

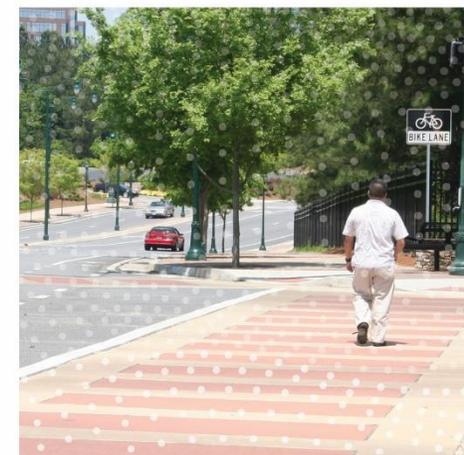
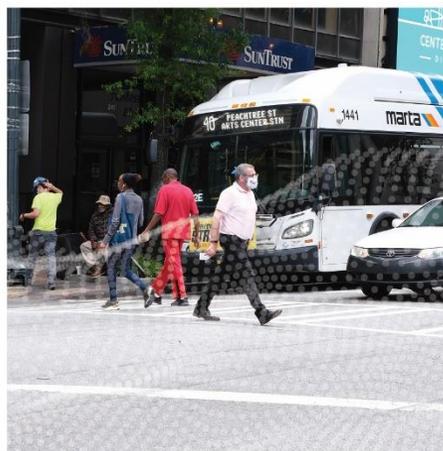


March 4, 2022

ATLANTA REGIONAL COMMISSION

# Regional Safety Strategy

*In Association with:*



# Project Team

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(VHB)



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(VHB)



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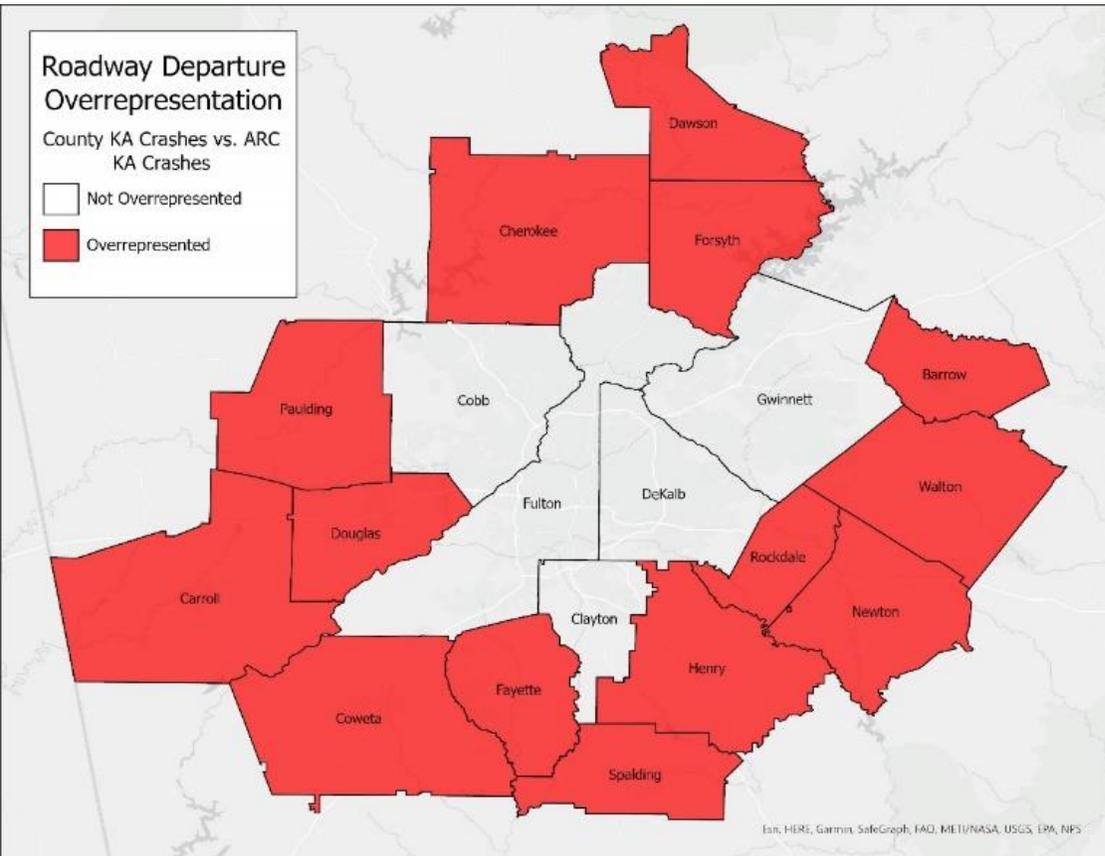
**Erin Thoresen, AICP**  
Implementation  
(Gresham Smith)

# Recap of Increasing Program Effectiveness

- **Focus** on fatal and serious injury crashes
- **Focus** on crash types
  - Intersection
  - Roadway Departure
  - Pedestrian
  - Bicycle
- **Focus** on facility types
- **Focus** on risk factors

