



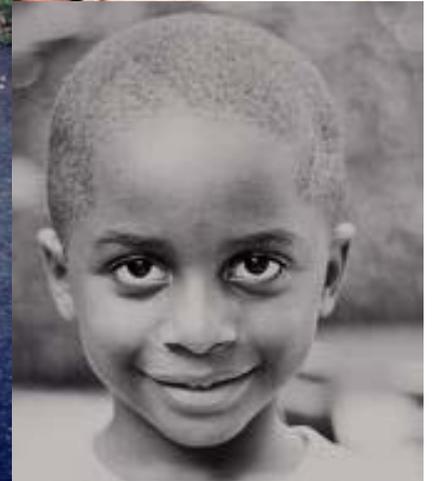
Arrive Alive Virginia

Virginia's Strategic Highway Safety Plan

Vision Zero Workshop
National Capital Region Transportation Planning Board
June 23, 2017

Mark A. Cole, PE

Virginia Traffic Crashes



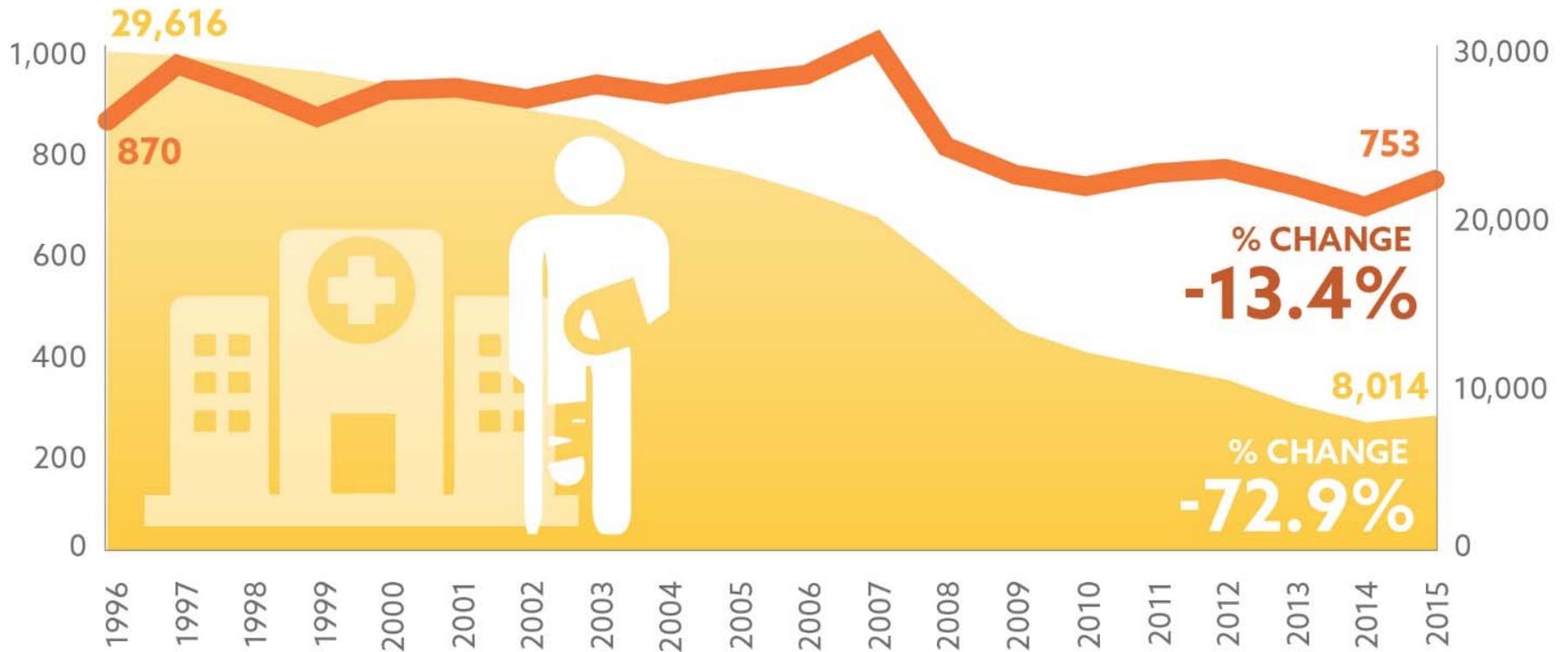
Talking Points

- **Virginia Traffic Safety Trends**
- **Virginia's Strategic Highway Safety Plan (SHSP)**
- **Vision Zero**
- **Opportunities for Collaboration between the SHSP and Vision Zero**

