Vision Zero update

Planning & Sustainability Commission | June 11, 2019

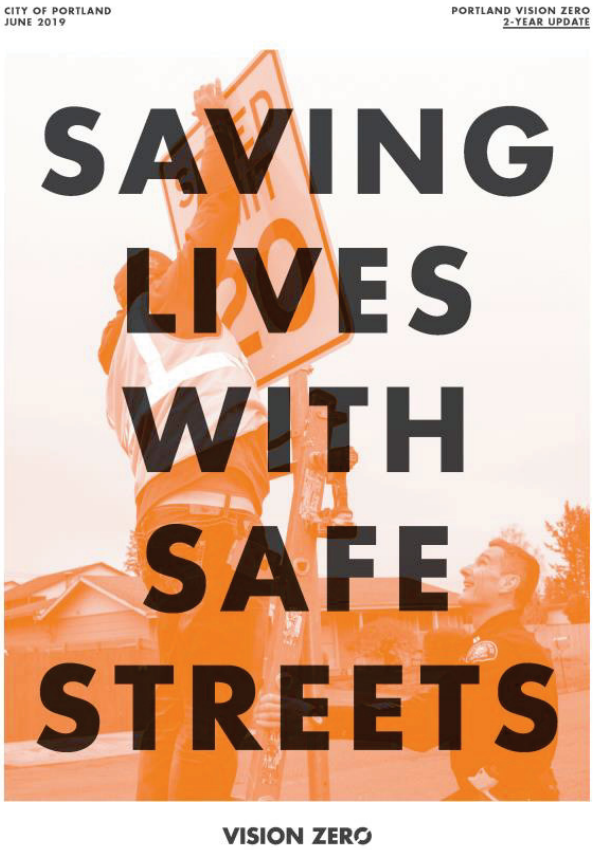
Vision Zero is Portland's goal to eliminate all traffic deaths and serious injuries

Today:

- Crash data trends
