



Making Our Community More Walkable and Bikeable

a Healthy Places by Design workshop



Workshop Facilitator: Mike Lydon, CNU-A
The Street Plans Collaborative

Healthy Places by Design is a project of the Rhode Island Department of Health, funded through a grant from The Centers for Disease Control under the American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5



ABOUT HEALTHY PLACES BY DESIGN

Healthy Places by Design seeks to strengthen local land use, transportation and urban design policies and ordinances that guide community decisions about the built environment in order to make those policies and ordinances, and ultimately the built environment, more supportive of physical activity and healthy eating. The project has three main components:

Healthy Communities Plan

A Healthy Communities Plan, developed with input from local municipalities, will provide a range of policies and strategies that local municipalities can include in Local Comprehensive Plan updates in order to improve community walkability, safety, recreation options, transportation choices, and access to healthy foods. When a municipality submits a Local Comprehensive Plan update to Statewide Planning for approval, the Department of Health will use the Healthy Communities Plan to evaluate how effectively the update supports physical activity and healthy eating.

Healthy Communities Project

The Department of Health has contracted with three municipalities, Pawtucket, North Kingstown and South Kingstown, who will each partner with one community-based organization to implement changes to local policies in support of physical activity and access to healthy foods. This component has two objectives: to implement policy change by improving municipalities' Comprehensive Plans and to improve the **built environment's effect on health**; and to build capacity for healthier communities by empowering community-based organizations to assess their environments and advocate for change .

- Municipal planners, planning board members and community organizations will attend training on a variety of topics, including the social determinants of health; Health Impact Assessments; the planning process, public participation and coalition building; designing for physical activity and food access; and implementing the Healthy Communities Plan strategies.
- Municipalities will be required to revise their Comprehensive Plans to align them with the Healthy Communities Plan. They may also revise Zoning Ordinances or create special plans, such as an Open Space or Pedestrian/Bicycle Master Plans, to support physical activity and improve access to healthy foods.
- Community-Based Organizations will assist the municipalities in completing Health Impact Assessments and facilitating the public participation process, and will also determine health-based policy priorities and develop an Action Plan for advocacy and consensus building in the community around the specific policies.

Healthy Communities Toolkit

The results from the municipal pilot projects will be used to create a Healthy Communities Toolkit for municipalities with resources for implementing the Healthy Communities Plan. The Toolkit will be available online for use by municipal planners.



GROW SMART RHODE ISLAND promotes sustainable economic growth that builds upon and strengthens Rhode island's exceptional quality of place. The organization, which represents a broad range of interests, engages Rhode Islanders in reducing unplanned growth and sprawl and achieving revitalized and walkable city and town centers, housing options and affordability, expanded transportation choices, a vital agricultural sector and responsible stewardship of natural resources.

To accomplish its goals, Grow Smart

- Publishes research analyzing the impacts of suburban sprawl and urban decay and evaluating the potential effectiveness of policies that have been used elsewhere to combat sprawl;
- Advocates for policies and programs to revitalize urban/town centers, promote compact growth, keep agricultural land in production and open space;
- Provides training workshops and conferences to increase municipal and state capacity to shape growth;
- Maintains an extensive website and publishes a monthly e-brief to increase public awareness about the negative impacts of unplanned, sprawling development.

If you would like to learn more about Grow Smart's work, sign up to receive our monthly e-brief, and link to Community Connections, an electronic calendar of conferences and workshops related to land-use and water resources, go to

www.growsmartri.org



Grow Smart Rhode Island and its allies formed the ***GROW SMART RI LAND-USE TRAINING COLLABORATIVE*** with the goal of increasing Rhode Island municipal and statewide capacity to deal with complex land-use issues and to shape growth to meet the community’s vision. Through the Collaborative, Grow Smart and more than 20 state agencies and non-profit organizations combine resources to deliver training on various land-use topics to municipal staff, councils, boards and commissions, citizens and citizen groups, for-profit and non-profit developers, planning and design professionals, engineering professionals, land-use attorneys and conservationists. Since 2001, the Collaborative has provided training to almost 2,400 Rhode Islanders.

As the leader of the Collaborative, Grow Smart Rhode Island:

- Secures funding for the Collaborative
- Manages program and materials development
- Schedules training programs and markets programs to appropriate audiences
- Manages record-keeping and budgeting, bookkeeping, consultant contracts, vendor relations

Partnering organizations do some or all of the following:

- Help to identify and prioritize program needs
- Contribute to the development of new programs and materials
- Provide staff to serve as presenters at different programs
- Help to publicize programs
- Provide funding support

| <u>Training Collaborative Partners</u> | |
|--|--|
| American Planning Association/RI Chapter Aquidneck Island Planning Commission Blackstone River Valley National Heritage Corridor Commission Housing Network of Rhode Island HousingWorks RI Local Initiatives Support Corporation Narragansett Bay Research Reserve Partnership for Community Development RI Association of Conservation Commissions RI Builders Association RI Department of Environmental Management | RI Department of Health RI Department of Transportation RI Division of Planning/Statewide Planning Program RI Historical Preservation & Heritage Commission Rhode Island Housing RI Land Trust Council RI League of Cities & Towns RI Water Resources Board URI Coastal Resources Center/URI Sea Grant URI Cooperative Extension Program US Green Building Council – RI Chapter Washington County Regional Planning Council |

**Michael Lydon, CNU-A, Founding Principal
The Street Plans Collaborative**

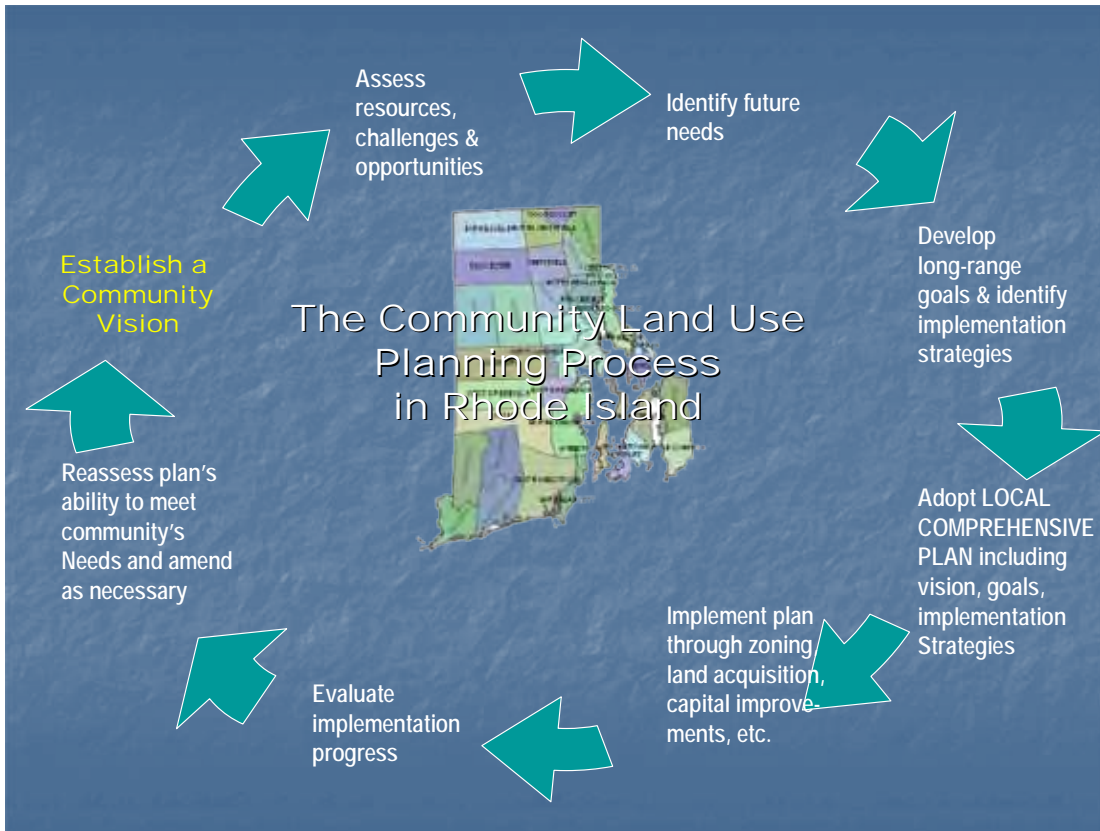
Mike Lydon is the founding Principal of The Street Plans Collaborative. Before launching TSPC in 2009, Lydon worked for Smart Growth Vermont, the Massachusetts Bicycle Coalition, and Ann Arbor's GetDowntown Program. From 2006 - 2009 Lydon worked for Duany Plater-Zyberk and Company, an international leader in the practice of smart growth planning, design, and research techniques. While at DPZ he co-authored *The Smart Growth Manual* with Andres Duany and Jeff Speck.

Lydon was selected as one of thirty-four Urban Vanguard for the Next American City, a magazine created for and by a new generation of urban thinkers and leaders. He is also a founding member of the New England Chapter of the Congress for the New Urbanism, and a steering committee member of the Next Generation of New Urbanists, Lydon remains active in both local and national planning, design, and smart growth advocacy issues and speaks regularly on the topics of smart growth, new urbanism, and active transportation.

Mike served as a member of the City of Miami's Bicycle Action Committee, where he helped spearhead the creation of the city's first Bicycle Action Plan, and the formulation of a monthly open streets initiative, entitled Bike Miami Days. He currently serves on an Executive Committee for Transportation Alternatives--one of the country's leading transportation advocacy organizations--and is a board member for the CNU New York Chapter, and a member of the Complete Street Speakers Bureau.

As a planner, writer, and activist, Mike's work has appeared in or been featured by CNN Headline News, Planetizen, Next American City, New Urban News, Planning Magazine, the Miami Herald, and The Village Voice, among other publications. Mike remains a regular contributor to Planetizen and is a founding co-editor of *A Living Urbanism*, and is the editor-in-chief of *Tactical Urbanism*, Vol. 1 and Vol. 2.

Mike proudly grew up in Maine and received a B.A. in American Cultural Studies from Bates College. Mike also received a Masters in Urban Planning from the University of Michigan. He encourages you to trade four wheels for two.



Making Our Community More Walkable and Bikable North Kingstown, RI October 19, 2011



Workshop Outline

- Workshop overview
- **Exercise #1: Icebreaker**
- **Exercise #2: Bicycling in North Kingstown Discussion**
- The Big Picture: Transportation and Land Use
- Why Its Important to Provide Active Transportation Choices
- What Makes a Walkable, Bikeable Place?
- Bicycle and Pedestrian Planning
- Case Study: City of Miami
- **Exercise #3: Visual Preference Survey**
- Context
- Funding
- Questions
- **Exercise #4: Open Map Discussions**

Exercise #1: let's break the ice!

- What's your name?
- Where do you live?
- What's your favorite place to walk or bike in RI?



About us

THE STREET PLANS COLLABORATIVE PROJECT MAP



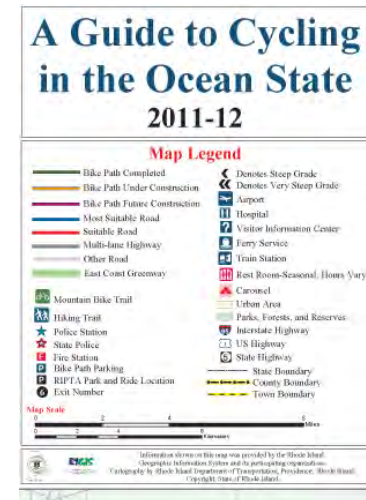
- Active Transportation Planning
- Transit Planning
- Urban Planning + Policy Development
- Urban + Architectural Design
- Public Outreach and Web Design
- Research

Exercise #2:

Tell me about walking and biking in North Kingstown



North Kingstown's existing bikeway network



Handlebar survey: change the perspective



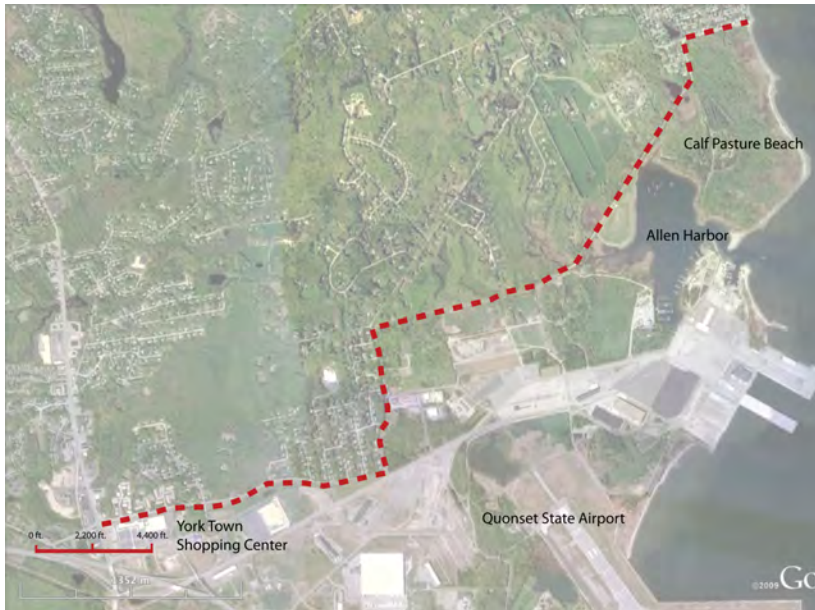
Vs.



North Kingstown handlebar survey assessment



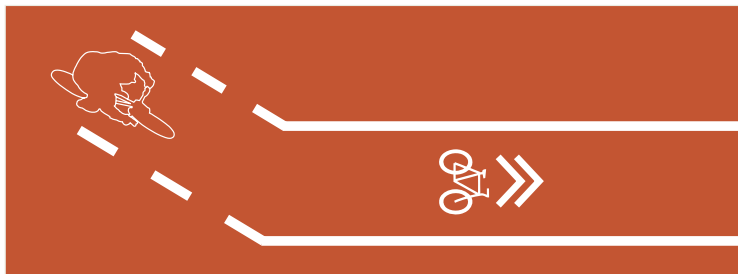
Handlebar survey mapped



Handlebar survey: bicycle assessment

The Handlebar Survey

An Assessment of Bicycling Conditions for:
North Kingstown, Rhode Island
10/1/11



| Existing Conditions  | Yes | No | N/A | Notes |
|---|-----|----|-----|-------|
| LAND USE | | | | |
| Context: Urban? | | | | |
| Context: Suburban? | | | | |
| Context: Rural? | | | | |
| Commercial (retail, offices, etc.) uses? | | | | |
| Residential uses? | | | | |
| Industrial uses? | | | | |
| Vertical Mixed-use? | | | | |
| Horizontal Mixed use? | | | | |
| Bicycle trip generator(s) (parks, paths, bike shop, etc.)? | | | | |
| PUBLIC REALM | | | | |
| Are there continuous sidewalks? | | | | |
| If yes, on both sides of the roadway? | | | | |
| Are the sidewalks an adequate width and condition? | | | | |
| Are there street trees and/or attractive plantings? | | | | |
| Do adjacent buildings form a consistent street wall? | | | | |
| Are there many exposed parking lots and/or curb cuts? | | | | |
| Are there quality street furnishings and amenities? | | | | |
| Is there direct access to regional open space? | | | | |
| Are there plazas, pocket parks, playgrounds, etc.? | | | | |
| THE STREET | | | | |
| Is on-street parking available? | | | | |
| Are there more than two lanes for through traffic? | | | | |
| If yes, are the rightmost travel lanes wider? | | | | |
| Are there signalized intersections? | | | | |
| Are there turning lanes? | | | | |
| Is the speed limit posted consistently? | | | | |
| Is there vehicular congestion during peak hours? | | | | |
| Are there curbs and gutters? | | | | |
| Are there well-marked crosswalks at each intersection? | | | | |
| Is the pavement in a good state of repair? | | | | |
| Are there consistent conflict points between modes? | | | | |
| Is bus or rail transit available? | | | | |
| If yes, does it adequately accommodate bicyclists? | | | | |
| BICYCLE INFRASTRUCTURE | | | | |
| Bike lanes (conventional, buffered, contra-flow, etc.)? | | | | |
| Shared-use lane marking (sharrows)? | | | | |
| Bicycle boulevard? | | | | |
| Cycle track/physically-separated lanes? | | | | |
| Shared use paths? | | | | |
| Paved shoulders? | | | | |
| Are there quality bicycle racks (U-racks, Covered, etc.)? | | | | |
| Are there bicycle route/wayfinding signs? | | | | |

The Big Picture: Transportation and Land Use



The transportation/land use connection



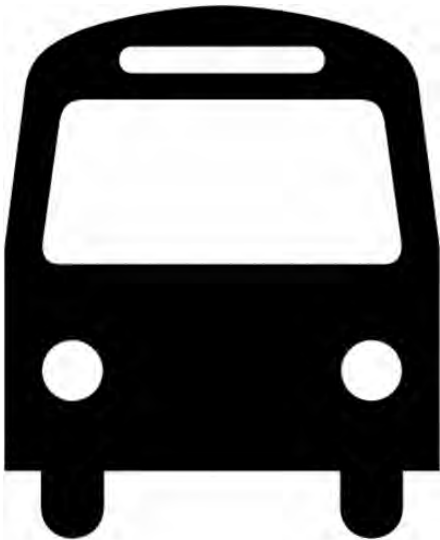
When you walk outside your front door, can you walk easily to local destinations?



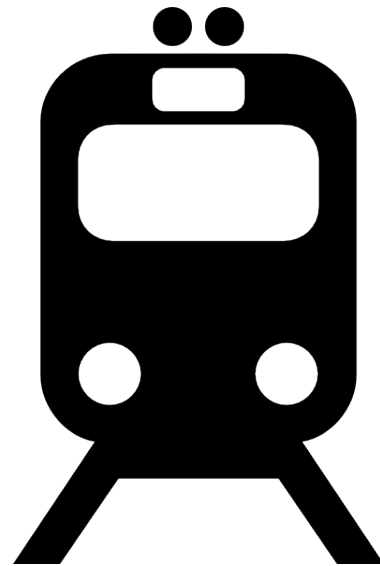
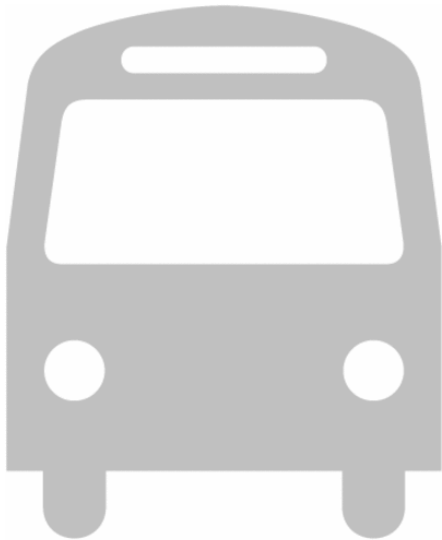
Can you bike safely and conveniently to your destinations?



