Washington State Association of County Engineers

County Transportation Funding Study Update

January 2025

BERK

BERK
STRATEGY ▪ ANALYSIS ▪ COMMUNICATIONS

2200 Sixth Avenue, Suite 1000
Seattle, Washington 98121
P (206) 324-8760
www.berkconsulting.com

"Helping Communities and Organizations Create Their Best Futures"

Founded in 1988, we are an interdisciplinary strategy and analysis firm providing integrated, creative and analytically rigorous approaches to complex policy and planning decisions. Our team of strategic planners, policy and financial analysts, economists, cartographers, information designers and facilitators work together to bring new ideas, clarity, and robust frameworks to the development of analytically-based and action-oriented plans.

Project Team

Brian Murphy · Principal-in-Charge

Katherine Goetz · Project Manager

Madalina Calen · Analyst

Ariel Hsieh · Analyst

Stella Streufert - Analyst

Executive Summary

The 39 counties in Washington are responsible for over 39,000 centerline miles of roads, which is over half of the roadway system managed by cities, counties, and the State. As substantial portions of county transportation budgets are devoted to sustaining the existing transportation system, gaps between optimal and actual spending can degrade function, decrease capacity, and increase lifecycle maintenance costs. It is essential to understand the nature and magnitude of these spending gaps to determine the amount of county funding needed.

In 2020, BERK completed a study of county transportation funding for the Washington State Association of Counties.[1] In this study, we build on the 2020 report to update information on county transportation revenue and expenditure trends, sources of funding, the estimated annual funding gap, and recommendations for state policymakers. Key findings from our study are summarized below.

The funding gap has increased from what was estimated in the 2020 study, with the low-end estimate 15% higher and the high-end estimate 24% higher than the 2020 estimates.

The 2020 study estimated that the annual funding gap was between $719 million and $1.23 billion in 2020 dollars. In this study, we estimate that the annual funding gap has increased to between $826 million and $1.53 billion in 2024 dollars (see *Exhibit 1* and **Estimated Funding Need and Funding Gap**). This estimate includes programmatic costs related to regular maintenance, administration, and operations; capital costs related to system preservation and system improvements; and the costs of priority projects identified by counties to address fish passage barrier removal, safety, ADA compliance, and active transportation which were not included in the 2020 estimates. The primary driver of this increase in the annual funding gap is the impact of rising costs. These rising costs are incorporated into our funding need estimates for system preservation of roads and bridges.

Separately, we estimate that the total cost of deferred road maintenance is between $3.4 billion and $4.3 billion (see **Appendix C: Calculation of Estimated Deferred Maintenance Costs for Roads**). These costs are not included in the calculation of the annual funding gap as the timeframe for addressing deferred maintenance is highly variable.

The primary sources of revenue for regular maintenance and preservation are not keeping up with inflation.

MVFT revenue has remained flat over the past ten years, even declining after 2019. Future revenue is forecasted to remain flat or decline in some years. Property tax has grown over the past ten years but remained relatively flat in 2024 dollars, which suggests that the purchasing power of this revenue source has not grown over time.

Local access roads do not have outside sources of funding.

Local access roads are an important part of the county road network; in some cases, a local access road is the only access for a neighborhood. Local funding is the only source for maintenance and improvements on local access roads, which make up over 60% of total centerline miles across all counties. During interviews, county staff identified funding for local access roads as a high priority need.

---

[1] Washington State Association of Counties & BERK Consulting, 2020, *County Transportation Revenue Study*.

Counties are experiencing extended project timelines.

During interviews, we heard that project delays happen often, and that the length of delays has increased. There are several indicators that project work is experiencing delays. For example, the percentage of annual system miles preserved has decreased since 2020. In addition, the Rural Arterial Trust Account (which funds the Rural Arterial Program administered by the County Road Administration Board) balance has increased, which suggests that it takes longer for construction to happen and get reimbursed.[2] Counties also described additional delays because of new tire dust permit requirements.

Based on the findings in this study, we recommend the following actions for state policymakers:

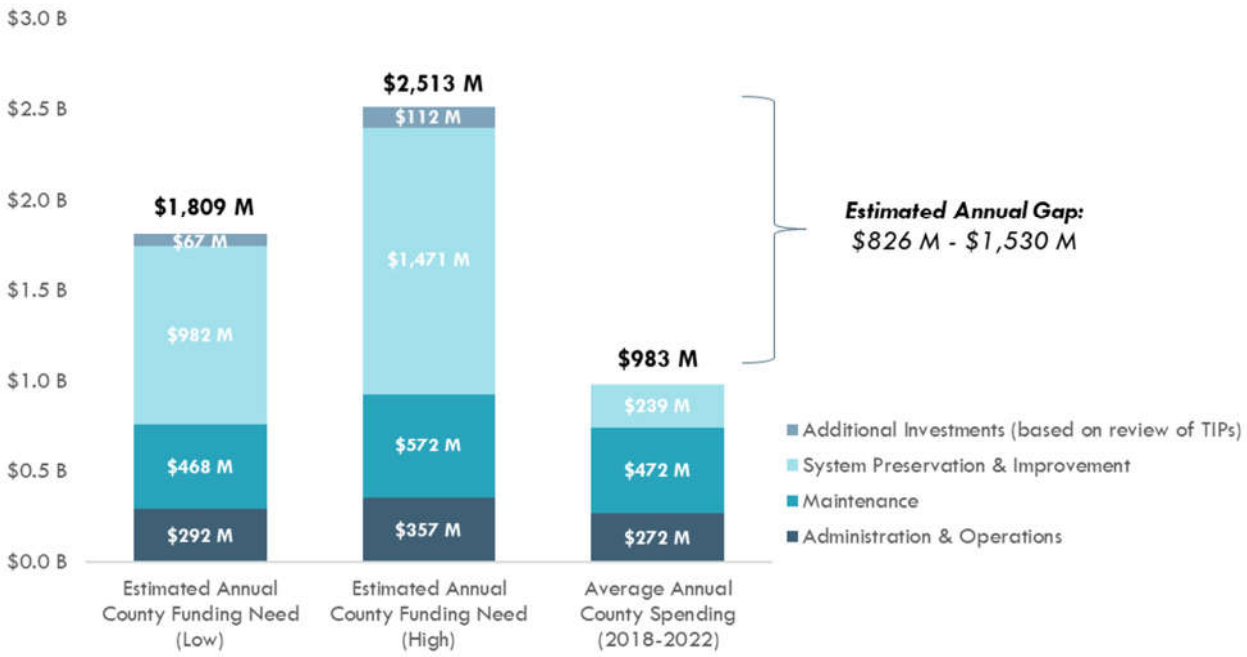
A. Increase support for preservation of local access roads and short-span bridges through new funding.

B. Increase support for project delivery through flexible match requirements.

C. Ensure any state alternative to the state gas tax preserves revenue sharing with counties and maintains requirements that funding be invested for transportation purposes.

D. Ease the property tax limit to support revenues keeping pace with expenses.

Exhibit 1: Comparison of Estimated Annual County Spending, Funding Need, and Funding Gap for Programmatic, Capital, and Additional Costs in 2024 Dollars



*Notes: See **Estimated Funding Need and Funding Gap** for details on the data sources, assumptions, and methodology used to calculate these estimates. Adjusted to 2024 dollars using the WSDOT Cost Construction Index updated in 2021 Q3. Due to rounding, numbers presented above may not add up precisely to the totals provided. For average annual county spending, we combined system preservation, system improvement, and additional costs as historical expenditure data was not available at the level of detail necessary to disaggregate these costs.*

Sources: CRAB, 2019-2023; Highway Performance Monitoring System, 2018; National Bridge Inventory, 2018; Perteet, 2020; County Transportation Improvement Plans, 2024; State Transportation Improvement Plan, 2024; WSDOT Cost Construction Index, 2021; BERK, 2024.

