



Introduction and Purpose

This memorandum supports the Northern Virginia Transportation Commission (NVTC) project to provide technical assistance for the Washington Metropolitan Area Transit Authority (WMATA) Operating Funding and Reform Working Group. It summarizes the estimated revenue generated from 10 potential revenue sources over a 10-year period and provides detail on the methods to calculate the revenue projections. The memo begins by identifying the revenue sources to be analyzed, followed by an overview of the methodology used to generate the revenue estimates. The discussion then proceeds through each step of the methodology, first identifying the source data used as inputs to the revenue estimates, followed by a discussion of the methodology used to generate the revenue base and a discussion on the assumptions used to forecast changes to the revenue base over the 10-year analysis period. The memo then identifies the incremental tax rate evaluated and concludes with a range of revenue estimates for each revenue source resulting from a unit change to the revenue rate.

Revenue Sources

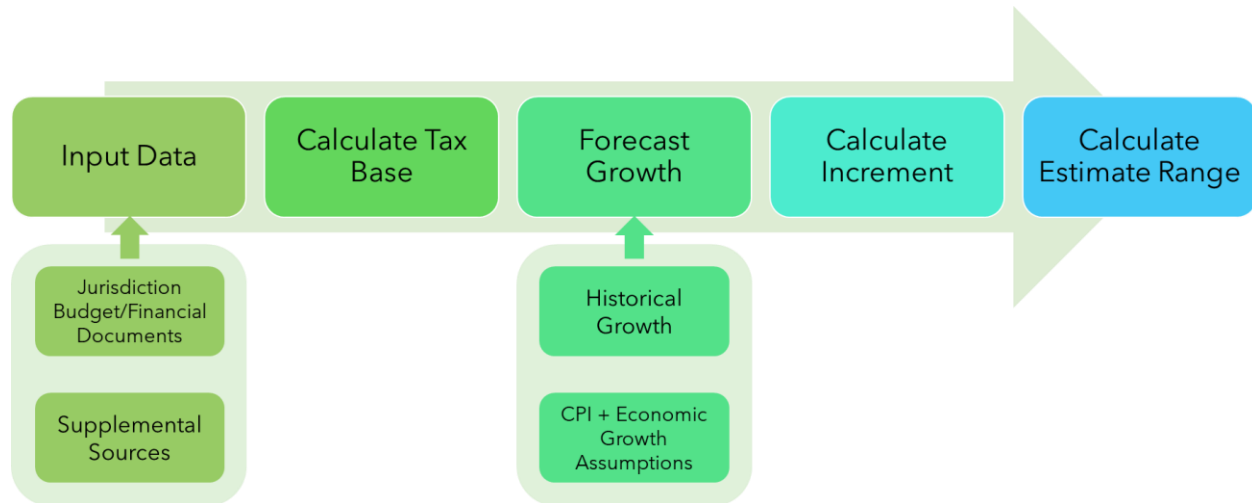
The WMATA Operating Funding and Reform Working Group agreed upon 10 potential revenue sources for further analysis and forecast revenue estimates. These revenue sources are a mix of existing, well-known revenue sources that are used in Virginia either statewide and/or at a regional level and new revenue sources. The 10 revenue sources analyzed are:

- Retail Sales and Use Tax
- Transient Occupancy Tax
- Grantor's Tax
- Regional Motor Vehicle Fuels Tax
- Motor Vehicle Sales Tax
- Vehicle Registration Fee
- Driver's License Fee
- TNC Sales Tax
- Parking Sales Tax
- Auto Repair Labor Tax

An additional revenue source, property tax, was also analyzed to provide insight to how much each jurisdiction could raise based on a \$0.01 increase in the property tax rate.

Overview of Revenue Estimation Methodology

The figure below illustrates the analytical process (e.g., workflow) used to calculate the incremental revenue estimates for each revenue source.



The process begins with assembling the input data required for the analysis. The objective is to be able to calculate a tax or revenue base that can then be forecasted over a 10-year period based on growth assumptions. To calculate this tax base, the analysis requires a tax rate and tax revenue. Two types of data sources were used in assembling the input data:

- Jurisdiction budget/financial documents: contained information on existing transit revenue sources
- Supplemental sources: other data used to estimate activity or consumption and the resulting revenue

Data sources as far back as available were used to calculate the tax base over time, generally over a period of 10 years. This was then used to produce a historical growth trend that could be used to forecast how the tax base would grow in the future years. The analysis also considered Consumer Price Index (CPI) (i.e., inflationary factors) and economic growth (i.e., growth due to change in activity or consumption) assumptions to generate an alternate growth trend. The historical growth trend and CPI + economic growth trend is multiplied with the existing tax base (i.e., 2023) to calculate a forecast from 2024 through 2033.

