2025-2027 Oregon Highway Cost Allocation Study

Results and Findings

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IMPACT THROUGH INSIGHT

2025-2027 Oregon Highway Cost Allocation Study

Study Review Team

- Carl Riccadonna, Chair (*Office of Economic Analysis)*
- Travis Brouwer *(ODOT)*
- Jana Jarvis (*Oregon Trucking Association)*
- Mazen Malik *(LRO)*
- Brian Worley (*Association of Oregon Counties)*
- Tim Morgan (*AAA Oregon/Idaho)*
- Lanny Gower (*XPO Logistics)*
- Kevin Campbell (*The Victory Group)*
- Sarah Iannarone (*The Street Trust)*
- Jonathan Hart *(LRO)*
- Daniel Porter *(ODOT)*
- Bob Russell *(Oregon Trucking Association)*
- Marie Dodds (AAA Oregon)
- Brian Worley *(AOC)*
- Jordan Cole, *Association of Oregon Counties*

Study Team

- Matthew Kitchen, *ECOnorthwest*
- Bonnie Gee Yosick, *ECOnorthwest*
- Sean Wallace, *ECOnorthwest*
- Zach Lesher, *ECOnorthwest*
- Ryan Knapp, *ECOnorthwest*
- Roger Mingo, *RD Mingo & Associates*

Support

- Mitchell D'Sa (DAS)
- Jordan Macias (DAS)
- Allen Molina (ODOT)

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Research Purpose

The purpose of the biennial Oregon Highway Cost Allocation Study (HCAS) is to:

- Determine the share that each class of road user should pay based on their respective share of costs for Oregon's highways, roads, and streets
- Recommend adjustments (if needed) to tax rates and fees to ensure equity between payments and responsibilities for each vehicle class
- Explore topics related to highway cost allocation through issue papers

Highway Cost Allocation in Oregon

For over 70 years, Oregon has based the financing of its highways on the principle of cost responsibility:

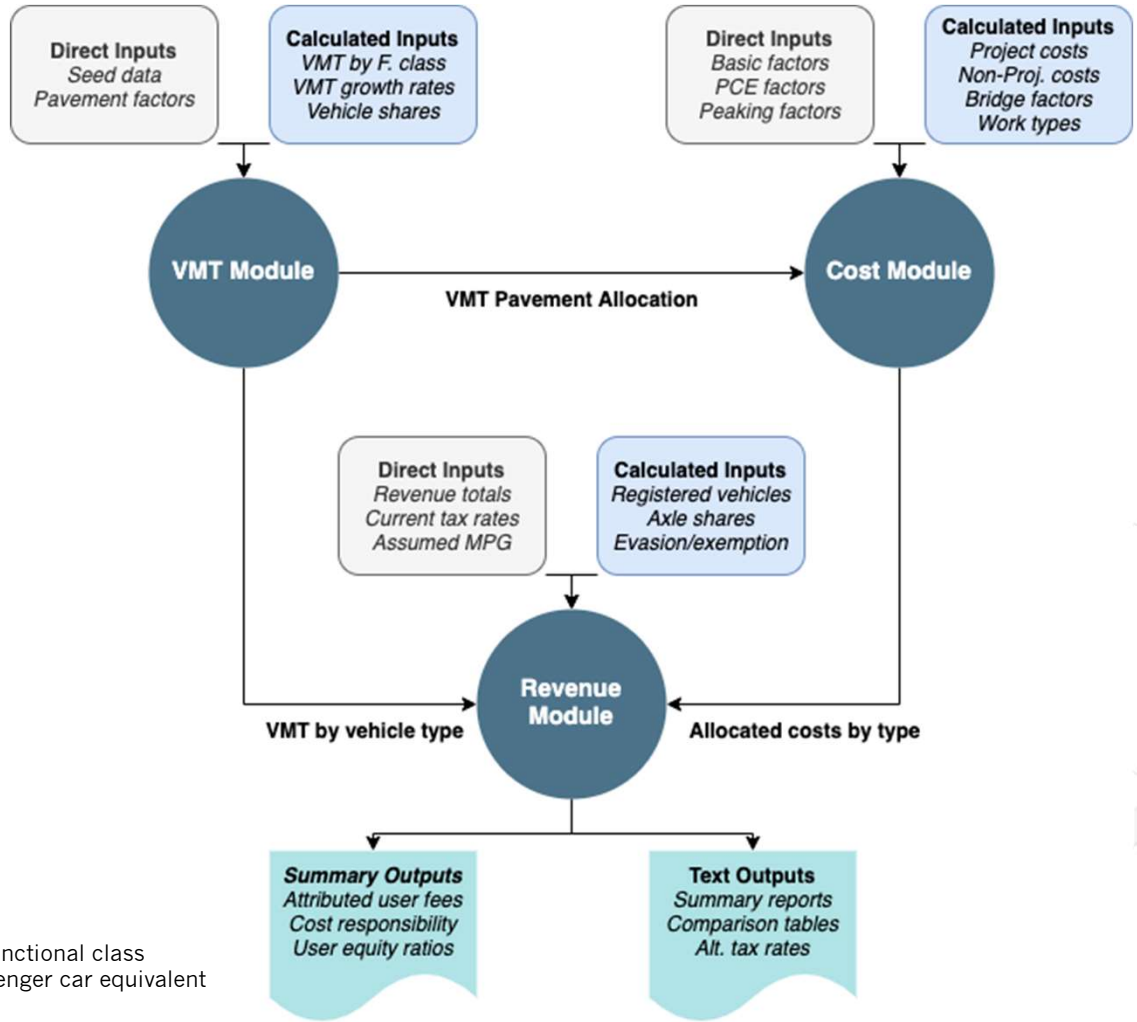
- This is Oregon's 24th study; the first was in 1937 by Conde McCullough
- Since 1999, Oregon's constitution requires a study biennially, and adjustment of rates if necessary (IX section 3a, ORS 366.506)
- The 2025-2027 HCAS study was prepared by ECOnorthwest, under the guidance of a Study Review Team comprised of stakeholders and experts.