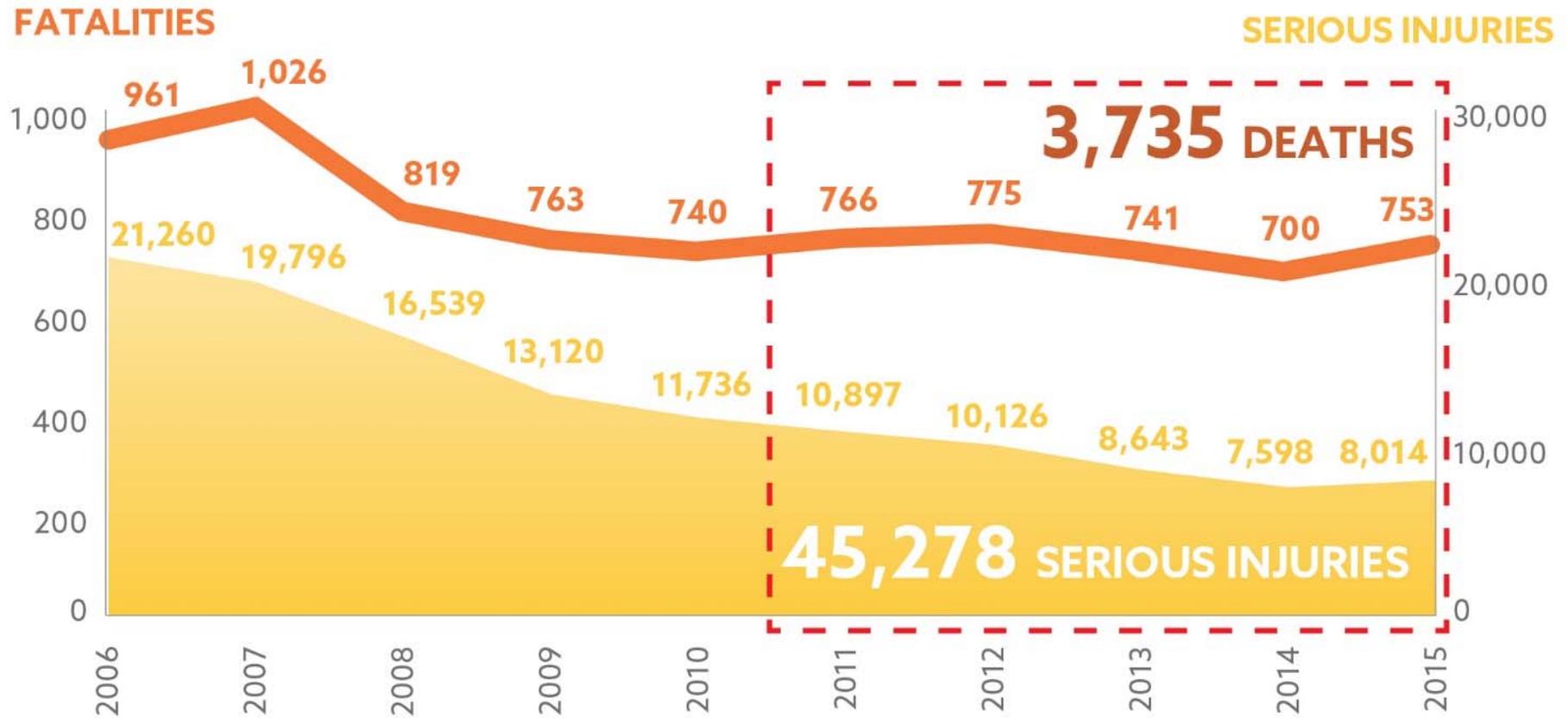
Virginia Traffic Safety Numbers

FATALITIES

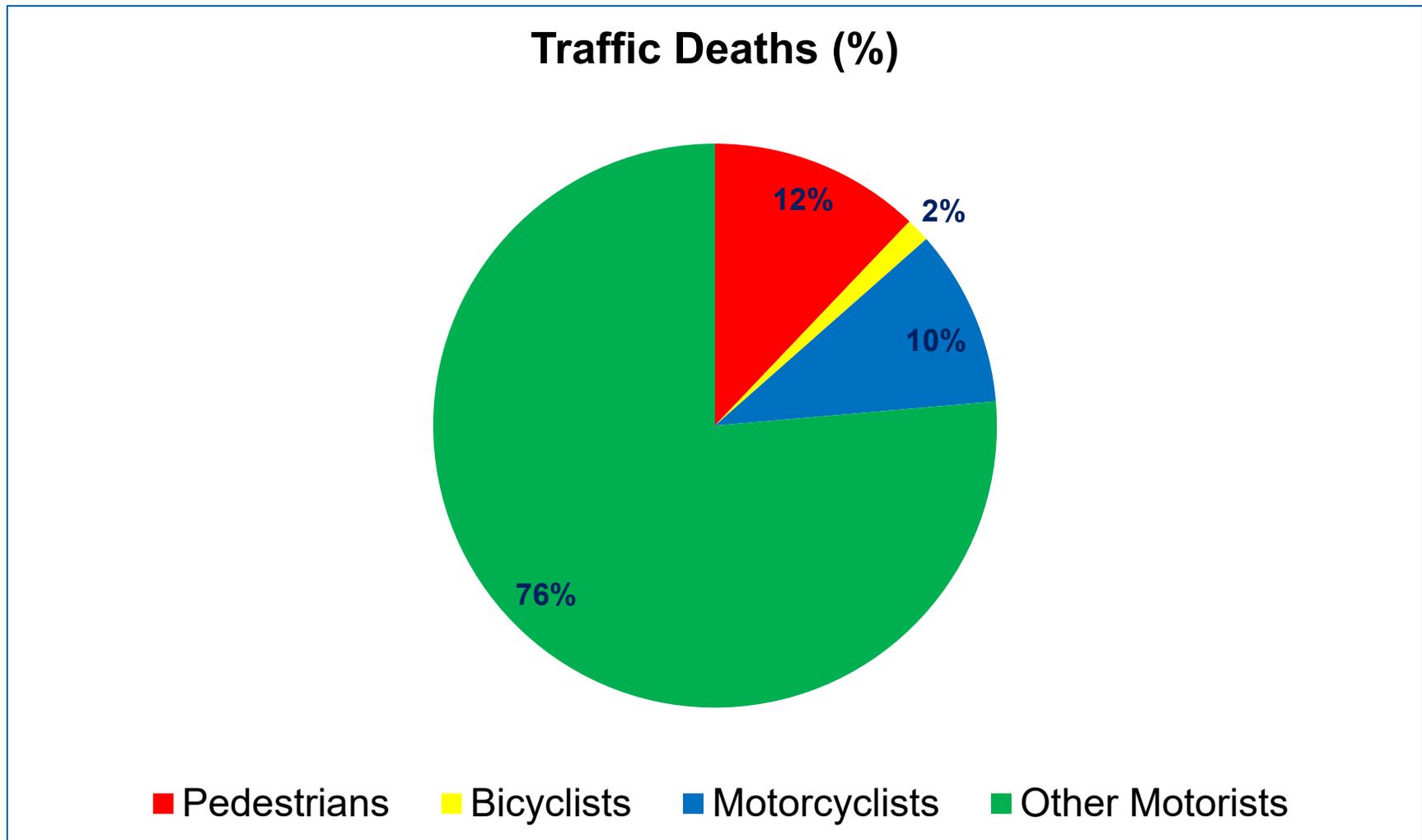
SERIOUS INJURIES



Virginia Traffic Safety Numbers

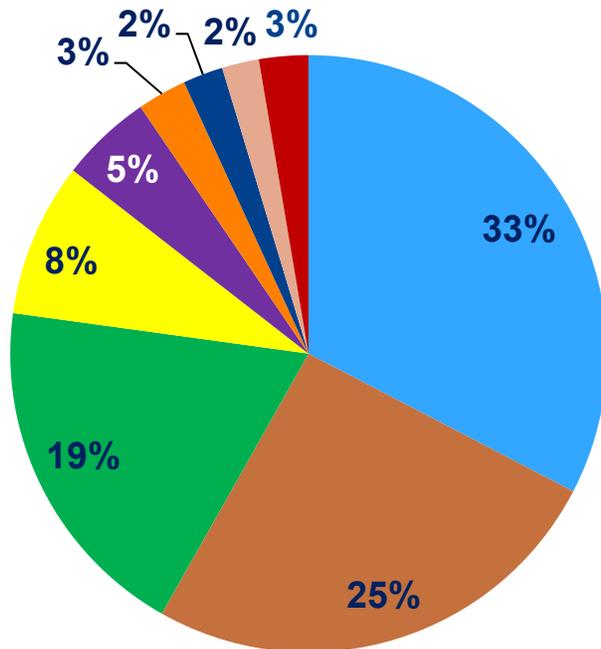


