

Basics and Benefits of Complete Streets

OTEA Conference
October 23, 2014



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What are Complete Streets?



Complete Streets are streets for everyone, no matter who they are or how they travel.



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What are Complete Streets?

Safe Comfortable Convenient



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Americans want choices

66% of Americans want more transportation options so they have the freedom to choose how to get where they need to go.

73% currently feel they have no choice but to drive as much as they do.

57% would like to spend less time in the car.

Future of Transportation National Survey (2010)

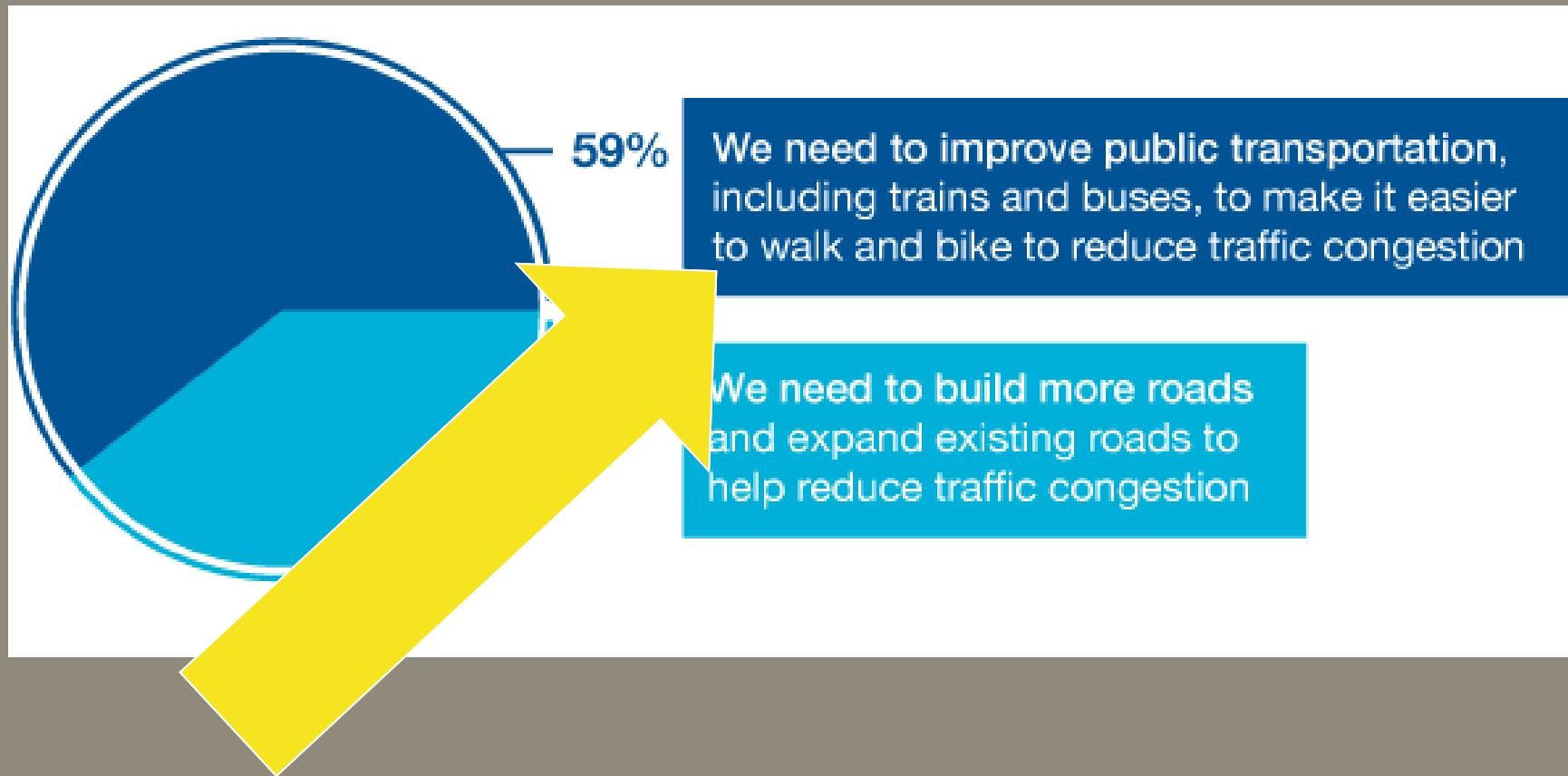


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Getting Out of Traffic



Future of Transportation National Survey (2010)



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The tremendous potential

Of all trips:

39%

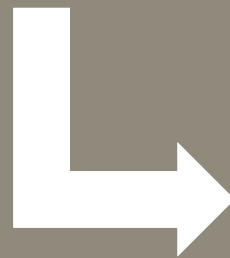
are less than
3 miles

17%

are less than
1 mile

47%

are driven



of these trips...



National Household Travel Survey (2009)



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The tremendous potential

Every trip starts and ends with walking.