- Priorities for 2019-21: Creating a "Safe System" in Portland
- Discussion

2 Year Update Report

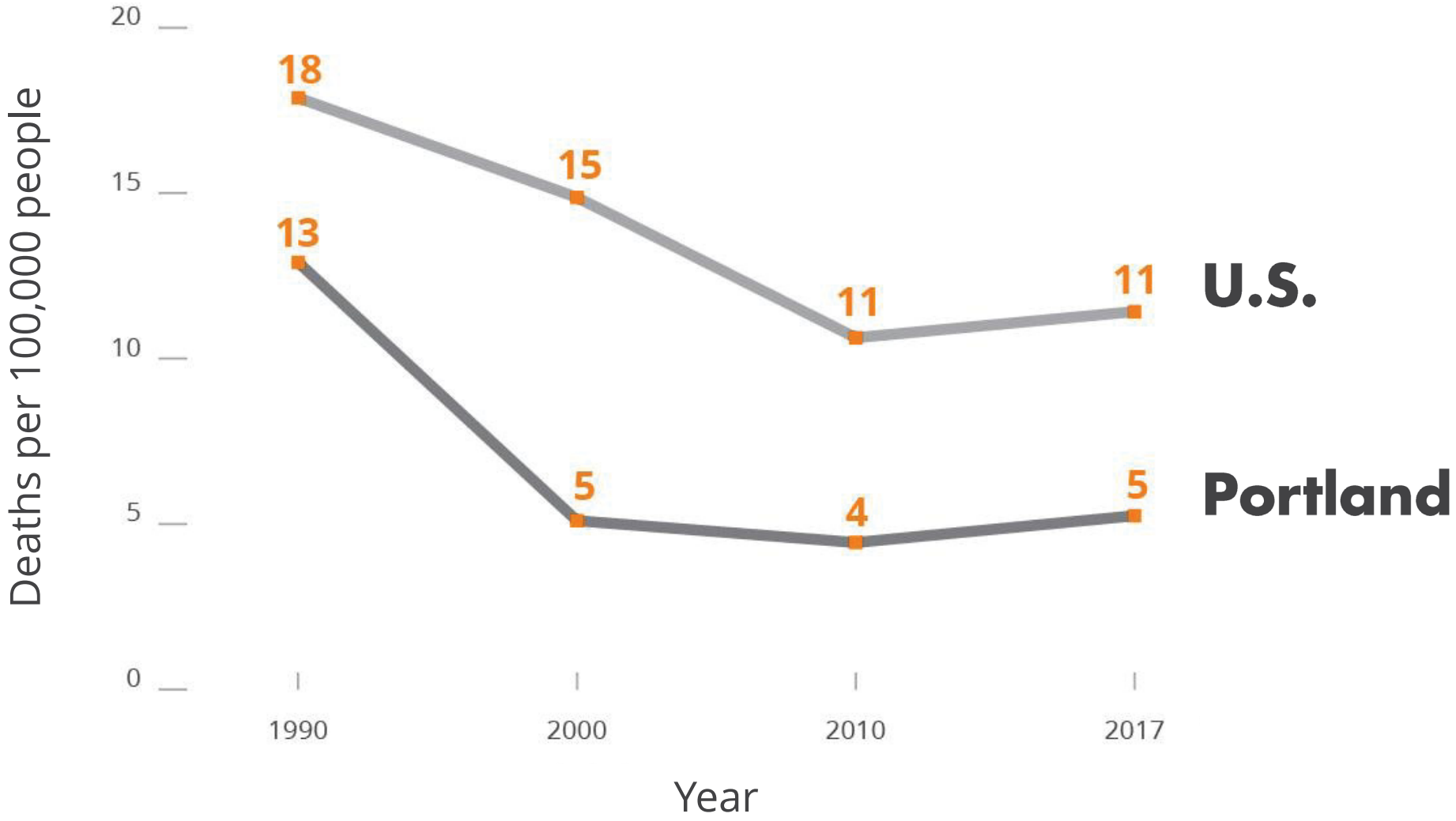
- Full report will be posted soon
- 2018 Fatality summary and Vision Zero Action Plan Performance Measures



