Planning Challenges:
The Evolving Transportation and Mobility Landscape

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Transportation and Quality of Life

FIU | Metropolitan Center
FLORIDA INTERNATIONAL UNIVERSITY

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Sustainable Development

- In the context of transportation, sustainability is "a way to make our communities more livable by integrating and balancing economic, social and environmental needs." (APTA)

- Transportation systems are evaluated in terms of
  - *mobility* (physical movement),
  - *accessibility* (people's ability to obtain desired goods and services).

How do we build and operate a reliable and accessible transportation system within the context of existing limitations and changing environment?

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Economic Sustainability: The Four Subject Areas

- **Quality of Life** - Quality of Public Education, Cost of Living, Housing Affordability, **Transportation Access**, Available Healthcare, Public Safety

- **Economic Prosperity** – Employment, Salaries & Wages, Income, Small Business Creation

- **Economic Stability** - Industry Diversity, Growth in the Prime Age Workforce (In-Migration), Expanding Creative Economy Industries and Employment

- **Good Governance** - Fiscal Stability, Investment in Sustainability Infrastructure, Green Building, Support for the Arts, **Land Use Regulation, Public/Private Partnerships**

The Population Challenges

- The South Florida metropolitan area grew 13 percent between 2000 and 2013 to almost 5.7 million.
  - Average growth for area was 51,000 people per year.
  - Population expected to surpass 7 million by 2020.
  - Average population density of over 5,000 residents per square mile.
- Miami and Broward have largest transit systems in the state, covering over 700 square miles.

- **Urban sprawl creates challenges in terms of accessibility and mobility.**

Population increase in South Florida:
- **13.1% in Miami-Dade**
- **10.0% in Broward**
- **18.4% in Palm Beach**

Largest increase in Palm Beach in 18-34 age group: 24.5%

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The Generation Shift

- Generation Y or "Millennials": Game changers?

  - Those born 1981 to 1997 (New York Times).

  - 21.4% of Florida population in 2000, and 27.3% in 2013.

  - Adapt faster to technology, willing to walk home.

  - 92% of millennials want to work remotely (Forbes).

Millennials in South Florida:
- 27.9% in Miami-Dade
- 27.7% in Broward
- 24.1% in Palm Beach

13% increase in population 18-34 in South Florida

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Costs

- Miami area expenditures in gas and oil increased by 24% from 2005 to 2013: $2,000 to $2,500
    - Cost per mile increased by 77.8%: $8.5 to $15.12
    - Price per gallon went from $1.93 in 2005, to $3.48 in 2013

- Miami area residents' spending on vehicle purchases decreased by 65% ($3,100 in 2005, $1,089 in 2013)

