



LOCAL ACTION TEAM FOR SAFER PEOPLE, SAFER STREETS

OCTOBER 27, 2015



Assessment Overview



Stewart Robertson, P.E.

Vice President, Kimley-Horn & Associates

Mayor's Challenge Activities

- Take a Complete Streets Approach
- Identify and Address Barriers
- Gather and Track Biking and Walking Data
- Use Context Sensitive Street Designs
- Take Advantage of Maintenance Opportunities
- Improve Walking and Biking Safety Laws and Regulations
- Educate and Enforce Proper Road Use and Behavior By All

Urban Mobility at a Tipping Point

- McKinsey & Company

- McKinsey Center for Business and Environment, Sept 2015

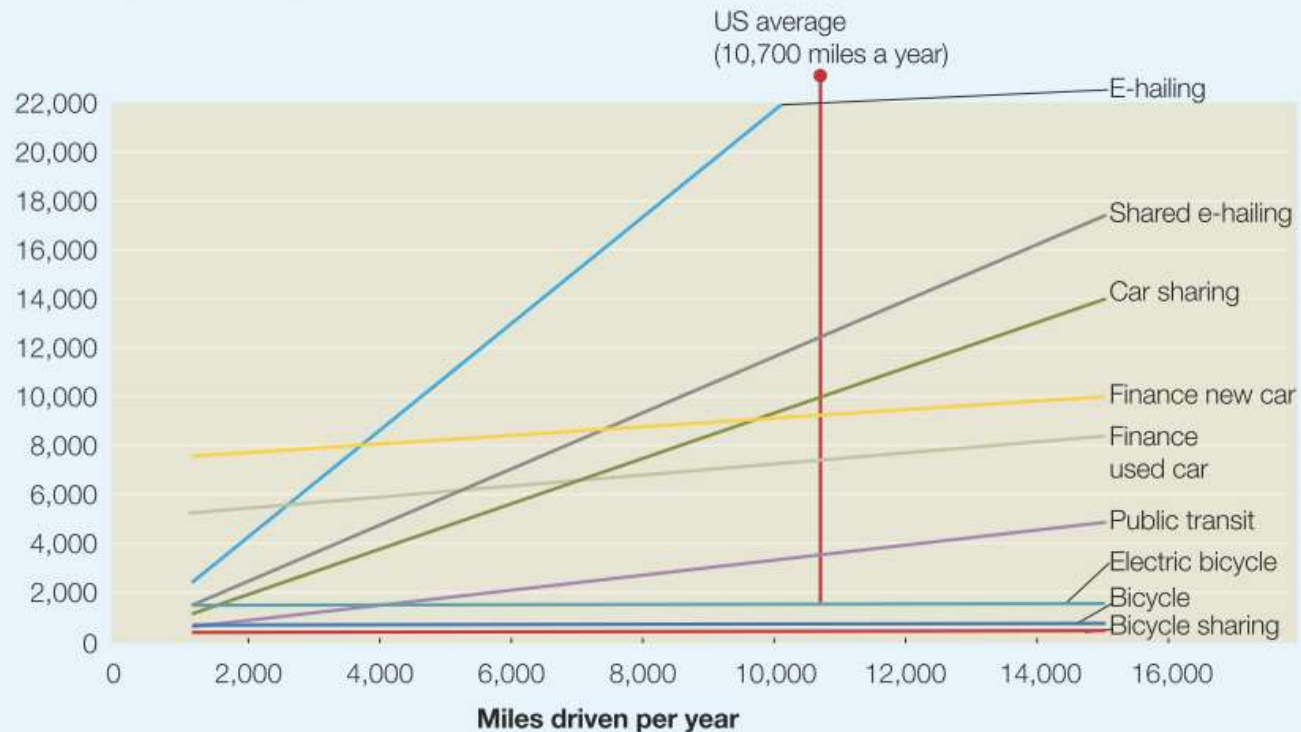
- Key Findings

- New technologies are re-shaping the urban mobility game
 - More on-demand, more sharing
- Lines between private and public transport are blurring
- Car ownership rates are declining
 - Especially amongst the millennial generation

Urban Mobility at a Tipping Point

Cost per mile varies by mode of transport.

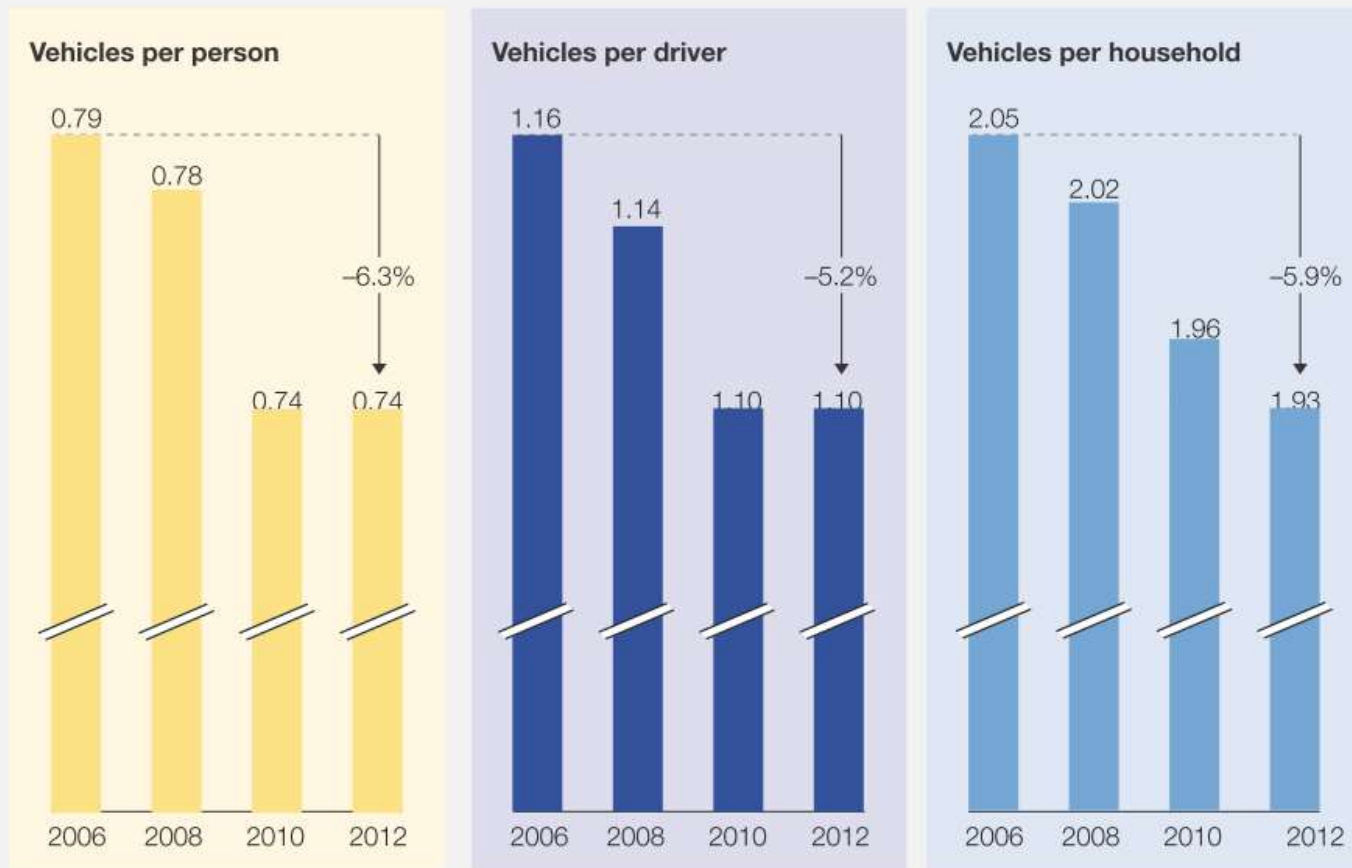
Annual cost of mobility in San Francisco Bay Area,
\$ thousand per vehicle equivalent



