Review of Washington's Interstate Transportation Tax Preferences

Prepared for the Joint Legislative Audit and Review Committee

March 2023



Contents

Ex	ecutive S	Summary	. 3
Ov	erview o	f approach	3
	State	and local taxes in analysis	4
	Тах р	references and scenarios	5
	Tax li	abilities and tax burdens	5
Su	mmary c	f findings	6
	Rail ir	ndustry tax burdens	6
	In-sta	te trucking company tax burdens	. 9
	Out-o	f-state trucking company tax burdens1	11
	Busin	ess entity tax burdens1	12
1.	Appro	pach	14
	1.1.	States included in evaluation	14
	1.2.	Definition of industry	14
	1.3.	Tax types included in the analysis and methodology	16
	1.4.	Representative operational profiles	18
2.	State	and local taxes in analysis	20
	2.1.	Business entity taxes	20
	2.2.	Sales taxes	22
	2.3.	Property taxes	23
	2.4.	Registration fees and diesel fuel taxes	25
3.	Tax b	urdens by state	27
	3.1.	Scenarios modeled: no tax preferences versus with tax preferences	27
	3.2.	Scenario 1 100% intrastate miles	29
	3.2.1	. Scenario 1 Rail company	30
	3.2.2	. Scenario 1 In-state trucking company	34
	3.2.3	. Scenario 1 Out-of-state trucking company	38
	3.3	Scenario 2 100% interstate miles	41
	3.3.1	Scenario 2 Rail company	11
	3.3.2	. Scenario 2 In-state trucking company	15
	3.3.3	. Scenario 2 Out-of-state trucking company	19

The services performed by EY were advisory in nature. EY's scope of work was determined by the Joint Legislative Audit and Review Committee and agreed to by EY. The findings and analyses contained in the Report are based on data and information made available to EY through the date hereof. The analyses conducted in this report constitute neither an examination nor a compilation of prospective financial statements nor the application of agreed-upon procedures thereto in accordance with the attestation standards established by the American Institute of CPAs (AICPA). Accordingly, EY does not express an opinion on or offer any other assurances as to whether the analyses are presented in conformity with AICPA presentation guidelines or as to whether the underlying assumptions provide a reasonable basis for the analyses. Neither the Report nor any of our work constitutes legal opinion or advice. No representation is made relating to matters of a legal nature, including, without limitation, matters of title or ownership, legal description, encumbrances, liens, priority, easements and/or land use restrictions, the validity or enforceability of legal documents, present or future national or local legislation, regulation, ordinance or the like, or legal or equitable defenses. The Report is intended solely for use by Client. While we believe the work performed is responsive to Client's request pursuant to the scope of work, we make no representation as to the sufficiency of the Report and our work for any other purposes. Any third parties for investment purposes, or any other purpose. We assume no duty, obligation or responsibility whatsoever to any third parties that may obtain access to the Report.

Executive Summary

The State of Washington's Joint Legislative Audit and Review Committee ("JLARC") commissioned EY's Quantitative Economics and Statistics (QUEST) practice to compare the state and local tax climate for interstate trucking and rail transportation businesses in Washington to the tax climate in 10 peer states. Specifically, EY was asked to evaluate the impact of current tax preferences on the operating tax burden for these transportation businesses in Washington. This report presents the findings of the analysis.

Overview of approach

This study presents estimates of the tax burdens faced by representative interstate rail and trucking companies operating in Washington and a set of peer states. The focus of the analysis is on operating taxes as the taxation of capital investments (e.g., rail cars) is not included in the analysis. The operating profile for a representative rail company is based on the financial and operating characteristics of the seven Class I rail companies as reported by the Surface Transportation Board and other sources. These companies accounted for 68% of freight rail mileage and 94% of revenue in 2020. The representative truck company encapsulates the entire NAICS code 484 truck transportation subsector and the operating profile was developed from a variety of public data sources such as the Census Bureau, IRS Statistics of Income and the Federal Highway Administration (See Section 1).

Table ES-1 summarizes information about the representative firms used in the tax climate analysis. Data was assembled for transportation firms including revenue, net operating income, operating expenses, and property values. Tax liabilities for each tax type and the total tax liability are reported on a per ton-mile basis. The ton-mile is the preferred unit of measurement in the transportation industry because it represents the movement of one ton of freight over one mile. Effective tax rates are calculated by dividing the total tax liability per thousand ton-mile by net operating income per thousand ton-mile.

	Rail*	Truck*
Transportation industry definition	Class 1 railroads	NAICS 484
In-state versus out-of-state miles for firms	25% - in-state 75% out-of-state	33% - in-state 67% - out-of-sate
Net operating income/Revenue	28.8%	6.5%
Tax bases		
Annual revenue per mile	\$48.46	\$157.05
Operating expenses per mile	\$30.05	\$128.55
Net operating income per mile	\$13.96	\$10.24
Real and personal property per mile	\$177.42	\$49.25

Table ES-1. Representative firm characteristics for rail and trucking companies used in tax burden analysis

Source: EY analysis of US Surface Transportation Board and US Census County Business Patterns data. Note: *Rail data is specific to Class I railroads in 2021. Truck data presented is for NAICS 484 and is specific to 2020.

Figure ES-1 shows Washington and the list of peer states in the analysis, which includes California, Idaho, Illinois, Louisiana, Nevada, New Jersey, Ohio, Oregon, Texas and Virginia. Idaho and Nevada are regional neighbors,

while Oregon, California, Texas, Louisiana, Virginia and New Jersey are states with major marine facilities. Ohio and Illinois are included in the analysis because they are major transportation hubs.





Source: EY analysis.

State and local taxes in analysis

Table ES-2 summarizes the state and local taxes included in the analysis. The primary business entity tax for most states is the corporate income tax. However, Washington and four peer states impose a gross receipts tax. Although Washington's primary gross receipts tax is the Business & Occupation Tax, transportation companies instead pay the Public Utility Tax (PUT). Louisiana imposes an additional gross receipts tax, the Transportation and Communication Utilities tax, on transportation companies on top of the corporate income tax. Rail companies in New Jersey are subject to the Railroad Franchise Tax in lieu of the state's corporate income tax.

Тах Туре	WA	CA	ID	IL	LA	NV	NJ	OH	OR	ТΧ	VA
Corporate income		\checkmark	\checkmark	\checkmark	\checkmark		\checkmark		\checkmark		\checkmark
Gross receipts	\checkmark					\checkmark		\checkmark	\checkmark	\checkmark	
Franchise*				\checkmark	\checkmark		\checkmark				
Transportation**					\checkmark		\checkmark				
Sales and use	\checkmark		\checkmark	\checkmark							
Real property	\checkmark										
Personal property	\checkmark	\checkmark	\checkmark		\checkmark	\checkmark			\checkmark	\checkmark	\checkmark
Diesel fuel	\checkmark										

Source: State tax websites and tax codes

*Franchise tax: Illinois and Louisiana impose a franchise tax on net worth.

**Transportation taxes: Louisiana imposes an additional gross receipts tax, the Transportation and Communication Utilities tax, on rail and truck companies. Rail companies in New Jersey are subject to the Railroad Franchise Tax on net rail income in lieu of the state's corporate income tax. The analysis assumes that the representative rail company has real and personal property in each of the eleven states. Real property is taxed in all states as well as personal property except in the states of Illinois, New Jersey and Ohio where personal property is exempt from taxation. In the case of the trucking business, the analysis differentiates between an in-state trucking company, which has both real and personal property, and an out-of-state trucking company, which only has personal property subject to tax in each state. Although eight states in our analysis generally tax personal property, only Texas and Virginia tax commercial vehicles under their property tax.

Tax preferences and scenarios

The tax system characteristics for each state were applied to the financial profiles to estimate the state and local tax burden for the representative transportation firms. The analysis calculates what the representative rail and trucking firms pay in state and local taxes in Washington and peer states with *no tax preferences* provided to the firms. Since Washington currently provides tax preferences for transportation companies, the analysis also calculates the state and local taxes these firms would pay in Washington *with current tax preferences*. None of the peer states provide tax preferences for transportation firms.

Washington currently provides four tax preferences:

- 1. RCW 82.16.050(6) that exempts revenue from the in-state portion of interstate transportation
- 2. RCW 82.16.050(8) that exempts revenue from the through freight portion of interstate transportation
- 3. RCW 82.16.050(9) that exempts revenue from shipments to ports (intrastate transportation)
- 4. RCW 82.16.050(10) that exempts revenue from shipping farm products to port via temporary storage facilities

The first two tax preferences provide exemptions for portions of interstate trips, where Washington is either the origin state or destination state, but not both. RCW 82.16.050(9) and 82.16.050(10) provide exemptions for revenue from intrastate trips, where Washington is both the origin and the destination state. RCW 82.16.050(9) exempts tax shipments from a point in Washington to a port facility, where the goods will be shipped by vessel to another state or a foreign country, provided that the point of origin and the port facility are not in the same city or town. RCW 82.16.050(10) exempts tax for in-state shipments of agricultural products to temporary storage facilities before they will be shipped to a port for transportation by vessel or to another state or a foreign country.

The analysis estimates state and local taxes transportation businesses pay in Washington and peer states under two scenarios:

- Scenario #1: (100% intrastate miles): This scenario has 100% of the miles traveled by the transportation companies occurring within the state so that the origin state and destination state are the same. Washington taxes gross receipts from intrastate miles unless they qualify for exemptions under tax code sections 82.16.050(9) and 82.16.050(10), described above. This scenario is meant to illustrate the impact of imposing Washington's PUT on currently exempt revenue miles and the magnitude of the tax per mile. This is done by showing total taxes per mile with and without the tax preferences.
 - The *no tax preferences* analysis estimates the taxes paid by rail and trucking firms under conditions in which all revenue from transportation services is subject to taxation. There are no exemptions for gross receipts from intrastate trips.
 - The *with tax preferences* analysis exempts all gross receipts for the Washington rail and trucking firms by allowing the exemptions to apply to all revenue. This illustrates the tax burdens for

firms in Washington if they can fully exempt their gross receipts from the Public Utility Tax, which most firms are not able to do. There are no comparable tax preferences in other states with which to compare the elimination of Washington's Public Utility Tax resulting in tax burdens only changing in Washington and none of the peer states.

- Scenario #2: (100% interstate miles): This scenario has 100% of miles traveled by the transportation companies occurring between states so that the origin state and destination state differ. This scenario illustrates how states tax differently the in-state portion of interstate trips since revenue from the out-of-state portion of interstate trips is always excluded from the tax base. Since peer states differ in their tax treatment of the in-state portion of interstate trips, the analysis has a split in miles between in-state and out-of-state miles as shown in Table ES-1.
 - The *no tax preferences* analysis illustrates the tax burdens a representative transportation firm would pay in Washington and peer states if the current tax preferences are eliminated and proposed state apportionment rules of taxation apply for the in-state portion of interstate trips. Draft legislation has proposed apportioning revenue from interstate trips based on miles traveled within the state.
 - The *with tax preferences* analysis illustrates the tax burden effect of exempting gross receipts from the in-state portion of interstate trips due to 82.16.050(6) and 82.16.050(8).

