

# Why Transportation Policy Matters & the Route 9 Active Transportation Project

for Mr Wood's "You Break It, You Make It," The Masters School

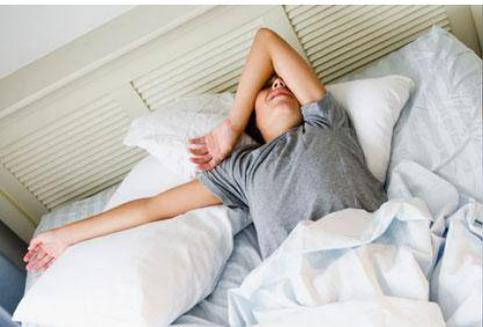
by Daniel Convissor, Director, Bike Tarrytown

with Rob Baron, Dobbs Ferry Traffic Committee

January 27, 2023

Every Person  
Needs Transportation  
Every Day

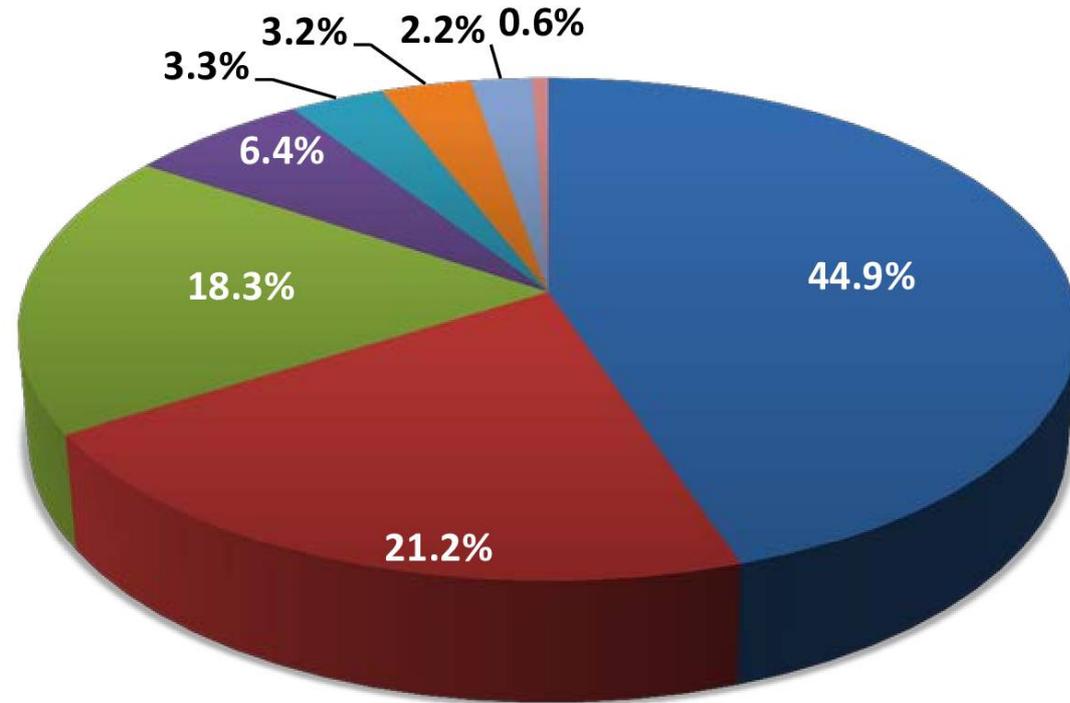
# Our Need for Transportation



# *How We Travel Really Matters*

# How We Travel Really Matters

## Climate Emergency



- Transportation Energy Consumption
- Residential Energy Consumption
- Commercial Energy Consumption
- Industrial Energy Consumption
- Industrial Processes
- Energy Generation and Supply
- Waste Management
- Agriculture

(NYSERDA, "Mid-Hudson Regional Greenhouse Gas Emissions Inventory," 2012)