Potential Focus Crash Types [Georgia SHSP Emphasis Areas]	Average Fatalities (per year)	Average Serious Injuries (per year)
<b>Intersection Related</b>	<b>325</b>	<b>1744</b>
<b>Roadway Departure Related</b>	<b>175</b>	<b>645</b>
<b>Pedestrian and Bicycle Related</b>	<b>138</b>	<b>250</b>
Older Driver Related	98	406
Motorcycle Related	74	325
Impaired Driving	57	226
Young Driver Related	51	378
Aggressive Driving	34	106
Distracted Driving	11	30

# Roadway Departure Focus Facilities



Facility ID	Area Type	Owner	Functional Class	Lanes
1	Urban	GDOT	Interstate	6+
2	Urban	GDOT	Minor arterial	2
3	Urban	County	Minor arterial	2
4	Urban	County	Major collector	2

# Roadway Departure Risk Factors

\* Very low sample size

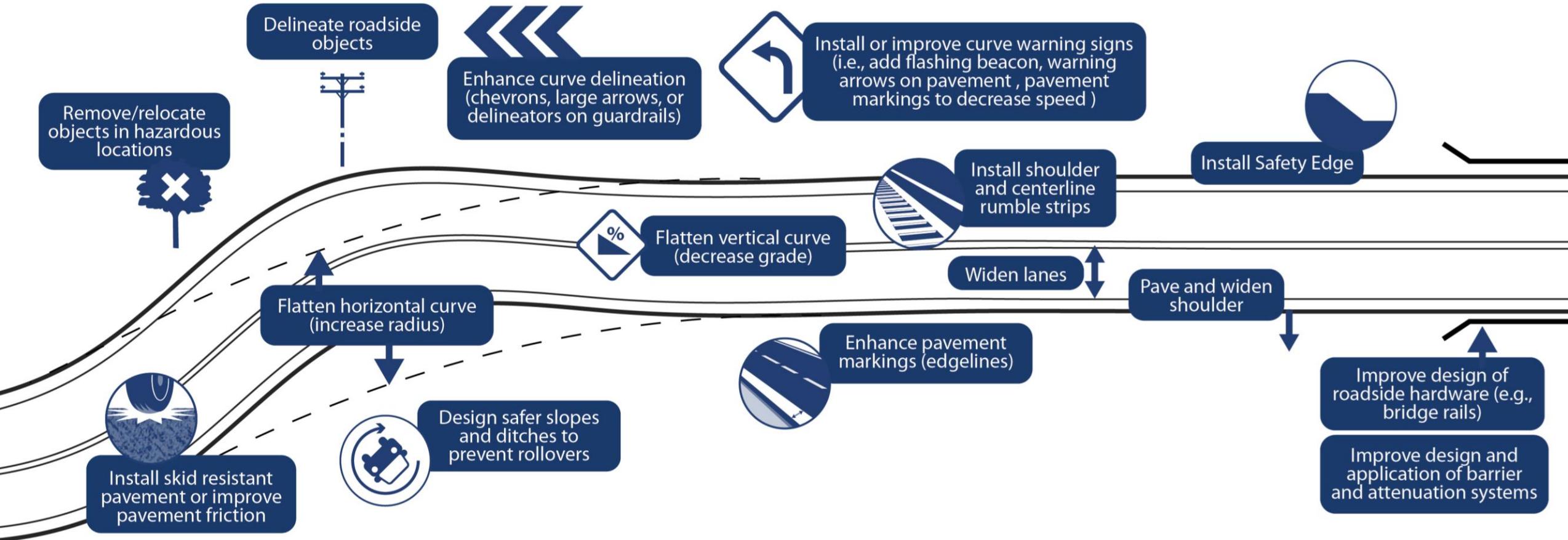
Input	All Key Facilities	Arterials Only
Segment length (mi)	+++	+++
Segment is an interstate	+++	n/a
AADT over 30,000	+++	n/a
AADT between 5,000 and 15,000	n/a	++
4 or more thru lanes	++	n/a
GDOT Owned	+++	n/a
Posted speed limit 45 mph or above	+++	+++
Urban Area	n/a	-
Shoulder Type: None*	++	n/a
Shoulder Type: Curb*	-	--
Median width greater than 0	--	n/a
Adjacent to low intensity development	+++	++

