratefully appreciated.

ON THE COVER

The Gulf Range Complex is a national treasure that supports all military services and the Department of Homeland Security. Stretching from the panhandle to the Keys and encompassing waters and the airspace above from New Orleans to Florida's west coast, it provides an essential area to test the Nation's newest munitions, seekers, and sensors. As our newer weapons grew in capability of both distance and precision, the need for dedicated ranges became paramount. Public safety from the munitions and from the debris of a destroyed target is of highest concern and dictates the need for large areas which can be closed during the testing. Eglin AFB hosts the integrated air armaments and weapons research, development, acquisition, test and evaluation functions for the Air Force and supports testing of the large footprint weapons in the Gulf for all services and the Department of Homeland Security.

Our Nation's military strength is built upon the extensive training our troops receive and the effectiveness of our weapons systems. The Gulf Range supports both aspects and provides a huge economic engine for the communities that support those activities. Loss of the Gulf Range would be devastating to the economy of Florida as testing would move to other test ranges. Unfortunately, the Nation's other test facilities have neither the capacity nor the capability to absorb the work done in the Gulf. Severe impacts to our National Defense would occur as weapons development programs are delayed and costs rise.

Jim Heald
General Manager
Operations and Maintenance of the Eglin Test and Training Complex Contract
InDyne, Inc.

EXECUTIVE SUMMARY

The University of West Florida's Haas Center for Business Research and Economic Development (Haas Center) is pleased to submit the following report, in fulfillment of the terms of the contract to update our 2008 report entitled "Florida Defense Industry Economic Impact Analysis."

Military activity in Florida has long been a major source of employment for state residents, sales revenue for companies, and tax revenues for state and local government. Aggregate Department of Defense spending flowing directly into the state of Florida during fiscal year 2008¹ amounted to \$30 billion in wages, pensions and other transfers², and goods and services. This includes direct payrolls to servicemen and women, civilians, retirement and veterans' benefits, and contracts with companies doing business in Florida. The principal finding of this study is that fiscal year 2008 defense-related spending was responsible for **58.1 billion** in output, or gross state product, in Florida.

In the following volumes, we summarize the results of our investigation into the economic importance of the defense industry in Florida. Among the key findings of the study are:

- ▶ Fiscal year 2008 defense-related spending is directly or indirectly responsible for **\$58.1 billion**, or 7.5 percent, of Florida's gross state product of \$775.45 billion. While the magnitude of defense spending has increased since publication of an earlier study on defense spending in Florida, growth in the overall Florida economy increased at a faster rate, thus defense-related spending represents a smaller portion of the state's gross state product.
- ▶ Defense-related spending is estimated to be responsible for over **\$64.8 billion** in gross state product in 2010 and to reach **\$67.7 billion** in 2013.
- ▶ Fiscal year 2008 defense-related spending accounted for a total of **686,181** direct and indirect jobs.

¹ In volumes 1 through 3, where actual data is reported, the year is the federal fiscal year, not the calendar year.

² Transfer payment is defined as a public expenditure made for a purpose other than procuring goods or services.

- ▶ State and local tax government spending attributable to defense-driven activities is estimated to be **\$1.26 billion** in fiscal year 2008.
- ▶ The military spent about **\$30 billion** across Florida counties in fiscal year 2010. Of this amount, an estimated \$13.1 billion was for goods and services, \$11.6 billion was for pensions and transfer payments, and \$5.3 billion was for salaries and wages.
- ▶ The ten largest Florida defense contractors supplied \$5.86 billion or 44.7 percent of the \$13.1 billion value of defense procured goods and services.
- ▶ About 25 percent of Northwest Florida regional output is driven by defense spending, versus 13.7 percent for Northeast Florida, 5.3 percent for Central Florida and 2.8 percent for South Florida.
- ▶ For counties that are home to large military installations, defense-related spending provides a substantial portion of county economic activity. In Okaloosa County, for example, defense-related spending accounts for 47.3 percent of economic activity.
- ▶ All counties in Florida benefit from defense-related spending. All but three counties have at least \$4 million per year in direct defense-related spending.
- ▶ Military wages have risen over time, so that average earnings per military job in Florida are now at 188 percent of average earnings across all Florida jobs. In 2008, average military earnings per job were \$70,505 compared to an average of \$37,563 for all Florida jobs. In 1970 this ratio was 102 percent when average earnings per military job were \$28,655 compared to an overall Florida average per job of \$27,903.
- ▶ Florida has a slightly greater reliance on direct military payroll at 1.8 percent of total earnings, than the nation as a whole, at 1.7 percent.
- ▶ Florida has seen less of a drop in military employment over the 1970–2008 time period than the nation as a whole (respective decreases of 22 percent versus 37 percent). Because Florida has created new jobs at a much faster rate than the nation, Florida’s military employment has shrunk from 4.5 percent of total employment in 1970 to one percent in 2008, versus 3.5 percent and 1.1 percent, respectively, for the nation.

1. INTRODUCTION

Since the establishment of Spanish settlements at St. Augustine and Pensacola over 400 years ago, Florida has played an active role in defense. Today, over 42,300 active duty sailors, marines, soldiers, and airmen along with 26,500 civilians continue this tradition of service at 20 military installations located around the state (see Appendix I). The purpose of this study is to chronicle the economic impact of defense spending within Florida, which is dominated by procurement spending and personnel costs, associated with these installations. For this purpose, the Haas Center for Business Research and Economic Development at The University of West Florida was engaged by Enterprise Florida, Inc.

How much economic activity in Florida is attributable to defense spending? An accurate calculation of defense-related economic impact requires an accurate accounting of the magnitude of defense spending flowing into Florida and an accurate mapping (both geographically and by industry sector) of this spending as it flows through local economies within the state. Consistent and appropriate data concepts, analytical methods and reporting formats are necessary to ensure accurate calculations, credible results, and comparability across regions. More detail on these methodological issues is provided in Appendix 2 of this volume. A brief description is provided below.

The scope of this study is limited to measures of economic activity. The value of defense personnel to Florida extends well beyond this singular dimension. Military men and women make positive intangible contributions to the communities who host them. Unfortunately, as yet, there is no developed academic method of valuing the social and non-financial dimensions of their contribution.

Detailed data were compiled from primary (military installations) and secondary (e.g., Bureau of the Census) sources with the objective of identifying all defense-related expenditures occurring in Florida during Federal Fiscal Year 2008. These spending flows include things such as procurement expenditures, personnel expense (both appropriated and non-appropriated fund personnel), military retirement pay, and Veteran's Administration expenditures. The total economic impact of defense-related spending includes both a direct impact component (e.g., dollars spent in building a new facility on base), and an indirect component (e.g., spending done locally by the architectural firm that designed the new facility). While

the direct impact can be measured by collecting the expenditure data described above, the indirect impact must be calculated using an economic model that makes use of spending patterns specific to different geographic locations and different sectors of the economy.³

The REMI PI+ economic simulation model (from Regional Economic Models, Inc.) was used to evaluate the economic impact of these direct and indirect spending flows. A regional baseline forecast extending through the year 2050 for each of the 67 Florida counties was constructed. The differences between the baseline forecast and a forecast where military spending has been removed comprise the results. The resulting change in gross regional product (GRP) resulting from the absence of defense-related spending flows is the measure of economic impact reported.

The measure of economic impact used throughout the report is change in Gross Regional Product (GRP). While results could be reported in terms of total sales, or as personal income, or other measures, GRP is the local analogue to the widely understood national level concept of Gross Domestic Product (GDP). GRP reporting follows the structure of the National Income and Product Accounts (NIPA), which contain the primary measures used for tracking economic growth. This conceptual framework for organizing economic activity recognizes that the dollar value of all final goods and services produced (the GDP) can be measured as the sum of the following items:

- consumption spending by individuals on goods and services,
- gross private domestic investment spending by individuals and businesses (on newly produced capital goods, including spending on new residences plus non-residential real estate plus capital equipment),
- spending by government,
- spending on exports,
- minus spending on imports.

The results reported, which is the change in GRP attributable to defense-related spending, are composed of the same elements as would be found in the national-level GDP.

³ Neither Coast Guard data or Florida National Guard data are included in this study. The Coast Guard is not part of the Department of Defense and the Florida National Guard is a state entity with a state budget thus the impact that they have upon the state of Florida will be cumulative with the impact reported in this study.

For convenience of the reader, this report is organized into three separate volumes. Volume 1 presents information on the national defense budget and Florida's defense presence relative to other key states. It includes an analysis of defense spending in Florida along with statewide economic impact estimates. In addition, the state is sectioned into four geographical regions and spending for each region analyzed. Each spending analysis is accompanied by regional economic impact estimates. The volume concludes with an assessment of the level of regional economic activity concentrated in defense spending.

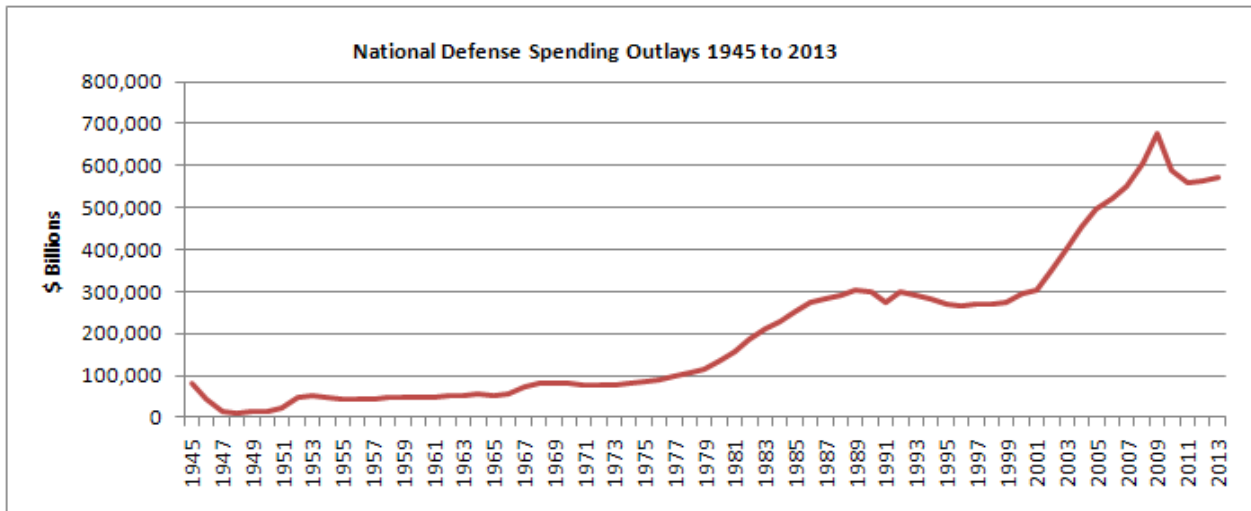
In Volume 2, analysis at the county level is presented for those counties in which defense spending is most pronounced. Employment demographics for each county are discussed along with military employment trends and comparisons. Defense spending inputs are presented and discussed. Economic impact estimates are presented for each county.

Volume 3 contains descriptive information for each military installation and major command located in the state. This information includes installation and unit missions, historical background, facility information, personnel, and operational statistics. Information presented in this volume enables the interested reader to develop a detailed understanding of the military presence in each county and relate that presence to the associated economic impact estimate.

2. DEPARTMENT OF DEFENSE SPENDING

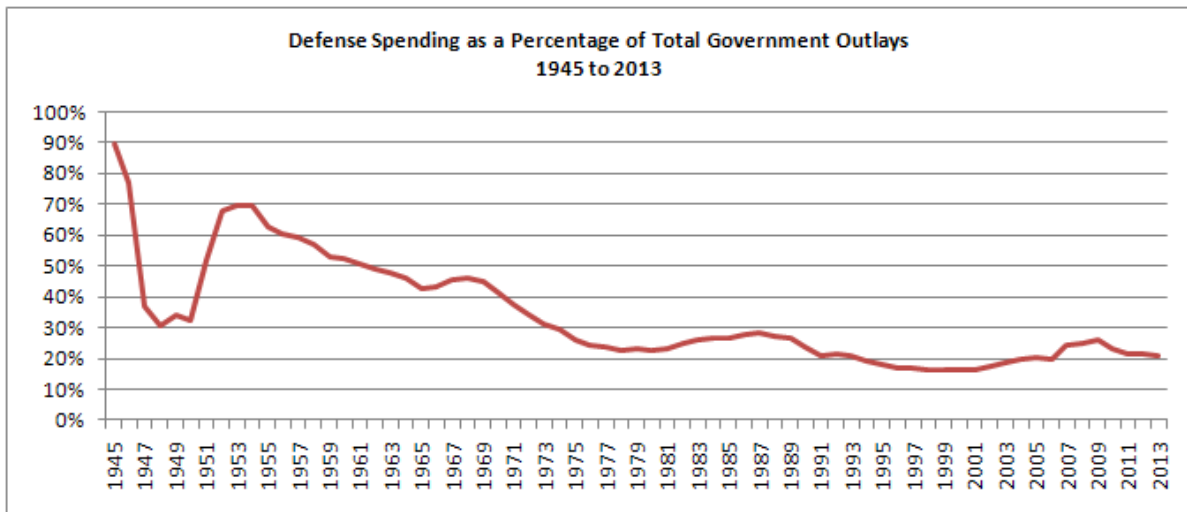
The charts below describe Department of Defense spending over the years 1945 through 2007 and estimates of future spending through the year 2012. Spending in actual dollars had increased sharply since the 1990's due to the conflicts in Afghanistan and Iraq that commenced in 2001. But defense spending peaked as a percentage of total federal spending in the 1950's and has been trending downward since that time. Department of Defense budget estimates show spending declining beginning in 2008.

Figure 1 - Department of Defense Annual Spending



Source: National Defense Budget Estimates for FY 2009

Figure 2 - Department of Defense Expenditures as a Percentage of Federal Spending



Source: National Defense Budget Estimates for FY 2009

The defense budget for 2010 is estimated at \$712.9 billion. This amount represents a \$106 billion increase over the 2008 budget of \$606.5 billion upon which this study is based.

**Table 1: Selected Department of Defense Expenditures
For Fiscal Year 2008 (\$ billions)**

	Salaries	Contracts	Grants	Total	Rank
U.S	\$146.780	\$349.557	\$4.694	\$501.032	N.A.
Texas	13.172	51.905	.342	65.420	1
Virginia	15.024	39.384	.118	54.526	2
California	12.563	37.820	.463	50.846	3
Florida	8.376	12.394	.190	20.960	4

Table 1 describes selected Department of Defense expenditures during 2008 for the top four states receiving Department of Defense funding. Florida ranks fourth behind Texas, Virginia and California. These four states receive 38 percent of the selected budget components, which total \$501 billion for the U.S. Total direct expenditures of salaries, contracts and grants for Florida were \$20.96 billion in 2008.

**Table 2: Department of Defense Personnel By Branch
For Fiscal Year 2008**

	Army	Navy/Marines	Air Force	Other*	Total
Active-Duty	539,170	526,285	322,897	0	1,388,352
Civilian	251,480	176,909	152,705	84,373	665,467
Reserves	606,804	207,551	217,351	0	1,031,706
Total	1,397,454	910,745	692,953	84,373	3,085,525

*Includes other DoD agencies not associated with the military branches

Table 2 details the force count for each of the armed services including civilian and reserve personnel, and excluding midshipmen and cadets. In 2008, defense department employment totaled 3,085,525 individuals. Of this number, 1,388,352 were active duty military and 665,467 were full-time civilian employees. Reserve

forces had slightly higher number than active duty with 1,031,706⁴. There are 42,346 active duty military members stationed in Florida, including those afloat. This number represents 3.1 percent of active duty military personnel in the U.S.

**Table 3: Department of Defense Salaries By Branch
For Fiscal Year 2008 (\$ billions)**

	Army	Navy/Marines	Air Force	Other	Total
Active Duty	\$39.1	\$33.8	\$23.4	0	\$96.3
Civilian	16.454	13.357	10.282	\$6.078	46.171
Reserve	10.025	.513	.530	0	11.068
Retired	11.612	12.022	13.749	0	37.383
Total	77.19	59.69	47.96	6.078	190.92

*Includes other DOD agencies not associated with the military branches

Table 3 presents the aggregate salary expenditure for each of the armed services by employee classification. Total salary expenditures are higher for the Army than all other branches with the Air Force the least. The active-duty force had total personnel costs of \$96.3 billion and civilian personnel expenditures \$46.2 billion. Both military and civilian retirement obligations required \$37.4 billion in expenditures.

**Table 4: Department of Defense Average Wage By Branch
For Fiscal Year 2008**

	Army	Navy/Marine	Air Force	Other*
Active Duty	\$72,518	\$64,223	\$72,468	N.A.
Civilian	\$65,429	\$75,502	\$67,332	\$72,037
Reserve	\$16,521	\$2,472	\$2,438	N.A.

*Includes other DOD agencies not associated with the military branches

The average earnings per military job in 2008 were \$70,505 (Woods and Poole Economics). Table 4 presents the average wage for each service member in 2008.