Source: US Department of Transportation Federal Highway Administration; McKinsey analysis

Urban Mobility at a Tipping Point

In the United States, vehicle ownership rates are declining.



Source: Michael Sivak, *Has motorization in the U.S. peaked?*, University of Michigan Transportation Institute, Jan 2014, umich.edu

More Cyclists on the Road

- Evidence-based studies are increasingly finding that more cyclists on the road in a given community means fewer collisions for all users
 - A University of Colorado-Denver study examining collisions between bicycles and motorists, shows bicyclist safety significantly increases when there are more bikes on the road, a finding that could be attributed to a 'safety in numbers' effect
 - Study focuses on Boulder, Colorado



Safety Countermeasures

- Federal Highway Administration (FHWA)
- Specific, proven safety countermeasures through evidence-based studies
- Resources
 - How to Develop A Pedestrian Safety Action Plan
 - WALKSAFE: Pedestrian Safety Guide and Countermeasure Selection System
 - BIKESAFE: Bicycle Countermeasure Selection System



Safety Countermeasures

- The dramatic influence of motor vehicle speed
 - Cities that have seen some of the most dramatic pedestrian safety results over time follow a more dramatic course
- Stockholm Vision Zero
 - <http://www.visionzeroinitiative.com/>
 - Vision Zero aims to address fundamental design decisions that may impact safety
 - Today, Stockholm's traffic death rate is 0.7 per 100,000 people, among the lowest in the world
- Netherlands
 - 1975 – Traffic death rate 20 percent higher than U.S.
 - 2008 – Traffic death rate 60 percent lower than U.S.

Safety Countermeasures

Hit by a vehicle traveling at

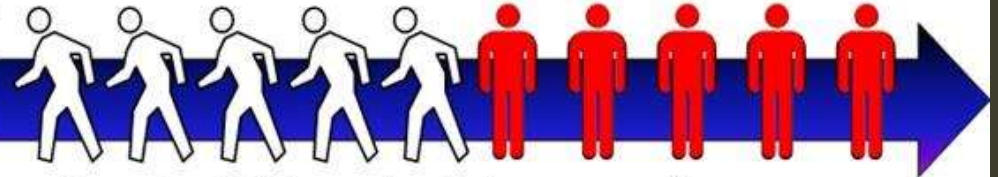
20
MPH



9 out of 10 pedestrians survive.

Hit by a vehicle traveling at

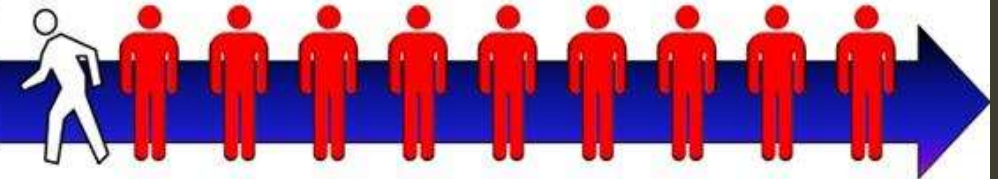
30
MPH



5 out of 10 pedestrians survive.

Hit by a vehicle traveling at

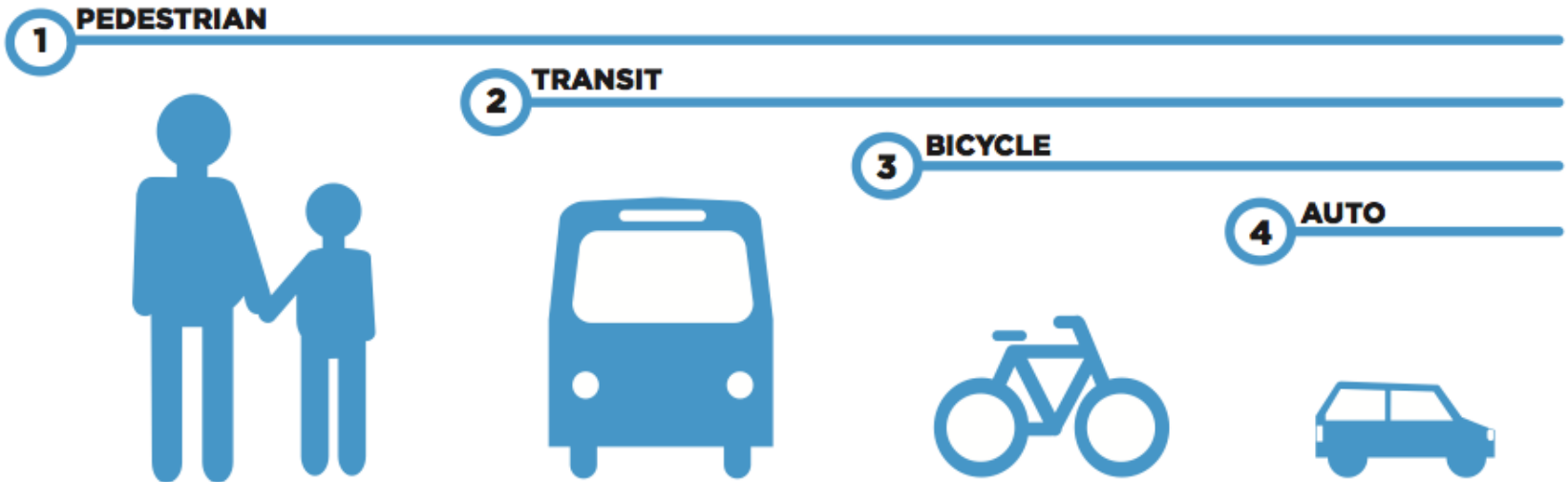
40
MPH



only 1 out of 10 pedestrians survives.

