

Virginia Department of Rail & Public Transportation

Revenue Estimation and Transit Resource Allocation Planning

*TSDAC Meeting
May 31, 2017*



KEY QUESTIONS

→ How much funding?

- *Estimate State Transit Capital Assistance Needs*

→ What funding sources?

- *Examine Funding Options, including Revenue Estimation*

→ Which projects?

- *Develop Project Prioritization Approach*

→ How much for each project?

- *Developed Prioritized Funding Allocation Method*

PRIORITIZED STATE CAPITAL FUNDING ALLOCATION

- **How are state transit capital assistance funds allocated?**
 - Prioritize best projects

- **Key variables to consider:**
 - Funding Split between State of Good Repair (SGR) and Major Expansion
 - State Participation Rate (or share) measured as percent of total project costs



FUNDING ALLOCATION ANALYSIS

- **Simulate what types of projects would be funded under different scenarios based on 3 variables:**
 - Amount of Available State Revenue
 - Funding Split between State of Good Repair (SGR), Minor Enhancements, and Major Expansion
 - State Participation Rate



SCENARIOS

Scenario 1	Scenario 2	Scenario 3
80% SGR/Minor Enhancements 20% Major Expansions	90% SGR/Minor Enhancements 10% Major Expansions	100% SGR

State Share: Maximum 80% State Participation Rate on Total Cost of Project

2 state revenue cases:

- Base Case: PRIIA and Transit Capital Bonds sunset as scheduled
- Additional Revenue: Sunset funds backfilled + 15% additional revenue (\$20m)

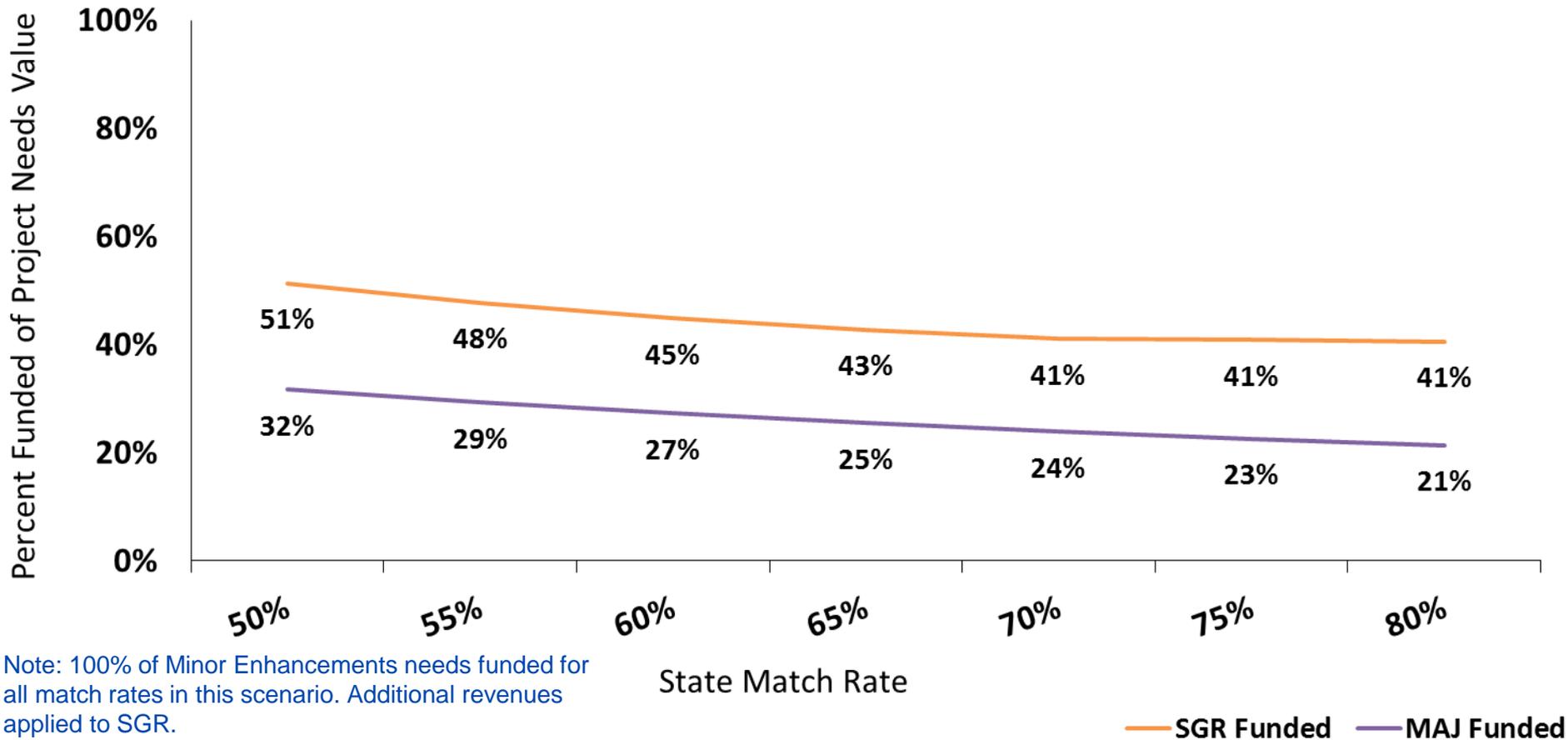


ALLOCATION METHODOLOGY

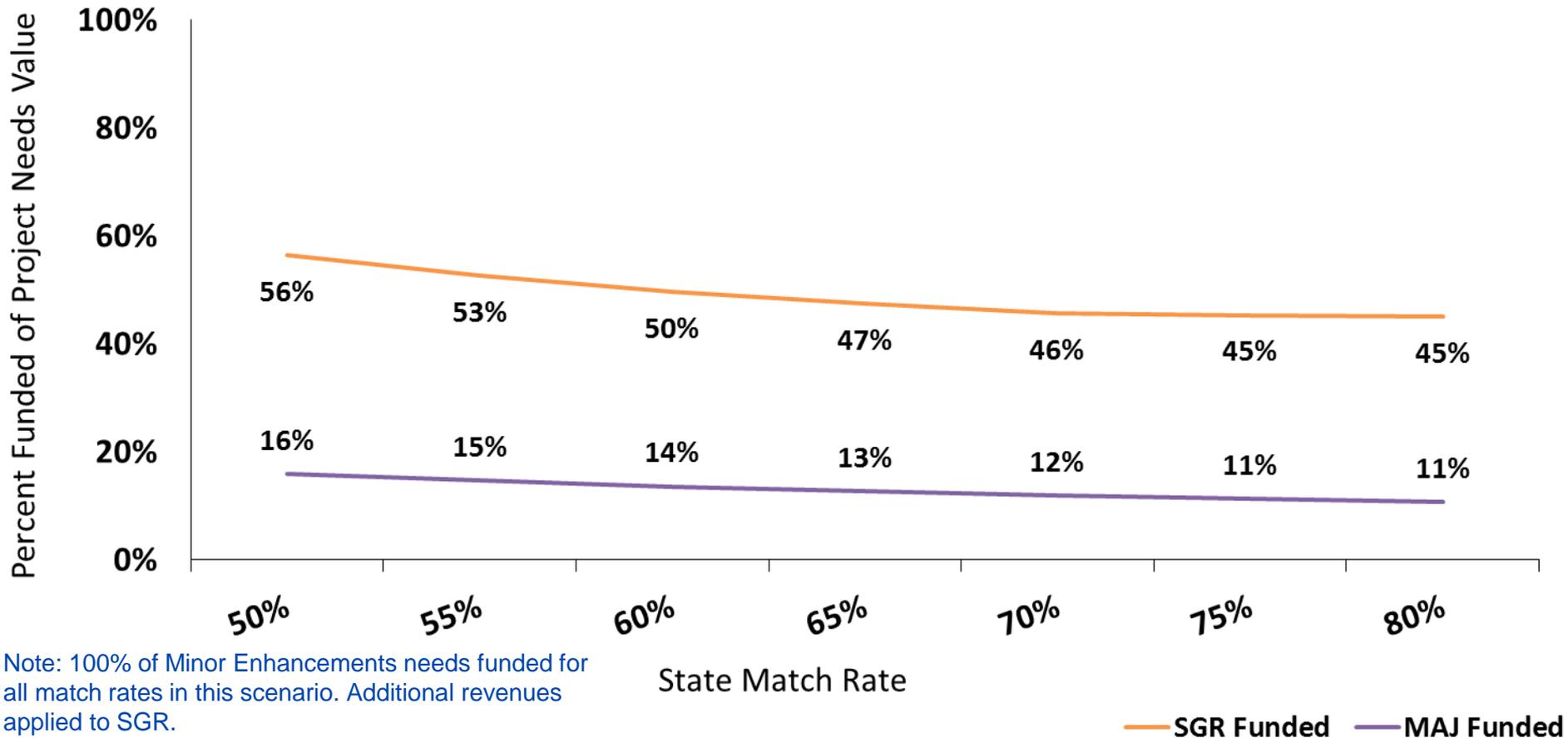
- Apply prioritization approach to demonstrate project funding on annual basis
- Test state participation (or share) measured as percent of total project costs
- Projects funded in rank order by score, until funding exhausted by project type (SGR, Minor Enhancement, Major Expansion)
- More projects can be funded with lower state rates:
 - What percent of projects would receive funding as the state participation rate is reduced?
- Graphs show the range of project value funded for other match rates (between 50% and 80%)



