SMART SCALE Retreat
July 19, 2023
Location: Fredericksburg, VA

Start Time	Session Title	Format	Presenter(s)
8:30 AM	Welcome	Large group session	Secretary (ATCS to support)
	Process Overview	Large group session	OIPI/VDOT
	Summary of Briefings to Date	Large group session	ATCS
	Analysis and Recommendations to Date	Large group session	ATCS
Noon	Lunch		
	Additional Analysis	Large group session	ATCS/OIPI
	Summary of Feedback Heard Today	Large group session	ATCS
	Schedule and Next Steps	Large group session	ATCS
	Final Comments and Questions	Q&A – CTB	ATCS
4:30 PM	Adjourn	Large group session	Deputy Secretary (ATCS to support)

Retreat Presentation

COMMONWEALTH of VIRGINIA
Office of the
SECRETARY of TRANSPORTATION

SMART SCALE Process Review Retreat

July 19, 2023

CTB Retreat Agenda

- **Retreat Objectives – slide 4**
- **Process Overview**
  - History and Purpose – slide 5
  - Application Scoring Methodology – slide 7
  - Project Funding Steps – slide 37
- **Summary of Briefings to Date**
  - Stakeholder Groups – slide 42
  - CTB Briefings To Date – slide 43
  - Comments and Feedback Received To Date – slide 44
  - Survey Response Overview – slide 46
  - Potential Issues Identified – slide 47

CTB Retreat Agenda

- **Analysis and Recommendations to Date**
  - Urban Preference – slide 48
  - Leveraged Funding Preference – slide 49
  - Small Project Preference – slide 50
  - Refine HPP Definition and Eliminate Step 2 – slide 52
  - Application Quality – slide 53
  - Forward-Looking Congestion Factor – slide 54
  - Forward-Looking Economic Development Factor – slide 55
  - One-Factor Majority – Land Use Factor – slide 56
- **Additional Analysis**
  - Low-Scoring Projects – slide 57
  - Factor Weighting – slide 59
- **Summary of Feedback Heard Today – slide 77**
- **Schedule and Next Steps – slide 78**
- **Final Comments and Questions**

What Do We Want To Accomplish Today?

- Review Briefings to Date
- Confirm External and Internal Teams addressed the concerns and biases from Stakeholder Survey
- Confirm concerns from the stakeholders were addressed
- Discuss potential solutions recommended
- Provide direction to the team on final recommendation

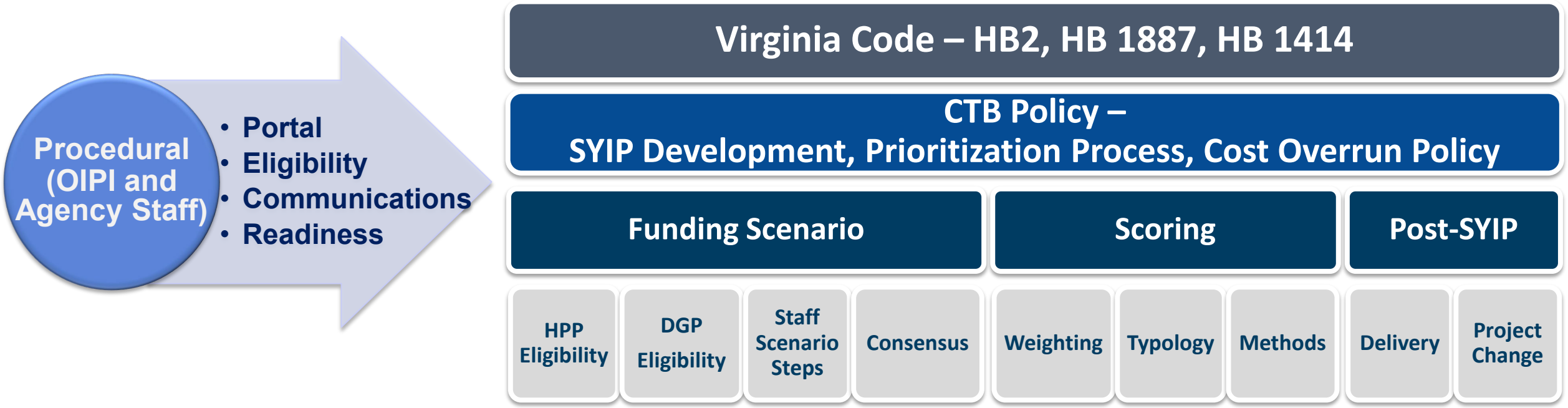
History and Purpose

- **Prior to SMART SCALE, project decisions were driven by the entities that controlled the funding.**
- **The old construction formula was often referred to as the 40/30/30 formula**
  - Interstate (CTB) and Unpaved Roads (Counties) were addressed first, with the balance distributed
  - 40% for the primary system - **allocated by the CTB**
  - 30% to counties for secondary routes – **controlled by the Local Board of Supervisors**
  - 30% to cities and towns for urban routes – **controlled by City/Town Council**
- **No objective criteria to guide project selection, which lead to shifting priorities**
- **Partially funded projects**
  - Wasted time and resources waiting for funding to accrue
  - Project development was often measured in decades as opposed to years
  - Project could be very far along in the design process and not get constructed

History and Purpose

- **SMART SCALE was created to improve the transparency and accountability of project selection and stabilize the Six-Year Improvement Program**
- **HB 2 of the 2014 General Assembly (SMART SCALE) required the implementation of a formal prioritization process by June 2016**
  - Needed to remove the political element and select projects that bring the best value
- **It reformed Virginia's transportation programming process by requiring the use of a data-driven, outcome-based prioritization process**
  - SMART SCALE has improved the transparency and accountability of project selection
  - The process scores projects based on an objective and fair analysis that is applied statewide
- **SMART SCALE is a tool to help CTB select projects that provide the greatest benefits for tax dollars spent**

The SMART SCALE Process



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

The SMART SCALE Process Driven by the Code of Virginia

Virginia Code – HB2, HB 1887, HB 1414

HB2 Defines the Process

- **Effective July 1, 2014** (as defined in § 33.2-214.1), required the development of a prioritization process that the CTB was to use for project selection by July 2016.
- **Benefit-Cost Relationship Required**
- **Six Factor Areas Required (SCALE) –** safety, congestion mitigation, accessibility, land use*, economic development, and environmental quality
- **Multi-Modal Project Evaluation – must consider** highway, transit, rail, roadway, technology operational improvements, and transportation demand management strategies
- **Meet a VTrans Need**
- **Projects must be fully funded when added to the SYIP**

**Note: Land Use is required in populations over 200,000 defined in the 6th enactment clause*

The SMART SCALE Process Driven by the Code of Virginia

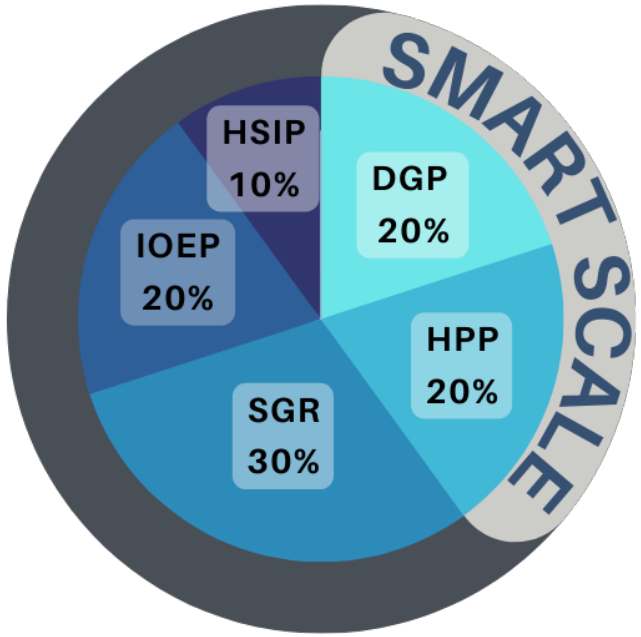
Virginia Code – HB2, HB 1887, HB 1414

HB1887 and HB 1414 Define Funding to Programs

- **HB 1887 (Rounds 1 – 3)**
  - Established State of Good Repair (SGR - 45%) High-Priority Projects Program (HPP – 27.5%) and the District Grant Program (DGP – 27.5%)
- **HB 1414 (Rounds 4 – 5)**
  - Restructured Virginia's transportation funding model and updated program shares
  - Enacted changes to statewide revenue sources and regional funding sources
  - Imposed the regional fuels tax in all areas of the Commonwealth where it is not imposed to be used in DGP addition to the formula DGP (referred to as the Supplement District Grant)

The SMART SCALE Process
Driven by the Code of Virginia

Virginia Code – HB2, HB 1887, HB 1414

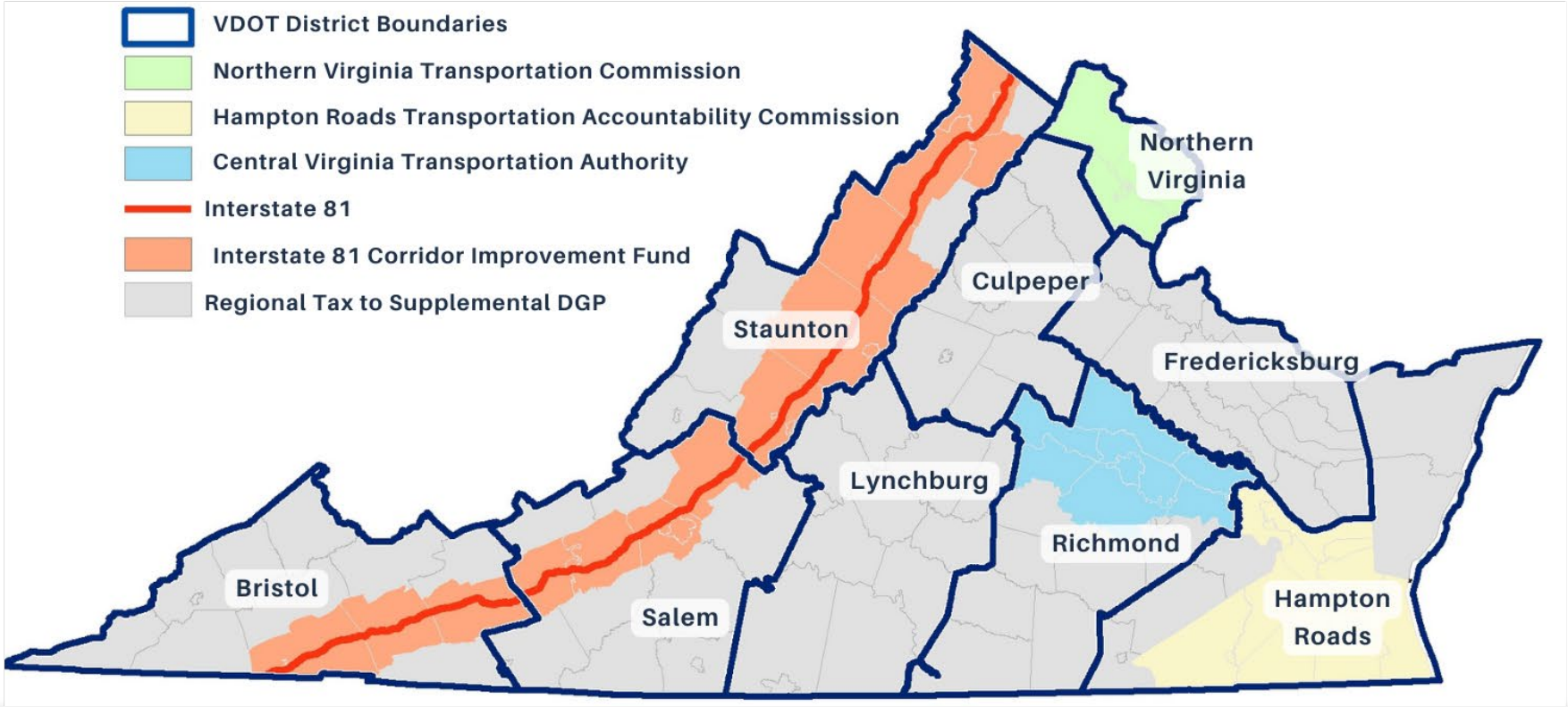


Program	Formula Percentage	Update Cycle	Final FY2024-2029 Total
Construction District Grant*	20%	Even FYs	$2.2 B
High Priority Projects	20%	Even FYs	$1.4 B
State of Good Repair Program	30%	Annual	$2.4B
Interstate Operations and Enhancement Program**	20%	4 Years	$1.9B
Virginia Highway Safety Improvement Program	10%	Annual	$0.8 B
Revenue Sharing (state and local match)	NA	Odd FYs	$1.4 B
Transportation Alternatives (TAP)	NA	Odd Fys	$0.2 B

* Including Supplemental Fuel Tax Revenue
** Including I-81 Regional Fuels Tax Revenue

The SMART SCALE Process Driven by the Code of Virginia

Virginia Code – HB2, HB 1887, HB 1414



The regional fuels tax funding the Supplemental District Grant is collected in all areas of the Commonwealth where it is not already imposed (shown in the gray areas).

The SMART SCALE Process
CTB Policy

CTB Policy – SYIP Development, Project Prioritization Process, Cost Overrun Policy

1. **Six-Year Improvement Program Development Policy**
   - Defines SMART SCALE Schedule
   - Defines SMART SCALE Funding Scenario Steps
2. **Policy for Implementation of the SMART SCALE Project Prioritization Process**
   - Defines project eligibility – by entity and amount (cap limits)
   - Defines Typology, Factor and Measure Weighting
   - Adopts Technical Guide
3. **SMART SCALE Cost Overrun Policy**
   - Outlines re-scoring process when a funded project has significant changes to either the scope or cost of the project

The SMART SCALE Process
Funding Program Eligibility

Defines program eligibility by qualifying entities

Program	VTrans Need Type	Applicant
DGP	Safety or Urban Development Area	Locality
DGP and HPP	Corridor of Statewide Significance or Regional Network	Locality
HPP	Corridor of Statewide Significance or Regional Network	MPO, PDC, or Transit Agency

The SMART SCALE Process Funding Program Eligibility

Procedural

Portal | **Project Eligibility** | Readiness | Comms

Defines application limits by population

Tier	Localities	MPO, PDC, or Transit Agency	Max Pre-Applications	Max Full Applications
1	< 200,000	< 500,000	5	4
2	>= 200,000	>= 500,000	12	10

The SMART SCALE Process
Application, Screening, and Validation

Procedural

Portal | Project Eligibility | Readiness | Comms

Project Application Process

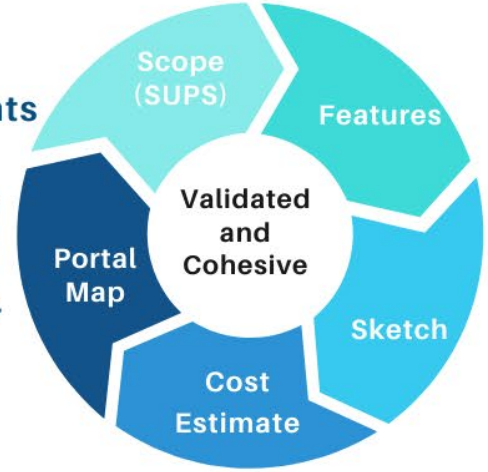
1 Pre-Application → 2 Pre-App Screening → 3 Full Application → 4 District Screening → 5 Central Office Screening & Validation → 6 District Estimate Validation → 7 Screened In/Out → 8 Scored

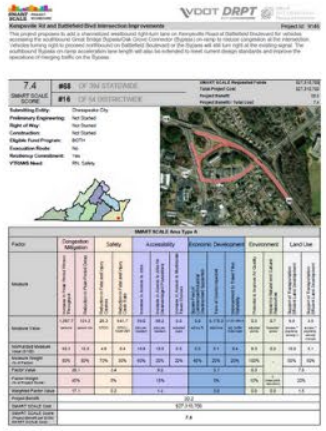
Meet Need | **Project Eligibility** | **Readiness**

VTRANS

- NOT Stand-alone study
- NOT Asset management
- NOT Systemwide improvements
- NOT Recently funded VTrans need
- NOT Transit maintenance facilities

- Document requirements based on complexity
- Validated & cohesive





The SMART SCALE Process
Area Type and Factor Weighting

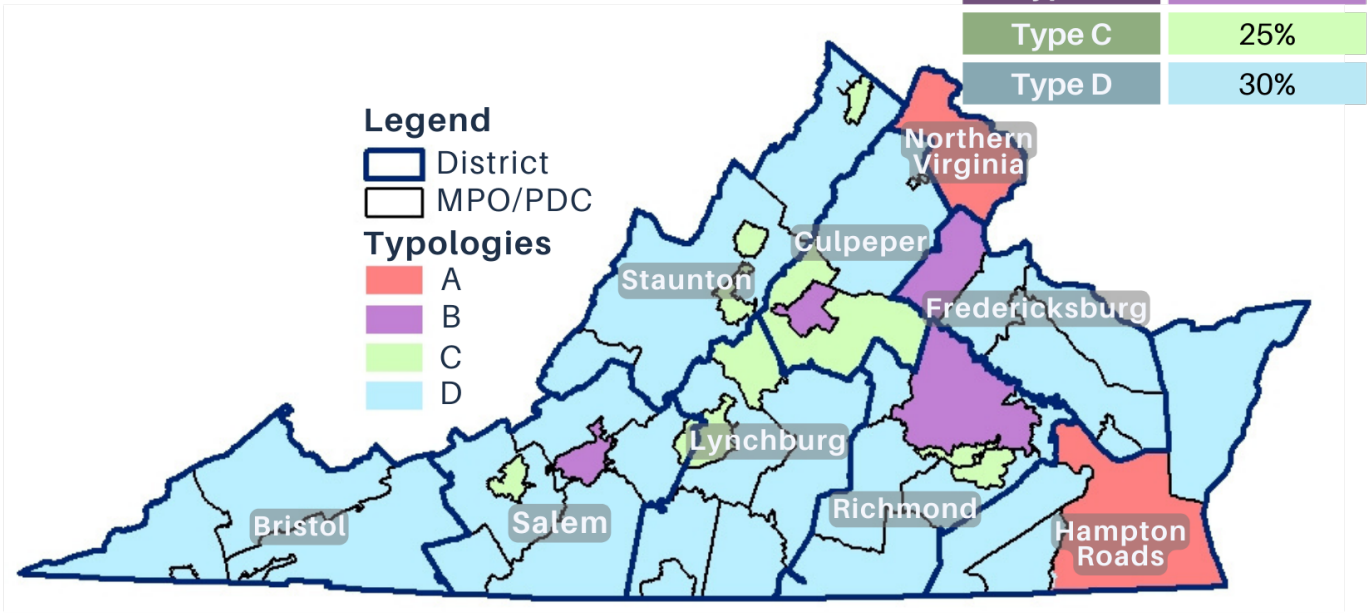
Scoring

Weighting | Typology | Methods

Weighting, Typology, at the District and MPO / PDC level

Factor	Safety	Congestion	Accessibility	Land Use	Economic Development	Environment
Type A	5%	45%	15%	20%	5%	10%
Type B	20%	15%	20%	15%	20%	10%
Type C	25%	15%	15%	10%	25%	10%
Type D	30%	10%	10%	10%	30%	10%

Up to -5 Points



The SMART SCALE Process Factors and Measures

Scoring

Weighting | Typology | Methods

Measure values are determined by assessing the data and characteristics of the project

Factor	Factor Description	Measure Weight	Measure
Safety	Reduce the number and rate of fatalities and severe injuries	70%	Reduce crash frequency
Congestion	Reduce person-hours of delay and increase person throughput	30%	Reduce crash rate
Accessibility	Increase access to jobs and travel options		
Land Use	Support transportation-efficient land development patterns		
Econ Dev	Support economic development and improve goods movement		
Environment	Improve air quality and avoid impacts to the environment		

The SMART SCALE Process
Normalization

Best project for that measure dictates the score for all other projects

District	Title	Delay Measure (person hours)	Normalized Delay Score
Hampton Roads	Hampton Roads Bridge-Tunnel Widening/I-64 Expansion	6,436.4	100.0
Hampton Roads	Battlefield Blvd/Volvo Pkwy Intersection Improvements	1,262.4	19.6
Culpeper	US 250/Route 20 Intersection Improvement	1,112.0	17.3
Hampton Roads	Jefferson Ave & Oyster Point Rd Intersection Improvements	971.3	15.1
Northern Virginia	Route 1 at Route 123 Interchange Improvements	737.5	11.5
Northern Virginia	West End Transitway Corridor Investments	643.9	10.0

Normalization is necessary for each measure to be unitless and combined as one benefit

The SMART SCALE Process
Funding Scenario Steps

Staff Recommended Funding Scenario Steps

Step 1 – Fund top-scoring projects within each district eligible for DGP funds using DGP funds until the remaining funds are insufficient to fund the next highest-scoring project.

Step 2 – Fund top-scoring projects within each district that would have otherwise been funded with available DGP funds but were not because they are only eligible for HPPP funds, using HPPP funds, as long as their SMART SCALE cost does not exceed the total amount of DGP funds available to be programmed based on their rank.

Step 3 – Fund projects with a benefit relative to SMART SCALE score greater than an established threshold based on the highest project benefit using HPPP funds until funds are insufficient to fund the next unfunded project with the highest project benefit.

The SMART SCALE Process – Post Selection Program Delivery

Post-SYIP

Delivery | Project Change

Delivery performance is critical to the SMART SCALE Process

- SMART SCALE has changed how project development and performance is tracked in the agencies
- Projects can be VDOT Administered or Locally Administered
- Critical to address projects that are not moving forward in the process before adding new projects to the program

The SMART SCALE Process – Post Selection Project Change Process

Post-SYIP

Delivery | Project Change

Defines the project change process

If the benefits are reduced such that the revised score is less than the lowest-ranked funded project in the district for that cohort of projects

Total Project Budget	Change from original SS Requested Amount
Less than $5M	20% or greater increase in funding requested
Between $5M and $10M	$1M or greater increase in funding requested
Less than $5M	10% or greater increase in funding requested; $5M Max

A project may only be cancelled by action of the CTB

Summary of the SMART SCALE Rounds

PROJECT APPLICATIONS	FY 2017 ROUND 1	FY 2018 ROUND 2	FY 2020 ROUND 3	FY 2022 ROUND 4	FY 2024 ROUND 5	GRAND TOTAL
Submitted	321	437	468	406	413	2045
Scored	287	404	433	397	394	1915
Funded	163	147	134	167	164	774
Total Funding Requested	$7.2 B	$9.7 B	$7.0 B	$6.3 B	$8.3 B	$37.4 B
Total Funding Allocated	$1.7 B	$1.0 B	$0.9 B	$1.4 B	$1.6 B	$6.3 B
Value of Projects Supported	$2.7 B	$2.4 B	$5.1 B	$1.9 B	$2.4 B	$14.5 B

Summary of the SMART SCALE Rounds

SMART SCALE has allocated $6.3B over 8 years, supporting a total portfolio of over $14.5 B, leveraging $8.2 B in local and regional funds

- Hampton Roads Bridge-Tunnel Expansion
- VRE Fredericksburg Line Capacity Expansion
- Crystal City Metro Improvements
- Richmond Highway Corridor Improvements
- I-64 Peninsula Widening, Gap Widening, High-Rise Bridge
- Intercity Rail Service Expansion along US-29 & I-81 Corridors

SMART SCALE Continuous Improvement

Improvement History

Committed to a regular lessons-learned process through engagement with partners and applicants

Committed to research and testing of best practices

Committed to a process of adjustments and feedback, supported by improved tools, training, and guidance for applicants

	Round 2	Round 3	Round 4	Round 5
	External review group, surveys, and regional workshops	**CTB Retreat, nine regional meetings, and applicant feedback**	**Fall meetings, public comment, and applicant feedback**	**Online tools and meetings to work through pandemic disruptions**
IMPROVEMENTS				
Procedural	• Application timing and documentation • Common-sense engineering principles • Two-year cycle established	• Application timing extended • Project eligibility and readiness bar raised	• Pre-application limits and schedule modifications • Project eligibility restrictions • Study requirements refined	• Cost estimating transparency and consistency
Policy	Environmental • Considered impact Safety • Added crash types with injuries Land Use • Added the second measure	• Began cap limits Economic Dev • Distinguished the level of readiness for site plans Land Use • Added non-work accessibility	Congestion • Expanded to off-peak Safety • Targeted crash reduction • Modified weightings	Environmental • New emissions measures • Right-size impact buffer Land Use • Expanded to rural localities

Scoring Methodology
Scorecard Walk-Through

SMART SCALE Area Type D														
Factor	Congestion Mitigation		Safety		Accessibility			Economic Development			Environment		Land use	
Measure	C.1	C.2	S.1	S.2	A.1	A.2	A.3	ED.1	ED.2	ED.3	E.1	E.2	L.1	L.2
	Increase in Peak Period Person Throughput	Reduction in Peak Period Delay	Reduction in Fatal and Injury Crashes	Reduction in Fatal and Injury Crash Rate	Increase in Access to Jobs	Increase in Access to Jobs for Disadvantaged Populations	Increase in Access to Multimodal Travel Choices	Square Feet of Commercial/Industrial Development Supported	Tons of Goods Impacted	Improvement to Travel Time Reliability	Potential to Improve Air Quality	Impact to Natural and Cultural Resources	Transportation-Efficient Land Development	Increase in Transportation-Efficient Land Development
Measure Value	28.7 persons	0.8 person hrs.	57.1 EPDO	166.4 EPDO / 100M VMT	2.8 jobs per resident	3 jobs per resident	143.7 adjusted users	0 adj sq. ft.	0 daily tons	70,715,400.00 adj. buffer time index	4.1 adjusted points	0 impacted acres	24.2 access * pop/emp density.h	33.2 access * pop/emp density change
Normalized Measure Value (0-100)	1.2	0.1	10.4	0.1	0.5	0.7	11.6	0	0	1.2	4.1	0	35	48.1
Measure Weight (% of Factor)	50%	50%	70%	30%	60%	20%	20%	60%	20%	20%	100%	*	50%	50%
Factor Value	0.6		7.3		2.8			0.2			4.1		41.6	
Factor Weight (% of Project Score)	10%		30%		10%			30%			10%	5 (max point reduction)	10%	
Weighted Factor Value	0.1		2.2		0.3			0.1			0.4	0.0	4.2	
Project Benefit	7.2													
SMART SCALE Cost	$22,239,400													
SMART SCALE Score (Project Benefit per $10m SMART SCALE Cost)	**3.2**													

Scoring Methodology
Congestion Mitigation

The Congestion Mitigation measures evaluate how the project affects the efficiency of the road network in terms of capacity and delay.

- **C.1 (50%): The total increase (across all modes) in how many people are moving through the project limits during the peak period.**
  - Several different methodologies are used to conduct the analysis
  - Measured in persons
- **C.2 (50%): The reduction in total time for all people to move through the project limits during the peak period.**
  - Uses the same methodologies as C1
  - Measured in person-hours of delay

Scoring Methodology
Congestion Measure Continuous Improvement

- **Round 2 Problem Identified**
  1. Phased improvement projects (broken into pieces) were scoring similar results to the entire project
  2. Congestion score evaluates 10 years in the future, but existing problems might be devalued
- **Round 3 Implemented Solution**
  1. Accounted for an increase in person miles traveled allowed within the capacity of the facility
  2. Applied current-day traffic volumes to the calculation
- **Round 3 Problem Identified**
  1. Method did not adequately account for recurring congestion on weekends
- **Round 4 Implemented Solution**
  1. Updated congestion methods to include consideration of weekend data to calculate the duration of peak period

Scoring Methodology
Safety Measure

The Safety measures evaluate how the project addresses multimodal transportation safety concerns in terms of crash reduction.

- **S.1 (70%): The reduction in the number of fatal and injury crashes**
  - Fatal and severe injury crashes are weighted more heavily than others
  - The estimated crash reduction is based on the project's improvements
- **S.2 (30%): The reduction in the rate of fatal and injury crashes**
  - Rate is calculated per 100 million Vehicle Miles Traveled (VMT) through the project area

Scoring Methodology
Safety Measure Continuous Improvement

- **Round 1 Problem Identified**
  1. Only evaluated fatality (K) and severe injuries (A), which can be random or unrelated to the design
- **Round 2 Implemented Solution**
  1. Added crash types lower injury level crash types (B and C)
- **Round 2 Problem Identified**
  1. Driving under the influence crashes are hard to design for
  2. Death and/or injury level is often related to the age of the vehicle and/or the age of the occupant
- **Round 3 Implemented Solution**
  1. Removed crashes that are the result of driving under the influence
  2. Applied a 'blended' weighting equivalent property damage scale used by FHWA
- **Round 3 Problem Identified**
  1. Crash Modification Factors overestimate project benefits
  2. Rate measure weighting of 50% was benefiting extremely low-volume roads
- **Round 4 Implemented Solution**
  1. Targeted crash modification factors implemented
  2. Move from S.1 50% and S.2 50% to 70%/30% split in measure weighting – support CTB safety targets

Scoring Methodology
Accessibility

The Accessibility measures evaluate how the project addresses household access to jobs and to multiple mode choices.

- **A.1 (60%): Change in average job accessibility within 45 minutes (within 60 minutes for transit projects).**
  - Assesses the average change in access to employment opportunities
- **A.2 (20%): Change in average jobs accessibility for disadvantaged populations within 45 minutes (within 60 minutes for transit projects).**
  - Uses the same accessibility tool as A.1
- **A.3 (20%): Assessment of the project support for connections between modes and promotion of multiple transportation choices.**
  - Assigns scailing points for projects that increase connections between modes, and are then multiplied by the number of non-single occupancy users

Scoring Methodology
Accessibility Continuous Improvement

- **Round 2 Problem Identified**
  1. Accessibility tool was very slow to run (up to 24 hours) and calculate the change in access to jobs for each project
  2. Common walk speed assumed regardless of available infrastructure
- **Round 3 Implemented Solution**
  1. Modified the tool and moved to cloud-based system to improve the efficiency of analysis – allow multiple projects to run simultaneously – still slow
  2. Implemented methodological tweaks to better estimate walk speed based on ped infrastructure available.
- **Round 4 Implemented Solution**
  1. Upgraded accessibility modeling tool to TransCAD – much faster – measured in minutes

Scoring Methodology
Economic Development

The Economic Development measures evaluate how each project supports economic development and improves goods movement.