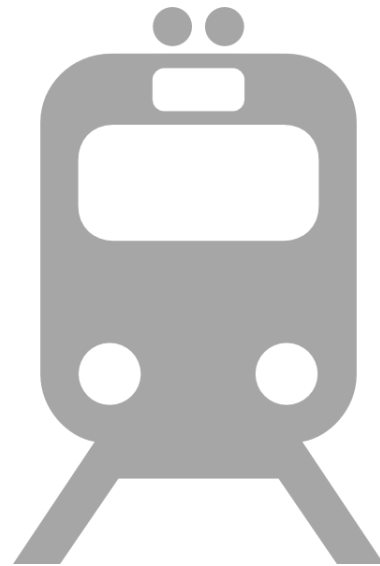
Does the bus come frequently enough? Does it take you to where you want to go?



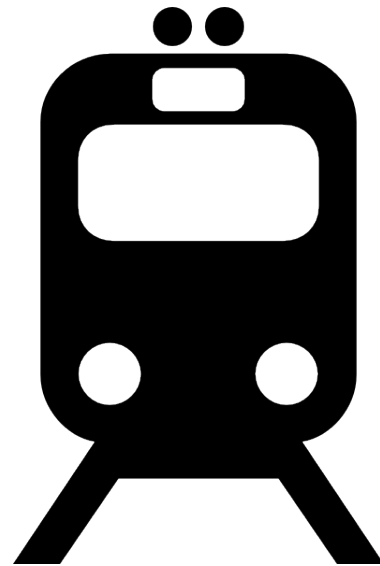
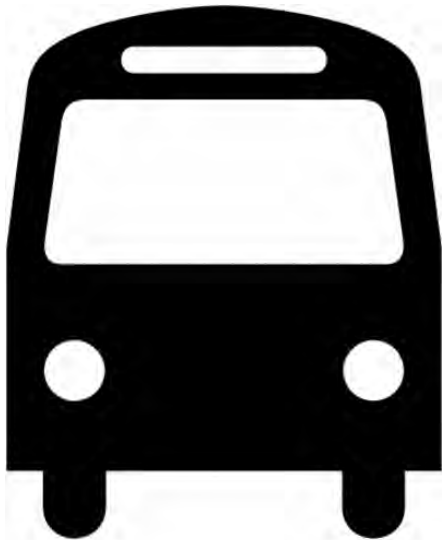
Do you have access to local and regional rail?



Can you reach your destinations efficiently by car?



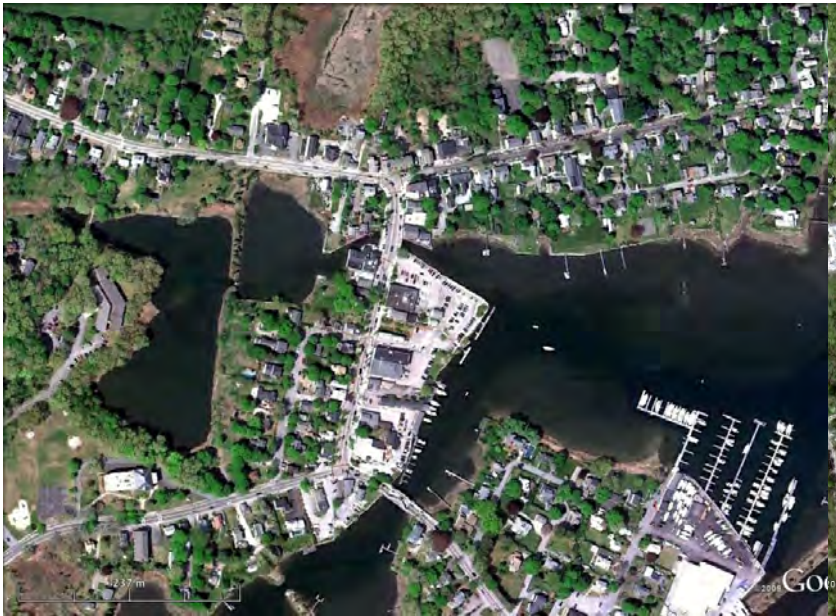
Livability is all about providing *real* choice



Transportation is not about moving one mode vs. another; it's about providing access for people.



Land use choices influence transportation choices



Wickford Village



Wickford Village Walk Score: 78

Walk Score
78
Out of 100

Very Walkable
55 Brown St North Kingstown

Like 7K Share

Overview More Amenities Your Commute

- Restaurants**
 - Wickford Diner 0.07mi
- Coffee**
 - Jitters Cafe 0.87mi
- Groceries**
 - Wickford Marketplac 0.08mi
- Shopping**
 - Wilson's of Wickfor 0.01mi
- Schools**
 - Wickford Middle Sch 0.48mi
- Parks**
 - Wickford Historic D 0.14mi
- Books**
 - The Book Garden 0.12mi
- Bars**
 - Oak Hill Tavern 0.89mi
- Entertainment**
 - Smith's Castle 0.98mi
- Banking**
 - Sovereign Bank 0.01mi

[View more amenities](#)

Street View...

New Cars and Trucks
Locally Owned and Family Operated #1 Dealer for Customer Satisfaction
www.ToyotaNwa.com

AdChoices

Map data ©2011 Google - [Terms of Use](#)

[Real Estate Professionals: Print a neighborhood flyer for this property](#)

Public Transportation

Land use choices influence transportation choices



Post Road



Post Road Walk Score: 48

Walk Score
48
Out of 100

Car-Dependent
Gate Rd North Kingstown

Like 7K Share

Overview More Amenities Your Commute

- Restaurants**
 - Burger King 0.23mi
- Coffee**
 - Updike's Newtowne C 1.27mi
- Groceries**
 - Dave's Marketplace 0.12mi
- Shopping**
 - Quonset Point Getty 0.29mi
- Schools**
 - Quidnessett Element 0.88mi
- Parks**
 - Davisville Historic 1.44mi
- Books**
 - Fantasy Zone 1.05mi
- Bars**
 - 007 Bar and Grille 1.85mi
- Entertainment**
 - Seabee Museum & Men 0.11mi
- Banking**
 - Citibank Branded AT 0.57mi

Real Estate Professionals: Print a neighborhood flyer for this property

Map data ©2011 Google - Terms of Use

Land use choices influence transportation choices



Post Road



Post Road Walk Score: 45

Walk Score
45
Out of 100

Car-Dependent
6725 Post Rd North Kingstown

Like 7K Share

Overview More Amenities Your Commute

Restaurants
KFC 0.08mi

Coffee
Dunkin' Donuts 1.06mi

Groceries
Dave's Marketplace 0.61mi

Shopping
Yorktown Market Inc 0.03mi

Schools
Davisville Middle S 0.45mi

Parks
Davisville Historic 0.9mi

Books
Davisville Free Lib 0.99mi

Bars
007 Bar and Grille 1.14mi

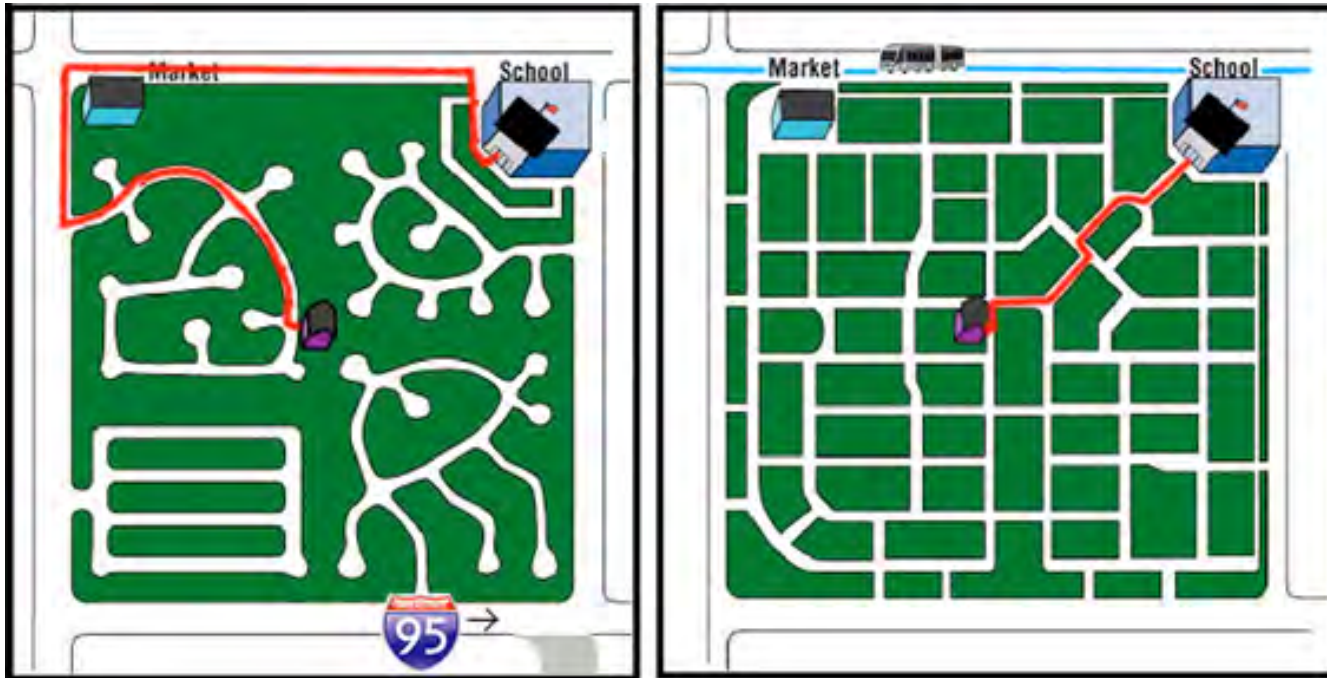
Entertainment
USS Saratoga Museum 0.27mi

The Marina City Marina
Features concrete double finger docks and many customer features.
www.marinaatmarin...

Map data ©2011 Google - Terms of Use

Waiting for google.com... [neighborhood flyer for this property](#)

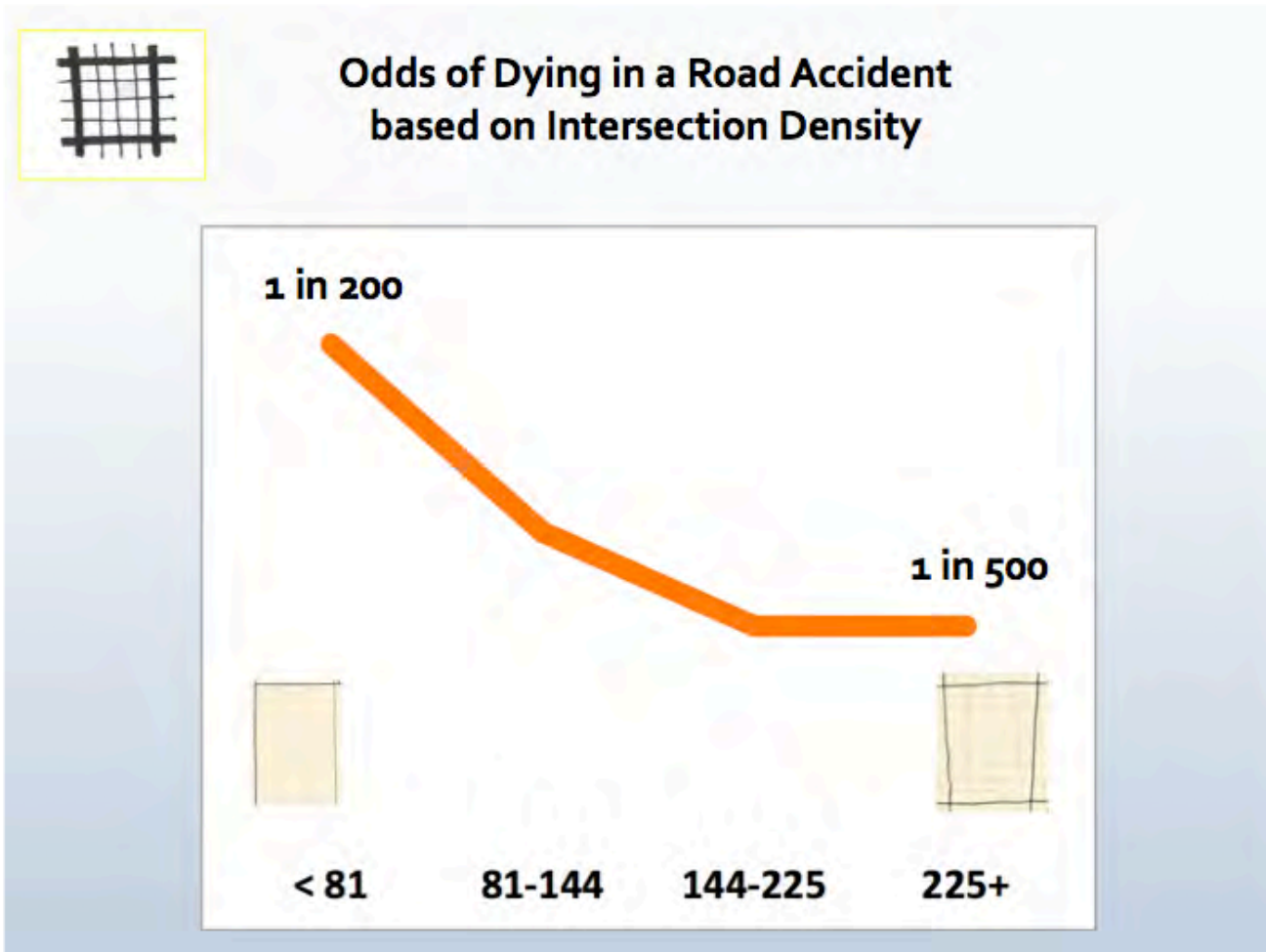
How we connect all of our places matters too!



Source: Congress of the New Urbanism

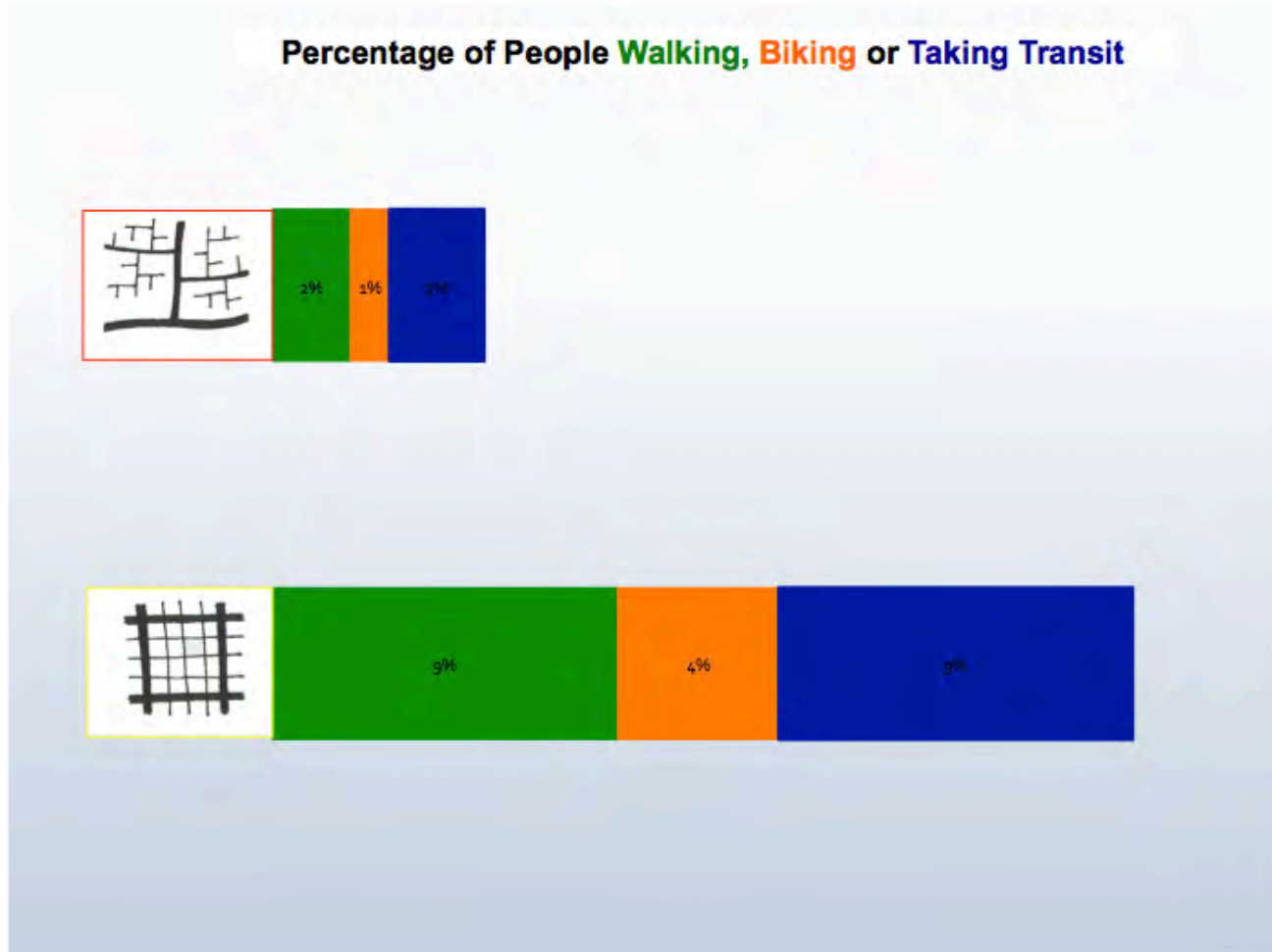
Pawtucket!

