

Chapter 1 Florida Air Cargo System Plan Introduction

The purpose of this Chapter is to illustrate the population and economic conditions that currently prevail in the State of Florida, and to examine the State's trends in commerce and international trade activity. All these factors contribute to a healthy air cargo industry in the State.

FLORIDA ECONOMIC OVERVIEW

With a population of over 17 million residents, Florida is the fourth most populous and the third fastest growing state in the nation.¹ It garners national and international interest in demographic, economic, and social statistics from people interested in moving to or visiting the state, starting businesses, financing business ventures, or planning for the state's growth. Florida's population growth is due primarily to migration. Job opportunities, the climate, and other amenities have attracted huge numbers of people to Florida; the development of home air conditioning undoubtedly played a role as well, especially in recent decades (84 percent of Florida's homes were air conditioned in 1980, a higher proportion than found in any other state). These migrants have had a major impact on the economy, culture, and natural environment in Florida and have radically altered many of the state's demographic and socioeconomic characteristics. Statistics indicate over 1,000 persons per day migrate to Florida. **Exhibit 1.1** identifies historic population growth in the State from 1900 onward.

Exhibit 1.1
Florida Population Growth, 1900-2004

Decade	Population	Change	Percent Change
1900	528,542		
1910	752,619	224,077	42.4
1920	968,470	215,851	28.7
1930	1,468,211	499,741	51.6
1940	1,897,414	429,203	29.2
1950	2,771,305	873,891	46.1
1960	4,951,560	2,180,255	78.7
1970	6,791,418	1,839,858	37.2
1980	9,746,961	2,955,543	43.5
1990	12,937,926	3,190,965	32.7
2000	15,982,378	3,044,307	23.5
2004	17,516,732	1,534,354	9.6

Source: Bureau of Economic and Business Research

Education

Residents of Florida enjoy improving levels of educational attainment. In 2000, 26 percent of the region's residents over the age of 25 had post-secondary degrees, compared to 20 percent in

¹ Population Division, U.S. Census Bureau (2004, December 22), "Cumulative Estimates of Population Change for the United States and States, and for Puerto Rico and State Rankings: April 1, 2000 to July 1, 2004" NST-EST2004-02), retrieved February 4, 2005 from <http://eire.census.gov/popeststates/tables/NST-EST2004-02.xls>.

1989 (see **Exhibit 1.2**). Florida's post-secondary degree ranking compared among other states is steadily improving with Florida now ranked at 23 in the nation. At one point the State ranked 37th. In addition, high school graduation rates are steadily improving with nearly 86 percent of students graduating in 2004 up from 77.9 percent in 1989.

Exhibit 1.2
Florida Educational Attainment, 1989-2004

Year	Population 25 Years and Over (000)	High School Graduate or Higher			Bachelor's Degree or Higher		
		Number (000)	Percent	State Rank	Number (000)	Percent	State Rank
2004	11,489	9,869	85.9%	34	2,987	26.0%	23
2003	11,266	9,542	84.7%	36	2,907	25.8%	24
2002	11,051	9,205	83.3%	37	2,840	25.7%	26
2001	10,831	9,109	84.1%	34	2,664	24.6%	26
2000	10,156	8,531	84.0%	34	2,316	22.8%	37
1999	10,008	8,277	82.7%	36	2,162	21.6%	38
1998	9,990	8,182	81.9%	35	2,248	22.5%	26
1997	9,850	8,018	81.4%	33	2,137	21.7%	31
1996	9,641	7,857	81.5%	35	1,967	20.4%	36
1995	9,497	7,864	82.8%	25	2,099	22.1%	24
1994	9,250	7,520	81.3%	30	1,943	21.0%	29
1993	9,330	7,427	79.6%	35	1,847	19.8%	32
1991	8,853	7,056	79.7%	27	1,726	19.5%	32
1989	8,361	6,513	77.9%	26	1,655	19.8%	28

Source: www.census.gov/population/www/socdemo/educ-attn.html

Largest Companies in Florida

Florida is home to the headquarters of 14 Fortune 500 companies (see **Exhibit 1.3**) and 31 Fortune 1000 companies. Numerous other Fortune 500 companies have operations in the State. These operations provide the State with a thriving economy, lower unemployment, and cutting-edge job opportunities.

Florida is a launching pad for corporations and inventions known worldwide. Among the flagship enterprises born here include CSX, AutoNation, Winn Dixie, Publix, Ryder, TechData and Darden Restaurants. The State of Florida is also home to several internationally-recognized research institutions, including NASA, Harris Communications, Florida State University and University of Florida.

As noted above, the Florida is home to many recognizable names and brands. These firms are also major employers throughout the State. **Exhibit 1.4** lists the top public companies in the State while **Exhibit 1.5** list largest privately owned firms as well as their 2004 staffing levels. The list of major companies headquartered in the State shown in Exhibit indicates the diversity of the State's economy. Ranging from software, retail, and banking to telecommunications, online commerce and energy production, these top 25 firms combined account for more than \$360 billion in revenue in 2004.

