An Analysis of New York State's Ton-Mile Tax

Prepared for:

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Introduction and Background

The New York State Ton-Mile Tax (NYSTMT)

New York is one of four remaining states that levies a weight-distance tax on motor carriers. This tax, referred to herein as the New York State Ton-Mile Tax (NYSTMT), is part of New York State's Highway User Tax and is administered by the New York Department of Taxation and Finances.

The rules for the NYSTMT are complex and include several exemptions, but generally all motor vehicles with a loaded gross weight exceeding 18,000 pounds that either possess a New York State registration, or operate on roads in New York, are subject to the NYSTMT.[1]

Calculating a motor carrier's NYSTMT burden depends on a variety of factors including the weight of the vehicle and the miles traveled on New York highways.[2] A motor carrier could potentially be subject to over 50 different tax rates depending on the method they choose to file, the characteristics of their fleet and cargo, and their operating location.[3]

Additionally, this tax must be paid either monthly, quarterly, or annually based on the amount of the previous full calendar year's total highway use tax liability. The rules of payment frequency are as follows:

- A motor carrier is required to file monthly if the previous year's total tax liability was more than $4,000.
- If a motor carrier's total tax liability was $250 or less during the previous year, an annual filing is required.
- Any other amount, including carriers not subject to the tax in the preceding calendar year, requires a quarterly filing.

Finally, all miles traveled on *tolled* New York highways may be excluded from the mileage calculation as these miles are not subject to the NYSTMT. Several specific industries are also excluded.

The tax is self-reported by motor carriers and independent drivers and the ability to enforce the law is limited. As a result, there is little risk to those who underreport mileage or do not report mileage at all. This is especially true for out-of-state motor carriers, who may be more

[1] The tax form, including rules and instructions, can be found online: https://www.tax.ny.gov/pdf/current_forms/motor/mt903i.pdf

[2] First, a carrier must decide between two overall methods of filing, either the gross weight method (GWM) or the unloaded weight method (UWM). Within the GWM there are two further options to choose from, the straight line option and the heaviest weight option. Within these two options there are two separate tax schedules depending on the type of commodities hauled on the specific truck that traveled on New York highways. If a carrier chooses to file using the UWM, there are two commodity-specific tax schedules similar to the GWM. Regardless of the method, option, or schedule used to file the NYSTMT, the number of miles accumulated on New York highways must be calculated per truck and then the tax rate applied to those miles based on the weight of the specific truck when traveling those miles.

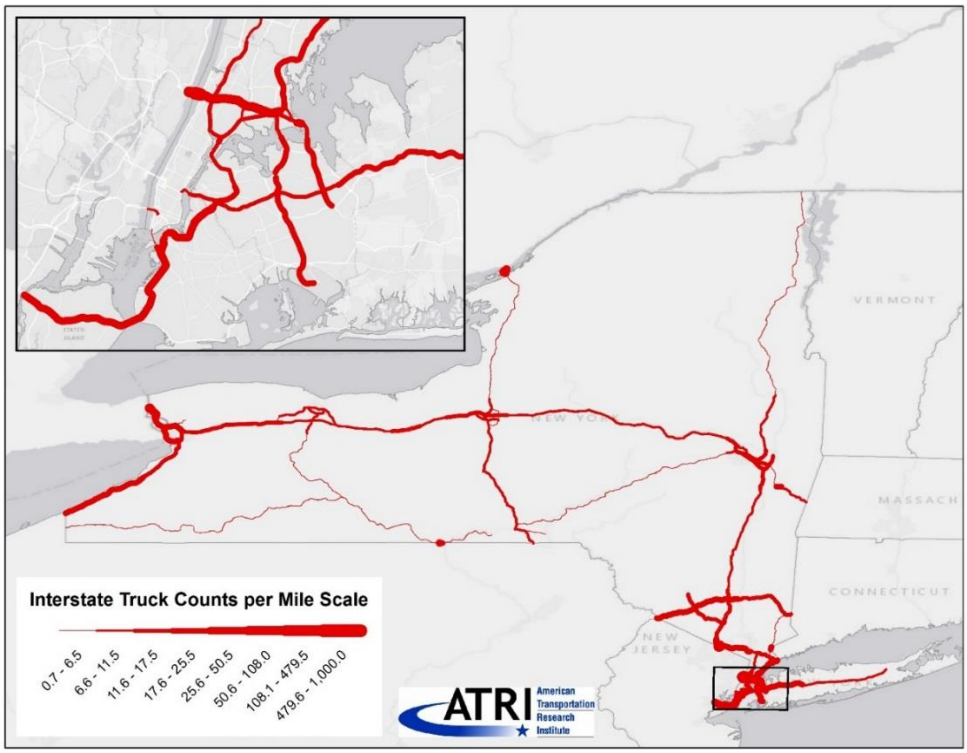
[3] A guide to New York's rate schedule can be found here: https://www.tax.ny.gov/e-services/huwf/hutwf_rate_sch1.htm

motivated to be non-compliant due to the administrative burden of paying the tax. For example, a driver who travels into and out of New York once during a year may incur a tax of less than $10. Filing a return for that amount may be confusing and time-consuming, prompting the carrier to choose to not report the mileage.

For out-of-state carriers, the option to purchase a trip certificate for $25 prior to the trip is also available. The certificate is good for three days. This option, which among other things requires the certificate holder to keep the certificate "for at least four years to prove you have met your highway use tax obligations," may also be seen as an administrative burden.[4]

Figure 1 illustrates truck activity in the state, where wider red lines represent higher truck volumes as identified by the American Transportation Research Institute's (ATRI's) robust truck GPS dataset.[5] The vast majority of truck movements are in the New York City metro area. These small movements offer an example of where interstate motor carriers may opt to simply not report miles in New York.

Figure 1. Truck Volumes on New York Interstate System



[4] For additional background, see trip certificate description: https://www.tax.ny.gov/pubs_and_bulls/tg_bulletins/hut/cor_trip_certificate.htm

[5] ATRI's anonymized truck GPS dataset is comprised of a continuous stream of truck position data that is reported from more than 600,000 trucks. For each individual truck, a latitude/longitude, date and time stamp, speed and other information is recorded continuously. Rates of position are extremely frequent; anywhere from every 30 seconds to every several minutes.

Previous Research

As described above, the NYSTMT tax is perceived by many to be administratively burdensome and easy to evade.

