COMPARISON OF TALLAHASSEE AND OTHER AMERICAN AND FLORIDA MSAs USING THE METROPOLITAN NEW ECONOMY INDEX

An Assessment of New Economy and the Telecom Infrastructure in the Tallahassee and Leon County Region

Benchmarking Economic Transformation in the Florida's Metropolitan Areas

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ACKNOWLEDGMENTS

This work was conducted under a grant from the Office of the Governor, State of Florida and managed by Mr. Wayne Harris, the Tallahassee-Leon County Chamber of Commerce and the Chamber's Telecom Infrastructure Assessment Advisory Committee. Special thanks to Robert Atkinson and his staff at The Progressive Policy Institute for their initial development of The New Economy Index.

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INTRODUCTION

During April, 2001 the Progressive Policy Institute released a study titled The Metropolitan New Economy Index, Benchmarking Economic Transformation in the Nation's Metropolitan Areas (hereafter referred to as the PPI study). The study was completed as part of the Technology, Innovation and New Economy Project[1]. In the PPI study, the authors defined a set of 16 variables they identified as the foundation of the "New Economy". They described this development and their ability to evaluate, profile and ultimately rank the nation's 50 largest metropolitan economies in the following terms:

> In the last 15 years, a "New Economy" has emerged in the United States. Among its defining characteristics are a fundamentally altered industrial and occupational order, a dramatic trend toward globalization, and unprecedented levels of entrepreneurial dynamism and competition — all of which have been spurred to one degree or another by revolutionary advances in information technologies (IT).
>
> As these developments have swept through our national economy, they have also restructured and reshaped the nation's 261 metropolitan area economies (a metro area is defined as an urbanized area with a population of more than 50,000). Metropolitan areas differ, however, in the degree to which their economies are structured and operate in accordance with the tenets of the New Economy. America is predominantly neither an urban nor a rural nation, but rather a metropolitan nation where the majority of the population lives and works in large metropolitan areas that include both historic central cities and dispersed suburban development.
>
> Moreover, leading edge New Economy activities are more concentrated in metro areas, particularly large and mid-sized ones. Both factors make it appropriate to use a metropolitan lens to view the New Economy. As a result, this report uses a set of 16 economic indicators to assess the 50 largest metropolitan areas' progress as they adapt to the new economic order. Collectively, these metros account for approximately 60 percent of the nation's workforce. The report is not intended to rank business climates, economic performance, or economic development policies in the traditional sense. Nor is it intended to crown "winners" or stigmatize "losers." *Rather, our intent is to highlight differences among the structural foundations of metro economies and to focus attention on a policy framework aimed at promoting fast and widely shared income growth*. (emphasis added)[2]

Essentially the PPI developed a comprehensive framework within which to evaluate, rank and ultimately differentiate the nation's 50 largest metropolitan areas on how well positioned each was to embrace the rapidly emerging "information and high tec

[1] The Metropolitan New Economy Index, Benchmarking Economic Transformation in the Nation's Metropolitan Areas, April, 2001, The Progressive Policy Institute, Technology, Innovation and New Economy Project, 600 Pennsylvania Ave, S.E., suite 400, Washington, www.ppionline.org

[2] Ibid.

economy". This analysis served a critical purpose to help change the language, nature and focus of the standard "economic development" assessments that are completed every day across the country.

COMPARING THE OLD AND NEW ECONOMY

Rather than focusing on the "historic" economic order and evaluate a regional economy on traditional grounds (such as unemployment rate, cost of living index, wage rate and tax levels) the PPI shifted the focus to the "higher ground" by evaluating the relative strength of a regions newest, most productive high tec areas. Both approaches have merit, however, the PPI for the first time put this most important emerging economic juggernaut in place as a coequal (and in some ways more valued) index of future regional economic advantage and power. The following figure provides a profile of the standard characteristics of the "Old Economy" and the "New Economy".

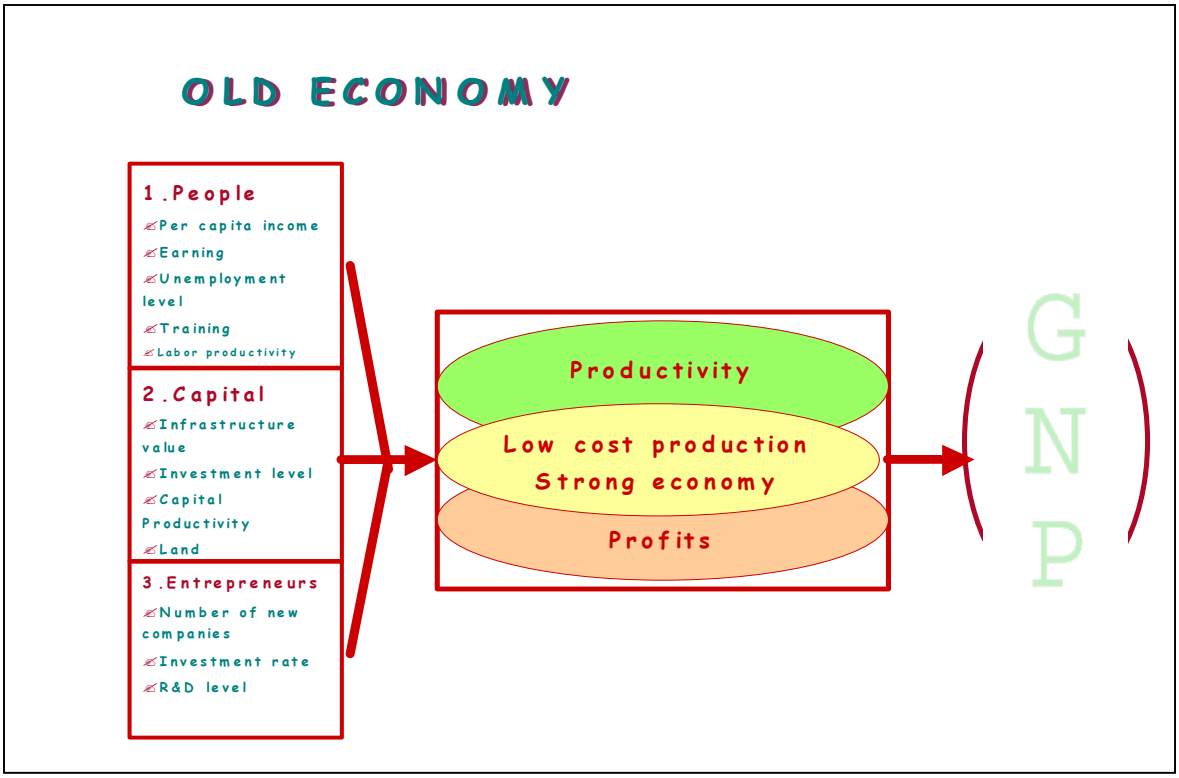
Issue	Old Economy	New Economy
Economy-Wide Characteristics:		
Markets	Stable	Dynamic
Scope of Competition	National	Global
Organizational Form	Hierarchical, Bureaucratic	Networked, Entrepreneurial
Potential Geographic Mobility of Business	Low	High
Competition Between Regions	Low	High
Industry:		
Organization of Production	Mass Production	Flexible Production
Key Factor of Production	Capital/Labor	Innovation/Knowledge
Key Technology Driver	Mechanization	Digitization
Source of Competitive Advantage	Lowering Cost Through Economies of Scale	Innovation, Quality, Time to Market and Cost
Importance of Research/Innovation	Moderate	High
Relations with Other Firms	Go it Alone	Alliances and Collaboration
Workforce:		
Principal Policy Goal	Full Employment	Higher Wages and Incomes
Skills	Job-specific Skills	Broad Skills, Cross-Training
Requisite Education	A Skill	Lifelong Learning
Labor-Management Relations	Adversarial	Collaborative
Nature of Employment	Stable	Marked by Risk and Opportunity
Government:		
Business-Government Relations	Impose Requirements	Assist Firm's Innovation and Growth
Regulation	Command and Control	Market Tools, Flexibility

Source: PPI, April 2001

THE OLD ECONOMY

The Old Economy focused on a stable economic order with national (often protected) borders as the unit of analysis (and often the boundary of competition and trade). Increasingly the world's regional economies find themselves in a global market place competing for increasingly mobile means of production, trade, qualified employees and institutions with virtually every other region. The old order found mechanized capital and labor as the key factors of production, research and development only moderately important, and cooperation among competitors, unimaginable. In today's digital global

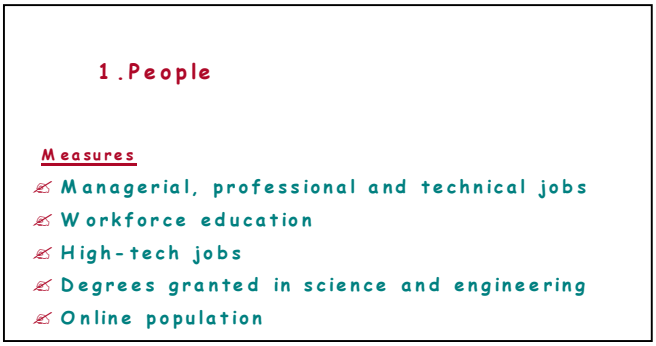
economy the new world order thrives on multi-national joint ventures and merger mania backed by large R&D budgets. The Old Traditional Economy is typified by the following graphic representation. Typically, economists and policy makers look to the traditional



unemployment rate, average income, average earnings, investment, company startups and investment rate variables to assess the health and well being of the economy. The focus of the policymaker is to create a strong economy by encouraging the average entrepreneur to use large scale production (economies of scale) to produce low cost (and hopefully high quality) goods and to make a profit. Productivity of this economy has shown general long term growth but has been highly cyclical with very costly recessionary downsides in the industrial and post-industrial decades following the end of WWII.

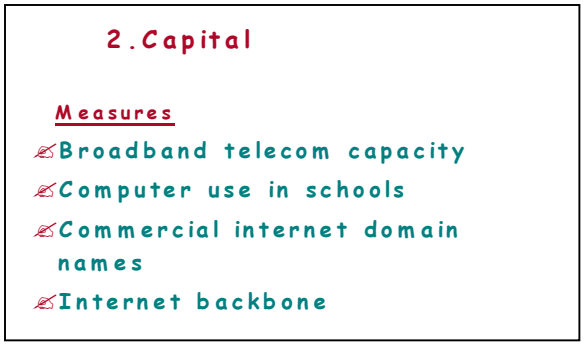
THE NEW ECONOMY

While the factors of the Old Economy are still important, the New Economy market analyst has a sharper eye on the pulse of change and more closely monitors the very cogs of people, machine-capital and entrepreneurial productivity. The variables developed into an index evaluate the comparative general and technical educational, skill and creativity level of workers and the general

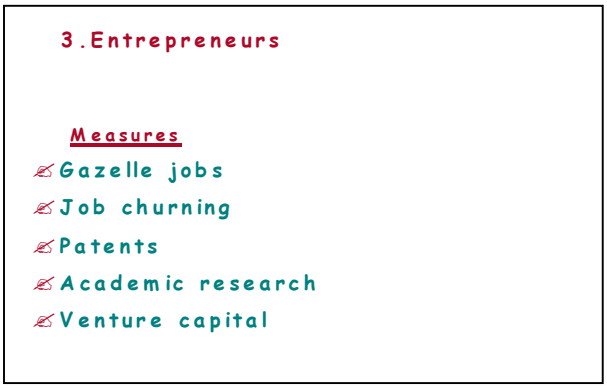


population. They also evaluate the number of high tec and managerial and professional and technical jobs and the general level of on line Information Technology (IT) available to the general public.

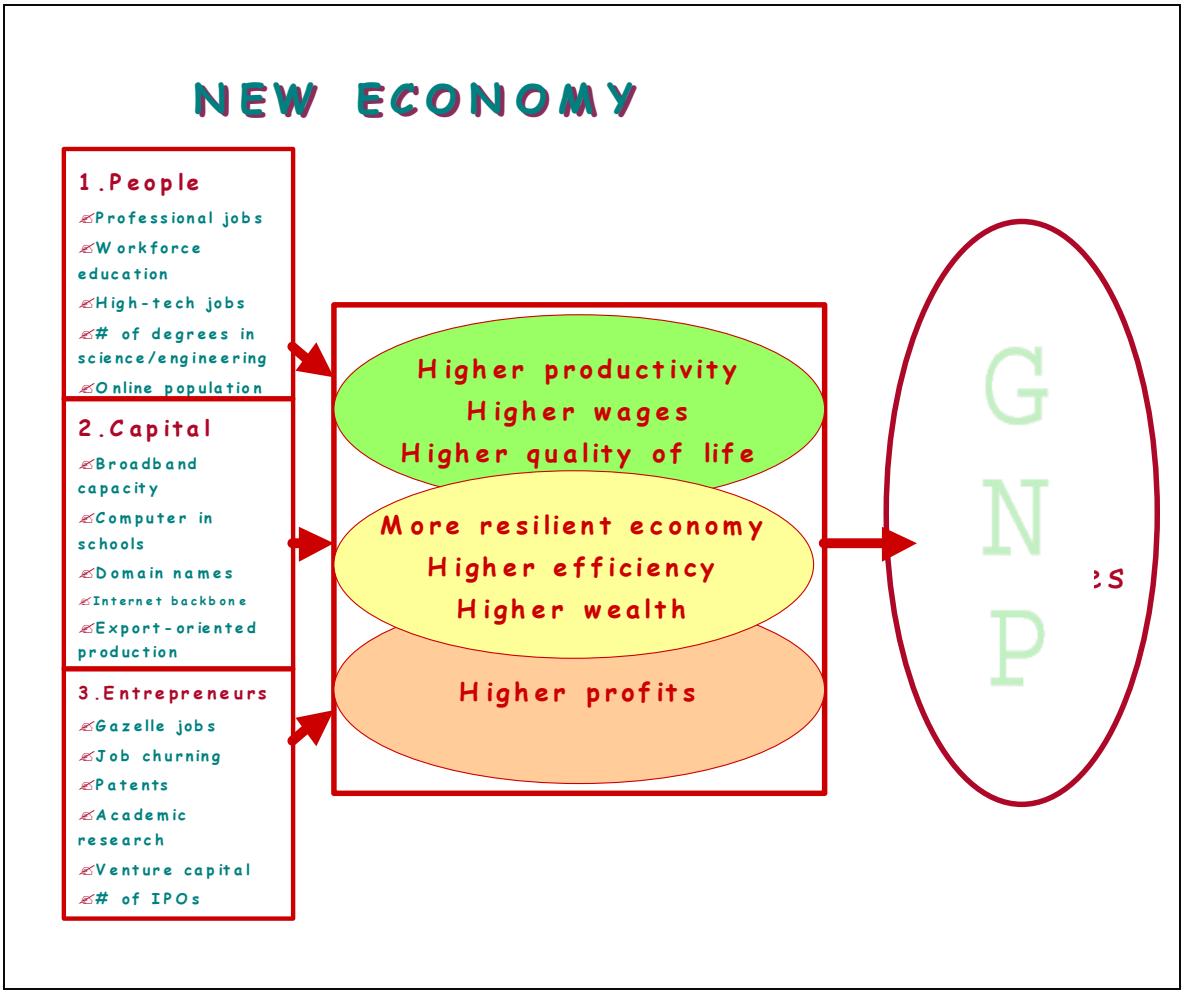
The evaluation of machines and capital consider the level of service "connectedness" and effectiveness of the most powerful of our new generation of information technologies – the Internet backbone and broadband pathway capacity, access for children and adults, creative investment in new ideas, creation of private and public research and development (e.g., number of patents), and entrepreneurial risk.



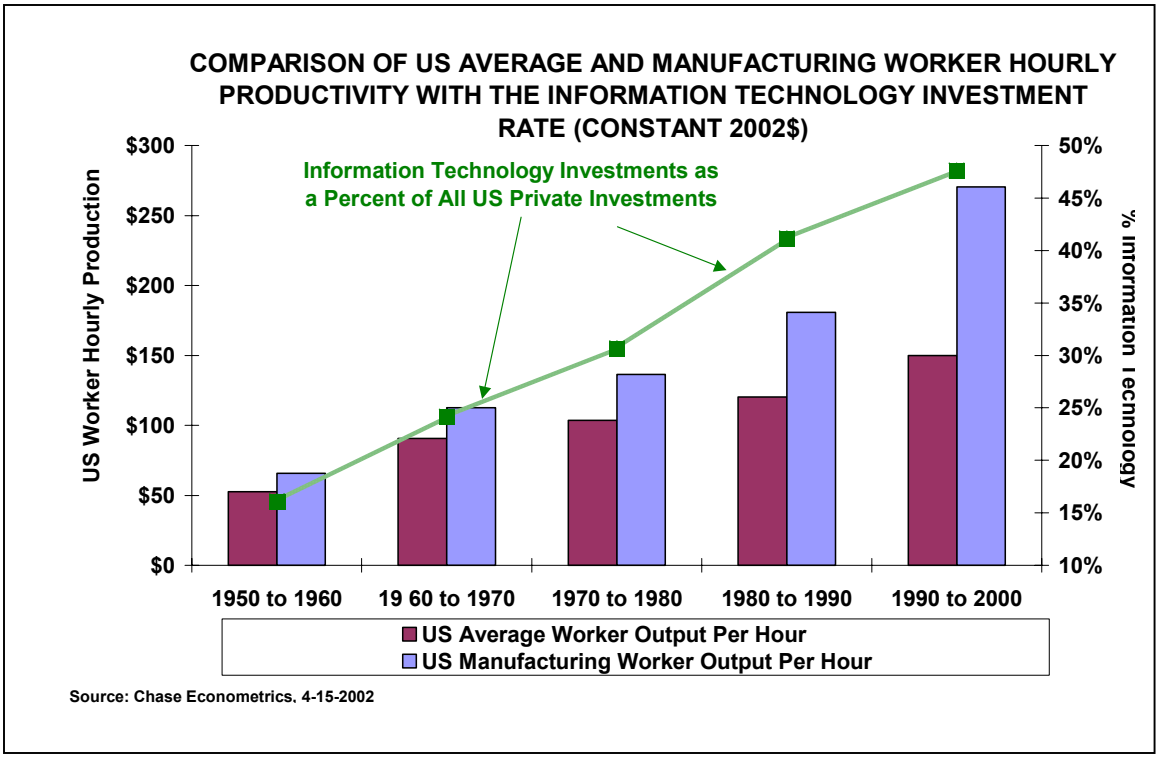
Finally, the newer measures of entrepreneurial energy and inventive creativity in the new economy is measured by the relative level of venture capital, the number of jobs in "Gazelle" or fast growing companies, and "Job Churning" rate, that percent of "New Economy" jobs that are being created and "Old Economy" jobs that are being destroyed. Lastly, the level of creative energies is measured by the relative amount of academic research underway and the number of patents issued in the economy.



Combined, these factors contribute to higher worker and capital productivity, higher levels of efficient resource utilization and reduction of waste, the creation of greater levels and more broadly distributed wealth (higher wages and profits) and ultimately a higher quality of life. A larger production of goods and services (Gross National Product) is the by-product of this enhanced New Economy (see the accompanying graphic).



The following figure provides a good illustration of this phenomena. Over the 1950 to



1990 time period, average US worker and manufacturing worker productivity (in constant 2002 dollars) grew slowly (under 1.5% and 3%, respectively) while the information technology investments plugged along under 25% of total private sector investment. In the early 1990s, IT investments soared to almost 50% of all private sector investments and that ushered in a period of growth in average US worker and manufacturing worker productivity that surged (by 40% and 50% in real terms respectively) to 2.2% and 4.8%, respectively, over that decade. Thus, 2001 ended at $150 and $270, respectively (up from $53 and $66, respectively, in 1960). This surge in productivity made US workers the most productive in the world with a period of sustained growth not before experienced in the post-WWII era.

Many economists believe that the New Economy shows a far greater resiliency and may be leading a new era of economic prosperity and stability. Others believe the relative mild recession the nation is recovering from is attributable to the maturing of the New Economy across the American market place. Others believe that it may help ease some of the more severe global downturns experienced over the past sixty years and help curb future recessionary periods.

LIMITS OF THE PPI STUDY

While this new way of looking at regional economies is important, the PPI comparative research unfortunately excluded 268 medium and smaller MSAs from among the nation's 318 metropolitan areas. This, combined with the reality that a number of the data sets PPI relied on only provide comparable data for the largest MSAs stymied any insight 84% of the nation's MSAs might hope to glean from this research on their relative standings, or strengths and weaknesses they possess in this rapidly emerging internationally competitive high tech global economy.

In late 2001, the Florida Governor's Office provided the Tallahassee Chamber of Commerce with research funds to overcome this constraint for the Tallahassee MSA. The Chamber requested researchers at the Center for Economic Forecasting and Analysis (CEFA) at Florida State University to complete a New Economy Index profile of the region's economy and identify the relative national ranking the Tallahassee MSA would receive had the PPI included it in its MSA ranking. Finally, the Chamber asked CEFA to identify areas of strength and areas that need further attention across the Tallahassee MSA and to provide a set of recommendations to help guide future maturing of the region's economy in the world's increasingly global and information technology dependent markets.

In the spirit of comprehensiveness, CEFA researchers also believe it is important to not only compare the Tallahassee New Economy Index profile to the nation's 50 largest MSAs, but also to compare the region to the other fourteen medium sized (and five largest) Florida MSAs as well. Thus, researchers have assembled two complete analyses in this report. The first is a relative New Economy Index comparison of Tallahassee to the origional 50 PPI MSAs combined with the other fourteen Florida MSAs (five Florida MSAs were included among the initial 50 MSAs, including the combined Miami-Ft.

Lauderdale MSA). This analysis uses information and methods that are as identical as the orrigional author's method as possible and public sources of data and standard methodology are used where needed. The second analysis is a ***comparison of New Economy Index values among the 20 Florida MSAs only, using more recent data*** where available.

THE TRANSFORMATION TO A NEW ECONOMY

Was the New Economy a flash in the pan? Or, even worse, a myth spun by an over-imaginative media? To paraphrase Mark Twain, reports of the New Economy's demise have been greatly exaggerated. The New Economy is here to stay. To be sure, the NASDAQ has fallen sharply, many dot-coms are going bust, and investment in information technology is down. When this news is conflated with the other negative economic indicators that surfaced in winter 2001, it is an easy but mistaken step to pronounce the death of the New Economy. The fallacy of this leap rests on the belief that all the New Economy is about is the Internet and what investor Jim Clark and writer Michael Lewis dubbed the "next new thing." On the contrary, the New Economy embraces more fundamentally a profound transformation of all industries, the kind of transformation that happens perhaps twice in a century. The emergence of the New Economy is equivalent in scope and depth to the rise of the manufacturing economy in the 1890s and the emergence of the mass-production, corporate economy in the 1940s and '50s. As documented in PPI's New Economy Index, the New Economy represents a complex array of forces including the reorganization of firms, more efficient and dynamic capital markets, more economic "churning" and entrepreneurial dynamism, globalization, economic competition, and volatile labor markets. But underlying and powering these changes is the information technology revolution which, notwithstanding media reports of new "pure play" dot-com bankruptcies, is fundamentally healthy. The online market continues to grow at a robust pace, with more and more of its work done by traditional "bricks and mortar" companies diversifying into "clicks and mortar" operations. The Census Bureau reports that e-commerce retail sales grew seven times faster than all retail sales in the fourth quarter of 2000 and was 67 percent higher than in the fourth quarter of 1999. Moreover, between October 2000 and February 2001 Internet growth actually accelerated. Almost five million Internet domain names (e.g., dot-coms) and 17 million Internet hosts (Internet addresses) were added. Home broadband use increased 150 percent last year and is projected to continue growing rapidly. Worldwide Internet use is expected to more than triple by 2005 to more than 1.5 billion people. But what about the slowdown in tech investments? Doesn't this mean that the tech revolution, and by extension, the New Economy has run its course? On the contrary, as a host of new technologies becomes ready for the market, IT investments will remain robust. These include voice recognition, expert systems, smart cards, e-books, cheap storage devices, new display devices and video software, intelligent transportation systems, "third generation" wireless communication devices, and robots. In short, a New Economy has emerged: it is a global knowledge and idea based economy where the keys to wealth and job creation are the extent to which ideas, innovation, and technology are embedded in all sectors of the economy—services, manufacturing, and agriculture.[3]

A recent Newsweek article (April 29, 2002) in "How Great Companies Tame Technology" the author remarked on a fascinating finding; that good-to-great companies become pioneers in the application of technology only after they made the leap to

[3] Extracted from The Metropolitan New Economy Index, Benchmarking Economic Transformation in the Nation's Metropolitan Areas, April, 2001, The Progressive Policy Institute, Technology, Innovation and New Economy Project, 600 Pennsylvania Ave, S.E., suite 400, Washington, www.ppionline.org

breakthrough results, usually years after. He found that technology is an accelerator of greatness already in place, never the principal cause of greatness or decline. Great companies first build a culture of discipline-and create a business model that fits squarely in the intersection of three circles: 1) what they can be the best in the world at 2) a deep understanding of their economic engine and the 3) core values they hold with deep passion. They then use technology to enhance these pre-existing variables, never as a replacement. The author states:

In the late 1990s, our business culture became infected with the idea that a New Economy driven by new technologies had made the eternal verities of management obsolete. But the question is not "What is the role of technology in building great companies?" Rather the real question is "How do those who build great organizations think differently about technology?" [4]

THE NEW ECONOMY IN METROPOLITAN STATISTICAL AREAS

The authors contend that the same forces that are driving the New Economy, namely new industries and jobs, globalization, competition and dynamism and the information technology revolution are also driving a new reordering of the economic geography of America, including its metropolitan regions.

In the old economy much of the economic activity was centered in metropolitan locations. However, with the advent of the IT transformation, employees are freer to locate outside metropolitan areas, thereby reducing the amount of economic activity in MSAs. The share of employment located in the largest 61 MSAs has declined by 1.5 percent between 1988 to 1997, from 55.1 percent, to 54.3 percent. In comparison, the share in smaller MSAs (with population between 50,000 – 250,000) increased by seven percent. Today, many people live and work in the suburbs and rarely visit the central city; others still commute to the central city for work, but find all services needed for their daily activities located in the suburbs. Even the words "cities and suburbs" are becoming antiquated terms; remnants of the Old Economy. Overall, cities are thinning in population and residential land on the fringe of the metropolitan area is expanding in development with low density population, resulting in the current well known phenomenon "urban sprawl". In the New Economy, urban sprawl is the dominant spatial form in most areas.

But, it's not only the location (or spatial) order of economic activity that the New Economy has transformed; it's also the industrial and occupational characteristics. Manufacturing employment has declined as a share of total jobs and only accounts for 11 percent of total employment in the 50 MSAs. With an increase of high technology jobs, employment has shifted to office jobs, and managerial, professional and technical jobs, which account for over 40 percent, and 30 percent, of total employment, respectively. Between 1988 and 1997, large MSA's urban counties have seen business services jobs

[4] Collins, Jim. How Great Companies Tame Technology. In Newsweek: *The Next Frontiers, Companies of the Future- Using Technology to Get Ahead in Business*, April 29, 2002.

increase by 21 percent, and high tech by 24 percent, while their suburban areas have seen increases of 39 percent, and 43 percent, respectively.[5]

OVERVIEW AND METHODOLOGY

The New Economy framework and terminology developed around the late 1990's as a means to explain an unpredicted acceleration in U.S. growth in the economy. From 1996 to 2000 the gross domestic product (GDP) grew at 4.1 percent average rate, compared with just 3.1 percent in the previous four years of expansion. Yet, with this increased GDP there was no resulting increase in consumer inflation as would have been expected. The reason for the economic boon, according to a large group of economists, was a sharp increase in worker productivity, resulting from many years of information technology investment, or average output per worker, which grew at an average rate of 2.5 percent from 1995 to 2000, compared with an increase of 1.4 percent from 1972 to 1995. Alan Greenspan, noted in 2000 that the economy was benefiting from "structural gains" in productivity driven by technological innovation.

This also occurred at a time when the internet was experiencing a meteoric rise in the business and consumer sectors. Economist Peter Rousseau of Vanderbilt University, believes that the economy has entered a change as revolutionary as the 1920s, when a network of power plants and distribution facilities made electricity relatively cheap and widely available for manufacturers and businesses. He also reflects that advanced technology allows manufacturers and other businesses to respond rapidly to declining demand, thereby smoothing out recessions. In a recent paper with Boyan Jovanovic of the University of Chicago, they concluded that the pace of growth in coming decades will continue to be rapid, largely because the price of computing power will keep declining as predicted by Intel Chairman Gordon Moore.