Street network and safety



Source: Norman Garrick

Street Network and Mode Share Choices



Source: Norman Garrick

Transportation costs and CO2 emissions

Abogo transportation costs made transparent

What is Abogo?
Abogo is a tool that lets you discover how transportation impacts the affordability and sustainability of where you live.

Sign up for Updates

Blog
Car Free Round Three- Hempstead, NY
Hempstead, New York, is the final city covered by our World Car Free Day Blog Frenzy. Hempstead is located about 20 miles outside of New York City, in Nassau County on Long Island. There are 22 incorporated villages that fall entirely, or partially, within the town limits. If all villages were combined and incorporated into [...]

World Car Free Day Pt.2- Aurora, Illinois
Second on our World Car Free Day blog frenzy is Aurora, Illinois. Aurora is a highly populated suburb about 40 miles outside of the Chicago Loop. In 1908, the city adopted the nickname "The City of Lights," because it was one of the first cities in the United States to implement an all-electric street lighting [...]

Enter an address to find out what a typical household would spend on transportation.
Current Address:

Transportation Cost for an average household
\$910/month
Regional average: \$839

Transportation CO₂ Impact for an average household
0.79 metric tons/month
Regional average: 0.66 metric tons

Transportation costs are based on 2000 gas prices

CNT

What is Abogo?

How it Works

Lower Your Costs

FAQ

CNT Resources

Blog

How to spend less:
Choose places you can walk to, type your address into **Walk Score** to find nearby destinations.

Abogo transportation costs made transparent

What is Abogo?
Abogo is a tool that lets you discover how transportation impacts the affordability and sustainability of where you live.

Sign up for Updates

Blog
Car Free Round Three- Hempstead, NY
Hempstead, New York, is the final city covered by our World Car Free Day Blog Frenzy. Hempstead is located about 20 miles outside of New York City, in Nassau County on Long Island. There are 22 incorporated villages that fall entirely, or partially, within the town limits. If all villages were combined and incorporated into [...]

World Car Free Day Pt.2- Aurora, Illinois
Second on our World Car Free Day Blog Frenzy is Aurora, Illinois. Aurora is a highly populated suburb about 40 miles outside of the Chicago Loop. In 1908, the city adopted the nickname "The City of Lights," because it was one of the first cities in the United States to implement an all-electric street lighting [...]

Enter an address to find out what a typical household would spend on transportation.
Current Address:

Transportation Cost for an average household
\$678/month
Regional average: \$839

Transportation CO₂ Impact for an average household
0.31 metric tons/month
Regional average: 0.66 metric tons

Transportation costs are based on 2000 gas prices

CNT

What is Abogo?

How it Works

Lower Your Costs

FAQ

CNT Resources

Blog

How to spend less:
Choose places with different ways of getting to work. Use our **Walk Score** to see how close you can live to work.

Abogo transportation costs made transparent

What is Abogo?
Abogo is a tool that lets you discover how transportation impacts the affordability and sustainability of where you live.

Sign up for Updates

Blog
Car Free Round Three- Hempstead, NY
Hempstead, New York, is the final city covered by our World Car Free Day Blog Frenzy. Hempstead is located about 20 miles outside of New York City, in Nassau County on Long Island. There are 22 incorporated villages that fall entirely, or partially, within the town limits. If all villages were combined and incorporated into [...]

World Car Free Day Pt.2- Aurora, Illinois
Second on our World Car Free Day Blog Frenzy is Aurora, Illinois. Aurora is a highly populated suburb about 40 miles outside of the Chicago Loop. In 1908, the city adopted the nickname "The City of Lights," because it was one of the first cities in the United States to implement an all-electric street lighting [...]

Enter an address to find out what a typical household would spend on transportation.
Current Address:

Transportation Cost for an average household
\$921/month
Regional average: \$839

Transportation CO₂ Impact for an average household
0.77 metric tons/month
Regional average: 0.66 metric tons

Transportation costs are based on 2000 gas prices

CNT

What is Abogo?

How it Works

Lower Your Costs

FAQ

CNT Resources

Blog

How to spend less:
Choose places you can walk to, type your address into **Walk Score** to find nearby destinations.

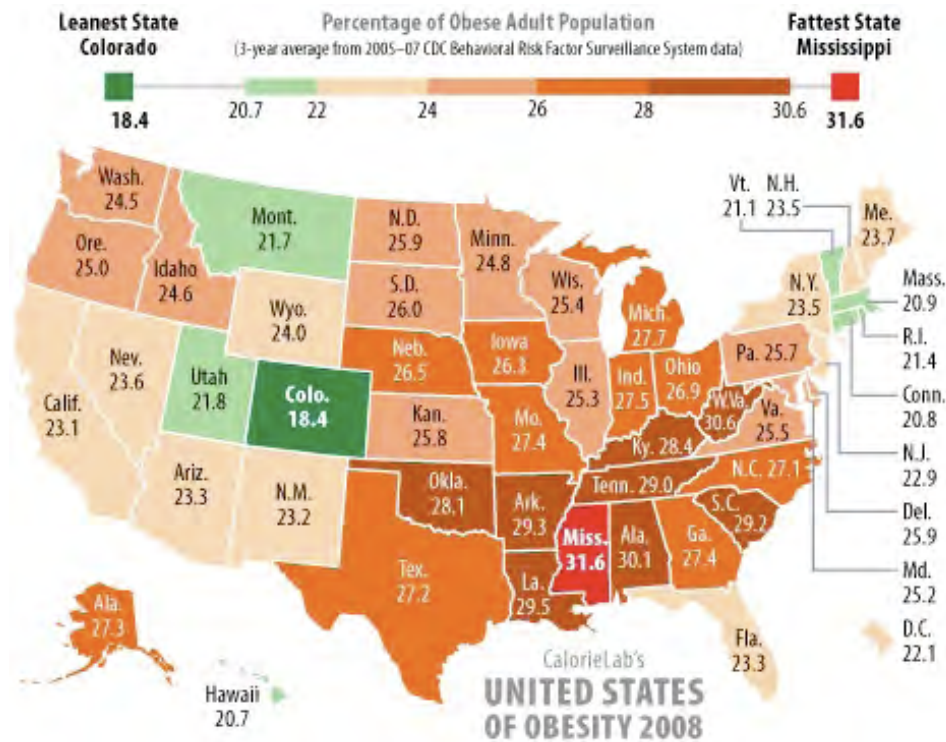
Why It's Important to Provide Active Transportation Choices



Health!

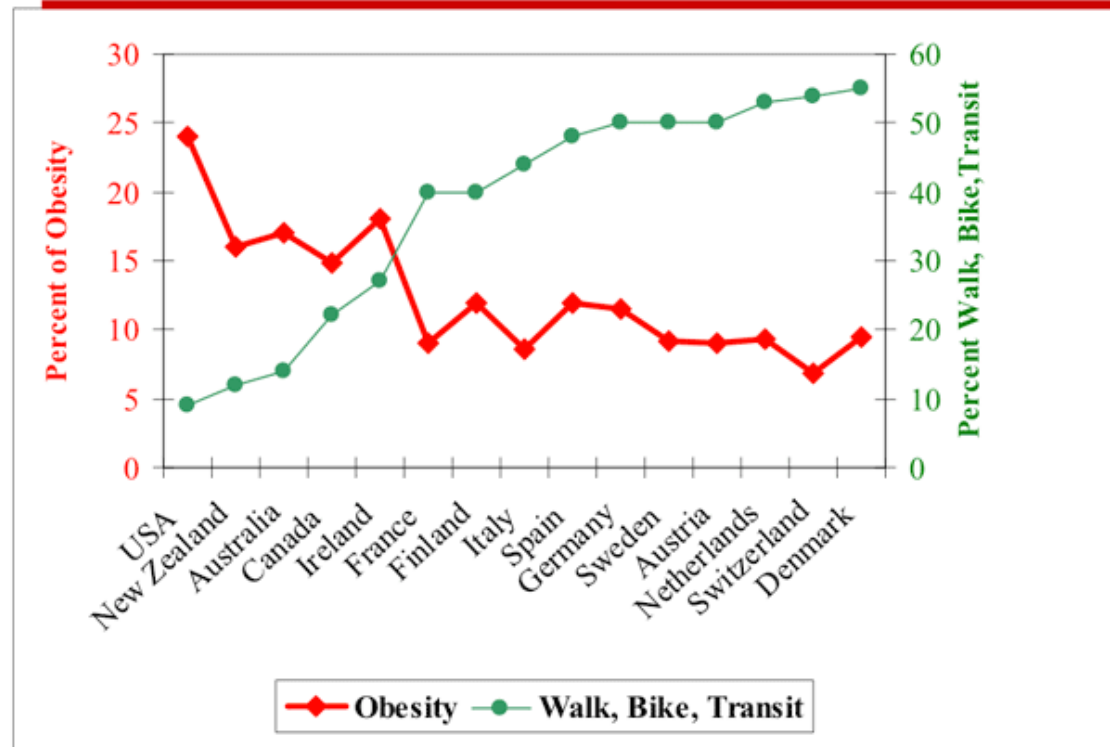


Health: United States of obesity



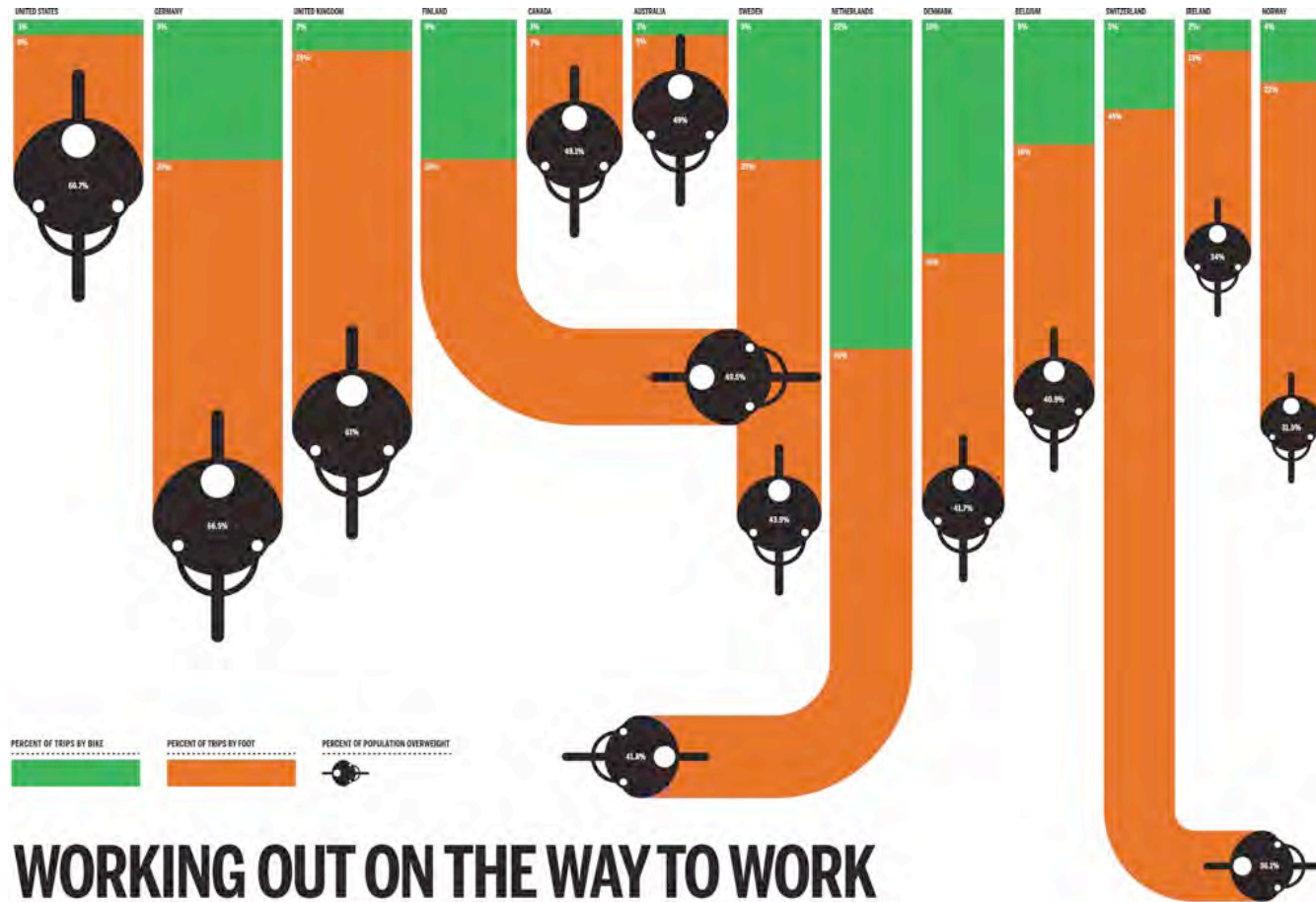
Health: auto-dependency and obesity

Does auto-dependency make us fat? Obesity falls sharply with increased walking, cycling, and transit use!



Source: Huffington Post

International: bicycling, walking and obesity rates



WORKING OUT ON THE WAY TO WORK

The average American is both overweight and spends more than 100 hours per year commuting, the vast majority of those hours being spent in a car. Are these numbers correlated?

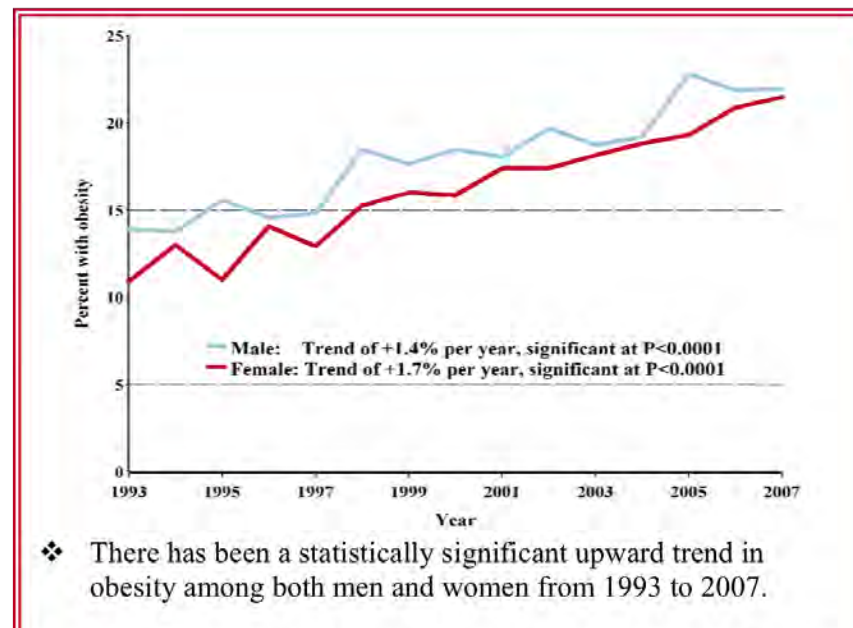
This is a look at the number of active commuters in several industrialized countries, as compared to those countries' obesity rates.

SOURCES: "Walking, Cycling, and Obesity Rates in Europe, North America, and Australia" by David S. Reardon, Jr., John Puffer, Ralph Buckler, David L. Thompson, and Scott E. Crandall; World Health Organization.

NOTE: Australia, Canada, and several transit modes are for work trips only.

A GOOD LINKAGE BETWEEN GOOD AND LAMBSKOP

Rhode Island's Rising Obesity



Healthier Rhode Island 2010 Action Plan

RHODE ISLAND IN 2010: OUR VISION

**INCREASE
QUALITY & YEARS
OF HEALTHY LIFE**



www.health.ri.gov 

RHODE ISLAND IN 2010: OUR VISION

**ELIMINATE
HEALTH
DISPARITIES**



www.health.ri.gov 

A HEALTHIER RHODE ISLAND BY 2010




PHYSICAL ACTIVITY

THE CHALLENGE
Increase the percentage of adults who engage in physical activity for at least 30 minutes a day.

FROM 22% (1998-2000) TO 30% (2010 GOAL)

www.health.ri.gov 


A HEALTHIER RHODE ISLAND BY 2010



OVERWEIGHT & OBESITY

THE CHALLENGE
Increase the percentage of people who eat at least 5 daily servings of fruits and vegetables.

FROM 27% (1998-2000) TO 50% (2010 GOAL)

www.health.ri.gov 

Positive health stats

- Adults who bike to work have better weight, blood pressure, and insulin levels. ([Gordon-Larsen, P., et al., 2009](#))
- Women who bike 30 minutes a day have a lower risk of breast cancer. ([Luoto, R., et al., 2000](#))
- Adolescents who bicycle are 48% less likely to be overweight as adults. ([Menschik, D, et al., 2008](#))



A preventable public health crisis: Traffic violence is the #1 reason children die



Source: Streetsblog

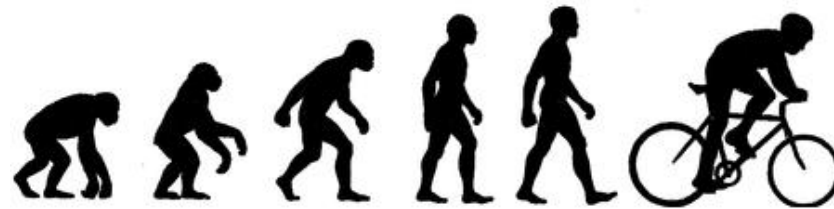
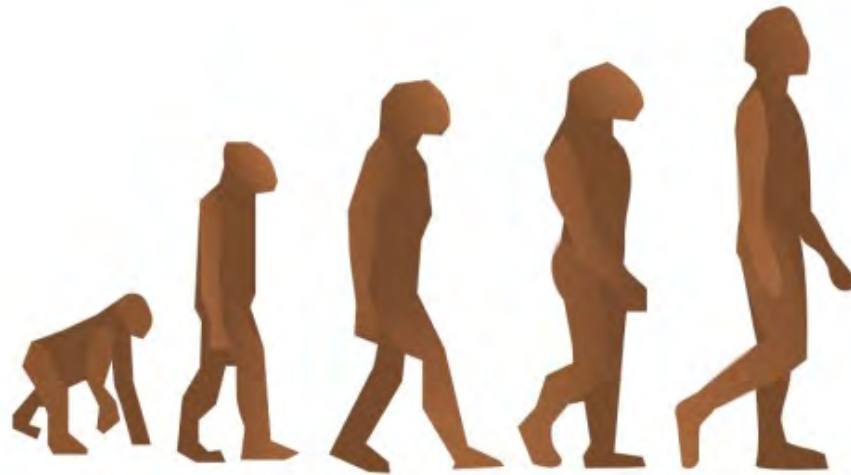
2008: 37,261 traffic crash fatalities



Fun!