[2] Washington State County Road Administration Board and BERK Consulting, 2024, *Grant Effectiveness Study*.

Contents

Introduction

Background

Operation and maintenance of the statewide transportation system in Washington is the shared responsibility of multiple jurisdictions, which include the federal government, the State of Washington, port districts, Tribal Nations, cities, and counties. The 39 counties in Washington are responsible for over 39,000 centerline miles of roads, or over 78,000 lane miles, which is over half of the roadway system managed by cities, counties, and the State. Counties also manage the transportation of freight and goods, emergency response, regional accessibility, and other infrastructure such as bridges that provide connections for commuting. The services provided by counties to operate and maintain transportation infrastructure are particularly important for unincorporated communities which are not serviced by other jurisdictions.

Substantial portions of county transportation budgets are devoted to sustaining existing transportation systems, with costs to manage transportation departments and invest in regular maintenance and preservation activities to keep roads in good condition. Gaps between optimal and actual budget allocations to sustain the system can degrade the capacity and function of systems and increase lifecycle maintenance costs. Understanding the nature and magnitude of these gaps is essential to determine the amount of county funding needed.

In 2020, BERK completed a study of county transportation funding for the Washington State Association of Counties. The study described county transportation responsibilities, revenues, and expenditures; estimated the gap between needs and funding levels; and provided recommendations for state policymakers to address funding needs. **At that time, the annual funding gap between county transportation spending and needs across all 39 counties in Washington was estimated to be between $719 million and $1.23 billion in 2020 dollars.**

Study Methods

This study builds on our 2020 study to update information on county transportation revenue and expenditure trends, sources of funding, the estimated annual funding gap, and recommendations for state policymakers using the following methods:

- **Desk Research.** We conducted research about new revenues since the 2020 study and potential new revenue sources. We also reviewed other recently completed or ongoing statewide transportation studies to understand the context of transportation needs and challenges.
- **Data Analysis.** We used data from various sources including CRAB, WSDOT, and county and State Transportation Improvement Plans to identify trends in county transportation revenues and expenditures and estimate the annual funding gap.
- **Interviews.** We interviewed county staff and other county transportation stakeholders to augment our research and analysis. We also wanted to learn about challenges counties face to fund transportation needs, with a focus on what has changed since 2020. See **Appendix A: Interviewees** for a list of those we interviewed.

Differences From the 2020 Study

County Classifications

In 2024, the Washington State Legislature passed ESHB 1835 to designate "frontier one" and "frontier two" rural counties based on subcategories of population density. In the 2020 study, counties were designated as either urban or rural, with rural counties defined as counties with a population density less than 100 persons per square mile, or counties less than 225 square miles. See **Appendix B: County Rural Designation** for a summary of the county designations we use in this study.

Inflation

There is currently no inflation index for the state of Washington.[3] As a proxy for adjusting year-end dollars to 2024 dollars, we use the WSDOT Cost Construction Index updated in 2021 Q3 in our analysis of revenue trends, expenditure trends, and unit costs for system preservation of roads and bridges (all of which are inputs to our funding gap estimates). This index is created by WSDOT based on projected growth rates for highway construction costs from IHS Markit (an information services company that merged with S&P Global in 2022).[4] This index is a resource for WSDOT staff to use for developing and managing project costs.[5] A previous version of this index was used in the 2020 study.

County Transportation Revenue and Expenditure Trends

In this study, we use revenue and expenditure data provided by the County Road Administration Board (CRAB) to assess revenue and expenditure trends. CRAB compiles data annually by reaching out to each county. At the time of our analysis, historical CRAB data was available through 2022 with revenues and expenditures reported for each county. The WSDOT City Streets and County Roads (CSCR) data, which was used in the 2020 study, was available through 2021 and did not include information from each county in some years. This results in some differences in how we categorized revenues and expenditures compared to the 2020 study. In addition, spending amounts for administration, operations, and maintenance estimated for the funding gap calculations are not directly comparable between the 2020 study and this study, due to different expenditure categories in the CRAB data compared to the WSDOT CSCR data.

Funding Gap Cost Categories

In this study, we estimate the annual funding gap considering three categories of costs: programmatic costs, capital costs, and costs of priority projects identified by counties in Transportation Improvement Plans to address fish passage barrier removal, safety, ADA compliance, and active transportation. This third category of costs was not quantified in the 2020 study. See **Estimated Funding Need and Funding Gap** for more discussion about the approach we use in this study to estimate the annual funding gap.

---

[3] Washington State Office of Financial Management, 2024, "Inflation."

[4] Washington State Department of Transportation, "WSDOT Cost Construction Index: 3rd Quarter 2021."

[5] Washington State Department of Transportation, 2024, *Cost Estimating Manual for Projects*.

Use of Transportation Improvement Plans

The 2020 study used the State Transportation Improvement Plan (STIP) to estimate system improvement funding needs for roads and bridges. In this study, we estimate system improvement as well as system preservation funding needs based on a review of each county's six-year (2024-2029) Transportation Improvement Plan (TIP). If a county TIP was not readily available, we use the 2024-2027 STIP to identify projects for that county. These plans include the costs of priority projects, not necessarily the total cost of projects to be completed. For example, fish passage barrier removal projects listed in a TIP represent the cost of projects that have been prioritized by the county, not necessarily the total cost to remedy every barrier in the county (especially as the statewide inventory of fish passage barriers is still in progress).

Report Organization

The remainder of this report is organized as follows:

- **County Transportation Responsibilities.** We describe the current inventory of roads, bridges, and fish passage barriers, in addition to context on other costs included in our funding gap estimates.
- **County Transportation Revenues.** We summarize county transportation revenues from federal, state, and local sources over time and by county designation. We also discuss revenue trends.
- **County Transportation Expenditures.** We summarize county transportation spending by category and county designation. We also discuss expenditure trends.
- **Estimated Funding Gap.** We estimate the annual gap between county transportation spending and funding needs based on historical spending data, unit costs for preservation, and costs identified in Transportation Improvement Plans.
- **Recommendations.** We provide an update on recommendations from the 2020 report and describe current recommendations for state policymakers to address the estimated funding gap.

County Transportation Responsibilities

The Revised Code of Washington (RCW) assigns counties the responsibility to establish, lay out, construct, alter, repair, improve, and maintain county roads, which are defined as roadways outside the limits of incorporated cities and towns not designated as state highways.[6] According to state statutes, these roadways also include bridges and trestles; drainage and engineering features, such as bulkheads, culverts, ditches, gutters, and retaining walls; bicycle and pedestrian infrastructure, including pathways, sidewalks, and trails; traffic signals, signage, and lighting along roadways; and facilities related to the ferriage of vehicles, including docks and wharves.[7]

In this section, we describe the current inventory of county roads, bridges, and fish passage barriers. We also provide context for costs that are included in our estimation of the funding gap, including investments in safety, ADA compliance, and active transportation. While some counties also operate public transit systems, airports, and ferry systems, we focus on county transportation responsibilities relating to roads, bridges, and the additional investments mentioned above.

Road Inventory

Washington's county road system comprises over 39,000 centerline miles or over 78,000 lane miles, which is over half of the road system managed by cities, counties, and the State (*Exhibit 2*). Though counties manage the largest amount of road mileage, county roads are less utilized than city and State roads as measured by annual vehicle miles travelled.

Exhibit 2: Washington State Road Miles and Vehicle Miles Travelled by Jurisdiction, 2022

Jurisdiction	Centerline Miles	Lane Miles	Annual Vehicle Miles Travelled
City Streets	17,700	37,100	14,600
County Roads	39,100	78,500	8,900
State Highways	7,100	18,700	34,200
City/County/State Subtotal	***63,900***	***134,300***	***57,700***
Other Jurisdictions	15,600	31,200	800
Total	**79,500**	**165,500**	**58,500**

Notes: Values are rounded to the nearest hundred miles. Based on information provided to WSDOT by agencies throughout the state to support federal reporting requirements via the Highway Performance Monitoring System. Other jurisdictions include the Washington State Department of Natural Resources, Washington State Parks, Port Districts, Tribal Nations, U.S. Department of Agriculture Forest Service, and National Park Service.

