

Safe Routes to School: Creating Safe Routes for Everyone



L WAY

15 MIN PARKING
LOADING ZONE
MON-SAT

SCHOOL
SPEED
LIMIT
20
ON SCHOOL DAYS
WHEN CHILDREN
ARE PRESENT
CELL PHONE
USE
PROHIBITED

Illinois Department of Transportation
Pedestrian Safety Peer Exchange
September 10, 2019

Cynthia Hoyle, FAICP, LCI
Chair, C-U SRTS Project
Hoyle Consulting



What are our streets for?



1904 at State and Madison Streets, Chicago – Photo Courtesy of Chicago Transit Authority)

“Roads were not built for cars.”

Bicycles – League of American Wheelmen



Source: *Roads Were Not Built for Cars* blog
<http://www.roadswerenotbuiltforcars.com/lady-that-handlebar-moustache-aint-fooling-no-one/>

Fighting Traffic: The Dawn of the Motor Age in the American City

by Peter D. Norton

Before the advent of the automobile, users of city streets were diverse and included children at play and pedestrians at large. By 1930, most streets were primarily motor thoroughfares where children did not belong and where pedestrians were condemned as "jaywalkers." Peter Norton

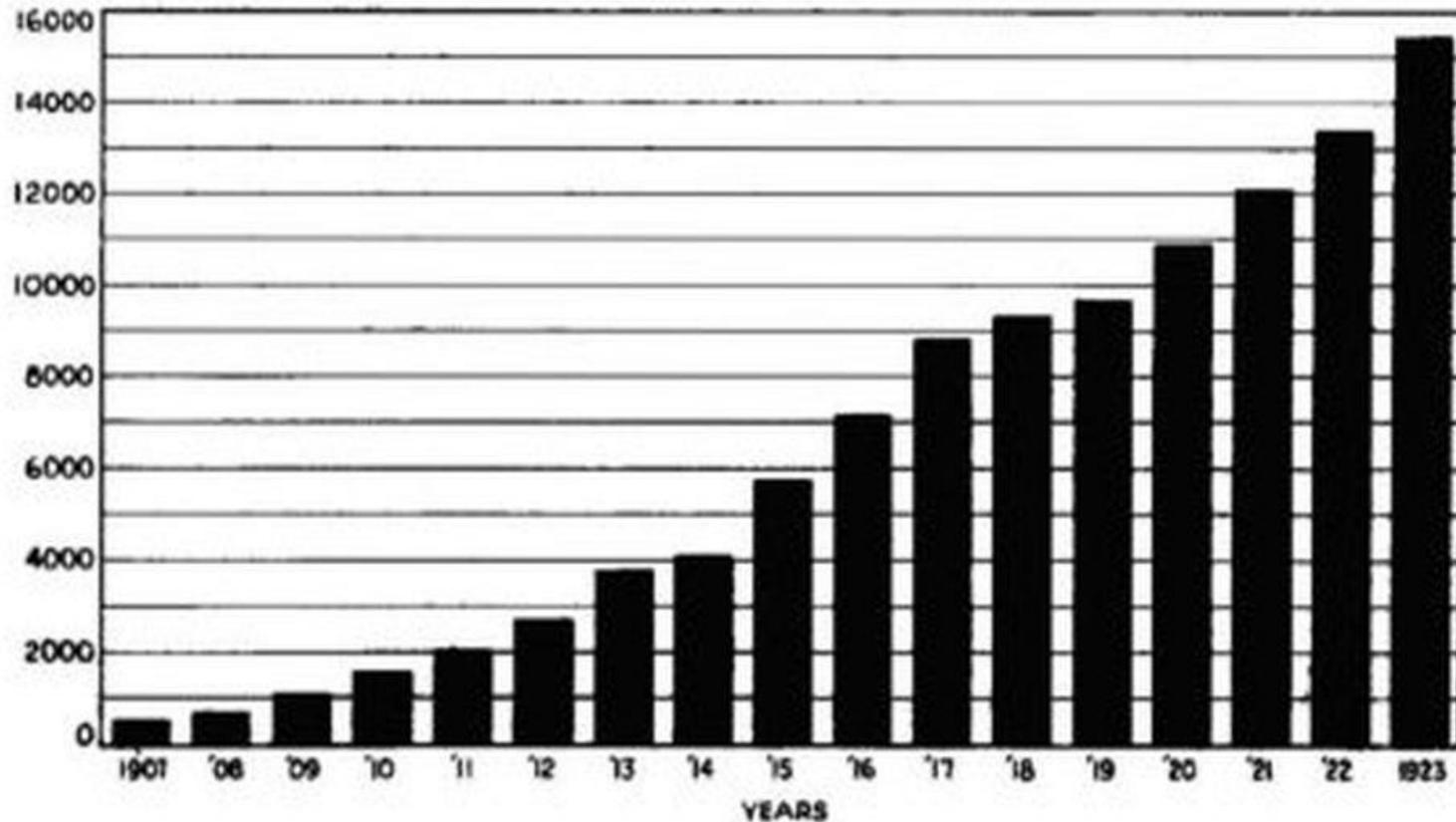


Photo source – Peter Norton



Photo source – Peter Norton

GROWTH IN NUMBER OF AUTOMOBILE FATALITIES IN THE UNITED STATES



"Pedestrians were walking in the streets anywhere they wanted, whenever they wanted, usually without looking," Norton says. During the 1910s there were few crosswalks painted on the street, and they were generally ignored by pedestrians.

Unintended Consequences: Traffic Congestion



Parents driving children to school:

- **20-25%** of **morning traffic**

(2011, National Center for Safe Routes to School)

- In 2009, U.S. families drove 30 billion miles to take their children to and from school, at a cost of **\$5 billion in fuel.**

(U.S. School Travel 2009: An Assessment of Trends.”
American Journal of Preventive Medicine 41)

U.S. Pedestrian Deaths Reach Highest Level Since 1990

Pedestrian fatalities in the U.S. by year*



Health Concerns

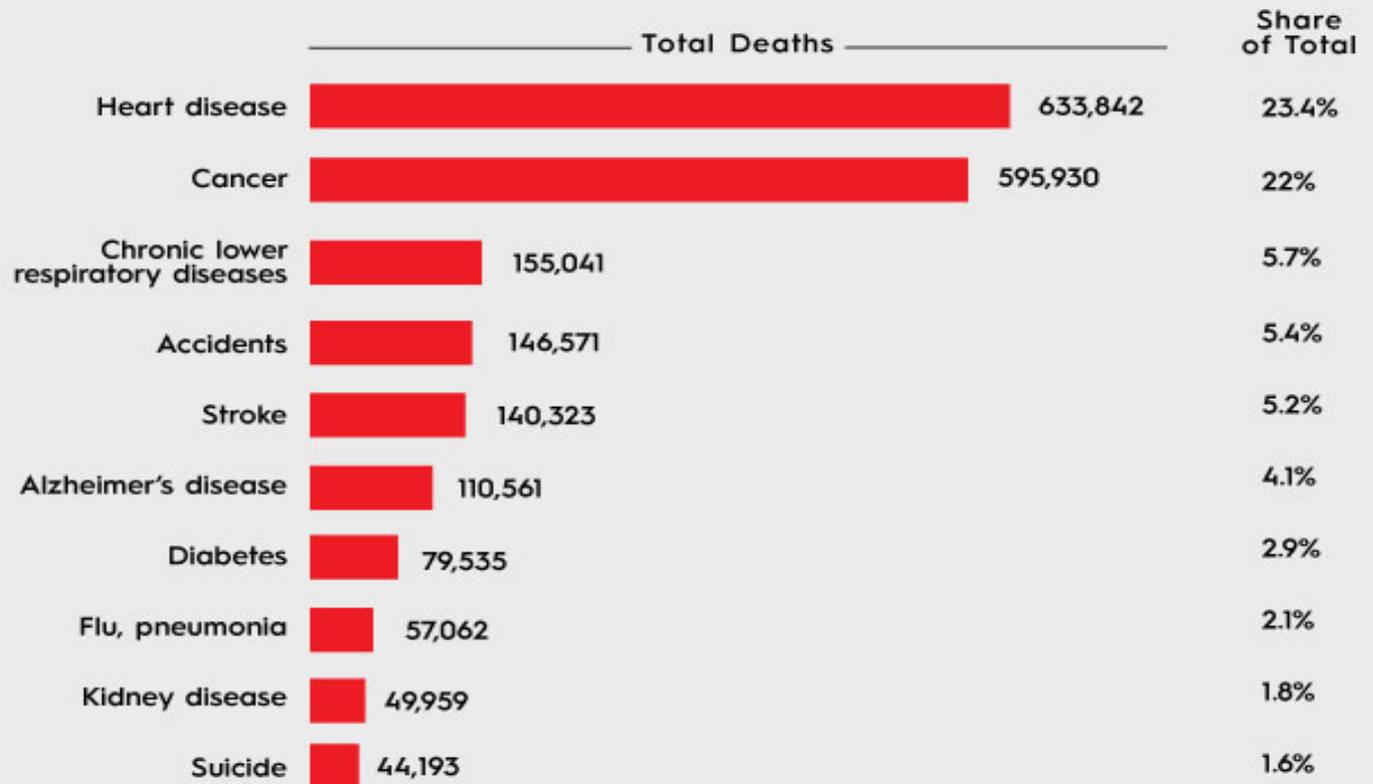
Research links sedentary lifestyles to negative health outcomes.