Past research of the NYSTMT focused on evasion figures. In 1998, it was found that overall evasion of the tax was "in the range of 32 percent to 44 percent, taking the form of both failure to purchase permits and understatement of miles traveled."[6] The author estimated that this evasion rate resulted in $65 million - $103 million in revenue that was not collected by the state. As a solution to the issue, Holtz-Eakin suggested that other existing taxes act as a replacement for this revenue, and that the state should facilitate the elimination of the tax. The result of this shift, according to the report, would be an $18 million - $25 million annual increase in fuel and registration revenues.

In 2008, ATRI also researched the scale of revenue not captured by New York due to evasion.[7] In this analysis, ATRI estimated the industry's tax liability using Federal Highway Administration (FHWA) Vehicle Miles Traveled (VMT) data for New York and a per-mile tax rate estimated using the U.S. Census Bureau's Vehicle Inventory and Use Survey (VIUS). Based on these public datasets, ATRI calculated evasion rates ranging from 45.8 percent to 52.6 percent during the years 2002 – 2005. ATRI concluded that the state failed to capture more than $120 million during each of those four years.

Research Objective

This updated report builds on past analyses of the NYSTMT by assessing the amount of tax collected in 2015, and estimating the amount evaded during that same year. This analysis also explores potential revenue-neutral options for replacing the current NYSTMT income through existing revenue vehicles.

Utilizing available data, this report highlights the costs, benefits and evasion rates of the NYSTMT tax, and investigates alternative methods for collecting the revenue generated through the NYSTMT.

[6] Holtz-Eakin, Douglas. *The New York State Ton-Mile Tax: Evasion Analysis and Economic Implications*. Syracuse University. December 1998.
[7] American Transportation Research Institute (ATRI). *New York State Ton-Mile Tax: Estimation of Untaxed Commercial Vehicle Miles Traveled.* Arlington, VA. February 2008.

Methodology

A number of critical, publicly available datasets were utilized in this analysis, including state fuel and registration revenue figures. The following describes the key data inputs.

Volume Estimates: U.S. Department of Transportation (U.S. DOT) figures were used for statewide truck VMT. Additionally, the New York State Thruway Authority publishes data on Thruway mileage (which is exempt from the NYSTMT), and the International Fuel Tax Agreement (IFTA) and the International Registration Plan (IRP)[8] each have mileage by state. ATRI's truck GPS data was also used to illustrate travel patterns in the state.

Revenue Estimates: The revenue figures for this analysis represent three areas:

1) NYSTMT
2) State motor fuels tax
3) State registration fees

The NYSTMT fees collected by the state are published under a Highway Use Tax line item in New York State's budget.[9] State motor fuels taxes and state registration fees are estimated through a series of Federal Highway Administration and industry statistics.

Collection Cost Estimates: The cost of submitting and collecting the NYSTMT is the most challenging to estimate. To do so, ATRI interviewed both motor carriers and state collection experts. Through trucking industry stakeholder interviews, ATRI estimated that filing costs are approximately $16 per truck. As the total annual cost associated with collecting the NYSTMT was not publicly available, ATRI attempted to estimate this amount based on interviews with representatives of other state weight-distance tax administration offices, but was unsuccessful in generating useful data.

Methodology for Identifying Evasion

To establish the number of miles subject to the ton-mile tax, and subsequently calculate the rate of evasion, the following data sources were utilized:

[8] The International Fuel Tax Agreement (IFTA) and the International Registration Plan (IRP) are systems for simplifying the payment of fuel taxes and registration fees to states by interstate motor carriers. These programs act as a system of reciprocity that allows carriers to pay individual states based on the mileage driven in those states.
[9] https://www.tax.ny.gov/pdf/2015-16_Collections/Table%202.pdf

- Annual VMT by state and distribution of VMT by state and vehicle type from FHWA's Highway Statistics Series; [10][11]
- VMT by vehicle size from the U.S. Census Bureau's Vehicle Inventory and Use Survey (VIUS);[12]
- New York State Thruway VMT from the New York State Thruway Authority.[13]

The first step of the tax evasion analysis was to calculate total VMT by both single-unit[14] and combination trucks in New York in 2015. To do so, the total 2015 VMT were multiplied by the proportion of VMT attributed to the respective vehicle types. This resulted in just over 4.5 billion VMT for single-unit trucks and 3.78 billion VMT for combination trucks, totaling approximately 8.28 billion VMT for both truck types in New York in 2015.

These VMT figures were then applied across the NYSTMT weight class categories. The 2002 VIUS weight class VMT data was aligned with the Schedule 1 NYSTMT weight class categories under the assumption that the larger VIUS ranges were evenly distributed across the narrower Schedule 1 ranges.[15] The proportion of the miles traveled in each NYSTMT range was then calculated by dividing the VMT in a range by the total 2002 VMT. The 2015 FHWA VMT for all trucks, combination trucks, and single-unit trucks was then multiplied by the proportion of each weight range to establish the 2015 VMT for each NYSTMT weight range (Appendix B, Table 1). While the portion of miles traveled for the NYSTMT weight range of vehicles weighing 80,001 pounds and above was calculated, ATRI researchers purposefully did not include those miles in the final calculations. Without more granular data addressing the distribution of vehicles within that weight range, any estimates on the tax implications of those miles cannot be verified and were therefore not included during the tax assessment analysis. This means that ATRI's estimates for both potential tax evasion and revenue are quite conservative as approximately 10 percent of truck miles are not included in the final analysis.

To calculate the actual impact of these miles by weight range, the amount of VMT that are exempt from the NYSTMT were removed from the above-calculated VMT. The total number of NYS Thruway VMT was identified by multiplying the number of commercial vehicle trips by the average 2015 thruway trip length per month and summing these figures, resulting in a total Thruway VMT for the year. As detailed in Appendix B - Table 2, this total was divided between combination and single-unit trucks based on the vehicle types' proportion of total 2015 truck VMT in New York (45.6% and 54.4% respectively).

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[10] *Table VM-2: Vehicle-miles of travel, by functional system*. 2015 Highway Statistics Series. Office of Highway Policy Information, Federal Highway Administration, U.S. Department of Transportation. Available online: http://www.fhwa.dot.gov/policyinformation/statistics/2015/vm2.cfm

[11] *Table VM-4: Distribution of Annual Vehicle Distance Traveled, Percentage by Vehicle Type*. 2015 Highway Statics Series, Office of Highway Policy Information, U.S. Department of Transportation. Available online: https://www.fhwa.dot.gov/policyinformation/statistics/2015/vm4.cfm#foot1

[12] *New York: 2002; 2002 Economic Census, Vehicle Inventory and Use Survey - Geographic Area Series*. Issued December 2004. U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau. Table 6. Truck Miles by Vehicle Size: 2002. Page 47. Available Online: https://www.census.gov/prod/ec02/ec02tv-ny.pdf. Note: This is the most recent, publically available data of this type.

