

## Revenue Options Matrix

This matrix evaluates and compares transportation funding options using a series of criteria. This material is educational in aim and is not intended as endorsement or rejection of any particular option. The ratings of “good,” “fair,” and “poor” are somewhat subjective but are based on current information. Further details can be found in the accompanying chart of advantages and disadvantages.

		10-year revenue projections (2021–30)	Responsiveness to inflation	Revenue stability and predictability	Adherence to “user pay” principle	Administrative costs relative to revenue	Equity by income group	Where in use for transportation funding	Relevant NC FIRST Commission resources
<b>User fee options</b>									
Existing state user fees and taxes	Increase motor fuel tax	Gasoline: \$527m per \$0.01 / gallon increase <sup>1</sup> ; Diesel: \$153m per \$0.01 / gallon increase <sup>1</sup>	Good <sup>2</sup>	Fair	Good	Good	Poor	<ul style="list-style-type: none"> <li>Fuel taxes: all states, federal</li> <li>Variable rate: at least 22 states</li> <li>International models</li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 7-12-19, 7-31-20</li> <li>Issue Briefs #1, #9, #11</li> </ul>

<sup>1</sup> Assumes that each \$0.01 increase is enacted in FY 2021 and thereafter subject to the same annual adjustment as the existing motor fuels tax, based on changes to population and the Consumer Price Index for energy costs (N.C. Gen. Stat. §105-449.80)

<sup>2</sup> Revenue stream is already indexed to inflation

		10-year revenue projections (2021–30)	Responsiveness to inflation	Revenue stability and predictability	Adherence to “user pay” principle	Administrative costs relative to revenue	Equity by income group	Where in use for transportation funding	Relevant NC FIRST Commission resources
	Increase DMV fees <sup>3</sup>	Driver license: \$89m per \$1 increase <sup>4</sup> ; Passenger vehicle registration: \$89m per \$1 increase <sup>Error! Bookmark not defined.</sup> ; Commercial vehicle registration: \$1.77b per \$1 increase <sup>Error! Bookmark not defined.</sup>	Good <sup>2</sup>	Good	Fair	Good	Poor	<ul style="list-style-type: none"> <li>DMV fees: at least 47 states</li> <li>Indexed: NC, PA</li> <li>International models</li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 7-12-19, 2-28-20</li> <li>Issue Briefs #6, #9</li> </ul>
	Adjust formula for passenger vehicle registration fees <sup>5</sup>	Projections vary based on specific adjustments	Good <sup>6</sup>	Good	Fair	Good	Poor <sup>7</sup>	<ul style="list-style-type: none"> <li>Passenger vehicle registration fees: at least 42 states</li> <li>Factors used to calculate fees vary</li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 7-31-20</li> </ul>
	Increase electric vehicle fee	\$172,000 per \$1 increase <sup>8</sup>	Good <sup>6</sup>	Good	Good	Good	Fair	<ul style="list-style-type: none"> <li>EV fees: 28 states</li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 7-12-19, 2-28-20</li> <li>Issue Briefs #8, #9</li> </ul>

<sup>3</sup> Includes fees for driver licenses, passenger and commercial vehicle registrations, vehicle titles, vehicle inspections, and other DMV services

<sup>4</sup> Assumes that each \$1 increase is enacted in FY 2021 and thereafter subject to the same quadrennial adjustment as existing DMV fees, based on changes to the Consumer Price Index and rounded to the nearest \$0.25 (N.C. Gen. Stat. §20-4.02)

<sup>5</sup> Currently, North Carolina assesses a flat registration fee for cars and fees that vary by weight for private trucks (N.C. Gen. Stat. §20-87). These fee schedules could be revised to include factors such as vehicle weight (for cars), age, type, horsepower, value, or fuel efficiency.

<sup>6</sup> Revenue stream is already indexed to inflation

<sup>7</sup> Of the available options, an adjustment that takes vehicle value into account would be somewhat more equitable by income group.