Leading Causes of Death

By AMERICAN HEART ASSOCIATION NEWS

Heart disease continues to kill more Americans than any other cause, followed by stroke at No. 5, according to 2015 federal data.



Source: Centers for Disease Control and Prevention

Published Dec. 8, 2016

17% of kids and teens are obese.

Limited physical activity contributes to the obesity epidemic.

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



Equity

Enhancing the ability of underserved populations to travel by non-motorized modes can:

- Improve outcomes in health, safety, and economic development;
- Promote resource efficiency, e.g. reduce household transport costs;
- Strengthen neighborhood relations





Tools for Transformation

Create Mode Shift

Provide people with choices:

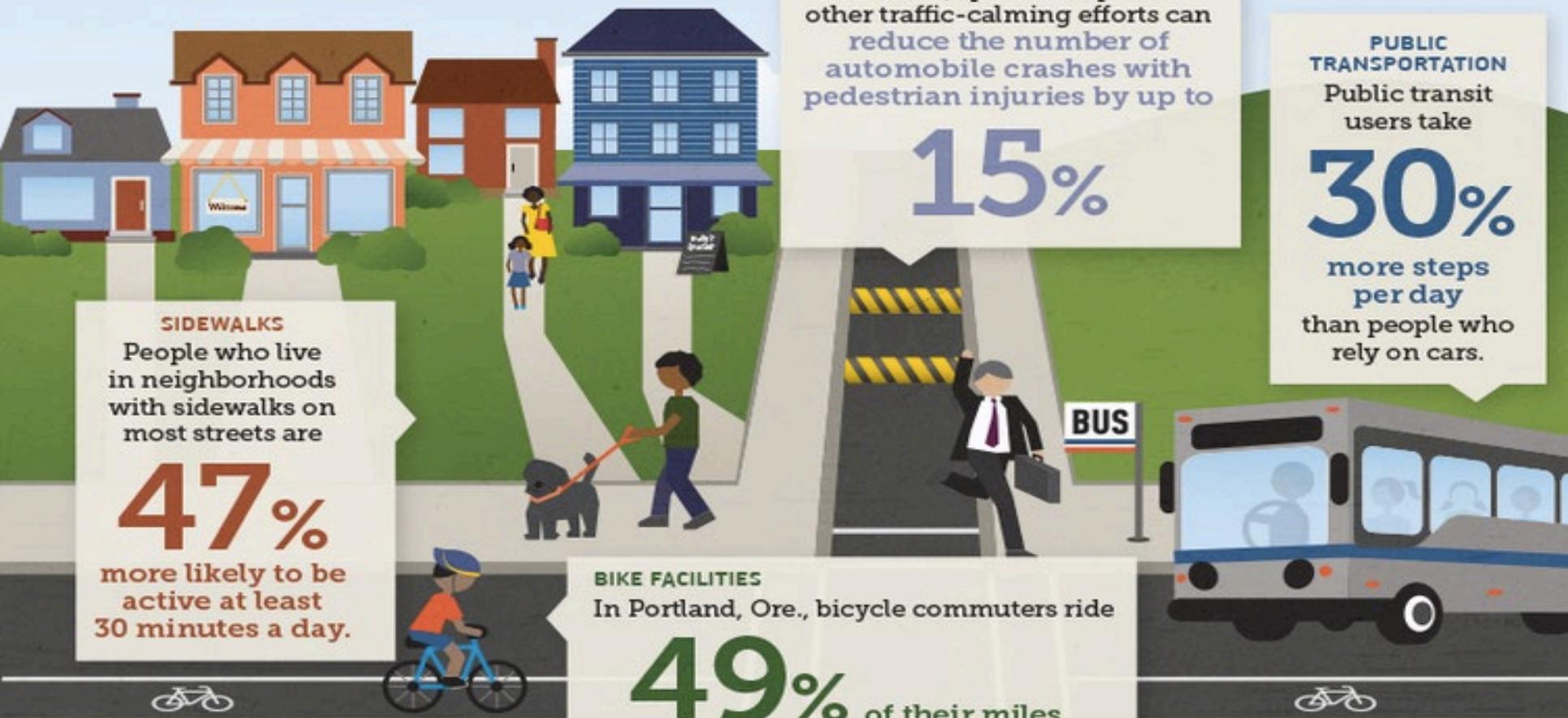
- **Invest in bicycle/pedestrian infrastructure**
- **Calm traffic**
- **Create Safe Routes to School**
- **Build Transit Supportive development**
- **Retrofit sprawling neighborhoods**
- **Revitalize walkable neighborhoods**
- **Education and Encouragement**

Measuring the Health Effects of Sprawl; Barbara McCann and Reid Ewing; Smart Growth America and Surface Transportation Policy

THE ROLE OF

Transportation

IN PROMOTING PHYSICAL ACTIVITY



SIDEWALKS

People who live in neighborhoods with sidewalks on most streets are

47%

more likely to be active at least 30 minutes a day.

TRAFFIC CALMING

Medians, speed bumps and other traffic-calming efforts can reduce the number of automobile crashes with pedestrian injuries by up to

15%

PUBLIC TRANSPORTATION

Public transit users take

30%

more steps per day than people who rely on cars.

BIKE FACILITIES

In Portland, Ore., bicycle commuters ride

49% of their miles

on roads with bike facilities, even though these are only 8% of road miles.

Active Living Research

www.activelivingresearch.org

Sources: SIDEWALKS: Sallis J, Bowles H, Bauman A, et al. "Neighborhood Environments and Physical Activity among Adults in 11 Countries." *American Journal of Preventive Medicine*, 36(6): 484-490, June 2009. BIKE LANES: Dill J et al. "Bicycling for Transportation and Health: The Role of Infrastructure." *Journal of Public Health Policy* (2009) 30, 595-610. doi:10.1057/jphp.2008.56). TRAFFIC CALMING: Bunn F, Collier T, Frost C, et al. "Area-Wide Traffic Calming for Preventing Traffic Related Injuries." *Cochrane Database of Systematic Reviews* (1), January 2003; Elvik R. "Area-Wide Urban Traffic Calming Schemes: A Meta-Analysis of Safety Effects." *Accident Analysis and Prevention*, 33(3): 327-336, May 2001. PUBLIC TRANSPORTATION: Edwards R. "Public Transit, Obesity, and Medical Costs: Assessing the Magnitudes." *Preventive Medicine*, 46(1): 14-21, January 2008.

Healthy Community Design Principles

(CDC National Center for Environmental Health)

- Mixed-land use: homes, shops, schools, and work are close together
- Public transit
- Pedestrian and bicycle-friendly
- Accessible and socially equitable community
- Housing for different incomes and different stages of life
- Green spaces and parks that are easy to walk to
- Safe public places for social interaction
- Fresh, healthy food outlets



Checklist of Essential Features for Cities

Pedestrian & Transit-Oriented Design (Ewing, Bartholomew)

- **Medium-to-high densities appropriately scaled**
- **Fine-grained mix of land uses**
- **Short-to medium-length blocks**
- **Transit routes every half mile or closer**
- **Two- to four-lane streets**
- **Continuous sidewalks**
- **Safe crossings**
- **Appropriate buffering from traffic**
- **Street-oriented buildings**
- **Comfortable and safe places to wait**

How Do Communities Create Safe Walkable Transportation Systems?