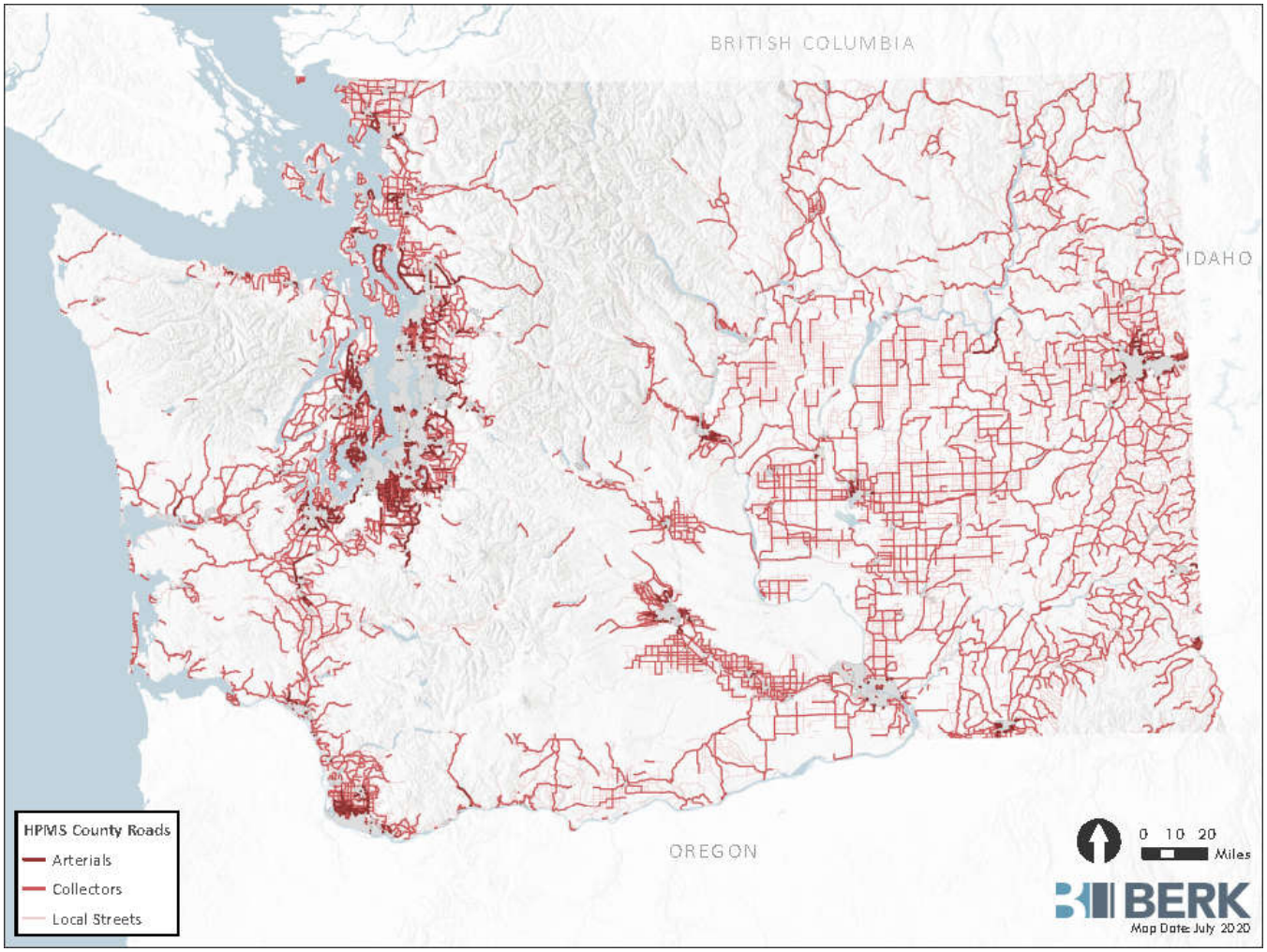
Sources: WSDOT, 2024; BERK, 2024.

[6] RCW 36.75.020; RCW 36.75.010.

[7] RCW 36.75.160-170; RCW 36.75.240; RCW 36.82.070; RCW 36.82.145-148; RCW 36.88.010-015.

Across all counties, the majority of centerline miles are local access roads while arterials and collectors are more utilized in terms of annual vehicle miles travelled (*Exhibit 3* and *Exhibit 4*).

Exhibit 3: County Roads, 2020



Source: BERK, 2020.

Exhibit 4: Countywide Share of Centerline Miles and Annual Vehicle Miles Travelled by Road Type, 2024

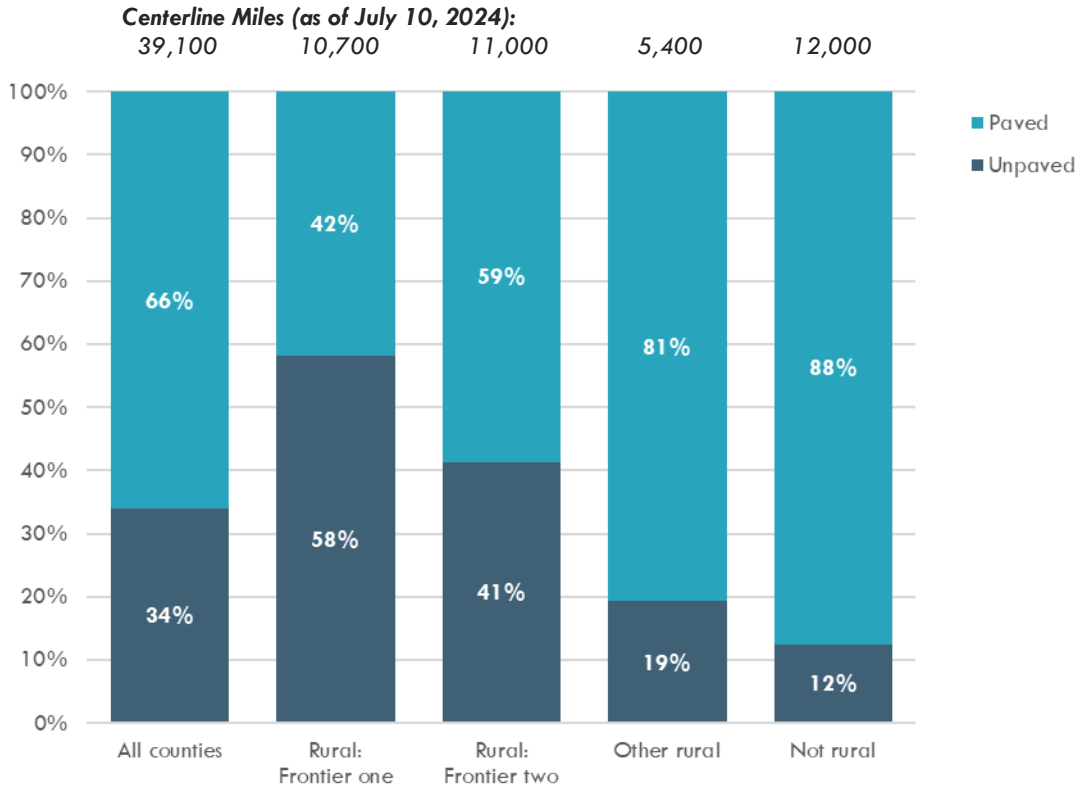
Road Type	Centerline Miles	Share of Total Centerline Miles	Share of Annual Vehicle Miles Travelled
Arterial	1,200	3%	34%
Collector	13,100	33%	47%
Local access	24,800	63%	19%
Total	**39,100**	**100%**	**100%**

Notes: Roadway inventory as of July 10, 2024. Centerline miles are rounded down to the nearest hundred miles. Due to rounding, percentages presented above may not add up precisely to 100%.