The authors use 16 indicators divided into five categories that best capture what is new about the New Economy:

1) Knowledge jobs. Indicator measures jobs held by managers, professionals, and technicians; and the educational attainment of the workforce.
2) Globalization. Indicator measures the export orientation of manufacturing.
3) Economic dynamism and competition. Indicators in this category measure the number of fast-growing "gazelle" companies (companies with sales growth of 20 percent or more for four straight years); the rate of economic "churn" (which is a product of new business start-ups and existing business failures); and the number of initial public stock offerings (IPOs) by companies in each metro.
4) The transformation to a digital economy. Indicators measure the percentage of adults online; the number of ".com" domain-name registrations; the share of students

[5] The Metropolitan New Economy Index, Benchmarking Economic Transformation in the Nation's Metropolitan Areas, April, 2001, The Progressive Policy Institute, Technology, Innovation and New Economy Project, 600 Pennsylvania Ave, S.E., suite 400, Washington, www.ppionline.org

using computers in schools; internet backbone capacity; and number of providers of broadband telecommunications services.

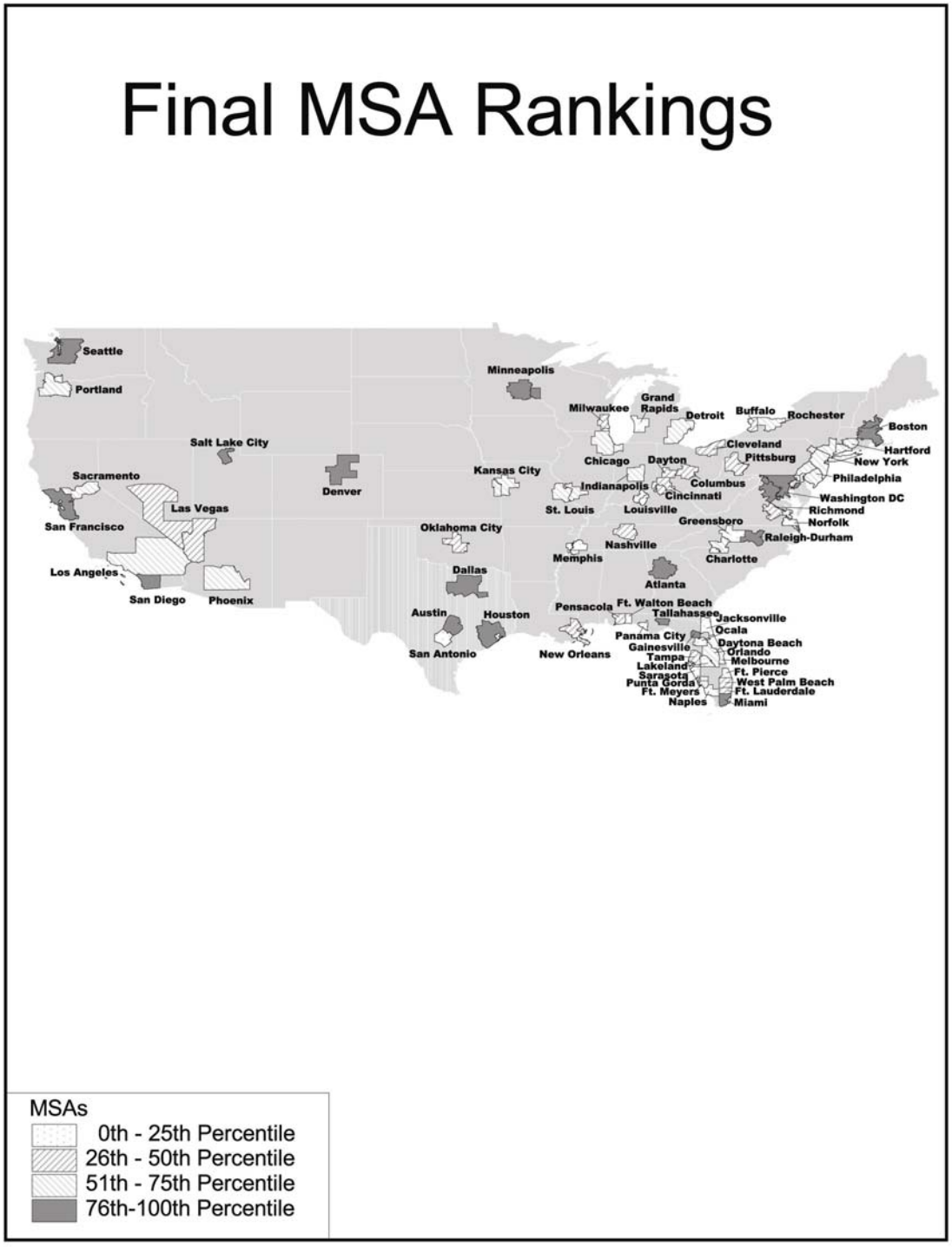
5) Technological innovation capacity. Indicators measure the number of high-tech jobs; the number of science and engineering graduates from area colleges and universities; the number of patents issued; expenditures on research and development at colleges and universities; and venture capital investments.

In all cases, the report relies on the most recently published statistics available, but because of the delays in publishing statistics, particularly federal, the data may in some cases be several years old. In addition, in all cases data are reported to control for the size of the metropolitan area, using factors such as the number of workers or gross metropolitan product (GMP) as the denominator. For some indicators, data were missing or incomplete for a few metropolitan areas. In these cases, we describe the estimation method in the technical appendices section of this report. The overall New Economy scores were calculated as follows. In order to measure the magnitude of the differences between the metro areas, instead of just their rank from one to 50, raw scores are based on standard deviations from the mean. Thus, the raw score was first calculated (e.g., venture capital as a share of gross metropolitan product). Then, the mean score for each of the 50 metros was calculated and each score's deviation from the mean was calculated. Therefore, on most indicators, approximately half the metro areas have negative scores (below the 50-metro mean) and approximately half have positive scores. Using standard deviations accounts not just for the rank, but for the relative difference between scores, giving more weight, for example, to a metro that scores significantly above others, as compared to one that is only marginally above others. In three of the five sub-index categories, and in the calculation of the overall New Economy scores, the indicators are weighted so that closely correlated ones (for example, patents, R&D spending, and high-tech workers) do not bias the results for the overall scores. (See Appendix.) The overall scores are calculated by adding the metros' adjusted scores in each of the five sub-index categories. The sum of the individual indicator scores are equally adjusted (10 is added to every final metro score in the Academic R&D, Science and Engineering Degrees, Internet Domain Names, and Job Churning) to ensure that all are positive. These final scores are then divided by the sum of the highest score achieved by any metro in each category. Thus, each metro's final score is a percentage of the total score a metro would have achieved if it had finished first in every category.

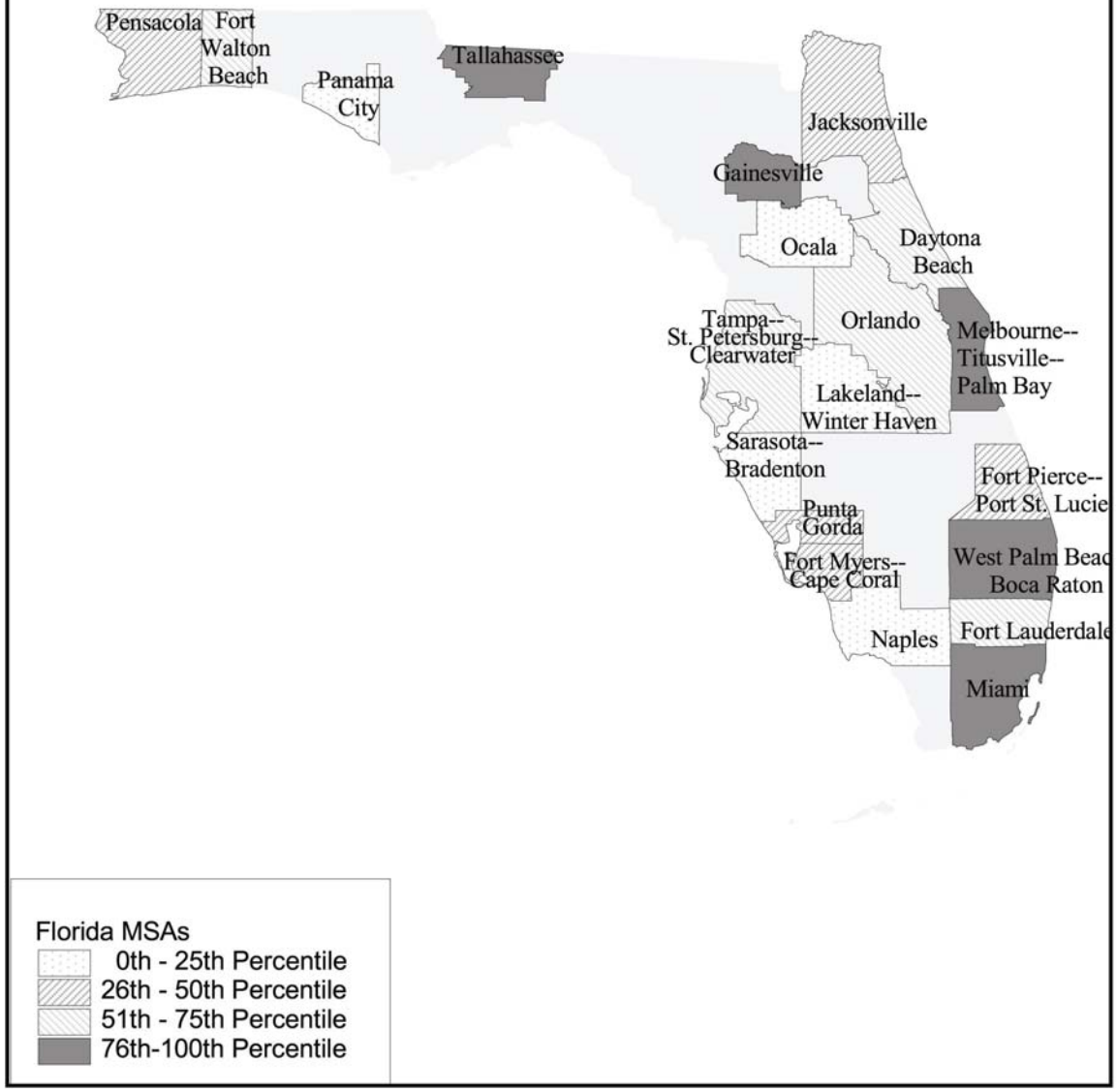
METROPOLITAN NEW ECONOMY SCORES IN ALPHABETICAL ORDER
OVERALL NEW ECONOMY SCORES

Rank	MSA	Score	Rank	MSA	Score	Rank	MSA	Score
1	San Francisco	88.7	23	Chicago	38.4	45	Oklahoma City	28.7
2	Austin	70.4	24	Kansas City	38.2	46	Pittsburgh	28.6
3	Seattle	62.7	25	Orlando	38.1	47	New Orleans	28.4
4	Gainesville	61.6	26	Philadelphia	38.1	48	Dayton	27.2
5	San Diego	57.3	27	Rochester	36.3	49	Tampa	27.1
6	Wash. D.C.	55.0	28	Sacramento	36.2	50	Ft. Walton Beach	26.0
7	Denver	53.9	29	Hartford	35.0	51	Panama City	25.7
8	Raleigh-Durham	53.6	30	Charlotte	33.9	52	Daytona Beach	25.1
9	Boston	50.7	31	St. Louis	33.9	53	Greensboro	25.1
10	Salt Lake City	47.8	32	Indianapolis	33.2	54	Norfolk	24.8
11	Tallahassee	47.7	33	Detroit	32.8	55	Louisville	24.8
12	Minneapolis	47.2	34	Nashville	32.0	56	Ft. Pierce	24.4
13	Atlanta	47.1	35	Richmond	31.9	57	Jacksonville	24.4
14	Dallas	45.6	36	Cleveland	31.6	58	Memphis	24.1
15	Miami (in Ft Lauderdale)	44.4	37	Las Vegas	31.5	59	Sarasota	22.6
16	Houston	44.4	38	Bufflao	31.4	60	San Antonio	20.3
17	Miami	43.8	39	Cincinnati	31.0	61	Ft. Myers	20.3
18	Melbourne	43.0	40	Pensacola	31.0	62	Grand Rapids	20.3
19	Phoenix	42.9	41	Ft. Lauderdale	30.1	63	Naples	20.2
20	Portland	42.9	42	W. Palm Beach	30.0	64	Punta Gorda	16.5
21	Los Angeles	41.3	43	Milwaukee	29.9	65	Ocala	16.5
22	New York	39.1	44	Columbus	29.9	66	Lakeland	13.0

OVERALL NEW ECONOMY SCORES



Final Ranking



METROPOLITAN NEW ECONOMY SCORES BY OVERALL RANK

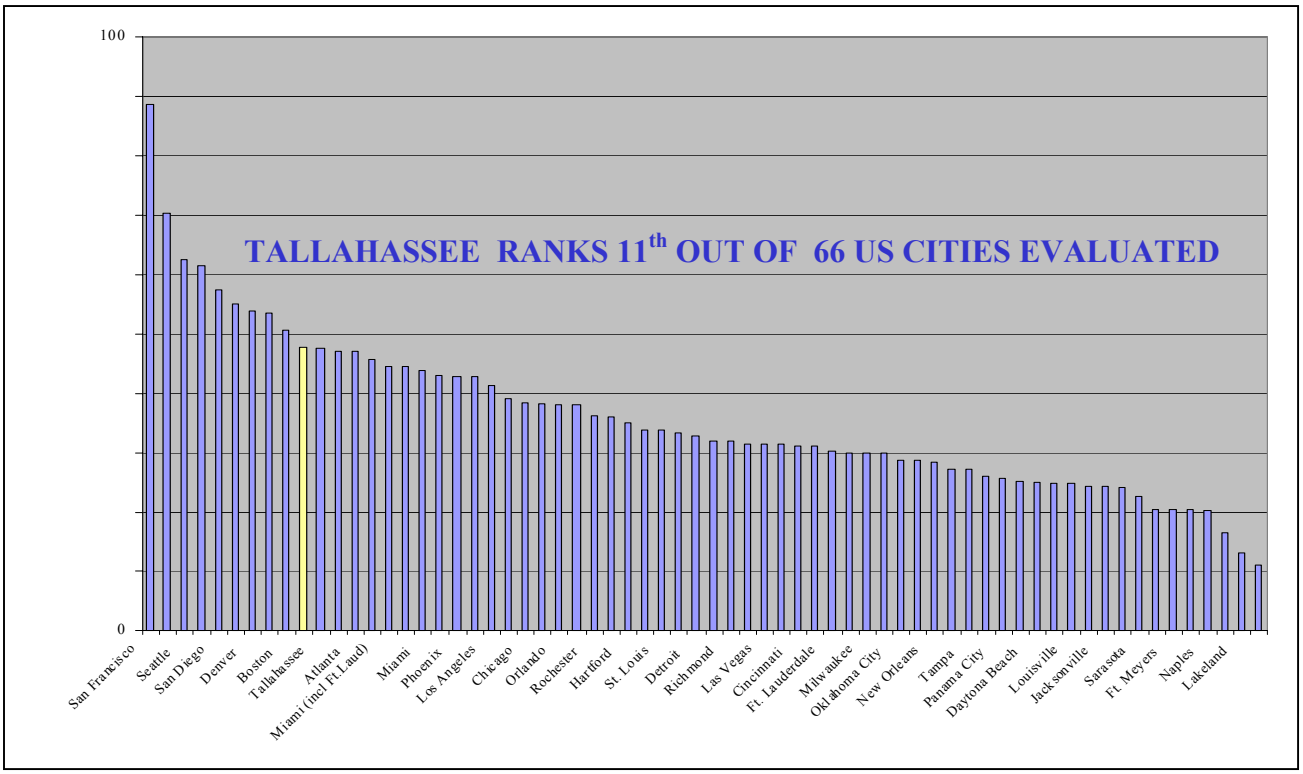
		Overall	Managerial, Prof.		Workforce		Export Focus of						New Publicly Traded		Online		Broadband	
		Final	Technical Jobs		Education		Manufacturing		"Gazelles"		Job Churning		Companies		Population		Tele. Cap.	
Rank	MSA	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
1	San Francisco	88.7	15	40.0%	4	0.69	5	$80,000	4	11.9%	30	10.07	1	0.3234	1	56.1%	1	4.61
2	Austin	70.4	2	46.0%	7	0.67	15	$47,000	38	9.9%	15	10.57	5	0.0939	2	55.5%	8	3.72
3	Seattle	62.7	7	44.0%	11	0.64	2	$129,000	65	7.0%	53	9.48	2	0.2812	3	53.3%	9	3.62
4	Gainesville	61.6	3	46.0%	1	0.83	57	$10,713	8	10.9%	66	8.12	46	0.0005	5	52.5%	64	1.45
5	San Diego	57.3	14	40.0%	14	0.63	8	$62,000	32	10.2%	11	10.73	7	0.0687	14	46.8%	3	4.43
6	Washington DC	55.0	1	48.0%	3	0.74	18	$43,000	45	9.4%	22	10.23	17	0.0348	4	52.8%	10	3.56
7	Denver	53.9	5	45.0%	6	0.68	55	$17,000	41	9.6%	1	11.34	6	0.0747	9	49.0%	2	4.52
8	Raleigh-Durham	53.6	8	44.0%	8	0.66	31	$30,000	64	7.2%	19	10.33	22	0.025	18	45.7%	45	2.11
9	Boston	50.7	9	43.0%	15	0.63	30	$31,000	58	8.3%	44	9.69	4	0.0999	17	46.0%	20	2.99
10	Salt Lake City	47.8	10	41.0%	20	0.62	35	$29,000	13	10.6%	6	11.01	26	0.0238	6	50.0%	36	2.53
11	Tallahassee	47.7	19	39.0%	2	0.75	61	$9,851	11	10.7%	45	9.66	60	0	7	49.6%	66	0.84
12	Minneapolis	47.2	6	45.0%	5	0.68	20	$40,000	33	10.2%	14	10.58	15	0.0361	20	45.0%	23	2.86
13	Atlanta	47.1	12	40.0%	26	0.60	25	$34,000	37	10.0%	2	11.15	8	0.0546	19	45.1%	7	3.87
14	Dallas	45.6	20	38.0%	34	0.57	29	$31,000	35	10.1%	5	11.02	19	0.0326	8	49.6%	12	3.49
15	Miami (incl Ft.Laud	44.4	52	30.0%	46	0.53	3	$127,000	10	10.9%	16	10.53	13	0.0376	32	41.8%	15	3.31
16	Houston	44.4	47	31.0%	10	0.65	6	$75,000	6	11.2%	13	10.65	14	0.0362	10	48.8%	11	3.51
17	Miami	43.8	56	29.0%	53	0.50	1	$169,836	24	10.5%	55	9.46	47	0.0005	31	41.8%	17	3.11
18	Melbourne	43.0	23	38.0%	36	0.56	47	$21,914	26	10.4%	61	9.24	43	0.0011	24	43.6%	42	2.17
19	Phoenix	42.9	38	34.0%	48	0.52	16	$46,000	5	11.2%	3	11.12	20	0.0297	25	43.4%	4	4.33
20	Portland	42.9	31	36.0%	21	0.61	14	$48,000	43	9.5%	33	9.97	11	0.0405	13	48.1%	22	2.91
21	Los Angeles	41.3	48	31.0%	47	0.53	27	$33,000	18	10.6%	17	10.45	21	0.0273	11	48.7%	5	4.27
22	New York	39.1	26	37.0%	16	0.63	13	$52,000	53	8.7%	59	9.27	10	0.0449	23	43.7%	18	3.08
23	Chicago	38.4	32	36.0%	41	0.53	28	$32,000	47	9.4%	32	10.01	16	0.0354	21	44.8%	6	3.94
24	Kansas City	38.2	24	37.0%	38	0.55	26	$33,000	23	10.5%	36	9.95	18	0.0339	16	46.1%	54	2
25	Orlando	38.1	46	31.0%	52	0.50	39	$26,000	1	16.2%	26	10.14	55	0	40	40.3%	31	2.76
26	Philadelphia	38.1	13	40.0%	28	0.60	24	$35,000	39	9.8%	52	9.49	12	0.0392	34	41.5%	21	2.98
27	Rochester	36.3	33	36.0%	13	0.64	23	$36,000	56	8.4%	65	8.36	25	0.0238	66	24.5%	53	2
28	Sacramento	36.2	43	32.0%	17	0.63	33	$29,000	59	8.2%	58	9.35	39	0.0076	15	46.3%	26	2.82
29	Hartford	35.0	4	46.0%	33	0.58	21	$39,000	15	10.6%	64	8.99	30	0.0168	36	40.9%	44	2.11
30	Charlotte	33.9	36	35.0%	22	0.61	53	$18,000	3	12.6%	21	10.26	36	0.0092	52	36.7%	29	2.77
31	St. Louis	33.9	40	33.0%	40	0.54	48	$21,000	14	10.6%	27	10.09	29	0.0173	37	40.8%	50	2.05
32	Indianapolis	33.2	17	39.0%	39	0.55	22	$36,000	54	8.6%	25	10.18	35	0.0096	28	42.3%	30	2.76
33	Detroit	32.8	29	37.0%	32	0.58	9	$55,000	60	8.1%	60	9.26	40	0.0059	45	38.8%	14	3.34
34	Nashville	32.0	11	41.0%	27	0.60	50	$19,000	50	9.2%	12	10.73	23	0.0244	57	35.8%	16	3.27
35	Richmond	31.9	41	33.0%	9	0.65	4	$86,000	49	9.2%	40	9.82	57	0	65	24.6%	13	3.38
36	Cleveland	31.6	18	39.0%	25	0.60	40	$26,000	46	9.4%	56	9.45	41	0.0053	50	37.3%	28	2.78
37	Las Vegas	31.5	60	25.0%	62	0.44	66	$0	2	14.5%	4	11.09	28	0.0208	30	41.8%	27	2.79
38	Buffalo	31.4	28	37.0%	18	0.62	42	$25,000	36	10.1%	49	9.51	63	0	55	35.9%	49	2.07
39	Cincinnati	31.0	16	39.0%	23	0.61	19	$40,000	48	9.4%	62	9.22	24	0.0239	56	35.8%	40	2.27
40	Pensacola	31.0	35	36.0%	49	0.52	65	$4,151	19	10.6%	9	10.94	51	0	33	41.6%	65	1.4
41	Ft. Lauderdale	30.1	50	31.0%	51	0.51	17	$45,398	12	10.7%	39	9.85	48	0.0004	41	40.0%	19	3.03
42	West Palm Beach	30.0	45	31.0%	54	0.49	32	$29,000	28	10.4%	48	9.54	3	0.1184	51	36.9%	32	2.62
43	Milwaukee	29.9	25	37.0%	37	0.56	51	$19,000	30	10.3%	41	9.76	38	0.0089	44	38.9%	52	2.02
44	Columbus	29.9	22	38.0%	30	0.59	54	$18,000	55	8.5%	43	9.73	37	0.009	35	41.1%	33	2.61
45	Oklahoma City	28.7	21	38.0%	12	0.64	58	$10,000	62	8.0%	57	9.43	9	0.0513	43	39.7%	34	2.59
46	Pittsburgh	28.6	34	36.0%	31	0.58	36	$28,000	57	8.4%	63	9.14	33	0.0137	64	30.8%	35	2.56
47	New Orleans	28.4	30	37.0%	45	0.53	10	$55,000	42	9.5%	37	9.91	52	0	39	40.5%	51	2.03
48	Dayton	27.2	27	37.0%	24	0.61	45	$22,000	63	7.8%	31	10.01	65	0	60	34.6%	48	2.07
49	Tampa	27.1	44	32.0%	58	0.46	38	$26,000	7	11.0%	38	9.86	34	0.0137	53	36.7%	38	2.49
50	Ft. Walton Beach	26.0	61	25.0%	29	0.59	44	$23,955	31	10.2%	7	11	59	0	22	44.5%	59	1.76
51	Panama City	25.7	62	22.0%	56	0.47	12	$53,239	16	10.6%	20	10.29	61	0	48	38.2%	56	1.9
52	Daytona Beach	25.1	53	30.0%	59	0.46	59	$9,951	44	10.4%	8	10.96	53	0	47	38.2%	60	1.73
53	Greensboro	25.1	49	31.0%	55	0.48	43	$24,000	29	9.4%	18	10.33	27	0.0233	42	39.7%	41	2.12
54	Norfolk	24.8	37	35.0%	19	0.62	46	$22,000	66	5.9%	46	9.56	66	0	12	48.5%	24	2.84
55	Louisville	24.8	42	32.0%	42	0.53	41	$25,000	40	9.7%	24	10.18	31	0.0144	58	35.5%	39	2.39
56	Ft. Pierce	24.4	54	29.0%	61	0.45	56	$15,882	17	10.6%	10	10.91	54	0	49	37.6%	62	1.6
57	Jacksonville	24.4	58	27.0%	43	0.53	49	$19,000	27	10.4%	23	10.2	62	0	26	43.1%	43	2.15
58	Memphis	24.1	59	26.0%	44	0.53	11	$55,000	52	8.8%	54	9.48	32	0.0142	54	36.1%	25	2.83
59	Sarasota	22.6	57	27.0%	50	0.52	62	$8,812	25	10.4%	50	9.5	50	0.0002	27	43.0%	46	2.1
60	San Antonio	20.3	51	30.0%	63	0.44	34	$29,000	61	8.0%	29	10.08	58	0	61	34.2%	37	2.52
61	Ft. Meyers	20.3	55	29.0%	57	0.47	37	$26,405	9	10.9%	28	10.09	49	0.0003	46	38.3%	57	1.84
62	Grand Rapids	20.3	39	33.0%	60	0.45	52	$19,000	51	8.9%	42	9.76	64	0	38	40.5%	47	2.08
63	Naples	20.2	65	19.0%	35	0.56	64	$6,446	22	10.5%	34	9.96	42	0.0012	29	41.9%	55	1.9
64	Punta Gorda	16.5	66	18.0%	64	0.41	7	$74,350	34	10.2%	51	9.5	44	0.001	59	35.4%	61	1.66
65	Ocala	16.5	63	21.0%	66	0.36	63	$7,625	21	10.6%	35	9.95	45	0.0006	63	32.9%	63	1.56
66	Lakeland	13.0	64	19.0%	65	0.37	60	$9,890	20	10.6%	47	9.56	56	0	62	33.1%	58	1.78