What Makes a Walkable, Bikeable Place?



Walkable neighborhood design



Walkability + Bikeability

- ***Walkability and Bikeability*** is primarily determined by *neighborhood design.*



- Neighborhood structure - center and edge
- Small blocks, pedestrian-friendly
- Connected Streets, with a network of bikeways
- Diversity of land uses



- No clear center and edge
- Erosion of block structure, auto-oriented
- Disrupted grid
- No diversity of land uses

Bikeability = walkable neighborhood + a network of appealing bikeways



Walkability in context



Corner Store



“Corner Store”



Boulevard



“Boulevard”

Bicycle parking



Bicycle parking types



Other bikeway network enhancements



Bicycle and Pedestrian Planning



GIVE WAY
TO



Bicycle and Pedestrian Planning

- Bicycle and pedestrian planning is the process of assessing and addressing the needs of a community in the area of bicycle and pedestrian infrastructure, programs, and policies.
- Ultimately, bicycle and pedestrian planning is about **giving a community more viable transportation choices that complements the existing transportation network** — alternatives that encourages lively streetscapes, a healthy population, and a more livable and sustainable built and natural environment.

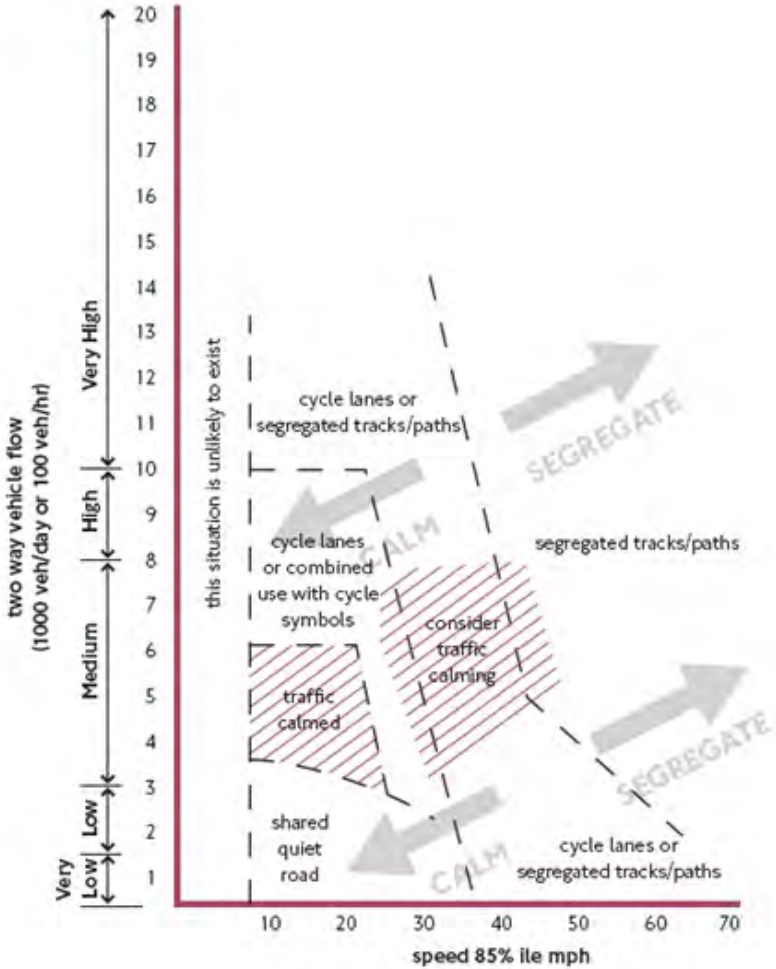


A complete framework: The Six E's

- Engineering
- Education
- Encouragement
- Enforcement
- Evaluation and Planning
- Equity



Engineering



Education



WHAT IS A BIKE BOX?

The bike box is an intersection safety design to prevent bicyclist collisions, especially those between drivers turning right and bicyclists going straight. It is a green box on the road with a white bicycle symbol inside. It includes green bicycle lanes approaching and leading from the box.

WHY GREEN?

Although Portland is known for its blue bike lanes, federal transportation officials thought blue could be confusing since it is also the color used to indicate disabled parking. A national committee that works on such issues has recommended that green be the standard color for bicycle lanes and boxes.

If you have questions, comments or feedback about bike boxes, please contact the Portland Bicycle Hotline at (503) 825-CYCL (2925) or visit www.GrowingArmsPortland.org

Please be safe and courteous. There's a lot riding on it.

WHAT TO DO.

**Get Behind It
THE BIKE BOX**

Portland's new green space



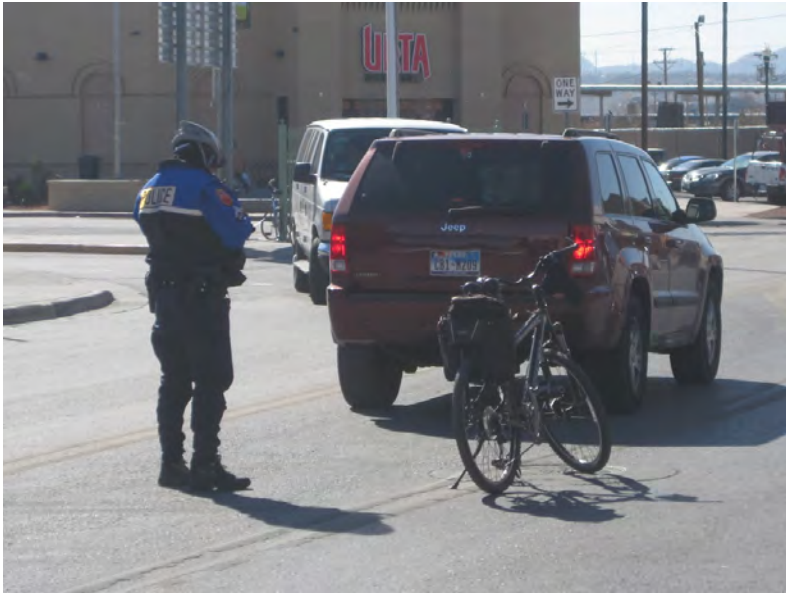
Encouragement



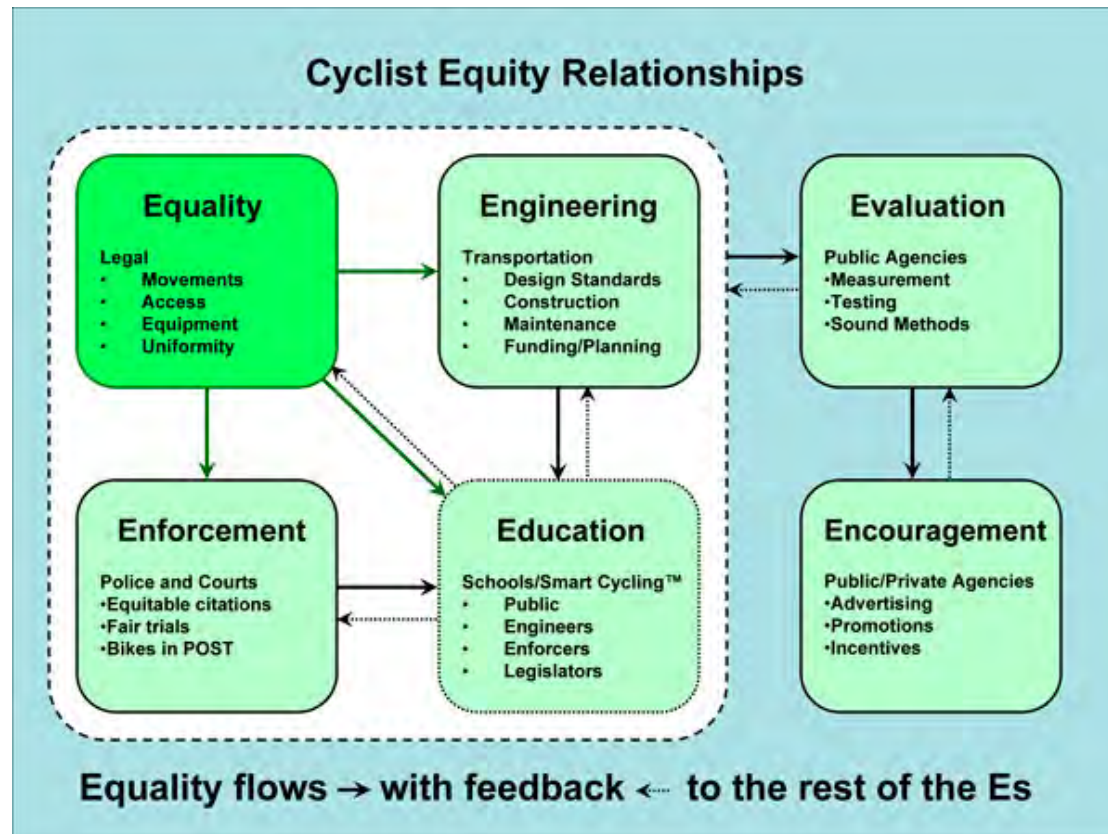
Open Streets



Enforcement



Equity



Planning today requires “upside down” thinking



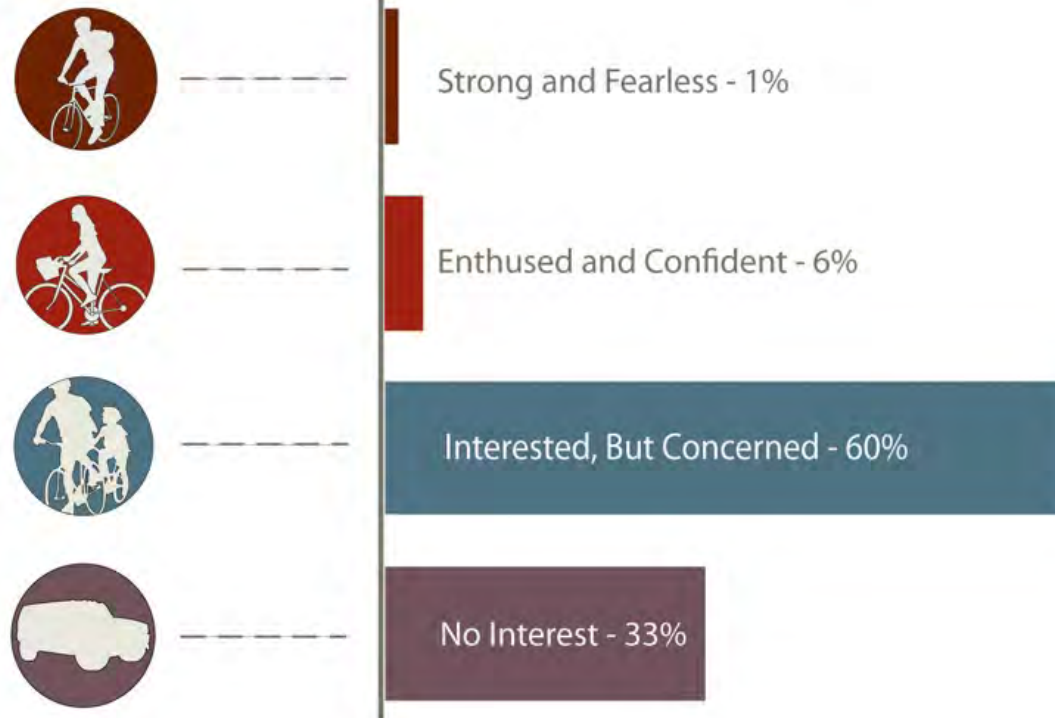
One simple rule

- “If cycling is to be universally adopted as a means of transportation, then the concerns of the majority must be addressed.” Roger Geller



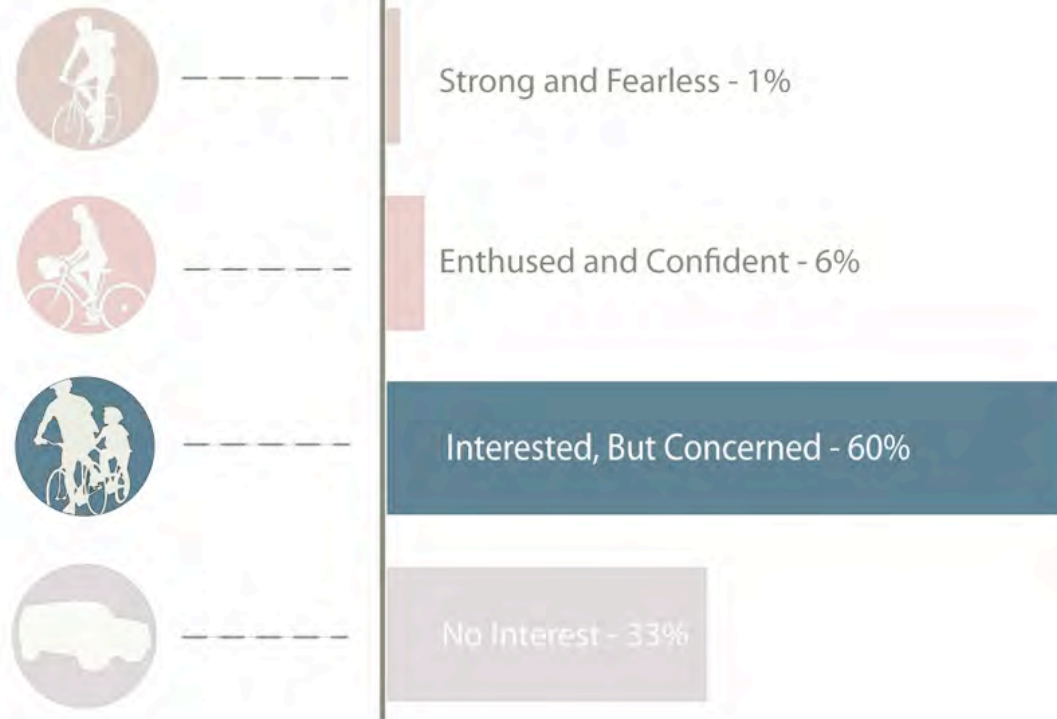
Who bicycles today?

The Four Types of Bicyclists



Know your market!

The Four Types of Bicyclists



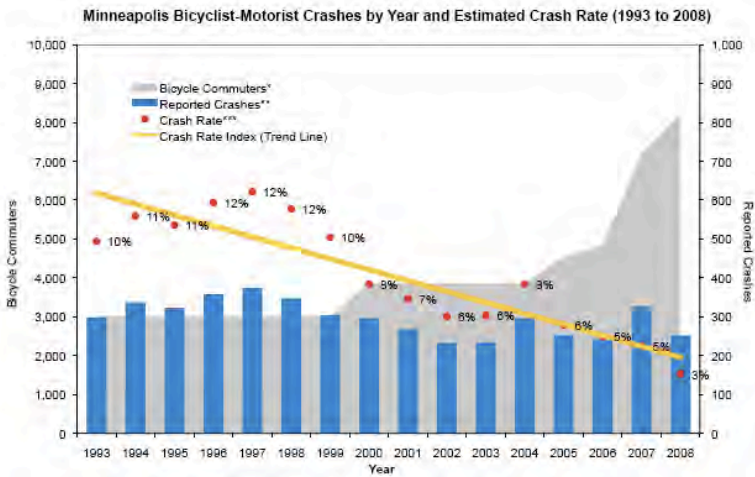
Recognize user needs, and then plan for them!



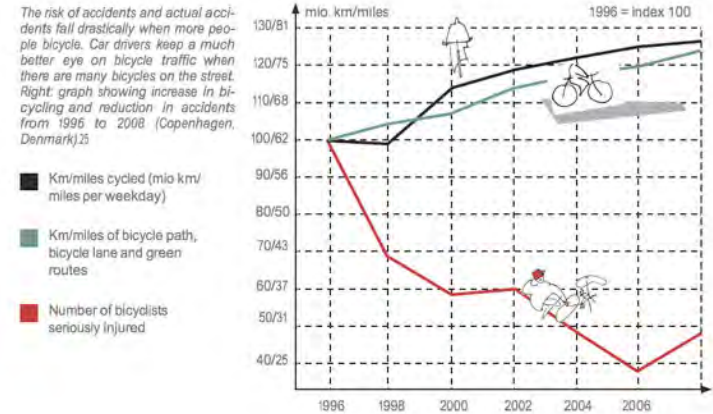
Indicator species: women, children, older adults



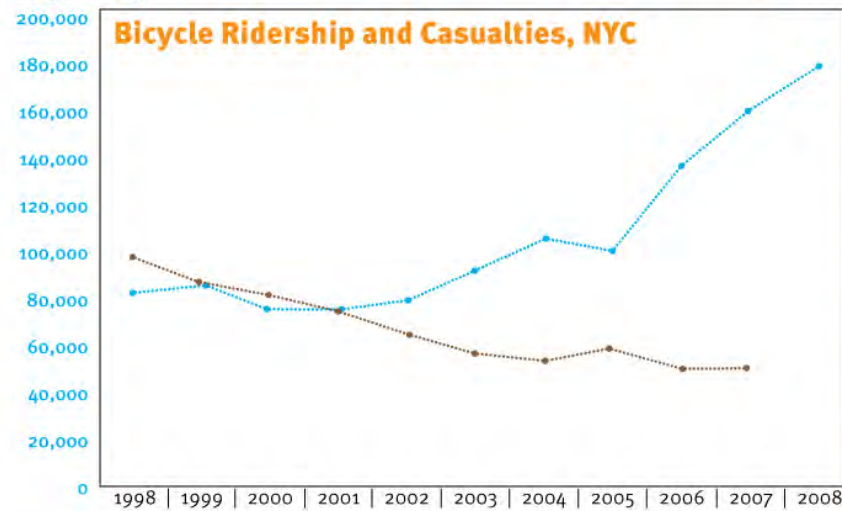
Bicycle crashes: safety in numbers



the more bicycles, the safer the bicyclists



Daily Ridership



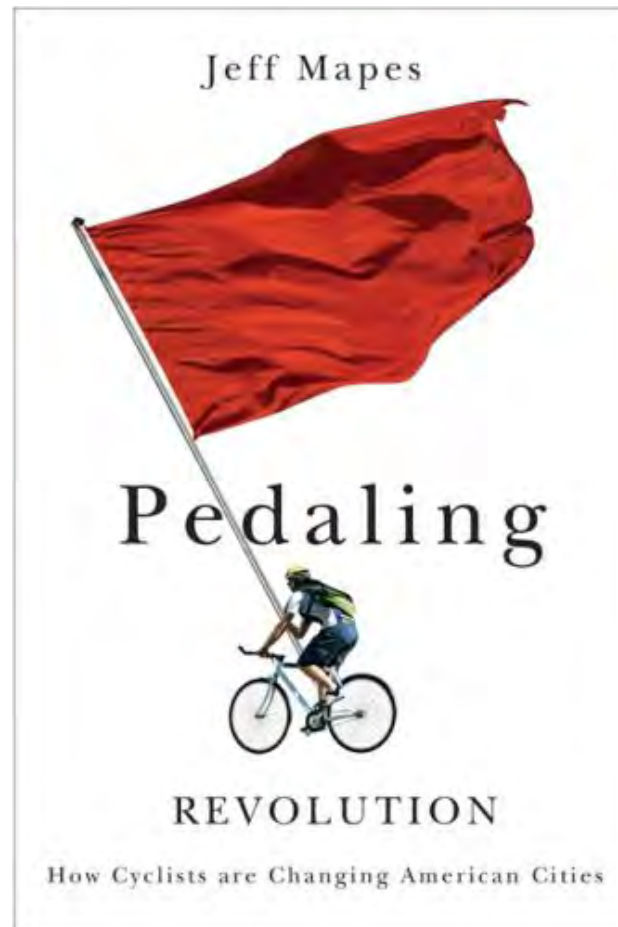
Annual Casualties (Injuries and Fatalities)



Take action: what can North Kingstown do?

