Summary Overview of *Atlas of the State University System of Florida*

(Assisting the Board of Governors Strategic Planning Process)

By

Grant Ian Thrall, Ph.D.

Professor, Business Geography Department of Geography, 3121 Turlington Hall University of Florida Gainesville FL 32611 352-392-0494

www.afn.org/~thrall

Thrall@ufl.edu



Board of Governors State University System of Florida

With the assistance of •Susan Thrall, Ph.D. Professor, Computer Science Lake City Community College Lake City, Florida 32025 thralls@lakecitycc.edu Division of Colleges and Universities •Nate Johnson, Ph.D. Nate.Johnson@fldoe.org

•Julie Alexander, Julie.Alexander@fldoe.org

8 February 2005

Accompanying this executive summary is a draft of Atlas Of The State University System Of Florida

Overview

- This is the overview to the Atlas of the State University System of Florida which is a collection of maps created to initiate discussions about the Florida Board of Governors Strategic Planning process as it relates to geographic access. This executive summary provides guidance in utilizing the maps and geographic analysis in higher education decision making. A "map is worth a 1,000 words." These maps are intended to aid in decision making responding to important questions like "Where are additional educational expenditures needed?," and "Where might we begin to look to build additional facilities to accommodate increasing numbers of students or the increasing needs of a population making demands on the work force?"
- This overview is divided into three parts: <u>need</u>, <u>supply</u>, and <u>summary observations</u>. Need addresses location demands on higher education - demands are different at different locations. Supply addresses the type of higher education opportunities available, and the type of graduates available by location. Ideally, the need and supply match. The summary observations then synthesize the supply and need. The summary observations illustrate how the Atlas and geographic analysis can be used to assist in making better decisions.
- This overview is to be accompanied by the *Atlas of the State University System of Florida*. A set of digital maps will also be distributed that can be read using the free ArcReader software from <u>www.esri.com</u>.

Grant Thrall Gainesville FL 08 February 2005

thrall@ufl.edu

www.afn.org/~thrall

Need: Population Increase Creates Higher Education Need

Florida's total population is increasing at a rate of 1,000 persons per day. Added to that population growth is the natural increase of the population arising from the difference between the birth rate and death rate.

This increase in population is not uniform across the state. Rather, the population increase is clustered along corridors. Those corridors are situated along the entire eastern seaboard from Jacksonville to Miami, and the western Gulf coast from the Tampa Bay area to Naples. Significant inland corridors exist as well, namely Leesburg southwest to Tampa, and Leesburg southeast to Orlando, and the I-4 corridor from Tampa to Daytona Beach.

This increase in population brings an increase in need for higher education to provide educational opportunities to Florida's population as well as provide the graduates that are needed to provide services for the population – like teaching - and drive the State's economy.

1.1b Population Change 2005-2010

The Geographic Pattern Of Population Growth Is Shaped By The Coastlines, System Of Highways, and Location Of Significant Recreation Land Natural Resources



Need: Graduate-Aged Population Growth 2005-10

All age groups are represented in the 1,000 person per day in-migration to our State. And, during the next five years those currently within bachelor degree programs will be seeking graduate -level opportunities.

Assume that our current higher education system can accommodate the existing college graduate level aged population in 2005, namely those aged 20-45. By answering where the college graduate aged population will be increasing the most during the next five years, we identify those areas where population pressures create high demand for graduate education services.

Those areas shaded in dark red are the areas projected to receive the greatest increase in graduate aged population between 2005 and 2010.



1.2c Change In Graduate Aged Population

Need: Undergraduate-Aged Population Growth 2005-10

The growth of undergraduate aged (15-25 years old) population is similar to the concentration of growth of graduate aged population.

The areas shaded in dark red are projected to receive the greatest increase in undergraduate aged population between 2005 and 2010.

Assuming higher education is presently operating at full capacity serving existing undergraduate aged population in the dark red areas, then these areas identify locations where population surges may indicate need for additional education services.



