



COMMONWEALTH of VIRGINIA
Office of the
SECRETARY of TRANSPORTATION

SMART SCALE Process Review Update

July 18, 2023



Presentation Overview

- **Process Bias Analysis**
 - Urban Preference
 - Leveraged Project Preference
- **Scoring and Funding Modifications**
 - Overview
 - Forward-Looking Congestion Factor
 - Forward-Looking Economic Development
- **Revisit Previous Recommendations**
 - Possible Impacts with Previous Solutions
 - All Solutions Scenario
- **Public Outreach Updates**
 - SMART SCALE Website
 - Schedule and Next Steps

Urban Preference Survey Response



- One area of perceived bias identified in the SMART SCALE Process Review Survey responses was “Urban”

“Do you think the current process is biased in any way (urban/rural, large/small projects, mode, etc.)?” (yes/no & free text response)



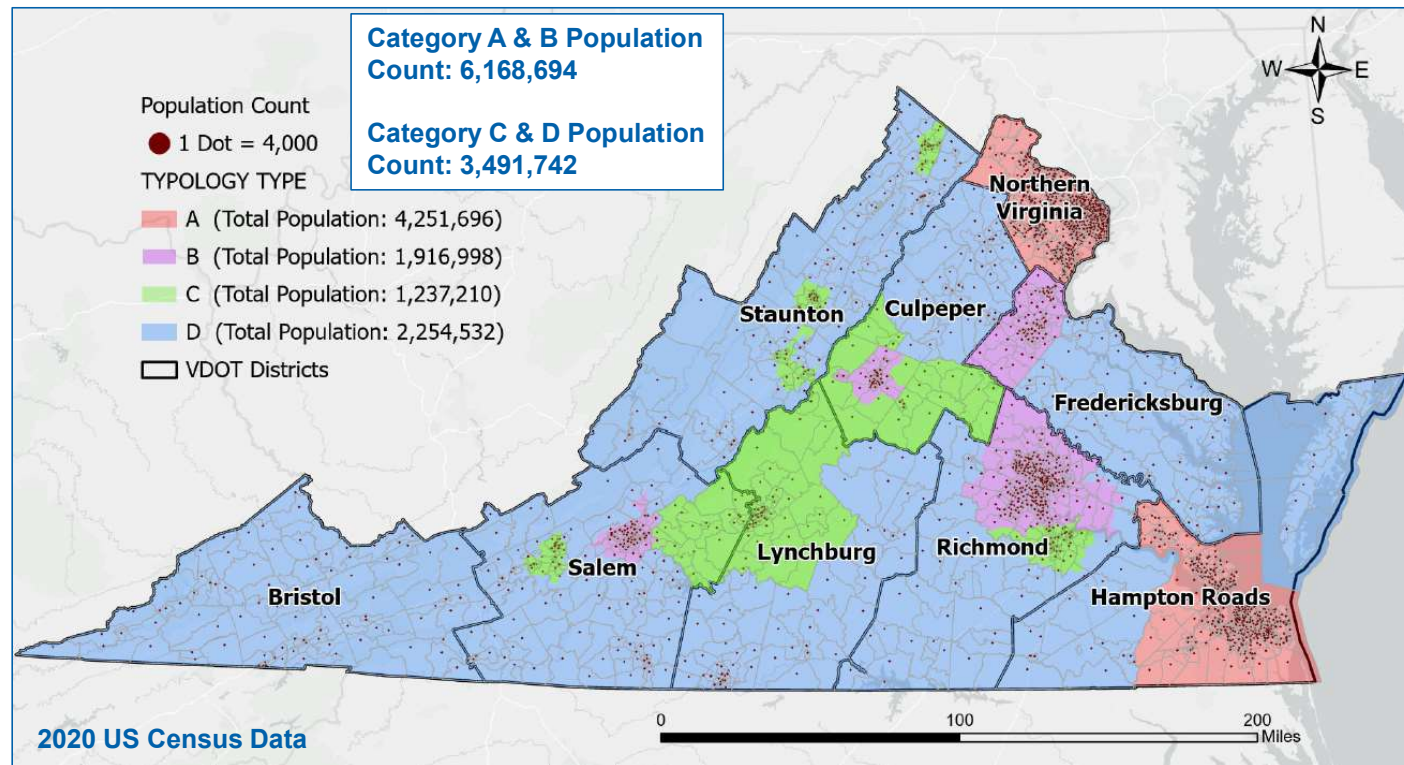
Urban Preference Typologies and Assumptions



