TIP Criteria Revisions: Safety

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Today's Presentation

- Goals for today
- Framing the conversation
- Summary of feedback
- Proposed changes to current criteria
- Next steps
- Discussion

Goals for Today

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1. Provide feedback on general direction of Safety criteria
2. Suggest additional changes or other topics for further exploration within this goal area
3. Set the stage for today's discussion of Equity criteria

Framing the Conversation

Framing the Conversation: Principles

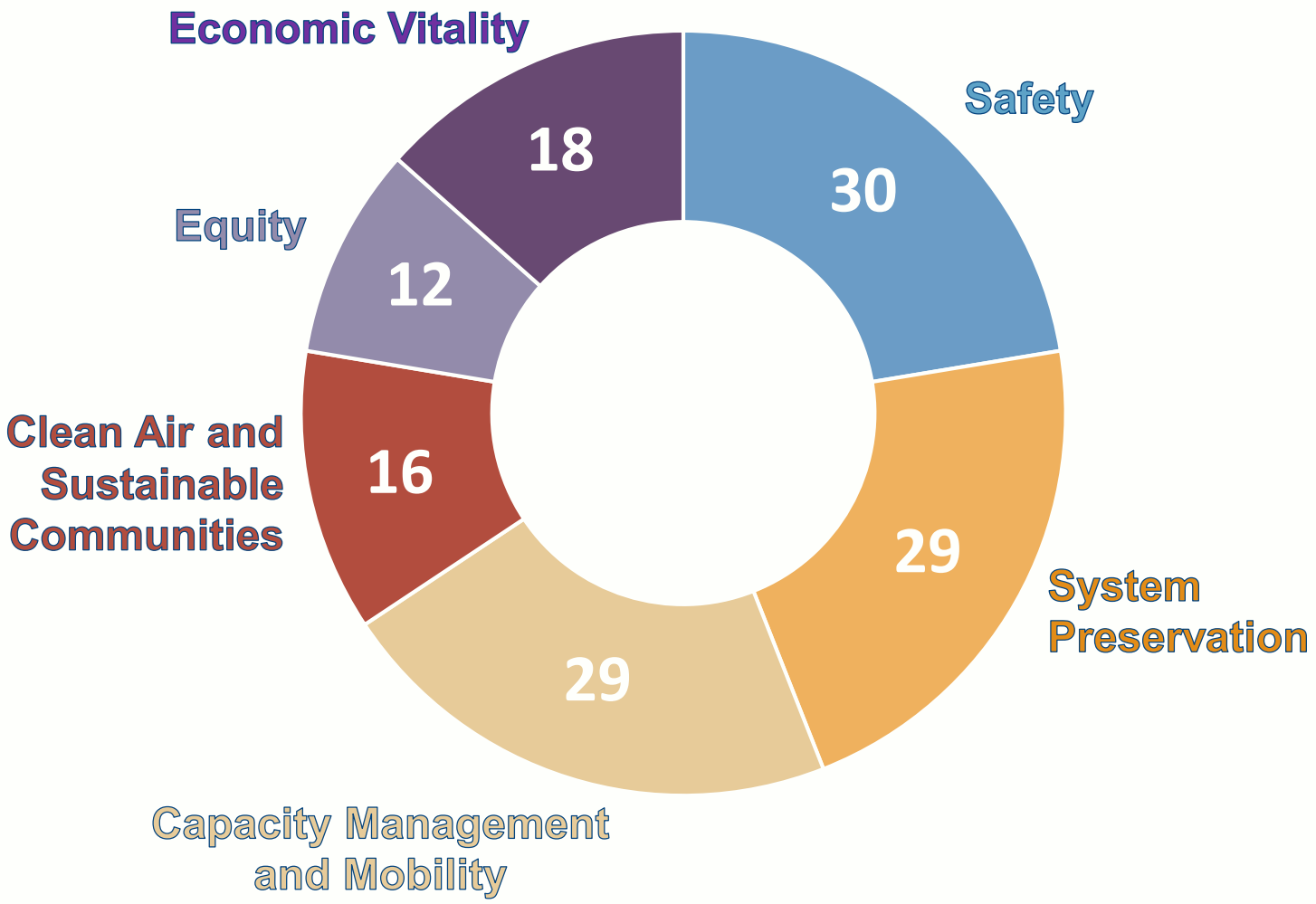
- Manageable to implement
- Make use of best available data and methods
- Create balance across investment programs
- Both realistic and aspirational
- Clear to project proponents and other stakeholders