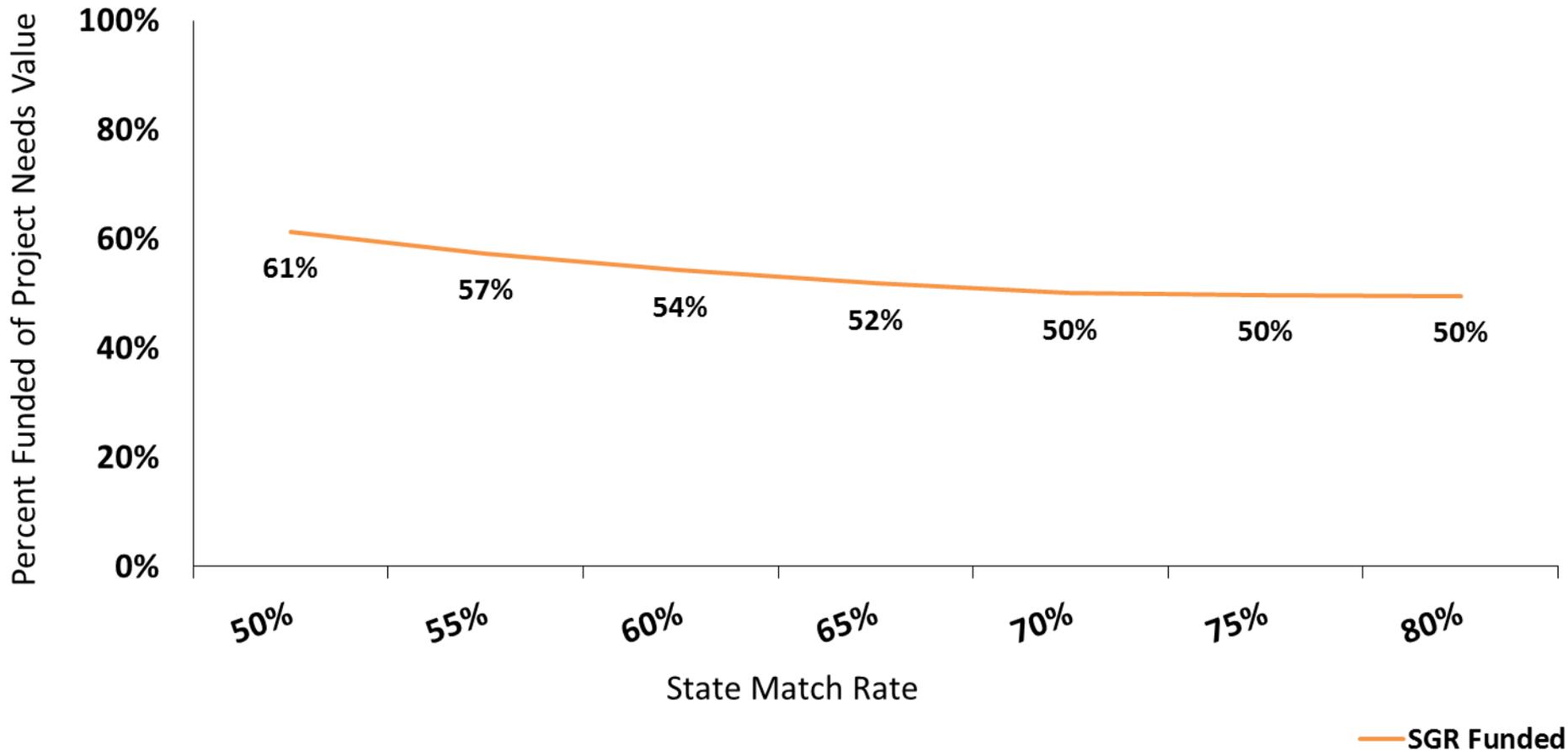
SCENARIO 1 – 80% SGR / 20% MAJOR – BASE REVENUE



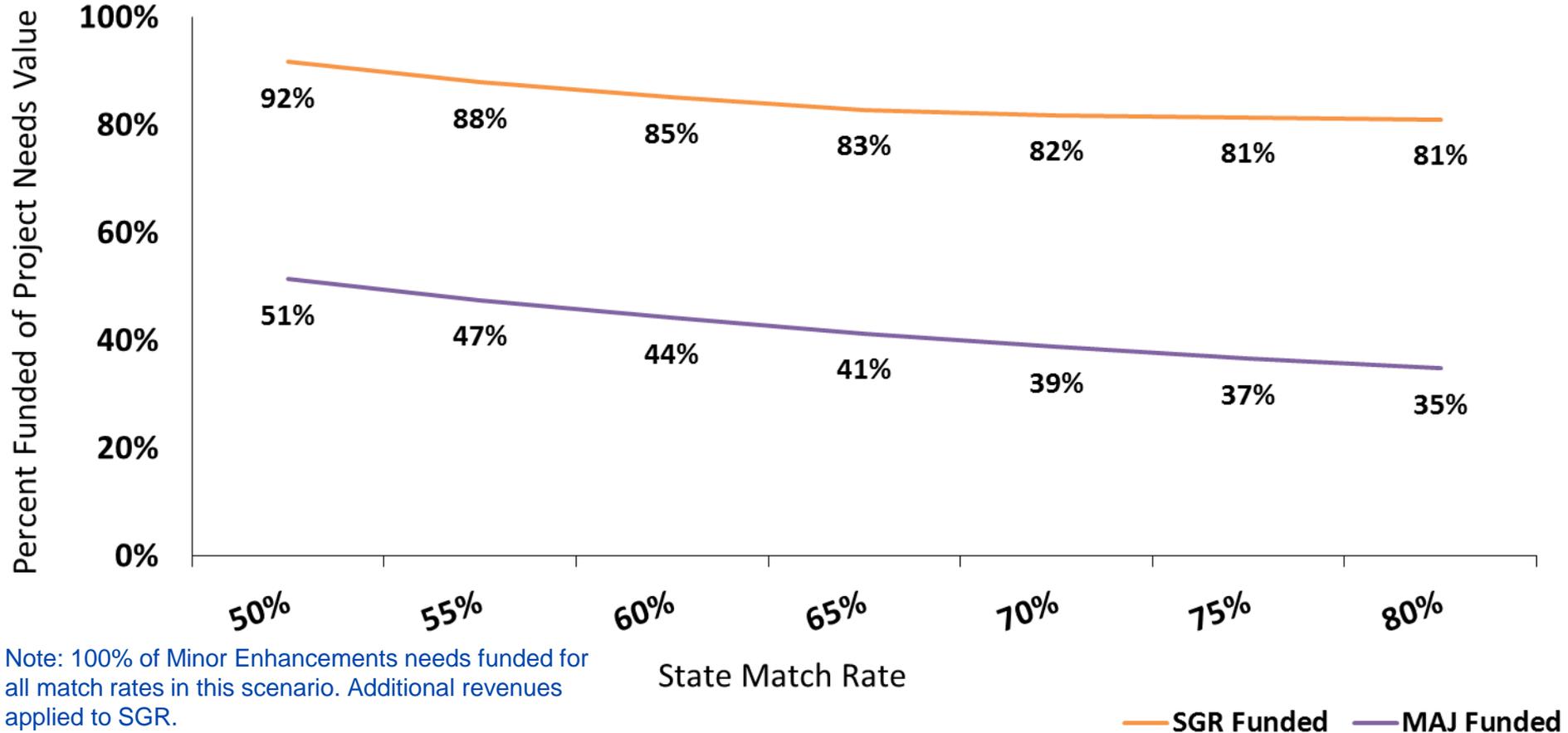
SCENARIO 2 – 90% SGR / 10% MAJOR – BASE REVENUE