Virginia Traffic Deaths By User Type 2011-2016

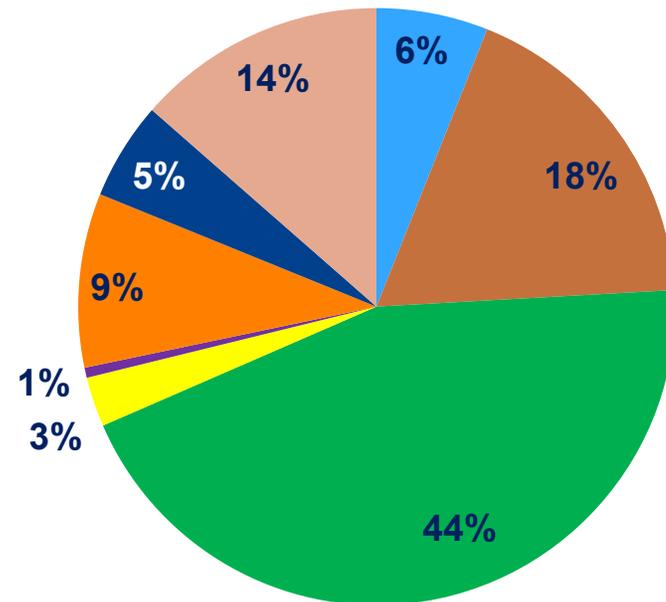


Virginia Highway Crash Types

Total Crashes (%)



Fatal Crashes (%)