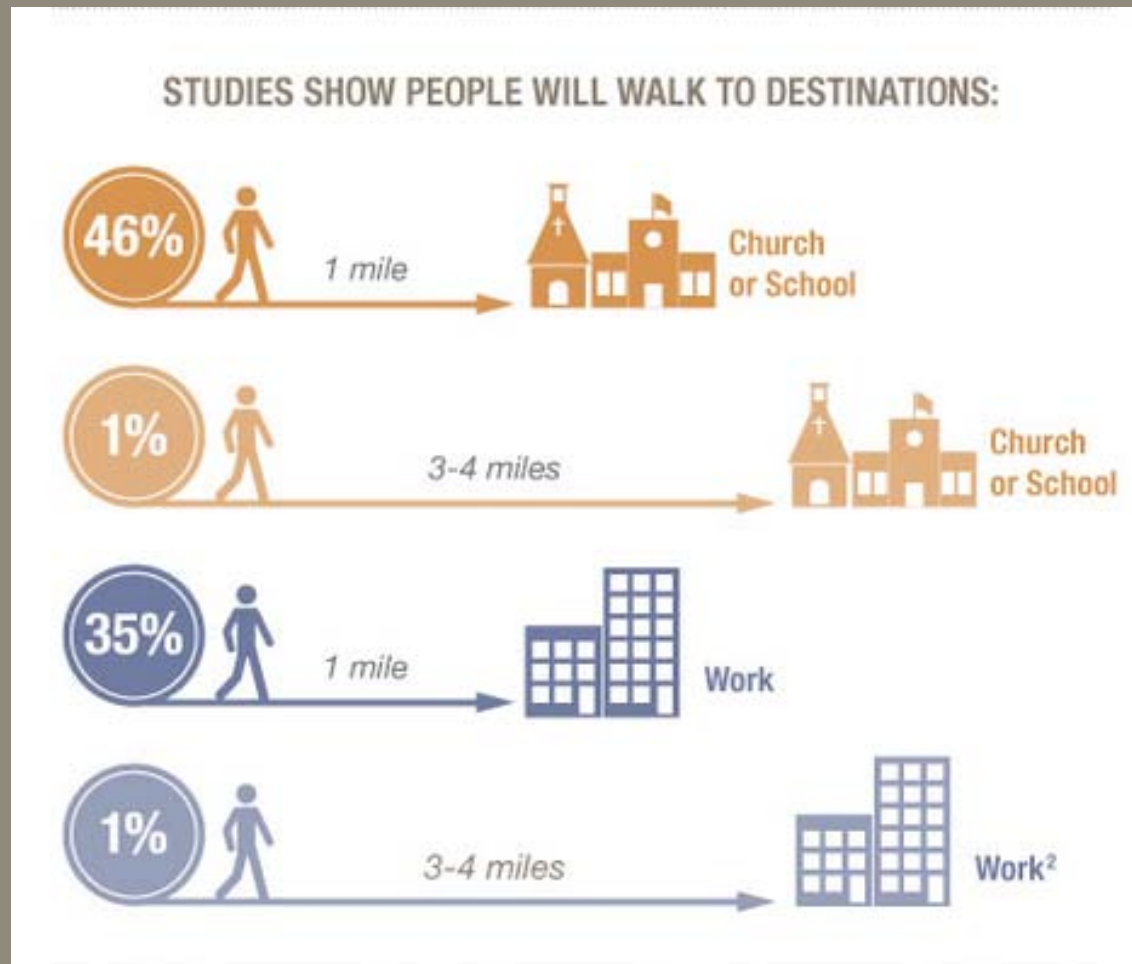


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People will walk



Centers for Disease Control and Prevention 2012, newpublichealth.org



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Who wants Complete Streets?

47%

of older Americans say it is unsafe to cross a major street near their home.

54%

of older Americans living in inhospitable neighborhoods say they would walk and bike more often if the built environment improved.

56%

express strong support for adoption of Complete Streets policies.

Planning Complete Streets for the Aging of America, AARP



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Who wants Complete Streets?

Millennials are driving less and looking for other transportation options.



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Incomplete streets are unsafe

More than 40% of pedestrian deaths in 2007 and 2008 occurred where no crosswalk was available.

National Highway Traffic Safety Administration's Fatality Reporting System



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Incomplete streets are unsafe

Especially for:

- People of color
- Low-income communities
- Older adults



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Streets are inadequate

- No sidewalks
- Too dangerous to cross on foot



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Streets are inadequate

- Unsafe for bicyclists



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Streets are inadequate

- Traffic jams on arterials
- Too many crashes



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Streets are inadequate

- Uninviting for bus riders



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Streets are inadequate

- Inaccessible for wheelchair users



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Streets are inadequate

- No room for people!



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We know how to build right



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We know how to build right



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We know how to build right



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Yet too many roads still turn out like this:



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or this:



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or this:



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The Solution: Complete Streets Policies



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Complete Streets policies



Ensure that the entire right-of-way is planned, designed, constructed, operated, and maintained to provide safe access for all users



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Complete Streets means:

High-level policy direction

Change the everyday decision-making processes and systems

Incremental approach

Long-term results



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Complete Streets does not mean:

One 'special' street project

A design prescription

A mandate for immediate retrofit

A silver bullet; other issues must be addressed:

- Land use (proximity, mixed-use)

- Environmental concerns

- Transportation Demand Management



Many types: rural streets



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Many types: shared streets



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Many types: skinny streets



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Many types: main streets



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Many types: urban streets



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Many types: traffic circles



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Many types: Bus Rapid Transit



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Many types: neighborhood greenways



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Many types: angled head-out parking



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Many types: cycle tracks



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Many types: modern roundabouts



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Many types: paved shoulders



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The Many Benefits of Complete Streets

January 2013



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Complete Streets benefits all users



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Benefits: Older Adults

By 2025, nearly 1 in 5 Americans will be 65 or older.

About ½ of all non-drivers over the age of 65 would like to get out more often.



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Benefits: Older Adults

Complete Streets =
better design for older
folks driving and
walking.

Complete Streets =
staying active and
involved in
communities.



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Benefits: Children

17% of kids and teens are obese.

Limited physical activity contributes to the obesity epidemic.

Dedicated, safe space for bicycling and walking help kids be active and gain independence.



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Benefits: People with Disabilities

Nearly 1 in 5 Americans have a disability.

Complete Streets = attention to detail for travelers with disabilities.

Complete Streets can reduce isolation and dependence.



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Benefits: Transit

Connect transit to work, to shops, to schools, to homes through appropriate planning and design for transit users.

Create smooth, predictable transit trips by planning and designing for transit vehicles.



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Benefits: Transit

Complete Streets = easier to take transit.



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Streets can benefit communities

Improve safety

Better health

Stronger economies

Reduce costs

Provide choices

Smarter growth

Benefits: Safety

There were 32,885 traffic fatalities in the U.S. in 2010. Of these fatalities:

23,303 were people in cars

4,280 were people walking

618 were people on bicycles

National Highway Traffic Safety Administration: Fatality Analysis Reporting System 2010



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Benefits: Safety

More than 40% of pedestrian fatalities occur where there is no available crosswalk.



