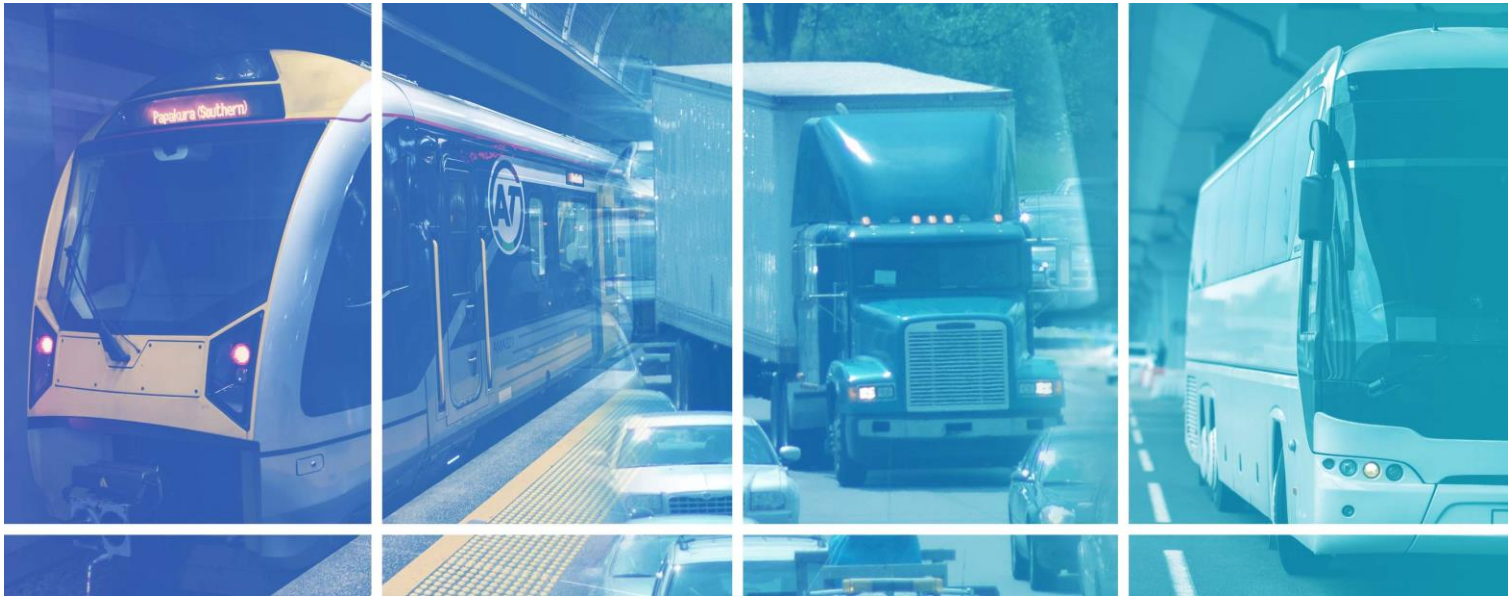
JLARC
JOINT LEGISLATIVE AUDIT AND REVIEW COMMISSION

November 8, 2021



Transportation Infrastructure and Funding

Commission Briefing

Study mandate

- Study resolution (JLARC) directs review of
  - transportation funding sources
  - Virginia's highways and other surface transportation infrastructure
  - future trends and impacts, especially
    - changes in travel patterns
    - shift to fuel efficient and electric vehicles
    - state's preparedness to adapt to changes

Research activities

Interviews and survey

- State, regional, and local transportation organizations
- Commonwealth Transportation Board (survey, meetings)
- Associations and subject-matter experts

Data analysis

- Historical and projected transportation revenues
- Condition of road and transit infrastructure
- Distribution of funds under main transportation programs

Document review

- Tax structure in Virginia and other states, including user fees
- Virginia laws and transportation plans, policies, procedures

In brief

Recent legislative changes increased transportation revenues and will help address near- and longer-term funding concerns.

New user fees supplement transportation revenue in the near term, and over the long term, could help offset fuel tax declines.

Virginia's roads are generally in sufficient condition, but some bridge and pavement repair funding could be better allocated.

In brief (continued)

State's planning process effectively examines long-term trends and identifies most major transportation needs.

State and regional funding programs are generally well designed and distribute funds equitably but could benefit from minor changes.

Virginia transit agencies may not have enough funds to keep pace with capital needs, and many agencies may need to reduce services if ridership does not recover to pre-pandemic levels.