1.2d Change In Undergraduate Aged Population

Need: Growth In 5-15 Year Old Population 2005-10

The 5 to 15 year old population growth places indirect pressure on higher education because of their need for teachers.

Teachers normally do not move far from where they go to college. Therefore, the higher education opportunities for teacher education programs might be best directed to those areas shown in dark red at the right and within the insets.



1.3b Change In 5-15 Aged Population 2005-2010

Need: Growth In Elder 60+ Population 2005-10

Elders also place indirect pressure on higher education because of their need for services.

The nation's population is aging and Florida cannot rely upon a sufficient stream of in-migrating population to service the needs of its aging population. These growing needs will include health care professionals in areas like nursing and physical therapy.

The dark red indicates locations where the elder population is projected to increase the most during the next five years.







1.4b Change In Elder Population 2005-2010

Table: Total Current (2002-03) Degrees By Campus And Projected(2010) Local College Aged Population

Map 3.5a shows current (2002-03) SUS degrees all levels by campus. SUS campus "trade areas" shaded in proportion to total college aged population in 2010.

Tables for SUS degrees and collegeaged population are below.

College Ag	ed Pop In 2010	SUS Degree All		
UNIVERSITY	Pop20_45	INSTNM	CITY	TOTAL
FAMU	74457	FLORIDA AGRICULTURAL AND MECHANICAL UNIVERSITY	TALLAHASSEE	1,927
FAU	825007	ELOBIDA ATLANTIC LINIVERSITY-BOCA BATON	BOCA BATON	4 582
FGCU	348477		ET MYEBS	827
FIU	1019190			C 420
FSU	165498			0,423
UCF	1134380	FLURIDA STATE UNIVERSITY	TALLAHASSEE	8,460
UF	311802	NEW COLLEGE OF FLORIDA	SARASOTA	135
UNF	425924	THE UNIVERSITY OF WEST FLORIDA	PENSACOLA	1,879
USF	1067540	UNIVERSITY OF CENTRAL FLORIDA	ORLANDO	8,215
UWF	220173	UNIVERSITY OF FLORIDA	GAINESVILLE	12,318
		UNIVERSITY OF NORTH FLORIDA	JACKSONVILLE	2,704
		UNIVERSITY OF SOUTH FLORIDA	TAMPA	7,144

Table: Planned 2005-10 Full-Time Equivalent (FTE) GrowthBy Current or Planned Campus



FTE projected growth by SUS campus is shown on Map 2.2b. In Map 3.4c, SUS main and branch locations are shown over "trade areas" shaded in proportion to total population growth of college aged population.

UNIVERSITY	BRANCH	FTE2010	FTECHNG
FAMU	MAIN	11232	2381
FAU	MAIN	11951	1086
FAU	BROWARD	2805	422
FAU	NORTHERN	1771	383
FGCU	MAIN	50	6135
FIU	NORTHERN MIAMI	4327	574
FIU	MAIN	25859	7309
FIU	FT. LAUDERDALE	594	168
FSU	ABROAD	31	3
FSU	MAIN	27260	1930
FSU	PANAMA CITY	1106	463
NCF	MAIN	757	149
UCF	PALM BAY	213	213
UCF	DAYTONA	1506	325
UCF	LAKE MARY	0	0
UCF	SOUTH ORLANDO	0	0
UCF	METRO WEST	410	410
UCF	MAIN	27720	3331
UCF	ROSEN COLLEGE	1395	639
UCF	BREVARD/COCOA	1232	122
UCF	SOUTH LAKE	323	-221
UF	EGLIN	29	0
UF	MAIN	35340	2623
UNF	MAIN	11673	2438
USF	MAIN	30628	7775
USF	ST. PETERSBURG	3419	1311
USF	PORT AUTHORITY	0	0
USF	LAKELAND	1393	782
USF	SARASOTA	1366	503
UWF	MAIN	6972	1596
UWF	FT. WALTON BEACH	532	74

Supply: Community College/Private Institution Transfers and 2002-2003 Bachelor Degrees

Map 2.2b shows SUS campuses, community colleges and private postsecondary institutions. Those community colleges and private institutions that send a majority of their transfer students to a single SUS campus are linked to that campus with a line. Map 2.2b also shows comparative growth of undergraduate aged population.