[13] New York State Thruway Authority. 2015 Monthly Financials. *Vehicle Trips, Miles, and E-Z Pass Statistics.* Available online: http://www.thruway.ny.gov/about/financial/monthly/2015/index.html

[14] Single frame trucks that have 2-axles and at least 6 tires or a gross vehicle weight rating exceeding 10,000 lbs.

[15] See Appendix A for full schedule detail.

Next, the Thruway VMT figures were distributed across the NYSTMT weight ranges using the same process as the 2015 total VMT distribution (Appendix B, Table 3).

Finally, the tax burden of each weight category by vehicle type and the total truck tax burden were calculated by subtracting the calculated Thruway truck VMT from the total truck VMT, and subsequently multiplying these figures by the tax rate for each weight range (Appendix B, Table 4).

Analysis of the Ton Mile Tax - Revenue vs Actual Road Use

In 2015, the State of New York collected $102,806,709 through the ton-mile tax from New York-registered carriers as well as carriers domiciled outside of the state.[16] The State also collected motor fuel taxes and registration fees from these carriers; interstate motor carriers pay these taxes and fees through two programs – the International Fuel Tax Agreement (IFTA) and the International Registration Plan (IRP). Both IFTA and IRP are reciprocity programs utilized by interstate motor carriers to pay their taxes and fees and could play a role in replacing the NYSTMT as discussed later in this report.

There were approximately 8.28 billion commercial vehicle miles traveled in New York during 2015. A total of 1.68 billion miles driven on the New York Thruway were subtracted from that figure for a total of approximately 6.6 billion miles that were eligible to be taxed (see Table 1).[17]

Table 1 – Establishing Valid TMT Miles

Source	Miles
FHWA Miles	8,280,995,926
Thruway Miles	1,681,016,502
Valid TMT Miles	6,599,979,424

Allocating these miles across the applicable NYSTMT weight categories and applying the corresponding tax rates resulted in approximately $158.5 million in potential revenue.

The estimated number of miles evaded was calculated utilizing reported tax revenue from NYSTMT in 2015. This figure was allocated across the applicable NYSTMT weight categories based on the proportion each category paid, and then subtracted from the expected tax revenue of each category to establish the delta between the two figures. This difference was then divided by the category's tax rate to establish the estimated number of miles traveled in New York that were subject to the NYSTMT, but were not reported and therefore no revenue was received for those miles.

[16] 2015 - 2016 New York State Tax Collections, Statistical Summaries and Historical Tables, Annual Statistical Report. New York State Department of Taxation and Finance, Office of Tax Policy Analysis. August 2016.
[17] Smaller exemptions within the rule were not excluded due to lack of data.

This process resulted in an estimated 2.07 billion miles that were not reported, representing 31.3 percent of the potentially taxable miles[18] operated by commercial vehicles in New York state. This equates to approximately $55.7 million in revenue not collected by the State, 35.1 percent of the estimated tax revenue that was owed in 2015 (Table 2).

Table 2 – Estimated TMT Revenue Evaded

TMT Evasion	
Estimated Total Revenue Owed	$158,490,213
Actual 2015 Revenue Collected	$102,806,709
Estimated Revenue Not Collected	**$55,683,504**

Cost of Collection

There is a cost associated with collecting the annual revenue for the NYSTMT. The state is responsible for issuing forms and certificates, managing the revenue, and tax enforcement. These administrative costs were not publicly available, and it appears that the state has not fully calculated these costs.

A surrogate of one to two percent of total revenue was utilized to approximate a reasonable administrative cost of collection. This $1 million to $2 million in collection costs is based on documented costs of collecting motor fuel taxes at the state level.[19]

Additionally, each motor carrier or independent driver has an administrative burden related to the NYSTMT. The researchers surveyed multiple motor carriers to quantify the value of the administrative burden. A representative "larger" carrier (>1,500 trucks) estimated $16 per truck as a reasonable figure for administrative time associated with compliance. If that cost were distributed across the approximately 39,403 truck-tractors registered in New York in 2015[20] the cost was $630,448. This is a small percentage, however, of the 1,129,000 commercial trucks estimated to be registered in New York State.[21] In addition to in-state vehicles, there are tens of thousands of out-of-state trucks that are subject to the NYSTMT as well. Figure 2 was developed using ATRI's truck GPS dataset[22] and shows commercial truck flows in and through New York across a 3-day time period. This illustrates how critical New York is as a national and international crossroads for freight shipped by truck.

[18] This figure does not include the estimated 10.87 percent of miles traveled by vehicles weighing 80,001 pounds and above, and thus serves as a conservative estimate of unreported mileage and lost tax revenue.
[19] Short, Jeff, Dan Murray, and Sandra Shackleford. *Defining the Legacy for Users: Understanding Strategies and Implications for Highway Funding*. American Transportation Research Institute. Arlington, Virginia. May 2007.
[20] *Table MV-9*: Truck and Truck Tractor Registrations. 2015 Highway Statics Series, Office of Highway Policy Information, U.S. Department of Transportation. Available online: https://www.fhwa.dot.gov/policyinformation/statistics/2015/mv9.cfm
[21] American Trucking Associations. *American Trucking Trends 2015*. Table 3-1.
[22] ATRI's anonymized truck GPS dataset is comprised of a continuous stream of truck position data that is reported from more than 600,000 trucks. For each individual truck, a latitude/longitude, date and time stamp, speed and other information is recorded continuously. Rates of position are extremely frequent; anywhere from every 30 seconds to every several minutes.

If one million total out-of-state and in-state vehicles were to report the NYSTMT, the administrative cost using the $16 per truck figure would be $16,000,000 in motor carrier administrative costs – or more than 16 percent of the total revenue collected by the state. This represents a significant administrative burden on industry that could be eliminated if revenue were collected more efficiently.