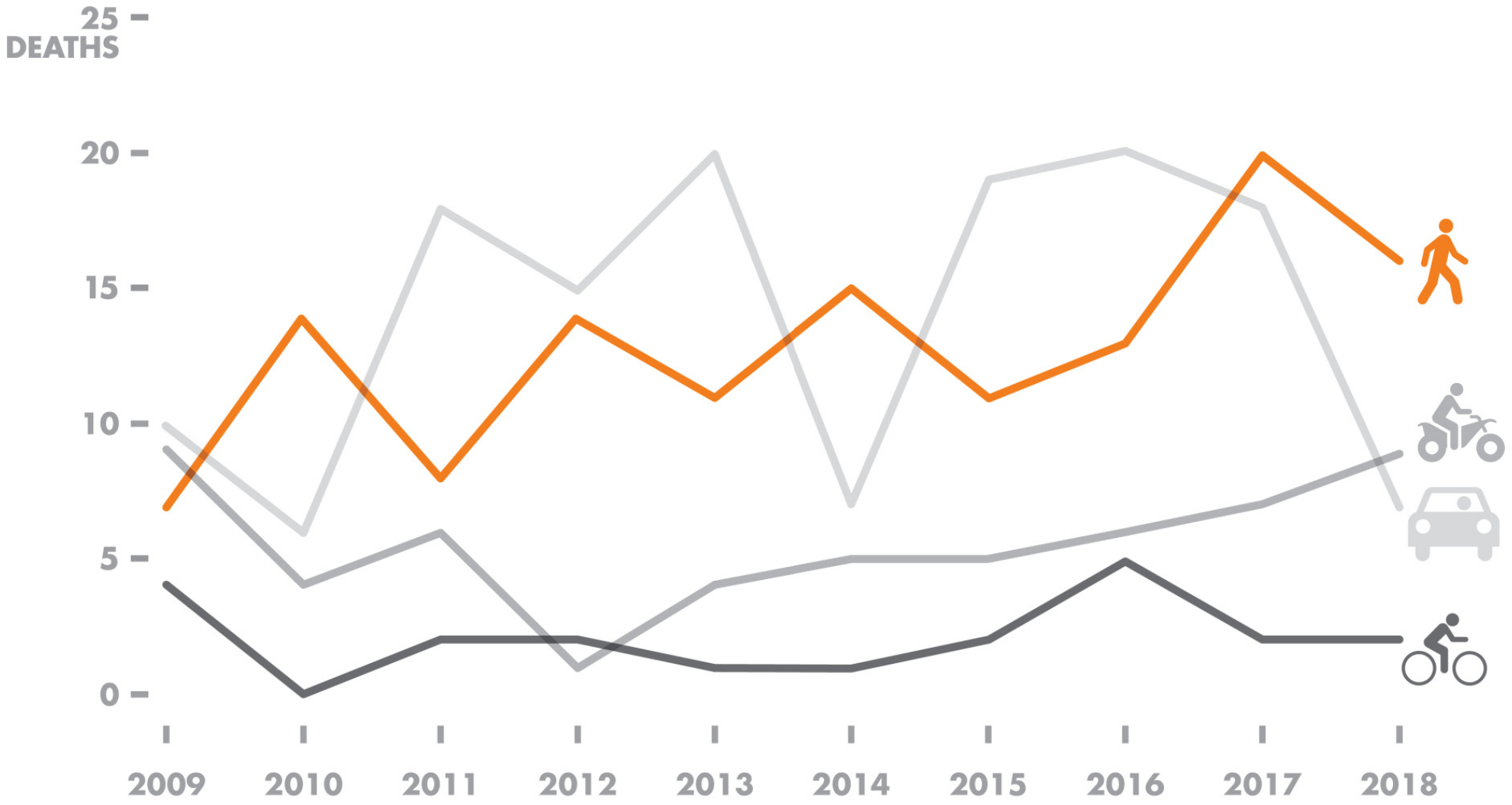
visionzeroportland.com

Traffic deaths: National comparison

TRAFFIC DEATHS PER 100,000 PEOPLE IN
THE U.S. & PORTLAND, OREGON, 1990-2017

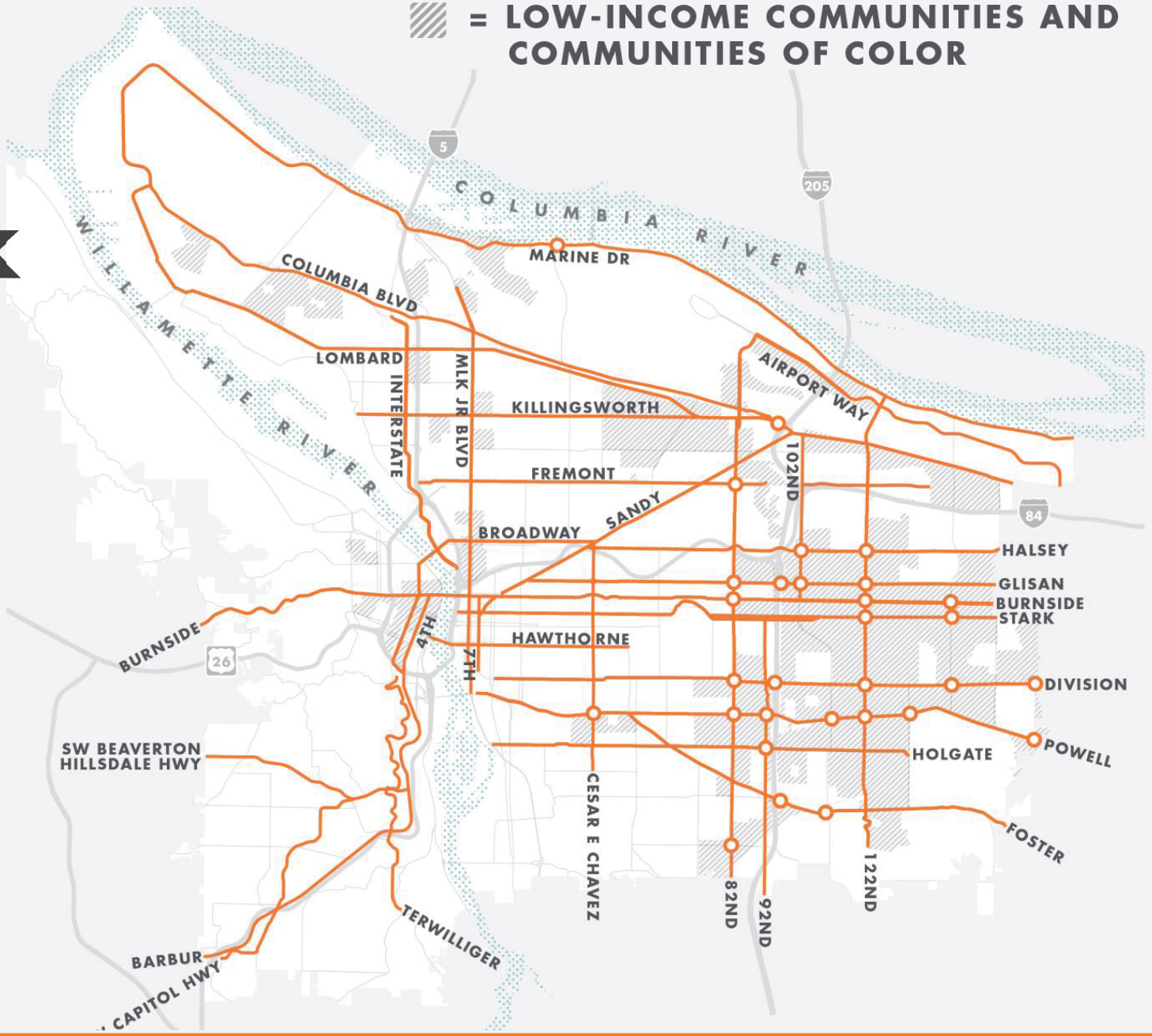


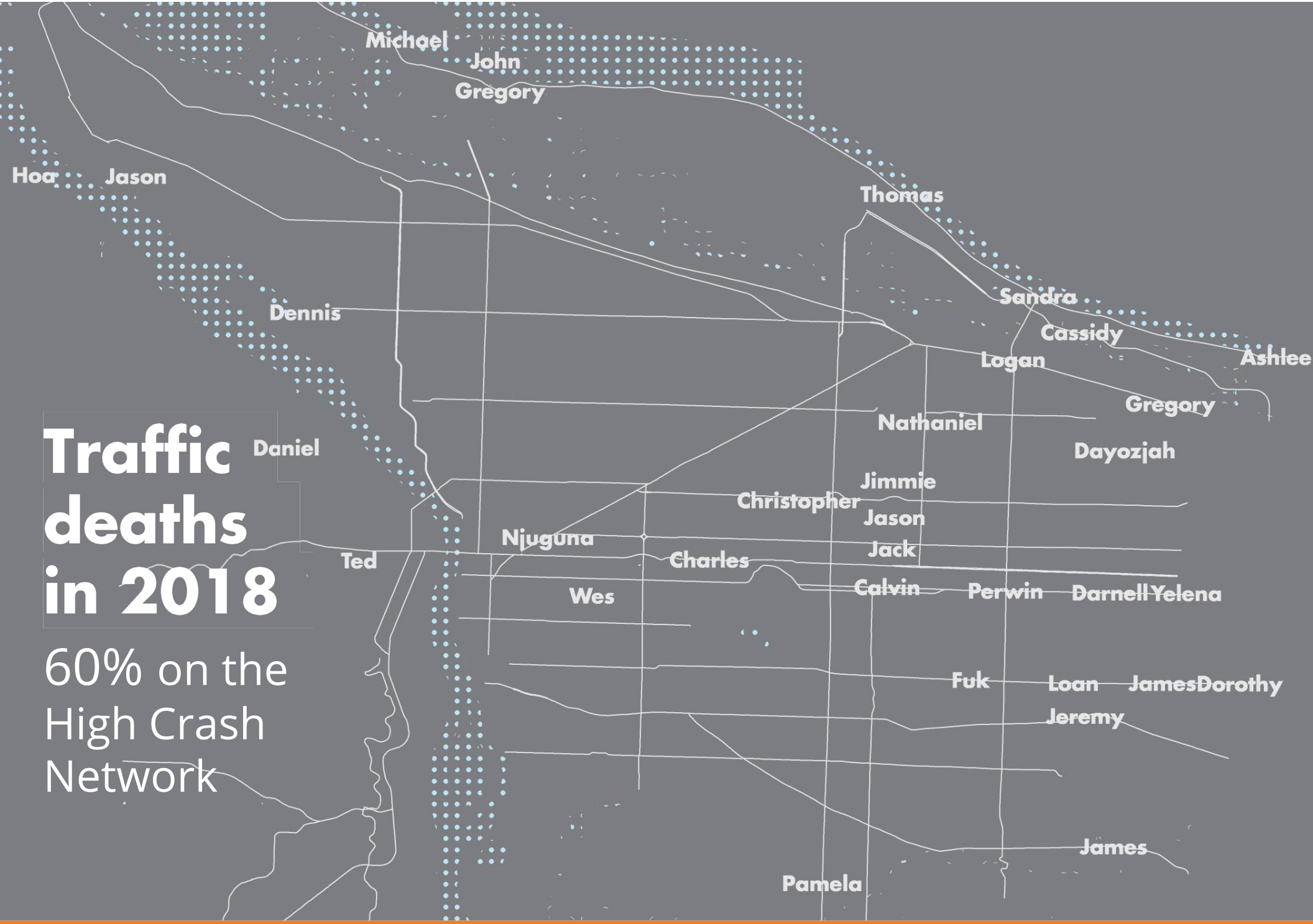
Portland traffic deaths, 2009-18



Note: Transit not shown due to zero transit passenger deaths during this period.

High Crash Network





Traffic deaths in 2018

60% on the High Crash Network

Priorities for 2019-21

- Protect pedestrians
- Reduce speeds citywide
- Design streets to protect human lives
- Create a culture of shared responsibility

Vision Zero = Safe System

4 principles of a safe system

1. People make mistakes that can lead to crashes
2. The human body has a limited physical ability to tolerate crash forces before harm occurs
3. Shared responsibility exists amongst people who:
   - Design, build, and manage streets & vehicles