		Overall Final	Computer Use in Schools		Commercial Internet Domain Names		Internet Backbone		High-Tech Jobs		Degrees Granted in S&E		Patents		Academic R&D Funding		Venture Capital	
Rank	MSA	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score	Rank	Score
1	San Francisco	88.7	26	68.0%	1	13.75	11	45	2	8.6%	39	9.78	2	1.45	21	9.99	1	5.50%
2	Austin	70.4	8	76.0%	4	11.80	15	43	1	9.0%	7	10.36	3	1.38	6	10.46	3	1.83%
3	Seattle	62.7	53	62.0%	11	10.88	9	49	28	3.4%	40	9.78	23	0.5	27	9.92	2	2.71%
4	Gainesville	61.6	52	62.0%	18	10.49	60	2	63	1.4%	1	14.75	12	0.61	1	14.60	50	0.02%
5	San Diego	57.3	14	74.0%	3	12.31	31	26	8	4.9%	25	9.92	5	0.84	14	10.06	7	1.01%
6	Washington DC	55.0	12	74.0%	5	11.50	14	43	9	4.8%	17	10.01	38	0.34	5	10.53	10	0.44%
7	Denver	53.9	36	64.0%	14	10.68	6	57	6	5.1%	18	10.01	16	0.54	33	9.86	6	1.20%
8	Raleigh-Durham	53.6	23	68.0%	21	10.47	44	20	4	8.0%	5	10.71	7	0.79	2	13.00	5	1.35%
9	Boston	50.7	32	65.0%	13	10.78	45	20	5	7.1%	8	10.24	6	0.79	4	10.73	4	1.53%
10	Salt Lake City	47.8	35	64.0%	28	10.06	1	103	22	4.0%	31	9.87	22	0.51	7	10.39	34	0.14%
11	Tallahassee	47.7	46	63.0%	33	9.89	2	92	48	2.5%	2	12.14	58	0.17	3	11.27	63	0.00%
12	Minneapolis	47.2	9	76.0%	24	10.27	52	15	10	4.7%	36	9.81	4	0.85	23	9.92	12	0.42%
13	Atlanta	47.1	22	69.0%	15	10.68	4	59	18	4.1%	41	9.78	37	0.34	12	10.13	13	0.42%
14	Dallas	45.6	13	74.0%	20	10.47	5	57	7	5.0%	54	9.66	27	0.48	43	9.72	27	0.20%
15	Miami (incl Ft.Laud	44.4	27	68.0%	9	11.09	43	21	52	2.4%	49	9.72	43	0.27	18	9.99	20	0.29%
16	Houston	44.4	39	63.0%	22	10.37	25	30	50	2.5%	52	9.66	20	0.51	20	9.99	35	0.13%
17	Miami	43.8	51	63.0%	7	11.47	40	21	27	3.5%	58	9.63	60	0.17	29	9.92	25	0.23%
18	Melbourne	43.0	43	63.0%	31	9.94	33	25	3	8.1%	4	11.38	11	0.64	50	9.65	8	0.58%
19	Phoenix	42.9	56	60.0%	8	11.29	30	26	20	4.0%	48	9.72	17	0.53	41	9.72	26	0.22%
20	Portland	42.9	29	67.0%	23	10.37	8	51	11	4.5%	46	9.75	15	0.56	39	9.79	11	0.43%
21	Los Angeles	41.3	62	58.0%	2	12.42	51	16	30	3.4%	38	9.78	31	0.44	37	9.79	14	0.36%
22	New York	39.1	45	63.0%	12	10.88	42	21	21	4.0%	29	9.89	25	0.49	22	9.92	17	0.33%
23	Chicago	38.4	24	68.0%	30	9.96	19	41	19	4.0%	33	9.84	24	0.5	34	9.86	23	0.23%
24	Kansas City	38.2	11	75.0%	27	10.06	3	78	23	3.8%	56	9.66	56	0.18	46	9.66	46	0.04%
25	Orlando	38.1	15	72.0%	25	10.06	10	46	32	3.1%	47	9.72	52	0.19	49	9.66	16	0.34%
26	Philadelphia	38.1	28	67.0%	19	10.47	41	21	26	3.5%	26	9.92	13	0.59	26	9.92	24	0.23%
27	Rochester	36.3	4	79.0%	36	9.55	32	25	17	4.2%	11	10.19	1	2.33	16	10.06	21	0.29%
28	Sacramento	36.2	21	69.0%	17	10.57	17	42	12	4.5%	19	10.01	39	0.33	19	9.99	28	0.18%
29	Hartford	35.0	33	65.0%	44	9.35	34	25	31	3.1%	15	10.04	14	0.57	24	9.92	30	0.16%
30	Charlotte	33.9	6	77.0%	45	9.35	22	38	37	2.8%	55	9.66	46	0.24	58	9.59	36	0.10%
31	St. Louis	33.9	2	80.0%	55	9.14	13	44	34	3.0%	22	9.95	34	0.41	8	10.33	15	0.34%
32	Indianapolis	33.2	7	77.0%	52	9.24	21	39	39	2.7%	42	9.75	18	0.53	60	9.59	54	0.01%
33	Detroit	32.8	16	72.0%	43	9.35	48	18	38	2.7%	23	9.95	8	0.71	25	9.92	47	0.04%
34	Nashville	32.0	31	67.0%	29	9.96	39	21	57	1.9%	32	9.84	65	0.14	31	9.86	22	0.24%
35	Richmond	31.9	55	60.0%	41	9.35	12	44	51	2.4%	35	9.81	48	0.22	11	10.13	52	0.02%
36	Cleveland	31.6	10	75.0%	46	9.35	24	35	46	2.6%	34	9.84	21	0.51	38	9.79	49	0.04%
37	Las Vegas	31.5	64	57.0%	6	11.50	7	52	66	1.1%	63	9.49	64	0.14	45	9.66	19	0.30%
38	Buffalo	31.4	25	68.0%	34	9.65	29	27	42	2.7%	10	10.21	32	0.44	13	10.06	41	0.08%
39	Cincinnati	31.0	17	72.0%	39	9.45	56	7	53	2.4%	30	9.87	10	0.69	17	9.99	39	0.09%
40	Pensacola	31.0	60	59.0%	63	8.92	28	28	47	2.5%	3	11.44	59	0.17	51	9.64	32	0.15%
41	Ft. Lauderdale	30.1	48	63.0%	16	10.66	38	21	62	1.5%	59	9.62	33	0.42	53	9.60	18	0.30%
42	West Palm Beach	30.0	66	49.0%	10	10.88	54	10	45	2.6%	51	9.69	9	0.7	47	9.66	33	0.14%
43	Milwaukee	29.9	3	79.0%	42	9.35	35	24	40	2.7%	43	9.75	30	0.47	42	9.72	42	0.08%
44	Columbus	29.9	20	70.0%	35	9.55	55	7	33	3.0%	13	10.10	40	0.3	10	10.19	45	0.04%
45	Oklahoma City	28.7	30	67.0%	53	9.24	27	28	44	2.6%	21	9.98	53	0.19	32	9.86	38	0.09%
46	Pittsburgh	28.6	5	79.0%	50	9.24	47	19	29	3.4%	14	10.07	26	0.49	15	10.06	29	0.17%
47	New Orleans	28.4	54	61.0%	61	9.04	16	43	65	1.2%	27	9.92	61	0.16	35	9.86	43	0.07%
48	Dayton	27.2	19	70.0%	38	9.45	53	11	41	2.7%	12	10.19	19	0.52	44	9.72	44	0.04%
49	Tampa	27.1	65	56.0%	26	10.06	36	23	25	3.6%	45	9.75	47	0.23	28	9.92	40	0.09%
50	Ft. Walton Beach	26.0	41	63.0%	40	9.36	61	1	14	4.4%	64	9.35	63	0.15	65	9.59	65	0.00%
51	Panama City	25.7	49	63.0%	65	8.76	65	0	15	4.2%	9	10.22	36	0.36	62	9.59	57	0.00%
52	Daytona Beach	25.1	38	59.0%	56	9.09	37	22	35	3.0%	6	10.46	50	0.2	52	10.19	61	0.00%
53	Greensboro	25.1	58	63.0%	60	9.04	26	29	54	2.3%	37	9.81	42	0.27	9	9.60	64	0.00%
54	Norfolk	24.8	34	64.0%	59	9.04	46	20	61	1.9%	24	9.92	66	0.13	40	9.79	53	0.02%
55	Louisville	24.8	1	81.0%	58	9.04	59	2	60	1.9%	50	9.69	57	0.17	36	9.79	31	0.16%
56	Ft. Pierce	24.4	44	63.0%	64	8.88	20	40	43	2.6%	28	9.91	35	0.39	64	9.59	62	0.00%
57	Jacksonville	24.4	42	63.0%	49	9.24	23	36	56	2.1%	61	9.55	55	0.18	55	9.59	48	0.04%
58	Memphis	24.1	18	71.0%	57	9.04	50	17	55	2.3%	53	9.66	49	0.21	48	9.66	56	0.00%
59	Sarasota	22.6	61	59.0%	32	9.89	62	0	16	4.2%	62	9.49	41	0.29	66	9.59	59	0.00%
60	San Antonio	20.3	40	63.0%	48	9.24	49	18	36	2.9%	44	9.75	51	0.19	30	9.86	37	0.10%
61	Ft. Meyers	20.3	59	59.0%	62	8.94	63	0	49	2.5%	60	9.58	45	0.26	57	9.59	66	0.00%
62	Grand Rapids	20.3	63	58.0%	51	9.24	57	5	58	1.9%	57	9.66	29	0.47	63	9.59	9	0.49%
63	Naples	20.2	50	63.0%	37	9.51	18	42	59	1.9%	66	9.16	44	0.27	54	9.59	55	0.01%
64	Punta Gorda	16.5	47	63.0%	54	9.15	64	0	64	1.4%	65	9.16	28	0.47	56	9.59	60	0.00%
65	Ocala	16.5	37	63.0%	47	9.27	58	3	13	4.4%	16	10.03	54	0.19	59	9.59	51	0.02%
66	Lakeland	13.0	57	60.0%	66	8.66	66	0	24	3.6%	20	10.00	62	0.15	61	9.59	58	0.00%

SUMMARY OF RESULTS

In the final analysis, the Tallahassee MSA scored an 11th place overall ranking among the 66 MSAs evaluated after all of the indicators were tallied together. This final ranking places Tallahassee in the 82% of all cities evaluated.[6] This relatively high final ranking confirms something that analysts and a number of residents have realized anecdotally for a number of years. The city's economy has a number of very strong advantages and is quite robust by both conventional measures and by those that measure the areas fitness for the New Economy.

TALLAHASSEE'S FINAL RANKING AMONG THE CITIES EVALUATED



The accompanying table outlines the New Economy Index indicators where the Tallahassee economy ranked both the highest and lowest among the 66 examined MSAs followed by a series of recommendations.

[6] Again realize that approximately 250 additional medium and smaller US MSAs were not evaluated in this ranking and if they were all included the relative position of the 15 medium and smaller Florida MSAs would likely change considerably.

Tallahassee has an opportunity to build strength in:

ECONOMIC CATEGORY	ECONOMIC INDICATOR	RANK
GLOBALIZATION	EXPORT SALES	61
THE DIGITAL ECONOMY	BROADBAND TELECOM CAPACITY	66
ECONOMIC DYNAMISM	# OF NEW PUBLICLY TRADED IPOs	60
	JOB CHURNING	45
INNOVATION CAPACITY	VENTURE CAPITAL	63
	PATENTS	58

RECOMMENDATIONS

- Business and government must partner together to expand :
- Broad band high speed Internet access to all business, educational and residential need.
- Business community access to venture capital.
- Regional creative innovation, business formation and trade efforts and job creation.

Business and government must partner to:

- Build on our strengths - high levels of professional/technical jobs and a highly educated, online-savvy workforce, student base and general population.

- Communicate to prospective and existing businesses Tallahassee's strong "high tech" ranking, Internet access and dynamic economy.

- Convert our excellent science, engineering and research capabilities into commercially viable local ventures.

NEW METROPOLITAN ECONOMIES, NEW ECONOMIC STRATEGIES

KNOWLEDGE JOBS

In the old economy, metro areas prospered by having a large number of jobs and workers who could work on "assembly lines" to produce goods or process information. In the New Economy, globalization and the information technology revolution make it easier for more low-value-added standardized goods and information processing jobs to locate in cheaper areas. As a result, larger metro areas will prosper if their workers are good with their minds and are employed in the knowledge- and information-based jobs driving the New Economy. Many of these jobs tend to be managerial, professional, and technical positions held by individuals with at least two years of college. In the old economy, the focus was on attracting and growing companies, with the view that workers with more or less interchangeable skills would follow the jobs. In a knowledge economy with low unemployment, companies place more importance on attracting and retaining talent. Moreover, highly skilled workers are more geographically mobile than workers with less education, which makes quality-of-life factors much more important. As a result, a key ingredient in determining a region's success is its ability to attract(and develop) knowledge workers. The knowledge jobs indicators in this section measure two things: 1) the share of the workforce employed in managerial, professional, and technical positions; and 2) the education level of the workforce.[7]

Rank	MSA	Score
1	Gainesville	12.3
2	Washington DC	12.0
3	Austin	11.4
4	Denver	11.4
5	Minneapolis	11.4
6	Tallahassee	11.3
7	Raleigh-Durham	11.2
8	Seattle	11.1
9	San Francisco	11.1
10	Boston	11.0
11	Hartford	10.9
12	Salt Lake City	10.8
13	San Diego	10.7
14	Oklahoma City	10.7
15	Nashville	10.6
16	Atlanta	10.6
17	Philadelphia	10.6
18	Cincinnati	10.6
19	New York	10.5
20	Rochester	10.5
21	Cleveland	10.5
22	Buffalo	10.5
23	Dayton	10.4
24	Columbus	10.4
25	Richmond	10.4
26	Portland	10.3
27	Norfolk	10.3
28	Charlotte	10.3
29	Dallas	10.3
30	Detroit	10.2
31	Indianapolis	10.2
32	Melbourne	10.2
33	Houston	10.2
34	Pittsburgh	10.2
35	Sacramento	10.2
36	Milwaukee	10.1
37	Kansas City	10.1
38	New Orleans	10.0
39	Chicago	9.9
40	Pensacola	9.8
41	St. Louis	9.7
42	Phoenix	9.7
43	Louisville	9.6
44	Los Angeles	9.5
45	Miami (incl Ft.Laud)	9.4
46	Ft. Walton Beach	9.4
47	Ft. Lauderdale	9.4
48	Orlando	9.3
49	West Palm Beach	9.3
50	Greensboro	9.2
51	Jacksonville	9.2
52	Miami	9.2
53	Grand Rapids	9.2
54	Sarasota	9.2
55	Tampa	9.2
56	Memphis	9.2
57	Ft. Meyers	9.0
58	Daytona Beach	9.0
59	Ft. Pierce	9.0
60	San Antonio	8.9
61	Naples	8.8
62	Las Vegas	8.6
63	Panama City	8.5
64	Punta Gorda	7.9
65	Ocala	7.9
66	Lakeland	7.7

[7] Extracted from The Metropolitan New Economy Index, Benchmarking Economic Transformation in the Nation's Metropolitan Areas, April, 2001, The Progressive Policy Institute, Technology, Innovation and New Economy Project. http://www.ppionline.org/

MANAGERIAL, PROFESSIONAL, AND TECHNICAL JOBS

Managers, professionals, and technicians as a share of the total workforce.

Why Is This Important? The rise of new industries has meant the rise of new jobs, while new technology and new ways of organizing work have transformed many existing jobs. Both trends have changed the occupational mix in America. In particular, managerial, professional, and technical jobs have increased as a share of total employment. These workers include, among others, managers, engineers and scientists, health professionals, lawyers, educators, accountants, bankers, consultants, and engineering technicians.

The Rankings: Metro areas with high rankings tend to have a large number of corporate or regional headquarters. For example, Hartford is home to insurance and defense headquarters. But government helps as well. Washington, D.C.'s large number of government jobs, combined with its many lawyers and growing high-tech industry, accounts for its number one rank, while Hartford, Austin, and Denver are all state capitols. Gainesville performed nicely, at third place, when compared to the larger MSAs. Places that score low tend to be in the South and Southwest, and are places that have historically focused on a low cost industrial recruitment model, emphasizing low costs over quality of life and an infrastructure for innovation.

Rank	The top five:	Percentage of jobs held by managers, professionals, and technicians:
1	Washington, D.C.	48%
2	Austin	46%
3	Gainesville	46%
4	Hartford	46%
5	Denver	45%
	Tallahassee MSA Ranking	
2	Tallahassee	39%
	The bottom five:	
62	Panama City	22%
63	Ocala	21%
64	Lakeland	19%
65	Naples	19%
66	Punta Gorda	18%
	U.S. Top 50 MSA Average	37%
	U.S. Top 50 MSA and 16 Fl MSA Average	35%

Source: Bureau of Labor Statistics, 2000. Occupational Employment Statistics.

Tallahassee Rankings: Tallahassee ranked 19th nationally in managerial/professional /technical job area. The percentage hold by Managers/Professionals /Technicians is 39%, this percentage is higher than U.S. top 50 MSA average 37% and U.S. 50 MSA with 16 Florida MSA average 35%, respectively.

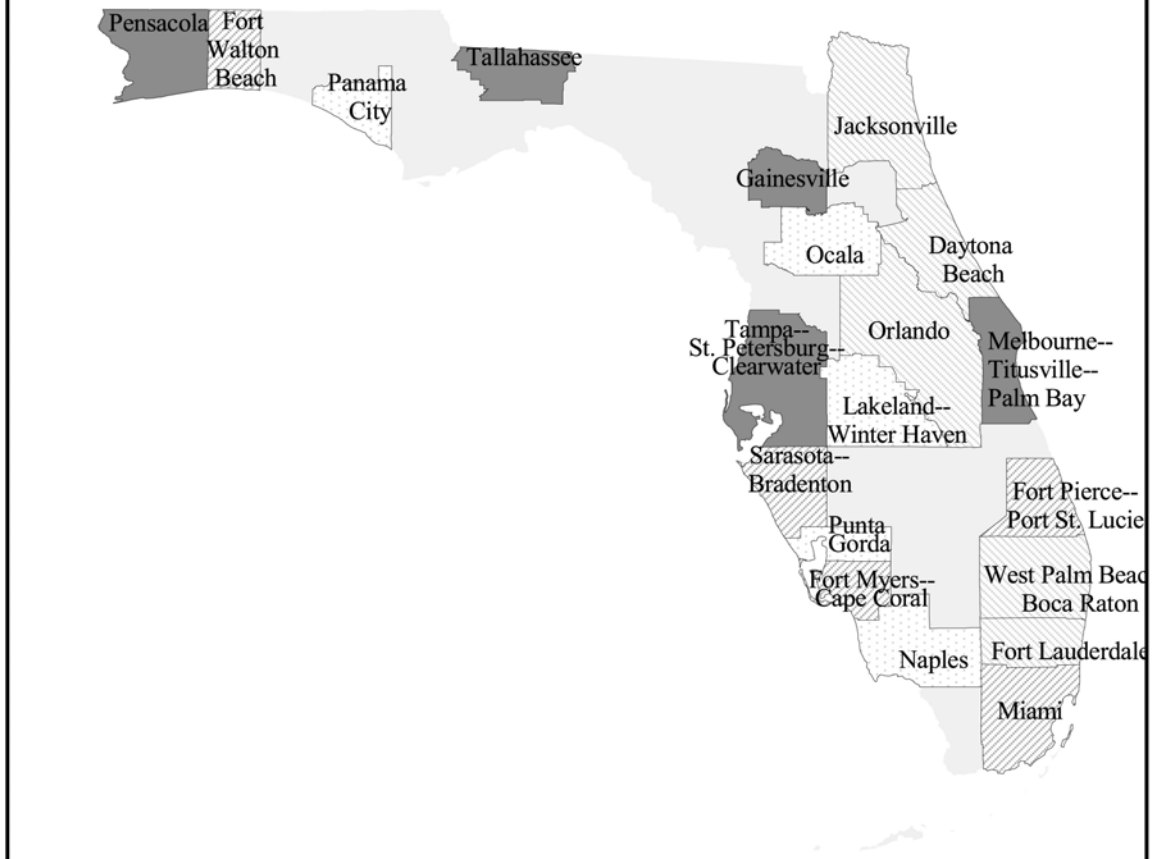
State of Florida MSA Rankings: For Florida, Tallahassee is ranked 2nd highest in this area.

Ranking	The top five:	Percentage of jobs held by managers, professionals, and technicians:
1	Gainesville	34.64%
2	Tallahassee	34.60%
3	Pensacola	26.86%
4	Tampa	26.82%
5	Melbourne	25.90%
	The bottom five:	
16	Punta Gorda	18.28%
17	Panama City	18.05%
18	Lakeland	16.77%
19	Ocala	16.12%
20	Naples	12.28%
	Florida MSA Average	23.1%

Source: Bureau of Labor Statistics, 2001. Occupational Employment Statistics.

The five MSAs with high rankings in the jobs held by Managers/Professionals/Technicians indicator were: Gainesville, Tallahassee, Pensacola Tampa and Melbourne. This shows that as a state capital city, Tallahassee provides a variety of government jobs, and high quality jobs related with governmental and managerial areas, such as lawyers and nonprofit organization jobs which are closely related to government funds. Tallahassee offers a considerable number of jobs related to academic and research areas because of the universities and colleges located in the Tallahassee MSA.

Man/Prof/Tech Jobs



WORKFORCE EDUCATION

A weighted measure of the educational attainment (advanced degrees, bachelor's degrees, or some college course work) of the workforce.

Why Is This Important? An educated workforce is critical to increasing productivity and fostering innovation. In fact, knowledge-based jobs (those requiring post secondary, vocational, or higher education) grew from 27 percent of total employment in 1983 to 31 percent in 1993, and are expected to grow to more than 33 percent in 2006. Metro areas with a more educated workforce are better positioned to capitalize on this trend. Knowledge workers are important not only because the principal factor determining where high-tech firms locate is an adequate supply of skilled labor, but also because their presence boosts incomes. Paul Gottlieb found that from 1980 to 1997, the per capita incomes of metro areas with the most educated populations grew 1.8 percent in real terms per year, while those with the least-educated populations grew only 0.8 percent per year. Finally, entrepreneurs are more likely to have higher levels of education, and as entrepreneurial start-ups become more important to a region's economic success, having more knowledge workers increases entrepreneurial activity.

The Rankings: More highly educated individuals are more likely to move than less-educated individuals. As a result, metro areas that have attracted large numbers of people from other parts of the United States generally have a more educated workforce (e.g., San Francisco, Washington D.C., Denver). Similarly, metro areas with strong higher education systems (e.g., Gainesville and Tallahassee) also score well. Meanwhile, many metros with a low score have experienced net out-migration (for example, Grand Rapids, St. Louis, Milwaukee), have seen high levels of immigration from developing nations (e.g., Los Angeles, San Antonio, Miami), or have invested less in education (e.g. Memphis ,Greensboro, New Orleans, and the Florida metros).

Rank	The top five:	Composite score:
1	Gainesville	0.83
2	Tallahassee	0.75
3	Washington, D.C.	0.74
4	San Francisco	0.69
5	Denver	0.68
	The bottom five:	
62	Las Vegas	0.44
63	San Antonio	0.44
64	Punta Gorda	0.41
65	Lakeland	0.37
66	Ocala	0.36
	U.S. MSA Average	0.58
	U.S. and 16 Fl MSA Average	0.57

Source: Bureau of Labor Statistics, 2000. Occupational Employment Statistics.

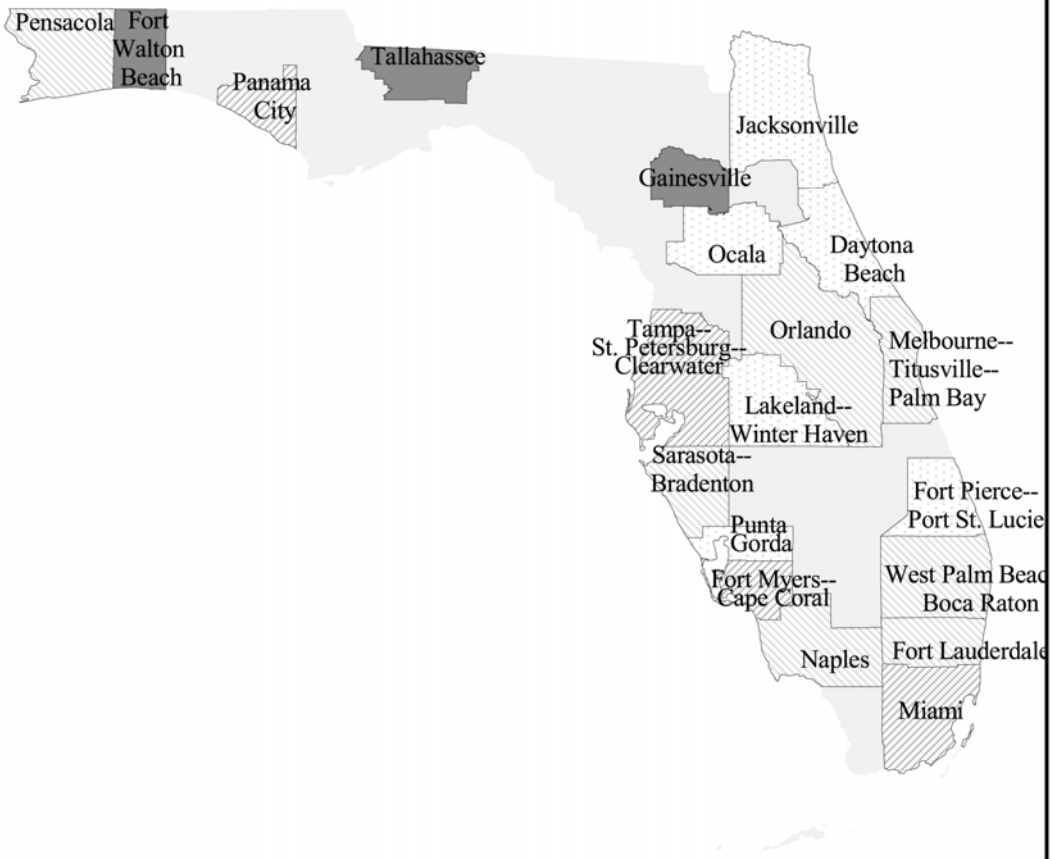
Tallahassee Rankings: Tallahassee MSA ranking in workforce education is 2nd among the 66 MSA's evaluated. There are enough higher education institutions in Tallahassee compare to it's small population. At the same token, Gainesville ranked in No.1.

State of Florida MSA Rankings: For Florida, Gainesville and Tallahassee topped work force education similar to the National ranking. The remaining three MSAs with the highest workforce education were: Ft. Walton Beach, West Palm Beach and Melbourne. Among the lowest workforce education for Florida were: Ft. Pierce, Jacksonville, Punta Gorda, Lakeland, and Ocala. The primary reason that these MSAs ranked the lowest is due to the lack of a major university.

Ranking	The top five:	Composite score:
1	Gainesville	0.60
2	Tallahassee	0.54
3	Ft. Walton Bch	0.43
4	West Palm Beach	0.41
5	Melbourne	0.41
	The bottom five:	
16	Ft. Pierce	0.33
17	Jacksonville	0.30
18	Punta Gorda	0.30
19	Lakeland	0.27
20	Ocala	0.26
	Florida Average	0.37

Source: Bureau of Labor Statistics, 2000. Occupational Employment Statistics.

Workforce Education



GLOBALIZATION

While the old economy was national in its scope, the New Economy is global. It is estimated that more than $21 trillion of the world economy's combined output was open to global competition in 2000, up from $4 trillion in 1995. This growth was driven by global capital markets, reduced economic and trade barriers and — perhaps most important — technological change, which makes it easier to locate enterprises and sell products and services almost anywhere. When the old economy emerged in the 1930s, the winners were metropolitan areas whose businesses sold to national markets, as opposed to local or regional ones. At the beginning of the 21st century, the winners will be the metro areas whose businesses are most integrated into the world economy. A global orientation ensures expanding markets for a metro area's industries. There are a number of measures that could be used to assess a region's links to the global economy, including foreign direct investment, export orientation of firms, and global telecommunications traffic. However, only one of these, export orientation, is available. As a result, the globalization indicator in this section measures the extent to which the metro's manufacturing workforce is employed producing goods for foreign export.[8]

Rank	MSA	Score
1	Miami	16.8
2	Seattle	14.7
3	Miami (incl Ft.Laud)	14.6
4	Richmond	12.5
5	San Francisco	12.2
6	Houston	12.0
7	Punta Gorda	11.9
8	San Diego	11.3
9	Detroit	10.9
10	New Orleans	10.9
11	Memphis	10.9
12	Panama City	10.8
13	New York	10.8
14	Portland	10.6
15	Austin	10.5
16	Phoenix	10.5
17	Ft. Lauderdale	10.5
18	Washington DC	10.3
19	Minneapolis	10.2
20	Cincinnati	10.2
21	Hartford	10.1
22	Rochester	10.0
23	Indianapolis	10.0
24	Philadelphia	9.9
25	Atlanta	9.9
26	Los Angeles	9.8
27	Kansas City	9.8
28	Chicago	9.8
29	Boston	9.7
30	Dallas	9.7
31	Raleigh-Durham	9.7
32	Salt Lake City	9.6
33	Sacramento	9.6
34	West Palm Beach	9.6
35	San Antonio	9.6
36	Pittsburg	9.6
37	Ft. Meyers	9.5
38	Orlando	9.5
39	Cleveland	9.5
40	Tampa	9.5
41	Buffalo	9.4
42	Louisville	9.4
43	Greensboro	9.4
44	Ft. Walton Beach	9.4
45	Dayton	9.3
46	Norfolk	9.3
47	Melbourne	9.3
48	St. Louis	9.2
49	Nashville	9.1
50	Milwaukee	9.1
51	Jacksonville	9.1
52	Grand Rapids	9.1
53	Charlotte	9.1
54	Columbus	9.1
55	Denver	9.0
56	Ft. Pierce	9.0
57	Gainesville	8.7
58	Oklahoma City	8.7
59	Daytona Beach	8.7
60	Lakeland	8.7
61	Tallahassee	8.7
62	Sarasota	8.6
63	Ocala	8.5
64	Naples	8.5
65	Pensacola	8.4
66	Las Vegas	8.2

[8] Extracted from The Metropolitan New Economy Index, Benchmarking Economic Transformation in the Nation's Metropolitan Areas, April, 2001, The Progressive Policy Institute, Technology, Innovation and New Economy Project. http://www.ppionline.org/

EXPORT FOCUS OF MANUFACTURING

Manufacturing export sales per manufacturing worker.

Why Is This Important? Trade has become an integral part of the United States and world economies. The combined total of U.S. exports and imports has increased from less than 5.5 percent of GDP in 1950, to 11 percent in 1970, to 24 percent in 1999. Moreover, the United States is increasingly specializing in more complex, higher-value-added goods and services, which is reflected in the fact that the average weight of a dollar's worth of American exports is less than half of what it was in 1970. The focus on higher-value-added goods and services benefits many American workers. Workers employed in export-oriented firms earn 10 percent more than workers in similar firms that export less, or don't export at all.12 As a result, metropolitan areas whose companies are not global traders will be left behind.

