
Motor Use Fuel Tax Collection Efficiency, Trends, and Projections

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Purposes of the Study

- Does Georgia collect the amount of motor use fuel tax that statistics on our use of fuel suggest should be collected?
- What does enforcement do for us?
- It seems that retail prices in Georgia are about the same as other states. Do Georgia's fuel dealers have higher margins on their sales as a result of our relatively low tax rates? In other words, who benefits from the lower tax rates?
- How much motor use fuel tax revenue will the current tax rates generate through 2020?
- Are there policy changes that should be considered?

Motor Fuel Tax Components

- Georgia uses both an excise tax and a motor use fuel sales tax.
- Several states also apply a sales tax to motor fuel for general fund revenue.
- Georgia's sales tax on motor fuel is 4%; 3% is retained by GDOT with 1% allocated to the State General Fund.
- Georgia collects about 46% of its MUFT via the excise tax, 54% from the GDOT portion of the sales tax.
- Georgia's effective tax rate is among the lowest in the nation at 16.8 cents per gallon.

MUFT Collection Efficiency

Table 3. Georgia's MUFT Collection Efficiency, 2004 to 2008

Year	MUFT			National Variance
	Predicted	Actual	Variance	
2004	831,400	731,398	-12.03%	8.81%
2005	963,298	821,867	-14.68%	-5.81%
2006	980,311	817,187	-16.64%	-4.59%
2007	1,017,819	934,175	-8.22%	-2.09%
2008	1,058,256	997,381	-5.75%	-1.62%

Source: Carl Vinson Institute of Government, calculated from USDOT and Oil Price Information Service data.



MUFT Collection Efficiency in Nine Southeastern States, 2004 to 2008

Table 3. Predicted and actual motor use fuel tax receipts 2004 – 2008

State	2004			2005			2006			2007			2008		
	MUFT Predicted	MUFT Reported	Percent Variance	MUFT Predicted	MUFT Reported	Percent Variance	MUFT Predicted	MUFT Reported	Percent Variance	MUFT Predicted	MUFT Reported	Percent Variance	MUFT Predicted	MUFT Reported	Percent Variance
Alabama	573,449	600,596	4.73%	622,924	616,005	-1.11%	623,118	680,165	9.16%	639,286	619,628	-3.08%	600,694	665,822	10.84%
Florida	2,258,081	1,992,707	-11.75%	2,448,282	2,039,785	-16.69%	2,663,212	2,182,626	-18.05%	2,688,363	2,233,129	-16.93%	2,746,148	2,215,452	-19.33%
Georgia	831,400	731,398	-12.03%	963,298	821,867	-14.68%	980,311	817,187	-16.64%	1,01,7819	934,175	-8.22%	1,058,256	997,381	-5.75%
Kentucky	382,327	461,382	20.68%	543,910	469,622	-13.66%	578,023	527,763	-8.70%	618,451	563,168	-8.94%	629,959	608,502	-3.41%
Mississippi	409,014	409,874	0.21%	411,472	396,426	-3.66%	416,440	423,412	1.67%	418,396	431,432	3.12%	406,717	418,632	2.93%
North Carolina	1,116,545	1,301,744	16.59%	1,501,458	1,384,834	-7.77%	1,658,688	1,531,943	-7.64%	1,655,029	1,654,346	-0.04%	1,693,711	1,573,318	-7.11%
South Carolina	492,421	483,596	-1.79%	504,992	515,040	1.99%	518,226	503,822	-2.78%	518,719	531,916	2.54%	513,715	521,230	1.46%
Tennessee	840,175	824,109	-1.91%	859,491	828,274	-3.63%	846,158	832,465	-1.62%	800,029	849,662	6.20%	764,941	833,287	8.93%
Virginia	788,042	903,216	14.62%	945,373	919,997	-2.68%	961,064	907,330	-5.59%	1,004,428	926,932	-7.72%	979,913	935,108	-4.57%
TOTAL All 50 States	31,889,712	34,885,760	9.40%	37,606,884	35,508,586	-5.58%	38,617,846	36,765,150	-4.80%	39,069,881	38,164,375	-2.32%	37,928,200	37,194,705	-1.93%

Data Source: Calculated from U.S. Department of Transportation data and various state documents. See text for model specifications.