- **Weighting typologies were established by CTB resolution in 2017**
 - Based on a robust public involvement process, it was determined that needs within each construction district are often diverse
 - The four weighting frameworks are assigned by planning district commission (PDC) and metropolitan planning organization (MPO) boundaries
- **Assumptions:**
 - Urban and rural areas are categorized based on area types as delineated on the SMART SCALE Technical Guide typology map*
 - Area Types A & B are considered largely “urban” areas
 - Area Types C & D are considered largely “rural” areas

**Note: This breakdown is important when categorizing and identifying trends across historical Program data*

Urban Preference Typology Map



Urban Preference Findings



- **The number of projects submitted and the number of projects funded* are fairly evenly distributed between urban and rural areas**
- **The amounts submitted and funded are higher in urban areas, although the ratio of submitted and funded amounts are similar**
 - Significant difference in HPP (83% vs. 17%)
 - Funding for projects in rural areas has increased in Rounds 4 & 5
- **The success rates based on the number of projects is higher for urban projects and the success rates based on the amounts funded are even**

* *Funded represents projects recommended for funding in the staff scenario*

Urban Preference Submitted & Funded Projects – Count



- The number of projects submitted is fairly evenly distributed between urban and rural areas
- Aside from Round 2, the number of funded projects is fairly evenly distributed between urban and rural areas

	# Submitted		# Funded	
	Urban (Type A/B)	Rural (Type C/D)	Urban (Type A/B)	Rural (Type C/D)
Round 1	50% (144)	50% (144)	49% (83)	51% (86)
Round 2	50% (202)	50% (202)	61% (84)	39% (53)
Round 3	46% (199)	54% (234)	55% (54)	45% (44)
Round 4	44% (175)	56% (222)	52% (81)	48% (75)
Round 5	48% (189)	52% (205)	48% (73)	52% (79)
Overall	47% (900)	53% (1,015)	53% (377)	47% (335)

Urban Preference Funded Projects (DGP & HPP) – \$ Amount



• The total funded amounts in DGP and HPP are higher in urban areas, particularly in Rounds 2 and 3

	\$ Funded DGP		\$ Funded HPP	
	Urban (Type A/B)	Rural (Type C/D)	Urban (Type A/B)	Rural (Type C/D)
Round 1	58% (\$580M)	42% (\$420M)	80% (\$784M)	20% (\$196M)
Round 2	70% (\$221M)	30% (\$95M)	95% (\$643M)	5% (\$34M)
Round 3	60% (\$227M)	40% (\$152M)	91% (\$330M)	9% (\$33M)
Round 4	59% (\$470M)	41% (\$326M)	73% (\$358M)	27% (\$132M)
Round 5	54% (\$594M)	46% (\$506M)	75% (\$350M)	25% (\$117M)
Overall	58% (\$2.1B)	42% (\$1.5B)	83% (\$2.5B)	17% (\$500M)

Urban Preference Funded Projects (HPP) – \$ Amount



• Taking out Mega Projects (SMART SCALE funding of \$75M or greater) changed Round 3 but not Round 2 or the overall percentage

	\$ Funded HPP		\$ Funded HPP w/o Mega Projects	
	Urban (Type A/B)	Rural (Type C/D)	Urban (Type A/B)	Rural (Type C/D)
Round 1	80% (\$784M)	20% (\$196M)	80% (\$784M)	20% (\$196M)
Round 2	95% (\$643M)	5% (\$34M)	93% (\$450M)	7% (\$33M)
Round 3	91% (\$330M)	9% (\$33M)	79% (\$129M)	21% (\$34M)
Round 4	73% (\$358M)	27% (\$132M)	73% (\$358M)	27% (\$132M)
Round 5	75% (\$350M)	25% (\$117M)	75% (\$350M)	25% (\$117M)
Overall	83% (\$2.5B)	17% (\$500M)	82% (\$2.1B)	18% (\$500M)