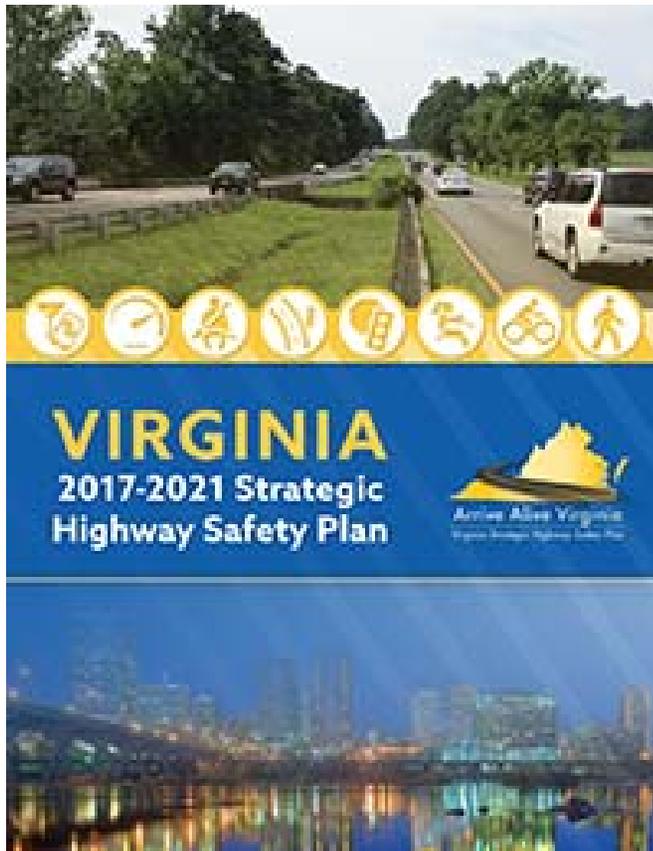
- Rear End
- Sideswipe
- Overtaken

- Angle
- Animal
- Ped/Bike

- Fixed Object Off Road
- Head On
- Others

ARRIVE ALIVE VIRGINIA

Virginia Strategic Highway Safety Plan (SHSP)