- Create a Bicycle and Pedestrian Advisory Committee
- Conduct outreach to neighbors, businesses, leaders
- Establish a road map: Bicycle and Pedestrian Action Plan
 - Look for short-term physical and policy improvements (ex. Bike parking ordinance)
 - Look for opportunities to incorporate bikeways into roadway re-paving and reconstruction projects
- Pursue funding anywhere and everywhere
- Pursue a bicycle and pedestrian master plan using the 6 E's

Pedaling Revolution



Work together



Volunteer!



PEDESTRIAN INTERCEPT SURVEY

Are you a resident of this neighborhood? YES NO

What is your age?

Check your primary mode of transportation when traveling to:

| | WALK | BIKE | SUBWAY/BUS | TAXI | CAR |
|---------------|------|------|------------|------|-----|
| WORK/SCHOOL | | | | | |
| SOCIAL/VISITS | | | | | |
| SHOPPING | | | | | |
| RECREATION | | | | | |

Check how safe this area is for:

| | VERY SAFE | SAFE | AVERAGE | UNSAFE | EXTREMELY UNSAFE |
|-------------|-----------|------|---------|--------|------------------|
| PEDESTRIANS | | | | | |
| CYCLISTS | | | | | |
| DRIVERS | | | | | |

Have you ever observed drivers breaking the law in this area? YES NO

If yes, check how often you have seen illegal driver behavior:

VERY OFTEN OFTEN REGULARLY INFREQUENTLY VERY INFREQUENTLY

Have you ever felt endangered by traffic while walking in this area? YES NO

If yes, check how often you have felt this way:

VERY OFTEN OFTEN REGULARLY INFREQUENTLY VERY INFREQUENTLY

Do you avoid areas of your neighborhood because you feel endangered by lawless driving?

YES NO

Dear Mayor,

I love to bike and so does my family. These are some ways I think would help North Kingstown be a more bike-friendly place. One way I think would work very well would be to make a safe bike lane along Route 1 from Wickford to the Quonset Bike Path. That way shoppers could shop at Dave's Marketplace and Kohl's, or get a haircut at Supercuts, all without using their car. Also, the workers at Quonset could commute to work on their bikes. People could use the bike path for transportation and recreation.

Students could also go to school on their bikes because many of the town's schools are on or near Route 1. Another idea I have is to repair the second part of the Quonset Bike Path for safety so that it would encourage children to ride their bikes on it.

I also suggest a safe bike path from Route 1 up Route 102 to Wickford Junction where there are stores and soon will be a commuter rail.

I have noticed that people in my town rely on their cars too much. By using my ideas, we could make it much easier and safer for people to use their bikes to go to school, shop and commute. I have drawn my ideas on this map. Those are all my ideas. I hope you try them out!

Sincerely,
Alex D. D'icenso



Case Study: City of Miami



2007: Sometimes change starts with a letter...

URBAN PLANNING

BY MIKE LYDON
urbanplanner45@hotmail.com

An increasing number of cities, large and small, welcome bicycling as an energy efficient, healthy and economically sustainable means of alternative transportation. Chicago, for example, is currently implementing its Bike 205 Plan, which makes bicycling an integral part of the city's daily life through infrastructure projects, programs and policies. Likewise, a bicycle master plan underway in Portland is upholding and expanding its reputation as the most bicycle-friendly city in America.

Looking internationally, in just a few years Bogotá has implemented a highly integrated citywide bicycle system, and every Sunday it hosts Ciclovía, an event that closes 70 miles of the city's streets to traffic, allowing bicyclists and pedestrians to celebrate a car-free public realm.



LYDON

Perhaps more dramatically, Paris executed a citywide bicycle sharing system that transformed it into one of Europe's most bicycle-friendly cities. Indeed, with well over one million rides logged on 23,000 low cost bicycles available at high-tech stations, the City of Light has repositioned itself to also become the city of bikes.

In contrast, Miami is choosing not to compete. To date, locating a sidewalk bike rack is more difficult than securing a Saturday night parking spot near Lincoln Road. On-street bike lanes simply do not exist. Nor do street signs directing motorists to share the road with their two-wheeled "subordinates."

Cyclists do not have a bicycle sharing program to look forward to, or even a simple bike map showing them the friendliest

Let's connect some of the city's up-and-coming destinations, too far to reach by foot, but too frustrating to reach by car — the Biscayne Corridor, Design District, Wynwood, Downtown, Brickell, Little Havana, Little Haiti and Coconut Grove.

streets on which to travel. What's worse, there seems to be surprisingly little commitment by the city to improve the situation on any level. This runs counter to America's most vibrant cities like Chicago, Portland, Seattle, San Francisco and even our own Miami Beach, where an official citywide bicycle master plan is currently adding signage, bicycle racks and bicycle lanes with great success.

Yet the city of Miami could become a great bicycling city. We have fantastic weather, bicycle friendly flat terrain and a population that seems to enjoy the abundance of outdoor activities that South Florida provides. It's not as if Miami does not have

a fair share of cyclists. I see them on my daily commute from the beach, through downtown and into Little Havana. I also bicycle with them in the monthly critical mass ride over the Rickenbacker Causeway to Virginia Key and Key Biscayne.

We just need to better accommodate them, and we can. The city's ubiquitous grid features many wide street right-of-ways that, where appropriate, easily could include bicycle-related infrastructure. Such a system should connect some of the city's up-and-coming urban destinations, too far to reach by foot, but too frustrating to reach by car — the Biscayne Corridor, Design District, Wynwood, Downtown,



Brickell, Little Havana, Little Haiti and Coconut Grove, as well as the city's outlying neighborhoods.

If Miami is to unlock its great bicycling potential, it must consider hiring a bicycle planner (yes they do exist) to create an ambitious bicycle master plan, and one that supplements the provisions of the Miami 21 plan. The bicycle plan must be city-wide and address everything from safety and education to actual policy and infrastructure implementation. Moreover, the plan should set realistic benchmarks that are able to be realized in both the short and long term.

So what gives, Miami? Why don't we have an official bicycle planner on staff aiding the supposed urban renaissance proclaimed by DWNTWN billboards? Why not be bold and make Miami a year-round cycling destination? The benefit received from creating a bicycle plan would do much to change the perception of the city, internally and externally. It would also improve the city's livability. Why should we settle as a perpetually pedestrian and bike unfriendly city? We know that sinking more money into auto-oriented infrastructure only makes congestion and pollution worse. We know our current modes of automobile transport are inadequate, frustrating and contribute to global warming, an issue that all South Floridians must take seriously.

It's time for the city to move in a new direction — one relying upon more pedestrian and bike-friendly urban forms as a means to achieving a vibrant, sustainable city for the 21st century. However, without recognition from city officials, Miami's great potential has little chance of becoming a reality. A bike planner might just be the best place to start.

Mike Lydon is an urban planner and bicycle advocate in Miami.

2008: Miami, FL - Top 3 Worst U.S. Cities for Cycling

The image is a screenshot of the Bicycling website. At the top, the word "Bicycling" is written in a large, bold, orange font. Below it, there is a navigation bar with links for "HOME", "BIKES & GEAR", "RIDES", "NEWS & PEOPLE", "TRAINING", and "FIX IT!". A search bar is located to the left of the navigation bar. Below the navigation bar, there are several menu items: "GPS MAPS AND RIDES", "SIGN IN", "SIGN UP FOR A FREE MAP ACCOUNT", "FIND A RIDE", "RIDE MAP HOW-TO", "RIDE MAP FAQ", "ALL OVER THE MAP BLOG", "BRITISH COLUMBIA SLIDESHOWS", and "BEST CITIES". On the right side of the page, there is a sidebar with "Sponsored Features" and "Special Advertising Section". The main content area is titled "RIDES: OTHER" and "Worst Cities For Cycling". The article is by Christine Mattheis and is titled "Worst Cities For Cycling". The article text discusses the challenges of cycling in various cities, including Dallas, Memphis, Tennessee, and Miami. The Miami section states: "In Miami, the terrain lies pancake-flat and the sun shines bright nearly every day—perfect conditions for cycling. But Miami-Dade County has done little to foster safer streets for bikes, despite the fact that Florida ranks second in the nation in bicycle fatalities and that much of Miami's poorer population relies on bikes for transportation. The county enacted the Bicycle Facilities Plan in 2001, but it failed to state any specific goals. The city of Miami has no finished lanes, and the only one under construction is less than a mile long. The rest of the county's lanes are just as short, appearing randomly and disappearing a few blocks later. 'We're so far behind and in the dark with bikes it's absurd,' bike-shop owner Chris Marshall told the Miami New Times in January. 'I'd say we're stuck in the '60s, but it's worse than the '60s. In the '60s you could still get around by bike.'"

“...Miami-Dade County has done little to foster safer streets for bikes, despite the fact that Florida ranks second in the nation in bicycle fatalities and that much of Miami’s poorer population relies on bikes for transportation.”

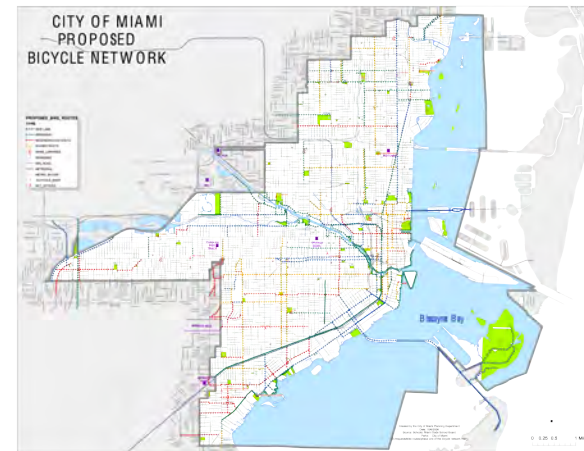
“We’re so far behind and in the dark with bikes it’s absurd. I’d say we’re stuck in the 60s, but it’s worse than the 60s. In the 60s you could still get around by bike.” - Bike Shop Owner

2008: Miami Bicycle Action Plan

Bicycle Action Plan

for the
City of Miami

October 2008



Bike Miami Rides



Bike Miami Days



2009: Miami 2030 Bicycle Master Plan



2009: What a difference a year makes

Home » BikeTown » Program History » Improving Every Day

BIKETOWN

PROGRAM HISTORY

BikeTown 2009 Recap: Miami, Florida

Improving Every Day

After being named to Bicycling's Worst Cities for Cycling list in 2008, Miami has begun to turn itself around.

By Emily Furia
Tags: BikeTown

Like Comments (0)



"It's too bad we don't have a copy of that article here today, so we could make the editors from Bicycling eat their words!" - Speaker at BikeTown Miami, "welcoming" the crowd to our giveaway.

To say that Miami was excited about hosting Bicycling's BikeTown would be a gross understatement. In June 2008, we'd named the city one of the worst places in the United States to ride a bike, and the response was exactly what we'd hoped for: Over the past year, the city added bike lanes and Share the Road signs, and hosted group rides to introduce more people to cycling. Mayor Manny Diaz created [Bike Miami Days](#), celebrations that allow residents to enjoy car-free streets, yoga classes, live music, free bicycle rentals and more. It's safe to say Miami will not be on the "worst cities" list when our 2010 rankings come out.

Kathryn Moore, special aide to the mayor, says that surrounding communities are taking notice of the city's cycling projects. "It's driven people to go to their policymakers and say 'If Miami can do this, why can't we?'" she says.

“Over the past year, the city added bike lanes and Share the Road signs, and hosted group rides to introduce more people to cycling. Mayor Manny Diaz created Bike Miami Days, celebrations that allow residents to enjoy car-free streets, yoga classes, live music, free bicycle rentals and more. **It’s safe to say Miami will not be on the ‘worst cities’ list when 2010 rankings come out.**”

2010: Moving in the right direction

Bike Blog
After Being Ranked One of the Worst, Miami Named 44th Best City for Biking

By Kyle Munzenrieder Tue., Apr. 6 2010 at 2:11 PM
Categories: **Bike Blog**

Share Like Submit 6 reviews 0 Digg

Former Mayor Manny Diaz made bicycling a key part of his agenda (so much so that he's now under a **weird ethics investigation** for accepting a bicycle from his staff as his going-away gift), and now *Bicycling* magazine has named Miami one of the best cities for bicyclists in America.



In 2008, the magazine singled out Miami as one of the **three worst cities** for two-wheelers, but now the magazine has named it a rising star and placed it as the 44th best city for bikers. The rankings take into account "number of bike lanes, municipal bike racks, bike boulevards, government interest in cycling improvements, bike culture, etc." as well as interviews with local bike shop

“ In a complete turnaround, Miami has now adopted a Bicycle Master Plan— launching education initiatives, installing greenways and bike lanes, and even creating Bike Miami Days, which shuts down a 10-block stretch and offers free bike rentals and check-ups to encourage interest.”

2011: Bike-Friendly Community Honorable Mention!

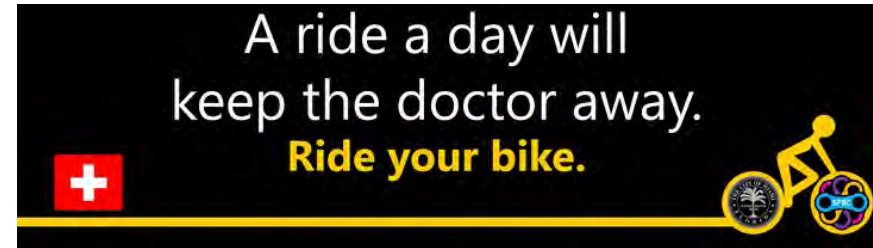
Fall 2011 Honorable Mentions

- Cincinnati, Ohio
- College Station, Texas
- Conyers, Ga.
- Dubuque, Iowa
- Erie, Colo.
- Gahanna, Ohio
- Greenville, N.C.
- Hagerstown, Md.
- Lafayette, Calif.
- Leawood, Kan.
- Lee's Summit, Mo.
- Logan, Utah
- Los Angeles, Calif.
- Memphis, Tenn.
- Miami, Fla.
- Orange County, Calif.
- Phoenix, Ariz.
- Pleasanton, Calif.
- Portland, Maine
- Rancho Cordova, Calif.
- Reston, Va.
- River Falls, Wis.

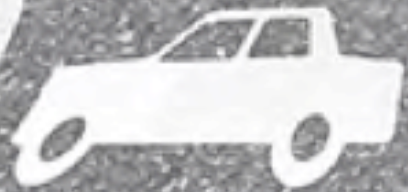
Miami 2030 Bicycle Master Plan: Implementation



Miami 2030 Bicycle Master Plan: Implementation



Exercise #3: Visual Preference Survey



1.



A.



B.

2.



A.



B.

3.



A.



B.

4.



A.



B.

5.



A.



B.

6.



A.



B.

7.



A.



Source: Harwood Historic District

B.

8.



A.



B.

9.



A.



B.

10.



A.



B.