Oregon's Approach to Cost Allocation

Oregon's HCAS is prospective, with equity ratios predicted for the upcoming biennium based on:

- Vehicle miles traveled (VMT) forecasted by ODOT as part of their revenue forecasting process
- Expenditures as forecasted by agency budget requests and STIP
- Revenue forecast, which assumes current-law instruments and rates

Overview of HCAS Model



F. class = functional class
PCE = passenger car equivalent

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Model Outputs

We calculate **equity ratios** for each weight class: each vehicle class's share of attributed revenues divided by its share of allocated expenditures

- Ratio = 1.0 means perfect equity for users
- Ratio > 1.0 users paying more than fair share
- Ratio < 1.0 users paying less than fair share

HCAS Three-Biennia Look-Back Study

- An OSU team replicated previous HCAS results and findings.
- Highlighted areas for additional documentation regarding project expenditure classification.
- Resulted in improved process for classifying projects by type of work performed.
- Documented differences in actual expenditure and revenue compared with projections.
- Demonstrated that changes in equity ratios for actuals as compared with projections are largely due to differences in expenditures.
- Verified the challenges presented by the pandemic with respect to forecasting vehicle usage, expenditures, and revenues.

Lookback - Actual Expenditures and Revenues

- Actual revenues in 2021-23 were 0.5% lower than projected.
- Actual expenditures in 2021-23 were 15.3% lower than projected.
- Equity ratio for basic vehicles: actual = 0.91, projected = 0.93.
- Equity ratio for heavy vehicles: actual = 1.22, projected = 1.16.
- Actual expenditure types substantially lower than projected included:
  - Modernization (-37%)
  - Preservation (-85%)
  - Pavement and Shoulder Rehabilitation (-55%)
  - Bike and Pedestrian (-57%)
- Actual expenditure types substantially higher than projected included:
  - Preliminary Engineering (+29%)

Changes from 2023-2025 Study

- Project and non-project expenditure forecasts updated for new biennium.
- ODOT's VMT forecast reflects ongoing adjustment to economic conditions.
- Revenue forecasts explicitly differentiate between gas and diesel tax revenues.
- Benefit of insights gained during the recent HCAS Look Back Study performed by OSU.

2025-2027 Equity Ratios

Declared Weight in Pounds			Scaled Equity Ratio	
			All	Full-Fee
1	to	10,000	0.8878	0.8665
10,001	to	26,000	0.9938	1.1284
26,001	to	78,000	0.6088	0.8745
78,001	to	80,000	1.5911	1.5544
80,001	to	104,000	1.1013	1.0766
104,001	to	105,500	2.1756	2.1285
105,501	and	up	0.2893	0.2823
		Total	**1.0000**	**1.0000**
10,001	and	up	1.2721	1.3657
26,001	to	80,000	1.3053	1.4253
80,001	to	105,500	1.5495	1.5152
26,001	to	105,500	1.3555	1.4458
26,001	and	up	1.3097	1.3905

*Full fee excludes vehicles that are not required to pay full registration or other fees, such as federal or charitable vehicles.