Urban Preference Success of Funded Projects



- The success rate for the number of funded projects was slightly higher for urban areas than rural areas and about even for amount funded

	# Funded		\$ Funded	
	Urban (Type A/B)	Rural (Type C/D)	Urban (Type A/B)	Rural (Type C/D)
Round 1	57%	61%	22%	32%
Round 2	42%	26%	15%	7%
Round 3	27%	19%	12%	7%
Round 4	47%	34%	19%	24%
Round 5	38%	39%	16%	23%
Overall	41%	34%	17%	16%

Urban Preference Conclusion



- **There is not a consistent bias toward urban projects in the SMART SCALE program**
 - Urban area projects have higher success rate than rural area projects based on the number of projects but are even on the amount funded
 - Submitted and funded amounts were higher in urban areas, especially in HPP funding
 - Overall, the ratio of submitted and funded amounts are similar
 - Rural area projects received higher share than what was submitted in the last two rounds
 - Urban areas represent 2/3 of the population

Leveraged Project Preference Survey Response



- A vast majority of survey respondents believe that Leveraged Funding Policy is good policy

“The SMART SCALE scoring process positively weighs applications that include committed project funding from other sources (often regional or local). In your opinion, is this good public policy and an appropriate way to value the Commonwealth’s investment?” (yes/no question)



Leveraged Project Preference Policy & Perceptions



- **Policy, as stated in the SMART SCALE Technical Guide:**
 - Applicants are encouraged to identify other sources of funding (local, regional, proffers, other state/federal funds) to reduce the amount of funding being requested via SMART SCALE
- **Perceptions:**
 - Leveraged projects are more successful than non-leveraged projects
 - Urban areas are more likely to have leveraged projects

Leveraged Project Preference Findings

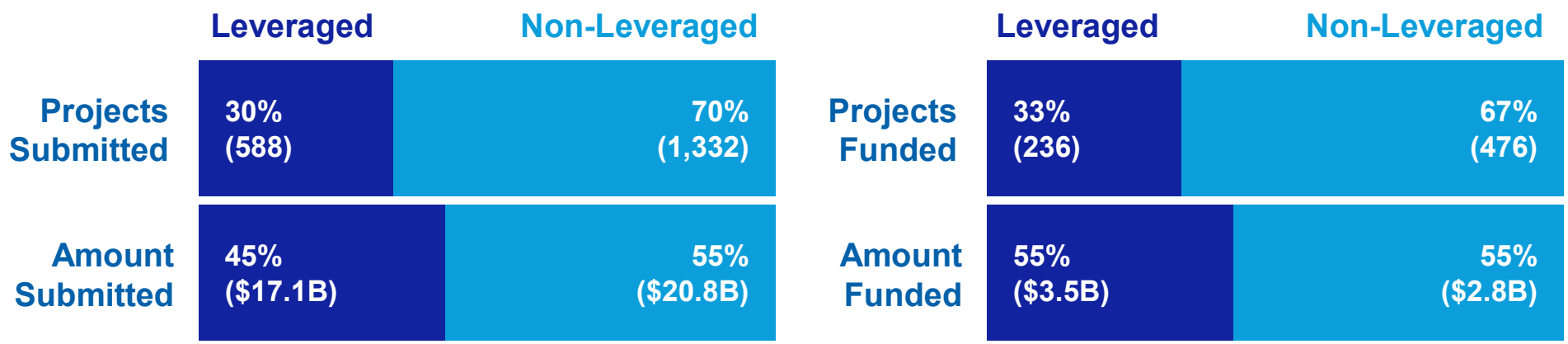


- **One third of funded projects have leveraged funding, representing 55% of the total amount funded**
 - \$3.5B in SMART SCALE funding has funded over 3X in total project cost (\$11.5B)
- **The success rates of the number of leveraged projects and the amount funded were slightly higher than the non-leveraged projects**
- **The success rate for the number of urban leveraged projects was slightly higher than rural leveraged projects but lower for amount funded**
- **Leveraged projects are at least 6X more successful for projects with SMART SCALE funding equal to or greater than \$30M**