An incremental tax rate to evaluate the revenue impact is then identified for each revenue source. The increment is intended to be representative of a unit of analysis (e.g., 0.1%, \$1.00) that can be scalable to multiple increments (e.g., 6.0%, \$10.00). The incremental tax rate is multiplied with both the historical growth forecast and CPI + economic growth forecast to calculate the incremental revenue.

To account for variations in revenue estimates due to uncertainty or volatility, an uncertainty factor is applied to each incremental revenue estimate based on knowledge of the revenue source and its stability. The result is a revenue estimate range (i.e., a low and high estimate) for each revenue source.

The next sections will discuss each step/component of the analytical process in more detail.

Input Data

This section discusses the various documents or reference materials used to identify information on the revenue sources for evaluation.

Data Sources by Jurisdiction

The table below lists the document or reference material used to identify existing revenue source information by jurisdiction. These materials included information on the tax rate or fee, as well as the tax or fee revenue. This information was used to calculate the tax/revenue base. The data was obtained from publicly available sources as far back as available (e.g., some jurisdictions still publish tax rate and tax revenue data from as far back as 2012). Note that for the Grantor’s Tax, only Arlington County documents explicitly identify the tax revenue.

Revenue Source	Jurisdiction	Document/Reference Material
Retail Sales and Use Tax	Arlington County	<ul style="list-style-type: none"> Arlington Analytics Operating Budget Arlington County Revenue Summary
	City of Alexandria	<ul style="list-style-type: none"> City of Alexandria Revenue Summary Annual Comprehensive Financial Report
	City of Fairfax	<ul style="list-style-type: none"> Annual Comprehensive Financial Report
	City of Falls Church	<ul style="list-style-type: none"> City of Falls Church Proposed Budget City of Falls Church Adopted Budget Budget and Capital Improvements Program
	Fairfax County	<ul style="list-style-type: none"> Fairfax County Adopted Budget General Fund Revenue Overview
	Loudoun County	<ul style="list-style-type: none"> General Fund Revenues and Trends
Transient Occupancy Tax	Arlington County	<ul style="list-style-type: none"> Arlington Analytics Operating Budget Arlington County Revenue Summary
	City of Alexandria	<ul style="list-style-type: none"> City of Alexandria Revenue Summary
	City of Fairfax	<ul style="list-style-type: none"> City of Fairfax Adopted Budget
	City of Falls Church	<ul style="list-style-type: none"> City of Falls Church Proposed Budget City of Falls Church Adopted Budget Budget and Capital Improvements Program
	Fairfax County	<ul style="list-style-type: none"> Fairfax County Adopted Budget General Fund Revenue Overview
	Loudoun County	<ul style="list-style-type: none"> General Fund Revenues and Trends

Revenue Source	Jurisdiction	Document/Reference Material
Grantor's Tax	Arlington County	<ul style="list-style-type: none"> Arlington County Revenue Summary

Statewide Data Sources

Information for certain revenue sources is contained in statewide data repositories. The table below lists the document or reference material used to identify existing statewide revenue sources. Some materials contained information on the statewide tax or fee and revenue, while other materials contained information on the statewide tax or fee and the number of transactions (e.g., number of vehicle registrations, number of driver's licenses) or quantity (e.g., number of gallons). Note that the retail sales tax has a statewide component that gets collected on top of local taxes. The driver's license and vehicle registration fees are reported and set by the DMV and apply to the whole state.

Revenue Source	Document/Reference Material
Retail Sales and Use Tax	<ul style="list-style-type: none"> Virginia Annual Reports Sales Tax Rates
Driver's License Fee	<ul style="list-style-type: none"> Virginia DMV Fees Highway Safety Annual Report
Vehicle Registration Fee	<ul style="list-style-type: none"> Virginia DMV Fees Highway Safety Annual Report Virginia Automobile Dealer Association (VADA) New Vehicle Registration Reports
Vehicle Sales Tax	<ul style="list-style-type: none"> Virginia Automobile Dealer Association (VADA) New Vehicle Registration Reports
Regional Motor Vehicle Fuels Tax	<ul style="list-style-type: none"> Virginia DMV Report to NVTC on Regional Gas Tax Revenue

Other Data Sources

The table below lists the document or reference material used to identify new revenue sources, or local sources that were not specified in jurisdictional material (e.g., grantor's tax). For the parking sales tax and TNC sales tax, a data repository called Replica is used to estimate activity and revenue with publicly accessible data for NVTC jurisdictions. Replica is a synthetic travel demand model that sources data from location-based services such as on cellphones, navigation data, or credit card transactions to gain insights on travel patterns, economic activity, and consumer behavior.