Map 3.5p shows bachelor degrees by SUS campuses and private institutions. The table below lists the count of bachelor degrees by SUS, private for-profit and private not-for-profit institution.

Total Bachelor Degrees (2002-03)				
State University System	39,989			
Private, Not-for-Profit	16,728			
Private, For-Profit	2,218			

Community College/ Private Transfers



Note: Radius of objects are not comparable between maps.

Supply: Graduate Population and 2002-2003 Doctoral Degrees

Map 3.5b depicts the SUS doctoral degrees. The map also shows by SUS trade area the projected graduate aged population in 2010.

The growth of graduate aged population is reflected in Map 3.4e. Comparatively high growth is projected to occur in the central east coastal area in 3.4e.

INSTNM	DOCT
UNIVERSITY OF FLORIDA	592
FLORIDA STATE UNIVERSITY	290
UNIVERSITY OF SOUTH FLORIDA	153
UNIVERSITY OF CENTRAL FLORIDA	110
FLORIDA INTERNATIONAL UNIVERSITY	60
FLORIDA ATLANTIC UNIVERSITY-BOCA RATON	53
THE UNIVERSITY OF WEST FLORIDA	29
FLORIDA AGRICULTURAL AND MECHANICAL UNIVERSITY	17
UNIVERSITY OF NORTH FLORIDA	12
NEW COLLEGE OF FLORIDA	0
FLORIDA GULF COAST UNIVERSITY	0



Trade areas shaded in proportion to percentage of state total

Supply: 2002-2003 Nursing Degrees Compared Between SUS and Private Institutions

Map 3.6j depicts the bachelor degrees in nursing reported for 2002-2003. The map also shows by SUS trade area the projected change in the 60+ population in 2010.

Total Nursing Bachelor Degrees

1,126

275

80

State University System Private, Not-for-Profit

Private, For-Profit



3.6j Nursing Degrees

Table: Selected Emerging Technology Degrees

2002-2003 Bachelor Degrees





Institution	City	Physical Science	Engineering	Biology
FAMU	Tallahassee	22	83	44
FAU	Boca Raton	34	100	162
FGCU	Ft. Myers	0	0	0
FIU	Miami	43	254	131
FSU	Tallahassee	69	139	149
UWF	Pensacola	22	0	44
UCF	Orlando	12	366	191
UF	Gainesville	103	794	331
UNF	Jacksonville	13	50	50
USF	Tampa	52	298	187

Higher education is the key to sustained economic growth. Florida's economic future is tied to its higher education, especially emerging technology areas -Engineering, Physical Science, and Biology.

Supply: High Schools with a Primary SUS University

Map 3.1a depicts the primary SUS institution for high schools where 40% of SUS-bound graduates attend a single state university.

For institutions that serve the entire state, such as FAMU, UF and FSU, there are relatively few of these schools and they are spread across a large area. For most SUS institutions there is cluster of high schools in the surrounding area associated with that university.



Supply: High Schools with No Primary SUS University

Map 3.1c shows high schools where no single SUS campus is primary (green dot). That might indicate a need for expanded SUS presence.

It is particularly noteworthy that the I-4 corridor is heavily represented by such high schools. Other concentrations occur in Broward County, Tampa and Jacksonville.

Red dots represent high schools included in previous slide 15: High Schools with a Primary SUS University.



Summary Observations



Summary Observations

Comparatively adequate supply of higher education opportunities serving local markets.

Comparatively modest population pressures within this region dominated by the State's only Association of American Universities member. UF draws students from across the state, thereby limiting local opportunities for those unable to meet UF's high admission standards.

Elder population growth, distant from existing or planned major SUS presence.