Summary of findings

Rail industry tax burdens

Figure ES-2 summarizes the total tax liabilities for a representative Class I rail company in each state under Scenario 1 (100% intrastate miles). Results include:

- ► The representative Class I rail company operating in Washington is estimated to pay \$3.08 per thousand ton-miles in total taxes under the *no tax preferences* assumption, which is 4th lowest among the states.
- The rail company's estimated total tax liability falls to \$2.15 per thousand ton-miles in Washington, or the lowest among the peer states, once tax preferences are included that eliminate the tax burden of the Public Utility Tax.





Figure ES-3 summarizes the total tax liabilities for a representative Class I rail company in each state under Scenario 2 (100% interstate miles). Under this scenario, interstate trips are divided into an in-state portion (25% of miles) and an out-of-state portion (75% of miles). Results include:

- ► The representative Class I rail company operating in Washington is estimated to pay \$2.38 per thousand ton-miles in total taxes with *no tax preferences*, which is 2nd lowest.
- ► The rail company's estimated total tax liability falls to \$2.15 per thousand ton-miles once tax preferences are applied that exempt the in-state portion of interstate miles. Washington's tax burden is the lowest among the peer states.



Figure ES-3. Scenario 2 rail industry: total tax liabilities (dollars per thousand ton-miles) Washington ranking: 2nd lowest (*no tax preferences*), lowest (*with tax preferences*)

In-state trucking company tax burdens

Figure ES-4 summarizes the total tax liabilities for a representative in-state trucking company in each state under Scenario 1 (100% intrastate miles). Results include:

- ► The representative in-state trucking company operating in Washington is estimated to pay \$5.20 per thousand ton-miles in total taxes with *no tax preferences*, which is 2nd highest of the states.
- ► The in-state trucking company's estimated total tax liability falls to \$2.18 per thousand ton-miles in Washington once *tax preferences* exempt revenue from intrastate miles for the PUT, which is 2nd lowest among the peer states. The only state with a lower tax burden is Nevada, which is due to the representative trucking company not meeting the \$4 million threshold for the Commerce Tax and having lower state diesel taxes.





Figure ES-5 summarizes the total tax liabilities for a representative in-state trucking company in each state under Scenario 2 (100% interstate miles). Under this scenario, interstate trips are divided into an in-state portion (33% of miles) and an out-of-state portion (67% of miles). Results include:

- ► The representative in-state trucking company operating in Washington is estimated to pay \$3.19 per thousand ton-miles in total taxes with *no tax preferences*, which is 3rd highest.
- ► The in-state trucking company's estimated total tax liability falls to \$2.18 per thousand ton-miles in Washington once *tax preferences* exempt the in-state portion of interstate miles from the PUT. This makes Washington have the 4th lowest tax burdens among the peer states. Both Texas and Nevada exempt both in-state and out-of-state portions of interstate trips from their gross receipts taxes lowering the tax burden firms pay in these states.



Figure ES-5. Scenario 2 in-state trucking company: total tax liabilities (dollars per thousand ton-miles) Washington ranking: 3rd highest (*no tax preferences*), 4th lowest (*with tax preferences*)

Source: EY analysis.

Out-of-state trucking company tax burdens

Figure ES-6 summarizes the total tax liabilities for a representative out-of-state trucking company in each state under Scenario 1 (100% intrastate miles). The primary difference between the results reported for an in-state trucking company and an out-of-state trucking company is the modeling assumptions behind the property tax. The in-state trucking company has both real and personal property subject to tax, while the out-of-state trucking company has only personal property subject to tax. Furthermore, Texas and Virginia are the only states in the peer group that tax commercial vehicles, which eliminates the property tax for most states under the out-of-state trucking company scenario. Results include:

- ► The representative out-of-state trucking company operating in Washington is estimated to pay \$5.03 per thousand ton-miles in total taxes with *no tax preferences*, which is 2nd highest.
- ► The out-of-state trucking company's estimated total tax liability falls to \$2.00 per thousand ton-miles in Washington once *tax preferences* exempt intrastate miles from the PUT, which is the 2nd lowest among the peer states.



Figure ES-6. Scenario 1 out-of-state trucking company: total tax liabilities (dollars per thousand ton-miles) Washington ranking: 2nd highest (*no tax preferences*), 2nd lowest (*with tax preferences*)

Figure ES-7 summarizes the total tax liabilities for a representative out-of-state trucking company in each state under Scenario 2 (100% interstate miles). Results include:

- ► The representative out-of-state trucking company operating in Washington is estimated to pay \$3.01 per thousand ton-miles in total taxes with *no tax preferences*, which is 2nd highest.
- The out-of-state trucking company's estimated total tax liability falls to \$2.00 per thousand ton-miles in Washington once tax preferences exempt in-state portion of interstate miles from the PUT, which is 6th lowest among the peer states.

Figure ES-7. Scenario 2 out-of-state trucking company: total tax liabilities (dollars per thousand ton-miles) Washington ranking: 2nd highest (*no tax preferences*), 6th lowest (*with tax preferences*)



Source: EY analysis.

Business entity tax burdens

Current Washington tax preferences affect the Public Utility Tax, which is a business entity tax for purposes of this analysis. The most common business entity tax in peer states is the corporate income tax, but peer states have gross receipts taxes, and some have franchise taxes. Table ES-3 compares the business entity tax burden for Washington to the peer average for Scenarios 1 and 2 for interstate rail and trucking companies.

Rail business entity taxes. The representative Class I rail company operating in Washington is estimated to pay 93 cents per thousand ton-miles in business entity taxes under Scenario 1 (100% intrastate miles), which is 20 cents per thousand ton-miles lower than the peer average of \$1.13 per thousand ton-miles. Washington has the 6th lowest business entity tax burden. Louisiana has the highest at \$3.47 per thousand ton-miles because it imposes a transportation-specific gross receipts tax on top of its corporate income tax, while also levying a franchise tax on net worth. Oregon has a total business entity tax liability of \$1.22 per thousand ton-miles, which includes both its corporate income tax and its gross receipts tax. Ohio has the lowest business entity tax liability at 13 cents per thousand ton-miles.

The representative Class I rail company operating in Washington is estimated to pay 23 cents per thousand tonmiles in business entity taxes under Scenario 2 (100% interstate miles), which is 4 cents per thousand ton-miles lower than the peer average of 27 cents per thousand ton-miles. Washington has the 6th lowest business entity tax burden. Louisiana has the highest at 87 cents per thousand ton-miles, while Oregon has a business entity tax liability of 31 cents per thousand ton-miles. Ohio has a business entity tax liability of 3 cents per thousand tonmiles.

Pusiness Entity Tay Summary	Rail - So (100% Ir	cenario 1 htrastate)	Rail - Scenario 2 (100% Interstate)		
	No tax preferences	With tax preferences	No tax preferences	With tax preferences	
Washington	\$0.93	-	\$0.23	-	
Peer average	\$1.13	\$1.13	\$0.27	\$0.27	
Difference (WA – Peer Avg.	\$(0.20)	\$(1.13)	\$(0.04)	\$(0.27)	
Pusinoss Entity Tay Summary	Truck – S (100% Ir	Scenario 1 htrastate)	Truck – S (100% In	icenario 2 terstate)	
business Littity Tax Summary	No tax preferences	With tax preferences	No tax preferences	With tax preferences	
Washington	\$3.02	-	\$1.01	-	
Peer average	\$1.06	\$1.06	\$0.32	\$0.32	
Difference (WA – Peer Avg.)	\$1.97	\$(1.06)	\$0.68	\$(0.32)	

Table ES-3. Summary of business entity tax results for interstate rail and trucking companies (dollars per thousand ton-miles)

Source: EY analysis.

Trucking business entity taxes. The representative in-state trucking company operating in Washington is estimated to pay \$3.02 per thousand ton-miles in business entity taxes under Scenario 1 (100% intrastate miles), which is \$1.97 per thousand ton-miles higher than the peer average of \$1.06 per thousand ton-miles. Washington has the 2nd highest business entity tax burden. Louisiana has the highest at \$3.94 per thousand ton-miles because it imposes a transportation-specific gross receipts tax on top of its corporate income tax, while also levying a franchise tax on net worth. Oregon has a total business entity tax liability of \$1.26 per thousand ton-miles, which includes both its corporate income tax and its gross receipts tax. Ohio has a business entity tax liability of 25 cents per thousand ton-miles.

The representative in-state trucking company operating in Washington is estimated to pay \$1.01 per thousand ton-miles in business entity taxes under Scenario 2 (100% interstate miles), which is 68 cents per thousand ton-miles higher than the peer average of 32 cents per thousand ton-miles. Louisiana has the highest business entity tax liability at \$1.32 per thousand ton-miles, while Oregon has a business entity tax liability of 42 cents per thousand ton-miles. Ohio has a business entity tax liability of 8 cents per thousand ton-miles.

1. Approach

The purpose of this analysis is to evaluate the tax burden for two interstate transportation industries – rail and truck – in Washington relative to a set of ten comparator states with and without the application of tax preferences. Section 1.1 lists the comparator states, while section 1.2 describes the interstate rail and truck industries. Section 1.3 describes the tax calculation methodology and Section 1.4 characterizes the operational profiles of the two industries being analyzed.

1.1. States included in evaluation

The following set of ten comparator states are included in the analysis: California, Idaho, Illinois, Louisiana, New Jersey, Nevada, Ohio, Oregon, Texas and Virginia. These states have been selected because they are geographic neighbors of Washington State or have a significant rail or trucking industry presence. In addition, many of the selected states have large marine facilities.

1.2. Definition of industry

JLARC requested that the analysis focus on the following two US industries within the *Transportation and Warehousing* sector (NAICS 48-49):

- Rail Transportation (NAICS 482)
- Truck Transportation (NAICS 484)

Companies in the *Rail Transportation* subsector transport passengers and/or cargo over railroad lines. According to the Association of American Railroads, there are approximately 630 freight railroad companies operating across a rail network that spans nearly 140,000 miles.¹ The US Surface Transportation Board separates railroad companies into three classes depending on their annual operating revenue. Class I consists of the seven largest US rail companies, each of which has annual operating revenues of at least \$943.9 million. Class II and Class III consists of short line and regional rail companies. Class II companies have annual revenue of between \$42.4 million and \$943.9 million, while Class III companies have revenues of less than \$42.4 million. These thresholds are adjusted annually for inflation. The analysis focuses on the seven Class I railroads, which accounted for 68% of freight rail mileage, 88% of employees and 94% of revenue in 2020.²

Companies in the *Truck Transportation* subsector transport cargo via motor vehicles such as truck or tractor trailer. The subsector includes both general freight trucking companies and specialized freight trucking companies. Specialized freight companies handle cargo that requires specialized equipment due to the size, weight, shape or other inherent characteristic of the goods being transported. The subsector includes both local and long-distance trucking companies, as well as moving companies that move household and office goods. There are two 4-digit NAICS codes within the *Truck Transportation* subsector, which are *NAICS* 4841 – General Freight *Trucking* and *NAICS* 4842 – Specialized Freight Trucking.

