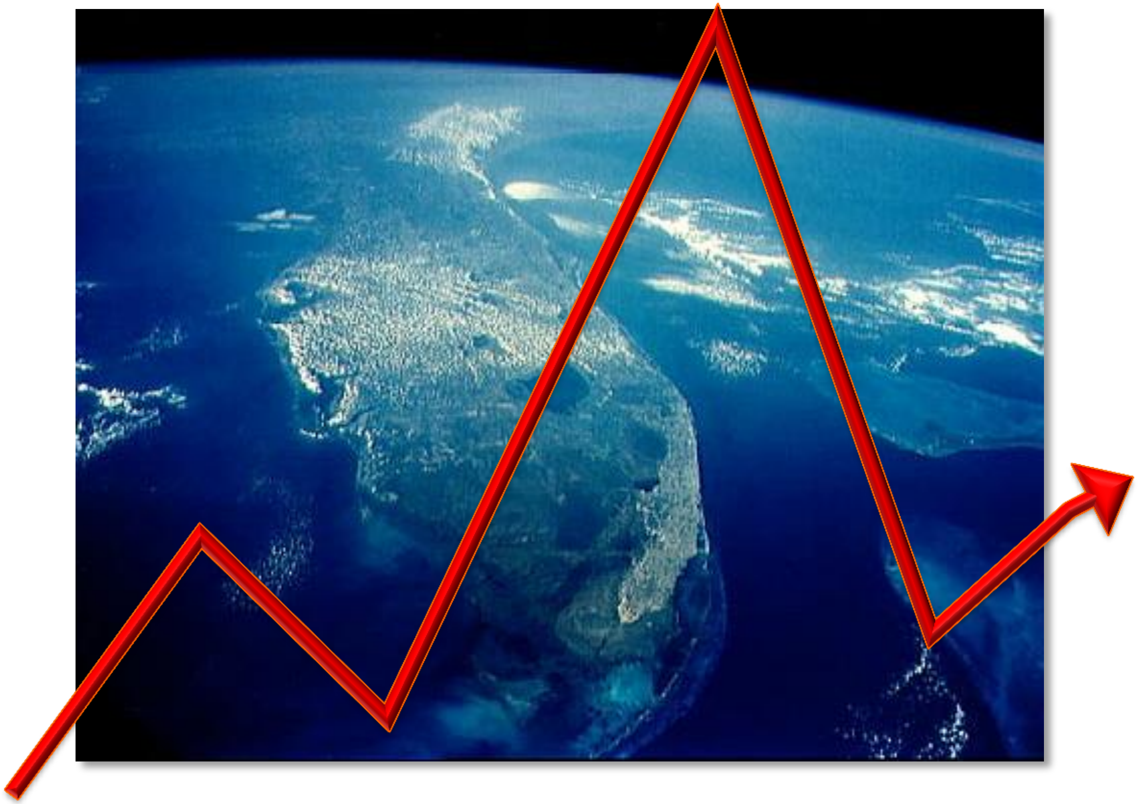
State of the South Florida Economy
Metro Forum 2015



South Florida's Path to A Sustainable Economy: Rough Road Ahead?

Kevin Greiner
Research Fellow, FIU Metropolitan Center

FIU | Metropolitan Center

Is South Florida's Economy Sustainable?

Sustainable Development:

"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

World Commission on Environment and Development

Is South Florida's Economy Sustainable?

Other Dimensions of Sustainability:

Sustainable Economy = High Performing Economy

- Stable, Long Term Job and Wage Growth
- Diverse, High Value-Added Industry Clusters in Nationally Growing Sectors
- Less Dependent on Population Increases and In-migration for Growth
- Resistant to Sharp Economic Cycles
- High Rates of Innovative Output: Advanced Products, Services, Technology Platforms and Business Processes
- Higher-income Employment, and High Per Capita Regional GMP
- High Horizontal mobility – knowledge and skills apply across different industries and occupations
- High Vertical Mobility – Broader Opportunity to Move up the Income Ladder

Is South Florida's Economy Sustainable?

Miami-Dade Metro:

2 Steps Forward – 1 Step Back?

- Susceptibility to Economic Cycles
- Wiping Out Jobs and Re-Booting
- Lost Personal Wealth

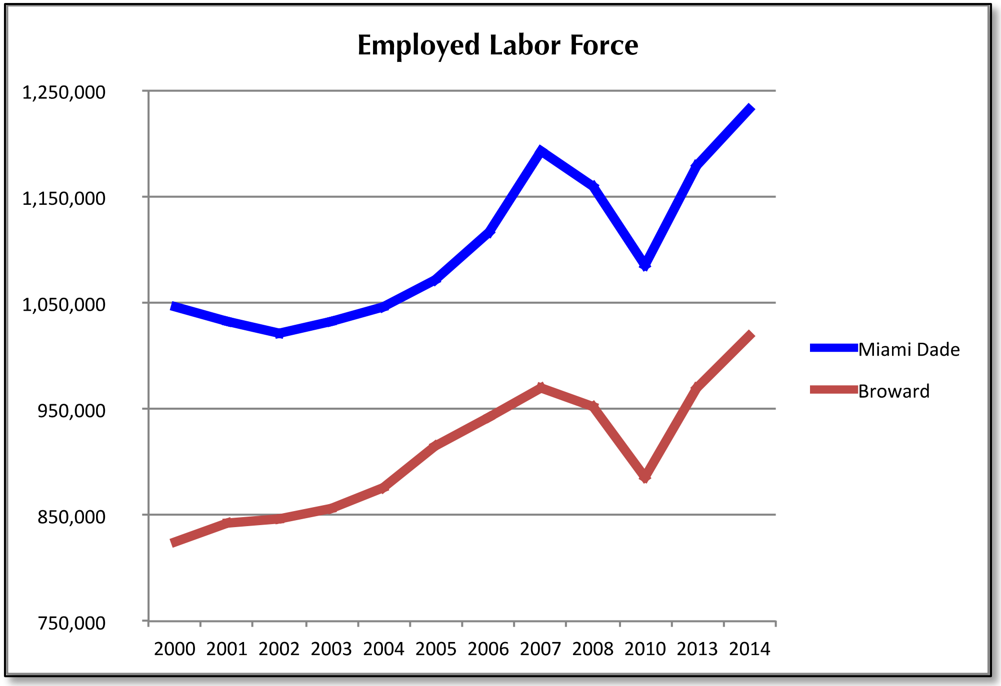
Resilient -

But is it Sustainable?