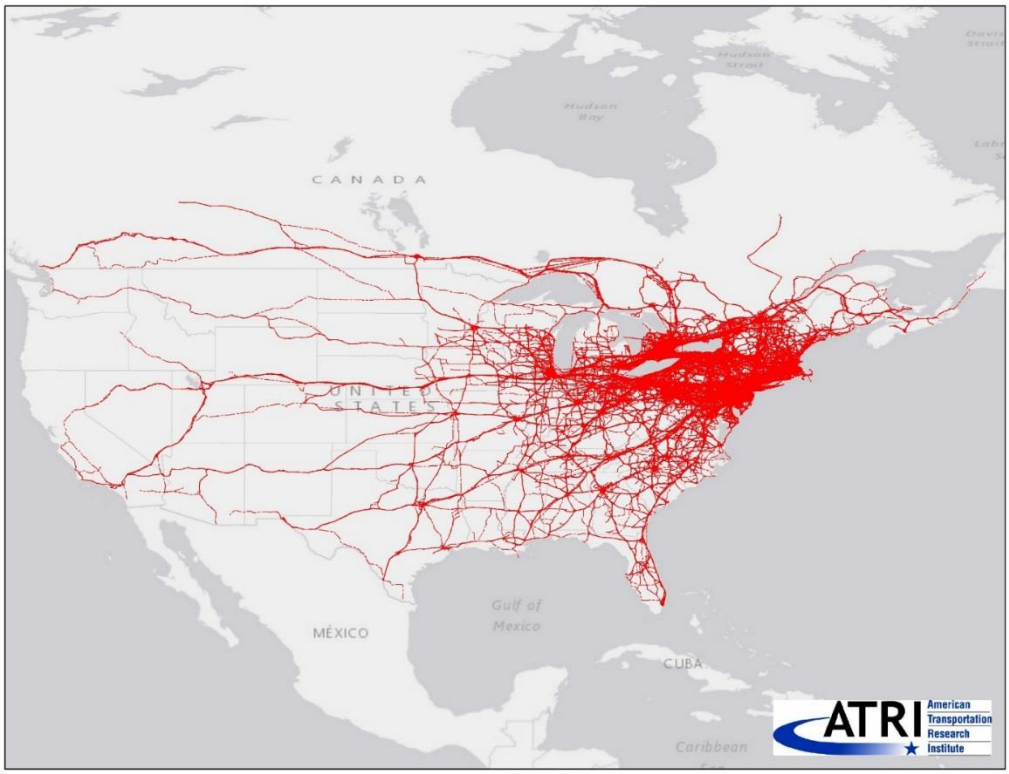


Figure 2 – Truck Flows from New York State, Three Day Timespan

Efficient Revenue Collection

The purpose of a weight-distance tax is to collect revenue from vehicles based on miles driven and vehicle weight. However, there are two existing mechanisms in place to accomplish this same goal, and both are widely accepted and utilized nationally. These are the motor fuels tax, collected from out-of-state vehicles through IFTA, and vehicle registration fees, collected from out-of-state vehicles through IRP.

The current revenue from the NYSTMT represents 15 percent of NYS highway user fees paid by the industry, as show in Table 3.

Table 3 – Highway User Fees Paid by the Industry

Motor Fuels NY Tax Revenue from Industry (2015)[23]	$566,481,316	81.9%
NY Registration Fees Paid by the Industry (2014)[24]	$94,017,000	13.8%
NYSTMT Revenue (2015)[25]	$102,806,709	15.1%
Total Revenue	$678,689,725	

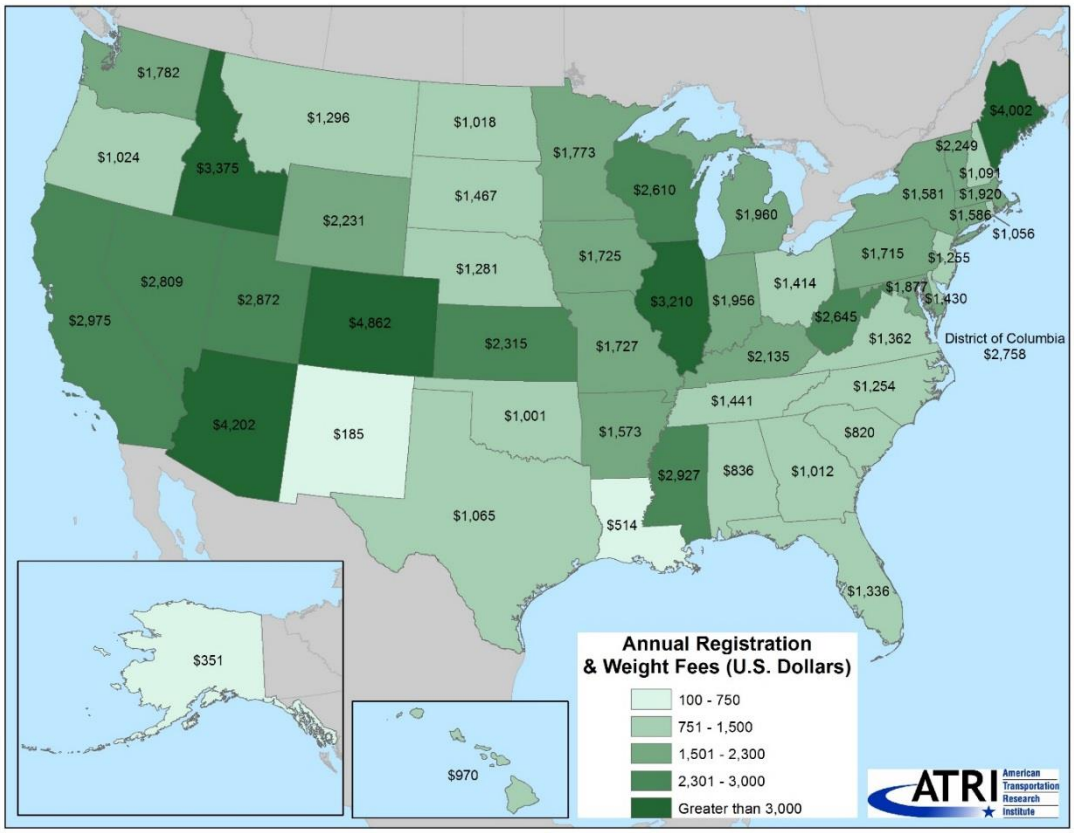
The tax burden could be shifted to the motor fuels tax and registration fees to collect the 15 percent of revenue represented by the NYSTMT. Such a change would eliminate the following costs and issues associated with the NYSTMT while maintaining the same revenue targets:

- Tax evasion would be virtually eliminated.
- Administrative burden associated with managing the NYSTMT would eliminated for New York State.
- Administrative burden associated with managing the NYSTMT would be eliminated for businesses.

Figure 3 shows that there is room to increase the registration fees in New York, which are generally lower than neighboring states' registration fees.

