ARC BOARD & TRANSPORTATION AND AIR QUALITY COMMITTEE (TAQC)

ARC's Regional Safety Strategy

December 14, 2022















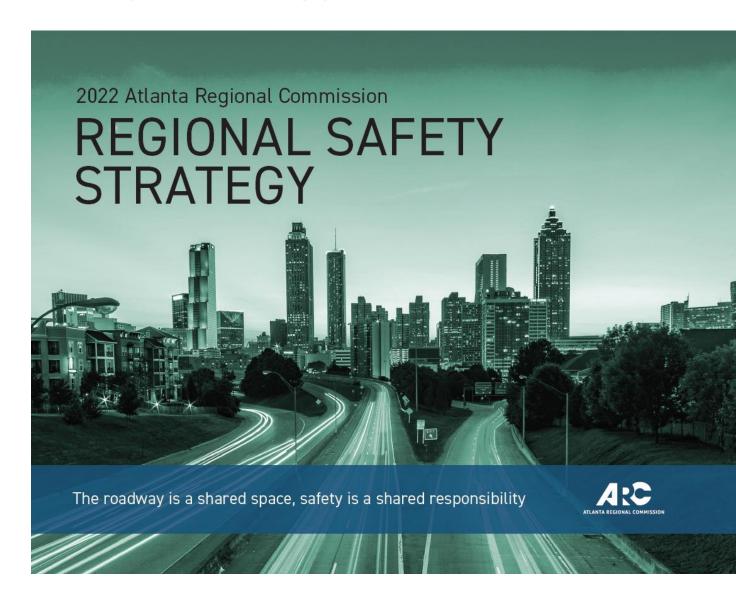




What is the Regional Safety Strategy (RSS)?

Regional strategy to guide ARC and its partners in proactively achieving safety goals and building a safe transportation system for all users in the Atlanta region:

- Advances safety in a unified way
- Shifts towards more proactive approach, rather than reacting to past trends
- Address rising severe crash trends and maximize impact of increased funding



RSS Development

Literature and Data Review

- Understand and reflect on existing policies and practices
- Summarize noteworthy national practices
- Identify socioeconomic and demographic variables related to safety

Stakeholder & Public Engagement

- Regional surveys
- Transportation safety workshop
- Stakeholder interviews
- Citizen focus groups

Data Analysis

- Identify focus crash types with higher proportion of deaths and serious injuries
- Identify focus facility types and risk factors associated with focus crash types
- Develop Risk Factor maps to proactively identify safety concerns

Safe Street Visualizations

- Illustrate common high-risk scenarios
- Illustrate options to reduce risk of death and serious injury for all road users









Key Public Engagement Takeaways

Safety & mobility, competing or complimentary?

Context is key

Equity is not inherent in countermeasures

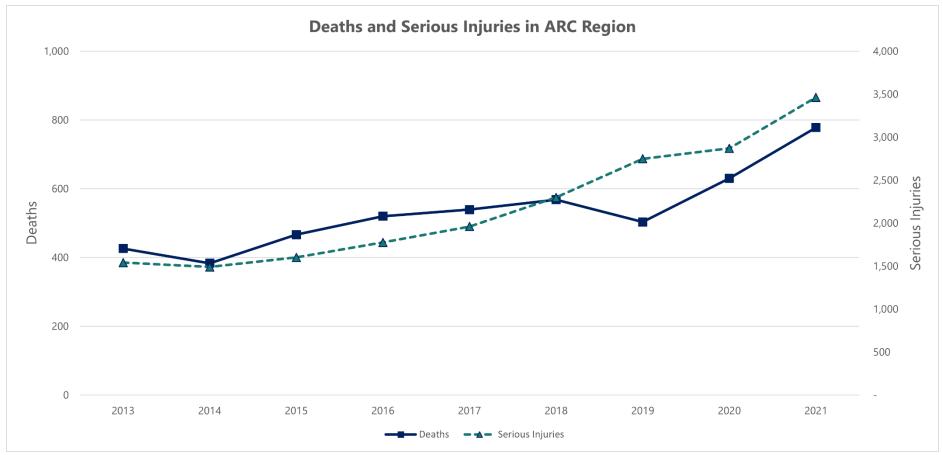
Education is essential

Funding & process are major challenges

Coordination is needed among practitioners, public, and policy makers

ARC's role: provide guidance, data and technical expertise, advocacy

What are the Regional Safety Trends?