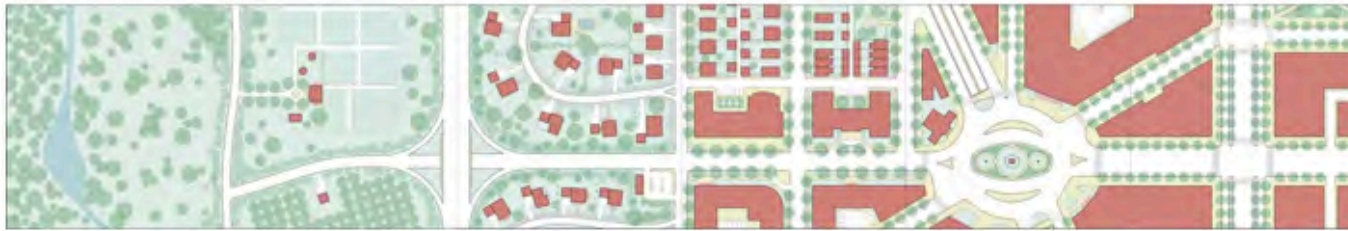
Context



Context Matters! Rural - Suburban - Urban

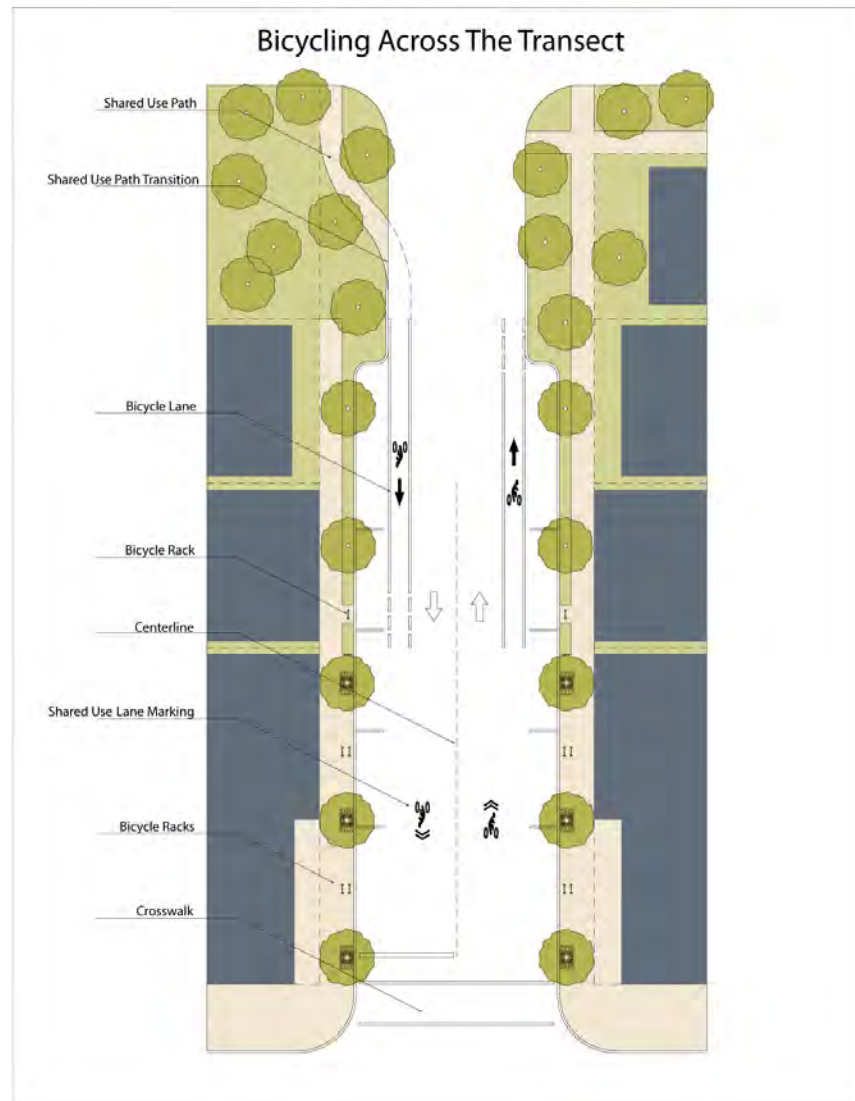


The Urban-to-Rural Transect

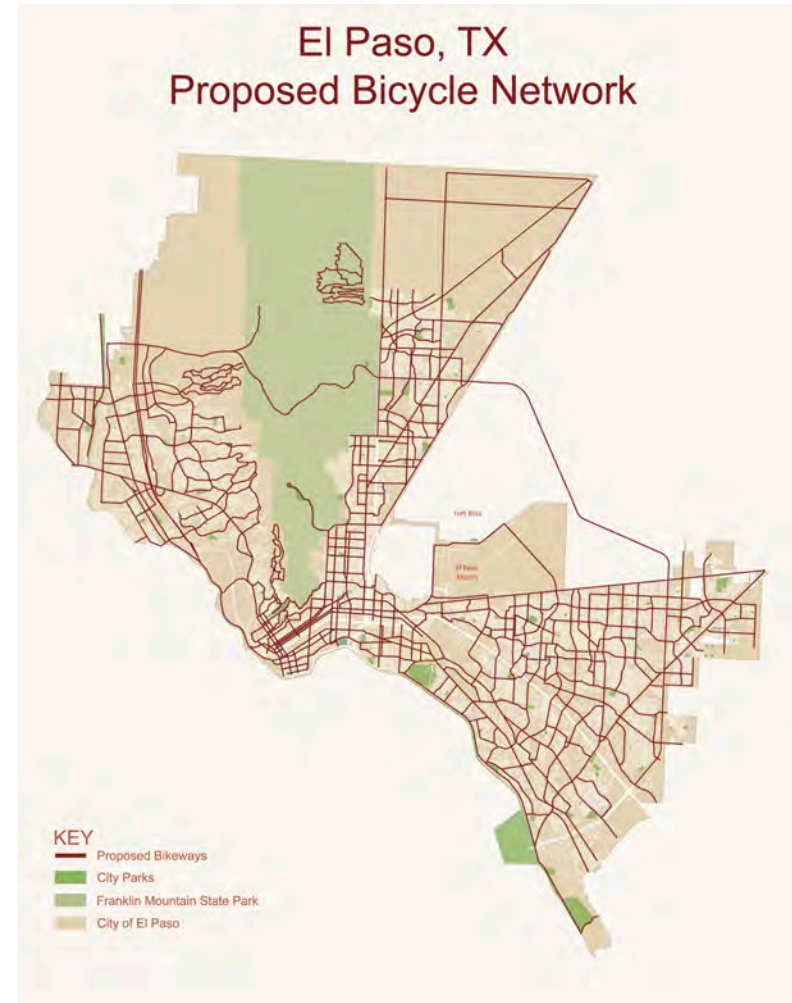
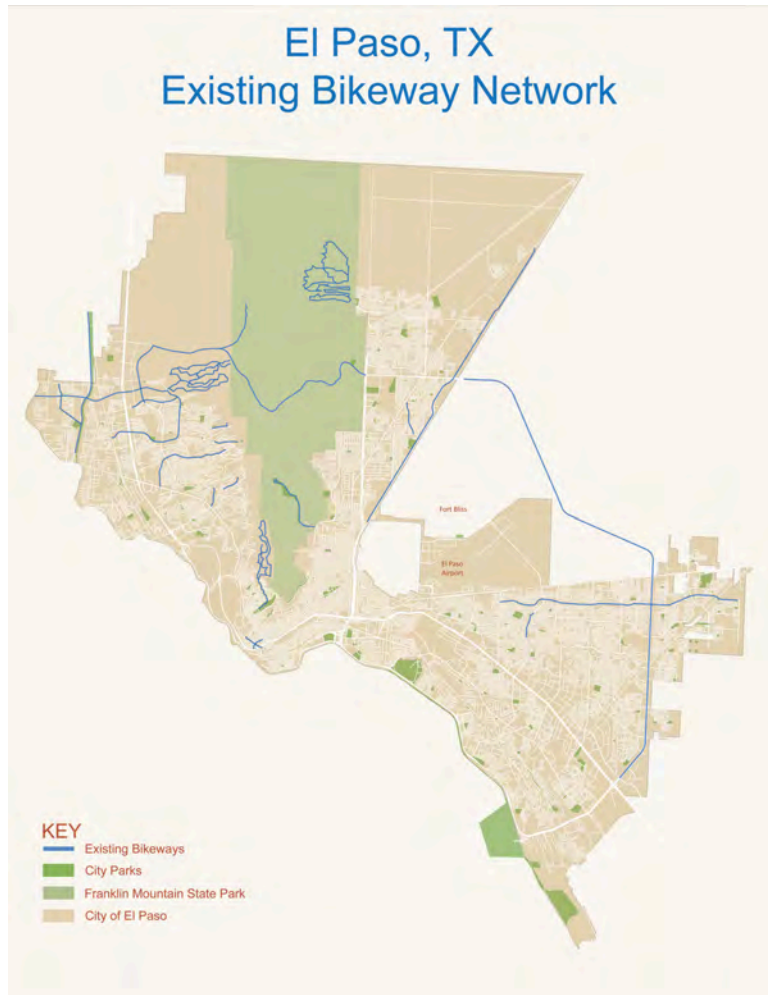


SHOES

Bicycling across the transect



Network Plans



Bicycle Shed: Integrating Walking, Cycling + Transit



Complete Detailed Network Plan

ON-STREET BIKEWAY NETWORK PLAN FINAL BIKEWAY NETWORK

- Proposed Sidepath
- Proposed Bicycle Lane
- Proposed Highway 36 Bike Route
- Proposed Signed Bicycle Route
- Proposed Shared Use Lane Markings
- Unincorporated Areas



Visualizing alternatives: existing condition



Option 1: shared use lane markings (sharrows)



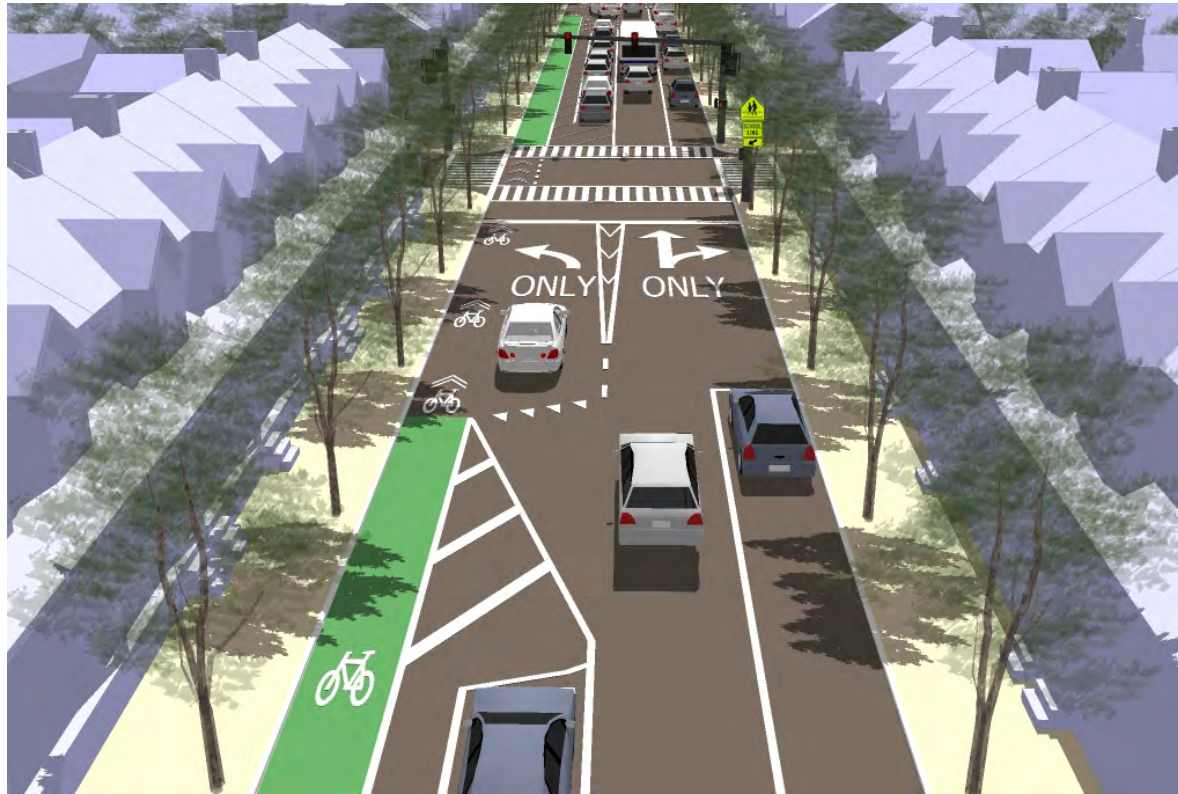
Option 2: advisory bike lane



Option 2: buffered bicycle lane



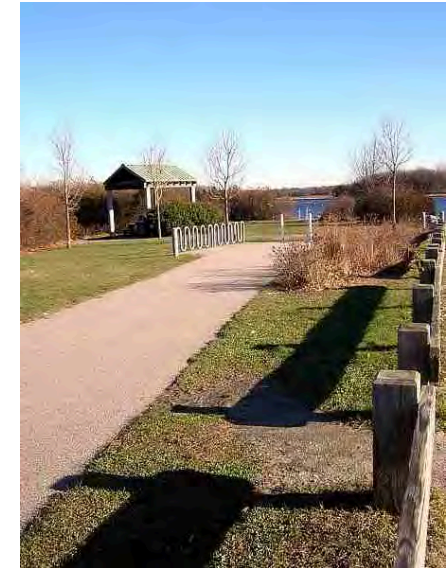
Option 4: parking protected lane



Option 5: permanent cycle track



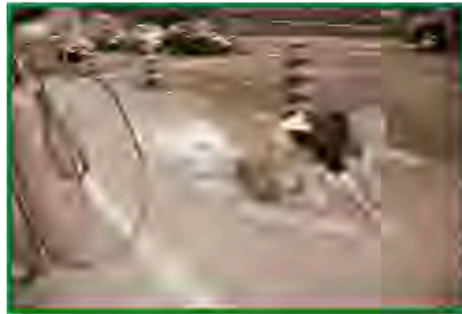
Rhode Island Case Studies: What Works Here?



Funding and Implementation



Benefits of active transportation investment



PEDESTRIAN AND BICYCLE INFRASTRUCTURE: A NATIONAL STUDY OF EMPLOYMENT IMPACTS

HEIDI GARRETT-PELTIER

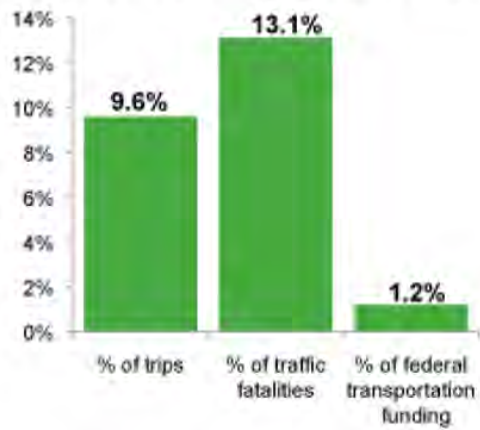
Political Economy Research Institute
University of Massachusetts, Amherst

[“Bike/Ped Projects Create 46% More Jobs Than Road-Only Projects”](#)

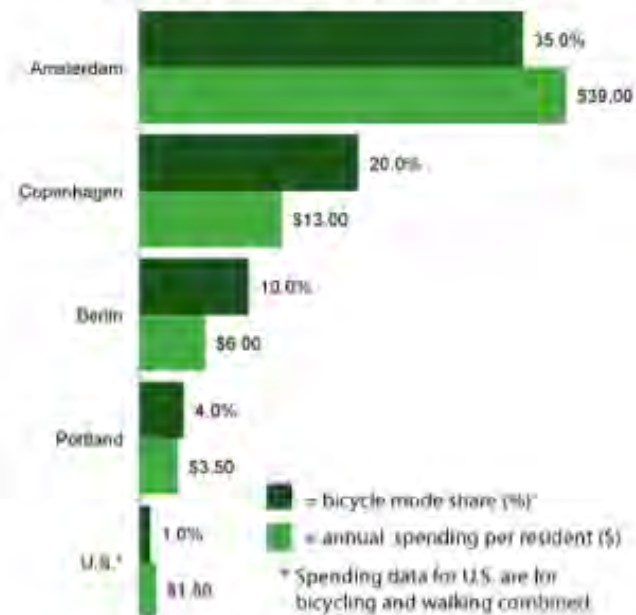
– Public Economy Research Institute

We get what we pay for

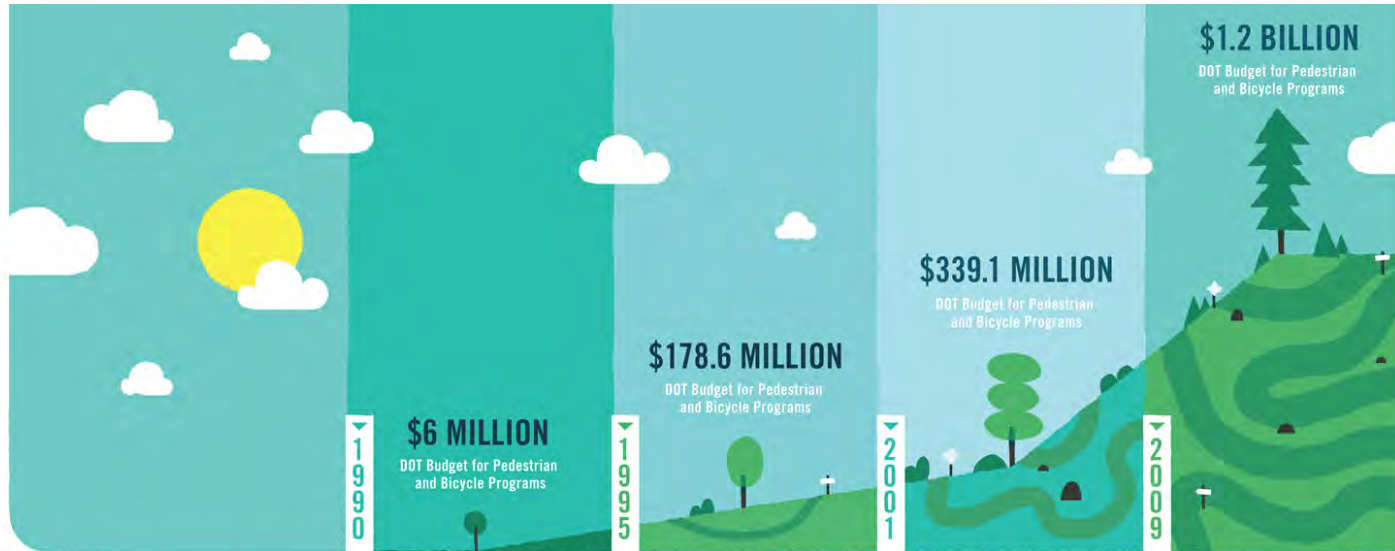
Levels of Bicycling and Walking, Bike/Ped Fatalities, and Bike/Ped Funding in the U.S.