In this presentation

Background

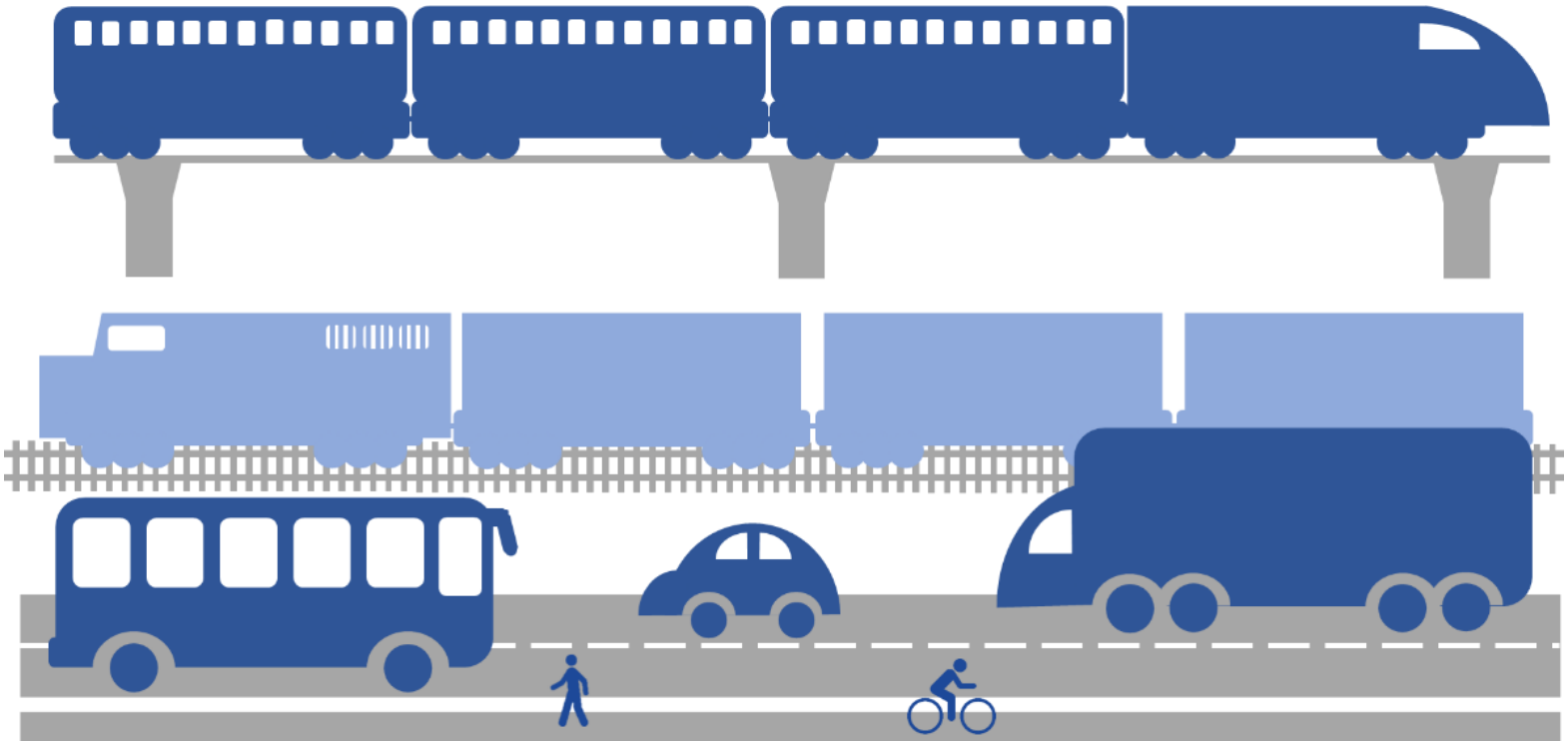
Transportation revenue

Road condition and maintenance funding

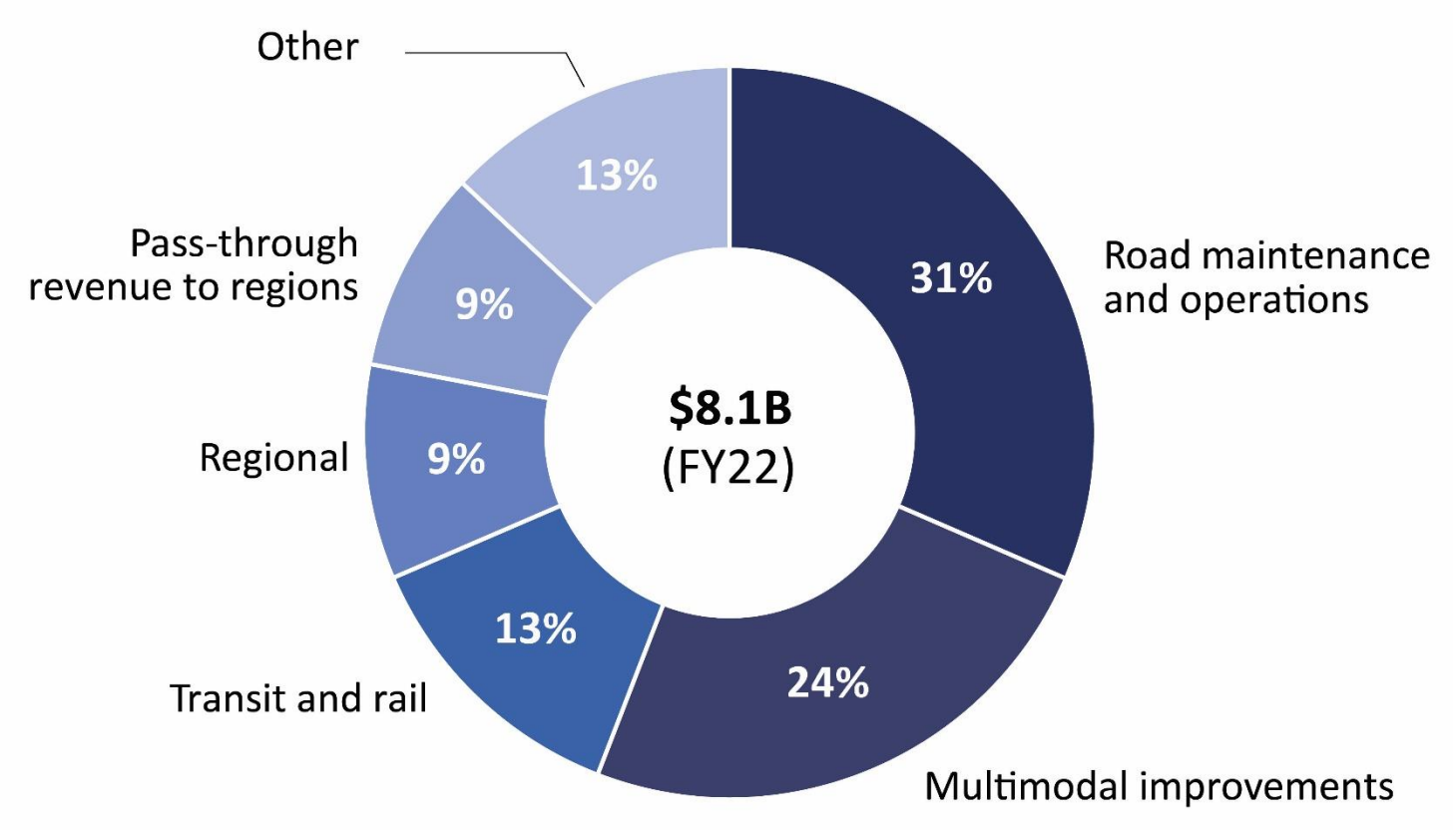
Multimodal improvement planning and funding

Transit condition and funding

Virginia has a multimodal surface transportation system