   - Use streets and vehicles
   - Provide post-crash care
4. All parts of the system must be strengthened to multiply their effects; redundancy provides protection when one part fails

Source: International Transport Forum, "Zero Road Deaths and Serious Injuries"

How a safe system is different

Safe system approach	Traditional approach
No human being should be killed or seriously injured as the result of a crash	Deaths and serious injuries are an inevitable part of modern transportation
Safety is the responsibility of road users **and people who plan, build, maintain, and manage traffic**	Safety of road users is their own responsibility
Acknowledge that **people are fallible** and make mistakes and poor choices	Expect people to act safely at all times
Use education, information, regulation, enforcement, and **street & vehicle design**	Use education, information, regulation, and enforcement
Proactive approach to guide safe behavior	Reactive approach based only on analysis of past crashes

Source: International Transport Forum, "Zero Road Deaths and Serious Injuries"

Safe system example: Speed limit setting

Safe system approach	Standard approach
Set speed limits based on likely crash types, resulting impact forces, and the human body's ability to withstand these forces	Set speed limits based on the assumption that most drivers choose reasonable and safe speeds (only those in the minority 15% are judged as "speeding")

Safe system example: Convenient crossings

- Make the convenient choice the safe choice
- Proactive: Don't always require high numbers of pedestrians, don't wait for a crash
- Pedestrians may not always travel far to access a crossing

Inside Pedestrian Districts:

DESIRED SPACING OF

530 feet

between marked crossings

Outside of Pedestrian Districts:

DESIRED SPACING OF

800 feet

between marked crossings

At Transit stops:

WITHIN OF ALL TRANSIT STOPS

100 ft

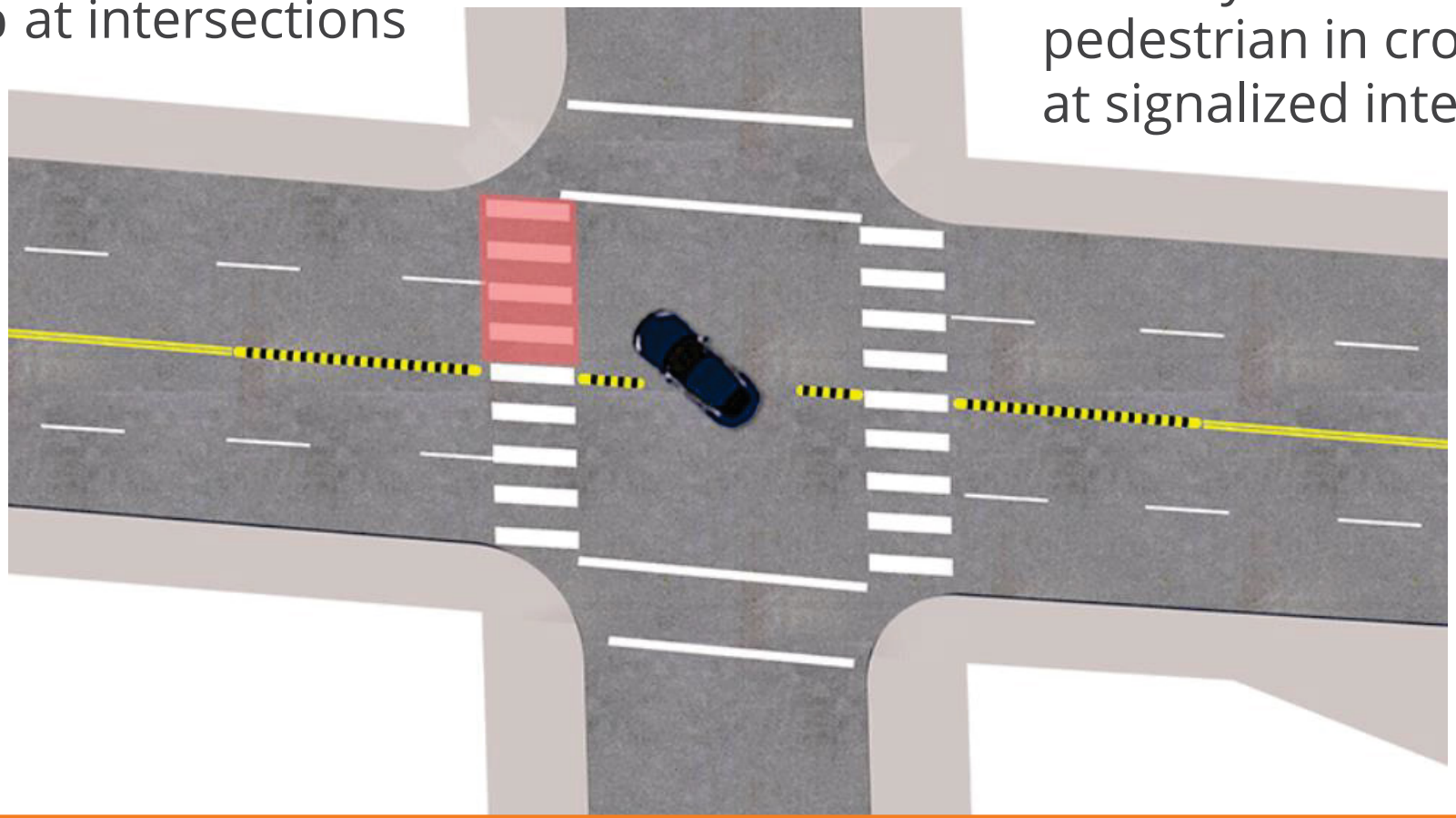
Safe system example: Left turn calming

WHERE CRASHES OCCUR

71% at intersections

MOST COMMON CRASH TYPE

20% Left turning driver fails to yield to pedestrian in crosswalk at signalized intersection



Safe system example: Left turn calming

- People will not always wear reflective clothing
- People driving may not always see people in crosswalks
- Not a substitute for education and enforcement; intended to **supplement** existing tools