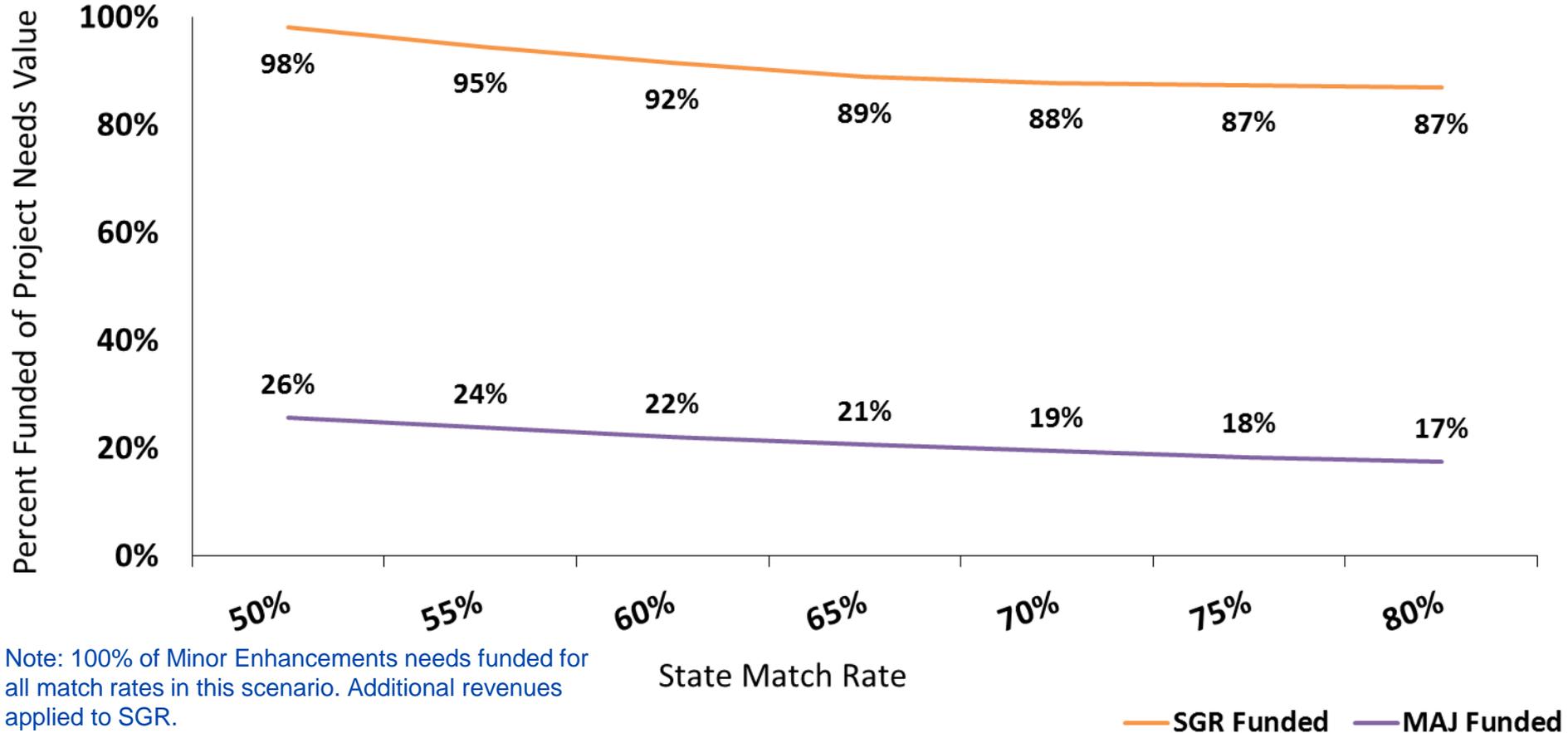
SCENARIO 3 – SGR ONLY – BASE REVENUE



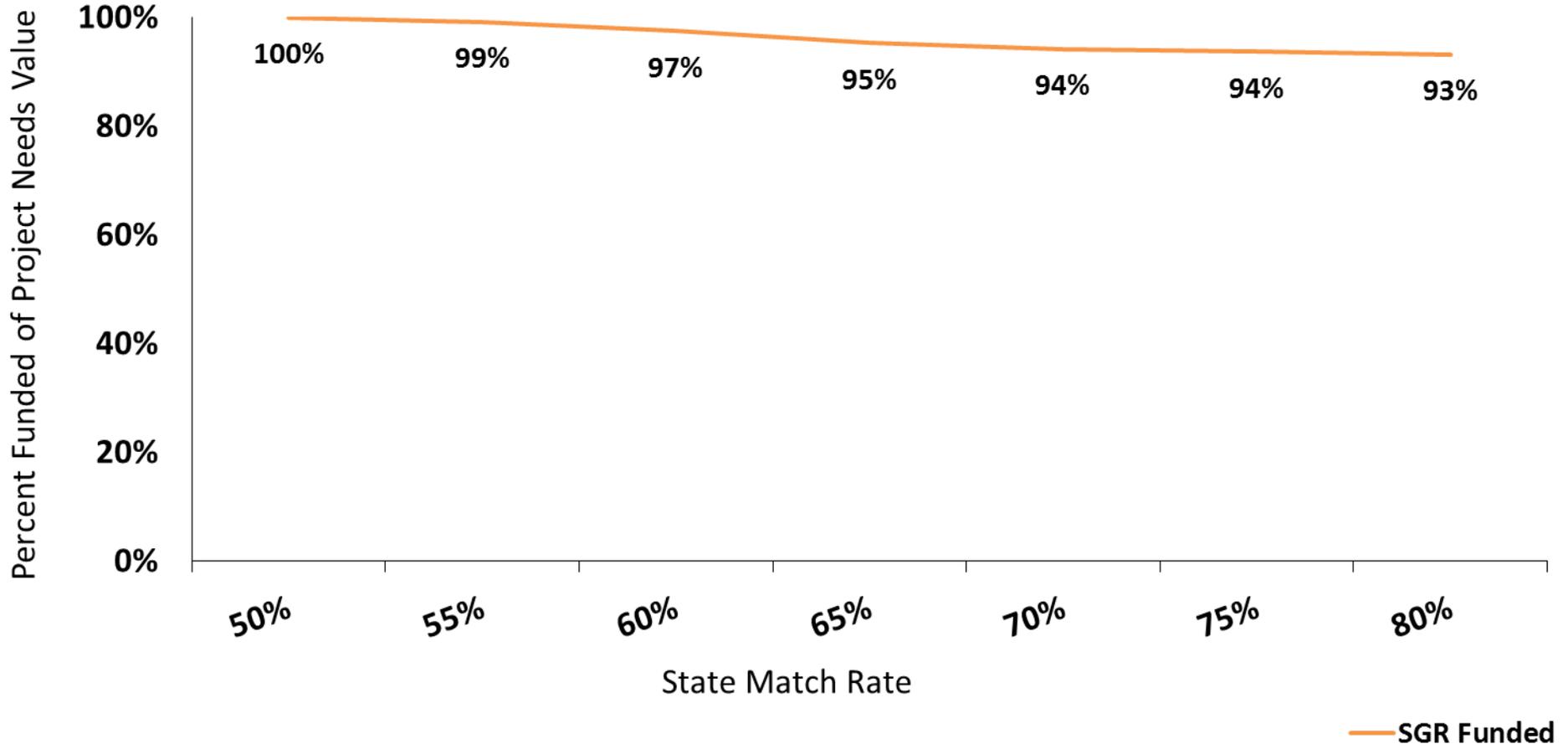
SCENARIO 1 – 80% SGR / 20% MAJOR – *ADDITIONAL REVENUE*