Table 1 below reports basic characteristics of each industry in the United States. Data on the seven Class I rail companies are from the Surface Transportation Board and are based on information from 2021, while data on the *Truck Transportation* subsector are from the U.S. Census County Business Patterns data set for 2020. The seven Class I rail companies employed just over 150,000 workers in 2021 for an average firm size of just over

¹ Association of American Railroads. Fact Sheet: Railroad 101. https://www.aar.org/wp-content/uploads/2020/08/AAR-Railroad-101-Freight-Railroads-Fact-Sheet.pdf

² Association of American Railroads. Fact Sheet: Railroad 101. https://www.aar.org/wp-content/uploads/2020/08/AAR-Railroad-101-Freight-Railroads-Fact-Sheet.pdf

21,000. The *Truck Transportation* subsector employed just over 1.6 million workers for an average firm size of 11 employees. The analysis is focused on the entire *Truck Transportation* subsector because financial and operating profile information is not available by firm size. Therefore, it is not possible to focus on the largest national truck transportation companies, which is what was done for the rail sector.

	Class I Railroads*	Truck*
Total number of establishments	7	144,774
Total number of employees	150,281	1,624,213
Total compensation (\$ in thousands)	\$12,847,575	\$84,483,853
Average employment per establishment	21,469	11
Average wage	\$85,490	\$52,015

Source: EY analysis of US Surface Transportation Board and US Census County Business Patterns data.

Note: *Rail data is specific to Class I railroads in 2021. Truck data presented is for NAICS 484 and is specific to 2020.

Table 2 below reports establishment, employment, and payroll information for the *Truck Transportation* subsector for Washington and each of the peer states. California has the greatest number of establishments in the trucking industry, followed by Illinois and Texas, while Texas employs the most workers, followed by California and Illinois. Nevada and Idaho have the fewest number of trucking companies, as well as employing the fewest number of workers.

State	Number of establishments	Number of employees	Total Payroll (thousands)	Average wage
Washington	3,477	29,257	\$1,539,179	\$52,609
California	15,774	142,916	\$7,657,643	\$53,581
Idaho	1,338	10,279	\$479,086	\$46,608
Illinois	13,249	87,918	\$4,811,379	\$54,726
Louisiana	1,600	16,304	\$830,371	\$50,931
Nevada	881	9,329	\$511,759	\$54,857
New Jersey	4,168	44,238	\$2,328,798	\$52,642
Ohio	4,843	70,346	\$3,785,166	\$53,808
Oregon	1,858	21,502	\$1,071,162	\$49,817
Texas	11,857	159,604	\$8,374,266	\$52,469
Virginia	3,050	34,128	\$1,756,518	\$51,469

Table 2. Truck industry (NAICS 484) employment, payroll, and establishments in Washington and peer states (2020 data)

Source: US Census County Business Patterns data.

1.3. Analytical approach

Representative operational profiles were constructed for the rail and trucking industries using publicly available data. The operational profile provides revenue and expenses in a typical year for an average firm in these sectors on an on-going (or steady-state) basis. An important component of these profiles is the ability to estimate "per mile" operating revenue and expenses in order calculate tax bases and estimate tax liabilities on a per mile basis.

The data needed to calculate the different tax liabilities include items such as annual revenue, net operating income, the value of real and personal property, and the amount spent on different business inputs such as repair services or diesel fuel. The tax liabilities and effective tax rates are calculated per thousand ton-miles. The ton-mile is the preferred unit of measurement in the transportation industry because it captures both value and distance since it is the movement of one ton of freight over one mile.

Figure 1 provides an overview of the approach used to calculate the tax burden of transportation companies without any tax preferences and once tax preferences in Washington are applied to the lower the hypothetical firms' tax burdens. Outputs from the analysis include:

- 1. Dollar value tax liabilities per ton-mile for each tax type within each state
- 2. Dollar value total tax liability per ton-mile for each state
- 3. The effective tax rate calculated as total tax liability per ton-mile divided by net operating income per ton-mile

Figure 1. Overview of approach for estimating the operating taxes of the rail and trucking industries



1.4. Representative operational profiles

Representative operational profile for the Railroad Transportation industry

Data for the seven Class I railroad companies is from the Surface Transportation Board.³ The Class I rail companies are required to file numerous reports on an annual basis. Data is available through 2021. Most of the data is from the Annual Report of Finances and Operations, which is also referred to as the "R-1" report. The rail companies also file quarterly wage and employment reports known as the "Quarterly Wage Form A & B".

Data shown in Table 3 include total revenue, expense items, and tax base information for Class 1 rail companies and average company metrics. Revenue, expenses, and the relevant tax bases are also calculated per thousand ton-miles for the average company.

Parameter	Industry Value	Company average	Pe thousan ton-mile	er Data Sources d s
Ton-miles	1,533,869 M	219,124 M		Surface Transportation Board, 2021
Annual revenue	\$74,331 M	\$10,619 M	\$48.46	Surface Transportation Board, 2021
Expenses				
Operating expenses	\$46,085 M	\$6,584 M	\$30.05	Surface Transportation Board, 2021
Compensation	\$12,848 M	\$1,835 M	\$8.37	Surface Transportation Board, 2021
Fuel cost	\$6,679 M	\$954 M	\$4.35	Surface Transportation Board, 2021
Gallons consumed	3,090 M	441 M	2.01	Surface Transportation Board, 2021
Repair (parts)	\$8,755 M	\$1,251 M	\$5.71	Surface Transportation Board, 2021
Repair (labor)	\$11,341 M	\$1,620 M	\$7.39	Surface Transportation Board, 2021
Tax base information				
Annual revenue	\$74,331 M	\$10,619 M	\$48.46	Surface Transportation Board, 2021
Net operating income	\$21,410 M	\$3,059 M	\$13.96	Surface Transportation Board, 2021
NOI / revenue	28.8%	28.8%	28.8%	EY calculation
Property values Cost method				
Road	\$218,659 M	\$31,237 M	\$142.55	Surface Transportation Board, 2021
Equipment	\$53,479 M	\$7,640 M	\$34.87	Surface Transportation Board, 2021
Net property value	\$204,002 M	\$29,143	\$133.00	Surface Transportation Board, 2021
Income method				
Net operating income	\$19,444 M	\$2,778	\$12.68	Surface Transportation Board, 3 Year average
Capitalization rate	11.27%	11.27%	10.37%	Surface Transportation Board

Table 3. Business Profile: Rail Industry (NAICS 482)

³ U.S. Surface Transportation Board. https://www.stb.gov/reports-data/economic-data/

Representative operational profile for the Truck Transportation industry

Data for the truck transportation industry is from a variety of sources. The Bureau of Transportation Statistics provides an operating profile of a truck company.⁴ Operational information on the number of ton miles is from the Bureau of Transportation Statistics. Operating expense information including compensation, repair & maintenance as well as fuel costs is from the Census Service Annual Survey. The Census Service Annual Survey also provides data annual revenues.

Table 4 displays total revenue, expense items, and tax base information for the trucking industry and average company metrics. Revenue, expenses and relevant tax bases are then shown per thousand ton-miles for the average company.

Parameter	Industry Value	Company average	Per thousand ton-	Data Sources
			miles	
Ton miles Annual revenue	2,426,766 M \$381,109 M	16.8 M \$2.6	 \$157.05	Bureau of Transportation Statistics, 2020 Census Service Annual Survey, 2021
Expenses				
Operating expenses	\$311,962 M	\$2.2 M	\$128.55	Census Service Annual Survey, 2021
Compensation Repair & maintenance Cost of diesel fuel Gallons of diesel fuel	\$87,442 M \$13,463 M \$32,242 M \$9,827 M	\$0.6 M \$0.1 M \$0.2 M 0.1 M	\$36.03 \$5.55 \$13.29 \$4.05	Census Service Annual Survey, 2021 Census Service Annual Survey, 2021 Census Service Annual Survey, 2021 Census Service Annual Survey, 2021
Tax base information				
Annual revenue Net operating income NOI / revenue	\$381,109 M \$24,845 M 6.5%	\$2.6 M \$0.2 M 6.5%	\$157.05 \$10.24 6.5%	Census Service Annual Survey, 2021 EY calculation EY calculation
Property values Cost method Real property Personal property	\$48,600 M \$70,900 M	\$0.3 M \$0.5 M	\$20.03 \$29.22	BEA Fixed Assets Table, 2021 BEA Fixed Assets Table, 2021

Table 4. Business Profile: Truck Industry (NAICS 484)

⁴ U.S. Bureau of Transportation Statistics. Truck Profile. https://www.bts.gov/content/truck-profile

2. State and local taxes in analysis

The analysis compares the operating tax burden faced by interstate transportation companies in Washington to a peer set of ten states by modeling the tax structure within each state. The analysis includes the following tax types: business entity taxes (corporate income tax, gross receipts tax and franchise tax), sales and use tax on business expenditures, real and personal property taxes, and diesel fuel taxes and vehicle registration fees.

2.1. Business entity taxes

Table 5 provides information on the corporate income tax, which is imposed by the majority of the states in the analysis. The corporate income tax is the primary business entity tax in California, Idaho, Illinois, Louisiana, New Jersey, Oregon and Virginia. Illinois and Louisiana also impose a franchise tax on net worth. The primary business entity tax for the remaining states in the analysis, including Washington, is the gross receipts tax. Oregon is the only state in the analysis that has both a corporate income tax and a gross receipts tax.

State	Top marginal rate	Nexus	General Apportionment	Transportation industry apportionment formula				
New Jersey*	11.5% - trucking 10.00% - rail	Economic presence	Single-sales factor	Share NJ miles				
California	8.84%	Economic presence	Single-sales factor	Share CA miles				
Oregon	7.60%	Economic presence	Single-sales factor	Share OR miles				
Louisiana	7.50%	Economic presence	Single-sales factor	Share LA miles				
Illinois**	9.5%	Interstate commerce	Single-sales factor	Share IL miles				
Idaho	6.00%	Economic presence	Single-sales factor	Share ID miles				
Virginia	6.00%	Economic presence	3 factors double- weighted sales	Share VA miles				

Table 5. Corporate income taxes in benchmark states

Source: Data on state tax rates and tax parameters collected from CCH Intelliconnect and state tax departments. *Note: Rail companies in New Jersey are subject to the Railroad Franchise Tax, which imposes a rate of 10% on the New Jersey share of net railway operating income in lieu of the state's Corporation Business Tax.