<sup>8</sup> Assumes that each \$1 increase is enacted in FY 2021 and thereafter subject to the same quadrennial adjustment as existing DMV fees, based on CPI and rounded to the nearest \$0.25 (N.C. Gen. Stat. §20-4.02)

		10-year revenue projections (2021–30)	Responsiveness to inflation	Revenue stability and predictability	Adherence to “user pay” principle	Administrative costs relative to revenue	Equity by income group	Where in use for transportation funding	Relevant NC FIRST Commission resources
	Increase highway use tax	\$291m per 0.1% increase	Good	Fair	Fair	Good	Good	<ul style="list-style-type: none"> <li>Taxes on vehicle sales: at least 14 states</li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 7-12-19, 7-31-20</li> <li>Issue Briefs #3, #9</li> </ul>
	Eliminate highway use tax “net-of-trade” exemption	\$1.21b	Good	Fair	Fair	Good	Good	<ul style="list-style-type: none"> <li>Highway use tax without net-of-trade exemption: at least 8 states</li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 7-31-20</li> <li>Issue Brief #3</li> </ul>
	Dedicate alternative highway use tax on short-term vehicle leases, rentals, and car sharing services <sup>9</sup>	\$2.85b <sup>10</sup>	Good	Fair	Fair	Good	Fair	<ul style="list-style-type: none"> <li>Taxes or fees on vehicle rentals: at least 18 states</li> <li><i>Taxes or fees on car sharing services: under review</i></li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 4-24-20, 7-31-20</li> <li>Issue Brief #3</li> </ul>
	Dedicate alternative highway use tax on vehicle subscription services <sup>11</sup>	\$484m <sup>10</sup>	Good	Fair	Fair	Good	Good	<ul style="list-style-type: none"> <li><i>Under review</i></li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 4-24-20, 7-31-20</li> </ul>
	Expand road and bridge tolls	Projections vary based on facilities to be tolled and toll rates	Fair	Fair	Good	Poor	Poor	<ul style="list-style-type: none"> <li>Tolls charged by state or quasi-state agency: at least 27 states</li> <li>International models</li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 7-12-19, 2-28-20</li> <li>Issue Briefs #9, #10</li> </ul>
	Expand ferry tolls	Projections vary based on facilities to be tolled and toll rates	Poor	Fair	Good	Fair	Poor	<ul style="list-style-type: none"> <li>Ferry fares: AK, ME, WA</li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 7-31-20</li> </ul>

<sup>9</sup> Assumes current tax rate of 8% (N.C. Gen. Stat. §105-187.5). These revenues and taxes on vehicle subscription services are currently directed to the General Fund, minus a \$10 million transfer to NCDOT for airport improvements.

<sup>10</sup> Total revenues generated by tax, including the portion that is currently transferred to NCDOT for airport improvements

<sup>11</sup> Assumes current tax rate of 5% (N.C. Gen. Stat. §105-187.5); see note 9