For Florida, export sales are increasing exponentially. From 1999 to 2000, the percentage of exports has increased 7.4 percent. Interestingly, total export sales for Florida jumped 64.8 percent, from 1993 to 2000. The 1998 data for export sales came from the International Trade Administration (ITA). The ITA compiles export statistics, termed the Export Locator (EL) series, which is derived from shipper's export declarations. It is important to note that the EL series measures export sales activities by exporters of record. Locations from which firms sell their products do not always mesh with the locations of where the export goods were produced.

Rank	The top five:	Export Sales Per Manufacturing Employee
1	Miami	$169,836
2	Seattle	$129,000
3	Richmond	$86,000
4	San Francisco	$80,000
5	Houston	$75,000
	Tallahassee MSA Ranking	
61	Tallahassee	$9,851
	The bottom five:	
62	Sarasota	$8,812
63	Ocala	$7,625
64	Naples	$6,446
65	Pensacola	$4,151
66	Las Vegas*	
	U.S. MSA Average	$38,200
	U.S. and 16 Fl MSA Average	$36,491

Source: International Trade Administration, 1998 Export Sales

The Rankings: For the United States, Miami ranked the highest in export sales. Another port city, Seattle, was next, with Richmond, San Francisco and Houston following closely. *

Tallahassee Ranking:

Tallahassee MSA ranked 61 in the nation in export sales.

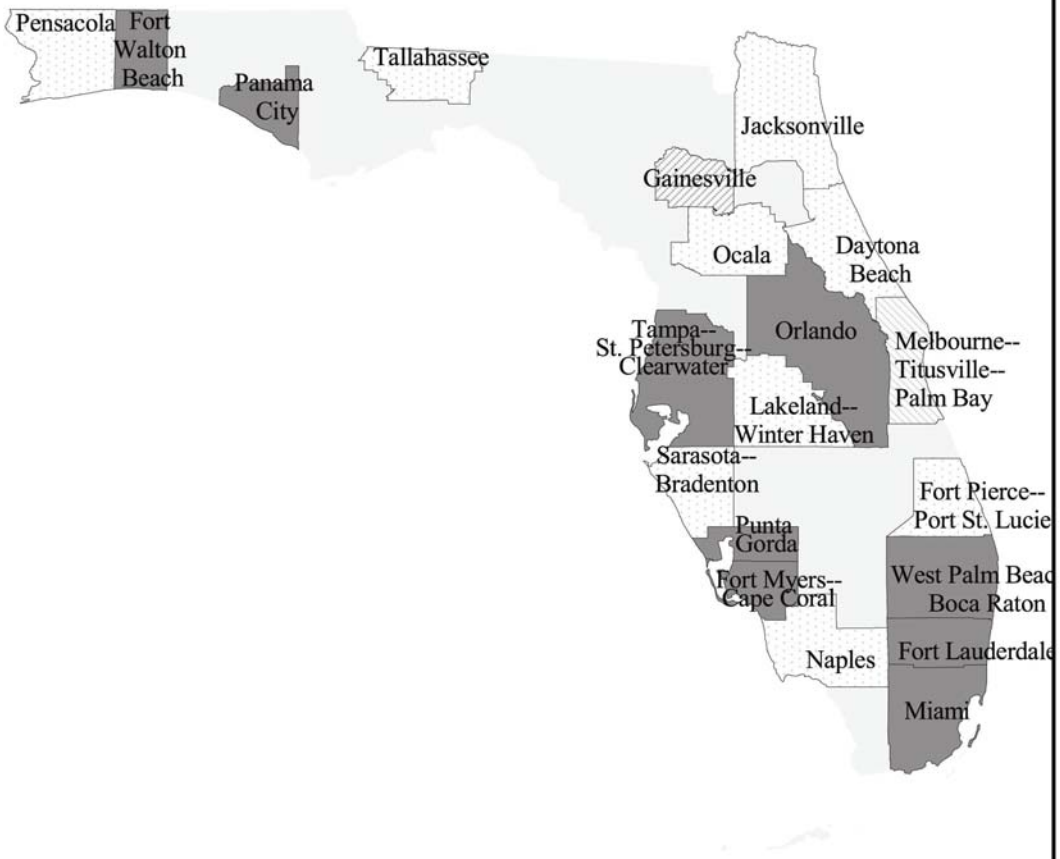
* Note: Las Vegas did not report export sales for the study period years.

State of Florida MSA Rankings: For Florida, the five MSAs with high rankings in the export orientation indicator were: Miami, Punta Gorda, Ft. Lauderdale, Panama City and West Palm Beach, with substantial export sales in industrial machinery and computers, electric and electronic equipment, and transportation equipment. Miami also has a high export sales volume due to links with Latin America. In this study, data for four MSAs (Punta Gorda, Ocala, Ft. Myers, and Ft. Walton Beach) was estimated due to federal regulations governing disclosure of confidential business information.

Ranking	The top five:	Export Sales Per Manufacturing Employee
1	Miami	$203,446
2	Punta Gorda	$82,404
3	Ft. Lauderdale	$66,051
4	Panama City	$49,800
5	West Palm Beach	$37,809
	The bottom five:	
16	Daytona Beach	$10,271
17	Ocala	$9,673
18	Tallahassee	$9,552
19	Pensacola	$6,111
20	Naples	$6,085
	Florida Average	$35,823

Source: International Trade Administration, 2001 Export Sales

Export Focus on Manufacturing



ECONOMIC DYNAMISM

The old economy was epitomized by large companies facing limited competition in stable, cost-based markets. The New Economy is all about economic dynamism and competition — epitomized by fast-growing, entrepreneurial companies. The ability of firms to innovate and get to market faster is becoming a more important determinant of competitive advantage. Likewise, the ability of metro economies to rejuvenate themselves through the formation of new, innovative companies is a key in determining their economic vitality. This is reflected in the fact that the amount of job churning was the indicator most closely correlated with growth in overall employment in the previous 10 years (a correlation of 0.56). It was also closely correlated (0.33) with growth in per capita income. The dynamism indicators in this section measure three things: 1) the share of jobs in fast-growing "gazelle" firms; 2) the degree of job churning (which is a product of new business start-ups and existing business failures); and 3) the value of companies' IPOs.[9]

Rank	MSA	Score
1	San Francisco	12.25
2	Las Vegas	11.31
3	Orlando	11.24
4	Seattle	10.73
5	Denver	10.66
6	Phoenix	10.65
7	Austin	10.58
8	Atlanta	10.56
9	Charlotte	10.55
10	San Diego	10.54
11	Houston	10.54
12	West Palm Beach	10.49
13	Salt Lake City	10.45
14	Miami (incl Ft.Laud)	10.44
15	Dallas	10.40
16	Minneapolis	10.30
17	Los Angeles	10.29
18	Ft. Pierce	10.28
19	Pensacola	10.28
20	Daytona Beach	10.24
21	Ft. Walton Beach	10.21
22	Kansas City	10.14
23	St. Louis	10.11
24	Tampa	10.10
25	Panama City	10.07
26	Ft. Meyers	10.06
27	Nashville	10.06
28	Washington DC	10.00
29	Jacksonville	10.00
30	Boston	9.98
31	Portland	9.97
32	Greensboro	9.96
33	Ocala	9.95
34	Naples	9.94
35	Ft. Lauderdale	9.93
36	Chicago	9.93
37	Louisville	9.92
38	Tallahassee	9.88
39	Milwaukee	9.88
40	Philadelphia	9.87
41	Lakeland	9.82
42	Miami	9.77
43	Sarasota	9.76
44	Hartford	9.74
45	Punta Gorda	9.73
46	New Orleans	9.70
47	Buffalo	9.70
48	Melbourne	9.67
49	Indianapolis	9.66
50	Richmond	9.61
51	Cincinnati	9.59
52	New York	9.59
53	Cleveland	9.56
54	Oklahoma City	9.53
55	Grand Rapids	9.52
56	Raleigh-Durham	9.49
57	Memphis	9.49
58	Columbus	9.48
59	San Antonio	9.43
60	Gainesville	9.42
61	Dayton	9.37
62	Pittsburg	9.29
63	Sacramento	9.28
64	Detroit	9.22
65	Rochester	9.09
66	Norfolk	8.80

[9] Extracted from The Metropolitan New Economy Index, Benchmarking Economic Transformation in the Nation's Metropolitan Areas, April, 2001, The Progressive Policy Institute, Technology, Innovation and New Economy Project. http://www.ppionline.org/

"GAZELLE" JOBS

Jobs in gazelle companies (companies with annual sales revenue growth 20 percent or more for four straight years) as a share of total employment.*

Why Is This Important? The degree to which a metro's economy is composed of new, rapidly growing firms, known as gazelles, is indicative of the degree to which the economy is dynamic and adaptive, which is a key driver of the New Economy. It is not small firms per se that are the key, it is the relatively small number of fast-growing firms of all sizes that account for the lion's share of new jobs created in the 1990s. Between 1994 and 1998, gazelles (which number over 355,000) generated practically as many jobs (10.7 million) as the entire U.S. economy (11.1 million).

The Rankings: High-ranking metropolitan areas tend to be in the South and West, which are experiencing high rates of overall job growth (where fast retail growth, for example, would lead to more gazelles). Orlando leads the nation in gazelle employment with Las Vegas, Charlotte, San Francisco and Phoenix sequentially following. But some metropolitan areas with slower overall growth rates, such as St. Louis, Hartford, and Milwaukee, also have large numbers of gazelle firms. Some high-tech regions, such as Seattle and Raleigh-Durham, have low levels of gazelle firms, perhaps in part because both areas are dominated by large firms that are past their fast growth phase. In addition, many high-tech jobs in Raleigh-Durham are in branch plants of larger corporations, reflecting that region's focus on industrial recruitment.

Rank	The top five:	Jobs in fast-growing companies as a percentage of total employment
1	Orlando	16.2%
2	Las Vegas	14.5%
3	Charlotte	12.6%
4	San Francisco	11.9%
5	Phoenix	11.2%
	Tallahassee MSA Ranking	
4	Tallahassee	11.5%
	The bottom five:	
62	Oklahoma City	8.0%
63	Dayton	7.8%
64	Raleigh-Durham	7.2%
65	Seattle	7.0%
66	Norfolk	5.9%
	U.S. MSA Average	9.7%
	U.S. and 16 Fl MSA Average	9.9%
Source: Cognetics, 1998 Data and CEFA (see appendix)*		

Tallahassee Ranking:

Tallahassee with a 10.7% of all jobs in fast-growing companies (as a percent of total employment) ranks 11th nationally. This relatively high ranking positions Tallahassee very well nationally as a "dynamic" economy with relatively high levels of "gazelle" firms stimulating growth across our community relative to the nation's other MSAs.

* See Appendix z for a detailed description of the CEFA methodology.

State of Florida MSA Rankings

Just as in the national rankings Orlando, with a 16.2% of the work force in gazelle firms is the highest ranking Florida MSA. A number of MSAs then cluster around the 10% to 11% level with Gainesville and Ft Myers at 10.9% each, and Jacksonville and Tallahassee in a virtual tie at 10.8% and 10.7%, respectively.

Punta Gorda and Ft Walton Beach are the lowest two ranked Florida MSAs with a virtual tie for bottom at 10.2%.

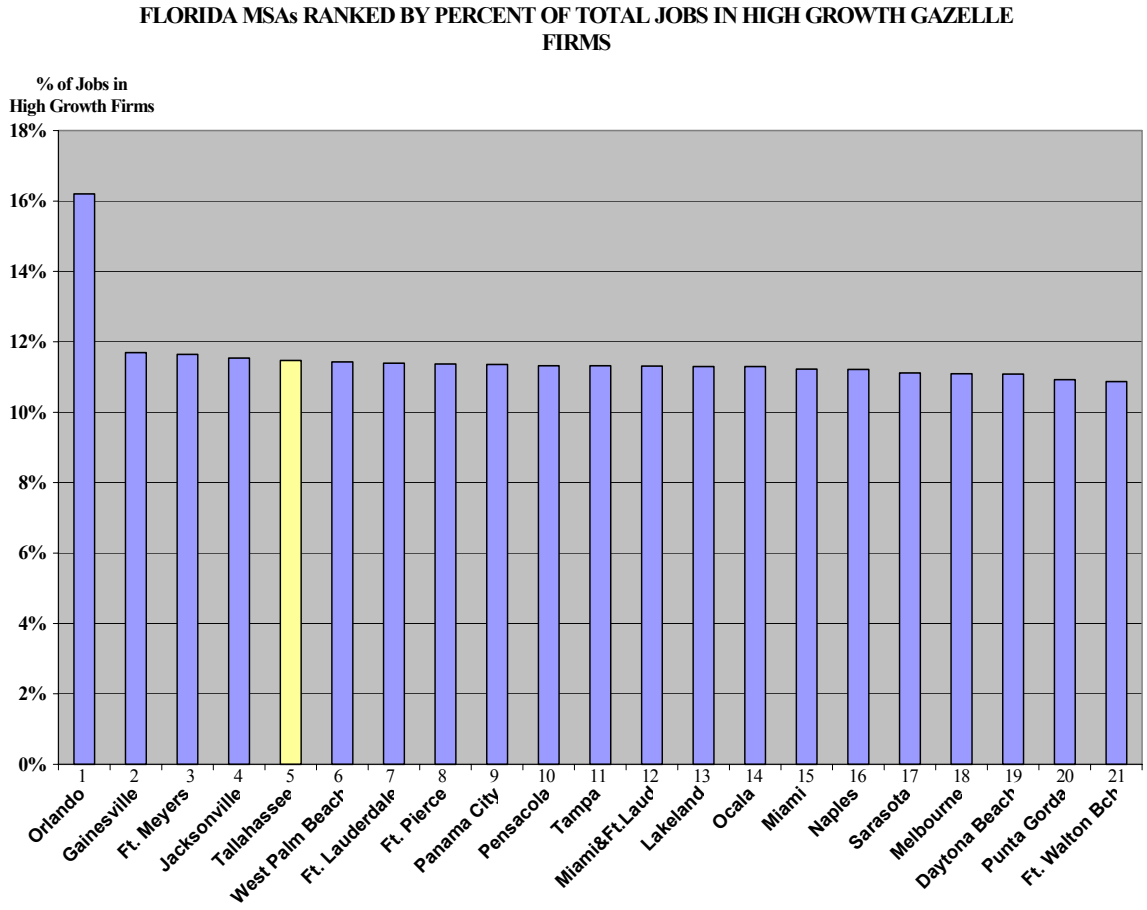
Ranking	The top five:	Jobs in fast-growing companies as a percentage of total employment
1	Orlando	16.18%
2	Gainesville	10.93%
3	Ft. Meyers	10.88%
4	Jacksonville	10.78%
5	Tallahassee	10.72%
	The bottom five:	
16	Sarasota	10.39%
17	Melbourne	10.37%
18	Daytona Beach	10.36%
19	Punta Gorda	10.21%
20	Ft. Walton Bch	10.16%
	Florida Average	10.84%

Source: Cognetics, 1998 Data and CEFA (see appendix)

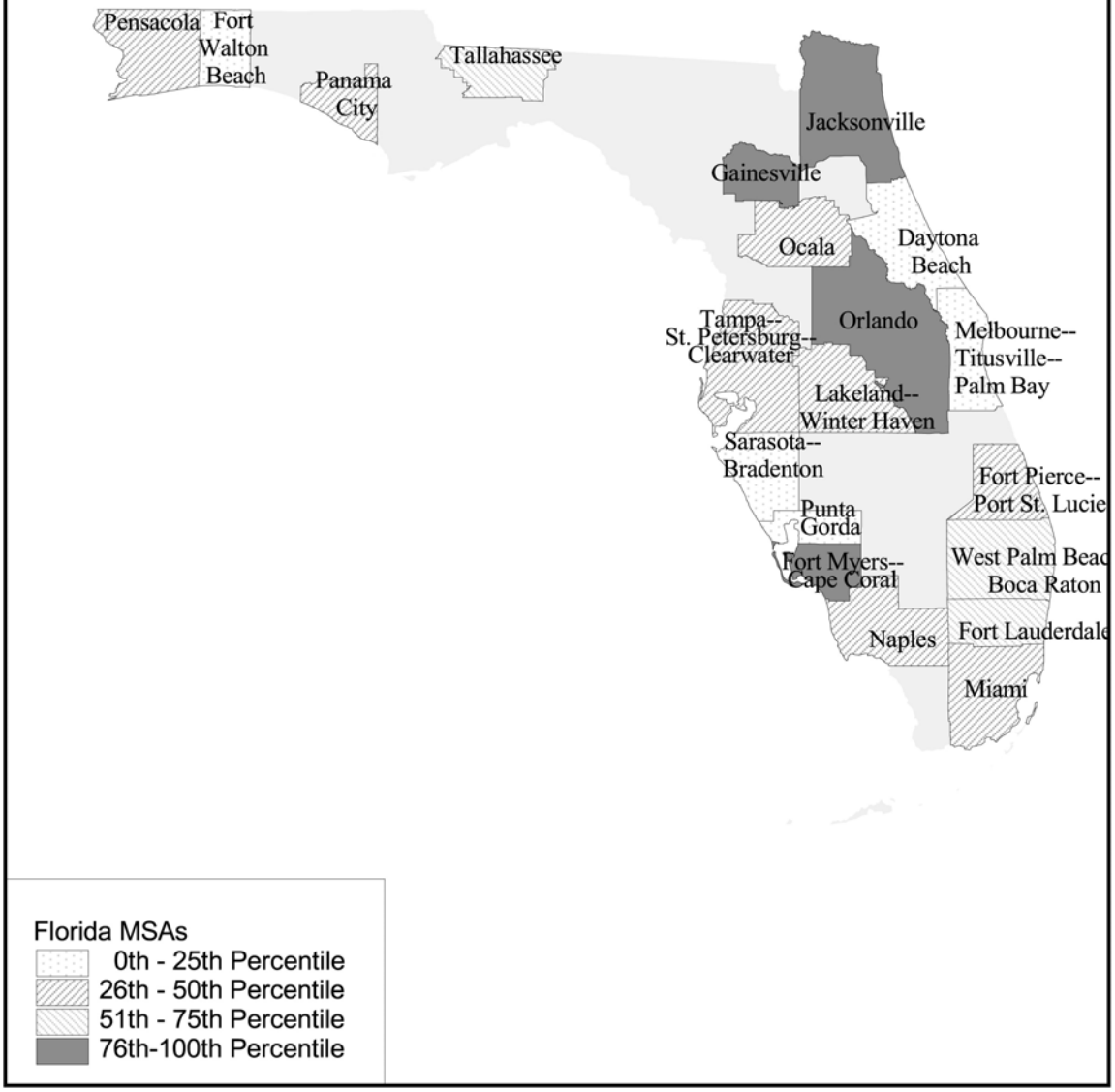
Note also that Florida statewide gazelle employment average tends to be somewhat higher than the national average. This is consistent with the findings of the PPI State New Economy Index[10] analysis where Florida ranked above the national average and 7th overall among the state in gazelle employment levels. This may, in part be a function of the large number of relatively smaller MSAs in the Florida analysis compared to the dominant large MSAs in the National PPI study.

[10] The State New Economy Index: Benchmarking Economic Transformation in the States, Progressive Policy Institute, Technology & New Economy Project, July, 1999, Atkinson, et al.

The following graph provides a profile of the relative rankings of all Florida MSAs and their percent gazelle employment and identifies Tallahassee in position 4 as described above.



Gazelles


Pensacola
Fort Walton Beach
Panama City
Tallahassee
Jacksonville
Gainesville
Ocala
Daytona Beach
Tampa--St. Petersburg--Clearwater
Orlando
Melbourne--Titusville--Palm Bay
Lakeland--Winter Haven
Sarasota--Bradenton
Fort Pierce--Port St. Lucie
Punta Gorda
Fort Myers--Cape Coral
West Palm Beach
Boca Raton
Naples
Fort Lauderdale
Miami
Florida MSAs
0th - 25th Percentile
26th - 50th Percentile
51th - 75th Percentile
76th-100th Percentile

JOB CHURNING

A score based on the number of new start-ups and business failures within each metro.

Why Is This Important? Job churning measures both the creation and destruction of jobs in the economy at a point in time. The theory is that this higher levels of both creation of jobs (in the high tec new economy) as well as destruction of jobs in the(old economy) are signs of dynamic movement towards the new economy. As the authors state:

Growth in employment masks the constant churning of job creation and destruction, as less innovative and efficient companies downsize or go out of business and more innovative and efficient companies grow and take their place.

For example, a total of 3.5 million private sector jobs were added to the U.S. economy between 1994 and 1995, but that was after new firms had created 5.7 million jobs, failing firms eliminated 4.5 million jobs, expanding firms added 10.5 million jobs, and contracting firms eliminated 8.2 million others. This churning has accelerated over the last three decades as the number of new startups and existing business failures per year has grown. While such turbulence increases the economic risk faced by workers, companies, and even regions, it is also a major driver of economic innovation and growth.

Rank	The top five:	Employment Gain and Loss Rate Within Enterprises (Score)
1	Denver	11.34
2	Atlanta	11.15
3	Phoenix	11.12
4	Las Vegas	11.09
5	Dallas	11.02
	Tallahassee MSA Ranking	
19	Tallahassee	9.66
	The bottom five:	
62	Cincinnati	9.22
63	Pittsburgh	9.14
64	Hartford	8.99
65	Rochester	8.36
66	Gainesville	8.12
	U.S. MSA Average	10.01
	U.S. and 16 Fl MSA Average	10.00
Source: Cognetics 1994-1998 Data and CEFA (see appendix)* Florida Department of Labor, 2001 - CEFA		

The Rankings: Denver ranks highest among all the US MSAs examined. Atlanta, Phoenix, Las Vegas, and Dallas are both fast-growing metropolitan areas have seen a great deal of churning. [11] In part, this is because fast-growing economies produce more start-ups, especially in locally focused industries (such as restaurants, dry cleaners, or accountants). Some fast-growing metropolitan areas.. Many metropolitan areas rooted in the traditional manufacturing sector, such as Rochester, Cincinnati, Detroit, and Pittsburgh, have low levels of both new growth and loss, suggesting economies that are stable, without the kind of "creative destruction" that leads to faster restructuring for the

[11] As described in more detail in the technical appendix the Panama City ranking seems to be a result of a significantly higher job destruction rate over the fourth quarter 2001 time period than any other Florida MSA. Every other Florida MSA reported between 120% to 400% increase in job creation over destruction and Panama City job creation rate was actually under destruction rate with a 81% level.

New Economy. Gainesville also ranks lowest in job churning. This may be due to the presence of the University of Florida which employs a large percentage of the relatively small employment base. Given that this base is relatively stable the percentage of job churning is likely to be relatively small.

Tallahassee Ranking:

Tallahassee scores fairly low on job churning with a ranking of 45th among the 66 MSA's evaluated. Like Gainesville, Tallahassee's relatively small employment base is dominated by relatively large and stable employers. Like Gainesville, Tallahassee is home to major universities; to both Florida State University, of one of the State's flagship Universities and Florida A&M University and Tallahassee Community College. These institutions *combined with* the even larger presence of the Florida Capital's state employees translates into a very large segment of the population employed in state service and a stable employment base and relatively low job churning.

State of Florida MSA Rankings

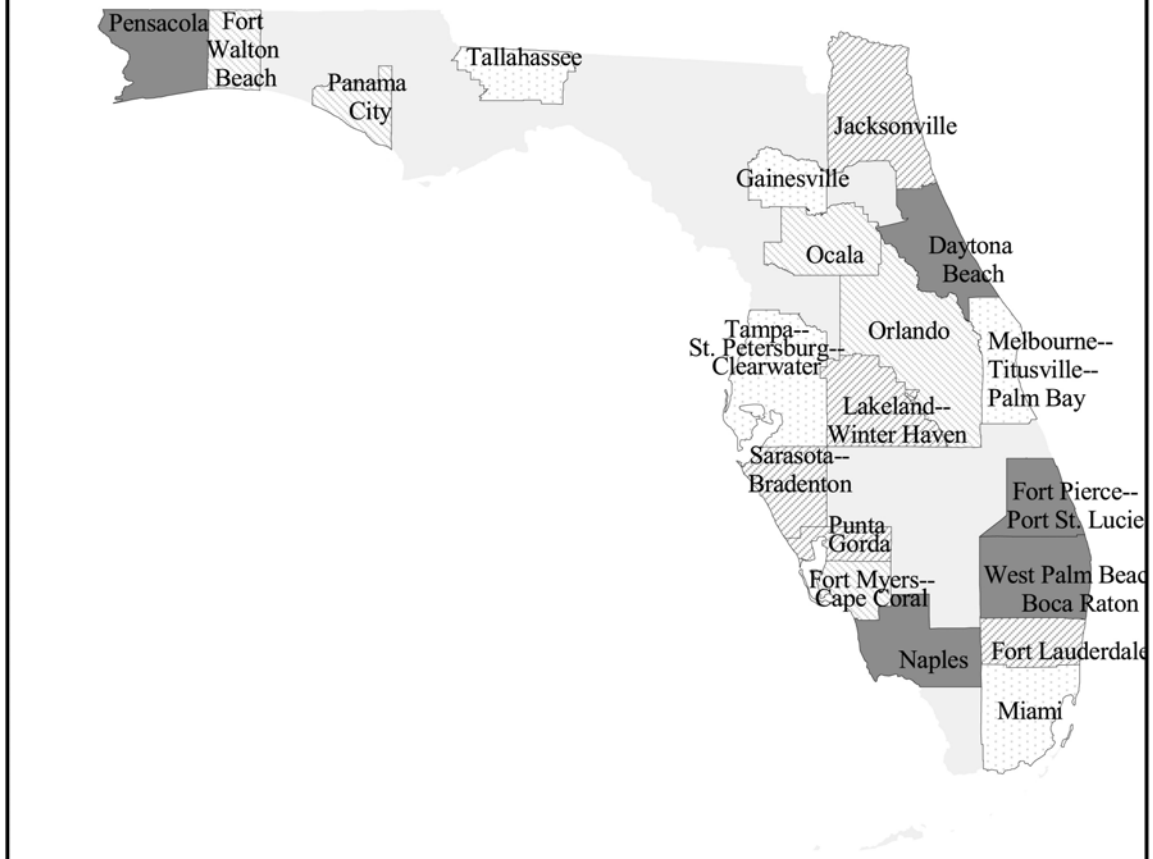
Ft. Pierce is ranked first among the Florida MSAs (see Technical Appendix) with Naples, West Palm Beach, Pensacola and Daytona Beach rounding out the top five positions.

As in the national rankings Tallahassee and Gainesville are close to the bottom along with Melbourne, Tampa and Miami. Melbourne, with its relatively smaller employment base and large military presence (including Cape Kennedy) may exhibit the same stability as described for Tallahassee and Gainesville as well. These lower scores might also suggest greater levels of stability (relatively lower levels of loss) and perhaps less "creative destruction" of the sort the New Economy builds on.

Ranking	The top five:	Employment Gain and Loss Rate Within Enterprises (Score)
1	Ft. Pierce	11.12
2	Naples	10.76
3	West Palm Beach	10.68
4	Pensacola	10.65
5	Daytona Beach	10.55
	The bottom five:	
16	Tampa	9.64
17	Tallahassee	9.61
18	Miami	9.56
19	Melbourne	9.26
20	Gainesville	8.43
	Florida Average	10.00

Source: Dpt. Of Labor 2001 Data and CEFA (see appendix)

Job Churning



NEW PUBLICLY TRADED COMPANIES

The number of companies' initial public stock offerings as a share of gross metropolitan product.

Why Is This Important? An IPO – initial public offering – is the first time a company offers its stock for sale to the public. The company does this with the help of investment banks, businesses that help companies sale their stock to the public, who advise the company on how much stock to sell, for what price, and when to sell it. After this initial public offering, the company receives a portion of the money raised by the sale of the stock and the stock can now be purchased on the stock exchange that it is listed on. Initial public stock offerings as a share of gross metropolitan product in the local economy is important because it gives an indication of the degree to which new companies with long-term growth potential exists in that locale. The idea being that if a company is "going public", then its future growth prospects must be good or else there would not be much demand for their stock when the offering takes place and, consequently, they would not receive as much money from the sale of the stock. Thus, when a company does an IPO it is a good sign for the local economy. Specifically, it means that a new company, or an existing company that has reached a certain level, will receive money from investors and then, in turn, take this money and expand operations. This will translate into more jobs in the local economy. Not only would this generate more jobs, but also the company that done the IPO now has more money to go into research and development (R&D). With this higher level of R&D, the company can turn out new and better products that would benefit consumers, locally and globally.