Revenue Source	Document/Reference Material
Auto Repair Labor Tax	<ul style="list-style-type: none"> AAA Driving Cost Fact Sheet

	<ul style="list-style-type: none"> Metropolitan Washington Council of Governments (MWCOG) VMT Forecast
Parking Sales Tax	<ul style="list-style-type: none"> Replica – Jurisdiction level parking counts
TNC Sales Tax	<ul style="list-style-type: none"> Replica – Synthetic ride share trip data
Grantor’s Tax	<ul style="list-style-type: none"> Virginia Realtors Monthly Median Sales Price by Jurisdiction

The final section of this appendix contains a more detailed list of document/reference material by jurisdiction, statewide, and other sources, and provides hyperlinks to the data source.

Calculate the Tax Base

The next step in the analytical process is to calculate the tax base. The formula to calculate the tax base is generalized below:

$$\text{Tax revenue} \div \text{Tax Rate} = \text{Tax Base}$$

For well-documented jurisdiction-level sources (e.g., sales tax, transient occupancy tax), all formula variables are known, and a tax base can be calculated with higher precision. For other sources where the tax revenue is unknown, the analysis first calculates the estimated revenue before deriving the tax base. The next section will discuss existing rates for existing sources, as well as identify sources that are new and do not yet have a tax rate. This is followed by a discussion of the methodology used to calculate the tax base for all revenue sources.

Existing Tax Rates and New Tax Rates

The table below shows the existing rates and revenues for each existing revenue source within the NVTC district.

Revenue Source	Current Rate
Retail Sales and Use Tax	6.0%
Transient Occupancy Tax	Varies 7.0 – 9.5%
Grantor’s Tax	\$0.20 per \$100 of Assessed Value
Regional Motor Vehicle Fuels Tax	\$0.087 per gallon
Vehicle Sales Tax	4.15%
Vehicle Registration Fee	Varies \$30.75 - \$44.75/vehicle
Driver's License Fee	\$32 initial, \$20 renewal

Notes: Current rate for retail sales and use tax shows total statewide, regional, and local increments. Current rate for the Grantor’s tax shows only the regional grantor’s tax in the NVTC district, as there is an additional statewide grantor’s tax. Current rate for the regional motor vehicle fuels tax shows only the regional component, as users pay additional state and federal fuels taxes.

Revenue sources that are new and have no tax rate include:

- Auto Repair Labor Tax

- Parking Sales Tax
- TNC Sales Tax

Methodology Used to Calculate Tax Base

The following table lists general assumptions used in the development of the tax base.

General Assumptions
All Flat Taxes are shown per \$100. Taxes reported as dollar amount per \$1,000 are converted into a per \$100 basis.
Average rate of gas versus diesel is 1.00 unless otherwise specified

The following table lists the assumptions and calculation method for the tax base for various revenue sources.

Revenue Source Assumptions and Methodology
<p>Retail Sales and Use Tax</p> <ul style="list-style-type: none"> • Derived from jurisdictional revenue summaries by fiscal year. Revenue excludes state share and focuses on 1% tax reported as revenue by localities. • Tax base (utilization) is calculated by dividing the revenue by the rate to get total number of sales that occurred in each jurisdiction. • While the total sales tax rate is 6% in the NVTC district, this report uses the 1% local sales tax revenues reported in city and county budgets to calculate a tax base. • The 1% local sales tax includes the sales tax on groceries. Any new increment of sales tax is not expected to include groceries, so these estimates may be slightly overstated. The project team was not able to develop a reliable and consistent methodology to exclude groceries from these estimates, which is an area for future research.
<p>Transient Occupancy Tax</p> <ul style="list-style-type: none"> • Sourced from jurisdictional revenue summary by fiscal year. As jurisdictional rates between localities and over years, the rate is tied to each year’s revenue. • Tax base on transient occupancy (utilization) is calculated by dividing the TOT revenue by rate to get total amount of taxable transactions per jurisdiction. • The total TOT rate varies in each city and county in the NVTC district. Cities and counties report their TOT revenues in their city and county budgets in different ways. The project team reviewed budget documents and contacted city and county staff to pair the revenue assumptions with the appropriate share of the TOT tax rate. • TOT has seen a decrease following the pandemic for some jurisdictions. For jurisdictions which experienced a decline during the pandemic years, the analysis assumes that the tax revenue will recover to pre-pandemic levels in 2025 and grow at pre-pandemic rates.
<p>Grantor’s Tax</p>