Start with the plans and policies!

Engage the public:

- 66% of Americans want more transportation options so they have the **freedom to choose**
- 73% feel they currently have no choice
- 57% want to spend less time in the car

Must address land use, infrastructure, education, enforcement, and design

C-U Background

Champaign County, IL

209,983 residents in 2018

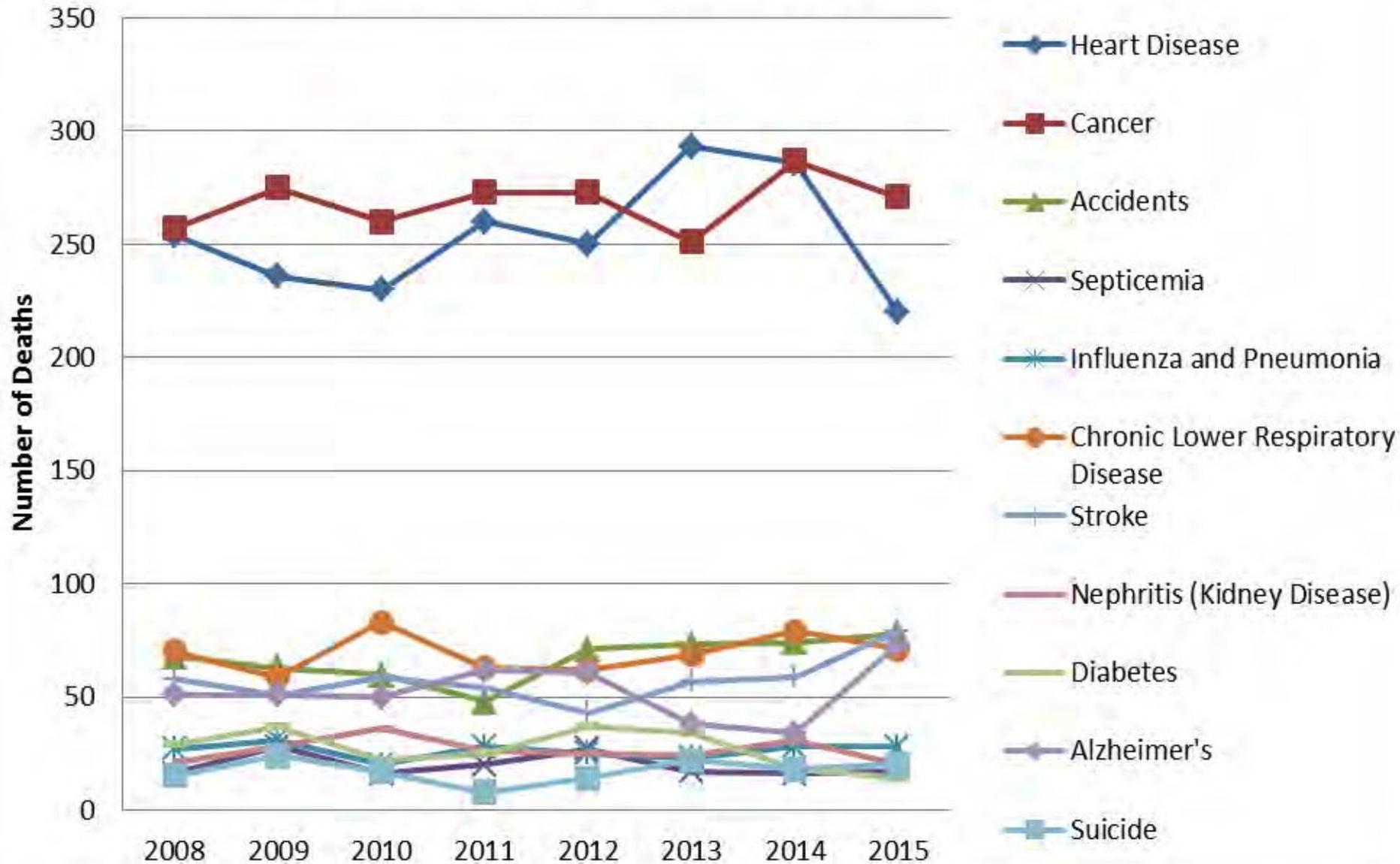
Close to **20%** of Champaign County residents live in **poverty**

54% of children attending public schools were eligible for **free or reduced-price lunches**

25% of Champaign Residents reported being obese, a drop from **27%** in 2014

Leading cause of death in Champaign County from 2003 to 2014 was heart disease, in 2015 cancer surpassed heart disease

Leading Causes of Death in Champaign County 2008-2015





Flat terrain.
Moraines get
warning
signs!

A Tale of Two Cities (Plus a University)

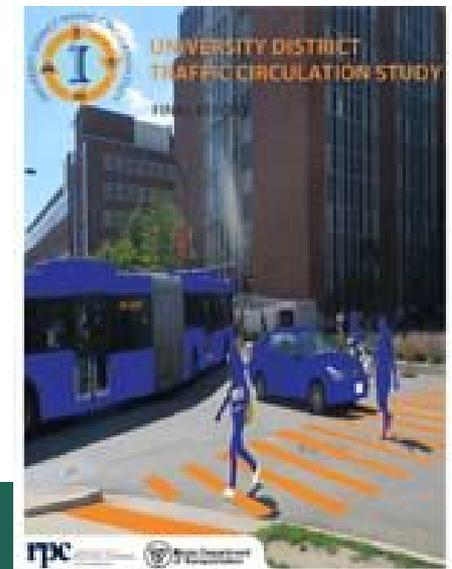
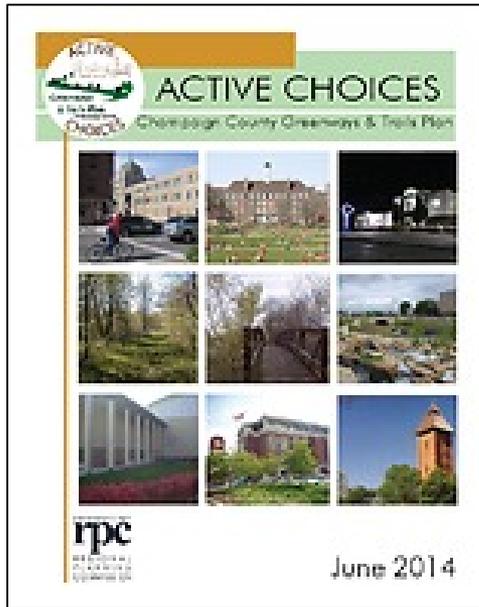
From 1980
to 2000
U.S.
Census
showed
declining
rates of
walking,
bicycling
and transit
use in C-U.



Community leaders
decided to make a change
and create a Micro-Urban
Community



Community Plans



Champaign-
Urbana
Policies/Programs

Complete Streets (Implemented)

Safe Routes to School
(Implemented)

Bicycle Friendly America
(Implemented)

Vision Zero

Walk Friendly Communities

Complete Streets policies defined:



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

Both cities, University of Illinois, and MPO adopted policies.

Two- to Four- lane Streets (Road Diets/Right-Sizing)

FROM THIS....



TO THIS!