Leveraged Project Preference Submitted and Funded Projects



• One third of funded projects have leveraged funding, representing 55% of the total amount funded



Leveraged Project Preference

Success Rate Leveraged vs. Non-Leveraged



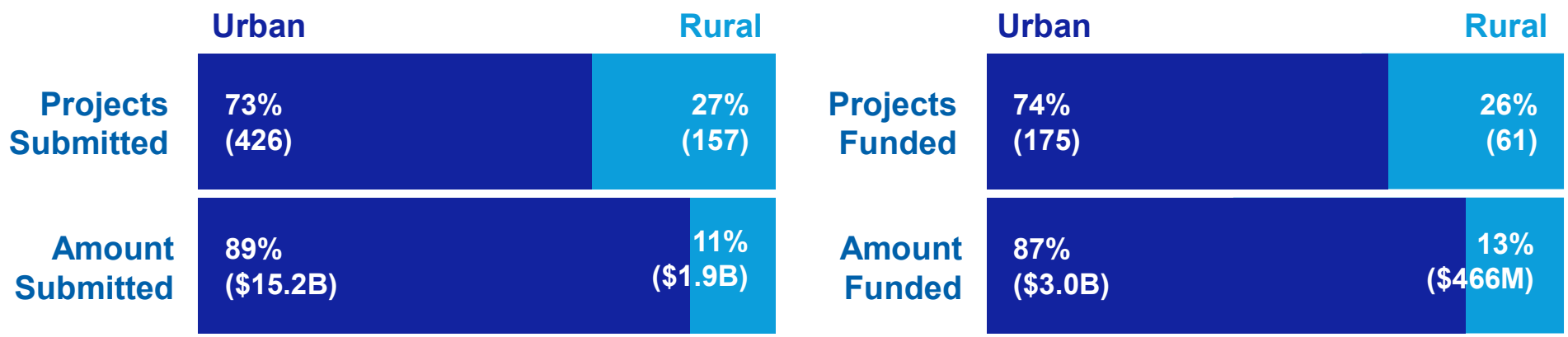
• The success rates of the number of leveraged projects and the amount funded were slightly higher than the non-leveraged projects

	# Projects	\$ Amount
Leveraged	40% (236 funded/ 683 submitted)	20% (\$3.5B funded/ \$17B submitted)
Non-Leveraged	36% (476 funded/ 1,332 submitted)	14% (\$2.8B funded/ \$20.8B submitted)

Leveraged Project Preference Submitted and Funded by Urban & Rural Areas



• Urban areas have significantly more submitted and funded leveraged projects by number of projects and amounts than rural areas



Leveraged Project Preference Success Rate for Urban vs. Rural



- The success rate for the number of leveraged projects was slightly higher for urban areas than rural areas but lower for amount funded

Success Rate for Leveraged vs. Non-Leveraged

	# Projects	\$ Amount
Urban	41% (175 funded/ 426 submitted)	20% (\$3B funded/ \$15B submitted)
Rural	39% (61 funded/ 156 submitted)	25% (\$466M funded/ \$1.9B submitted)

Urban

41%
(175 funded/
426 submitted)

\$ Amount

20%
(\$3B funded/
\$15B submitted)