[23] ATRI calculated New York's tax revenue as paid by the trucking industry using FHWA's reported gallons consumed multiplied by the proportion consumed by trucks (approximately 94 percent diesel and 11 percent gas,) then multiplied by the tax rate for New York from the American Trucking Associations. American Trucking Trends 2015 report. This represents all fuel tax collected in the state of New York regardless of where the purchasing vehicle was domiciled. Relevant tax rates were taken from the American Trucking Associations' *American Trucking Trends 2015*, Table 3-1 and the FHWA's Highway Statistic Series 2015, Table MF-121T with the volume of fuel taxed taken from the FHWA's Highway Statistics Series 2015, Table MF-2.
[24] American Trucking Trends 2016. American Trucking Associations, Arlington, VA. 2016.
[25] "Table 2: New York State Taxes Collected by the Department of Taxation and Finance Fiscal Years 2015 and 2016," New York State Department of Taxation and Finance. Accessed August 18, 2017, https://www.tax.ny.gov/pdf/2015-16_Collections/Table%202.pdf

Figure 3: Annual Registration and Weight Fees[26]



As shown in Figure 4, New York's combined Federal and state fuel tax rates are high compared to states in other regions of the country, but are comparable to those of neighboring states in the Northeast. A slight increase in New York's fuel tax rate could replace revenue lost from a repeal of the NYSTMT without placing New York at a competitive disadvantage.

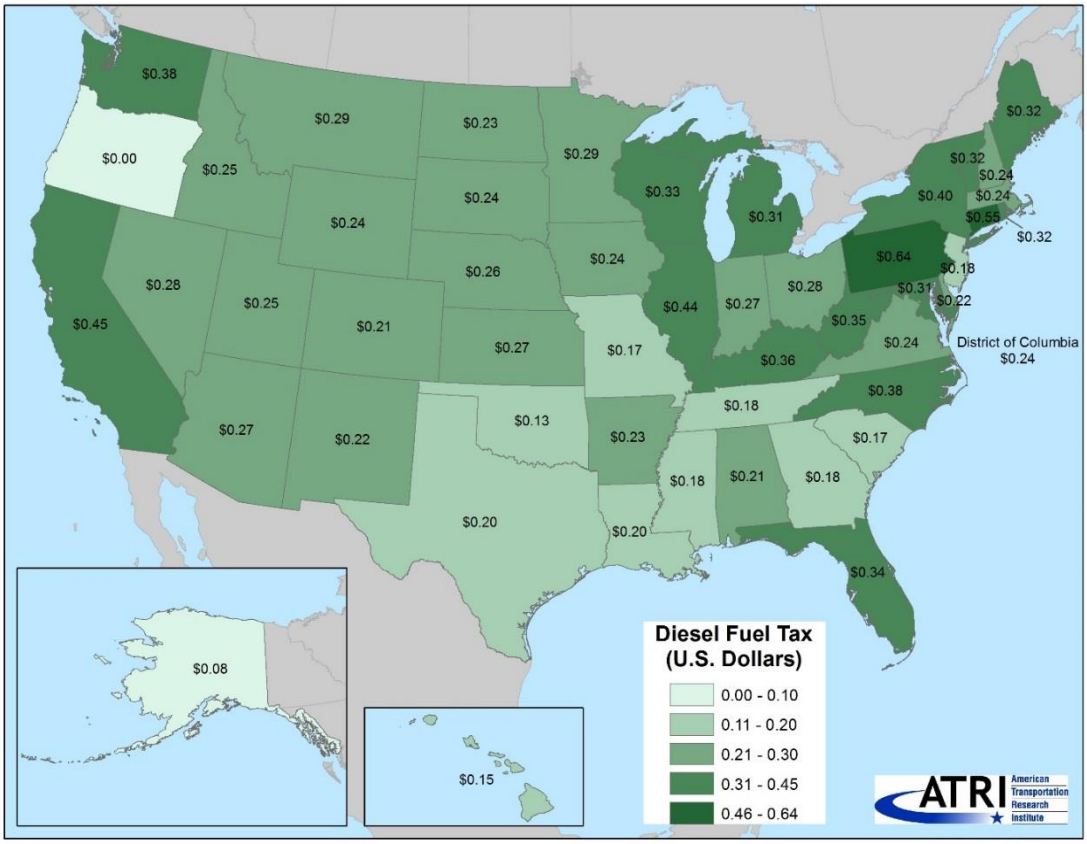
In 2015, the New York state gas tax was $0.178 and the diesel tax was $0.1605.[27] These figures exclude the Federal tax of $0.184 cents on gas and $0.244 cents on diesel.[28]

The motor fuel tax for the state of New York is collected through the Department of Taxation and Finance. In 2015, New York collected $428,615,217 in state gasoline tax revenue and $58,339,907 in state diesel tax revenue.[29] Even a modest increase in one or both of the fuel tax rates could generate revenue to replace the NYSTMT. A $0.04 increase in the state diesel tax

[26] Trucking Trends 2015, Table 5-3 - Annual State Highway-User Taxes on a Typical 5-Axle Tractor-Semitrailer Combination, as of January 2015. American Trucking Associations. Arlington, VA. 2015.
[27] "Fuel Tax Rates: Tax Law Articles 12-A and 13-A". *Department of Taxation and Finance*. N.p., 2017. Web. 5 May 2017
[28] "Highway Statistics Series." U.S. Department of Transportation/Federal Highway Administration. Accessed May 03, 2017. https://www.fhwa.dot.gov/policyinformation/statistics/abstracts/2015/state.cfm?loc=ny.
[29] 2015 - 2015 New York State Tax Collections, Statistical Summaries and Historical Tables, Annual Statistical Report. New York State Department of Taxation and Finance, Office of Tax Policy Analysis. August 2016.

to $0.2005 per gallon would result in increased revenues of approximately $14,500,000, while an increase of $0.08 would result in more than $29,000,000 annually in additional revenue.

Figure 4: Combined Federal and State Diesel Fuel Tax[30]



The figures for a gasoline tax increase are more notable. A $0.04 increase to the state gasoline tax could result in additional revenue of over $96,000,000 annually. An increase of $0.08 could result in over $192,000,000 additional revenue annually. As discussed in the state examples, states often tier their fuel tax increases over time in order to allow consumers to adjust to the new tax scheme.

Table 4: Potential Fuel Tax Increases

Tax Rate	Diesel	Gasoline	Diesel Tax Revenue	Gasoline Tax Revenue	Total Motor Fuels Tax Revenue
2015 Rate	$0.1605	$0.178	$58,339,907	$428,615,217	$486,955,124
$0.04 Increase	$0.2005	$0.218	$72,879,447	$524,933,243	$597,812,690
$0.08 Increase	$0.2405	$0.258	$87,418,988	$621,251,269	$708,670,257

[30] Trucking Trends 2015, Table 5-3 - Annual State Highway-User Taxes on a Typical 5-Axle Tractor-Semitrailer Combination, as of January 2015. American Trucking Associations. Arlington, VA. 2015.