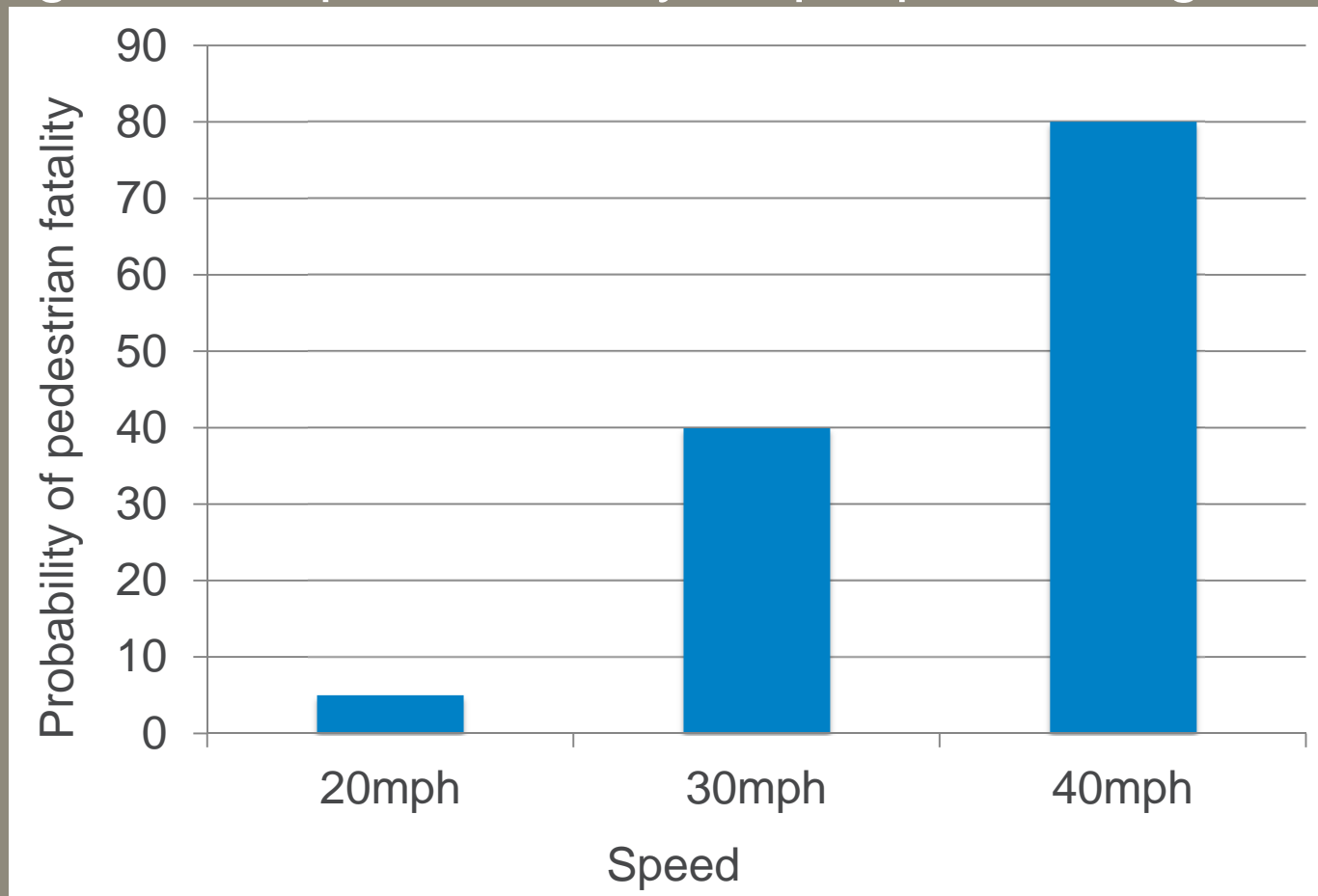
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Benefits: Safety

Slowing traffic improves safety for people walking



W.A. Leaf and D.F. Preusser, "Literature Review on Vehicle Travel Speeds and Pedestrian Injuries Among Selected Racial/Ethnic Groups," US Department of Transportation, National Highway Traffic Safety Administration (1999).