**Illinois rate includes the 2.5% Personal Property Replacement Tax.

The corporate income tax ranges from a low of 6.0% in Idaho and Virginia to a high of 11.5% in New Jersey, which includes a 2.5% surcharge that is slated to expire December 31, 2023. Rail companies in New Jersey are subject to the Railroad Franchise Tax, which is imposed in lieu of the state's Corporation Business Tax, at a rate of 10% on the share of net railway operating income allocated to the state as measured by the ratio of in-state track miles relative to track miles everywhere. California, Illinois, Idaho and Virginia have a flat corporate income tax regime, while Louisiana, New Jersey and Oregon have multiple brackets. Louisiana's top marginal rate of 7.5% applies to taxable income greater than \$150,000, while the top rates for New Jersey and Oregon apply to taxable income greater than \$1.0 million.

The nexus rules and apportionment formulas are also reported for the seven states with a corporate income tax. A state has nexus over a business if the company has sufficient economic presence in the form of activity in the state. The exception is Illinois, which determines tax nexus based on federal statutes regulating interstate commerce, as well as Illinois tax law. Virginia is the only one of the seven corporate income tax states that has not adopted a single-sales factor formula for apportioning corporate net income. However, like the other states in the analysis, it does have a special apportionment formula for transportation companies, which is based on

the amount of in-state miles as a share of total miles everywhere. Idaho's special apportionment formula applies to businesses that transport freight by motor carrier.⁵

The analysis assumes that the representative rail company, which is based on the seven Class I railroads, will have real property and payroll in each state, which automatically triggers corporate income tax nexus. This assumption negates the need to evaluate an out-of-state rail company. In-state trucking companies have real and personal property in the states and assumed to have payroll and employees in the states. The out-of-state trucking company is assumed to have sufficient economic activity to establish nexus.

Table 6 below characterizes the five states with a gross receipts tax. Three of the states provide an exemption to businesses. Nevada's Commerce Tax allows companies to exempt the first \$4.0 million in gross receipts and Ohio's Commercial Activity Tax and Oregon's Corporate Activity Tax allow businesses to exempt the first \$1.0 million in gross receipts. Oregon's Corporate Activity Tax and Texas's Franchise Tax are considered modified gross receipts taxes because they provide deductions for businesses are allowed to subtract \$1.0 million, compensation or the cost of goods sold or compute the tax based on 70% of total revenue.

Washington's gross receipts tax is the Business & Occupation Tax (B&O). However, RCW (revised code of Washington) 82.04.310 exempts from the B&O tax any activities subject to tax under RCW 82.16, which is the Public Utility Tax, including items subject to deduction under RCW 82.16.050. Motor transportation companies and rail companies are subject to a 1.926% tax rate under the Public Utility Tax. In other states transportation companies face different gross receipts tax rates. Ohio has the lowest gross receipts tax rate at 0.26%, while Texas has the highest gross receipts tax rate amongst the comparison states at 0.75%. Nevada taxes rail companies at a rate of 0.331%, while truck companies are taxed at 0.202%.

	Gross receipts	Gross receipts			
State	exemptions	deductions	Tax rate	Nexus	Situs Rules
Washington*			1.926%	Economic or Physical Presence	Intrastate trips
Nevada	\$4M		rail = 0.331% truck = 0.202%	Physical Presence	Intrastate trips
Ohio	\$1M		0.26%	Bright-line presence	Share OH miles
Oregon	\$1M	Yes*	0.57%	Economic presence	Share OR miles
Texas		Yes*	0.75%	Economic presence	Intrastate trips

Table /	Craaa	rocoluto	+01000	far	Washington	~ ~ d	h an ah ma arl	atataa
I able o	11055	receipts	Taxes	1()[washindion	and	реполнатк	Slates
10010 01	0.000	10001010	tanoo	101	11 donning ton	and	Sononinian	oraroo

Source: Data on state tax rates and tax parameters collected from CCH Intelliconnect and state tax departments. *Notes: Washington Public Utility Tax. Oregon allows businesses to deduct 35% of compensation or the cost of goods sold from gross receipts. Texas allows businesses to subtract compensation, the cost of goods sold or \$1.0 million, or alternatively calculate 70% of gross receipts.

Oregon and Texas follow an economic presence rule for nexus requirements, while Nevada requires physical presence. Washington has both physical presence and economic presence guidelines regarding nexus. Ohio requires out-of-state companies to register and pay the Commercial Activity Tax if they have "bright-line"

⁵ Idaho State Tax Commission. Form 402 Individual Apportionment for Multistate Businesses.

presence, which means they have at least \$50,000 in property or payroll or \$500,000 in taxable gross receipts sourced to Ohio.

The last column in Table 6 explains the sourcing rule for transportation companies under each state's gross receipts tax. Washington and Nevada only require transportation companies to report revenue from intrastate transportation trips, which is when the trip begins and ends in the same state. Ohio and Oregon require transportation companies to apportion revenues based on the ratio of miles traveled in state relative to miles traveled everywhere. In this case, Ohio and Oregon not only tax revenue from intrastate trips, but they also tax revenue from the in-state portion of interstate trips. Taxpayers in Texas may source gross receipts using either method: intrastate trips only or the share of miles traveled in Texas. However, it is unlikely that a taxpayer would choose the latter because apportioning revenue by the share of miles traveled in Texas means that the in-state portion of interstate trips. Texas's sourcing rule is reported as intrastate trips.

2.2. Sales taxes

Table 7 below reports state and local tax rates for each of the eleven states, as well as whether repair services (parts or labor) are taxable or exempt for both industries. Oregon is the only state that does not have a sales tax, while the remaining states have both state and local sales taxes. State sales tax rates range from a low of 4.3% in Virginia to a high of 7.25% in California, while local rates range from 0% in New Jersey to an average local rate of 5.07% in Louisiana. Virginia has the lowest total sales and use tax rate at 5.73%, while Louisiana has the highest total rate at 9.52%. Four states (California, Illinois, Nevada and Texas) have total sales tax rates in the 8.0% range.

The analysis includes sales tax paid by interstate rail and truck companies for repair services since only operating expenses are modeled. Therefore, the sales tax liability does not include taxes paid on the purchase of new locomotives or freight cars for rail companies or trucks and tractor-trailers for truck companies. Even if capital purchases were included in the model, the states in the analysis generally exempt the purchase of locomotives and freight cars or trucks and tractor-trailers that have been purchased and immediately used for interstate commerce purposes.

Washington statute 82.08.0261 exempts tangible personal property used by rail companies in interstate or foreign commerce, while statute 82.08.0262 exempts both tangible personal property and labor services used to repair locomotives or rail cars, as well as motor vehicles or trailers. California, Idaho, Nevada and Virginia tax tangible personal property used in repairs, but exempt labor services. Illinois exempts services from its sales tax, and parts are exempt as well if they are sold in conjunction with those repair services. Ohio exempts repair services, parts and labor, for rail companies when they are principally used in interstate or foreign commerce, while repair services, parts and labor, are exempted for truck companies when they are used to transport tangible personal property for hire. New Jersey taxes repair services, but tangible personal property used to repair trucks engaged in interstate commerce are exempt from the sales tax, while tangible personal property used to repair rail cars is not subject to the sales tax. Both Louisiana and Texas exempt from sales tax parts and labor used to repair rail cars is not subject to the sales tax. Both Louisiana taxes repair services, parts and labor, while Texas exempts repair locomotives and freight cars. Louisiana taxes repair services, parts and labor, while Texas exempts repair labor services from the sales tax, while taxing the parts.

				Rail industry		Truck industry	
State	State sales and use tax rate	Average local tax rate	Total sales and use tax rate	Repairs (Parts)	Repairs (Labor)	Repairs (Parts)	Repairs (Labor)
Washington	6.50%	2.73%	9.23%	Exempt	Exempt	Exempt	Exempt
California	7.25%	1.43%	8.68%	Taxable	Exempt	Taxable	Exempt
Idaho	6.00%	0.03%	6.03%	Taxable	Exempt	Taxable	Exempt
Illinois	6.25%	2.57%	8.82%	Exempt	Exempt	Exempt	Exempt
Louisiana	4.45%	5.07%	9.52%	Exempt	Exempt	Taxable	Taxable
Nevada	6.85%	1.38%	8.23%	Taxable	Exempt	Taxable	Exempt
New Jersey	6.625%	0.0%	6.625%	Exempt	Taxable	Exempt	Taxable
Ohio	5.75%	1.48%	7.23%	Exempt	Exempt	Exempt	Exempt
Oregon	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Texas	6.25%	1.94%	8.19%	Exempt	Exempt	Taxable	Exempt
Virginia	4.30%	1.43%	5.73%	Taxable	Exempt	Taxable	Exempt

Table 7. Treatment of sales and use taxation

Source: Data on state tax rates and tax parameters collected from CCH Intelliconnect and state tax departments. Notes: * Virginia exempts the sale of railroad cars, but motor vehicles are subject to the motor vehicles sales tax

2.3. Property taxes

Rail property taxation. The unit approach is generally used to assess railroad property for taxation purposes. Under this method, the entire business enterprise is valued as a single unit given the interconnected nature of the rail network. The operating property of the railroad includes tracks, right of ways, rolling stock and car equipment.

The property is assessed using some combination of the cost method or the income method, which measures the income-generating potential of the business enterprise. The value of the entire railroad business is then allocated to each state according to a number of factors such as:

- Property factors include items such as the total miles of track or the original cost of property
- Revenue factors include revenue ton-miles
- Use miles include locomotive and miles traveled
- Terminal factors include the freight-tons that originated or terminated in the state. Typically, the state will calculate the in-state share of the factor relative to the amount everywhere

The state's allocated value is then apportioned to local counties based on their share of track miles in the state. Texas is the only state in the peer group that does not centrally assess railroad property, which means that it is handled at the county level. Although Virginia centrally assesses railroad property, they follow the "summation value" approach, which means they value the land on which the property sits, and then add the depreciated value of any improvements, as well as other property physically located in each county that is reported by the railroad.

The analysis assumes that the representative rail company, which is based on the seven largest (Class I) rail companies, has real and personal property in each of the eleven states. This eliminates the difference between in-state and out-of-state companies. The analysis follows the unit method in estimating an enterprise-wide value of operating property for the representative railroad company and then estimates a per mile unit value for real and personal property. Per unit values are then multiplied by each state's assessment ratio and statewide average property tax rate to estimate real property taxes. Personal property taxes are calculated in the same manner with the exception that Illinois, New Jersey and Ohio exempt rail personal property from taxation.

Trucking property taxation. Both real and personal property are assessed at the local level for truck companies. Land and structures, such as terminals and warehouses, are taxed as real property, while commercial vehicles are taxed as personal property. Three states (Illinois, New Jersey and Ohio) do not tax personal property, while Texas and Virginia are the only two of the remaining eight state that tax commercial vehicles under their personal property tax code.