Sources: CRAB, 2024; BERK, 2024.

Approximately two-thirds of the countywide roadway inventory is paved, and the remaining one-third is unpaved (*Exhibit 5*). The share of unpaved roads in frontier one and frontier two rural counties is higher than the countywide share of unpaved roads, as there are more unpaved local access roads in these communities.

Exhibit 5: Share of Unpaved and Paved Roadway by County Designation, 2024



Notes: Roadway inventory as of July 10, 2024. Centerline miles are rounded to the nearest hundred miles. Due to rounding, percentages presented above may not add up precisely to 100%. County designation is based on population density and/or land size. See ***Appendix B: County Rural Designation*** *for more details.*

Sources: CRAB, 2024; BERK, 2024.

Bridge Inventory

The Washington State Bridge Inventory System identifies 7,694 bridges and culverts reportable to the National Bridge Inventory (NBI). These are bridges and culverts over 20 feet long. Of these, 3,426 bridges and culverts, or 44%, are owned by counties (*Exhibit 6*). There are an additional 3,066 bridge structures statewide that are not reportable to the NBI. These include short-span bridges (under 20 feet long), pedestrian bridges, and railroad bridges. Short-span bridges are not eligible for federal or state funding.

Exhibit 6: Washington State Bridge Inventory, 2024

Owner	Number of NBI Bridges/Culverts	Share of Total NBI Bridges
Washington State	3,347	44%
Counties	3,426	44%
Other Local Agencies	872	11%
Washington State Ferries	49	1%
Total	**7,694**	**100%**

Notes: The numbers above include only bridges and culverts reportable to the NBI.

Sources: Washington State Bridge Inventory System, 2024; BERK, 2024.

Across all counties, over 95% of bridges are in fair or good condition (*Exhibit 7*). By county designation, frontier one rural counties have a higher share of bridges in fair condition compared to other county designations (*Exhibit 8*).

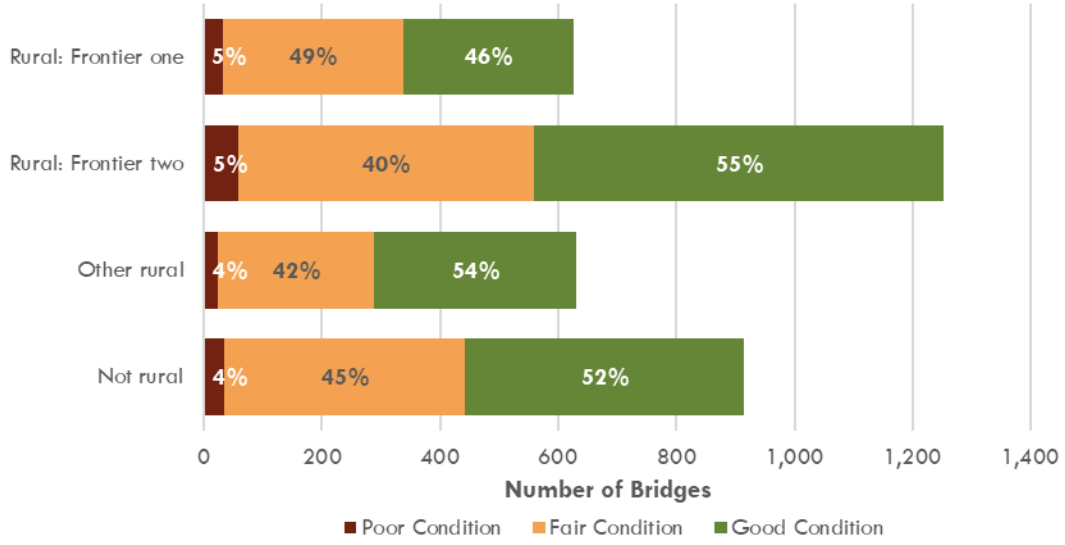
Exhibit 7: County-Owned Bridges, 2023

Category	Number of Bridges	Share of Total County-Owned Bridges
Poor Condition	150	4%
Fair Condition	1,480	43%
Good Condition	1,796	52%
Total	**3,426**	**100%**

Notes: Bridge condition is calculated on a scale from 0 (out of service/beyond corrective action) to 9 (excellent) based on the lowest rating of the bridge's substructure, superstructure, deck, and culvert. Poor Condition corresponds to a score of 0-4, Fair Condition corresponds to a score of 5-6, and Good Condition corresponds to a score of 7-9. Due to rounding, percentages presented above may not add up precisely to 100%.

Sources: Washington State Bridge Inventory System, 2023; CRAB, 2023; BERK, 2024.

Exhibit 8: County-Owned Bridges by County Designation, 2023



Notes: Due to rounding, percentages presented above may not add up precisely to 100%. County designation is based on population density and/or land size. See ***Appendix B: County Rural Designation*** *for more details.*

Sources: Washington State Bridge Inventory System, 2023; CRAB, 2023; BERK, 2024.

Fish Passage Barrier Inventory

Counties face ongoing obligations to remove barriers on fish-bearing stream channels. These obligations are related to a federal court decision ordering the State to restore blocked habitat and address culverts that present a barrier to fish migration by 2030.[8] While the court injunction area is focused on State-owned culverts and other fish barriers in Western Washington, there are typically upstream and downstream barriers associated with each State barrier, which include barriers managed by counties.

As of September 2024, approximately 27% (almost 7,000 out of 25,800) of barriers statewide are owned by counties (*Exhibit 9*). An additional challenge is that the work to inventory barriers is still underway, with an estimated 16,000 to 20,000 sites to inventory in counties that are outside the injunction area.[9]

[8] See United States v. Washington, No. C70-9213 (W.D. Wash. Mar. 29, 2013). As of a report dated June 2024, the Washington State Department of Transportation has restored access to 50% of blocked potential habitat in the injunction area and anticipates restoring access to 75% of blocked potential habitat by 2030 with remaining existing fish passage funds. In a memo dated October 2024, WSDOT estimated that an additional $5 billion is needed to achieve 90% habitat restoration, correct some newly identified barriers, and address structurally failing culverts.

[9] "2023 Status of Statewide Fish Passage Inventory" memo from the Washington State Department of Fish and Wildlife.

Exhibit 9: WDFW Fish Passage Inventory as of September 2024

Category	Statewide Count	Owned by County
Barriers		
Partial fish passage blockage	11,572	3,605
Total fish passage blockage	10,630	2,999
Barrier, unknown percent passable	1,263	328
Diversion	1,611	38
Natural barrier - verified	783	21
Subtotal barriers	**25,859**	**6,991**
Not a barrier	13,465	3,571
Unknown	7,157	1,857
Total	**46,481**	**12,419**

Sources: WDFW, 2024; BERK, 2024.

Investments in Safety

County transportation safety projects include making intersection improvements, installing pavement markings, installing rapid flashing beacons, widening road shoulders, and upgrading guardrails.[10]

Investments in ADA Compliance

The Americans with Disabilities Act of 1990 (ADA) requires all public agencies to identify, inventory, and evaluate current access deficiencies through a self-evaluation. These self-evaluations highlight barriers to access and obligate the agency to pursue remedial action. Agencies with more than 50 employees are required to develop a Transition Plan (or "Program Access Plan") that details how to make their facilities more accessible, including a schedule to achieve compliance. This requires transportation projects to incorporate ADA-compliant features, as well as to plan for additional projects that address obstacles to accessibility beyond currently scheduled transportation projects.

[10] WSDOT Local Programs, "2023 County HSIP Awards."