⁴ Department of Defense Atlas/Data Abstract for the United States and Selected Areas. Washington, DC: Washington Headquarters Services, Directorate for Information Operations and Reports (WHS/DIOR), April, 2008, Department of Defense Active Duty Military Personnel by Rank/Grade, September 30, 2008 at <http://siad.dmdc.osd.mil>.

Surprisingly, there is considerable variation across each of the services for active duty, civilian and reserve personnel.⁵

2.1 FUTURE MILITARY SPENDING TRENDS

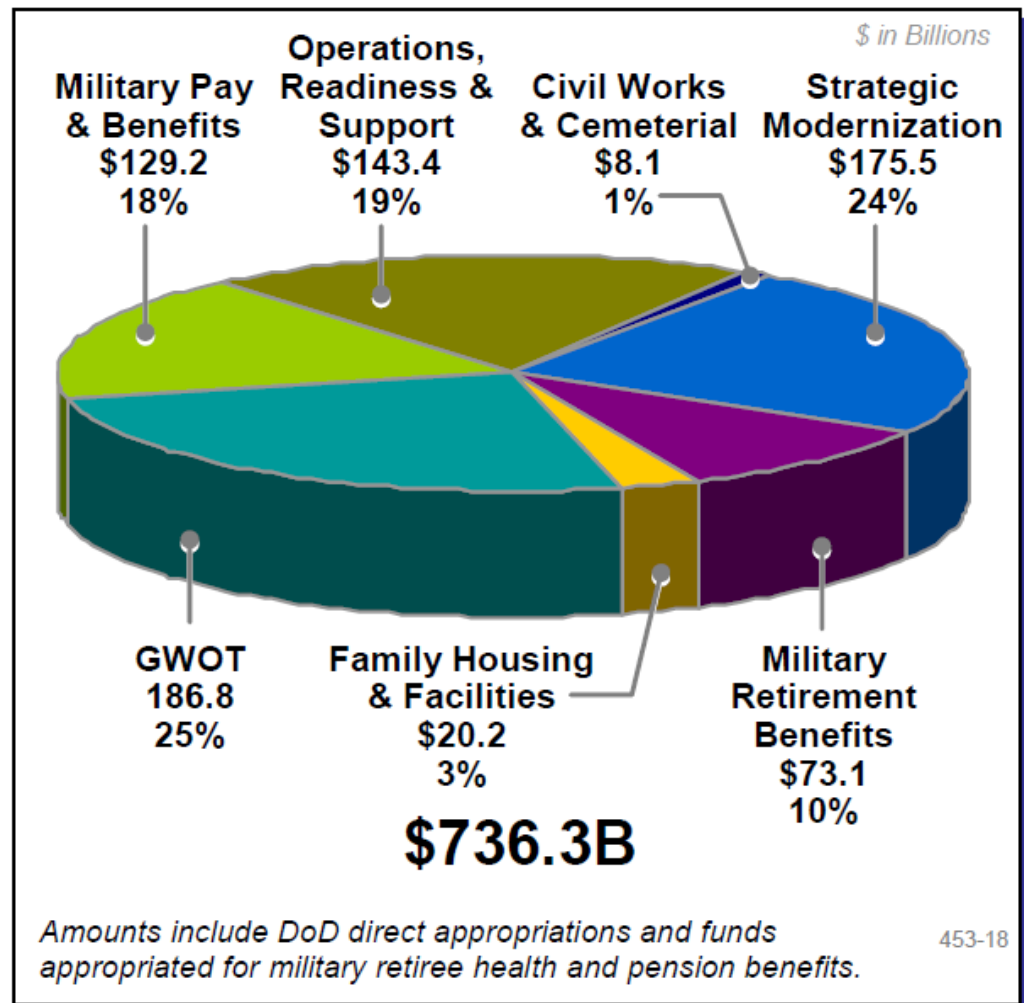
Analysis of projected military spending indicates that it will be falling for the foreseeable future. According to the Fiscal Year 2008 Agency Financial Report from the Department of Defense, in 2008 DoD's total resources primarily consist of carried forward budget authority of \$112.0 billion for unfilled commitments from 2007 and additional appropriations of \$736.4 billion in 2008 to support the Global War on Terror (GWOT), train and equip warfighters, and ensure broad national security priorities were met. See Figure 3.

Defense spending is near historic lows, however, and the Administration's proposed five-year budget plan would further reduce defense spending to levels unprecedented during wartime. Between 2010 and 2015, total defense spending is set to fall from 4.9 percent to 3.6 percent of gross domestic product (GDP), even though the nation has assigned more missions to the military over the past two decades.

Source: U.S. Defense Spending: The Mismatch Between Plans and Resources, Mackenzie Eaglen, Backgrounder No. 2418, June 7, 2010, The Heritage Foundation.

⁵ Wage information in Tables 3 and 4 is taken from the Department of Defense Budget, Fiscal Year 2010, revised July 2009, Office of the Secretary of Defense (Comptroller) and Department of Defense Atlas/Data Abstract for the United States and Selected Areas. Other wage data reported in the study represents 2009 estimates from other informational sources, such as Woods and Poole Economics, and therefore is not comparable to the data reported in Table 4. See, e.g. Florida Defense Factbook.

Figure 3 Analysis of Projected Military Spending



Source: Department of Defense 2008 Agency Financial Report

For 2009, this number fell to \$664.5 billion and fell again to \$663.9 billion for 2010. The National Defense Budget Estimates for 2011 show defense spending continuing to fall in terms of fixed 2011 dollars through 2014. See Table 5.

Table 5: National Defense Budget - Long Range Forecast
(Dollars in Billions)

Current Dollars	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Budget Authority							
DoD -051	664.5	663.9	552.8	570.1	585.7	601.8	620.2
Additional OCO Requests		33.0	159.3	50.0	50.0	50.0	50.0
Total DoD - 051 (Enacted + Requests)	664.5	696.9	712.1	620.1	635.7	651.8	670.2
Delta OMB Scoring and Rounding	3.0		0.1	0.4	0.4	0.4	0.4
OMB DoD - 051	667.5	696.9	712.3	620.5	636.1	652.2	670.6
DoE and Other	30.2	25.2	26.5	26.2	26.3	26.9	27.5
TOTAL NATIONAL DEFENSE 050	697.8	722.1	738.7	646.6	662.3	679.1	698.2
Constant FY 2011 Dollars							
Budget Authority							
DoD – 051	689.8	674.6	552.8	558.8	562.7	566.3	571.5
Additional OCO Requests		33.6	159.3	49.0	48.0	47.0	46.1
Total DoD – 051 (Enacted + Requests)	689.8	708.2	712.1	607.9	610.8	613.3	617.6
Delta OMB Scoring and Rounding	3.1		0.1	0.4	0.4	0.4	0.4
OMB DoD - 051	692.9	708.2	712.3	608.2	611.1	613.7	618
DoE and Other	31.4	25.6	26.5	25.7	25.3	25.3	25.4
TOTAL NATIONAL DEFENSE 050	724.3	733.8	738.7	633.9	636.4	639.0	643.3

Source: National Defense Budget Estimates for FY 2011, Office of the Under Secretary of Defense (Comptroller), March 2010.

A January 2010 report from the Congressional Budget Office shows projected budget figures for defense spending falling. See Table 6. According to the report “Real (inflation-adjusted) defense resources would continue to increase under CBO’s projection of DoD’s plans for 2010 but not as rapidly as U.S. gross domestic product (GDP), and the share of GDP devoted to national defense would therefore steadily decline . If DoD’s plans for 2010 were carried out, defense spending would decline to 3.2 percent of GDP in 2015 and to 2.6 percent of GDP by 2028 under CBO’s base projection. Spending would be higher when unbudgeted costs are included, but it would still decline to 3.8 percent of GDP in 2015 and to 3.1 percent of GDP by 2028.”

**Table 6: Resources for Operation and Support in Selected Years
(Billions of 2010 Dollars)**

	Actual	Requested	Projected			Average
	2009	2010	2013	2020	2028	2011-2028
Regular Defense Budget						
Operating Forces	161	124	130	141	154	140
Medical	44	46	54	70	90	69
Bases, Installations, & Infrastructure	52	47	48	51	54	51
Command & Intelligence	22	22	23	24	25	24
Central Training	33	32	33	35	37	35
Central Logistics	21	16	17	19	21	19
Headquarters & Administration	39	36	37	39	43	39
subtotal	373	324	341	378	425	376
Other Resources						
Additional Supplemental, Emergency, & Contingency Funding	47 ^a	105	n.a.	n.a.	n.a.	n.a.
TOTAL						
Including Additional Funding	420	429	341	378	425	376
Including Total Unbudgeted Costs	n.a.	429^b	636	407	465	408

Source: Congressional Budget Office

Note: Operation and support consists of the appropriations for military personnel, operation and maintenance, and the revolving funds.

n.a. = not applicable.

a. Excludes \$64 billion in other supplemental and emergency funding allocated among the funding categories listed above.

b. Includes \$300 million that the Administration has not requested but that CBO projects could be needed to fund either contingency operations or other unbudgeted costs.

Source: Long-Term Implications of the Fiscal Year 2010 Defense Budget, Congressional Budget Office, January 2010.

These changes will likely impact defense spending in Florida in the coming years and should be considered when viewing the economic impact estimates presented in the next section.

3. STATEWIDE ECONOMIC IMPACT ANALYSIS

3.1 DEPARTMENT OF DEFENSE FLORIDA EXPENDITURES

**Table 7: Florida Defense Expenditures
For Fiscal Year 2008 (\$ billions)**

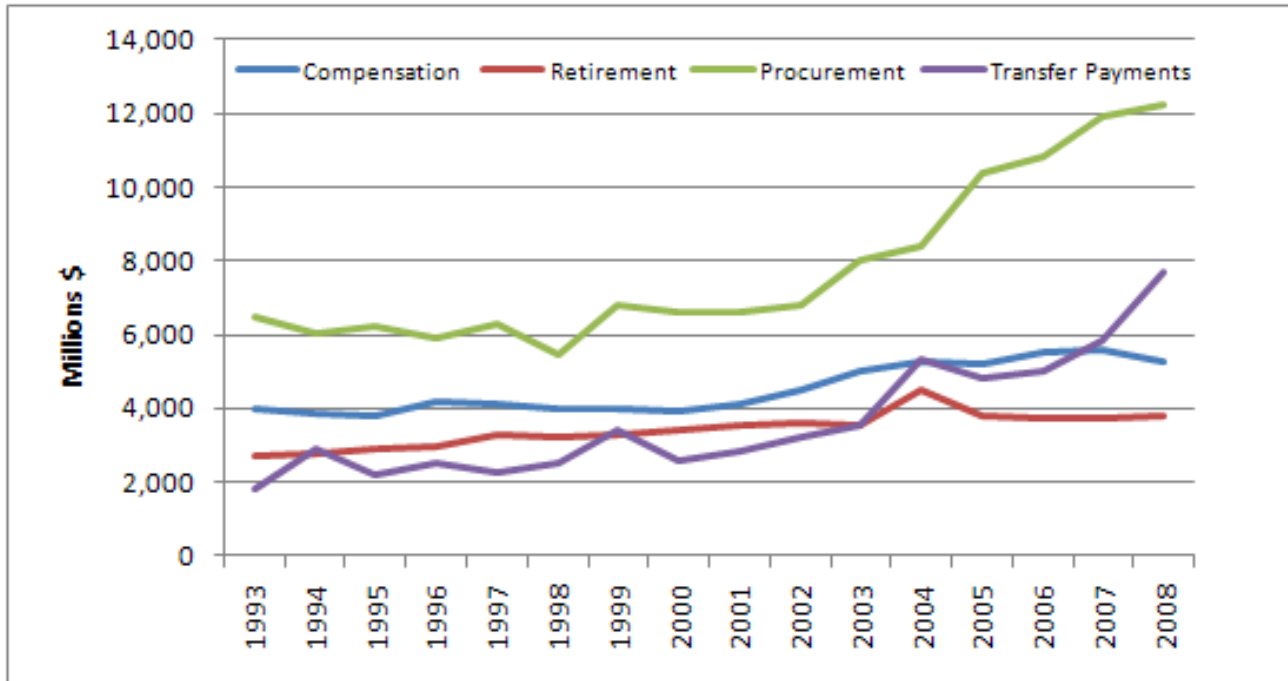
Expenditure	Amount	Percent
Goods and services	\$13.1	43.7
Salaries and wages	5.3	17.6
Pensions and transfers	11.6	38.7
TOTAL	\$30.0	100.0

Source: 2008 Consolidated Federal Funds Report

Table 7 describes expenditures for fiscal year 2008 made by the Department of Defense in the state of Florida.⁶ The aggregate total of all expenditures was \$30 billion. The procurement of goods and services required \$13.1 billion, or 43.7 percent of the total expenditures in Florida. An additional \$5.3 billion was used to pay the salaries and benefits of active duty and civilian employees. The remaining \$11.6 billion, or 38.7 percent, went to retired military and civilian personnel and transfer payments, such as Impact Aid to school systems. This latter category also includes the cost of entitlements to veterans. While veteran benefit expenditures are not appropriated through the Department of Defense they are appropriately included because the entitlements arise from service in the U.S. military.

⁶ Because the data we use in analyzing the economic impact predates the latest reductions in military spending the overall impact on the state of Florida for 2010 and 2013 should be considered optimistic estimates.

Figure 4 - Military Spending by Category in Florida 1993 to 2008



Source: Consolidated Federal Funds Reports for FY 1993 through 2008

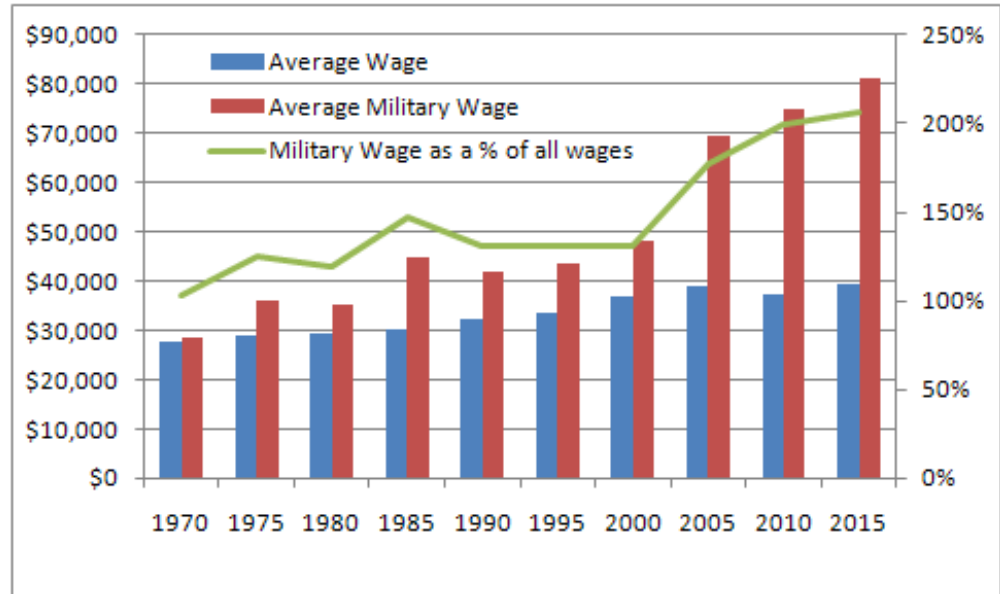
3.1.1 PERSONNEL

The 2008 DOD Atlas/Data Abstract for the US and Selected Areas indicates that 42,346 active duty personnel based in Florida received salaries and wages in 2008 (including fringe benefits) totaling \$2.1 billion. The calculated average wage was \$49,591. Civilian personnel totaling 26,458 received wages of \$1.77 billion, yielding an average wage of \$66,898. Both are considerably above an estimated average Florida wage of \$40,579 in 2008. There were 48,175 Florida-based reserve personnel who received wages of \$416.4 million.

Table 8: Change in Military Employment 1980 to 2008

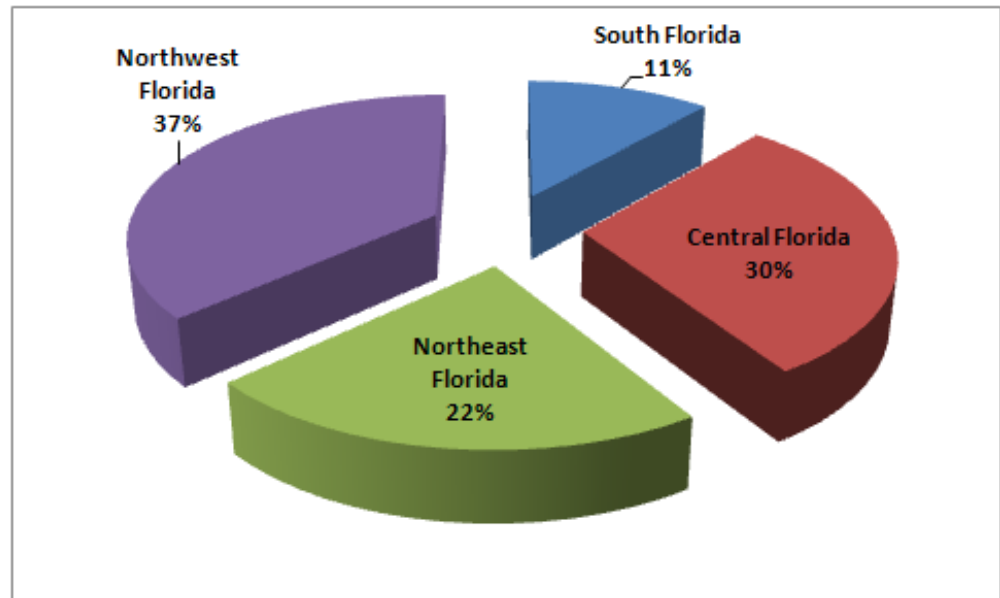
	1980-90	1990-2000	2000-05	2005-2010	2010-2015	1980-2008
Florida	21.40%	-29.40%	-2.01%	2.88%	0.54%	-13.83%
US	8.70%	-23.70%	-2.36%	-1.61%	0.54%	-18.82%

Figure 5 - Florida Military Wages 1970-2015



Source: Woods and Poole Economics

Figure 6 - Percentage of Total Department of Defense Employment



Source: U.S. Bureau of the Census, Consolidated Federal Funds Report, 2008

From Figure 6, 37 percent of Florida-based DoD employees are located in Northwest Florida, 22 percent in Northeast Florida, 30 percent in Central Florida and the remaining 11 percent in South Florida.