+++/- --- = p < 0.01

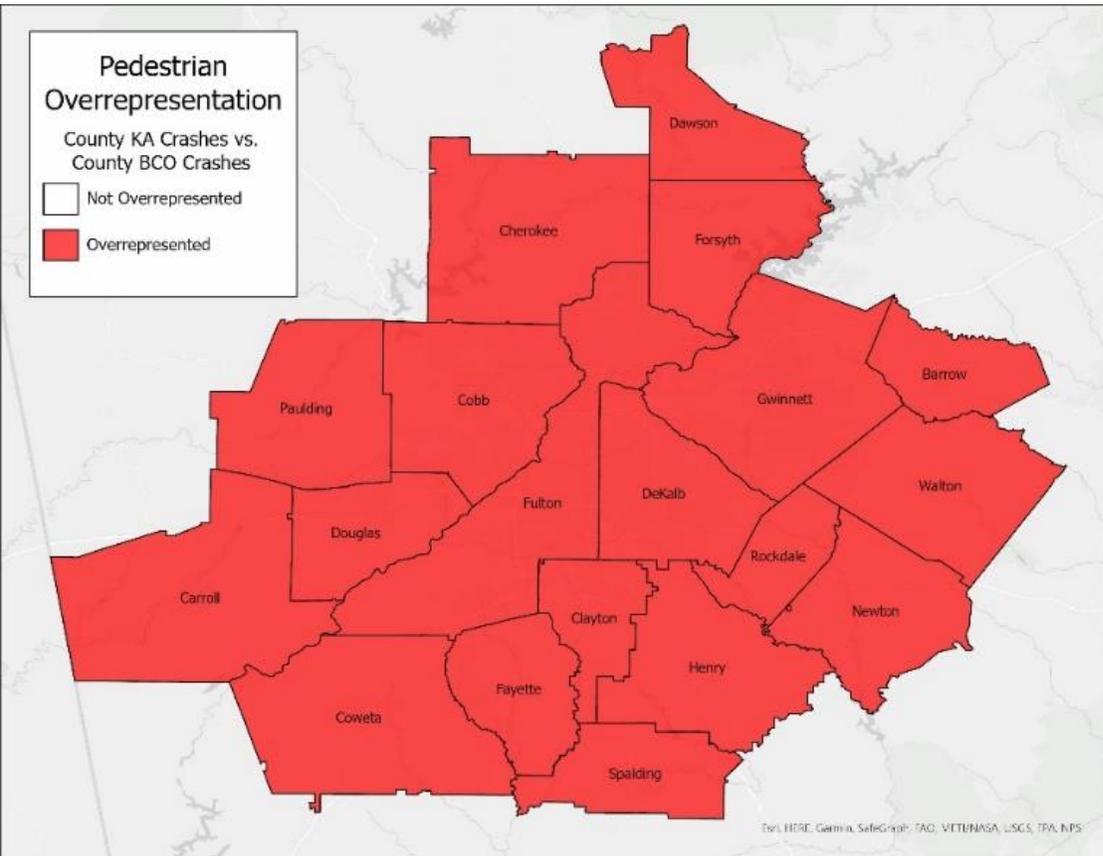
++/- -- = p < 0.05

+/- = p < 0.2

# Roadway Departure Countermeasures



# Pedestrian Focus Facilities



Facility ID	Area Type	Owner	Functional Class	Lanes
1	Urban	GDOT	Other principal arterials	6+
2	Urban	GDOT	Other principal arterials	4
3	Urban	GDOT	Minor arterial	4
4	Urban	County	Minor arterial	4