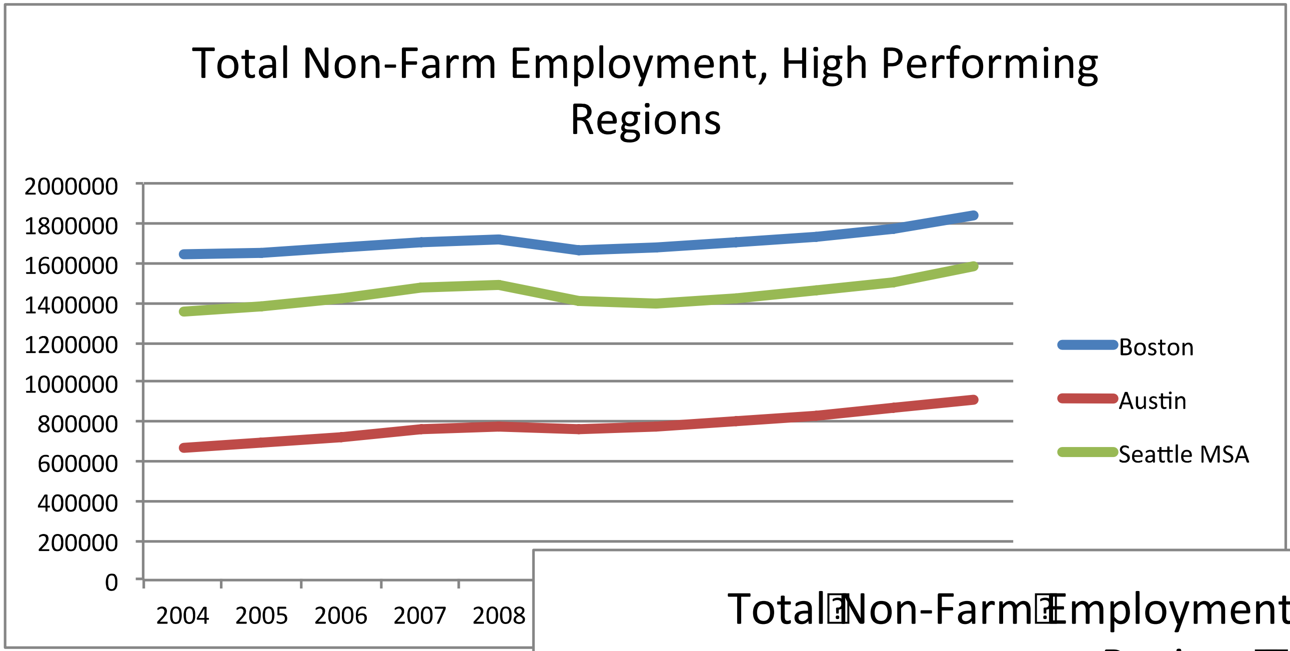
South Florida's Sustainability Gap

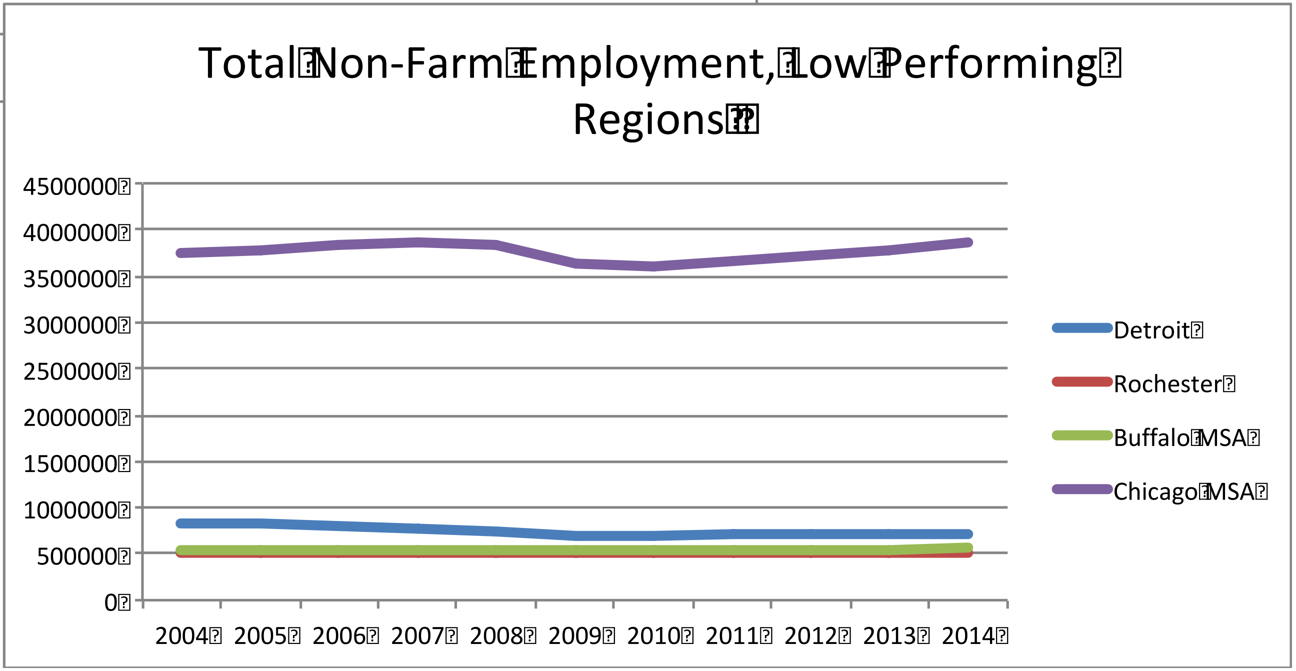
Employment

- Multiple Cyclical Losses
- Miami-Dade: 7 Year Employment Recovery
- US 2000-2010: 0 Net Gain Jobs
- Miami-Dade County: 42,000 Net Jobs Lost



South Florida’s Sustainability Gap



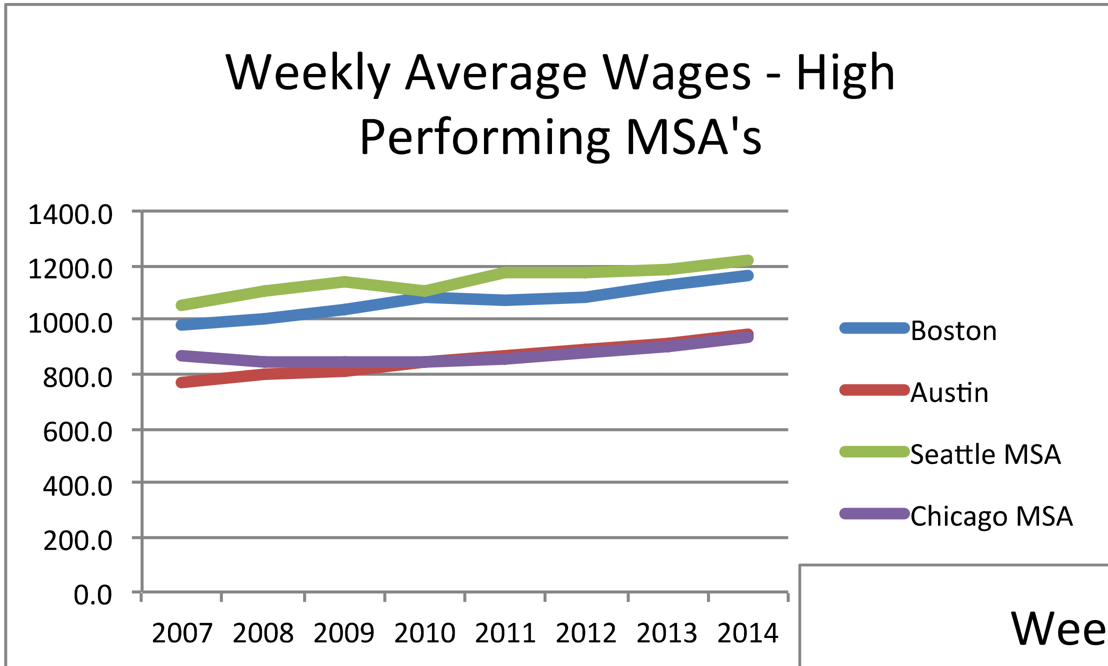


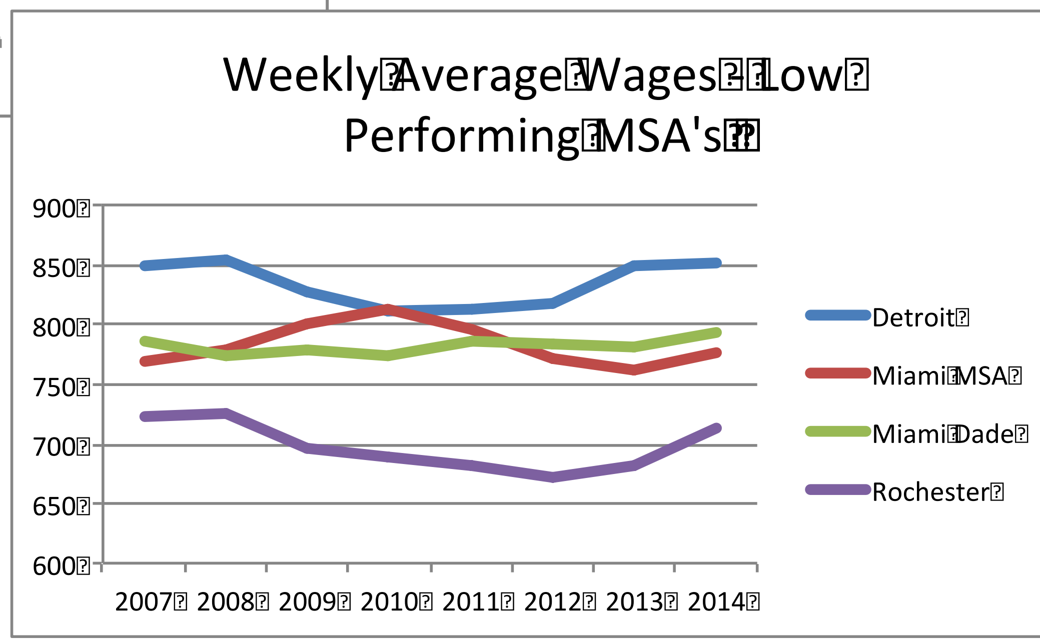
South Florida’s Sustainability Gap

Wage Growth

- Metro: Below US Average Wages And Incomes
- Broward Wage Growth: +3% 2000-2007; Under 2% Since 2009
    - At Or Less Than Current Annual Rate Of Inflation Since 2010
- Evidence Of High Wage Job Shedding During Recession
- Broward Median HH Income – 3% Below US Median
- Miami Dade Median HH Income – 16% Below US Median