- **ED.1 (60%): Project consistency with applicant-identified economic development plans and policies.**
  - Uses a point-based scoring system to determine project consistency with local plans, which is multiplied by the planned building square-footage
- **ED.2 (20%): Increase in access to critical intermodal locations, interregional freight movement, and/or freight-intensive industries.**
  - Proximity to intermodal locations combined with freight tonnage moved
- **ED.3 (20%): Improvement in travel time reliability attributed to the project.**
  - Determines the project's expected impact on improving reliability which retains businesses and increases economic activity

Scoring Methodology
Economic Development Measure Continuous Improvement

- **Round 1 Problem Identified**
  1. Types of projects evaluated do not influence growth over the same impact area (5 miles)
  2. In many localities zoning doesn't have a direct relationship to current growth patterns
- **Round 2 Implemented Solution**
  1. Restricted the distance around certain types of projects where benefits may be considered
  2. Eliminated the extra scaling point for having zoning in place
- **Round 2 Problem Identified**
  1. Zoned properties were still contributing to skewed results
- **Round 3 Implemented Solution**
  1. Zoned properties must get primary access from the project
  2. Project and site must be specifically referenced in local and regional planning documents to get point

Scoring Methodology
Land Use Coordination

The Land Use Coordination measures evaluate the number of people within the area within a walkable distance of the project to determine non-work accessibility.

- **L.1 (50%): Amount of population and places of interest currently located within 1 mile of the project area.**
  - Determines the degree to which the project area supports populations that on average have a reduced impact on the transportation network
- **L.2 (50%): Expected increase in the amount of population and places of interest located within 1 mile of the project area between present-day and 2030.**
  - Determines the degree to which the project area supports local comprehensive plans and future development

Scoring Methodology
Land Use Measure Continuous Improvement

- **Round 1 Problem Identified**
  1. Projects future density but does not consider growth between today and the future
- **Round 2 Implemented Solution**
  1. Added L.2 Increase in Transportation Efficient Land Use
- **Round 2 Problem Identified**
  1. Subjectivity on whether an area meets certain criteria
- **Round 3 Implemented Solution**
  1. Added Non-Work Accessibility and eliminate subjectivity to capture degree to which development patterns meet certain criteria
- **Round 4 Problem Identified**
  1. Concerns that a 3-mile buffer is excessive to consider reasonable
  2. Land Use is a large component of the score, and only applied in Area Types A & B
- **Round 5 Implemented Solution**
  1. Updated buffer to 1-mile walk area
  2. Added Land Use to Area Types C &D with modifications to factor weightings

Scoring Methodology
Environmental

The Environmental measures evaluate how projects reduce pollutant emissions and minimize the project's impact on natural and cultural resources.

- **E.1 (100%): Potential of the project to improve air quality and reduce greenhouse gas emissions.**
  - Potential air quality improvement is based on project benefits to non-Single Occupancy Vehicle (SOV) users and reduced delay for freight movement.
- **E.2 (0% – Subtract up to 5 points): Potential of the project to minimize impact on natural and cultural resources located within project buffer.**
  - Evaluates impact based on total potential sensitive acreage impacted within a variable buffer based on expected Right-of-Way impact.

Scoring Methodology
Environmental Measure Continuous Improvement

- **Round 1 Problem Identified**
  1. Projects receiving a significant benefit score without providing any other benefits
- **Round 2 Implemented Solution**
  1. Determined points by scaling environmental score based on impact on the environment
  2. Potential impact scaled by points in all other measures
- **Round 3 Problem Identified**
  1. Treating impact to the environment as benefit
- **Round 4 Implemented Solution**
  1. Converted E.2 to subtractive measure (subtracting up to 5 points)
  2. E.1 measure weight changed to 100%
- **Round 4 Problem Identified**
  1. E.1 measure intent to Greenhouse Gas Emissions, but isn't quantified
  2. E.2 measure applies a ¼ mile buffer to all project types
- **Round 5 Implemented Solution**
  1. Improved point system and quantified GHG offset for E.1
  2. Applied a tiered buffer system to E.2 related to expected harm ranging from 30 feet to ¼ mile

Funding Scenario Steps Review

Staff Recommended Funding Scenario Steps

Step 1 – Fund top-scoring projects within each district eligible for DGP funds using DGP funds until the remaining funds are insufficient to fund the next highest-scoring project.

Step 2 – Fund top-scoring projects within each district that would have otherwise been funded with available DGP funds but were not because they are only eligible for HPPP funds, using HPPP funds, as long as their SMART SCALE cost does not exceed the total amount of DGP funds available to be programmed based on their rank.

Step 3 – Fund projects with a benefit relative to SMART SCALE score greater than an established threshold based on the highest project benefit using HPPP funds until funds are insufficient to fund the next unfunded project with the highest project benefit.

Funding Scenario Steps Review
Step 1

Step 1 – Fund top-scoring projects within each district eligible for DGP funds using DGP funds until remaining funds are insufficient to fund the next highest-scoring project.

APP ID	DISTRICT	APPLICANT	DGP	HPP	TOTAL COST*	SMART SCALE REQUEST*	BENEFIT SCORE	SMART SCALE SCORE	(1) DGP*	$121.6
1	District A	Locality	x		$4.7	$4.7	5.45	11.63	$4.7	$116.9
2	District A	MPO		x	$15.8	$15.8	13.38	8.46	$0.0	$0.0
3	District A	Locality	x		$11.3	$11.3	8.93	7.89	$11.3	$105.6
4	District A	Locality	x		$12.8	$12.8	9.81	7.66	$12.8	$92.8
5	District A	Locality	x		$8.3	$8.3	5.90	7.11	$8.3	$84.5
6	District A	Locality	x	x	$9.3	$9.3	6.13	6.63	$9.3	$75.2
7	District A	Locality	x		$8.6	$8.6	5.50	6.40	$8.6	$66.6
8	District A	PDC		x	$20.5	$20.5	12.37	6.02	$0.0	$0.0
9	District A	Locality	x		$10.0	$10.0	5.97	5.94	$10.0	$56.6
10	District A	Locality	x	x	$14.9	$14.9	8.10	5.44	$14.9	$41.7
11	District A	Locality	x	x	$14.1	$14.1	7.40	5.26	$14.1	$27.6
12	District A	MPO		x	$20.1	$20.1	9.22	4.60	$0.0	$0.0
13	District A	Locality	x	x	$4.9	$4.9	2.24	4.58	$4.9	$22.7
14	District A	Locality	x		$17.0	$17.0	7.21	4.25	$17.0	$5.8

Sort based on SMART SCALE Score

DGP Running Total

Not eligible for DGP

Not eligible for DGP

Not eligible for DGP

*Cost in millions

Funding Scenario Steps Review
Step 2

Step 2 – Fund top scoring projects within each district that would have otherwise been funded with available DGP funds but were not because they are only eligible for HPP funds, using High Priority Projects Program funds, as long as their SMART SCALE cost does not exceed the total amount of DGP funds available to be programmed based on their rank.

APP ID	DISTRICT	APPLICANT	DGP	HPP	TOTAL COST*	SMART SCALE REQUEST*	BENEFIT SCORE	SMART SCALE SCORE	(1) DGP*	(2) HPP*	$121.6
1	District A	Locality	x		$4.7	$4.7	5.45	11.63	$4.7	$0.0	$116.9
2	District A	MPO		x	$15.8	$15.8	13.38	8.46	$0.0	$15.8	$101.1
3	District A	Locality	x		$11.3	$11.3	8.93	7.89	$11.3	$0.0	$89.8
4	District A	Locality	x		$12.8	$12.8	9.81	7.66	$12.8	$0.0	$77.0
5	District A	Locality	x		$8.3	$8.3	5.90	7.11	$8.3	$0.0	$68.7
6	District A	Locality	x	x	$9.3	$9.3	6.13	6.63	$9.3	$0.0	$59.4
7	District A	Locality	x		$8.6	$8.6	5.50	6.40	$8.6	$0.0	$50.8
8	District A	PDC		x	$20.5	$20.5	12.37	6.02	$0.0	$20.5	$30.3
9	District A	Locality	x		$10.0	$10.0	5.97	5.94	$10.0	$0.0	$20.2
10	District A	Locality	x	x	$14.9	$14.9	8.10	5.44	$14.9	$0.0	$5.3
11	District A	Locality	x	x	$14.1	$14.1	7.40	5.26	$14.1	$0.0	$0.0
12	District A	MPO		x	$20.1	$20.1	9.22	4.60	$0.0	$0.0	$0.0
13	District A	Locality	x	x	$4.9	$4.9	2.24	4.58	$4.9	$0.0	$0.0
14	District A	Locality	x		$17.0	$17.0	7.21	4.25	$17.0	$0.0	$0.0

Sort based on SMART SCALE Score

DGP Running Total

Fund with HPP

Fund with HPP

SMART SCALE $ exceeds remaining DGP

*Cost in millions

Funding Scenario Steps Review
Step 3

Step 3 – Fund projects with a benefit relative to SMART SCALE score greater than an established threshold based on the highest project benefit using HPP funds until funds are insufficient to fund the next unfunded project with the highest project benefit.

APP ID	DISTRICT	APPLICANT	DGP	HPP	TOTAL COST*	SMART SCALE REQUEST*	BENEFIT SCORE	SMART SCALE SCORE	(1) DGP*	(2) HPP*
15	Statewide	CTB	x	x	$756.4	$161.4	57.78	3.58	$0.0	$0.0
16	District B	Transit		x	$28.2	$26.7	26.98	10.10	$0.0	$26.7
17	District C	MPO		x	$23.9	$15.1	25.82	17.16	$0.0	$15.1
18	District C	Locality	x	x	$26.0	$22.8	24.79	10.89	$22.8	$0.0
19	District F	MPO		x	$37.6	$31.1	23.36	7.52	$0.0	$0.0
20	District C	PDC		x	$39.6	$23.6	22.00	9.34	$0.0	$23.6
21	District H	Locality	x	x	$244.5	$209.0	20.69	0.99	$1.0	$0.0

Sort based on Benefit

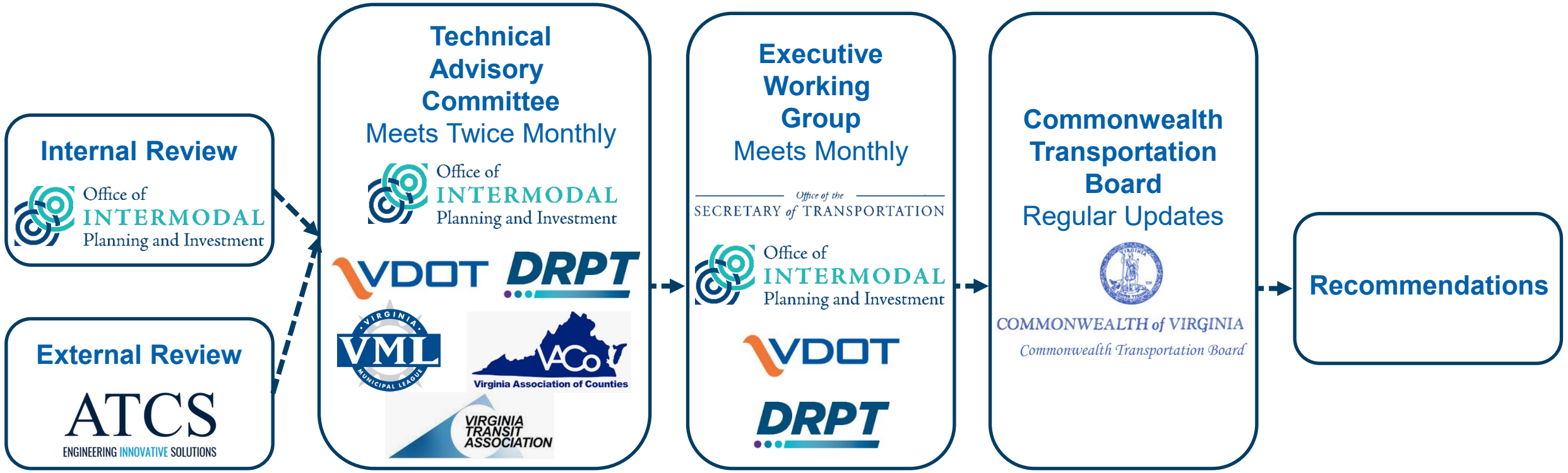
Fund with HPP

Fund with HPP

SMART SCALE $ exceeds remaining HPP

*Cost in millions

SMART SCALE Process Review Stakeholder Groups



CTB Briefings To Date

Month	Topics
February	SMART Scale Review background, Statistical Analysis overview, Survey Assessment overview, Procedural Review overview
April	Survey Response Overview, Perceptions from the Process Review Survey, Initial Key Takeaways, Themes from CTB One-on-One Meetings, Highlights from Respondent Letters / Emails
May	SMART Scale Program History, Potential Issues: Schedule and Application Quality
June	Process Bias Analysis – Small Projects and Bike & Ped, Scoring and Funding Analysis – One-factor Majority and Funding Approach
July	Process Bias Analysis – Urban and Leveraged Projects, Scoring and Funding Modifications, Revisiting Previous Recommendations, Public Outreach Updates

Comments and Feedback Received To Date – CTB

- **Overarching Comments**
  - Process seems to be transparent; however, would be helpful if simplified
  - The SMART SCALE process works, but look for opportunities to be more forward-thinking
  - Concerns regarding cost estimation and contingencies – consider requiring local funding commitment
  - Applicants are focused on projects that will be selected and not necessarily value add
- **Small Projects**
  - Potential favoritism towards smaller projects and not higher priority projects that are needed
  - Need projects that are efficient to deliver and fewer projects that are more impactful
  - Focus on standards that make facilities for non-motorized modes comfortable for users
- **Factor Weighting**
  - Safety factor weighting is too low (and surveys showed that safety is the most important factor)
  - Land use weighting is too high
  - Different views on weighting for congestion factor
  - Economic Development Factor is not working the way it is intended to

Comments and Feedback Received To Date – Applicants

- **Overarching process review comments**
  - SMART SCALE process benefits smaller projects
  - Examine mid-range option for application cap limit reduction
  - Concern regarding potential workload shift to MPOs/PDCs due to potential application cap limit reduction
  - Enhance coordination between VDOT and MPOs on projects of regional significance
- **Suggestions on adjustments to project scoring / factors**
  - Emphasize equity and environmental quality (greenhouse gas emissions) in project scoring
  - Refine multimodal accessibility measure
  - Adjustments to specific thresholds / metrics
  - Incorporate military routes into methodology
- **Suggestions on improving the SMART SCALE applicant experience**
  - Reconsider requirement of cost estimation as part of application submittal
  - Ensure consistency in applicant requirements for small and large communities
  - Change Tier 1 application limits to meet the needs of medium sized areas in Virginia
  - Provide an opportunity to amend applications

SMART SCALE Program Stakeholder Survey

Familiarity with SMART SCALE

Most external survey respondents felt moderately or extremely familiar with the SMART SCALE process, and indicated that they have applied for a SMART SCALE project in the past

Funding the Right Projects

71% of external survey respondents who responded feel that SMART SCALE is funding the right projects, with 50% indicating they feel a good mix of projects are funded

Changes to SMART SCALE process

Scoring criteria and the application process were the top two answers for what should change and what should remain the same in the SMART SCALE process

Potential Biases Exist

Feelings of potential biases exist toward urban and smaller projects; however, external survey respondents largely indicate a positive impression towards the SMART SCALE process

Potential Issues Identified

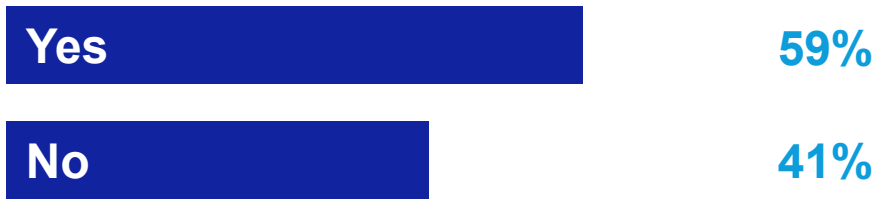
Indentified Issue	Detail	Month
Application Quality	Staff resources are stretched to dedicate to applicant support and application quality	**May**
Process Biases	Applicants may submit projects that they think will be successful, not necessarily the highest priority	**June**
Low Scoring Projects	Some districts may have lower SS scores than in other districts, inconsistent with a statewide prioritization process	**June**
Funding Step	Steps to apply funding	**June**
Forward-Looking Process	Process should be more forward-looking to account for future traffic and future economic development	**July**
Emphasis on Safety Priority	Safety is an increasing problem that warrants a higher priority in the prioritization process	**July**
One Factor Majority	Land use factor has a significant number of projects funded on only that category	**July**
Disconnect Between Need & Benefit	Demonstrating a benefit in the factor area related to the Vtrans need for which they were screened in	**July**
Flexibility in Project Change Process	SMART SCALE project change process is overly burdensome and interupts normal project development issues	**September**
Project Performance	Are the projects performing like we said they would? Is the ultilization matching predictions?	**September**

Perception: Urban projects have been recommended for funding more often than rural projects

Survey Response

- Urban bias was the most frequently commented bias in the survey

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



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 for the amount funded, the success rate between urban and rural projects is even
- Submitted and funded amounts were higher in urban areas, especially in HPP funding

Action: No specific action recommended

Perceptions: 1) Leveraged projects are more successful than non-leveraged projects, 2) Urban areas are more likely to have leveraged projects

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)

Conclusion

- While leveraged projects generally have slight edge over non-leveraged projects overall, the advantage is much more prominent for SMART SCALE funded projects greater than $30M
- There is not a bias toward urban leveraged projects over rural leveraged projects, however urban areas utilize leverage funding more than rural areas

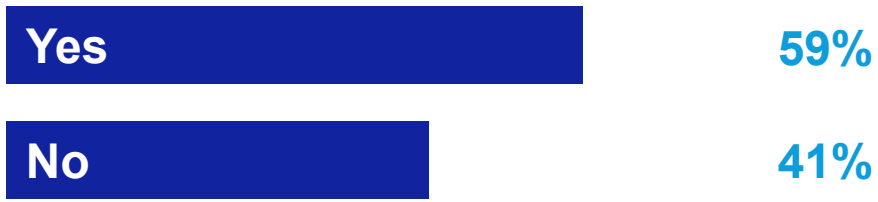
Action: No specific action recommended

Perception: Small Projects (<$10M) are disproportionately recommended for funding

Survey Response

- One area of perceived bias identified in the SMART SCALE Process Review Survey responses was "Small Project"

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



Conclusion

- Small Projects were funded just over 2X more often than larger projects
- Small Projects account for 78% in project count and 33% of the total funded amount with HPP being used for small projects
- Small Bike & Ped projects were more successful than small Highway projects
- Bike & Ped projects have steadily increased in terms of the number of projects and funding amounts both submitted and recommended

Actions: Refine HPP Definition and Eliminate Step 2

SMART SCALE Prioritization Process

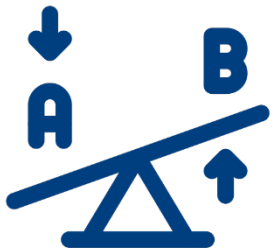
Procedural (OIPI and Agency Staff)

- Portal
- Eligibility
- Communications
- Readiness

Virginia Code

CTB Policy

Funding Scenario				Scoring			Post-SYIP	
HPP Eligibility	DGP Eligibility	Staff Scenario Steps	Consensus	Weighting	Typology	Methods	Delivery	Project Change



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

Issue: High Priority Program Is Being Used for Small Projects

Background

- **Allocation steps are used to develop staff recommended funding scenario**
  - Step 1 allocates DGP on a district-wide basis
  - Step 2 allocates HPP on a district-wide basis
  - Step 3 allocates HPP on a statewide basis
- **Smaller projects are being submitted as Step 2 eligible (MPO/PDC/Transit Only)**
- **Small Bike & Ped submitted in Step 2 has increased from 1 (Rounds 1 & 2) to 32 (Round 5)**
- **Average project amount request in Step 2 has dropped from $57M (Round 1) to $19M (Round 5)**

Potential Solutions

- **Refine the HPP definition through CTB Policy**
  - Better define "what" projects of regional or statewide significance are
- **Eliminate Step 2 and prioritize all HPP statewide by SMART SCALE Score**

Actions: Refine HPP Definition and Eliminate Step 2

Issue: Improve Application Quality

Background

- **Staff resources stretched to dedicate to applicant support and application quality (Round 5 data)**
  - Data – 50% bigger SYIP program, same staff
  - Over 50% of submitted Round 5 applications are "not ready" for scoring at full app submission (90% at pre-application)
  - 413 Round 5 applications received and 152 recommended for funding (37% recommended for funding)
  - Time and effort spent on document preparation that ultimately got screened out

Potential Solutions

- **Reducing the application caps for all entities to:**
  - Increase quality and focus on priorities
  - Improve outcomes
- **Addressing readiness & SMART Portal Streamline**
  - Provides earlier and targeted support to applicants
- **Tying consensus funding decisions to performance in delivering projects**

Actions: 1) Reduce application cap limits to 2 and 5, 2) Streamline SMART Portal, 3) Tie consensus funding to performance

Issue: Forward-Looking Congestion Factor

Background

- **Survey Feedback – Projects aren't receiving the full projected benefits as they're analyzed in existing year conditions**
- **Project design requirements accommodate future growth volumes, but congestion scoring is in the current day**
- **Rounds 1 & 2 looked 10 years in the future**
  - Methodology was switched to current-day in Round 3, to prioritize existing problems

Potential Solution

- **Calculate 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

Action: Calculate congestion benefits for 10 years in the future

Issue: Forward-Looking Economic Development Factor

Background

- **Survey identified a disconnect between square footage and economic benefit**
- **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**
  - Methodology was switched to current-day in Round 3, to prioritize existing problems

Potential Solution

- **Engaged VEDP to develop a more forward-looking methodology, which will be brought in September**

Action: Recommendation to CTB in September

Issue: One-Factor Majority – Land Use Factor

Background

- **Land Use factor drives total benefits, at a rate of 2X from Round 1 to Round 5**
- **In Round 5, Land Use accounted for greater than 40% of total benefit score and increased for smaller projects**
  - Bike & Ped projects have the most Land Use benefit
- **Land Use was expanded to Type C & D in Round 5**

Potential Solution

- **Modify the factor weighting for the Land Use factor**
  - Continue to use Land Use factor to encourage land-use and transportation coordination
  - No change to the way Land Use is calculated today
  - Modify how Land Use weighting is applied
- **Adjustments to other factor areas**

Action: Modify the factor weighting for the Land Use factor

Perception: Lower-Scoring Projects Are Being Funded Over Higher-Scoring Projects

Background

- **Across all rounds, 91 projects were funded with Project Benefit Scores less than or equal to 1.0**
  - 13 HPP projects and 78 DGP projects
- **44 HPP projects with a lower SMART SCALE score funded over HPP projects with a higher SMART SCALE score**

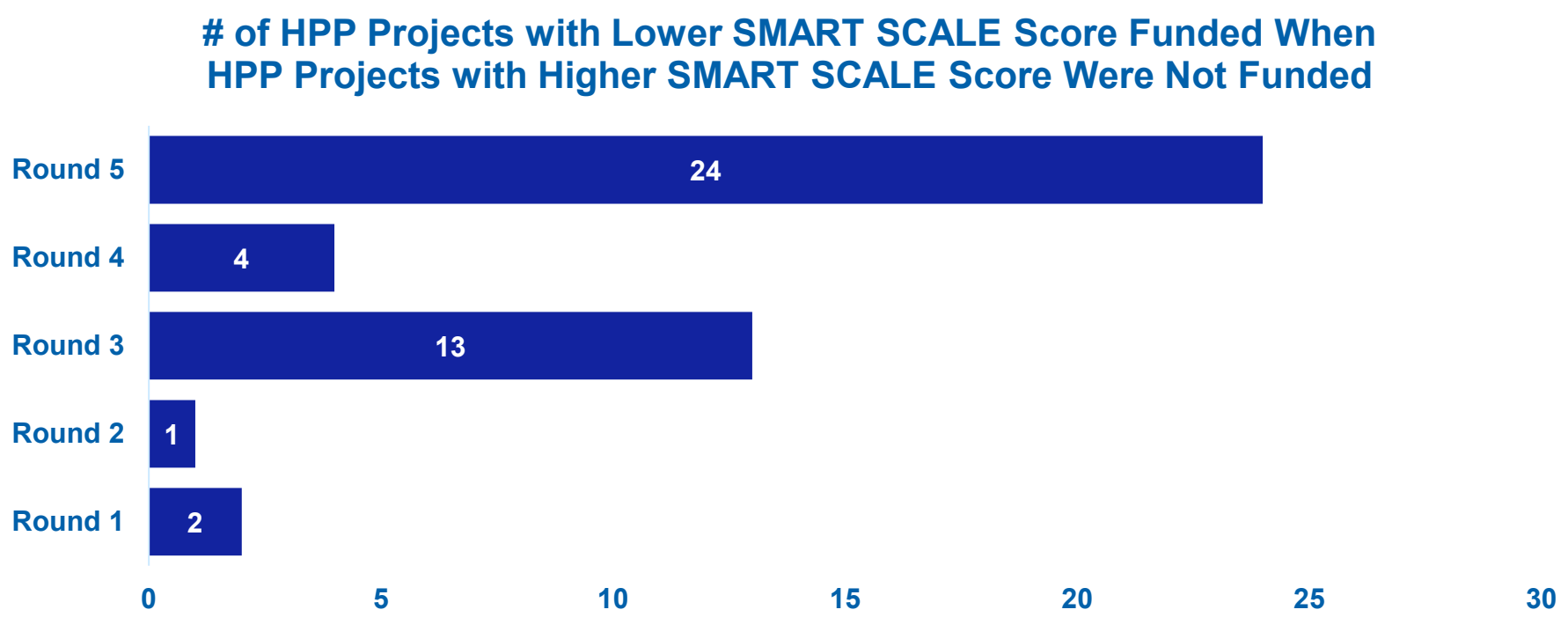
Conclusion

- **Low-scoring projects (Project Benefit Scores less than 1.0) are not being funded on a wide-scale basis**
  - Overall, more rural than urban DGP projects with Project Benefit Scores Below 1.0 were funded
- **There were no HPP projects funded with a Project Benefit Score less than one in Rounds 4 or 5**
- **Step 2 process allows HPP projects with lower SMART SCALE score to be funded over HPP projects with higher SMART SCALE score**

Action: Refine HPP Definition and Eliminate Step 2

Low-Scoring HPP Projects Based on SMART SCALE Score

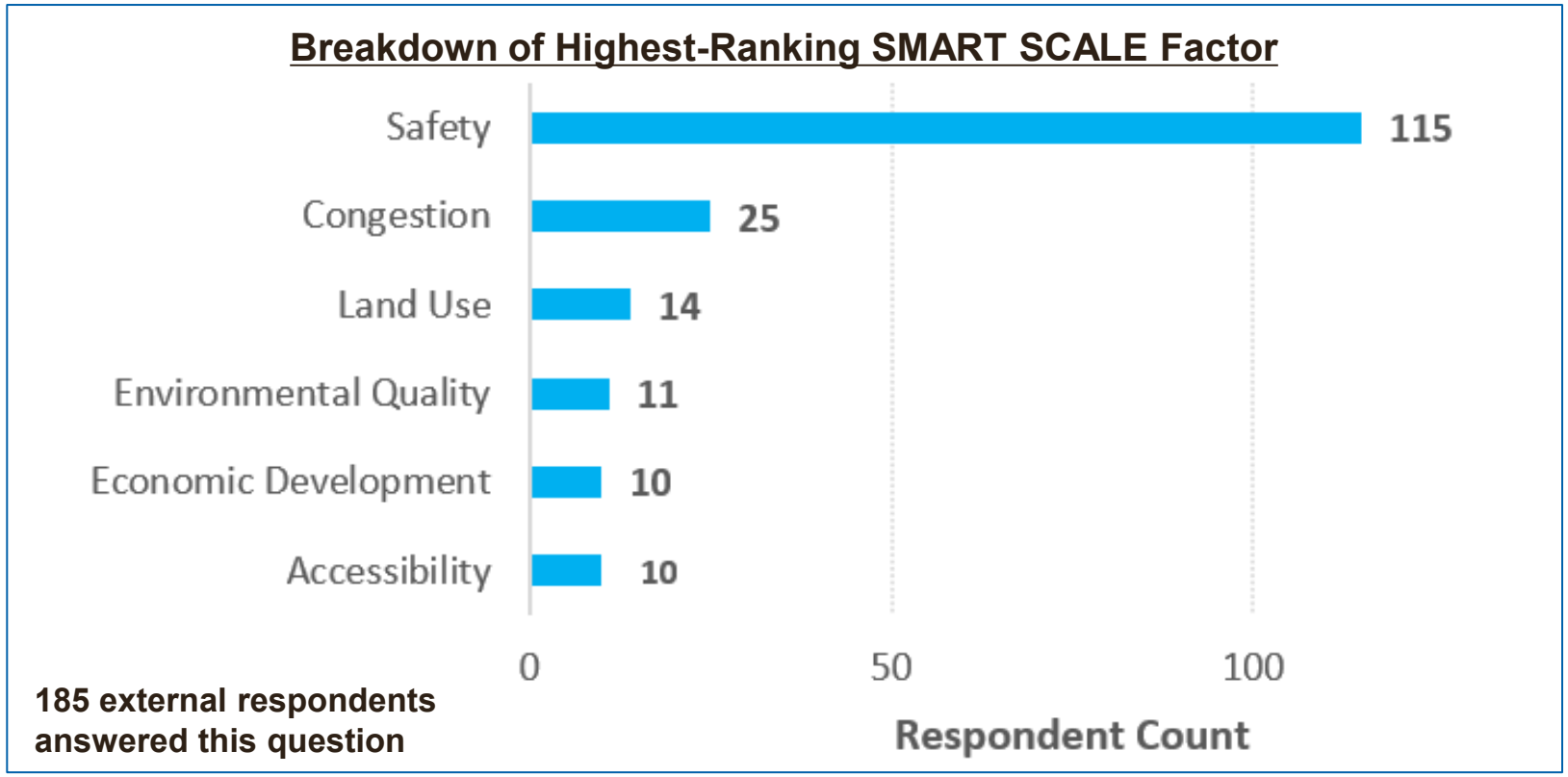
- 44 HPP projects with a lower SMART SCALE score have been funded over HPP projects with a higher SMART SCALE score.