# Pedestrian Risk Factors

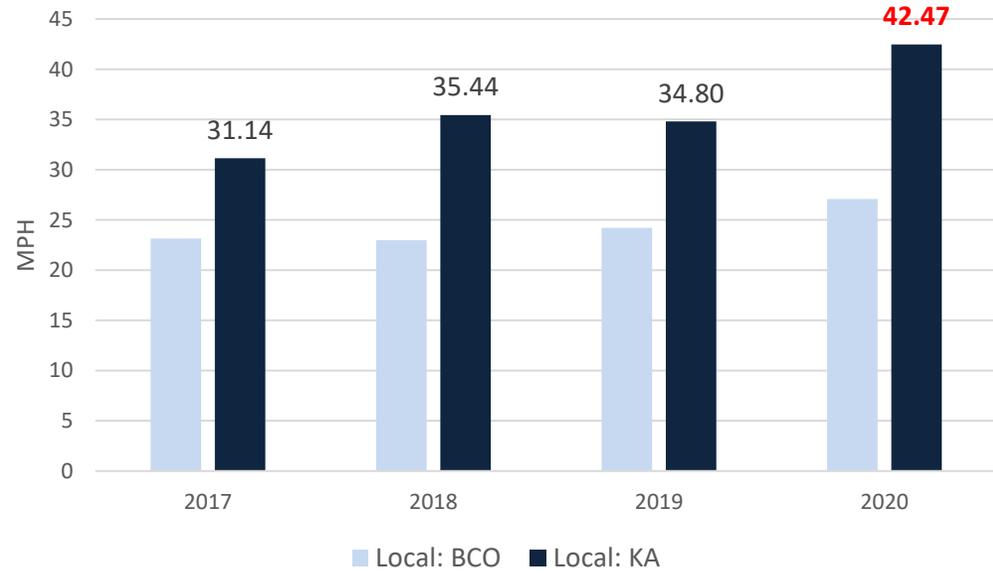
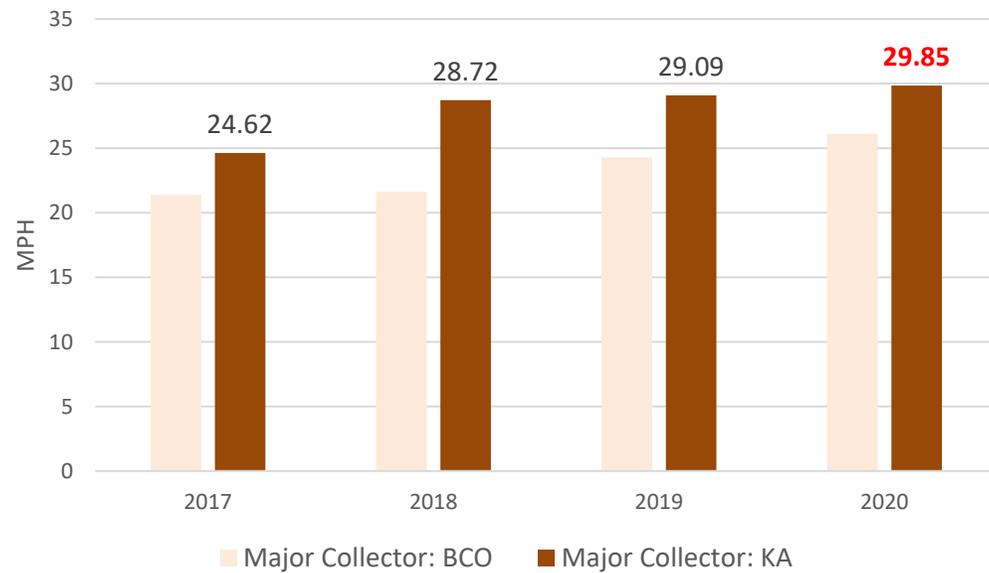
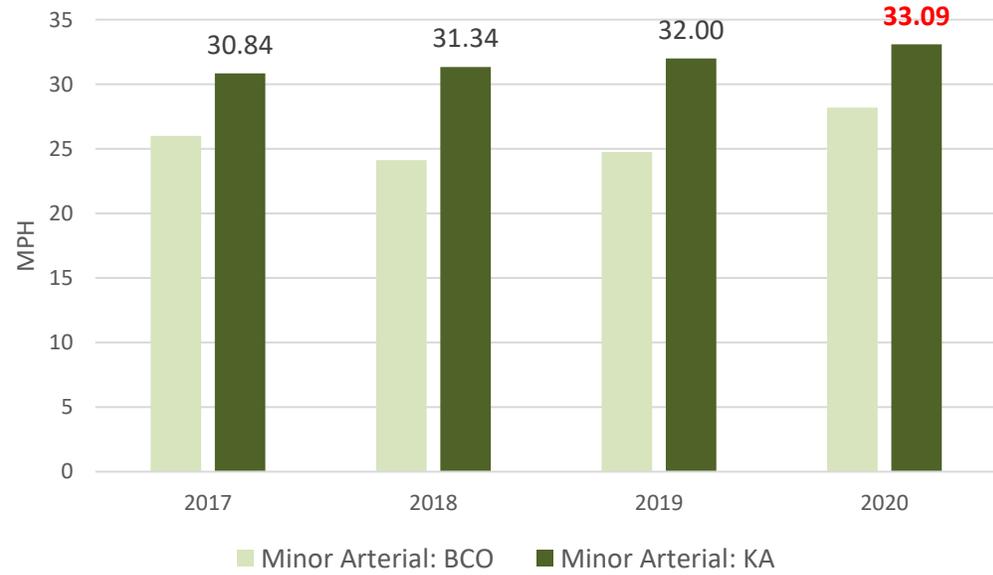
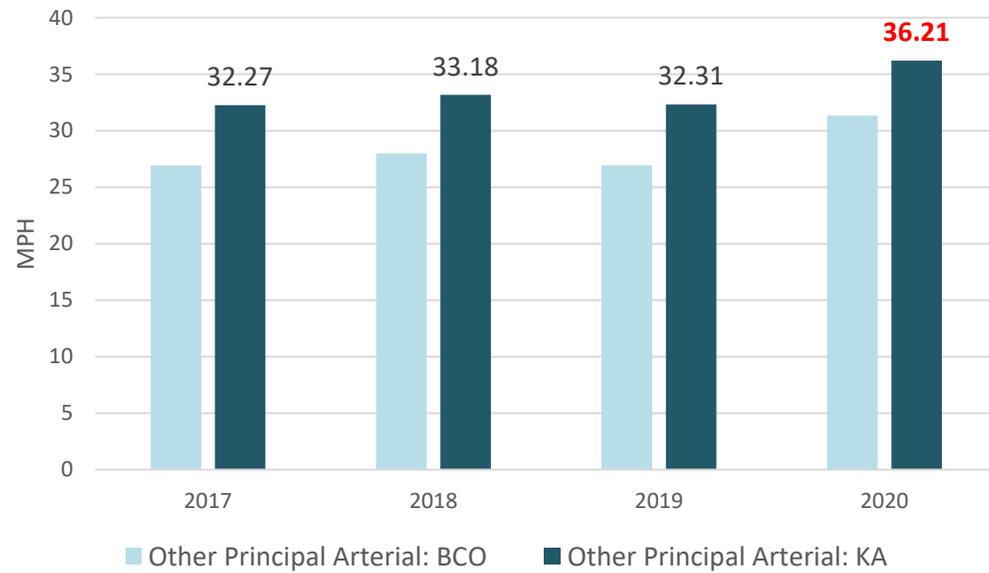
Input	Other Principal Arterials	Minor Arterials
Segment length (mi)	+++	+++
AADT over 9,000	+	+++
4 or more thru lanes	+	+++
GDOT Owned	+++	+
Posted speed limit 35 mph and under	-	-
Bus stop within 100 ft (2021)	+++	+++
High frequency bus service (3/4 Qtr Mi; 2015)	+++	n/a
Urban Area	+++	n/a
Population density rank	+++	+++
Proportion of the population that is non-white or 2 or more races ranks	n/a	+++
Median household income rank	---	n/a
Environmental Justice component score $\geq 7$	+	+++
High intensity development (NLCD criteria)	+++	+++
Not adjacent to high or medium intensity development	n/a	--