Framing the Conversation: Notes

- Point values will be refined at a later date
- Changes are subject to continued feedback
- Criteria will vary by investment program

Current Criteria: Overview

Current TIP Criteria: Point Allocations (134 Possible Points)



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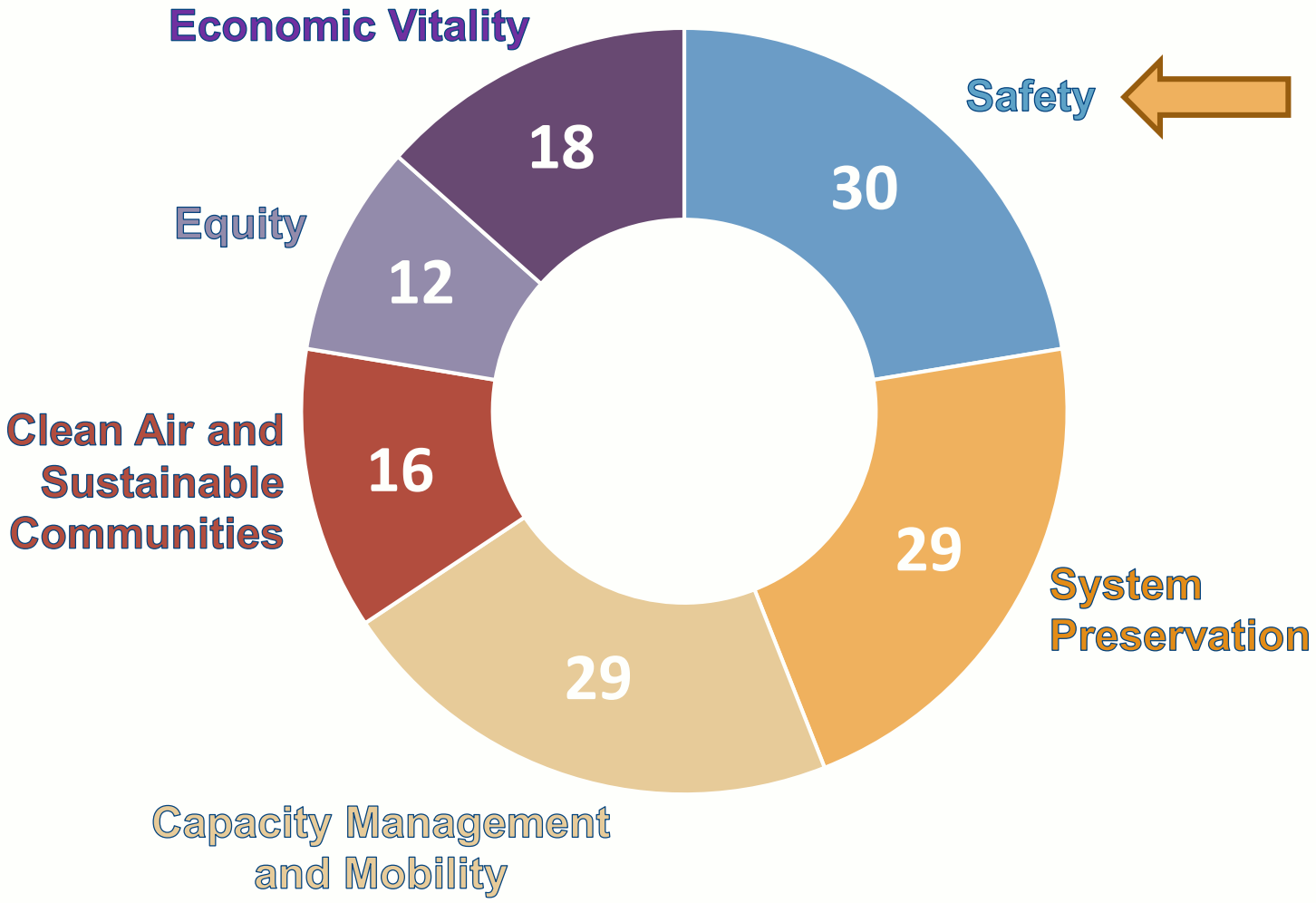