Majority of $8.1B budget is for road maintenance and operations, multimodal improvements

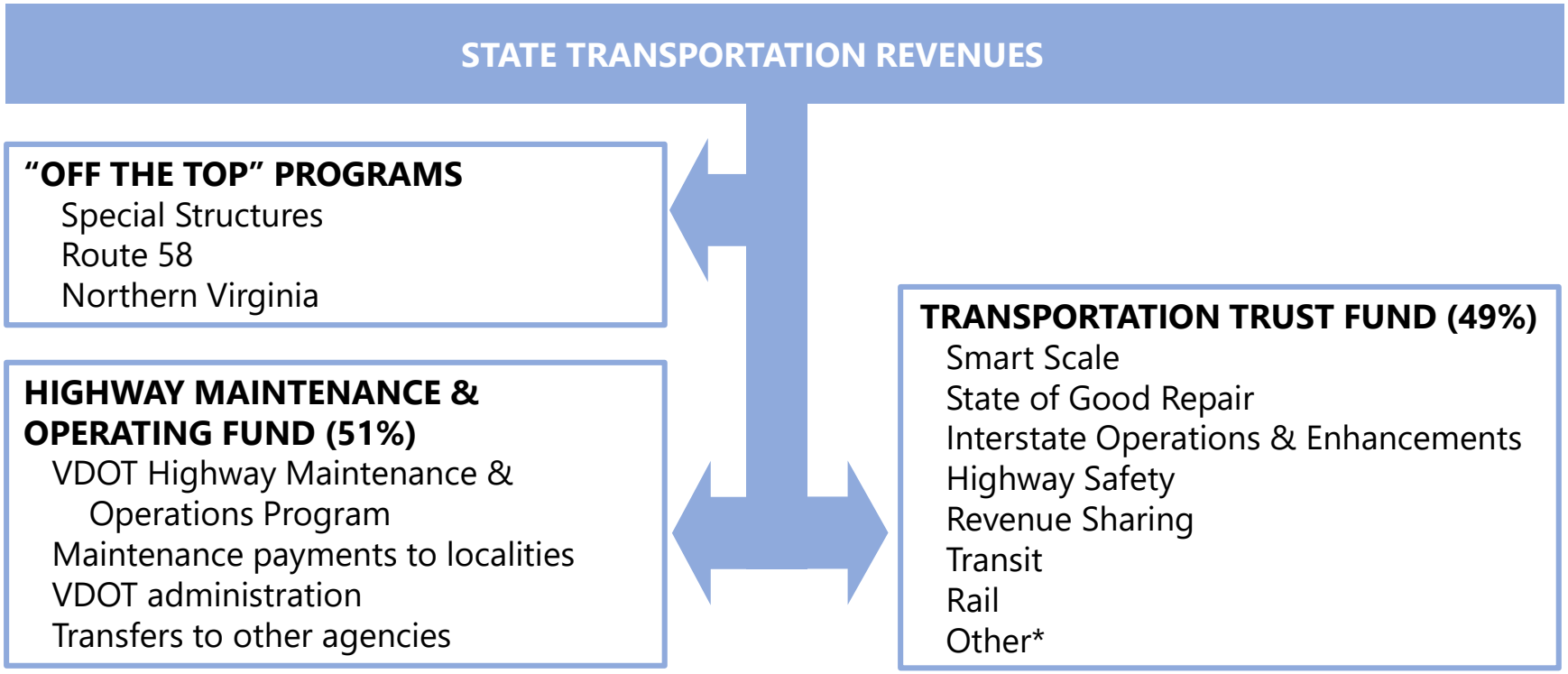


Other includes debt service (5%), toll operations and other programs (4%), administrative and support services (4%), and various other small categories (1%).