Another option for replacing the ton-mile tax revenue is to increase registration fees. If the state collected $94,000,000 in registration revenue in 2015, a 50 percent increase in registration fees could replace nearly half of current ton-mile tax revenue. A 100 percent increase in registration fees could replace 91.5 percent of ton-mile tax revenue (Table 5). This replacement would use the existing IRP structure for tax collection and would access both New York and non-New York domiciled trucks with no additional administrative fee, creating no additional administrative burden for the state.

Table 5: Increases in Registration Fees

	NYS Registration Fee Revenue	Percentage of Ton-Mile Tax Revenue Replaced
2015	$94,017,000	0%
50% Increase	$141,025,500	46%
100% Increase	$188,034,000	91.5%

It is possible that out-of-state fuel tax and registration revenues could increase after a NYSTMT repeal. Freedom of Information Law (FOIL) requests were made to appropriate state departments regarding IFTA and IRP miles, vehicle counts and revenues. One of the IRP requests was returned and showed that in the fiscal year ending in 2014, total IRP miles within the state were approximately 1.87 billion. For out-of-state vehicles, 932 million miles were logged under IRP, which is approximately 10.8 percent of the total miles listed in Table 5. Making the same assumption about the alignment of IFTA and IRP miles distribution, a 35 percent evasion rate applied to the IRP out-of-state revenue would translate to an additional $10,649,790 for New York.

Alternate Funding Scenarios by State

While an increase in either the motor fuel tax rates or state registration fees could be used to offset a ton-mile tax repeal, a combination of both could be used to mitigate the impacts of sudden, steep increases in either individual funding mechanism.

A number of states are using this hybrid approach, raising state fuel taxes, often incrementally over two to three year periods, while also increasing registration fees and IFTA surcharges to generate additional revenue. Several examples are below.

California

In April 2017, the California legislature approved an infrastructure bill authorizing an increase to the state gas and diesel taxes. The tax on gasoline will increase by $0.12 and diesel fuel will see a $0.20 increase. In addition, the sales tax on diesel fuel will rise to 5.75 percent with vehicle licensing fees slated to increase up to $175. The bill will take effect November 1, 2017 with the vehicle registration fees delayed until 2018.[31]

[31] Neely, Ashley. "California Passes 20 Cent Diesel Tax Hike," *CDL Life,* April 7, 2017, https://cdllife.com/2017/california-passes-20-cent-diesel-tax-hike/

The fuel tax and registration fee increases are estimated to generate over $5 billion annually for the state.[32]

Indiana

Indiana lawmakers voted in 2017 to increase the state's gas and diesel taxes, which had not increased since 2003 and 1989, respectively.[33] As part of a $1.2 billion infrastructure plan signed by Governor Eric Holcomb in April 2017, Indiana's gas and diesel taxes increased by $0.10 each, along with additional increases in registration fees.[34] Indiana's increase gave it the highest gas tax of its neighboring states.[35]

Tennessee

Tennessee's IMPROVE Act was signed into law in April 2017. The law contains a combination of tax increases and cuts aimed at addressing Tennessee's $10 billion infrastructure backlog. The legislation combines a decrease in the state's food tax with increases to both gasoline and diesel fuel taxes. Gasoline will increase a total of $0.06 over three years ($0.04 year one and $0.01 annually years two and three). Diesel taxes will rise by $0.10 total ($0.04 year one and $0.03 annually years two and three). The IMPROVE Act also included registration fee increases ranging from $5 to $100 per vehicle, depending on vehicle type and use. While the Act includes additional tax cuts for business, manufacturers and homeowners, the legislation explicitly funds infrastructure projects across the state with $250 million going to the Department of Transportation, $70 million to counties, and $35 million to cities, all intended to address more than 900 proposed road projects.[36]

South Carolina

South Carolina had one of the lowest fuel tax rates in the nation. In February 2017, the state House and Senate introduced bills to address their infrastructure-spending gap, estimated to be $1 billion annually.[37] Despite a veto by Governor McMaster, the state's first gas tax increase since 1987 became law in May 2017.[38] The $0.12 gas tax increase will be phased in over several years and along with increases in registration fees, is expected to generate $600 million annually for roads.[39]

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[32] Miller, Jim. "California Tax Increase is Now Law. What it Costs You and What it Fixes." The Sacramento Bee, April 28, 2017. http://www.sacbee.com/news/politics-government/capitol-alert/article147437054.html

[33] "Indiana, Tennessee at Forefront of Possible Wave of Fuel Tax Hikes," Transport Topics Online, accessed August 11, 2017, http://www.ttnews.com/articles/indiana-tennessee-forefront-possible-wave-fuel-tax-hikes

[34] "Indiana Will Soon See Benefits, Costs of Gas Tax Increase," Transport Topics Online, accessed August 11, 2017, http://www.ttnews.com/articles/indiana-will-soon-see-benefits-costs-gas-tax-increase

[35] Ibid.

[36] "Tennessee Gas Tax Increase: What It Means for You," *The Tennessean,* accessed April 27, 2017. http://www.tennessean.com/story/news/politics/2017/04/24/tennessee-gas-tax-increase-what-means-you/100839608/

[37] "South Carolina: Support for a Gas Tax Increase on the Rise," accessed May 1, 2017, https://mcdonaldhopkins.com/Insights/Blog/Tax-and-Benefits-Challenges/2017/03/09/South-Carolina-Support-for-a-gas-tax-increase-on-the-rise.

[38] Brown, Andrew. "It's official: South Carolina has a new gas tax after S.C. House and Senate override Gov. McMaster's veto." The Post Courier and Courier, may 10, 2017. http://www.postandcourier.com/news/it-s-official-south-carolina-has-a-new-gas-tax/article_8717116e-358c-11e7-990d-0b9882828b60.html

[39] Ibid.

Michigan

On January 1, 2017, Michigan implemented a vehicle registration increase of 20 percent and increased both the state diesel and gas taxes to $0.263 each ($0.073 on gasoline and $0.113 on diesel).[40] The vehicle registration fees are projected to generate an additional $200 million per year, and combined with the fuel tax increases, will net over $400 million annually in new revenue.[41] The fuel tax rates will be indexed using the Consumer Price Index starting in 2022.[42]

Conclusion

This analysis demonstrates that the New York ton-mile tax continues to be heavily evaded, likely through a combination of underreporting and failure to report miles. For all motor carriers, the tax represents an unreasonable administrative burden for travel within or through the state. This is especially true for those domiciled outside of the state, and those that travel on New York roadways infrequently, making evasion an attractive option for those carriers.