Bicycle Funding and Mode Share

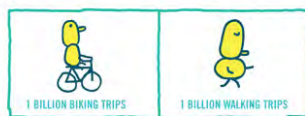


The good news

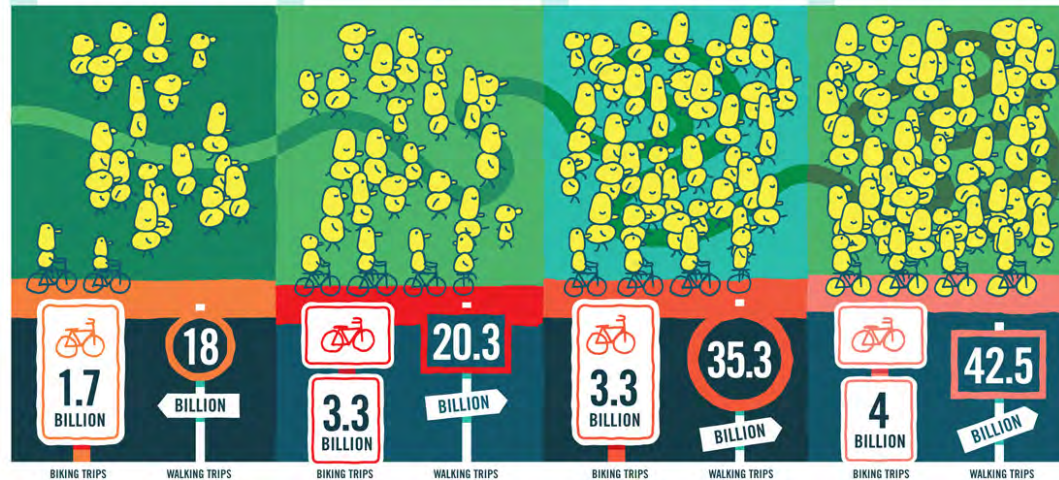


FOOT POWERED

It's summer, and you may be seeing more people out on the street walking and biking. But it's not just because the weather is nice. There are more people walking and biking year round, and the Department of Transportation is responding by dramatically increasing the amount of money spent on projects for pedestrians and cyclists. This is a look at the rise of foot-powered travel in America.



A COLLABORATION BETWEEN GOOD AND PART & PARCEL
SOURCE Department of Transportation



Federal Funding Sources

Some federal programs for bicycle and pedestrian project funding include:

Transportation Enhancements (TE):

The primary source of funding for bicycle and pedestrian improvements.

Congestion Mitigation and Air Quality Improvement Program (CMAQ):

Primarily used for general air-quality improvement projects; also used for bicycle facilities, pedestrian walkways and projects promoting safe bicycle use.

Surface Transportation Program (STP):

In addition to funding motorized transportation, provides funds for independent bicycle and pedestrian projects.

High Priority Projects (HPP):

Earmarked projects identified in federal legislation.

Recreational Trails Program (RTP):

Used to develop and maintain trails and facilities for both motorized and non-motorized recreational use.

Transportation, Community and System Preservation Program (TCSP):

Provides funding for innovative projects including bicycling, walking and traffic calming.

American Recovery and Reinvestment Act (ARRA):

Included funding for infrastructure development to stimulate the economy.

Safe Routes to School (SRTS):

A national initiative funding infrastructure and encouragement activities to enable all children to walk or bicycle to school.

Nonmotorized Transportation Pilot Program (NTPP):

Funded the improvement of bicycle and pedestrian networks in 4 communities to demonstrate the transportation load that walking and bicycling can support.

Funding: Rhode Island

Figure 1. Average annual per capita federal funding obligations (\$) for bicycle and pedestrian projects in Rhode Island, FMIS FY 1992-2009

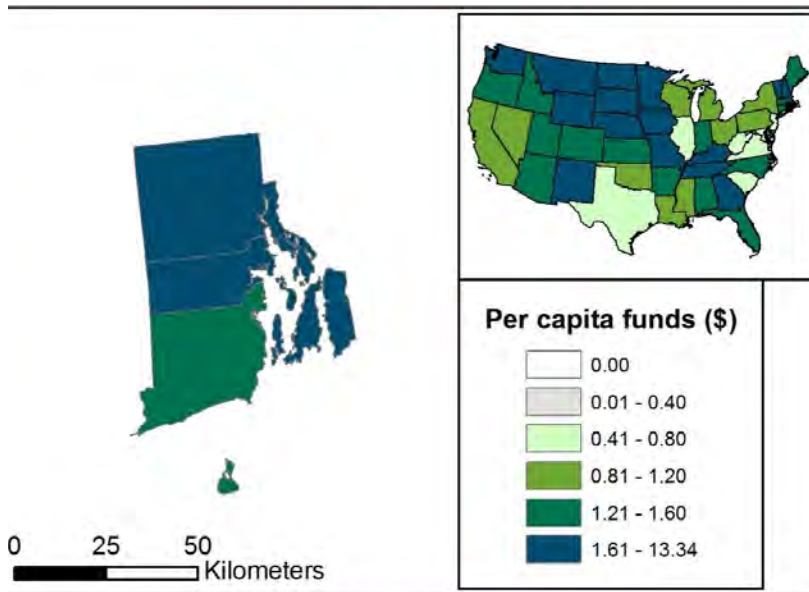
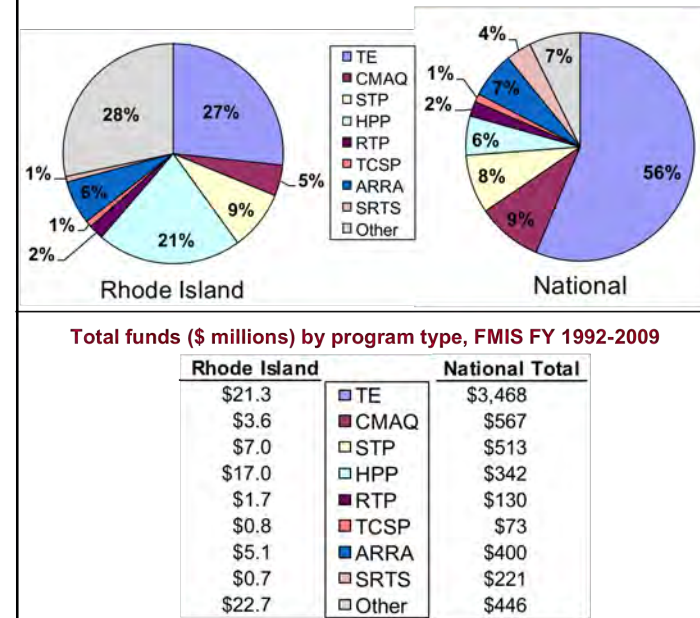


Figure 2. Percentage (%) of total bicycle- and pedestrian-related funding by program type, FMIS FY 1992-2009



Source: Harvard School of Public Health

Funding Comparison



Source: RIDOT

A mile of bike lanes costs approximately \$5,000 - \$50,000



Source: New York Times

A mile of freeway through an urban area costs approximately \$39 million, while a mile of freeway through a rural area costs approximately \$8 million.

Your town is an heirloom



Questions and Discussion



The Street Plans 
Collaborative

Mike Lydon
mike@streetplans.org
www.streetplans.org

Handlebar Survey Report

An Assessment of Bicycling Conditions for:
North Kingstown, Rhode Island
10/13/11





The Handlebar Survey Team: From left, Denise Kaplin, John Nosach, Tom Emrich, and Jim Hoard.

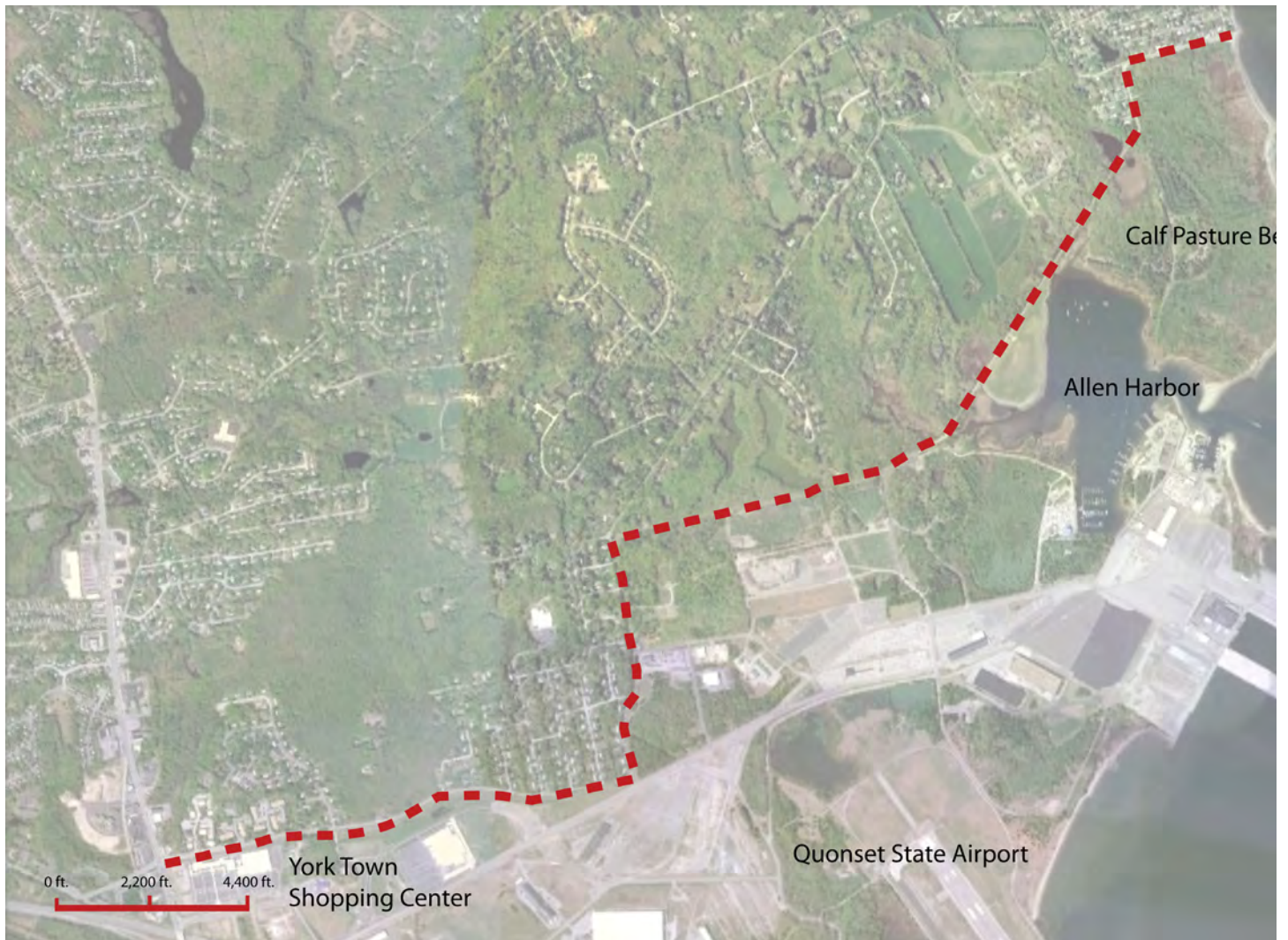
SUMMARY

The Handlebar Survey gathers qualitative and quantitative information regarding existing cycling conditions. The Street Plans Collaborative worked with the GrowSmart Rhode Island Healthy Places by Design team and local stakeholders to identify existing opportunities and barriers for improving bicycling conditions in North Kingstown. The Survey was completed by the group, who bicycled portions of the Town. The information collected includes, but is not limited to the following:

- Current Bicycle and Pedestrian demand
- The sense of comfort and safety felt while cycling different streets
- Extant street widths and types/characteristics

(rural, sub-urban, village)

- Pedestrian and bicycle network gaps
- Signalized intersections
- Posted and actual vehicular speeds
- Land use characteristics
- Open space and regional connections
- Public transportation options/bicycle integration
- Bicycle parking supply/demand
- Bicycle parking type, location, and quality
- Pedestrian and bicycle trip generators
- Existing pedestrian and bikeway infrastructure
- Interactions between motor vehicles, pedestrians, and bicyclists
- Safe/unsafe routes, per existing data, interviews, and other qualitative information gathered during the Handlebar Survey
- Wayfinding amenities



The first Handlebar Survey route included the full length of the Quonset Bike Path. The ride began and ended at the western termination of the Quonset Bike Path, located at the intersection of Post Road and Newcomb Road.

THE HANDLEBAR SURVEY

From rural, sub-urban, and compact village centers, the Handlebar Survey team explored North Kingstown and found a variety of built and natural conditions that make bicycling both pleasant and challenging.

Strengths

The ride began along the 2.5-mile Quonset Bike Path, which connects the York Town Shopping Center with Calf Pasture Beach via Perimeter Road (closed to motor vehicles). During the survey, a variety of walkers, runners, and bicyclists were observed using the facility. The Path also provides access for those living in the neighborhoods to the shopping center.

Wilson Park’s location near historic Wickford village and the many recreational amenities found there—including a short .8-mile bike path—make it a natural bicycle-trip generator. The Park also features several bicycle parking racks.

Wickford village’s compact scale, slow traffic, and mix of commercial, residential, and civic land uses puts desirable destination in close proximity for people walking and bicycling—a “park once” strategy that reduces hyper-local automobile trips. The North Kingstown Free Library also features bicycle parking and is connected to West Main Street via a shared pedestrian and bicycle path that bridges a small inlet.



The second Handlebar Survey route began and ended at the Wilson Park boat launch. It included segments of Intrepid Drive, Roosevelt Avenue, West Main Street, Main Street, Brown Street, Phillips Street, Boone Street, and the public library access drive.

Weaknesses

The Quonset Bike Path, Wickford Village and Wilson Park remain disconnected from each other. Few breaks in the fencing along the Path also limits access to/from the neighborhood to the north. Additionally, the western end of the Quonset Bike Path terminates in an auto-dominated area that lacks on-street facilities for bicyclists, thereby limiting the appeal of utility and commuter trips. Similarly, there is a strong need for connected, context-appropriate on-street bikeways between this area of town and the south (Wilson Park, Wickford village) and the neighborhoods to the west of Post Road. Finally, bicycle parking and wayfinding should be expanded all over town, but especially at key destinations and along Brown Street in the Wickford village area.

Opportunities

The Handlebar Survey revealed that even North Kingstown's most committed cyclists don't feel comfortable cycling along many of the route segments. A network of various bikeway types, including paved shoulders, shared use lanes, bicycle boulevards, and buffered bike lanes may be incrementally developed to make cycling more appealing and comfortable for a broader demographic. Additionally, low-cost opportunities such as adding bicycle parking facilities and wayfinding signs at key junctures could make the network more transparent and welcoming. This would be most helpful for visitors and more timid cyclists. Most importantly, land use and transportation decisions should be coordinated to support bicycle and pedestrian trips.



While these “comb” racks are not ideal, the location sends a visible message that bicyclists are welcome at the West Bay Family YMCA.



Because Post Road is unfriendly to bicyclists, Handlebar Surveyors drove the short distance from the YMCA to the Quonset Bike Path.



Car-oriented development patterns waste precious economic and environmental resources and generally make cycling difficult.



The Quonset Bay Bike Path is branded with highly attractive signing.



A “wave” bicycle racks is located at the northern entrance/parking lot serving the Quonset Bay Bike Path.



This gate prohibits automobiles from entering Perimeter Road, effectively extending the Quonset Bay Bike Path to Calf Pasture Beach.



While the pavement is a bit rough, Perimeter Road provides a near idyllic country setting.



Views such as this may be found while cycling Perimeter Road.



Handlebar Survey participants stop at Calf Pasture Beach to analyze the the Quonset Bike Path and Perimeter Road segments.



The western terminus of the Quonset Bike Path forces users into an environment that is hostile to walking and bicycling.



A shared use path loop connects the boat landing and the many ballfields found at Wilson Park.



Located somewhat arbitrarily along the path are a few "wave" bicycle racks.



In Wilson Park, a well-landscaped median reduces the expanse of pavement, forcing people driving to slow down.



On this portion of West Main Street, wide travel lanes could potentially be re-stripped to include bicycle lanes.



Posted speed limits (25mph) are ignored when the design speed of the road allows motorists to feel comfortable traveling at higher speeds.



The land use patterns and intensity of development changes as one transitions into the core of Wickford village.



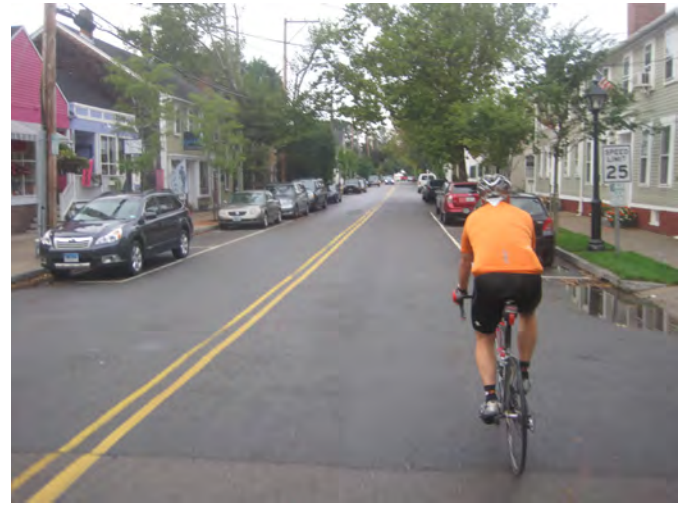
This shoulder appears to be bikeable, but is often used by people parking their automobiles.



As conditions become more village-like, speeds drop and destinations get closer together, making cycling more pleasant and convenient.



Well-marked crosswalks enhance the pedestrian experience and enrich Wickford's historic sense of place.



Narrow travel lanes, on-street parking and buildings built to the street help slow traffic. Shared use lane markings could invite cycling.



Nature and commerce converge at Wickford Harbor and the terminus of Main Street.



If made more welcoming to cyclists, Wickford's working waterfront could be a draw for locals and tourists alike.



Wickford's historic architecture and streetscapes make for a superior public realm.



Wickford's mixed-use land use patterns provide a charming setting scaled to human modes of transportation, like bicycling and walking.



Updike Park is a very attractive amenity, but could further serve bicyclists with bicycle parking.



Pedestrian markings along Brown Street give warning to bicyclists and motorists.



Brick-laid crosswalks and human-scale lamp posts form the aesthetic hallmarks of the Wickford village core.