# How We Travel Really Matters



George Etheredge, NY Times

## Air Pollution

### Tailpipe emissions

- nitrogen oxides
- sulfur dioxide
- hydrocarbons
- benzene

### Tire & Brake Dust

30,000 premature deaths / yr

# *How We Travel Really Matters*



New Castle News Online

## Water Pollution

Lubricants & Fuel

Tire & Brake Dust

Salt from snow removal

Heat from pavement

Surges of road runoff floods  
rivers, overflows sewage plants

# *How We Travel Really Matters*



Noise Pollution

Engines

Tires rolling

Potholes & Bumps

# *How We Travel Really Matters*

## Noise Pollution



Engines

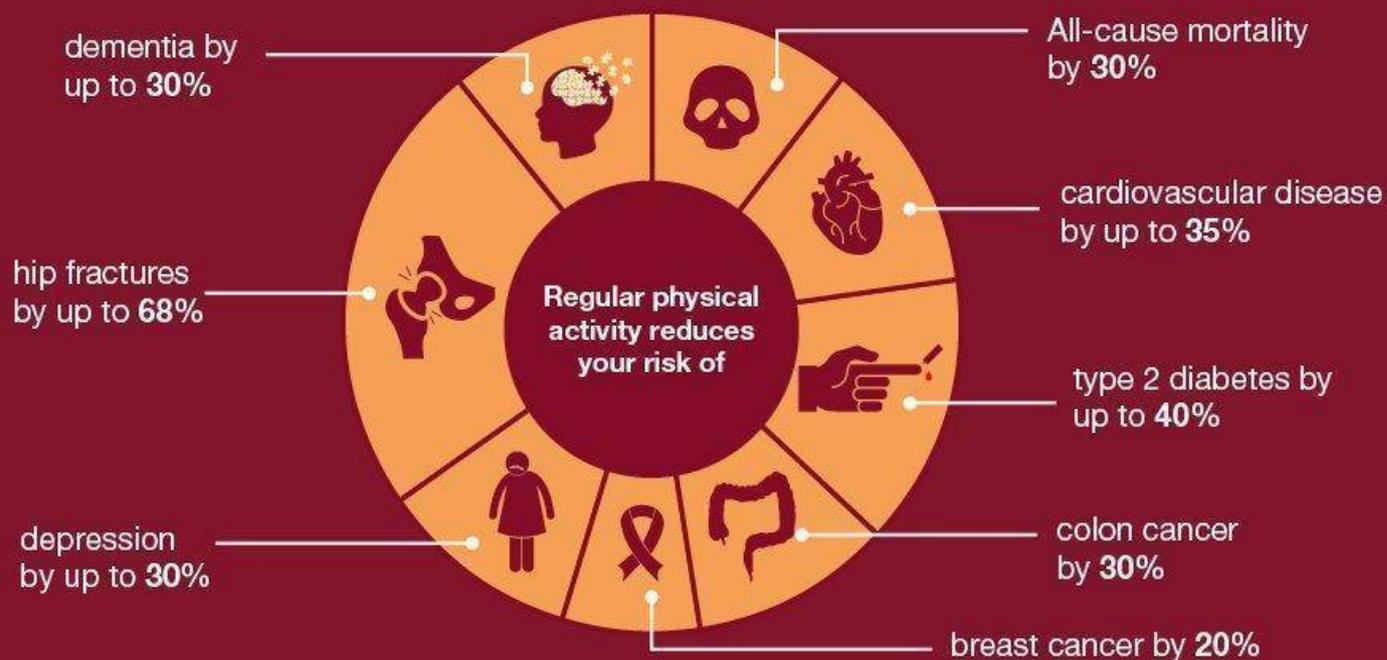
Tires rolling

Potholes & Bumps

Recording: Tappan Zee Bridge  
from 1.5 miles away

# How We Travel Really Matters

## What are the health benefits of physical activity?



# *How We Travel Really Matters*



Expensive

Owning & operating a car costs  
~\$10,000 per year

\$220 b for highway  
construction & maint. in 2012

(AAA)  
(USDOT, "2015 Conditions and Performance")

# *How We Travel Really Matters*



@Hackneycyclist

## Social Capital

Walking, cycling & transit gets us out in the world

Engage neighbors & strangers

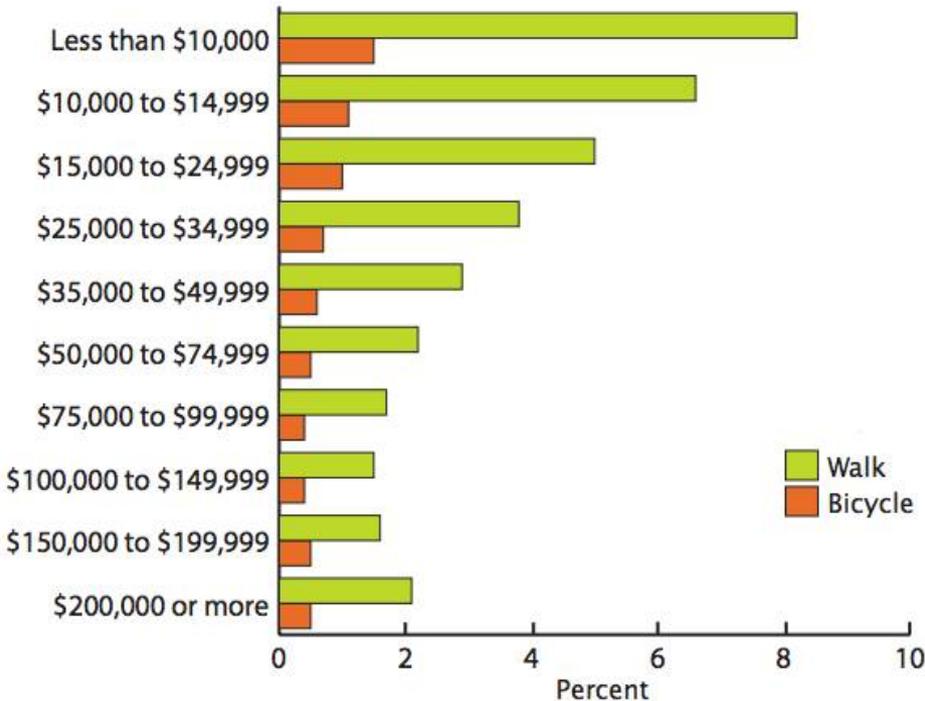
Increases trust and community participation

# How We Travel Really Matters

## Social Equity

Lower-income people  
commute by bike & foot more

Safe infrastructure means  
affordable access to more jobs



(Census Bureau, American Community Survey, 2008-2012)

# *How We Travel Really Matters*



## Independence

1/3 of people can't drive

- young
- old
- disabled
- poor

Give people freedom to travel

# SAFE STREETS MEAN MOBILITY FOR ALL

 **BIKE TARRYTOWN**



# How We Travel Really Matters

## Each Cyclist Spends More



@bikeabout

<u>Shop</u>	<u>Bike</u>	<u>Car</u>
Convenience	\$82	\$69
Bars	\$82	\$41
Restaurants	\$48	\$40

Monthly spending.  
(Clifton, et al, "Consumer Behavior and Travel Choices," TRB, 2013)

# Spending from 20' of Curb Space

(say your average customer spends \$20)

1 Car: \$20-\$40

(average 1-2 people)

(max. 5 people: \$100)