South Florida’s Sustainability Gap

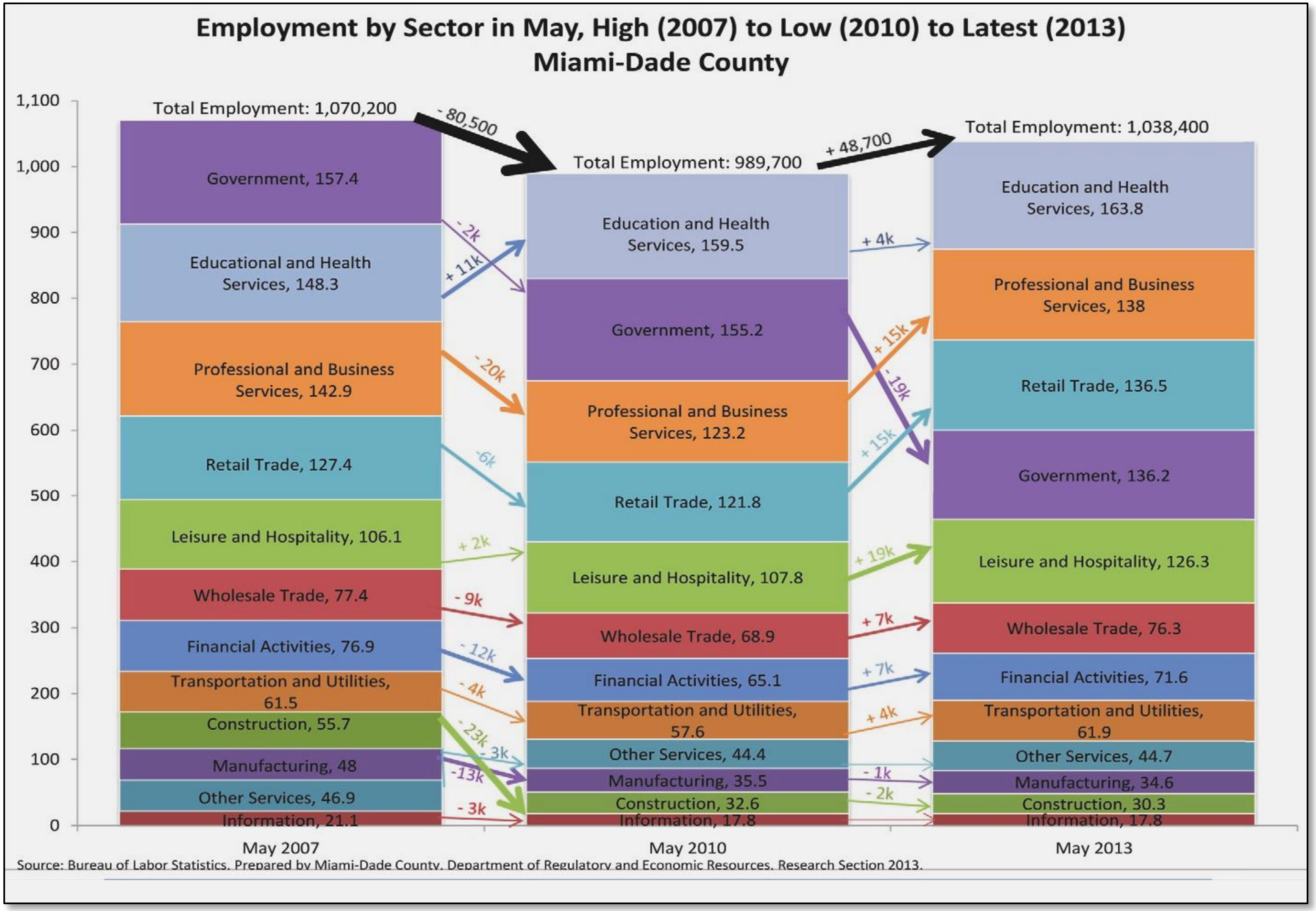




South Florida's Sustainability Gap

Industrial Concentration

- Government Employment Biggest Significant Change



South Florida’s Sustainability Gap

Educational Attainment

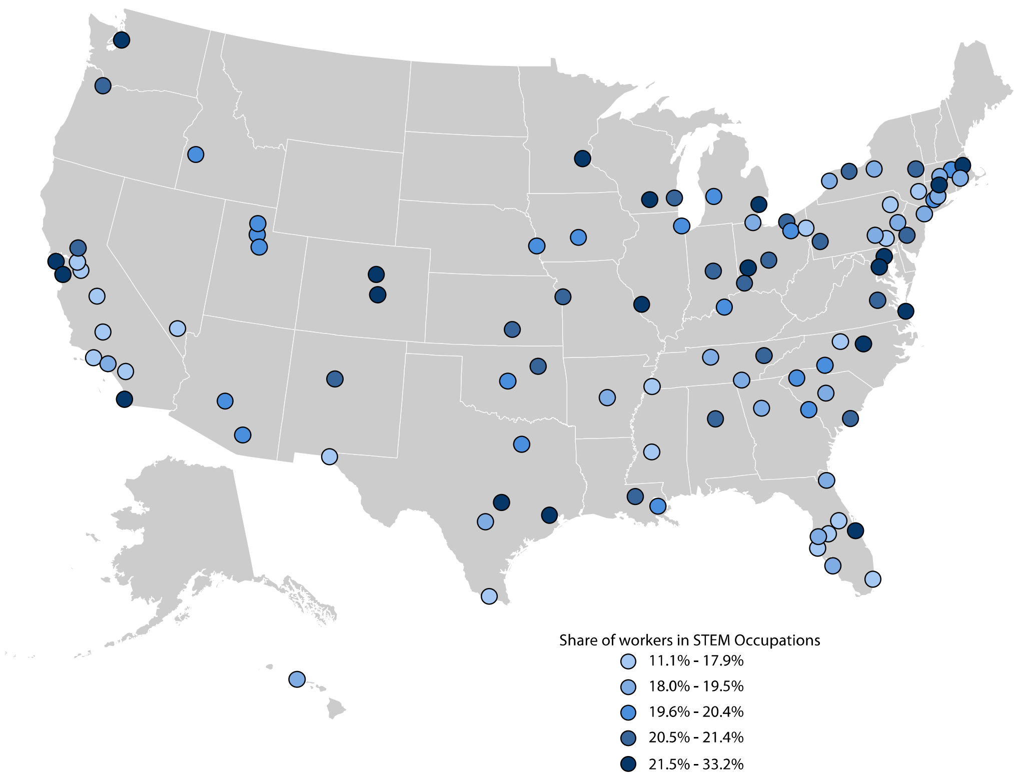
Below National Averages Across All Age Groups

Science, Technology, Engineering & Math (STEM) Employment

Figure 5. Share of all Workers in STEM Occupations in the 100 Largest Metropolitan Areas

STEM Employment Important Indicator of Overall Performance: Faster Recovery, Stronger Wage Growth

Miami MSA: 81st out of 100 Largest Metros



*Brookings analysis of O*NET and Bureau of Labor Statistics Occupational Employment Survey*

South Florida's Sustainability Gap

Patent Intensity: Directly Correlated to Job Growth

Table 7. Average Unemployment Rates from 1990 to 2010 and Patent Growth in the 100 Largest Metro Areas

	Unemployment Rate, average 1990-2010	Patent Growth, annual average 1990-2010	Change in share of population with Bachelor's or higher, 1990-2010	Job growth, annual average 1990-2010
Metro Areas with the highest growth in patents from 1990 to 2010				
Boise City-Nampa, ID	4.6	11.90%	8.40%	2.90%
Provo-Orem, UT	4.1	8.90%	9.20%	2.90%
Seattle-Tacoma-Bellevue, WA	5.5	8.90%	10.00%	1.20%
Raleigh-Cary, NC	4	8.80%	11.40%	2.60%
San Jose-Sunnyvale-Santa Clara, CA	5.9	8.10%	12.40%	0.20%
Austin-Round Rock-San Marcos, TX	4.3	8.10%	8.70%	3.40%
Las Vegas-Paradise, NV	6	7.20%	7.90%	3.80%
San Francisco-Oakland-Fremont, CA	5.4	7.00%	11.50%	0.20%
Poughkeepsie-Newburgh-Middletown, NY	4.9	6.60%	7.70%	0.40%
Tucson, AZ	4.7	6.50%	6.30%	1.70%
Average for high growth metro areas	**4.9**	**8.20%**	**9.30%**	**1.90%**
Metro Areas with the lowest growth in patents from 1990 to 2010				
Lakeland-Winter Haven, FL	7.1	-1.10%	5.10%	1.10%
Pittsburgh, PA	5.6	-1.10%	10.10%	0.30%
Buffalo-Niagara Falls, NY	5.9	-1.20%	8.50%	-0.10%
Toledo, OH	6.8	-1.30%	6.10%	-0.20%
El Paso, TX	9.2	-1.40%	4.10%	1.40%
Dayton, OH	5.7	-1.60%	5.30%	-0.60%
Tulsa, OK	4.8	-1.70%	5.30%	1.10%
Chattanooga, TN-GA	5.1	-2.10%	6.90%	0.60%
New Orleans-Metairie-Kenner, LA	6.1	-2.50%	6.40%	-0.20%
Baton Rouge, LA	5.4	-5.30%	5.20%	1.60%
Average for low growth metro areas	**6.2**	**-1.90%**	**6.30%**	**0.50%**
Average for all large metro areas	**5.7**	**2.30%**	**7.90%**	**1.00%**

Source: Brookings analysis of Moody's Analytic, Bureau of Labor Statistics, Census Bureau Decennial Census, and Strumsky Patent Database. One patent is assigned to metro area if at least one inventor lives there.

South Florida's Sustainability Gap

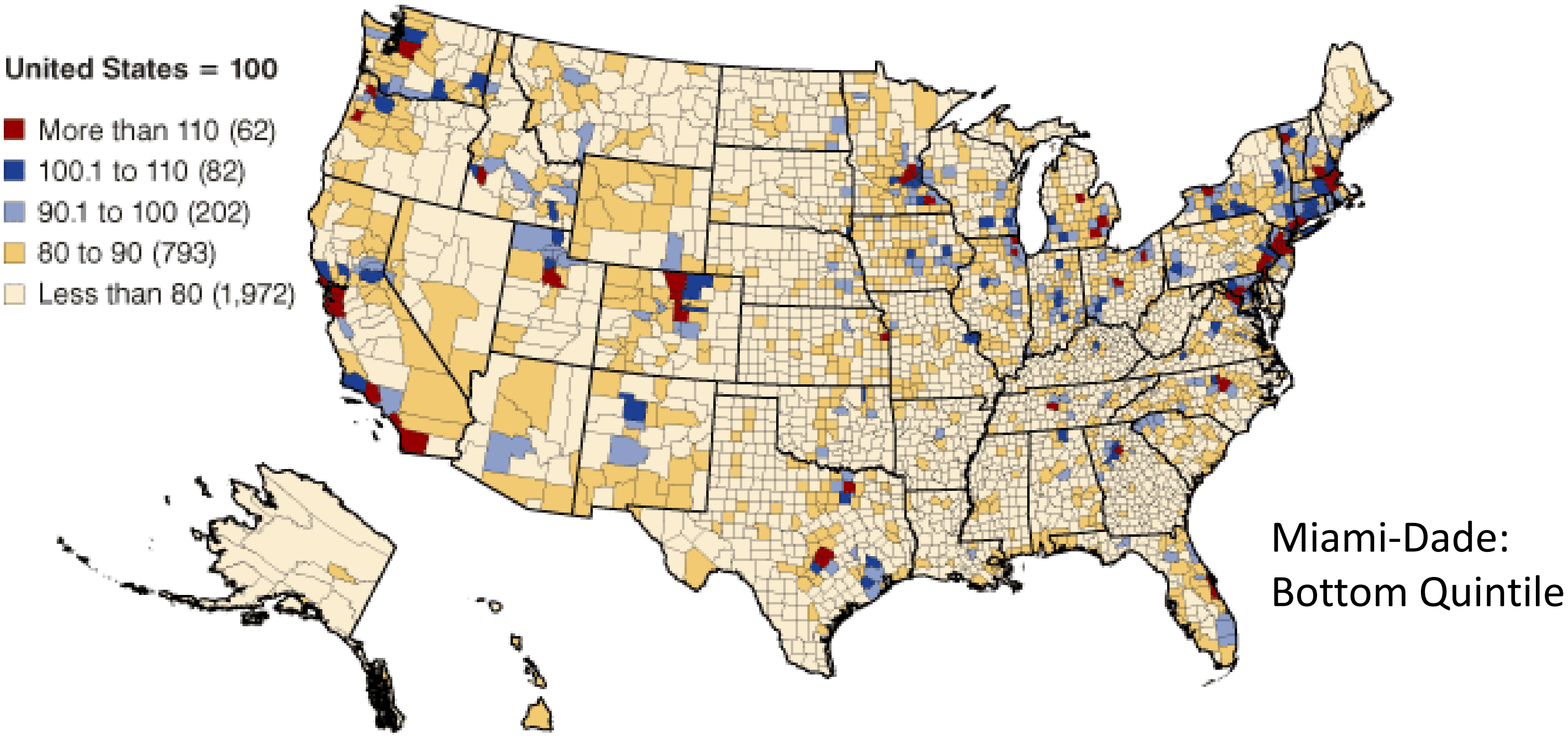
Patent Intensity: Increasing Economic Value

Inventor Patent Filer By County 2000-2013			
	State	**County**	**Total**
1	CALIFORNIA	Santa Clara County	298,725
2	CALIFORNIA	San Diego County	92,481
3	WASHINGTON	King County	91,450
4	CALIFORNIA	San Mateo County	83,111
5	MASSACHUSETTS	Middlesex County	80,009
6	CALIFORNIA	Los Angeles County	77,222
7	CALIFORNIA	Alameda County	71,636
8	CALIFORNIA	Orange County	56,655
9	NEW YORK	Monroe County	41,144
10	MICHIGAN	Oakland County	40,373
116	**FLORIDA**	**Miami-Dade County**	**5,845**