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Benefits: Safety

Pedestrian crashes

↓ **88%** with sidewalks

↓ **69%** with hybrid beacon

↓ **39%** with medians

↓ **29%** with road conversions

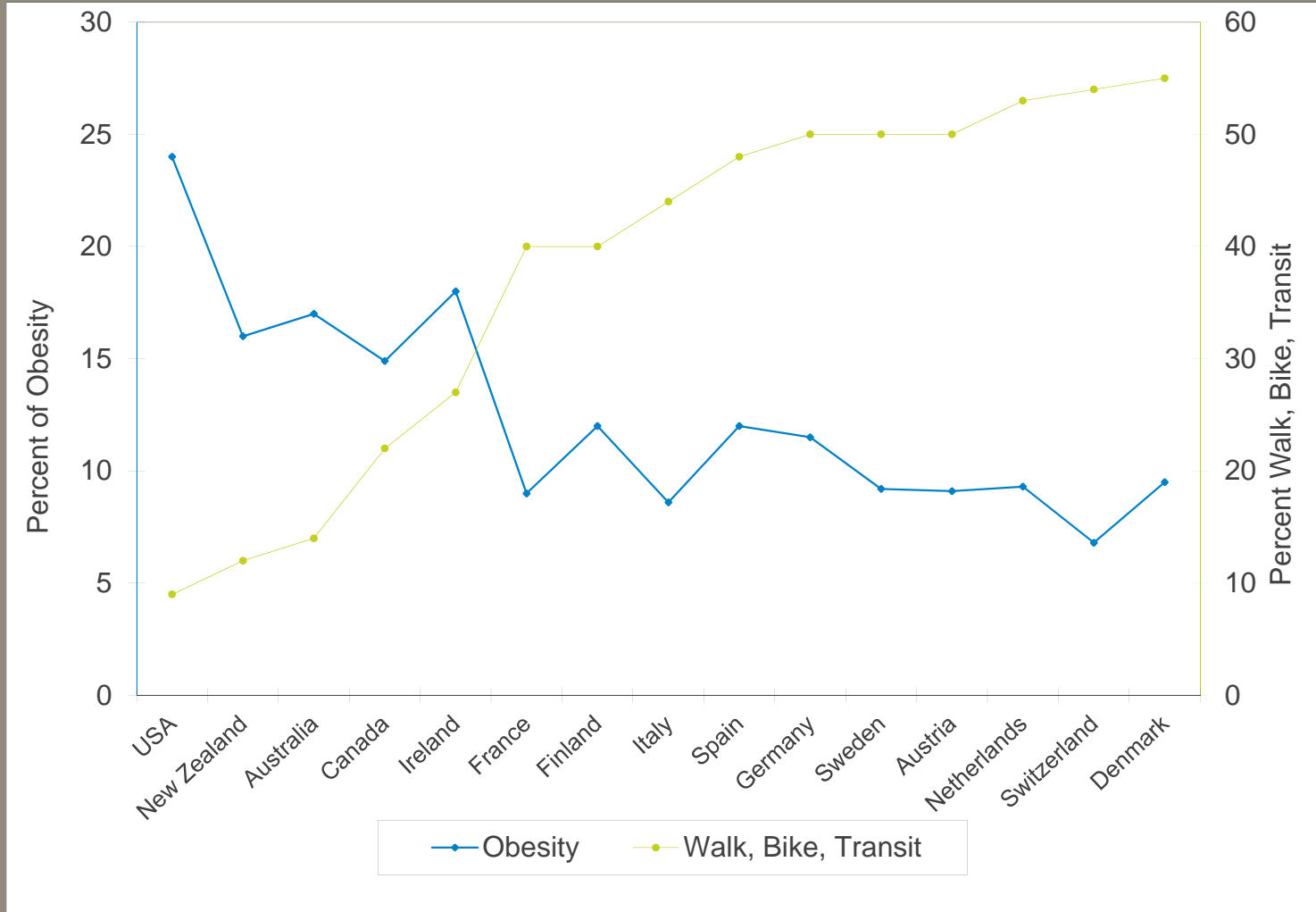


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Benefits: Health



Pucher, "Walking and Cycling: Path to Improved Public Health," Fit City Conference, NYC, June 2009



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Benefits: Health

Risk of obesity:



Frank, L., et. al. (2004). Obesity Relationships with Community Design, Physical Activity, and Time Spent in Cars. American Journal of Preventative Medicine 27(2).



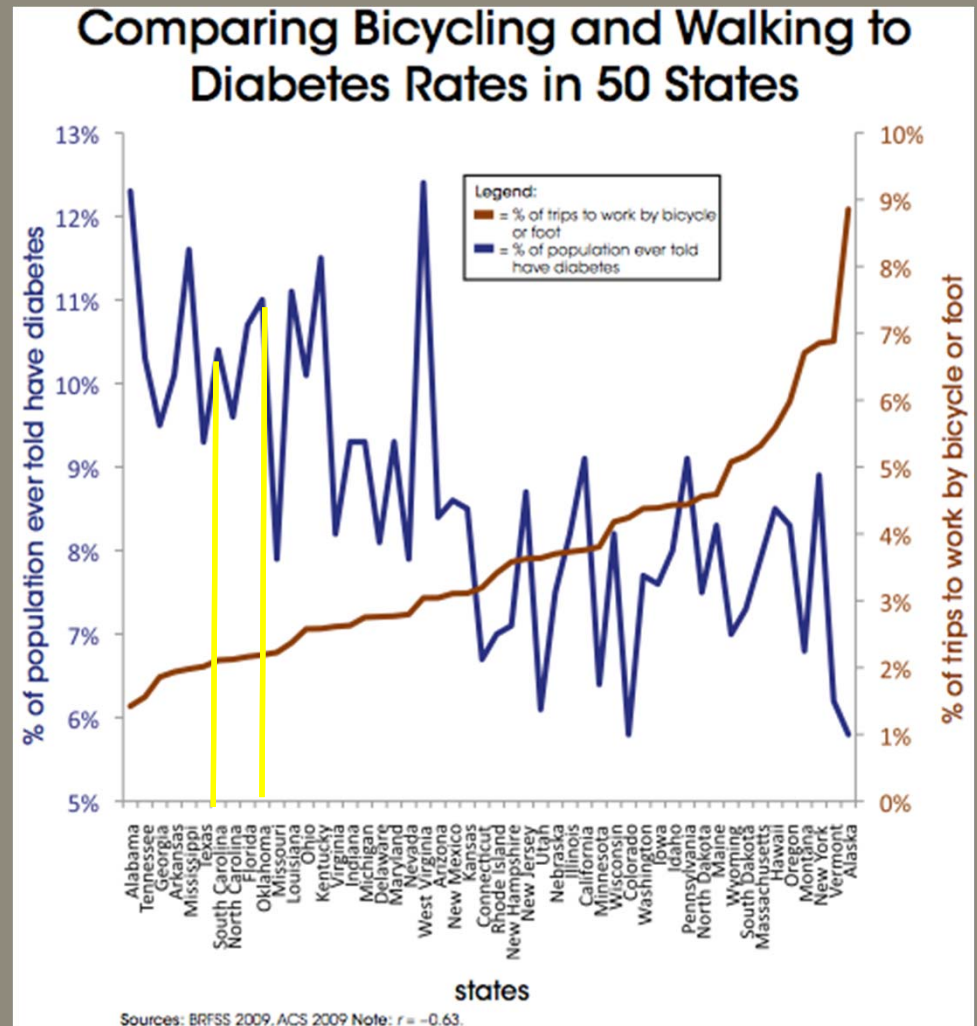
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Benefits: Health

States with the lowest levels of biking and walking have, on average, the highest rates of obesity, diabetes, and high blood pressure.



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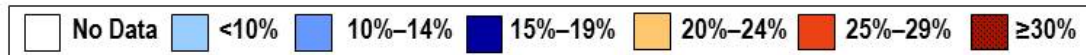
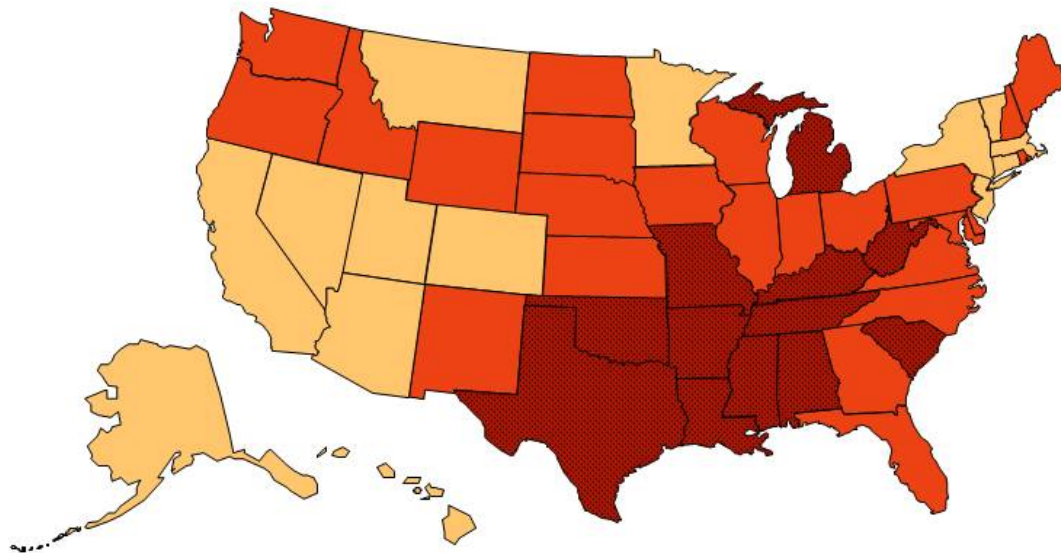