Complete Streets Policies

▣ Modal Hierarchy Example



Complete Streets Policies

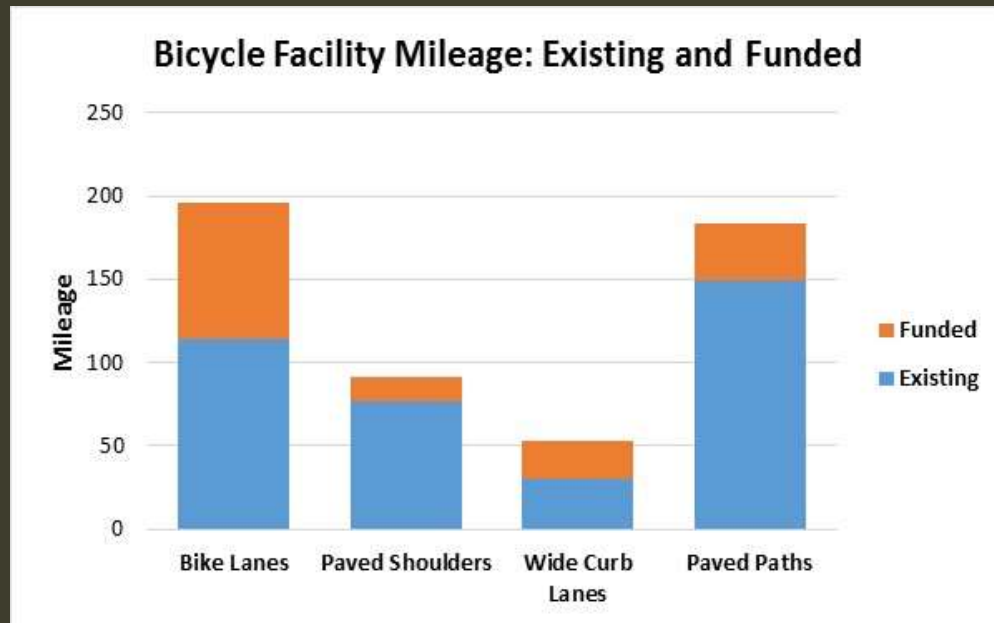
- National Complete Streets Coalition ten elements of a comprehensive policy
 - Includes a vision for how and why the community wants to complete its streets.
 - Specifies that “all users” includes pedestrians, bicyclists, and transit passengers of all ages and abilities, as well as trucks, buses, and automobiles.
 - Applies to both new and retrofit projects, including design, planning, maintenance, and operations, for the entire right-of-way.
 - Makes any exceptions specific and sets a clear procedure that requires high-level approval of exceptions.
 - Encourages street connectivity and aims to create a comprehensive, integrated, and connected network for all modes.
 - Is adoptable by all agencies to cover all roads.
 - Directs the use of the latest and best design criteria and guidelines while recognizing the need for flexibility in balancing user needs.
 - Directs that Complete Streets solutions will complement the context of the community.
 - Establishes performance standards with measurable outcomes.
 - Includes specific next steps for implementation of the policy.

State Legislation and Policies

- Florida Statute 335.065 (Bicycle and Pedestrian Ways along State Roads and Transportation Facilities)
- FDOT Policy Topic No. 000-625-017-a establishes the goal of the Department of Transportation to implement a policy that promotes safety, quality of life, and economic development in Florida.
- FDOT Design Manuals
 - Plans Preparation Manual (PPM)
 - Florida Greenbook
 - Florida Standard Indexes

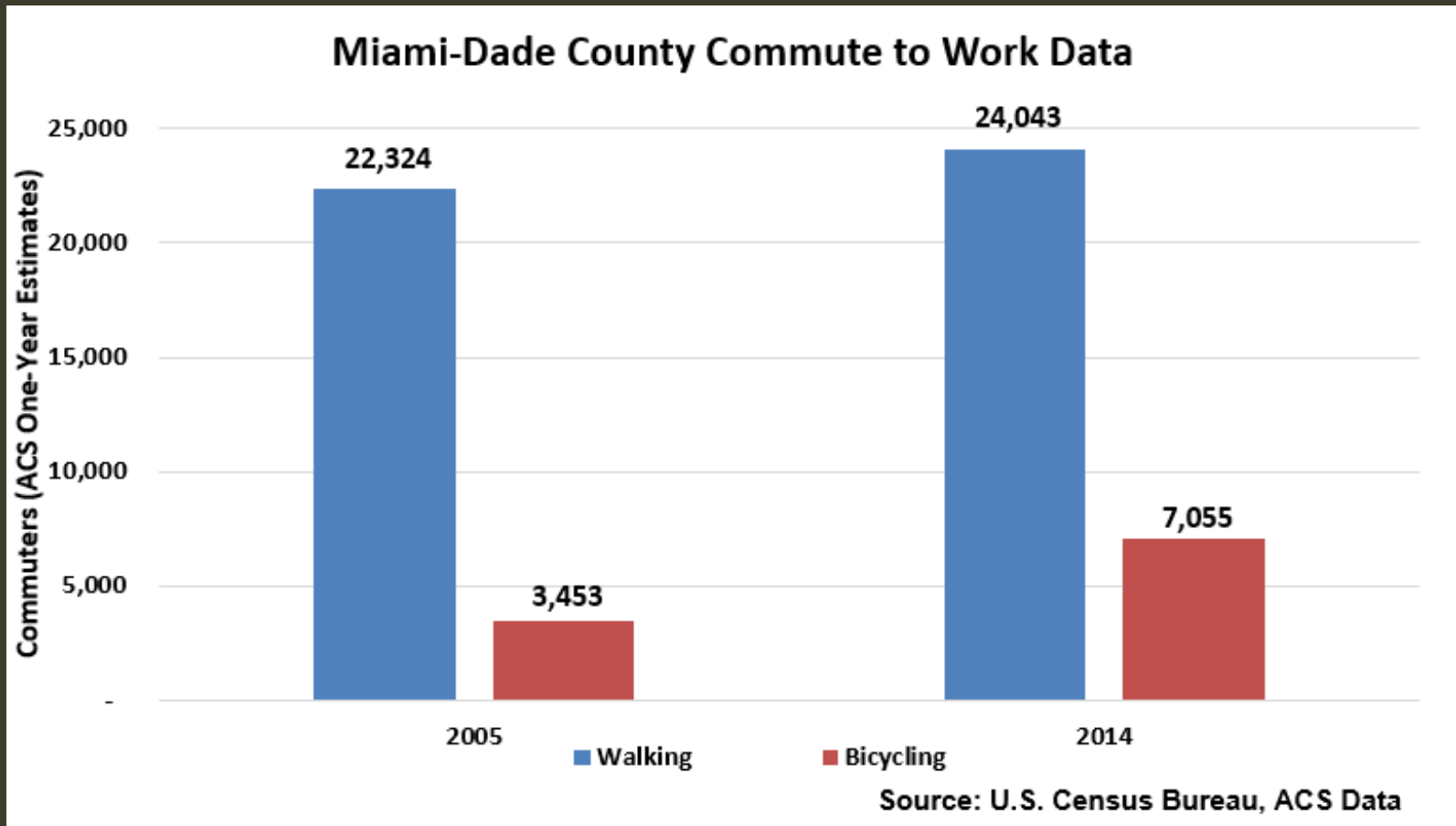
Local Conditions

- Over 370 miles of bicycle facilities in Miami-Dade
 - Over 110 miles of which implemented since 2010