The nexus considerations for commercial vehicles differ between Virginia and Texas. Commercial vehicles are taxed as personal property in Virginia if they are registered with the Department of Motor Vehicles.⁶ Texas has a more complicated personal property tax structure for commercial vehicles because enforcement varies by county. Commercial vehicles are subject to the personal property tax if they are located at a terminal facility in the county on January 1 for more than a temporary period; or if they are normally located at a terminal facility in the county but are outside of the facility on January 1 for a temporary period of time; or if they are normally returned to the terminal facility between uses elsewhere and they are not located in any one place for more than a temporary period of time.⁷ What is considered to be a temporary period of time is what complicates personal property taxation in Texas because certain counties take a more limited view than others of what is considered temporary. The value of commercial vehicles used in interstate commerce is apportioned to the state based on their share of Texas in-state miles.

Although the largest national trucking firms are likely to have real property in each of the 48 contiguous states, there are many other mid-sized regional firms that may service certain states but not have real property in them. The analysis assumes the following:

- Virginia and Texas: the in-state firm has both real and personal property in the state. The out-of-state firm has only personal property in the state, but not real property. As a result, only personal property is subject to the property tax for out-of-state firms.
- Washington and remaining states: the in-state firm is assumed to have both real and personal property in the state. The out-of-state firm is assumed to only have personal property in the state, but not real property. However, since these states do not tax commercial vehicles as personal property, the out-ofstate firm is not subject to property tax in these states.

Table 8 below summarizes the primary features of railroad and trucking property taxation for the eleven states in the peer analysis. The analysis assumes that rail property will be allocated to each state based on the in-state share of miles traveled since that is the data that is publicly available. Our analysis then relies on per mile real and personal property values to calculate applicable taxes in Washington and peer states.

⁶ Code of Virginia. § 58.1-3523. https://law.lis.virginia.gov/vacode/title58.1/chapter35.1/section58.1-3523/

⁷ Texas Tax Code. https://statutes.capitol.texas.gov/Docs/TX/htm/TX.21.htm

State	ls rail property centrally assessed?	Rail state allocation factors	Assessment ratio	Is personal property generally taxed?	Commercial vehicles taxable specifically?	Average property statewide ETR*
Washington	Yes	Property and cost	100%	Yes	No	0.89%
California	Yes	Property, revenue and terminal	100%	Yes	No	1.16%
Idaho	Yes	Property, use and terminal	50% - rail 100% - trucking	Yes	No	0.91%
Illinois	Yes	Property and use	33%	No	No	2.80%
Louisiana	Yes	Property, revenue and use	25% - rail 15% - trucking	Yes	No	2.70%- rail 1.62%- trucking
Nevada	Yes	Property, revenue and use	35%	Yes	No	1.11%
New Jersey	Yes	At discretion of Department of Taxation	100%	No	No	2.20%
Ohio	Yes	Use (track miles)	35%	No	No	2.25%
Oregon	Yes	Property, revenue and use	100%	Yes	No	0.97%
Texas	No	Property, revenue and use	100%	Yes	Yes	1.89%
Virginia	Yes	No allocation	100%	Yes	Yes	1.19%

Table 8. Property tax details for railroad and trucking property

Source: Data on state tax rates and tax parameters collected from CCH Intelliconnect and state tax departments. *Average statewide ETR includes the assessment ratio. Most recent year available (ranges 2019-2022).

2.4. Registration fees and diesel fuel taxes

The International Registration Plan (IRP) is a reciprocity agreement among the 48 contiguous states, as well as the provinces of Canada, to provide a central database to handle the registration and licensing of commercial motor vehicles engaged in interstate commerce.⁸ Under the IRP, motor carriers are required to register with and pay license fees to one jurisdiction, which is their "base" jurisdiction. In return, vehicles are issued one license plate and one cab card that allows them to operate across different jurisdictions. The motor carrier lists the different jurisdictions where they plan to operate when they register. The total fee is the apportioned value of the state fee for each jurisdiction, and the apportionment formula is the share of miles traveled in each state they plan to operate.

Similarly, the International Fuel Tax Agreement (IFTA) is an agreement to collect and share motor fuel taxes among the 48 contiguous states and the 10 Canadian provinces that border the U.S. Motor carriers file a quarterly return where they report the total gallons of fuel purchased in each jurisdiction.⁹ They also report the total miles traveled and total gallons of fuel consumed in each jurisdiction, which allows them to calculate the amount of fuel taxes they should have paid versus what was actually paid. Motor carriers pay any additional fuel taxes owed when they file their quarterly return or are refunded any overpayment in fuel taxes. The states use

⁸ International Registration Plan, Inc. https://www.irponline.org/

⁹ International Fuel Tax Association, Inc. https://www.iftach.org/

this information to credit and debit each other for the amount of fuel taxes that should have been paid in each jurisdiction.

Table 9 below reports diesel fuel tax rates for each state in the analysis, as well as the registration fee for a commercial vehicle weighing at least 26,000 pounds or weighing at most 80,000 pounds. These registration fees are immaterial to the analysis and are excluded from the analysis.

State	Diesel fuel tax rate 2022 (cents per gallon)	IRP fee - 26,000 lbs	IRP fee – 80,000 lbs
Washington	49.40	\$300	\$2,121
California	72.70	\$1,450	\$2,928
Idaho	32.00	\$249	\$3,385
Illinois	62.7	\$730	\$2,890
Louisiana	20.00	\$156	\$491
Nevada	27.00	\$1,804	\$2,705
New Jersey	49.40	\$380	\$1,223
Ohio	47.00	\$410	\$1,395
Oregon	38.00	\$375	\$998
Texas	20.00	\$340	\$840
Virginia	40.90	\$531	\$1,888

Table 9. Truck industry registration fee and diesel fuel tax rates

Source: Diesel fuel tax rates are from the International Fuel Tax Association website and are for Q1-2022, https://www.iftach.org/taxmatrix4/. Data on state IRP registration fees are available on the IRP website, https://www.irponline.org/.

3. Tax burdens by state

3.1. Scenarios modeled: no tax preferences versus with tax preferences

The analysis estimates state and local taxes under two scenarios:

- Scenario #1: (100% intrastate miles): This scenario has 100% of the miles traveled by the transportation companies occurring within the state so that the origin state and destination state are the same. Washington taxes gross receipts from intrastate miles unless they qualify for exemptions under tax code sections 82.16.050(9), which exempt gross receipts from trips due to shipments to port, and 82.16.050(10), which exempts in-state shipments of agricultural products to temporary storage facilities before they will be shipped to a port for transportation by vessel or to another state or a foreign country. This scenario is meant to illustrate the impact of imposing Washington's PUT on currently exempt revenue miles and the magnitude of the tax per mile. This is done by showing total taxes per mile with and without the tax preferences.
 - The *no tax preferences* analysis estimates the taxes paid by rail and trucking firms under conditions in which all revenue from transportation services is subject to taxation.
 - The with tax preferences analysis exempts all gross receipts for the Washington rail and trucking firms by allowing the exemptions to apply to all revenue. This illustrates the tax burdens for firms in Washington if they can fully exempt their gross receipts from the Public Utility Tax. There are no comparable tax preferences in other states with which to compare the elimination of Washington's Public Utility Tax resulting in tax burdens only changing in Washington and none of the peer states.
- Scenario #2: (100% interstate miles): This scenario has 100% of miles traveled by the transportation companies occurring between states so that the origin state and destination state differ. This scenario illustrates how states tax differently the in-state portion of interstate trips since revenue from the out-of-state portion of interstate trips is always excluded from the tax base. Since peer states differ in their tax treatment of the in-state portion of interstate trips, the analysis has a split in miles between in-state and out-of-state miles as shown in Table ES-1.
 - The *no tax preferences* analysis illustrates the tax burdens a representative transportation firm would pay in Washington and peer states based on proposed state apportionment rules in draft legislation that apply to the taxation for the in-state portion of interstate trips if the current tax preferences were eliminated.
 - The *with tax preferences* analysis illustrates the tax burden effect of exempting gross receipts from the in-state portion of interstate trips due to 82.16.050(6) and 82.16.050(8).

Table 10 summarizes how revenue from in-state and out-of-state miles is taxed by the Public Utility Tax in Washington with and without the application of tax preferences described above.

	Scenario 1 100% Intrastate	Scenario 2 100% Interstate		
	In-state	In-state portion	Out–of-state portion	
No tax preferences	Taxable	Taxable	Exempt	
With tax preferences	Exempt	Exempt	Exempt	

Table 10. Taxation of Washington gross receipts by Public Utility Tax (PUT) in each scenariowith and without tax preferences

Table 11 summarizes the tax treatment of intrastate and interstate trips for the other four gross receipts tax states of Nevada, Ohio, Oregon and Texas. All four states tax intrastate trips, while exempting the out-of-state portion of interstate trips. Whether the in-state portion of interstate trips is taxable depends on the situs rules. Ohio and Oregon require transportation companies to source revenue based on the share of Ohio or Oregon miles traveled relative to the total number of miles traveled. Nevada only requires transportation companies to source intrastate trips where Nevada is both the origin and destination state. Texas allows taxpayers to choose either method. It is assumed that taxpayers will choose to only source intrastate trips, which reduces tax liability.

	Scenario 1		Scenario 2		
		Intrastate trips	Inters	tate trips	
State	Situs rule	Taxability	Taxability of In- state portion	Taxability of out– of-state portion	
Nevada	Intrastate trips	Taxable	Exempt	Exempt	
Ohio	Share OH miles	Taxable	Taxable	Exempt	
Oregon	Share OR miles	Taxable	Taxable	Exempt	
Texas	Intrastate trips / share TX miles	Taxable	Exempt	Exempt	

The tax treatment of income for interstate transportation companies in corporate income tax states is simpler because all the states in the analysis require transportation companies to apportion income using a single-sales factor formula, thus only taxing the in-state portion of transportation revenues. The taxability assumptions for the other ten states in the analysis remain the same under both *no tax preferences* and *with tax preferences*.

The in-state share versus out-of-state share of interstate trips is calculated using the share of railroad track or highway miles in each state. Data on miles of track operated in each state is available in the R-1 reports that are published on the Surface Transportation Board website, while data on the number of interstate highway miles in each state is available from Table HM-60 of the Highway Statistics Series produced by the Federal Highway Administration. The in-state share of interstate trips is estimated to be 25% for the rail industry and 33% for the truck industry. See Table 12.

Table 12. Weighted average share of intrastate versus interstate miles
used in tax burden analysis

Share	Rail industry	Truck industry
In-state portion	25%	33%
Out-of-state portion	75%	67%

Source: EY analysis using data from the Freight Analysis Framework data set (Bureau of Transportation Statistics), R-1 reports on the Surface Transportation Board website, and the Federal Highway Administration's Highway Statistics Series, Table HM-60

The trucking industry is divided into "in-state trucking companies" and "out-of-state trucking companies" to capture differences in property taxes:

- In-state trucking company pays both real and personal property taxes. Of the states in the analysis, three of them do not tax personal property (Ohio, Illinois, and New Jersey) and of the remaining eight states, only Texas and Virginia tax vehicles.
- Out-of-state trucking company only pays personal property. Out-of-state companies in Texas are modeled to have 75% of their personal property (i.e., vehicles) subject to the property tax while out-of-state companies in Virginia are modeled to have 50% of vehicles subject to the personal property tax. This is due to differences by state in what is considered taxable personal property.