South Florida's Sustainability Gap

Innovation Capacity

Figure 1: The County-Level Innovation Index for the United States



Source: Indiana Business Research Center

South Florida's Sustainability Gap

Advanced Industries:

- Knowledge Intensity, High Wages, Large Employment Multipliers
- Highest Value-Added Industries

The 50 Industries That Constitute the Advanced Industries Sector

MANUFACTURING		**ENERGY**
Aerospace Products and Parts	Motor Vehicles	Electric Power Generation, Trans., and Distribution
Agr., Construction, and Mining Machinery	Navigation, Measurement, and Control Instruments	Metal Ore Mining
Aluminum Production and Processing	Other Chemical Products	Oil and Gas Extraction
Audio and Video Equipment	Other Electrical Equipment and Components	**SERVICES**
Basic Chemicals	Other General Purpose Machinery	Architecture and Engineering
Clay Products	Other Miscellaneous Manufacturing	Cable and Other Subscription Programming
Commercial and Service Industry Machinery	Other Nonmetallic Mineral Products	Computer Systems Design
Communications Equipment	Other Transportation Equipment	Data Processing and Hosting
Computers and Peripheral Equipment	Pesticides, Fertilizers, and Other Agr. Chemicals	Medical and Diagnostic Laboratories
Electric Lighting Equipment	Petroleum and Coal Products	Mgmt., Scientific, and Technical Consulting
Electrical Equipment	Pharmaceuticals and Medicine	Other Information Services
Engines, Turbines, and Power Trans. Equipment	Railroad Rolling Stock	Other Telecommunications
Foundries	Resins and Synthetic Rubbers, Fibers, and Filaments	Satellite Telecommunications
Household Appliances	Semiconductors and Other Electronic Components	Scientific Research and Development
Industrial Machinery	Ship and Boat Building	Software Publishers
Iron, Steel, and Ferroalloys	Medical Equipment and Supplies	Wireless Telecommunications Carriers
Motor Vehicle Bodies and Trailers	Reproducing Magnetic and Optical Media	
Motor Vehicle Parts		

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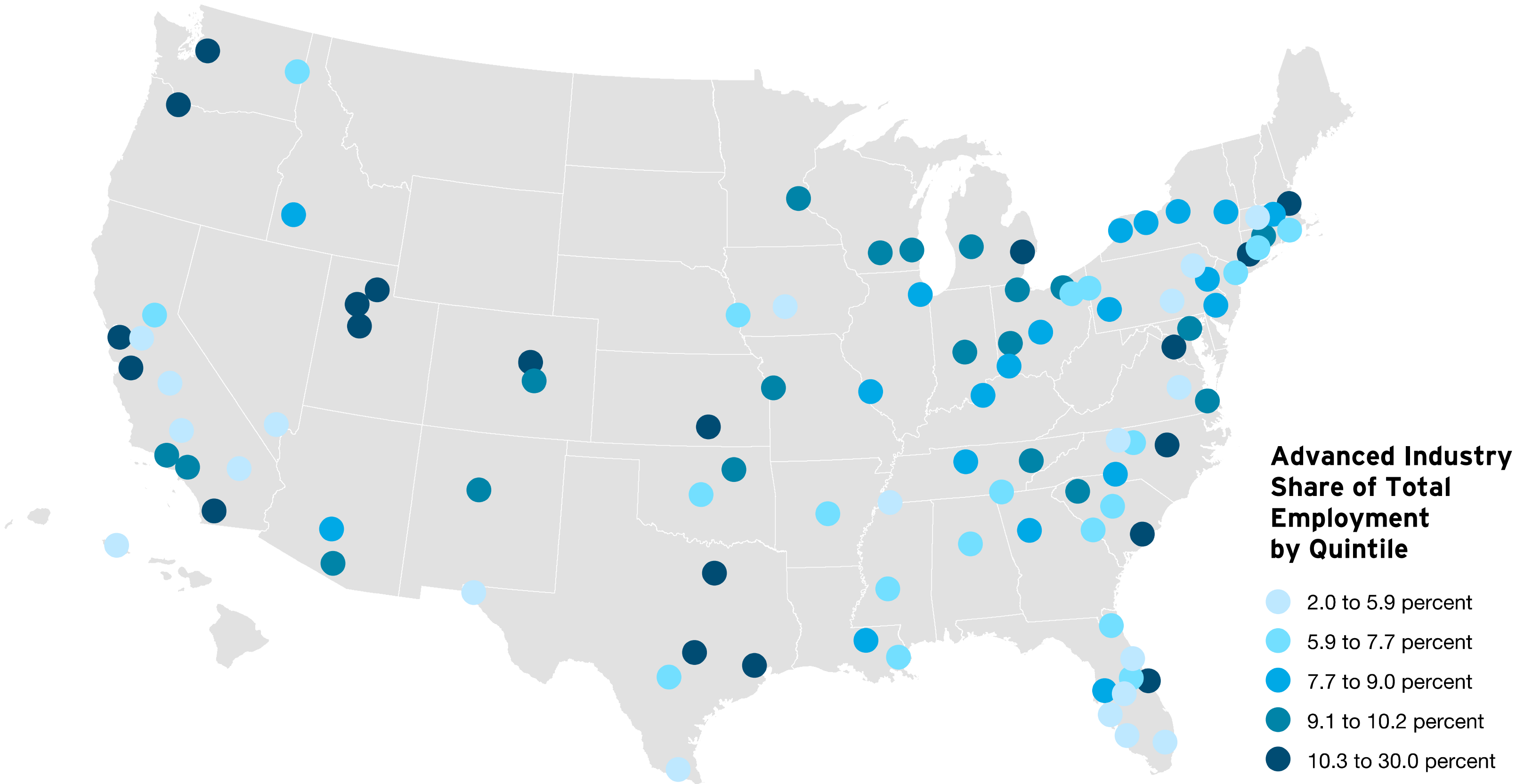
South Florida's Sustainability Gap