+++/- --- =  $p < 0.01$

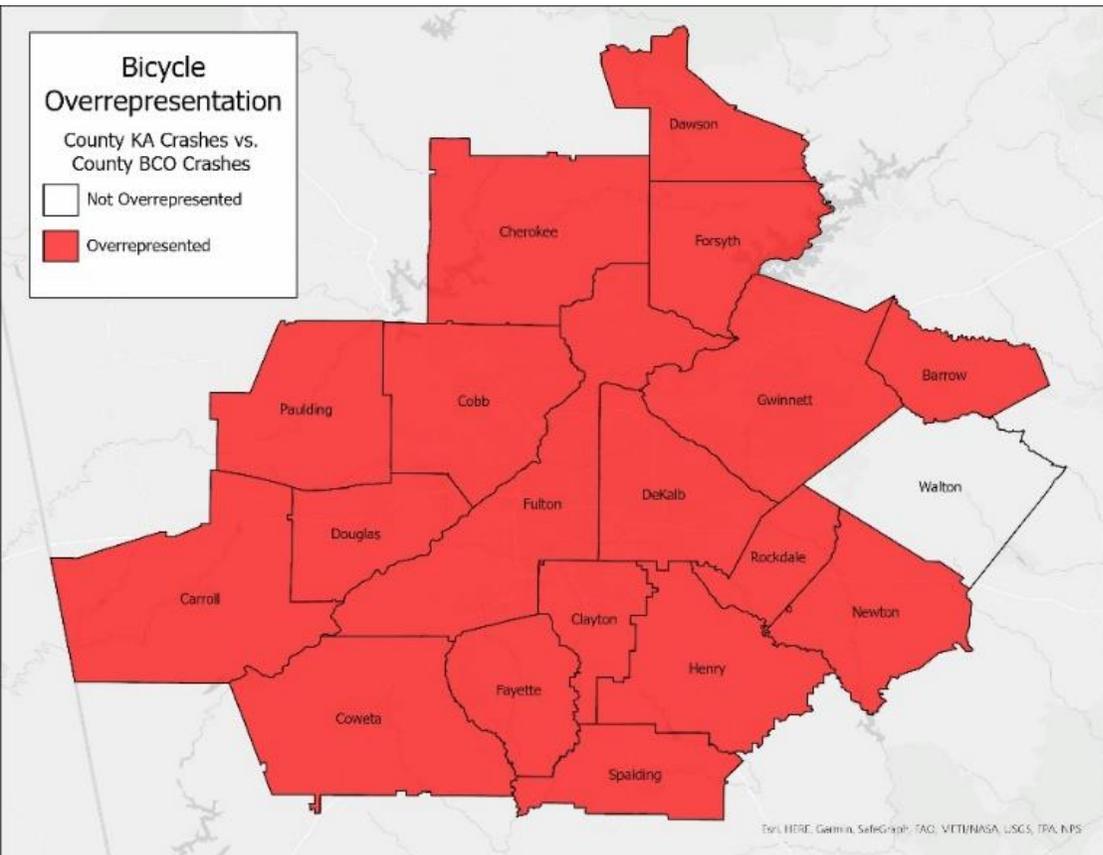
++/- -- =  $p < 0.05$

+/- =  $p < 0.2$

# Probe Speed Data



# Bicycle Focus Facilities



Facility ID	Area Type	Owner	Functional Class	Lanes
1	Urban	GDOT	Other principal arterials	4
2	Urban	GDOT	Minor arterial	4
3	Urban	GDOT	Minor arterial	2
4	Urban	City	Major collector	2

# Bicycle Risk Factors

Input	Minor Arterials & Major Collectors
Segment length (mi)	+++
AADT over 20,000	+++
4 or more thru lanes	++
GDOT Owned	+
Bus stop within 100 ft (2021)	+++
High frequency bus service (3/4 Qtr Mi; 2015)	+
Bicycle lane (non-separated)	+++
Multi-use path within 100 feet	+++
Urban Area	++
Population density rank	+++
Median household income rank * population density rank	+++
Employment density rank	+++
Proportion of employment in the retail sector (NAICS 44-45)	+++
High intensity development (NLCD criteria)	+++
Not adjacent to high or medium intensity development	-