3.2. Scenario 1: 100% intrastate miles

3.2.1. Scenario 1 rail company tax burdens

Table 13 reports tax liabilities for each tax type (dollars per thousand ton-miles) with *no tax preferences*, while the total tax liability and effective tax rate are reported with *no tax preferences* and *with tax preferences*.

Summary of tax liabilities assuming no tax preferences \$1.23 Corp. income tax --\$0.84 \$1.33 \$1.05 \$1.40 \$1.06 \$0.84 --------Gross receipts tax \$0.93 ---\$0.16 --\$0.13 \$0.16 \$0.25 -----------Franchise tax* -------\$0.48 \$1.45 ---------Transport. taxes \$0.97 -----------------------------Sales and use tax \$0.50 \$0.34 ---\$0.47 \$0.49 \$0.33 ----------Property taxes \$1.15 \$1.39 \$1.24 \$2.98 \$3.22 \$1.33 \$2.35 \$2.16 \$1.37 \$2.34 \$1.58 Diesel fuel taxes \$1.00 \$1.46 \$0.64 \$0.40 \$0.54 \$1.00 \$0.95 \$0.77 \$0.40 \$0.82 \$1.26 Total tax liability \$4.58 \$7.10 \$2.50 \$3.00 \$3.08 \$3.06 \$6.05 \$5.23 \$3.23 \$3.35 \$3.57 Operating income \$13.96 \$13.96 \$13.96 \$13.96 \$13.96 \$13.96 \$13.96 \$13.96 \$13.96 \$13.96 \$13.96 Effective tax rate 22.1% 32.8% 21.9% 43.4% 50.8% 17.9% 37.5% 23.1% 24.0% 21.5% 25.6% With tax preferences Total tax liability \$2.15 \$4.58 \$3.06 \$6.05 \$7.10 \$2.50 \$5.23 \$3.23 \$3.35 \$3.00 \$3.57 -\$0.93 \$0.00 \$0.00 \$0.00 \$0.00 Difference \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 \$0.00 Effective tax rate 15.4% 32.8% 21.9% 43.4% 50.8% 17.9% 37.5% 23.1% 24.0% 21.5% 25.6%

Table 13. Scenario 1 rail industry: summary of tax liabilities and effective tax rates (dollars per thousand ton-miles)

Source: EY analysis.

Note: Illinois and Louisiana impose a franchise tax on net worth, which is different from Texas's Franchise tax, which is a gross receipts tax that is called a franchise tax.

The representative Class I rail company is estimated to pay \$3.08 per thousand ton-miles in total taxes in Washington with *no tax preferences*, or when all intrastate miles are taxed, for an effective tax rate of 22.1%. Property taxes, both real and personal, contribute \$1.15 per thousand ton-miles to the total, while diesel fuel taxes contribute another \$1.00 per thousand ton-miles. Washington's Public Utility Tax, at 93 cents per thousand ton-miles, represents the smallest portion of the total tax liability. T*ax preferences* that exempt intrastate miles lower the total tax liability to \$2.15 per thousand ton-miles for an effective tax rate of 15.4%.

Table 14 ranks the eleven states in the analysis by total tax liability with *no tax* preferences and *with tax* preferences while Figure 2 reports the same information in a bar chart. Washington's total tax liability of \$3.08 per thousand ton-miles with *no tax preferences* is fourth lowest, but falls to the lowest when *tax preferences* exempt gross receipts from intrastate trips.

Nevada, at \$2.50 per thousand ton-miles, is the only other state with a total tax liability of less than \$3.00 per thousand ton-miles. Nevada benefits from a very low gross receipts tax liability at 16 cents per thousand ton-miles, and a diesel fuel tax liability of 54 cents per thousand ton-miles, which is third lowest among the states in the analysis.

Louisiana, Illinois, New Jersey and California are the four states with a total tax liability of at least \$4.00 per thousand ton-miles or more. Louisiana has a high total tax liability because corporations are also subject to a franchise tax, and the state also imposes a gross receipts tax on top of its corporate income tax for transportation companies. Louisiana, at \$3.22 per thousand ton-miles, Illinois, at \$2.98 per thousand ton-miles, and New Jersey, at \$2.35 per thousand ton-miles have the three highest property tax liabilities. California has the highest diesel fuel tax liability among the peer states, at \$1.46 per thousand ton-miles, while Illinois ranks second at \$1.26 per thousand ton-miles and New Jersey is tied for third highest, with Washington, at \$1.00 per thousand ton-miles.

Rank	State	No tax preferences	State	With tax preferences
1	Nevada	\$2.50	Washington	\$2.15
2	Texas	\$3.00	Nevada	\$2.50
3	Idaho	\$3.06	Texas	\$3.00
4	Washington	\$3.08	Idaho	\$3.06
5	Ohio	\$3.23	Ohio	\$3.23
6	Oregon	\$3.35	Oregon	\$3.35
5	Virginia	\$3.57	Virginia	\$3.57
8	California	\$4.58	California	\$4.58
9	New Jersey	\$5.23	New Jersey	\$5.23
10	Illinois	\$6.05	Illinois	\$6.05
11	Louisiana	\$7.10	Louisiana	\$7.10

Table 14. Scenario 1 (100% intrastate miles) Rail Industry total tax liability rankings(dollars per thousand ton-miles)





Source: EY analysis.

Figure 3 summarizes the total amount of business entity taxes paid to each state, which includes corporate income taxes, gross receipts taxes, franchise taxes and Louisiana's transportation-specific gross receipts tax. Washington's Public Utility Tax liability of 93 cents per thousand ton-miles ranks in the middle of the peer group. Texas, Nevada and Ohio have the three lowest business entity tax liabilities, while Oregon's ranks fifth highest because the state imposes both a corporate income and a gross receipts tax.





Source: EY analysis.

Figure 4 compares the tax liability of a representative Class I rail company operating in Washington to the peer average for the sales and use tax, property tax and diesel fuel tax. The representative rail company does not have a sales tax liability on repair services in Washington. The peer average is 21 cents per thousand ton-miles because half of the states also exempt both repair parts and repair labor services from the sales tax, while the remaining states only tax parts or labor services, but not both. The representative rail company also faces a lower property tax liability in Washington compared to the peer states, at \$1.15 per thousand ton-miles versus \$2.00 per thousand ton-miles. However, the representative rail company pays more in diesel fuel taxes in Washington than the peer states, at \$1.00 per thousand ton-miles versus 83 cents per thousand ton-miles.





3.2.2. Scenario 1 in-state trucking company tax burdens

Table 15 reports tax liabilities for each tax type (dollars per thousand ton-miles) with *no tax preferences*, while the total tax liability and effective tax rate are reported with *no tax preferences* and *with tax preferences*.

Table 15. Scenario 1 in-state trucking company: summary of tax liabilities and effective tax rates (dollars per thousand ton-miles)

Metric	WA	СА	ID	IL	LA	NV	NJ	ОН	OR	ТΧ	VA
Summary of tax liabilities assuming no tax preferences											
Corp. income tax		\$0.91	\$0.61	\$0.97	\$0.77		\$1.18		\$0.78		\$0.61
Gross receipts tax	\$3.02							\$0.25	\$0.48	\$0.82	
Franchise tax*				\$0.01	\$0.03						
Transport. taxes					\$3.14						
Sales and use tax		\$0.48	\$0.33		\$0.53	\$0.46				\$0.45	\$0.32
Property taxes	\$0.18	\$0.23	\$0.18	\$0.56	\$0.32	\$0.22	\$0.44	\$0.45	\$0.19	\$0.93	\$0.59
Diesel fuel taxes	\$2.00	\$2.94	\$1.30	\$2.54	\$0.81	\$1.09	\$2.00	\$1.90	\$1.54	\$0.81	\$1.66
Total tax liability	\$5.20	\$4.56	\$2.43	\$4.08	\$5.60	\$1.77	\$3.62	\$2.61	\$2.99	\$3.02	\$3.17
Operating income	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24
Effective tax rate	50.8%	44.6%	23.7%	39.9%	54.7%	17.3%	35.3%	25.5%	29.2%	29.5%	31.0%
With tax preferences											
Total tax liability	\$2.18	\$4.56	\$2.43	\$4.08	\$5.60	\$1.77	\$3.62	\$2.61	\$2.99	\$3.02	\$3.17
Difference	-\$3.02	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Effective tax rate	21.3%	44.6%	23.7%	39.9%	54.7%	17.3%	35.3%	25.5%	29.2%	29.5%	31.0%

Source: EY analysis.

Note: Illinois and Louisiana impose a franchise tax on net worth, which is different from Texas's Franchise tax, which is a gross receipts tax that is called a franchise tax.

The representative in-state trucking company is estimated to pay \$5.20 per thousand ton-miles in total taxes in Washington with *no tax preferences*, or when all intrastate miles are taxed, for an effective tax rate of 50.8%. Washington's Public Utility Tax is the greatest contributor to the tax burden with a liability of \$3.02 per thousand ton-miles, while the diesel fuel tax liability is \$2.00 per thousand ton-miles, and the property tax liability is 18 cents per thousand ton-miles. *Tax preferences* that exempt revenue from intrastate miles lower the total tax liability to \$2.18 per thousand ton-miles for an effective tax rate of 21.3%.

Table 16 ranks the eleven states in the analysis by total tax liability assuming both *no tax preferences* and *with tax preferences*, while Figure 5 reports the same information in a bar chart. Washington's total tax liability of \$5.20 per thousand ton-miles with *no tax preferences* is second highest after Louisiana, but becomes second lowest after Nevada, at \$2.18 per thousand ton-miles *with tax preferences*.

The representative in-state trucking company is modeled to have operating revenues of \$2.6 million, which is less than the \$4.0 million deduction under Nevada's Commerce Tax. As a result, the in-state trucking company is not subject to the Commerce Tax, which explains Nevada's low total tax liability of \$1.77 per thousand ton-miles.

Louisiana, California and Illinois have the three highest total tax liabilities, all of which are above \$4.00 per thousand ton-miles. Louisiana has the highest total tax liability at \$5.60 per thousand ton-miles, primarily because of the state's transportation-specific gross receipts tax, which adds \$3.14 per thousand ton-miles. California, at \$4.56 per thousand ton-miles, and Illinois, at \$4.08 per thousand ton-miles, have high total tax liabilities because their diesel fuel tax liabilities are the highest and second highest at \$2.94 per thousand ton-miles, respectively. In addition, Illinois's corporate income tax liability of 97 cents per thousand ton-miles is second highest, while California's corporate income tax liability of 91 cents per thousand ton-miles is third highest.