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Equity Ratio Over Time

	Equity Ratio, Full-Fee	
	Basic	Heavy
2011	1.00	1.01
2013	0.99	1.01
2015	1.00	1.00
2017	1.01	0.99
2019	0.98	1.03
2021	0.93	1.16
2023	0.88	1.32
2025	0.87	1.37

Basic vehicles – Under 10,000 lbs.
Heavy vehicles – Over 10,000 lbs.

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Change in Cost Shares

Share of Cost Responsibility					
Declared Weight	2017	2019	2021	2023	2025
1 to 10,000	66.4%	67.2%	69.6%	72.6%	73.3%
10,001 to 26,000	4.0%	3.9%	3.5%	3.6%	2.5%
26,001 and up	29.6%	29.0%	26.9%	23.7%	24.2%
Total	100%	100%	100%	100%	100%

Cost responsibility for basic vehicles has grown over time.

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Project Mix/Expenditure Trends

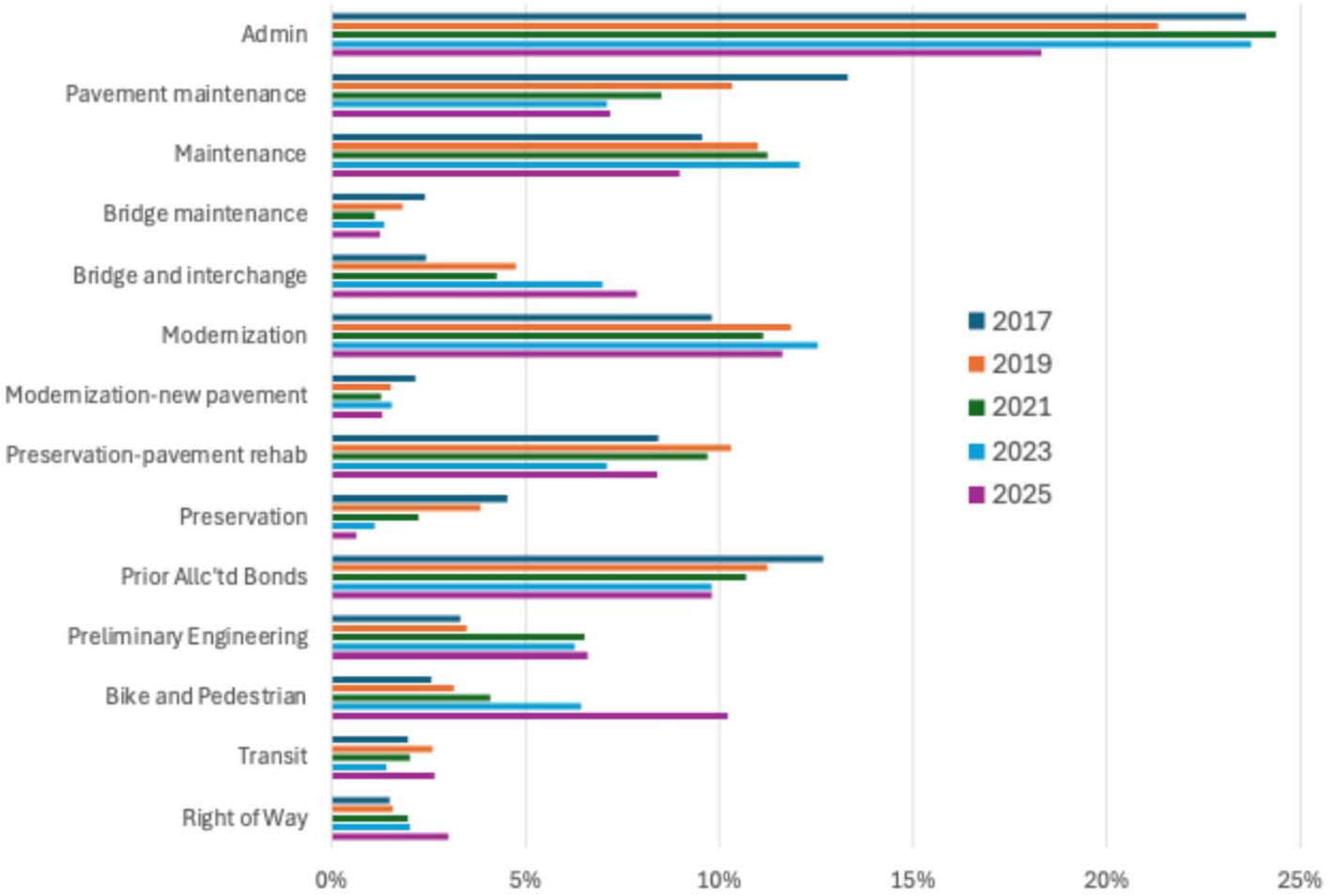
Project mix changes over time in accordance with:

- State Law
- Transportation Commission policy
- Local spending
- Federal and other mandates

Some recent trends in spending as share of total expenditures

- Administration (decreased): from 24% in 2017, to 18% in 2025
- Pavement-related maintenance (decreased): from 13% in 2017, to 7% in 2025
- Preservation (decreased): from 5% in 2017, to 1% in 2025
- Bike and Pedestrian (increased): from 3% in 2017, to 10% in 2025
- Bridge and Interchange (increased): from 2% in 2017, to 8% in 2025
- Preliminary Engineering (increased): from 3% in 2017, to 7% in 2025

Costs by Summary Work Type 2017-2025



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Pavement Responsibility Results

Expenditure Work Type	2015 Study			2017 Study			2019 Study			2021 Study			2023 Study			2025 Study		
	Expenditures Allocated	Light Vehicle Responsibility	Heavy Vehicle Responsibility	Expenditures Allocated	Light Vehicle Responsibility	Heavy Vehicle Responsibility	Expenditures Allocated	Light Vehicle Responsibility	Heavy Vehicle Responsibility	Expenditures Allocated	Light Vehicle Responsibility	Heavy Vehicle Responsibility	Expenditures Allocated	Light Vehicle Responsibility	Heavy Vehicle Responsibility	Expenditures Allocated	Light Vehicle Responsibility	Heavy Vehicle Responsibility
New Pavements	48,984	7,530	41,454	37,084	3,938	33,146	31,199	5,097	26,103	27,691	3,587	24,104	36,605	7,075	29,530	30,449	8,965	21,484
	3.4%	15.4%	84.6%	2.5%	10.6%	89.4%	1.7%	16.3%	83.7%	1.4%	13.0%	87.0%	1.7%	19.3%	80.7%	1.4%	29.4%	70.6%
Pavement and Shoulder Reconstruction	28,823	4,233	24,590	4,106	384	3,722	1,988	245	1,743	306	28	278	6,022	841	5,181	3,800	658	3,142
	2.0%	14.7%	85.3%	0.3%	9.4%	90.6%	0.1%	12.3%	87.7%	0.0%	9.3%	90.7%	0.3%	14.0%	86.0%	0.2%	17.3%	82.7%
Pavement and Shoulder Rehabilitation	64,885	11,114	53,771	141,338	14,780	126,558	208,765	26,918	181,847	204,237	19,715	184,522	164,801	26,218	138,584	193,746	38,438	155,308
	4.5%	17.1%	82.9%	9.4%	10.5%	89.5%	11.5%	12.9%	87.1%	10.6%	9.7%	90.3%	7.7%	15.9%	84.1%	9.1%	19.8%	80.2%
Pavement Maintenance	221,898	54,784	167,114	227,903	29,773	198,131	211,770	36,577	175,193	183,275	22,330	160,945	166,965	35,403	131,562	168,905	46,171	122,734
	15.4%	24.7%	75.3%	15.2%	13.1%	86.9%	11.6%	17.3%	82.7%	9.5%	12.2%	87.8%	7.8%	21.2%	78.8%	7.9%	27.3%	72.7%
Other Pavement Expenditures	5,013	4,957	56	5,416	4,434	983	5,883	4,225	1,658	2,325	2,325	0	2,325	2,325	0	10,313	7,462	2,851
	0.3%	98.9%	1.1%	0.4%	81.9%	18.1%	0.3%	71.8%	28.2%	0.1%	100.0%	0.0%	0.1%	100.0%	0.0%	0.5%	72.4%	27.6%
Total Pavement Expenditures	**369,604**	**82,618**	**286,986**	**415,848**	**53,308**	**362,539**	**459,605**	**73,062**	**386,544**	**417,834**	**47,986**	**369,848**	**376,719**	**71,862**	**304,857**	**407,213**	**101,695**	**305,519**
	25.7%	**22.4%**	**77.6%**	**27.8%**	**12.8%**	**87.2%**	**25.3%**	**15.9%**	**84.1%**	**21.6%**	**11.5%**	**88.5%**	**17.7%**	**19.1%**	**80.9%**	**19.2%**	**25.0%**	**75.0%**