The total cost of an ADA compliance plan depends on the amount of infrastructure in a county and the number of identified barriers. For the examples listed below, the total cost of improvements ranges from $9 million in a small rural county (Skamania County) to over $3 billion in a large county that is not rural (Snohomish County):

- **Pierce County** approved a plan in February 2020. The total cost of improvements is $96 million. In the plan, the anticipated program funding is $1.135 million a year.[11]
- **King County** completed a plan in April 2021. The County estimates that it would take over $550 million to fix every obstacle to accessibility on unincorporated roads. The Department of Road Services currently receives $150,000 annually to fix the most important obstacles.[12]
- **Skamania County** adopted a plan for the Public Right-of-Way in May 2024. The County anticipates the cost of removing barriers between 2026 and 2029 to be $1.17 million. Beyond 2029, the cost to remove barriers is estimated to be $7.86 million.[13]
- **Snohomish County** adopted a plan in November 2019. The plan estimates that it would take approximately $385 million (in 2018 dollars with no inflation) for full compliance with all ADA transition plan upgrades. Snohomish County has spent an estimated $2.3 million annually on ADA pedestrian facility upgrades. At this expenditure rate, it would take 167 years to achieve full compliance assuming funding increases with annual inflation. With an inflation rate of 2% the total cost of compliance is estimated to be over $3 billion.[14]
- **Whatcom County** adopted its plan in February 2021. The plan estimates it would take $50.16 million to remove all identified barriers. The County has proposed an annual budget of $250,000, which is anticipated to remove the highest priority barriers within 5 years.[15]

Investments in Active Transportation

Active transportation, including walking, biking, and other types of non-motorized transportation, is becoming a greater focus for counties. Pedestrians and cyclists using the existing transportation system are at risk of fatal and serious injuries from traffic crashes, and active transportation investments can improve safety. Providing environments that are walkable and bikeable can also increase access to local destinations, including for those that may not necessarily be able to drive. Finally, active transportation with complete networks can make the current transportation system more efficient, reducing traffic and parking demands in certain situations.

[11] Pierce County ADA Transition Plan for the Public Rights-of-Way, 2019, Pierce County ADA Transition Plan.

[12] King County Road Services Division ADA Transition Plan Summary, August 2021, King County ADA Transition Plan.

[13] Skamania County ADA Transition Plan for the Public Right-of-Way, May 2024, Skamania County ADA Transition Plan.

[14] Snohomish County ADA Self-Evaluation & Transition Plan, November 2019, Snohomish County ADA Plan.

[15] Whatcom County ADA Transition Plan, February 2021, Whatcom County ADA Plan.

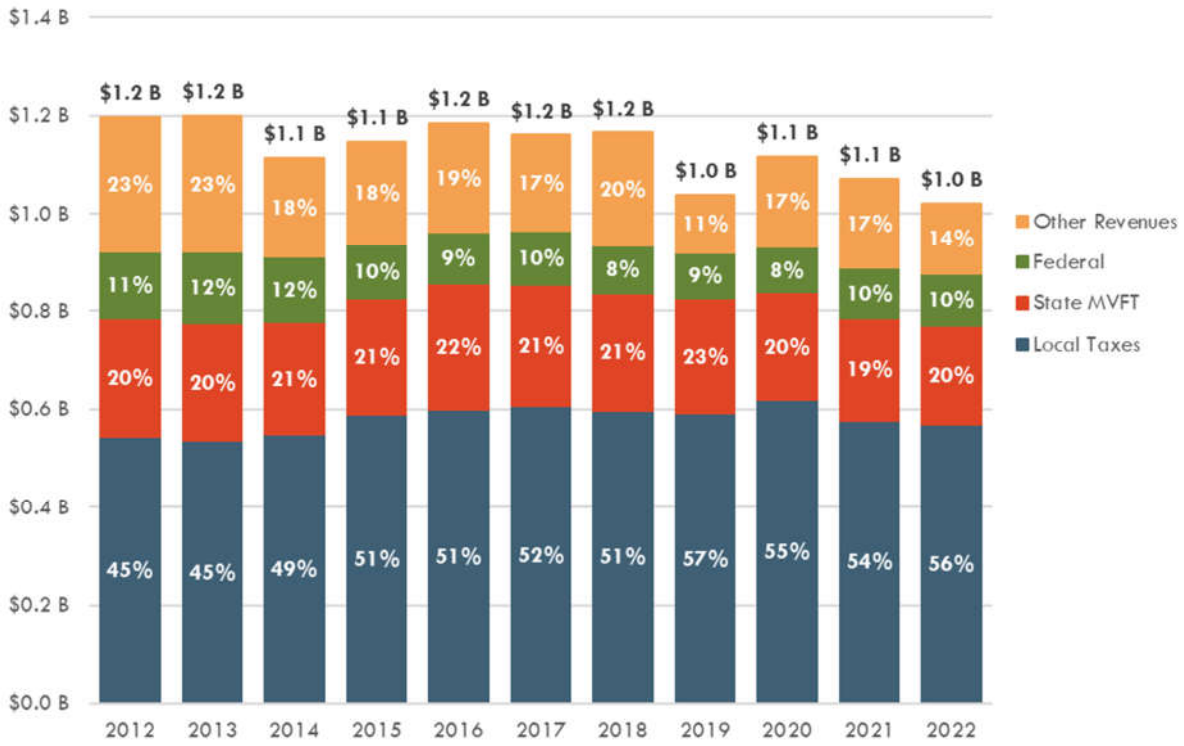
County Transportation Revenues

County transportation revenues can be grouped into federal, state, and local sources of funding. The 2020 study describes these categories in detail. In this section, we summarize new revenues sources available to counties since the 2020 study. We also analyze the mix of revenues across all counties and discuss trends.

Historical Trend

In 2022 compared to 2012, total county transportation revenues in year-of dollars increased, with increased revenue from local taxes and the state motor vehicle fuel tax (MVFT), and decreased revenue from federal sources. While total revenues in year-of dollars have increased, total revenues adjusted to 2024 dollars using the WSDOT Cost Construction Index have decreased (*Exhibit 10*). On average, from 2018 to 2022, total revenues across all counties were approximately $1.1 billion per year in 2024 dollars. Revenues received through new federal funding were not reflected in the revenues reported for 2022.

Exhibit 10: County Transportation Revenues in 2024 Dollars, 2012-2022



Notes: Local Taxes include revenues from County Road Fund property tax, timber excise tax, and other taxes. State MVFT includes revenues from the county regular MVFT, TIB, RAP, and CAPP. Federal includes revenues from federal grants and federal lands. Other Revenues includes other local and state sources such as state grants. Adjusted to 2024 dollars using the WSDOT Cost Construction Index updated in 2021 Q3.