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  1. Reduce the number and severity of crashes and safety incidents for all modes
  2. Reduce serious injuries and fatalities from transportation
  3. Make investments and support initiatives that help protect transportation customers, employees, and the public from safety and security threats

Current Criteria: Scoring

Criteria	Scoring
Crash Severity Value: Equivalent Property Damage Only (EPDO) index	**Up to 5 points**
Crash rate (either intersection or corridor)	**Up to 5 points**
Improves truck-related safety issue	**Up to 5 points**
Improves bicycle safety	**Up to 5 points**
Improves pedestrian safety	**Up to 5 points**
Improves safety or removes an at-grade railroad crossing	**Up to 5 points**

Summary of Feedback

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- Survey
  - Quantitative safety criteria are clear, but EPDO is nebulous
  - More definition needed around levels of safety countermeasure effectiveness

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- Focus Group
  - Safety is paramount
  - Promoting safety for one mode can enhance safety for others
  - Without safety, mode shift is difficult

Summary of Feedback: Other

- RTAC
  - Pedestrian safety is critical
  - Focus scoring on the degree of improvement

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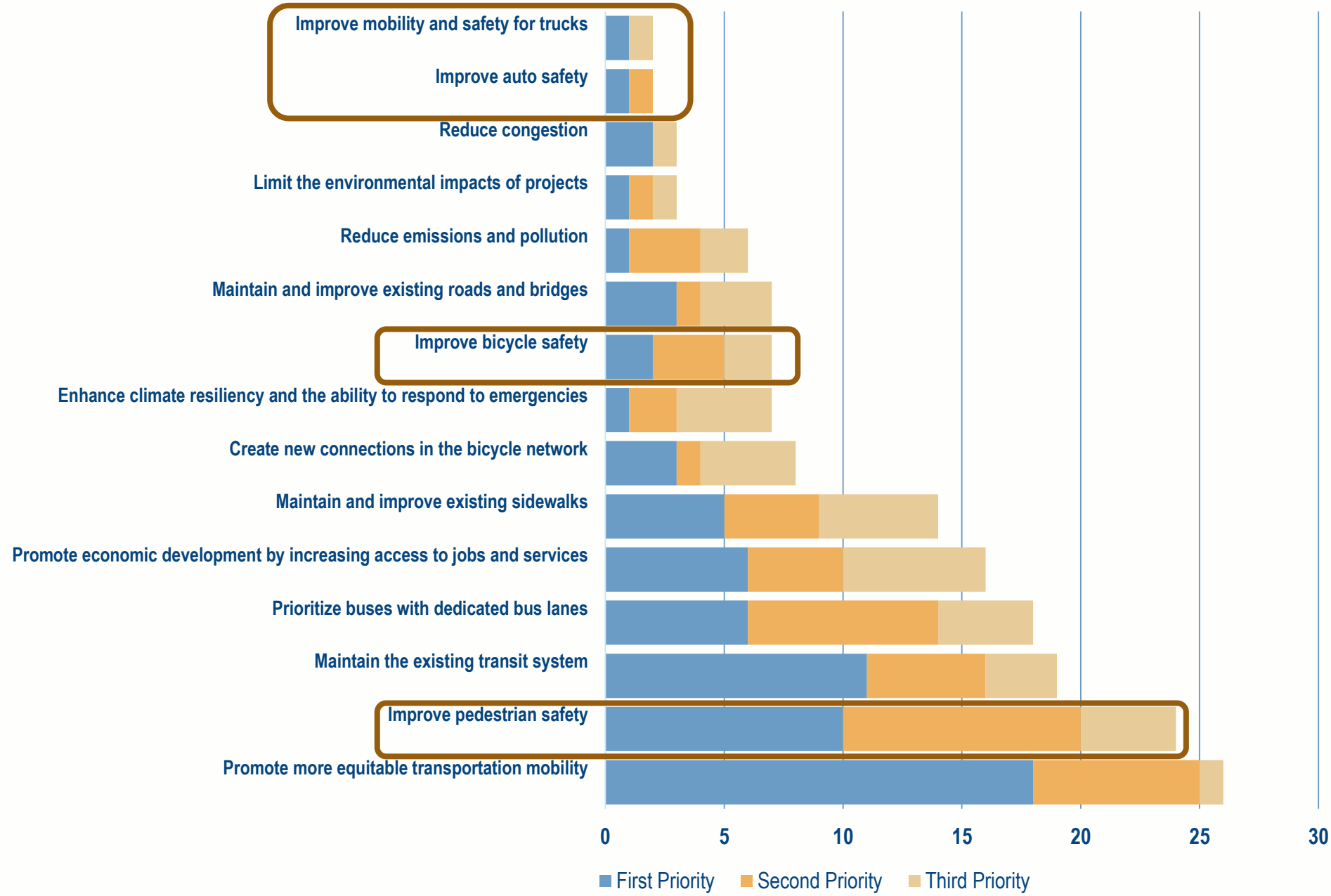
  - Reduce focus on property damage only crashes
- Conservation Law Foundation
  - Focus on places with most critical needs
- Transportation for America
  - Reduce number of criteria overall