A repeal of the NYSTMT would eliminate this burden and alternatives do exist for making the repeal revenue-neutral. One option to fill the revenue gap would be to increase the state fuel tax. It should be noted that such an increase would capture revenue from out-of-state vehicles through IFTA.

An increase in registration fees is a second option. Similar to the fuel tax option, registration fee increases would capture revenue from motor carriers domiciled in and out of New York. These options do not increase the administrative burden on the part of the state or motor carriers. Likewise, it is possible, if not likely, that some percentage of the revenue would be replaced by increased out-of-state IFTA and IRP payments by those currently underreporting all miles – not just NYSTMT miles. Therefore, even without an increase in registration fees or motor fuel taxes, those revenues may increase, and the remainder of the NYSTMT revenue could be sourced from the general fund as necessary.

Increases in registration fees through existing collection mechanisms may merit investigation in light of a 2016 ruling in the Supreme Court of the State of New York. Representatives for the Owner-Operator Independent Drivers Association (OOIDA) filed a class action lawsuit in 2013 regarding registration certificates and decals for New York for out-of-state domiciled trucks. Plaintiffs alleged a $15 registration certificate and $4 decal fee for all trucks owned and/or operated on New York roads constituted an undue burden on out-of-state trucks by unfairly increasing their operating cost per mile.[43] The court found in favor of OOIDA and ordered the state to pay a $4.4 million tax refund.[44] Given the court's ruling that funding mechanisms

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[40] "Why You Should Renew Your Vehicle Registration before the End of the Year," *MLive.com,* accessed May 1, 2017, http://www.mlive.com/news/index.ssf/2016/12/why_you_should_renew_your_vehi.html

[41] Ibid

[42] "Michigan Department of Transportation Fast Facts," accessed August 11, 2017, https://www.michigan.gov/documents/mdot/MDOT_fastfacts02-2011_345554_7.pdf

[43] Sandi Soendker, "OOIDA Victorious in Legal Challenge of New York Truck Tax Fees," *Land Line Magazine: The Business Magazine for Professional Truckers*, February 1, 2017, http://landlinemag.com/Story.aspx?StoryID=30533.

[44] "OOIDA Press Release, Owner-Operator Independent Drivers Association," *Owner Operator Independent Drivers Association, Trucking Association*, accessed April 28, 2017, http://www.ooida.com/MediaCenter/PressReleases/pressrelease.asp?prid=415.

already exist in the form of the highway use tax (HUT), exploring ways to expand existing funding structures would allow for out-of-state domiciled trucks to pay their share of New York state taxes without creating an undue burden in violation of interstate commerce laws.

For New York-based motor carriers, distributing the burden across the existing fuel tax and registration methods through simple rate increases would eliminate the burden of a third tax. For non-NY-domiciled carriers, the burden of a third tax would be eliminated, and the tax would automatically be paid through IFTA and IRP. For both groups the opportunity to evade would be significantly reduced. Additionally, increasing the fuel and registration fees would meet the intent of the ton-mile tax as registration costs are scaled by weight and fuel taxes are based on mileage.

In conclusion, eliminating the NYSTMT and shifting that burden in a revenue-neutral manner to other mechanisms, would result in a significant reduction in tax evasion and creation of a more equitable business environment for New York-based motor carriers. Additionally, an administrative burden for the State and motor carriers would be removed. Prior to eliminating the NYSTMT, the State would have to conduct its own analysis, using internal data, to determine how to allocate the tax/fee increases based on existing data.

APPENDIX A: NYSTMT SCHEDULES

Tax rate tables for highway use tax Schedule 1

If *gross weight method* was marked, use Tables 1, 2, and 3. If *unloaded weight method* was marked, use Tables 4 and 5.

Gross weight method

Table 1
Laden non-Thruway miles
Tractors and trucks

Weight			Rate
18,001	to	20,000	$0.0084
20,001	to	22,000	0.0098
22,001	to	24,000	0.0112
24,001	to	26,000	0.0126
26,001	to	28,000	0.0133
28,001	to	30,000	0.0140
30,001	to	32,000	0.0147
32,001	to	34,000	0.0154
34,001	to	36,000	0.0161
36,001	to	38,000	0.0168
38,001	to	40,000	0.0175
40,001	to	42,000	0.0182
42,001	to	44,000	0.0196
44,001	to	46,000	0.0210
46,001	to	48,000	0.0224
48,001	to	50,000	0.0238
50,001	to	52,000	0.0252
52,001	to	54,000	0.0266
54,001	to	56,000	0.0280
56,001	to	58,000	0.0294
58,001	to	60,000	0.0308
60,001	to	62,000	0.0322
62,001	to	64,000	0.0336
64,001	to	66,000	0.0357
66,001	to	68,000	0.0378
68,001	to	70,000	0.0399
70,001	to	72,000	0.0420
72,001	to	74,000	0.0455
74,001	to	76,000	0.0490
76,001	to	78,000	0.0518
78,001	to	80,000	0.0546

80,001 and over add $0.0028 per ton and fraction thereof

Table 2
Unladen non-Thruway miles
Tractors (with trailers)

Weight			Rate
7,001	to	8,500	$0.0084
8,501	to	10,000	0.0098
10,001	to	12,000	0.0112
12,001	to	14,000	0.0126
14,001	to	16,000	0.0133
16,001	to	18,000	0.0140

18,001 and over add $0.0007 per ton and fraction thereof

Table 3
Unladen non-Thruway miles
Trucks (alone or with trailers)
Tractors (without trailers)

Weight			Rate
18,001	to	20,000	$0.0084
20,001	to	22,000	0.0098
22,001	to	24,000	0.0112
24,001	to	26,000	0.0126
26,001	to	28,000	0.0133
28,001	to	30,000	0.0140

30,001 and over add $0.0007 per ton and fraction thereof

Unloaded weight method

Table 4
Non-Thruway miles
Trucks

Weight			Rate
8,001	to	9,000	$0.0056
9,001	to	10,000	0.0070
10,001	to	11,000	0.0098
11,001	to	12,000	0.0112
12,001	to	13,000	0.0126
13,001	to	14,000	0.0140
14,001	to	15,000	0.0154
15,001	to	17,500	0.0168
17,501	to	20,000	0.0196
20,001	to	22,500	0.0252
22,501	to	25,000	0.0308
25,001 and over			0.0378

Table 5
Non-Thruway miles
Tractors

Weight			Rate
4,001	to	5,500	$0.0084
5,501	to	7,000	0.0140
7,001	to	8,500	0.0196
8,501	to	10,000	0.0252
10,001	to	12,000	0.0350
12,001 and over			0.0462

Tax rate tables for highway use tax Schedule 2

If *gross weight method* was marked, use Tables 6, 7, and 8. If *unloaded weight method* was marked, use Tables 9 and 10.