Potential Process Changes
Factor Perceptions from the Process Review Survey

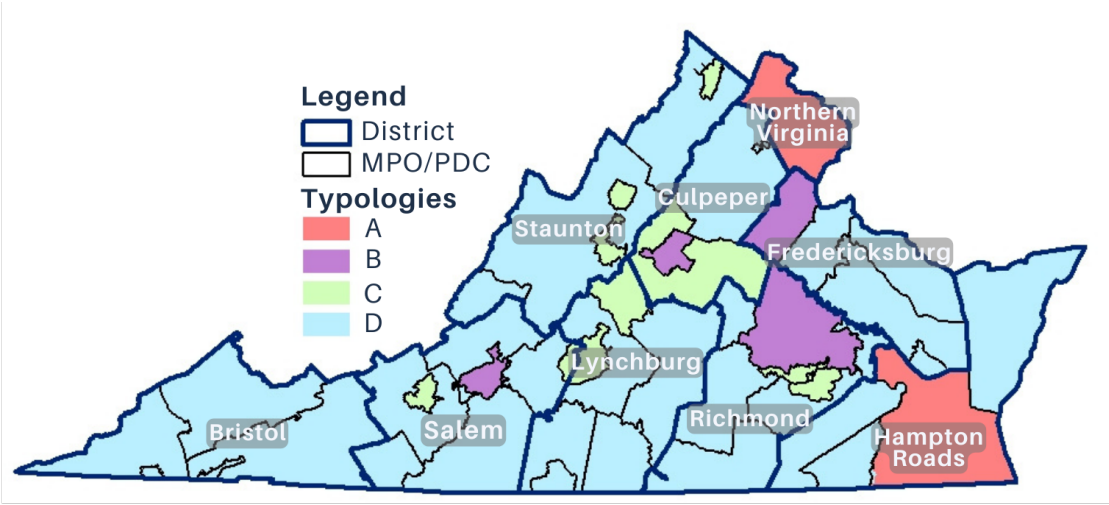
"What do you think is the most important factor that the SMART SCALE process addresses?" **(select from range)**

- **Safety was consistently ranked as the most important factor by external respondents (62%)**
- **Congestion mitigation was the next highest ranking (almost 14%)**



Potential Process Changes
Existing Factor Weightings

Safety	Reduce the number and rate of fatalities and severe injuries
Congestion	Reduce person-hours of delay and increase person throughput
Accessibility	Increase access to jobs and travel options
Land Use	Support transportation-efficient land development patterns
Economic Development	Support economic development and improve goods movement
Environment	Improve air quality and avoid impacts to the environment



Factor	Safety	Congestion	Accessibility	Land Use	Economic Development	Environment
Type A	5%	45%	15%	20%	5%	10%
Type B	20%	15%	20%	15%	20%	10%
Type C	25%	15%	15%	10%	25%	10%
Type D	30%	10%	10%	10%	30%	10%

Up to -5 Points

Potential Process Changes
Modifications to Land Use Factor

- **Measures the number of key non-work destinations that are accessible within a reasonable walking distance, scaled by population density**
- **Project type or scope is not considered in the calculation of the measure**

- **No change to the way Land Use measure is calculated today**
- **Modify how Land Use weighting is applied**
  - Enhances the benefits of the project based on where it is located
  - Land Use Factor would be used to increase benefit points in other factor areas
  - Prevents Land Use from being the sole driver of success
- **Continue to use Land Use Factor to encourage land-use and transportation coordination, but greater emphasis can be placed on Safety and Congestion Factors**

Scoring and Funding Analysis
One-factor Majority Impact

- **Land Use factor drives total benefits, at a rate of 2X from Round 1 to Round 5**
- **Land Use was expanded to Type C & D in Round 5**

Percent of Funded Project Benefit by Factor Area

Round	Safety	Congestion	Accessibility	Land Use	Economic Development	Environment
1	28%	9%	2%	23%	24%	14%
2	28%	15%	6%	24%	18%	10%
3	37%	5%	4%	24%	16%	15%
4	36%	8%	6%	31%	7%	12%
5	28%	5%	7%	**49%**	4%	7%

Greater than 40% of total benefit score

Potential Process Changes
All Land Use at Current Weighting

- **Consider Future Congestion, HPP-Eligible Project Types, and Elimination of Step 2**

Current Weighting

Factor	Safety	Congestion	Accessibility	Land Use	Economic Development	Environment
Type A	5%	45%	15%	20%	5%	10%
Type B	20%	15%	20%	15%	20%	10%
Type C	25%	15%	15%	10%	25%	10%
Type D	30%	10%	10%	10%	30%	10%

Up to -5 Points

Potential Process Changes
Land Use As Weighted in Round 5

- **Considers Future Congestion, HPP-Eligible Project Types, and Elimination of Step 2 – No Weighting Changes to Land Use**
- **Small projects not significantly impacted**
- **Bike & Ped Principal projects not significantly impacted**

The average total cost of funded projects raised from $15.1M to $17.9M

The average total request of funded projects raised from $10.1M to $11.8M (removes 14 projects)

For Principal Improvement Type

- **Bike & Ped –** 51 to 39
- **Highway –** 98 to 98
- **Bus Transit –** 3 to 1

For Area Type

- **A –** 39 to 41
- **B –** 34 to 31
- **C –** 23 to 18
- **D –** 56 to 48

Scoring and Funding Analysis
Land Use As Weighted in Round 5

Percent of Funded Project Benefit by Factor Area

Round	Safety	Congestion	Accessibility	Land Use	Economic Development	Environment
1	28%	9%	2%	23%	24%	14%
2	28%	15%	6%	24%	18%	10%
3	37%	5%	4%	24%	16%	15%
4	36%	8%	6%	31%	7%	12%
5	**38%**	**11%**	**10%**	**29%**	**4%**	**8%**

Solution increased project benefit percent
Solution decreased project benefit percent

Potential Process Changes
Modifications to Land Use Factor

- **In Round 5 – funded projects received a significant portion of overall benefit points from Land Use**
  - 77 projects funded (out of 152) had over 50% of the benefit score from Land Use
  - Of those 40 projects funded over 80% of the benefit score from Land Use
- **Recommend up to a 100% bonus on benefits using the Land Use Measure**
  - Looking at Round 5, implementing no other solutions
    - LU boosting other benefits up to 10% (1.4% of benefit score)
    - LU boosting other benefits up to 50% (7% of benefit score)
    - *Recommend* LU boosting other benefits up to 100% (14% of benefit score)

Potential Process Changes
Land Use Multiplier 100%, All Land Use Weight to Safety

Current Weighting

Factor	Safety	Congestion	Accessibility	Land Use	Economic Development	Environment
Type A	5%	45%	15%	20%	5%	10%
Type B	20%	15%	20%	15%	20%	10%
Type C	25%	15%	15%	10%	25%	10%
Type D	30%	10%	10%	10%	30%	10%

Up to -5 Points

All Land Use Points to Safety

Factor	Safety	Congestion	Accessibility	Land Use	Economic Development	Environment
Type A	***25% (+20%)***	***45% (+0%)***	15%		5%	10%
Type B	***35% (+15%)***	***15% (+0%)***	20%		20%	10%
Type C	***35% (+10%)***	***15% (+0%)***	15%		25%	10%
Type D	***40% (+10%)***	**10% (+0%)**	10%		30%	10%

Up to 100% Added

Up to -5 Points

Potential Process Changes
Land Use Multiplier 100%, All Land Use Weight to Safety

SMART SCALE Area Type D														
Factor	Congestion Mitigation		Safety		Accessibility			Economic Development			Environment		Land use	
Measure	C.1	C.2	S.1	S.2	A.1	A.2	A.3	ED.1	ED.2	ED.3	E.1	E.2	L.1	L.2
	Increase in Peak Period Person Throughput	Reduction in Peak Period Delay	Reduction in Fatal and Injury Crashes	Reduction in Fatal and Injury Crash Rate	Increase in Access to Jobs	Increase in Access to Jobs for Disadvantaged Populations	Increase in Access to Multimodal Travel Choices	Square Feet of Commercial/Industrial Development Supported	Tons of Goods Impacted	Improvement to Travel Time Reliability	Potential to Improve Air Quality	Impact to Natural and Cultural Resources	Transportation-Efficient Land Development	Increase in Transportation-Efficient Land Development
Measure Value	28.7 persons	0.8 person hrs.	57.1 EPDO	166.4 EPDO / 100M VMT	2.8 jobs per resident	3 jobs per resident	143.7 adjusted users	0 adj sq. ft.	0 daily tons	70,715,400.00 adj. buffer time index	4.1 adjusted points	0 impacted acres	24.2 access * pop/emp density.h	33.2 access * pop/emp density change
Normalized Measure Value (0-100)	1.2	0.1	10.4	0.1	0.5	0.7	11.6	0	0	1.2	4.1	0	35	48.1
Measure Weight (% of Factor)	50%	50%	70%	30%	60%	20%	20%	60%	20%	20%	100%	*	50%	50%
Factor Value	0.6		7.3		2.8			0.2			4.1		41.6	
Factor Weight (% of Project Score)	10%		~~30%~~ 40%		10%			30%			10%	5 (max point reduction)	~~10%~~	
Weighted Factor Value	0.1		~~2.2~~ 2.9		0.3			0.1			0.4	0.0	~~4.2~~	
Project Benefit	~~7.2~~ (0.1+2.9+0.3+0.1+0.4)*1.42 = 5.4													
SMART SCALE Cost	$22,239,400													
SMART SCALE Score (Project Benefit per $10m SMART SCALE Cost)	~~3.2 =~~ 2.4													

Multiplier Calc

(1+[41.6/100])

=

1.42

Potential Process Changes
Land Use Multiplier 100%, All Land Use Weight to Safety

Percent of Funded Project Benefit by Factor Area

Round	Safety	Congestion	Accessibility	Land Use	Economic Development	Environment
1	28%	9%	2%	23%	24%	14%
2	28%	15%	6%	24%	18%	10%
3	37%	5%	4%	24%	16%	15%
4	36%	8%	6%	31%	7%	12%
5	**54%**	**11%**	**10%**	**10%**	**5%**	**8%**

Solution increased project benefit percent
Solution decreased project benefit percent

Potential Process Changes
Land Use Multiplier 100%, All Land Use Weight to Safety

- **Considers Future Congestion, HPP-Eligible Project Types, and Elimination of Step 2 – Land Use modified and weight given to Safety**
- **Small projects reduced by 44% to 57**
- **Bike & Ped Principal projects reduced by 76% to 12**

The average total cost of funded projects raised from $15.1M to $21.4M

The average total request of funded projects raised from $10.1M to $13.6M (removes 37 projects)

For Principal Improvement Type

- **Bike & Ped –** 51 to 12
- **Highway –** 98 to 103
- **Bus Transit –** 3 to 0

For Area Type

- **A –** 39 to 29
- **B –** 34 to 27
- **C –** 23 to 15
- **D –** 56 to 44

Potential Process Changes
All Land Use Points to Congestion

Current Weighting

Factor	Safety	Congestion	Accessibility	Land Use	Economic Development	Environment
Type A	5%	45%	15%	20%	5%	10%
Type B	20%	15%	20%	15%	20%	10%
Type C	25%	15%	15%	10%	25%	10%
Type D	30%	10%	10%	10%	30%	10%

Up to -5 Points

All Land Use Points to Safety

Factor	Safety	Congestion	Accessibility	Land Use	Economic Development	Environment
Type A	*5% (+0%)*	*65% (+20%)*	15%		5%	10%
Type B	*20% (+0%)*	*30% (+15%)*	20%		20%	10%
Type C	*25% (+0%)*	*25% (+10%)*	15%		25%	10%
Type D	*30% (+0%)*	20% (+10%)	10%		30%	10%

Up to 100% Added

Up to -5 Points

Potential Process Changes
Land Use Multiplier 100%, All Land Use Weight to Congestion

Percent of Funded Project Benefit by Factor Area

Round	Safety	Congestion	Accessibility	Land Use	Economic Development	Environment
1	28%	9%	2%	23%	24%	14%
2	28%	15%	6%	24%	18%	10%
3	37%	5%	4%	24%	16%	15%
4	36%	8%	6%	31%	7%	12%
5	**42%**	**18%**	**12%**	**12%**	**6%**	**10%**

Solution increased project benefit percent
Solution decreased project benefit percent

Potential Process Changes
Land Use Multiplier 100%, All Land Use Weight to Congestion

- **Considers Future Congestion, HPP-Eligible Project Types, and Elimination of Step 2 – Land Use modified and weight given to *Congestion***
- **Small projects reduced by 42% to 61**
- **Bike & Ped Principal projects reduced by 69% to 16**

The average total cost of funded projects raised from $15.1M to $21.3M

The average total request of funded projects raised from $10.1M to $13.8M (removes 35 projects)

For Principal Improvement Type

- **Bike & Ped –** 51 to 16
- **Highway –** 98 to 100
- **Bus Transit –** 3 to 1

For Area Type

- **A –** 39 to 31
- **B –** 34 to 27
- **C –** 23 to 15
- **D –** 56 to 44

Potential Process Changes
Staff Recommended Factor Weightings

Current Weighting

Factor	Safety	Congestion	Accessibility	Land Use	Economic Development	Environment
Type A	5%	45%	15%	20%	5%	10%
Type B	20%	15%	20%	15%	20%	10%
Type C	25%	15%	15%	10%	25%	10%
Type D	30%	10%	10%	10%	30%	10%

Up to -5 Points

Staff Recommended Weighting

Factor	Safety	Congestion	Accessibility	Land Use	Economic Development	Environment
Type A	***20% (+15%)***	***50% (+5%)***	15%		5%	10%
Type B	***25% (+5%)***	***25% (+10%)***	20%		20%	10%
Type C	***30% (+5%)***	***20% (+5%)***	15%		25%	10%
Type D	***40% (+10%)***	**10% (+0%)**	10%		30%	10%

Up to 100% Added

Up to -5 Points

Potential Process Changes
Staff Recommended Scenario

Percent of Funded Project Benefit by Factor Area

Round	Safety	Congestion	Accessibility	Land Use	Economic Development	Environment
1	28%	9%	2%	23%	24%	14%
2	28%	15%	6%	24%	18%	10%
3	37%	5%	4%	24%	16%	15%
4	36%	8%	6%	31%	7%	12%
5	**51%**	**14%**	**11%**	**12%**	**4%**	**8%**

Solution increased project benefit percent
Solution decreased project benefit percent

Potential Process Changes
Staff Recommended Scenario

- **Considers Future Congestion, HPP-Eligible Project Types, and Elimination of Step 2 – Land Use modified and weight given to *a mix of Safety & Congestion***
- **Small projects reduced by 46% to 57**
- **Bike & Ped Principal projects reduced by 75% to 13**

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

Summary of Feedback Heard Today

Schedule and Next Steps

Month	Topics
August	No Meeting
September	Need and Benefit Relationship, Project Change Process, Project Performance, Cost Estimate Contingency, Economic Development
October	Present Recommendations
November	Public Virtual Town Hall
December	Policy Adoption

COMMONWEALTH *of* VIRGINIA

Office of the

SECRETARY *of* TRANSPORTATION

Thank you

Scorecard Material

HOW TO READ A SCORECARD

A project scorecard is prepared for each project that is evaluated and scored. The scorecard is a snapshot of project information and scoring. The following provides a brief overview of the information contained in the scorecard.

SMART SCALE PROJECT SCORECARD

Riverside Dr. Improvements - Audubon Dr. to Arnett Blvd. Project Id: 9443

Construct new sidewalks across both sides of Riverside Drive from west of Audubon Drive to east of Arnett Boulevard. Install crosswalks and pedestrian countdown signals across eastern and northern legs at Audubon and across the western and northern legs at Arnett. Improve lack of access management on north side of Riverside by providing curb & gutter and clearly designated driveway entrances. Construct bus shelter and bus bay east of Audubon at Biscuitville. Construct sidewalk to connect nearby Riverwalk Trail south of Audubon Drive intersection. Eliminate three median openings and construct RCUT. Construct new right turning lane on westbound Riverside Drive at Audubon.

3.2 SMART SCALE SCORE	#178 OF 394 STATEWIDE	SMART SCALE Requested Funds	$22,239,400
	#8 OF 29 DISTRICTWIDE	Total Project Cost	$22,239,400
		Project Benefit	7.2
		Project Benefit / Total Cost	3.2

Submitting Entity:	Danville City
Preliminary Engineering:	Not Started
Right of Way:	Not Started
Construction:	Not Started
Eligible Fund Program:	BOTH
Evacuation Route:	Yes
Resiliency Commitment:	Yes
VTRANS Need:	CoSS, RN, Safety

SMART SCALE Area Type D

Factor	Congestion Mitigation		Safety		Accessibility			Economic Development			Environment		Land use	
	C.1	C.2	S.1	S.2	A.1	A.2	A.3	ED.1	ED.2	ED.3	E.1	E.2	L.1	L.2
Measure	Increase in Peak Period Person Throughput	Reduction in Peak Period Delay	Reduction in Fatal and Injury Crashes	Reduction in Fatal and Injury Crash Rate	Increase in Access to Jobs	Increase in Access to Jobs for Disadvantaged Populations	Increase in Access to Multimodal Travel Choices	Square Feet of Commercial/Industrial Development Supported	Tons of Goods Impacted	Improvement to Travel Time Reliability	Potential to Improve Air Quality	Impact to Natural and Cultural Resources	Transportation-Efficient Land Development	Increase in Transportation-Efficient Land Development
Measure Value	28.7 persons	0.8 person hrs.	57.1 EPDO	166.4 EPDO / 100M VMT	2.8 jobs per resident	3 jobs per resident	143.7 adjusted users	0 adj. sq. ft.	0 daily tons	70,715,400.00 adj. buffer time index	4.1 adjusted points	0 impacted acres	24.2 access * pop/emp density /h	33.2 access * pop/emp density change
Normalized Measure Value (0-100)	1.2	0.1	10.4	0.1	0.5	0.7	11.6	0	0	1.2	4.1	0	35	48.1
Measure Weight (% of Factor)	50%	50%	70%	30%	60%	20%	20%	60%	20%	20%	100%	*	50%	50%
Factor Value	0.6		7.3		2.8			0.2			4.1		41.6	
Factor Weight (% of Project Score)	10%		30%		10%			30%			10%	5 (max point reduction)	10%	
Weighted Factor Value	0.1		2.2		0.3			0.1			0.4	0.0	4.2	
Project Benefit	7.2													
SMART SCALE Cost	$22,239,400													
SMART SCALE Score (Project Benefit per $10m SMART SCALE Cost)	3.2													

Revised: 01/17/2023 05-08 LYNCHBURG

1 Project Overview: Includes the project name, a short description of the project, and the application ID.

2 Score Summary: Provides the SMART SCALE score, rank, project cost, and benefit.

3 Project Information: Provides information about the project, applicant, delivery status, requested funding, and project need.

4 Evacuation Route and Resiliency Commitment: Per Virginia Code § 33.2-214.2 B. (ii), it is identified for the applicant whether such projects are located on a primary evacuation route. Per Virginia Code § 33.2-214.2 B. (iii), the applicant self-identifies, whether a project has been designed to be or the project sponsor has committed that the design will be resilient.

5 How to calculate the SMART SCALE Score using the Scoring Table:

1. The *Measure Value* is determined by assessing the data and characteristics of the project and is then normalized as a percentage of the highest *Measure Value* in that year's cohort of projects.
2. The *Normalized Measure Value* is then multiplied by the *Measure Weight*.
3. *Normalized Measure Values* are then summed to equal the *Factor Value*.
4. The *Factor Value* is then multiplied by the appropriate *Factor Weight* for the area type of the project.
5. *Project Benefit* is then calculated from the sum of the *Weighted Factor Values*.
6. The *SMART SCALE Score* is calculated by taking the *Project Benefit* and dividing by the *SMART SCALE Cost* (in tens of millions).

Explanations of Measures Values:

- Congestion Mitigation
  - Person throughput is the projected increase in persons moving through the project limits during the peak period for current year.
  - Delay is the projected reduction in cumulative time for all persons to move through the project limits for current year.
- Safety
  - Reduction of fatal and injury crashes and crash rate is calculated using the Equivalent Property Damage Only (EPDO) methodology used by FHWA. This equates all crash severities on the same scale by assigning a higher weight to fatal and injury crashes than those that are property damage only.
  - Crash rate reduction is determined by the number of crashes per 100 Million Vehicle Miles Traveled (VMT). This measure also uses the EPDO methodology stated in the first safety measure.
- Accessibility
  - Access to jobs is the number of jobs to which each person has access within 45 minutes (60 minutes for transit projects). The total number of jobs divided by the population equates to jobs per person.
  - Access to jobs for disadvantaged populations is calculated in the same manner as the first Accessibility measure, only for a particular subset of the population.
  - Increase to multimodal travel choices is determined by how the project supports travel choices and the connections between modes. Points are assigned based on project characteristics, and are then multiplied by the number of non-single occupancy vehicle users.
- Economic Development
  - Square Feet of Commercial and Industrial development supported uses either 50% or 100% of each development's square footage based on the proximity of the development to the project. A point value is then determined based on how the project fits with local and regional economic plans and policy, and is multiplied by the adjusted square feet of development.
  - Tons of goods impacted determines the amount of daily freight tons impacted by the project and multiplies the tonnage by a point value based on certain criteria.
  - Improvement to travel time reliability uses weather event frequency and impact as well as incident frequency and impact along with a buffer index to evaluate the improvement in travel time reliability. This value is multiplied by corridor Vehicle Miles Traveled (VMT) to scale the results.
- Environment
  - Potential to improve air quality based on project benefits to non-single occupancy vehicle (SOV) users and reduced delay for freight movement.
  - Evaluates potential natural and cultural acreage impacted using a tiered buffer around the project limits, and is a subtractive measure based on the total potential sensitive acreage impacted.
- Land Use
  - Future Transportation Efficient Land Use measure reports a project's non-work accessibility scaled by the surrounding area's 2030 population and employment density.
  - Increase in Transportation Efficient Land Use measure reports a project's non-work accessibility scaled by the surrounding area's 2010 to 2030 increase in population and employment density.

SMART SCALE PROJECT SCORECARD

VDOT DRPT Office of INTERMODAL Planning and Investment

Riverside Dr. Improvements - Audubon Dr. to Arnett Blvd.

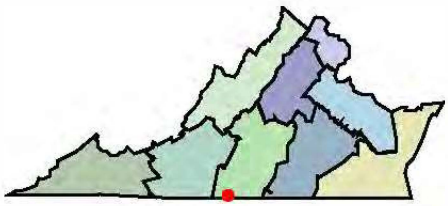
Project Id: 9443

Construct new sidewalks across both sides of Riverside Drive from west of Audubon Drive to east of Arnett Boulevard. Install crosswalks and pedestrian countdown signals across eastern and northern legs at Audubon and across the western and northern legs at Arnett. Improve lack of access management on north side of Riverside by providing curb & gutter and clearly designated driveway entrances. Construct bus shelter and bus bay east of Audubon at Biscuitville. Construct sidewalk to connect nearby Riverwalk Trail south of Audubon Drive intersection. Eliminate three median openings and construct RCUT. Construct new right turning lane on westbound Riverside Drive at Audubon.

3.2 SMART SCALE SCORE	#178 OF 394 STATEWIDE
	#8 OF 29 DISTRICTWIDE

SMART SCALE Requested Funds	$22,239,400
Total Project Cost	$22,239,400
Project Benefit	7.2
Project Benefit / Total Cost	3.2

Submitting Entity: Danville City
Preliminary Engineering: Not Started
Right of Way: Not Started
Construction: Not Started
Eligible Fund Program: BOTH
Evacuation Route: Yes
Resiliency Commitment: Yes
VTRANS Need: CoSS, RN, Safety



SMART SCALE Area Type D

Factor	Congestion Mitigation		Safety		Accessibility			Economic Development			Environment		Land use	
	C.1	C.2	S.1	S.2	A.1	A.2	A.3	ED.1	ED.2	ED.3	E.1	E.2	L.1	L.2
Measure	Increase in Peak Period Person Throughput	Reduction in Peak Period Delay	Reduction in Fatal and Injury Crashes	Reduction in Fatal and Injury Crash Rate	Increase in Access to Jobs	Increase in Access to Jobs for Disadvantaged Populations	Increase in Access to Multimodal Travel Choices	Square Feet of Commercial/Industrial Development Supported	Tons of Goods Impacted	Improvement to Travel Time Reliability	Potential to Improve Air Quality	Impact to Natural and Cultural Resources	Transportation-Efficient Land Development	Increase in Transportation-Efficient Land Development
Measure Value	28.7 persons	0.8 person hrs.	57.1 EPDO	166.4 EPDO / 100M VMT	2.8 jobs per resident	3 jobs per resident	143.7 adjusted users	0 adj sq. ft.	0 daily tons	70,715,400.00 adj. buffer time index	4.1 adjusted points	0 impacted acres	24.2 access * pop/emp density.h	33.2 access * pop/emp density change
Normalized Measure Value (0-100)	1.2	0.1	10.4	0.1	0.5	0.7	11.6	0	0	1.2	4.1	0	35	48.1
Measure Weight (% of Factor)	50%	50%	70%	30%	60%	20%	20%	60%	20%	20%	100%	*	50%	50%
Factor Value	0.6		7.3		2.8			0.2			4.1		41.6	
Factor Weight (% of Project Score)	10%		30%		10%			30%			10%	5 (max point reduction)	10%	
Weighted Factor Value	0.1		2.2		0.3			0.1			0.4	0.0	4.2	
Project Benefit	7.2													
SMART SCALE Cost	$22,239,400													
SMART SCALE Score (Project Benefit per $10m SMART SCALE Cost)	**3.2**													

CTB Briefings to Date

COMMONWEALTH of VIRGINIA

Office of the

SECRETARY of TRANSPORTATION

SMART SCALE Process Review

February 21, 2023

Background

- **SMART SCALE is the CTB's project prioritization tool developed to meet the requirements of Chapter 726 of the 2014 Virginia Acts of Assembly.**
  - The SMART SCALE process has been used since 2016 (5 Rounds) to inform the CTB on project funding decisions.
- **Secretary Miller directed OIPI to conduct a full review of the SMART SCALE Process, in collaboration with VDOT and DRPT. Focused on:**
  - Obtaining input from CTB members, stakeholders, legislators, and other concerned parties
  - Review of the related Code requirements and the CTB's SMART SCALE Policy
  - Process analysis of the outcomes of the past funding rounds
- **The objective of the process review is to ensure it is meeting the intended goal – to identify the projects that provide the greatest benefit for the investment.**

Key Components of SMART SCALE Process Review

Statistical Analysis

Analysis of the performance and outcomes of the past funding rounds

Identification of potential biases and related causes

Survey Assessments

Review of process performance and perceptions

Administration, communications, and customer service

Procedural Review

Identify procedural improvements including application updates, communications, and process improvements

Code and Policy

Recommend procedural changes

Recommend CTB Policy changes

Recommended Code changes

Statistical Analysis (ATCS Lead)

Weighting of the Factor Areas and Typologies

- Project Type
- Project Size
- Geography

Potential Biases

- Urban vs Rural
- Project Size

Evaluation Measures

- Factor Analysis
- Current Conditions vs Future Conditions

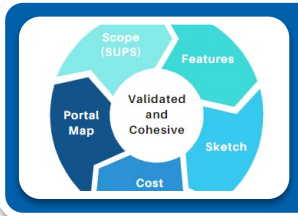
Survey Assessments

- **Process Review Survey - ATCS Lead**
  - https://publicinput.com/smartscalesurvey
  - Survey sent to 1,900 portal users and General Assembly, with feedback to be leveraged as key component of this Process Review
  - Topics include overall impressions of SMART SCALE and identifying elements of SMART SCALE that should remain the same or be improved
  - Survey open until March 10th
- **Round Procedural Survey - OIPI Lead**
  - Focused on Round 5 experience by Applicants
  - Will be released by the end of February

Procedural Review (OIPI Lead)

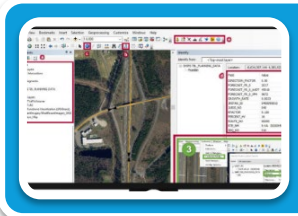
SMART Portal

- Pre-Scoping, Pre-Application, Application



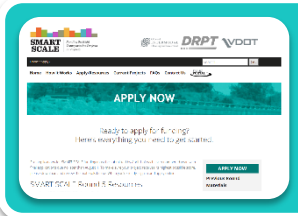
Screening

- VTrans, Readiness, Eligibility



Scoring

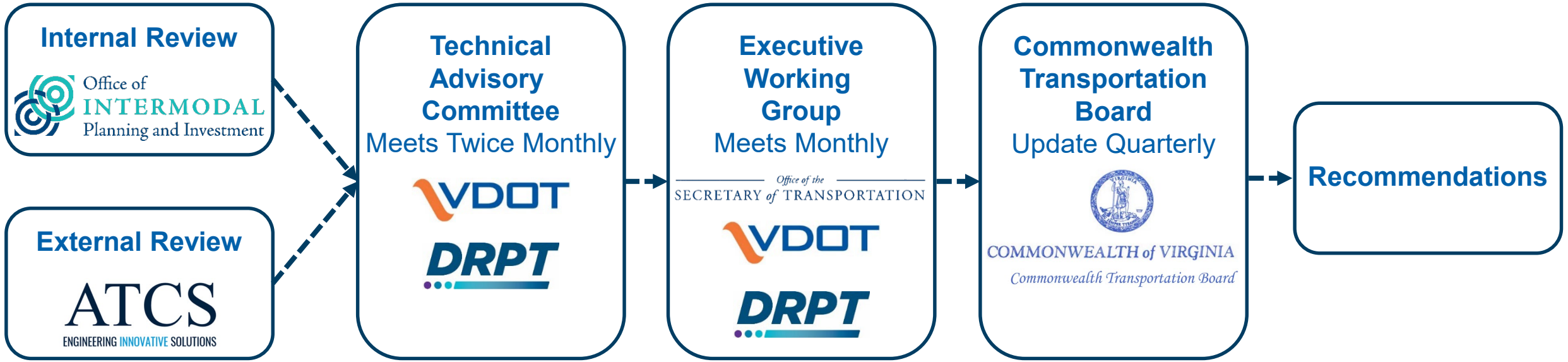
- Process, Methodology



Communications

- Website, References, Training, Videos

Review Organization



Composition of Review Teams

External Review

- **Comprised of ATCS Staff**
- **Purpose**
  - Combine independent Statistical Analysis and Process Review Survey
  - Provide recommendations for improvements to TAC and EWG