10 Bikes:  
**\$200 !**

# How We Travel Really Matters

	Age Groups											
Rank	<1	1-4	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55-64	65+	All Ages
1	Unintentional Suffocation 1,024	Unintentional Drowning 425	Unintentional MV Traffic 319	Unintentional MV Traffic 476	Unintentional MV Traffic 2,560	Unintentional Poisoning 5,268	Unintentional Poisoning 20,938	Unintentional Poisoning 21,943	Unintentional Poisoning 18,078	Unintentional Poisoning 15,030	Unintentional Fall 36,508	Unintentional Poisoning [drug overdose] 87,404
2	Homicide Unspecified 104	Unintentional MV Traffic 284	Unintentional Drowning 117	Suicide Suffocation 312	Homicide Firearm 2,417	Unintentional MV Traffic 4,181	Unintentional MV Traffic 7,929	Unintentional MV Traffic 6,031	Unintentional MV Traffic 5,421	Unintentional MV Traffic 5,942	Unintentional MV Traffic 7,480	Unintentional Fall 42,114
3	Unintentional MV Traffic 72	Unintentional Suffocation 118	Homicide Firearm 91	Suicide Firearm 224	Unintentional Poisoning 1,396	Homicide Firearm 3,549	Homicide Firearm 6,158	Homicide Firearm 3,540	Suicide Firearm 3,418	Suicide Firearm 3,889	Suicide Firearm 6,472	Unintentional MV Traffic 40,698
4	Homicide Other Spec., classifiable 68	Homicide Unspecified 108	Unintentional Fire/burn 60	Homicide Firearm 218	Suicide Firearm 1,069	Suicide Firearm 2,104	Suicide Firearm 3,901	Suicide Firearm 3,215	Suicide Suffocation 2,086	Unintentional Fall 3,140	Unintentional Unspecified 4,839	Suicide Firearm 24,292
5	Undetermined Suffocation 38	Homicide Firearm 75	Unintentional Suffocation 38	Unintentional Drowning 91	Suicide Suffocation 783	Suicide Suffocation 1,131	Suicide Suffocation 3,063	Suicide Suffocation 2,597	Homicide Firearm 1,783	Suicide Suffocation 1,493	Unintentional Poisoning 4,618	Homicide Firearm 19,384
6	Unintentional Drowning 34	Unintentional Fire/burn 75	Unintentional Other Land Transport 33	Unintentional Other Land Transport 52	Unintentional Drowning 265	Unintentional Drowning 328	Undetermined Poisoning 869	Undetermined Poisoning 903	Unintentional Fall 1,282	Suicide Poisoning 1,165	Unintentional Suffocation 3,723	Suicide Suffocation 12,495
7	Undetermined Poisoning 33	Unintentional Pedestrian, Other 54	Homicide Unspecified 27	Unintentional Poisoning 52	Suicide Poisoning 181	Suicide Poisoning 295	Suicide Poisoning 789	Suicide Poisoning 844	Suicide Poisoning 1,140	Homicide Firearm 992	Adverse Effects 3,560	Unintentional Suffocation 6,768

(Leading Causes of Injury Death, United States, 2020. Source: WISQARS by the CDC)

So, uhh, what do we do about it?

# Principles



## Most Trips Are Short

19% < 1 mile

34% < 2 miles

46% < 3 miles

54% < 4 miles

66% < 6 miles

(Our tabulation of person trips, USDOT, 2017 National Household Travel Survey)