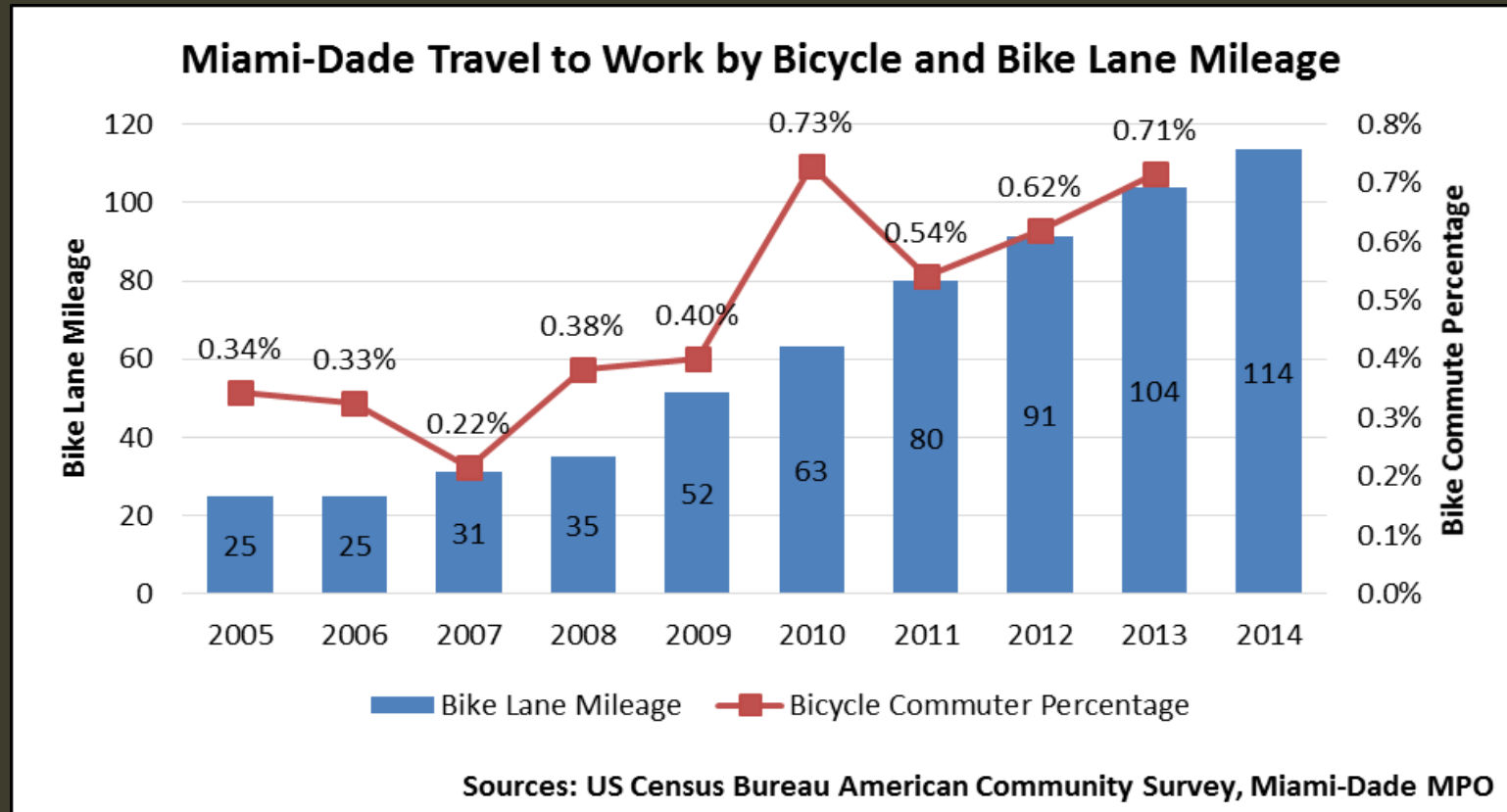
Local Conditions

- Walking and Bicycling is on the Rise in Miami-Dade



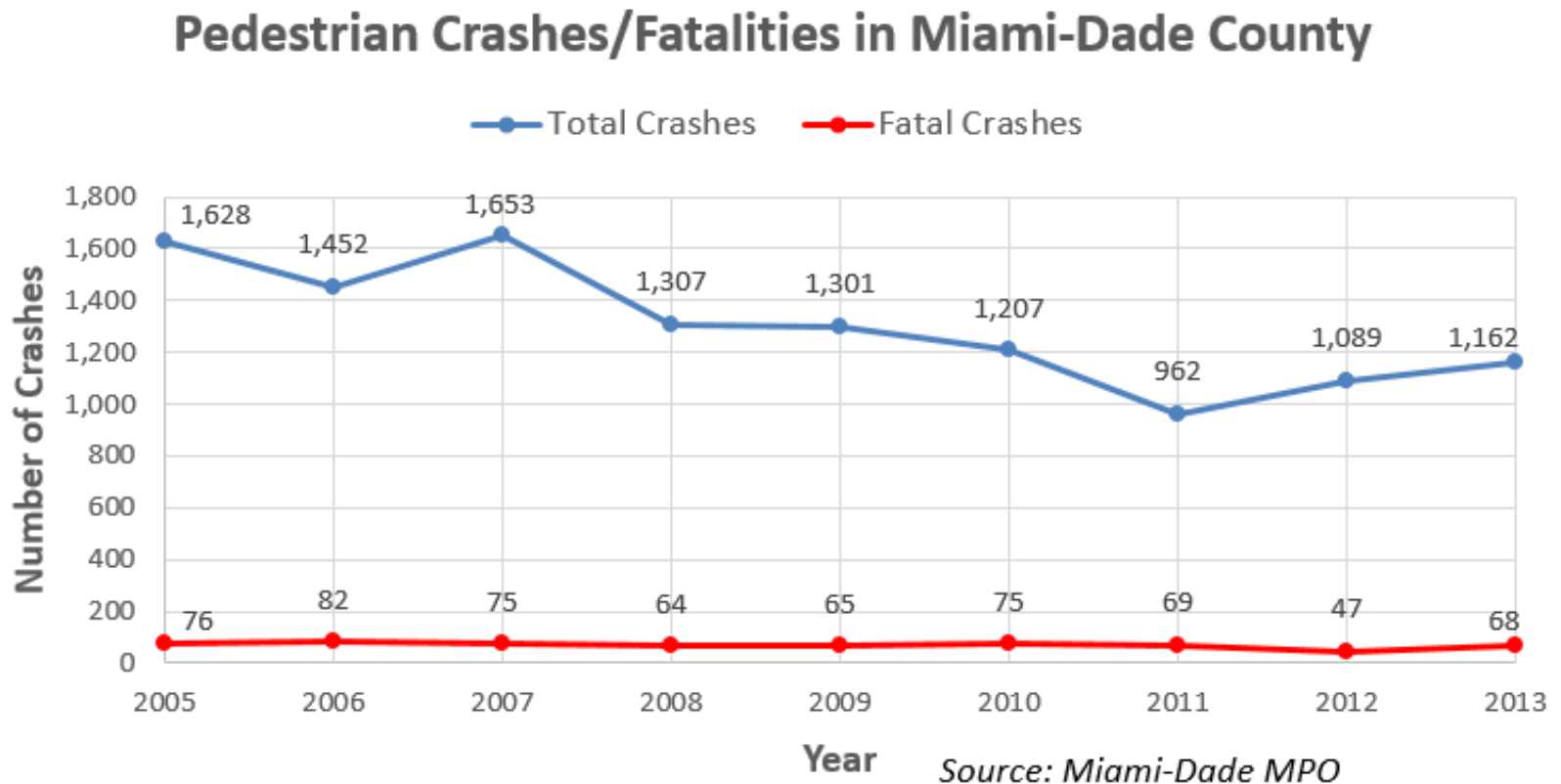
Local Conditions

- Commuter rates and facility-miles implemented follow a similar trend



Local Conditions

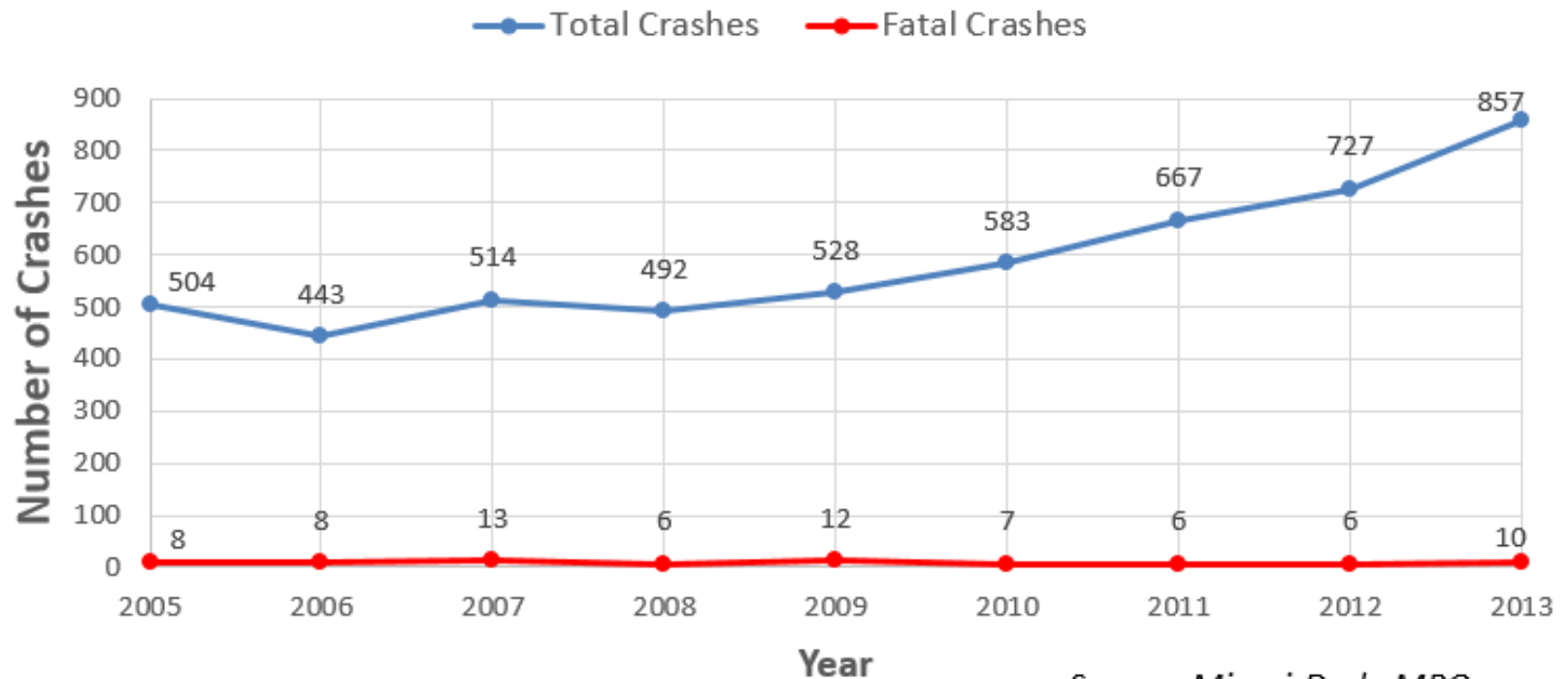
□ Safety Data



Local Conditions

■ Safety Data

Bicycle Crashes/Fatalities in Miami-Dade County