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Benefits: Health

Obesity Trends* Among U.S. Adults BRFSS, 2010

(*BMI ≥ 30 , or ~ 30 lbs. overweight for 5' 4" person)



Source: Behavioral Risk Factor Surveillance System, CDC.



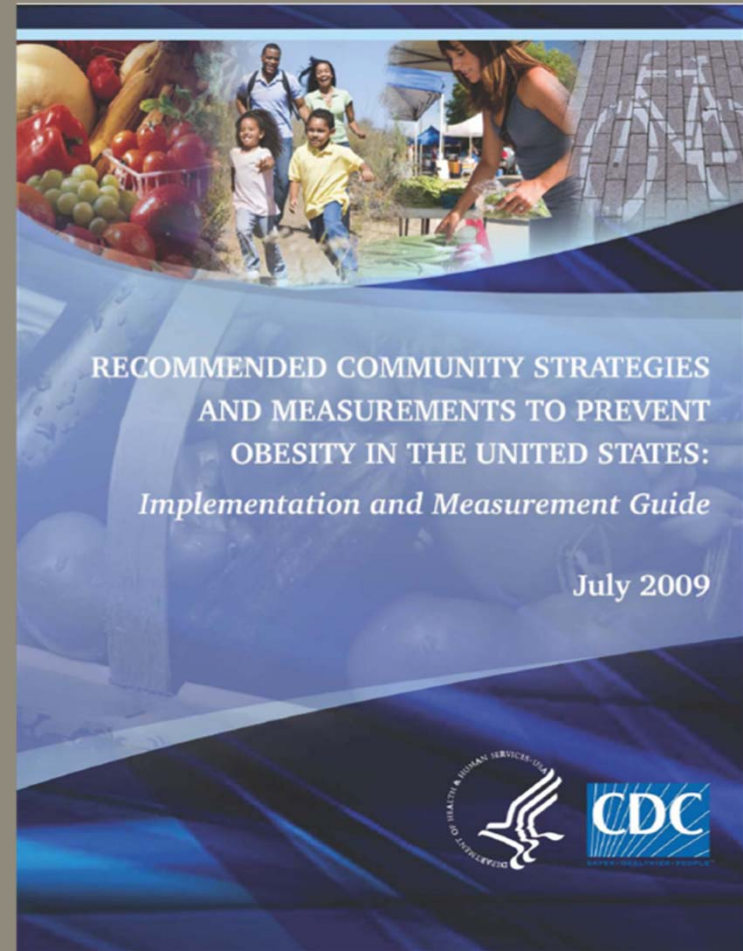
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Benefits: Health

The Centers for Disease Control and Prevention recommend adoption of Complete Streets policies as a **strategy to prevent obesity**.



Benefits: Health

Women who walk or bike 30 minutes a day have a lower risk of breast cancer.

A 30-minute round-trip bicycle commute is associated with better mental health in men.

People who live in walkable neighborhoods get more exercise than those who do not.



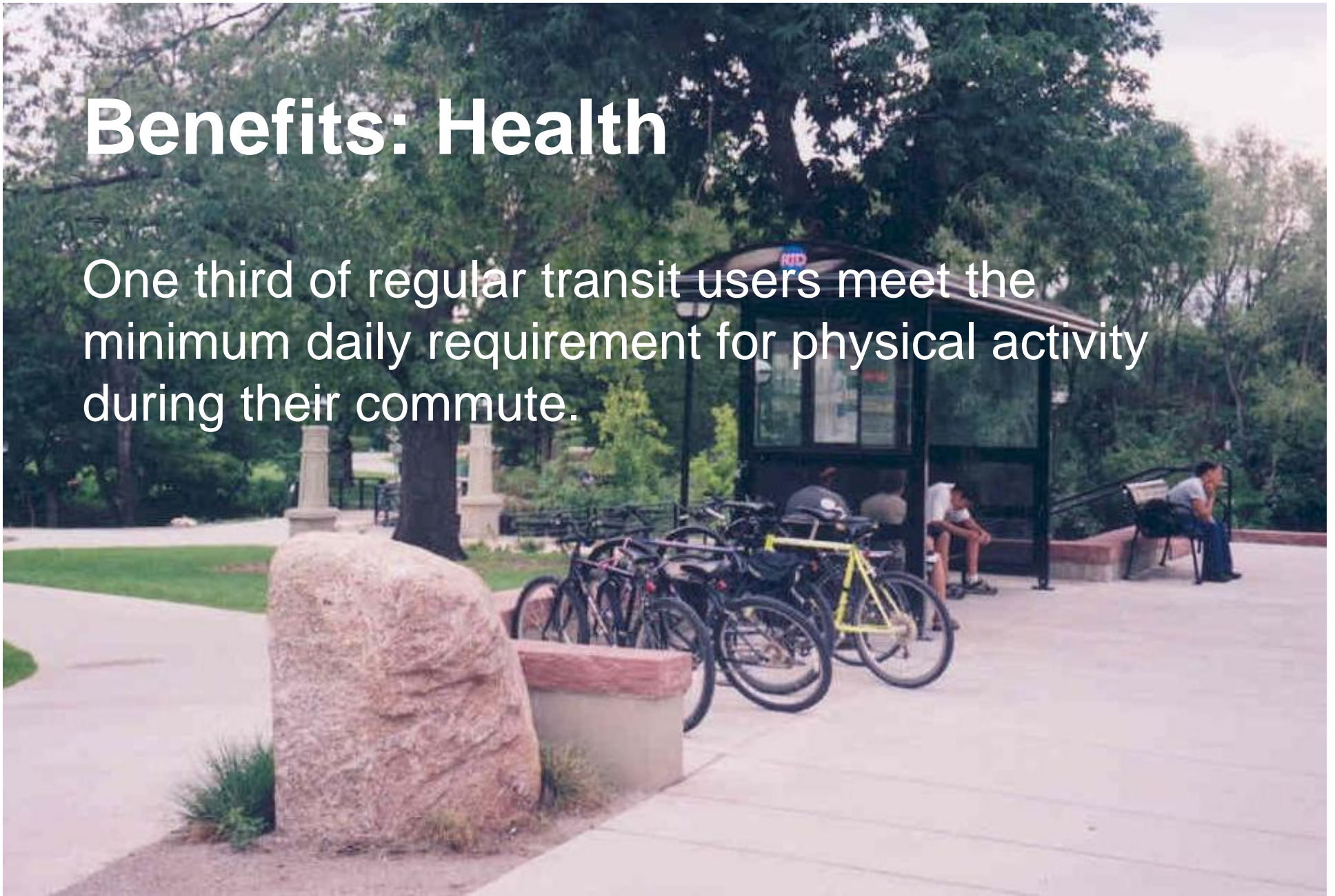
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Benefits: Health