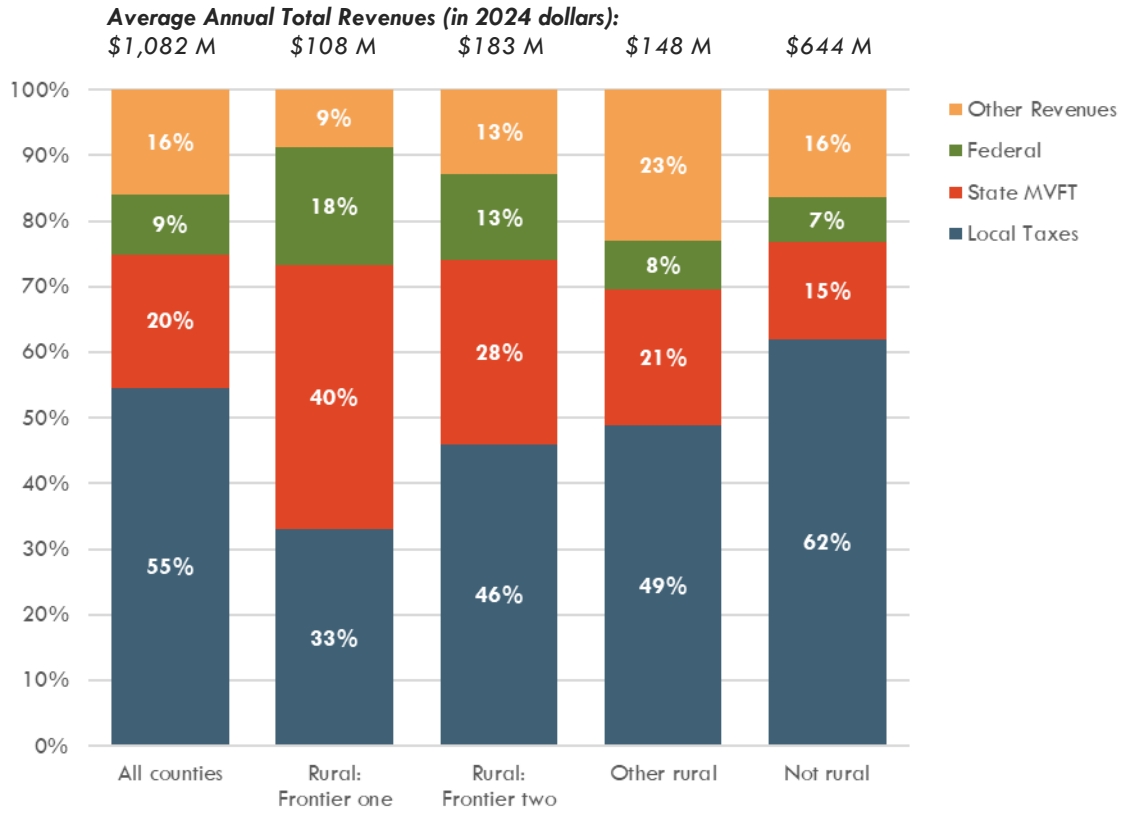
Sources: CRAB, 2024; WSDOT Cost Construction Index, 2021; BERK, 2024.

Overall Mix

Exhibit 10 also shows the share of total county transportation revenues by source. Across all counties, local taxes have historically represented the largest share of total revenues. In 2022 compared to 2012, local taxes increased from 45% to 56% of total revenues; state MVFT contributions remained around the same share of total revenues at 20%; federal contributions decreased from 11% to 10%; and other revenues from state and local sources declined from 23% to 14%.

The distribution of county transportation revenue sources varies depending on county designation. For example, rural counties have a lower share of total revenues coming from county property tax, as there are fewer residential properties in these communities. As shown in *Exhibit 11*, 33% of total revenues for frontier one rural counties comes from local taxes, compared to 55% for all counties and 64% for counties that are not rural. Frontier one and frontier two rural counties also receive a higher share of total revenues from federal sources compared to other counties.

Exhibit 11: Shares of County Transportation Revenue Sources by County Designation, 2018-2022 Average



Notes: Labels rounded to the nearest percent. Local Taxes include revenues from County Road Fund property tax, timber excise tax, and other taxes. State MVFT includes revenues from the county regular MVFT, TIB, RAP, and CAPP. Federal includes revenues from federal grants and federal lands. Other Revenues includes other local and state sources such as state grants. Adjusted to 2024 dollars using the WSDOT Cost Construction Index updated in 2021 Q3. County designation is based on population density and/or land size. See ***Appendix B: County Rural Designation*** *for more details.*

Sources: CRAB, 2024; WSDOT Cost Construction Index, 2021; BERK, 2024.

Federal Funds

From 2018 to 2022, federal funding contributed between 8% and 10% to total county transportation revenues. Federal transportation funding primarily comes from annual appropriation bills and authorization bills. Annual appropriation bills set annual spending levels for transportation programs, while authorization bills authorize policy, programs, and funding ceilings over multiple years, such as the Infrastructure Investment and Jobs Act (IIJA) enacted in November 2021 (see box). The State also receives federal apportionments and allocations from a variety of Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) programs.

Infrastructure Investment and Jobs Act

The most recent authorization bill was the IIJA, also known as the Bipartisan Infrastructure Law. This bill reauthorizes the Fixing America's Surface Transportation Act (FAST Act), expands existing grant programs, and adds new programs. The IIJA provides funding for transportation infrastructure through a combination of formula programs specified in federal law and competitive grant programs. Through the IIJA, Washington state is estimated to receive $5.443 billion in federal-aid highway funding over five years (FFY 2022 through FFY 2026), which is roughly $1.7 billion more than what was included in the FAST Act. This funding is distributed across several programs, shown in the table below. Programs with local funding are summarized on the following page.

Program	IIJA Funding (5-Year Total)	Share of Funding: State	Share of Funding: Local
National Highway Performance Program	$2.290 billion	87%	13%
Surface Transportation Block Grant Program	$1.327 billion	21%	79%
Highway Safety Improvement Program (HSIP)			
Highway Safety Component of HSIP	$226 million	30%	70%
Rail Crossing Safety Component of HSIP	$25 million	0%	100%
Bridge Formula Program	$611 million	61%	39%
Congestion Mitigation and Air Quality	$217 million	0%	100%
National Highway Freight Program	$140 million	50%	50%
PROTECT	$121 million	19%	81%
Ferry Boat	$109 million	n/a	n/a
Carbon Reduction Program	$107 million	35%	65%
Statewide Planning and Research	$82 million	100%	0%
National Electric Vehicle Program	$72 million	100%	0%
Transportation Alternatives	$62 million	0%	100%
Metropolitan Planning Program	$44 million	0%	100%
Recreational Trails	$11 million	100%	0%
Total	**$5.443 billion**	**59%**	**41%**

Notes: IIJA Funding amounts are rounded to the nearest hundred million dollars. State and Local shares of funding are five-year average shares for FFY 2022 through FFY 2026. PROTECT includes $25 million set aside for tribal resiliency projects.

Sources: "Infrastructure Investment and Jobs Act (IIJA)" presentation by WSDOT on January 10, 2021; "Infrastructure Investment and Jobs Act (IIJA) Work Group 2022 Final Memo" from the JTC Executive Committee, shared with Work Group Members on September 15, 2022; BERK, 2024.

Summary of Programs Supported by IIJA with Local Funding

Programs are listed descending by IIJA funding amount

National Highway Performance Program (NHPP) provides funding for projects on the National Highway System (NHS). In Washington state, approximately 23% of the NHS routes by lane mile are owned by local agencies. With the increase in NHPP funding, WSDOT created the National Highway System Asset Management program, which is a statewide competitive program that encourages collaboration among local agencies to preserve the NHS.

Surface Transportation Block Grant Program (STBGP) provides the highest share of support to local agencies, with 79% of STBGP program funds. Types of eligible projects include highway and bridge construction and repair, transit capital projects, and bicycle and pedestrian projects.

Bridge Formula Program (BFP) is a new program established through the IIJA that provides funding for replacing, rehabilitating, preserving, protecting, and constructing highway bridges. BFP apportionment includes 15% set aside for off-system bridges located on public roads that are not Federal-aid highways.

Highway Safety Improvement Program (HSIP) aims to reduce fatal and serious injury crashes by implementing the Washington State Strategic Highway Safety Plan (Target Zero) and local agency road safety plans. WSDOT provides funding to local agencies through the County Safety Program, City Safety Program, and Rail-Highway Safety Program.

Congestion Mitigation and Air Quality (CMAQ) provides funding for transportation projects and programs that help to meet the requirements of the Clean Air Act. In Washington, CMAQ funds are provided to five MPOs (Puget Sound, Spokane, Vancouver, Olympia, and Yakima) that do not meet the National Ambient Air Quality Standards. The MPOs provide funding to both WSDOT and local projects through regional competitive processes.

National Highway Freight Program (NHFP) aims to improve the efficient movement of freight. The identification and selection of local projects for NHFP funding is coordinated with local and regional freight partners, including cities, counties, ports, MPOs, and RTPOs.

Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) is a new program established through the IIJA that provides funding for improving the resilience of highways, public transportation, ports, and intercity passenger rail to climate change and natural disasters. Local agencies in Washington state are provided funds for FFY 2023 through FFY 2026 for eligible fish passage projects selected through the Brian Abbott Fish Barrier Removal Board.

Carbon Reduction Program is a new program established through the IIJA that provides funding for projects designed to reduce transportation emissions.

Transportation Alternatives (TA) Program is a FHWA funding program for community-based transportation improvements, such as bicycle and pedestrian facilities, historic preservation of transportation assets, and environmental mitigation.

Metropolitan Planning Program (MPP) establishes a cooperative, continuous, and comprehensive framework for making transportation investment decisions in metropolitan areas. WSDOT is required to make the program funds available to MPOs in accordance with the formula developed by local agencies and approved by FHWA.

These descriptions are based on information provided on the U.S. Department of Transportation and WSDOT program webpages.

Flow of Federal Transportation Dollars to Counties

Federal funds are passed to counties through federal pass-through programs, federally managed programs, and federal discretionary programs.

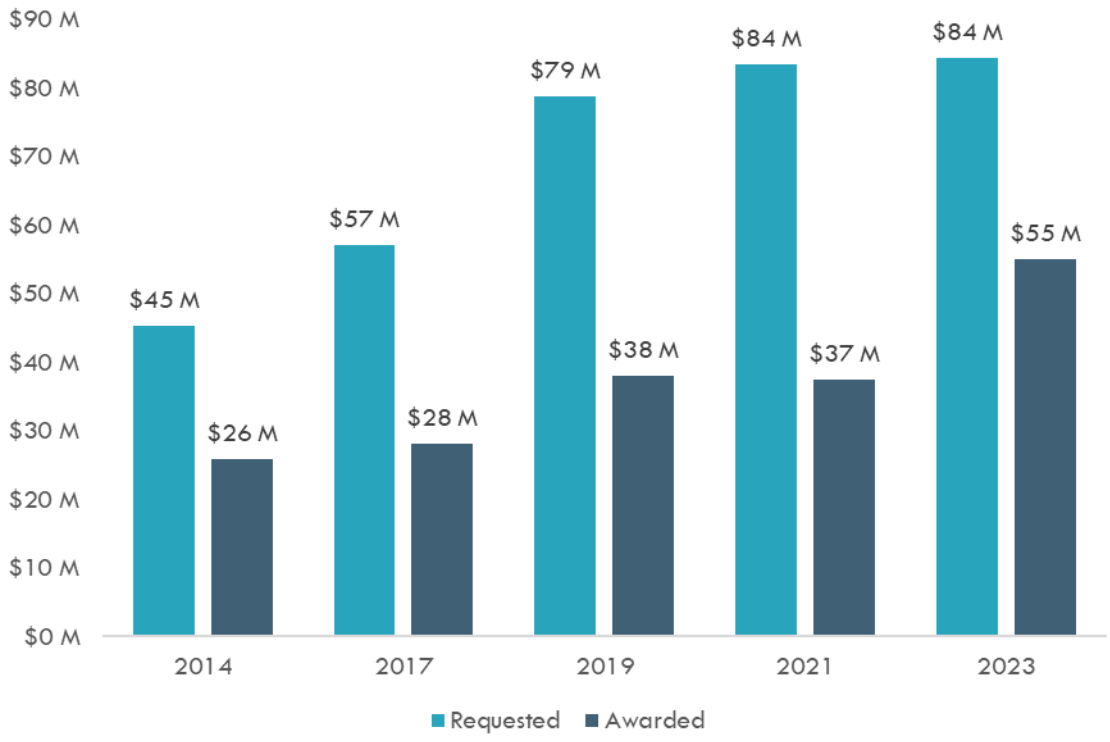
Federal Pass-Through Programs

Recipients are selected by MPOs, RTPOs, and county leads through regional competitive programs. Examples of federal pass-through programs supported through the IIJA are the Surface Transportation Block Grant Program and Transportation Alternatives Program.

Federally Managed Programs

Recipients are selected by WSDOT through statewide competitive programs. Examples of federally managed programs supported by the IIJA are the Local Bridge Program (with funding from the NHPP and STBG Program) and the federal Highway Safety Improvement Program, through which WSDOT administers the County Safety Program. In the 2023 funding cycle for the County Safety Program, counties applied for 81 projects totaling $84 million, with $55 million awarded (*Exhibit 12*). Total awarded funding increased by almost $20 million between the 2021 and 2023 funding cycles but was not sufficient to fund all requested projects.

Exhibit 12: WSDOT County Safety Program, Requested and Awarded Totals, 2014-2023



Sources: WSDOT Local Programs, 2024; BERK, 2024.

Federal Discretionary Programs

Grantees are selected federally through nationwide competitive programs. Examples of new discretionary grants established through the IIJA include:

- **Bridge Investment Program**, which was allocated $12.2 billion over five years to improve the condition, safety, efficiency, and reliability of bridges.[16]
- **Rural Surface Transportation Grant Program**, which was provided $2 billion over five years to support projects that will improve and expand surface transportation infrastructure in rural areas.[17]
- **National Culvert Removal, Replacement and Restoration Grant Program (Culvert AOP)**, which was provided $1 billion over five years to support the removal and repair of culverts that may block fish passage. In the first year of the program (FFY 2022), the program awarded $195.9 million to advance 169 projects nationwide. This included $58.2 million for 23 projects in Washington state, including $32.8 million for 16 local projects in the state.[18]

[16] U.S. Department of Transportation, 2024, "Bipartisan Infrastructure Law Grant Programs."

[17] Ibid.

[18] U.S. Department of Transportation Federal Highway Administration, 2023, "Culvert AOP Program Grant Recipients: Year One (FY 2022) Grant Award Recipients."

State Funds

In March 2024, the Washington State Legislature adopted a $14.7 billion revised transportation budget for the 2023-25 biennium, of which $11.2 billion (76%) was allocated to WSDOT.[19] The main sources of revenue for WSDOT are state revenues which includes distributions from the state MVFT, federal funding, and bond sales (*Exhibit 13*). WSDOT revenues also include a $2 billion transfer from the Move Ahead WA revenue package which was approved and enacted into law in March 2022 (see box). Approximately 8% of the WSDOT budget was for Local Programs, with $20 million in the operating budget and $883 million in the capital project.[20]

Exhibit 13: WSDOT 2023-2025 Enacted Budget First Supplemental Available Funds

Sources*	$ in Millions	
State Revenues	$5,262.2	50%
Federal Funding	2,311.6	22%
Bond Sales	1,905.6	18%
Ferry Fares	426.0	4%
Toll Fares	494.2	5%
Local Funding	211.2	2%
Total Sources	**$10,610.8**	**100%**
Net Transfers**	347.6	
Less: Debt Service	(1,715.0)	
Add: Beginning Account Balances	2,261.9	
Total WSDOT Funding	**$11,505.3**	

*Ferries, toll, and state revenues are estimated based on the February 2022 Transportation Revenue Forecast and general financial plan assumptions. Bond, Federal, and Local figures are estimated based the enacted 2022 supplemental budget.

**Includes $2 billion General Fund-State transfer from Move Ahead Washington package.

Source: WSDOT 2023-2025 Enacted Budget Summary with 2024 Supplemental Budget, July 2024.

[19] Washington State Fiscal Information, 2024, "Supplemental Transportation Budget."

[20] Washington State Department of Transportation, 2024, *WSDOT 2023-25 Enacted Budget Summary with 2024 Supplemental Budget*.