Gross weight method

Table 6
Laden non-Thruway miles
Tractors and trucks

Weight			Rate
18,001	to	20,000	$0.006
20,001	to	22,000	0.007
22,001	to	24,000	0.008
24,001	to	26,000	0.009
26,001	to	28,000	0.0095
28,001	to	30,000	0.010
30,001	to	32,000	0.0105
32,001	to	34,000	0.011
34,001	to	36,000	0.0115
36,001	to	38,000	0.012
38,001	to	40,000	0.0125
40,001	to	42,000	0.013
42,001	to	44,000	0.014
44,001	to	46,000	0.015
46,001	to	48,000	0.016
48,001	to	50,000	0.017
50,001	to	52,000	0.018
52,001	to	54,000	0.019
54,001	to	56,000	0.020
56,001	to	58,000	0.021
58,001	to	60,000	0.022
60,001	to	62,000	0.023
62,001	to	64,000	0.024
64,001	to	66,000	0.0255
66,001	to	68,000	0.027
68,001	to	70,000	0.0285
70,001	to	72,000	0.030
72,001	to	74,000	0.0325
74,001	to	76,000	0.035
76,001	to	78,000	0.037
78,001	to	80,000	0.039

80,001 and over add $0.002 per ton and fraction thereof

Table 7
Unladen non-Thruway miles
Tractors (with trailers)

Weight			Rate
7,001	to	8,500	$0.006
8,501	to	10,000	0.007
10,001	to	12,000	0.008
12,001	to	14,000	0.009
14,001	to	16,000	0.0095
16,001	to	18,000	0.010

18,001 and over add $0.0005 per ton and fraction thereof

Table 8
Unladen non-Thruway miles
Trucks (alone or with trailers)
Tractors (without trailers)

Weight			Rate
18,001	to	20,000	$0.006
20,001	to	22,000	0.007
22,001	to	24,000	0.008
24,001	to	26,000	0.009
26,001	to	28,000	0.0095
28,001	to	30,000	0.010

30,001 and over add $0.0005 per ton and fraction thereof

Unloaded weight method

Table 9
Non-Thruway miles
Trucks

Weight			Rate
8,001	to	9,000	$0.004
9,001	to	10,000	0.005
10,001	to	11,000	0.007
11,001	to	12,000	0.008
12,001	to	13,000	0.009
13,001	to	14,000	0.010
14,001	to	15,000	0.011
15,001	to	17,500	0.012
17,501	to	20,000	0.014
20,001	to	22,500	0.018
22,501	to	25,000	0.022
25,001 and over			0.027

Table 10
Non-Thruway miles
Tractors

Weight			Rate
4,001	to	5,500	$0.006
5,501	to	7,000	0.010
7,001	to	8,500	0.014
8,501	to	10,000	0.018
10,001	to	12,000	0.025
12,001 and over			0.033

APPENDIX B: EXAMPLE METHODOLOGY PROCESS

Table 1: Example Process of VMT Distribution

VIUS GVW	2002 VIUS VMT for GVW (millions)	NYSTMT GVW Range	2002 NYSTMT VMT (millions)	Proportion of 2002 VMT	2015 NYSTMT VMT All Trucks (millions)	2015 NYSTMT VMT Combination Trucks (millions)	2015 NYSTMT VMT Single-unit Trucks (millions)
40,001 - 50,000	151.7	40,001 - 42,000	30.34	1.37%	113.07	51.55	61.53
		42,001 - 44,000	30.34	1.37%	113.07	51.55	61.53
		44,001 - 46,000	30.34	1.37%	113.04	51.55	61.53
		46,001 - 48,000	30.34	1.37%	113.07	51.55	61.53
		48,001 - 50,000	30.34	1.37%	113.07	51.55	61.53

Table 2: Thruway VMT Calculation for 2015

Month	Commercial Vehicle Trips	Average Commercial Vehicle Trip Length on Toll Ticket System (Miles)	Average Monthly Thruway VMT
January	1,983,826	59.89	118,811,339
February	1,892,217	60.61	114,687,272
March	2,204,952	61.14	134,810,765
April	2,295,562	60.54	138,973,323
May	2,391,939	60.33	144,305,680
June	2,505,309	60.33	151,145,292
July	2,530,026	60.40	152,813,570
August	2,471,374	60.86	150,407,822
September	2,442,808	60.79	148,498,298
October	2,522,940	60.38	152,335,117
November	2,241,823	60.94	136,616,694
December	2,271,564	60.58	137,611,347
		Total	1,681,016,520
		Combination Trucks	766,346,244
		Single-Unit Trucks	914,670,277

Table 3: Example Process of Thruway VMT Distribution

VIUS GVW	2002 VIUS VMT for GVW (millions)	NYSTMT GVW Range	2002 NYS TMT VMT (millions)	Proportion of 2002 VMT	2015 NYS Thruway VMT All Trucks (millions)	2015 NYS Thruway VMT Combination Trucks (millions)	2015 NYS Thruway VMT Single-unit Trucks (millions)
40,001 - 50,000	151.7	40,001 - 42,000	30.34	1.37%	22.95	10.46	12.48
		42,001 - 44,000	30.34	1.37%	22.95	10.46	12.48
		44,001 - 46,000	30.34	1.37%	22.95	10.46	12.48
		46,001 - 48,000	30.34	1.37%	22.95	10.46	12.48
		48,001 - 50,000	30.34	1.37%	22.95	10.46	12.48

Table 4: Example Tax Burden Calculation

NYS TMT GVW Range	Rate	Taxable Miles All Trucks (millions)	Taxable Miles Combination Trucks (millions)	Taxable Miles Single-unit Trucks (millions)	Tax Burden All Trucks	Tax Burden Combination Trucks	Tax Burden Single-unit Trucks
40,001 - 42,000	$0.0182	96.89	43.23	53.66	$1,640,189	$747,734	$892,455
42,001 - 44,000	$0.0196	96.89	43.23	53.66	$1,766,358	$805,252	$961,106
44,001 - 46,000	$0.0210	96.89	43.23	53.66	$1,892,526	$862,770	$1,029,756
46,001 - 48,000	$0.0224	96.89	43.23	53.66	$2,018,694	$920,288	$1,098,407
48,001 - 50,000	$0.0238	96.89	43.23	53.66	$2,144,863	$977,806	$1,167,057