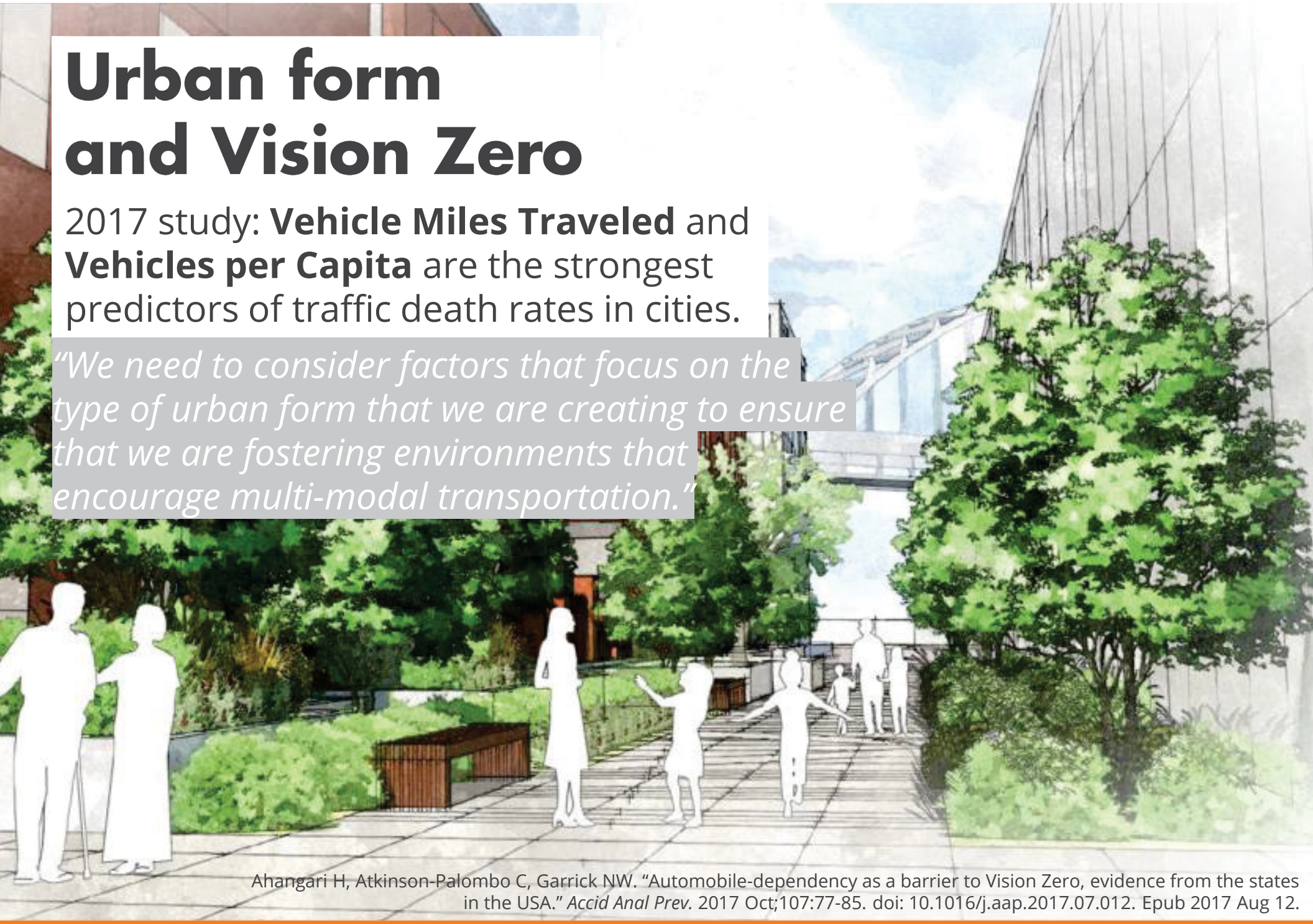
Safe system example: Truck sideguards

- Deflect people biking and pedestrians from truck undersides
- Makes large vehicles intrinsically safer; no extra training necessary

Urban form and Vision Zero

2017 study: **Vehicle Miles Traveled** and **Vehicles per Capita** are the strongest predictors of traffic death rates in cities.

"We need to consider factors that focus on the type of urban form that we are creating to ensure that we are fostering environments that encourage multi-modal transportation."



Ahangari H, Atkinson-Palombo C, Garrick NW. "Automobile-dependency as a barrier to Vision Zero, evidence from the states in the USA." *Accid Anal Prev.* 2017 Oct;107:77-85. doi: 10.1016/j.aap.2017.07.012. Epub 2017 Aug 12.

Automobile dependency as a barrier to Vision Zero

2018 policy paper describes two “traffic safety paradigms.”

Old paradigm:
Reduce negative impacts of motor vehicles
“Assumes that driving is generally safe, and favors targeted safety programs that reduce special risks such as youth, senior and impaired driving.”

New paradigm:
Reduce exposure to motor vehicles
“Recognizes that all vehicle travel imposes risks, and so supports vehicle travel reduction strategies such as more multi-modal planning, efficient transport pricing, Smart Growth development policies, and TDM programs.”

Litman, T.A. (2018). A New Traffic Safety Paradigm 24 April 2018.

Takeaways

- Vision Zero is still the only acceptable goal PBOT is doubling down on high-impact actions
- Mode split is a safety issue; non-driving travel options must become more competitive for more trips

Thank you