3.1.2 PROCUREMENT EXPENDITURES

This study uses a total 2008 procurement spending flow of \$13.1 billion for goods and services purchased from Florida firms. Of this amount, some represents spending on goods and services flowing from the Department of Defense to Florida firms, while the other amounts represents flows to Florida firms from defense-related spending done by government organizations and businesses located outside Florida.

The latter amount represents exports by Florida businesses of goods and services in response to DoD spending originating elsewhere. Because they generate jobs for Florida workers and income to Florida businesses and workers, they are included as part of the spending inputs.

**Table 9: Ten Largest Florida Defense Contractors
FY's 2008, 2007, 2006 (\$ millions)**

Name	FY 2008		FY 2007		FY 2006	
	Amount	Rank	Amount	Rank	Amount	Rank
Lockheed-Martin Corp. FL employees: 3,134	\$1,333	1	\$1,820	1	\$1,567	1
Raytheon Company FL employees: 1,747	912.9	2				
Northrop Grumman Corp. FL employees: 4,205	871.3	3	800.2	2	826.4	2
DRS Technologies, Inc. FL employees: 1,077	678.7	4	620.4	3	413.3	4
General Dynamics Corp. FL employees: 1,305	526.4	5	435.6	4	552.6	3
Hellfire Systems, LLC FL employees: 3	413.4	6	299.7	5	178.2	10
Jacobs Engineering Group FL employees: 428	400.7	7	221.6	8	194.9	6
Harris Corporation FL employees: 505	271.1	8	252.7	6		
Honeywell International, Inc. FL employees: 1,228	249.4	9	232.6	7	180.1	8
Gyrocam Systems, LLC FL employees: 40	198.5	10				
L-3 Communications FL Employees: 840			203.7	9	291.6	5
DHB Industries FL employees: 5			203.5	10	181.0	7
Longbow, LLC FL employees: unknown					178.9	9
TOTAL	\$5,855.4		\$4,884.6		\$4,564	

Contract data from DOD Atlas/Data Abstract for the US and Selected Areas; employee estimates from ReferenceUSA.com

The ten largest defense contractors located in Florida for fiscal years 2006, 2007 and 2008 are listed in Table 9 in the order of their 2008 ranking. Of the estimated \$13.1 billion in defense procurement expenditures in Florida for 2008, \$5,885.4 million went to the ten identified firms. The value of the goods and services they supplied represents 44.3 percent of total defense procurements and approximately 48 percent of the prime contract awards (\$11.98 billion). The dollar value of defense spending flowing to the top ten firms increased from 2008 to 2006 by nearly \$1.3 billion, an increase of approximately 28 percent over the two year period. For additional procurement data, please see Appendix 3.

The Defense Employment and Purchases Projection System (DEPPS) output is published in "Projected Defense Purchases: Detail by Industry and State" -- an annual publication that analyzes and forecasts the distribution of defense spending among U.S. industries and regions. The reports present estimates of defense purchases by year from 50 Standard Industrial Classification (SIC) industries that are major defense suppliers. The report also provides projections of defense-related employment and spending during the forecast years for each of the 50 states and the District of Columbia. The estimates are based on the President's budget submission, which is normally published in February, and on the geographic distribution of the major components of defense spending in the recent past. Below is the 2009 report information for the state of Florida.

Figure 7 – Defense Employment and Purchases Projection System Florida Summary

10 Florida Summary				
(Millions of 2010 dollars)				
	Actual			
	2007	2008	2009	2010
AGGREGATE MEASURES				
Total Direct Expenditures (Purchases and Pay)	29,524	31,440	31,551	29,267
Indirect Defense Purchases Resulting from Direct Purchases	11,596	13,097	13,771	12,410
Induced Defense Purchases Resulting from Direct Pay	6,401	6,071	5,081	5,297
Total Nondefense Expenditures	1,218,286	1,221,999	1,185,843	1,198,143
Total Output	1,265,919	1,272,743	1,23,6369	1,245,234
General government industry	11,633	11,168	10,217	10,469
LARGEST PURCHASES BY INDUSTRIAL SECTORS				
Total Direct Expenditures (Purchases and Pay)				
General government industry	11,633	11,168	10,217	10,469
Professional, scientific and technical services	3,359	3,654	3,772	3,355
New construction	1,198	1,466	1,687	1,554
Aerospace products and parts	1,178	1,326	1,505	1,439
Water transportation	1,177	1,347	1,269	1,089
Indirect Defense Purchases Resulting from Direct Purchases				
Administrative and support services	1,342	1,484	1,552	1,402
Real estate	1,111	1,248	1,312	1,196
Professional, scientific and technical services	1,011	1,161	1,212	1,050
Legal services	951	1,070	1,133	1,024
Wholesale trade	853	967	1,018	915

Note: Numbers may not add to totals due to roundings.

DEPPS purchasing trends in Florida reflect the overall decline in defense spending projected by the most recent Department of Defense budget.

Direct 2008 defense expenditures of \$30 billion in Florida generated additional employment, wages, consumption spending, and investments. This spending generated more spending as it circulated through the state's economy. The gross regional product for Florida represents the final value of all goods and services arising from the original military spending. It is divided into and described by the following expenditure categories: consumption expenditures; investment expenditures; state and local government spending; and exports from and imports into Florida's economy.

3.2 ECONOMIC IMPACT OF FLORIDA DEFENSE SPENDING

Table 10: Florida Economic Impact Estimates (\$ millions)

Description	Estimated Economic Impact		
	2008	2010	2013
Total Sales	\$63,785.9	\$71,168.3	\$71,653.7
Total Employment	686,181	700,858	627,325
Total Consumption	\$43,549.2	\$47,252.1	\$51,990.4
Investment Residential	\$4,712.2	\$8,316.0	\$8,016.9
Investment Non-Residential	\$1,992.0	\$2,678.3	\$2,716.1
Producers Durable Equipment	\$811.4	\$2,089.3	\$3,922.9
Business Inventories	-\$60.1	\$52.3	\$38.0
Government	\$5,572.6	\$6,470.6	\$6,742.9
Exports	\$3,884.5	\$2,282.2	-\$981.8
Imports (subtract)	\$2,319.5	\$4,280.1	\$4,744.0
Gross Regional Product	\$58,142.3	\$64,860.2	\$67,702.0

3.2.1 EMPLOYMENT AND WAGES

Department of Defense spending in Florida directly and indirectly accounts for an estimated 686,181 jobs. Sources of wage income by sector include: Construction (\$1.9 billion); Manufacturing (\$604.2 million); Wholesale Trade (\$946.9 million); Retail Trade (\$1.7 billion); Information (\$544.8 million); Finance and Insurance (\$1.7 billion); Professional and Technical Services (\$2.8 billion); Administrative and Waste Services (\$1.3 billion); Accommodation and Food Services (\$640.8 million); and Other services, excluding Government (\$801.8 million).

3.2.2 REVENUE AND GROSS REGIONAL PRODUCT

The combined spending inputs of \$30 billion circulated through the Florida economy and generated gross sales revenue of \$63.8 billion in 2008. The latter amount includes direct Department of Defense spending in the state, other spending flowing from wages and transfer payments, plus spending associated with the multiplier effect as initial recipients re-spent their earnings and receipts. Gross sales revenue includes both sales to final users as well as business-to-business (intermediate) sales. It incorporates the value of goods and services produced and sold in the state, imported into the state, and those exported from the state. When both imports and exports are considered and the value of intermediate transactions subtracted,

the contribution of defense spending to the Florida gross regional state product is \$58.1 billion. The gross regional state product attributable to defense expenditures in the state is predicted to reach \$67.7 billion by 2013.

The contribution of defense spending to the Florida gross regional state product is \$58.1 billion. The gross regional state product attributable to defense expenditures in the state is predicted to reach \$67.7 billion by 2013.

3.2.3 CONSUMPTION SPENDING

Consumption expenditures totaled \$43.6 billion. This consumption consisted of purchases of food (\$4 billion); housing (\$3.6 billion); transportation (\$1.2 billion); medical care (\$7.3 billion); computers and furniture (\$4.4 billion); vehicles (\$2.8 billion); clothing (\$1.4 billion); household operating (\$2.2 billion); other durables (\$1.9 billion); non-durables (\$4.9 billion); and, other services (\$8.9 billion).

By the year 2010, consumption is forecast to reach \$47.3 billion per year.

3.2.4 INVESTMENT EXPENDITURES

Investment expenditures attributable to defense spending in Florida are estimated at \$6.7 billion in 2008. These expenditures were used to invest \$4.7 billion in residential real estate and \$2 billion in non-residential real estate. Investment in durable equipment by businesses amounted to \$811.4 million

The projected value of direct residential real estate investments in the year 2013 is \$8 billion and non-residential real estate \$2.7 billion. Business investment in capital equipment is projected to increase to an annual level of \$3.9 billion by 2013.

3.2.5 STATE AND LOCAL GOVERNMENT SPENDING

The impact on state and local government expenditures attributable to defense spending were estimated at \$5.6 billion for 2008 and is projected to reach \$6.7 billion by 2013.

3.2.6 EXPORT AND IMPORT

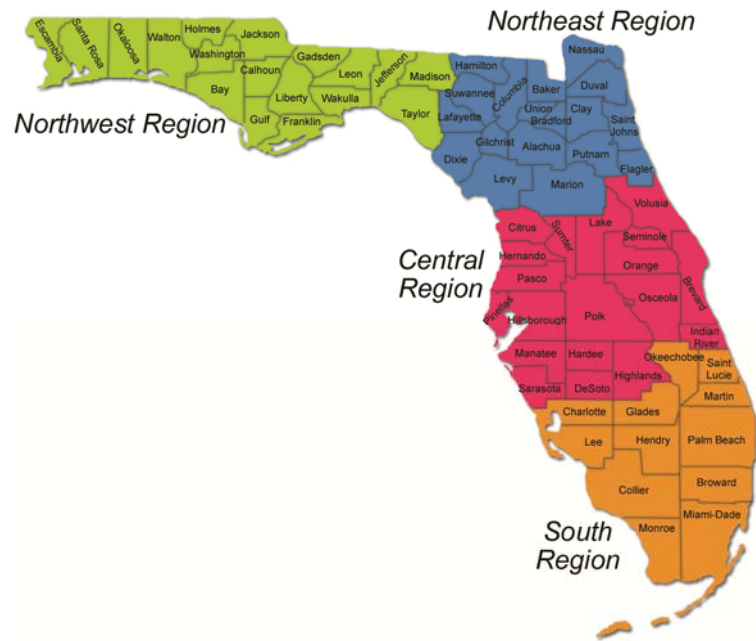
At the state level, exports are the dollar value of goods and services sold by a Florida entity to an entity outside the state of Florida. Imports represent the purchase by a Florida entity of a good or service from outside the state. In order to

generate the 2008 \$58.1 billion in GRP associated with defense-related spending, Florida businesses and consumers imported \$2.3 billion in goods and services, while exporting \$3.9 billion.

4. REGIONAL ANALYSIS

The regional analysis divides Florida into four geographic sectors. The economic impact simulation estimates are aggregated into these four regions using the output generated for each of the counties within the region.

Figure 8 - Map of Florida Regions



4.1 SOUTH FLORIDA REGIONAL ANALYSIS

The South Florida Region includes Miami-Dade, Monroe, Collier, Broward, Hendry, Palm Beach, Lee, Charlotte, Glades, Martin, St. Lucie, and Okeechobee counties. The defense spending input for each county is detailed in Table 11 below. South Florida does not have an extensive defense industry presence. Two installations are located in the region along with one Unified Command, U.S. Southern Command. Defense spending in the region centers almost equally in procurement contracts and pension benefit payments to retirees. Most procurement expenditures occur in Broward and Miami-Dade counties where a naval re-supply activity is located in close proximity to Port Everglades. In addition, several commercial sector defense supply firms are located in the region.

4.1.1 SOUTH FLORIDA DEFENSE SPENDING

**Table 11: South Florida Regional Defense Spending
For Fiscal Year 2008 (\$ millions)**

County	Procurement	Transfers*	Salaries	Total
Broward	308.83	329.44	22.73	661.00
Charlotte	0.80	80.95	3.48	85.22
Collier	8.31	65.58	1.83	75.72
Glades	0.00	3.28	0.20	3.49
Hendry	16.77	5.83	1.04	23.64
Lee	8.45	190.53	18.16	217.14
Martin	16.51	50.30	0.21	67.02
Miami-Dade	464.52	251.34	254.64	970.50
Monroe	50.17	34.25	38.89	123.32
Okeechobee	0.54	12.18	21.21	33.93
Palm Beach	340.08	273.82	164.66	778.56
St. Lucie	4.35	91.33	0.41	96.09
Total	\$1,219.33	\$1,388.84	\$527.45	\$3,135.62

*Includes the dollar value of entitlement payments received by military and civilian retirees and veterans.

Table 11 provides expenditures for fiscal year 2008 made by the DoD in South Florida. The aggregate total of all expenditures was \$3.1 billion. The procurement of goods and services required \$1.2 billion, or 38 percent of total expenditures. An additional \$527 million (17 percent) was used to pay the salaries and benefits of active duty and civilian employees. Transfer payments to military and civilian retirees totaled \$1.4 billion or 45 percent of total regional expenditures.

Direct defense expenditures of \$3.1 billion in South Florida generated additional employment, wages, consumption spending, and investments. This spending generated more spending as it expanded through the regional economy. The gross regional product for the region consisting of the final value of all goods and services arising from the original military spending are divided into and described by the following expenditure categories: consumption expenditures; investment expenditures; state and local government spending; and exports from and imports into the South Florida economy.

4.1.2 ECONOMIC IMPACT OF DEFENSE SPENDING IN SOUTH FLORIDA

Table 12: South Florida Economic Impact Estimates (\$millions)

Description	Estimated Economic Impact		
	2008	2010	2013
Total Sales	\$11,698.8	\$13,302.8	\$13,757.2
Total Employment	118,659	122,197	110,906
Total Consumption	\$7,157.2	\$7,860.4	\$8,675.1
Investment Residential	\$649.5	\$1,147.8	\$1,112.0
Investment Non-Residential	\$328.0	\$460.6	\$483.7
Producers Durable Equipment	\$142.0	\$364.7	\$690.9
Business Inventories	-\$12.0	\$10.8	\$8.4
Government	\$891.9	\$1,048.1	\$1,103.7
Exports	\$1,291.9	\$1,391.2	\$1,084.4
Imports (subtract)	\$266.3	\$750.2	\$929.8
Gross Regional Product	\$10,182.3	\$11,533.3	\$12,228.3

4.1.2.1 EMPLOYMENT AND WAGES

Department of Defense spending in South Florida directly and indirectly accounts for 118,659 jobs. These employees earned gross wages of \$3.2 billion. Sources of wage income by sector include: Construction (\$329.7 million); Manufacturing (\$102.4 million); Wholesale Trade (\$222.7 million); Retail Trade (\$280.1 million); Information (\$108.1 million); Finance and Insurance (\$342.6 million); Professional and Technical Services (\$541.1 million); Administrative and Waste Services (\$220.9 million); Accommodation and Food Services (\$103.5 million); and Other services, excluding Government (\$139.8 million).

4.1.2.2 REVENUES AND GROSS REGIONAL PRODUCT

The combined spending inputs of \$3.1 billion, circulated through the South Florida economy generated gross sales revenue of \$11.7 billion in 2008. The latter amount includes direct Department of Defense spending in the region, other spending flowing from wages and transfer payments, plus spending associated with the multiplier effect as initial recipients re-spent their earnings and receipts. Gross sales revenue includes both sales to final users as well as business-to-business (intermediate) sales. It incorporates the value of goods and services produced and

sold in the state, imported into the state, as well as those exported from the state. When both imports and exports are considered and the value of intermediate transactions subtracted, **the contribution of defense spending to the gross regional product of the South Florida economy is \$10.2 billion. The gross regional product attributable to defense expenditures in South Florida is predicted to reach an annual level of \$12.2 billion by 2013.**

The contribution of defense spending to the gross regional product of the South Florida economy is \$10.2 billion. The gross regional product attributable to defense expenditures in South Florida is predicted to reach an annual level of \$12.2 billion by 2013.