SCENARIO 2 – 90% SGR / 10% MAJOR – *ADDITIONAL REVENUE*



SCENARIO 3 – SGR ONLY – *ADDITIONAL REVENUE*



KEY VARIABLES

What is the preferred policy for allocating state funds?

→ **Funding Split between State of Good Repair (SGR) and Major Expansion**

- 80% SGR / 20% Expansion
- 90% SGR / 10% Expansion
- 100% SGR

→ **State Participation Rate**

- 50% to 80% from state

APPENDIX: REVENUE ESTIMATION

REVENUE ESTIMATION: KEY QUESTIONS

→ **What revenues need to be raised?**

- Address funds sunsetting in FY19 and FY20
- Support reasonably-projected growth in capital investments

→ **What are the different revenue options?**

- How much do they raise?
- How can they be packaged?

→ **How to allocate regionally-raised funds?**

REVENUE ESTIMATION METHODOLOGY

- Time Period: FY 2018 through FY 2027
- Unit: Year-of-Expenditure (YOE) dollars (inclusive of inflation)
- Data Sources:
 - Virginia Department of Taxation
 - Northern Virginia Transportation Authority
 - Hampton Roads Transportation Accountability Commission
 - Hampton Roads Transit
 - U.S. Census
 - U.S. Bureau of Labor Statistics
 - U.S. Energy Information Administration (EIA)
- Growth rates: Compound Annual Growth Rates (CAGRs) based on FY2018-2022 forecasts used to extend estimates through 2027
- Revenue Increases: 5-15% on existing rates, dedicated to transit capital



UPDATED PRINCIPLES FOR SELECTING REVENUE SOURCES

Based on Revenue Advisory Board feedback:

1. Focus on transit capital funding
2. Pursue a package of multiple revenue sources
3. Consider both statewide and regional sources (spent in region collected)
4. Ramp up revenues gradually to address future needs
5. Focus on revenue sources for which a rate increase is most feasible
6. Prepare a range of options for General Assembly consideration



UPDATED APPROACH TO DEFINE FUNDING PACKAGES

- Separately address regional and statewide needs

- Adjust funding packages to reflect Capital Program Prioritization Methods:
 - Allocate state funding to the best-ranking projects
 - Keep steady state participation rates throughout the period
 - Need for steady and growing revenue streams

ESTIMATION SUMMARY - STATE

State sources ranked by average annual revenue raised

State Sources	Existing State Tax Rate	Increased Tax Rate	Growth Rate	Average Annual Revenue Estimated
Retail Sales Tax	4.3% ¹	0.25%	1.03%	\$338.1m
Motor Vehicle Sales and Use Tax	4.15%	0.50%	1.05%	\$119.3m
Gas and Diesel Fuel Sales Tax	5.1%/6% ²	0.50%	0.89% ³	\$85.7m
Deed & Mortgage Recordation Tax	\$0.25/\$100 ⁴	\$0.05/\$100	0.50% ⁵	\$73.2m
Insurance Premium Tax	2.25%	0.25%	5.53%	\$70.0m
Priority Transportation Fund	-	Net Revenue after Debt Service	-	\$67.4m ⁶
Motor Vehicle License Fee	\$40.75	\$5.00	0.00%	\$36.7m
Internet Sales Tax	-	0.25%	6.07% ⁷	\$24.1m
Real Estate Transfer Tax	\$0.05/\$100 ⁸	\$0.01/\$100	0.50% ⁵	\$6.8m

1: 4.3% is the state rate, effective total rate is 5.3% statewide, and 6% in NoVA and Hampton Roads; tax rate is 2.5% statewide for food

2: 5.1% for gasoline; 6% for diesel state rate. Effective total rate 7.2%/8.1% in NoVA and Hampton Roads.

3: Growth rate from the state forecast on the gas tax. Base price from EIA.

4: Effective rate is \$0.33 /\$100 of deed and mortgage value for most jurisdictions (option of 1/3 additional local rate)

5: Conservative 0.5% growth used to replace negative observed CAGRs

6: Average for PTF is from FY25-27

7: Only 2014-2018 data available, CAGR based on that time series

8: Effective rate is \$0.10/\$100 of deed value (5 cents state rate, 5 cents local rate). Additional \$0.15/\$100 congestion relief fee in NoVA.

ESTIMATION SUMMARY - NORTHERN VIRGINIA

Northern Virginia sources ranked by average annual revenue raised

Northern Virginia Sources	Existing Regional Tax Rate	Increased Tax Rate	Growth Rate	Average Annual Revenue Estimated
Retail Sales and Use Tax – NoVA	0.7% ¹	0.50%	2.64%	\$204.4m
Retail Sales and Use Tax – WMATA Jurisdictions ²	0.7% ¹	0.50%	2.62% ²	\$155.7m
Fuel Sales Tax Increase after Floor Implementation	2.1%	1.2%	EIA Forecast	\$30.6m
Fuel Sales Tax Floor Implementation	2.1% ³	Floor	EIA Forecast	\$25.1m
Utility Bill Fees	-	\$12/yr	1.32%/1.66% ⁴	\$12.0m
Real Estate Transfer Tax	\$0.15/\$100 ⁵	\$0.02/\$100	0.83%	\$6.1m

1: Tax rates for retail sales tax are as follows:

- 0.7% is the NoVA Regional rate
- Effective rate statewide: 5.3%
- Effective rate in NoVA and Hampton Roads: 6%

2: Rate increase for WMATA jurisdictions only. Loudoun County is included starting 2022. Growth rate for WMATA jurisdictions is slightly lower than for NoVA as a whole.

3: 5.1% for gasoline; 6% for diesel state rate. Effective total rate 7.2%/8.1% in NoVA and Hampton Roads.