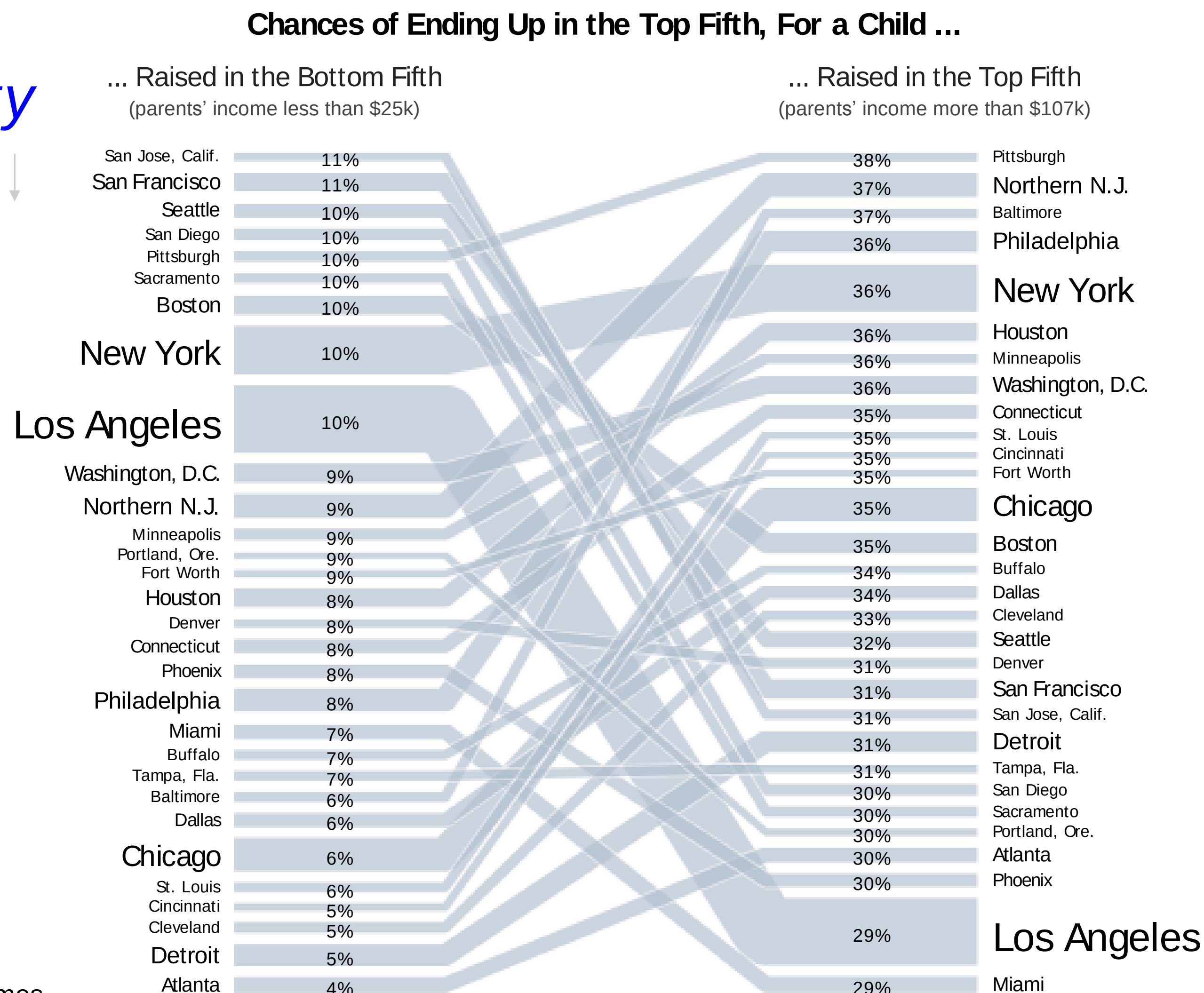
Advanced Industries



South Florida’s Sustainability Gap

Vertical Mobility

Miami at the Bottom



New York Times

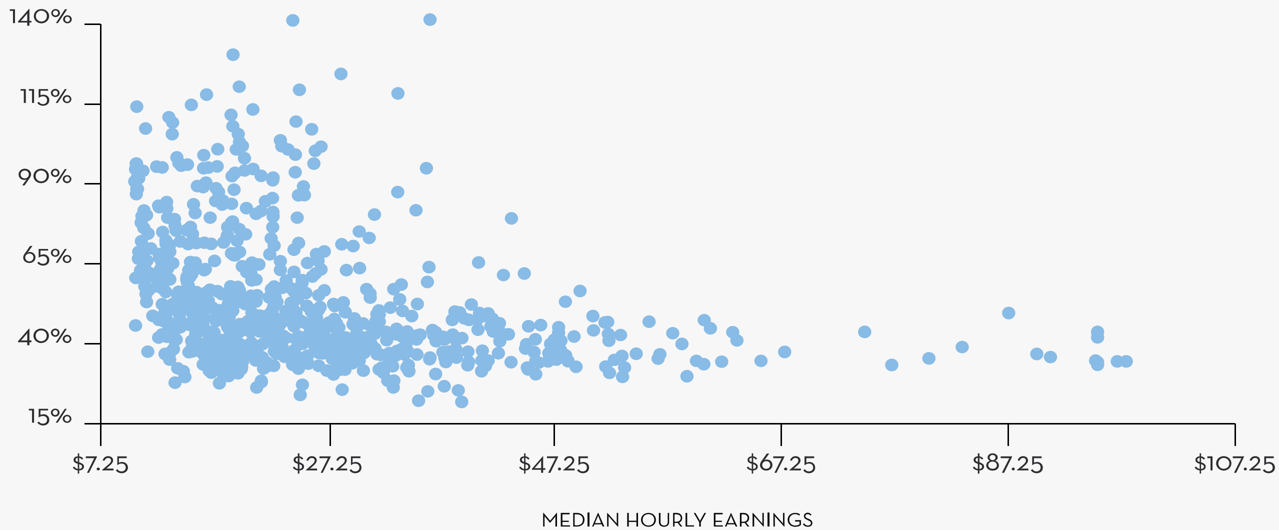
Lines are scaled by population; the 30 most populous areas are shown.

South Florida’s Sustainability Gap

Horizontal Job Mobility: Job Churn

86.5%	64.8%	68.1%
CHURN RATE 2003-2006	CHURN RATE 2009	CHURN RATE 2013

FIGURE 4: OCCUPATION CHURN RATES & HOURLY EARNINGS



To explore where every occupation sits, visit an interactive, embeddable version of this figure at EMSI’s blog.

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South Florida's Sustainability Gap

Job Churn / Job Mobility

TABLE 2: METROS WITH LARGEST DROPS IN NON-FARM CHURN, 2003-2013

METRO	2003	2013	DIFFERENCE IN CHURN RATE
North Port-Sarasota-Bradenton, FL	125.9%	71.8%	-54.1
Virginia Beach-Norfolk-Newport News, VA-NC	118.7%	71.9%	-46.9
Tampa-St. Petersburg-Clearwater, FL	110.3%	70.5%	-39.8
Jacksonville, FL	107.8%	68.9%	-38.9
New Orleans-Metairie, LA	112.8%	78.8%	-33.9
Albuquerque, NM	106.6%	72.9%	-33.7
Phoenix-Mesa-Scottsdale, AZ	105.0%	72.8%	-32.2
Orlando-Kissimmee-Sanford, FL	101.6%	70.2%	-31.4
Tucson, AZ	99.1%	69.2%	-29.9
Miami-Fort Lauderdale-West Palm Beach, FL	96.3%	66.7%	-29.6

South Florida's Sustainability Gap

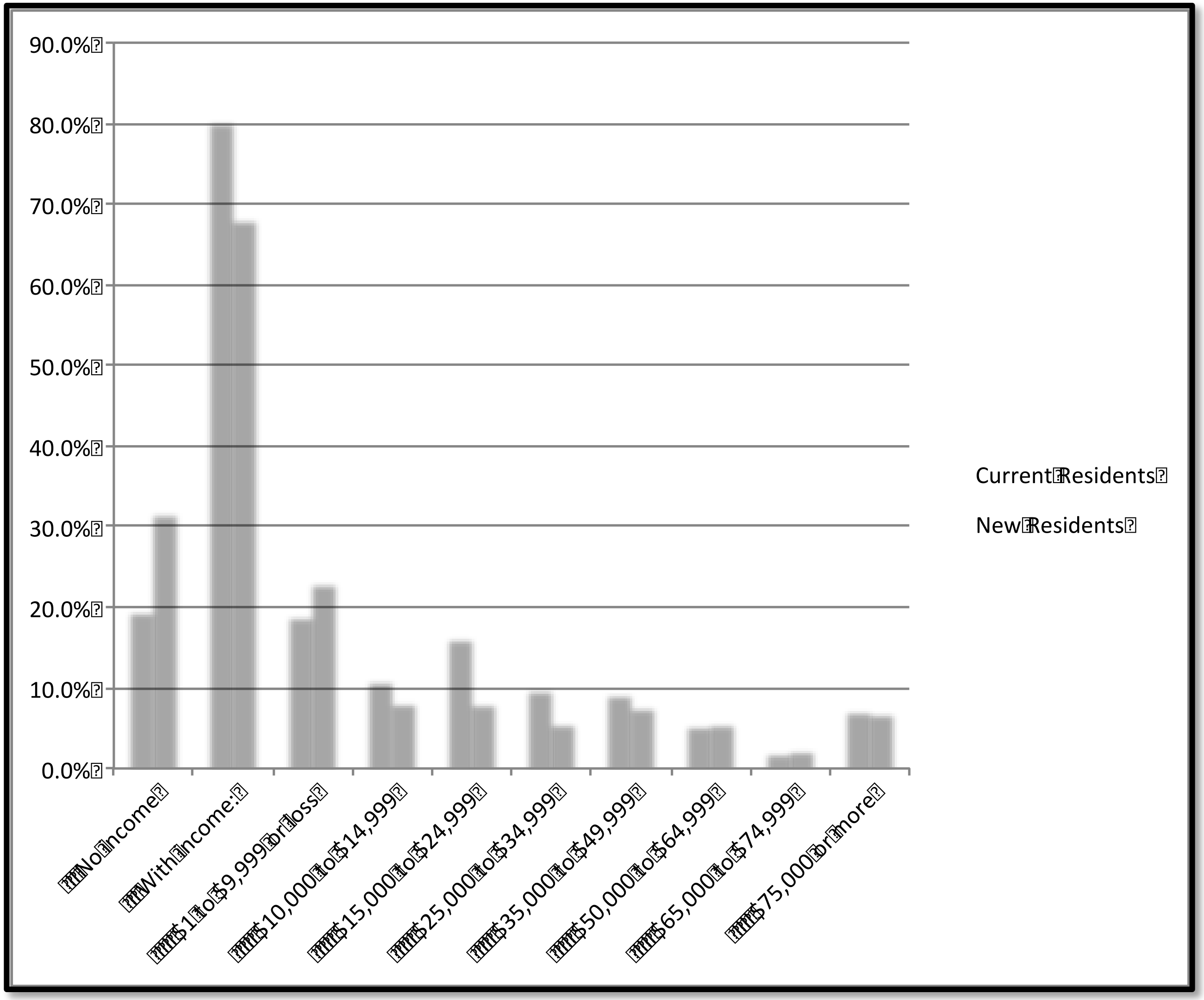
Regional Population Churn

Annual Estimates of the Components of Population Change

Miami-Fort Lauderdale-West Palm Beach, FL Metro Area

	Total Population Change	Natural Increase			Migration			International Migration as % of Total Pop. Change
		Net	Births	Deaths	Net	International	Domestic	
July 1, 2001 to July 1, 2009								
MSA	**539,059**	**211,429**	**649,535**	**438,106**	**234,874**	**522,009**	**(287,135)**	**97%**
Miami-Dade County	246,839	133,201	303,660	170,459	23,116	328,740	(305,624)	133%
Broward County	143,460	66,174	209,107	142,933	75,947	128,311	(52,364)	89%
Palm Beach County	148,760	12,054	136,768	124,714	135,811	64,958	70,853	44%
April 1, 2010 to July 1, 2013								
MSA	**263,534**	**63,683**	**216,183**	**152,500**	**196,312**	**163,622**	**32,690**	**62%**
Miami-Dade County	120,719	40,263	101,550	61,287	78,178	99,848	(21,670)	83%
Broward County	90,778	21,691	69,339	47,648	68,608	42,215	26,393	47%
Palm Beach County	52,037	1,729	45,294	43,565	49,526	21,559	27,967	41%
July 1, 2012 to July 1, 2013								
MSA	**64,909**	**18,411**	**66,902**	**48,491**	**42,484**	**52,706**	**(10,222)**	**81%**
Miami-Dade County	24,466	11,406	31,209	19,803	11,040	32,104	(21,064)	131%
Broward County	24,031	6,666	21,558	14,892	16,582	13,633	2,949	57%
Palm Beach County	16,412	339	14,135	13,796	14,862	6,969	7,893	42%

South Florida's Sustainability Gap



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South Florida’s Sustainability Gap

Land Availability

- Miami Metro Approaching Build-out
- Miami Dade: Only 2,083 Acres Inside Urban Infill Area Privately Owned Vacant Land
- Broward: Virtually Out Of Land Suitable For Residential – Most Land Constricted US County (Metrostudy)
- Parcels Larger Than 4-5 Acres Are At A Premium
- Shifting To: Infill Development, Higher Densities, Smaller Building Footprints

South Florida’s Sustainability Gap

Slowing Construction Growth: Retail Market

- Strongest Growth In High-end and Luxury Brand Retail
- E-commerce Sales: 40% Growth Since 2007
  - = 350 M - 500 M SF Of Leased Retail Space (1/3 All Vacant Retail In US Shopping Centers And Retail Districts)
- Store Elimination — Chains: Abercrombie & Fitch, The Gap, Best Buy
- Dramatically Smaller Stores: Best Buy (40,000 SF) – CityTarget (60,000 SF) - Office Depot (15,000 SF) – Staples (10,000 SF) – Walmart Express (15,000 SF)
- Multi-brand Stores: “Store-within-a-store”

South Florida’s Sustainability Gap

Slowing Construction Growth: Regional Office Market

- Hardest Hit
- Oversupply: 2M SF Per Year New Thru 2010; Less Than 200,000 SF 2013-2014
- Miami Dade: 14% County-wide – 20% Downtown - 37.7% Biscayne Corridor
- Annual Absorption Rates Still Below 2005