Exhibit 1.3
Florida's Fortune 500 Companies

State Rank	Company	City	Rank	Revenues (millions)
1	Publix Super Markets	Lakeland	104	20,744.80
2	Tech Data	Clearwater	107	20,542.10
3	AutoNation	Fort Lauderdale	115	19,468.00
4	Office Depot	Delray Beach	154	14,278.90
5	Lennar	Miami	161	13,870.30
6	FPL Group	Juno Beach	195	11,846.00
7	Winn-Dixie Stores	Jacksonville	231	10,209.80
8	Fidelity National Financial	Jacksonville	248	9,668.90
9	World Fuel Services	Miami	264	8,733.90
10	CSX	Jacksonville	266	8,632.00
11	Jabil Circuit	St. Petersburg	303	7,524.40
12	Ryder System	Miami	375	5,740.80
13	Hughes Supply	Orlando	400	5,437.70
14	Darden Restaurants	Orlando	409	5,278.10
15	Health Management Associates	Naples	527	3,624.20
16	Outback Steakhouse	Tampa	529	3,601.70
17	TECO Energy	Tampa	593	3,129.80
18	Harris	Melbourne	616	3,000.60
19	Republic Services	Fort Lauderdale	635	2,863.90
20	WCI Communities	Bonita Springs	668	2,601.80
21	Landstar System	Jacksonville	686	2,517.80
22	Raymond James Financial	St. Petersburg	769	2,157.00
23	Walter Industries	Tampa	792	2,054.10
24	Spherion	Fort Lauderdale	813	1,992.10
25	WellCare Health Plans	Tampa	842	1,879.50
26	MPS Group	Jacksonville	902	1,684.70
27	Watsco	Coconut Grove	903	1,682.70
28	Armor Holdings	Jacksonville	919	1,636.90
29	Stein Mart	Jacksonville	977	1,481.60
30	PSS World Medical	Jacksonville	980	1,473.80
31	Airtran Holdings	Orlando	989	1,450.50

Source: BusinessFlorida.com

Exhibit 1.4
Florida's 25 Largest Public Companies
Ranked by 2004 Revenues

2005 Rank	Company	City	2004 Revenue (thousands)	Number of Employees	Line of Business
1	Tech Data Corp.	Clearwater	\$19,790,333	8,500	Computer distributor
2	AutoNation Inc.	Fort Lauderdale	\$19,424,700	27,000	Auto dealerships
3	Office Depot Inc.	Delray Beach	\$13,564,699	47,000	Office products retail and distribution
4	Winn-Dixie Stores Inc.	Jacksonville	\$10,632,850	89,000	Grocery retailing
5	FPL Group Inc.	Juno Beach	\$10,522,000	10,000	Energy provider
6	Lennar Corp.	Miami	\$10,000,632	11,796	Residential construction
7	Carnival Corp.	Miami	\$9,727,000	69,500	Cruise ships
8	Fidelity National Financial	Jacksonville	\$8,296,002	32,700	Title insurance
9	CSX Corp.	Jacksonville	\$8,020,000	35,847	Railroads
10	Jabil Circuit Inc.	St. Petersburg	\$6,252,897	34,000	Electronics components manufacturing
11	World Fuel Services Corp.	Miami	\$5,654,373	606	Petroleum products distribution
12	Ryder System Inc.	Miami	\$5,150,278	26,300	Transportation services
13	Darden Restaurants Inc.	Orlando	\$5,003,355	141,300	Restaurants
14	Royal Caribbean Cruises	Miami	\$4,555,375	38,870	Cruise ships
15	Hughes Supply Inc.	Orlando	\$4,422,600	8,400	Industrial equipment distribution
16	Health Management Associates Inc.	Naples	\$3,205,885	28,000	Hospital management
17	Outback Steakhouse Inc.	Tampa	\$3,201,750	80,000	Restaurants
18	Fresh Del Monte Produce	Coral Gables	\$2,906,000	35,000	Food processing and packaging
19	Republic Services Inc.	Fort Lauderdale	\$2,708,100	13,400	Waste management and recycling services
20	TECO Energy Inc.	Tampa	\$2,669,100	5,543	Energy provider
21	Harris Corp.	Melbourne	\$2,518,600	10,900	Telecommunications equipment
22	Technical Olympic USA	Hollywood	\$2,100,800	2,079	Residential construction
23	Spherion Corp.	Fort Lauderdale	\$2,032,715	2,400	Personnel outsourcing
24	Landstar System Inc.	Jacksonville	\$2,019,936	1,251	Trucking services
25	IVAX Corp.	Miami	\$1,837,418	10,100	Pharmaceuticals