4: Residential Growth Rate/Commercial Growth rate

5: \$0.15/\$100 is NoVA Congestion Relief Fee, coupled with the statewide rate of \$0.10/\$100, the effective rate is \$0.25/\$100 in NoVA

ESTIMATION SUMMARY – HAMPTON ROADS

Hampton Roads sources ranked by average annual revenue raised

Hampton Roads Sources	Existing Regional Tax Rate	Increased Tax Rate	Growth Rate	Average Annual Revenue Estimated
Retail Sales and Use Tax	0.7% ^{1,2}	0.15%	1.03%	\$23.6m
Fuel Sales Tax Increase after Floor Implementation	2.1%	1.2%	EIA Forecast	\$21.1m
Fuel Sales Tax Floor Implementation	2.1% ³	Floor	EIA Forecast	\$17.3m
Utility Bill Fees	-	\$12/yr	0.5%/0.5%	\$6.5m
Real Estate Transfer Tax	-	\$0.02/\$100	1.00%	\$1.4m

1: Hampton Roads Transit provided revenue estimates for Retail Sales and Use Tax and Real Estate Transfer Tax.

2: Tax rates for retail sales tax are as follows:

- 0.7% is the Hampton Roads Regional rate
- Effective rate statewide: 5.3%
- Effective rate in NoVA and Hampton Roads: 6%
- Tax rate is 2.5% statewide for food

3: 5.1% for gasoline; 6% for diesel state rate. Effective total rate 7.2%/8.1% in NoVA and Hampton Roads.

POPULATION THRESHOLD FOR REGIONAL FUEL SALES TAX

- Planning District criteria for regional fuel sales tax (2.1%) (§ 58.1-2295.):
 - Population between 1.5 and 2 million in the most recent United States Census
 - Motor vehicles registered between 1.2 and 1.7 million
 - Total transit ridership between 15 and 50 million riders per year across all transit systems within the Planning District

- The Richmond district is unlikely to reach the population threshold in the 2020 and 2030 United States Census:
 - Using the region's population growth rate between 2000 and 2010, population is estimated at:
 - 2020: 1.2m
 - 2030: 1.4m

ILLUSTRATIVE FUNDING PACKAGES

- Package 1 – Increase Existing Statewide Revenues
 - Increase current statewide rates for selected revenues sources
 - Ramp up share of Priority Transportation Fund starting 2025

- Package 2 – Single Source
 - Increase current rates for a single source:
 - Retail Sales and Use Tax
 - Fuel Sales Tax

- Package 3 – Increase Existing State & Regional Revenues
 - Increase current rates for selected state and regional sources:
 - Northern Virginia
 - Hampton Roads
 - Ramp up share of Priority Transportation Fund starting 2025

- Package 4 – Increase State Revenues and Floor to the Regional Fuel Sales Tax
 - Increase current rates for selected state sources
 - Implement a floor to the fuel sales tax in Northern Virginia and Hampton Roads
 - Ramp up share of Priority Transportation Fund starting 2025



PACKAGE 1 – INCREASE EXISTING STATEWIDE REVENUES

→ Ramp up share of Priority Transportation Fund starting 2025

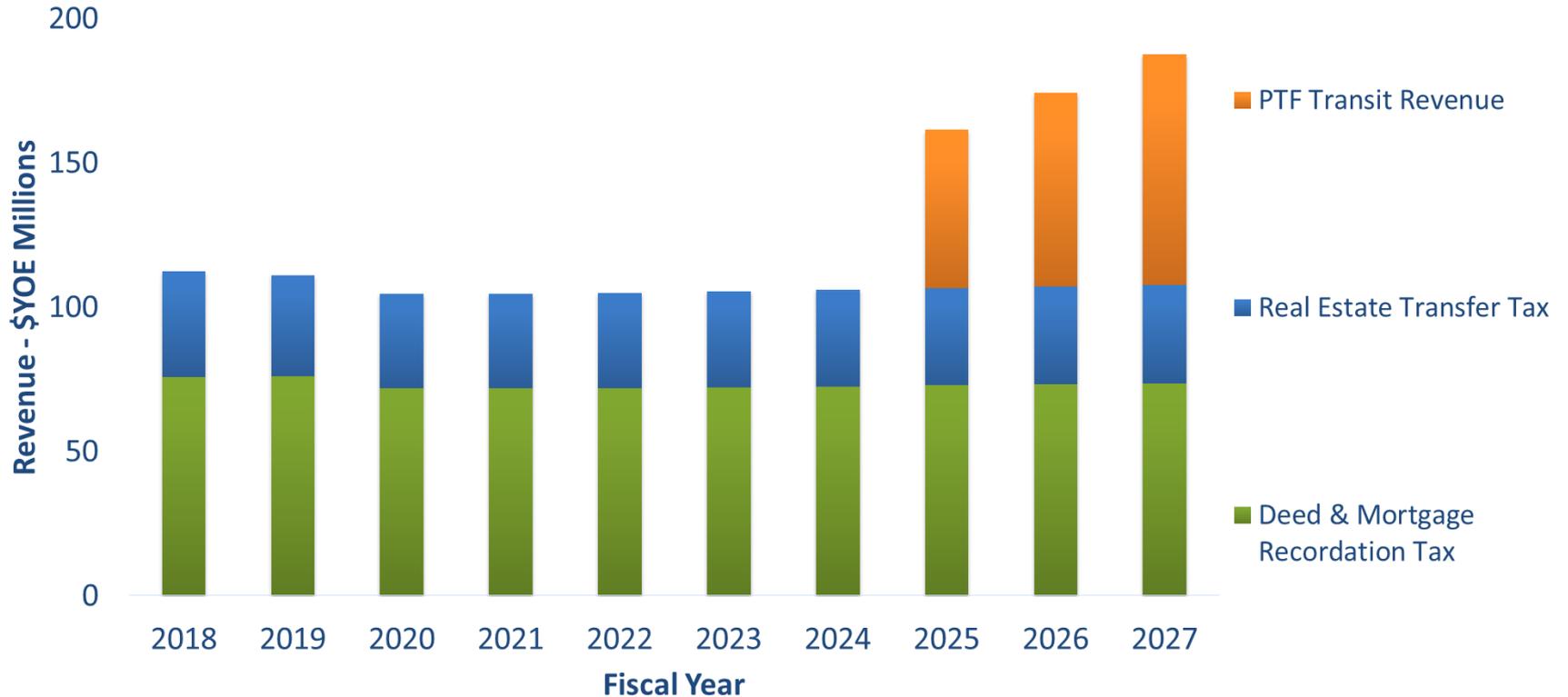
Source	Existing State Rate	Existing Transit Capital Share	Increase to State Rate	New Transit Capital Share	Average Annual Revenue Estimated*
Deed & Mortgage Recordation Tax	\$0.25/\$100	\$0.01/\$100	\$0.05/\$100	\$0.06/\$100	\$73.2m
Priority Transportation Fund	-	20-40% of 1/3 of revenues	-	Net Revenue after Debt Service	\$67.4m ¹
Real Estate Transfer Tax	\$0.05/\$100	-	\$0.05/\$100	\$0.05/\$100	\$33.8m
Average Annual Total Revenue Estimated					\$127.2m²

1: Average for PTF is from FY25-27

2: Average Annual Total Revenue Estimated includes partial average from PTF (FY25-27)

*FY18-FY27. Estimates: WSP

PACKAGE 1 – INCREASE EXISTING STATEWIDE REVENUES



Average Annual Revenue: \$127.2m

Average Annual Total Revenue Estimated includes partial average from PTF

PACKAGE 2 – SINGLE SOURCE

Source	Existing Rate	Existing Transit Capital Share	Increase to Rate	Average Annual Revenue Estimated*
Retail Sales and Use Tax (non-food only)	4.3% ¹	0.04%	0.14%	\$157.3m

-OR-

Source	Existing Rate	Existing Transit Capital Share	Increase to Rate	Average Annual Revenue Estimated*
Fuel Sales Tax	5.1%/6.0% ²	0.18%	0.9%	\$154.2m