Internal Review

- **Comprised of OIPI, VDOT, and DRPT Staff**
- **Purpose**
  - Complete Round Procedural Review
    - Summarize statewide Lessons Learned Workshops, observations from the scoring teams, and the Applicant Survey, Ad Hoc Feedback (i.e., Emails and Letters)
  - Provide recommendations for improvements to TAC and EWG

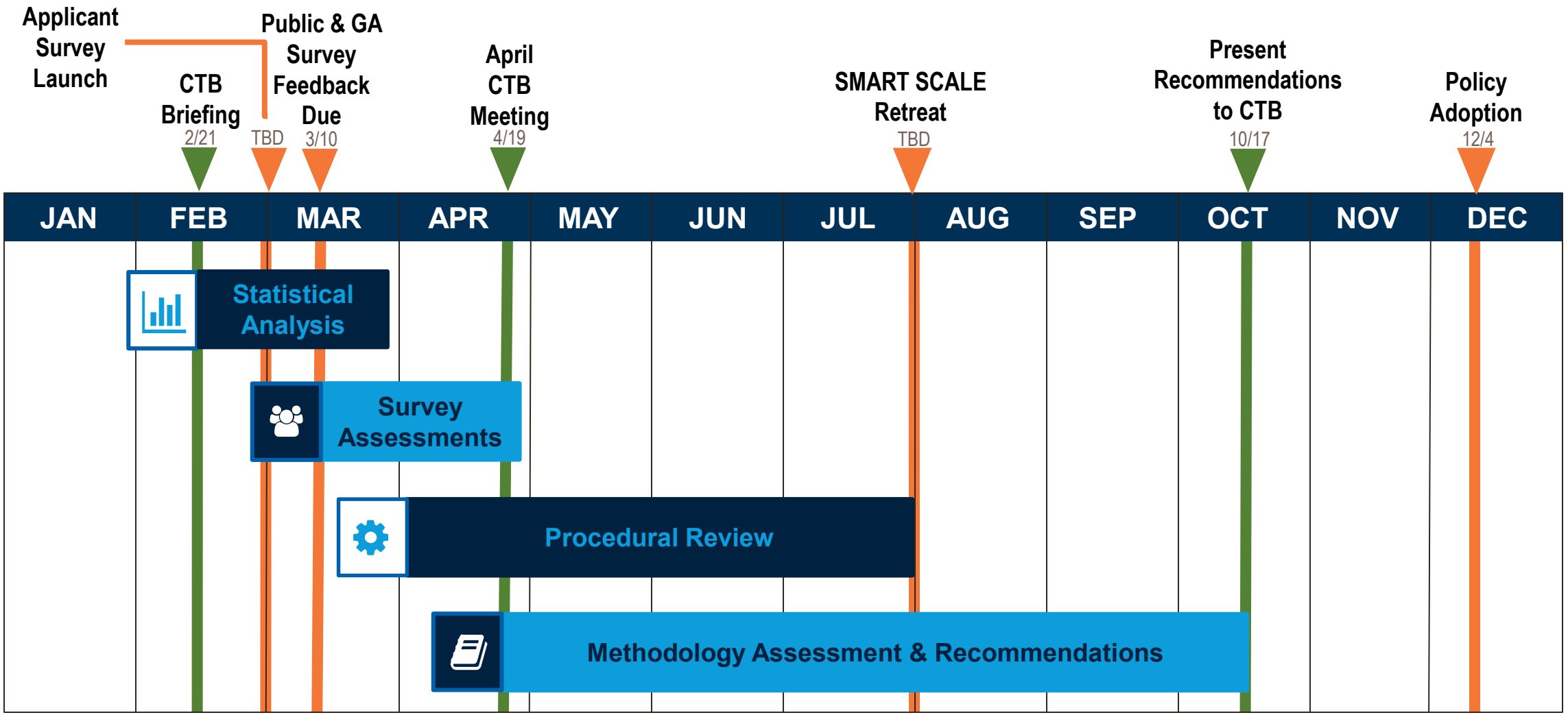
Technical Advisory Committee

- **Composition**
  - Key VDOT Central Office SMART SCALE staff
  - Key VDOT District Offices SMART SCALE staff
  - DRPT SMART SCALE staff
- **Purpose**
  - Synthesize the findings of the External and Internal reviews
  - Present findings and selected recommendations to the Executive Working Group

Executive Working Group

- **Composition**
  - Secretary's Office
  - OIPI Director and key staff
  - VDOT Commissioner and key staff
  - DPRT Director and key staff
- **Purpose**
  - Consider the findings and recommendations presented by the TAC
  - Recommend procedural, policy and code changes to the Secretary and CTB

Team Milestones / Timeline



CTB Meeting Outlook

- **February/March:** Summary of Process Review
- **April:** Overview of survey and historical data analysis. Summary of findings primarily focused on survey responses; no recommendations provided at this time
- **July/August:** Detailed overview of findings
- **October:** Final findings and recommendations presented
- **December:** Policy Adoption and other recommendations

COMMONWEALTH *of* VIRGINIA

Office of the

SECRETARY *of* TRANSPORTATION

Thank you.

Please contact Young Ho Chang with any questions or for additional information.

Young Ho Chang
yhchang@atcsplc.com
571-436-3754

COMMONWEALTH of VIRGINIA

Office of the

SECRETARY of TRANSPORTATION

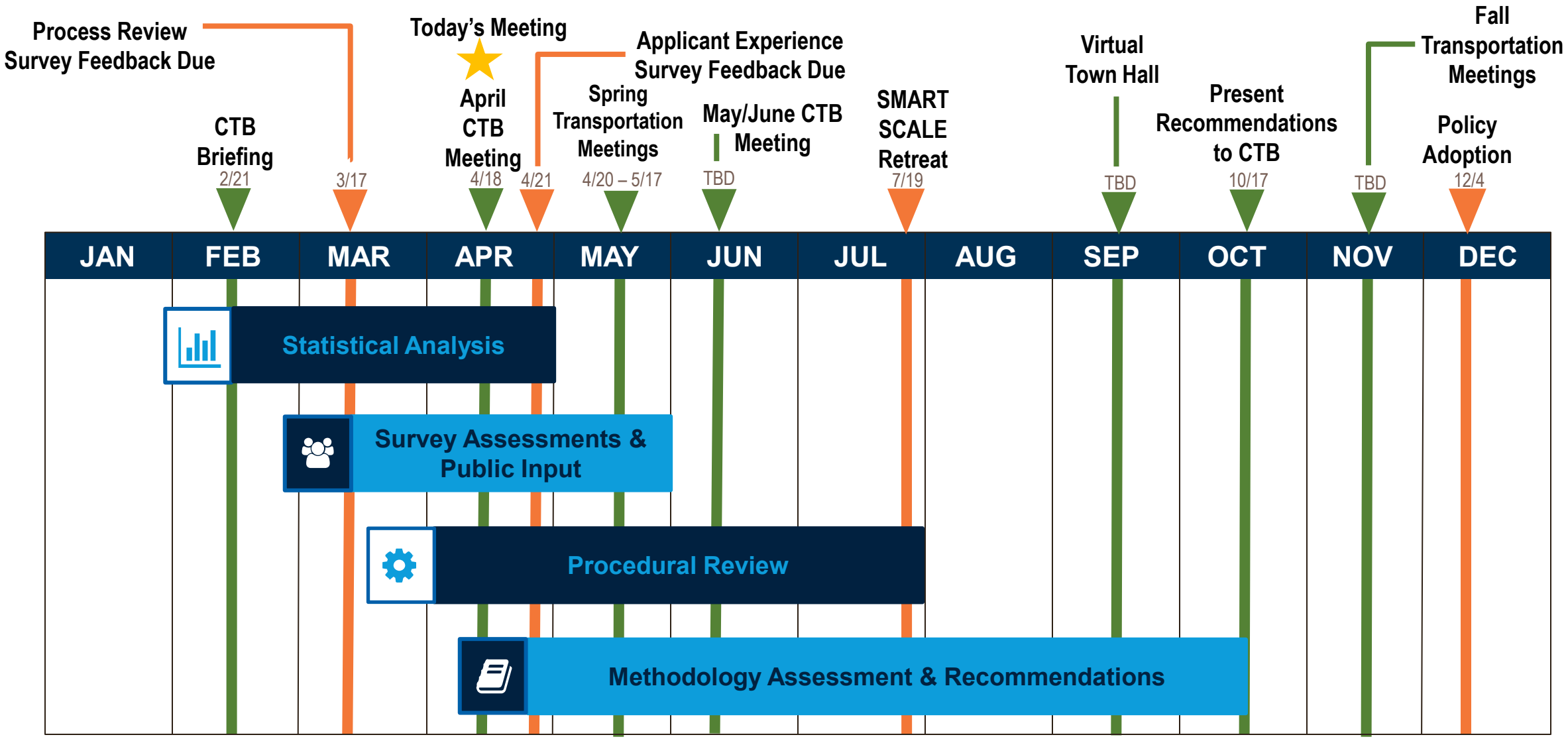
SMART SCALE Process Review

April 18, 2023

Structure and Objectives of Today's Presentation

- **Overview**
  - Team Milestones and Timeline
  - Process Review Update
- **External Review**
  - Overview
  - Survey Response Overview
  - Perceptions from the Process Review Survey
  - Initial Key Takeaways
  - Next Steps
- **Additional CTB and Respondent Feedback**
  - Themes from CTB Meetings
  - Highlights from Respondent Letters / Emails
- **Internal Review**
  - Overview
- **Concluding Remarks**

Overview: Team Milestones and Timeline



Overview: Process Review Update

- Statistical analysis is ongoing, with initial trends and findings leveraged with survey feedback
- Representatives from Virginia Municipal League (VML), Virginia Association of Counties (VACO), and Virginia Transit Association (VTA) have been added to the Technical Advisory Committee (TAC) and currently participate in twice monthly meetings
- Recent participation in 1-on-1 meetings with CTB members to gather additional feedback regarding the SMART SCALE process to incorporate into considerations for the Process Review, this includes additional considerations provided during the February CTB meeting

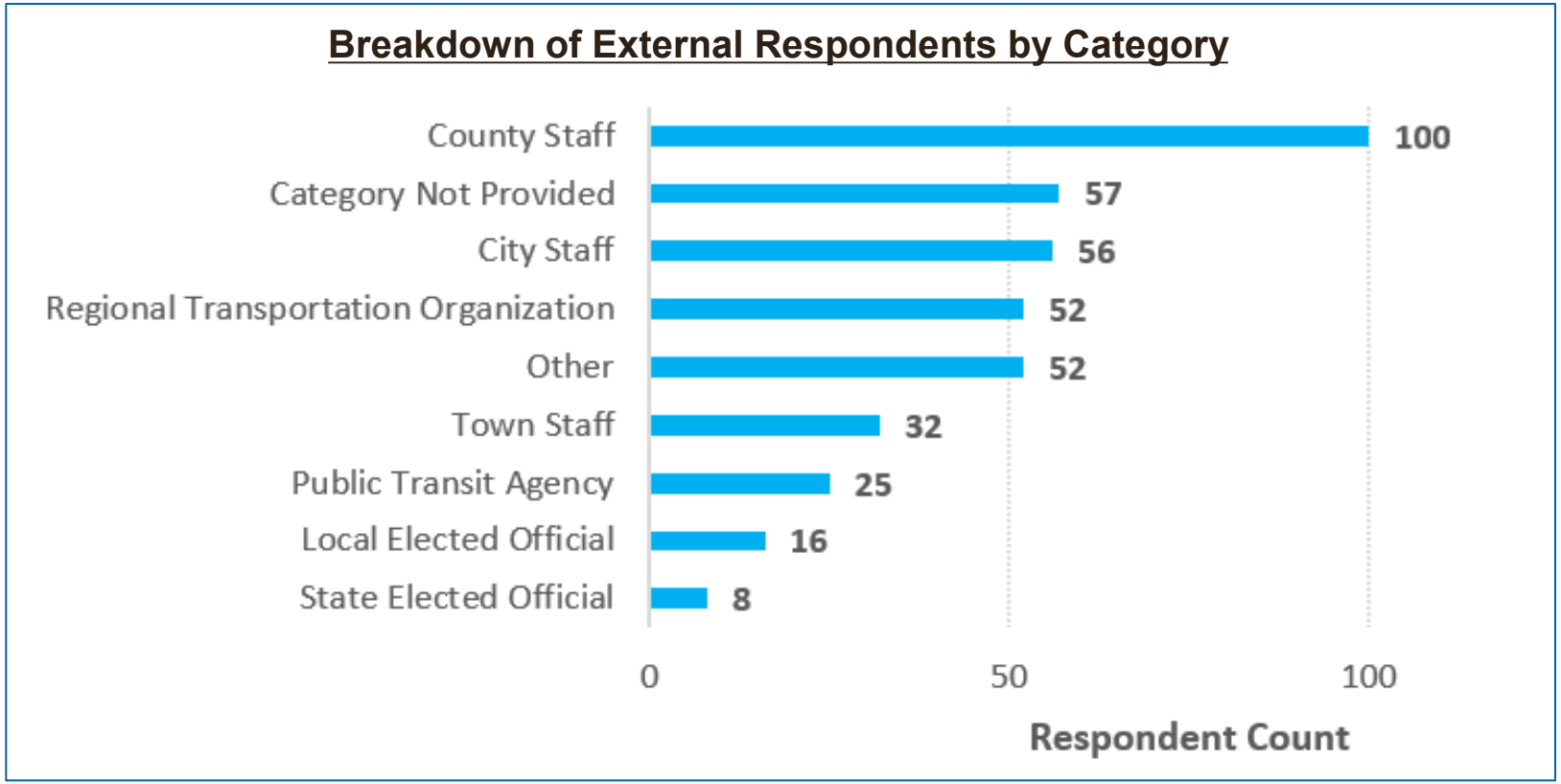
External Review: Overview

- **Process Review Survey – released on January 12th and closed on March 17th**
  - The survey was extended to allow for greater participation
  - Survey feedback presented today focuses on responses from “external” respondents, those who did not identify as VDOT, State DOT, and Consultant response groups
- **External survey feedback was reviewed to gain better insight into sentiments from the free text comments made by external survey respondents**
- **Key trends from external respondents have been summarized in the following slides**

External Review: Survey Response Overview

Possible number of external survey respondents: 1,300

Total number of external survey respondents: 398 (31% of possible external survey respondents)



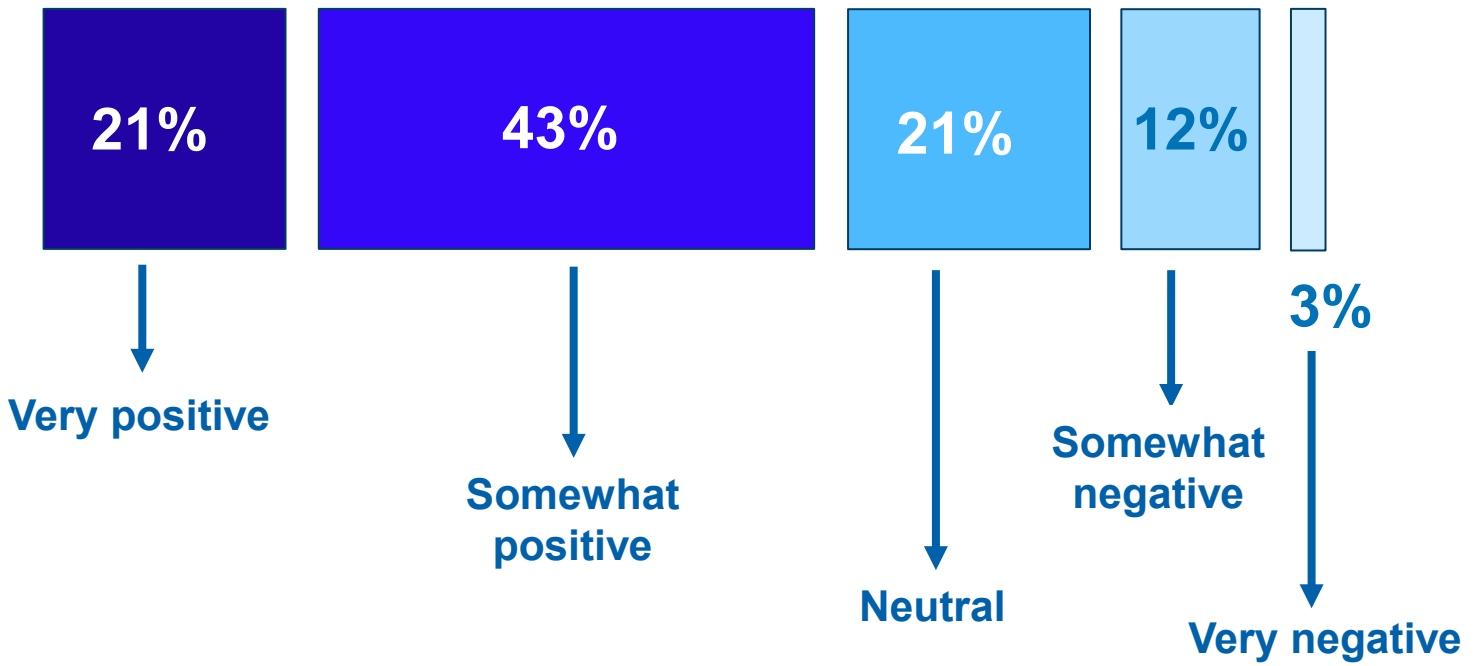
See Appendix A (p. 26) for more details

External Review: Perceptions from the Process Review Survey

"What is your overall impression of SMART SCALE?" **(select from range)**

64%

of external survey respondents who answered *have a somewhat or very positive impression* of SMART SCALE

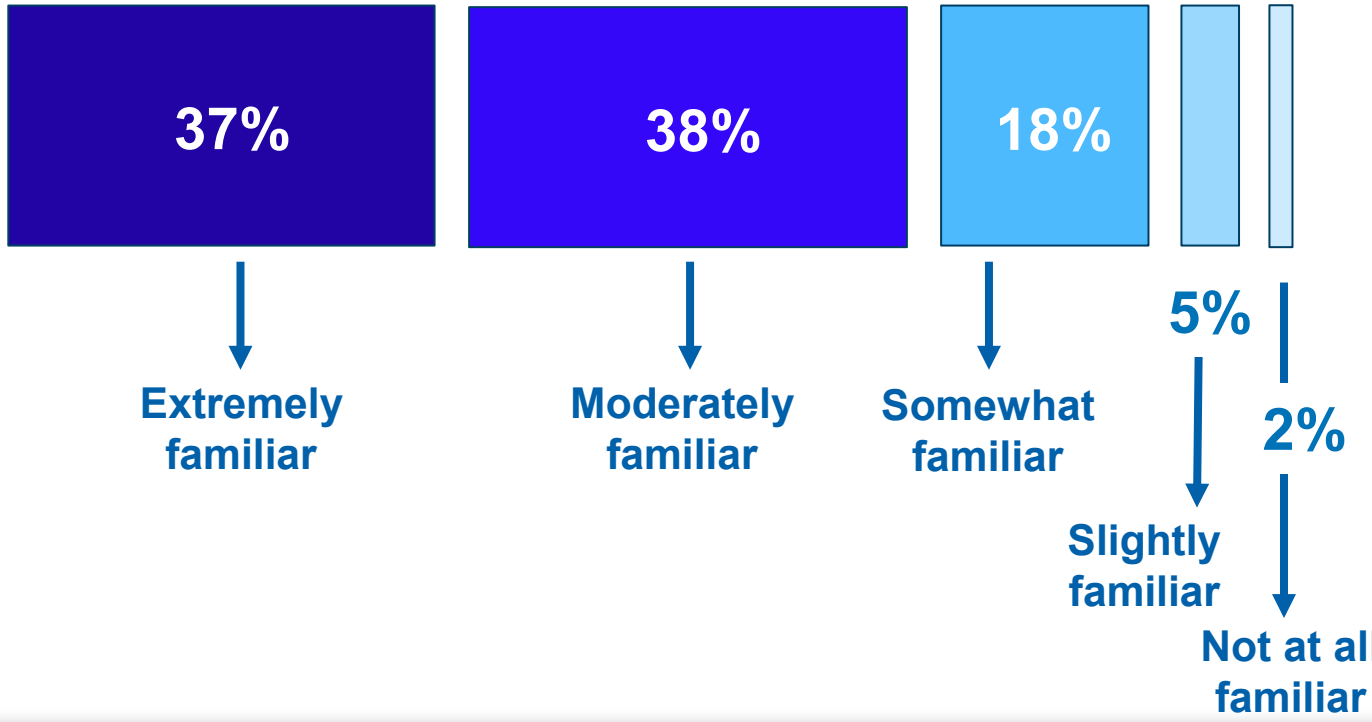


External Review: Perceptions from the Process Review Survey

"Generally, how familiar are you with the SMART SCALE process?" **(select from range)**

75%

of external survey respondents who answered indicated they are *moderately or extremely familiar* with the SMART SCALE process



External Review: Perceptions from the Process Review Survey

"Have you applied for a SMART SCALE project in the past?" **(yes/no question)**

Yes

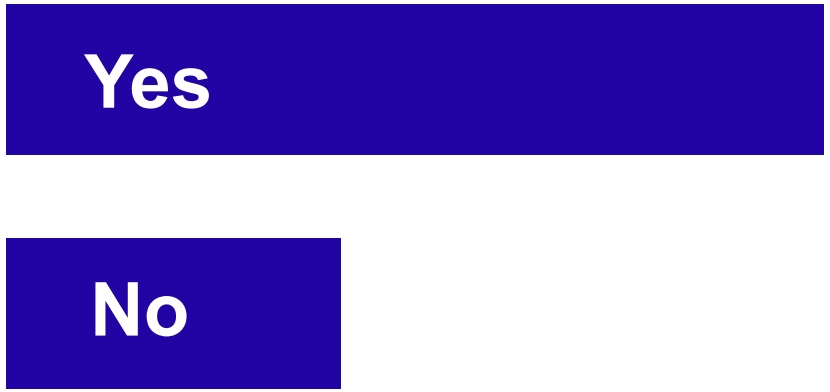
59% of external respondents *have applied* for SMART SCALE projects in the past

No

41% of external respondents *have not applied* for SMART SCALE projects in the past

External Review: Perceptions from the Process Review Survey

"In general, do you think SMART SCALE is funding the right projects?" **(yes/no question)**



71% of external respondents *feel that SMART SCALE is funding the right projects*

29% of external respondents *feel that SMART SCALE is not funding the right projects*

See Appendix B (p. 27) for more details

External Review: Perceptions from the Process Review Survey

"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)**

80% **of external respondents think *this is a good public policy* and an *appropriate way to value the Commonwealth's investment***

20% **of external respondents think *this is not a good public policy* or an *appropriate way to value the Commonwealth's investment***

External Review: Perceptions from the Process Review Survey

"Do you think a good mix of SMART SCALE projects are being funded?" **(yes/no question)**

Yes

No

Not sure

50% of external respondents *feel that SMART SCALE is funding a good mix of projects*

20% of external respondents *feel that SMART SCALE is not funding a good mix of projects*

30% of external respondents *were not sure whether a good mix of SMART SCALE projects are being funded*

See Appendix C and D (p. 28 and 29) for more details

External Review: Perceptions from the Process Review Survey

"Do you think the current process is biased in any way (urban/rural, large/small projects, mode, etc.)?" **(yes/no question)**

Yes

59% of external respondents *feel that biases exist* in the SMART SCALE process

No

41% of external respondents *feel that biases do not exist* in the SMART SCALE process

See Appendix E (p. 30) for more details

External Review: Perceptions from the Process Review Survey

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

- **66% of external respondents responded to this question**
- **Of those that responded, 59% said yes**
- **These are the most frequent areas of perceived bias:**

Urban

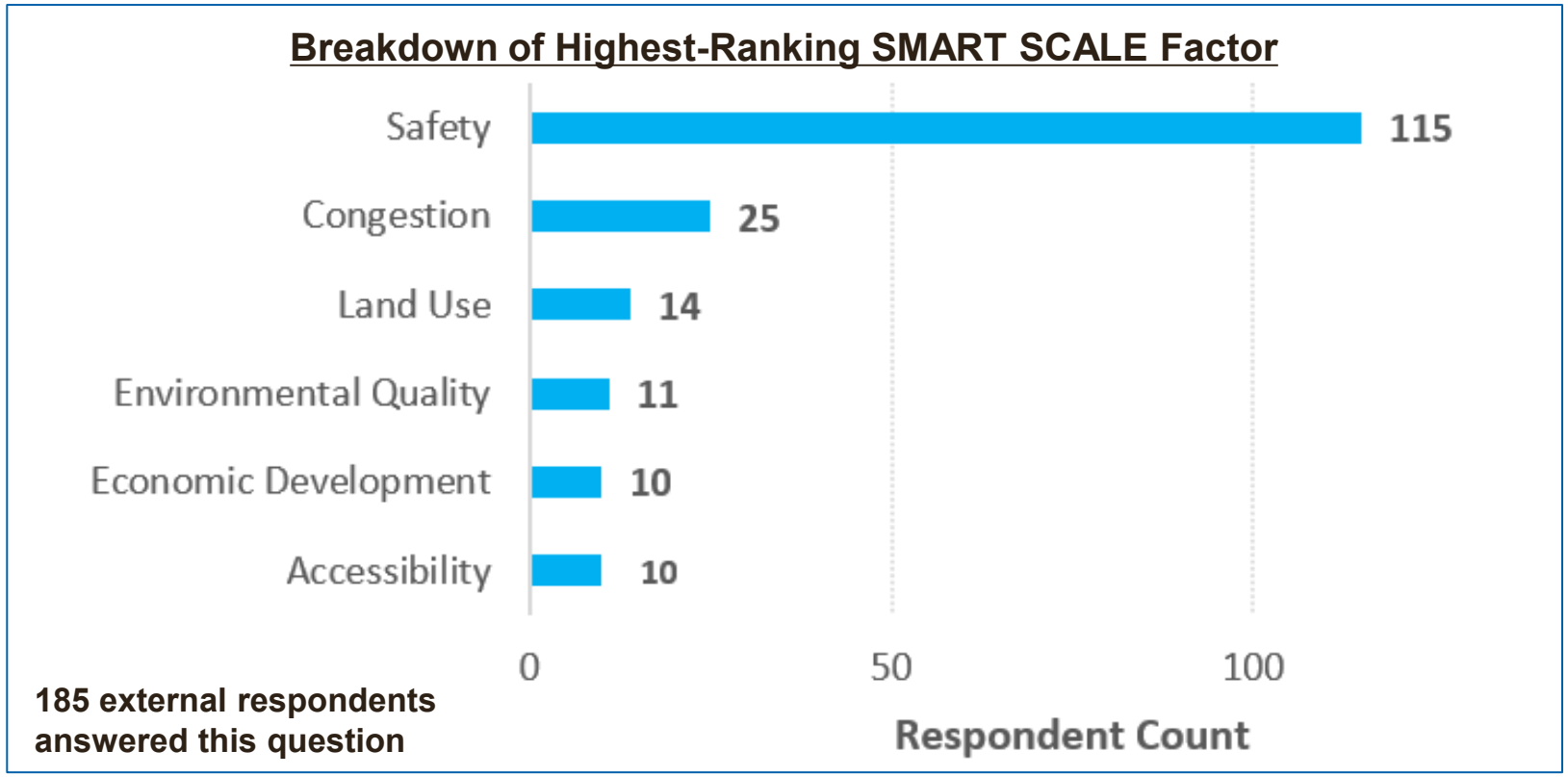
Small project

Application process

External Review: Perceptions from the Process Review Survey

"What do you think is the most important factor that the SMART SCALE process addresses?" **(select from range)**

- **Safety was consistently ranked as the most important factor by external respondents (62%)**
- **Congestion mitigation was the next highest ranking (almost 14%)**



See Appendix F (p. 31) for more details

External Review: Perceptions from the Process Review Survey

"Are there other factors that should be considered?" **(free text response)**

- **37% of external respondents responded to this question**
- **Of those that responded, 67% provided factors to be considered**
- **These are the most frequent factors:**

Equity

Livability

Non-Motorized Benefits

Resilience

External Review: Perceptions from the Process Review Survey

"What elements of SMART SCALE should be changed?" **(free text response)**

- **43% of external respondents responded to this question**
- **Of those that responded, 92% provided feedback regarding elements that should be changed**
- **These are the most frequent elements to be changed:**

Scoring changes

Application process

Transparency

Project Timeliness

External Review: Perceptions from the Process Review Survey

"What elements of SMART SCALE should remain the same?" **(free text response)**

- **34% of external respondents responded to this question**
- **Of those that responded, 90% provided feedback regarding whether SMART SCALE should remain the same**
- **These are the most frequent elements to remain the same:**

Scoring criteria

Application process

All elements

Transparency

External Review: Initial Key Takeaways

Familiarity with SMART SCALE

Most external survey respondents felt moderately or extremely familiar with the SMART SCALE process, and indicated that they have applied for a SMART SCALE project in the past

Funding the Right Projects

71% of external survey respondents who responded feel that SMART SCALE is funding the right projects, with 50% indicating they feel a good mix of projects are funded

Changes to SMART SCALE process

Scoring criteria and the application process were the top two answers for what should change and what should remain the same in the SMART SCALE process

Potential Biases Exist

Feelings of potential biases exist toward urban and smaller projects; however, external survey respondents largely indicate a positive impression towards the SMART SCALE process

External Review: Next Steps

- **Reviewing the survey feedback in comparison to historical Program data to better understand whether there may be potential biases towards:**
  - Urban or rural areas
  - Large or small projects
  - Type of project (i.e., bike/pedestrian projects)
- **Continued survey review and statistical analysis to include:**
  - High Priority Project scoring and success rates across the districts
  - Weighting of the factor areas and typologies
  - Analysis of existing factor areas, and where adjustments could be implemented to incorporate feedback from external survey respondents

Additional CTB and Respondent Feedback: Themes from CTB Meetings

- The SMART SCALE process works, but look for opportunities to be more forward-thinking
- Process seems to be transparent; however, would be helpful if simplified
- Potential favoritism towards smaller projects and not higher priority projects that are needed
- Need to understand intended and unintended consequences
- There seems to be a bias toward Bike/Ped projects
- Applicants are focused on projects that will be selected and not necessarily value add
- Importance of SMART SCALE focusing on economic development, as it generates revenue
- Concerns regarding cost estimation and contingencies

Additional CTB and Respondent Feedback: Highlights from Respondent Letters / Emails

- **Suggestions on adjustments to project scoring / factors**
  - Emphasize equity and environmental quality (greenhouse gas emissions) in project scoring
  - Refine multimodal accessibility measure
  - Adjustments to specific thresholds / metrics
  - Incorporate military routes into methodology
  - Consider additional costs and barriers associated with older infrastructure projects
- **Suggestions on improving the SMART SCALE applicant experience**
  - Make Technical Guide available earlier in process
  - Reconsider requirement of cost estimation as part of application submittal
  - Ensure consistency in applicant requirements for small and large communities
  - Change Tier 1 application limits to meet the needs of medium sized areas in Virginia

Internal Review: Overview

- **Round 5 Applicant Experience Survey – OIPI Lead**
  - Focuses on procedural elements, SMART Portal, resources, and communications
  - Released on March 22nd and will close on April 21st
- **Summarize statewide Lessons Learned Workshops, observations from the scoring teams, and the Applicant Survey, Ad Hoc Feedback (i.e., Emails and Letters)**
  - Scoring Teams Lessons Learned Workshop held on February 7th
  - Statewide DRPT, VDOT, and OIPI Screening and Validation Teams Workshop held February 28th

Concluding Remarks

- **May/June 2023 CTB Meeting to include an update regarding the statistical analysis component of the Process Review**
- **SMART SCALE Retreat – Scheduled for July 19th**
  - Focus on comprehensive Process Review findings, including draft recommendations for participants to review and discuss
  - Participation in 1-on-1 meetings with CTB members, as well as the Spring Transportation Meetings will allow for additional opportunities to capture feedback ahead of the SMART SCALE Retreat
- **Final findings and recommendations presented during October 2023 CTB meeting for consideration**
- **Policy adoptions and other recommendations in December 2023**

COMMONWEALTH *of* VIRGINIA

Office of the

SECRETARY *of* TRANSPORTATION

Thank you.