Source: BusinessFlorida.com

Exhibit 1.5
Florida's 25 Largest Private Companies
Ranked by 2004 Revenues

2005 Rank	Company	City	2004 Revenue (thousands)	Number of Employees	Line of Business
1	Publix Super Markets Inc.	Lakeland	\$18,686,400	128,000	Grocery stores
2	Burger King Corp.	Miami	\$9,276,749	32,000	Restaurants
3	JM Family Enterprises Inc.	Deerfield Beach	\$7,800,000	3,600	Automobile distributor
4	Southern Wine & Spirits of America	Miami	\$5,800,000	7,150	Wholesale distributor of alcoholic beverages
5	Adventist Health System	Winter Park	\$4,494,518	450	Healthcare management
6	George E. Warren Corp.	Vero Beach	\$3,317,848	30	Wholesale petroleum distributor
7	NASCAR	Daytona Beach	\$3,200,000	450	Stock car auto racing association
8	Related Group of Florida	Miami	\$2,125,000	350	Real estate developer
9	Abbey Carpet Co. Inc.	Bonita Springs	\$1,850,000	68	Floor covering franchisor
10	Purity Wholesale Grocers Inc.	Boca Raton	\$1,691,200	WND	Wholesale grocers
11	Brightstar Corp.	Miami	\$1,459,200	700	Telecommunications services
12	Rooms To Go	Seffner	\$1,400,000	6,000	Retail furniture
13	Southeast Personnel Leasing	Holiday	\$1,327,509	217	Professional employer organization
14	Baptist Health South Florida	Coral Gables	\$1,300,000	10,505	Hospitals and healthcare
15	Orlando Regional Healthcare	Orlando	\$1,088,330	11,000	Hospitals and healthcare
16	Crum Services	Clearwater	\$1,060,000	275	Professional employer organization
17	Mercedes Homes Inc.	Melbourne	\$1,056,240	1,600	Residential construction
18	Villages of Lake-Sumter Inc.	The Villages	\$947,919	1,244	Real estate developer
19	Beall's Inc.	Bradenton	\$800,000	5,400	Retail department stores
20	Lazy Days RV Center Inc.	Seffner	\$750,000	670	Recreational vehicle dealer
21	Acosta Sales and Marketing Co.	Jacksonville	\$658,561	7,500	Sales and marketing services
22	Gate Petroleum Co.	Jacksonville	\$658,000	3,500	Commercial real estate
23	BrandsMart U.S.A.	Fort Lauderdale	\$618,000	1,500	Retail consumer electronics, appliances
24	Associated Grocers of Florida	Miami	\$600,000	422	Wholesale food distributor
24	Pharmed Group	Miami	\$600,000	260	Pharmaceuticals and medical supplies distributor

Source: BusinessFlorida.com

FLORIDA INDUSTRIES WITH GLOBAL ECONOMIC TIES

Florida is now home to 31 Fortune 1000 Company Headquarters generating total annual revenue of more than \$200 billion. The Sunshine State enjoys a substantial economic benefit from tourist activity each year. Sand, surf and amusement parks lure more visitors to Florida each year than any other U.S. state. In 2005, a record-setting 83.8 million people visited Florida. The cumulative impact from this activity generated \$62 billion for Florida's economy.²

² Visit Florida, Official Media Newsroom

In February 2006, the Agency for Workforce Innovation published findings that Florida outpaced all other U.S. states in job creation for the month. In fact, the State has held the top spot in this category since October 2002. In terms of year-over-year growth, Florida had 3.8 percent more jobs, 295,400, compared to the February 2005 level. Overall, U.S. job creation registered a 1.5 percent increase during these twelve months.

Florida's population increases by an average of 1,060 people per day. Forecasts from the University of Florida's Bureau of Economic and Business Research indicate that by 2010 Florida will rank third in the U.S. in terms of total population, claiming the position currently held by New York. Ironically, New York is the leading U.S. state in terms of resident out-migration to Florida.

Florida's Gross State Product (GSP), strongly supported by tourism and agriculture, also receives benefits from high-growth innovation industries such as Life Sciences, Information Technology and Aviation/Aerospace. These fields typically have higher than average sales and employment growth. The nature of the work requires a labor force with specialized training in turn commanding above average wages. Regarding educational opportunities, Enterprise Florida reports that all Florida residents are within 50 miles of a post-secondary learning facility.¹

Top Industries/Clusters Florida Industry Clusters and Locations

Enterprise Florida categorizes the Florida economy into six main industry clusters. They are: Life Sciences, Information Technology, Aviation/Aerospace, Homeland Security/Defense, Financial/Professional Services and Manufacturing. Three of these industries, Homeland Security/Defense, Financial/Professional Services and Manufacturing, are traditional mainstays of economic activity in Florida and are common anchors for other U.S. states. In terms of innovative industries, the Life Sciences, Information Technology and Aviation/Aerospace, have the best growth prospects. These clusters are also likely to have higher air cargo demand going forward. Hence, they are the focus.