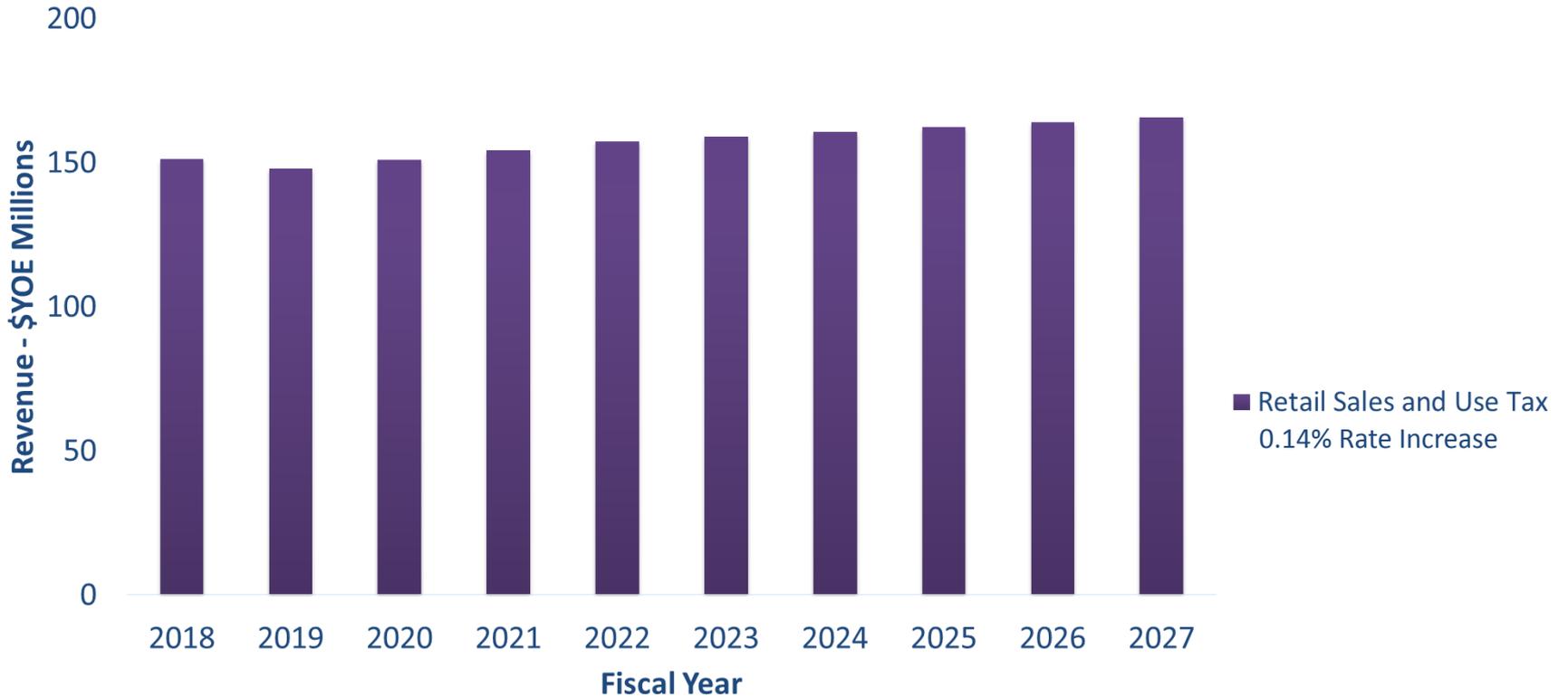
1: 4.3% is the state rate, effective total rate is 5.3% statewide, and 6% in NoVA and Hampton Roads; tax rate is 2.5% statewide for food

2: 5.1% for gasoline; 6% for diesel state rate. Effective total rate 7.2%/8.1% in NoVA and Hampton Roads.