Vision

Toward Zero Deaths

Mission

Save Lives and Reduce Injuries
through 5E's of:



SHSP Goals & Objectives

GOAL reduce
deaths and
serious
injuries by

50% by 2030



2%

reduction per year
for **fatalities**

3%

reduction per year
for **fatality rate**

5%

reduction per year
for **serious
injuries**

7%

reduction per year
for **serious
injury rate**

SHSP Emphasis Areas



ROADWAY
DEPARTURE



INTERSECTIONS



OCCUPANT
PROTECTION



IMPAIRED
DRIVING



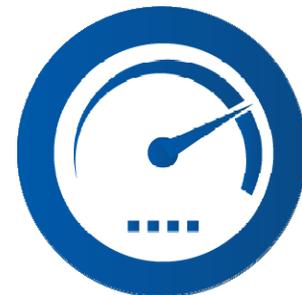
PEDESTRIANS



YOUNG
DRIVERS



BICYCLISTS



SPEEDING

SHSP Special Areas



DATA



INCIDENT
RESPONSE &
EMERGENCY
MEDICAL SERVICES



CONNECTED &
AUTONOMOUS
VEHICLES

Emphasis Area Strategies & Actions

EXAMPLES



Ensure intersections are designed for all users



Increase awareness of benefits of seat belt use



Develop localized incident management plans



Develop a mobile breath alcohol testing program

What is Vision Zero?

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

Fundamental Elements

1. traffic deaths and injuries are preventable (and not acceptable)
2. design for human behavior
3. data-driven/measurable
4. multidisciplinary

Vision Zero Cities

Vision Zero Cities

A Vision Zero City meets the following minimum standards:

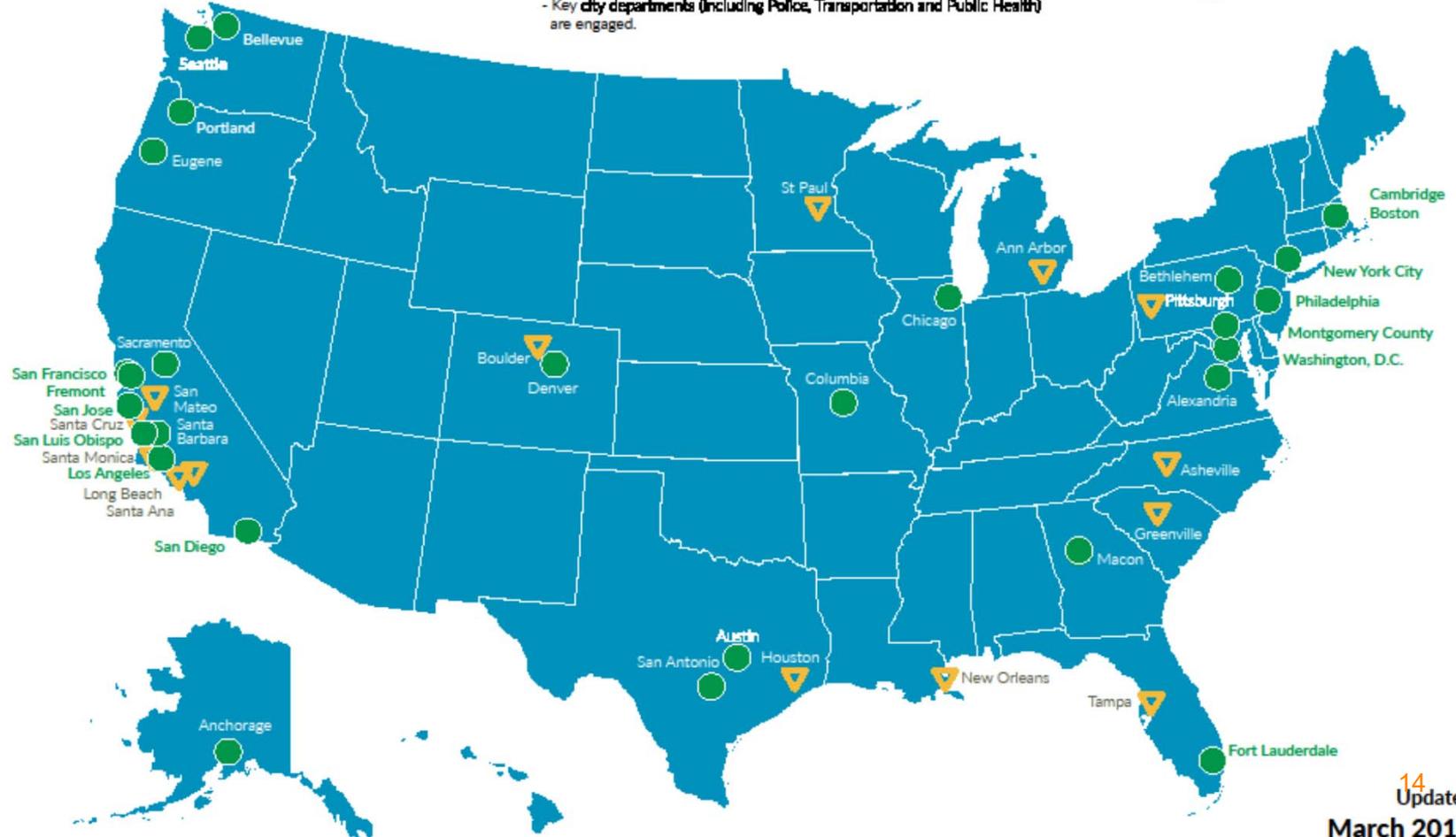
- Sets clear goal of eliminating traffic fatalities and severe injuries
- Mayor has publicly, officially committed to Vision Zero
- Vision Zero plan or strategy is in place, or Mayor has committed to doing so in clear time frame
- Key city departments (including Police, Transportation and Public Health) are engaged.