			10-year revenue projections (2021–30)	Responsiveness to inflation	Revenue stability and predictability	Adherence to “user pay” principle	Administrative costs relative to revenue	Equity by income group	Where in use for transportation funding	Relevant NC FIRST Commission resources
New state user fees and taxes	Mileage-based user fee	(flat rate)	\$13.97b per each \$0.01 / mile of fee	Poor	Good	Good	Fair	Fair	<ul style="list-style-type: none"> <li>For passenger vehicles: OR, UT</li> <li>Weight-distance fees for heavy trucks: KY, NM, NY, OR</li> <li>International models</li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 7-12-19, 4-24-20, 7-31-20</li> <li>Issue Briefs #8, #9, #11, #12</li> </ul>
		(indexed)	\$14.83b per each \$0.01 / mile of fee <sup>12</sup>	Good	Good	Good	Fair	Fair		
	Hybrid vehicle fee (indexed)		\$176m per each \$100 of fee <sup>13</sup>	Good	Good	Good	Good	Fair	<ul style="list-style-type: none"> <li>Hybrid fees: at least 16 states</li> </ul>	<ul style="list-style-type: none"> <li>Issue Briefs #8, #9</li> </ul>
	Statewide vehicle property tax		\$124m per each \$0.01 / \$100 valuation	Good	Good	Fair	Good	Fair	<ul style="list-style-type: none"> <li>None found at state level</li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 2-28-20</li> </ul>
	Tax on electricity for vehicles (indexed)		\$12m per each \$0.01 / kWh of tax <sup>12</sup>	Good	Fair	Good	Poor	Fair	<ul style="list-style-type: none"> <li>IA (starting 2023), PA</li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 2-28-20</li> <li>Issue Briefs #8, #9</li> </ul>
	Carbon tax (indexed) <sup>14</sup>		\$599m per each \$1 / metric ton of tax <sup>12</sup>	Good	Fair	Good	Good	Poor	<ul style="list-style-type: none"> <li>None found at state level</li> <li>International models</li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 2-28-20</li> </ul>
	Tax on TNCs <sup>15</sup>		\$76m per each 1% of tax	Good	Fair	Good	Good	Fair	<ul style="list-style-type: none"> <li>Percentage-based tax: 11 states</li> <li>Per ride fee: 7 states</li> <li>Flat annual fee: AK, KY, NJ</li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 4-24-20</li> </ul>
	Fee on micromobility services <sup>16</sup>		\$45m per each \$1 / trip fee	Poor <sup>17</sup>	Fair	Fair	Good	Fair	<ul style="list-style-type: none"> <li>None found at state level</li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 4-24-20</li> <li>Issue Brief #7</li> </ul>

<sup>12</sup> Assumes this revenue source would be annually indexed to population and inflation, using the same formula as the current motor fuels tax (N.C. Gen. Stat. §105-449.80)

<sup>13</sup> Assumes this revenue source would be quadrennially indexed to inflation and rounded to the nearest \$0.25, using the same formula as current DMV fees and electric vehicle fees (N.C. Gen. Stat. §20-4.02)

<sup>14</sup> Assumes that the proceeds from carbon taxes on all fuels used to propel vehicles—including gasoline, diesel, natural gas, and electricity—would be dedicated to transportation purposes

<sup>15</sup> Transportation Network Companies such as Uber and Lyft

<sup>16</sup> Micromobility includes trips taken on shared-use micromobility services such as bikeshares and e-scooters

<sup>17</sup> Assumes a flat rate with no indexing to inflation

		10-year revenue projections (2021–30)	Responsiveness to inflation	Revenue stability and predictability	Adherence to “user pay” principle	Administrative costs relative to revenue	Equity by income group	Where in use for transportation funding	Relevant NC FIRST Commission resources
	Dedicated sales tax from auto parts, accessories, and related services <sup>18</sup>	\$5.00b <sup>19</sup>	Good	Good	Fair	Good	Poor	<ul style="list-style-type: none"> <li>MI, MN</li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 7-31-20</li> <li>Issue Brief #9</li> </ul>

<sup>18</sup> Related services include, for example, vehicle warranties and repairs