*FY18-FY27 Estimates: WSP

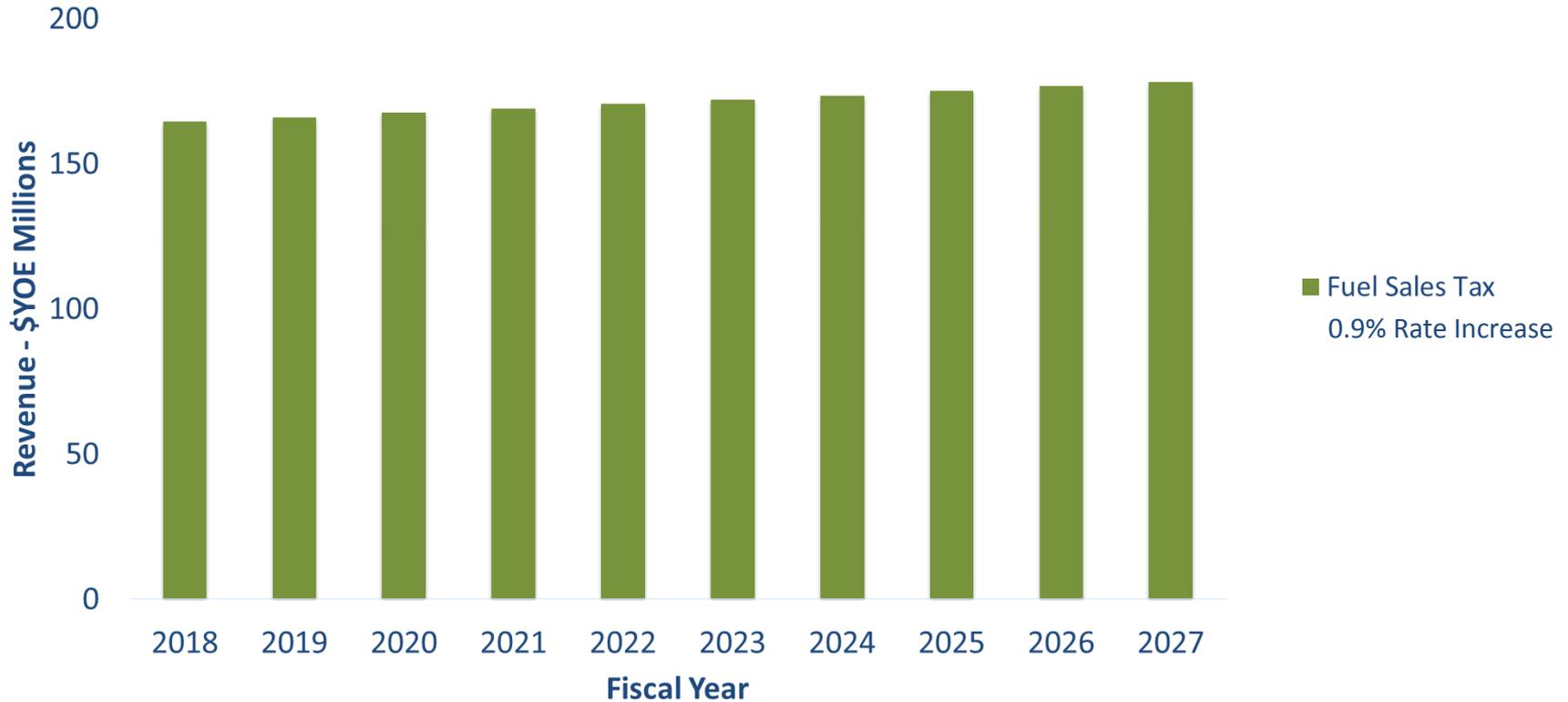


PACKAGE 2 – RETAIL SALES TAX (NON-FOOD) ONLY



Average Annual Revenue: \$157.3m

PACKAGE 2 – FUEL SALES TAX ONLY



Average Annual Revenue: \$154.21m

PACKAGE 3 – INCREASE EXISTING STATE & REGIONAL REVENUES

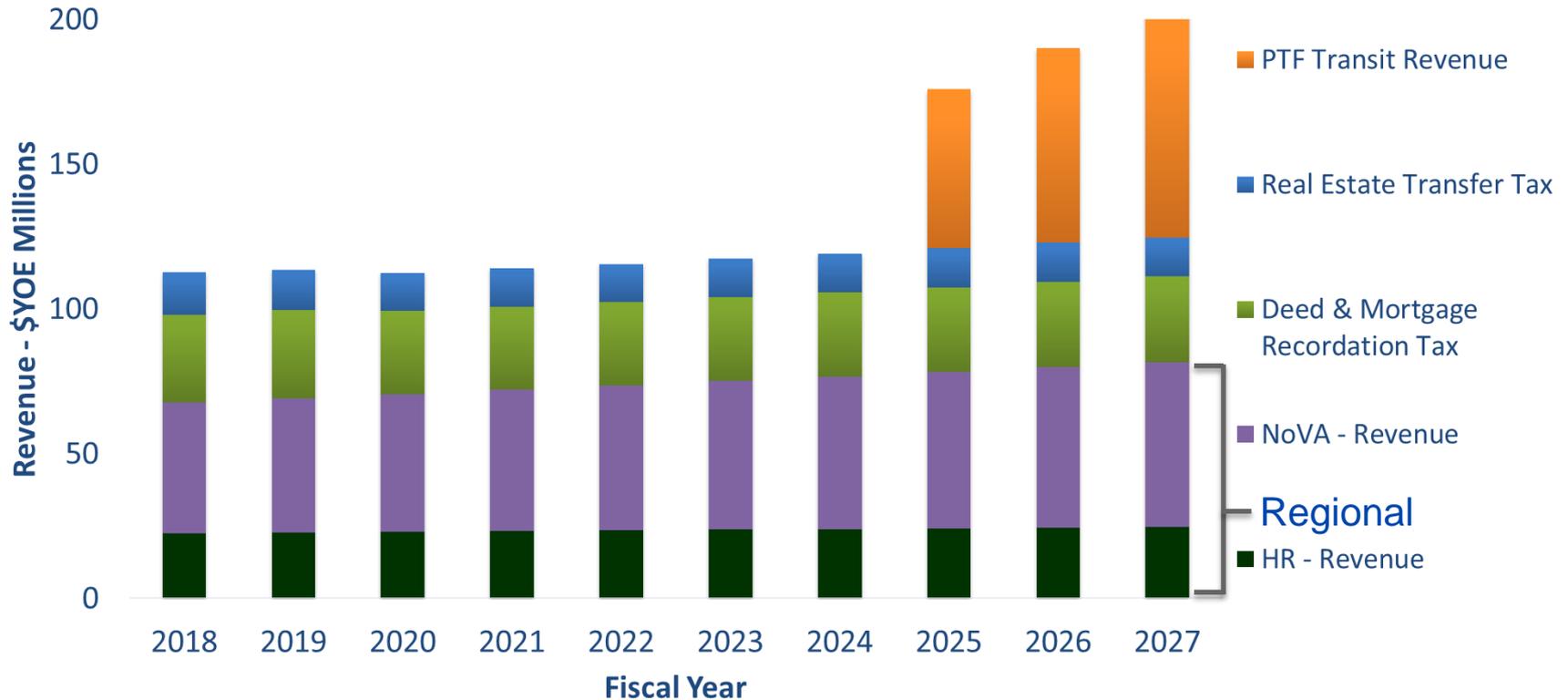
	Source	Existing Rate	Existing Transit Capital Share	Increase to Rate	New Transit Capital Share	Average Annual Revenue Estimated*
State	Deed and Mortgage Recordation Tax	\$0.25/\$100	\$0.01/\$100	\$0.02/\$100	\$0.03/\$100	\$29.3m
	Real Estate Transfer Tax	\$0.05/\$100	-	\$0.02/\$100	\$0.02/\$100	\$13.5m
	Priority Transportation Fund	-	20-40% of 1/3 of revenues	-	Net Revenue after Debt Svc.	\$67.4m ¹
	State Subtotal					\$63.0m²
Regional	NoVA	Multiple options: Discussion in next slide				~\$50m
	HR	Multiple options (Fuel Sales Tax, Retail Sales and Use Tax...)				~\$25m
	Regional Subtotal					~\$75m
	Total					\$138.0m²

1: Average for PTF is from FY25-27

2: Average Annual Total Revenue Estimated includes partial average from PTF

*FY18-FY27. Estimates: WSP

PACKAGE 3 – INCREASE EXISTING STATE & REGIONAL REVENUES



Average Annual Revenue: \$138m



REGIONAL REVENUE OPTIONS: FUEL SALES TAX

- Fuel Sales Tax in Northern Virginia and Hampton Roads:
- Floor to the Fuel Sales Tax; Enable Tax for Transit in Hampton Roads
 - Floor Fuel Sales Tax + Fuel Sales Tax Rate Increase

Source	Existing Rate	Increase to Rate	Average Annual Revenue Estimated*
NoVA ¹ – Fuel Sales Tax Increase after Floor Implementation	2.1% ²	1.2%	\$30.6m
NoVA ¹ – Fuel Sales Tax Floor Implementation	2.1% ²	Floor	\$25.1m
NoVA¹ – Total			\$55.7m
HR – Fuel Sales Tax Increase after Floor Implementation	2.1% ²	1.2%	\$21.1m
HR - Fuel Sales Tax Floor Implementation	2.1% ²	Floor	\$17.3m
HR – Total			\$38.4m

1: NoVA: all Northern Virginia jurisdictions.

2: 5.1% for gasoline; 6% for diesel state rate. Effective total rate 7.2%/8.1% in NoVA and Hampton Roads.

*FY18-FY27. Estimates: WSP

REGIONAL REVENUE OPTIONS: RETAIL SALES AND USE TAX

→ Retail Sales and Use Tax in Northern Virginia and Hampton Roads:

- Fund \$50m of NoVA transit capital needs
- Enable Tax for Transit in Hampton Roads to fund ~\$25m transit capital needs

Source	Existing Rate	Existing Transit Capital Share	Increase to Rate	Average Annual Revenue Estimated*
NoVA – WMATA Jurisdictions – Retail Sales and Use Tax	0.7% ¹	-	0.15%	\$46.7m ²
Hampton Roads – Retail Sales and Use Tax	0.7% ¹	-	0.15%	\$23.6m

1: 4.3% is the state rate, effective total rate is 5.3% statewide, and 6% in NoVA and Hampton Roads; tax rate is 2.5% statewide for food

2: Loudoun County is included starting 2022. Growth rate for WMATA jurisdictions is slightly lower than for NoVA as a whole.