Life Sciences

The Life Sciences cluster includes firms in Biotechnology, Medical Device Manufacturing, Pharmaceuticals and Health Care. Activity in this sector is concentrated between Palm Beach and Miami on Florida's Southeast Coast, in Duval County on the Northeast Coast, between Seminole and Orange Counties in Central Florida and in Pinellas, Hillsborough, Manatee, and Lee counties on the Western side of the State. **Exhibit 1A** in **Appendix A** identifies the Life Sciences establishments by sector.

Biotechnology - The Ernst & Young Global Biotechnology Report, released in April 2006, places Florida 10th overall in the U.S. for biotechnology business centers. These firms support an array of products from food alteration to human cloning. Florida's 11 research universities are critical in providing Research and Development (R&D) assistance to this industry. For example, the University of Florida houses the Sid Martin Biotechnology Development Incubator (BDI), a 40,000 square foot venue. Businesses must apply to the BDI in order to become Client Companies and establish operations based at the facility. The BDI reports that investors have pledged a total of \$81 million of investment capital to current and former Client Companies.

³ Sources: Tierra Capital, LP, *South Florida Sun-Sentinel*, Author: Harriet Johnson Brackey, *Florida Trend*, Author: Mike Vogel, Wikipedia.org, Enterprise Florida, Fortune.com (Fortune 1000)

Medical Device Manufacturing - Nationwide, Florida ranks second among all states for FDA-registered Medical Device establishments. Projections from the Florida Legislature Office of Economic and Demographic Research indicate that 45 percent of all Florida residents will be 45 years of age or older by 2010. Florida's geographic location also benefits this business segment. Non-U.S. countries provide more than one-third of annual Medical Device Manufacturing revenues. The State's close proximity to Latin America, home of several emerging markets, provides an advantage for companies exporting goods to that region.

Information Technology

The Information Technology cluster includes firms in several categories: Software & Computer Systems Design & Integration, Photonics/Optics, Digital Media, Modeling, Simulation & Training, Telecommunications, Computer Products, and Microelectronic & Precision Device Manufacturing. Activity in this sector is heavily concentrated along Florida's East and West Coasts. **Exhibit A2** in Appendix A identifies the Information Technology establishments by sector.

This sector represents nearly one-third Florida's total origin exports.⁴ Florida outpaced the U.S. average for high-tech export activity between 1998 and 2003. Total U.S. high-tech exports grew 3.1 percent during this time while Florida realized a 4.3 percent increase during these years. In 2004, the Bureau of Labor Statistics reported that the average annual wage for the Software and Computer Systems Design Industry was \$64,228. This wage is 90 percent higher than the Florida average across all occupations of \$33,750 reported in 2004.

Aviation/Aerospace

Aviation/Aerospace activity in Florida is concentrated on the State's Southeast coast, around the City of Pinellas on the West Coast and around Orange County in Central Florida. **Exhibit 3A** (Appendix A) identifies the Aviation/Aerospace establishments by sector.

Florida's Space Coast (FSC), located 35 miles east of Orlando, hosts National Aeronautics and Space Administration (NASA) activities and has done so for more than four decades. In 1962, the NASA opened a Launch Operations Center on the FSC. This spaceport, whose name changed to the John F. Kennedy Space Center (KSC) in 1963, launched the first U.S. astronaut to the Moon. The KSC compound measures 34 miles in length and is 10 miles across at the widest point of the 140,000 total acres. Space Shuttle assembly occurs on site at the Vehicle Assemble Building within Launch Complex 39.

According to the State of Florida, the aerospace industry represents \$4.5 billion of the State's economy. The average annual wage of aerospace workers is around \$52,000, 54 percent higher than the Florida average across all occupations. Florida is the 4th ranked U.S. state in total aerospace employment with approximately 23,000 people. Nearly 74 percent, or 17,000, of these jobs are linked to the KSC. The majority of these jobs supporting NASA activities are provided via aerospace contractors.

⁴ Source: Enterprise Florida

FLORIDA ECONOMIC DEVELOPMENT ACTIVITY

Florida's Gross State Product (GSP) growth has accelerated in recent years, a positive trend for firms seeking to establish operations in the State. Between 2002 and 2005, the average annual growth in the value of goods and services produced by Florida residents was 6.45 percent. During the same time, GSP for the US as a whole grew by an average of 5.21 percent per year. Florida's growth in the last few years has also outpaced the 4.92 percent expansion in GSP the State realized between 1997 and 2001. Florida's GSP is expected to increase again in 2006. It is expected that 2006 GSP will increase 6.5 percent over 2005, matching the 2005 versus 2004 growth rate. Florida's strong economic growth is partially funded through increases in labor productivity. In fact, since 2001, Florida's gains in labor productivity have averaged 2.78 percent annually.