+++/- = p < 0.01

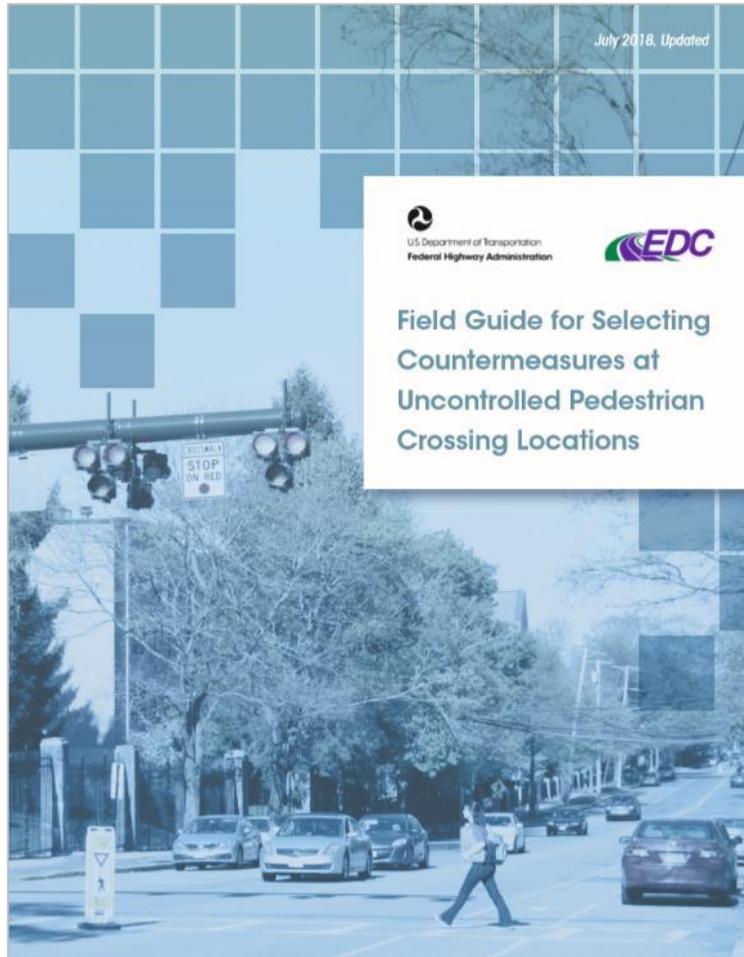
++/-- = p < 0.05

+/- = p < 0.2

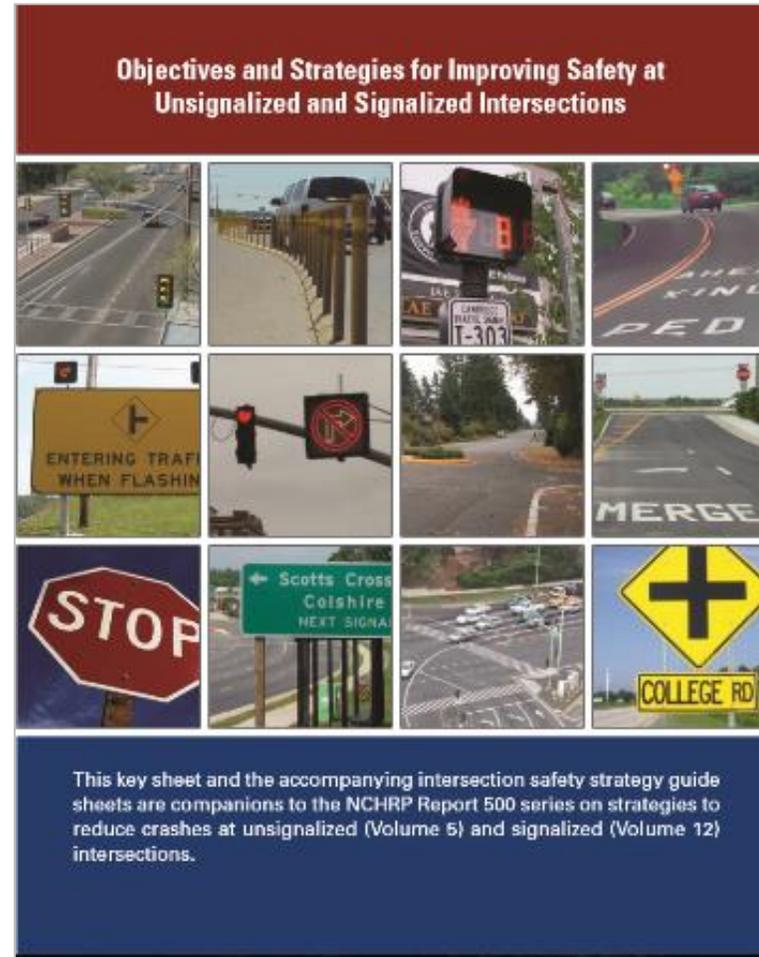
# National Ped/Bike Risk Factors (NCHRP Report 893)