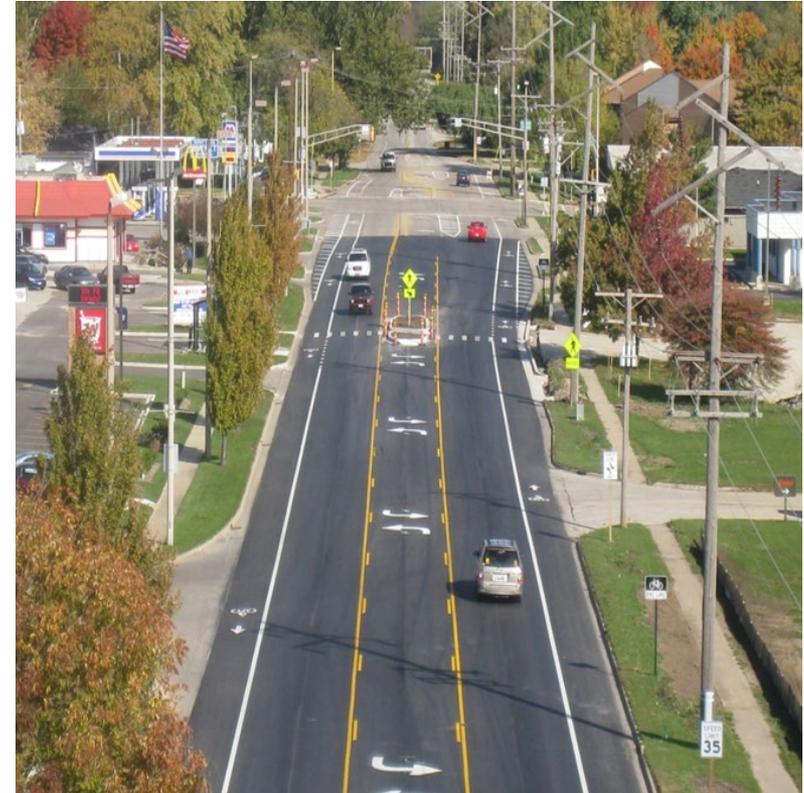


Photo source: City of Urbana

Benefits of Safe Routes to School Programs

SafeRoutes
National Center for Safe Routes to School



- Improve walking and biking conditions
- Reduce congestion
- Increase physical activity (10 minutes to school and 10 minutes home=20 minutes of daily physical activity)
- Cost savings for schools (reduce need for “hazard” busing)
- Others:
 - Increase child’s sense of freedom
 - Help establish lifetime habits
 - Teach pedestrian and bicyclist skills





Successful SRTS Program

Champaign-Urbana, IL – two school systems

2003 began w/ Walk to School Day - 4 schools

2018 – most K-8 schools involved

Seven SRTS grants awarded, three for infrastructure, four for non-infrastructure totaling \$681,087

Creation of a citywide year-round education and awareness raising program

Communitywide partnerships and support

MPO (CUUATS) begins LRTP & CUMTD adopts Strategic Plan

CUMTD sponsors Champaign County Bikes bicycle education, bicycle maps, & organizations

First communitywide Bike to Work event held

Urbana adopts Complete Streets Policy

MCORE \$15.7 million TIGER grant awarded & Urbana becomes first GOLD Level Bicycle Friendly Community in IL



2001

2004

2005

2008

2009

2010

2012

2013

2014

2017

CUMTD sponsors Safe Routes to School programs starting w/ International Walk 'n Bike to School Day

First SRTS Grants awarded to City of Urbana and C-U SRTS Project & Champaign adopts Complete Streets Policy

Urbana becomes Bronze Level Bicycle Friendly Community

Champaign become Bronze Level Bicycle Friendly Community

Community IPLAN developed

C-U Community Partnerships



Partnerships



**DON MOYER
BOYS & GIRLS CLUB**



Urbana Park District



Champaign
County Bikes



ILLINOIS
UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN



University YMCA
University of Illinois at Urbana-Champaign



Champaign Health District
Prevent. Promote. Protect

Partnering with Transit to Promote SRTS

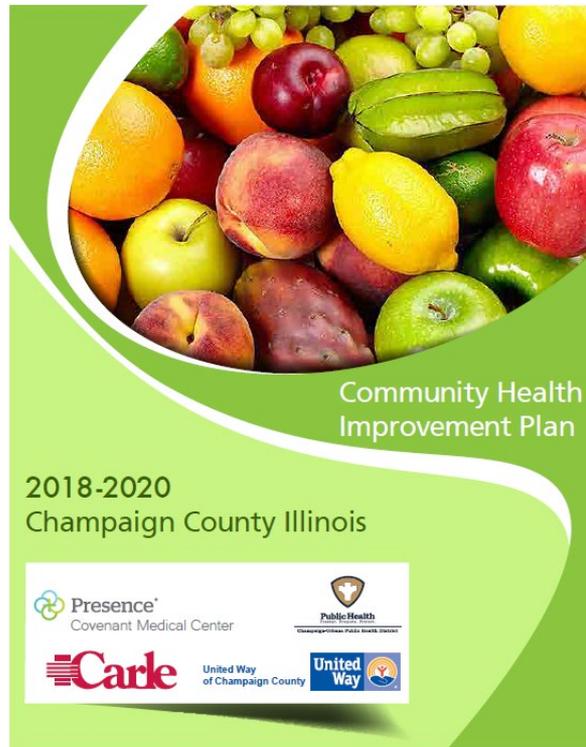


CUMTD contracts to provide bus transit for middle and high school students

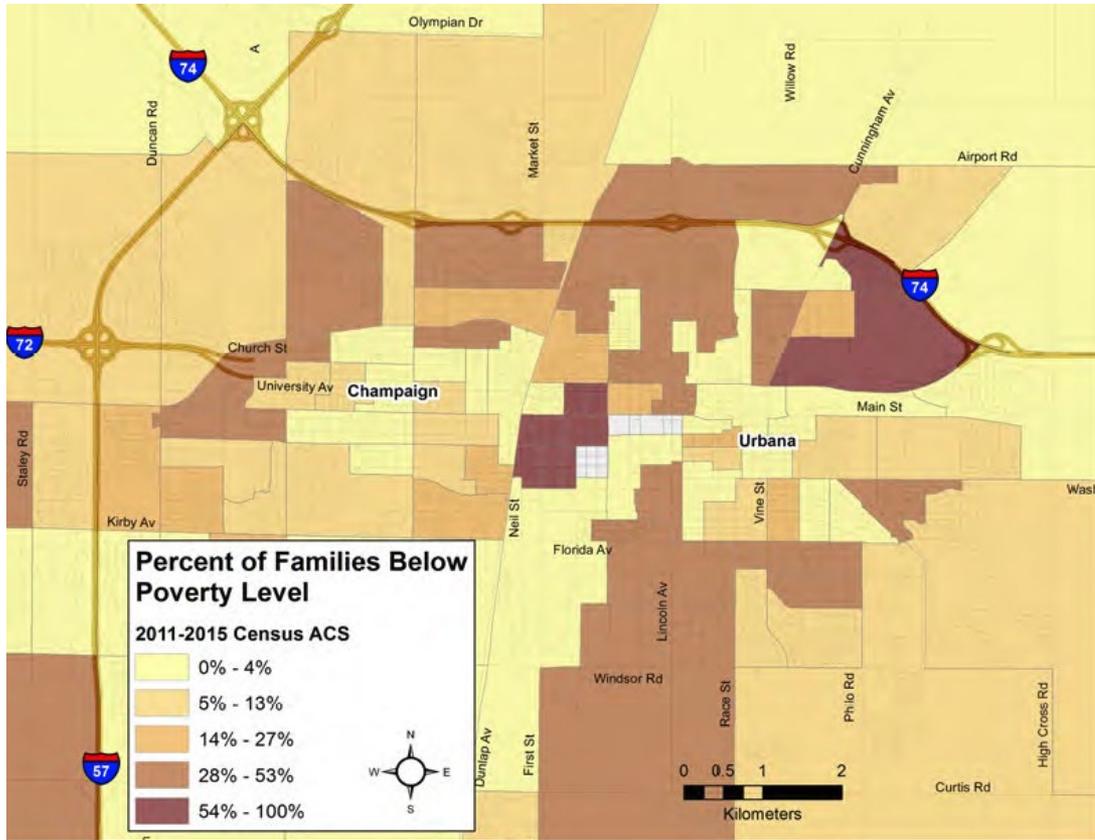
CUMTD provides staff support for SRTS program & serves as fiscal organization for non-infrastructure SRTS grants