Florida's labor force expansion is providing firms with a larger selection pool. According to the Agency for Workforce Innovation, the number of Florida residents between 16 and 64 years of age grew 12.7 percent between March 2001 and February 2006. Labor market statistics from MyFlorida.com indicate that in 2004 the average hourly wage for Florida workers was \$16.28. This figure is eleven percent lower than the 2004 U.S. national average hourly wage of \$18.09 published by the Bureau of Labor Statistics.

Florida's future prospects for economic development are positive. In January 2005, *Chief Executive* ranked Florida the number three U.S. state in the "most attractive for business category." Only Texas and Nevada were ranked higher. According to the Bureau of Economic Analysis (BEA), Florida's growth in Gross State Product (GSP) placed the State 3rd in the nation in terms of year-over-year growth (2005 versus 2004). In total, GSP for the U.S. as a whole increased 3.5 percent from 2004 to 2005. In Florida, GSP grew 7.8 percent. The top two states for GSP growth were: Arizona (8.7 percent) and Nevada (8.2 percent).

Florida export activity continues to expand. Of all U.S. exports bound for Latin and South America, 40 percent pass through Florida each day. On a daily basis, there are more direct flights from Florida airports to Latin American and Caribbean destinations than from all other cities in the U.S. In October 2005, *Expansion Management* ranked five Florida Metropolitan Statistical Areas (MSAs) in the top 100 most logistics-friendly cities in America. These MSAs were: Jacksonville, Miami, Tampa-St. Petersburg, Orlando, and Pensacola.⁵

Foreign Direct Investment

Florida's favorable business climate makes it an attractive option for Foreign Direct Investment (FDI). The State's corporate tax rate is 5.5 percent and it does not assess state-level property taxes. Proximity to Latin America and the Caribbean coupled with the massive immigration from those regions further enhance FDI interest. *Business Florida* reports that the State currently maintains \$34.3 billion in FDI, placing it 9th overall in the U.S. rankings.

The top industry for FDI investment in Florida between 2000 and 2003 was manufacturing. In 2003, 73,000 Floridians were employed by majority-owned foreign affiliated manufacturing firms. The Information sector garnered five percent of FDI investment in 2003 and employed

⁵Sources: *Florida 2005 Annual Report*, Global Insight, State of Florida, Enterprise Florida

nearly 13,000 people while Professional, Scientific and Technical Services collectively held less than one percent of the total FDI and provided 7,600 jobs.

In 2003, majority-owned companies in Europe (France, Germany, the Netherlands, Switzerland, and the United Kingdom) held more than \$15 billion in Property, Plant, and Equipment (PP&E) assets within the State of Florida. Europe's 51 percent stake combined with an 18 percent share from Canada and a 17 percent holding from the Asia/Pacific countries (Australia and Japan) provided more than \$25 billion of Florida's total FDI PP&E assets. Latin America and the Caribbean ranked fourth in this category with 2003 PP&E investment of \$2.6 billion. The European PP&E investment supported 166,200 Florida jobs during 2003 while the Asia/Pacific countries (Australia and Japan) provided 32,700 and Canada supplied 25,800. PP&E investment from Latin America and the Caribbean translated into 19,400 jobs for Florida residents during 2003.⁶

Venture Capital

Another key element underlying the success of Florida's economy has been its venture capital (VC) industry that provides start-up capital to new business enterprises. Florida hosts a sizeable number of venture capital firms as well as other sources of private equity financing. Venture capital plays a role in Florida's economic expansion and partners well with the State's emphasis on innovation. In addition to providing essential financial capital, Venture Capitalists are often involved in strategic planning and management functions supporting business growth and development. Hence, these investors are selective about the projects they choose to back. They are also highly interested in lending financial support to industries with a high profit margin. Florida's innovation industries fit this profile.

The State's extensive University system is flattering to VC investment. Close proximity to research universities provides access to extensive laboratory space and top-notch researchers. Hence, firms can hone their developing products and take advantage of incubator environments.

The State of Florida is supporting VC investment by using its pension fund as a means to attract Biotechnology companies. In April 2004, *The Palm Beach Post* reported that Florida intended to invest \$1 billion from its employee pension fund as VC. This coincides with efforts in attracting Bioscience firms to the State. In particular, Palm Beach County and the State of Florida helped fund the Scripps Research facility with a \$510 million dollar investment. Of note, the Washington Economics Group predicts that the Scripps Research Institute will contribute an additional \$3.2 billion to Florida's Gross State Product during the first 15 years of operations.