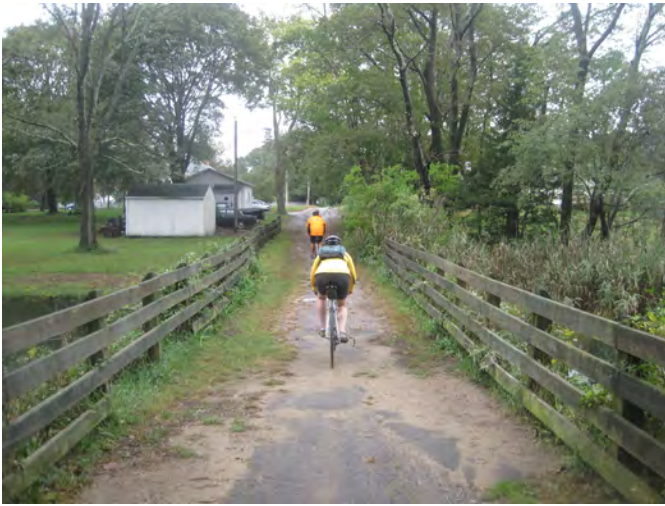
All parks and playgrounds should welcome people bicycling with high-quality bicycle racks.



The North Kingstown Free Library is a great civic amenity, one that is conveniently accessed on foot or bicycle.



While this type of "comb" rack is not preferred, its location and sculptural quality emphasize the importance of bicycling.



This pedestrian and bicycling path connects the library and West Main Street.



While it's law, people driving don't always provide people bicycling with such a safe passing distance.



Intermodal transportation could be more convenient if bicycle parking facilities were added to bus stops, like the one pictured at Wilson Park.



Post Road is a critical link in the North Kingstown transportation network, yet its design make bicyclists feel unsafe.



The paved shoulder along Devil's Foot Road is a context-appropriate bicycle facility, but could be enhanced with safety and wayfinding signs.



Despite high vehicular speeds, Route 2 is a recreational cycling destination because of its wide shoulders and rural character.



Bicycle and Pedestrian Planning Glossary

Bicycling and Pathway-Oriented Terms

Bicycle: a vehicle that most commonly has two wheels, handlebars for steering, a saddle seat, and pedals by which it is propelled.

Bicycle Boulevard: A street with shared lane markings, traffic calming, and wayfinding signs that help give movement priority to bicyclists. Bicycle boulevards are sometimes called neighborhood greenways and are often located often parallel to a major thoroughfare with high volumes of traffic.

Bicycle Facilities: A general term denoting a variety of improvements and provisions that are made by public agencies to accommodate or encourage bicycling, including bike lanes, shared use paths, signed bike routes and bicycle parking and storage facilities.

Bicycle Network: A system of public bicycle facilities that can be mapped and used by bicyclists for transportation and recreational purposes.

Bicycle Route System: A system of bikeways designated by the jurisdiction having authority with appropriate directional and informational route markers. Bike routes should establish a continuous routing, but may be a combination of any and all types of bikeways.

Bike Lane: A portion of a roadway that has been designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists.

Bike Path: See Shared Use Path

Bikeway: A generic term for any road, street, path, trail or way, that in some manner, is specifically designated for bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes.

Rail-to-Trails: A shared use path, either paved or unpaved, built within an inactive railroad right-of-way.

Rails-with-Trail: A shared use paths constructed on or adjacent to active railroad rights-of-way.

Shared Roadway: A roadway that is open to both bicycle and motor vehicle travel. Unless bicycle travel is explicitly prohibited, all highways, roads and streets are "Shared Roadways."

Shared Use Path: A bicycle and pedestrian path separated from motorized vehicular traffic by an open space, barrier or curb. Shared-use Paths may be within the highway right-of-way (often termed "sidepath") or within an independent right-of-way, such as on an abandoned railroad bed or along a body of water. Shared use paths typically accommodate two-way travel and are open to pedestrians, in-line skaters, wheelchair users, joggers and other non-motorized path users.

Shoulder: Any portion of a roadway to the right of the right-most travel lane, but not including curbs, planting buffers and sidewalks. Depending on their width and surface, they serve a variety of purposes, including providing space for vehicles to slow and turn right, accommodation of stopped or broken-down vehicles, to allow emergency vehicles to pass, for structural support of the roadbed, or for bicycle and pedestrian travel.

Signed Shared Roadway (Signed Bike Route): A shared roadway that has been designated by signs as a preferred route for bicycle use.

Note: Several of these definitions are taken from the American Association of State Highway and Transportation Officials (AASHTO) "Guide for the Development of Bicycle Facilities," 1999 Edition and the SmartCode Bicycle Module.

Pedestrian Planning Terms

Accessible Pedestrian Signal (APS): A device that communicates information about pedestrian signal timing in non-visual format, through the use of audible tones (or verbal messages) and vibrating surfaces.

Americans with Disabilities Act (ADA): 1990 Federal law establishing the civil rights of people with disabilities. Prohibits discrimination against people with disabilities and requires common places used by the public to provide an equal opportunity for access.

Crosswalk: The horizontal portion of roadways, usually at intersections, reserved for pedestrian crossing; it may be marked or unmarked. Three marking patterns using white striping are most common: 1) Double Parallel lines, 2) "Zebra Stripes:" white cross hatches perpendicular to the pedestrian direction of travel, or 3) "Ladder:" perpendicular white cross hatches combined with double parallel lines on the outside edges.

Curb Ramp: A combined ramp and landing to provide access between street level and sidewalk level, usually at intersections or designated crosswalks. ADA accessible ramps must achieve particular design requirements including a running grade no steeper than 1:20. Curb ramps are intended to provide street/sidewalk access to all types of pedestrians, wheelchair users, and bicyclists who maybe legally using the sidewalk or crosswalk.

Detectable Warning: A standardized surface feature built in or applied to walking surfaces or other elements to warn people who are blind or visually impaired of specified hazards.

Median Refuge: An area within an island or median that is intended for pedestrians to wait safely away from travel lanes for an opportunity to continue crossing the roadway.

Midblock Crosswalk: A legally established crosswalk that is not at an intersection.

Pedestrian: A person walking or traveling by means of a wheelchair, electric scooter, crutches or other walking devices or mobility aids. Use of the term pedestrian is meant to include all disabled individuals regardless of which equipment they may use to assist their self-directed locomotion (unless they are using a bicycle). It also includes runners, joggers, those pulling or pushing strollers, carriages, carts and wagons, and those walking bicycles.

Pedestrian Access Route: A corridor of accessible travel through the public right-of-way that has, among other properties, a specified minimum width and cross slope.

Pedestrian Crossing Interval: The combined phases of a traffic signal cycle provided for a pedestrian crossing in a crosswalk, after leaving the top of a curb ramp or flush landing, to travel to the far side of the vehicular way or to a median, usually consisting of the WALK interval plus the pedestrian clearance interval.

Pedestrian Signal Indication: The illuminated WALK/DON'T WALK message (or walking person/hand symbols) that communicates the pedestrian phase of a traffic signal, and their audible and tactile equivalents.

Sidewalk: That portion of a highway, road or street specifically constructed for the use of pedestrians on the outside edge of the vehicular travel way. Sidewalks are typically, but not always, curb-separated from the roadway and made of concrete, brick, asphalt or another hard surface materials.

Agencies and Organizations

AASHTO: American Association of State Highway and Transportation Officials.

APBP: Association for Pedestrian and Bicycle Professionals

CNU: Congress for the New Urbanism

FHWA: [Federal Highway Administration](#)

FTA: [Federal Transit Administration](#)

ITE: Institute of Transportation Engineers

MPO: Metropolitan Planning Organization A regional consortium of local governments in charge of regional planning (required by law)

MUTCD: The [Manual of Uniform Traffic Control Devices](#) is the federal standard for traffic signs, signals and road markings.

NACTO: National Association of Transportation

NHTSA: [National Highway Traffic Safety Administration](#)

General Transportation Terms

The 6 E's: A term to describe the essential elements of an holistic bicycling environment. Education, Engineering, Enforcement, Encouragement, Evaluation and Equity

AADT: [Average Annual Daily Traffic](#) a standard for measuring traffic volume. Measured as vehicles per day (VPD)

[Complete Streets](#): are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and bus riders of all ages and abilities are able to safely move along and across a complete street.

[Road Diet](#): The reduction of vehicular lanes along a given thoroughfare. Road diets most commonly convert 4-lane undivided roads to 3-lanes (two through lanes and a center turn lane). The fourth lane may be converted to bicycle lanes, sidewalks, and/or on-street parking. In other words, existing space is reallocated; the overall pavement width remains the same.

VMT: [Vehicle Miles Traveled](#) Total miles traveled by all vehicles in a geographic area over a specific time period. VMT is a good indicator of driving habits, since 2003 VMT has nearly leveled off.

Planning Terms

Bicycle and Pedestrian Master Plan: A plan that identifies goals, objectives and performance measures for a government to accommodate bicycle and pedestrian travel.

EIS: [Environmental Impact Statement](#), less stringent environmental documents are the Environmental Assessment (EA) and the Categorical Exclusion (CE). As per the National Environmental Policy Act (NEPA), this documentation is required if federal transportation dollars are used for a project.

Final Design: The final plans or blueprint for a given project, which includes specific construction requirements and design details.

Mitigation: Measures to counter an undesirable condition such as the destruction of wetlands.

Scoping: Defining the project parameters, goals and objectives.

TIP: [Transportation Improvement Program](#) A prioritized program of transportation projects to be implemented in appropriate stages over several years (i.e., 3-5 yrs). The projects must conform with the Regional Long Range Plan. All federally funded projects and programs must be included in the TIP. Typically, the TIP is updated in a 2-year cycle and before each update there is a public comment period. MPO's are responsible for maintaining the TIP.

Pedestrian and Bicycle Planning Resources

Reports and Studies

Pedestrian and Bicycle Information Center. *The National Bicycling and Walking Study: 15-Year Status Report*, 2010. <http://www.bicyclinginfo.org/library/details.cfm?id=4541>

International Technology Scanning Program. *Pedestrian and Bicyclist Safety and Mobility in Europe* (2010) <http://www.international.fhwa.dot.gov/pubs/pl10010/pl10010.pdf>

Alliance for Biking and Walking. *Annual Bicycling & Walking Benchmark Report*, 2010. [http://www.peoplepoweredmovement.org/site/images/uploads/2010_Annual_Report_compress_\(web\).pdf](http://www.peoplepoweredmovement.org/site/images/uploads/2010_Annual_Report_compress_(web).pdf)

Rails-to-Trails Conservancy, Trail User Surveys and Economic Impact: A Comparison of Trail User Expenditures, 2009. http://www.railstotrails.org/resources/documents/resource_docs/Comparison_of_Trail_Users_Surveys_FINAL.pdf

Best Practices

Transport for London. *Making London a Walkable City: The Walking Plan for London*, 2004. <http://www.tfl.gov.uk/assets/downloads/corporate/walking-plan-2004.pdf>

New York City. *Active Design Guidelines: Promoting Physical Activity and Health in Design*. (2010). http://www.nyc.gov/html/ddc/html/design/active_design.shtml

City of Copenhagen. *Copenhagen Bicycle Account 2010*, 2010. http://www.kk.dk/Borger/ByOgTrafik/~/_media/439FAEB2B21F40D3A0C4B174941E72D3.ashx

City of Seattle Department of Transportation: *Seattle Bicycle Master Plan*. <http://www.seattle.gov/transportation/bikemaster.htm>

City of Portland Bureau of Transportation: *Portland Bicycle Master Plan for 2030*. <http://www.portlandonline.com/transportation/index.cfm?a=71843&c=34812>

City of Minneapolis: *Bike Master Plan*, 2011 <http://www.ci.minneapolis.mn.us/bicycles/bicycle-plans.asp>

City of Austin Public Works: *Austin Bicycle Master Plan Update*, 2009. <http://www.ci.austin.tx.us/publicworks/bicycle-plan.htm>

City of Fresno: *Bicycle, Trails and Pedestrian Master Plan*, 2010
<http://www.fresno.gov/Government/DepartmentDirectory/PublicWorks/TrafficEngineering/BMP/default.htm>

City of Portland Office of Transportation, Engineering, and Development – Pedestrian Transportation Program: *Pedestrian Master Plan*, 1998. <http://www.portlandonline.com/shared/cfm/image.cfm?id=90244>

City of Oakland: *Pedestrian Master Plan*, 2010.
<http://www.oaklandnet.com/government/pedestrian/index.html>

City of Berkeley: *Pedestrian Master Plan*.
<http://www.ci.berkeley.ca.us/ContentDisplay.aspx?id=16124>

Manuals

ITE-CNU Context Sensitive Solutions for Designing Major Urban Thoroughfares for Walkable Communities, 2010. <http://www.ite.org/bookstore/RP036.pdf>

NACTO Urban Bikeway Design Guide
<http://nacto.org/cities-for-cycling/design-guide/>

Association of Pedestrian and Bicycle Professionals *Bicycle Parking Guidelines*, 2010. http://www.apbp.org/resource/resmgr/publications/bicycle_parking_guidelines.pdf

Lagerway, Peter. *Creating A Roadmap for Producing & Implementing a Bicycle Master Plan*. (2009). http://www.bikewalk.org/pdfs/BMP_RoadMap.pdf

NYC DOT. *Street Design Manual* (Section 2.1.2), 2009. <http://www.nyc.gov/html/dot/html/about/streetsdesignmanual.shtml#download>

CROW. *Design Manual for Bicycle Traffic*, 2006.

AASHTO. Guide for the Development of Bicycle Facilities, 1999. http://safety.fhwa.dot.gov/ped_bike/docs/b_aashtobik.pdf

AASHTO. DRAFT Guide for the Planning, Design, and Operation of Bicycle Facilities, 2010. <http://design.transportation.org/Documents/DraftBikeGuideFeb2010.pdf>

FHWA Manual on Uniform Traffic Control Devices, 2009, http://mutcd.fhwa.dot.gov/pdfs/2009/pdf_index.htm

Livable Streets

Appleyard, Donald. *Livable Streets* (Chapter 1), 1981.

William H. Whyte. *The Social Life of Small Urban Spaces*, 1980.

NYC DOT. *World Class Streets*, 2008. High-resolution version downloadable at: http://www.nyc.gov/html/dot/downloads/pdf/WCS_Gehl_08_print.pdf

Scholarly Articles

Dumbaugh, Eric. *Safe Streets, Livable Streets*. In: Journal of the American Planning Association, Vol. 71, No. 3, Summer 2005. http://www.naturewithin.info/Roadside/TransSafety_JAPA.pdf

Hamilton-Baillie, Ben. *Towards Shared Space*. In: URBAN DESIGN International (2008) 13, 130–138 <http://www.palgrave-journals.com/udi/journal/v13/n2/full/udi200813a.html> (available for a fee)

Pucher, John and Buehler, Ralph 'Making Cycling Irresistible: Lessons from The Netherlands, Denmark and Germany', Transport Reviews (2008), 28:4, 495 — 528 http://www.abc.net.au/rn/backgroundbriefing/documents/bbg_20100919_irresistible.pdf

Smart, Michael, *US immigrants and bicycling: Two-Wheeled in Autopia*, Transport Policy (2010), doi:10.1016/j.tranpol.2010.01.002

Pucher, John, Buehler, Ralph, and Seinen, Mark, *Bicycling renaissance in North America? An update and re-appraisal of cycling trends and policies*, 2011 http://policy.rutgers.edu/faculty/pucher/TRA960_01April2011.pdf

Web Resources

Streetsblog: www.streetsblog.org

Federal Highway Administration: Bicycle and Pedestrian Transportation Planning Guidance portal <http://www.fhwa.dot.gov/environment/bikeped/inter.htm>

Pedestrian and Bicycle Information Center: <http://www.bicyclinginfo.org/index.cfm>

The Alliance for Biking & Walking: *Bicycling & Pedestrian Advocacy Library* (membership required for access). <http://www.peoplepoweredmovement.org/site/index.php/members/>

Transportation Alternatives Traffic Calming overview: <http://transalt.org/campaigns/pedestrian/trafficcalming>

Bikes Belong: *Bicycle Design Best Practices Videos*. <http://www.bikesbelong.org/bikes-belong-foundation/bicycling-design-best-practices-program/best-practices-videos/>

Bikes Belong: Publications library. <http://www.bikesbelong.org/resources/publications/>

Bikes Belong: Core bicycling statistics. <http://www.bikesbelong.org/resources/stats-and-research/statistics/>

Bikes Belong: Federal Policy and Funding portal. <http://www.bikesbelong.org/what-we-do/federal-policy-funding/>

Rhode Island

Rhode Island Department of Transportation: *Bike Rhode Island* portal. <http://www.dot.ri.gov/bikeri/index.asp>

Rhode Island Department of Transportation: *Statewide Bike Map of Rhode Island* http://www.dot.ri.gov/img/content/bikeri/maps/RIDOT_Bike_Map_Front_2011-12.pdf

Rhode Island Department of Transportation: *Rhode Island Bike Paths currently open, under construction, or in design* <http://www.dot.ri.gov/bikeri/bikepathfuture.asp>

Safety in Numbers: articles, reports, studies

University of South Australia: *Safety in numbers? A strategy for cycling*. Jennifer Bonham et al. http://adelaide.academia.edu/JenniferBonham/Papers/546755/Safety_in_numbers_a_strategy_for_cycling

Portland Bicycle Count Report, 2009. <http://bikeportland.org/wp-content/uploads/2010/01/bikecount2009reportfinal.pdf>

CTC's Safety in Numbers Campaign

portal: <http://www.ctc.org.uk/desktopdefault.aspx?tabid=5225>

(CTC is the UK's national cyclists organization)

Science Daily: *A Virtuous Cycle: Safety In Numbers For Bicycle Riders*,

2008. <http://www.sciencedaily.com/releases/2008/09/080903112034.htm>

Streetsblog: *Safety in Numbers: It's Happening in NYC*, June

2009. <http://www.streetsblog.org/2009/06/05/safety-in-numbers-its-happening-in-nyc/>

Grist: *There's safety in numbers for cyclists*, October

2010. <http://www.grist.org/article/2010-10-11-theres-safety-in-numbers-for-cyclists>

Treehugger: *More Proof that There's Safety In Numbers For Cyclists*, October

2010. <http://www.treehugger.com/files/2010/10/more-proof-safety-in-numbers-cyclists.php>