Source: Marcus & Milchap

South Florida's Sustainability Gap

Slowing Construction Growth: Office Market Shifts

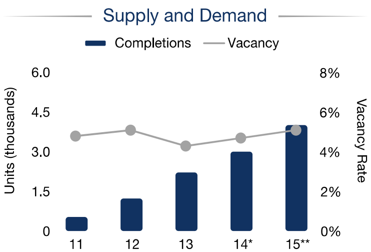
- Outsourcing Non-core Functions - IT, Accounting, Human Resources
- Aggressively Shrinking SF Per Employee:
  - 225 SF/Employee (2010) - 176 SF (2012) - 151 SF (2017)
- Corporations Placing Talent Closer To Customers – Away From Central Office
- Telecommuting Rapidly Rising:
  - **46% Of Corporate Leaders Rank Telecommuting As Second Only To Compensation As The Best Way To Attract Talent**
- Using Informal Office Space
- Moving Satellite Offices Into Neighborhoods
- Shared Office Space / Co-working Space
- Price Waterhouse Coopers, CBRE: Unassigned Desks – Used By Reservation
- Dell Computer: 50% Of Employees Will Telecommute By 2020

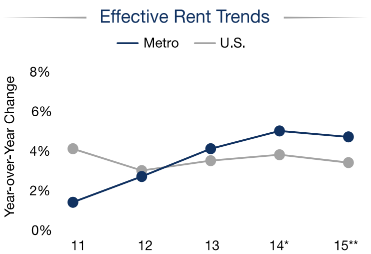
An Officeless Regional Jobs Recovery?

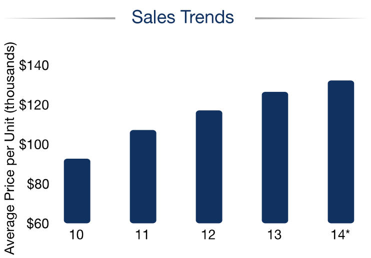
South Florida’s Sustainability Gap

Regional Housing Market

- Recovery: Rising Median Prices – Shorter Days On Market – High Sales Volume
- Cash Sales High of 60% Currently 53%
- Distressed Property Transactions Decline
- Absorption: 5.7 Month Single Family Homes - 8.4 Month Supply Of Condominiums
- Large Move To Rental: Percent Of Population Renting - 38% To 44% Of From 2000 To 2013







Housing Affordability Gap Approching Record High – Wages Have Not Kept Pace With Price And Rent Increases

Sources: Marcus & Milchap, CoStar Group,
Real Capital Analytics, Miami Association of Realtors

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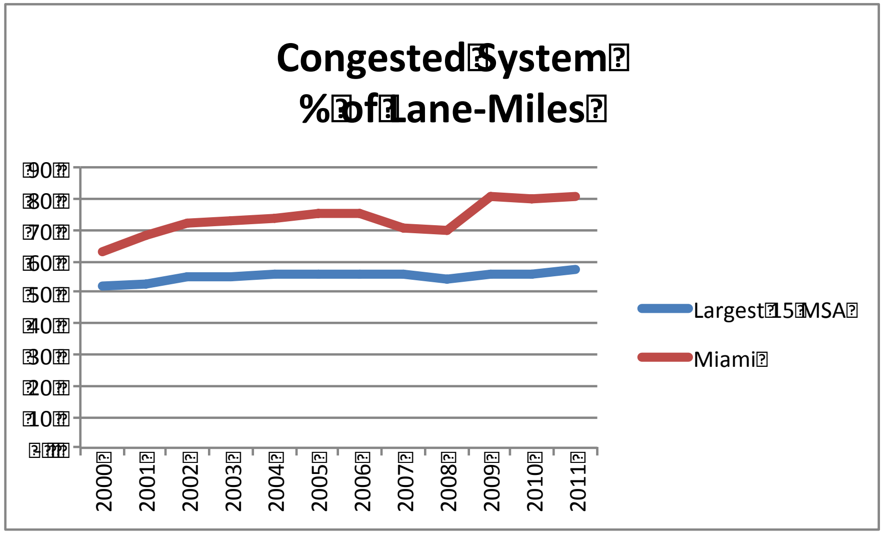
South Florida's Sustainability Gap

Roadway Congestion

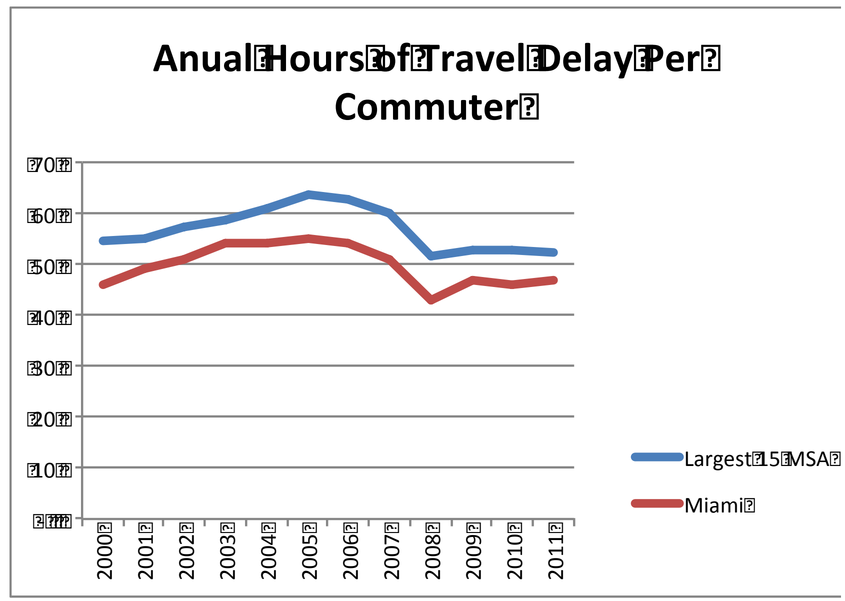
- 14th Most Traffic Congested Metro In North America; 11th In US
- Average Travel Times Above National Average
- 5th Highest Cost Of Congestion Delay — $3.7 Billion/YR
- Much Of Road Network Operating At LOS D And F
- Despite $58B in Improvements: MPO Forecasts Lower Level Of Service, 20% Slower Rush Hour Speeds, Increasing Congestion
- No Space For New Asphalt — Solutions Will Be Thru Land Use, Transit, Workplace And Workshift Strategies

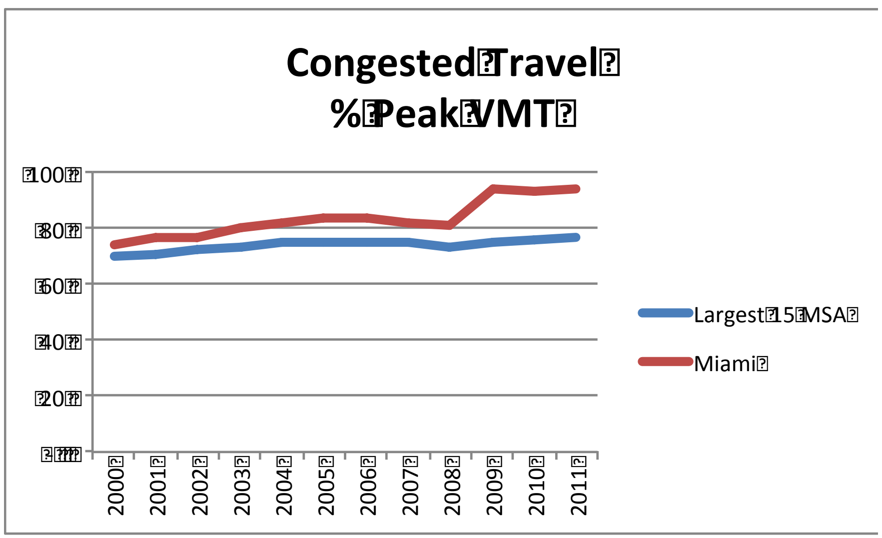
Regional Competitiveness at Stake

South Florida's Sustainability Gap



Roadway Congestion
Moving in the Wrong Direction?





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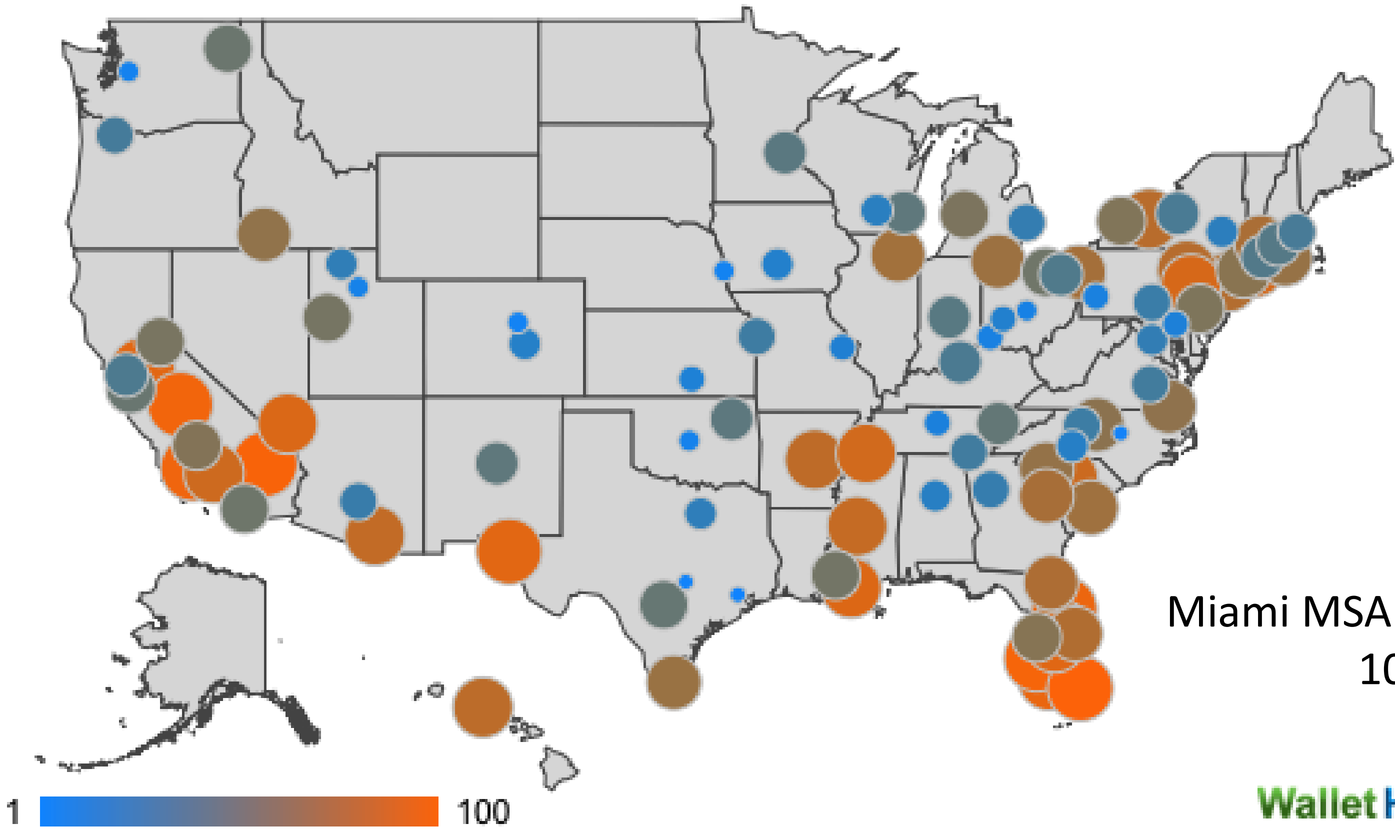
South Florida's Sustainability Gap

Chickens Coming Home to Roost?