# Principles

Stop forcing people  
to drive



There is no set number of cars that has to be accommodated



Travel choices are shaped by public policy



IT'S NOT HOW MUCH  
SPACE YOU HAVE



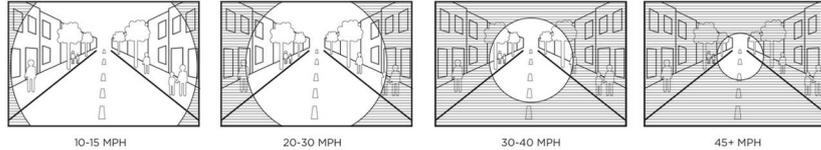
IT'S HOW YOU USE IT



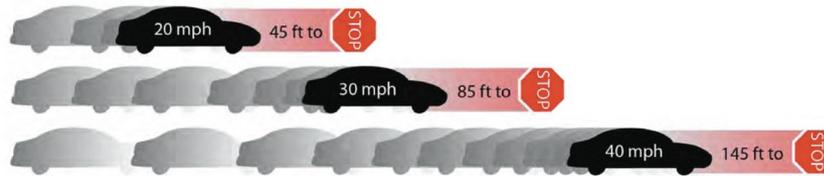
# Principles

## SLOWER IS SAFER: THE 3 REASONS WHY

- 1) See more surroundings, so can avoid crash



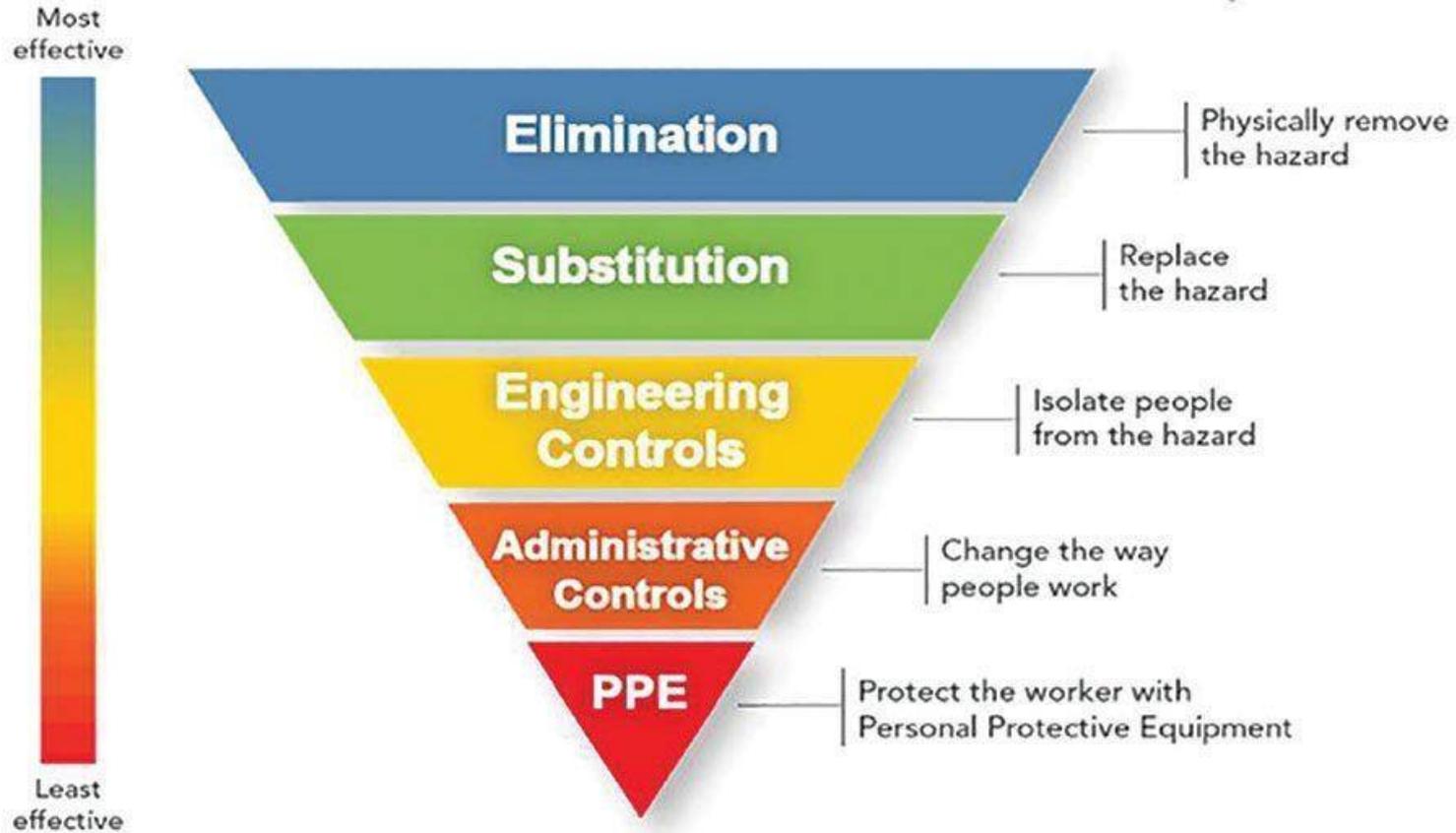
- 2) Shorter stopping, so less likely to crash



- 3) Severity reduced if a crash does happen

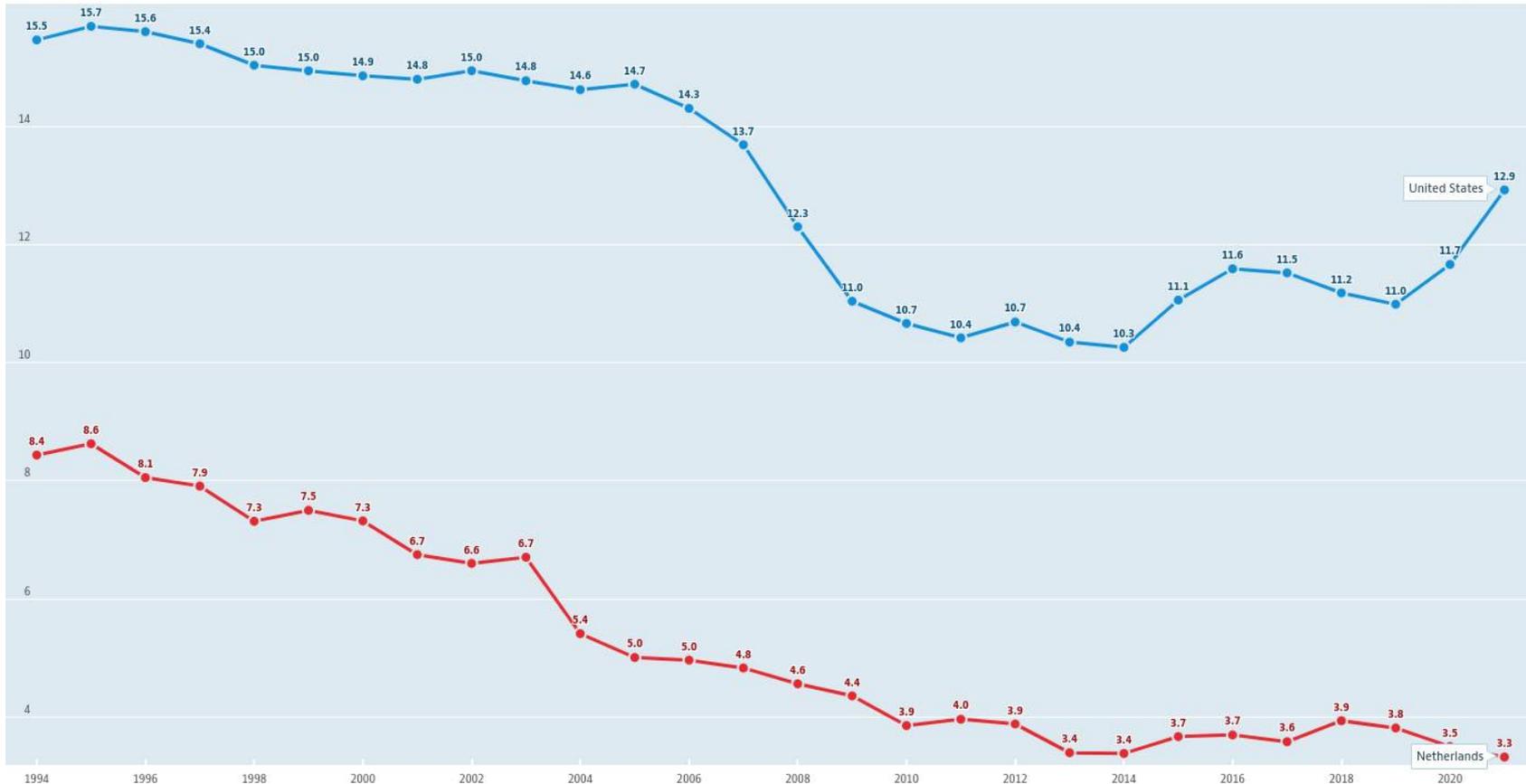
IMPACT SPEED MPH	DEATH Percentage risk	SERIOUS INJURY Percentage risk	SLIGHT INJURY Percentage risk
19	10%	15%	75%
25	32%	26%	42%
31	80%	3%	17%
37	95%	3%	2%