Please contact Young Ho Chang with any questions or for additional information.

Young Ho Chang
yhchang@atcsplc.com
571-436-3754

Appendix A: Respondent Count by District

Total number of survey respondents: 459

Total number of external survey respondents: 398 (87%)

# of External Respondents per District

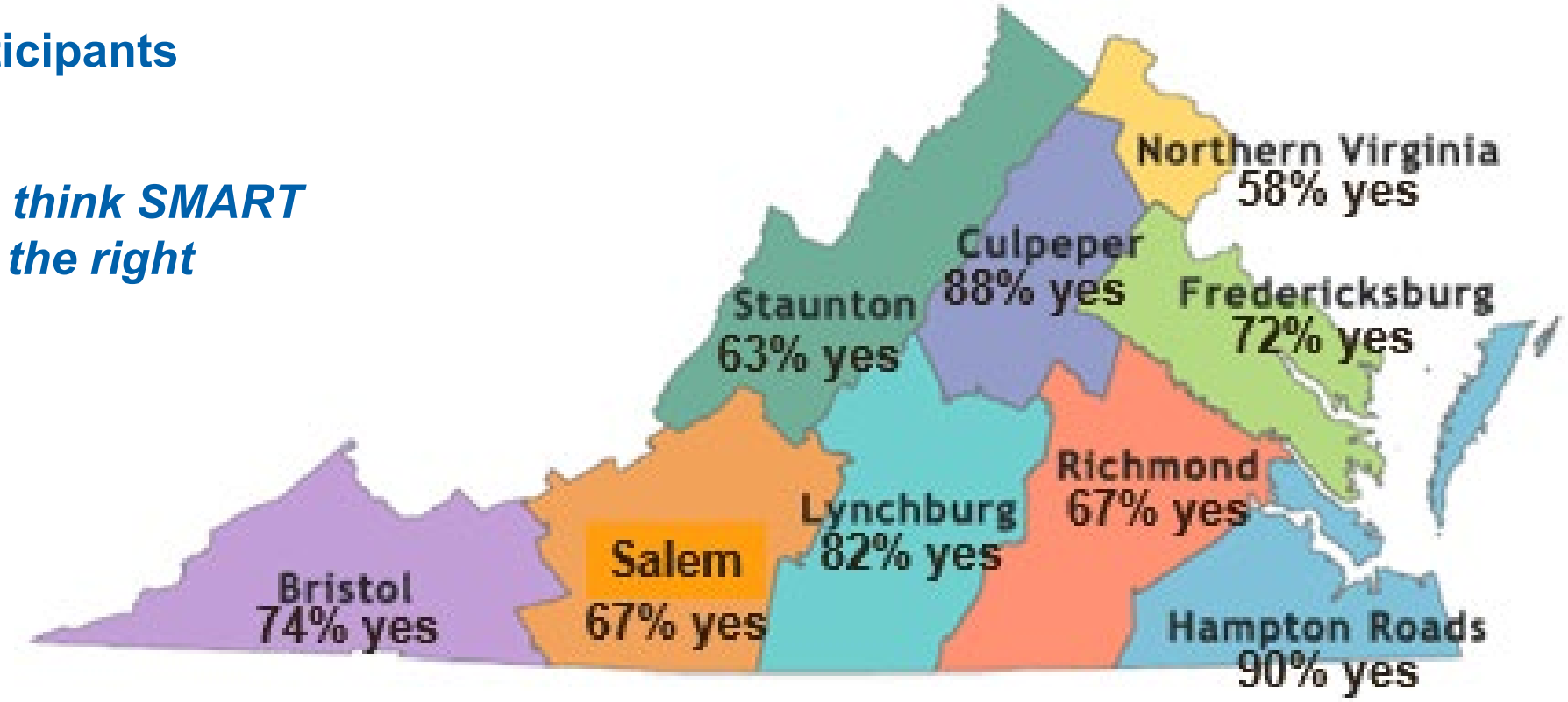
Return to main slide (p.6)

Appendix B: Survey Perceptions by District

Funding the Right Projects

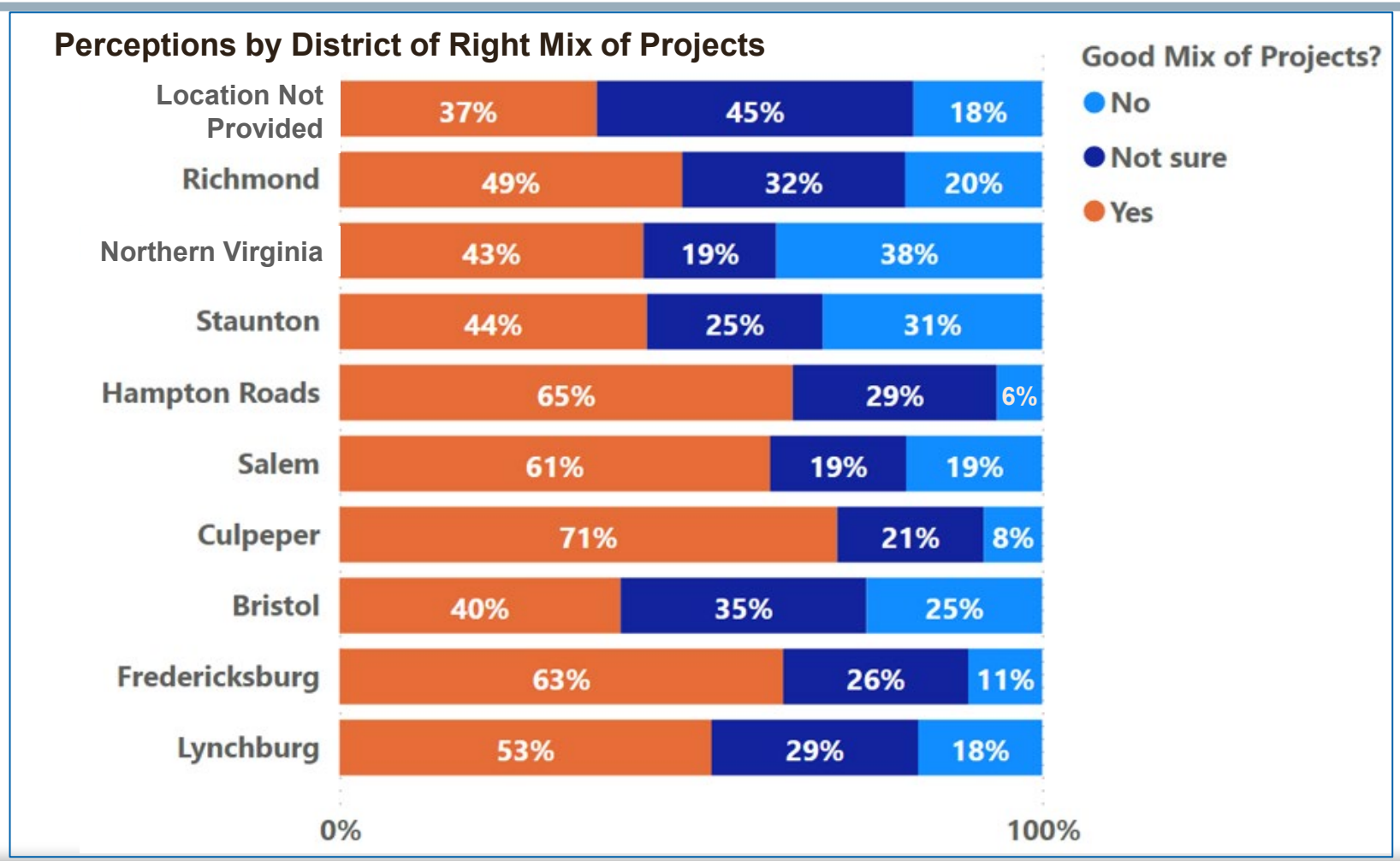
Survey asked participants (yes/no question):

In general, do you think SMART SCALE is funding the right projects?



Return to main slide (p. 10)

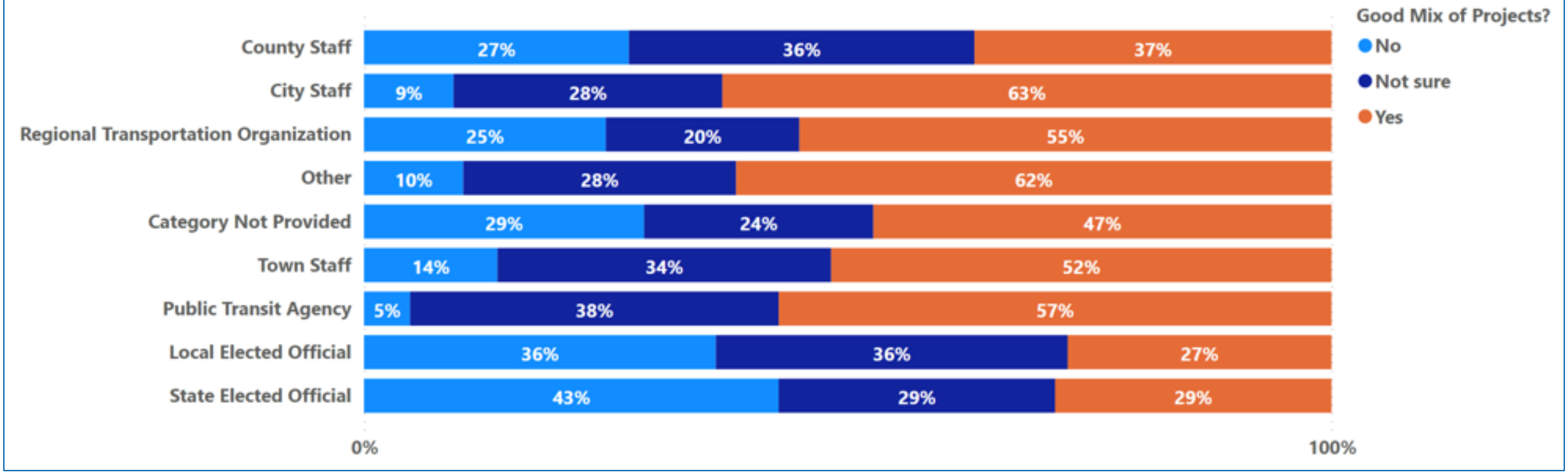
Appendix C: Survey Perceptions by District
Right Mix of Projects



Return to main slide (p. 12)

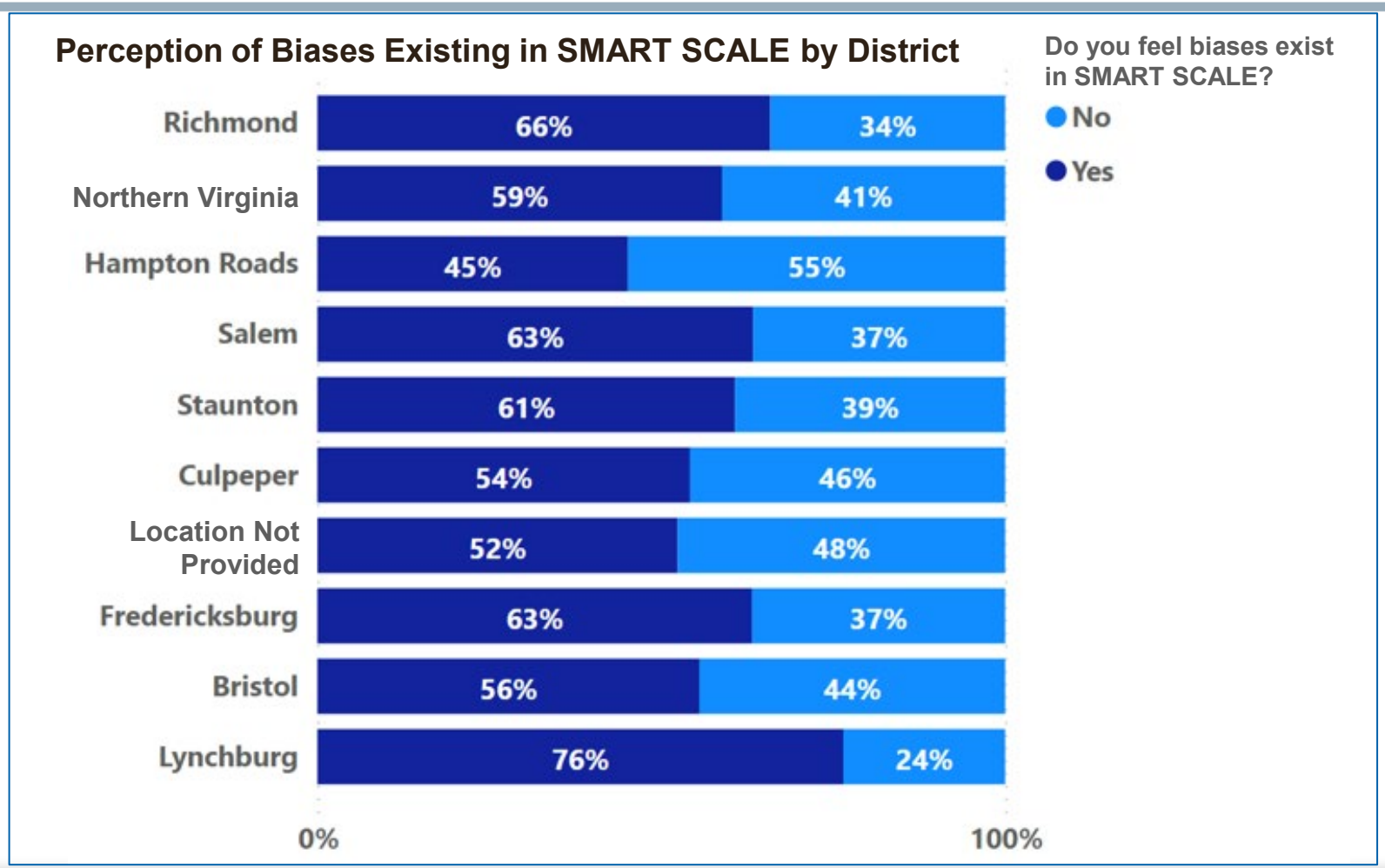
Appendix D: Survey Perceptions by Category
Right Mix of Projects

Perceptions by Group of Right Mix of Projects



Return to main slide (p. 12)

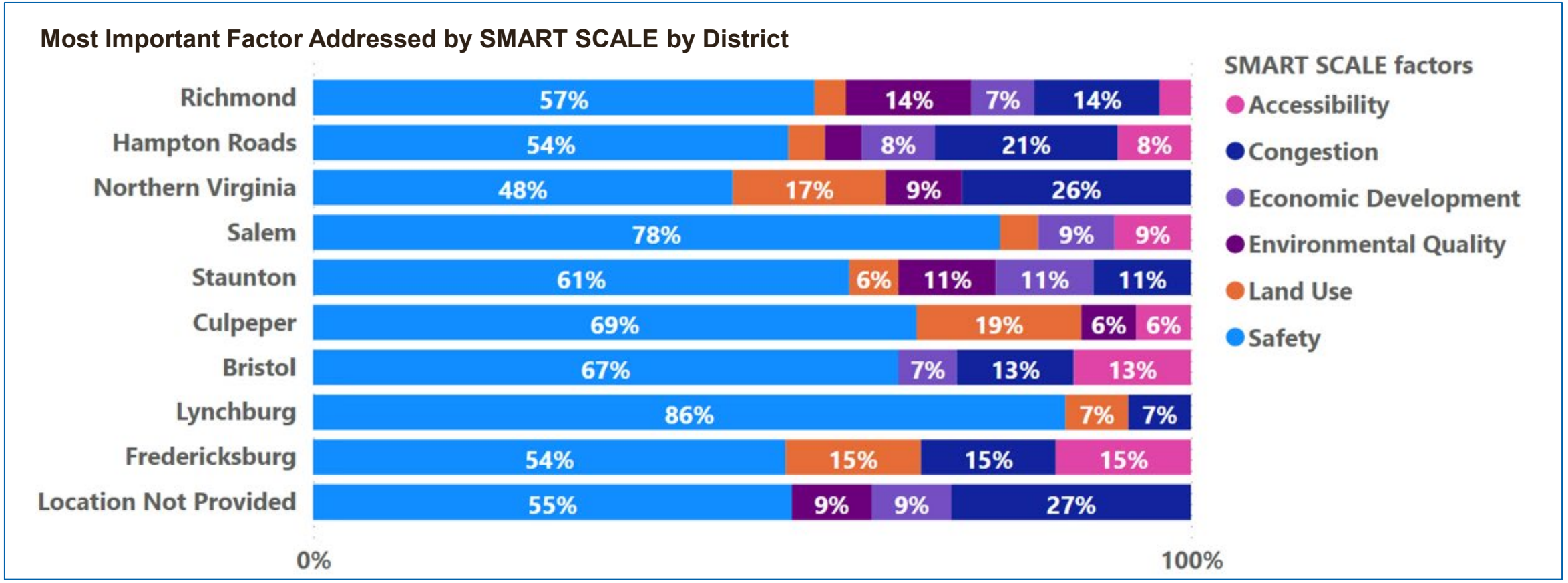
Appendix E: Survey Perceptions by District
Perceived Biases



Return to main slide (p. 13)

Appendix F: Survey Perceptions by District

Highest-Ranking SMART SCALE Factor



Return to main slide (p. 15)

COMMONWEALTH of VIRGINIA
Office of the
SECRETARY of TRANSPORTATION

SMART SCALE Process Review Update

Brooke Jackson, P.E. – SMART SCALE Program Manager

May 2023

Agenda

- **SMART SCALE Program History**
  - Purpose
  - Related Virginia Code
  - Supporting CTB Policy
  - Funding Sources
  - Previous Round Summary
  - Process Overview
- **Potential Issues**
  - Schedule
  - Application Quality

Why SMART SCALE

- HB 2 of the 2014 General Assembly (SMART SCALE) required the implementation of a formal prioritization process by June 2016
  - Needed to remove the political element and select projects that bring the best value
- It reformed Virginia's transportation programming process by requiring the use of a data-driven, outcome-based prioritization process
- SMART SCALE has improved the transparency and accountability of project selection and improved the stability of the Six-Year Improvement Program
- The process scores projects based on an objective and fair analysis that is applied statewide, helping the CTB select projects that provide the greatest benefits for tax dollars spent

Virginia Code - Development of Prioritization Process (HB 2)

- **Effective July 1, 2014** (as defined in § 33.2-214.1), required the development of a prioritization process that the CTB was to use for project selection by July 2016.
- **Benefit-Cost Relationship Required**
- **Six Factor Areas Required (SCALE) –** safety, congestion mitigation, accessibility, land use*, economic development, and environmental quality
- **Multi-Modal Project Evaluation – must consider** highway, transit, rail, roadway, technology operational improvements, and transportation demand management strategies
- **Meet a VTrans Need**
- **Projects must be fully funded when added to the SYIP**

**Note: Land Use is required in populations over 200,000 defined in the 6th enactment clause*

CTB Policy - SMART SCALE Prioritization Process

1. **Six-Year Improvement Program Development Policy**
   - December 7, 2016
2. **Policy for Implementation of the SMART SCALE Project Prioritization Process**
   - *Updated* December 8, 2021
3. **SMART SCALE Cost Overrun Policy**
   - October 30, 2018

Virginia Code - Transportation Funding Formula

The 1986 formula was often referred to as the 40/30/30 formula

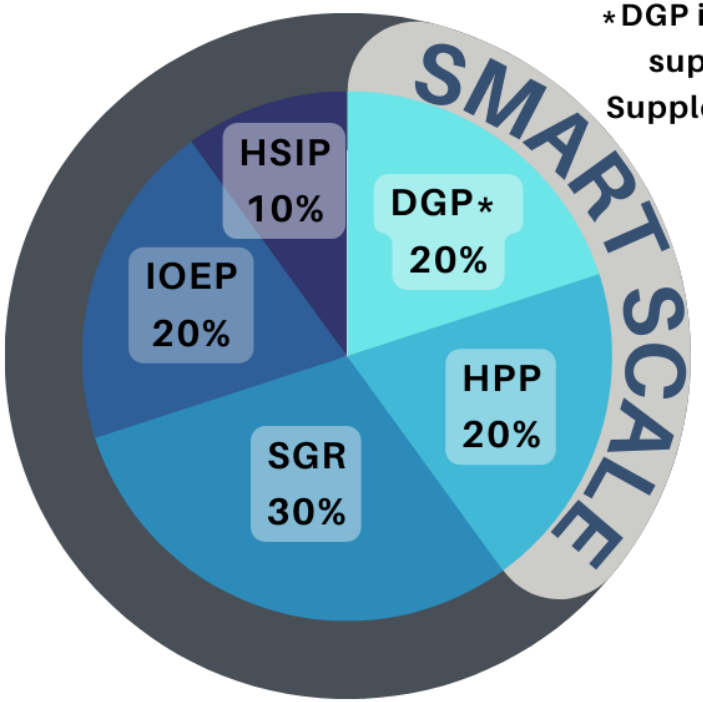
- Interstate and Unpaved roads were addressed first, with the balance distributed
  - 40% for the primary system, provided to each district for primary routes using vehicle miles of travel (VMT), primary lane miles, and a needs factor – allocated by the CTB
  - 30% to counties for secondary routes using population and land area – controlled by Local Board of Supervisors
  - 30% to cities and towns for urban routes using population – controlled by City/Town Council Allocated

The new formula established by HB 1887 distributes the District Grant Program (DGP) funds to the districts in a similar manner as the previous 40/30/30 formula.

Virginia Code - Transportation Funding Formula (HB 1887, HB 1414)

§ 33.2-358 Allocation of funds to programs

- **HB 1887 (Rounds 1 – 3)**
  - Established the State of Good Repair (SGR - 45%) High-Priority Projects Program (HPP – 27.5%) and the District Grant Program (DGP – 27.5%)
- **HB 1414 (Rounds 4 – 5)**
  - Restructured Virginia's transportation funding model and updated program shares
  - Enacted changes to statewide revenue sources and regional funding sources
  - Imposed the regional fuels tax in all areas of the Commonwealth where it is not imposed to be used in DGP addition to the formula DGP (referred to as the Supplement District Grant)

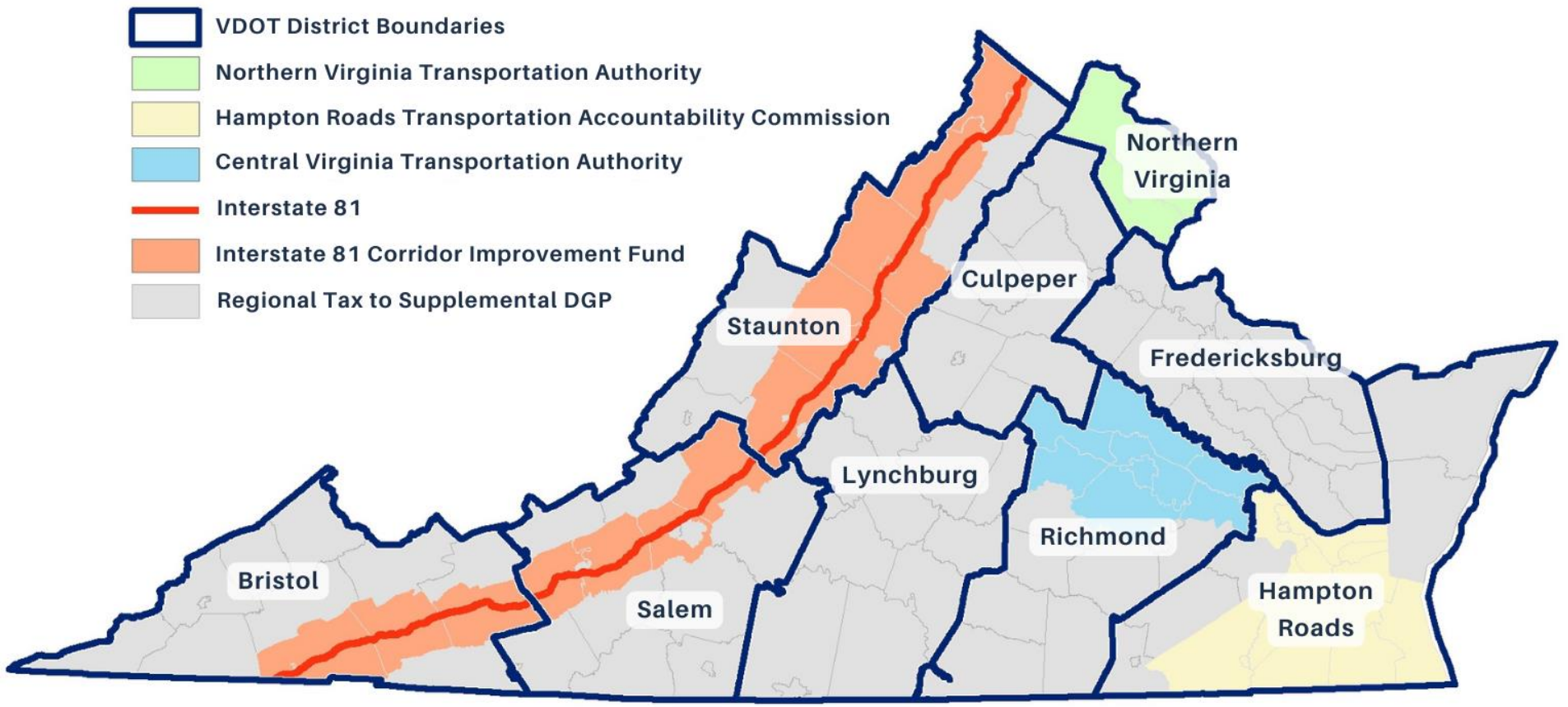


*DGP is additionally supported by the Supplemental DGP.

Program Legend:

- IOEP - Interstate Operations and Enhancement Program
- HSIP - Highway Safety Improvement Program
- SGR - State of Good Repair

Virginia Code - District Grant Program Supported by Regional Gas Tax



The regional fuels tax funding the Supplemental District Grant is collected in all areas of the Commonwealth where it is not already imposed (shown in the gray areas).

Virginia Code - Example Supplemental Grant (FY 2024)

District	Regional Fuel Tax*	Supplemental DGP	Formula DGP Less Unpaved	Total DGP
Bristol	$0.0	$16.6	$7.7	$24.3
Culpeper	$0.0	$23.2	$7.6	$30.8
Fredericksburg	$0.0	$17.0	$11.6	$28.6
Hampton Roads [1]	$67.6	$11.5	$34.8	$46.3
Lynchburg	$0.0	$21.2	$8.7	$29.9
Northern Virginia [2]	$106.2	$0.0	$35.2	$35.2
Richmond [3]	$57.6	$17.5	$24.4	$41.9
Salem	$0.0	$12.5	$12.5	$25.0
Staunton	$0.0	$4.4	$8.8	$13.2
I-81 Corridor	$88.1	$0.0	$0.0	$0.0
Grand Total	$319.5	$123.8	$151.4	$275.2

1 - Regional Fuel Tax in Hampton Roads is directed to HRTAC.

2 - Regional Fuel Tax in Northern Virginia is directed to PRTC and NVTC.

3 - Regional Fuel Tax in Richmond area is directed to CVTA.