- Traffic accidents cause injuries, fatalities and property damage, costing $3.16 billion in 2010 nationwide.
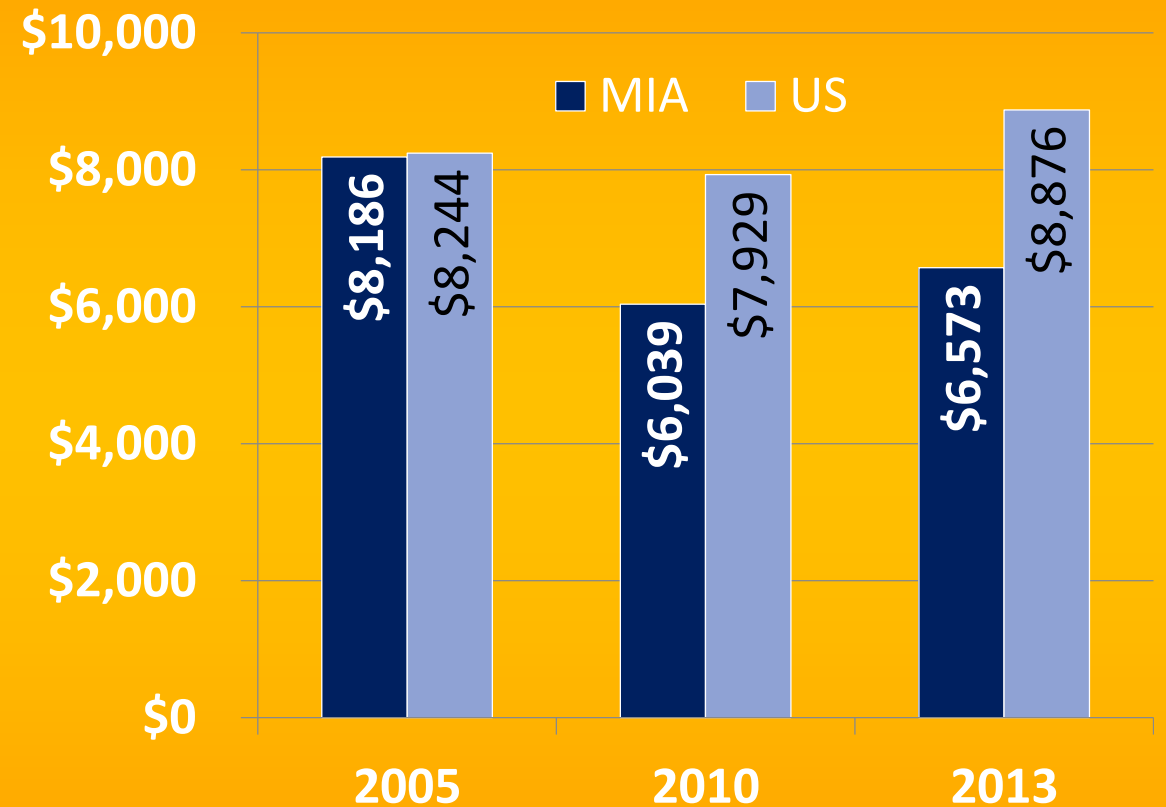
39.6% increase in crashes from 2000 to 2014 in Florida

Crashes increased in South Florida:
- 17.7% in Miami-Dade
- 25.2% in Broward
- 61.1% in Palm Beach

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Transportation and Affordability

- South Florida ranked fourth in the nation for percentage of household income spent on transportation.

- Annual expenditure in transportation from 2005 – 2013 decreased in Miami by 19.7%, increased in U.S. by 7.7%

- Public transportation costs in Miami decreased by 11% (as % of income).
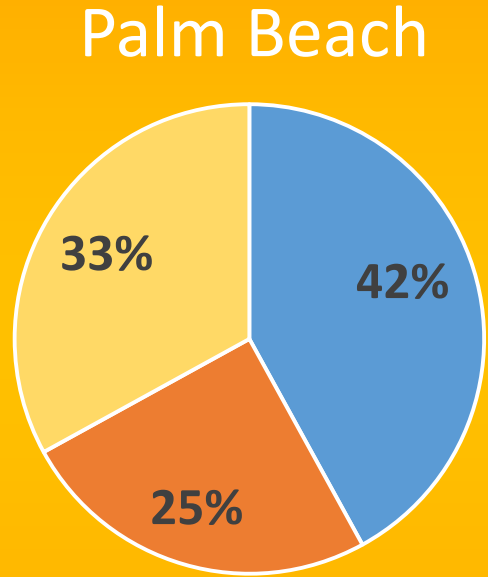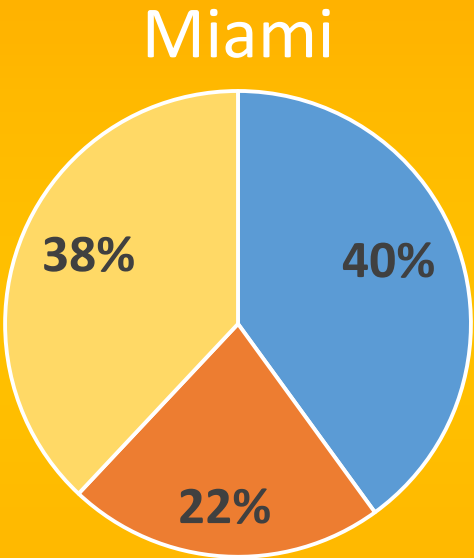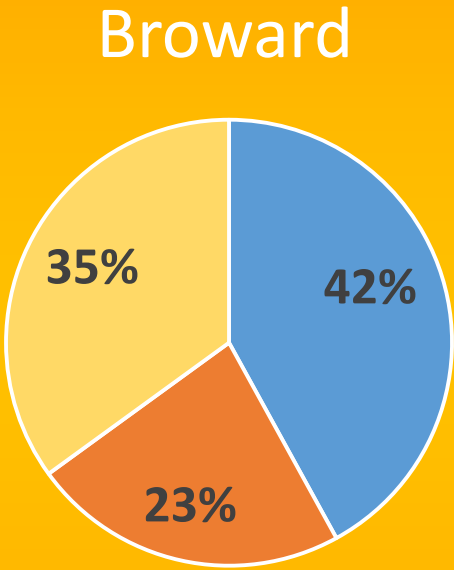
MIA **US**