MUFT Collection Efficiency

- In 2007, DOR implemented a DOT funded inspection program to detect use of untaxed fuel in highway vehicles.
- In 2007, HB219 moved the imposition of the sales tax to the wholesale/distributor level beginning in 2008.
- HB219 also instituted use of an estimated fuel price to facilitate prepayment of the sales tax.

Georgia Department of Revenue Inspection for Untaxed Fuel Program

Table 6. Georgia Department of Revenue Fuel Inspections and Violations, FY2007 to FY2010

Fiscal Year	Vehicle Inspections	Retail Inspections	Samples Taken	Violations	Rate
2007	4349	0	272	234	5.4%
2008	5253	17	205	151	2.9%
2009	6548	10	234	161	2.5%
2010	4998	70	418	132	2.6%

Data Source: Georgia Department of Revenue



Enforcement of MUFT

- Georgia is unique among the nine southeastern states in its arrangement between DOT and DOR.
- The main benefit of audits and inspections is the deterrent effect.
- A dramatic improvement in collection efficiency followed implementation of HB219 and the inspection program.
- While DOR was able to provide statistics on inspections and violations, the contract between DOR and DOT does not call for DOR to provide this information on a regular basis
- Publication of results could enhance the deterrent effect.

Growth of the MUFT and VMT

Table 2. Motor use fuel tax revenue and VMT 2004 to 2008 (selected states)

State	2004	2005	2006	2007	2008	CRG* 2004-2008	Annual VMT (millions)		CRG* 1990-2005
							1990	2005	
Alabama	600,596	616,005	680,165	619,628	665,822	2.61%	42.3	59.6	2.3%
Florida	1,992,707	2,039,785	2,182,626	2,233,129	2,215,452	2.68%	110.0	201.5	4.1%
Georgia	731,398	821,867	817,187	934,175	997,381	8.05%	70.2	113.5	3.2%
Kentucky	461,382	469,622	527,763	563,168	608,502	7.16%	33.6	47.5	2.3%
Mississippi	409,874	396,426	423,412	431,432	418,632	0.53%	24.4	40.2	3.4%
North Carolina	1,301,744	1,384,834	1,531,943	1,654,346	1,573,318	4.85%	62.8	101.3	3.2%
South Carolina	483,596	515,040	503,822	531,916	521,230	1.89%	34.4	49.4	2.5%
Tennessee	824,109	828,274	832,465	849,662	833,287	0.28%	46.7	70.8	2.8%
Virginia	903,216	919,997	907,330	926,932	935,108	0.87%	60.2	80.3	1.9%

*CRG is compound rate of growth, or average annual growth over the period indicated.

Notes: VMT reported by the U.S. Department of Transportation. Georgia's revenue growth in MUFT is largely attributable to increases in fuel prices in the state in late 2007 and 2008 that resulted in higher sales tax revenue. Kentucky and North Carolina increased their excise taxes considerably over the study period (see Table 1).

Source: U.S. Department of Transportation and state documents.



2007 Georgia Motor Fuel Sales, Margins, and MUFT

Table 5. 2007 Estimated sales volume, margins, and state revenue

State	Estimated Sales Volume (thousands)	Estimated Margin Dollars (thousands)	As a Percent of Sales Volume	Reported State Revenue (thousands)	As a Percent of Sales Volume
Alabama	9,407,662	556,288	5.91%	619,628	6.59%
Florida	27,989,966	1,409,475	5.04%	2,233,129	7.98%
Georgia	17,592,770	846,439	4.81%	934,175	5.31%
Kentucky	8,373,641	446,225	5.33%	563,168	6.73%
Mississippi	6,062,489	363,781	6.00%	431,432	7.12%
North Carolina	14,963,345	717,689	4.80%	1,654,346	11.06%
South Carolina	8,491,004	450,971	5.31%	531,916	6.26%
Tennessee	11,081,297	592,445	5.35%	849,662	7.67%
Virginia	13,897,635	906,978	6.53%	926,932	6.67%

Source: Calculated from U.S. Department of Transportation and Oil Price Information Service data.



Georgia Motor Fuel Sales, Margins, and MUFT

- Georgia is lowest among the southeastern states in both dealer margin and MUFT as a percent of sales.
- Excess profit as a result of Georgia's low tax rate may be realized in the distribution system above the dealer/wholesaler level.