Vision Zero City



Considering Vision Zero



Virginia SHSP and Vision Zero – Opportunities to Collaborate



- **Data Sharing**
 - VDOT Online crash data tool
 - Pedestrian and Cyclist crash assessments



- **Pedestrian and Bicycle Projects**
 - Virginia Pedestrian Safety Action Plan
 - Identify and Implement effective projects (HSIP & SMARTSCALE)
 - Local data sharing for projects that work



- **Travel Speed Expectations**



Online VDOT Crash Analysis Tool

Crashtools8_2 - VDOT TE x

Secure | https://public.tableau.com/profile/publish/Crashtools8_2/Main#/publish-confirm

Apps iCloud Charlotte's vision for PM Dashboard Imported From IE Djembe, African Djem Easy Lasagna II Recipe VDOT Employee Bene Virginia Department c Other bookmarks

+tableau*public GALLERY AUTHORS BLOG RESOURCES ACTIVITY SIGN IN

< VDOT TED CO - Profile Favorite Download Workbook

Main Route-Info 0.25 Mi Severity (One Route On... 0.25 Mi Collision (One Route O... Intersection_Info Crashes_Info Map_Info Overall_Summary Cheat Sheet

Map: Located crashes only. Click on dot to open FR300 Diagram (Inside VDOT only) and "Hyperlink" in Pop Up to open in Google Street View. Click anywhere on Map or "Unpin" to Clear. Hold "Shift" key while moving mouse to pan. Select Legend to highlight Injury type