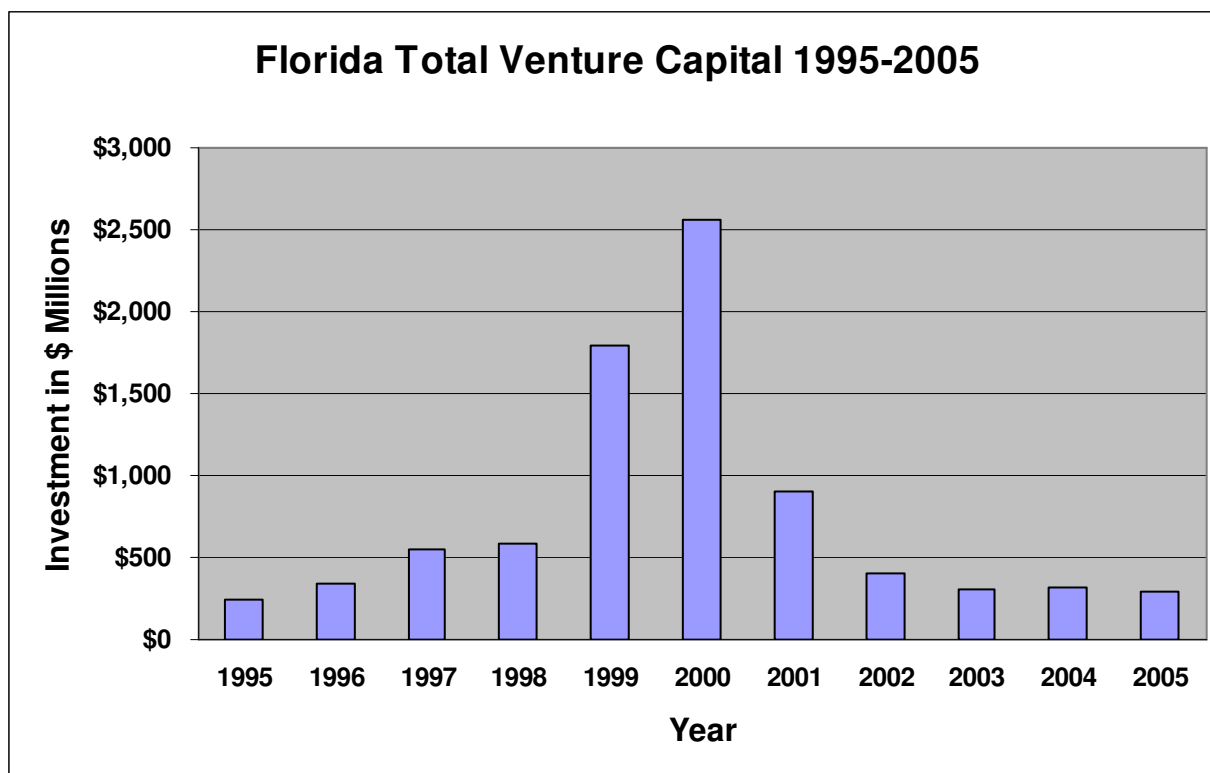
In 2003, Florida generated \$272 million in VC investment. This represented 1.5 percent of all U.S. VC. On a per employee basis, this level of VC investment was approximately 25 percent of the national average. In comparison, California accommodated 45 percent of all U.S. VC investment. This West Coast State's activity occurred through 1,117 deals worth \$9.3 billion.

Biotechnology garnered strong VC interest between 2000 and 2003. According to Global Insight, total U.S. VC in this industry grew 23 percent. This represents the highest growth rate among the industry sectors surveyed. Wages in this sector also grew strongly, posting an 18

⁶ Sources: Enterprise Florida, Bureau of Economic Analysis (BEA), 2005

percent gain. VC backed firms headquartered in Florida employed 3.32 percent of the total labor force, 309,700 residents, in 2003. This places the state 11th nationwide in this category. Total sales revenue generated by these VC firms amounted to \$61 billion in 2003. Sales revenue yielded an 8 percent increase from the 2000 level of \$56 billion while employment increased only 2 percent from 2000 to 2003. **Exhibit 1.6** below illustrates Florida's total VC investment levels from 1995 through 2005.