Rural

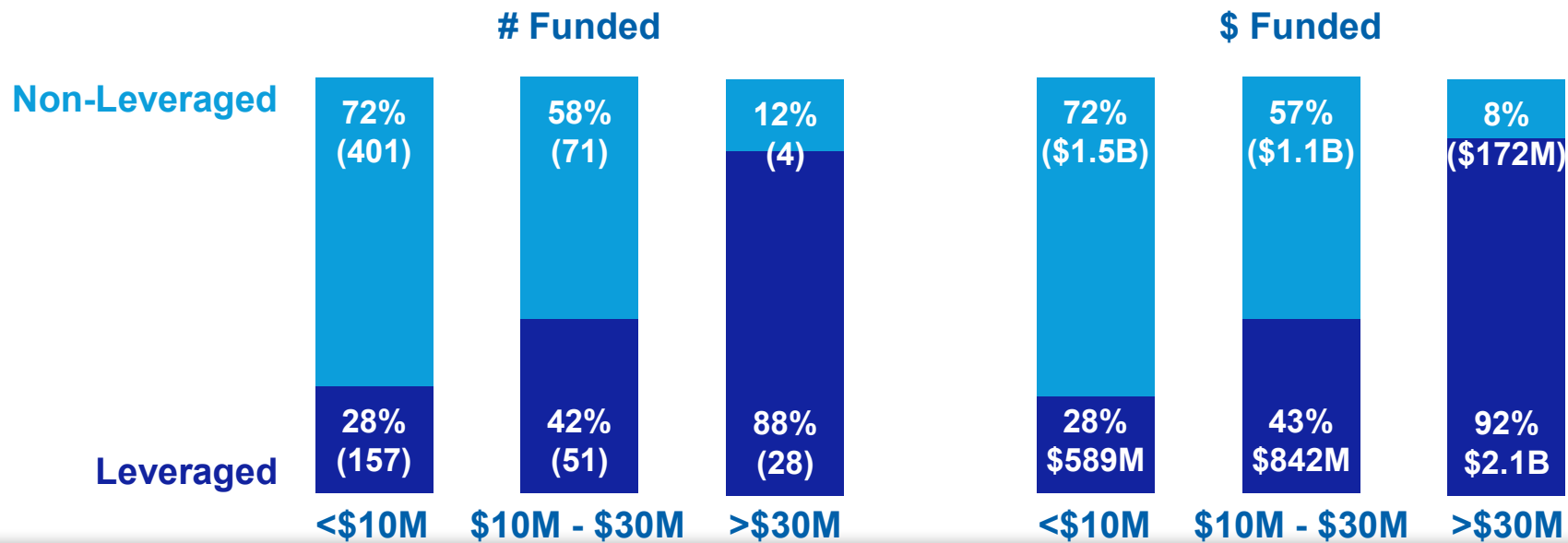
39%
(61 funded/
156 submitted)

25%
(\$466M funded/
\$1.9B submitted)

Leveraged Project Preference Comparison by Funding Tier



• Leveraged projects make up substantial number and amount of funded projects with SMART SCALE funding greater than \$30M