Public Focus Groups

How can the MPO best improve transportation in the region?



Public Survey

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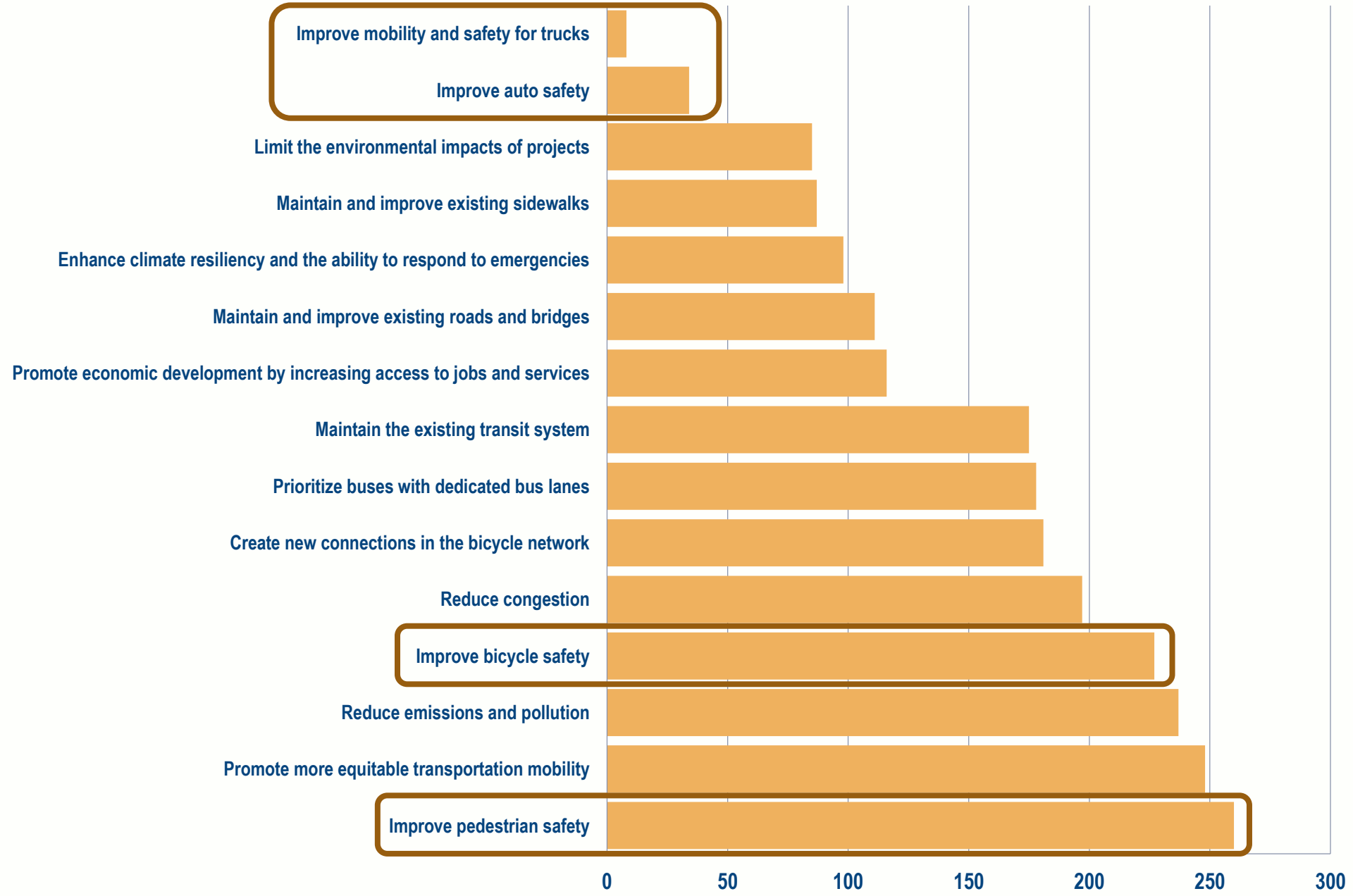