4.1.2.3 CONSUMPTION SPENDING

Consumption expenditures totaled \$7.2 billion. This consumption consisted of purchases of food (\$600.5 million); housing (\$538.3 million); transportation (\$186.4 million); medical care (\$1.2 billion); computers and furniture (\$742.9 million); vehicles and parts (\$476.4 million); clothing (\$208.2 million); household operating (\$355.9 million); other durables (\$344.4 million); non-durables (\$846.4 million); and other services (\$1.5 billion).

By 2013, consumption is forecast to reach an annual level of \$8.7 billion.

4.1.2.4 INVESTMENT SPENDING

Investment expenditures attributable to defense spending in South Florida were estimated at \$977.6 million for 2008. These expenditures were used to invest \$649.5 million in residential real estate and \$328 million in non-residential real estate. Business owners used a portion of their earnings to invest in durable equipment in the amount of \$142 million

The projected value of direct residential real estate investments in the year 2013 is \$1.1 billion, and non-residential real estate \$483.7 million. Business investment in capital equipment is projected to increase to \$690.9 million in 2013.

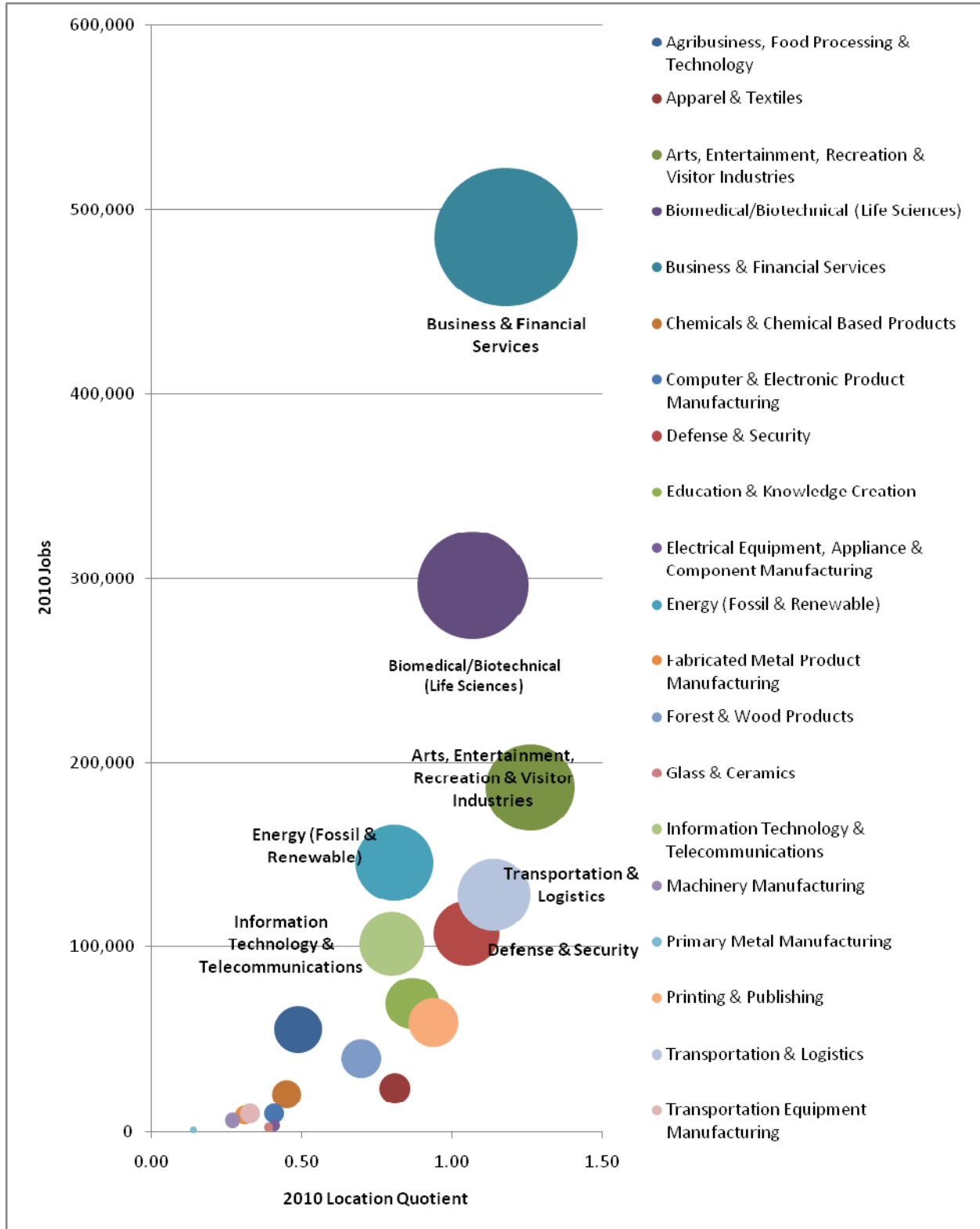
4.1.2.5 STATE AND LOCAL GOVERNMENT SPENDING

The impact on state and local government expenditures attributable to defense spending were estimated at \$891.9 million for 2008 and projected to reach \$1.1 billion by 2013.

4.1.3 SOUTH FLORIDA INDUSTRY CLUSTER PROFILE

Unlike most of the rest of the state, the South Florida economy is large and very diverse. As a result, Department of Defense (DoD) spending plays what seems to be a relatively minor role in the South Florida economy. In 2008, military spending accounted for a mere estimated 2.8 percent of the region's total gross regional product (the region is defined as Miami-Dade, Monroe, Collier, Broward, Hendry, Palm Beach, Lee, Charlotte, Glades, Martin, St. Lucie and Okeechobee counties). Though not as pronounced as it is in the other three regions of Florida, military spending in the South Florida is an important part of the region's economy, with Defense and Security representing the sixth largest industry cluster in terms of employment. See Figure 9.

Figure 9: South Florida Industry Cluster



4.1.4 SOUTH FLORIDA SUPPLY CHAIN GAP ANALYSIS

A gap analysis shows how much the defense industry purchases from various other industries (its “requirements”), along with how much of that amount is satisfied by industries inside the South Florida region. This reveals the defense industry’s level of reliance on outside imports and “gaps” in the regional supply chain. See Figure 10.

Figure 10: South Florida Military Industry Demand



4.2 CENTRAL FLORIDA REGIONAL ANALYSIS

The Central Florida Region includes Sarasota, DeSoto, Highlands, Manatee, Hardee, Indian River, Hillsborough, Polk, Osceola, Brevard, Pinellas, Pasco, Hernando, Orange, Lake, Sumter, Citrus, Seminole, and Volusia counties. This region has a substantial defense presence. Central Florida is home to four major military installations and two prominent Unified Commands, U.S. Central Command and U.S. Special Operations Command. Also, significant research and development expenditures occur in both Orange and Brevard counties.

4.2.1 CENTRAL FLORIDA DEFENSE SPENDING

**Table 13: Central Florida Regional Defense Spending
For Fiscal Year 2008 (\$ millions)**

County	Procurement	Transfers*	Salaries	Total
Brevard	2,113.18	585.73	214.57	2,913.48
Citrus	0.68	77.12	2.41	80.21
DeSoto	-0.16	8.05	0.03	7.92
Hardee	0.00	3.23	0.00	3.23
Hernando	1.09	105.83	2.97	109.90
Highlands	28.06	46.82	3.74	78.62
Hillsborough	1,064.08	783.68	626.88	2,474.64
Indian River	1.00	53.98	0.00	54.97
Lake	-0.81	171.39	2.87	173.46
Manatee	115.70	122.38	4.59	242.67
Orange	3,461.91	473.24	180.75	4,115.89
Osceola	8.17	112.93	1.17	122.27
Pasco	40.04	251.80	12.41	304.25
Pinellas	1,204.60	451.42	282.55	1,938.57
Polk	53.26	235.82	2.92	292.00
Sarasota	131.79	148.09	4.77	284.65
Seminole	33.53	204.81	7.08	245.42
Sumter	2.29	30.79	5.24	38.33
Volusia	107.54	256.90	14.12	378.56
Total	\$8,365.95	\$4,124.01	\$1,369.08	\$13,859.04

*Include the dollar value of entitlement payments received by military and civilian retirees and veterans.

Table 13 details expenditures for fiscal year 2008, made by the Department of Defense in Central Florida. The aggregate total of all expenditures was \$13.9 billion. The procurement of goods and services required \$8.4 billion, or 61 percent of total expenditures. An additional \$1.4 billion (10 percent) was used to pay the salaries and benefits of active duty and civilian employees. Transfer payments to military and civilian retirees totaled \$4.1 billion or 29 percent of total regional expenditures.

4.2.2 ECONOMIC IMPACT OF DEFENSE SPENDING IN CENTRAL FLORIDA

Direct defense expenditures of \$13.9 billion in Central Florida generated additional employment, wages, consumption spending, and investments. This spending generated more spending as it spread through the regional economy. The gross regional product for the region consisting of the final value of all goods and services arising from the original military spending are divided into and described by the following expenditure categories: consumption expenditures; investment expenditures; state and local government revenues; and exports from and imports into the Central Florida economy.

Table 14: Central Florida Economic Impact Estimates (\$ millions)

Description	Estimated Economic Impact		
	2008	2010	2013
Total Sales	\$23,876.5	\$26,479.1	\$26,407.4
Total Employment	226,458	229,076	201,943
Total Consumption	\$15,166.5	\$16,121.0	\$17,428.1
Investment Residential	\$1,559.2	\$2,715.5	\$2,570.6
Investment Non-Residential	\$670.6	\$897.2	\$894.5
Producers Durable Equipment	\$272.1	\$694.2	\$1,291.5
Business Inventories	-\$26.7	\$24.0	\$18.4
Government	\$1,602.4	\$1,847.2	\$1,896.7
Exports	\$2,717.7	\$2,422.6	\$1,434.9
Imports (subtract)	\$2,531.8	\$3,162.6	\$3,356.0
Gross Regional Product	\$19,429.9	\$21,559.2	\$22,178.7

4.2.2.1 EMPLOYMENT AND WAGES

Department of Defense spending in Central Florida directly and indirectly accounts 226,458 jobs. These employees earned gross wages of \$6.3 billion. Sources of wage income by sector include: Construction (\$705.6 million); Manufacturing (\$287.7 million); Wholesale Trade (\$353 million); Retail Trade (\$587.9 million); Information (\$230.4 million); Finance and Insurance (\$651.3 million); Professional and Technical Services (\$943.1 million); Administrative and Waste Services (\$460.2 million); Accommodation and Food Services (\$215.8 million); and Other services, excluding Government (\$277.9 million).

4.2.2.2 REVENUES AND GROSS REGIONAL PRODUCT

The combined spending input of \$13.9 billion, as it circulated through the Central Florida economy, generated gross sales revenue of \$23.9 billion in 2008. The latter amount includes direct Department of Defense spending in the region, other spending flowing from wages and transfer payments, plus spending associated with the multiplier effect as initial recipients re-spent their earnings and receipts. Gross sales revenue includes both sales to final users as well as business-to-business (intermediate) sales. It incorporates the value of goods and services produced and sold in the state, imported into the state, and those exported from the state. When both imports and exports are considered and the value of intermediate transactions subtracted, **the contribution of defense spending to the gross regional product of the Central Florida economy is \$19.4 billion. The gross regional product**

The contribution of defense spending to the gross regional product of the Central Florida economy is \$19.4 billion. The gross regional product attributable to defense expenditure in Central Florida is predicted to reach \$22.2 billion by 2013.

attributable to defense expenditures in Central Florida is predicted to reach \$22.2 billion by 2013.

4.2.2.3 CONSUMPTION SPENDING

Consumption expenditures totaled \$15.2 billion. This consumption consisted of purchases of food (\$1.3 billion); housing (\$1.2 billion); transportation (\$397.3 million); medical care (\$2.6 billion); computers and furniture (\$1.6 billion); vehicles and parts (\$1 billion); clothing (\$447.6 million); household operating (\$757.9 million); other durables (\$725.8 million); non-durables (\$1.8 billion); and, other services (\$3.2 billion).

By 2013, consumption is forecast to reach \$17.4 billion.

4.2.2.4 INVESTMENT SPENDING

Investment expenditures attributable to defense spending in Central Florida were estimated at \$2.2 billion in 2008. These expenditures were used to invest \$1.6 billion in residential real estate and \$671 million in non-residential real estate. Investment in durable equipment by businesses totaled \$272.1 million

The projected value of direct residential real estate investments in the year 2013 is \$2.6 billion, and non-residential real estate \$894.5 million. Business investment in capital equipment is projected to increase to \$1.3 billion in 2013.

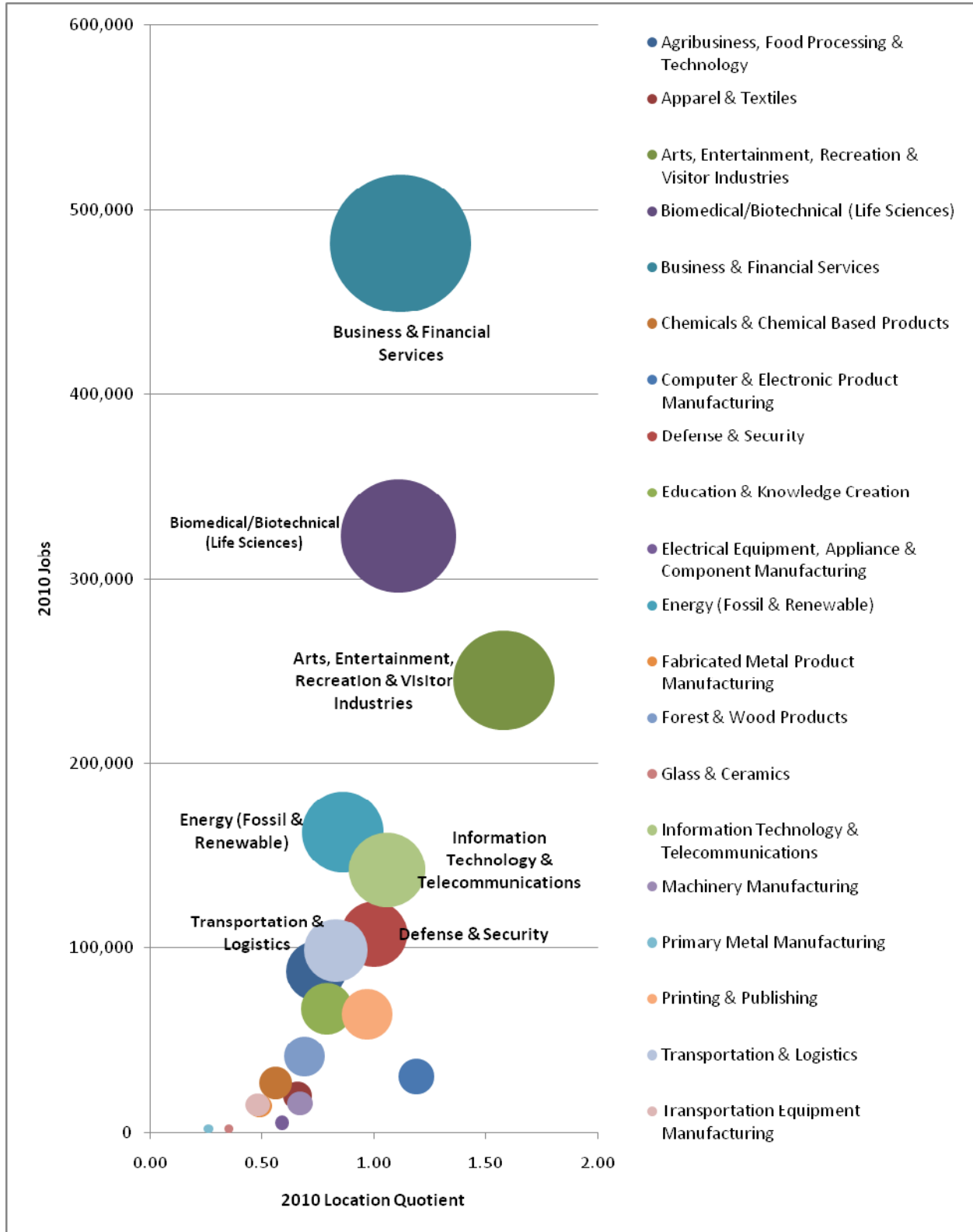
4.2.2.5 STATE AND LOCAL GOVERNMENT SPENDING

The impact on state and local government expenditures attributable to defense spending were estimated at \$1.6 billion for 2008 and projected to reach \$1.9 billion by 2013.