SMART SCALE Previous Round Summary

PROJECT APPLICATIONS	FY 2017 ROUND 1	FY 2018 ROUND 2	FY 2020 ROUND 3	FY 2022 ROUND 4	FY 2024 ROUND 5
Submitted	321	436	468	406	413
Scored	287	404	433	397	394
Funded	162	147	134	167	164
Total Funding Requested	$7.2 B	$9.7B	$7.0B	$6.3B	$8.3B
Total Funding Allocated	$1.4 B	$1.0 B	$0.9 B	$1.4 B	$1.6 B
Value of Projects Supported	$2.7 B	$2.4 B	$5.1 B	$1.9 B	$2.3 B

SMART SCALE Previous Round Summary
Continuous Improvement

Improvement History

Committed to a regular lessons-learned process through engagement with partners and applicants

Committed to research and testing of best practices

Committed to a process of adjustments and feedback, supported by improved tools, training, and guidance for applicants

	Round 2	Round 3	Round 4	Round 5
	External review group, surveys, and regional workshops	**CTB Retreat, nine regional meetings, and applicant feedback**	**Fall meetings, public comment, and applicant feedback**	**Online tools and meetings to work through pandemic disruptions**
IMPROVEMENTS				
Procedural	• Application timing and documentation • Common-sense engineering principles • Two-year cycle established	• Application timing extended • Project eligibility and readiness bar raised	• Pre-application limits and schedule modifications • Project eligibility restrictions • Study requirements refined	• Cost estimating transparency and consistency
Policy	Environmental • Considered impact Safety • Added crash types with injuries Land Use • Added the second measure	• Began cap limits Economic Dev • Distinguished the level of readiness for site plans Land Use • Added non-work accessibility	Congestion • Expanded to off-peak Safety • Targeted crash reduction • Modified weightings	Environmental • New emissions measures • Right-size impact buffer Land Use • Expanded to rural localities

SMART SCALE Prioritization Process

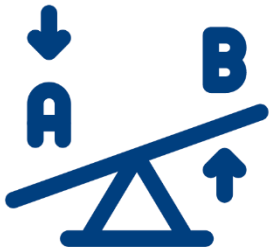
Procedural (OIPI and Agency Staff)

- Portal
- Eligibility
- Communications
- Readiness

Virginia Code

CTB Policy

Funding Scenario				Scoring			Post-SYIP	
HPP Eligibility	DGP Eligibility	Staff Scenario Steps	Consensus	Weighting	Typology	Methods	Delivery	Project Change



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

Funding Program Eligibility

Defines program eligibility by qualifying entities

Program	VTrans Need Type	Applicant
DGP	Safety or Urban Development Area	Locality
DGP and HPP	Corridor of Statewide Significance or Regional Network	Locality
HPP	Corridor of Statewide Significance or Regional Network	MPO, PDC, or Transit Agency

Funding Program Eligibility

Procedural

Portal | **Project Eligibility** | Readiness | Comms

Defines application limits by population

Tier	Localities	MPO, PDC, or Transit Agency	Max Pre-Applications	Max Full Applications
1	< 200,000	< 500,000	5	4
2	>= 200,000	>= 500,000	12	10

Application, Screening, and Validation

Procedural

Portal | Project Eligibility | Readiness | Comms

Project Application Process

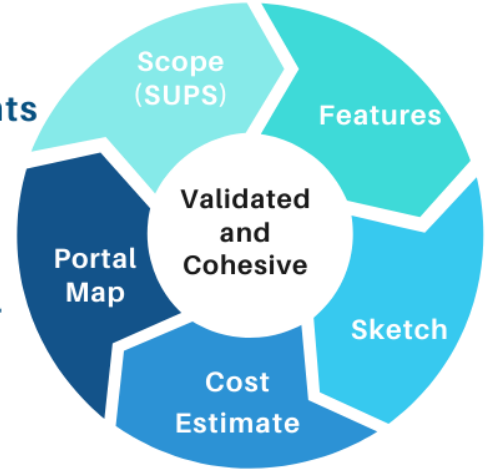
1. Pre-Application
2. Pre-App Screening
3. Full Application
4. District Screening
5. Central Office Screening & Validation
6. District Estimate Validation
7. Screened In/Out
8. Scored

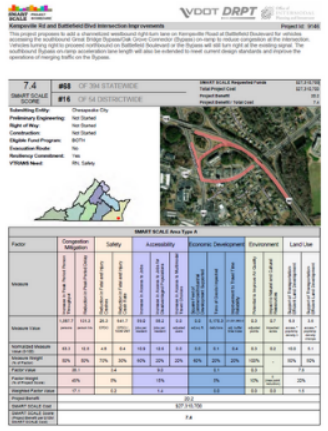
Meet Need | **Project Eligibility** | **Readiness**

VTRANS

- NOT Stand-alone study
- NOT Asset management
- NOT Systemwide improvements
- NOT Recently funded VTrans need
- NOT Transit maintenance facilities

- Document requirements based on complexity
- Validated & cohesive



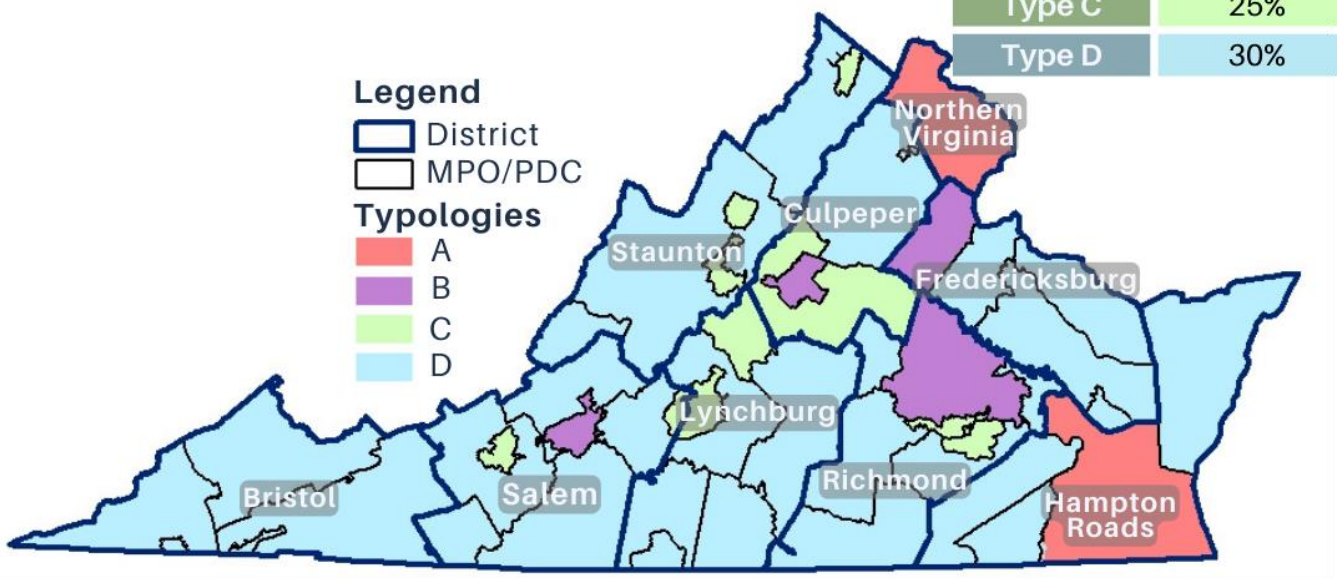


Office of the SECRETARY of TRANSPORTATION

Area Type and Factor Weighting

Weighting, Typology, at the District and MPO / PDC level

Factor	Safety	Congestion	Accessibility	Land Use	Economic Development	Environment
Type A	5%	45%	15%	20%	5%	10%
Type B	20%	15%	20%	15%	20%	10%
Type C	25%	15%	15%	10%	25%	10%
Type D	30%	10%	10%	10%	30%	10%



Factors and Measures

Scoring

Weighting | Typology | Methods

Measure values are determined by assessing the data and characteristics of the project

Factor	Factor Description	Measure Weight	Measure
Safety	Reduce the number and rate of fatalities and severe injuries	70%	Reduce crash frequency
Congestion	Reduce person-hours of delay and increase person throughput	30%	Reduce crash rate
Accessibility	Increase access to jobs and travel options		
Land Use	Support transportation-efficient land development patterns		
Econ Dev	Support economic development and improve goods movement		
Environment	Improve air quality and avoid impacts to the environment		

See Appendix (p. 32) for an example scorecard including all measures

Normalization

Best project for that measure dictates the score for all other projects

District	Title	Delay Measure (person hours)	Normalized Delay Score
Hampton Roads	Hampton Roads Bridge-Tunnel Widening/I-64 Expansion	6436.4	100.0
Hampton Roads	Battlefield Blvd/Volvo Pkwy Intersection Improvements	1262.4	19.6
Culpeper	US 250/Route 20 Intersection Improvement	1112.0	17.3
Hampton Roads	Jefferson Ave & Oyster Point Rd Intersection Improvements	971.3	15.1
Northern Virginia	Route 1 at Route 123 Interchange Improvements	737.5	11.5
Northern Virginia	West End Transitway Corridor Investments	643.9	10.0

Funding Scenario Steps

Staff Recommended Funding Scenario Steps

Step 1 – Fund top-scoring projects within each district eligible for DGP funds using DGP funds until the remaining funds are insufficient to fund the next highest-scoring project.

Step 2 – Fund top-scoring projects within each district that would have otherwise been funded with available DGP funds but were not because they are only eligible for HPPP funds, using HPPP funds, as long as their SMART SCALE cost does not exceed the total amount of DGP funds available to be programmed based on their rank.

Step 3 – Fund projects with a benefit relative to SMART SCALE score greater than an established threshold based on the highest project benefit using HPPP funds until funds are insufficient to fund the next unfunded project with the highest project benefit.

Program Delivery

Post-SYIP

Delivery | Project Change

Delivery performance is critical to the SMART SCALE Process

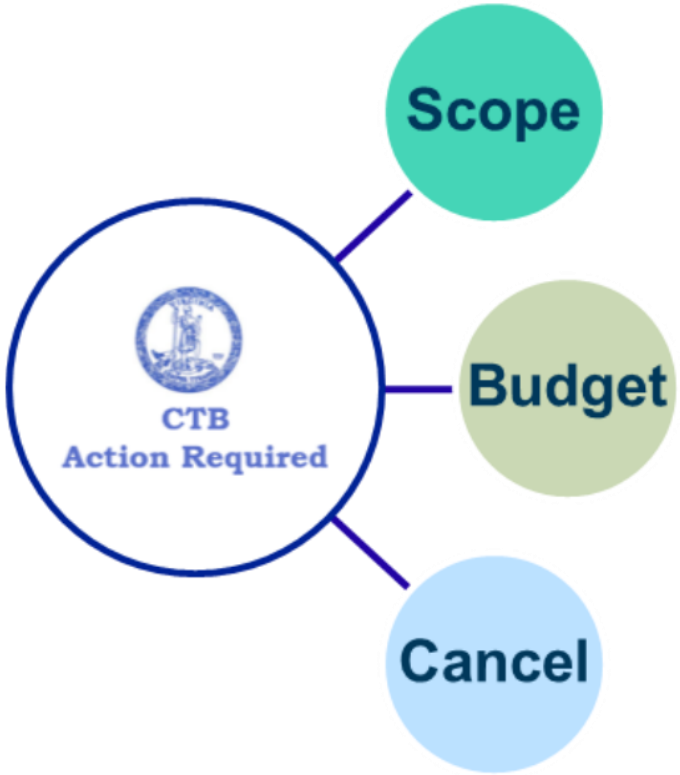
- SMART SCALE has changed how project development and performance is tracked in the agencies
- Projects can be VDOT Administered or Locally Administered
- Critical to address projects that are not moving forward in the process before adding new projects to the program

Project Change Process

Post-SYIP

Delivery | Project Change

Defines the project change process



If the benefits are reduced such that the revised score is less than the lowest-ranked funded project in the district for that cohort of projects

Total Project Budget	Change from original SS Requested Amount
Less than $5M	20% or greater increase in funding requested
Between $5M and $10M	$1M or greater increase in funding requested
Less than $5M	10% or greater increase in funding requested; $5M Max

A project may only be cancelled by action of the CTB

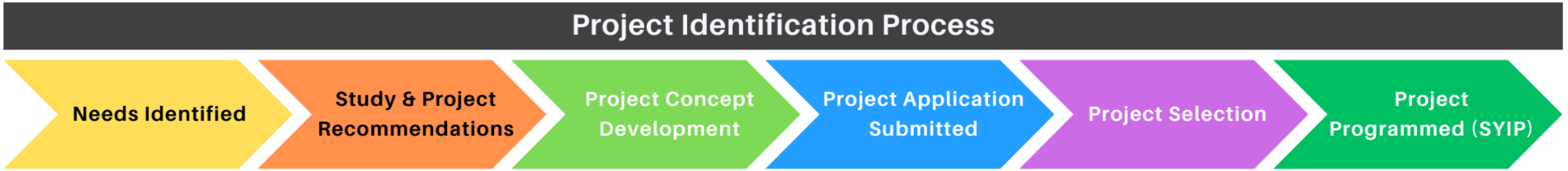
Potential Issues Identified

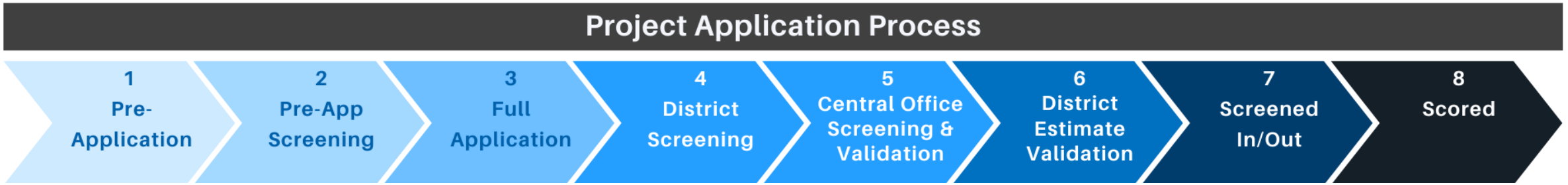
	Indentified Issue	Detail	CTB
☐	Application Quality	Staff resources are stretched to dedicate to applicant support and application quality	**May**
☐	Process Biases	Applicants may submit projects that they think will be successful, not necessarily the highest priority	**June & July**
☐	Forward-Looking Process	Process should be more forward-looking to account for future traffic and future economic development	**June**
☐	Funding Steps	Steps to apply funding	**June**
☐	Low Scoring Projects	Some districts may have significantly lower SS scores than in other districts, which is inconsistent with the purpose of a statewide prioritization process	**July**
☐	Emphasis on Safety Priority	Safety is an increasing problem that warrants a higher priority in the prioritization process	**July**
☐	One Factor Majority	Land use factor has a significant number of projects funded on only that category	**July**
☐	Disconnect Between Need and Benefit	Perception that projects are not demonstrating a benefit in the factor area related to the Vtrans need for which they were screened in	**September**
☐	Flexibility in Project Change Process	SMART SCALE project change / cost over-run process is overly burdensome, creates project delays, and interupts normal project development issues	**September**
☐	Project Performance	Are the projects performing like we said they would? Is the ultilization matching predictions?	**September**

Potential Issues Schedule

MAY	Program History, Issue Identification, Application Quality
JUN	Process Biases (Part 1), Forward-Looking Process, Funding Steps
JUL	Process Biases (Part 2), Low Scoring Projects, Emphasis on Safety Priority, One Factor Majority
JUL	1. Summarize findings to date and gather feedback 2. Identify any additional focus areas of analysis 3. Discuss preliminary recommendations
AUG	No Workshop
SEPT	Retreat Summary, Disconnect Between Need and Benefit Flexibility in Project Change Process, Project Performance

Application Process





Potential Issue Identified - Application Quality

Staff resources are stretched to dedicate to applicant support and application quality

- **Source – Data, VDOT Staff, OIPI Staff, CTB Members**
  - Data – 50% bigger SYIP program, same staff
  - Round 5 Data - Over 50% of submitted applications are “not ready” for scoring at full app submission (90% at pre-application)
  - Round 5 Data – 413 received and 152 recommended for funding (37% recommended for funding)
  - Round 5 Data – More applications are not an indicator of success
  - VDOT Staff Survey- Time and effort spent on document preparation that ultimately got screened out

Potential Solutions Identified - Application Quality

Improvement Areas - Project Eligibility, Readiness, Consensus, Portal

Potential Solutions

1. Project Eligibility – Reduce the application cap for all entities
2. Readiness & SMART Portal – Streamline document approvals before final submission
   – Change “conditional screen in” to “conditional screen out”
3. Readiness - Allow applicants to use their estimate if they agree to cover any shortfall* - VDOT does not validate the estimate
   – *Note this creates an unfair advantage in the scoring process
4. Delivery - Tie consensus funding decisions to performance in delivering projects

Potential Solutions Identified - Application Quality

Reduction in cap limit options

	Tier	Localities	MPO, PDC, or Transit Agency	Max Pre-Applications	Max Full Applications
Existing	1	< 200,000	< 500,000	5	4
	2	>= 200,000	>= 500,000	12	10
Option 1				4	3
				7	6
Option 2				3	2
				6	5

Potential Solutions Identified - Application Quality

Reduce application cap limits to 2 and 5 using Round 5 data

This resulted in a reduction of overall apps from 394 to 259

The overall success rate rose from 39% to 53%

For Principal Improvement Type

- Bike/Pedestrian applications fell from 97 to 55
- Highway applications fell from 294 to 201
- Bus Transit applications remained at 3

For Area Type

- Area Type A applications fell from 78 to 48
- Area Type B applications fell from 113 to 63
- Area Type C applications fell from 75 to 52
- Area Type D applications fell from 128 to 96

The average total cost of funded projects raised from $15.1M to $16.9M

The average total request of funded projects raised from $10.1M to $11.2M

Potential Solutions Identified - Application Quality

Workgroup Feedback

1. **Recommends reducing the application caps for all entities**
   - Focus on improving outcomes
   - Higher quality and focused on priorities
2. **Recommends solution for readiness & SMART Portal Streamline**
   - Provides earlier and targeted support to applicants
3. **Does not support solution to not validate estimates**
4. **Recommends solution to tie consensus funding decisions to performance in delivering projects**

Next Steps

- **June**
  - Process Biases (Part 1)
  - Forward-Looking Process
  - Funding Steps
- **July**
  - Process Biases (Part 2)
  - Low Scoring Projects
  - Emphasis on Safety Priority
  - One Factor Majority
  - Retreat (Discuss preliminary recommendations)
- **August**
  - No meeting

COMMONWEALTH *of* VIRGINIA

Office of the

SECRETARY *of* TRANSPORTATION

Thank you

DMV Now
Virginia Department of Motor Vehicles

Virginia Department of Aviation

DRPT
Virginia Department of Rail and Public Transportation

Office of Intermodal Planning and Investment

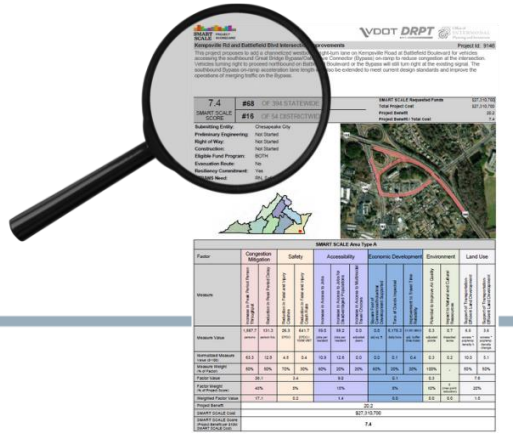
MVDB
Motor Vehicle Dealer Board
Commonwealth of Virginia

The Port of Virginia®

VDOT

Virginia Space

Sample Scorecard



SMART SCALE PROJECT SCORECARD

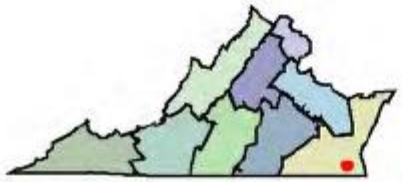
VDOT DRPT Office of INTERMODAL Planning and Investment

Kempsville Rd and Battlefield Blvd Intersection Improvements Project Id: 9146

This project proposes to add a channelized westbound right-turn lane on Kempsville Road at Battlefield Boulevard for vehicles accessing the southbound Great Bridge Bypass/Oak Grove Connector (Bypass) on-ramp to reduce congestion at the intersection. Vehicles turning right to proceed northbound on Battlefield Boulevard or the Bypass will still turn right at the existing signal. The southbound Bypass on-ramp acceleration lane length will also be extended to meet current design standards and improve the operations of merging traffic on the Bypass.

7.4 SMART SCALE SCORE	#68 OF 394 STATEWIDE	SMART SCALE Requested Funds	$27,310,700
	#16 OF 54 DISTRICTWIDE	Total Project Cost	$27,310,700
		Project Benefit	20.2
		Project Benefit / Total Cost	7.4

Submitting Entity:	Chesapeake City
Preliminary Engineering:	Not Started
Right of Way:	Not Started
Construction:	Not Started
Eligible Fund Program:	BOTH
Evacuation Route:	No
Resiliency Commitment:	Yes
VTRANS Need:	RN, Safety

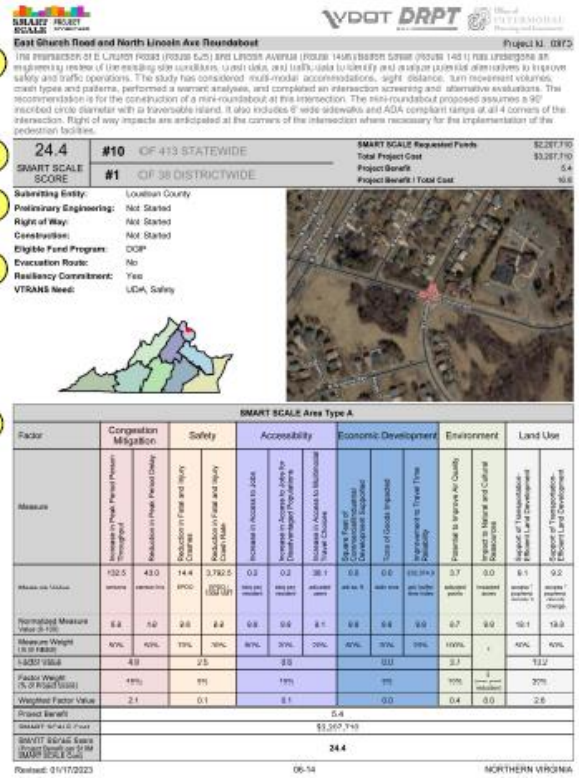


SMART SCALE Area Type A

Factor	Congestion Mitigation		Safety		Accessibility			Economic Development			Environment		Land Use	
Measure	Increase in Peak Period Person Throughput	Reduction in Peak Period Delay	Reduction in Fatal and Injury Crashes	Reduction in Fatal and Injury Crash Rate	Increase in Access to Jobs	Increase in Access to Jobs for Disadvantaged Populations	Increase in Access to Multimodal Travel Choices	Square Feet of Commercial/Industrial Development Supported	Tons of Goods Impacted	Improvement to Travel Time Reliability	Potential to Improve Air Quality	Impact to Natural and Cultural Reasources	Support of Transportation-Efficient Land Development	Support of Transportation-Efficient Land Development
Measure Value	1,567.7 persons	131.3 person hrs.	26.3 EPDO	641.7 EPDO / 100M VMT	59.0 jobs per resident	58.2 jobs per resident	0.0 adjusted users	0.0 adj sq. ft.	5,175.3 daily tons	21,031,900.0 adj. buffer time index	0.3 adjusted points	0.7 impacted acres	6.9 access * pop/emp density.h	3.6 access * pop/emp density change.
Normalized Measure Value (0-100)	63.3	12.8	4.8	0.4	10.9	12.6	0.0	0.0	0.1	0.4	0.3	0.2	10.0	5.1
Measure Weight (% of Factor)	50%	50%	70%	30%	60%	20%	20%	60%	20%	20%	100%	.	50%	50%
Factor Value	38.1		3.4		9.0			0.1			0.3		7.6	
Factor Weight (% of Project Score)	45%		5%		15%			5%			10%	5 (max point reduction)	20%	
Weighted Factor Value	17.1		0.2		1.4			0.0			0.0	0.0	1.5	
Project Benefit	20.2													
SMART SCALE Cost	$27,310,700													
SMART SCALE Score (Project Benefit per $10M SMART SCALE Cost)	**7.4**													

HOW TO READ A SCORECARD

A project scorecard is prepared for each project that is evaluated and scored. The scorecard is a snapshot of project information and scoring. The following provides a brief overview of the information contained in the scorecard.



1. **Project Overview:** Includes the project name, a short description of the project, and the application ID.
2. **Score Summary:** Provides the SMART SCALE score, rank, project cost, and benefit.
3. **Project Information:** Provides information about the project, applicant, delivery status, requested funding, and project need.
4. **Evacuation Route and Resiliency Commitment:** Per Virginia Code § 33.2-214.2 B. (ii), it is identified for the applicant whether such projects are located on a primary evacuation route. Per Virginia Code § 33.2-214.2 B. (iii), the applicant self-identifies, whether a project has been designed to be or the project sponsor has committed that the design will be resilient.
5. **How to calculate the SMART SCALE Score using the Scoring Table:**
   1. The *Measure Value* is determined by assessing the data and characteristics of the project and is then normalized as a percentage of the highest *Measure Value* in that year's cohort of projects.
   2. The *Normalized Measure Value* is then multiplied by the *Measure Weight*.
   3. *Normalized Measure Values* are then summed to equal the *Factor Value*.
   4. The *Factor Value* is then multiplied by the appropriate *Factor Weight* for the area type of the project.
   5. *Project Benefit* is then calculated from the sum of the *Weighted Factor Values*.
   6. The *SMART SCALE Score* is calculated by taking the *Project Benefit* and dividing by the *SMART SCALE Cost* (in tens of millions).

Explanations of Measures Values:

- Congestion Mitigation
  - Person throughput is the projected increase in persons moving through the project limits during the peak period for current year.
  - Delay is the projected reduction in cumulative time for all persons to move through the project limits for current year.
- Safety
  - Reduction of fatal and injury crashes and crash rate is calculated using the Equivalent Property Damage Only (EPDO) methodology used by FHWA. This equates all crash severities on the same scale by assigning a higher weight to fatal and injury crashes than those that are property damage only.
  - Crash rate reduction is determined by the number of crashes per 100 Million Vehicle Miles Traveled (VMT). This measure also uses the EPDO methodology stated in the first safety measure.
- Accessibility
  - Access to jobs is the number of jobs to which each person has access within 45 minutes (60 minutes for transit projects). The total number of jobs divided by the population equates to jobs per person.
  - Access to jobs for disadvantaged populations is calculated in the same manner as the first Accessibility measure, only for a particular subset of the population.
  - Increase to multimodal travel choices is determined by how the project supports travel choices and the connections between modes. Points are assigned based on project characteristics, and are then multiplied by the number of non-single occupancy vehicle users.
- Economic Development
  - Square Feet of Commercial and Industrial development supported uses either 50% or 100% of each development's square footage based on the proximity of the development to the project. A point value is then determined based on how the project fits with local and regional economic plans and policy, and is multiplied by the adjusted square feet of development.
  - Tons of goods impacted determines the amount of daily freight tons impacted by the project and multiplies the tonnage by a point value based on certain criteria.
  - Improvement to travel time reliability uses weather event frequency and impact as well as incident frequency and impact along with a buffer index to evaluate the improvement in travel time reliability. This value is multiplied by corridor Vehicle Miles Traveled (VMT) to scale the results.
- Environment
  - Potential to improve air quality based on project benefits to non-single occupancy vehicle (SOV) users and reduced delay for freight movement.
  - Evaluates potential natural and cultural acreage impacted using a tiered buffer around the project limits, and is a subtractive measure based on the total potential sensitive acreage impacted.
- Land Use
  - Future Transportation Efficient Land Use measure reports a project's non-work accessibility scaled by the surrounding area's 2030 population and employment density.
  - Increase in Transportation Efficient Land Use measure reports a project's non-work accessibility scaled by the surrounding area's 2010 to 2030 increase in population and employment density.

For more information, please reference the SMART SCALE Technical Guide.