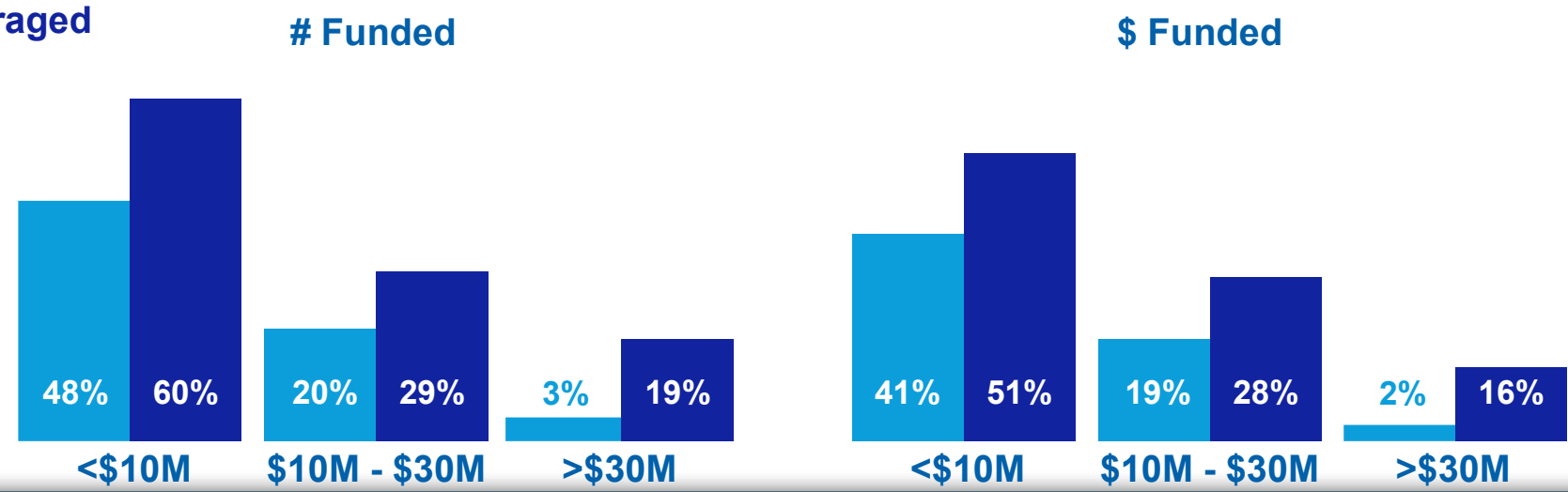


Leveraged Project Preference Success Rate by Funding Tier – Leveraged vs. Non-Leveraged



• The success rate for leveraged projects is consistently higher than non-leveraged projects in each tier but at least 6X higher for projects in greater than \$30M tier

Non-Leveraged
Leveraged

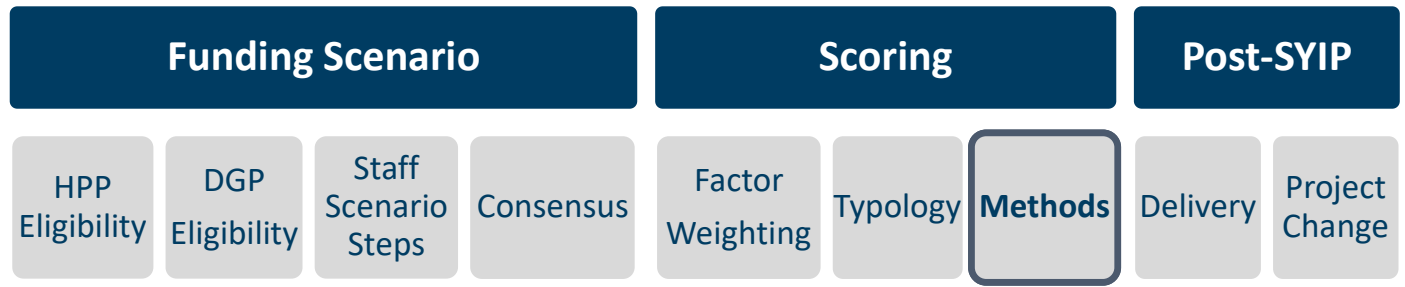


Leveraged Project Preference Conclusion

- While leveraged projects generally have slight edge over non-leveraged projects overall, the advantage is at least 6X higher for projects in greater than \$30M tier
- There is not a bias toward urban leveraged projects over rural leveraged projects, however urban areas utilize leverage funding more than rural areas
- \$3.5B in SMART SCALE funding has funded \$11.5B in total project cost

Overview

 • There are no recommendations related to Urban Preference or Leveraged Project Preference but will report on analyzed biases in final scenario.



- Adjusting in one area can affect another
- A singular issue identified may be resolved by adjusting multiple components of the process
- A singular process adjustment may resolve multiple issues

Forward-Looking Congestion Factor

Scoring

Factor
Weighting

Typology

Methods



- **Project design requirements accommodate future growth volumes, but congestion scoring is in the current day.**

- **Survey Feedback - Projects aren't receiving the full projected benefits as they're analyzed in existing year conditions**
- **Rounds 1 & 2 looked 10 years in the future**
 - Methodology was switched to current-day in Round 3, to prioritize existing problems
- **Recommend calculating congestion benefits for 10 years in the future**
 - Solution considers major economic development activity in the analysis
 - Solution has positive downstream calculation impacts on Accessibility, Economic Development, and Environment measures
 - Will have more impact if weighting adjustments are made

Forward-Looking Congestion Factor

Scoring

Factor Weighting Typology **Methods**

Future Year Analysis Applied to Round 5 Zero or Negative Congestion Scores to Positive Congestion Scores