Partnerships - Public Health



Community Health Improvement Plan 2018-2020



Long Range
Transportation
Plan & MPO
data useful to
community
health
planners



Integrated SRTS Grant Apps

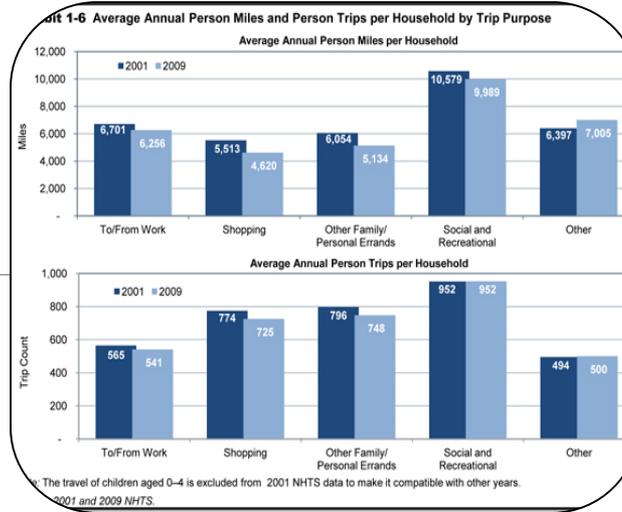
City of Urbana & C-U
SRTS integrated
infrastructure/non-
infrastructure grants

Infrastructure – bike
plan w/in 1.5 miles of
Urbana Middle School

Non-Infrastructure –
Boltage/Active4.me

The 6 E's

- ✓ Education
- ✓ Encouragement
- ✓ Enforcement
- ✓ Engineering
- ✓ Evaluation
- ✓ Equity



“In God we trust,
everyone else bring
data.” NYC Mayor
Bloomberg



Evaluation

Collecting data is key!

Parent surveys

Travel tallies

Walkability
checklists

Bikeability
checklists

Crash data

SAFE ROUTES TO SCHOOL
STUDENT ARRIVAL AND DEPARTURE TALLY SHEET

School Name: _____ Grade: _____ # of students enrolled in class _____
 Teacher: _____ Monday's Date: _____
 School's Zip Code _____ (used to identify weather conditions)

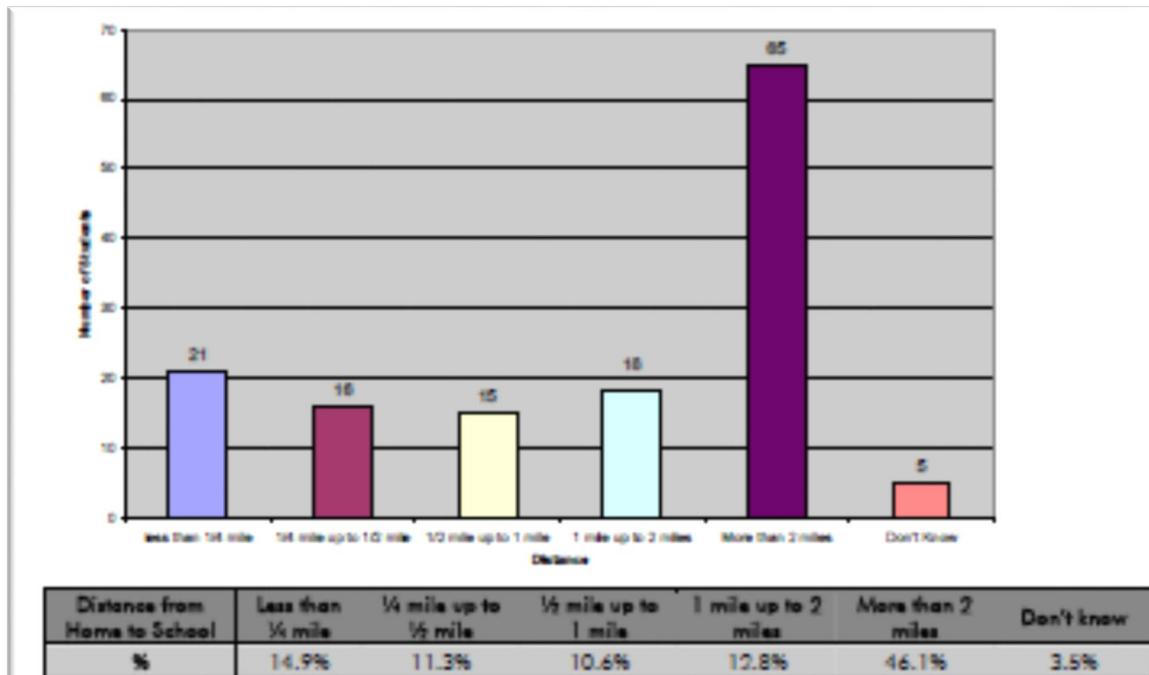
Teachers, here are simple instructions for using this form:

- Please conduct these counts each of the five days of the assigned week.
- Before asking your students to raise their hands to indicate the one answer that is correct for them, read through all potential answers so they will know what the choices are.
- Ask your students as a group the question "How did you arrive at school today?"
- Read each answer and record the number of students that raised their hands for each.
- Follow the same procedure for the question "How do you plan to leave for home after school?"
- Please conduct this count regardless of weather conditions (i.e., ask these questions on rainy days, too).

Step 1. Fill in the weather conditions and number of students in class each day		Step 2. Ask students "How did you arrive at school today?" and "How do you plan to leave for home after school?" (record number of hands for each answer)							
	Weather (Describe the name or state if you know)	Number of Students (in class when count made)	Walk	Bike	School Bus	Family Vehicle (only with children from your family)	Carpool (riding with children from other families)	Transit (city bus, subway, etc.)	Other (skateboard, scooter, inline skates, etc.)
Mon	AM								
Mon	PM								
Tues	AM								
Tues	PM								
Wed	AM								
Wed	PM								
Thur	AM								
Thur	PM								
Fri	AM								
Fri	PM								

Comments (Please list any disruptions to these counts or any unusual travel conditions to/from the school on the days of the tally):

Thank you for helping gather this information!





Pictures: Cynthia Hoyle, FAICP, Hoyle Consulting

Equity

Ask schools what they need – more outreach and support needed for lower income school population engagement

Education & Encouragement



Bike
Rodeos



Walking
School
Buses



Walk 'n Roll
to School
Day



Education and Encouragement Snow Removal Program

Billboards

Busboards

Radio Ads

Yard Signs

Flyers



Hey UMS Tigers!

Do
YOU



to school?

Want to earn
cool **PRIZES** for
every day you
bike to school?

UMS is getting **greener** and
healthier! We are starting a program
called **BOLTAGE** where students
can earn prizes for biking to school.

3 Bike to school!

(On your way in, make sure you walk under the Zap! →



Come to the Boltage Kick-Off Party!
Thursday April 25th, 3:45-4:30pm
Mrs. Lodes' classroom

www.boltage.org

4 Earn cool prizes!



C-U SRTS Project
www.cu-srtsproject.com

Education and Encouragement Boltage/Active4me at Urbana Middle School

Program combines technology
with incentives to encourage
children to bike to school

Participants use ZapTag and
pass under a solar-powered
RFID (radio frequency
identification) reader when
they bike to school

Education and Encouragement Walking School Bus

A walking bus is a form of student transport for children who, chaperoned by adults, walk to school in much the same way a school bus would drive them to school. Like a traditional bus, walking buses have a fixed route with designated "bus stops" and "pick up times".





Law
Enforcement
Involved
from the
Beginning

Engineering

Safe and connected sidewalk system

Crosswalks

Bike lanes

Road diets

Traffic calming

School zone signage

Real-time speed signs

Bike parking

Trails



Potential Issues

Issues

- No sidewalks on way to school
- Unsafe intersection/street to cross
- Distances too great

Solutions

-  Park and walk – use a local park or church parking lot
-  Have school buses drop kids at designated location to walk to school with volunteers
-  Walk around your school track/playground
-  Have your local police dept. assist with walk
-  Organize a Walking School Bus

Bicycle Friendly Community Program of League of American Bicyclists

National recognition for communities that actively work to support bicycling

- 5 award levels
 - Bronze
 - Silver
 - Gold
 - Platinum
 - Diamond



Photo credit: Jennifer Selby



**A Bicycle Friendly Community
welcomes cyclists by providing safe
accommodation for cycling and
encouraging people to bike for
transportation and recreation.**

Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all.