Rank	The top five:	Number of IPOs per 10 billion dollars of GMP
1	San Francisco	32.3
2	Seattle	28.1
3	West Palm Beach	11.8
4	Boston	10.0
5	Austin	9.4
	The bottom five:	
Sixteen Metropolitan areas, including Tallahassee, had no initial public stock offerings (Tallahassee, Orlando, Panama City, Richmond, Pensacola, Buffalo, New Orleans, Ft. Pierce, Dayton, Ft. Walton Beach, Daytona Beach, Norfolk, Jacksonville, Grand Rapids, San Antonio, Lakeland)		
U.S. Average		3.83

Source: http://www.edgar-online.com/

The Rankings: Most metropolitan areas that score well on the IPO indicator, such as San Francisco and Seattle, do so because they are producing a large number of start-ups with growth potential. West Palm Beach scores well, reflecting its growing high-tech presence — the area is known as the Internet Coast. Some areas that score high on other indicators, score relatively low on IPOs (e.g., Raleigh-Durham, Washington, D.C., and Salt Lake City) suggesting that their economies may not be as entrepreneurial as they could be.

Tallahassee Ranking:

Tallahassee MSA ranked 60th in the nation on this IPO indicator.

For Florida, the five MSAs with high rankings on the IPO indicator were: Punta Gorda, Ocala, Gainesville, West Palm Beach and Ft. Lauderdale. The fact that the top ranking MSA in this category is Punta Gorda is somewhat surprising. On the overall scores, Punta Gorda is one of the lowest ranked MSAs. The other top ranked MSAs on this indicator are not as surprising as they also rank high on venture capital as a share of GMP. There were 10 Florida MSAs that had no IPOS for the time of the data.

Ranking	**The top five:**	**Number of IPOs per 10 billion dollars of GMP**
1	Punta Gorda	1.50
2	Ocala	0.92
3	Gainesville	0.77
4	West Palm Beach	0.50
5	Ft. Lauderdale	0.41
	The bottom five:	
16	Lakeland	0.00
17	Naples	0.00
18	Panama City	0.00
19	Pensacola	0.00
20	Sarasota	0.00
	Florida Average	0.27

Source: average of 2000 and 2001 data, http://www.edgar-online.com/

New IPOs


Pensacola
Fort Walton Beach
Panama City
Tallahassee
Jacksonville
Gainesville
Ocala
Daytona Beach
Tampa--St. Petersburg--Clearwater
Orlando
Melbourne--Titusville--Palm Bay
Lakeland--Winter Haven
Sarasota--Bradenton
Fort Pierce--Port St. Lucie
Punta Gorda
Fort Myers--Cape Coral
West Palm Beach--Boca Raton
Naples
Fort Lauderdale
Miami
Florida MSAs
0th - 25th Percentile
26th - 50th Percentile
51th - 75th Percentile
76th-100th Percentile

THE DIGITAL ECONOMY

In the old economy, virtually all economic transactions involved the transfer of physical goods and paper records or person-to-person transactions. In the emerging digital economy, a significant share of both business and government transactions will be conducted through digital electronic means. The Internet economy is currently worth $830 billion, and almost 50 percent of households are online.[14] Moreover, despite some high profile dot-com bankruptcies, both e-commerce and the Internet continue to grow. Between October 2000 and February 2001, nearly 17 million internet hosts were added worldwide.[15] But when the digital economy really takes off (i.e., when Internet penetration is close to ubiquitous and key enabling systems like digital authentication, smart cards, and broadband telecommunications are in wide spread use), the productivity and income gains will be enormous. The digital economy is likely to do as much to foster metro economic growth in the 21st century as the Industrial Revolutions did in the late 19th to mid 20th century. The digital economy indicators in this section measure five things: 1) percentage of adults online; 2) commercial (".com") Internet domain names; 3) percentage of children using computers in the classroom; 4) internet backbone; 5) broadband telecommunication providers.[12]

Rank	MSA	Score
1	San Francisco	11.69
2	Austin	11.22
3	San Diego	11.03
4	Washington DC	11.02
5	Denver	10.86
6	Dallas	10.80
7	Seattle	10.79
8	Los Angeles	10.78
9	Salt Lake City	10.74
10	Atlanta	10.71
11	Kansas City	10.51
12	Phoenix	10.50
13	Portland	10.48
14	Chicago	10.43
15	Sacramento	10.42
16	Houston	10.41
17	Las Vegas	10.35
18	Miami (incl Ft.Laud)	10.30
19	Tallahassee	10.30
20	Miami	10.27
21	Boston	10.26
22	Minneapolis	10.23
23	New York	10.21
24	Orlando	10.19
25	Indianapolis	10.11
26	Philadelphia	10.10
27	Raleigh-Durham	10.08
28	Ft. Lauderdale	10.03
29	St. Louis	10.00
30	Gainesville	9.96
31	Charlotte	9.95
32	Norfolk	9.95
33	Cleveland	9.92
34	Detroit	9.91
35	Melbourne	9.87
36	Nashville	9.87
37	Milwaukee	9.81
38	Naples	9.81
39	Jacksonville	9.80
40	Columbus	9.78
41	Oklahoma City	9.77
42	Hartford	9.69
43	New Orleans	9.67
44	Buffalo	9.65
45	Memphis	9.65
46	Tampa	9.63
47	West Palm Beach	9.63
48	Pittsburgh	9.60
49	Sarasota	9.60
50	Louisville	9.59
51	Greensboro	9.56
52	Cincinnati	9.56
53	Ft. Walton Beach	9.54
54	Dayton	9.48
55	Richmond	9.48
56	Ft. Pierce	9.48
57	San Antonio	9.46
58	Pensacola	9.44
59	Daytona Beach	9.43
60	Rochester	9.41
61	Grand Rapids	9.41
62	Panama City	9.25
63	Ft. Meyers	9.22
64	Punta Gorda	9.20
65	Ocala	9.14
66	Lakeland	9.00

[12] Extracted from The Metropolitan New Economy Index, Benchmarking Economic Transformation in the Nation's Metropolitan Areas, April, 2001, The Progressive Policy Institute, Technology, Innovation and New Economy Project. http://www.ppionline.org/

ONLINE POPULATION

The percentage of adults with Internet access at work or at home.

Why Is This Important? Increasingly access to the Internet is becoming a litmus test of our culture. The Internet is central to how this nation works and plays how we educate our children and ourselves and how we communicate, and finally how we find out about and ultimately purchase goods and services in the global economy. Virtually every school in the US has computer linkage to the Internet and increased home, public library, work and other access for larger segments of the population are making the Internet a staple utility just as electricity, telephones and televisions were in earlier years. While the number of people online may not directly affect economic activity in the short run, it is emblematic of a metro's progress toward the digital economy.

In 1997, 25 percent of households were online nationwide; by the end of 1999, the percentage was up to 33; and by July 2000, over 52 percent of American households had Internet access at home. A more recent study conducted by the Bureau of Census indicates that computer usage among adults is 54% as of September, 2001. Moreover, as technology becomes cheaper (some companies give away PCs if individuals subscribe to Internet access services, while others are selling inexpensive Internet-only devices), a broader range of Americans is getting online. The average income of Internet users is dropping, as is the average education level. Both trends suggest that the online population is looking more and more like the American population in general.

Rank	The top five:	Percent of Adults On-line 1999:
1	San Francisco	56.1%
2	Austin	55.5%
3	Seattle	53.3%
4	Washington DC	52.8%
5	Gainesville	52.5%
	Tallahassee MSA Ranking	
2	Tallahassee	49.6%
	The bottom five:	
62	Lakeland	33.1%
63	Ocala	32.9%
64	Pittsburgh	30.8%
65	Richmond	24.6%
66	Rochester	24.5%
	U.S. MSA Average	44.6%
	U.S. and 16 Fl MSA Average	41.7%

Source: Scarborough Research, 1999 Data. U.S. Bureau of Census, 2001, CEFA.

The Rankings: Metropolitan areas differ significantly in the degree to which their adult residents are online. In 1999, over 55 percent were online in San Francisco and Austin, with Seattle, Washington, DC and Gainesville rounding out the top five. Meanwhile Lakeland, Ocala, and Pittsburgh report in the low 30% range and Rochester and Richmond with only a quarter of their adult population was online. In general, residents of metropolitan areas with more highly educated populations are more likely to be online.

Tallahassee Rankings: Tallahassee's online adult population percentage is estimated at 49.6% which places it 7th nationally among the MSAs examined. This should come as no

surprise given that the Leon County leads Florida with the highest percent of adults with a college education or higher level degree (though Gadsden County, the second county in the Tallahassee MSA is ranks among the counties with the lowest level of college or greater levels of education.

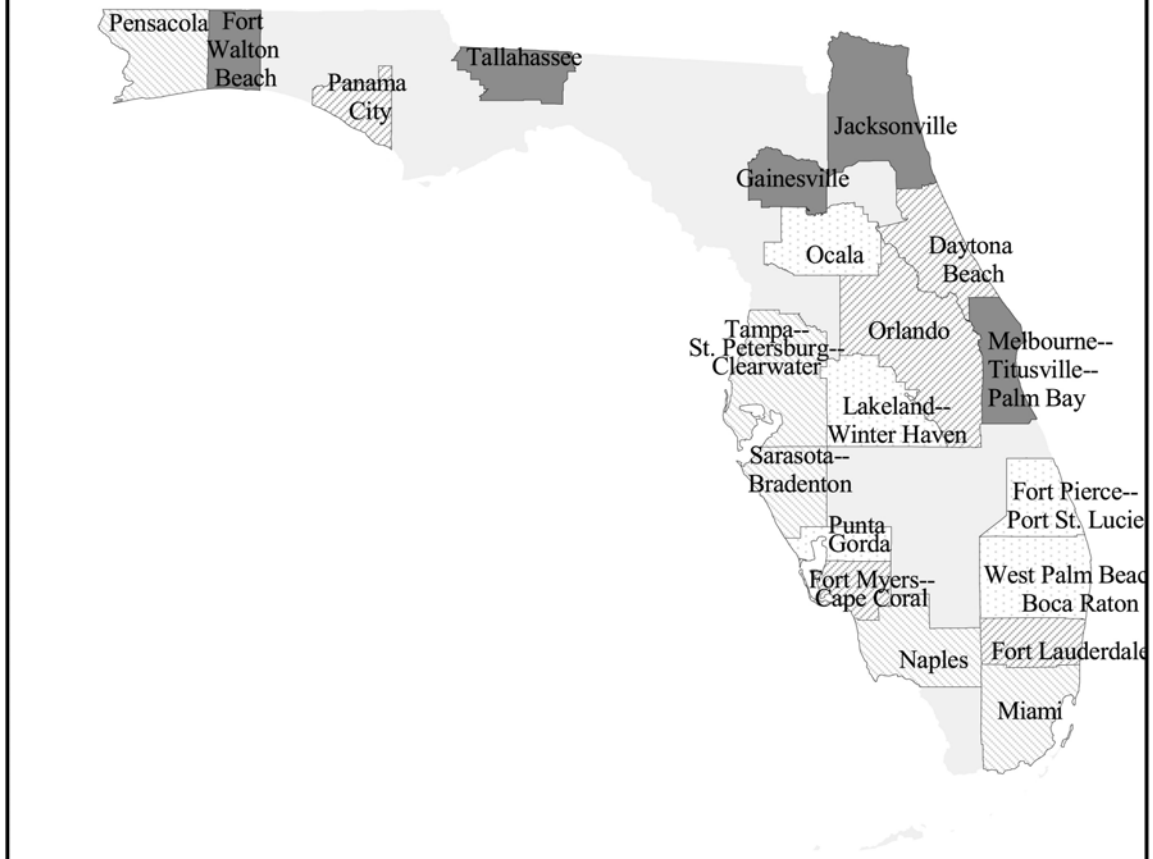
State of Florida MSA Rankings: In Florida, between 50.5 and 53.5 percent (as of September, 2001) of the population are internet users. Gainesville and Tallahassee clearly rank in first and second place among Florida MSAs in online adult population with 52.5% and 49.6% respectively. As in the national rankings these statistics are largely driven by the education level of the adult population. As indicated earlier the University dominated nature of these two mid sized urban areas result in these two MSAs capturing the most highly educated population in the State which in turn translates into high on line use levels. Ft Walton, Melbourne and Jacksonville follow in order to rank as the highest 5 on line Florida MSAs ranging down to 43.1%.

Rank	The top five:	Percent of Adults On-line 1999:
1	Gainesville	52.5%
2	Tallahassee	49.6%
3	Ft. Walton Beach	44.5%
4	Melbourne	43.6%
5	Jacksonville	43.1%
	The bottom five:	
62	Ft. Pierce	37.6%
63	West Palm Beach	36.9%
64	Punta Gorda	35.4%
65	Lakeland	33.1%
66	Ocala	32.9%
	Florida MSA Average	40.7%

Source: Scarborough Research, 1999 Data. U.S. Bureau of Census, 2001, CEFA.

The five lowest ranked Florida MSAs range between 32.9% to 37.6% online adult population and are Ft Pierce, West Palm Beach, Punta Gorda, Lakeland and Ocala respectively. These still rank above the PPI reported adult on line State of Florida average of 31%, but well below the State MSA average of 40.7%.

Online Population



BROADBAND TELECOMMUNICATIONS CAPACITY

The number of broadband competitors per zip code area.

Why Is This Important? The ability to transfer large amounts of data over the Internet is largely determined by bandwidth — the carrying capacity of the connections, or the "size of the pipes" - between the sender and the receiver of the data. Greater bandwidth (broadband) allows faster transmission of larger amounts of data, and also makes possible the feature of having the Internet "always on" (not having to log on every time to use it). In a networked world, bandwidth is a core determinant of what is technologically feasible. For example, basic Internet telephony services are already available, but for widespread use of real-time, full-motion video and high-quality telephony over Internet Protocol (IP) networks, homes will need high-bandwidth connections. The best way to measure this is to count the number of homes and businesses that subscribe to broadband services, either through cable services or digital subscriber lines (DSL) over the telephone. However, such data are not available. Instead, data are available on the number of broadband providers (cable, DSL, and other) in each zip code in the metropolitan areas. While this does not measure the number of homes with broadband services, it does provide an indication of both the extent of the broadband market and the extent of competition.

The Rankings: While there is no clear pattern with regard to what type of metros have more broadband providers, the metropolitan areas with the most broadband providers are concentrated on the West Coast, particularly in California.

It's important to also note that all 50 metro areas have at least an average of two broadband providers per zip code.

Tallahassee Rankings: Tallahassee's broadband telecommunication capacity is at the bottom among the 66 MSA's evaluated in 1999.

Rank	The top five:	Average number of broadband providers per zip code area:
1	San Francisco	4.61
2	Denver	4.52
3	San Diego	4.43
4	Phoenix	4.33
5	Los Angeles	4.27
	The bottom five:	
62	Ft. Pierce	1.60
63	Ocala	1.56
64	Gainesville	1.45
65	Pensacola	1.40
66	Tallahassee	0.84
	U.S. MSA Average	2.92
	U.S. and 16 Fl. MSA Average	2.66

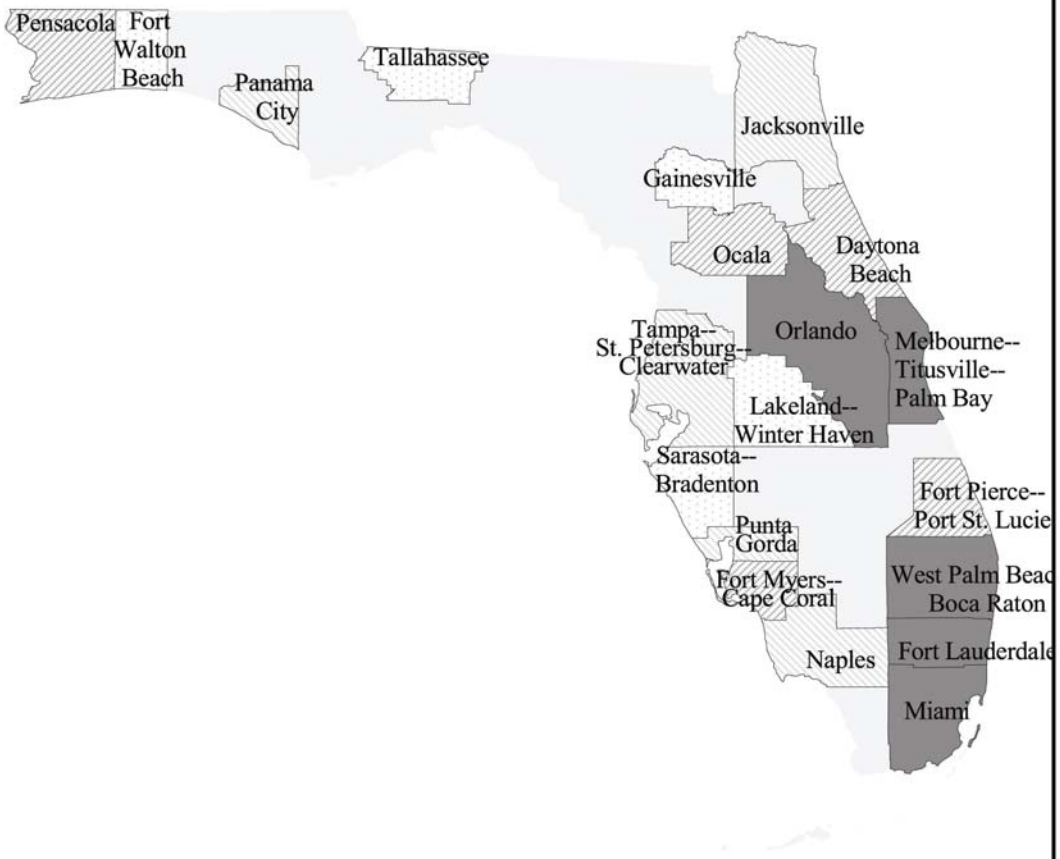
Source: FCC Web Site:
http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/hzip1299.pdf

State of Florida MSA Rankings: In Florida, average number of broadband providers are 4.24. Even though the ranking in Florida is low, it doesn't mean that MSA is in the bad situation nationally. Tallahassee is ranked 17th in Florida MSA, but is on the way of enhancing her capability. In Florida, Ft. Lauderdale ranked #1 with approximately three times more providers than the 1999 national average. Gainesville ranked 20th with 2.67 providers per zip code, and the number is similar to the U.S. and 16 MSA average 2.66, for 1999.

Rank	The top five:	Average number of broadband providers per zip code area:
1	Ft. Lauderdale	8.35
2	West Palm Beach	7.22
3	Miami	6.75
4	Melbourne	5.21
5	Orlando	5.21
	The bottom five:	
16	Lakeland	3.18
17	Tallahassee	2.89
18	Ft. Walton Bch	2.79
19	Sarasota	2.79
20	Gainesville	2.67
Florida MSA Average		4.24

Source: FCC Web Site: 2000 Data
http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/hzip1299.pdf

Broadband Tel Providers



COMPUTER USE IN SCHOOLS

The percentage of children using computers in the classroom.

Why Is This Important? While the jury is still out on exactly how best to integrate technology into the classroom, many believe computers and the Internet can play a key role in improving education. And while this indicator may not reflect outcomes in the short run, it may in the long run help boost education levels. In the meantime, the use of information technology in America's schools is growing. The percentage of schools with at least one Internet connection has increased rapidly, from 35 percent in 1994 to over 95 percent in 1999. The percentage of classrooms with Internet access has gone from 3 percent in 1994 to 63 percent in 1999.

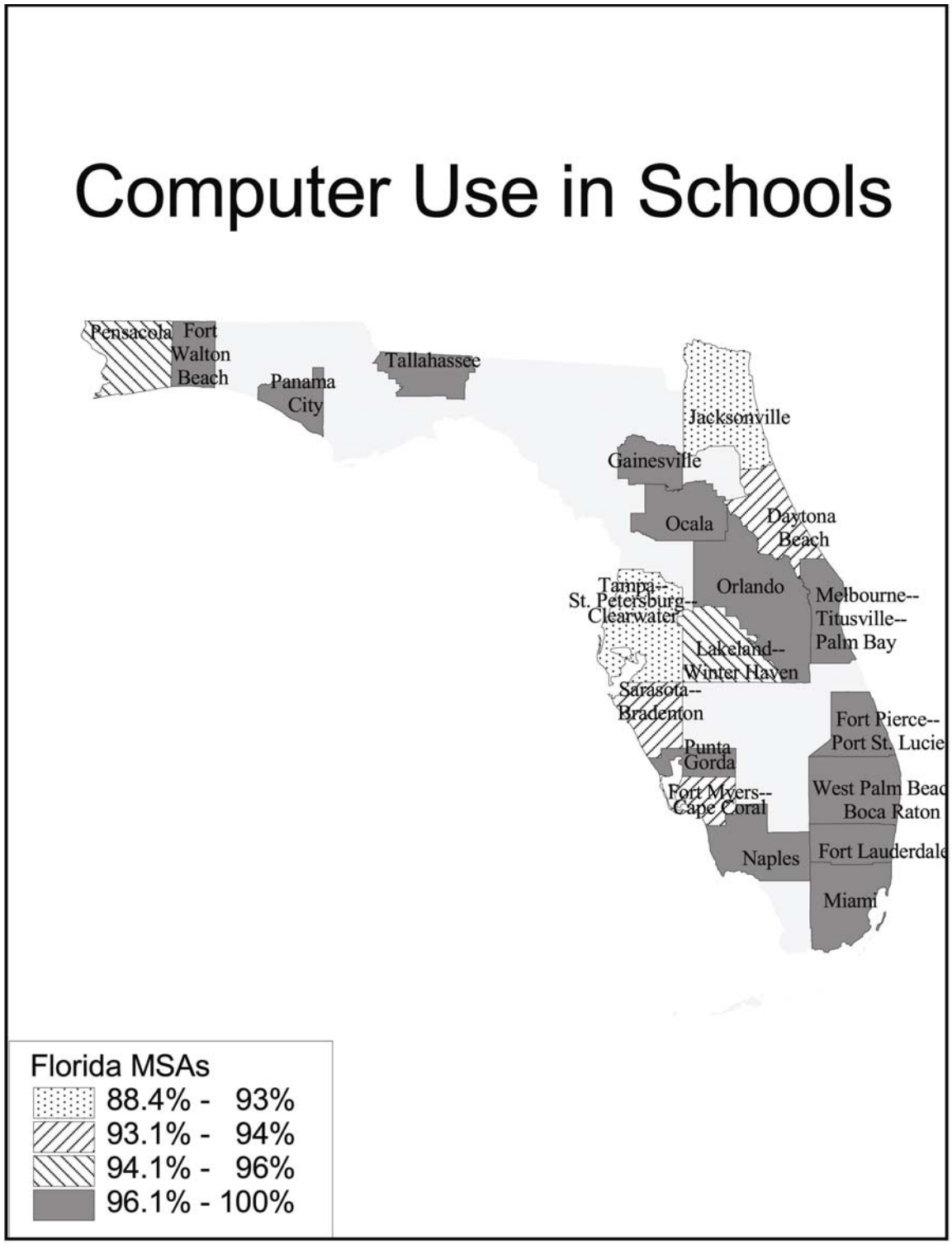
Rank	The top five:	Percentage of children using computers in the classroom:
1	Louisville	81%
2	St. Louis	80%
3	Milwaukee	79%
4	Rochester	79%
5	Pittsburgh	79%
	Tallahassee MSA Ranking	
1	Tallahassee	63%
	The bottom five:	
62	Los Angeles	58%
63	Grand Rapids	58%
64	Las Vegas	57%
65	Tampa	56%
66	West Palm Beach	49%
	U.S. Average	68%
	U.S. and Fl. MSA Average	67%
Source: Department of Education Survey, 1998.		

The Rankings: Somewhat surprisingly, the metro areas where kids are most likely to use computers in school appear to be older, industrial metros in the Midwest. In contrast, some "high-tech" metros, such as San Francisco, Seattle, Boston, and Salt Lake City, score much lower. It's possible that political leaders in the former metros may more clearly recognize that the IT revolution is an important key to their future prosperity and that it is essential to properly train the next generation of workers.

State of Florida MSA Rankings: In Florida, for 2001, the percentage of children using the computer in the classroom is at 100% for Tallahassee, Ft. Pierce, Ft. Walton Beach, Naples, and Ocala. In addition, Panama City and Punta Gorda topped

Rank	The top five:	Percentage of children using computers in the classroom:
1	Tallahassee	100.0%
2	Ft. Pierce	100.0%
3	Ft. Walton Bch	100.0%
4	Naples	100.0%
5	Ocala	100.0%
	The bottom five:	
16	Ft. Meyers	93.9%
17	Daytona Beach	93.4%
18	Sarasota	93.1%
19	Jacksonville	92.9%
20	Tampa	89.4%
	Florida MSA Average	97.3%
Source: Department of Education Survey, 2001.		

100% computer use in the classroom. The average for Florida is 97.3%, well above the U.S. Average of 68%.



COMMERCIAL INTERNET DOMAIN NAMES

The number of commercial Internet domain names ("".com"") per total number of businesses.

Why Is This Important? The New Economy is not just about the Internet firms in Silicon Valley. It is also about all of the ways companies everywhere are putting computers and information technology to work. One way to quantify that is to look at the number of companies that have created a presence for themselves on the World Wide Web. Probably the most effective measure is the number of ".com" domain names registered in each metropolitan area. An Internet domain is an organization's unique name combined with a "top level" domain designation such as ".com," ".org," or ".edu," denoting commercial sites, nonprofit organizations, and education or research organizations, respectively. And in spite of the purported slowdown in the Internet economy, over 4.3 million domain names were added worldwide between October 2000 and February 2001.

Rank	The top five:	".com" domains per firm (plus 10):
1	San Francisco	13.75
2	Los Angeles	12.42
3	San Diego	12.31
4	Austin	11.80
5	Washington, D.C.	11.50
	Tallahassee MSA Ranking	
10	Tallahassee	9.89
	The bottom five:	
62	Ft.Myers	8.94
63	Pensacola	8.92
64	Ft.Pierce	8.88
65	Panama City	8.76
66	Lakeland	8.66
	U.S. MSA Average	11.05
	U.S. and 16 Fl MSA Average	10.00

Source: Mattew Zook, 2000. http://www.zooknic.com

The Rankings: The number of ".com" domains registered as share of total businesses varies significantly from metro to metro. The highest-ranking metro, San Francisco, has almost five times as many as the lowest-ranking metro, Louisville. San Francisco,as well as the other four leaders, are among the most high-tech metros by almost any measure.

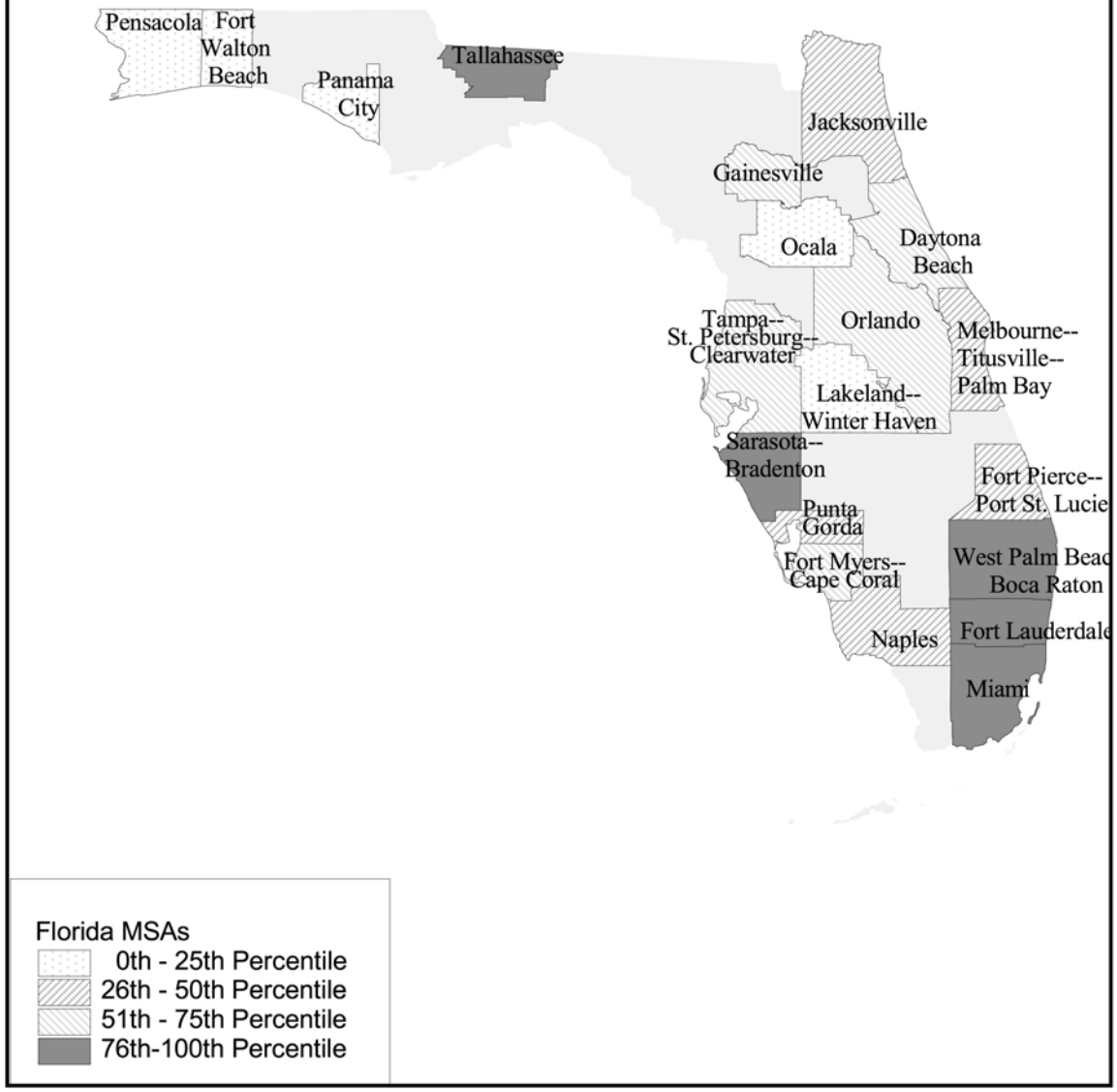
Tallahassee Ranking: Tallahassee ranking in the number of ".com" domains registered as share of total businesses is 33nd among the 66 MSA's evaluated. It's close to the middle in terms of U.S. and 16 Florida MSA. However, with regard to the U.S. MSA average, it's lower than average 11.89.