COMMONWEALTH of VIRGINIA
Office of the
SECRETARY of TRANSPORTATION

SMART SCALE Process Review Update

June 20, 2023

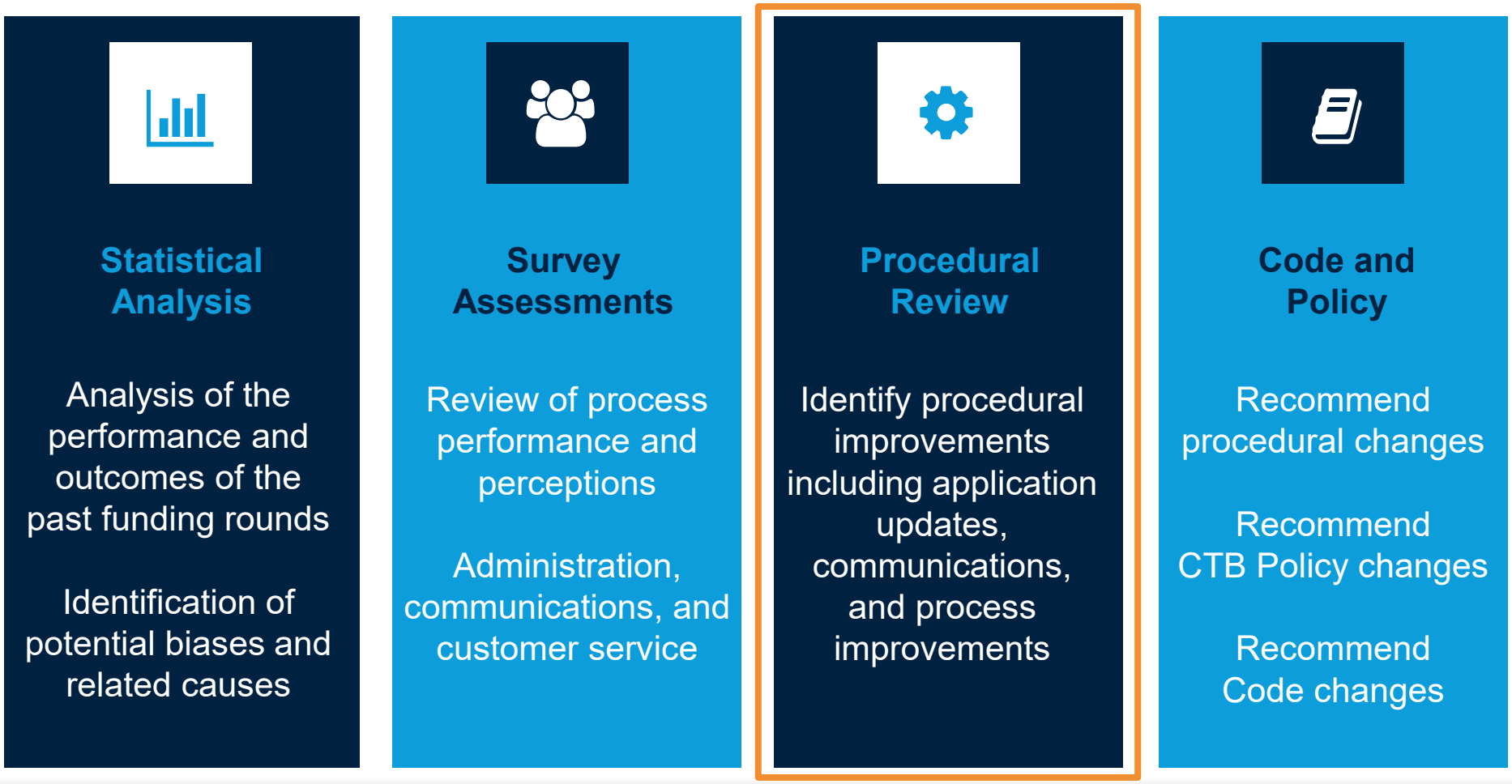
Overview

- **Process Bias Analysis**
  - **Project Size**
    - Small Project Preference
  - **Project Types**
    - Bike & Ped Preference
  - **Findings**
- **Scoring and Funding Analysis**
  - **One-factor Majority Impacts**
    - Land Use
  - **Funding Approach**
    - HPP Definition
    - Funding Scenario Step 2
  - **Findings**

Overview

- Potential Process Changes
- Revisit Previous Recommendations
- Schedule and Next Steps

Key Components of SMART SCALE Process Review



Process Bias Analysis
Small Project Preference

$$$
Project Size

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

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

Yes

59% of external respondents think *the current process is biased in some way*

No

41% of external respondents think *the current process is not biased in some way*

Process Bias Analysis
Small Project Preference

$$$
Project Size

- **When referring to "Small Projects", interpreted as low-request (<$10M)**
  - 60% of all applications are Small Projects
  - 95% of Small Projects have a total cost of less than $10M

- **Small Projects vs. Large Projects comparison**
  - 1,092 Small Projects submitted / 823 Large Projects submitted
  - $4.8B Small Projects requested / $33.1B Large Projects requested
  - 558 Small Projects funded* / 154 Large Projects funded
  - $2.1B Small Projects funded / $4.2B Large Projects funded

**The term "funded" represents projects recommended for funding in the staff scenario throughout the presentation*

Process Bias Analysis
Funded Small Projects

$$$
Project Size

- Based on the number of projects, Small Projects were just over 2X more successful than larger projects.
- The average project funded amount is $8.9M.
- The average amount requested for all projects is $19.8M.

Success rate for Small Projects across all area types (558 projects) **51%**

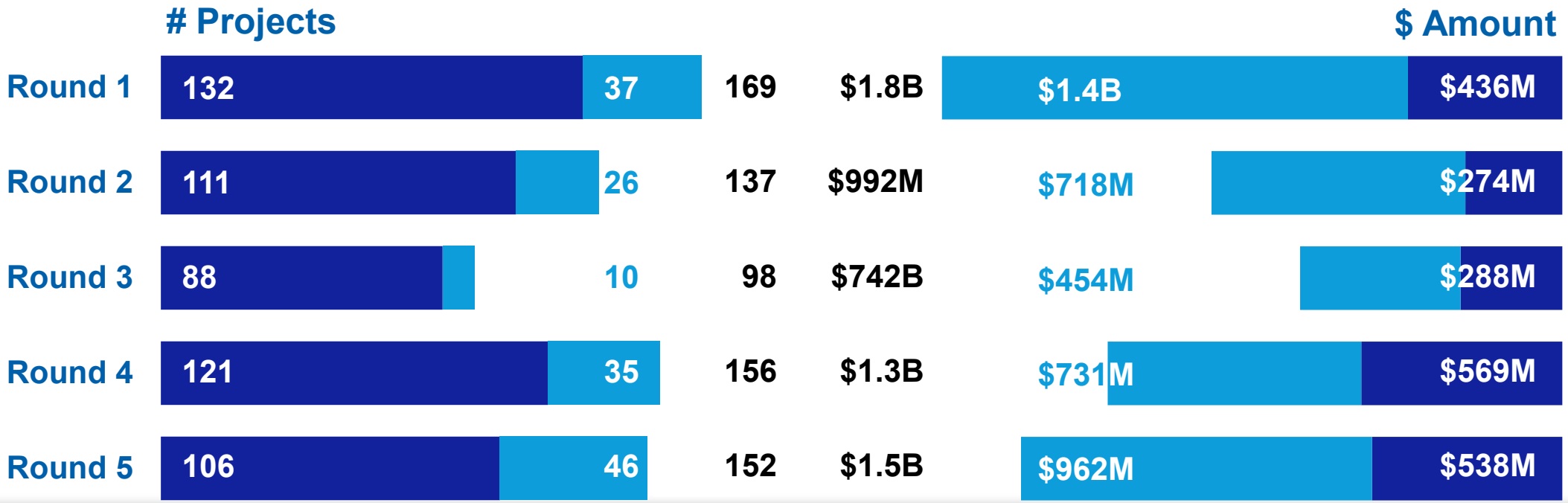
Success rate for projects greater than $10M across all area types (154 projects) **19%**

Process Bias Analysis
Funded Small Projects

$$$
Project Size

- Small Projects account for 78% of all funded projects.
- Small Projects account for 33% of the total funded amount.

Small Funded Projects vs. Large Funded Projects, with Total Funded Projects

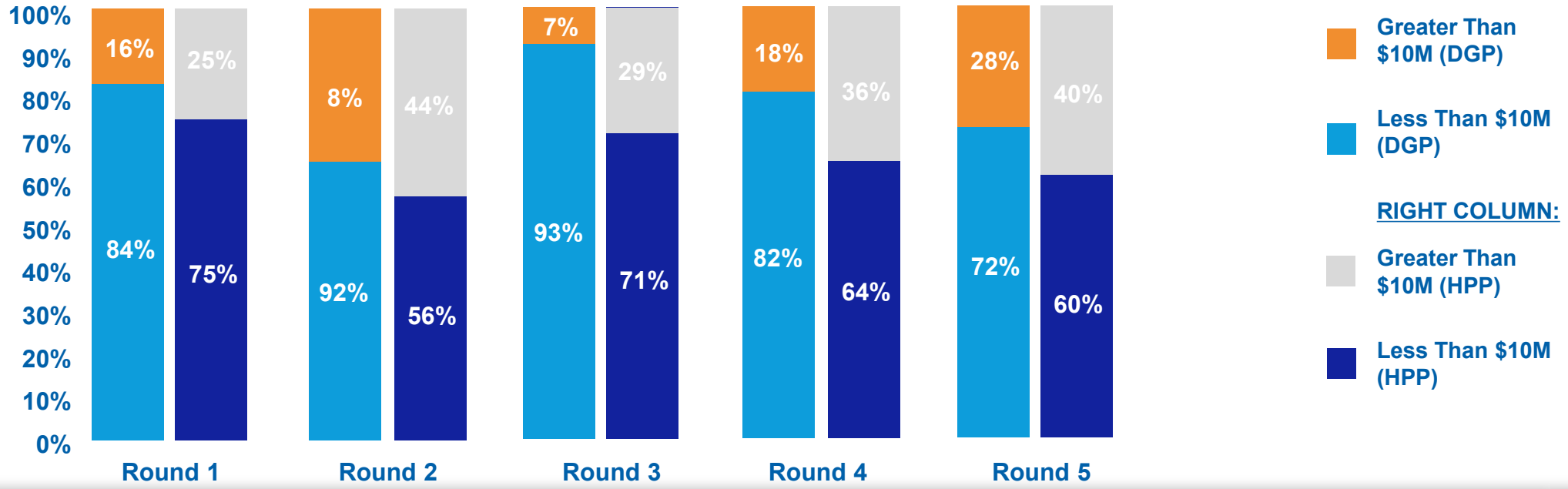


Process Bias Analysis
Funded Small Projects by Program - Counts

$$$
Project Size

- Overall, based on the number of projects, most funded projects in both DGP and HPP are small.
- In HPP, based on the number of projects, 60% are small.

of Funded Projects (DGP and HPP)

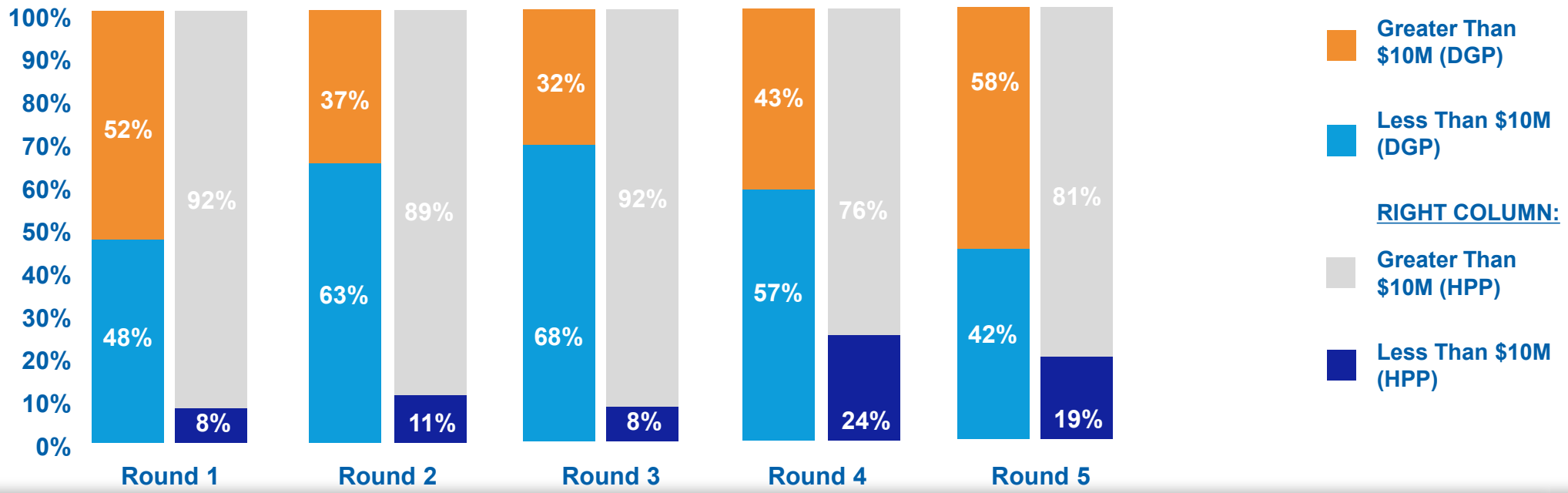


Process Bias Analysis
Funded Small Projects by Program - $ Amount

$$$
Project Size

- In DGP, Small Projects are getting roughly equal the amount of funding compared to larger projects.
- In HPP, the funded amount of Small Projects in Rounds 4 & 5 was 21% higher than in Rounds 1, 2, & 3 combined.

$ Amount (DGP and HPP)



Process Bias Analysis
Types of Small Projects

$$$
Project Size

- **Typical Small Projects may include**
  - Highway Principal Improvement Type* – Intersection or turn lane improvements, innovative intersections, roadway widenings, access management
    - Typically, less than a half mile in length
  - Bike & Ped Principal Improvement Type – Sidewalk projects, shared-use paths, bike lanes, improve crossings
    - Typically, less than 1 mile in length
  - Bus Transit Principal Improvement Type – New Routes, Stop Improvements

**Principal Improvement Type means the largest component of the application. SMART SCALE applications are largely multi-modal with 50% of all Highway Principal Improvement Type projects having Bike & Ped components.*

Process Bias Analysis
Prevalence of Bike & Ped Projects

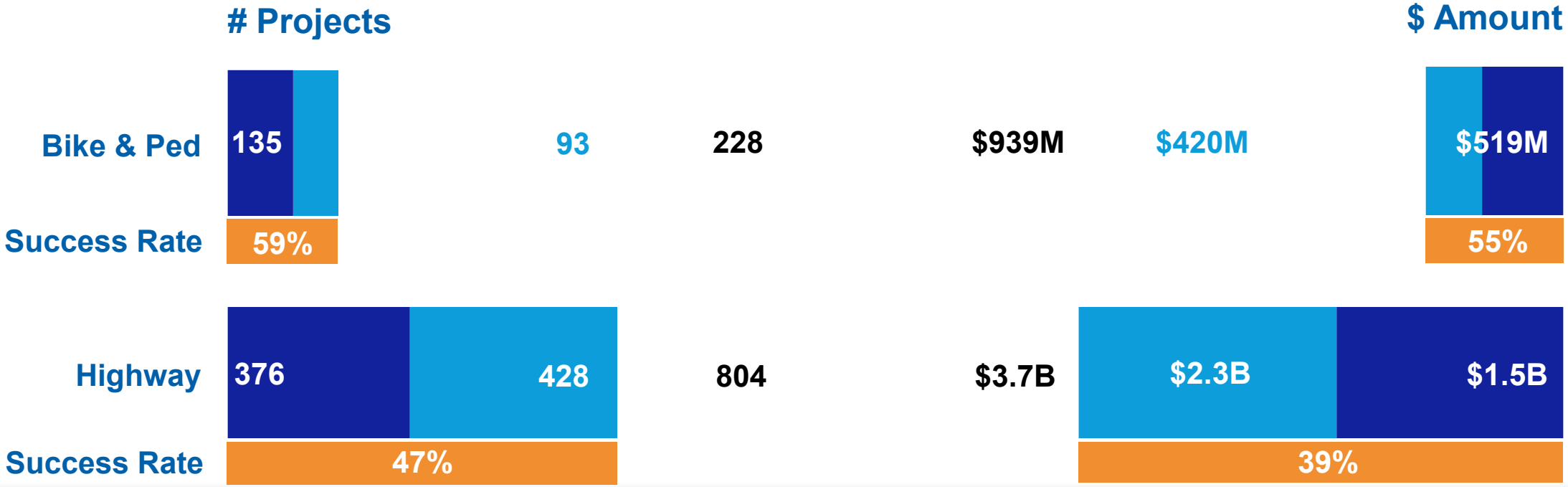
- **For all Small Projects (all principal improvement types):**
  - Highway projects comprise 74% of projects submitted (804 out of 1,092 projects)
  - Highway projects comprise 67% of funded projects (376 out of 558 projects)
  - Bike & Ped projects comprise 21% of projects submitted (228 out of 1,092 projects)
  - Bike & Ped projects comprise 24% of funded projects (135 out of 558 projects)

Process Bias Analysis
Success of Bike & Ped Projects

$$$
Project Size

- Overall, small Bike & Ped projects were more successful than small Highway projects.

Small Projects (Funded vs. Unfunded) and Submitted, with Success Rate

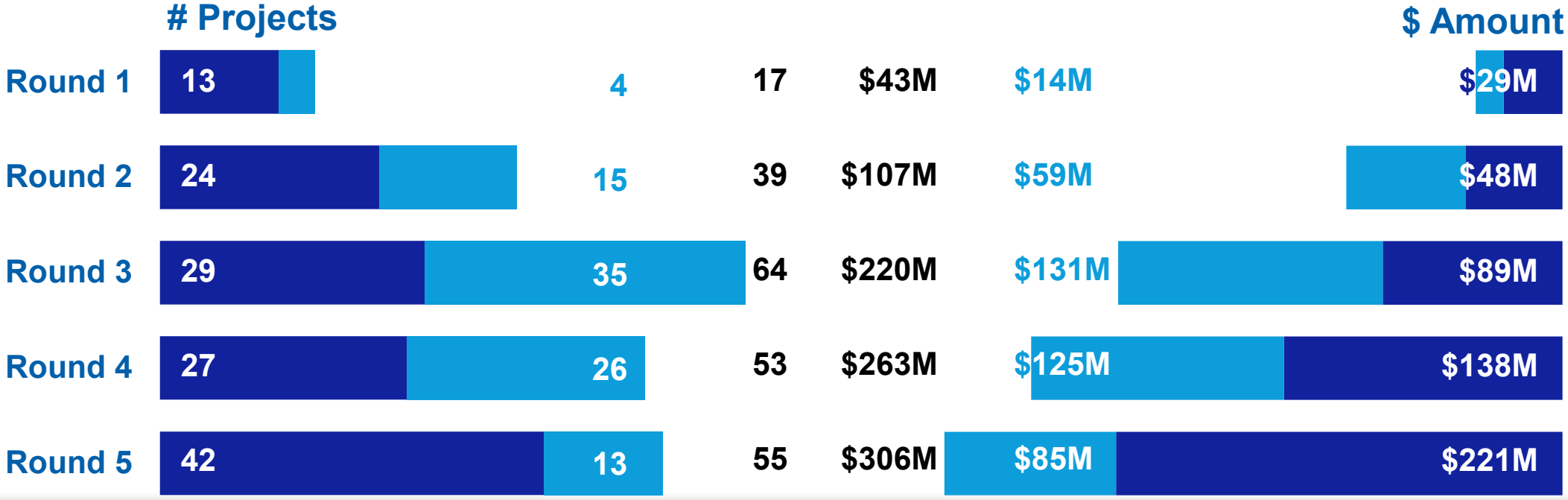


Process Bias Analysis
Number of and Funding for Small Bike & Ped Projects

Bike & Ped

- Small Bike & Ped projects have steadily increased in terms of number of projects and funding amounts both submitted and recommended.

Funded Small Bike & Ped vs. Unfunded Small Bike & Ped, with Total Submitted Small Bike & Ped



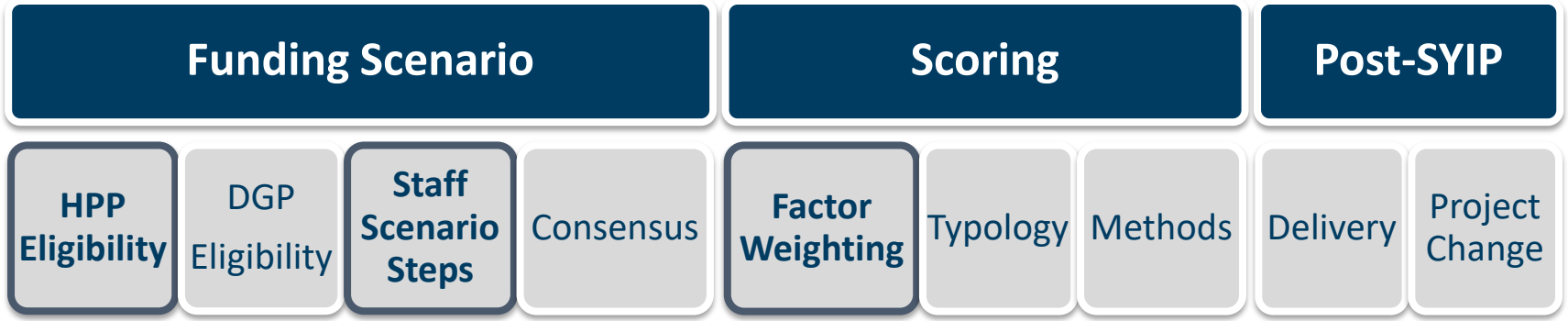
Findings
Small Project Size Perception

$$$
Project Size

- **Small Projects were funded just over 2X more often than larger projects**
- **Overall, small Bike & Ped projects were more successful than small Highway projects**
- **Small Projects account for 78% in project count and 33% of the total funded amount**
  - Bike & Ped projects received 25% of the total funding for Small Projects compared to 69% for Highway projects
- **Average SMART SCALE request has decreased between Rounds 1 and 4**
- **Bike & Ped projects have steadily increased in terms of the number of projects and funding amounts both submitted and recommended**
  - Funded amounts for Bike & Ped projects increased in HPP in Rounds 4 and 5

Scoring and Funding Analysis

1. In the Scoring Process – Land use factor contributes significantly to funded projects scores
2. In the Funding Scenario Process - HPP dollars facilitate funding small project request projects



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

Scoring and Funding Analysis
One-factor Majority Impact

- **Land Use factor drives total benefits, at a rate of 2X from Round 1 to Round 5**
- **Land Use was expanded to Type C & D in Round 5**

Percent of Funded Project Benefit by Factor Area

Round	Safety	Congestion	Accessibility	Land Use	Economic Development	Environment
1	28%	9%	2%	23%	24%	14%
2	28%	15%	6%	24%	18%	10%
3	37%	5%	4%	24%	16%	15%
4	36%	8%	6%	31%	7%	12%
5	28%	5%	7%	49%	4%	7%

Greater than 40% of total benefit score

Scoring and Funding Analysis
One-factor Majority Impact
In Small Projects

- **In round 5, the smaller the project, the greater the Land Use benefit**

Percent of Land Use Benefit by Funded Project Cost

Round	Applicable Area Type	ALL	<$10M	$10M-$20M	$20M-$30M	$30M-$40M	$40M-$50M	>$50M
1	AB	23%	21%	35%	35%	10%	2%	7%
2	AB	24%	25%	22%	21%	0%	-	8%
3	AB	24%	24%	19%	-	0%	-	30%
4	AB	31%	32%	24%	67%	18%	9%	8%
5	ABCD	49%	55%	43%	32%	7%	-	0%

Greater than 40% of total benefit score

Scoring and Funding Analysis
One-factor Majority Impact
In Bike & Ped Projects

- Compared to all types, Bike & Ped projects have the most Land Use benefit
- Twice the amount in Bike & Ped when compared to Highway projects

Percent of Land Use Benefit by Funded Project Type

Round	ALL	Bike/Ped	Highway	Bus Transit	Rail Transit	TDM
1	23%	49%	19%	35%	95%	17%
2	24%	40%	18%	35%	13%	46%
3	24%	28%	17%	41%	69%	54%
4	31%	60%	20%	60%	8%	38%
5	49%	74%	37%	64%	-	-

Greater than 40% of total benefit score

Scoring and Funding Analysis
One-factor Majority Impact
Current Land Use Scoring Methods

- **Current Land Use method is more related to project location than to expected project outcomes**
  - Scores existing walk access to key non-work destinations such as grocery, healthcare, education, etc. in the vicinity of the proposed transportation improvement
  - Weighted based on population and employment density
- **Land Use was expanded to Type C & D in Round 5**
- **In Round 5 - funded projects a significant portion of overall benefit points from Land Use**
  - 77 projects funded (out of 152) had over 50% of the benefit score from Land Use
  - Of those 40 projects funded had over 80% of the benefit score from Land Use

Potential Process Changes
Modifications to Land Use Factor

Scoring

Factor Weighting | Typology | Methods

- **Modify the Factor Weighting for the Land Use factor**
- **Adjustments to other factor areas (will be discussed in July)**

- **Continue to use Land Use Factor to encourage land-use and transportation coordination**
- **No change to the way Land Use is calculated today**
- **Modify how Land Use weighting is applied**
  - Enhances the benefits of the project based on where it is located
  - Land Use Factor would be used to increase benefit points in other factor areas
  - Prevents Land Use from being the sole driver of success

Potential Process Changes
Modifications to Land Use Factor - Scenario

- **Funded Small Projects were reduced from 106 to 41.**
- **Funded Bike & Ped Principal Improvement Types were reduced from 51 to 20.**

The average total cost of funded projects raised from $15.1M to $18.3M

The average total request of funded projects raised from $10.1M to $11.8M (removes 28 projects)

For Principal Improvement Type

- **Bike & Ped -** 51 to 20
- **Highway -** 98 to 102
- **Bus Transit -** 3 to 2

For Area Type

- **A -** 39 to 29
- **B -** 34 to 24
- **C -** 23 to 19
- **D -** 56 to 52

Potential Process Changes
Refine HPP Definition

Funding Scenario

HPP Eligibility | DGP Eligibility | Steps | Consensus

- **Refine the HPP definition, which is largely implemented through CTB Policy.**
- **Current CTB Policy defines the *where* through VTrans, but not the *what.***

- **Code of Virginia § 33.2-370**
  - *"High-priority projects" means those* ***projects of regional or statewide significance****, such as projects that reduce congestion or increase safety, accessibility, environmental quality, or economic development"*
- **Policy defines *where* - Corridors of Statewide Significance and Regional Networks**
- **Define *what***
  - Consider projects that **include** feature types - New Capacity Highway, Managed Lanes, New or Improved Interchanges, New or Improved Passenger Rail Stations or Service, Freight Rail improvements, Fixed Guideway Transit

Potential Process Changes
Current Funding Steps

- **Funding Small Projects with HPP dollars.**

- **Allocation steps are used to develop staff recommended funding scenario**
  - Step 1 allocates DGP on a district-wide basis
  - Step 2 allocates HPP on a district-wide basis
  - Step 3 allocates HPP on a statewide basis
- **HPP has not grown since Round 2, however, the DGP is now enhanced by the Supplemental District Grant (SDG) revenues**

Potential Process Changes
Eliminate Step 2

Funding Scenario

HPP Eligibility | DGP Eligibility | **Steps** | Consensus

- **Eliminate Step 2, Prioritize all HPP statewide by SMART SCALE Score.**
- **Smaller projects are being submitted as Step 2 eligible (MPO/PDC/Transit Only).**
- **Small Bike & Ped submitted in Step 2 has increased from 1 (RD 1&2) to 32 RD 5.**

Step 2 Eligible by Round

Round	Step 2 Eligible Number Submitted	Step 2 Eligible Average Request	Step 2 Eligbile Number Funded	Step 2 Eligible Average Funded
1	48	$57M	23	$4 M
2	45	$37 M	10	$2 M
3	72	$38 M	11	$7 M
4	82	$16 M	33	$8 M
5	81	$ 19 M	28	$10 M

Potential Process Changes
Refine HPP Definition - Scenario

Funding Scenario

HPP Eligibility | DGP Eligibility | Steps | Consensus

- **Steps 2 and 3 average project size rose from $15.6M (30 projects) to $76.2M (6 projects).**
- **All Bike & Ped Principal Improvement Types were removed from HPP.**

The average total cost of funded projects rose from $15.1M to $18.0M

The average total request of funded projects rose from $10.1M to $11.8M (removes 24 projects)

For Principal Improvement Type

- **Bike & Ped -** 51 to 38
- **Highway -** 98 to 88
- **Bus Transit -** 3 to 1

For Area Type

- **A -** unchanged at 39
- **B -** 34 to 24
- **C -** 23 to 17
- **D -** 56 to 48

Potential Process Changes
Eliminate Step 2 - Scenario

- **SMART SCALE review highlighted favor of Small Projects.**
- **Smaller projects get funded in both DGP and HPP.**
- **Importance of refining the definition of HPP-eligible project.**

The average total cost of funded projects fell from $15.1M to $11.1M

The average total request of funded projects fell from $10.1 M to $9.8 M (adds 14 projects)

For Principal Improvement Type

- **Bike & Ped -** 51 to 56
- **Highway -** 98 to 107
- **Bus Transit -** unchanged at 3

For Area Type

- **A -** 39 to 42
- **B -** 34 to 40
- **C -** 23 to 28
- **D -** unchanged at 56

Potential Process Changes
Potential Solutions Combined

Funding Scenario

HPP Eligibility | DGP Eligibility | Steps | Consensus

- **Combining the scenarios balances the two HPP solutions.**
- **HPP average funded went from $15.6M (30 projects) to $31.8M (17 projects).**
- **Bike & Ped Principal Improvement types reduced from 51 to 15.**

The average total cost of funded projects rose from $15.1M to $20.5M

The average total request of funded projects rose from $10.1M to $13.2M (removes 34 projects)

For Principal Improvement Type

- **Bike & Ped -** 51 to 15
- **Highway -** 98 to 103
- **Bus Transit -** 3 to 0

For Area Type

- **A -** 39 to 30
- **B -** 34 to 26
- **C -** 23 to 18
- **D -** 56 to 44

Revisit Previous Recommendations
Application Cap Limit

Addresses Small Project Bias

- Forces applicants to prioritize submissions focused on priorities.
- In the testing scenario, the overall project cost/size was increased in funded projects.
- Anticipate reduction in Small Projects as a result of cap limit reduction.