Growing elder populations indirectly pressure higher education to meet its demands, while population growth in all age categories place direct pressure on higher education to meet its needs. Area of high population growth of all age groups providing pressure for additional higher education opportunities.

> Potentially increased demand for higher education in areas of critical need and economic development.

> > Population trends indicate need for additional education opportunities.



About Grant I. Thrall

Dr. Thrall has led the development of the contemporary university school of business geography thought. His 2002 book published by Oxford University Press, *Business Geography and New Real Estate Market Analysis*, is a synthesis of his pioneering contributions for over a quarter century. The American Real Estate Society's *Journal of Real Estate Literature* called his book "a paradigm shift" for real estate market analysis. The Wharton School of Business writes that Thrall's book is "compelling" as it builds the bridge between urban economic and geographic sciences advancing real estate market analysis. George Mason University writes that Thrall's book is one that every person in business needs to read. He has been invited to give presentations on his 2002 book to University of Pennsylvania's Wharton School of Business and Cal Berkeley's Haas School of Business, and others. In 2004 he was recognized as a "thought leader" having been invited to present the annual "Golledge Lecture" at University of California at Santa Barbara on his business geography topic.



- Dr. Thrall has written or edited over a dozen books, and over 150 professional articles. His ten volume *Scientific Geography Series* is the standard reference for academic and practitioner applications of business location modeling and applications of geographic information systems to the urban built environment. Bridging the gap between academia and the private sector, for over a decade Thrall has been a consultant with Global Real Estate Research Practice, Financial Advisory Services, of PriceWaterhouseCoopers LLP, and he has twenty years experience consulting with his own firm, Thrall Consulting. A sample of his consultancies includes the creation of the market analysis for 1,000,000 square foot University Corners mall, the largest development ever within the city of Gainesville, site selection services for O2Bkids, market analysis for St. Joe Company, Gables Apartments and Las Vegas' proposed Meadows Hospital.
- Dr. Thrall has been invited to make many public speaking engagements, and to publish articles for organizations including Centers for Disease Control and Prevention, FannieMae and the Appraisal Institute. Professor Thrall is the only geographer to have been on the academic board of editors of the Appraisal Institute's *Appraisal Journal*. He is one of four geographers that have been invited to be fellows of the Weimer School For Advanced Studies In Real Estate and Land Economics, one of the highest accolades in academic and high-level practitioner real estate.
- Dr. Thrall has been a Professor at University of Florida since 1983, where he is regularly nominated and has been a recipient of teaching awards. He created the Business Geography curriculum, joint between the College of Business and his home Department of Geography in the College of Liberal Arts and Sciences. He presently advises ten students at the MA and Ph.D. levels, and numerous undergraduates. He is a Weimer Fellow of the Homer Hoyt Institute, a member of the academic board of the Appraisal Institute's *Appraisal Journal*, co-editor of the *Journal of Real Estate Literature*, reelected for a second term in 2004 to the Board of Directors of the American Real Estate Society; and he is business geography, software and data editor for the leading GIS professional magazine *GeoSpatial Solutions*. He is on the Board of Directors of the International Geographical Union representing Applied Business Geography. He is a member of the editorial board of *Journal of Real Estate Research*. Dr. Thrall has a Ph.D. in Geography and Economics, and an MA in Economics from The Ohio State University, and a BA in Business from CSULA; he serves on the Board of Directors of his undergraduate alma mater for geography. Professor Grant Thrall has been on the faculty of McMaster University in Canada, and SUNY at Buffalo. In 1989, he was Resident Scholar of the Homer Hoyt Institute in Washington DC. In 1990, he was Visiting Distinguished Professor at San Diego State University.
- As a volunteer, Grant Thrall lent his expertise to his resident town of Gainesville, Florida. In appreciation, the Mayor and Gainesville City Commission declared two days as "Grant Thrall Days" for his advice and management of redevelopment of Gainesville's the historic downtown.

www.afn.org/~thrall thrall@ufl.edu