State of Florida MSA Rankings: For the most current data for Florida, Ft. Lauderdale tops the .dot com list with 2.5 domains per firm. West Palm Beach and Miami follow closely, with 2.3 and 2.15 respectively. Tallahassee ranks 4th in Florida, at 1.83 domains per firm, and Sarasota rounds out the top five with 1.75 domains per firm. The lower five ranking for Florida goes to Ft. Walton Beach, Pensacola, Ocala, Panama City, and Lakeland.

Rank	The top five:	".com" domains per firm (with 10 added):
1	Ft. Lauderdale	12.50
2	West Palm Beach	12.30
3	Miami	12.15
4	Tallahassee	11.83
5	Sarasota	11.75
	The bottom five:	
16	Ft. Walton Beach	11.09
17	Pensacola	11.09
18	Ocala	11.01
19	Panama City	10.95
20	Lakeland	10.78
Florida MSA Average		11.49

Source: Mattew Zook, 2000. http://www.zooknic.com

.dot coms


Pensacola
Fort Walton Beach
Panama City
Tallahassee
Jacksonville
Gainesville
Ocala
Daytona Beach
Tampa--St. Petersburg--Clearwater
Orlando
Melbourne--Titusville--Palm Bay
Lakeland--Winter Haven
Sarasota--Bradenton
Fort Pierce--Port St. Lucie
Punta Gorda
Fort Myers--Cape Coral
West Palm Beach
Boca Raton
Naples
Fort Lauderdale
Miami
Florida MSAs
0th - 25th Percentile
26th - 50th Percentile
51th - 75th Percentile
76th-100th Percentile

INTERNET BACKBONE

Total capacity of all Internet backbone links to other metropolitan areas as share of employment.

Why Is This Important? Internet backbone is the physical network (usually relying on fiber optic cable) that carries Internet traffic between different networks and is measured in megabits per second. It is true that, because data travel at the speed of light, any place connected to any of the backbone networks should be as accessible as any other place.
n reality, however, congestion at network hubs and junctions makes places with high levels of capacity better positioned to be home to companies that distribute large amounts of data via the Internet. If the "pipes" are not big enough relative to the amount of data going through them, data transmission speeds will slow. This is not so much an issue for individuals, where their modem speed and the "last mile" of connections usually cause the bottleneck. However, it can be an issue for companies, especially companies that are hosting and transiting large amounts of data. As a result, having a high capacity of Internet backbone in a metropolitan area relative to demand is a competitive advantage.

The Rankings: Backbone capacity has gradually diffused throughout the nation.
In 1997, over 60 percent of backbone capacity originated in seven metropolitan areas (e.g., New York, Washington, D.C., Chicago). But by 1999, the same seven accounted for only 41 percent. Places with the most backbone capacity relative to demand tend to be located in the middle of the nation. Some metros that score high (e.g., Salt Lake City, Atlanta) may be stops on the "information highway" as backbone links cross the nation. Still others, such as Kansas City and Dallas, score high because they are home to companies that are backbone providers. Nevertheless, all these places have high levels of capacity relative to demand.

Rank	The top five:	Internet backbone capacity (Mbps) per 1,000 employees:
1	Salt Lake City	103
2	Tallahassee	92
3	Kansas City	78
4	Atlanta	59
5	Dallas	57
	The bottom five:	
62	Lakeland	0
63	Panama City	0
64	Ft.Myers	0
65	Punta Gorda	0
66	Sarasota	0
	U.S. MAS Average	32
	U.S. and 16 Fl MSA Average	29

Source: Ed Malecki, and CEFA. 2000. Total internet capacity in Mbps.

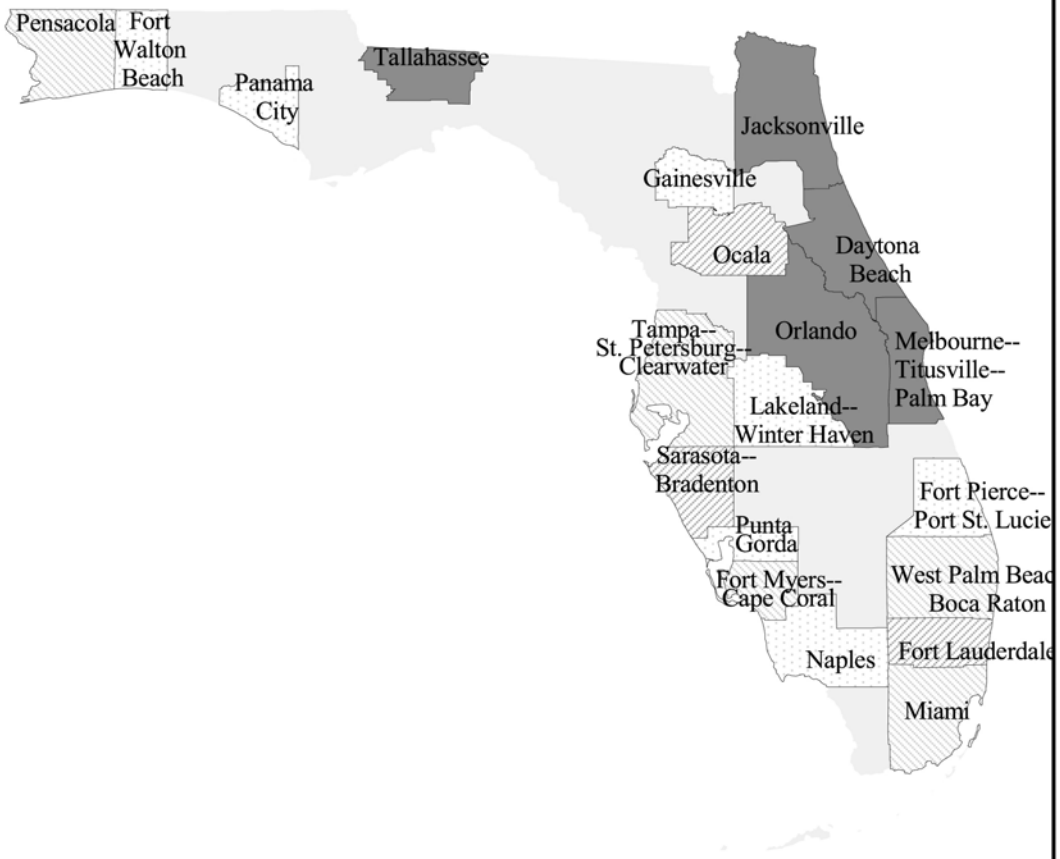
Tallahassee Rankings: Tallahassee MSA ranked 2nd among the 66 MSA's evaluated in internet backbone area.

State of Florida MSA Rankings: For Florida, Tallahassee is the #1 MSA in the internet backbone area. Tallahassee provides the superb condition for e-business, and for any other working areas related to the internet-based technology. This shows that the growth potential of Tallahassee as an internet hub center and chock point connects the continent with Florida nationally, and with the South America internationally. Along with Tallahassee, Daytona Beach, Melbourne, Orlando, and Jacksonville ranked within #5. Interestingly, Gainesville ranked #16 out of 20 MSA in Florida.

Rank	The top five:	Internet backbone capacity (Mbps) per 1,000 employees:
1	Tallahassee	271
2	Daytona Beach	267
3	Melbourne	192
4	Orlando	181
5	Jacksonville	157
	The bottom five:	
16	Gainesville	0
17	Lake Land	0
18	Naples	0
19	Panama City	0
20	Punta Gorda	0
	FL MSA Average	81

Source: Ed Malecki, and CEFA. 2000.

Internet Backbone



INNOVATION CAPACITY

In the old economy, economic growth stemmed from increases in the supply of capital, labor, or natural resources. Growth in the New Economy stems from increases in knowledge and innovation and its widespread adoption. Technological innovation is responsible for over two-thirds of per capita economic growth.[24] High-tech is growing faster than the overall economy. Moreover, because this trend is expected to continue, high-tech will be an important influence on overall metropolitan economic growth going forward. Not withstanding the current slowdown, high-tech has become a driver because high-tech output has grown four times faster in the1990s than the economy as a whole, and because high-tech jobs pay an average of 78 percent more than the median wage. Information technology industries now represent 8.2 percent of GDP — up from 4.9 percent in 1985 — and are expected to account for approximately 15 percent of GDP in 2020. The innovation capacity indicators in this section measure five things: 1) jobs in high-tech industries; 2) degrees granted in science and engineering; 3) the number of patents; 4) academic research and development funding; and 5) venture capital invested.[13]

Rank	MSA	Score
1	San Francisco	12.0
2	Gainesville	11.6
3	Raleigh-Durham	11.6
4	Austin	11.5
5	Boston	11.0
6	Rochester	10.9
7	Melbourne	10.9
8	San Diego	10.5
9	Seattle	10.4
10	Tallahassee	10.4
11	Denver	10.4
12	Minneapolis	10.3
13	Washington DC	10.2
14	Salt Lake City	10.1
15	Portland	10.1
16	Dallas	10.0
17	New York	10.0
18	Sacramento	10.0
19	Atlanta	10.0
20	Philadelphia	10.0
21	Chicago	10.0
22	Pittsburg	10.0
23	St. Louis	10.0
24	Hartford	10.0
25	Phoenix	10.0
26	Pensacola	9.9
27	Panama City	9.9
28	Detroit	9.9
29	Buffalo	9.9
30	Los Angeles	9.9
31	Cincinnati	9.9
32	Columbus	9.9
33	Dayton	9.9
34	Ocala	9.9
35	West Palm Beach	9.8
36	Tampa	9.8
37	Houston	9.8
38	Cleveland	9.8
39	Daytona Beach	9.8
40	Miami	9.8
41	Sarasota	9.8
42	Milwaukee	9.8
43	Indianapolis	9.7
44	Lakeland	9.7
45	Kansas City	9.7
46	Miami (incl Ft.Laud)	9.7
47	Orlando	9.7
48	Greensboro	9.7
49	Ft. Walton Beach	9.7
50	Ft. Pierce	9.7
51	Oklahoma City	9.7
52	Grand Rapids	9.7
53	Richmond	9.7
54	San Antonio	9.7
55	Charlotte	9.6
56	Nashville	9.6
57	Ft. Lauderdale	9.6
58	Ft. Meyers	9.6
59	Norfolk	9.6
60	Memphis	9.6
61	Louisville	9.5
62	New Orleans	9.5
63	Jacksonville	9.5
64	Punta Gorda	9.4
65	Naples	9.4
66	Las Vegas	9.4

[13] Extracted from The Metropolitan New Economy Index, Benchmarking Economic Transformation in the Nation's Metropolitan Areas, April, 2001, The Progressive Policy Institute, Technology, Innovation and New Economy Project. http://www.ppionline.org/

HIGH-TECH JOBS

Jobs in electronics and high-tech electronics manufacturing, software and computerrelated services, telecommunications, data processing and information services, biomedical and electromedical services as a share of total employment.

Why Is This Important? While high-tech industries make up less than 8 percent of the overall economy's output, they are key drivers of the New Economy. Just as capital- and machinery-intensive industries (autos, chemicals, and steel) drove growth in the 1950s and '60s, high-tech firms are the growth engines of the New Economy. And high-tech is concentrated in the nation's metro areas: While the largest 114 metro areas account for 67 percent of all jobs, they account for 81 percent of high-tech employment.

The Rankings: The high-tech focus of metropolitan areas varies significantly, from a high of 9 percent of the workforce in Austin to 1 percent in Las Vegas. With the exception of Chicago and Minneapolis, the leaders tend to be on the two coasts (Boston, Raleigh-Durham, Melbourne and San Francisco) and in the Mountain and Southwest states (Denver, Dallas, and Austin). These metros tend to specialize in different aspects of high-technology: software and biotech in Boston; Internet, telecommunications, and biotech in Washington, D.C.; telecommunications and biotech in Denver; semiconductors in Phoenix and Portland; and a broad mix of technologies in Silicon Valley and Los Angeles.

Rank	The top five:	High-tech jobs as a percentage of all jobs:
1	Austin	9.00%
2	San Francisco	8.60%
3	Melbourne	8.12%
4	Raleigh-Durham	8.00%
5	Boston	7.10%
	Tallahassee MSA Ranking	
13	Tallahassee	2.50%
	The bottom five:	
62	Ft. Lauderdale	1.53%
63	Gainesville	1.39%
64	Punta Gorda	1.35%
65	New Orleans	1.20%
66	Las Vegas	1.10%
	U.S. MSA Average	3.50%
	U.S. and 16 Fl MSA Average	3.50%

Source: BLS-ES-202 data, 1997

Tallahassee Ranking:

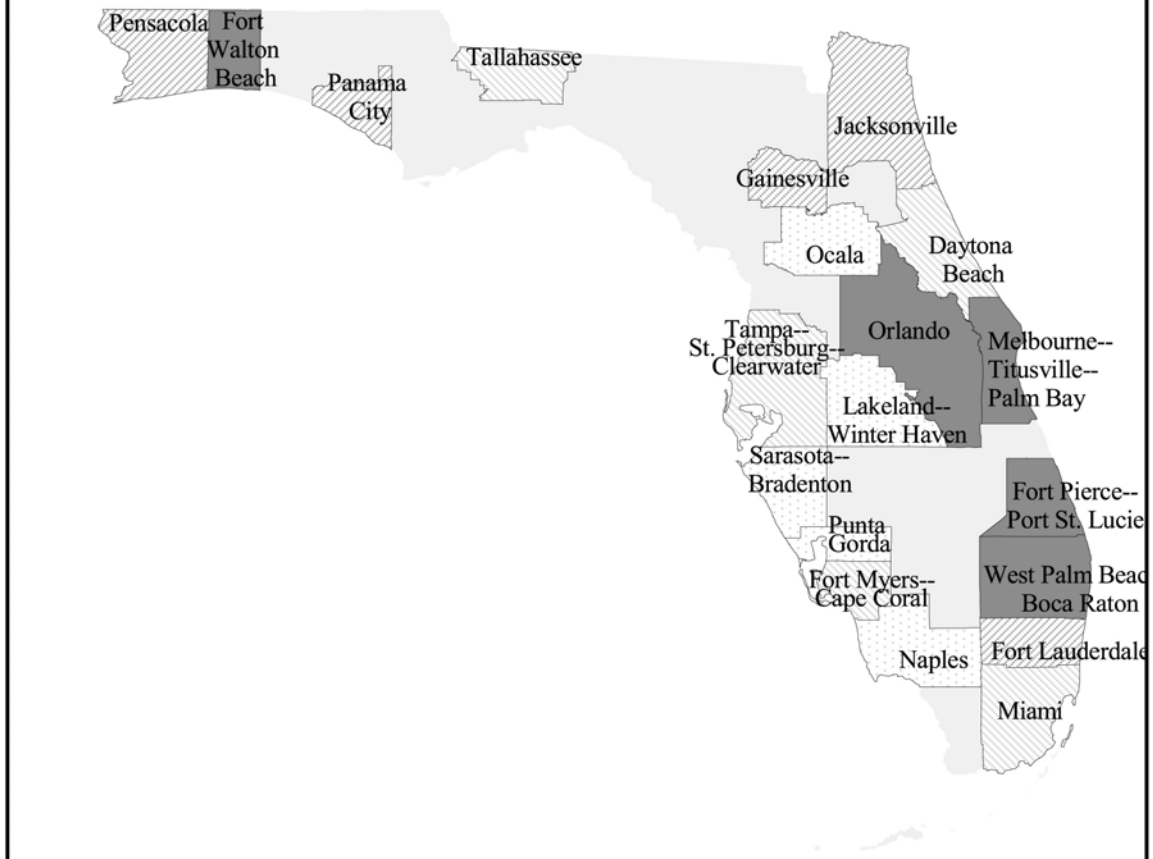
Tallahassee MSA ranked 48th among the 66 MSA's evaluated in high tech jobs.

State of Florida MSA Rankings: For Florida, the five MSAs with high rankings on the high-tech jobs indicator were: Melbourne, Ft Walton Beach, West Palm Beach, Orlando and Ft. Pierce. Melbourne, not surprisingly, ranks high because of the space industry and other large firms in the area employing engineers and other workers that are considered high-tech.

Ranking	The top five:	High-tech jobs as a percentage of all jobs:
1	Melbourne	11.5%
2	Ft Walton Beach	5.9%
3	West Palm Beach	5.5%
4	Orlando	4.9%
5	Ft Pierce	4.5%
	The bottom five:	
16	Ocala	2.4%
17	Sarasota	2.2%
18	Lakeland	2.0%
19	Naples	1.9%
20	Punta Gorda	1.0%
	Florida Average	3.8%

Source: BLS-ES-202 data, 2001

High-Tech Jobs



DEGREES GRANTED IN SCIENCE AND ENGINEERING

A weighted measure of the degrees granted in scientific and technical fields as a share of the workforce.27

Why Is This Important? In the New Economy, the key engines of growth — technology and research-based companies and industries — are fueled by a large and high-caliber scientific and engineering workforce. Moreover, there is a critical shortage of scientists, engineers, and computer programmers, as demand surges while supply graduating from United States' universities stagnates, or even in some cases declines. So growing a high-quality, scientific workforce is critical to boosting innovation and productivity.

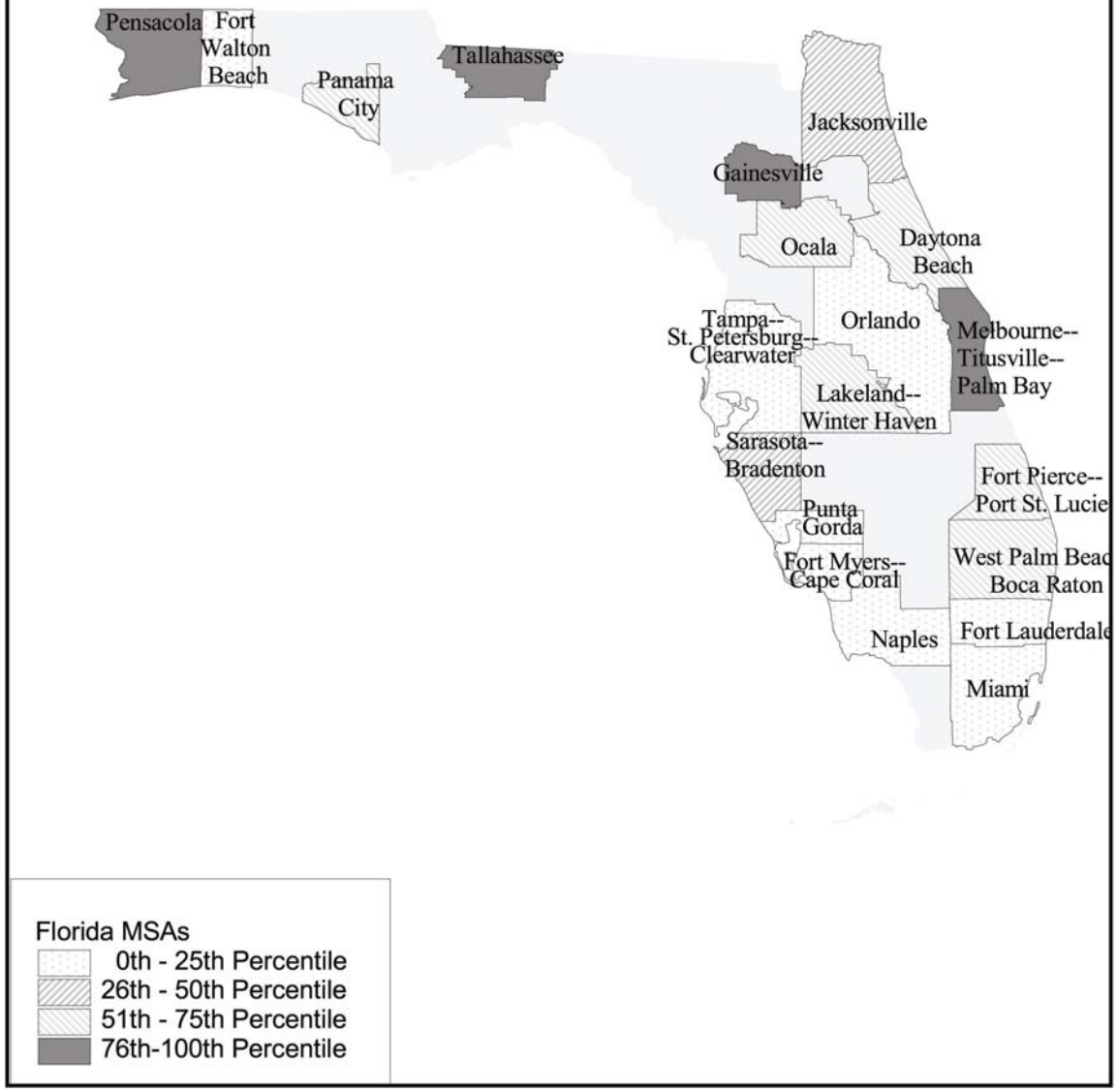
Rank	The top five:	Weighted score:
1	Gainesville	14.75
2	Tallahassee	12.14
3	Pensacola	11.44
4	Melbourne	11.38
5	Raleigh-Durham	10.71
	The bottom five:	
62	Sarasota	9.49
63	Las Vegas	9.49
64	Ft. Walton Beach	9.35
65	Punta Gorda	9.16
66	Naples	9.16
	U.S. Average	10.02
	U.S. and 16 Fl. MSA Average	10.00
Source: NSF CASPAR Database, 1998		

The Rankings: With the exception of Boston, which has more students enrolled in colleges than any other metro area, the top ranked metros tend to be smaller "college towns" with large research universities, such as Gainesville, Tallahassee, and the Research Triangle Park (Duke, UNC, NC State). Metro areas that lag behind tend to be in the South and Southwest, which with a few exceptions (Raleigh and Austin) do not have leading research universities. This lack of top-flight universities hampers the ability of metros in these regions to prosper.

State of Florida MSA Rankings: For Florida, the five MSAs with high rankings on the Scientific Science and Engineering indicator were: Gainesville, Tallahassee, Pensacola, Melbourne and Panama City, as one would expect, given that universities are located in those MSAs.

Ranking	The top five:	Weighted score:
1	Gainesville	12.66
2	Tallahassee	11.06
3	Pensacola	10.70
4	Melbourne	10.48
5	Panama City	10.12
	The bottom five:	
16	Ft. Meyers	9.58
17	Tampa	9.55
18	Ft. Walton Beach	9.45
19	Naples	9.36
20	Punta Gorda	9.36
	Florida Average	10.00
Source: NSF CASPAR Database, 2000		

Degrees granted in Sci/Eng



PATENTS

The number of utility patents issued to companies or individuals per 1,000 workers.

Why Is This Important? The capacity of firms to develop new products will determine their competitive advantage and ability to pay higher wages. One indicator of the rate of new product innovation is the number of patents issued. As technological innovation has become more important, patents issued in the United States have increased from 58,000 in 1984 to over 159,000 in 1999.

The Rankings: Metropolitan areas with an above-average share of high-tech jobs, where these jobs are in either corporate headquarters or R&D labs, as opposed to production facilities, tend to have the highest numbers of patents. For example, Rochester is home to both Kodak and Xerox, while Austin, San Francisco, Minneapolis, and San Diego are home to large numbers of high-tech corporate facilities.

Rank	The top five:	Patents per 1,000 workers (weighted score)
1	Rochester	2.33
2	San Francisco	1.45
3	Austin	1.38
4	Minneapolis	0.85
5	San Diego	0.84
	Tallahassee MSA Ranking	
19	Tallahassee	0.17
	The bottom five:	
62	Lakeland	0.15
63	Ft. Walton Beach	0.15
64	Las Vegas	0.14
65	Nashville	0.14
66	Norfolk	0.13
	U.S. MSA Average	0.50
	U.S. and 16 Fl. MSA Average	0.45

Source: U.S. Patent and Trademark Office, average of 1996,1997,and 1998 data.

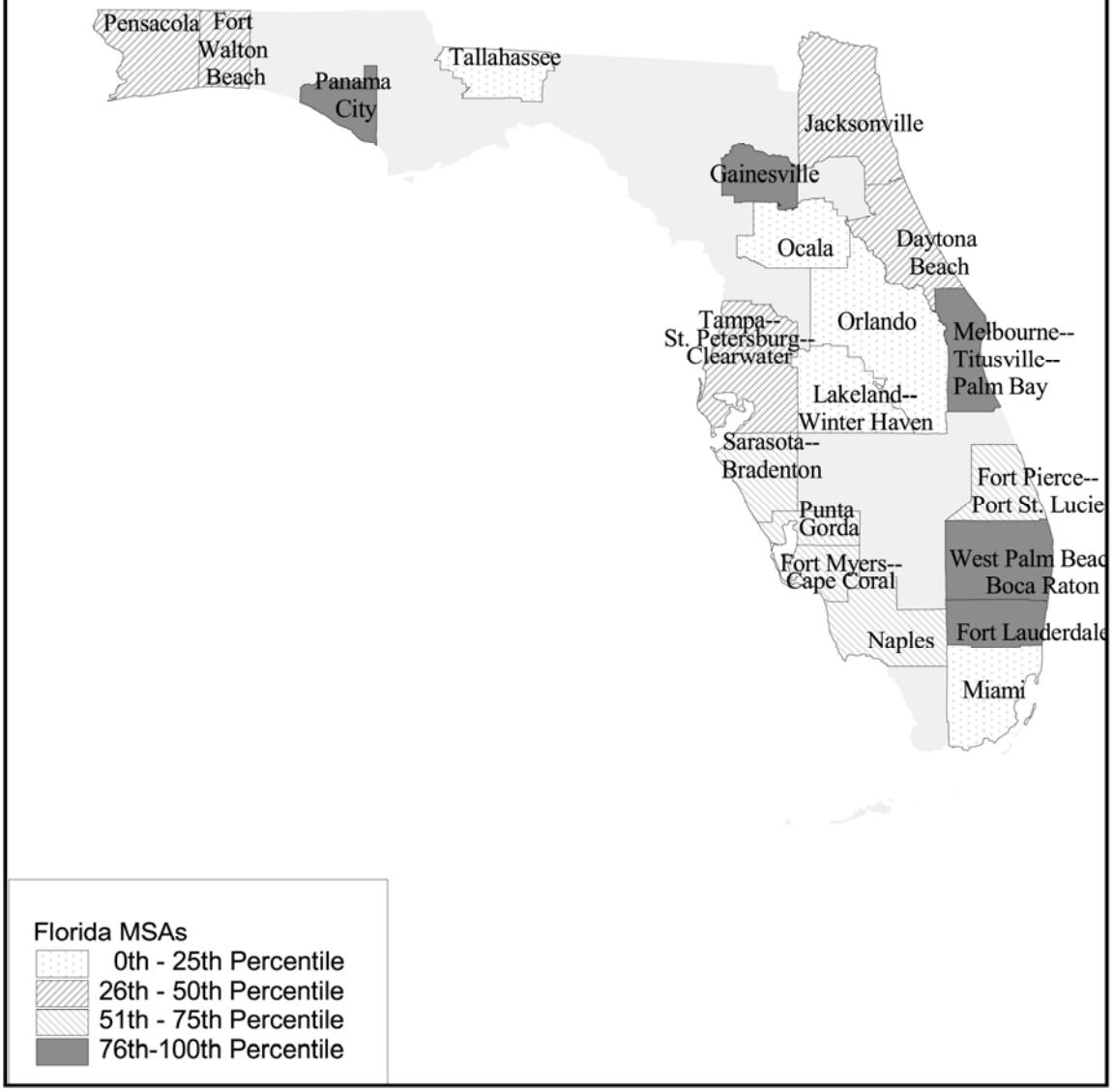
Tallahassee Ranking:
Tallahassee MSA ranked 58th among the 66 MSA's evaluated in patents per 1,000 workers.