CRA SH_SEVERITY
 ■ K. Fatal Injury
 ■ A. Ambulatory injury

2:37 PM
6/14/2017



VDOT Bicycle & Pedestrian Crash Assessments

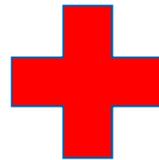
Police Crash Report

SEVER	VEHICLE #	DRIVER	VEHICLE #

VEHICLE

PASSENGER

Codes

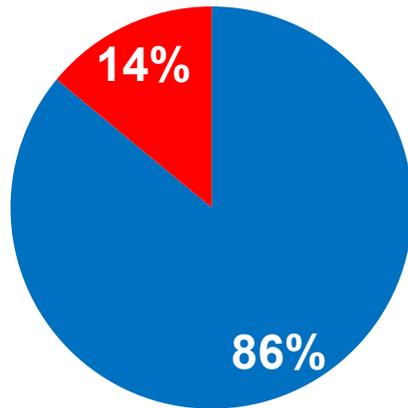




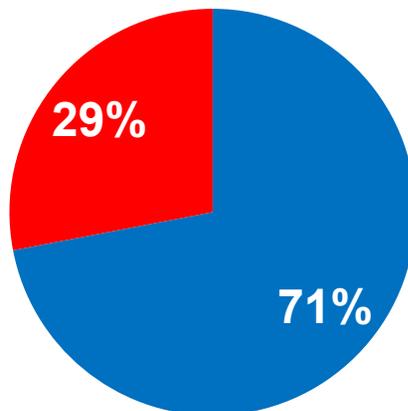
Pedestrian Crash Assessment Marked Crosswalks

■ No X-Walk Present ■ X-Walk Present

Pedestrian Fatal Crashes

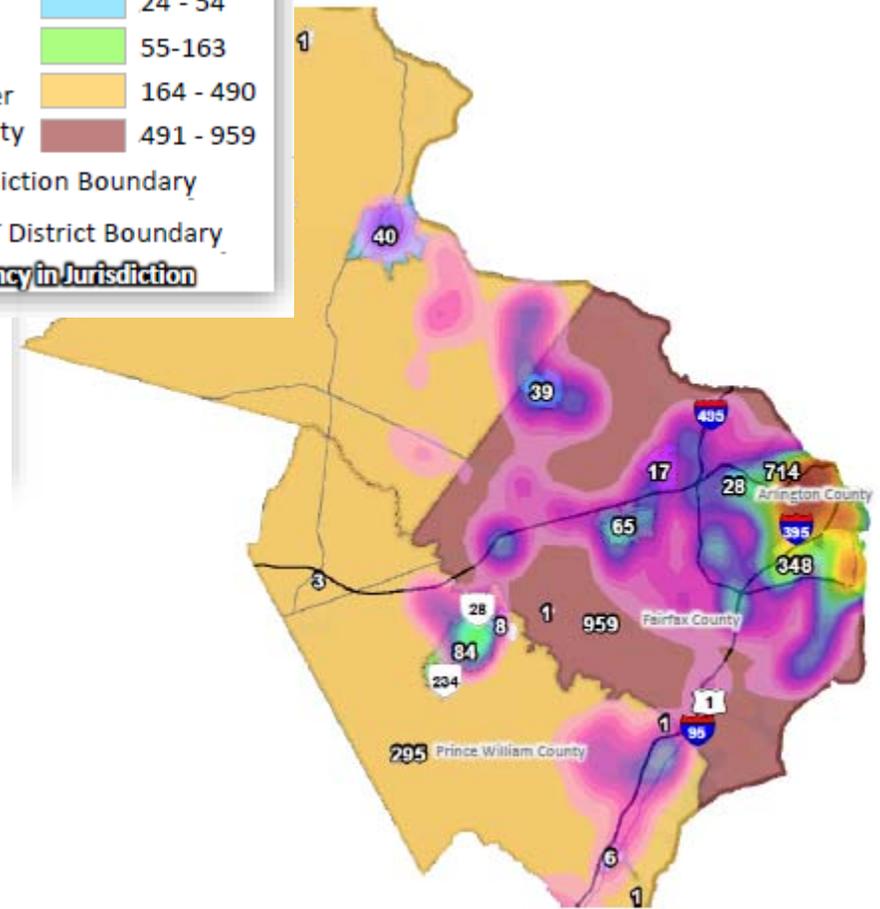
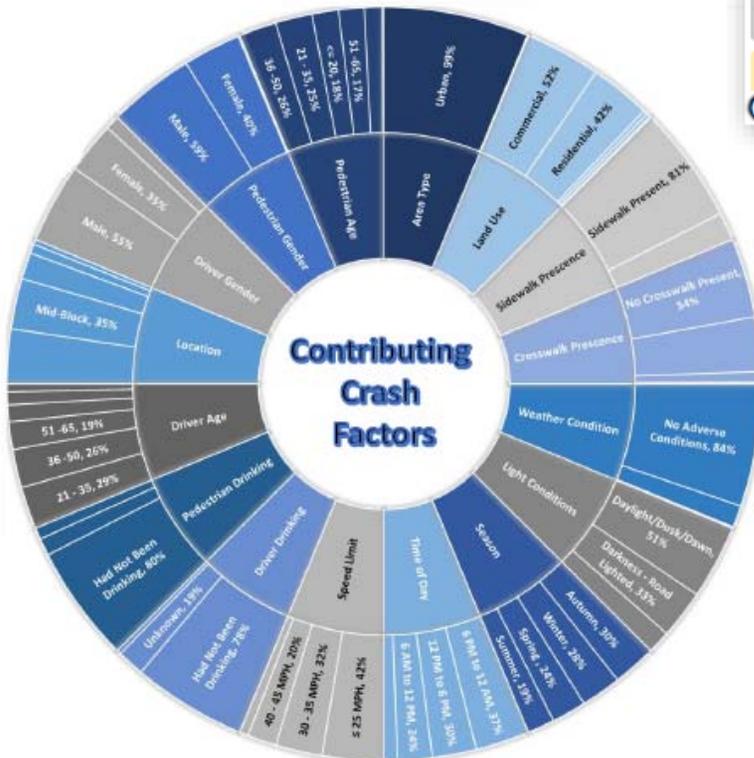
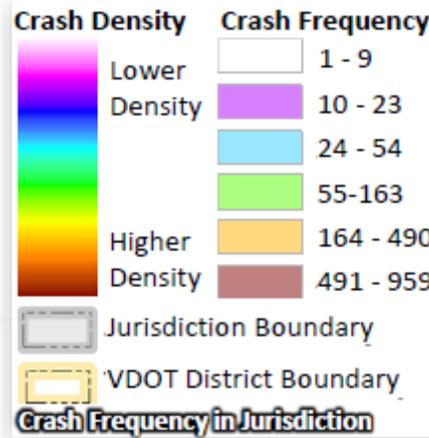
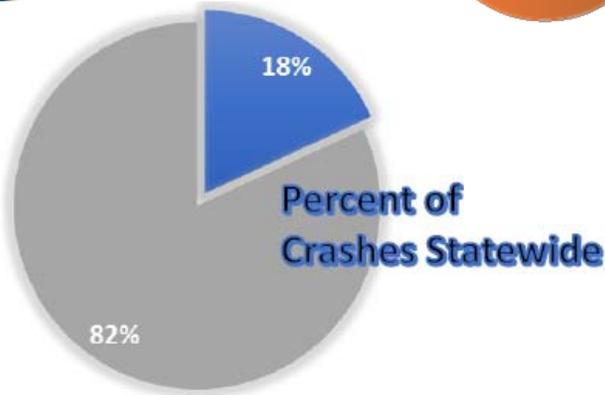