# Principles



# Principles

Road accidents Deaths, Per 1 000 000 inhabitants, 1994 - 2021



©

Compare countries on [data.oecd.org](https://data.oecd.org)



# Solutions

What Would Netherlands Do?



# Solutions

## Calming: Major Road



- 't Goylaan in Utrecht
- Reconstructed in 2016
  - 4 lanes → 2 lanes
  - Lanes now 10' 8" wide (3.25 m)
- US engineers demand 12', but
  - US guidelines say 10' is OK
  - Research shows 10' is safest
  - Truck widths: US = EU

(USDOT, "Flexibility in Highway Design," 2004)  
(Karim, "Narrower Lanes, Safer Streets," 2015)

# Solutions

## Calming: Minor Road



# Solutions

## Calming: Residential Access



# Solutions



@WorldBollard



@QAGreenways



# Filtering



# Solutions



Utrechts Archief

## People Only: Core Area



# Solutions

## Transit

Frequency is freedom

← 40 trains in 45 min. @ 8 pm Mon.

Early morning & late night

Proof of Payment



# Solutions



Transit: Local

Safe walking/cycling network

Shelters & seats

Information

Bike parking (maybe)

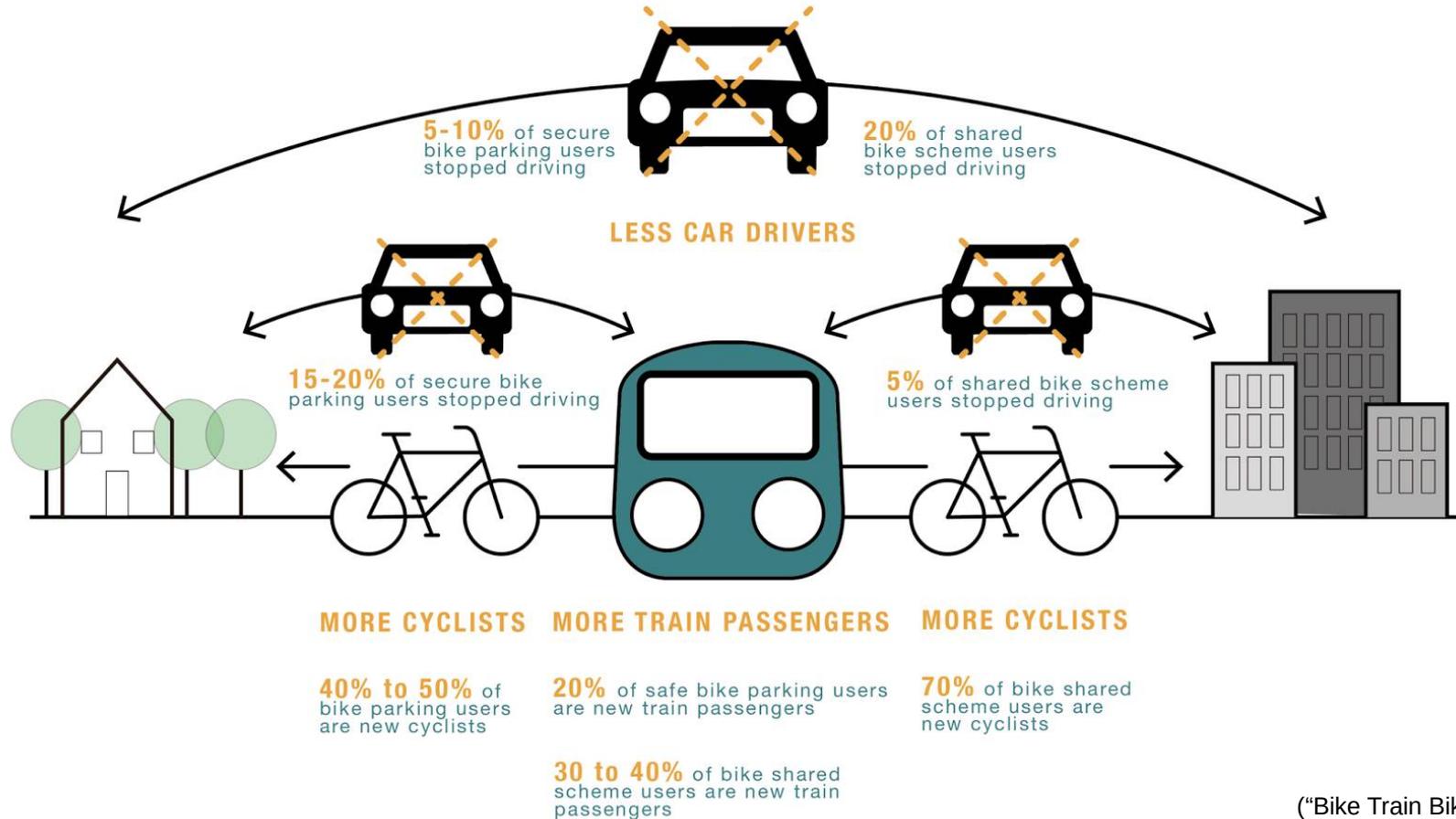
# Solutions



## Transit: Regional

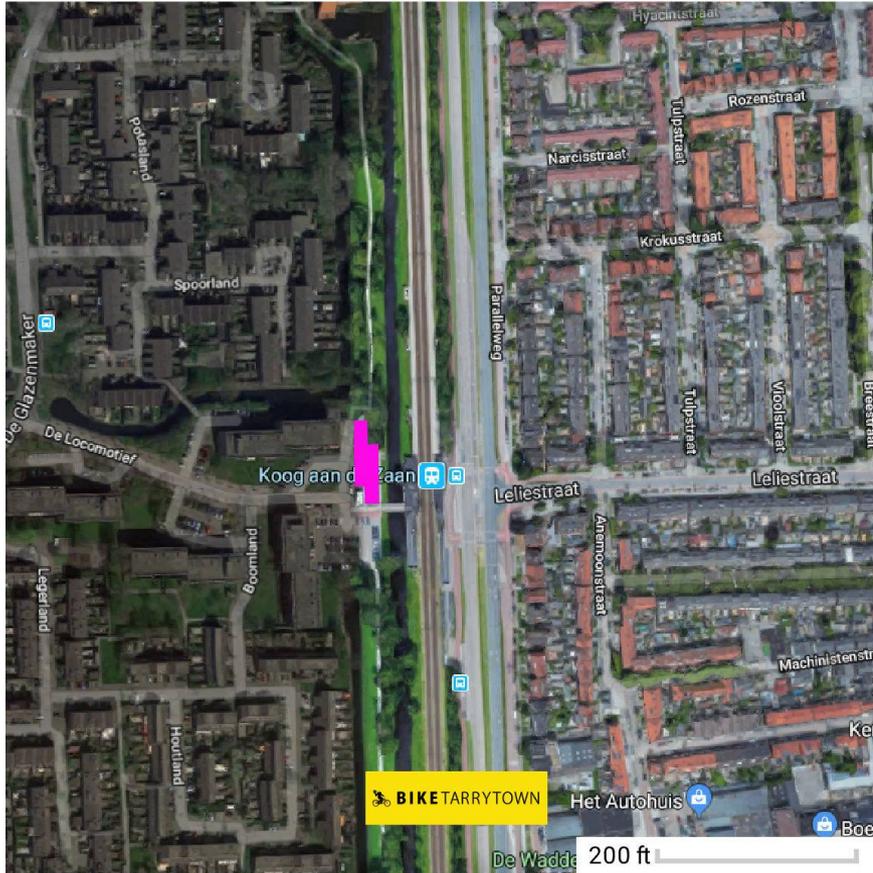
- Local transit connections
- Safe walking/cycling network
- Lots of bike parking
  - ↑ 12k in 1 garage (+20k more)
  - ← 200 spaces, village pop. 1.5k
- Reliable, cheap bike share
  - Bike is yours for 24 hrs. for €5

# Solutions



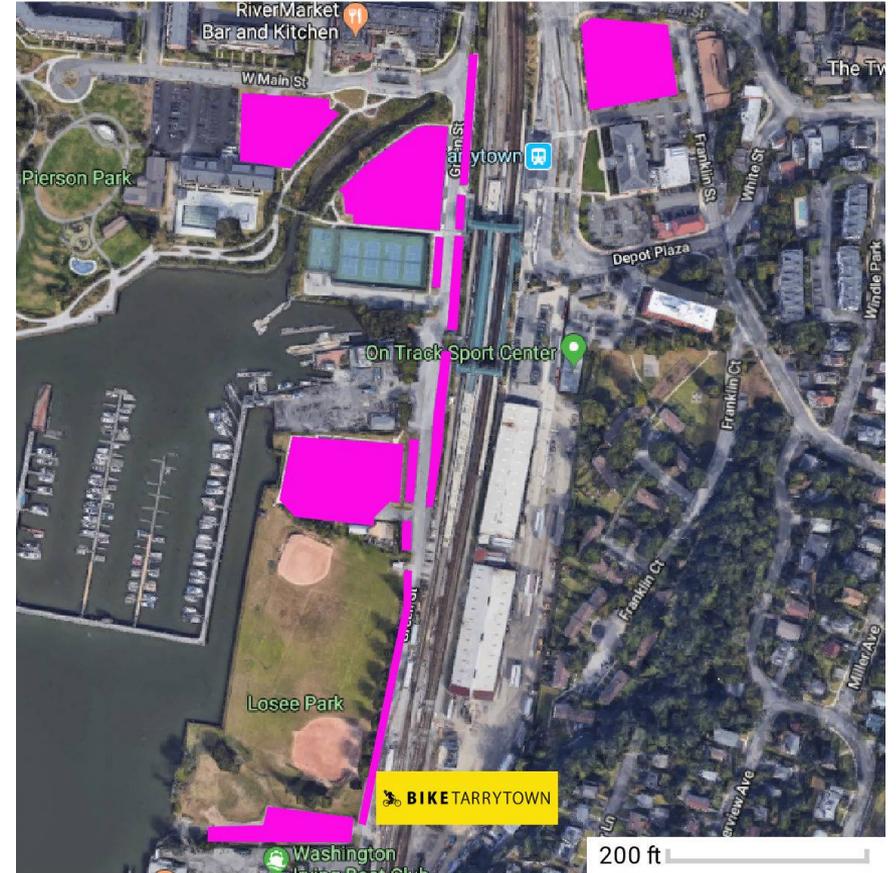
("Bike Train Bike," European Union)

# Solutions



**624 bike parking spaces**

Koog aan de Zaan, Netherlands. Population 12,000.



**709 car parking spaces**

Tarrytown, United States. Population 11,000.