Revenue Source Assumptions and Methodology

- As jurisdictions do not break out Grantor's Tax in 'Other Taxes' in Fiscal Year revenue reports, an estimate was derived by multiplying the number of residential real estate sales by jurisdiction by the median real estate price by jurisdiction for each fiscal year.
- The result is an estimate of the total value of residential real estate transactions per year. The grantor's tax rate of .01 per \$100 of fair market value or assessed value is then applied to this total to ascertain the estimated grantor's tax revenue per year per jurisdiction.
- Note that this calculation does not include commercial real estate transactions or refinancing transactions. Data for these transactions were not publicly available.

Vehicle Sales Tax

- New vehicle sales data from the DMV is grouped by jurisdiction, by vehicle type (car and truck/light duty) and year of sale.
- The number of cars and trucks sold per jurisdiction per year is then multiplied by the mean sales price of vehicles per year to get the revenue estimate per year.
- The tax base (utilization per jurisdiction) is then calculated by applying the tax rate per year to the revenue estimate.

Auto Repair Labor Tax

- Data from the Bureau of Transportation Statistics on average cost per mile of maintenance for vehicles per year is multiplied by the number of Daily Vehicle Miles driven from VDOT in the 6 WMATA Compact jurisdictions. This number represents the aggregate maintenance costs (parts and labor) estimate for all jurisdictions.
- The aggregate maintenance costs are then broken down into a 0.8:1 parts to labor ratio to ascertain the tax base for labor on vehicle maintenance. Because this is a new tax, existing rate is considered when calculating increment and any increase in percent tax will be >0.
- Note: The MWCOG forecast on vehicle miles traveled (VMT) will be used to grow estimated VMT for future years, to estimate natural growth in VMT and thus growth in associated maintenance costs.

Driver's License Fee

- Assumed an average driver's replacement/initial fee of \$26. Initial fee is \$32, and replacement is \$20.
- Used number of licensed drivers' data from 2014 to 2021 (8-year period) to get average number of licensed drivers in the state.
- Divided average number by 8 to get annual license issues for the whole state.
- Licensed driver distribution is same as population distribution for jurisdictions in the state.
- Used this to get annual newly licensed drivers by jurisdiction.
- Multiplied jurisdiction values by average license renewal cost

Regional Motor Vehicle Fuels Tax

- Revenue per year by jurisdiction sourced from DMV report to NVTC on regional gas tax revenue.
- Number of gallons (utilization) estimated by dividing reported revenue by jurisdiction by excise tax rate.

Revenue Source Assumptions and Methodology

- Increment increase on gas tax per gallon rate is applied for future years with projected future gallon usage.
- Note: The projected future gallon usage will change with refinement of VMT and fuel efficiency data which is expected to slowly decrease the gallons usage per year, even as the gallon tax rate increases.

Vehicle Registration Fee

- Used statewide vehicles registered and population to get vehicles per capita for the state.
- Statewide vehicle per capita used at the jurisdiction levels.
- Used jurisdiction population numbers to get registered vehicles by multiplying by vehicle to person ratio.
- Used lower weight car classification price for car registration fee. Used lower pick-up truck weight classification price for truck registration fee and the higher pick-up truck weight price for heavy truck registration fee. (From DMV reporting)
- Used new vehicle registration data to get percent split between trucks and cars at the jurisdiction level by year

Transportation Networking Companies (TNCs) Sales Tax

- Source data for validation comes from DC Department of For-Hire Vehicles which supplies information on number of trips in the district as well as reported revenue. From this data, a general cost per trip is ascertained.
- Cost per trip from DC is graphed onto TNC trip data gathered from the Replica Travel Demand Model for each NVTC jurisdiction. This data contains number of trips as well as average and median trip length per jurisdiction. The revenue per jurisdiction using the average cost of trips, number of trips is then calculated, also accounting for varying trip length by jurisdiction. This number is then annualized for each year.