"Boston's roads are notoriously difficult to navigate and are setup for accidents of all kinds"

A system that works for pedestrians is a more equitable system. Further, the Boston region has many places where pedestrian activity is hindered or precluded by the transportation network. Removing these impediments empowers residents."

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A system that works for pedestrians is a more equitable system. Further, the Boston region has many places where pedestrian activity is hindered or precluded by the transportation network. Removing these impediments empowers residents."

"Bicycle safety is a top priority and many of the things we can do to make streets safe for bikes can make them safer for drivers and pedestrians too."

"Boston's roads are notoriously difficult to navigate and are setup for accidents of all kinds"

Proposed Changes to Current Criteria

Proposed Changes: Key Takeaways

Criteria	Key Takeaway
Crash Severity Value: Equivalent Property Damage Only (EPDO) index	**Update scoring scale to reflect new EPDO values**
Crash rate (either intersection or corridor)	**Focus scoring on injury and fatality crashes**
Improves truck-related safety issue	**Reallocate bonus points to focus on multimodal safety improvements**
Improves bicycle safety	**Distinguish between roadway and bicycle/pedestrian projects**
Improves pedestrian safety	**Distinguish between roadway and bicycle/pedestrian projects**
Improves safety or removes an at-grade railroad crossing	**Reimagine scoring to recognize more multimodal safety improvements**
Project addresses documented safety issue	**Add criterion to evaluate safety improvements of transit projects**

Existing Criterion: Crash Severity Value: Equivalent Property Damage Only

	Existing	Proposed – All Programs
Criterion	Crash Severity Value: Equivalent Property Damage Only (EPDO) index	Crash Severity Value: Equivalent Property Damage Only (EPDO) index
Scale	**+5** EPDO value of 300 or more **+4** EPDO value of 200-299 **+3** EPDO value of 100-199 **+2** EPDO value of 50-99 **+1** EPDO value less than 50 **0** No EPDO value	**0-5 point scale, based on:** • Calculated EPDO value using updated methodology • Different EPDO values for bicycle/ pedestrian projects
Discussion		• Update scale: new methodology • Public feedback • Performance measures

Existing Criterion: Crash Rate

	Existing	Proposed – CS, INT, MI
Criterion	Crash rate (either intersection or corridor)	Fatality and serious injury rate (either intersection or corridor)
Scale	**0-5 point scale, based on:** • Intersection or corridor • Intersection: Signalized vs. unsignalized • Corridor: Roadway classification (highway, principal arterial, etc.)	**0-5 point scale, based on:** • Intersection or corridor • Intersection: Signalized vs. unsignalized • Corridor: Roadway classification (highway, principal arterial, etc.)
Discussion		• Remove property-damage only crashes from rate • Remove from bike/ped scoring • Public feedback • Performance measures

Existing Criterion: Improves Truck-Related Safety Issue

	Existing	Proposed – CS, INT, MI
Criterion	Improves truck-related safety issue	Improves truck-related safety issue
Scale	**+3** High total effectiveness of truck safety countermeasures **+2** Medium total effectiveness of truck safety countermeasures **+1** Low total effectiveness of truck safety countermeasures **0** Does not implement truck safety countermeasures **+2** Improves truck safety at HSIP cluster	**+3** High total effectiveness of truck safety countermeasures **+2** Medium total effectiveness of truck safety countermeasures **+1** Low total effectiveness of truck safety countermeasures **0** Does not implement truck safety countermeasures
Discussion		• Clarify methodology • Adjust HSIP bonus structure • Remove from bike/ped scoring