	2005	2010	2013
MIA	$8,186	$6,039	$6,573
US	$8,244	$7,929	$8,876

$10,000
$8,000
$6,000
$4,000
$2,000
$0

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H + T Index: Housing + Transportation Cost % Income

Housing

Transportation

Remaining Income

Broward

42% Housing
23% Transportation
35% Remaining Income

Miami

40% Housing
22% Transportation
38% Remaining Income

Palm Beach

42% Housing
25% Transportation
33% Remaining Income

Benchmark:
45%

65%

62%

67%

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Modes of Transportation

- Most used transportation means in 2013:
  - 1- Drive (carpool & alone)
  - 2- Public Transportation
  - 3- Worked from home
- Distribution by means of transportation almost constant since 2000.
  - 0.4% increase in use of public transportation in Broward and Miami-Dade; 0.4% decrease in Palm Beach

	South Florida		
	2000	2013	Change
Car, truck, or van - drove alone:	79.2%	78.1%	-1.1%
Car, truck, or van - carpooled:	10.4%	9.8%	-0.6%
Public transportation (excluding taxicab):	3.6%	3.7%	0.2%
Walked	1.6%	1.8%	0.2%
Taxicab, motorcycle, bicycle, or other means	1.9%	1.9%	0.1%
Worked at home:	3.3%	4.6%	1.3%

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Commute Times

- **43.7% of workers in South Florida travel more than 30 minutes to work.**
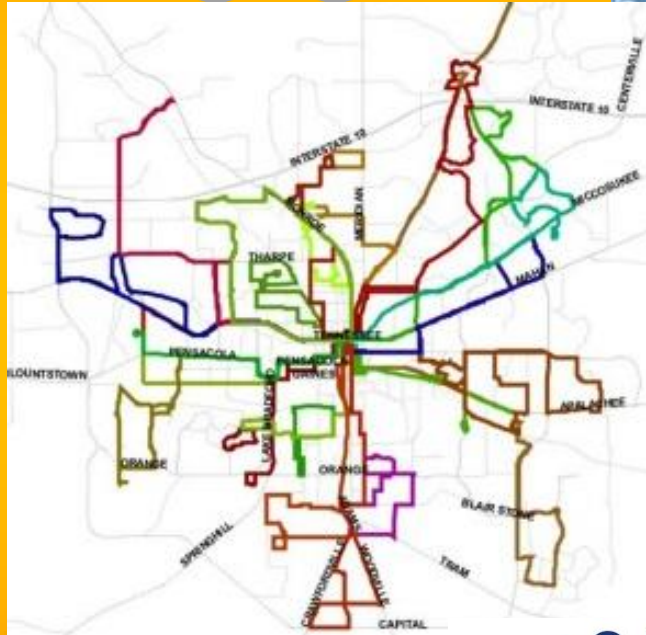 - **34.3% in Palm Beach**
  - **48.6% in Miami-Dade**

Nine out of ten Palm Beach workers are employed within the county.

	Florida	Broward	Miami-Dade	Palm Beach
Worked in county of residence	82.2%	77.6%	92.9%	89.1%
Worked outside county of residence	17.8%	**22.4%**	7.1%	10.9%
Worked in place of residence	32.3%	22.9%	24.6%	**27.3%**
Worked outside of place of residence	67.7%	77.1%	75.4%	72.7%

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Solutions?

- **Land Use – TOD, mixed-use and density increase**
- **Technology**
  - **Wi-Fi technology**
  - **Bus rapid transit**
- **Investments**
  - **Public-private partnerships**
- **Culture change**
  - **Public transit image**
  - **Driving alternatives**
  - **Outreach**

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Questions

Thank you.