Transportation funding addresses system maintenance and improvement needs

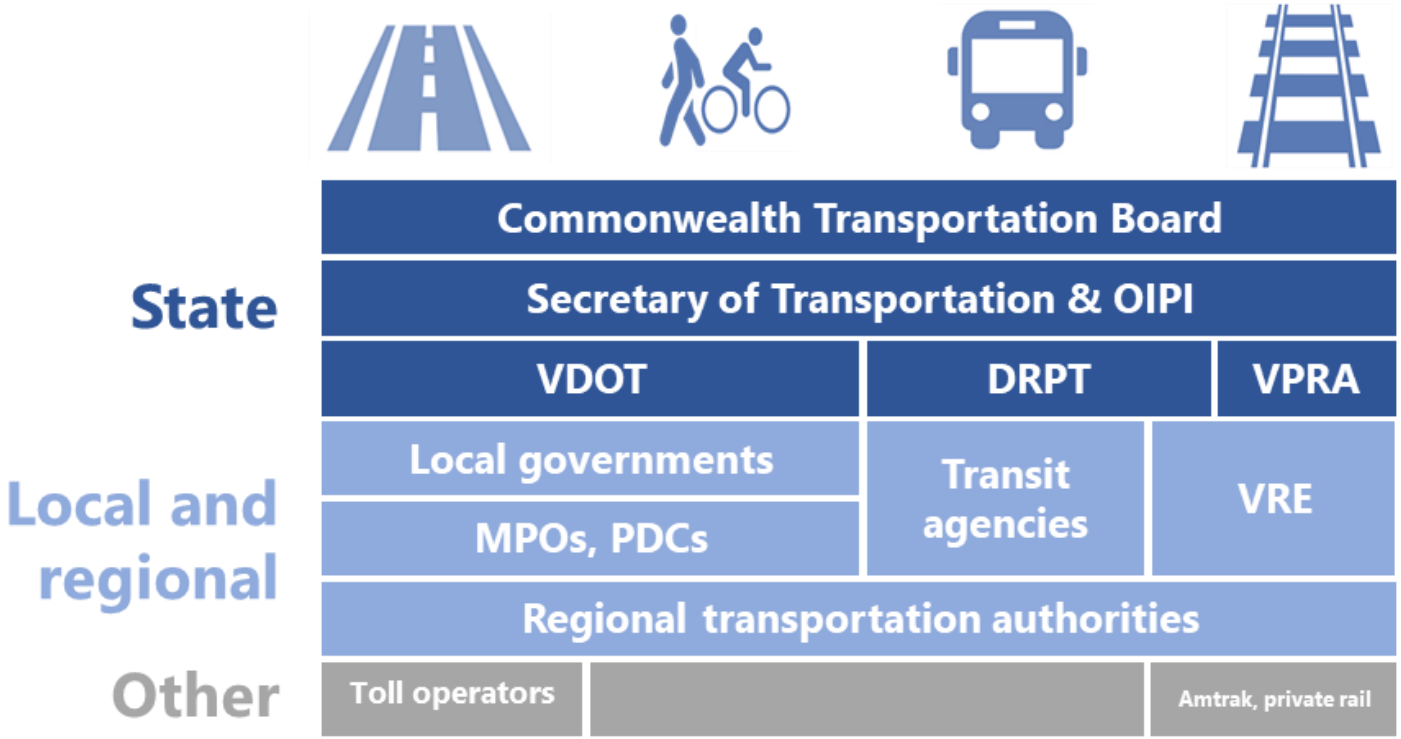
- Funding keeps existing infrastructure and assets in sufficient condition
- Funding addresses system problems, such as congestion and safety
- State has congestion, safety, and other problems on major corridors and urban areas
  - I-95 from Richmond to D.C.
  - I-64 and I-264 in Hampton Roads
  - I-81 corridor

Transportation revenues are distributed through several funding programs



*Includes funding for debt service, federal matches, DMV, Port of Virginia, airports, space, planning, & management. $20M in state recordation taxes for Hampton Roads Transit not shown as does not flow to the CTF.

State, local, regional, and private entities are responsible for the transportation system



OIPI = Office of Intermodal Planning & Investment

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Virginia's transportation revenues come from several state and other sources (FY22)

State revenues: Commonwealth Transportation Fund

State sales & use tax	State motor fuel tax	Vehicle sales tax	Other state revenue	
29%	29%	21%	21%	$4.2B

+

Other state funding sources

Federal funding programs	Regional & local contributions	Other*	Bonds	
41%	29%	18%	12%	$3.1B

Includes portion of state-established regional tax revenues

"Other" includes mostly regional fuel taxes dedicated to Smart Scale.