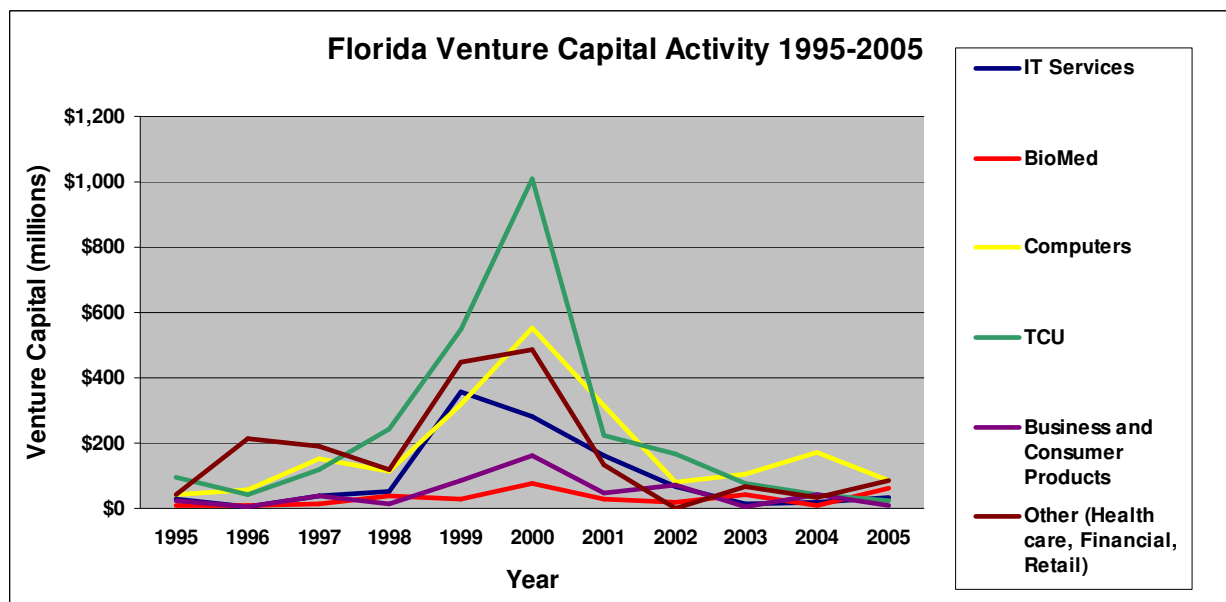
In 2005, VC investment in the State of Florida totaled \$298 million. This represents a year-over-year decline of 6.3 percent versus the 2004 level of \$318 million. In spite of this overall negative trend, VC investment in Biomedical Technology and Information Technology Services increased on a year-over-year basis. In 2004, these two sectors represented just over 9 percent of total VC backing. This share increased more than three-fold in 2005 with 31 percent of VC investment concentrated in these two sectors. Of the nearly \$93 million invested in 2005, \$33 million went to Information Technology Services with the other \$60 million to Biomedical Technology. Of note, the year-over-year increase in Biomedical Technology was more than five-fold, leaping from under \$10 million in 2004.

Exhibit 1.6

Source: PWC Money Tree

Exhibit 1.7 below details VC investment levels in Florida industries for 1995 through 2005.

Exhibit 1.7



Source: PWC Money Tree

Research and Development (R&D)

Innovation is essential in today's economy, with ever-shortening product cycles and the constant need to explore new solutions. In 2003, nearly \$5.2 billion was spent in Florida on R&D. Florida has 11 state universities, 4 major medical schools, and numerous independent colleges and universities that perform more than \$1.5 billion (2005) in sponsored research by working closely with business and industry to create innovative technologies. Since the year 2000, these institutions have brought more than \$427.4 million in royalties to the State.

In Fiscal Year 2004, the University of Florida, with \$37.4 million in earnings from faculty innovations, was the nation's fifth highest ranked university in terms of royalties arising from the commercialization of academic research. Florida State University also ranked among the top 15 universities in the nation for royalty income in FY 2004, adding more than \$14.3 million in royalties to the State's economy.