One third of regular transit users meet the minimum daily requirement for physical activity during their commute.



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Benefits: Economy

Washington, DC: Barracks Row/8th Street SE



\$8 million public investment in streetscape improvement 2003-2004

\$8 million in private investment in following 2 years



32 new business establishments

\$80,000 in sales tax annually



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Benefits: Economy

Lancaster, California:

Reconstruction

Changed signal timing

Added landscape

Created center “rambla” area

\$10 million public investment



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Benefits: Economy

Lancaster, California:

Reduced speeding

Fewer crashes

50 new businesses

800 new jobs

Vacancy rate: just 4%

Sales tax revenue: up 26%



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Benefits: Economy

After 2007 redesign:

49% ↑

in retail
sales on 9th
Ave in
Manhattan.

49% ↓

in commercial
vacancies in
Union Square.



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Benefits: Economy

Making bus routes work better:
Fordham Road (Bronx)

20% increase in
bus speeds

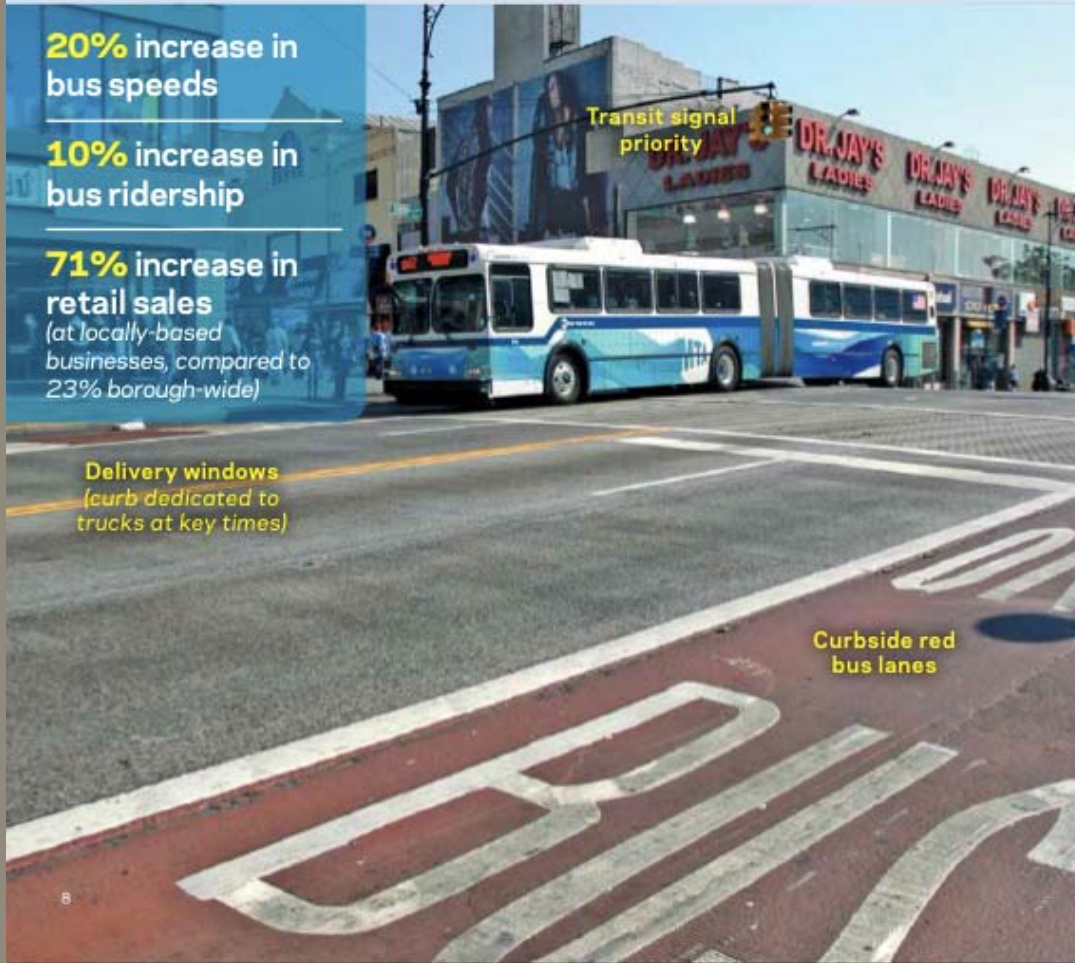
10% increase in
bus ridership

71% increase in
retail sales
(at locally-based
businesses, compared to
23% borough-wide)

Delivery windows
(curb dedicated to
trucks at key times)

Transit signal
priority

Curbside red
bus lanes



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Benefits: Job Creation

Under the 2009 stimulus:

Transit projects = **71%** more jobs per dollar than road projects.