Georgia's Fuel Needs, 2011 to 2020

Table 10. Georgia's fuel needs (2011 – 2020)

Year	VMT (millions)	Estimated Automobile Fuel Efficiency	Gasoline		Diesel	
			Volume Sales of Gasoline*	Average Price Per Gallon**	Volume Sales of Diesel*	Average Price per Gallon**
2011	116,168	23.680	4,905,722	3.03	1,451,931	3.20
2012	118,497	23.680	5,004,103	3.10	1,492,585	3.26
2013	120,792	23.680	5,101,006	3.33	1,534,377	3.51
2014	123,057	23.680	5,196,663	3.57	1,577,340	3.68
2015	125,293	23.680	5,291,076	3.71	1,621,506	3.81
2016	127,500	24.864	5,127,900	3.77	1,666,908	3.93
2017	129,684	24.864	5,215,722	3.89	1,713,581	4.09
2018	131,842	24.864	5,302,508	3.96	1,761,561	4.20
2019	133,978	24.864	5,388,434	4.05	1,810,885	4.29
2020	136,093	24.864	5,473,504	4.11	1,861,590	4.35

*Reported for 2004 to 2008; estimated for 2009; and projected for subsequent years

**Calculated for 2004 to 2008 using data from U.S. Department of Transportation and the Oil Price Information Service; estimated for 2009; projected for subsequent years in 2010 dollars.

Note: Compound rate of growth for VMT is 1.8 percent for 2010 to 2020; for gasoline and diesel fuel combined the CRG is 1.67 percent over the same period due to slightly better fuel efficiency.



Georgia's Fuel Needs and Estimated MUFT Revenue 2011 to 2020

Table 11. Projected motor use fuel tax revenue in Georgia, 2011 to 2020

(Thousands of 2010 dollars)

Year	Gasoline Excise	Sales Tax	Total	Diesel Excise	Sales Tax	Total	TOTAL MUFT
2011	355,487.1	419,282.8	774,769.9	105,212.4	129,319.7	234,532.1	904,089.7
2012	350,353.7	452,900.7	803,254.5	104,500.8	141,204.0	245,704.8	944,458.4
2013	345,061.1	500,733.5	845,794.6	103,794.0	152,004.7	255,798.8	997,799.4
2014	339,644.4	524,457.9	864,102.3	103,092.1	160,245.8	263,337.9	1,024,348.1
2015	334,120.8	547,338.7	881,459.5	102,394.8	169,805.2	272,200.0	1,051,264.7
2016	312,866.2	541,075.3	853,941.5	101,702.3	179,611.7	281,314.0	1,033,553.2
2017	307,463.3	557,242.8	864,706.1	101,014.4	187,421.9	288,436.3	1,052,127.9
2018	302,009.0	575,910.5	877,919.5	100,331.3	197,109.6	297,440.8	1,075,029.0
2019	296,524.6	593,633.3	890,157.9	99,652.7	207,116.0	306,768.7	1,097,273.9
2020	291,020.3	610,119.7	901,140.0	98,978.7	215,601.2	314,579.9	1,116,741.2

Source: Carl Vinson Institute of Government
MUFT CRG 2011 to 2020 = 2.375 percent



Estimated VMT, Fuel Needs, and MUFT 2011 Through 2020

- VMT will grow at an annual average rate of 1.8 percent.
- Fuel needs will grow at a rate of 1.67 percent.
- MUFT will grow at a rate of nearly 2.4 percent.
- MUFT projection based on anticipated fuel cost growth of 2.8 percent for gasoline and 2.7 percent for diesel fuel.
- Georgia's effective tax rate is estimated to vary from 15 to 18 cents per gallon over the period 2011 to 2020.

Options for Improving MUFT Collection

- Shift to greater reliance on the more stable excise tax to reduce variability caused by the sensitivity of the sales tax to fuel prices. This could also reduce the need to suspend or alter the sales tax base or rate when fuel prices increase dramatically as they did in 2007 and 2008.
- Move the point of taxation to the highest possible point in the distribution system – the rack or first point of sale within the state - as is now done in Florida, North Carolina, South Carolina, Tennessee, and Virginia. This, however, has its drawbacks since it would create greater need for refunds of tax paid on fuel that is subsequently sold for untaxed uses.
- Systematically collect data on the results of both the audit system and inspections for untaxed fuel.
- Publish results of audits and inspections to enhance deterrent effect.
- Review the data collected by the USDOT for accuracy and completeness.

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