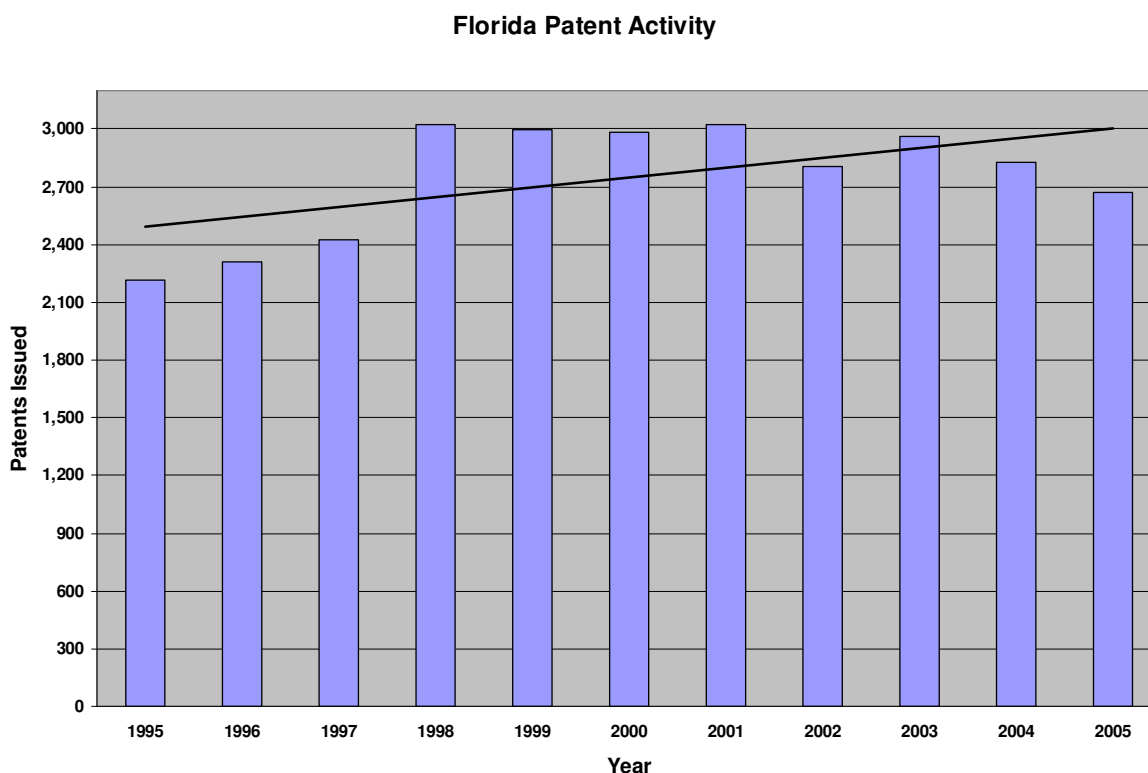
Patent Activity

Utility patents are sought when an innovator has developed a new product or improved an existing one. Patents lend support to a steady revenue stream which can attract VC. Companies that retain patents on unique product offerings targeted to a specific market appeal to Venture Capitalists because these elements provide supporting evidence of a high-yielding positive return investment. Between 1998 and 2003, Florida's patent ratio fell from 3.3 percent to 2.9 percent of all U.S. issued patents. However, a survey conducted by Florida State University indicates that patents issued to Florida's university system increased 7 percent between 2003 and 2004. Two Florida schools ranked among the top 20 universities in the nation for number of U.S. patents issued in 2004. The University of Florida came in 10th in the nation with 53 patents, and the University of Central Florida 19th with 39 patents. In 2004, 2,456 patents were awarded to Floridians and from 2000-2004, 649 Small Business Innovative

Research Awards were granted to Florida residents. In total, Florida holds the 11th position in the U.S. rankings for total issued patents. In aggregate, patent activity has trended upward over the past decade. **Exhibit 1.8** displays the trends in utility patents issued to Florida residents.

Contrary to growth in Gross State Product and air cargo, the number of patents issued in 2004 and 2005 are below 2003 levels. Information Technology related patents issued in 2004 and 2005 surpassed 2003 activity. Investment in R&D will fuel Biotechnology product development over the coming years and should translate into an upswing in patents issued.⁷ It is important to note that research indicates there is a strong correlation between air cargo growth and patent activity.⁸

Exhibit 1.8
Utility Patents Issued to Florida Residents (1995-2005)



Source: U.S. Patent and Trademark Office/April 2006

Exhibit 1.9 illustrates the Top 10 patent categories in rank order of total patents issued between 2000 and 2004. Life Sciences, Telecommunications and High Tech sectors are the dominant

⁷ Sources: National Venture Capital Association, Inc. December 2004, Author: Michelle Leder, *Palm Beach Post*, Author: Stephen Pounds, Center of Excellence in Biomedical and Marine Biotechnology, Author: Marcia Heroux Pounds-Business Writer/*Sun Sentinel*, *Venture Impact 2004: Venture Capital Benefits to the U.S. Economy*, Author: Global Insight, *The Tampa Tribune*, Author: Richard Mullins, PWC Money Tree, *Florida 2005 Annual Report*, Enterprise Florida, Wikipedia.org, *The World Factbook*/March 2006: Author: Central Intelligence Agency (CIA), Bureau of Economic Analysis (BEA), *State Fact Sheet-Florida*: United States Department of Agriculture (USDA) Economic Research Service/April 2006

⁸ *Air Freight Demand, Innovative Industries And The New Economy*, Michael K. Maynard, Wilbur Smith Associates, 2005

innovative industries in the State. Several major U.S. corporations located in Florida applied for patents between 2000 and 2004. **Exhibit 1.10** details the Top 10 companies in terms of utility patents issued.

Exhibit 1.9
Top Ten Utility Patent Categories as Issued to Florida Residents (2000-2004)

Rank	Category Title	2000-2004 Total
1	Surgery	707
2	Drug, Bio-Affecting and Body Treating Compositions	503
3	Telecommunications	255
4	Communications: Electrical	250
5	Static Structures (e.g., Buildings)	246
6	Semiconductor Device Manufacturing: Process	202
7	Liquid Purification or Separation	164
8	Multiplex Communications	162
9	Power Plants	152
10	Communications: Radio Wave Antennas	150

Source: U.S. Patent and Trademark Office/April 2006

Exhibit 1.10
Top Ten Companies in Terms of Utility Patents Issued (2000-2004)

Rank	Company	2000-2004 Total
1	Motorola, Inc.	436
2	Harris Corp.	262
3	IBM	249
4	Agere Systems Inc.	218
5	Siemens Westinghouse Power Corp.	162
6	University Of Florida Board Of Regents	151
7	United States Of America, Navy	135
8	Lucent Technologies Inc.	130
9	Lockheed Martin Corp.	94
10	University Of Central Florida	93

Source: U.S. Patent and Trademark Office/April 2006