• There are 230,000+ total crashes in the Atlanta region every year! Roughly 600 people die and more than 2,600 people are seriously injured.

The goal is **ZERO deaths** and **serious injuries** on public roads in the Atlanta region.

THE NUMBERS

Deaths (per year)* / Serious Injuries (per year)**

Regional Emphasis Areas

What are the Regional Safety Issues?

- Crash types: what crash types are most prevalent in severe crashes?
- Facility types: where are severe crashes most prevalent?
- Risk factors: what characteristics are overrepresented in severe crashes?



346

1568"

INTERSECTION



173°

540"

ROADWAY DEPARTURE



(A)

140

251"

PEDESTRIANS
AND BICYCLES

94

328"

OLDER DRIVER RELATED (65+) 74

270"

MOTORCYCLES

62

221"

IMPAIRMENT RELATED

59.

335"

YOUNG DRIVER RELATED **37**[°]

110"

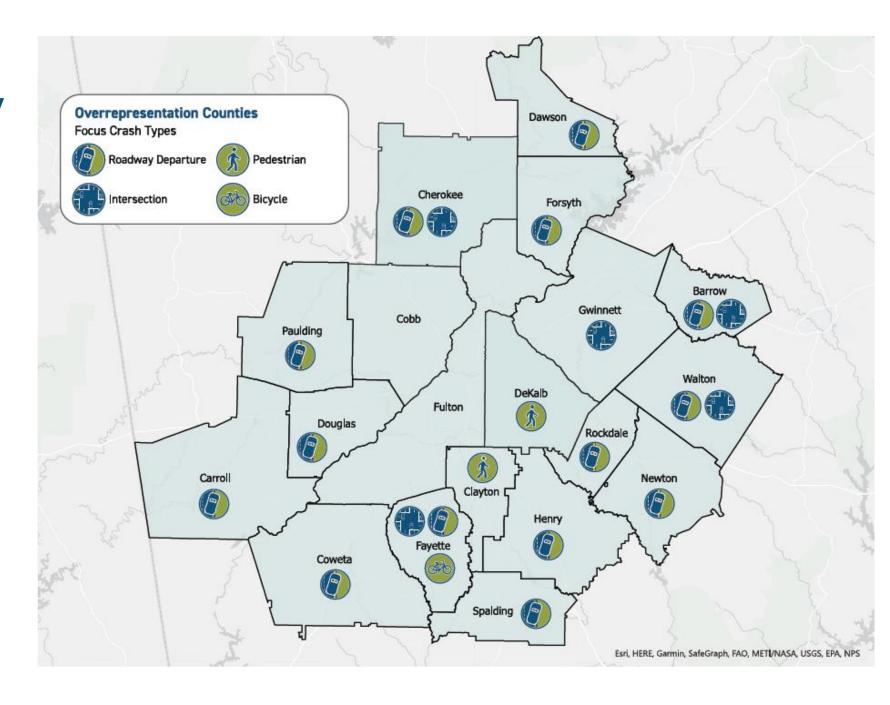
AGGRESSIVE DRIVING RELATED

14

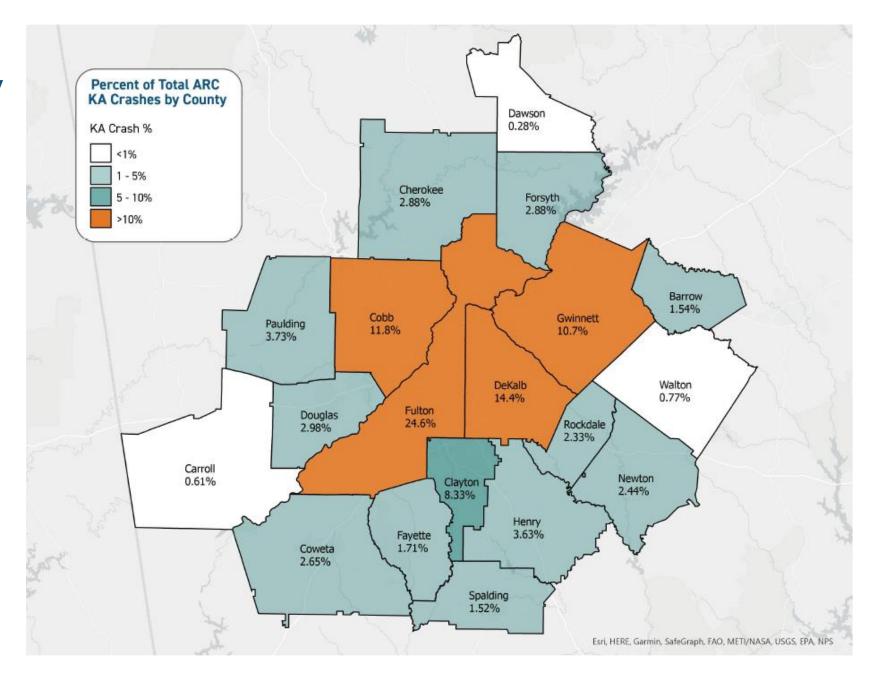
51"

DISTRACTED
DRIVING RELATED

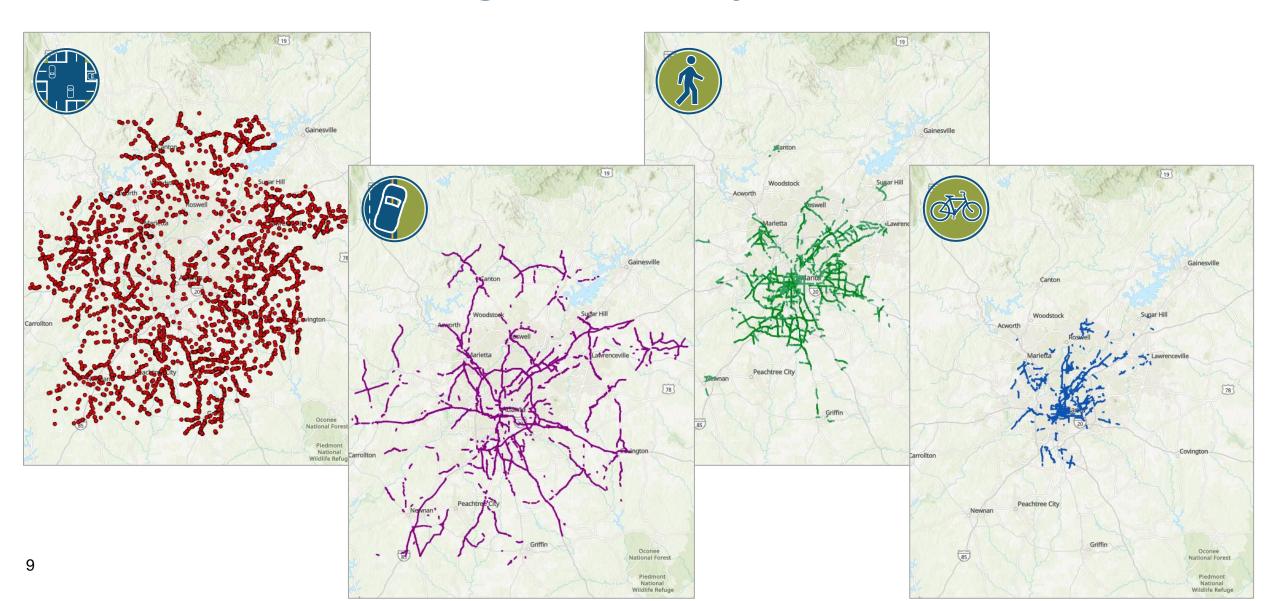
Where are the Regional Safety Issues?