Picture: Cynthia Hoyle, FAICP, Hoyle Consulting

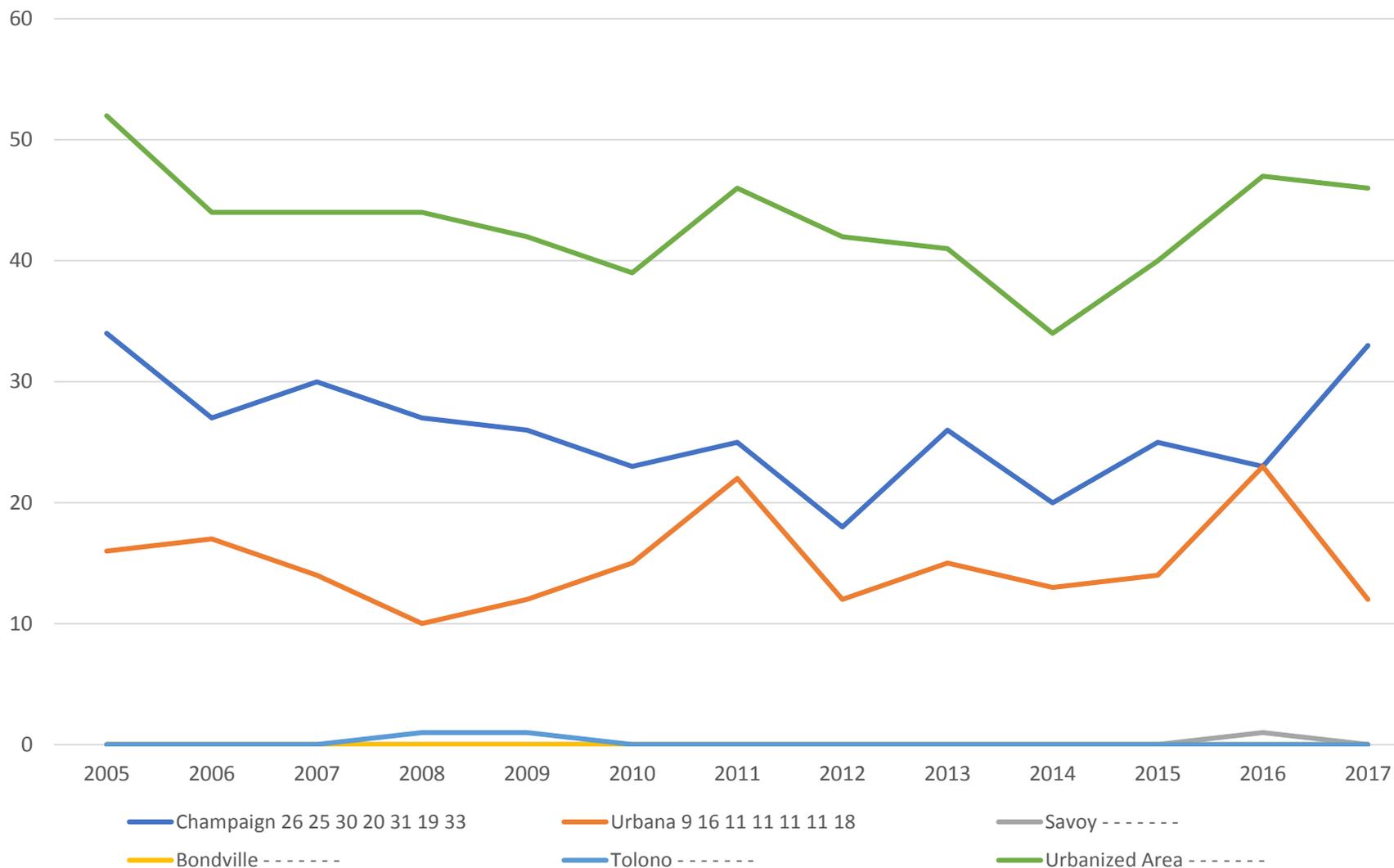
Walk Friendly Communities





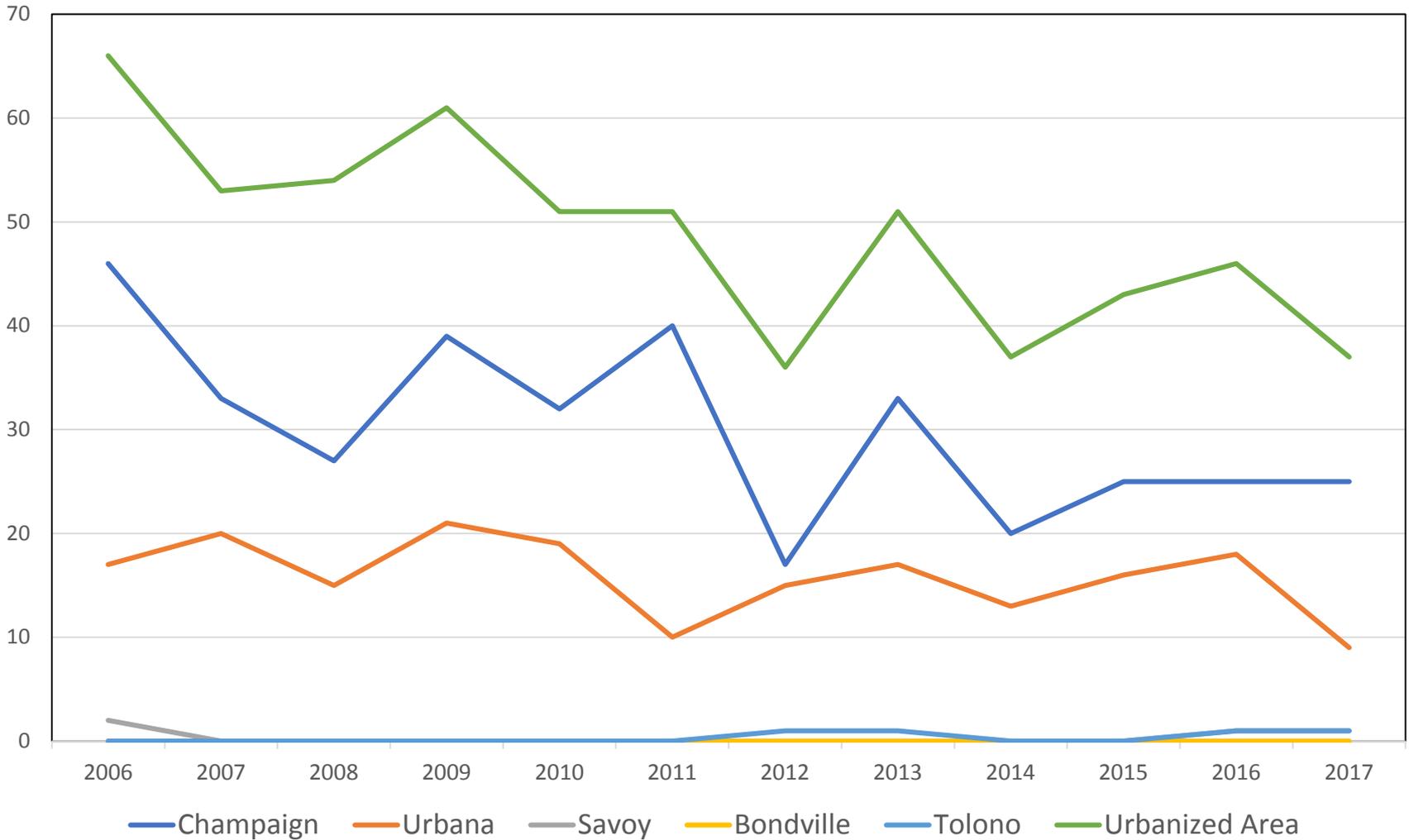
Results in C-U

Total Pedestrian Crashes 2005-2017



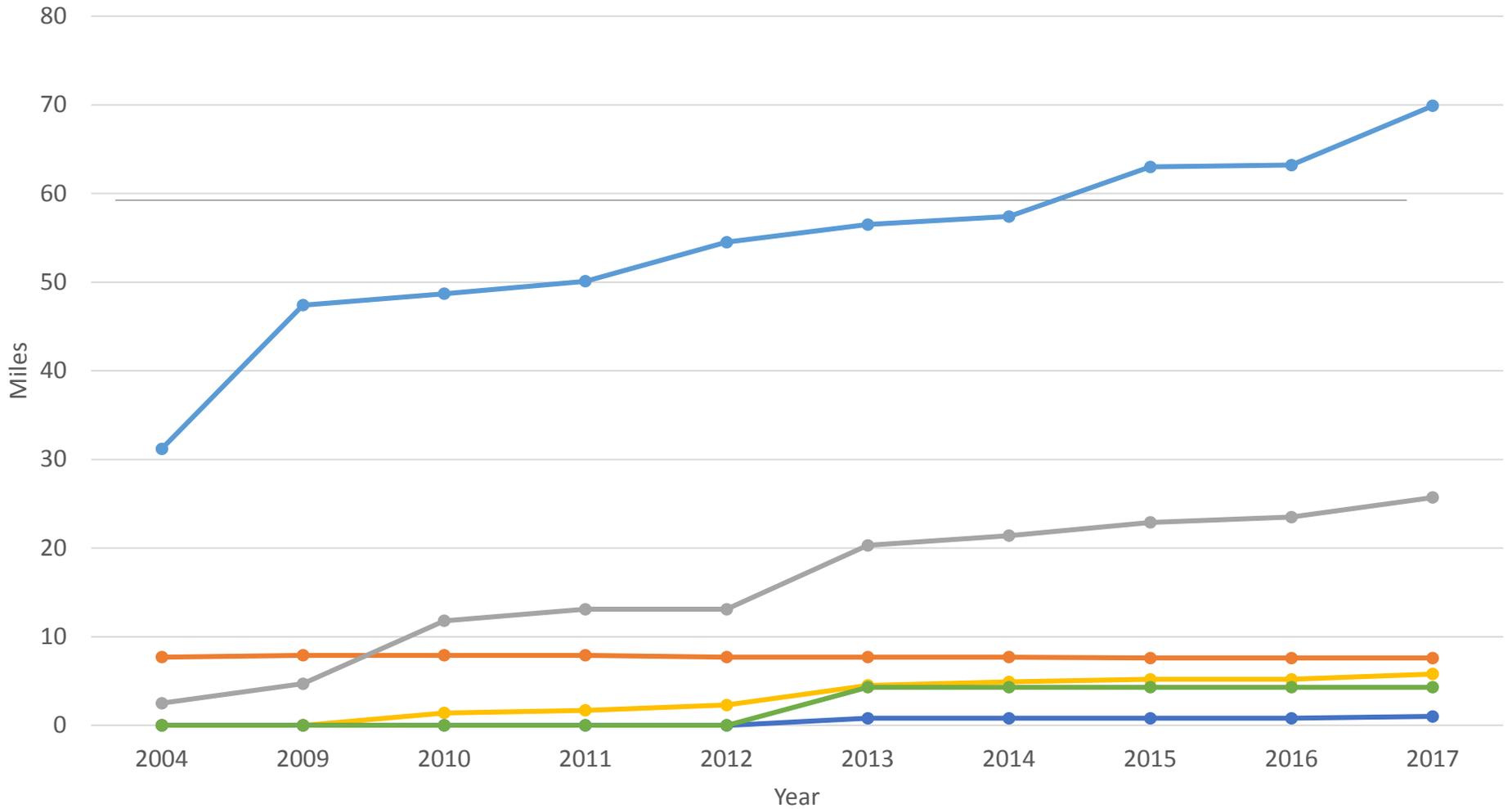
Source: Champaign-Urbana Urbanized Area Transportation Study

Total Bike Crashes 2006-2017



Source: Champaign-Urbana Urbanized Area Transportation Study

Bicycle Facilities in the Urbanized Area



- Shared-Use Path (sidepath, divided, off-street)
 ● Bike Path (includes UIUC Bike Path)
- Bike Lanes (on-street)
 ● Shared Lane Markings (sharrows)
- Shared Bike/Parking Lanes
 ● Bike Route

Legend

CUMTD Bus Stop Sidewalk

Connections

C-U MTD Service Area



C-U MTD Bus Stop On High

Frequency Routes

- With sidewalk connection
- Without sidewalk connection
- Bus stops on low frequency routes