Variable/Risk Factors	Intersections	Segments
Traffic volume	Positive (generally positive but not linear)	Positive (generally positive but not linear)
Functional classes—arterials and collectors compared with local streets	Positive	Positive
Total lanes on largest leg (5+)	Positive	Unknown at present
Presence/number of transit stops	Positive	Positive

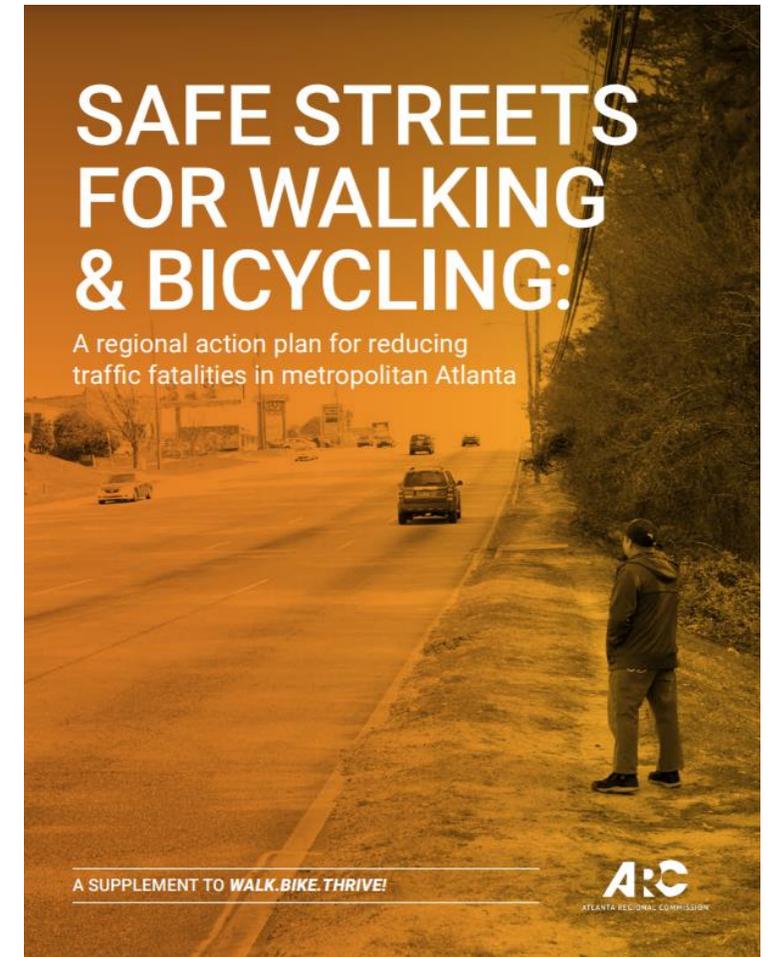
# Pedestrian and Bicycle Countermeasures



[https://www.fhwa.dot.gov/innovation/everydaycounts/edc\\_4/STEP-field-guide.pdf](https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/STEP-field-guide.pdf)



[https://safety.fhwa.dot.gov/intersection/other\\_topics/fhwasa08008/inter\\_guide\\_key.pdf](https://safety.fhwa.dot.gov/intersection/other_topics/fhwasa08008/inter_guide_key.pdf)



<https://cdn.atlantaregional.org/wp-content/uploads/arc-safe-streets-webview-revjan20.pdf>