Existing Criteria: Improves Bicycle/Pedestrian Safety

	Existing	Proposed – CS, INT, MI
Criterion	Improves bicycle/pedestrian safety	Improves bicycle/pedestrian safety
Scale	**+3** High total effectiveness of bike/ped safety countermeasures **+2** Medium total effectiveness of bike/ped safety countermeasures **+1** Low total effectiveness of bike/ped safety countermeasures **0** Does not implement bike/ped safety countermeasures **+1** Improves bike/ped safety at all-mode HSIP cluster **+2** Improves bike/ped safety at bike/ped HSIP cluster	**+3** High total effectiveness of bike/ped safety countermeasures **+2** Medium total effectiveness of bike/ped safety countermeasures **+1** Low total effectiveness of bike/ped safety countermeasures **0** Does not implement bike/ped safety countermeasures **+1** Improves bike/ped safety at all-mode HSIP cluster **+2** Improves bike/ped safety at bike/ped HSIP cluster OR multiple all-mode HSIP clusters
Discussion		• Clarify methodology • Adjust HSIP bonus structure

Existing Criteria: Improves Bicycle/Pedestrian Safety

	Existing	Proposed – Bike/Ped
Criterion	Improves bicycle/pedestrian safety	Improves bicycle/pedestrian safety
Scale	**+3** High total effectiveness of bike/ped safety countermeasures **+2** Medium total effectiveness of bike/ped safety countermeasures **+1** Low total effectiveness of bike/ped safety countermeasures **0** Does not implement bike/ped safety countermeasures **+1** Improves bike/ped safety at all-mode HSIP cluster **+2** Improves bike/ped safety at bike/ped HSIP cluster	**+8** High total effectiveness of bike/ped safety countermeasures **+5** Medium total effectiveness of bike/ped safety countermeasures **+2** Low total effectiveness of bike/ped safety countermeasures **0** Does not implement bike/ped safety countermeasures **+1** Improves bike/ped safety at one all-mode HSIP cluster **+2** Improves bike/ped safety at bike/ped HSIP cluster OR multiple all-mode HSIP clusters
Discussion		• Adjusted methodology • Higher point values

Existing Criterion: Improves Safety or Removes an at-Grade Railroad Crossing

	Existing	Proposed – CS, INT, MI
Criterion	Improves safety or removes an at-grade railroad crossing	Improves safety for all users
Scale	**+5** Removes an at-grade railroad crossing **+3** Significantly improves safety at an at-grade railroad crossing **+1** Improves safety at an at-grade railroad crossing **0** Does not include a railroad crossing	**0-5 point scale, based on:** • Railroad crossing improvements • Signal improvements • Roadway geometry improvements • Traffic-calming features **+1** Improves safety at all-mode HSIP cluster **+2** Improves safety at multiple all-mode HSIP clusters **+3** Improves safety at Top-200 crash location
Discussion		• Public feedback • Revised HSIP bonus structure • N/A to bike/ped projects

New Criterion: Transit Modernization

	Existing	Proposed – Transit Mod.
Criterion	None	Project addresses documented safety issue
Scale	None	**+8** Project addresses documented safety issues identified through a Federal or State investigation, audit, or finding; or top priority safety issues or hazards as identified by transit agency evaluations. **+5** Project addresses other safety issues or hazards as identified by transit agency evaluations. **+2** Project does not specifically address identified safety issues but would reduce potential hazards **0** No specific safety benefits identified
Discussion		• Forthcoming transit agency safety reports

Future Opportunities to Explore

- Expected crash calculations
  - What:
    - Breaks project areas down into segments and intersections and analyzes the potential for safety improvement at each
  - Why not now:
    - Labor intensive
- Crash Modification Factors
  - What:
    - Predicts reductions in crashes due to specific changes in roadway elements
  - Why not now:
    - Too detailed for pre-25%

Next Steps

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Today:

Discuss Safety & Economic Vitality goal areas

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June 25-July 16:
Discuss System Preservation & Capacity Management goal areas

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June 25-July 16:
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Beginning in late July:
Test scoring & public outreach

Discussion