Display ID	District	Name	Project Type	Change in Throughput (Persons)	Change in Delay (Person-Hours)	Original Congestion Rank	Future Year Congestion Rank	Change in Rank
9135	Richmond	I-64 at Ashland Rd. (Rte. 623) Interchange	Highway	689	784	88	5	+83
9449	Fredericksburg	Lafayette Blvd - Rte 3 Roadway Improvements	Highway	957	261	113	11	+102
9098	Hampton Roads	Great Bridge Bypass and Battlefield Blvd Interchange Imp.	Highway	260	4	390	55	+335
9061	Culpeper	Route 3 and the Post Office Intersection Improvements	Highway	153	30	274	57	+217
9298	Staunton	Route 7/Route 601 Intersection Improvements	Highway	23	14	299	116	+183

Forward-Looking Congestion Factor

Scoring		
Factor Weighting	Typology	Methods

- Positive impacts on large highway projects
- Area types not impacted by the singular change
- Changed the mix of project types in urban areas

The average total cost of funded projects rose from \$15.1M to \$15.3M
The average total request of funded projects rose from \$10.1M to \$10.3M

For Principal Improvement Type

- **Bike & Ped** - 51 to 47
- **Highway** - 98 to 102
- **Bus Transit** – unchanged at 3

For Area Type

- **A** - unchanged at 39
- **B** – unchanged at 34
- **C** – unchanged at 23
- **D** – unchanged at 56


Forward-Looking Economic Development Factor

Scoring

Factor
Weighting

Typology

Methods

- 
- Survey identified a disconnect between square footage and economic benefit
 - Engaged VEDP to develop a more forward-looking methodology, which will be brought in September

- Since Round 1, planned or zoned Site Building Square Footage in the vicinity of the proposed transportation project was used as the measure
 - Last revision to Economic Development was between Rounds 2 and 3 to distinguish the level of readiness for site plans

All Solutions Scenario



- **Considers modifications to Land Use and Congestion, HPP-Eligible Project Types, and Elimination of Step 2**
- **Total number of projects funded in urban is 49% versus 51% in rural**

The average total cost of funded projects raised from \$15.1M to \$21.8M

The average total request of funded projects raised from \$10.1M to \$13.9M (removes 39 projects)

For Principal Improvement Type

- **Bike & Ped - 51 to 13**
- **Highway - 98 to 99**
- **Bus Transit – 3 to 1**

For Area Type

- **A - 39 to 29**
- **B - 34 to 26**
- **C - 23 to 14**
- **D - 56 to 44**

SMART SCALE Website

- Resources linked directly on the SMARTSCALE.org homepage
- Comment intake available at bottom of page

Key Components of the SMART SCALE Process Review

 <p>Statistical Analysis</p> <ul style="list-style-type: none">• Analysis of the performance and outcomes of the past funding rounds• Identification of potential biases and related causes	 <p>Survey Assessments & Public Input</p> <p>Review feedback provided related to:</p> <ul style="list-style-type: none">• Process performance and public perceptions• Administration, communications, and customer service	 <p>Procedural Review</p> <ul style="list-style-type: none">• Identify procedural improvements including applications updates, communications, and process improvements	 <p>Code and Policy</p> <ul style="list-style-type: none">• Recommended procedural changes• Recommended CTB Policy changes• Recommended Code changes
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Additional Resources

- June CTB Meeting SMART SCALE Presentation
- May CTB Meeting SMART SCALE Presentation
- April CTB Meeting SMART SCALE Presentation
- February CTB Meeting SMART SCALE Presentation

[Click here to contact us with questions or comments.](#)

Schedule and Next Steps

Economic Development.



Process Biases (Part 1), One Factor Majority, Funding Steps

JULY

Process Biases (Part 2), Emphasis on Safety Priority, Forward-Looking Process

**JULY
Retreat**

Summarize findings to date and respond to comments received. Identify additional focus areas of analysis. Discuss preliminary recommendations.

AUG

No Meeting

SEPT

Retreat Summary, Disconnect Between Need and Benefit, Flexibility in Project Change Process, Project Performance

OCT

Final Recommendations

NOV

Virtual Town Hall

DEC

Policy Adoption