Parking Sales Tax

- Parking data is sourced from Replica Parking Lot data for off-street parking for each NVTC jurisdiction. This represents a sample of parking lot utilization and does not represent all lots.
- The data is filtered for publicly available, non-restricted and monthly commercially paid operated lots in each jurisdiction. It does not include parking lots operated by the City or County government, as well as lots operated by WMATA or MWAA. It also does not include free parking spaces.
- The total number of paid spaces is calculated, and average rate paid is assumed to be a maximum of \$11 per day based on weekday and weekend averages for each jurisdiction. This can be varied for areas where parking is more in demand.
- Yearly totals for revenue are calculated based on 260 weekdays, 53 Saturdays and 52 Sundays
- Average utilization per weekday and weekend is used to calculate how many spots are used per day.
- Parking Revenue can be varied directly in the revenue estimate model by adjusted the turnover rate. This number represents how many times a spot is used throughout a day. The

Revenue Source Assumptions and Methodology

default is 1.5 based on the assumption that for every long-term parker who pays the daily maximum, there is at least turnover on half the spots for short-term parkers.

Forecast Growth of Tax Base

Once the tax base is calculated, the next step is to forecast the growth of the tax base over a 10-year period, from 2024 through 2033. This section discusses the methodology behind developing the growth forecast for the tax base.

Historical (Linear) Growth Factors

The tax base was calculated for as many previous years as was available, allowing the analysis to calculate a forecast based on the historical, actual tax base. This forecast used linear regression to predict future year tax base values.

For some revenue sources in certain jurisdictions (e.g., the transient occupancy tax), the impact of the pandemic has caused a significant decline in tax revenue (and tax base). The analysis identifies those outlier revenue sources and jurisdictions and grows the tax base using pre-pandemic (i.e., pre-2019) growth rates.

Consumer Price Index Growth Factors

S&P global projections were used to identify the inflation indices that would best estimate the future growth of the revenue sources. The table below shows the list of indices used to inflate revenues to year-of-expenditure dollars and shows how each revenue source was assigned to an index.

Revenue Source	S&P Index Label
Vehicle Registration Fee	United States, Consumer Price Index, All Items Less Food and Energy
Driver's License Fee	
Parking Sales Tax	
Retail Sales and Use Tax	United States, Consumer Price Index, All Items, All Urban
Grantor's Tax	United States, Consumer Price Index, Housing
Regional Motor Vehicle Fuels Tax	United States, Consumer Price Index, Motor Fuel
Auto Repair Labor Tax	United States, Consumer Price Index, Motor Vehicle Maintenance and Repair
Vehicle Sales Tax	United States, Consumer Price Index, New Vehicles

Revenue Source	S&P Index Label
Transient Occupancy Tax	United States, Consumer Price Index, Other Lodging Away from Home Including Hotels and Motels
TNC Sales Tax	United States, Consumer Price Index, Private Transportation

Economic and Demographic Growth Factors

In addition to inflationary measures, the analysis evaluated economic measures that would influence future changes in the tax or revenue base for each revenue source. The table below identifies the economic drivers/growth factors associated with each revenue source and provides a high-level growth assumption/methodology. Note that these growth assumptions are based on changes in production/consumption and do not consider inflation.

Revenue Source	Growth Factor(s)	Growth Assumption *
Vehicle Registration Fee	Number of Vehicles	Increases 1% per year
Driver's License Fee	Number of Licenses	Increases 0.5% per year
Parking Sales Tax	Parking Spaces	Increases 0.5% per year
Retail Sales and Use Tax	Population + Visitors	Increases 2% per year
Grantor's Tax	Median Value (above CPI)	Increases 2% per year
Regional Motor Vehicle Fuels Tax	Gallons Consumed, VMT, Miles per Gallon (MPG)	Increases 1% per year
Auto Repair Labor Tax	Regional VMT from MWCOG	Increases 0.75% per year
Vehicle Sales Tax	Vehicle Sales	Increases 1% per year
Transient Occupancy Tax	Number of visitors	Increases 2% per year
TNC Sales Tax	Number of trips	Increases 2% per year

* Growth assumption does not consider inflation

To grow the tax base, there were two growth scenarios evaluated. The historical (linear) growth scenario accounts for actual growth experienced (e.g., as far back as 2012 for certain revenue sources). The CPI growth factors were combined with the economic growth factors to produce a CPI + economic growth scenario.

Calculate the Incremental Revenue

The next step is to identify the incremental tax rate to evaluate and calculate the incremental tax revenue for the historical growth and CPI + economic growth forecasts. The table below shows the incremental rate evaluated in the analysis, along with the existing rate (if applicable) for an order-of-magnitude comparison.