Pedestrian Injury Crashes





VDOT Bicycle & Pedestrian Crash Assessments





Pedestrian & Bicycle Projects

Virginia Pedestrian Safety Action Plan (PSAP)

- Identify pedestrian safety concerns throughout Virginia and actions to address those concerns
- Consider the relationship between land development, travel speeds and pedestrian safety
- Identify common risk factors related to pedestrian deaths and injuries
- Recommend policy enhancements to advance pedestrian safety
- Identify candidate HSIP pedestrian safety projects



Pedestrian and Bicycle Projects

Highway Safety Programs



SMART SCALE

*Funding the Right
Transportation Projects
in Virginia*



Pedestrian and Bicycle Projects





Travel Speed Expectations

HIT BY A VEHICLE
TRAVELING AT:

**20
MPH**



9 out of 10 pedestrians survive

HIT BY A VEHICLE
TRAVELING AT:

**30
MPH**



5 out of 10 pedestrians survive

HIT BY A VEHICLE
TRAVELING AT:

**40
MPH**



Only 1 out of 10 pedestrians survives



Virginia Speed Limits Pedestrian Deaths

25
MPH
OR LESS



94%
OF PEDESTRIANS
SURVIVE

30
TO
35
MPH



79%
OF PEDESTRIANS
SURVIVE

40
MPH
OR GREATER



65%
OF PEDESTRIANS
SURVIVE

Questions?

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Highway Safety Programs

VDOT Virginia Department
of Transportation