Rank	State	No tax preferences	State	With tax preferences
1	Nevada	\$1.77	Nevada	\$1.77
2	Idaho	\$2.43	Washington	\$2.18
3	Ohio	\$2.61	Idaho	\$2.43
4	Oregon	\$2.99	Ohio	\$2.61
5	Texas	\$3.02	Oregon	\$2.99
6	Virginia	\$3.17	Texas	\$3.02
5	New Jersey	\$3.62	Virginia	\$3.17
8	Illinois	\$4.08	New Jersey	\$3.62
9	California	\$4.56	Illinois	\$4.08
10	Washington	\$5.20	California	\$4.56
11	Louisiana	\$5.60	Louisiana	\$5.60

Table 16. Scenario 1 (100% intras ⁻	tate miles) in-state trucking	company: total tax	x liability rankings
(dollars per thousand ton-mil	les)	





Figure 6 summarizes the total amount of business entity taxes paid by each state, which includes corporate income taxes, gross receipts taxes, franchise taxes and Louisiana's transportation-specific gross receipts tax. Washington's Public Utility Tax Liability of \$3.02 per thousand ton-miles is second highest after Louisiana's business entity tax liability of \$3.94 per thousand ton-miles. Oregon has the third highest business entity tax liability at \$1.26 per thousand ton-miles. Oregon's corporate income tax contributes 78 cents per thousand ton-miles to the total, while its gross receipts tax adds another 48 cents per thousand ton-miles. The high business entity tax liabilities of New Jersey, Illinois and California can be attributed to their high corporate income tax rates.

Source: EY analysis.



Figure 6. Scenario 1 in-state trucking company: business entity tax liabilities (dollars per thousand ton-miles)

Source: EY analysis.

Figure 7 compares the tax liability of an in-state trucking company operating in Washington to the peer average for the sales and use tax, property tax and diesel fuel tax. The in-state trucking company does not have a sales tax liability on repair services in Washington. The peer states have an average sales tax liability of 26 cents per thousand ton-miles. Illinois and Ohio are the only two other states that exempt both repair parts and labor services under the sales tax. However, all but two states in the peer group exempt labor services under the sales tax. The in-state trucking company pays 18 cents per thousand ton-miles in property taxes in Washington, which is slightly less than half the peer state average of 41 cents per thousand ton-miles. Washington's diesel fuel tax liability of \$2.00 per thousand ton-miles is higher than the peer average of \$1.66 per thousand ton-miles.



Figure 7. Washington tax liability vs peer average by tax type for in-state trucking company (dollars per thousand ton-miles)

3.2.3. Scenario 1 out-of-state trucking company

Table 17 reports tax liabilities for each tax type (dollars per thousand ton-miles) before and after tax preference are applied for Washington. The representative out-of-state trucking company is estimated to pay \$5.03 per thousand ton-miles in total taxes in Washington with *no tax preferences* for an effective tax rate of 49.1%. The difference between the results for the in-state trucking company is that the out-of-state trucking company operating in Washington has no property tax liability. As a result, the total tax liability with tax preferences, or when intrastate miles are exempted, is slightly lower at \$2.00 per thousand ton-miles for the out-of-state trucking company.

Metric	WA	СА	ID	IL	LA	NV	NJ	OH	OR	ТХ	VA
Summary of tax liab	ilities assu	iming no ta	ax preferer	nces							
Corp. income tax		\$0.91	\$0.61	\$0.97	\$0.77		\$1.18		\$0.78		\$0.61
Gross receipts tax	\$3.02							\$0.25	\$0.48	\$0.82	
Franchise tax*				\$0.01	\$0.03						
Transport. taxes					\$3.14						
Sales and use tax		\$0.48	\$0.33		\$0.53	\$0.46				\$0.45	\$0.32
Property taxes										\$0.41	\$0.17
Diesel fuel taxes	\$2.00	\$2.94	\$1.30	\$2.54	\$0.81	\$1.09	\$2.00	\$1.90	\$1.54	\$0.81	\$1.66
Total tax liability	\$5.03	\$4.33	\$2.24	\$3.52	\$5.28	\$1.55	\$3.18	\$2.16	\$2.80	\$2.50	\$2.76
Operating income	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24
Effective tax rate	49.1%	42.3%	21.9%	34.4%	51.5%	15.1%	31.0%	21.1%	27.4%	24.4%	27.0%
With tax preferences	S										
Total tax liability	\$2.00	\$4.33	\$2.24	\$3.52	\$5.28	\$1.55	\$3.18	\$2.16	\$2.80	\$2.50	\$2.76
Difference	-\$3.02	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Effective tax rate	19.5%	42.3%	21.9%	34.4%	51.5%	15.1%	31.0%	21.1%	27.4%	24.4%	27.0%

Table 17. Scenario 1 out-of-state trucking company: summary of tax liabilities and effective tax rates (dollars per thousand ton-miles)

Source: EY analysis.

Note: Illinois and Louisiana impose a franchise tax on net worth, which is different from Texas's Franchise tax, which is a gross receipts tax that is called a franchise tax.

Table 18 ranks the eleven states in the analysis by total tax liability with both *no tax preferences* and *with tax preferences*, while Figure 8 reports the same information in a bar chart. The total tax liability figures are lower for every state compared to the results for the in-state trucking company, but the relative rankings are unchanged.

Rank	State	No tax preferences	State	With tax preferences
1	Nevada	\$1.55	Nevada	\$1.55
2	Ohio	\$2.16	Washington	\$2.00
3	Idaho	\$2.24	Ohio	\$2.16
4	Texas	\$2.50	Idaho	\$2.24
5	Virginia	\$2.76	Texas	\$2.50
6	Oregon	\$2.80	Virginia	\$2.76
5	New Jersey	\$3.18	Oregon	\$2.80
8	Illinois	\$3.52	New Jersey	\$3.18
9	California	\$4.33	Illinois	\$3.52
10	Washington	\$5.03	California	\$4.33
11	Louisiana	\$5.28	Louisiana	\$5.28

Table 18. Scenario 1 out-of-state trucking company: total tax liability rankings (dollars per thousand ton-miles)

Source: EY analysis.

Figure 8. Scenario 1 out-of-state trucking company: total tax liabilities (dollars per thousand ton-miles) Washington ranking: 2nd highest (*no tax preferences*), 2nd lowest (*with tax preferences*)



Source: EY analysis.

Figure 9 compares Washington's tax liability to the peer average for the sales and use tax, property tax and diesel fuel tax. The sales and use tax and diesel fuel tax figures are the same for the in-state trucking company. However, the property tax liability is \$0.00 for Washington because the out-of-state trucking company does not

have real property in the state and personal property is not taxed. The property tax liability in the peer states is driven solely by Texas and Virginia and averages to 6 cents per thousand ton-miles.





3.3 Scenario 2: 100% interstate miles

3.3.1 Scenario 2: Rail company tax burdens

Table 19 reports tax liabilities for each tax type (dollars per thousand ton-miles) with *no tax preferences*, while the total tax liability and effective tax rate are reported with *no tax preferences* and *with tax preferences*.

			•				,				
Metric	WA	СА	ID	IL	LA	NV	NJ	ОН	OR	ТΧ	VA
Summary of tax liab	oilities assu	iming no ta	ax preferen	ces							
Corp. income tax		\$0.31	\$0.21	\$0.33	\$0.26		\$0.35		\$0.27		\$0.21
Gross receipts tax	\$0.23							\$0.03	\$0.04		
Franchise tax*				\$0.12	\$0.36						
Transport. taxes					\$0.24						
Sales and use tax		\$0.50	\$0.34			\$0.47	\$0.49				\$0.33
Property taxes	\$1.15	\$1.39	\$1.24	\$2.98	\$3.22	\$1.33	\$2.35	\$2.16	\$1.37	\$2.34	\$1.58
Diesel fuel taxes	\$1.00	\$1.46	\$0.64	\$1.26	\$0.40	\$0.54	\$1.00	\$0.95	\$0.77	\$0.40	\$0.82
Total tax liability	\$2.38	\$3.66	\$2.43	\$4.70	\$4.49	\$2.34	\$4.18	\$3.14	\$2.44	\$2.75	\$2.94
Operating income	\$13.96	\$13.96	\$13.96	\$13.96	\$13.96	\$13.96	\$13.96	\$13.96	\$13.96	\$13.96	\$13.96
Effective tax rate	17.0%	26.2%	17.4%	33.6%	32.2%	16.8%	30.0%	22.5%	17.5%	19.7%	21.1%
With tax preference	S										
Total tax liability	\$2.15	\$3.66	\$2.43	\$4.70	\$4.49	\$2.34	\$4.18	\$3.14	\$2.44	\$2.75	\$2.94
Difference	-\$0.23	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Effective tax rate	15.4%	26.2%	17.4%	33.6%	32.2%	16.8%	30.0%	22.5%	17.5%	19.7%	21.1%

Table 19. Scenario 2 rail industry: summary of tax liabilities and effective tax rates (dollars per thousand ton-miles)

Source: EY analysis.

The representative Class I rail company operating in Washington is estimated to pay \$2.38 per thousand tonmiles in total taxes with *no tax preferences*, or when the in-state portion of interstate miles is taxed, for an effective tax rate of 17.0%. Property taxes, both real and personal, contribute \$1.15 per thousand ton-miles to the total, while diesel fuel taxes contribute another \$1.00 per thousand ton-miles. Washington's Public Utility Tax, at 23 cents per thousand ton-miles, is the smallest portion of the total tax liability. The total tax liability falls to \$2.15 per thousand ton-miles for an effective tax rate of 15.4% *with tax preferences*, which is when revenue from both the in-state and out-of-state portions of interstate trips are exempt.

Table 20 ranks the eleven states in the analysis by total tax liability while Figure 10 reports the same information in a bar chart. Washington's total tax liability of \$2.38 per thousand ton-miles with *no tax preferences* ranks 2nd lowest while the total tax liability of \$2.15 per thousand ton-miles *with tax preferences* is the lowest of the peer states.

Nevada has the lowest, or second lowest, total tax liability at \$2.34 per thousand ton-miles. Note that neither Nevada nor Texas have a gross receipts tax liability in Scenario 2 because the scenario assumes 100% interstate miles, which the two states exempt.

Illinois, Louisiana, New Jersey and California have the four highest total tax liabilities. Illinois's total tax liability of \$4.70 per thousand ton-miles is primarily driven by its high property tax liability and its high diesel fuel tax liability. Louisiana's total tax liability of \$4.49 per thousand ton-miles is primarily driven by its property tax liability (\$3.22 per thousand ton-miles, which is highest among the peer states). New Jersey has the third highest property tax liability, at \$2.35 per thousand ton-miles, and is tied with Washington for the third highest diesel fuel tax liability, at \$1.00 per thousand ton-miles. California has a total tax liability of \$3.66 per thousand ton-miles. It has the highest diesel fuel tax liability among the peer states, at \$1.46 per thousand ton-miles, and it has the highest sales tax liability at 50 cents per thousand ton-miles. California's property tax liability of \$1.39 per thousand ton-miles ranks in the middle of the peer group.