# The Route 9 Project

# The Route 9 Project



# The Route 9 Project



## Broadway Crashes

~150 non-fatal crashes / year  
societal cost \$2.7m

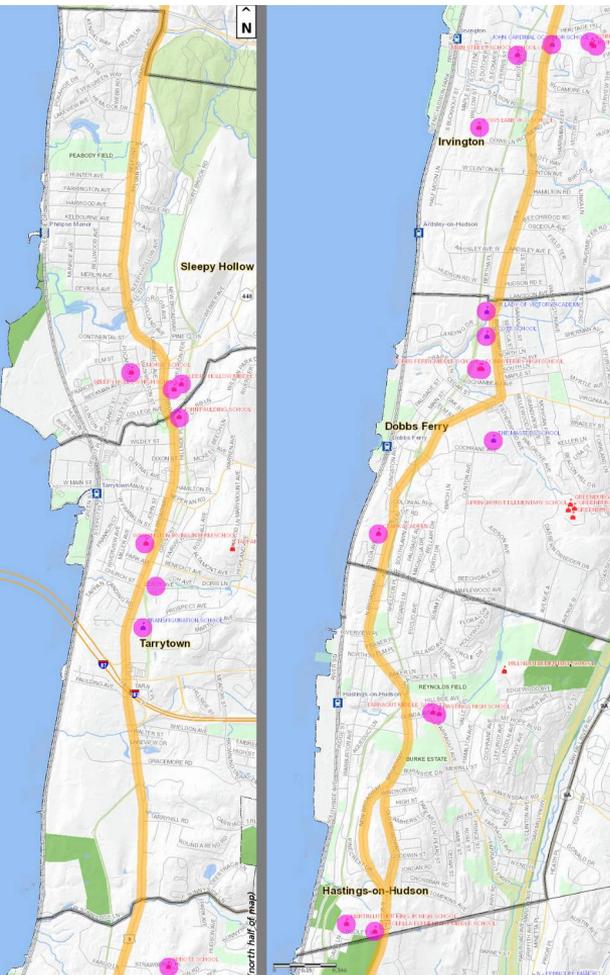
3 people killed since 2012  
\$5m drained from community

(NYSDOT ALIS, 2007-2016, Sleepy Hollow - Hastings-on-Hudson. News reports.)  
(National Safety Council, Guide to Calculating Costs)

# The Route 9 Project

## Schools

23 schools next to / close to Rt 9



# The Route 9 Project

- Conceived in 2016 by residents
- Sleepy Hollow - Hastings
- Make Rt. 9 safe to walk/bike on/across
- Steering Committee: 3 / village
- Grant from New NY Bridge (\$150k)
- Hired consultant (Nelson\Nygaard)
- 4 meetings for public input
- 2 public surveys
- Final report released November 2018

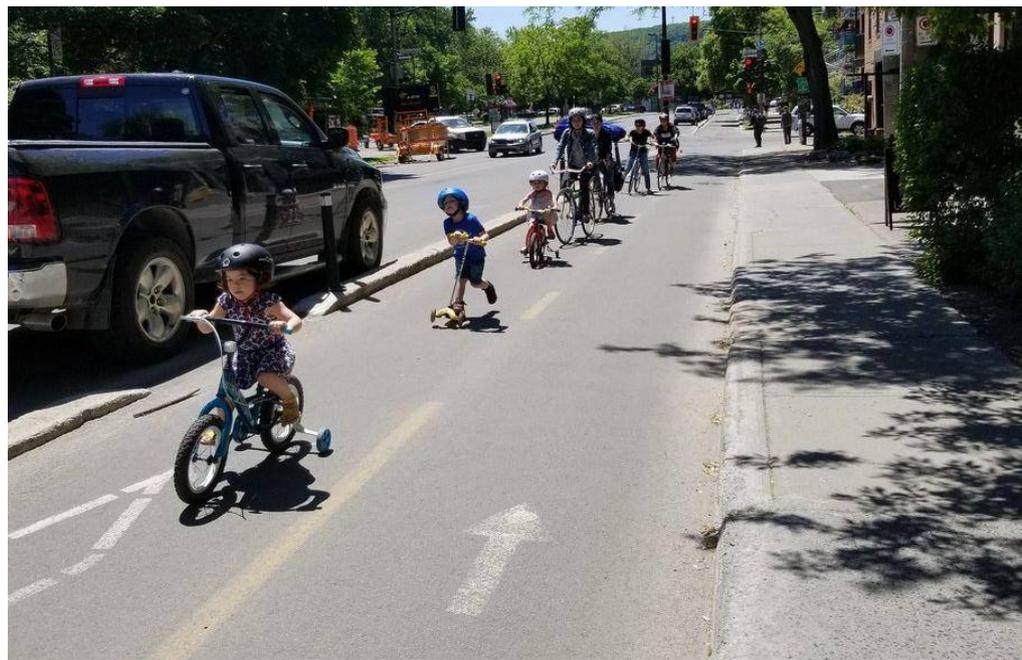


# Route 9 Project - Phase 2



- Aligned the Mayors (TT - Hastings)
- Aligned County Executive & Legislators
- Aligned State Assembly & Senators
  - Senator Andrea Stewart-Cousins
- Lobby Governor
- Pressure State Dept of Transportation
- DOT is hiring consultant (WSP)
- Scoping and preliminary engineering
- Start June 2023, approve June 2024