Revenue Source	Current Rate	Increment Evaluated
Retail Sales and Use Tax	6.0%	0.1%
Transient Occupancy Tax	Varies 7.0 – 9.5%	1.0%
Grantors Tax	\$0.20 per \$100 of Assessed Value	\$0.01
Regional Motor Vehicle Fuels Tax	\$0.087 per gallon	\$0.01
Vehicle Sales Tax	4.15%	0.1%

Revenue Source	Current Rate	Increment Evaluated
Vehicle Registration Fee	Varies \$30.75 - \$44.75/vehicle	\$1.00
Driver's License Fee	\$32 initial, \$20 renewal	\$1.00
TNC Sales Tax	Not available, new source	1.0%
Parking Sales Tax	Not available, new source	1.0%
Auto Repair Labor Tax	Not available, new source	1.0%

Notes: Current rate for retail sales and use tax shows total statewide, regional, and local increments. Current rate for the Grantor's tax shows only the regional grantor's tax in the NVTC district, as there is an additional statewide grantor's tax. Current rate for the regional motor vehicle fuels tax shows only the regional component, as users pay additional state and federal fuels taxes.

These increments are multiplied with the tax base to calculate the incremental tax revenue for each revenue source for the historical and CPI + economic growth scenarios.

Calculate Range of Revenue Estimate

Given the uncertainty with forecasts due to economic volatility and demographic changes, the analysis calculates a range of incremental tax revenue estimates for each revenue source. This produces a low and high revenue estimate. The variance in range depends on the level of knowledge of the revenue source (e.g., is it currently used to fund transit) and its stability (e.g., steady over time).

The table below identifies how each revenue source was assigned to a range estimate category and provides the percent variance used in the analysis.

Revenue Source	Range Estimate Category	Percent Variance
Retail Sales and Use Tax	Existing Northern Virginia Regional Transportation Funding Sources	±5.0%
Transient Occupancy Tax		
Grantor's Tax		
Regional Motor Vehicle Fuels Tax		
Vehicle Sales Tax	Existing Statewide Transportation Funding Sources	±10.0%
Vehicle Registration Fee		
Driver's License Fee		
Auto Repair Labor Tax	Potential New Sources to Fund Transit	±20.0%
Parking Sales Tax		
TNC Sales Tax		

The table below lists the 10 revenue sources and the incremental tax revenue range (i.e., a low and high estimate) in millions of 2025 dollars. It also indicates whether the revenue source has a low (e.g., limited), medium (e.g., moderate), or high growth potential.

Revenue Source	Current Rate	Increment Evaluated	Millions of 2025\$		Growth Potential
			Low	High	
Retail Sales and Use Tax	6.0%	0.1%	\$44.7	\$50.7	High
Transient Occupancy Tax	Varies 7.0 – 9.5%	1.0%	\$10.4	\$11.9	Medium, volatile
Grantors Tax	\$0.20 per \$100 of Assessed Value	\$0.01	\$1.5	\$2.0	Medium, volatile
Regional Motor Vehicle Fuels Tax	\$0.087 per gallon	\$0.01	\$5.5	\$6.8	Low/Medium
Vehicle Sales Tax	4.15%	0.1%	\$4.1	\$5.1	High
Vehicle Registration Fee	Varies \$30.75 - \$44.75/vehicle	\$1.00	\$1.8	\$2.4	Medium
Driver's License Fee	\$32 initial, \$20 renewal	\$1.00	\$0.2	\$0.2	Low
TNC Sales Tax	Not available, new source	1.0%	\$3.0	\$5.8	Medium
Parking Sales Tax	Not available, new source	1.0%	\$2.5	\$4.1	Medium
Auto Repair Labor Tax	Not available, new source	1.0%	\$8.3	\$12.9	Medium

Notes: Current rate for retail sales and use tax shows total statewide, regional, and local increments. Current rate for the Grantor's tax shows only the regional grantor's tax in the NVTC district, as there is an additional statewide grantor's tax. Current rate for the regional motor vehicle fuels tax shows only the regional component, as users pay additional state and federal fuels taxes.

As a part of the analysis, the incremental tax revenue from a \$0.01 increase in the property tax was calculated for each jurisdiction. The table below shows the result in millions of 2023 dollars.