2015's Best and Worst Metro Areas for STEM Professional Employment



Miami MSA: Dead Last
100 Out of 100

Wallet Hub

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South Florida’s Sustainability Gap

Moving the Needle

Economic Bright Spots:

- Trade Growth 2011-2013
- Rise of Incubators
- Venture Capital Investment
- University Investments
- Job Training Programs
- Promotion Events & Awareness
- Wealth of New Entrepreneurial Development Programs

Incubators/Accelerators

- Venture Hive
- Endeavor Miami
- Rokk3r Labs
- Project Lift
- TECKpert

Co-working Spaces

- The LAB Miami
- Pipeline Brickell
- MiamiShared
- MEC261
- Miami Innovation Center
- Büro
- Right Space 2 Meet

South Florida’s Sustainability Gap

Moving the Needle

One Community One Goal Objectives:

- Five-year goal: 27,000 new jobs in targeted industries – 75,000 overall
- Between inception and 2014 target industries grew by 17,000
- During the same period total new jobs in county = +48,000
- Annual Goal = .4% of Total County Jobs
- Ahead of Projected Pace, But –

Is it Enough?

OCOG TARGET SECTORS
AVIATION
CREATIVE DESIGN
LIFE SCIENCES & HEALTH CARE
TRADE & LOGISTICS
HOSPITALITY & TOURISM
INFORMATION TECHNOLOGY
INTERNATIONAL BANKING & FINANCE

South Florida’s Sustainability Gap

Since 2011:

- Industry Concentration Virtually Unchanged
- Loss of Wages / Wage Growth Slow-Down (2005 Levels)
- RE Trends: Can’t Rely On Construction?
- Condo Sales Slowing
- RE Price Run-up = Housing Affordability Gap Growing
- Cant Rely on Trade?

BACK TO THE FUTURE ??

Ramping Up Sustainability

Still in Early Research Stage

Warrants Further Study

1. Fine-Tune Policy Targets Based on Tighter Performance Criteria
2. Insure Policy Targets Result in Performance & Economic Sustainability Changes

Adding Employment Without Significant Change in Economic Sustainability?

Ramping Up Sustainability

Preliminary Findings

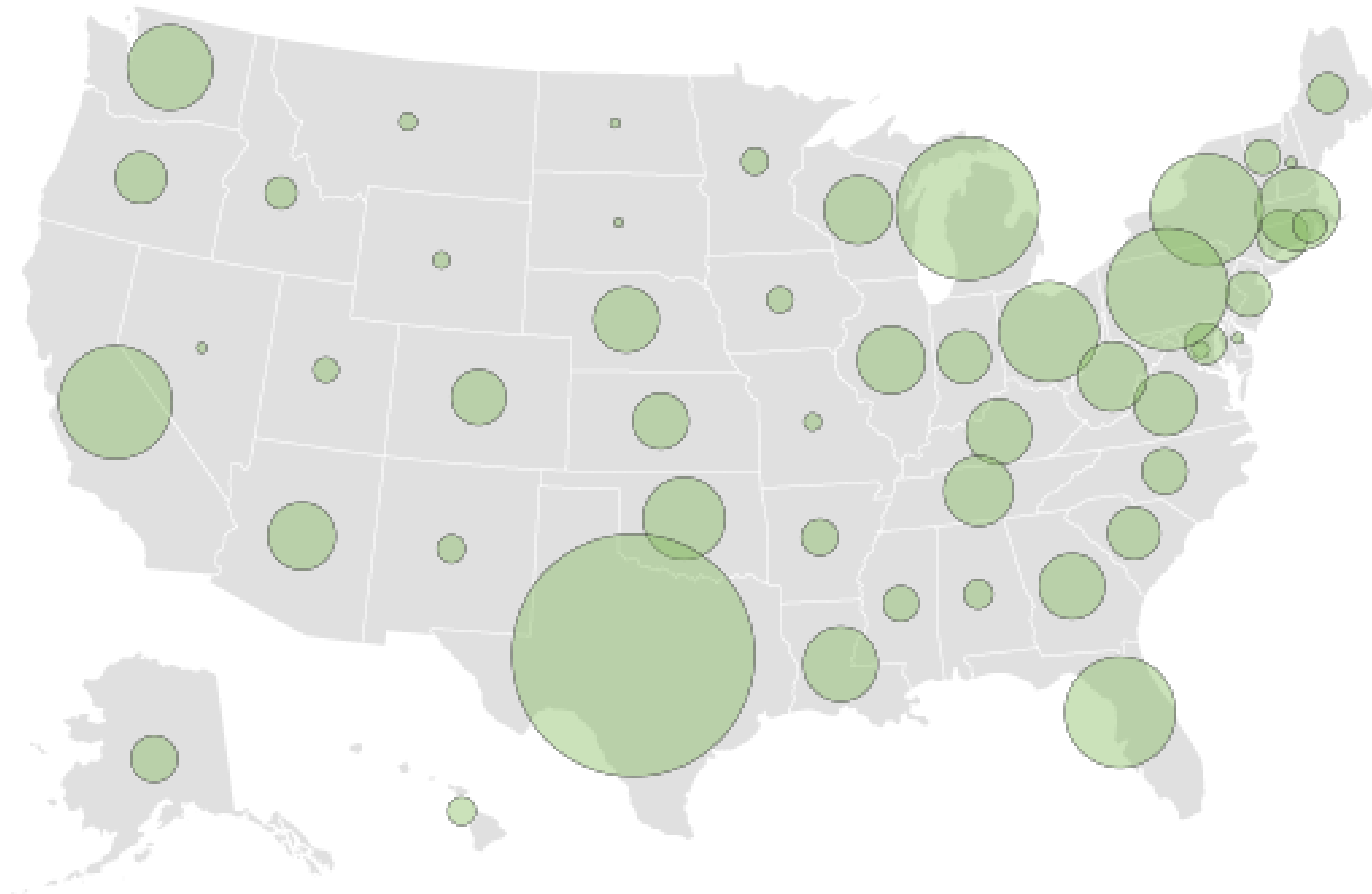
1. *Ramp-up the State's Role in Sustainability / Performance Investment*

Like it or Not:

- Public – Private Economic Performance Investments a Permanent, Critical, and Growing Part of Regional Economic Competitiveness
- "An International Public-Private Investment Missile Race"
- South Florida Needs Greater Scale State Investment: Private & Non-Profit Network Not Enough
- National Incentive Spending Landscape
- National R&D Spending Landscape

Ramping Up Sustainability

Total Incentive Spending:
$80.4B in 1,874 Incentive Programs



Ramping Up Sustainability

Texas

Texas spends at least **$19.1 billion** per year on incentive programs, according to the most recent data available. That is roughly:

$759
per capita

51¢
per dollar of state budget

Top Incentives by type

$14.9 billion in Sales tax refund, exemptions or other sales tax discounts

$3.27 billion in Property tax abatement

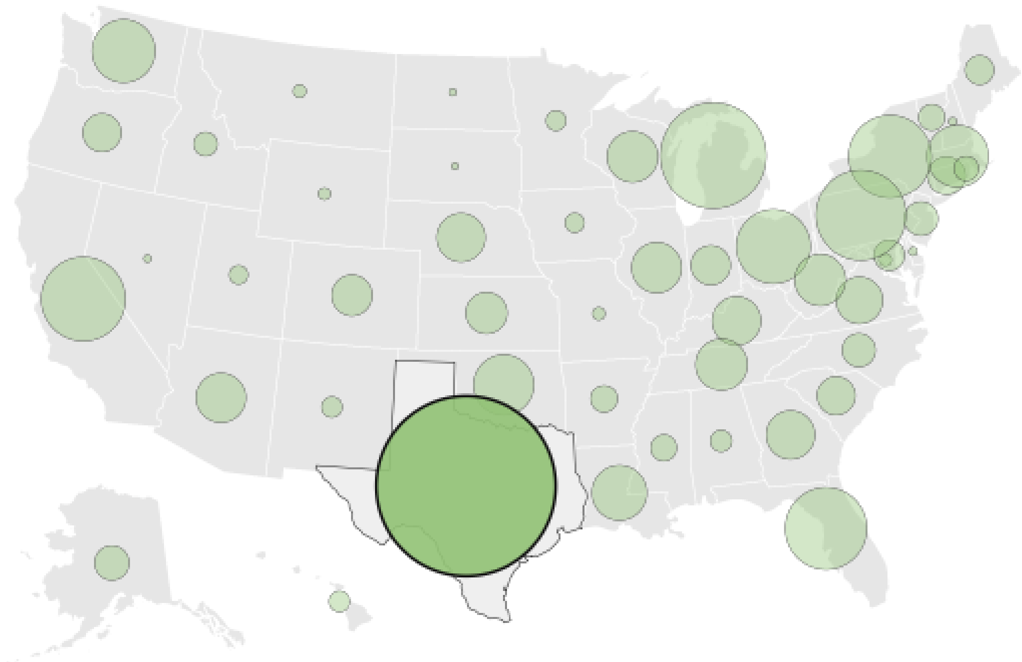
$743 million in Corporate income tax credit, rebate or reduction