4.2.3 CENTRAL FLORIDA INDUSTRY CLUSTER PROFILE

The development of military technology has figured prominently in the Central Florida (defined as Brevard, Citrus, DeSoto, Hardee, Hernando, Highlands, Hillsborough, Indian River, Lake, Manatee, Orange, Osceola, Pasco, Pinellas, Polk, Sarasota, Seminole, Sumter and Volusia counties) economy for years. Though, unlike in Northwest and Northeast Florida, there are no large, centrally located military installations for the region to rely almost exclusively upon, Central Florida attracts many businesses that specialize in military research and development. Traditionally, the firms in Central Florida—located predominantly in the Orlando area—have focused on standard military weaponry, as well as developing modeling and simulation technology the military employs in training. See Figure 11.

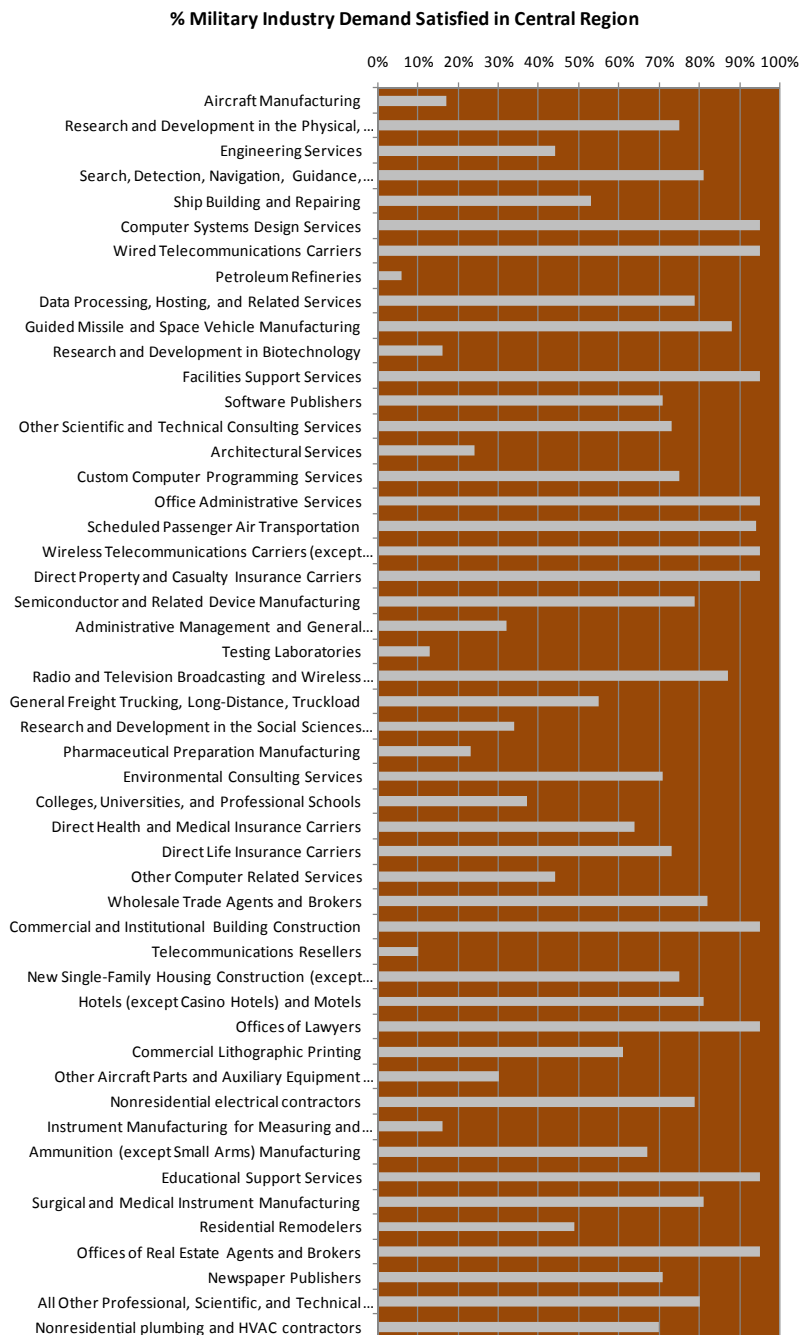
Figure 11: Central Florida Industry Cluster



4.2.4 CENTRAL FLORIDA SUPPLY CHAIN GAP ANALYSIS

A gap analysis shows how much the defense industry purchases from various other industries (its “requirements”), along with how much of that amount is satisfied by industries inside the Central Florida region. This reveals the defense industry’s level of reliance on outside imports and “gaps” in the regional supply chain. See Figure 12.

Figure 12: Central Florida Military Industry Demand



4.3 NORTHEAST FLORIDA REGIONAL ANALYSIS

The Northeast Florida Region includes Marion, Flagler, Levy, Dixie, Gilchrist, Alachua, Putnam, St. Johns, Clay, Bradford, Union, Duval, Nassau, Baker, Columbia, Lafayette, Suwannee, and Hamilton counties. This region enjoys a significant defense presence. There are four major installations hosting major naval air assets along with substantial Atlantic Fleet surface assets. The number of active duty personnel in the region is substantial. In addition, the region is home to a large number of retired military and civilian personnel.

4.3.1 NORTHEAST FLORIDA DEFENSE SPENDING

Table 15 describes expenditures for fiscal year 2008 made by the Department of Defense in Northeast Florida. The aggregate total of all expenditures was \$4.1 billion. The procurement of goods and services required \$1.2 billion, or 30 percent of total expenditures. An additional \$1.0 billion (24 percent) was used to pay the salaries and benefits of active duty and civilian employees. Transfer payments to military and civilian retirees totaled \$1.9 billion or 46 percent of total regional expenditures.

**Table 15: Northeast Florida Regional Defense Spending
For Fiscal Year 2008 (\$ millions)**

County	Procurement	Transfers*	Salaries	Total
Alachua	235.02	109.39	185.73	530.14
Baker	0.14	13.00	0.02	13.17
Bradford	1.92	13.01	0.11	15.04
Clay	8.93	355.89	7.75	372.57
Columbia	28.89	41.18	67.34	137.41
Dixie	0.84	11.00	0.18	12.02
Duval	794.72	860.37	737.33	2,392.42
Flagler	8.18	56.35	1.03	65.57
Gilchrist	0.05	6.58	0.00	6.63
Hamilton	0.04	4.86	0.00	4.90
Lafayette	2.72	1.68	9.58	13.98
Levy	0.04	21.83	0.36	22.23
Marion	13.10	160.38	3.12	176.59
Nassau	21.65	51.35	0.00	73.00
Putnam	0.12	50.27	0.98	51.37
St. Johns	43.34	128.23	16.44	188.02
Suwannee	0.03	19.89	0.01	19.94
Union	1.37	3.75	0.02	5.14
Total	\$1,161.10	\$1,909.04	\$1,030.01	\$4,100.16

*Includes the dollar value of entitlement payments received by military and civilian retirees and veterans.

4.3.2 ECONOMIC IMPACT OF DEFENSE SPENDING IN NORTHEAST FLORIDA

Direct defense expenditures of \$4.1 billion expended in Northeast Florida generated additional employment, wages, consumption spending, and investments. This spending generated more spending as it circulated through the regional economy. The gross regional product for the region consisting of the final value of all goods and services arising from the original military spending are divided into, and described by the following expenditure categories: consumption expenditures; investment expenditures; state and local government revenues; and exports from and imports into the Northeast Florida economy.

Table 16: Northeast Florida Economic Impact Estimates
(\$ millions)

Description	Estimated Economic Impact		
	2008	2010	2013
Total Sales	\$15,394.5	\$16,900.2	\$16,693.9
Total Employment	162,302	164,432	146,426
Total Consumption	\$10,489.5	\$11,377.9	\$12,569.2
Investment Residential	\$1,146.7	\$2,018.5	\$1,941.7
Investment Non-Residential	\$453.1	\$590.3	\$581.5
Producers Durable Equipment	\$174.3	\$452.2	\$846.7
Business Inventories	-\$14.1	\$12.0	\$8.3
Government	\$1,479.3	\$1,709.6	\$1,786.7
Exports	\$1,686.2	\$1,271.7	\$356.1
Imports (subtract)	\$1,166.1	\$1,709.1	\$1,838.7
Gross Regional Product	\$14,248.7	\$15,723.0	\$16,251.6

4.3.2.1 EMPLOYMENT AND WAGES

Department of Defense spending in Northeast Florida directly and indirectly accounts for 162,302 jobs. These employees earned gross wages of \$4.1 billion. Sources of wage income by sector include: Construction (\$470.8 million); Manufacturing (\$147.6 million); Wholesale Trade (\$235.6 million); Retail Trade (\$392.9 million); Information (\$106 million); Finance and Insurance (\$464.3 million); Professional and Technical Services (\$675.2 million); Administrative and Waste Services (\$306.1 million); Accommodation and Food Services (\$153.4 million); and Other services, excluding Government (\$190 million).

4.3.2.2 REVENUES AND GROSS REGIONAL PRODUCT

Combined spending inputs of \$4.1 billion circulated through the Northeast Florida economy, and generated gross sales revenue of \$15.4 billion in 2008. The latter amount includes direct Department of Defense spending in the region, other spending flowing from wages and transfer payments, plus spending associated with the multiplier effect as initial recipients re-spent their earnings and receipts. Gross sales revenue includes both sales to final users as well as business-to-business

(intermediate) sales. It incorporates the value of goods and services produced and sold in the state, imported into the state, as well as those exported from the state. When both imports and exports are considered and the value of intermediate transactions removed, **the contribution of defense spending to the gross regional product of the Northeast Florida economy is \$14.2 billion. The gross**

The contribution of defense spending to the gross regional product of the Northeast Florida economy is \$14.2 billion. The gross regional product attributable to defense expenditures in Northeast Florida is predicted to reach \$16.3 billion by 2013.

regional product attributable to defense expenditures in Northeast Florida is predicted to reach \$16.3 billion by 2013.

4.3.2.3 CONSUMPTION SPENDING

Consumption expenditures totaled \$10.5 billion. This consumption consisted of purchases of food (\$1 billion); housing (\$930.2 million); transportation (\$286.2 million); medical care (\$1.7 billion); computers and furniture (\$1 billion); vehicles and parts (\$660.4 million); clothing (\$369.7 million); household operating (\$549.7 million); other durables (\$454.6 million); non-durables (\$1.1 billion); and other services (\$2.1 billion).

By 2013 consumption is forecast to reach \$12.6 billion.

4.3.2.4 INVESTMENT SPENDING

Investment expenditures attributable to defense spending in Northeast Florida were estimated at \$1.6 billion in 2008. These expenditures were used to invest \$1.1 billion in residential real estate and \$453.1 million in non-residential real estate. Investment in durable capital equipment by businesses totaled 174.3 million

The projected value of direct residential real estate investments in 2013 is \$1.9 billion, and non-residential real estate \$581.5 million. Business investment in capital equipment is projected to increase to \$846.7 million in 2013.

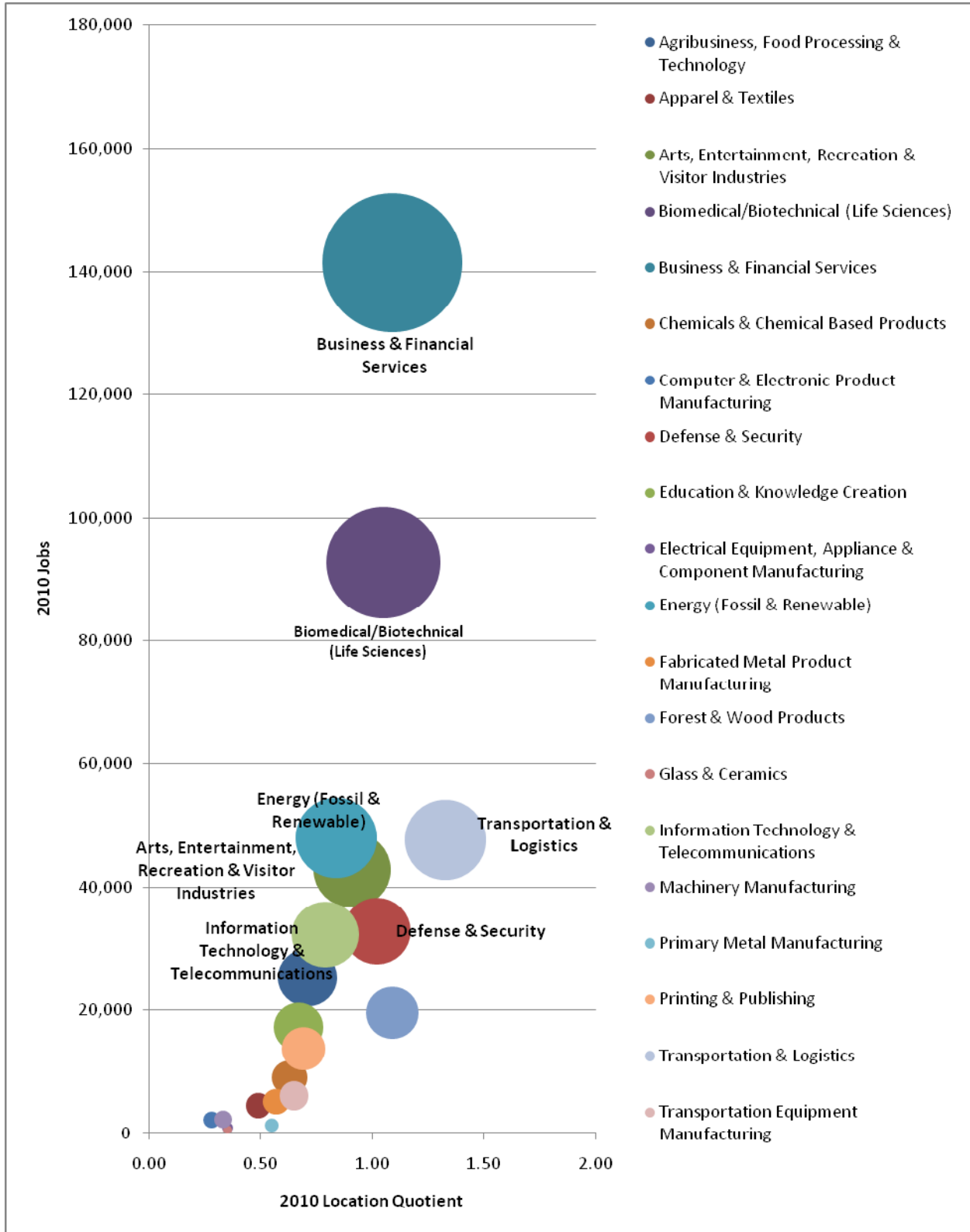
4.3.2.5 STATE AND LOCAL GOVERNMENT SPENDING

The impact on state and local government expenditures attributable to defense spending were estimated at \$1.5 billion for 2008 and projected to reach \$1.8 billion by 2013.

4.3.3 NORTHEAST FLORIDA INDUSTRY CLUSTER PROFILE

Military spending plays a large role in the Northeast Florida economy (The Northeast Florida region comprises Marion, Flagler, Levy, Dixie, Gilchrist, Alachua, Putnam, St. Johns, Clay, Bradford, Union, Duval, Nassau, Baker County, Columbia, Lafayette, Suwannee and Hamilton counties.). Given US Navy ship basing realignments, it appears that military spending will continue to be prominent in the Northeast Florida Region. Much of the military-related economic activity in Northeast Florida centers on the Navy's Fleet Readiness Center Southeast (FRCSE), located in Jacksonville. The Fleet Readiness Center's presence in Northeast Florida greatly affects the region's job market, as well as other characteristics of the region's economy. See Figure 13.