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User Fee Changes

Since 2023

- Fuel tax rates increased by 5.3 percent
- WMT rates increased by 6.0 percent

Annual user fee revenue attributed to heavy vehicles

- Increased from 32% of total revenue in 2021-23 to 33% of total revenue in 2023-25,
- And is projected to increase to 34% of total revenue in 2025-27.

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User Fee Shares

Share of User Fees					
Declared Weight	2017	2019	2021	2023	2025
1 to 10,000	64.8%	66.1%	64.6%	63.5%	63.5%
10,001 to 26,000	4.4%	4.2%	3.7%	3.9%	2.8%
26,001 and up	30.8%	29.7%	31.7%	32.6%	33.7%
Total	100%	100%	100%	100%	100%

Share of user fees for basic vehicles has declined over time.

Summary of Findings

- For the 2025-27 biennium and under existing, current-law tax rates, full-fee-paying light vehicles are projected to contribute **63.5 percent** of state highway user revenues, and full-fee-paying heavy vehicles (those weighing more than 10,000 pounds), as a group, are projected to contribute **36.5 percent**.
- For the 2025-27 biennium full-fee-paying light vehicles are projected to be responsible for **73.3 percent** of state highway costs, and full-fee-paying heavy vehicles (those weighing more than 10,000 pounds), as a group, are projected to be responsible for **26.7 percent**.
- Equity ratios for full-fee-paying vehicles, the ratio of projected payments to responsibilities for vehicles in each class, are **0.867 for light vehicles** and **1.366 for heavy vehicles**. Under existing tax rates and fees, light vehicles are projected to underpay their responsibility by 13.3 percent. Heavy vehicles are projected to overpay by 36.6 percent during the next biennium.

Summary of Findings

- The projected spending attributable to light vehicles has increased as a share of total expenditures and is contributing to the disparity in equity between light and heavy vehicles.
- A new vendor for weigh-in-motion data provided more information on basic vehicles, resulting in a higher share of pavement costs allocated to basic vehicles than for previous HCAS models.
- The legislature enacted incremental rate increases for tax rates and fees between 2018 and 2024, which are now fully accounted for in this study. These rate increases have slightly increased the share of revenues collected from heavy vehicles, having a slight impact on equity ratios.
- Should the Legislature choose to modify user fees the HCAS model can be used to design those rates to ensure revenues are in proportion to expected costs allocated to light and heavy vehicles.

Recommendations

- Tax rates should be adjusted such that basic and heavy vehicles have equity ratios that fall within an acceptable range.
- Acceptable equity ratios can be achieved through an increase in the taxes on light-duty vehicles (motor fuels and registration fees) combined with a decrease in taxes on heavy vehicles (weight mile tax, and other heavy vehicles fees).
- Absent the development of a new funding package, tax rate adjustments should result in no net gain or loss of user fee revenues.
- Any new funding package should include new revenue that is cost responsible.
- Future HCAS studies should incorporate results from evaluating actual versus projected revenues and costs for the most recently biennium for which comprehensive data is available.
- Forthcoming HCAS white papers relating to Section 75 analysis and medium heavy vehicle data may result in changes to HCAS methods and may suggest future legislative actions.

Tax Rate Evaluation

- HCAS model has evaluated alternative tax rates that achieve equity ratios that fall within an acceptable range.
- Achieving equity requires a combination of multiple changes:
  - Increase the motor fuels tax from $0.40 to $0.49 per gallon, and
  - Increase light vehicle registration fee to 107% of current fees, and
  - Decrease the registration fees for vehicles 10K-26K to 85% of current rates, and
  - Decrease the weight mile tax on heavy vehicles to ~70% of current rates (specific rate tables are included in the HCAS report).

Questions

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