*FY18-FY27. Estimates: WSP

REGIONAL REVENUE ALLOCATION FOR NORTHERN VIRGINIA

- WMATA may require alternate funding allocation method
 - WMATA capital programming is not driven by Virginia's funding allocation approach

- Approaches:
 - **Dedicated sales tax funding WMATA needs**
 - Estimated at \$500m across MD/DC/VA on average over the next 10 years
 - 0.5% sales tax in WMATA jurisdictions raises \$155m annually
 - **New regional sources raising \$50m**
 - Funds raised by sales tax and/or fuel sales tax

PACKAGE 4 – INCREASE STATE REVENUES WITH FLOOR FOR REGIONAL FUEL SALES TAX

	Source	Existing Rate	Existing Transit Capital Share	Increase to Rate	New Transit Capital Share	Average Annual Revenue Estimated*
State	Deed and Mortgage Recordation Tax	\$0.25/\$100	\$0.01/\$100	\$0.03/\$100	\$0.04/\$100	\$43.9m
	Real Estate Transfer Tax	\$0.05/\$100	-	\$0.04/\$100	\$0.04/\$100	\$27.0m
	Priority Transportation Fund	-	20-40% of 1/3 of revenues	-	Net Revenue after Debt Svc.	\$67.4m ¹
	State Subtotal					\$91.2m²
Regional	NoVA – Fuel Sales Tax Floor Implementation	2.1% ³	-	Floor	-	\$25.1m
	HR – Fuel Sales Tax Floor Implementation	2.1% ³	-	Floor	-	\$17.3m
	Regional Subtotal					\$42.4m
	Total					\$133.6m²

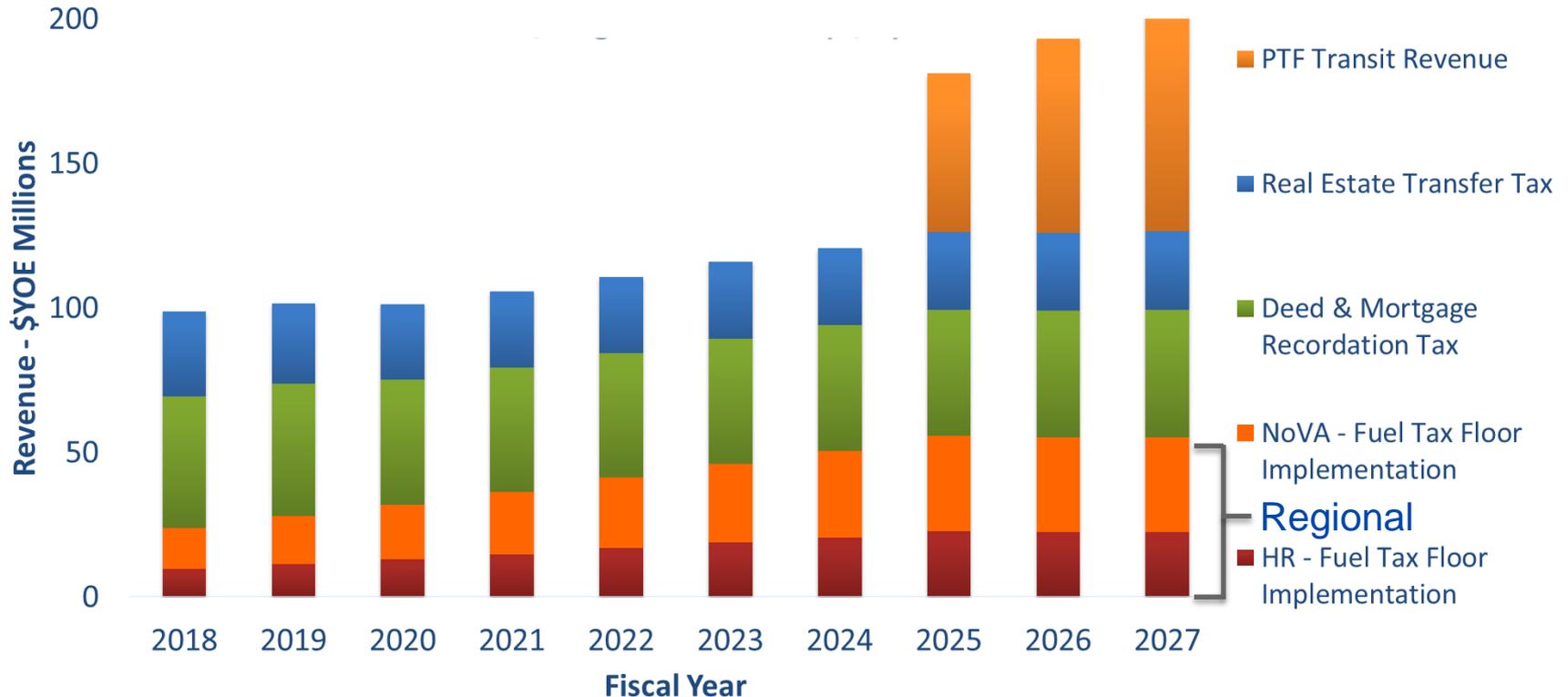
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2: Average Annual Total Revenue Estimated includes partial average from PTF

3: 5.1% for gasoline; 6% for diesel state rate. Effective total rate 7.2%/8.1% in NoVA and Hampton Roads.

*FY18-FY27. Estimates: WSP

PACKAGE 4 – INCREASE STATE REVENUES WITH FLOOR FOR REGIONAL FUEL SALES TAX

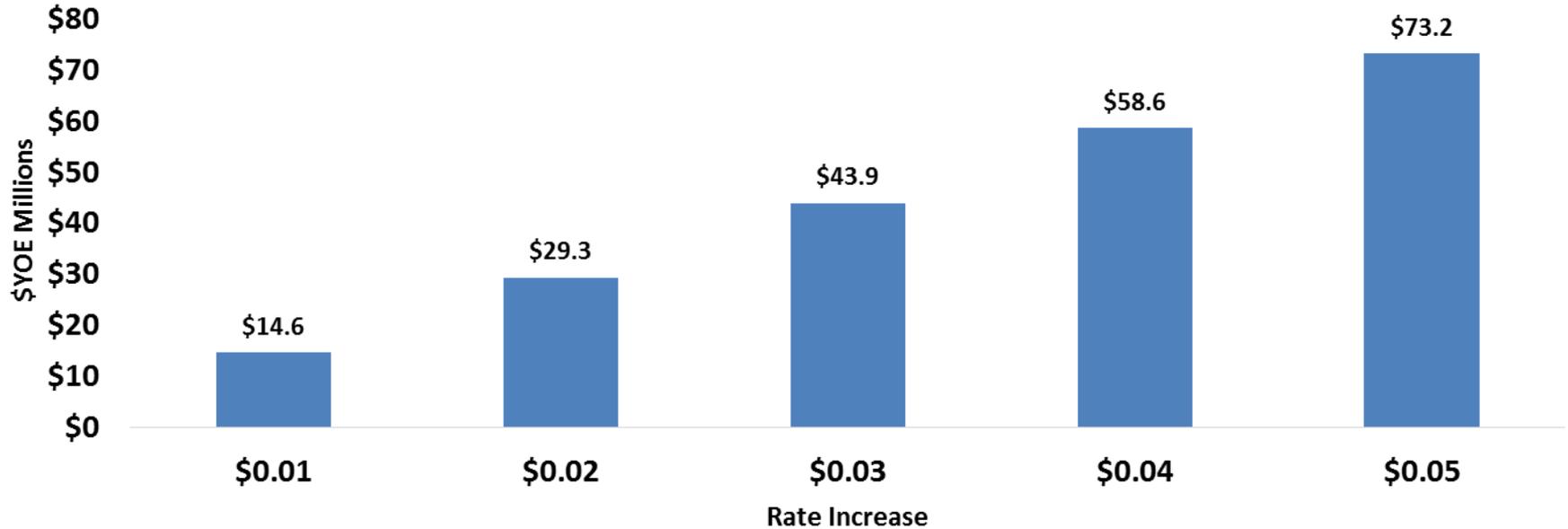


Average Annual Revenue: \$138m

REAL ESTATE TRANSFER TAX – ESTIMATED REVENUES



DEED AND MORTGAGE RECORDATION TAX – ESTIMATED REVENUES



POTENTIAL REVENUE STRATEGIES

- **Transit Capital funding needs may be met through a number of approaches including:**
 - Increasing existing state rates
 - Increasing both state and regional rates

- **Regional revenue sources can be sized to specific needs, such as WMATA in NoVA**

- **Adding a floor to the regional Fuel Sales Tax could contribute to fund higher transit needs:**
 - In NoVA
 - Potentially in Hampton Roads, where Fuel Sales Tax revenues are currently dedicated to highways