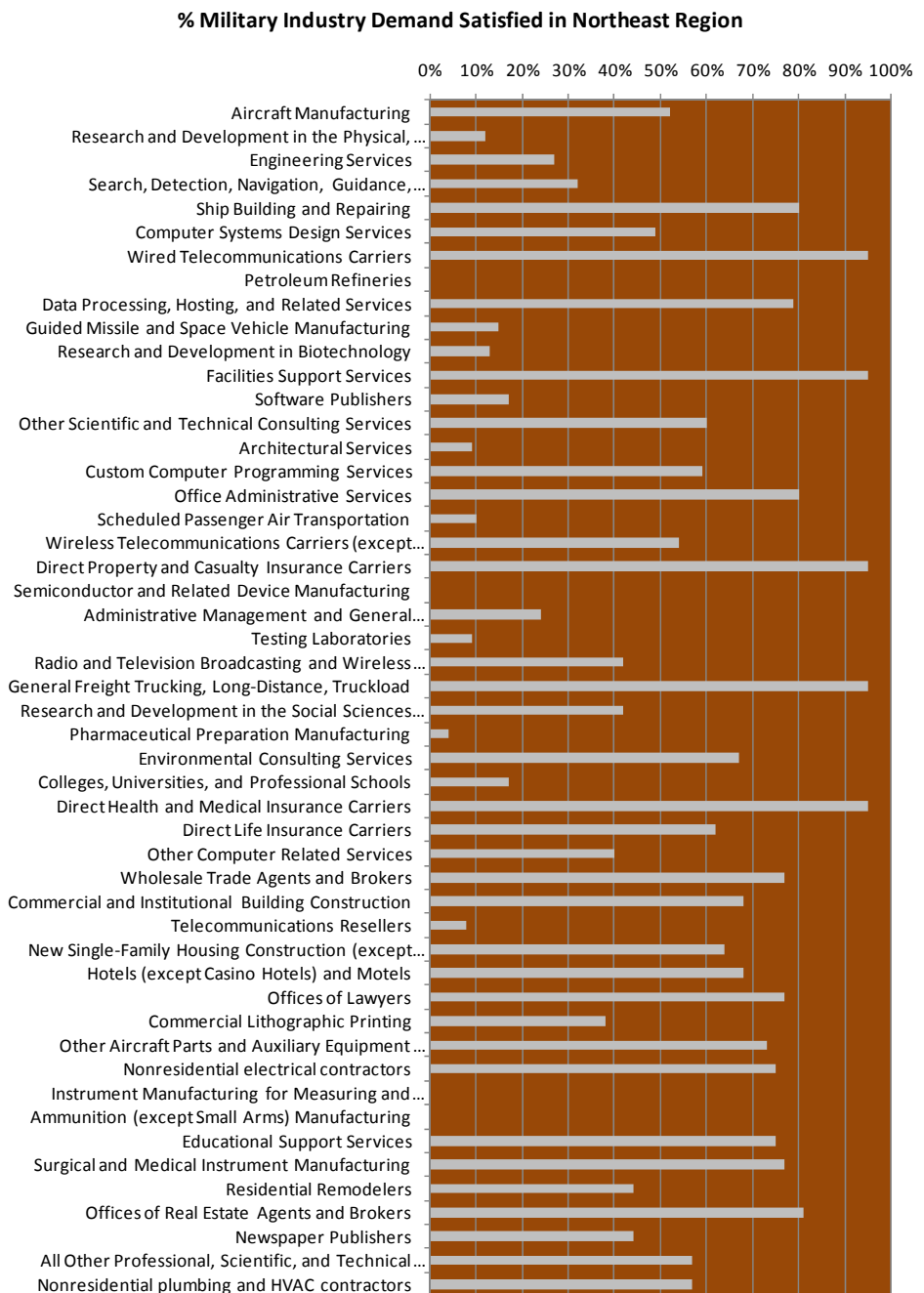
Figure 13: Northeast Florida Industry Cluster



4.3.4 NORTHEAST FLORIDA SUPPLY CHAIN GAP ANALYSIS

A gap analysis shows how much the defense industry purchases from various other industries (its “requirements”), along with how much of that amount is satisfied by industries inside the Northeast Florida region. This reveals the defense industry’s level of reliance on outside imports and “gaps” in the regional supply chain. See Figure 14.

Figure 14: Northeast Florida Military Industry Demand



4.4 NORTHWEST FLORIDA REGIONAL ANALYSIS

The Northwest Florida Region includes Taylor, Madison, Jefferson, Wakulla, Leon, Franklin, Liberty, Gadsden, Gulf, Calhoun, Jackson, Bay, Washington, Holmes, Walton, Okaloosa, Santa Rosa, and Escambia counties. Defense is a major industry in this region with six major installations, one of which is the largest U.S. military reservation.

4.4.1 NORTHWEST FLORIDA DEFENSE SPENDING

Table 17 below describes expenditures for fiscal year 2008 made by the Department of Defense in Northwest Florida. The aggregate total of all expenditures was \$6.2 billion. The procurement of goods and services required \$2.4 billion, or 39 percent of total expenditures. An additional \$1.7 billion (27 percent) was used to pay the salaries and benefits of active duty and civilian employees. Transfer payments to military and civilian retirees totaled \$2 million or 32 percent of total regional expenditures.

**Table 17: Northwest Florida Regional Defense Spending
For Fiscal Year 2008 (\$ millions)**

County	Procurement	Transfers*	Salaries	Total
Bay	473.70	268.71	325.80	1,068.22
Calhoun	0.26	4.36	0.00	4.62
Escambia	360.00	486.38	283.33	1,129.71
Franklin	0.00	4.00	0.00	4.00
Gadsden	1.74	24.37	1.17	27.28
Gulf	0.02	10.61	7.61	18.25
Holmes	0.05	12.39	0.20	12.64
Jackson	10.51	24.22	0.08	34.80
Jefferson	0.22	5.57	0.00	5.79
Leon	26.72	174.76	14.34	215.82
Liberty	6.97	3.58	1.87	12.42
Madison	0.15	6.47	0.21	6.83
Okaloosa	1,430.96	645.73	677.33	2,754.02
Santa Rosa	49.66	320.30	25.54	395.50
Taylor	27.49	7.11	0.12	34.72
Wakulla	0.50	13.14	0.11	13.75
Walton	0.06	40.47	363.40	403.93
Washington	0.31	18.52	0.06	18.88
Total	\$2,389.32	\$2,070.70	\$1,701.17	\$6,161.19

*Includes the dollar value of entitlement payments received by military and civilian retirees and veterans.

4.4.2 ECONOMIC IMPACT OF DEFENSE SPENDING IN NORTHWEST FLORIDA

Direct defense expenditures of \$6.2 billion in Northwest Florida generated additional employment, wages, consumption spending, and investments. This spending generated more spending as it circulated through the regional economy. The gross regional product for the region consisting of the final value of all goods and services arising from the original military spending are divided into and described by the following expenditure categories: consumption expenditures; investment expenditures; state and local government revenues; and exports from and imports into the Northwest Florida economy.

Table 18: Northwest Florida Economic Impact Estimates
(\$ millions)

Description	Estimated Economic Impact		
	2008	2010	2013
Total Sales	\$12,816.3	\$14,486.3	\$14,795.6
Total Employment	178,758	185,153	168,049
Total Consumption	\$10,735.9	\$11,892.8	\$13,318.2
Investment Residential	\$1,356.9	\$2,434.2	\$2,392.6
Investment Non-Residential	\$540.3	\$730.2	\$756.4
Producers Durable Equipment	\$223.0	\$578.2	\$1,093.8
Business Inventories	-\$7.2	\$5.5	\$2.9
Government	\$1,599.1	\$1,865.7	\$1,955.8
Exports	\$1,896.2	\$1,459.1	\$596.3
Imports (subtract)	\$2,063.0	\$2,920.8	\$3,072.9
Gross Regional Product	\$14,281.2	\$16,044.9	\$17,043.2

4.4.2.1 EMPLOYMENT AND WAGES

Department of Defense spending in Northwest Florida directly and indirectly accounts for 178,758 jobs. These employees earned gross wages of \$3.5 billion. Sources of wage income by sector include: Construction (\$458.2 million); Manufacturing (\$66.5 million); Wholesale Trade (\$135.6 million); Retail Trade (\$395.8 million); Information (\$100.3 million); Finance and Insurance (\$223.7 million); Professional and Technical Services (\$632.7 million); Administrative and Waste Services (\$318.6 million); Accommodation and Food Services (\$168.2 million); and Other services, excluding Government (\$194.1 million).

4.4.2.2 REVENUES AND GROSS REGIONAL PRODUCT

The combined spending inputs of \$6.2 billion circulated through the Northwest Florida economy and generated gross sales revenue of \$12.8 billion in 2008. The latter amount includes direct Department of Defense spending in the region, other spending flowing from wages and transfer payments, plus spending associated with the multiplier effect as initial recipients re-spent their earnings and receipts. Gross sales revenue includes both sales to final users as well as business-to-business (intermediate) sales. It incorporates the value of goods and services produced and

sold in the state, imported into the state, as well as those exported from the state. When both imports and exports are considered and the value of intermediate transactions removed, **the contribution of defense spending to the gross regional product of the Northwest Florida economy is \$14.3 billion. The gross**

The contribution of defense spending to the gross regional product of the Northwest Florida economy is \$14.3 billion. The gross regional product attributable to defense expenditures in Northwest Florida is predicted to reach \$17 billion by 2013.

regional product attributable to defense expenditures in Northwest Florida is predicted to reach \$17 billion by 2013.

4.4.2.3 CONSUMPTION SPENDING

Consumption expenditures totaled \$10.7 billion. This consumption consisted of purchases of food (\$1.1 billion); housing (\$1 billion); transportation (\$298.3 million); medical care (\$1.8 billion); computers and furniture (\$1 billion); vehicles and parts (\$647.4 million); clothing (\$403.5 million); household operating (\$570 million); other durables (\$438.4 million); non-durables (\$1.1 billion); and other services (\$2.1 billion).

By 2013, consumption is forecast to reach \$13.3 billion.

4.4.2.4 INVESTMENT SPENDING

Investment expenditures attributable to defense spending in Northwest Florida were estimated at \$1.9 billion in 2008. These expenditures were used to invest \$1.36 billion in residential real estate and \$540.3 million in non-residential real estate. Investment in durable equipment by business owners amounted to \$223 million.

The projected value of direct residential real estate investments in the year 2013 is \$2.4 billion, and non-residential real estate \$756.4 million. Business investment in capital equipment is projected to increase to \$1 billion in 2013.

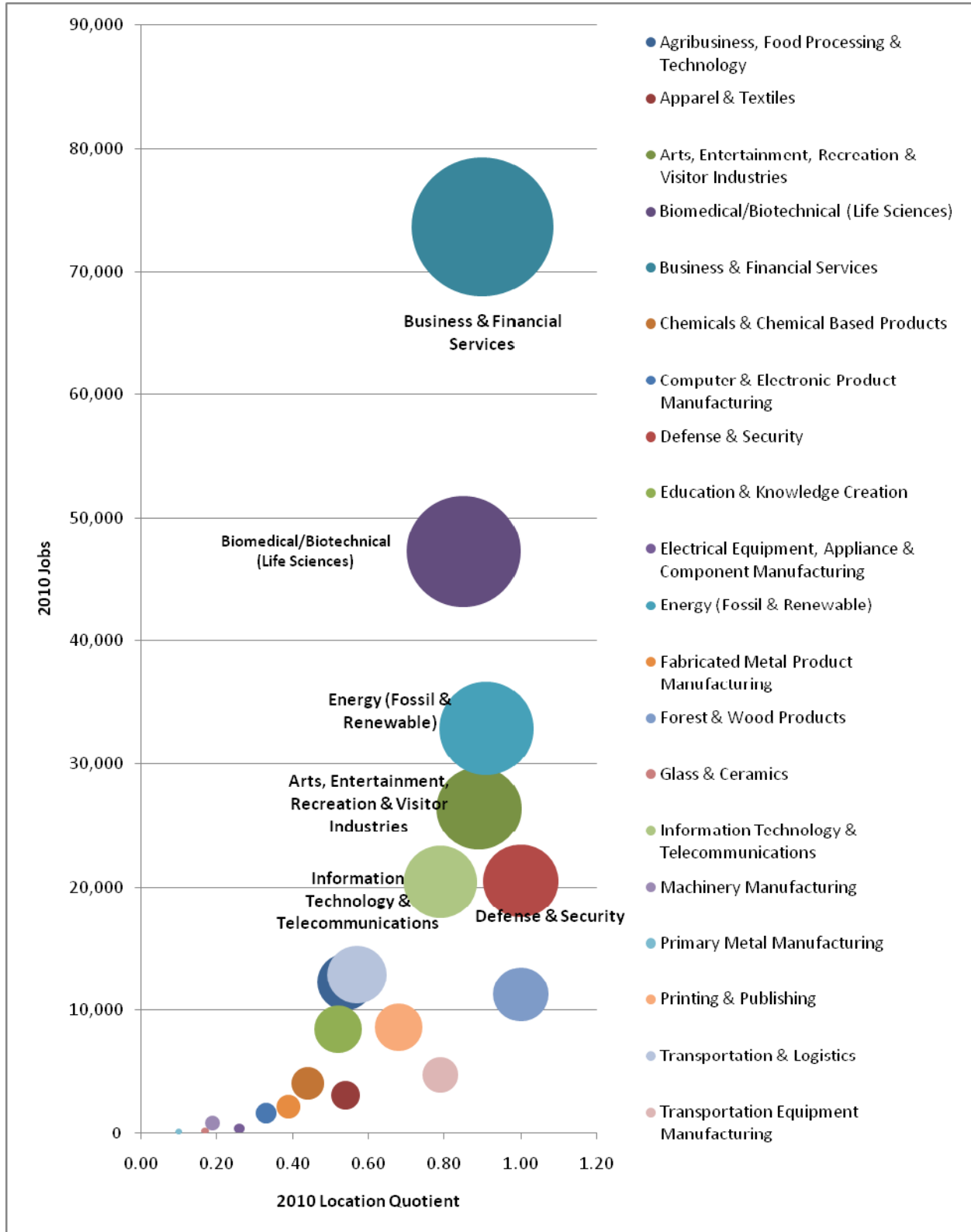
4.4.2.5 STATE AND LOCAL GOVERNMENT SPENDING

The impact on state and local government expenditures attributable to defense spending were estimated at \$1.6 billion for 2008 and projected to reach \$1.9 billion by 2013.

4.4.3 NORTHWEST FLORIDA INDUSTRY CLUSTER PROFILE

Militaries have played large roles in Northwest Florida's economy since Europeans first tried to settle the region in the Sixteenth Century. Today, the Northwest Florida region comprises Escambia, Santa Rosa, Okaloosa, Walton, Bay, Taylor, Madison, Jefferson, Wakulla, Leon, Franklin, Liberty, Gadsden, Gulf, Calhoun, Jackson, Washington and Holmes counties, is home to six major military installations, including Naval Air Station Pensacola, Tyndall Air Force Base in Bay County, and Eglin Air Force Base in Okaloosa County. In addition to directly employing Northwest Florida residents and bringing in new consumers (those who transfer from other bases), the military installations in the region generate employment by contracting with local business and national businesses that have facilities in the area. A cluster of business of these businesses that cater to the local military installations have developed over the years—particularly in Okaloosa County, where military spending is responsible for close to two-thirds of economic activity. See Figure 15.

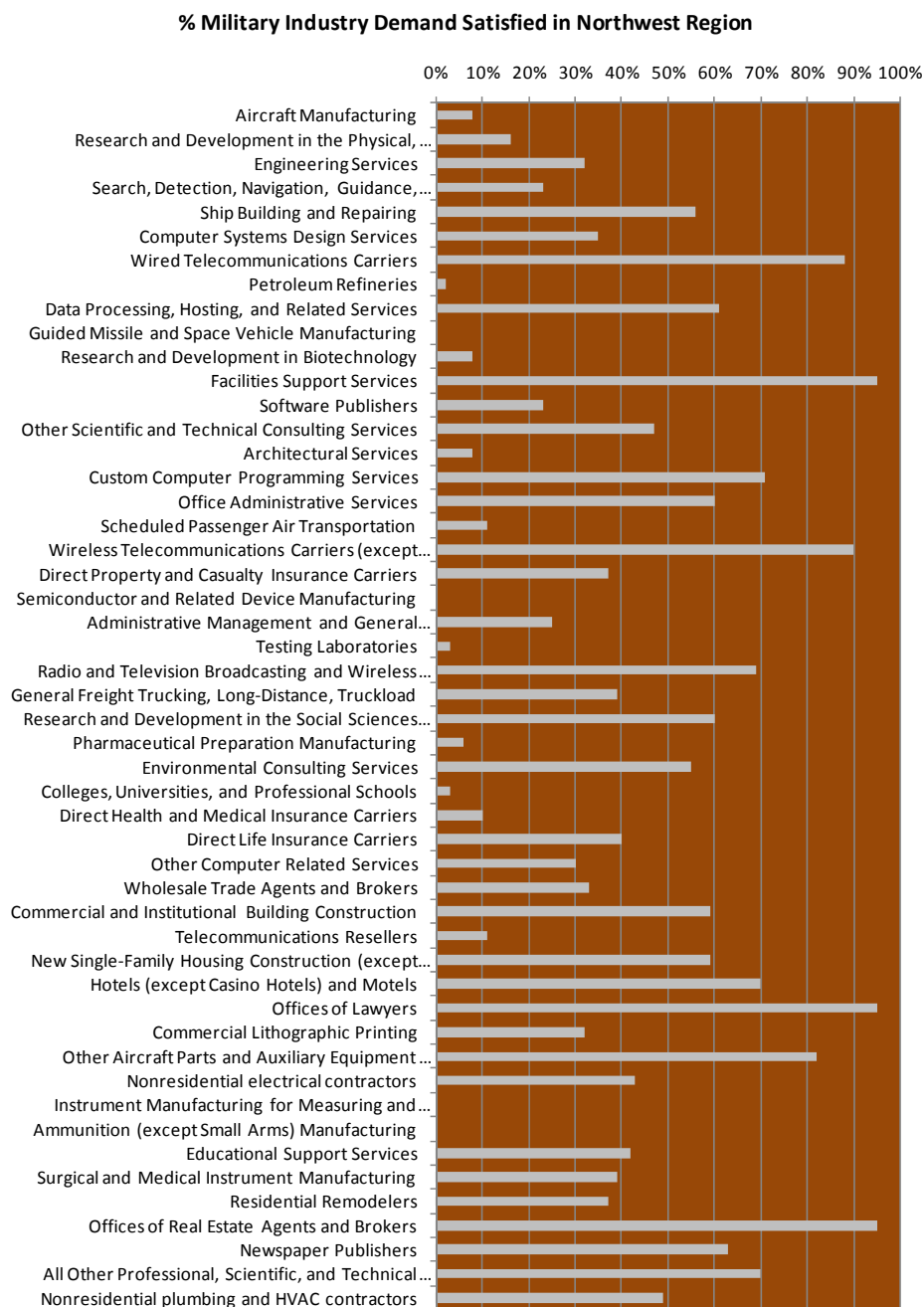
Figure 15: Northwest Florida Industry Cluster



4.4.3 NORTHWEST FLORIDA SUPPLY CHAIN ANALYSIS

A gap analysis shows how much the defense industry purchases from various other industries (its “requirements”), along with how much of that amount is satisfied by industries inside the Northwest Florida region. This reveals the defense industry’s level of reliance on outside imports and “gaps” in the regional supply chain. See Figure 16.