Finding

Recent legislative changes increased transportation revenues and help address near- and longer-term funding concerns.

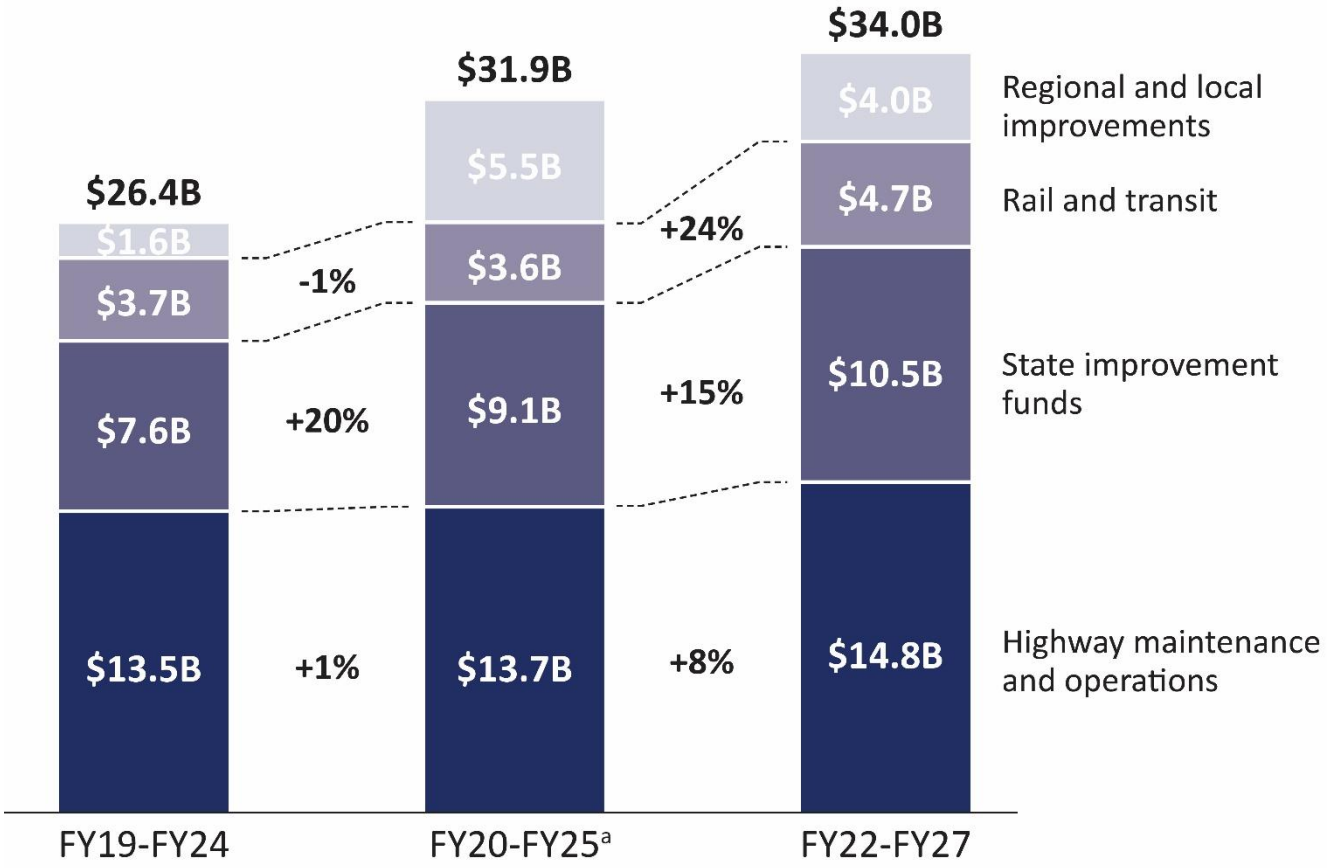
Prior to 2020, transportation system needs were projected to outpace revenue

- Road and transit maintenance needs projected to exceed allocated funds by ≈$300M per year
- Funding awarded under the state's main improvement funding program declined by $160M from FY17 to FY19
- Fuel tax revenues flat and projected to decline over the long term