State of Florida MSA Rankings: For Florida, the five MSAs with the highest rankings regarding the number of patents per 1,000 workers were: Melbourne, West Palm Beach, Gainesville, Panama City and Ft. Lauderdale. Melbourne, West Palm Beach and Gainesville are well equipped with a talented pool of high tech workers and research and development.

Ranking	The top five:	Patents per 1,000 workers (weighted score)
1	Melbourne	0.84
2	West Palm Beach	0.83
3	Gainesville	0.77
4	Panama City	0.50
5	Ft. Lauderdale	0.49
	The bottom five:	
17	Miami	0.23
18	Tallahassee	0.23
19	Orlando	0.23
20	Ocala	0.22
21	Lakeland	0.19
	Florida Average	0.39

Source: U.S. Patent and Trademark Office, average of 1997,1998,and 1999 data.

Patents


Pensacola
Fort Walton Beach
Panama City
Tallahassee
Jacksonville
Gainesville
Ocala
Daytona Beach
Orlando
Tampa--
St. Petersburg--
Clearwater
Melbourne--
Titusville--
Palm Bay
Lakeland--
Winter Haven
Sarasota--
Bradenton
Fort Pierce--
Port St. Lucie
Punta Gorda
Fort Myers--
Cape Coral
West Palm Beac
Boca Raton
Naples
Fort Lauderdale
Miami
Florida MSAs
0th - 25th Percentile
26th - 50th Percentile
51th - 75th Percentile
76th-100th Percentile

ACADEMIC RESEARCH & DEVELOPMENT FUNDING

A combined measure of industry investment in R&D at academic institutions and total academic R&D.

Why Is this Important? Research and development at an academic institution involves professors, scientists, and other researchers pursuing bright ideas that will bring about changes in industries and in the way that we live. They are able to finance this research with funds from inside the university and funds from external sources such as a corporation. The results of this research and investment can take many forms. It could mean the invention of a new product or a process that reduces the cost of some activity. Without question, however, this research and development increases the knowledge base and leads to innovations that will create growth not only in the local economy, but also for the national economy. Moreover, MSAs with more research and development will attract firms to the area who want and will benefit from the research going on at the universities there. This, in turn, will lead to more and better paying jobs for the citizens living in the local MSA as these companies relocate.

Rank	The top five:	R&D funding as share of employment (weighted scores):
1	Gainesville	14.6
2	Raleigh-Durham	13.0
3	Tallahassee	11.3
4	Boston	10.7
5	Washington DC	10.5
	The bottom five:	
62	Panama City	9.6
63	Grad Rapids	9.6
64	Ft. Pierce	9.6
65	Ft. Walton Beach	9.6
66	Sarasota	9.6
	U.S. Average	10.0
	U.S. and 16 Fl. MSA Average	10.0

Source: NSF CASPAR Database, 1997.

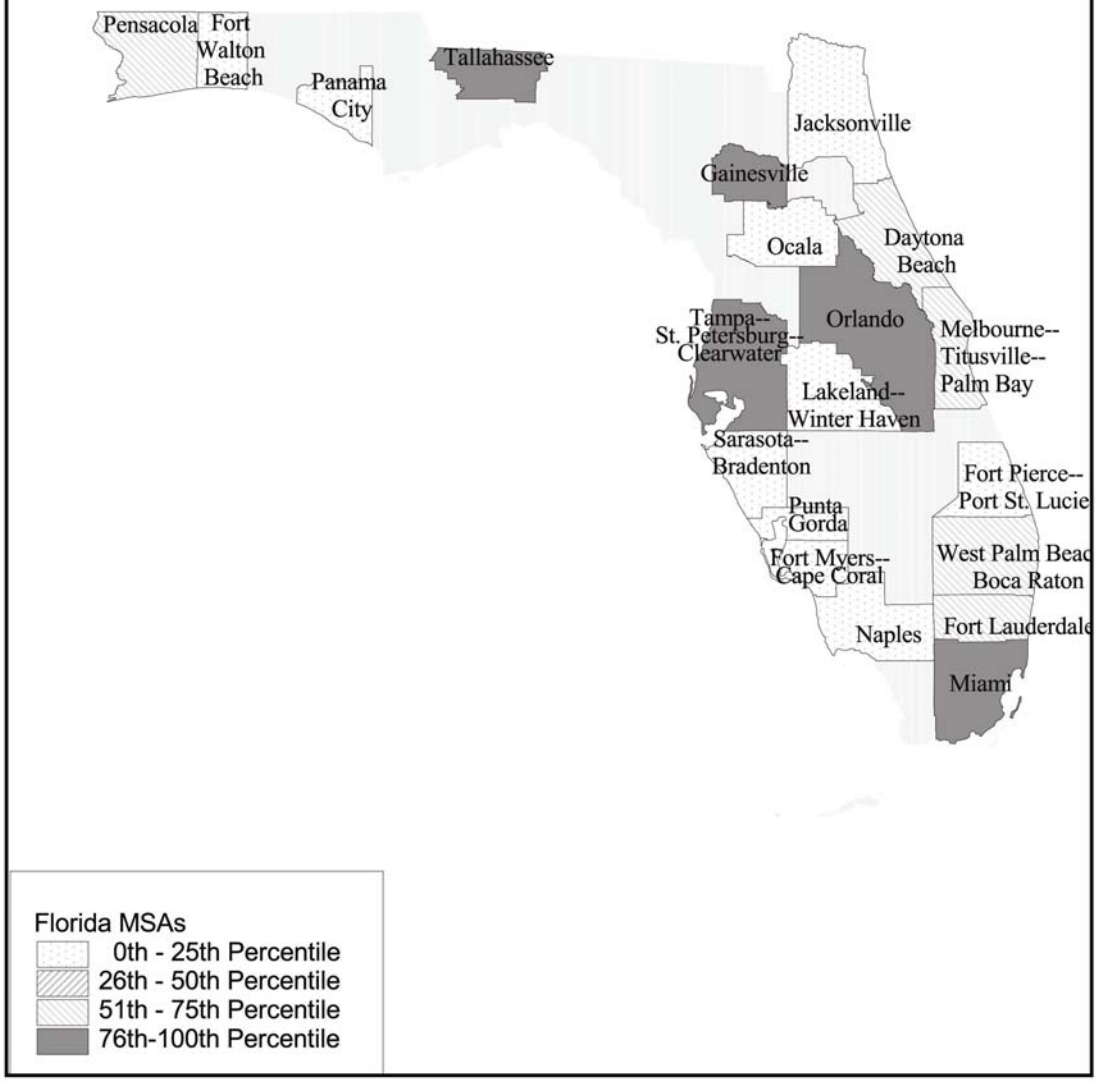
The Rankings: Gainesville, and the University of Florida and Raleigh-Durham-Chapel Hill lead the other metros by a wide range both in terms of total R&D and industry funded R&D. Duke, UNC Chapel Hill, and North Carolina State University have formed the underpinnings for the growth of high tech in the Research Triangle. The next-highest-ranking metro, Tallahassee, scores significantly lower, but is still well above the national average. Boston and Washington, D.C. rank high largely because of the presence of Johns Hopkins in Baltimore, the leading academic research performer in the nation.

State of Florida MSA Rankings: For Florida, the five MSAs with the highest rankings regarding the R&D funding that was a share of employment were: Gainesville, Tallahassee, Miami, Tampa, and Orlando. This would be a reasonable assumption given the strong university representation of these MSAs. The smaller MSAs again, similar to the Science and Engineering indicator are ranked lower on the Academic R&D scale.

Ranking	The top five:	R&D funding as share of employment (weighted scores):
1	Gainesville	13.12
2	Tallahassee	10.79
3	Miami	9.98
4	Tampa	9.91
5	Orlando	9.82
	The bottom five:	
17	Naples	9.75
18	Ocala	9.75
19	Panama City	9.75
20	Punta Gorda	9.75
21	Sarasota	9.75
	Florida Average	10.00

Source: NSF CASPAR Database, 2000

Acad R&D


Pensacola
Fort Walton Beach
Panama City
Tallahassee
Jacksonville
Gainesville
Ocala
Daytona Beach
Tampa--St. Petersburg--Clearwater
Orlando
Melbourne--Titusville--Palm Bay
Lakeland--Winter Haven
Sarasota--Bradenton
Fort Pierce--Port St. Lucie
Punta Gorda
Fort Myers--Cape Coral
West Palm Beach
Boca Raton
Naples
Fort Lauderdale
Miami
Florida MSAs
0th - 25th Percentile
26th - 50th Percentile
51th - 75th Percentile
76th-100th Percentile

VENTURE CAPITAL

Venture capital invested as a share of gross metropolitan product.

Why Is This Important? There are companies in our economy, called venture capitalists, with large amounts of money looking for inventors or entrepreneurs with bright ideas to give money to. This money will help these bright people bring those ideas to the market. The venture capitalists, in return, expect to receive large profits from investing in these ideas; however, with this type of investing there is high risk. Venture capital financing involves the act of venture capital firms, angel investors (high net worth individuals), and corporations giving cash to firms, which are not yet publicly traded entities, in exchange for a share of equity ownership in the firm. Transactions such as these are crucial for local economies in that they provide capital, in the form of cash, to businesses were they can expand their operations. This expansion of their operations will lead to greater job growth in the local economy as firms, high tech and other, hire more local workers and draw in other skilled employees from elsewhere. Not only would some local workers benefit from the venture capital activity, but also consumers in the local and broader markets would benefit as well. Since venture capitalists are exchanging this cash in expectation of a greater return in the future, one of the criteria that is used in evaluating whether an entrepreneurial business receives their funding is the growth potential of the product or service that the firm produces. Thus, the firm that receives funding is turning out products or services that consumers and society in general will want to benefit from and will. Additionally, some venture capitalists take a hands on roll in the companies that they invest in guiding the company in its early critical stages were decisions made can not only effect profitability, but also local employment. For these reasons, the magnitude of venture capital activity in the local MSA is of extreme importance.

Rank	The top five:	Venture Capital as a Share of GMP
1	San Francisco	5.50%
2	Seattle	2.71%
3	Austin	1.83%
4	Boston	1.53%
5	Raleigh-Durham	1.35%
	The bottom five:	
62	Ft. Pierce	0.00%
63	Tallahassee	0.00%
64	Greensboro	0.00%
65	Ft. Walton Beach	0.00%
66	Ft. Myers	0.00%
	U.S. MSA Average	0.46%
	U.S. and 16 Fl. MSA Average	0.36%

Source: Florida Venture Forum

The Rankings: While venture capital is clearly important, it is not occurring everywhere in the United States. The metropolitan statistical area in the United States that receives the most venture capital funding as a share of its gross metropolitan product is San Francisco, the area aptly named Silicon Valley. Other MSAs that do well on this indicator are Seattle, Austin, Boston and Raleigh-Durham. This is not surprising as Raleigh-Durham, Austin and Boston are the top three ranked MSAs, respectively, in the number of science and engineering degrees granted. There were 11 MSAs, nine of which were located in Florida, in the United States with no venture capital funding.

Tallahassee Ranking:

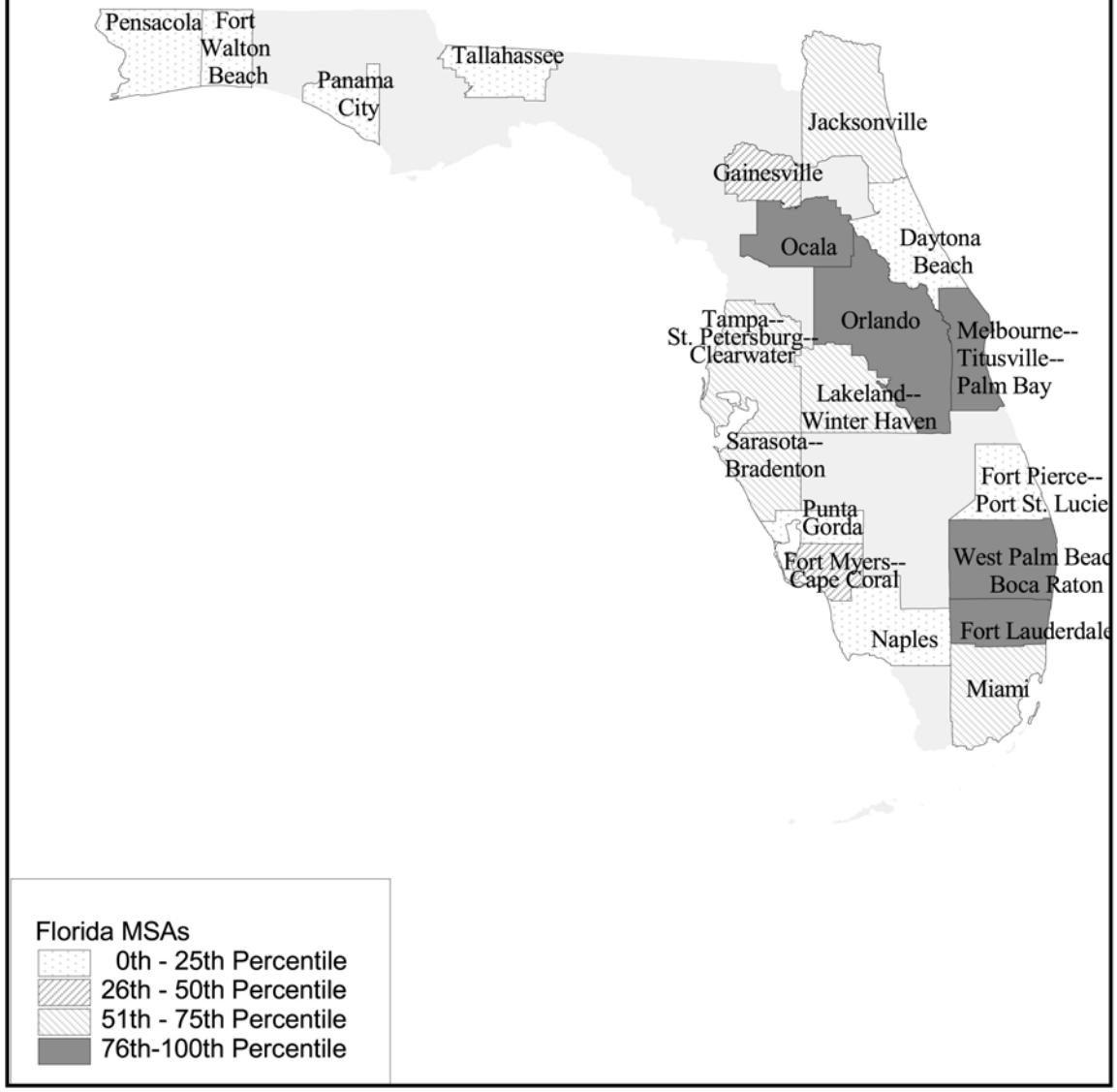
Tallahassee MSA ranked 63rd in the nation in venture capital.

State of Florida MSA Rankings: For Florida, the five MSAs with high rankings on the venture capital indicator were: Ocala, West Palm Beach, Orlando, Ft Lauderdale, and Melbourne. Ocala, the top ranking MSA in this category also ranks high in IPOs. Venture capital is not occurring everywhere in Florida, however. It is clearly concentrated in central and south Florida, particularly central Florida. In addition, eight of the twenty Florida MSAs in the study had no venture capital activity.

Ranking	The top five:	Venture Capital as a share of GMP
1	Ocala	.46%
2	West Palm Beach	.30%
3	Orlando	.29%
4	Ft Lauderdale	.19%
5	Melbourne	.18%
	The bottom five:	
16	Ft Walton Beach	.00%
17	Naples	.00%
18	Panama City	.00%
19	Pensacola	.00%
20	Punta Gorda	.00%
	Florida Average	.09%

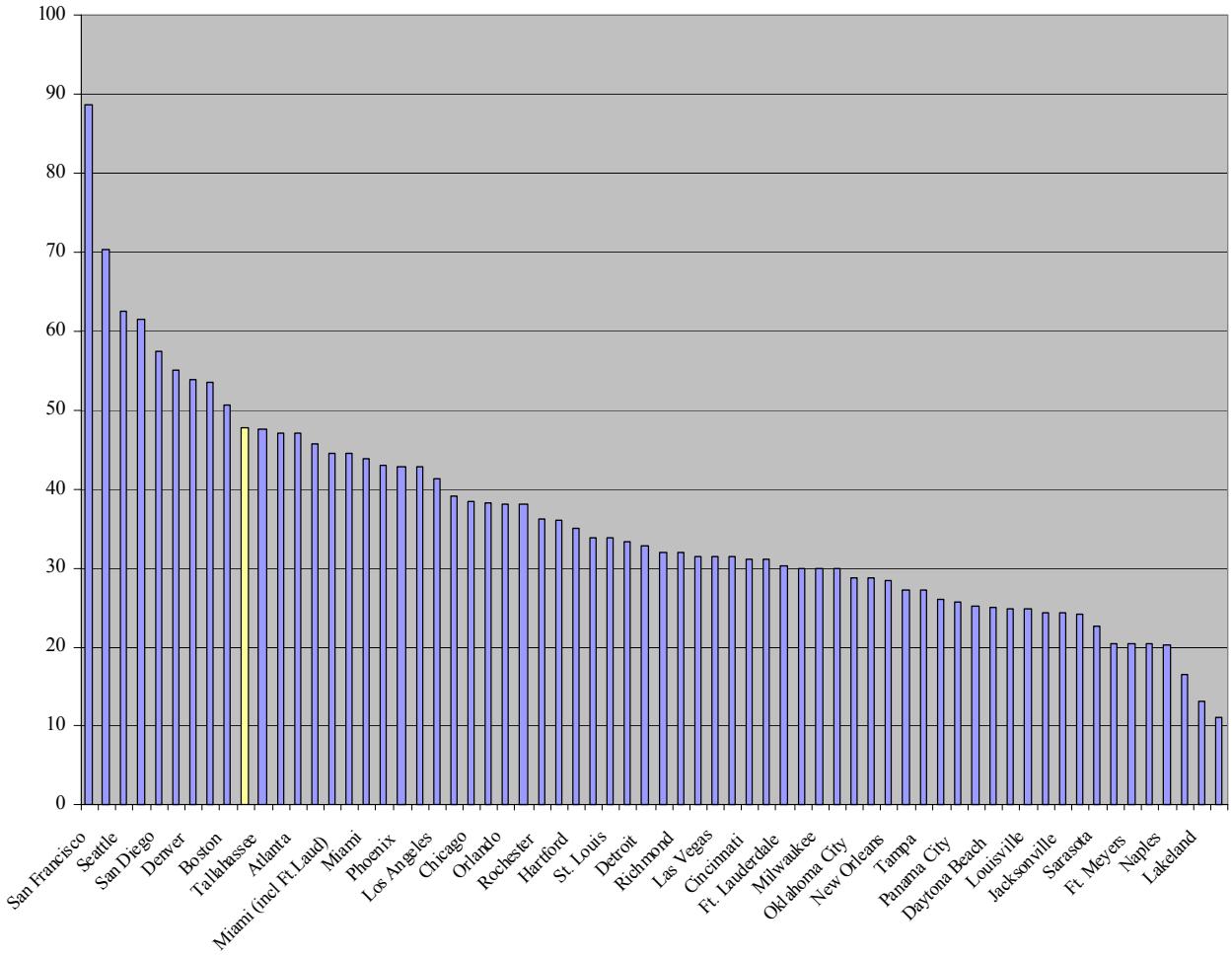
Source: PriceWaterhouseCoopers *Money Tree Survey*, 2001

Venture Capital

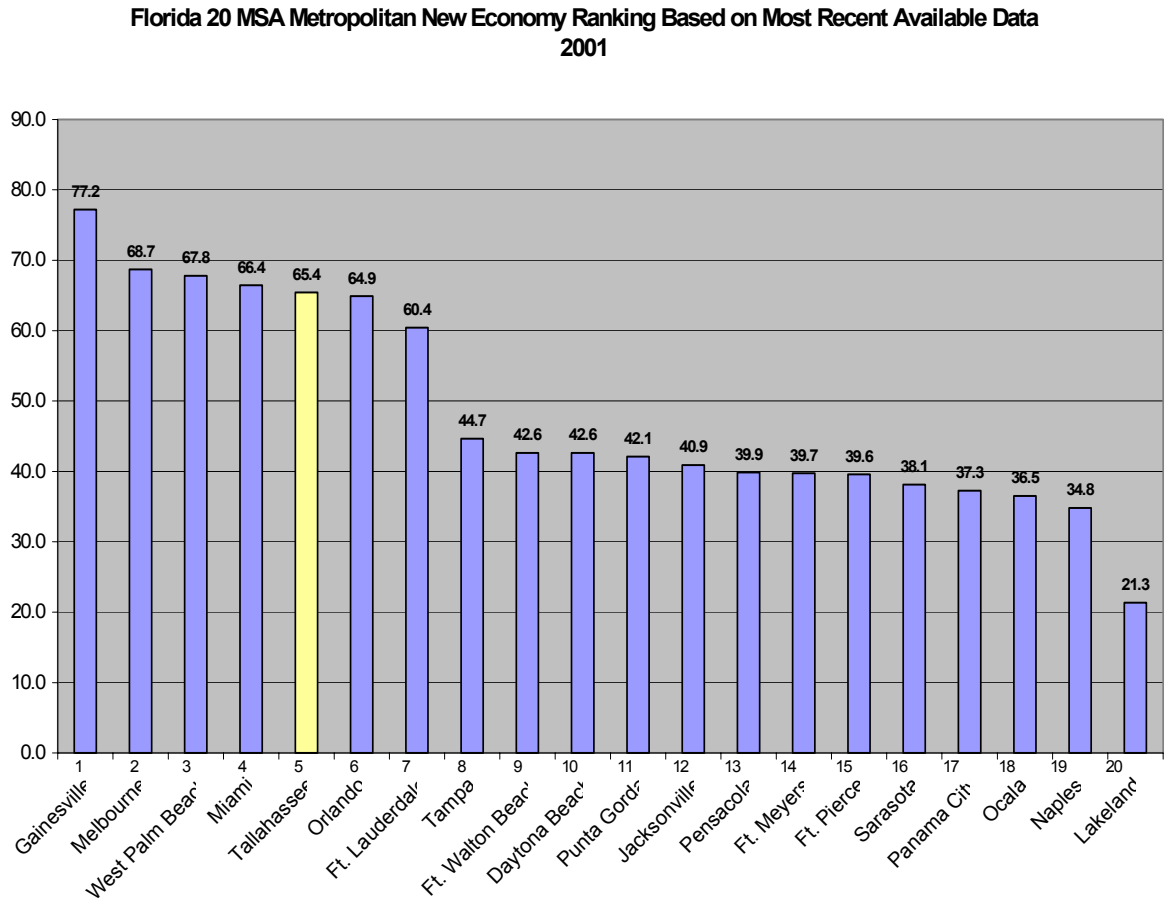


CONCLUSIONS AND RECOMMENDATIONS

Overall, Tallahassee ranked 11th in the National rankings.



In Florida, and including the most current data, Tallahassee ranked fifth overall.



A recent USA report (May 20, 2001) outlined the amount of waste ($130 billion over two years) that is spent on high tech spending. According to the report, companies buy too much wrong technology, and underestimate the time needed to make it operational. Also, CEO's often spent too quickly and without clear goals. During the 1990's CEOs wrote blank checks to tech departments without asking basic questions. During the tech boom years, at least 85% of tech-buying decisions were made by tech managers with little input from bean counters, estimates Frank Britt, an IBM executive who frequently counsels companies on tech spending. Experts note that future corporate tech spending will be more focused on reaching specific goals – such as a 1% increase in revenue. Software deals now average about $1 million vs. the $50 million buys more common during the 1990's high tech buying period. These changes reflect the new dynamic: power has shifted to buyers.[14] This technology waste is indicative of the shift from the old economy to the new economy. In order to make a transition from the old economy to the new economy, Tallahassee needs to address the following areas:

Business and government must partner together to expand :

- Broadband high speed Internet access to all business, educational and residential need.
- Business community access to venture capital.
- Regional creative innovation, business formation and trade efforts.
- Celebrate and build upon our community strengths of high levels of professional, technical jobs and highly educated, on line workforce, student base and general population.
- Communicate to prospective new and existing business Tallahassee's strong "high tech" ranking, Internet access and dynamic economy.
- Expand our excellent science, engineering and research educational opportunities that exist across our community to all citizens.

[14] Jim Hopkins and M. Kessler. Companies squander billions on tech. USA Today, May 20, 2002.

DATA CALCULATIONS AND SOURCES for Florida MSA Data

Note: An attempt was made to exactly duplicate the calculations and data sources for each of the indicators. The goal was to find comparable data in order to establish proper comparison and integration of Florida MSAs into the Atkinson and Gottlieb PPI Report of the Nation's 50 largest MSAs. In some cases, finding the exact data and source was not possible. Either the data was not available for smaller MSAs or the data source could not be located. In these cases, other sources of data were used as a proxy. This alternative data was adjusted up or down as necessary to bring the five known Florida MSAs (which were included in the PPI Report) and the rest of the 20 MSAs in line with the comparable known data in the report for the five MSAs (Jacksonville, Miami/Ft. Lauderdale, Orlando, Tampa/St. Petersburg, and West Palm Beach). The data for the 50 MSAs included in the PPI report was taken directly from the tables included in the report. Four of the indicators in the report were reported as z-scores (Job Churning, Commercial Internet Domain Names, Degrees Granted in Science and Engineering, and Academic R&D Funding), therefore reverse calculations were made to extract the original data in order to properly integrate the Florida MSA data.

Note: Much appreciation is extended to Rick Coduri of the Progressive Policy Institute New Economy Project. He was instrumental in answering questions concerning the sources and calculations of individual indicators and the final metro index.

Final Calculation of the Metropolitan New Economy Index: Raw scores for each indicator for each of the MSAs are converted to z-scores. Z-scores are then multiplied by a weighting scale. The final metro scores are calculated by summing the individual weighted z-scores, adding 20 to this final figure (again to bring the summed figure to positive numbers) then dividing this summed score by the sum of the highest score achieved by any metro in each indicator. Thus, each Metro Final Score is a function of the total score a metro would have achieved if it had finished first in every category (Atkinson & Gottlieb, Progressive Policy Institute New Economy Project, 2001. Available online: http://www.neweconomyindex.org.

Individual Indicator Raw Score Calculations and Sources of Data:

Indicator: Managerial, Professional, Technical Jobs
Calculation: Total Number of Managerial, Professional, and Technical Jobs in the MSA divided by Total Employment. Sources: MPT Jobs: Bureau of Labor Statistics, Occupational Employment Statistics, 1999, available: http://www.bls.gov/oes/1999/oessrcma.htm. (Sum of SOC codes, 11, 13, 15, 17, 19, 21, 23, 25, 29). Total Employment: Bureau of Labor Statistics, ES-202 December 1998.

Indicator: Workforce Education
Calculation: A weighted score calculated as follows: (% residents with some college education X .5 + % of residents with Bachelor's degree X 1.0 + % of residents with Graduate Degree X 2.0). Source: Bureau of the Census: 1980-1990 with a CEFA linear forecast to 2000 for smaller MSAs. Workforce Education for the largest 50 MSAs in the

PPI report was estimated from the Census Bureau Current Population Survey, 1998. Confidence intervals are too large to make reliable estimates for the smaller MSAs. See Technical Appendix for final Florida educational Forecast Levels.

Indicator: Export Focus of Manufacturing
Calculation: Total dollars of Export Sales for the MSA divided by the Total Number of Manufacturing Employees/1000. Sources: Manufacturing Exports: International Trade Administration: U S. Department of Commerce, 1998. All Figures show sales by exporters of record located in indicated area. http://www.ita.doc/ta/industry/otee/metro. Four Florida MSAs reported no export data due to confidentiality restrictions. Exports for these MSAs were extrapolated using the average percent of GSP export manufacturing output generated in the remaining 10 smaller Florida MSAs as a point of estimation. Manufacturing Employees: U.S. Census Bureau County Business Patterns, 1998. See Technical Appendix for final Florida MS exports.