Where are the Regional Safety Issues?



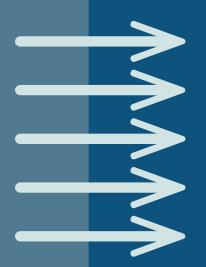
Where are the Regional Safety Issues?



Changing our Processes and Practices

Traditional approach

Prevent crashes
Improve human behavior
Control speeding
Individuals are responsible
React based on crash history



Safe System approach

Prevent death and serious injuries

Design for human mistakes/limitations

Reduce system kinetic energy

Share responsibility

Proactively identify and address risks

Vision Zero Goal

- Vision Zero: pro-active goal for zero fatalities & serious injuries
- ARC will adopt 5% reduction each year for all safety targets.



A comprehensive, data-informed approach.

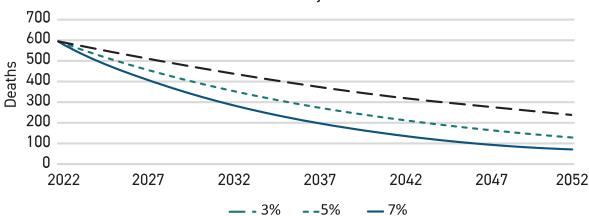


Steady incremental investments guided by Safe System principles.



Targeted and coordinated efforts from all safety stakeholders throughout the region.

Vision Zero Projections: Deaths







The road is a **shared space**; safety is a **shared responsibility**.





Proven Safety Countermeasures

- ARC promotes FHWA's Proven Safety Countermeasures to enhance safety for all road users
- Local agencies can:
 - Implement proven safety countermeasures to address sitespecific safety issues
 - Incorporate proven safety countermeasures in projects to proactively address systemic safety issues
- Keys to countermeasure selection:
 - Target underlying crash patterns and risk factors
 - Recognize diverse issues and unique community needs
 - Consider equity and community feedback

































Design Guidance & Visualizations

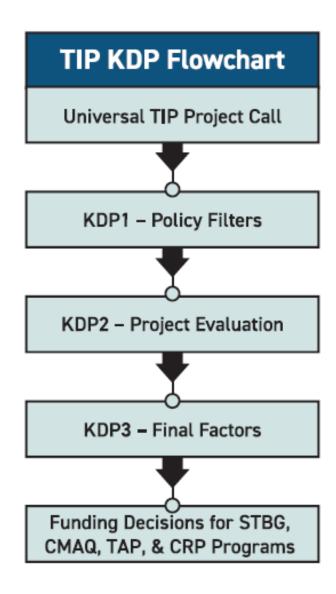
- Higher-risk scenarios
 - Used risk factors to identify specific locations
 - Created generic visualization of high-risk scenarios
- Lower-risk scenarios
 - Identified proven safety countermeasures
 - Focus on select countermeasures in each scenario





ARC TIP Evaluation Updates

- Deeper safety analysis during TIP project evaluation
 - Specific focus on large roadway projects
- More ability to guide regional plans and collaborate with local government
 - E.g., RTP, CTPs
- Develop Priority Safety Corridors
- Potential to develop regional project priority list



Roadway Analysis Updates

- Roadway Expansion and TSM&O projects have the most potential to positively or negatively affect safety.
- Safety Benefit-Cost analysis will be conducted during TIP project evaluations.

CRASH SEVERITY	CRASH COST
K: fatal	\$16,374,467
A: suspected serious injury	\$988,918
B: suspected minor injury	\$326,938
C: possible injury	\$184,435
0: property damage only	\$18,816

778 deaths in 2021 = \$12.7 billion

Regional & Local Partnerships

Regional components serve as coordinated approach for ARC and partners to:

- Shift to proactive approach
- Develop regional goals/plans
- Establish/monitor safety performance targets
- Evaluate/prioritize projects
- Allocate funds



Local components serve as guidance for local agencies to:

- Improve safety in their communities
- Integrate safety in project planning and development
- Identify safety issues proactively
- Address safety issues with proven safety countermeasures
- Prioritize projects and strategies for funding and implementation

Questions







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