Figure 16: Northwest Florida Military Industry Demand



5. REGIONAL CONCENTRATION RISK

Most individuals intuitively recognize that heavy reliance on any single provider introduces risk that perhaps could be diversified away. From this concept springs the admonition to not put “all your eggs in one basket.” To examine the extent of the regional dependence on defense spending, the regional gross product is compared to the estimated gross product derived from defense spending in each region. Table 19 presents the defense induced gross regional product as a percentage of the estimated total regional product for each region as well as the State as a whole.

Table 19: Regional Gross Product Comparison (\$ billion)
Fiscal Year 2008

	Gross Regional Product	Defense Induced		Direct Defense Spending
		Gross Regional Product	Percent	
Northwest Region	\$57.22	\$14.28	25.0%	6.23
Northeast Region	\$103.83	\$14.25	13.7%	4.18
Central Region	\$367.73	\$19.43	5.3%	13.98
South Region	\$369.62	\$10.18	2.8%	3.10
Florida Total	\$775.45	\$58.14	7.5%	27.49

Defense spending in Florida explains an estimated 7.5 percent of the state’s gross product. There is less concentration and therefore less reliance in the central and southern regions of the state than in the northern half. Northwest Florida is most heavily reliant on defense spending with 25 percent of its economic product induced by defense spending.

6. CONCLUDING REMARKS

This study is designed and conducted to answer the hypothetical question, “what would the economic impact be if all defense related spending in Florida ceased?” To answer this question data were gathered from various sources to identify and measure defense spending. The Department of Defense spent approximately \$30 billion in the state of Florida in fiscal year 2008.

All 67 Florida counties benefit from defense spending. In 64 of the 67 counties the level of spending exceeded \$4.0 million. Because of the dispersion of veterans, retirees and military installations around the state, expenditures are reasonably divided between the four regions. Regional direct defense spending ranged from a high in Central Florida (\$13.9 billion) to a low in South Florida (\$3.1 billion). Over forty percent of the funds were expended in the procurement of goods and services to support mission and operational activities; over one-third for retirement obligations; and, the balance for active-duty and civilian salaries. As these funds circulated within the Florida economy they generated another \$20.2 billion in gross product, producing a combined gross regional state product of \$58.1 billion, representing 7.5 percent of Florida’s Total Gross Product. **By the year 2013, this measure of output is predicted to reach \$67.7 billion.**

An estimated 686,181 Florida jobs are directly and indirectly attributable to defense spending. As with total spending, employment effects are dispersed around the state. Central Florida accounts for 33 percent or 226,458 jobs while South Florida has the fewest jobs at 17.3 percent or 118,659 jobs. State and local government expenditures induced by defense spending were slightly below \$1.3 billion.

7. BIBLIOGRAPHY

Complete Economic and Demographic Data Source 2010. Woods and Poole Economics, Inc. Washington, DC: 2010.

Department of Defense, *National Defense Budget Estimates for FY 2011*. Washington, DC: Office of the Under Secretary of Defense (Comptroller), March 2010.

Fishkind and Associates. *The Economic Impacts of Military Base Activity in Florida: 1997*. Orlando, FL: Fishkind and Associates, 1998.

Projected Defense Purchases: Detail by Industry and State, Calendar Years 2007 through 2010. Washington, DC: Economic and Manpower Analysis Division, Office of the Director, Program Analysis and Evaluation, Office of the Secretary of Defense, October 2009.

Publication L03: Department of Defense Atlas/Data Abstract for the United States and Selected Areas. Washington, DC: Washington Headquarters Services, Directorate for Information Operations and Reports (WHS/DIOR), April, 2009.

REMI PI+® Version 1.1.14 (Build 2182) Regional Economic Models, Inc., Amherst, MA. 2009.

U.S. Census Bureau, *Consolidated Federal Funds Report for Fiscal Year 2008*, Washington, DC: GPO, 2009.

U.S. Department of Commerce, Bureau of Economic Analysis, Regional Input Output Modeling System (RIMS II): *Estimation, Evaluation, and Application of a Disaggregated Regional Impact Model* (Washington, DC: GPO, 1981).

APPENDIX 1: LIST OF MILITARY INSTALLATIONS IN FLORIDA

Avon Park Air Force Range
Blount Island Command
Cape Canaveral Air Force Station
Camp Blanding
Eglin Air Force Base
Homestead Air Force Base
Hurlburt Field
MacDill Air Force Base
Naval Air Station Jacksonville
Naval Air Station Key West
Naval Air Station Pensacola
Naval Air Station Whiting Field
Naval Station Mayport
Naval Support Activity Panama City
Naval Technical Training Center Corry Station
Patrick Air Force Base
Saufley Field
Team Orlando
Tyndall Air Force Base
US Central Command
US Southern Command
US Special Operations Command

APPENDIX 2: METHODS USED IN THE ANALYSIS

DATA CONCEPTS

Detailed expenditure data were requested from each of the 20 military installations located in Florida. Responses were tabulated and compared by type of expenditure to information generated from other sources. [These data sources included, among others, the Consolidated Federal Funds Report for Fiscal 2008 and previous years and calculations provided by Woods and Poole Economics, Inc.] Other state and federal data sources included Department of Defense (DoD) information such as the L03 Atlas/Data Abstract for the US and Selected Areas for Fiscal 2008 and Prime Contract Awards by State/County for Fiscal 2008, as well as other secondary data from other sources.

These data were compiled, evaluated for consistency, and either used or not depending on the level of detail available from the several alternative sources. Given that the objective was to calculate the economic impact of defense-related spending in the Florida economy, a broader and more inclusive data definition was chosen over an installation specific level of defense spending aggregation.

SOURCES OF IMPACT

This analysis captures the impact of defense-related expenditures that flow into the state of Florida. Defense spending impacts are derived from a number of sources. They may arise via defense spending done directly for Florida goods and services (e.g., procurement expenditures with Florida firms, wages paid to Florida households with active duty servicemen and women, DoD payments to military retirees in Florida). They may also arise from defense spending not specifically targeted at Florida firms or DoD employees that directly generate other Florida economic activity (e.g., exports of Florida-produced goods driven by defense procurement in other states, presence of military spouses in the Florida economy).

These spending flows generate income for businesses and workers in the defense industry supply chain. As these spending flows move through the economy, some is spent in other states (e.g., a Florida serviceman or woman buys a new car produced in Tennessee), generating economic impact in those areas. This latter effect is characterized as indirect (spending by businesses flowing to other businesses in the supply chain), or induced (spending done by households using their income

generated by these direct and indirect spending flows). The analysis presented here is intended to capture the total Florida output, or gross state product, driven by direct, indirect, and induced defense-related spending flows.

There are several types of direct expenditure components. One such category is procurement expenditures. These are dollar flows representing contracts or purchases throughout the state by installations and other defense entities for goods and services. Procurement dollar flows have risen over time as the military has outsourced more and more goods and services from private sector providers, rather than producing them through use of military personnel and other resources. Examples of procurement expenditures include prime contract awards to a university to conduct weapons development research, or to a firm to provide architectural services, or to a business to build on-base housing.

Personnel expense was a major spending category; it included the cost of wages and benefits paid to active duty officers and enlisted service members, as well as reserve and National Guard military personnel. Additionally, appropriated fund civil service personnel were counted, as were non-appropriated personnel such as non-appropriated fund employees, private business employees (e.g., on-base bank), exchange personnel, and the like. A particularly important component of total defense-related spending was transfer payments, including military retirement pay. Veteran's Administration expenditures were also quite substantial.

Many of the spending categories are not driven by particular installation operating budgets, but are instead identifiable by County. These include retirement pay, Veteran's Administration spending, and other non-installation spending flows, such as DoD grants and contracts for university-based research, or ROTC programs, or Corps of Engineers spending. For these reasons, county level spending data were generally preferred to installation data in order to more accurately characterize the size of defense-related spending. However, installation-specific data generally offered more specific detail (e.g., spending purpose associated with a particular procurement contract). While county-based flows are used as the basis for this analysis, a machine-readable database has been constructed where specific contract flows are enumerated.

The Census Bureau's Consolidated Federal Funds Report (CFFR) presents data on Federal Government expenditures or obligations. The CFFR provided an excellent

source of expenditure data on other military related programs. Statistics cover grants to state and local governments, salaries and wages, procurement contracts, direct payments for individuals, and some other major programs. The report also includes government loans and insurance, as well as total direct spending for defense and non-defense functions. The CFFR was also used to validate other sources of data. Other general base information including number of quarters, strength, hospital rooms, recreational facilities, etc. were obtained from available public sources including military affiliated publications.

The Defense Department, Directorate for Information, Operations and Reports of the Washington Headquarters Services, provides information for the CFFR on military payrolls, with separate amounts for active military and inactive military (Reserve and National Guard). Amounts reported represent estimates of fiscal year outlays by state and county, and include gross compensation. This covers salaries and wages, housing allowances, and in general all other personnel compensation, except retired military pay. We do not include amounts for military personnel stationed overseas. These flows are large for Florida, due to the presence of the U.S. Southern Command, U.S. Central Command and U.S. Special Operations Command who coordinate considerable overseas military operations.

DATA COLLECTION ISSUES

Military personnel estimates were compiled from several sources. Personnel numbers used in model development were those provided by Woods and Poole Economics, Inc. (Woods and Poole) CEDDS database, the DoD's L03 Atlas/Data Abstract for the US and Selected Areas for Fiscal 2008, and the DoD's M02 Distribution of Personnel by State and by Selected Locations. The CEDDS database provides county level federal military employment numbers that include Army, Navy, Air Force, Marine Corps, and National Guard employment, both active duty and civilian, full and part-time employment. Woods and Poole employment numbers are typically higher than those reported from other sources because they measure more kinds of employment.

Income and wage estimates were also compiled or calculated from the above sources. Total wage expenditures are reported in the CFFR and allow direct calculation of average wage (including relevant fringe benefits) for active-duty

military personnel as well as for other military employees. For purposes of comparing average earnings across all Florida jobs with average earnings across military jobs, Woods and Poole data were used in order to ensure direct comparability in earnings concepts. These data are obtained from the Bureau of Economic Analysis and are on a place of work, rather than place of residence, basis, so that earnings are attributed to the county where the job is.

In this study, the question is posed: "What would the economy of the state of Florida look like in the absence of DoD spending?" A typical economic impact study instead asks: "what is the economic impact in local area x of spending y new dollars on project z?" In the latter situation, it would be correct to measure the value of procurement contracts to firms located in Florida counties as a spending input. However, a substantial fraction of this funding is spent out of the state. This effect is correctly accounted for through the use of regional purchase coefficients.

ECONOMIC MODEL

There are several types of models typically used to calculate economic impacts. Input-output models use financial flow data generated from businesses' accounting data, and spending patterns for households of particular income levels, to describe the economic linkages that exist within a regional economy. These models begin with U.S. government-generated county level data on business purchases and receipts in order to model the inputs that are used from across the many sectors of the economy in the production of particular goods and services. The level of geographic and commodity detail can vary from production of printing ink, to storage batteries, to banking services in a geographic area as small as a zip code or as large as the national economy. The most commonly reported and useful level of detail is county-level geography at the 1 to 6 digit North American Industry Classification System (NAICS) level of commodity detail, whereas the previous 2003 report was conducted with the 1, 2, and 3 Standard Industrial Classification (SIC) code level of commodity detail. Examples of these models include the RIMSII modeling system from the US Department of Commerce and the IMPLAN modeling system from MIG, Inc. of St. Paul, MN.

Econometric simulation models combine the sector detail and geography detail of input/output models but provide for functioning economic linkages between sectors and regions over time. The current study uses REMI PI+ Version 1.1.14 (Regional

Economic Models Inc.), in a 67 region (one for each county) structural econometric model of the state of Florida while the previous 2007 study employed REMI Policy Insight, Version 9.0. It incorporates the basic input/output linkages, but also uses econometrically estimated county-specific parameters, for example, interregional migration in response to changes in economic opportunities, in generating impact results. Because of these between-sector linkages, the model incorporates general equilibrium tendencies as the economy responds to shocks over time. That is, changes in spending in a region affect not just conditions in that market, but also in other markets within the region (economists term this a “general equilibrium”) and outside the region (via trade and also via migration in response to changes in economic opportunities). This is in contrast to traditional input-output models that are both static (all effects are assumed to occur simultaneously, so there is no adjustment path over time) and partial equilibrium (e.g. changes in employment do not change wage rates) in nature. This describes the phenomenon whereby, for example, a new financial services back office call center opens in a county, and bank managers throughout the county find they have to give staff a raise in order to keep them from leaving to take a job at the new call center. A traditional input-output model description of the economic impact would have held everything else fixed (including bank wages across the county) and simply documented the employment and job creation effects resulting directly at the new call center and indirectly via businesses in its supply chain, as well as household spending induced by the new income flows.

A simulation model such as REMI captures not only the spending effects flowing from the call center and its local suppliers and employees and owners, but also the spillover effects into other markets as wages and prices change due to competition for the same employees and other resources. These are the general equilibrium (equilibrium across all markets simultaneously) tendencies of the model. It also simulates the adjustment path over time of these market responses, using historical parameters estimated specifically for that county (the dynamic component). A rule of thumb is that the smaller the spending change being considered, the more appropriate it is to use the traditional input/output model. However, the general equilibrium and dynamic characteristics of an economic simulation model are particularly important when considering “large” changes. The presence or absence of \$20 billion presence of direct military spending in Florida is a “large” change, because spending of this magnitude is likely to have spillover impacts in other markets not directly in the defense-related supply chain.

The approach used in this simulation study was to construct a regional baseline forecast extending through 2050 for each of the 67 regions (Florida counties). This forecast was developed based on US 2007 macroeconomic data, which is the last full year of data adequate to run the REMI simulation. REMI model policy variables were then selected and an intervention constructed based on data collected from data year 2008 secondary sources. The model was then run with the military spending interventions in place, in order to simulate a Florida economy with no military spending occurring in Florida. The differences between the baseline forecast and the forecast with the interventions comprise the results or the causes associated with the given effects.

One other benefit of using an economic simulation model is particularly important when considering large spending flows. In an input-output model, impacts are usually measured as gross impacts, or additions to the area's economy without consideration of the extent to which, for example, a project's use of labor force may make labor more expensive to other businesses, or require additional infrastructure investment. The use of REMI attenuates this problem and so comes closer to an estimate of net, rather than gross, economic impacts because of the feedback effects present in this simulation model.

REPORTING

Economic impacts can be reported in different ways. Defense spending creates jobs, directly in the military and civilian ranks as well as in defense-related industries in the supply chain and in the broader economy where households spend their income. Thus, a job count is an appropriate way to measure impact; it is an intuitive concept and provides a broad measure of economic opportunities created for workers. It has the shortcoming that not all jobs are equal, differences in industry structure between regions and differences in pay for similar jobs due to other factors (e.g., quality of life) may mean that jobs in one region are different from jobs in another region.

Defense spending creates sales, both final (to consumers) and intermediate (to businesses). Thus, the magnitude of total spending is often provided in economic impact calculations. However, calculation and reporting of the dollar value of all sales associated with new defense spending creates a risk of double counting, since

the cost of inputs is included in the value of the final product. For example, the delivered price of a new car includes the cost of the tires, the battery and other components purchased from suppliers, and even though we can measure the dollar value of all those transactions, they are implicitly included in the final sale price of the car.

Defense spending creates personal income, both to workers (wages, salaries, fringe benefits and other compensation) and to business owners (proprietors' income). To the extent that these workers and owners spend their income in the local economy, there will be spin-off benefits and local economic impact associated with the flow. To the extent that the workers and owners are from other regions and spend their income elsewhere, personal income may not be an accurate indicator of local impact. Projects may also create wealth, because part of the income flowing from this economic activity may be saved and invested in order to provide future income and consumption. The type of wealth creation due to increased flows of saving is already accounted for when we calculate personal income because saving and subsequent investment flows are financed out of personal income. On the other hand, we may observe appreciation of existing assets due to new economic activity, e.g., values of existing properties may increase due to the presence of new regional spending.

Perhaps the most widely accepted measure of economic impact is the increase in gross regional product (GRP) resulting from the presence of new spending flows. The increase in GRP is measured as the addition to the money value of all final goods and services produced within the region during a given time period. Because it measures final goods and services, it avoids the double counting inherent in the "total spending" measure. Because it incorporates leakages from regional income flows and from regional spending flows, it measures regional, as opposed to total (which would include national and international effects). This concept can be viewed as the value that is added within the region as part of the production process. Regional value-added, or addition to GRP, is the concept that we report most frequently in this report.