2020 General Assembly took several actions to address near- and long-term revenue concerns

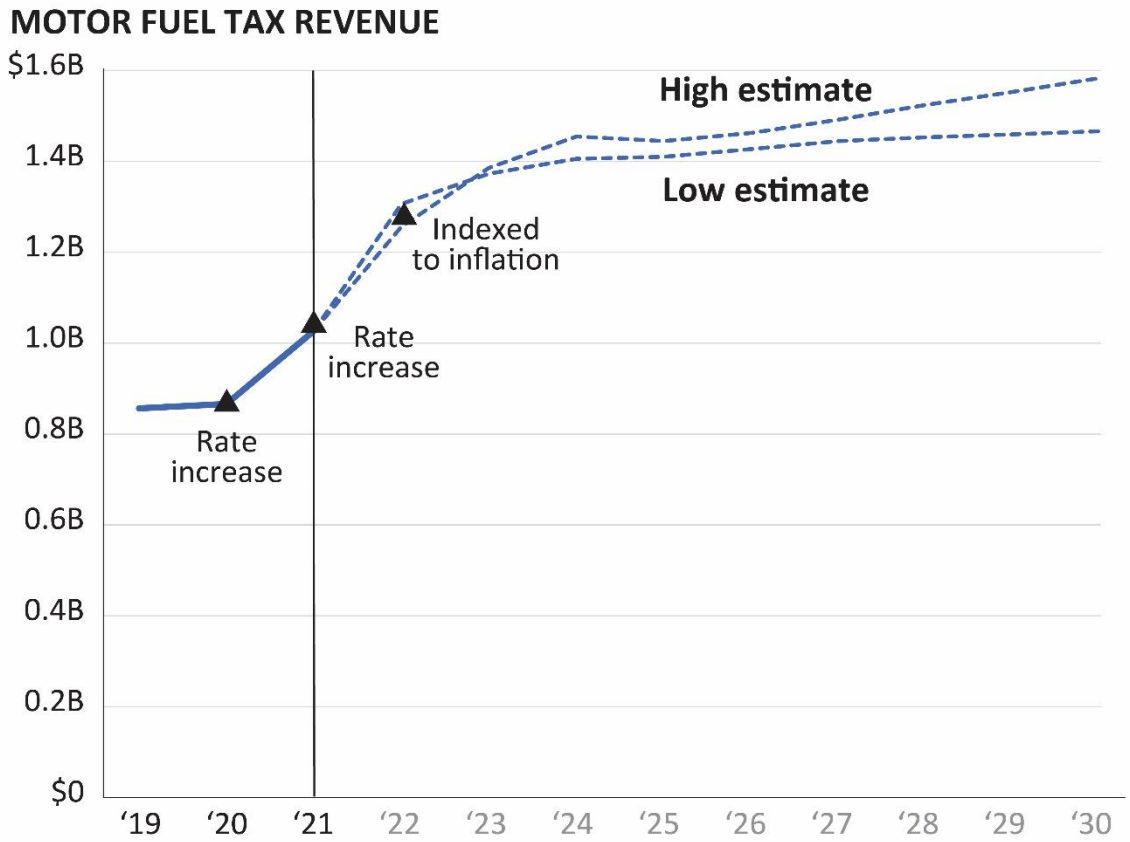
- 2020 omnibus transportation legislation
  - increased state fuel taxes
  - expanded regional fuel taxes
  - indexed fuel taxes to inflation
  - created new user fees
- Addressed gaps in road maintenance budget, reversed decline in funding for multimodal improvements
- Built on several other revenue changes made over past decade (2019, 2018, 2013)

State revenue allocations projected to increase by $3.6 billion (16 percent) during six-year period



Note: [a] There was no FY21–FY26 plan because of the COVID-19 pandemic. Graphic does not show change in regional and local improvement funds.

Fuel tax changes likely offset any revenue lost from declining fuel consumption over next decade



High and low estimates assume varying fuel supply, demand, and prices and also take into account current forecasts of the adoption of electric and fuel efficient vehicles and some policy assumptions.

Finding

New user fees supplement revenue in the near term and, over the long term, could potentially help offset declining fuel tax revenues.

Virginia implemented a new highway use fee (HUF) in 2020

- HUF is annual flat fee charged to registered vehicle owners based on vehicle fuel efficiency
- HUF is higher for more fuel-efficient and electric vehicles, with current max fee of $109
  - Average efficient or electric vehicle owner still pays less in *total* taxes because of (i) less or no *fuel* taxes and (ii) 15% "discount" built into HUF calculation
- HUF generated $43M in FY21 but could potentially generate up to $700M by 2040

2020 legislation directed development of Mileage-Based User Fee (MBUF) program

- MBUF is a variable fee that charges vehicle owners based on actual road use
  - Voluntary alternative to paying HUF
  - Expected to begin in FY23
- Second or third generation MBUF program could serve as eventual fuel tax supplement or replacement but needs to gain public acceptance
- Key public concerns are data privacy and location tracking

Recommendations

General Assembly may wish to consider limiting what data can be collected under the MBUF program and how it can be used and allow program participants to only be charged for miles driven in Virginia.

DMV should evaluate the MBUF program after one year and report back to the General Assembly on any changes needed to facilitate program operations and expansion.

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Responsibility for Virginia roads shared between VDOT and localities

- VDOT maintains interstates and most county roads (85 percent of all Virginia road miles)
- Cities, larger towns, and Arlington and Henrico counties responsible for maintaining their roads (15 percent)
- Virginia one of five states in which state is responsible for secondary roads

Finding

Virginia's roads are generally in sufficient condition, but some bridge and pavement repair funding could be better allocated.