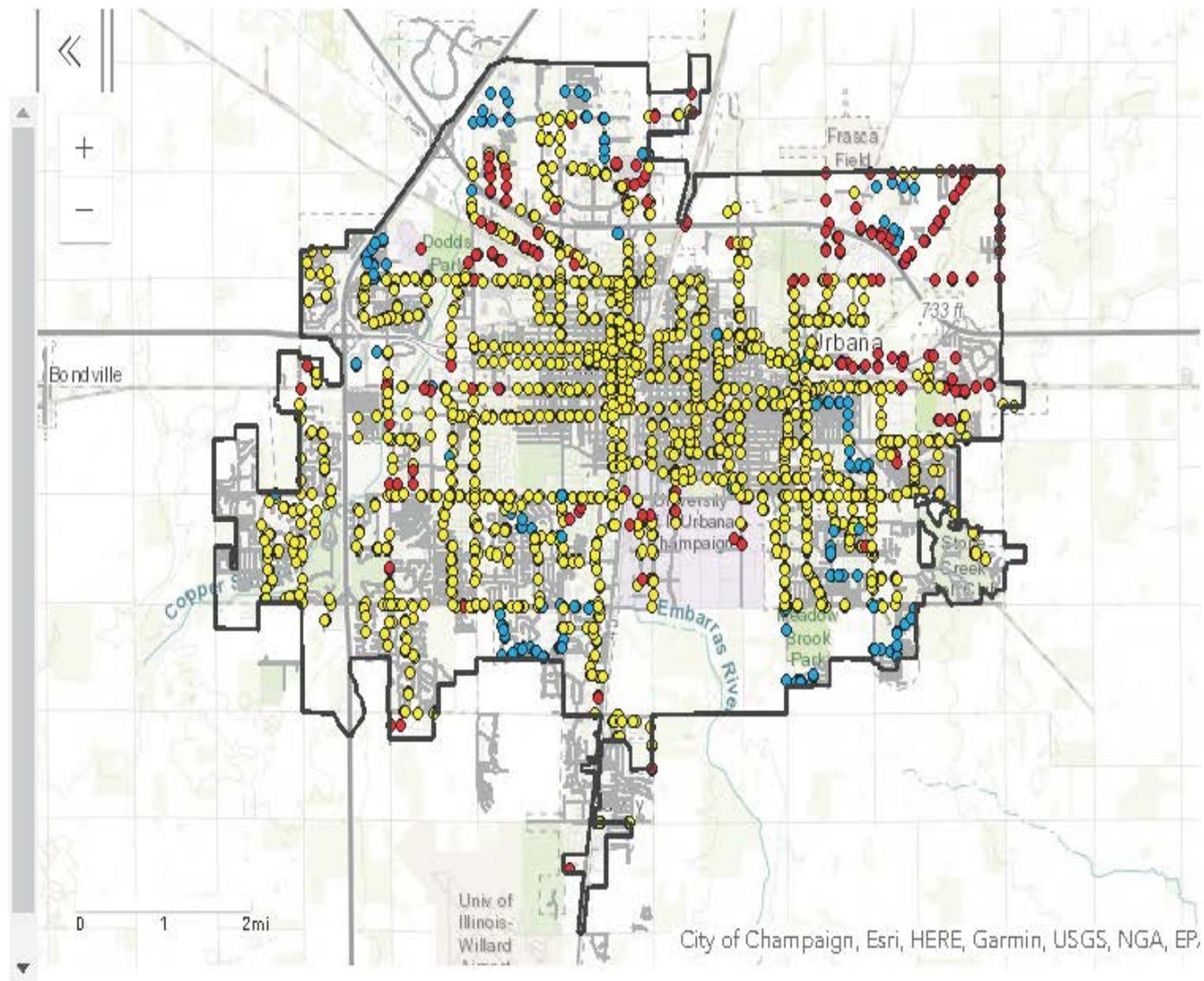
Sidewalk Segments

Community Scale

Sidewalk

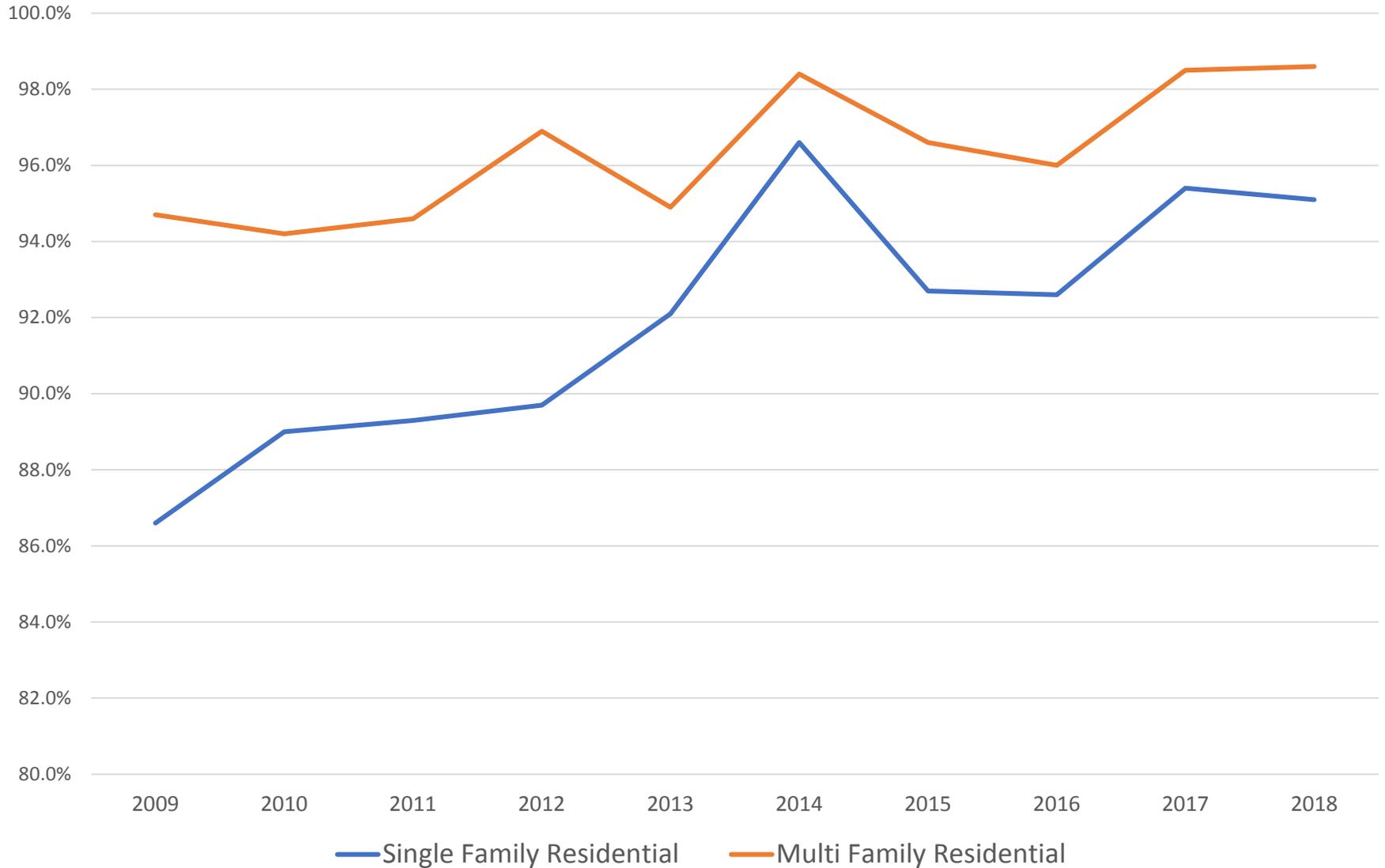


Sidewalk - No Score



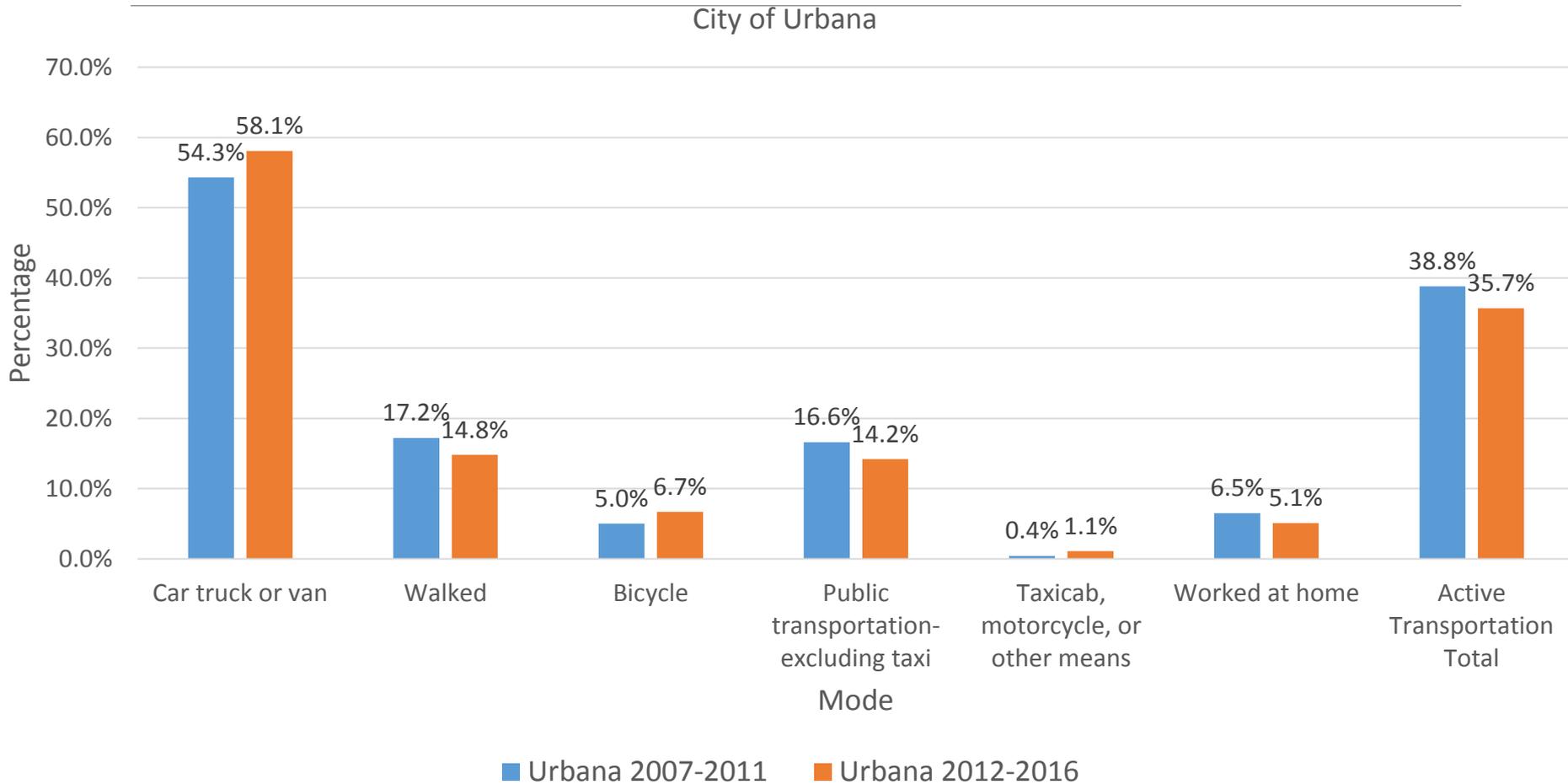
Sidewalks to transit

Residential Parcels within ¼ mile of MTD Bus Routes



Source: Champaign-Urbana Urbanized Area Transportation Study

Urbana Trips to Work (U.S. Census/ACS)





The Future Where do we go from here?

Pictures: Cynthia Hoyle, FAICP, Hoyle Consulting

It is about being able to choose to walk, bike, or take a bus safely





Thank You!

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HOYLE
CONSULTING

Resources

Resources



www.saferoutespartnership.org/home



www.ite.org



www.completestreets.org

Resources



www.activelivingbydesign.org



www.bikeleague.org/bfa



www.planning.org



<https://www.880cities.org>

Resources



www.apha.org

AMERICAN PUBLIC HEALTH ASSOCIATION
For science. For action. For health.



www.apbp.org