Any of these effects may imply the presence of fiscal impacts, such as additional tax revenue or additional government expenditure required by the economic activity. It should be noted that we do not consider the payment of federal and/or state and

local taxes (which finance military spending) by Florida residents and businesses in this report.

APPENDIX 3: DEFENSE SPENDING BY REGION AND COUNTY

2000-2009

Company	Number of		FL Region Location
	Contracts, 2000-2009	Dollar Amount, 2000-2009	
Northrop Grumman Systems	173	\$ 4,888,232,155	Central
International Oil Trading Company Limited	7	\$ 2,671,242,369	South
General Dynamics Ordnance	171	\$ 2,466,956,889	Central
Readiness Management Support, L.C.	37	\$ 2,175,765,403	Northwest
Raytheon E-Systems, Inc.	329	\$ 1,967,704,809	Central
DRS Sensors & Targeting Systems, Inc.	200	\$ 1,894,513,490	Central
IAP Worldwide Services, Inc.	222	\$ 1,570,627,204	Northwest
IAP Worldwide Services, Inc.	161	\$ 1,513,136,436	Central
Harris Corporation	726	\$ 1,492,681,465	Central
Boeing North American, Inc.	134	\$ 1,281,548,840	Northwest
Tybrin Corporation	152	\$ 1,256,796,113	Northwest
DRS Tactical Systems, Inc.	80	\$ 1,056,575,221	Central
Sauer Incorporated	222	\$ 1,033,176,291	Northeast

Source: Governmentcontractswon.com

County	Number of Defense Contractors, 2000-2009	Number of Defense Contracts Awarded, 2000- 2009	Dollar Amount of Defense Contracts Awarded, 2000-2009
Alachua	149	1,684	\$475,703,880
Baker	2	4	\$17,146
Bay	356	4,716	\$4,249,180,454
Bradford	16	159	\$6,043,817
Brevard	605	10,941	\$16,493,659,260
Broward	845	24,061	\$3,440,266,548
Calhoun	2	6	\$1,209,839
Charlotte	35	550	\$12,871,551
Citrus	30	294	\$7,802,954
Clay	155	943	\$144,904,422
Collier	78	1,607	\$73,228,004
Columbia	9	21	\$7,147,910
DeSoto	6	32	\$1,044,481
Dixie	2	16	\$58,735
Duval	1,150	13,022	\$5,828,602,163
Escambia	524	8,960	\$1,850,954,615
Flagler	19	99	\$3,358,855
Franklin	2	13	\$85,720
Gadsden	14	29	\$1,416,560
Gilchrist	0	0	\$0
Glades	4	19	\$468,378
Gulf	13	69	\$9,469,992
Hamilton	2	2	\$6,320
Hardee	4	9	\$642,620
Hendry	16	49	\$6,339,599
Hernando	31	192	\$6,666,900

Highlands	46	241	\$15,701,952
Hillsborough	839	9,409	\$6,149,643,307
Holmes	15	109	\$40,142,680
Indian River	35	232	\$36,696,851
Jackson	28	87	\$2,196,726
Jefferson	4	11	\$264,512
Lafayette	3	15	\$33,401,282
Lake	69	475	\$33,770,771
Lee	124	911	\$115,878,471
Leon	151	1,326	\$419,761,633
Levy	7	60	\$13,039,703
Liberty	4	20	\$135,959,893
Madison	5	20	\$144,311
Manatee	117	3,821	\$567,953,971
Marion	89	461	\$74,655,910
Martin	86	1,296	\$313,823,768
Miami-Dade	989	18,307	\$3,503,052,863
Monroe	120	620	\$87,499,974
Nassau	32	211	\$18,961,618
Okaloosa	449	5,796	\$6,681,597,616
Okeechobee	9	42	\$15,697,818
Orange	751	16,696	\$26,342,995,854
Osceola	50	345	\$32,568,011
Palm Beach	545	8,753	\$4,436,361,773
Pasco	68	2,436	\$1,349,808,558
Pinellas	603	12,170	\$8,372,219,658
Polk	153	842	\$374,889,058
Putnam	14	49	\$1,084,350
St. Johns	140	1,361	\$1,529,049,479
St. Lucie	32	119	\$25,609,896

Santa Rosa	144	734	\$197,714,483
Sarasota	117	1,651	\$161,517,831
Seminole	259	4,173	\$496,507,999
Sumter	13	606	\$51,385,872
Suwannee	14	36	\$404,334
Taylor	12	312	\$258,935,479
Union	7	18	\$2,065,165
Volusia	177	1,763	\$760,734,989
Wakulla	9	96	\$11,916,378
Walton	32	177	\$6,516,503
Washington	18	178	\$47,887,037

Source: Governmentcontractswon.com

APPENDIX 4: GLOSSARY

Aggregate demand. Aggregate demand is the total amount that all consumers, business firms, and government agencies are willing to spend on final goods and services.

Analysis of economic impact. An assessment of change in overall economic activity as a result of some corresponding change in one or several activities.

Backward linkage. Links an industry to its suppliers or a household (an institution) and the producers of household goods and services. The figures in this report are measures of backward linkages.

Concentration. Concentration of an industry measures the share of the total sales or assets of the industry in the hands of its largest firms.

Correlated. Two variables are correlated if they tend to go up or down together. Correlation need not imply causation.

Disposable income. Disposable income is the sum of the incomes of all the individuals in the economy after all taxes have been deducted and all transfer payments have been added.

Economic model. An economic model is a simplified, small-scale version of some aspect of the economy. Economic models are often expressed in equations, by graphs or in words.

Equilibrium. Equilibrium is a situation in which there are no inherent forces that produce change. Changes away from an equilibrium position will occur only as a result of “outside events” that disturb the status quo.

Exports. Goods and services sold outside the boundaries of the economic entity being measured,

Final goods and services. Final goods and services are those that are purchased by their ultimate users.

Gross domestic product (GDP). Gross domestic product is the sum of the money values of all final goods and services produced in the domestic economy and sold on organized markets during a specified period of time.

Gross regional product (GRP). Gross regional product is analogous to gross domestic product but is for a sub-set of the entire domestic economy. It can be any size market and is usually defined along geographical boundaries.

Imports. Goods and services purchased from outside the economic unit being measured.

Intermediate good. An intermediate good is a good purchased for resale or for use in producing another good.

Multiplier. The multiplier is the ratio of the change in equilibrium divided by the original change in spending that causes the change. 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.

Outputs. Outputs are the goods and services that consumers want to acquire.

Transfer payment. Payment to individuals arising from an entitlement created by law. Usually funded from current period budgetary appropriations. Examples include retirement pay to military retirees, as well as the costs of other retirement benefits.

Value added. The value added by a firm is its revenue from selling a product minus the amount paid for goods and services purchased from other firms.

APPENDIX 5: ACRONYMS

AAC	Air Armament Center
AAMDC	Army Air and Missile Defense Command
AB	Air Base
ABW	Air Base Wing
AC2ISRC	Aerospace Command and Control and Intelligence, Surveillance and Reconnaissance Center
ACC	Air Combat Command
ACMI	Aircraft Combat Maneuvering Instrumentation
ADT	Active Duty for Training
AEATS	Aviation Enlisted Aircrew Training School
AEMS	Armament and Electronic Maintenance Squadron
AF	Air Force
AFAMS	Air Force Agency for Modeling and Simulation
AFB	Air Force Base
AFC2TIG	Air Force Command and Control Training and Innovation Group
AFCESA	Air Force Civil Engineer Support Agency
AFDTC	Air Force Development Test Center
AFMSPD	Air Force Modeling and Simulation Professional Development
AFMSRR	Air Force Modeling and Simulation Resource Repository
AFOTEC	Air Force Operational Test and Evaluation Center
AFRL	Air Force Research Laboratory
AFRL/MD	Air Force Research Lab, Munitions Directorate
AFSERS	Air Force Synthetic Environment for Reconnaissance and Surveillance
AFSOC	Air Force Special Operations Command
AFSPC	Air Force Space Command
AIA	Air Intelligence Agency
AICUZ	Air Installation Compatible Use Zone
AIMD	Aircraft Intermediate Maintenance Detachment
AMC	Air Mobility Command
AMRAAM	Advanced Medium Range Air-to-Air Missile
AMW	Air Mobility Wing
ANG	Air National Guard
AOC	Air Operations Center

APAFR	Avon Park Air Force Range
APD	Armament Product Directorate
API	Aviation Preflight Indoctrination
APS	American Port Services
ARI	Army Research Institute
ARL	Army Research Laboratory
ARNG	Army National Guard
ASMD	Anti-Ship Missile Defense
ASTC	Aviation Survival Training Center
ASTE	Armament Systems Test Environment
ASUW	Anti-Surface Warfare
ASW	Anti-Submarine Warfare
ATCAA	Air Traffic Control Assigned Airspace
AWE	Aircraft/Weapons/Electronics
AWSIM	Air Warfare Simulation
BIC	Blount Island Command
BRAC	Base Realignment and Closure
C2WS	Command and Control Warrior School
CATT	Combined Arms Tactical Trainer
CBU	Construction Battalion Unit
CCAFS	Cape Canaveral Air Force Station
CCAS	Cape Canaveral Air Station
CCTT	Close Combat Tactical Trainer
CDC	Child Development Center
CENEODDIVE	Center for Explosive Ordnance Disposal and Diving
CENTCOM	U.S. Central Command
CES	Civil Engineering Squadron
CFFR	Consolidated Federal Funds Report
CNATRA	Chief of Naval Training
CNET	Center for Naval Education and Training
CNO	Chief of Naval Operations
COI	Coastal Operations Institute
CRD	Common Route Definition
CREDO	Chaplain's Religious Enrichment Development Operation
CSAR	Combat Search and Rescue
CSS	Coastal Systems Station
DBCRC	Defense Base Closure and Realignment Commission

DBOF	Defense Business Operation Fund
DCMA	Defense Contract Management Agency
DCMS	Duval County Medical Society
DDMS	Department of Defense Manned Space Flight Support
DEA	Drug Enforcement Agency/Administration
DEPPS	Defense Employment and Purchases Projection System
DFAS	Defense Finance and Accounting Service
DIA	Defense Investigation Agency
DJC2	Deployable Joint Command and Control System
DMO	Distributed Mission Operations
DoD	Department of Defense
DSS	Defense Security Service
DUC	Deployed Unit Complex
EAF	Expeditionary Airfield
EEO	Equal Employment Opportunity
EGLIN	Eglin Air Force Base
EOD	Explosive Ordnance Disposal
ESC	Electronic Systems Command
EW	Electronic Warfare
FACSFAC	Fleet Area Control and Surveillance Facility
FANG	Florida Air National Guard
FBIS	Foreign Broadcast Information Service
FFSC	Fleet and Family Support Center
FLTS	Flight Test Squadron
FMS	Field Maintenance Squadron
FOL	Forward Operating Location
FPM	Flight Performance Modeling
FW	Fighter Wing
FY	Fiscal Year (Federal FY is October 1 – September 30)
GDP	Gross Domestic Product
GRP	Gross Regional Product
HIRSS	Hover Infrared Suppression System
HLA	High Level Architecture
HPC	Human Performance Center
HRED	Human Research and Engineering Directorate
ICBM	Intercontinental Ballistic Missile
I EWTP	Intelligence Electronic Warfare Tactical Proficiency Trainer

IRTC	Replacement Training Center
IST	Institute for Simulation and Training
ITL	Integrate-Transfer-Launch
JAG	Judge Advocate General
JAXPORT	Jacksonville Port Authority
JFC	Joint Force Commanders
JGRCSP	Joint Gulf Strategic Plan
JIATF	Joint Interagency Task Force
JIATF-E	Joint Interagency Task Force-East
JIATF-W	Joint Interagency Task Force-West
JPATS	Joint Primary Aviation Training System
JRTC	Joint Readiness Training Center
JSB	Joint Synthetic Battlespace
JSIMS	Joint Simulation Systems
JSOU	Joint Special Operations University
JTF	Joint Task Force
KSC	Kennedy Space Center
LSS	Logistics Support Squadron
MAC	Military Airlift Command
MATSG	Marine Aviation Training Support Group
MCSC	Marine Corps Systems Command
MEC	Mission-Essential Competency
MEDEVAC	Medical Evacuation
MET	Mobile Environmental Team
METOC	Meteorological and Oceanographic
MMS	Munitions Maintenance Squadron
MOS	Military Occupational Specialty
MOUT	Military Operations on Urban Terrain
MPF	Maritime Pre-positioning Force
MPR	Maritime Patrol and Reconnaissance
MPS	Maritime Prepositioning Ships
MSL	Mean Sea Level
NA	Naval Aviation
NABS	North Atlantic Treaty Organization Air Base Satellite
NADEP	Naval Aviation Depot
NAICS	North American Industrial Classification System
NAMRL	Naval Aerospace Medical Research Laboratory

NAMTRAGRU	Naval Air Maintenance Training Group
NAS	Naval Air Station
NASA	National Aeronautics and Space Administration
NASC	Naval Aviation Schools Command
NATTC	Naval Air Technical Training Center
NAVAIR	Naval Air
NAVDENCTR	Naval Dental Center
NAVSCOLEOD	Naval School Explosive Ordnance Disposal School
NCIS	Naval Criminal Investigative Service
NCOES	Non-Commissioned Officer Education System
NCP	Navy College Program
NCS	National Center for Simulation
NCSC	Naval Coastal Systems Center
NCTAMSLANT	Naval Computer and Telecommunications Area Master Station Atlantic Detachment
NDSTC	Naval Diving and Salvage Training Center
NEDU	Navy Experimental Diving Unit
NETC	Naval Education Training Command
NETPDTC	Naval Education and Training Program Development and Technology Center
NETPMSA	Naval Education and Training Program Management Support Activity
NETSAFA	Naval Education and Training Security Assistance Field Activity
NFO	Naval Flight Officer
NOAA	National Oceanic and Atmospheric Administration
NOLF	Navy Outlying Landing Field
NOMI	Naval Operational and Medical Institute
NORAD	North American Defense Command
NORU	Navy Recruiting Orientation Unit
NS	Naval Station
NSA	Naval Support Activity
NSG	Naval Security Group
NSW	Naval Special Warfare
NSWC	Naval Surface Warfare Center
NSWC/PC	Naval Surface Warfare Center/Panama City
NTTC	Naval Technical Training Center
OCS	Officer Candidate School

OMS	Organizational Maintenance Squadron
PCPI	Per Capita Personal Income
PCS	Permanent Change of Station
PEO STRI	Program Executive Office for Simulation, Training and Instrumentation
PFPS	Portable Flight Planning Software
PM	Program Manager
POMO	Production Oriented Maintenance Operations
PSandD	Procedures, Scheduling, and Documentation
PWC	Public Works Center
RandD	Research and Development
RDTandE	Research, Development, Test, and Evaluation
REMI	Regional Economic Models Incorporated
RESFORON	Reserve Force Squadron
RHS	Red Horse Civil Engineering Squadron
RIMS	Regional Impact Modeling System
Ro/Ro	Roll-on/Roll-off
ROTC	Reserve Officer Training Corps
SA	Seasonally Adjusted
SAC	Strategic Air Command
SAR	Search and Rescue
SBIR	Small Business Innovation Research
SEADS	Southeast Air Defense Sector
SECNAV	Secretary of the Navy
SERMC	Southeast Regional Maintenance Center
SFWOD	Special Forces Waterborne Operations Division
SIC	Standard Industrial Classification
SIMA	Shore Intermediate Maintenance Activity
SITE	Skills for Independence, Transition and Employment
SLBM	Sea Launched Ballistic Missile
SLC	Space Launch Complex
SMAB	Solid Motor Assembly Building
SMARF	Solid Motor Assembly and Readiness Facility
SMC	Space and Missile Systems Center
SOCC	Sector Operations Control Center
SOCOM	U.S. Special Operations Command
SOS	Special Operations Squadron

SOUTHCOM	U.S. Southern Command
SOW	Special Operations Wing
STG	Special Tactics Group
SWC	Space Warfare Center
TandE	Test and Evaluation
TAC	Tactical Air Command
TACP	Tactical Air Control Party
TACTS	Tactical Aircrew Combat Training System
TADSS	Training aides, devices, simulations, simulators
TDY	Temporary Duty
TES	Tactical Engagement Simulators
TEU	Twenty Foot Equivalent Units
TFW	Tactical Fighter Wing
TMD	Theater Missile Defense
TPI	Total Personal Income
TRASYS	Training Systems
TSD	Training Systems Division
UAVB	Unmanned Aerial Vehicle Battle (UAVB)
UBA	Underwater Breathing Apparatus
UCF	University of Central Florida
USA	United States Army
USACOM	United States Atlantic Command
USAF	United States Air Force
USMC	United States Marine Corps
USN	United States Navy
VERTREP	Vertical Replenishment
VSTOL	Vertical Short Take Off and Landing
WRTC	Weather Readiness Training Center