Every \$1 billion spent on
highway projects = 2.4 million job hours
transit projects = 4.2 million job hours



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Benefits: Job Creation

For each \$1 million invested:

- Bicycle projects = 11.4 jobs created
- Pedestrian projects = 9.6 jobs created
- Auto-only project = 7.8 jobs created



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Benefits: Economy

In most metro areas, every +1 point on the 100 point Walk Score scale = \uparrow of \$500-\$3,000 in home value.

Walkable commercial neighborhoods in Washington, D.C. have 75% higher office rents than drivable, suburban neighborhoods.



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Benefits: Economy

Millennials want to work in areas with high quality transportation and high quality of life.

Businesses that encourage active transportation attract young professionals and better business.



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Benefits: Economy

“Young people do not want to work in office parks anymore... We’re seeing this big change in this country. **It’s not political...it’s more generational...** This is where we need to think very differently, because if you don’t, you will be left behind.”

-Mitchell Silver, Chief Planner, Raleigh, N.C.



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Benefits: Economy

“Our employees are healthier, happier, and more productive. We’re attracting some of the best talent in the industry. And, most important, we’re attracting new and exciting clients to fuel the bottom line.”

—Christine Fruechte, President and CEO, Cole + McVoy



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Benefits: Reduce Costs

“The advantage of inserting a dialogue about all users at the earliest stages of project development is that it provides the designers and engineers the best opportunity to create solutions at the best price.”

- James Simpson, Commissioner, NJDOT



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Benefits: Reduce Costs

500 miles of Washington state highway system are 'main streets.'

Over ten years, 47% of projects on these streets had scope, schedule, or budget changes resulting in delay.



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Benefits: Reduce Costs

Pilot project consulted community during planning, resulted in Complete Streets approach.

Complete Streets planning could have saved an average of \$9 million per Main Street project – about 30% – in reduced scope, schedule, and budget changes over the last 10 years.



<http://www.wsdot.wa.gov/research/reports/fullreports/733.1.pdf>



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Benefits: Reduce Costs

Lee County, Florida

- Re-examined 5 road-widening projects
- Found widenings unnecessary
- = \$58.5 million savings



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Benefits: Reduce Costs

Richfield, Minnesota road needed replacement after necessary sewer work

Priced at \$6 million to replace road as is

MN/DOT re-evaluated transportation needs and found no need for wide roadway

Reallocated road space for all users, saved \$2 million

“Feels like home”

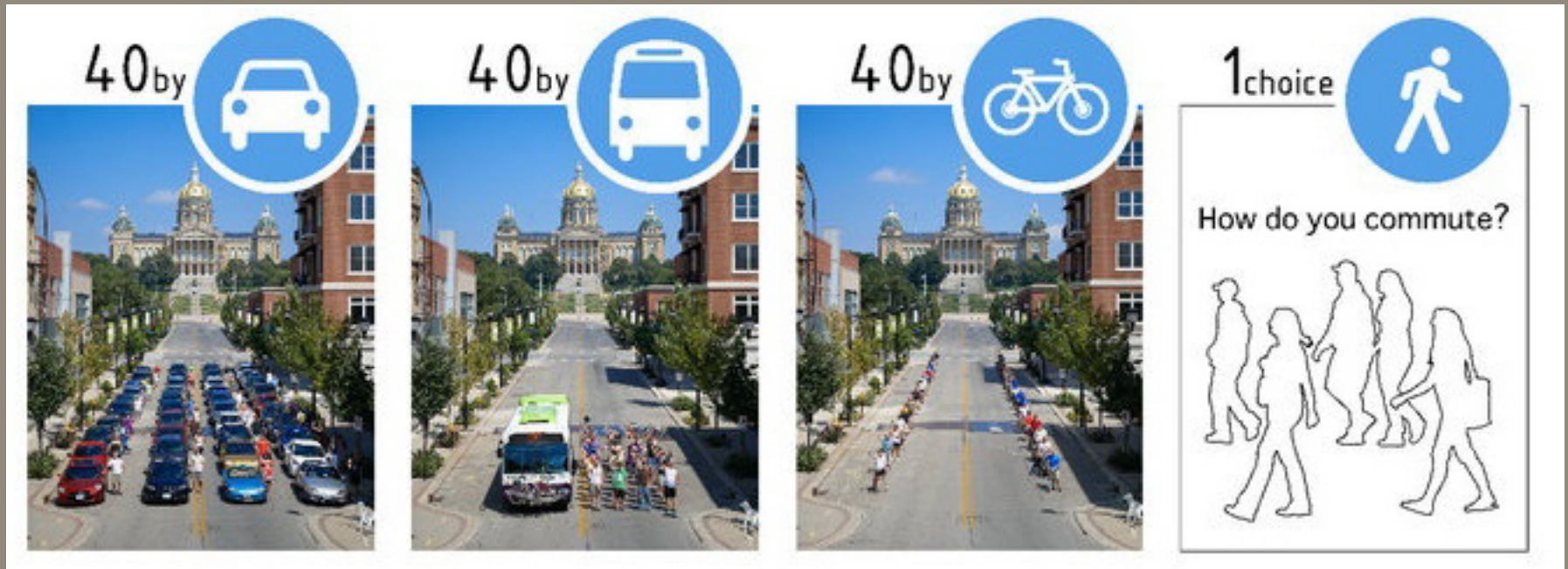


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Benefits: Capacity



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Benefits: Provide Choices

Improvements in 4 communities over 4 years

= 22% ↑ in walking overall

= 49% ↑ in bicycling overall

= 23.1% ↑ in utilitarian trips made by foot

= 4.7% ↑ in utilitarian trips made by bicycle

16 million miles traveled on foot or bicycle that would have otherwise been driven in **one year**.



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Benefits: Provide Choices

Residents are 65% more likely to walk in a neighborhood with sidewalks.



Cities with more bike lanes per square mile have higher levels of bicycle commuting.



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Benefits: Provide Choices

Adding bike lanes in
Marin County, CA =

↑ 366% bicyclists
on weekdays

↑ 540% bicyclists
on weekends



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Benefits: Provide Choices

Twenty years of consistent investment in a has lead to measurable results in Boulder, CO.

Transit use is twice the national average.

Walking commutes are 3 times the national average.

Bicycle commutes are 21 times the national average.