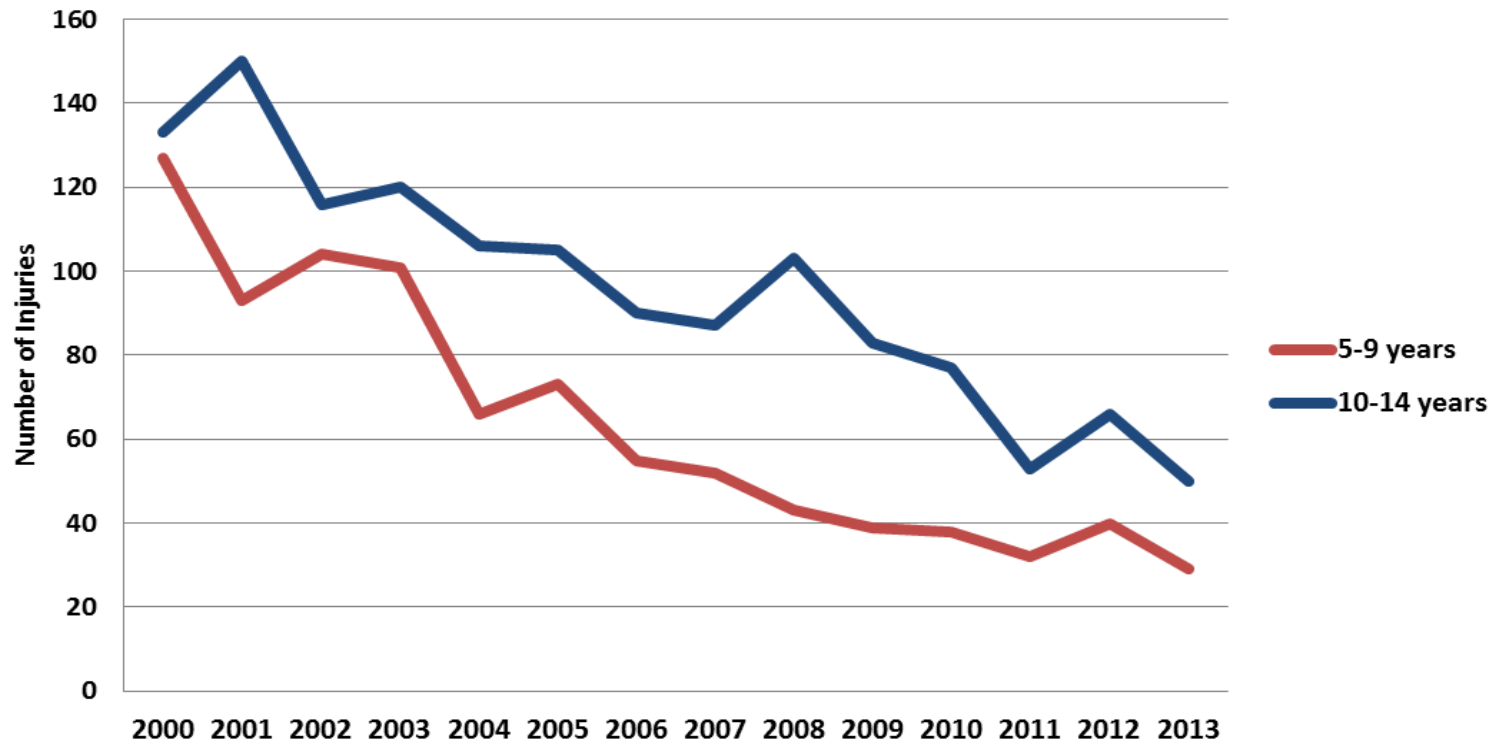


Source: Miami-Dade MPO

Local Conditions

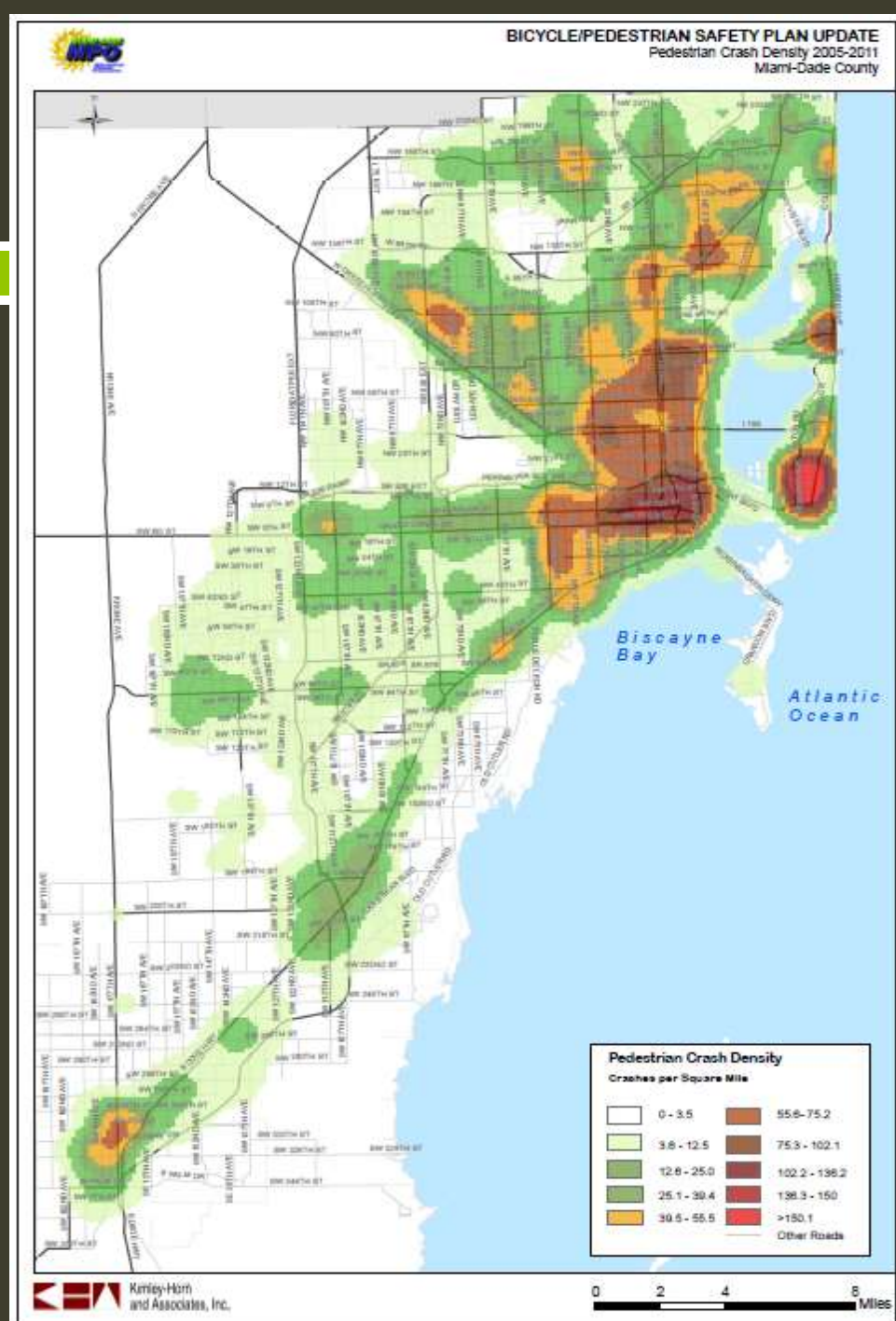
■ Safety Data

**Miami-Dade County Juvenile Pedestrians Injuries
2000-2013**



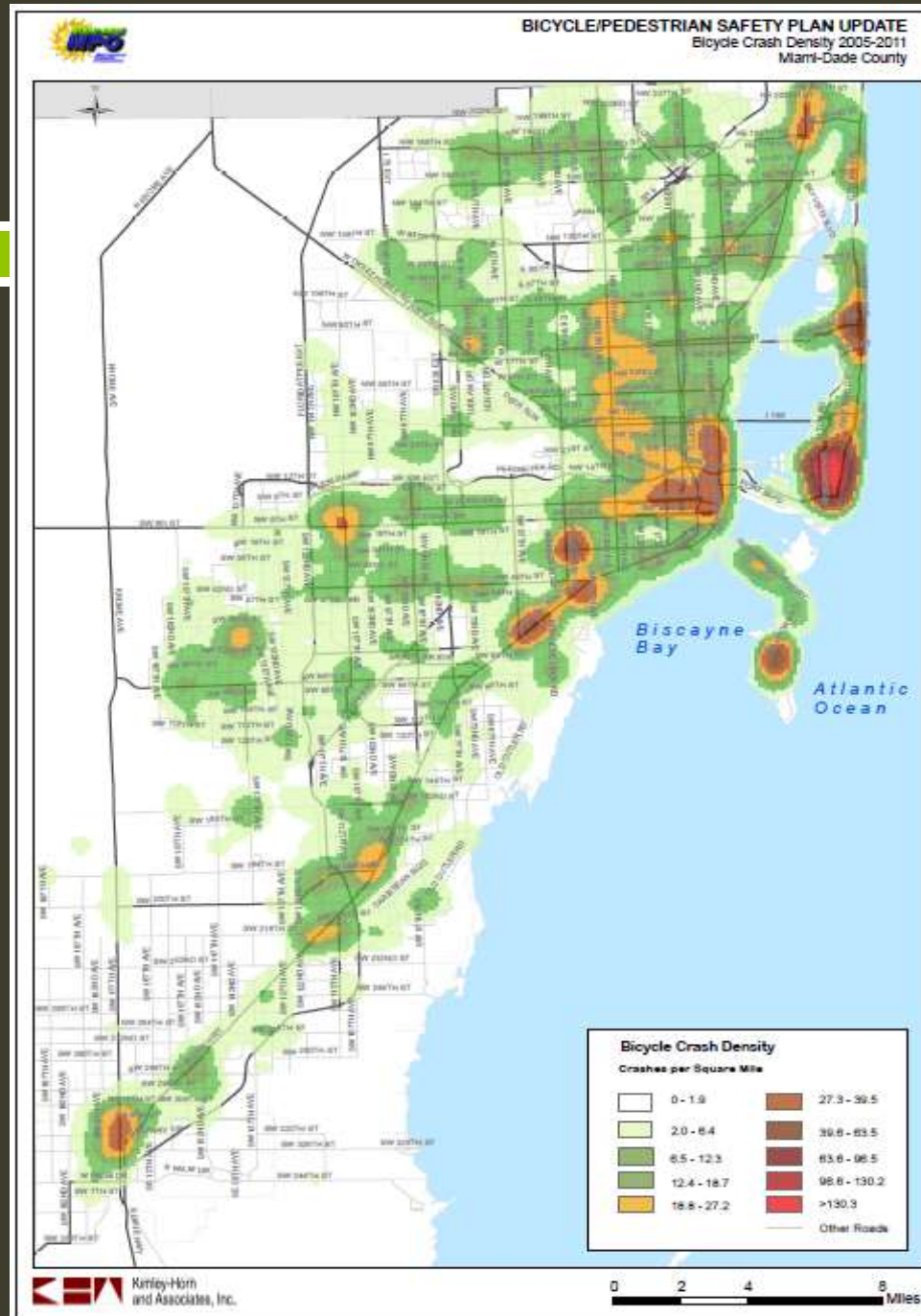
Local Conditions

▣ Pedestrian Crash Density Map



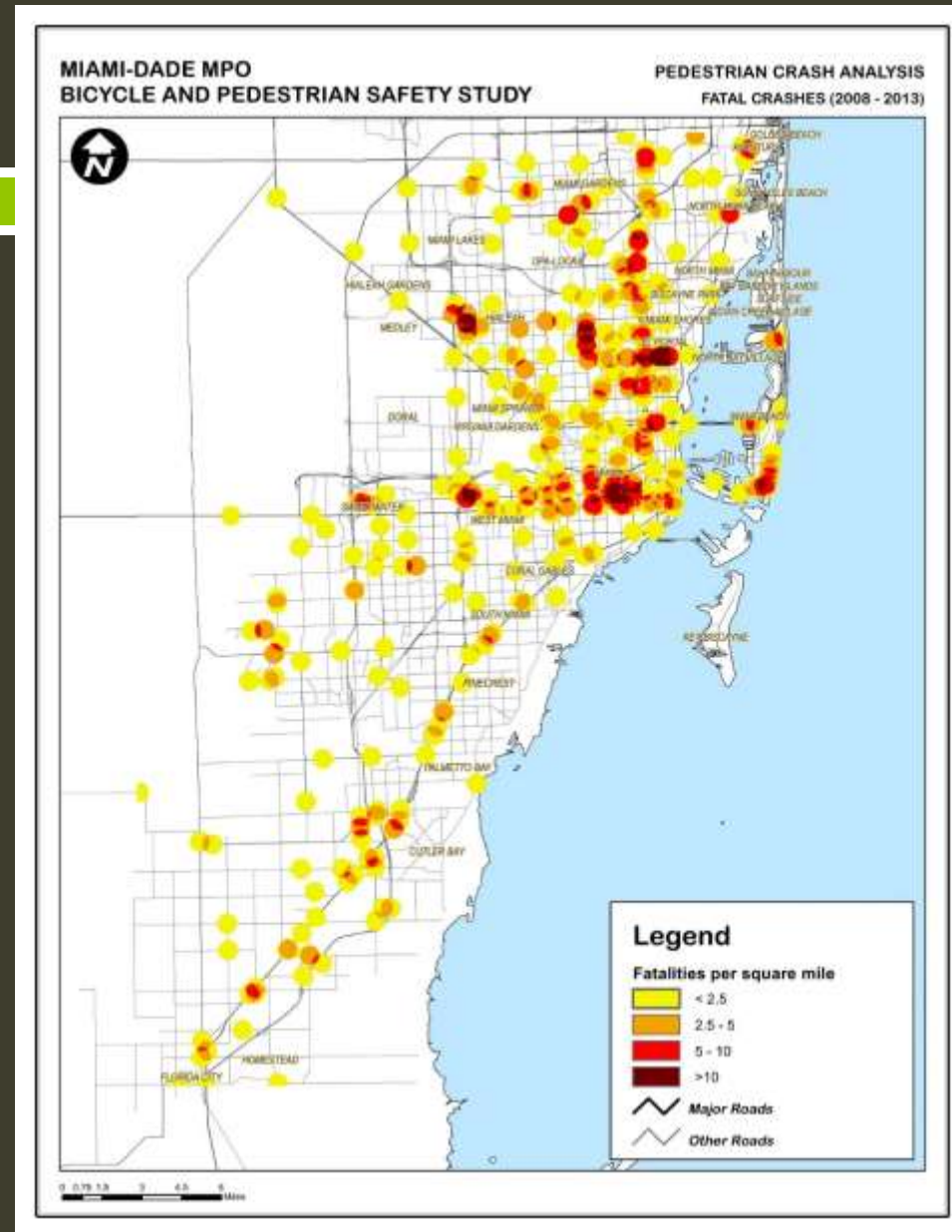
Local Conditions

■ Bicycle Crash Density Map