Rank	State	No tax preferences	State	With tax preferences
1	Nevada	\$2.34	Washington	\$2.15
2	Washington	\$2.38	Nevada	\$2.34
3	Idaho	\$2.43	Idaho	\$2.43
4	Oregon	\$2.44	Oregon	\$2.44
5	Texas	\$2.75	Texas	\$2.75
6	Virginia	\$2.94	Virginia	\$2.94
5	Ohio	\$3.14	Ohio	\$3.14
8	California	\$3.66	California	\$3.66
9	New Jersey	\$4.18	New Jersey	\$4.18
10	Louisiana	\$4.49	Louisiana	\$4.49
11	Illinois	\$4.70	Illinois	\$4.70

Table 20. Scenario 2 (100% interstate miles) rail industry	total tax liability rankings
(dollars per thousand ton-miles)	



Figure 10. Scenario 2 rail industry: total tax liabilities (dollars per thousand ton-miles) Washington ranking: 2nd lowest (*no tax preferences*), lowest (*with tax preferences*)

Source: EY analysis.

Figure 11 summarizes the total amount of business entity taxes paid by each state, which includes corporate income taxes, gross receipts taxes, franchise taxes and Louisiana's transportation-specific gross receipts tax. Washington's Public Utility Tax liability of 23 cents per thousand ton-miles with *no tax preferences assumption* is sixth lowest, which puts it in the middle of the peer group. Louisiana has the highest total business entity tax liability at 87 cents per thousand ton-miles because the state imposes both a corporate income tax and a franchise tax on net worth on corporations, as well as has a transportation-specific gross receipts tax that applies to rail companies.

Illinois and New Jersey have the second and third highest business entity tax liabilities at 45 cents per thousand ton-miles and 35 cents per thousand ton-miles, respectively. Both states impose high corporate income tax rates on rail companies (10% in New Jersey and 9.5% in Illinois), while Illinois also imposes a franchise tax on net worth on corporations. California and Oregon are tied for fourth highest with a business entity tax liability of 31 cents per thousand ton-miles. Although Oregon has a lower corporate tax rate than California, it also imposes a gross receipts tax on corporations, which adds an additional tax liability of 4 cents per thousand ton-miles.





3.3.2. Scenario 2: in-state trucking company tax burdens

Table 21 reports tax liabilities for each tax type (dollars per thousand ton-miles) with *no tax preferences*, while the total tax liability and effective tax rate are reported with *no tax preferences* and *with tax preferences*.

Metric	WA	СА	ID	IL	LA	NV	NJ	OH	OR	ΤX	VA
Summary of tax liab	ilities assu	iming no ta	ax preferen	ces							
Corp. income tax		\$0.30	\$0.20	\$0.32	\$0.26		\$0.39		\$0.26		\$0.20
Gross receipts tax	\$1.01							\$0.08	\$0.16		
Franchise tax*				\$0.00	\$0.01						
Transport. taxes					\$1.05						
Sales and use tax		\$0.48	\$0.33		\$0.53	\$0.46				\$0.45	\$0.32
Property taxes	\$0.18	\$0.23	\$0.18	\$0.56	\$0.32	\$0.22	\$0.44	\$0.45	\$0.19	\$0.93	\$0.59
Diesel fuel taxes	\$2.00	\$2.94	\$1.30	\$2.54	\$0.81	\$1.09	\$2.00	\$1.90	\$1.54	\$0.81	\$1.66
Total tax liability	\$3.19	\$3.96	\$2.02	\$3.43	\$2.97	\$1.77	\$2.83	\$2.44	\$2.15	\$2.19	\$2.76
Operating income	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24
Effective tax rate	31.1%	38.7%	19.7%	33.5%	29.1%	17.3%	27.7%	23.8%	21.0%	21.4%	27.0%
With tax preferences	S										
Total tax liability	\$2.18	\$3.96	\$2.02	\$3.43	\$2.97	\$1.77	\$2.83	\$2.44	\$2.15	\$2.19	\$2.76
Difference	-\$1.01										
Effective tax rate	21.3%	38.7%	19.7%	33.5%	29.1%	17.3%	27.7%	23.8%	21.0%	21.4%	27.0%

Table 21. Scenario 2 in-state trucking company: summary of tax liabilities and effective tax rates (dollars per thousand ton-miles)

Source: EY analysis.

The representative in-state trucking company operating in Washington is estimated to pay \$3.19 per thousand ton-miles in total taxes with *no tax preferences*, or when the in-state portion of interstate miles is taxed, for an effective tax rate of 31.1%. Diesel fuel taxes make up the largest share of the tax burden for a representative trucking company with a tax liability of \$2.00 per thousand ton-miles, while Washington's Public Utility Tax generates the 2nd largest share of the tax burden with an estimated tax liability of \$1.01 per thousand ton-miles. The representative trucking company is estimated to pay 18 cents per thousand ton-miles in real and personal property taxes. The representative in-state trucking company's estimated tax liability declines to \$2.18 per thousand ton-miles are exempt from tax.

Table 22 ranks the eleven states in the analysis by total tax liability with *no tax preferences* and *with tax preferences*, while Figure 12 reports the same information in a bar chart. Washington's total tax liability of \$3.19 per thousand ton-miles assuming *no tax preferences* ranks 3rd highest, but rises to 4th lowest when assuming *with tax preferences*.

California and Illinois have the highest and second highest total tax liabilities at \$3.96 per thousand ton-miles and \$3.43 per thousand ton-miles, respectively. California and Illinois have such high total tax liabilities because

of the diesel fuel tax liability, which rank first and second, respectively, at \$2.94 per thousand ton-miles and \$2.54 per thousand ton-miles. Louisiana has the third highest total tax liability at \$2.97 per thousand ton-miles (*with tax preferences*). Although Louisiana is tied for the lowest diesel fuel tax liability, at 81 cents per thousand ton-miles, the state imposes a franchise tax and a transportation-specific gross receipts tax on top of its corporate income tax, and taxes both repair parts and labor services with its sales tax.

Nevada, at \$1.77 per thousand ton-miles, has the lowest total tax liability. This is in part because Scenario 2 assumes 100% interstate miles, and interstate miles are not subject to tax under their gross receipts taxes since only intrastate miles are sourced to the trucking company when operating in Nevada.

Rank	State	No tax preferences	State	With tax preferences
1	Nevada	\$1.77	Nevada	\$1.77
2	Idaho	\$2.02	Idaho	\$2.02
3	Oregon	\$2.15	Oregon	\$2.15
4	Texas	\$2.19	Washington	\$2.18
5	Ohio	\$2.44	Texas	\$2.19
6	Virginia	\$2.76	Ohio	\$2.44
5	New Jersey	\$2.83	Virginia	\$2.76
8	Louisiana	\$2.97	New Jersey	\$2.83
9	Washington	\$3.19	Louisiana	\$2.97
10	Illinois	\$3.43	Illinois	\$3.43
11	California	\$3.96	California	\$3.96

Table 22. Scenario 2 (100% interstate) in-state trucking company	total tax liability rankings
(dollars per thousand ton-miles)	





Source: EY analysis.

Figure 13 summarizes the total amount of business entity taxes paid by each state, which includes corporate income taxes, gross receipts taxes, franchise taxes and Louisiana's transportation-specific gross receipts tax. Washington's Public Utility Tax liability of \$1.01 per thousand ton-miles is 2nd highest of the peer group after Louisiana at \$1.31 per thousand ton-miles. Ohio has a business entity tax liability of 8 cents per thousand ton-miles, while both Idaho and Virginia have a total business entity tax liability of 20 cents per thousand ton-miles. Louisiana's transportation-specific gross receipts tax has an estimated liability of \$1.05 per thousand ton-miles and makes up the largest share of its total business entity tax liability, followed by the corporate income tax at 26 cents per thousand ton-miles.





3.3.3. Scenario 2: out-of-state trucking company tax burdens

Table 23 reports tax liabilities for each tax type (dollars per thousand ton-miles) with *no tax preferences*, while the total tax liability and effective tax rate are reported with *no tax preferences* and *with tax preferences*.

Table 23. Scenario 2 out-of-state trucking industry: summary of tax liabilities and effective tax rates (dollars per thousand ton-miles)

Metric	WA	CA	ID	IL	LA	NV	NJ	ОН	OR	ТΧ	VA
Summary of tax liab	ilities assu	iming <i>no ta</i>	ax preferen	ces							
Corp. income tax		\$0.30	\$0.20	\$0.32	\$0.26		\$0.39		\$0.26		\$0.20
Gross receipts tax	\$1.01							\$0.08	\$0.16		
Franchise tax*				\$0.00	\$0.01						
Transport. taxes					\$1.05						
Sales and use tax		\$0.48	\$0.33		\$0.53	\$0.46				\$0.45	\$0.32
Property taxes										\$0.41	\$0.17
Diesel fuel taxes	\$2.00	\$2.94	\$1.30	\$2.54	\$0.81	\$1.09	\$2.00	\$1.90	\$1.54	\$0.81	\$1.66
Total tax liability	\$3.01	\$3.73	\$1.84	\$2.87	\$2.65	\$1.55	\$2.39	\$1.99	\$1.96	\$1.68	\$2.35
Operating income	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24	\$10.24
Effective tax rate	29.4%	36.4%	17.9%	28.0%	25.9%	15.1%	23.4%	19.4%	19.1%	16.4%	23.0%
With tax preferences	S										
Total tax liability	\$2.00	\$3.73	\$1.84	\$2.87	\$2.65	\$1.55	\$2.39	\$1.99	\$1.96	\$1.68	\$2.35
Difference	-\$1.01										
Effective tax rate	19.5%	36.4%	17.9%	28.0%	25.9%	15.1%	23.4%	19.4%	19.1%	16.4%	23.0%

Source: EY analysis.

The representative out-of-state trucking company operating in Washington is estimated to pay \$3.01 per thousand ton-miles in total taxes with *no tax preferences* where the in-state portion of interstate miles is taxed for an effective tax rate of 29.4%. The difference between the results with the in-state trucking company is that the out-of-state trucking company operating in Washington has no property tax liability. The total tax liability *with tax preferences* is lower at \$2.00 per thousand ton-miles.

Table 24 ranks the eleven states in the analysis by total tax liability with *no tax preferences* and *with tax preferences*, while Figure 14 reports the same information in a bar chart.

Rank	State	No tax preferences	State	With tax preferences
1	Nevada	\$1.55	Nevada	\$1.55
2	Texas	\$1.68	Texas	\$1.68
3	Idaho	\$1.84	Idaho	\$1.84
4	Oregon	\$1.96	Oregon	\$1.96
5	Ohio	\$1.99	Ohio	\$1.99
6	Virginia	\$2.35	Washington	\$2.00
5	New Jersey	\$2.39	Virginia	\$2.35
8	Louisiana	\$2.65	New Jersey	\$2.39
9	Illinois	\$2.87	Louisiana	\$2.65
10	Washington	\$3.01	Illinois	\$2.87
11	California	\$3.73	California	\$3.73

Table 24. Scenario 2 (100% interstate) out-of-state trucking company: total tax liability rankings (dollars per thousand ton-miles)

Source: EY analysis.