2008-10 American Community Survey 3-Year Average

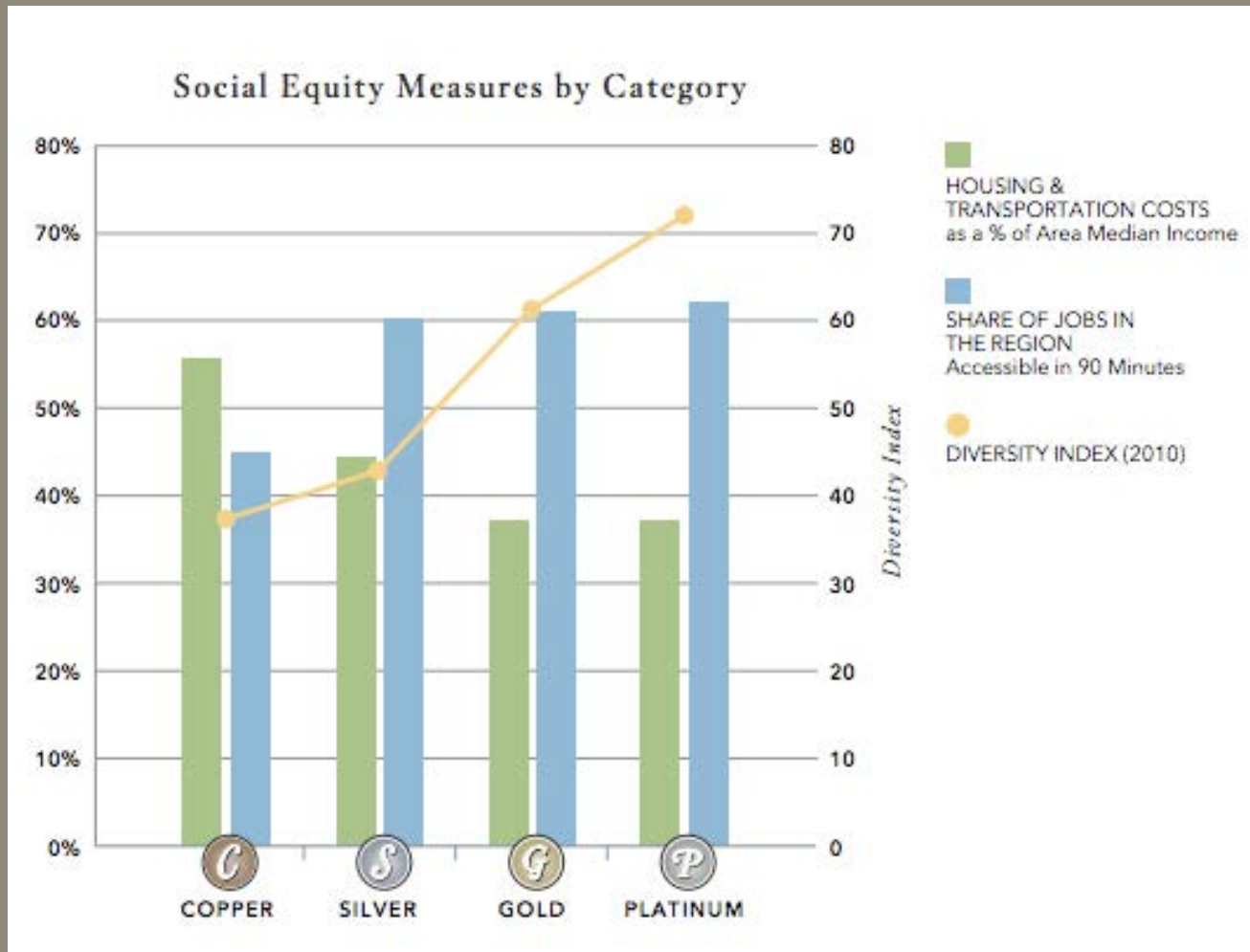


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Benefits: Provide Choices



Leinberger, Christopher (2012). DC: The WalkUp Wake-Up Call The George Washington University School of Business



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Benefits: Provide Choices

Transportation is second largest expense for families: ~18% of budget

Low income households can spend up to 55% of budget on transportation.

Complete Streets give people more control over their expenses.



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Livable Communities

Walkable communities =
happier communities

Residents of walkable
communities:

- are more likely to be socially engaged and trusting
- report being in good health and happy more often

Shannon H. Rogers, et al. Examining Walkability and Social Capital as Indicators of Quality of Life at the Municipal and Neighborhood Scales. (2010)



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Livable Communities

"Livability means being able to take your kids to school, go to work, see a doctor, drop by the grocery or post office, go out to dinner and a movie, and play with your kids at the park—all without having to get in your car."

— *Ray LaHood, U.S. DOT, Secretary of Transportation*



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Livable Communities

“Safety is our highest priority and that commitment is the same regardless of which form of transportation people choose, including walking and biking. This initiative is aimed at reversing the recent rise in deaths and injuries among the growing number of Americans who bicycle or walk to work, to reach public transportation and to other important destinations.” Anthony Foxx, U.S. DOT, Secretary of Transportation



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Lower Emissions, Cleaner Air

Transportation accounts for **nearly 1/3** of all greenhouse gas emissions.

Switching to walking or bicycling for short trips = **reduce CO2 emissions by 12 to 22 million tons/year.**



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Green Streets

Many elements of street design, construction, and operation can achieve both Complete Streets that work for all travelers and 'green' streets that improve environmental sustainability.



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Green Streets



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Implementation Strategy: Better Blocks “Dry Run”



For more information

- Fact sheets, photos, hand outs
- Information on changing policy
- Policy tracking & examples
- Complete Streets blog & monthly newsletter
- Links to research & publications



www.completestreets.org

www.smartgrowthamerica.org

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Benefactor

AARP

America Bikes

American Planning Association

American Public Transportation Association

Blue Cross and Blue Shield of Minnesota

National Association of REALTORS

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Platinum

American Society of Landscape Architects

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Alliance for Biking & Walking

Association of Pedestrian and Bicycle Professionals

Supporter

America Walks

Institute of Transportation Engineers

League of American Bicyclists

National Association of City Transportation Officials



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Smart Growth America is the only national organization dedicated to researching, advocating for and leading coalitions to bring smart growth practices to more communities nationwide.

www.smartgrowthamerica.org

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