VDOT pavements and bridges are generally in sufficient condition

- Virginia ranks 13th among states for pavement condition and 17th for bridge condition
- 87% of interstate and primary pavements in sufficient condition (increase from 74% in FY11)
- Only 60% of secondary pavements in sufficient condition (decrease from 66% in FY11), but CTB is allocating more maintenance funding to high-volume secondary roads
- 96% of bridges are rated fair to excellent (no structural deficiency)

State of Good Repair program is beneficial but limited because of restrictions and cap

- State of Good Repair program funds poorest condition bridges and pavements ($197M in FY22)
- Program has improved condition of VDOT- and locally maintained systems
- Restriction and cap limit program effectiveness
  - Restrictions on using funds for bridges until they become structurally deficient, yet fixing bridges earlier is more cost-effective over the long term
  - Cap on portion of total funding allocated to each district results in two districts receiving less funding than needed

Recommendations

The General Assembly may wish to consider allowing the State of Good Repair (SGR) program to fund more efficient repair and reconstruction of bridges in fair, but almost structurally deficient, condition.

The General Assembly may wish to consider better addressing all district needs by eliminating or raising the cap on the proportion of SGR funding that each district can receive.

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Finding

State's VTrans planning process effectively identifies long-term trends and identifies most major transportation needs.

State effectively identifies long-term trends

- State's VTrans planning process identifies long-term trends and potential transportation impacts in four categories:
  - Technological advancements
  - Climate patterns
  - Socio-demographic changes
  - Consumption patterns
- State already taking action to adapt to some trends

State effectively identifies most of its major transportation needs

- CTB has established needs categories related to safety, congestion, economic development, and access
- State's VTrans planning process uses extensive data analysis and stakeholder engagement to identify needs
- VTrans considers all needs in urban areas and along major *statewide* corridors but not along some *regionally* significant corridors in rural areas
  - Examples: sections of US-15, US-23, US-360
  - Localities cannot submit Smart Scale projects for smaller but potentially regionally significant congestion and reliability needs

Recommendation

CTB should designate corridors of regional significance to be included in the VTrans needs identification process.

State administers or has authorized several improvement funding programs

- Smart Scale
- Interstate programs (I-81, other)
- Revenue Sharing
- Highway Safety
- Regional programs
  - Northern Virginia, Hampton Roads, Richmond area

Note: Not a comprehensive list of all state administered or authorized transportation funding programs.

Finding

State funding programs are generally well designed and distribute funds equitably.

Smart Scale is an objective, apolitical process for funding improvement projects

- Smart Scale is state's main discretionary program for funding transportation system improvements
  - $1.4 billion awarded in last round
- Scores potential projects using clear criteria and objective measures
- Funding outcomes appear equitable across regions
- Projects of widely varying size receive funding ($44K–$300M)

New interstate programs starting to fund planned improvements

- I-81 corridor improvement program is progressing as expected
  - Includes $2.9B in improvement projects, most to be completed by 2033
  - Several projects under way or in design; schedules not affected by pandemic
- ~$90M dedicated funding provided for operational improvements and construction projects on other interstates, especially I-95 and I-64

I-81 program established by 2019 General Assembly. Other interstate funding program established by 2020 General Assembly.

Revenue Sharing program highly regarded before changes were made in response to pandemic

- Revenue sharing program provides localities with 50:50 state match for wide range of transportation projects
  - Awards ~$100M annually in grants
- Localities found program especially helpful because of flexibility of funding, ability to use on smaller projects
- In 2020, program was changed to help patch revenue shortfalls in state transportation budget
  - No new grants awarded for FY21–22 or FY23–24
  - Wait time between grant application and when funds are received extended several years