Indicator: Gazelles
Calculation: Brandow High Growth jobs data plus 8.9. (See Gazelle Appendix).
Source: The Cognetics source cited in the PPI report does not contain data for the small MSAs, therefore a proxy was developed using Brandow High Job Growth data. (See Gazelle Appendix).

Indicator: Job Churning
Calculation: Job Churning Gain: Jobs Open + Jobs Expanded divided by Total Employment /1000. Job Churning Loss: Jobs Contract + Jobs Close divided by Total Employment /1000. Sources: The Cognetics source cited in the PPI report does not contain the data required to make the Florida MSA job Churning calculations. Florida Department of Labor 2001 data was used to calculate Job Gain and Job Loss rates. Job Churning Gain and Job Churning Loss rate z-scores are calculated separately and then averaged to come up with the Job Churning z-score used in the final metro index calculation.

Indicator: New Publicly Traded Companies
Calculation: Average of 1998 & 1999 Initial Public Offerings for each MSA divided by $10 Billion Gross Metropolitan Product. Source: EDGAR Online, average of 1998/1999 IPOs. Gross Metropolitan Product taken from Bureau of Economic Analysis 1999 IMPLAN data.

Indicator: Online Population
Calculation: Once again, a proxy was calculated for this indicator because same source information was not available for smaller MSAs. CEFA approximated adult on-line population by using the US Bureau of the Census report titled Computer Use in the United States: Population Characteristics: Current Population Reports, October, 1997, Issued 1999. C. Newburger. The online adult population estimates were generated by first calculating the baseline educational level for each MSA forecast 1998 educational levels (see the Appendix section titled "Educational Level of the Work Force" for development of that methodology). Next each MSA's educational level was then multiplied by the

appropriate percentage of adult use of Internet by educational attainment reported in Table C "People 18 Years and Older by Computer and Internet Use": October: 1997. Then an adjustment of these values for the PPI reported levels for the 5 Florida MSAs evaluated in that report was completed. The average adjustment, based on the difference between the calculated MSA and reported PPI MSA average in these largest 5 Florida MSAs was then used to adjust the remaining 15 smaller Florida MSA to complete the calculation.

Indicator: Broadband Telecommunications Capacity
Calculation: Number of Broadband Providers providing services to customers in each zip code divided by the number of zip codes in the MSA. Source: Federal Communications Commission, High Speed Service Providers as of 12/31/99. Available: http://www.fcc.gov/bureaus/common_carrier/reports. Dynamap/ZIP code boundary and inventory file.

Indicator: Computer Use in Schools
Calculation: Total Number of Children Using Computers in Schools divided by the Total Number of Children in all schools. Once again, a proxy was calculated for this indicator because same source information was not available for smaller MSAs. Computer Use in Schools for the largest 50 MSAs in the PPI report was estimated from the Census Bureau Current Population Survey, 1998. Confidence intervals are too large to make reliable estimates for the smaller MSAs. Source: Florida Department of Education Survey, 2001.

Indicator: Commercial Internet Domain Names
Calculation: Total Commercial Internet Domain Names located in the MSA (.coms) divided by the Total Number of Establishments (firms, businesses) in the MSA. Source: M.A. Zook, http://www.zooknic.com, 1999 data. Census Bureau County Business Patterns, 1998 data.

Indicator: Internet Backbone
Calculation: Total Internet Backbone Capacity (in Mbps) divided by Total Employment /1000. Source: Backbone data compiled by Ed Malecki, The Ohio State University.

Indicator: High Tech Jobs
Calculation: Total Number of High Tech Jobs divided by Total Employment. Source: Bureau of Labor Statistics, ES-202 1997 data. The definition of high tech jobs used for this study were derived from the Florida High Tech Corridor 2001 Technology Cluster Report. The authors used SIC codes that were either: used by the American Electronics Association's (AEA) definition of "high tech" companies, or used in the Florida High Tech Corridor Corporate Guide. Please see the Appendix for a listing of SIC codes used for this study.

Indicator: Degrees Granted in Science and Engineering
Calculation: A weighted score calculated as follows: (% S&E Associate Degrees X .5 + % S&E Bachelor's Degrees X 1.0 + % S&E Master's Degrees X 1.5 + % S&E Doctorate Degrees X 2.0) divided by Total Employment/1000. Source: National Science

Foundation CASPAR database, 1996 data. (Note: CEFA modified the AS multiplier to .25 because of the extra influence AS degrees seemed to have in the smaller MSAs in Florida).

Indicator: Patents
Calculation: Average of 1996, 1997, 1998 Utility Patents for each MSA divided by Total Employment/1000. Source: U.S. Patent and Trademark Office (April 2000), US Patents Grants by State, County, and Metropolitan Area (Utility Patents, 1990-1999). Washington, D.C.

Indicator: Academic Research and Development
Calculation: Total R&D for the MSA divided by Total Employment. Source: NSF CASPAR Database, 1997 data. Total R&D all sources for all Universities in the MSA.

Indicator: Venture Capital
Calculation: Total dollars venture capital divided by Gross Metropolitan Product. Source Florida Venture Forum, 1999 data.

APPENDIX

GAZELLE INDICATOR

Given that the Cognetics data does not provide any index of high number of jobs in high growth companies for mid and smaller MSAs researchers turned to the Brandow Company Data (www.brandow.com).[15] The Brandow data provides a consistent data set of "High Growth Jobs" for all US MSAs. The Brandow definition is:

Small businesses with high job growth calculates the number of high job growth fims as a percentage of all firms as a percent of firms in the area or sector. Ratings measure firms which reported these growth multiples with ferer than 5 jobs and grew to more than 10; with ferer than 10 jobs and grew to more than 25; with fewer than 25 jobs and grew to more than 50; with fewer than 50 jobs and grew to more than 100; with fewer than 100 jobs and grew to more than 250; and with fewer than 250 jobs and grew to more than 500. This clearly is a very different definition than the one used in the PPI analysis and adjustments were therefore warranted.

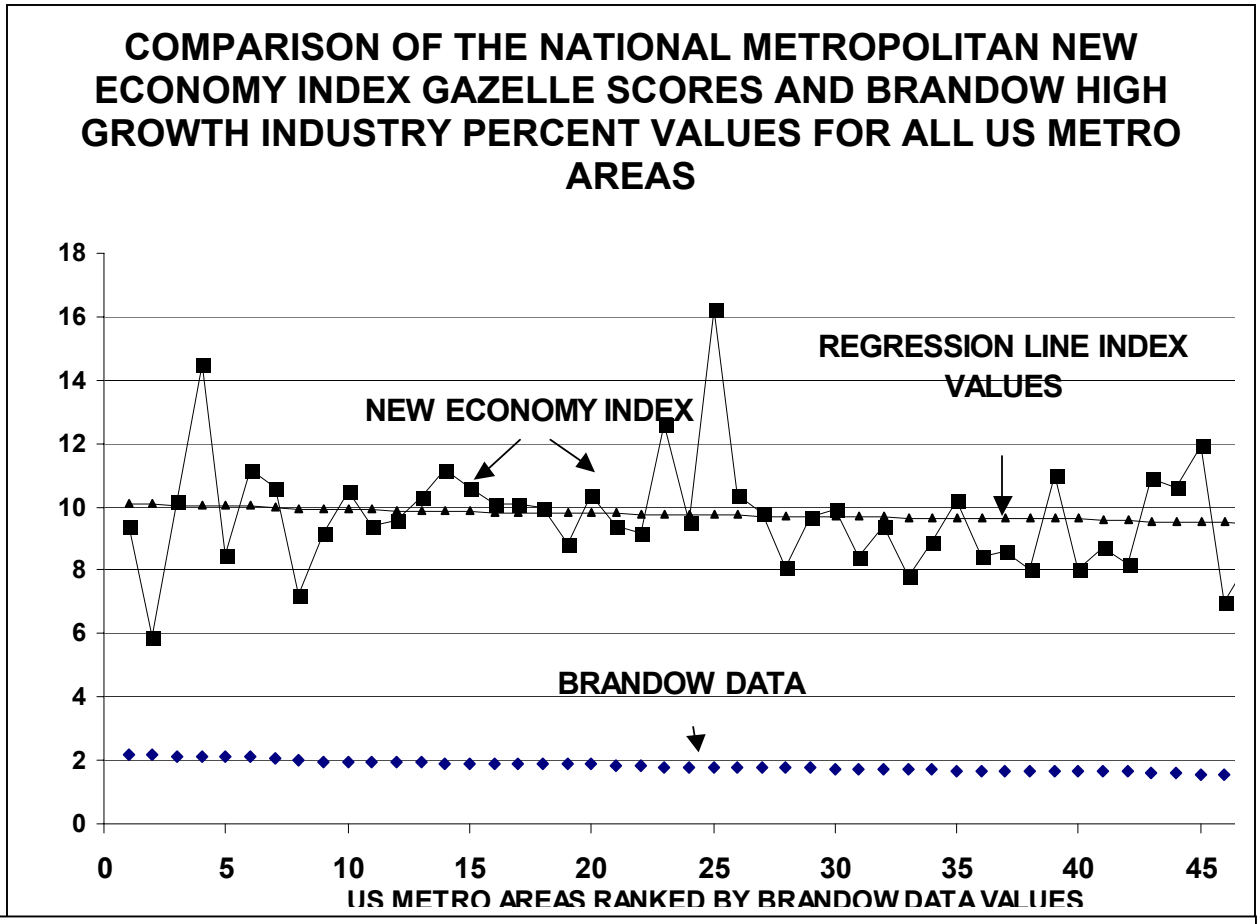
The method to convert the Brandow data to be consistent with the PPI estimates involved a method of linear extrapolation. The following figure provides a raw plot of the raw score (percent of jobs in Gazelle firms) from the PPI study (provided by Cognetics) for each MSA evaluated. Included with these 50 data points are the five Florida MSAs evaluated in the PPI study. These data are also compared to the comparable data for each of the 50 MSAs extracted from (and ordered highest to lowest according to) the Brandow percent of High Growth Jobs data (percent of all jobs in each MSA economy reported in High Growth companies as defined above). This also contains a plot of a regression trend line which appropriately falls in the mid section of the Cognetics data.

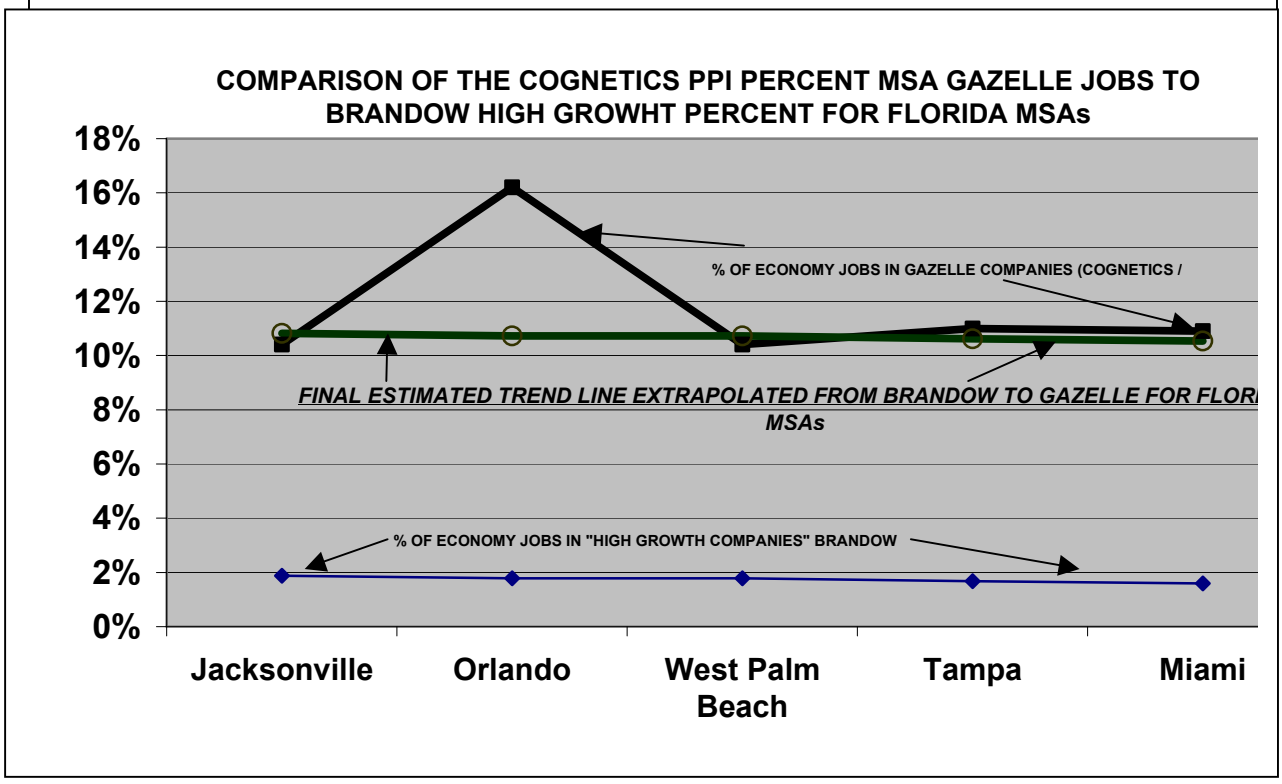
The second figure provides a similar plot of just the Florida MSAs evaluated in the PPI study and compares those to both the Brandow data and the final trend estimate used in our analysis. Notice, with the exception of Orlando, how close the final trend value is to the remaining four Florida MSA. The trend line is established by adding a simple difference of the average of each data set (minus Orlando) or 8.9% to the Brandow data to bring the alignment as close as possible to the Cognetics estimates. This also followed a regression trend line estimated for this data as well.

The PPI analysis also indicated that Orlando was the national leader among the 50 MSAs examined and was considerably higher in their analysis as well (likely due to the unusual entertainment dominated nature of the Orlando service economy). As a result of this close fit the final solution to extrapolating from the Cognetics data to the remaining 15 Florida MSAs will be to use the Brandow data with this add factor. This method of extrapolation also allows for furtherance of analysis elsewhere, if desired with a

[15] The Brandow Company, 2601 Market Street, Suite 2, Camp Hill, PA, 17011, services@brandow.com, www.brandow.com, 717-909-6000.

commonly available data set that contains high growth estimates for all US MSAs (and not just the largest as identified in the Cognetics data).





JOB CHURNING INDICATOR

Since no public sources of these data exist for medium and smaller MSAs researchers requested similar information from the State of Florida. The following table provides the raw values of jobs created and destroyed (both new firms and expanding firms are included) by county for each of the 67 Florida counties provided by the Florida Department of Labor for the period September 1, 2001 to December 31, 2001.

These data were organized by CEFA staff by MSA and a similar procedure of approximating the values of the five Florida MSA values using the baseline of the five Florida MSAs evaluated in the PPI evaluation was undertaken. Researchers established that the volatility of these data series for relatively smaller MSAs required some minor adjustments as a single large employer in a relatively small MSA either closing, slowing or growing can distort these estimates considerably.

These same scale of shifts in a larger MSA would not result in the same dramatic swings in the final indicator. It was deemed necessary to trim the Panama City data and then calculating an appropriate value for each of the remaining 15 smaller MSAs in Florida was completed.

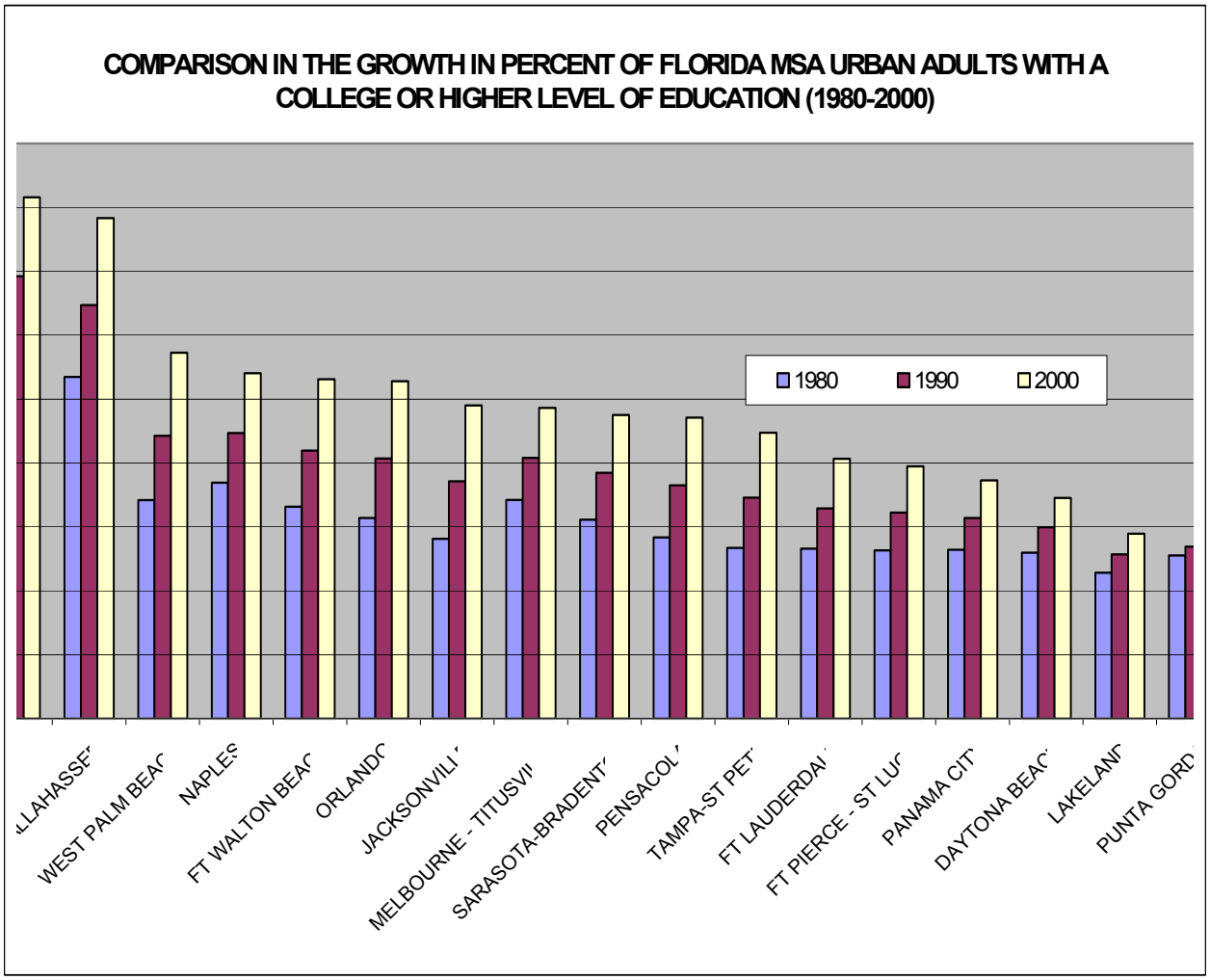
The final data arranged by Florida MSA are available in the Data Appendix X.

	Employment	Employment	Job Creation		Job Destruction		Percent	Percent
							Increase	New Over
	September	December	Open	Expand	Contract	Close	from Sept 01	Destructior
Total	7,036,059	7,290,652	154,722	505,466	318,960	86,635	3%	58%
ALACHUA	118,089	121,131	1,238	6,668	4,164	700	2%	60%
BAKER	5,660	5,643	37	271	313	12	-1%	-13%
BAY	60,948	59,259	934	3,178	4,694	1,107	-2%	-32%
BRADFORD	6,649	6,412	69	202	218	290	0%	-7%
BREVARD	181,615	184,823	3,009	9,584	7,609	1,776	1%	26%
BROWARD	646,694	668,426	13,404	44,708	27,568	8,812	3%	62%
CALHOUN	3,047	3,076	20	160	111	40	2%	44%
CHARLOTTE	36,473	37,886	497	2,816	1,351	549	4%	108%
CITRUS	27,777	28,585	951	1,604	1,484	263	0%	8%
CLAY	40,294	40,905	582	2,434	1,954	451	1%	25%
COLLIER	99,787	112,493	2,633	14,812	3,694	1,045	11%	301%
COLUMBIA	18,525	18,882	227	1,045	815	100	1%	28%
DESOTO	7,623	9,401	1,306	1,067	544	51	7%	96%
DIXIE	2,506	2,529	32	133	111	31	1%	20%
DUVAL	437,532	450,039	6,787	28,699	19,011	3,968	2%	51%
ESCAMBIA	124,546	127,094	2,365	8,706	6,401	2,122	2%	36%
FLAGLER	11,998	12,249	237	724	603	107	1%	20%
FRANKLIN	2,999	2,853	70	135	284	67	-5%	-52%
GADSDEN	14,331	14,034	121	409	683	144	-2%	-40%
GILCHRIST	2,509	2,462	21	74	129	13	-2%	-43%
GLADES	1,182	1,297	4	173	50	12	10%	246%
GULF	3,236	3,313	61	224	166	42	2%	35%
HAMILTON	3,642	3,699	94	113	114	36	0%	-1%
HARDEE	6,353	7,985	455	1,517	304	36	19%	399%
HENDRY	11,424	15,175	689	3,655	490	103	28%	646%
HERNANDO	30,265	30,964	434	1,628	999	364	2%	63%
HIGHLANDS	21,322	24,426	2,120	2,084	746	354	6%	179%
HILLSBOROUGH	589,101	607,578	10,172	40,571	26,054	6,212	2%	56%
HOLMES	3,390	3,269	30	100	217	34	-3%	-54%
INDIAN RIVER	39,406	45,127	1,207	6,369	1,334	521	13%	377%
JACKSON	13,537	13,493	108	548	508	192	0%	8%
JEFFERSON	2,835	2,836	86	156	113	128	2%	38%
LAFAYETTE	1,483	1,549	13	143	55	35	6%	160%
LAKE	62,145	63,240	1,655	4,760	4,046	1,274	1%	18%
LEE	160,514	168,119	3,784	13,027	6,335	2,871	4%	106%
LEON	141,356	144,411	1,901	9,046	5,981	1,911	2%	51%
LEVY	7,656	7,698	162	301	345	76	-1%	-13%
LIBERTY	1,588	1,650	22	94	38	16	4%	147%
MADISON	5,800	5,761	36	296	340	31	-1%	-13%
MANATEE	119,234	125,755	1,536	10,606	4,856	765	5%	118%
MARION	82,947	85,084	1,510	5,454	3,713	1,114	2%	47%
MARTIN	50,513	52,684	1,098	4,336	2,643	620	3%	64%
MIAMI-DADE	982,067	1,011,634	18,518	62,664	40,042	11,573	2%	56%
MONROE	35,978	37,213	915	2,770	1,831	619	3%	51%
NASSAU	16,675	16,445	255	903	1,272	116	-2%	-29%
OKALOOSA	73,464	73,261	956	4,120	4,418	861	0%	-7%
OKEECHOBEE	9,612	9,989	225	629	350	127	3%	80%
ORANGE	609,937	623,198	9,404	37,130	25,304	7,969	2%	47%
OSCEOLA	51,472	51,446	675	2,505	2,752	454	0%	-9%
PALM BEACH	479,081	506,726	11,232	45,608	23,356	5,839	5%	95%
PASCO	73,669	76,477	2,214	5,402	3,782	1,026	2%	43%
PINELLAS	441,446	455,597	5,813	30,274	17,235	4,701	3%	76%
POLK	179,139	189,794	5,319	14,370	7,263	1,771	4%	98%
PUTNAM	18,687	18,691	313	918	1,026	201	-1%	-11%
SANTA ROSA	25,418	25,235	399	1,311	1,416	477	0%	-7%
SARASOTA	139,611	146,036	3,069	10,890	5,452	2,082	4%	100%
SEMINOLE	141,065	142,482	3,401	9,546	9,574	1,956	0%	0%
ST. JOHNS	39,799	40,449	927	2,704	1,931	1,050	2%	40%
ST. LUCIE	48,449	53,416	2,536	5,477	2,245	801	7%	144%
SUMTER	8,318	8,496	170	445	388	49	1%	15%
SUWANNEE	9,276	8,784	81	330	812	91	-5%	-59%
TAYLOR	6,537	6,561	88	281	318	27	-1%	-12%
UNION	3,481	3,454	13	62	92	10	-1%	-33%
VOLUSIA	143,183	143,462	2,929	7,631	8,400	1,881	-1%	-9%
WAKULLA	4,242	4,433	120	288	171	46	3%	68%
WALTON	11,946	11,309	242	495	1,042	332	-5%	-52%

EDUCATIONAL LEVEL OF THE WORK FORCE

While the PPI study was able to secure the 2000 Census educational levels for the top 50 US MSAs, the level of educational attainment for the 15 smaller Florida MSAs was not available for ready comparison for estimating the level of education of the adult workforce and to be used to calculate the on line adult population. As a result the CEFA staff calculated and then extended the trend calculation 1980 to 1990 levels to 2000. The 1998 baseline estimates were then extracted from these trends for the 66 MSA comparison and the year 2000 estimates were used in the Florida 20 MSA comparisons. The following graph provides an example of the extrapolations used in this calculation and the bar chart history and trend for each of the 20 Florida MSAs ordered from highest 2000 attainment to lowest.

While the Leon County population actually with and year 2000 estimated 43% college level or higher educational level achieves the highest percent of college degree or higher attainment among the Florida County's. However the Tallahassee MSA includes Gadsden County with its relatively low educated population which tends to dampen the MSA final percentages and movers Gainesville MSA (consisting of Alachua county only) into first place. The Bureau of the Census will report actual 2000 educational levels for smaller MSAs in late summer and these values should be used in future comparisons of this sort.


COMPARISON IN THE GROWTH IN PERCENT OF FLORIDA MSA URBAN ADULTS WITH A COLLEGE OR HIGHER LEVEL OF EDUCATION (1980-2000)
1980
1990
2000
LLAHASSE
WEST PALM BEAC
NAPLES
FT WALTON BEAC
ORLANDC
JACKSONVILI
MELBOURNE - TITUSVI
SARASOTA-BRADENT
PENSACOL
TAMPA-ST PET
FT LAUDERDA
FT PIERCE - ST LU
PANAMA CIT
DAYTONA BEAC
LAKELAN
PUNTA GORD

SIC Codes used in the definition of High Tech Jobs

SIC	SIC Description
2833	Medicinal Chemicals and Botanical Products
2834	Pharmaceutical Preparations
2835	In-Vitro and In-Vivo Diagnostic Substances (except in-vitro diagnostic)
2836	Biological Products, Except Diagnostic Substance
3571	Electronic Computers
3572	Computer Storage Devices
3575	Computer Terminals
3577	Computer Peripheral Equipment, NEC
3578	Calculating and Accounting Machines
3579	Office Machines, NEC
3661	Telephone and Telegraph Apparatus Telephone and Telegraph Apparatus,
3663	Radio and Television Broadcasting
3669	Communications Equipment
3671	Electron Tubes
3672	Printed Circuit Boards
3674	Semiconductors and Related Devices
3675	Electronic Capacitors
3676	Electronic Resistors
3677	Electronic Coils, Transformers, and Other
3679	Electronic Components, NEC
3761	Guided Missiles and Space Vehicles
3812	Search, Detection, Navigation, Guidance Equipment
3821	Laboratory Apparatus and Furniture
3822	Environmental Controls
3823	Process Control Instruments
3824	Fluid Meters and Counting Devices
3825	Instruments for Measuring and Testing of Automotive Ammeters and Voltmeters
3826	Analytical Instruments
3827	Optical Instruments and Lenses
3829	Measuring and Controlling Devices, NEC
3841	Surgical and Medical Instruments and Tranquilizer Guns
3842	Orthopedic, Prosthetic, and Surgical Appliances and Supplies
3844	X-Ray Apparatus and Tubes
3845	Electromedical Equipment
3861	Photographic Equipment and Supplies
4812	Radiotelephone Communications
4813	Telephone Communications or Radio
4822	Telegraph and Other Message Communications
4841	Cable and Other Pay Television Services
4899	Communications Services, NEC
5049	Professional Equipment and Supplies, NEC
7371	Computer Programming Services
7372	Prepackaged Software

SIC	SIC Description
7373	Computer Integrated Systems Design
7374	Computer Processing and Data Preparation and Processing Services
7375	Information Retrieval Services
7378	Computer Maintenance and Repair
7379	Computer Related Services, NEC
8071	Medical Laboratories
8711	Engineering Services
8731	Commercial Physical and Biological Research
8734	Testing Laboratories
3651	Household Audio and Video Equipment
3652	Phonograph Records and Prerecorded Audio Reproduction of Recording Media
3678	Electronic Connectors
7376	Computer Facilities Management Services
7377	Computer Rental and Leasing