## Posted Speed Limit and AADT

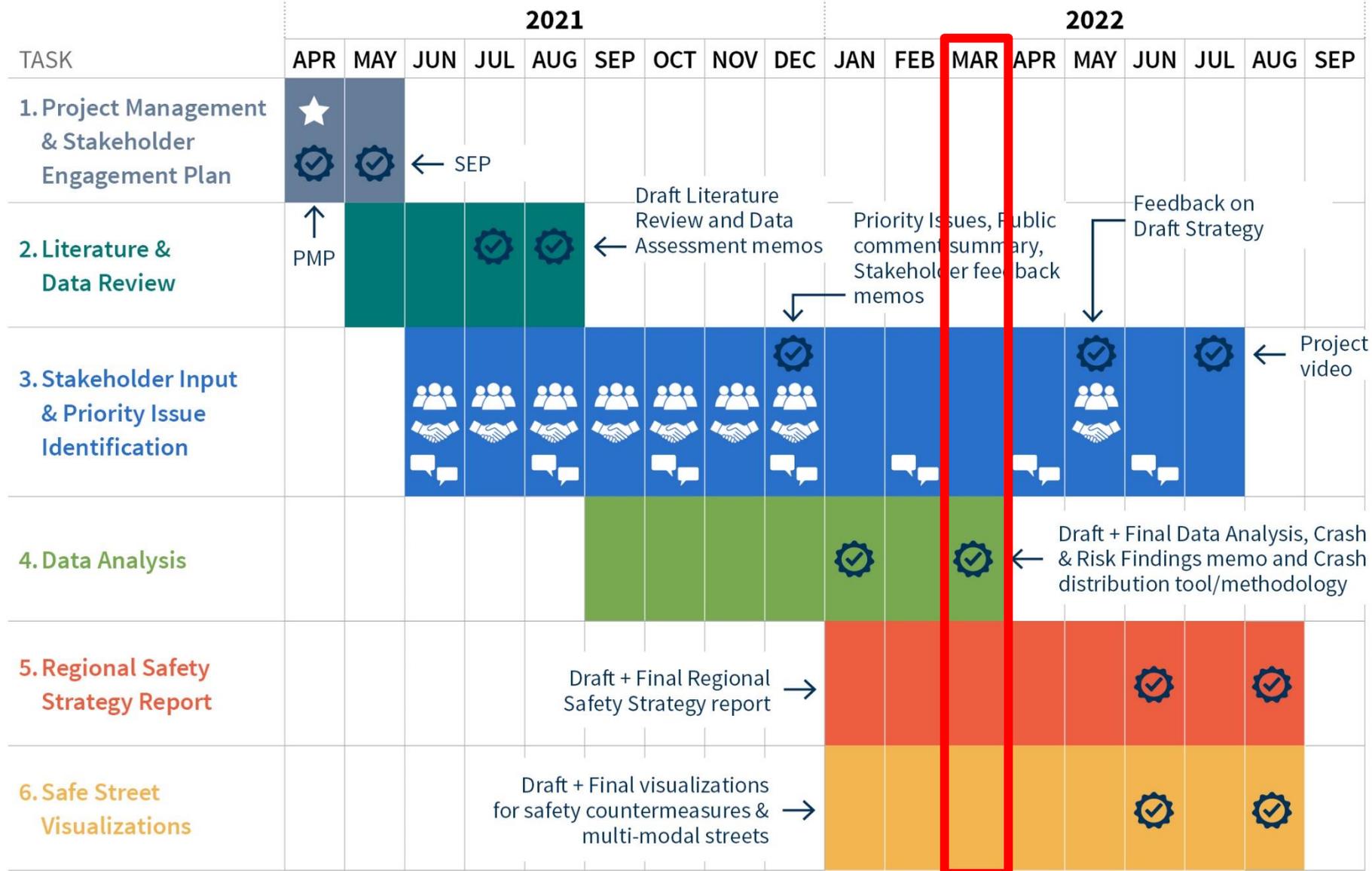
Roadway Configuration	Vehicle AADT <9,000			Vehicle AADT 9,000–15,000			Vehicle AADT >15,000		
	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph	≤30 mph	35 mph	≥40 mph
	<b>2 lanes</b> (1 lane in each direction)					<b>Medians and Pedestrian Crossing Islands</b>	<b>Pedestrian Hybrid Beacon</b>	<b>Road Diet</b>	<b>Sidewalks</b>
<b>3 lanes with raised median</b> (1 lane in each direction)					<b>Changing Speed Limits</b>	<b>Leading Pedestrian Interval</b>	<b>Rectangular Rapid Flashing Beacons</b>	<b>Crosswalk Visibility Enhancements</b>	
<b>3 lanes w/o raised median</b> (1 lane in each direction with a two-way left-turn lane)					<b>Street Lighting</b>	<b>Separated Bike Lanes</b>	<b>Neighborhood Greenway/Bike Boulevard</b>	<b>Traffic Calming</b>	
<b>4+ lanes with raised median</b> (2 or more lanes in each direction)									
<b>4+ lanes w/o raised median</b> (2 or more lanes in each direction)									

Refer to Field Guide for Selecting Countermeasures at **Uncontrolled Pedestrian Crossing Locations**

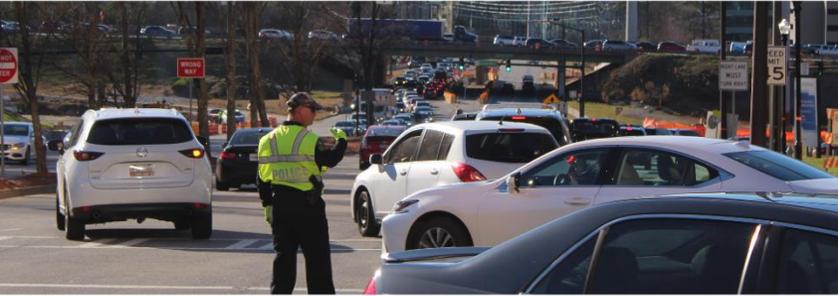
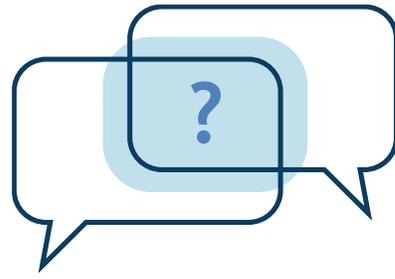
[https://www.fhwa.dot.gov/innovation/everydaycounts/edc\\_4/STEP-field-guide.pdf](https://www.fhwa.dot.gov/innovation/everydaycounts/edc_4/STEP-field-guide.pdf)

# How Does This Influence Decisions?

- TIP / funding decisions
  - RSS will support project prioritization and funding allocation
  - Higher risk could equate to higher priority
- Project development decisions
  - RSS will identify key risk factors and related countermeasures
  - Opportunity to be proactive in planning and design



# Questions



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