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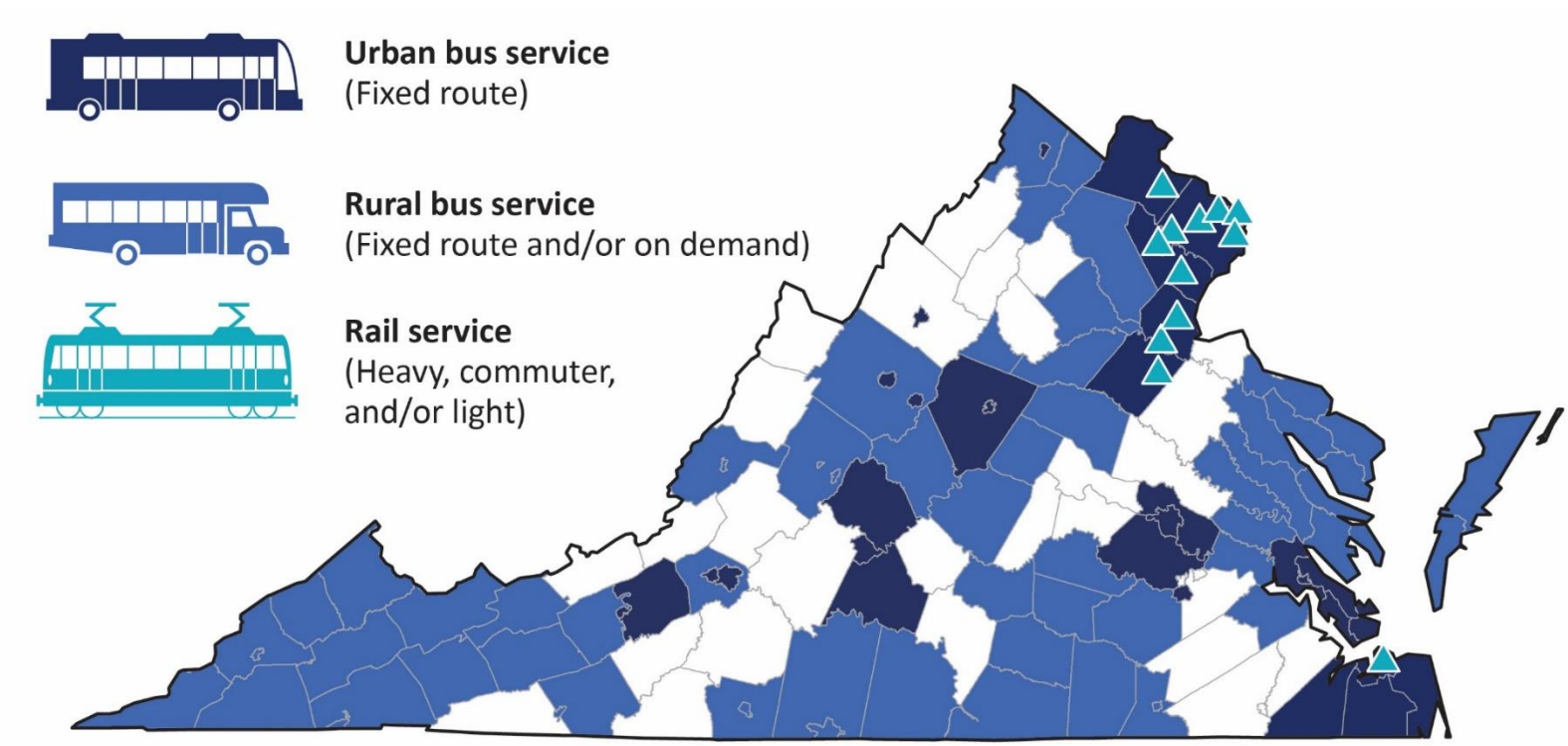
Transit services in Virginia are provided by 40 local or regional agencies across the state



State assistance is a significant revenue source for transit agencies

- State provided $758M to transit in FY22, which pays for
  - 8% of WMATA ("Metro") operating and capital budgets
  - 20% of other transit agency operating budgets and over 50% of their capital budgets
- Virginia recently increased annual state funding provided to transit agencies
  - WMATA by ~$160M (75%) in 2018
  - Other transit agency funding by ~$35M (25%) in 2020

WMATA = Washington Metropolitan Area Transit Authority
Note: A portion of state contributions to WMATA flow through localities, so cannot readily determine what portions of state versus local contributions originate with the state.

Finding

Virginia transit asset condition reports suggest they are generally well maintained, but state capital assistance to transit agencies may not be enough to keep pace with expected capital needs.

State transit agency assets generally reported to be in better condition than U.S. transit assets

% of assets in good repair

	Fleet vehicles	Non-fleet vehicles	Facilities	Rail infrastructure
Virginia Tier I agencies	93%	69%	92%	98%
Virginia Tier II agencies	81	80	93	-
All U.S. transit agencies	80	63	88	94

Tier I transit agencies operate more than 100 vehicles (Metro, GRTC, HRT, Fairfax Connector, Omniride, VRE). Tier II are smaller agencies that operate 100 or fewer vehicles (34 agencies).

State capital assistance to transit agencies may not be enough to meet needs

- Transit agencies need to replace fleet vehicles and make system enhancements
- State provides agencies with capital assistance through MERIT funding program (except for WMATA)
- MERIT capital assistance projected to be less than needed over next five years (FY23–27)
  - $52M shortfall for asset replacement
  - $174M shortfall for minor and major enhancements

Note: Capital funding provided to WMATA from Virginia, Maryland, D.C., and federal government is reportedly sufficient to meet the needs in the agency's 10-year capital plan. However, recent issues with Metro cars indicates possible issues with car design, maintenance, and not addressing problems found during inspections.

Recommendation

CTB should direct $39.8M in FY21 transportation revenue surplus funds to the MERIT capital program.

Finding

Transit agencies have sufficient operating funds in near term, but longer-term sustainability is uncertain if ridership and fare revenue do not return to pre-pandemic levels.

Lost fare revenues from lower ridership could eventually lead to service reductions

- Transit fare revenues down 57% from pre-pandemic levels, mainly from lost ridership
  - Represents 11% loss in funding across all agencies
  - Amount of revenue ranges from several thousand dollars at smaller agencies to $25 million at VRE
- Agencies using federal relief funds to close budget gaps
- Many agencies will use up relief funds by end of FY22 or FY23 and will have to reduce services if ridership has not recovered

VRE = Virginia Railway Express

Recommendation

Department of Rail and Public Transportation should monitor pandemic ridership recovery at transit agencies and develop options for changing the MERIT operating funding formula.

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