Top Incentives by industry

$11.7 billion in Manufacturing

$2.79 billion in Agriculture

$77.3 million in Health care



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Ramping Up Sustainability

Florida

Florida spends at least **$3.98 billion** per year on incentive programs, according to the most recent data available. That is roughly:

$212 per capita

16¢ per dollar of state budget

Top Incentives by type

$3.66 billion in Sales tax refund, exemptions or other sales tax discounts

$108 million in Cash grant, loan or loan guarantee

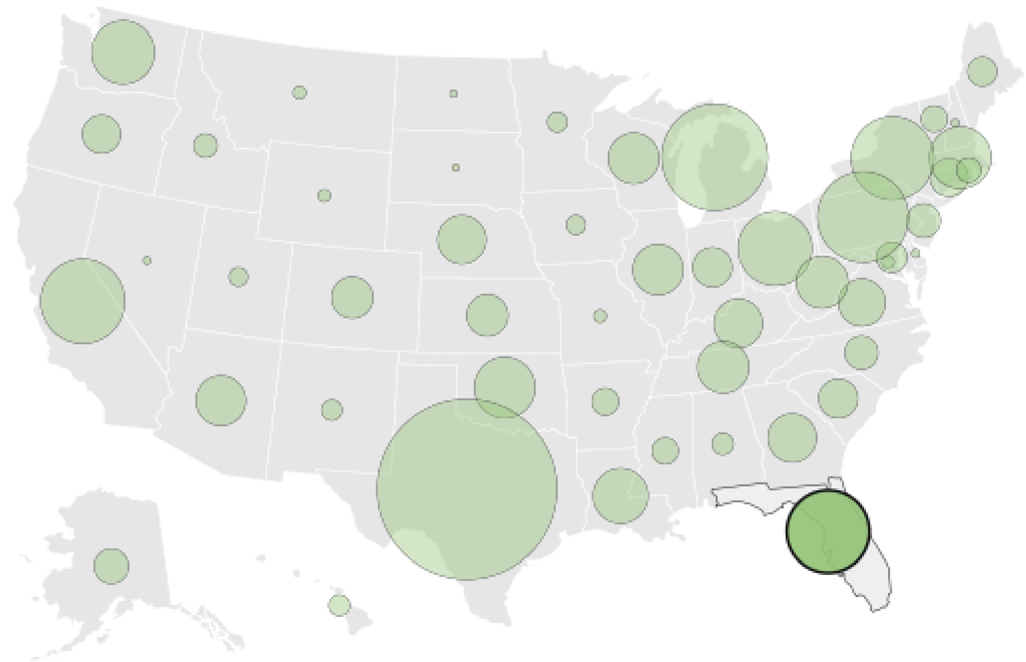
$102 million in Corporate income tax credit, rebate or reduction

Top Incentives by industry

$142 million in Agriculture

$83.9 million in Film

$43 million in Manufacturing



Ramping Up Sustainability

Preliminary Findings

2. Ramp Up STEM Education Initiatives

Turn Out Talent in Greatly Expanded Numbers

- K – 20
- Expand Throughout the School System
- Engage Private Sector Directly in Education, Training, Internships
- Greatly Expanded Entrepreneurial Development Programs

Ramping Up Sustainability

Preliminary Findings:

3. Focus On Small Business

Growth Comes From Within the Region

A Region Especially Reliant On Small Businesses

- Miami Metro: 91% Of All Establishments Less Than 20 Employees
  - (US = 86%)
- Miami Dade Recovery Led By Small Businesses
  - Establishments Employing Less Than 20 Accounted For 94% Of All New Establishments Created Since The Bottom Of 2009
  - 4,010 New Establishments Under 20 Employees Since 2009

Business Creation Dynamic:

- Miami Metro: Top 3 Metros Since 2004 For New Business Creation
- 2012 Highest Entrepreneurial Index
- 2013 Entreprenurial Index 1.5 Times The National Average

Ramping Up Sustainability

Preliminary Findings:

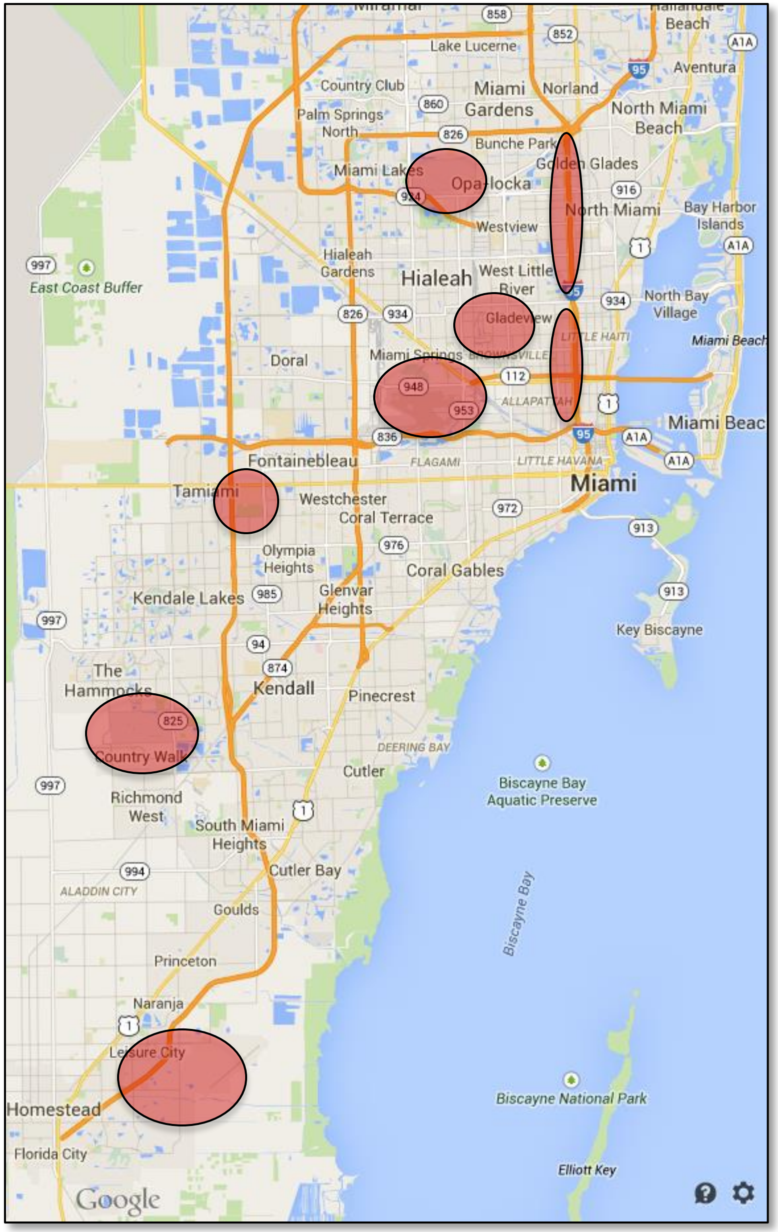
4. Targeted Physical Investments

The Rise of Innovation Districts

- Research Triangle
- Boston
- New York

Opportunities Lost Without Land

Ramping Up Sustainability



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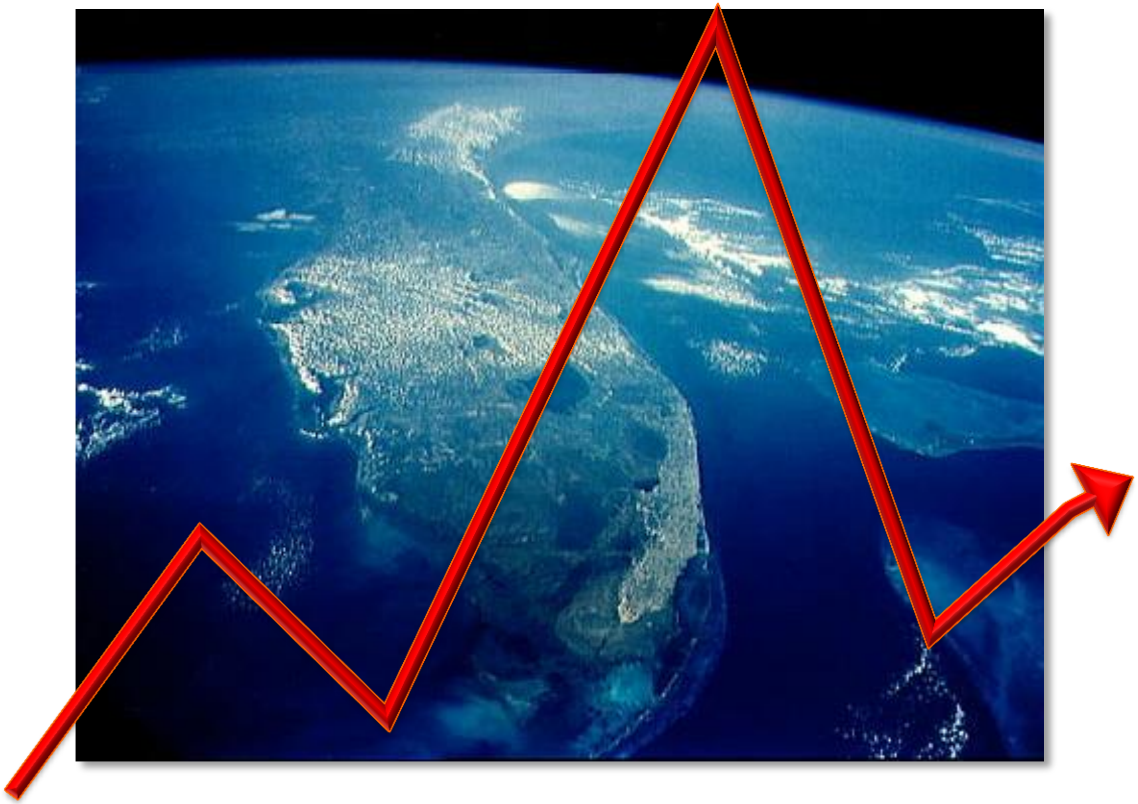

State of the South Florida Economy
Metro Forum 2015

South Florida's Path to A Sustainable Economy: Rough Road Ahead?

Kevin Greiner
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