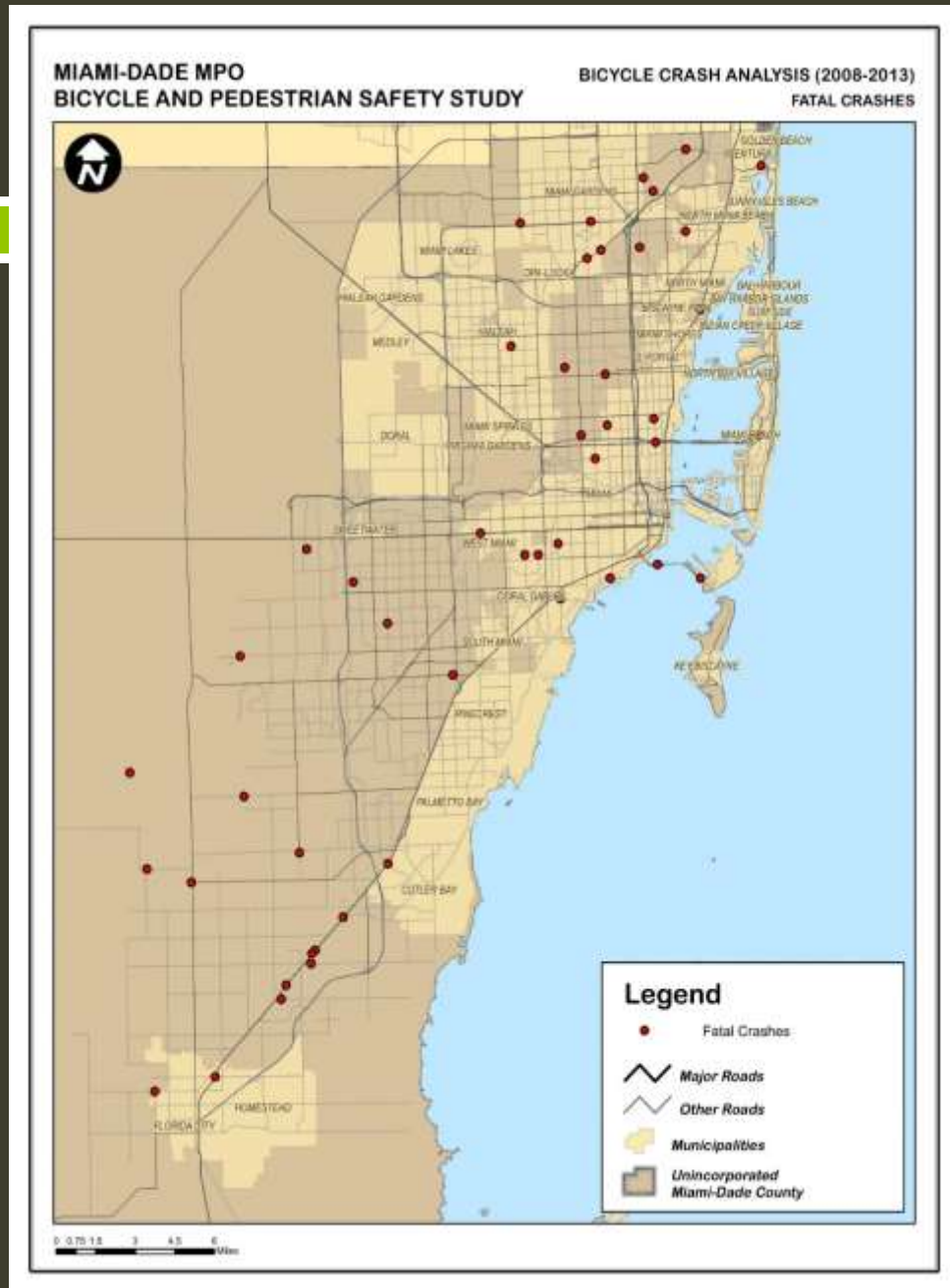
Local Conditions

▣ Pedestrian Fatality Map



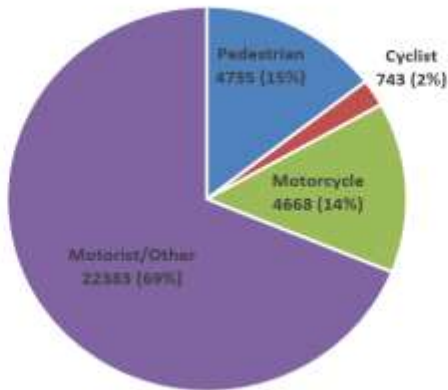
Local Conditions

■ Bicycle Fatality Map



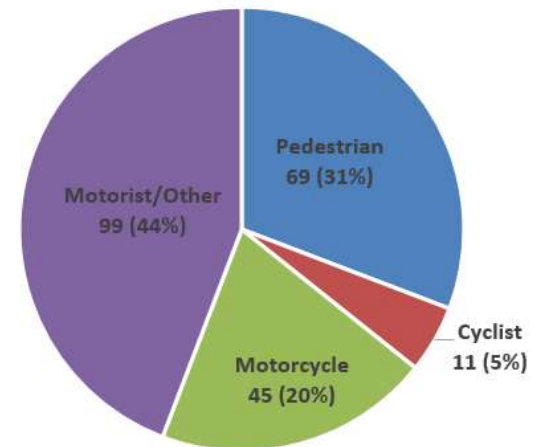
How Do Our Crash Rates Compare?

Traffic Crash Fatalities in the United States (2013)



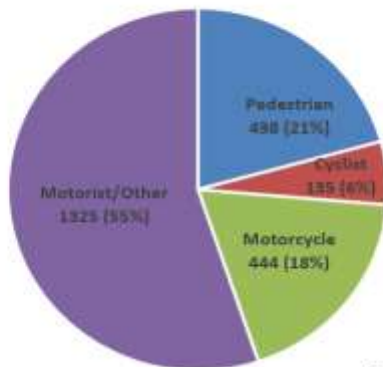
Source: USDOT NHTSA

Traffic Crash Fatalities in Miami-Dade County (2013)



Source: Florida State DHSMV

Traffic Crash Fatalities in Florida (2013)



Source: Florida State DHSMV

SUMMARY

- No Silver Bullet
 - Must be a collaborative effort
- Right-of-way constraints are a significant hurdle
 - Will have to be creative with designs
- Policies are in place, but funding and implementation are lacking
- Crash rates are high when compared to various metrics

NEXT STEPS

- LAT will meet several times over the coming months
- LAT discuss and develop recommendations
 - ▣ Design
 - ▣ Legislation
 - ▣ Right-of-Way Challenges
 - ▣ Education
 - ▣ Enforcement
 - ▣ Funding
- Framework
 - ▣ Seven challenge activities of the USDOT Mayor's Challenge

THANK YOU!



Moment of Inspiration

- How D.C. Cut Traffic Fatalities by 73%
- <https://vimeo.com/142817399>