<sup>19</sup> Assumes current state sales and use tax rate of 4.75%

		10-year revenue projections (2021–30)	Responsiveness to inflation	Revenue stability and predictability	Adherence to “user pay” principle	Administrative costs relative to revenue	Equity by income group	Where in use for transportation funding	Relevant NC FIRST Commission resources
<b>Non-user-fee options</b>									
	Statewide real property tax	\$1.2b per each \$0.0001 / \$100 valuation	Good	Good	Fair	Fair	Good	<ul style="list-style-type: none"> <li>Statewide real property tax: KS, RI, WA, WI</li> <li>Used for transportation: none found at state level<sup>20</sup></li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 2-28-20</li> </ul>
	Hotel / occupancy tax	\$610m per 1% of tax	Good	Good <sup>21</sup>	Fair	Fair	Fair	<ul style="list-style-type: none"> <li>State lodging tax: 26 states</li> <li>Used for transportation: GA<sup>22</sup></li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 2-28-20</li> <li>Issue Brief #9</li> </ul>
	Dedicated general sales tax	\$16.8b per 1% of tax	Good	Good	Fair	Good	Poor	<ul style="list-style-type: none"> <li>At least 13 states</li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 7-31-20</li> <li>Issue Brief #9</li> </ul>
	Dedication of sales tax collected on remote sales <sup>23</sup>	\$2.23b to \$3.58b	Good	Good	Fair	Good	Poor	<ul style="list-style-type: none"> <li><i>Under review</i></li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 7-31-20</li> </ul>
	Dedicated tax on electricity <sup>24</sup>	\$260m per 0.25% of tax	Good	Good	Fair	Good	Poor	<ul style="list-style-type: none"> <li><i>Under review</i></li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 2-28-20</li> </ul>
	General Fund appropriations	Amounts as legislated	See note <sup>25</sup>	See note <sup>25</sup>	See note <sup>25</sup>	See note <sup>25</sup>	See note <sup>25</sup>	<ul style="list-style-type: none"> <li>To supplement user-pay revenues: at least 25 states, federal</li> <li>As primary funding approach: most international models</li> </ul>	<ul style="list-style-type: none"> <li>Meeting materials 7-12-19, 7-31-20</li> <li>Issue Brief #9</li> </ul>

<sup>20</sup> Although not an ad valorem property tax, Florida does assess an excise “documentary stamp” tax on certain documents, including deeds and other documents that transfer an interest in Florida real property. A portion of the proceeds goes to the State Transportation Trust Fund (Fla. Stat. Ann. §201.15).

<sup>21</sup> Assumes that, like local occupancy taxes, a state occupancy tax would apply to hotels, motels, and other short-term rental options such as Airbnb

<sup>22</sup> All of the 26 states that are known to levy a statewide lodging tax do so on a percentage basis except for Georgia, which charges a flat \$5 per-night fee (see [www.ncsl.org/research/fiscal-policy/state-lodging-taxes.aspx](http://www.ncsl.org/research/fiscal-policy/state-lodging-taxes.aspx)). Georgia, however, is also the only state known to use those revenues for transportation purposes (O.C.G.A. §48-13- 50.3).

<sup>23</sup> Most remote sales are online, but also included are sales made by catalog, mail order, call center, or television shopping channel retail companies (N.C. Gen. Stat. §105-164.3 and §105-164.8; [www.gao.gov/products/GAO-18-114](http://www.gao.gov/products/GAO-18-114)).

<sup>24</sup> Assumes that a 0.25% tax, dedicated to transportation, would be added to the existing 7% sales and use tax on electricity

<sup>25</sup> The evaluation for General Fund appropriations according to these five criteria would depend on the ultimate source of the funds and how the allocation was structured. North Carolina’s General Fund is supported by various revenue sources including individual income tax (53%), state sales tax (31%), corporate income and franchise taxes (6.4%), excise taxes on alcohol and tobacco products (2.7%), insurance premium tax (2.1%), and non-tax revenues (4%)

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([www.osbm.nc.gov/facts-figures/revenue](http://www.osbm.nc.gov/facts-figures/revenue)). These sources vary in their advantages and disadvantages. The structure of the allocation, such as whether it was a recurring allocation or indexed to inflation, would also affect these ratings. See [www.enotrans.org/eno-resources/the-life-and-death-of-the-highway-trust-fund/](http://www.enotrans.org/eno-resources/the-life-and-death-of-the-highway-trust-fund/) for how other countries rely on general revenues for transportation funding, with mechanisms in place to ensure stable, predictable funding levels.