# The Route 9 Project



@MagBebronne

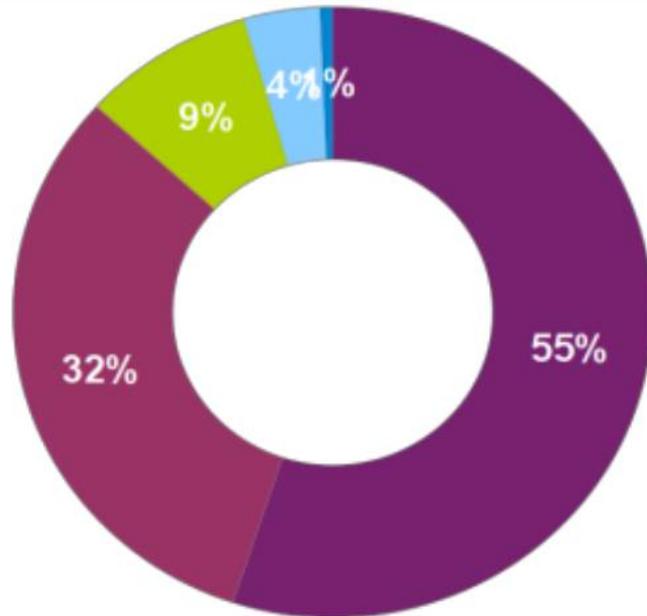
# The Route 9 Project



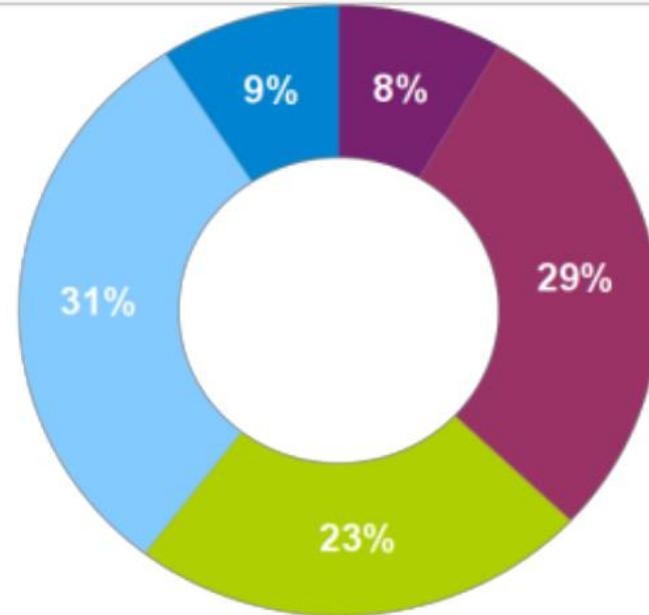
# Cultural Biases

# Cultural Biases

(Ai) If somebody leaves their **car** in the street and **it gets** stolen, it's their own fault for leaving **it** there and the police shouldn't be expected to act



(Aii) If somebody leaves their **belongings** in the street and **they get** stolen, it's their own fault for leaving **them** there and the police shouldn't be expected to act



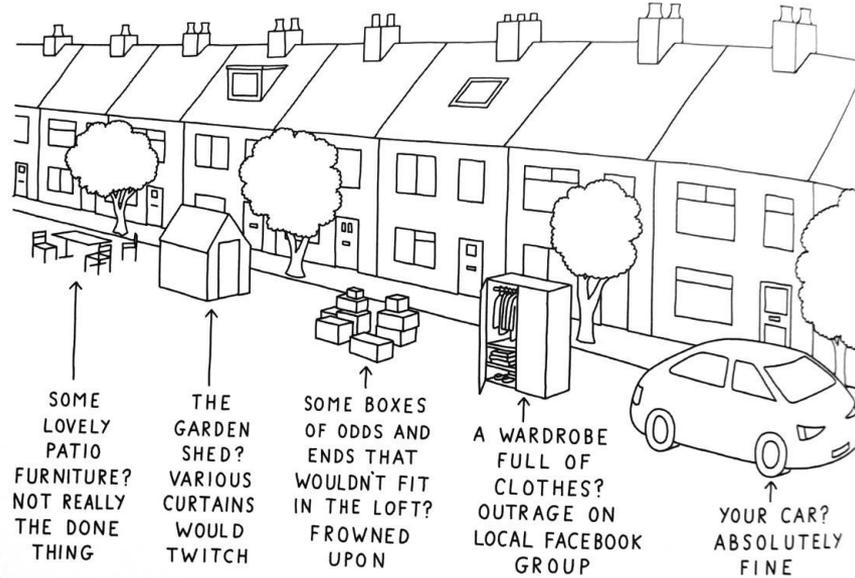
■ Strongly agree ■ Agree ■ Neutral ■ Disagree ■ Strongly disagree

(Walker, Tapp, Davis: "Motonormativity: How social norms hide a major public health hazard," 2023)

# Cultural Biases

## STORAGE

OF PRIVATE PROPERTY IN THE STREET



COULD A CYCLE LANE BE PUT IN, SO WE CAN RIDE TO SCHOOL SAFELY?



I'M SORRY - THE PARKED CARS MEAN THERE JUST ISN'T ANY ROOM

# Cultural Biases

- Parking Mandates
- Traffic Engineers
  - AASHTO “standards”
  - Level of Service
- Streets are public space



# Cultural Biases

## THINGS KIDS HAVE SACRIFICED FOR DRIVERS

- PLAYING ON THEIR STREET
- SAFE SCHOOL STREETS
- WALKING TO SCHOOL
- BIKING TO SCHOOL
- WALKING TO THE PARK
  - RANDOM PLAY
- CROSSING THE STREET
- PLAYING AT NIGHT
  - INDEPENDENCE
- QUALITY STREET LIFE
  - AIR QUALITY
  - ETC.....

## THINGS DRIVERS HAVE SACRIFICED FOR KIDS

# CHANGE IS SCARY, BUT WORTH IT

Before Street Enhancements

“It would be devastating for businesses. If people can’t park, it will put people off.”

After Street Enhancements

“The road has become more vibrant with the increase in pedestrians and cyclists.”



# Further Resources

- Our Streets Dobbs Ferry
- StreetFilms (YT: StreetfilmsCommunity)
- Bicycle Dutch (YT: BicycleDutch)
- Not Just Bikes (YT: NotJustBikes)
- Dutch Cycling Embassy (YT: cycling\_embassy)
- Mobycon (YT: Mobycon)
- The High Cost of Free Parking
  - book by Donald Shoup
  - video primer by [Vox on YouTube](#)