Jurisdiction	Current Rate/ \$100 assessed value	Increment Evaluated	Millions of 2023\$
City of Alexandria	\$1.11	\$0.01	\$4.65
Arlington County	\$1.013	\$0.01	\$8.54
City of Falls Church	\$1.24	\$0.01	\$0.51
City of Fairfax	\$1.01	\$0.01	\$0.77
Fairfax County	\$1.11	\$0.01	\$28.73

Loudoun County	\$0.89	\$0.01	\$11.61
TOTAL NVTC District			\$54.80

Note that this estimate was not intended to be a forecast (i.e., in 2025 dollars) and is a calculation on an estimate of existing (i.e., 2023) real estate assessed value for the NVTC district.

Additionally, the analysis also considered the incremental revenue if the incremental tax rate were to apply to statewide revenue sources. The table below shows the result of this calculation. Note that for the vehicle registration fee and driver’s license fee estimates are in 2021 dollars.

Revenue Source	Current Rate	Increment Evaluated	Millions of \$2022	Growth Potential
Retail Sales and Use Tax	4.3%	0.1%	\$150	High
Motor Vehicle Sales Tax	4.15%	0.1%	\$29	High
Vehicle Registration Fee*	Varies \$30.75 - \$44.75/vehicle	\$1.00	\$8.4	Medium
Driver's License Fee*	\$32 initial, \$20 renewal	\$1.00	\$0.8	Low

* Estimate is in calendar year 2021 dollars; this is the most recent available data on registered vehicles and licensed drivers

Data Sources and Reference Links

Arlington County

Tax	Source
Grantors Tax	Arlington County Revenue Summary: <ul style="list-style-type: none"> FY22: https://tinyurl.com/2n5hmabj
Local + State Sales Tax	Arlington Analytics Operating Budget: <ul style="list-style-type: none"> https://tinyurl.com/39zk8t53
	Arlington County Revenue Summary <ul style="list-style-type: none"> FY23: https://tinyurl.com/munyshpz FY24: https://tinyurl.com/3e3k9caf FY22: https://tinyurl.com/2n5hmabj
Transient Occupancy Tax	Arlington Analytics Operating Budget: <ul style="list-style-type: none"> https://tinyurl.com/39zk8t53
	Arlington County Revenue Summary <ul style="list-style-type: none"> FY22: https://tinyurl.com/2n5hmabj FY23: https://tinyurl.com/munyshpz FY24: https://tinyurl.com/3e3k9caf

City of Alexandria

Tax	Source
Local + State Sales Tax	City of Alexandria Revenue Summary: <ul style="list-style-type: none"> FY24: https://tinyurl.com/7b4uxv3p
	Annual Comprehensive Financial Report <ul style="list-style-type: none"> FY22: https://tinyurl.com/3zhazjx5
Transient Occupancy Tax	City of Alexandria Revenue Summary: <ul style="list-style-type: none"> FY24: https://tinyurl.com/7b4uxv3p FY22: https://tinyurl.com/3xe8dzup FY21: https://tinyurl.com/437x2dc3

City of Fairfax

Tax	Source
Local + State Sales Tax	Annual Comprehensive Financial Report: <ul style="list-style-type: none"> FY22: https://tinyurl.com/4kup44zu
Transient Occupancy Tax	<ul style="list-style-type: none"> Transient Occupancy Tax City of Fairfax, VA (fairfaxva.gov)

City of Falls Church

Tax	Source
Local + State Sales Tax	City of Falls Church Proposed Budget: <ul style="list-style-type: none"> FY20: http://tinyurl.com/3yfm3xj6 FY21: http://tinyurl.com/y526dkaf FY24: http://tinyurl.com/3kteufyz
	City of Falls Church Adopted Budget: <ul style="list-style-type: none"> FY14: http://tinyurl.com/bdcmvn3k FY15: http://tinyurl.com/mr44ccdt FY16: http://tinyurl.com/yf342ham FY17: http://tinyurl.com/432fwupd FY18: http://tinyurl.com/2vjy27cz FY22: http://tinyurl.com/2f953a8k FY23: http://tinyurl.com/mtbcvsw4
	Budget and Capital Improvements Program: <ul style="list-style-type: none"> FY19: http://tinyurl.com/yc782xww
Transient Occupancy Tax	City of Falls Church Proposed Budget: <ul style="list-style-type: none"> FY20: http://tinyurl.com/3yfm3xj6 FY21: http://tinyurl.com/y526dkaf FY24: http://tinyurl.com/3kteufyz
	City of Falls Church Adopted Budget: <ul style="list-style-type: none"> FY14: http://tinyurl.com/bdcmvn3k FY15: http://tinyurl.com/mr44ccdt FY16: http://tinyurl.com/yf342ham FY17: http://tinyurl.com/432fwupd