Schedule and Next Steps

JUNE	Process Biases (Part 1), One Factor Majority, Funding Steps
JULY	Process Biases (Part 2), Low Scoring Projects, Emphasis on Safety Priority, Forward-Looking Process
JULY Retreat	Summarize findings to date and gather feedback, Identify any 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	TBD
DEC	Policy Adoption

COMMONWEALTH *of* VIRGINIA

Office of the

SECRETARY *of* TRANSPORTATION

DMV Now
Virginia Department of Motor Vehicles

Virginia Department of Aviation

DRPT
Virginia Department of Rail and Public Transportation

Office of Intermodal Planning and Investment

MVDB
Motor Vehicle Dealer Board
Commonwealth of Virginia

The Port of Virginia®

VDOT

Virginia Space

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 Analysis**
  - Overview
  - Forward-Looking Congestion Factor
  - Forward-Looking Economic Development
- **Public Outreach Updates**
  - SMART SCALE Website
  - Schedule and Next Steps

Urban Preference Survey Response

Urban vs. Rural

- 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

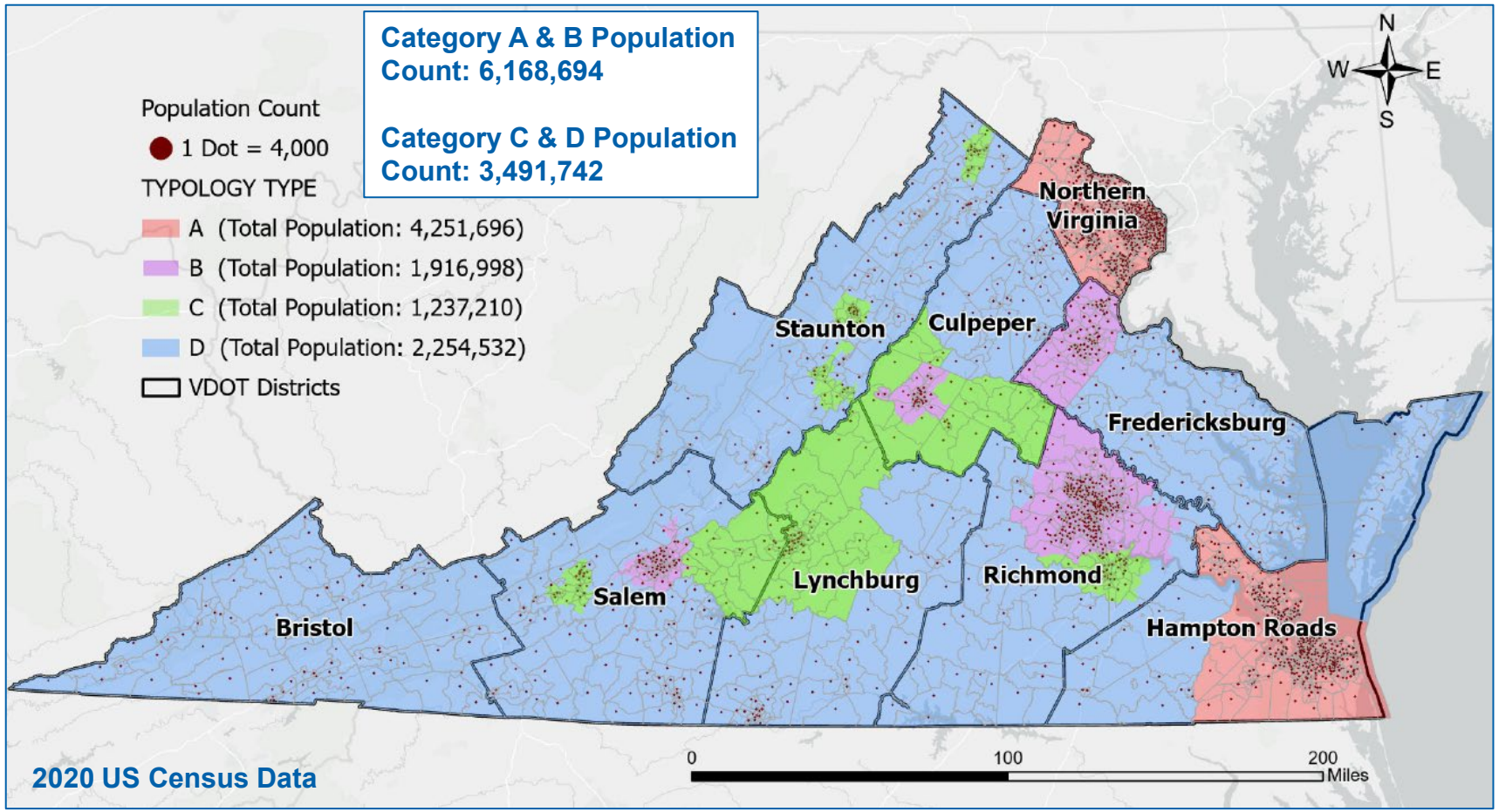
- **Weighting typologies were established by CTB resolution in 2017**
  - Based on a robust public involvement process, it was determined that needs within each construction district are often diverse
  - The four weighting frameworks are assigned by planning district commission (PDC) and metropolitan 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 vs. Rural



Note: Some regions and counties encompass more than one Area Type and overlap. Thus, the sum of all 4 Area Types will NOT be equal to the census total.

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 is similar**
  - Significant funding difference in HPP (83% urban vs. 17% rural)
  - Funding for projects in rural areas increased in Rounds 4 & 5

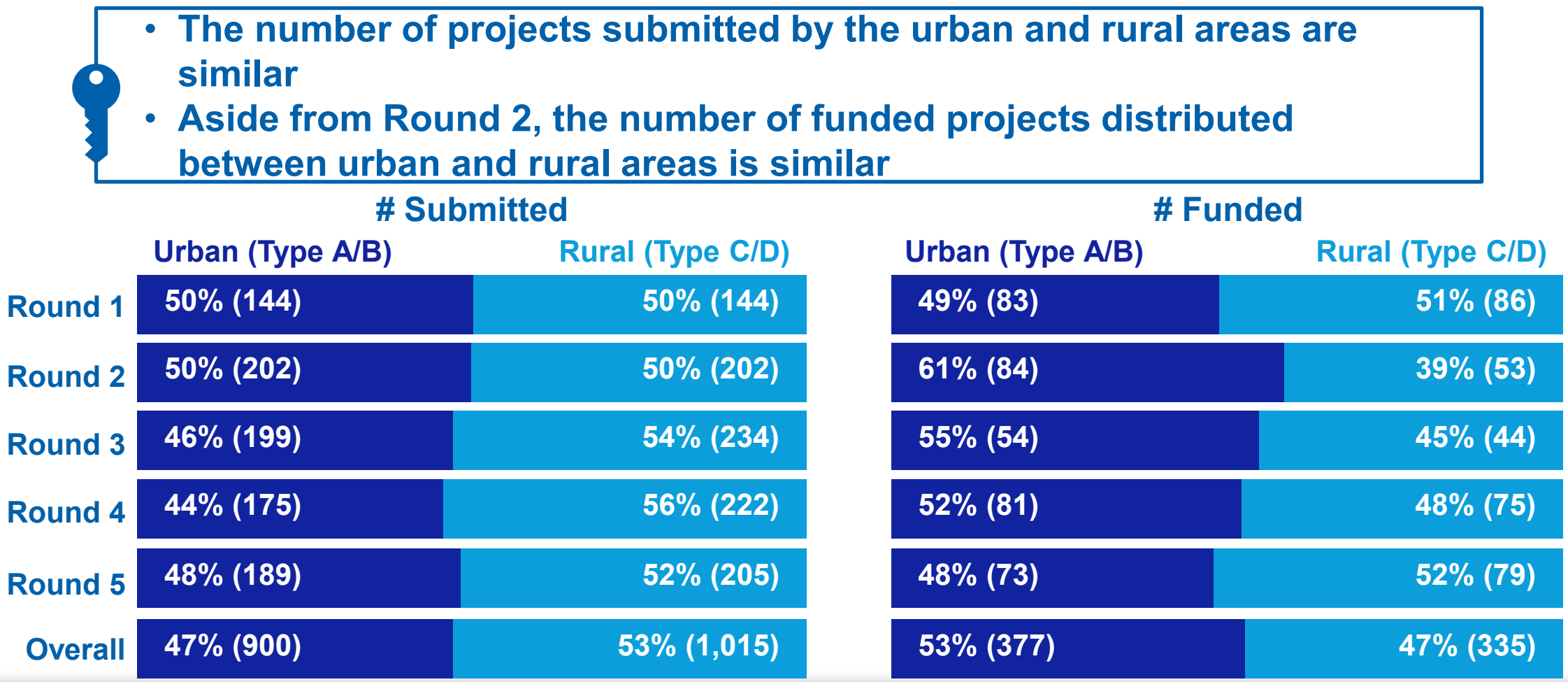
- **The success rates based on the number of projects are higher for urban projects and the success rates based on the amounts funded are comparable**

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

Urban Preference
Submitted & Funded Projects – Count

Urban vs. Rural

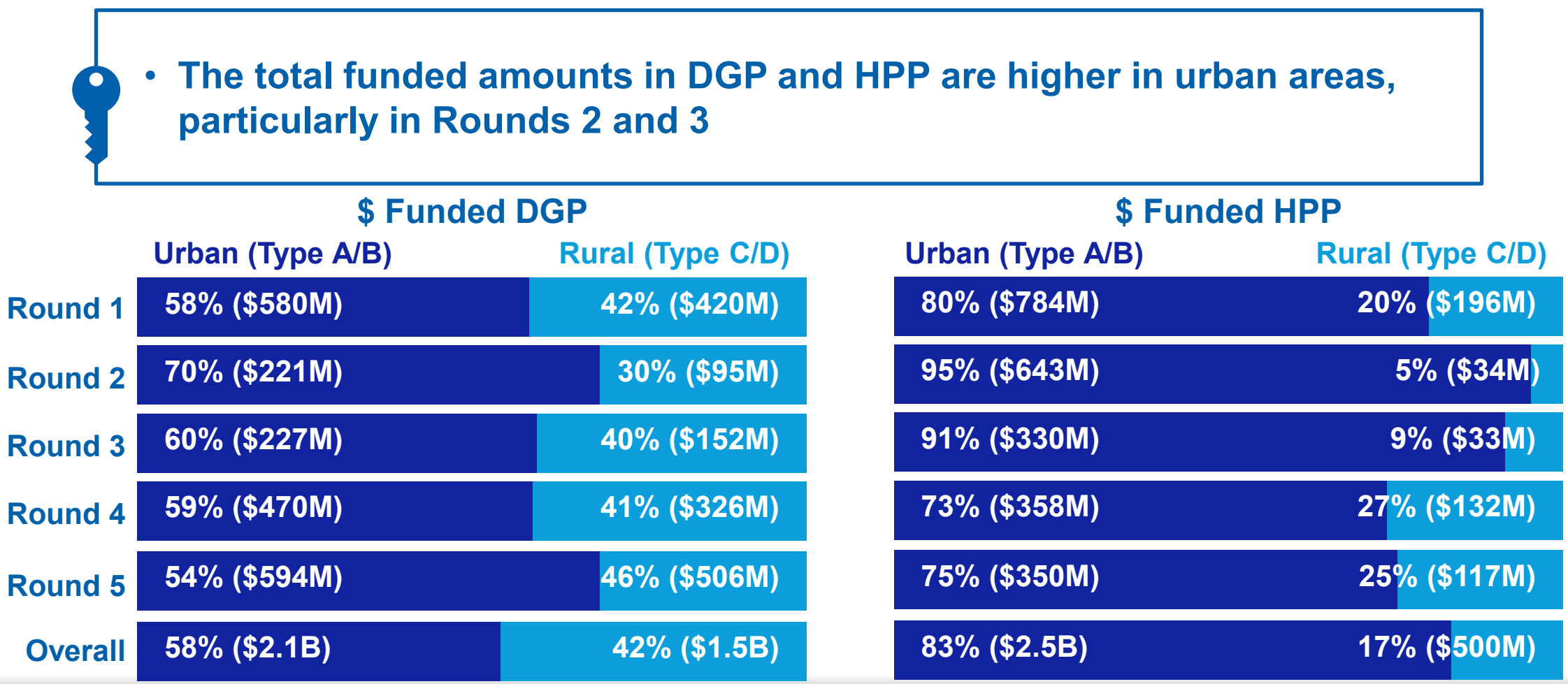
- The number of projects submitted by the urban and rural areas are similar
- Aside from Round 2, the number of funded projects distributed between urban and rural areas is similar



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

Urban vs. Rural

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



Urban Preference
Success of Funded Projects

Urban vs. Rural

- 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

	Urban (Type A/B)	Rural (Type C/D)
Round 1	57%	61%
Round 2	42%	26%
Round 3	27%	19%
Round 4	47%	34%
Round 5	38%	39%
Overall	41%	34%

$ Funded

Urban (Type A/B)	Rural (Type C/D)
22%	32%
15%	7%
12%	7%
19%	24%
16%	23%
17%	16%

Urban Preference Conclusion

- **There is not a consistent bias toward urban projects in the SMART SCALE program**
  - Urban area projects have a higher success rate than rural area projects based on the number of projects, however, the success rate for the amount funded between urban and rural projects is even
  - Submitted and funded amounts were higher in urban areas, especially in HPP funding
    - Overall, the ratio of submitted and funded amounts is similar
  - Rural area projects received a higher share funded 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)**

Yes	**80%**
No	**20%**

Leveraged Project Preference Policy & Perceptions

- **The CTB 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

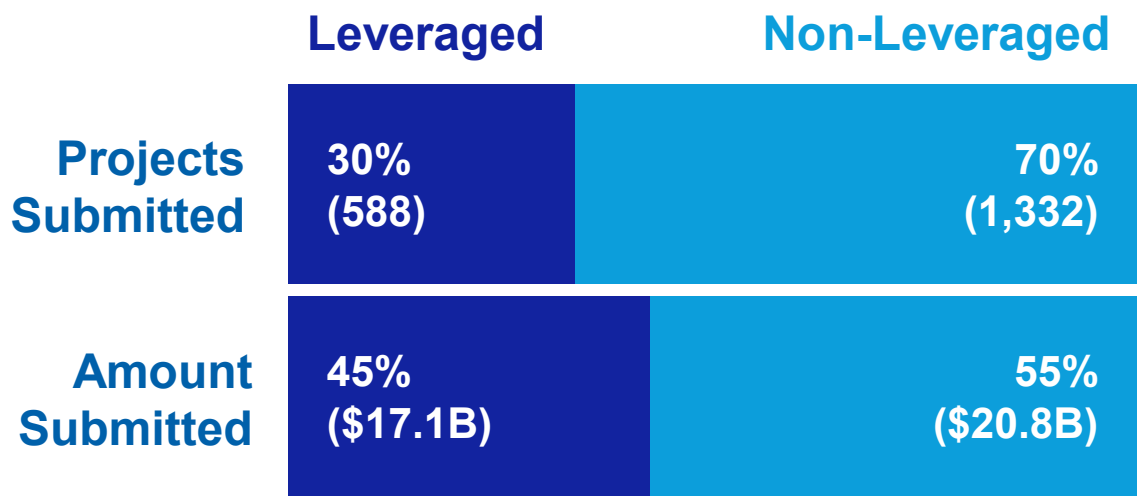
- **Perceptions:**
  - Leveraged projects are more successful than non-leveraged projects
  - Urban areas are more likely to have leveraged projects

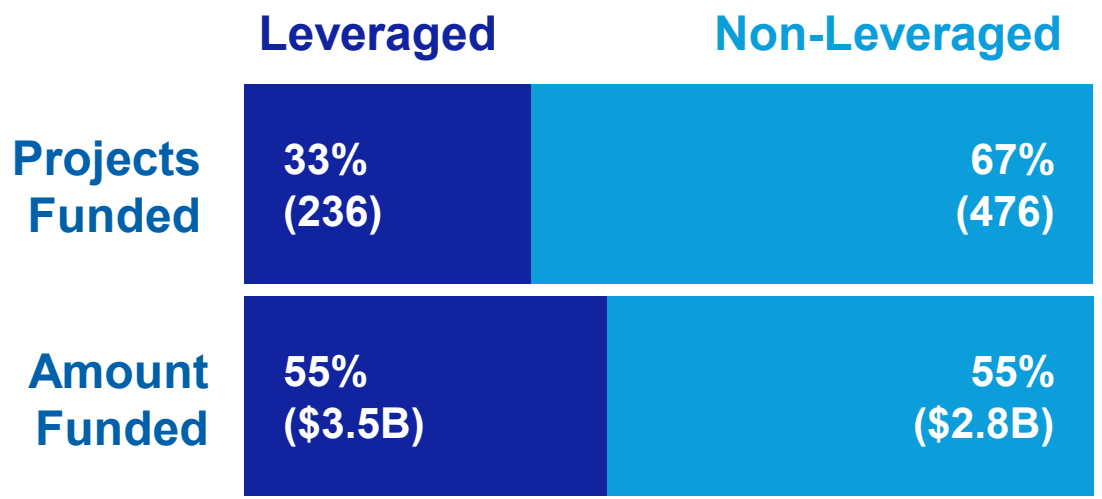
Leveraged Project Preference Findings

- **One-third of the number of funded projects have leveraged funding, representing 55% of the total amount funded**
  - $3.5B in SMART SCALE funding has supported 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





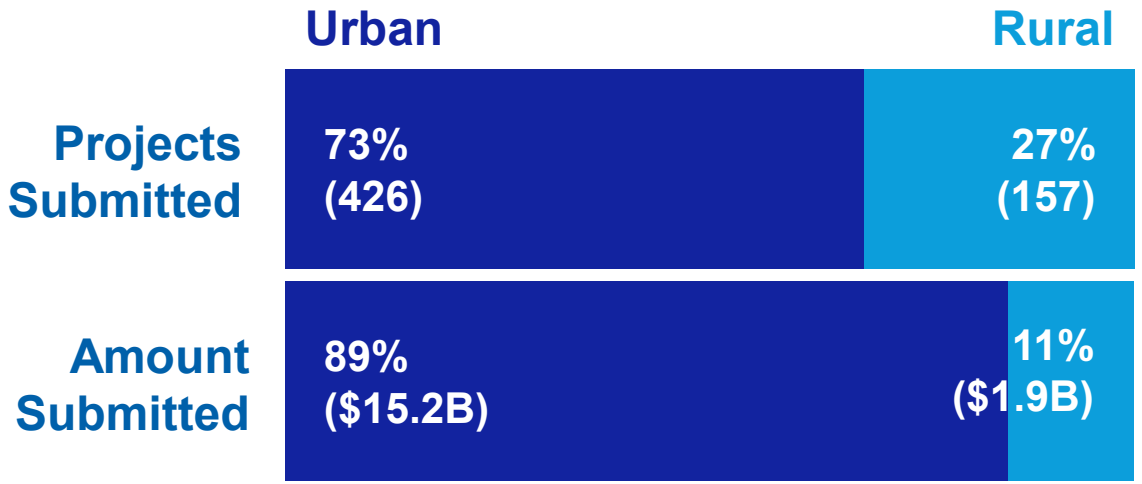
Leveraged Project Preference
Success Rate Leveraged vs. Non-Leveraged

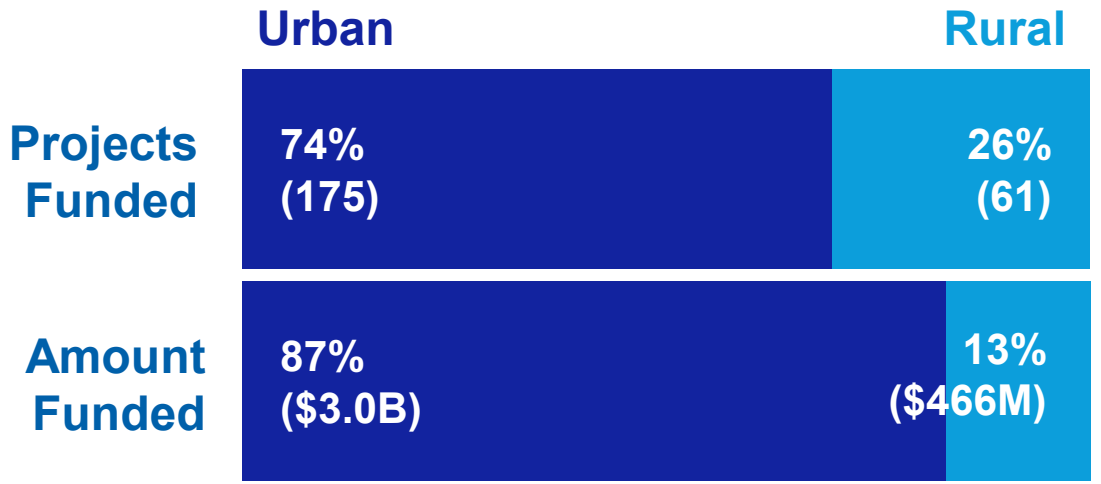
- The success rates of the number of leveraged projects and the amount funded were slightly higher than the non-leveraged projects

	# 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

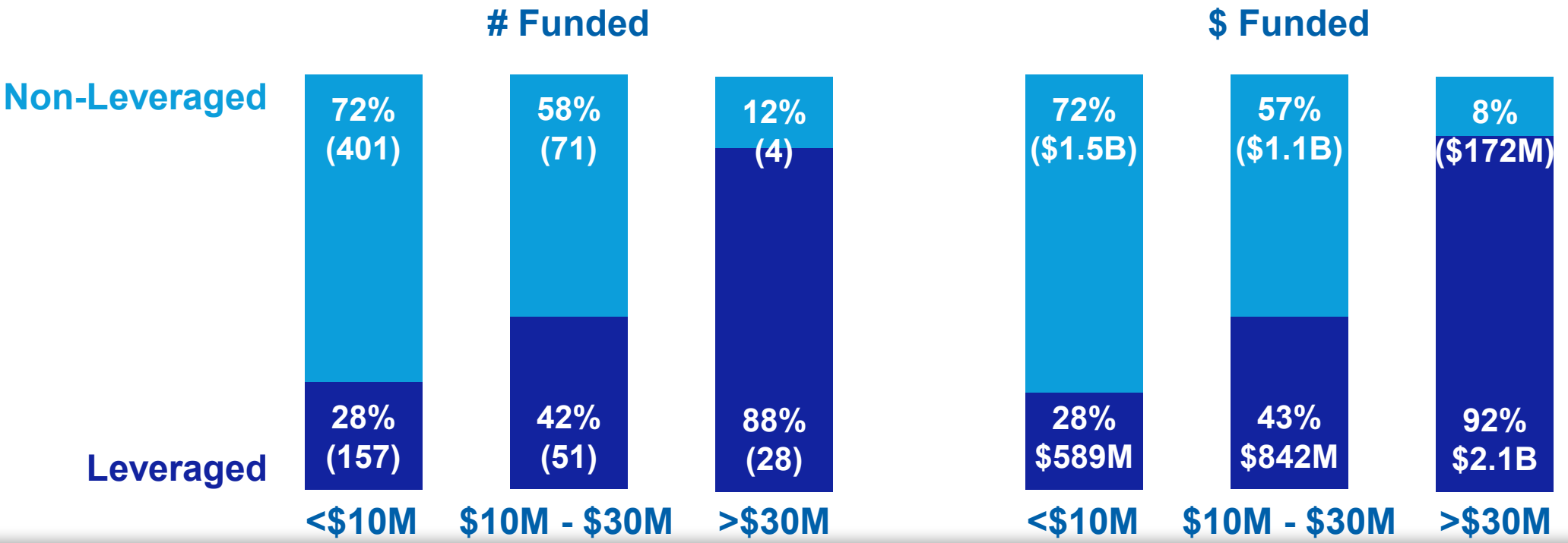
- The success rate for the number of leveraged projects was slightly higher for urban areas than rural areas but lower for amount funded

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)

Leveraged Project Preference Comparison by Funding Tier

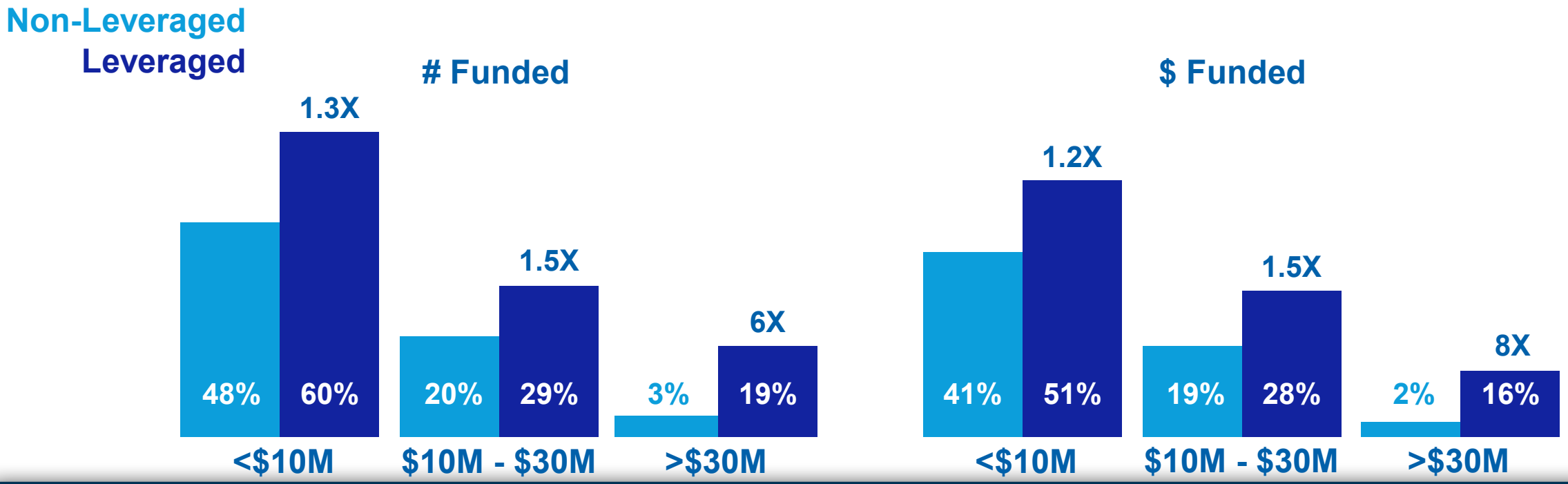
- Leveraged projects make up substantial number and amount of funded projects with SMART SCALE funding greater than $30M



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

$ $
Leveraged Funding

- For SMART SCALE funded projects greater than $30M, leveraged projects had at least 6X higher success rate than non-leveraged projects for number of projects funded and 8X higher for amount funded

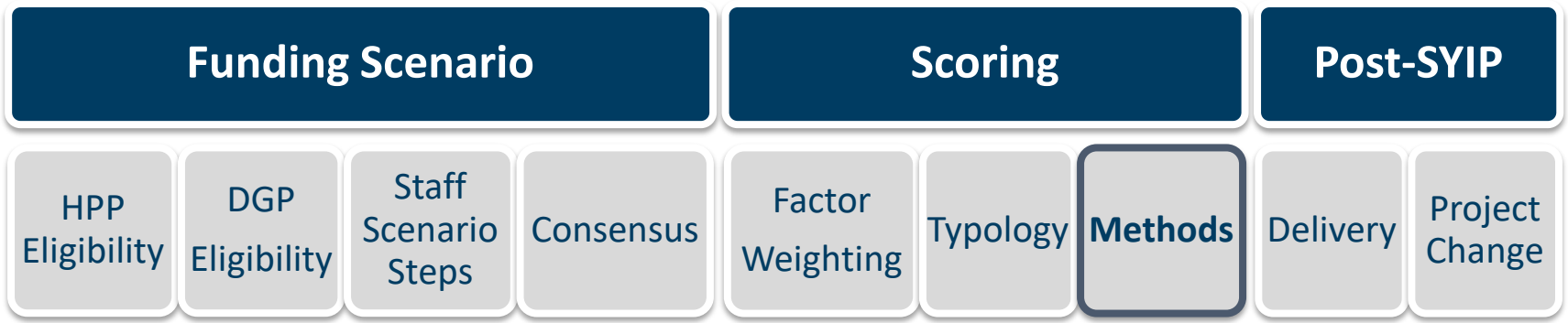


Leveraged Project Preference Conclusion

- **While leveraged projects generally have slight edge over non-leveraged projects overall, the advantage is much more prominent for SMART SCALE funded projects greater than $30M**
  - At least 6X higher success rate based on project count and 8X higher success rate on amount funded for leveraged projects compared to non-leveraged projects
- **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 supported $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

- **Project design requirements are based on 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

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

- **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

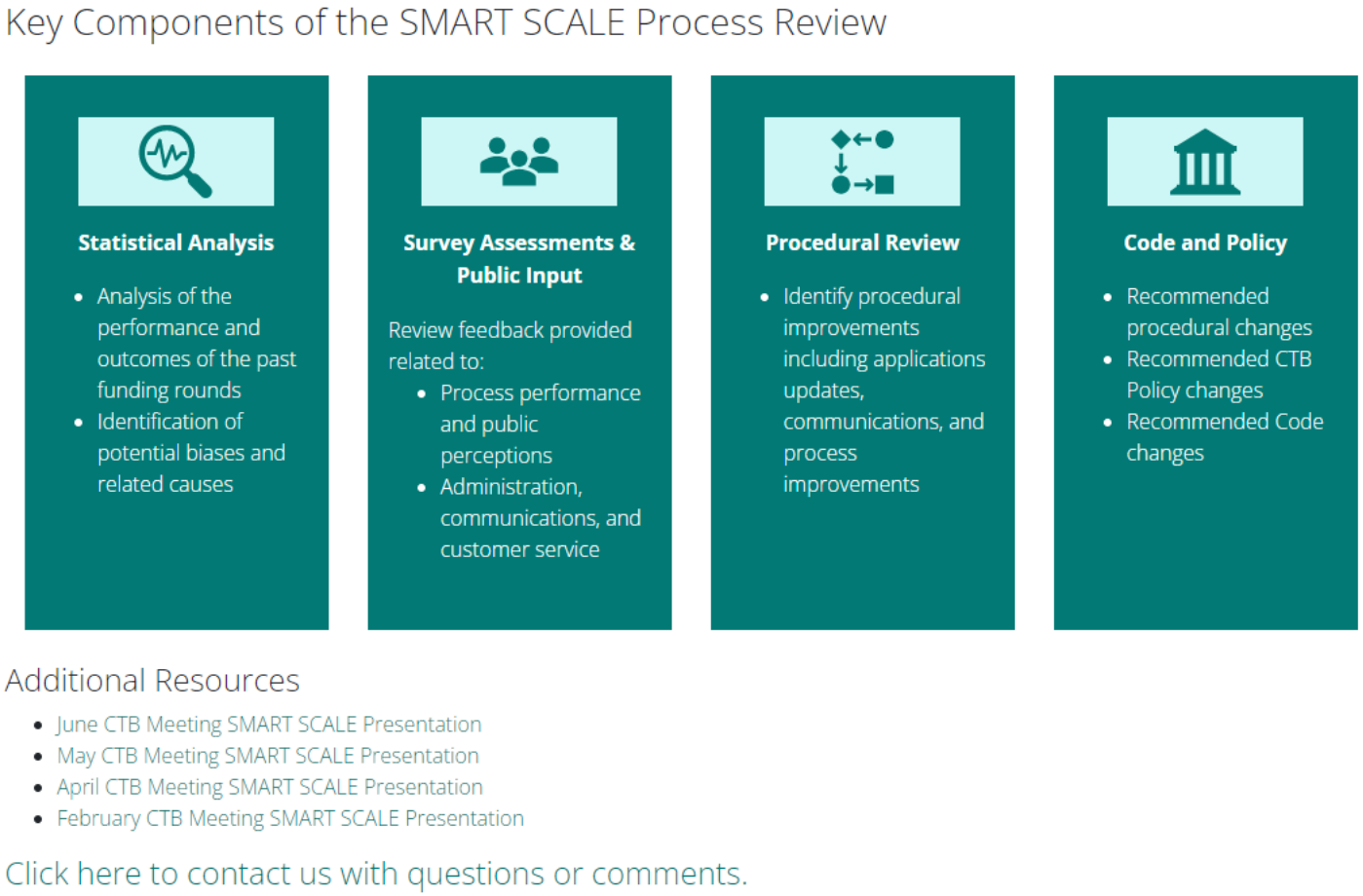
Forward-Looking Economic Development Factor

- **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

SMART SCALE Website

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



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