Tax	Source
	<ul style="list-style-type: none"> • FY18: http://tinyurl.com/2yjy27cz • FY22: http://tinyurl.com/2f953a8k • FY23: http://tinyurl.com/mtbcvsw4
	Budget and Capital Improvements Program: <ul style="list-style-type: none"> • FY19: http://tinyurl.com/yc782xww

Fairfax County

Tax	Source
Local + State Sales Tax	Fairfax County Adopted Budget: <ul style="list-style-type: none"> • FY17: http://tinyurl.com/5b7nueje
	General Fund Revenue Overview: <ul style="list-style-type: none"> • FY18: http://tinyurl.com/4zzax49s • FY19: http://tinyurl.com/33tzytv4 • FY20: http://tinyurl.com/4bt3fxrv • FY21: http://tinyurl.com/ka3uzuvn • FY23: http://tinyurl.com/yh2mwn8b
Transient Occupancy Tax	Fairfax County Adopted Budget: <ul style="list-style-type: none"> • FY17: http://tinyurl.com/5b7nueje
	General Fund Revenue Overview: <ul style="list-style-type: none"> • FY18: http://tinyurl.com/4zzax49s • FY19: http://tinyurl.com/33tzytv4 • FY20: http://tinyurl.com/4bt3fxrv • FY21: http://tinyurl.com/ka3uzuvn • FY23: http://tinyurl.com/yh2mwn8b

Loudoun County

Tax	Source
Local + State Sales Tax	General Fund Revenues and Trends: <ul style="list-style-type: none"> FY23: https://tinyurl.com/bp643jke FY24: https://tinyurl.com/4xyx9p68
Transient Occupancy Tax	General Fund Revenues and Trends: <ul style="list-style-type: none"> FY22: https://tinyurl.com/56ff67tp

Other Revenues

The table below shows sources used for revenue and rate calculation that were not available by jurisdiction or that do not currently exist.

Tax	Source
Auto Repair Labor Tax	Driving Costs Fact Sheet: <ul style="list-style-type: none"> https://newsroom.aaa.com/asset/2022-yourdrivingcosts-factsheet-august/ MWCOG VMT Forecast
Driver's License Fee	Virginia DMV Fees: <ul style="list-style-type: none"> dmv201.pdf (virginia.gov) Highway Safety Annual Report <ul style="list-style-type: none"> https://tinyurl.com/yck4b9j5
Grantors Tax	Virginia Realtors <ul style="list-style-type: none"> Monthly median sales price by jurisdiction
Parking Tax	Replica <ul style="list-style-type: none"> Jurisdiction level parking counts Replica (replicahq.com)
TNC Sales Tax	Replica <ul style="list-style-type: none"> Synthetic ride share trip data Replica (replicahq.com)
Vehicle Registration Fee	Virginia DMV Fees:

Tax	Source
	<ul style="list-style-type: none"> • dmv201.pdf (virginia.gov) Highway Safety Annual Report <ul style="list-style-type: none"> • https://tinyurl.com/yck4b9j5 VADA New Vehicle Registration Reports: <ul style="list-style-type: none"> • Statistical Reports – Virginia Automobile Dealers Association (vada.com)
Vehicle Sales Tax	VADA New Vehicle Registration Reports: <ul style="list-style-type: none"> • Statistical Reports – Virginia Automobile Dealers Association (vada.com)

Statewide sources

The table below shows sources for statewide estimates for the retail sales tax as well as the sources for the driver’s license and vehicle registration fees.

Tax	Source
Retail Sales and Use Tax	Virginia Annual Reports <ul style="list-style-type: none"> • Annual Reports Virginia Tax Sales Tax Rates: <ul style="list-style-type: none"> • Retail Sales and Use Tax Virginia Tax
Motor Vehicle Sales Tax	Virginia DMV Commonwealth Transportation Fund Revenue Reports <ul style="list-style-type: none"> • https://www.dmv.virginia.gov/sites/default/files/documents/tracking_dec_21.pdf
Driver’s License Fee	Virginia DMV Fees: <ul style="list-style-type: none"> • dmv201.pdf (virginia.gov)
Vehicle Registration Fee	Virginia DMV Fee: <ul style="list-style-type: none"> • dmv201.pdf (virginia.gov)