Move Ahead WA

Through the State's Climate Commitment Act, the Move Ahead WA revenue package allocates more than $16 billion over 16 years to invest in Washington's transportation system. This package allocates more funding to transit than the past revenue package (Connecting Washington), in part due to the large share of transfers going to unrestricted accounts and the reliance on carbon emission allowance auction proceeds which cannot be used for highway purposes. Other areas of funding include $3 billion for preservation and maintenance, which includes $80 million in direct distributions to counties through CRAB's County Arterial Preservation Program; $2.4 billion for fish passage barrier removal projects; and $1.2 billion towards supporting active transportation projects.

Sources: "The Transportation Budget, Transportation Revenues, and Long-Term Funding Challenges" published by the Washington Research Council on November 6, 2023; "Move Ahead Washington" blog post from the Washington State House Democrats published on February 8, 2022; "Move Ahead Washington Public Transportation Grant Programs" page on the WSDOT website.

Flow of State Transportation Dollars to Counties

State dollars reach counties through direct distributions, local project appropriations, and state competitive programs.

Direct Distributions

Counties receive a share of the state collected MVFT, a portion of funds from the State Motor Vehicle and Multimodal Accounts, and funds from CAPP based on their share of total county road arterial miles. In the September 2024 Transportation Revenue Forecast, amounts for 2023-2025 in state direct contributions to counties totaled $305.3 million ($275.0 million from MVFT direct distributions, $3.0 million from the State Motor Vehicle Account, and $27.3 million in CAPP funds).[21] See **Revenue Trends** for more discussion about county transportation revenues received through MVFT.

Local Project Appropriations

The Washington State Legislature may appropriate funds in the State Transportation Budget to specific county transportation projects. These appropriations are administered by WSDOT Local Programs.

State Competitive Programs

Counties may receive state funding through several competitive grant and loan programs, including those managed by WSDOT, CRAB, TIB, and the Freight Mobility Strategic Investment Board. Examples of state competitive programs include:

- **Safe Routes to Schools Program and the Pedestrian and Bicyclist Program.** These programs support local active transportation projects. In the 2023-2025 funding cycle, WSDOT received funding requests totaling $484 million, the most funding requested to date. WSDOT awarded a total

[21] Washington State Transportation Commission, 2024, "September 2024 Transportation Revenue Forecast: State Transportation Revenue Overview."

of $104 million. When looking at counties only, counties requested $16 million in Safe Routes to School funding and were awarded $5.4 million. Counties requested $28 million in Pedestrian and Bicycle funding and were awarded $900,000.[22]

- **Rural Roadway Departures Program.** The Move Ahead WA revenue package establishes a new state competitive grant program called the Rural Roadway Departures Program within WSDOT to fund safety improvements aimed at preventing lane departures in high-risk areas. The Legislature intends to provide $20 million for this project over 16 years.[23]
- **Rural Arterial Program.** CRAB administers the Rural Arterial Program, which is a biennial road and bridge reconstruction competitive grant program funded by the MVFT through the Rural Arterial Trust Account (RATA). For the 2025-2027 funding cycle, CRAB received 64 final prospectuses from counties, requesting $134.6 million in RATA funding, while the estimated revenue for the RATA account is $50 million.[24]

Local Funds

The majority of county transportation revenue is locally generated. This includes local funds that can be used for any function, and local funds that can only be used for transportation purposes.

Local Unrestricted Funds

Examples of unrestricted funds are property tax, retail sales and use tax, real estate excise tax (REET), and limited and unlimited tax general obligation bonds. These funds can be used for any county service or are restricted only to broad expenditure categories (such as capital facilities). Transportation services compete for these funds with other county priorities including public safety, social services, economic development, and parks.

Local Restricted Funds

Examples of restricted funds are the property tax road fund levy, Local Improvement District or Road Improvement District revenues, transportation impact fees, Transportation Benefit District (TBD) taxes or fees, the border area MVFT, and the local option MVFT.

Summary of Local Funding Sources

Exhibit 14 summarizes existing local transportation funding sources available to counties, including who pays, applicability, and current use. This is the same table that was shown in the 2020 report. One difference since the 2020 study is the availability of new local options through Move Ahead WA for local jurisdictions that have formed a TBD to increase and extend the TBD sales and use tax.[25]

---

[22] WSDOT Active Transportation Division, 2022, "The Pedestrian/Bicyclist and Safe Routes to School Programs, 2023-2025 Prioritized Project List and Program Update."

[23] Washington State Legislature, 2022, ESSB 5975, Section 305.

[24] Washington State County Road Administration Board, 2024, "CRABoard Meeting October 24-25, 2024 Board Packet."

[25] Washington State Legislature, 2022, "Move Ahead WA Resources Summary FY 2023 – FY 2038."

Exhibit 14: Existing Local Transportation Funding Options for Counties (2018)

Revenue Sources	Burden	Voted	Applicability	Eligibility	Participation
Local Sources: Transportation-Restricted					
County Road Fund Property Tax	Property owners in unincorporated areas	No	Must have properties with AVs	*All counties*	39 counties
Local Improvement District or Road Improvement District	Property owners benefiting from improvement	No	Must have capital improvement proejct with benefitting properties	*Median annual revenue is <$3k; some attempts not approved in court*	11 counties with RID funds*
Transportation Impact Fees *(GMA or LTA)*	Property owners benefiting from improvement	No	Must have new development requiring transportation system improvements	*All counties*	6 counties
Border Area Motor Vehicle Fuel Tax	Individuals or businesses purchasing fuel in the county	No	Must be located by international border	*1 county eligible*	1 county**
Commercial Parking Tax	Individuals parking in a commercial parking lot	No	Must have commercial parking lots within unincorporated areas	*A county may impose the tax only to the extent that it has not been imposed by the district*	*None (as of 2022)*
Transportation Benefit District – Sales and Use Tax	Individuals purchasing goods within the taxing district	Yes	Must have retail transactions	*All counties*	5 counties***
Transportation Benefit District – Vehicle Licensing Fee	Individuals or businesses with a vehicle under 6,000 lbs registered in the district	No, up to $50 Yes, above $50 up to $100	Must have individuals or businesses with vehicles registered in district		
Local Motor Vehicle and Special Fuel Tax	Individuals or businesses purchasing fuel in the county	Yes	Revenues must be shared with cities in county	*All counties*	*None (2 counties attempted and failed)*
Local Option Taxes for High Occupancy Vehicle Systems *(MVET, rental car tax, employer tax)*	Vehicle owners, rental car users, employees, or consumers, depending on type of tax	Yes	Regional Transportation Investment Districts and King, Pierce, Snohomish counties eligible	*3 counties eligible*	*None*
Local Sources: Non-Restricted					
Retail Sales & Use Tax	Individuals purchasing goods within unincorporated portions of the county	No, up to 1%. Yes, simple majority above 1%.	Must have retail transactions	*All counties*	39 counties
Real Estate Excise Tax 1 (REET 1)	Property Owners/ Purchasers	No	Must have property sales	*All counties*	39 counties
Real Estate Excise Tax 2 (REET 2)	Property Owners/ Purchasers	No, if required to plan under GMA. Yes, if voluntarily planning under	Must have property sales. Must be planning under GMA	*All counties fully planning under GMA*	19 counties
Additional REET 3	Property Owners/ Purchasers	No, but subject to referendum.	Must have property sales, and county must not implement 0.5% sales tax	*1 county eligible*	1 county
Local Debt Financing					
Limited Tax General Obligation (LTGO) Bonds	Taxpayers	No, cannot exceed 1.5% of AV	Must have properties with AVs	*All counties*	4 counties issued in 2018
Unlimited Tax General Obligation (UTGO) Bonds		Yes			

**Number of counties with any reported revenue under a fund labeled RID. Zero counties had LID funds used for roads in 2018.*

***Points Roberts TBD is a partial county TBD using the Border Area MVFT.*

**** One of those 5 counties (a partial-county TBD serving the Point Roberts peninsula) relies on the border area fuel tax, while the rest are unfunded.*

Sources: SAO, 2018; WSDOT, 2020; Municipal Research and Services Center of Washington, 2024; BERK, 2024.

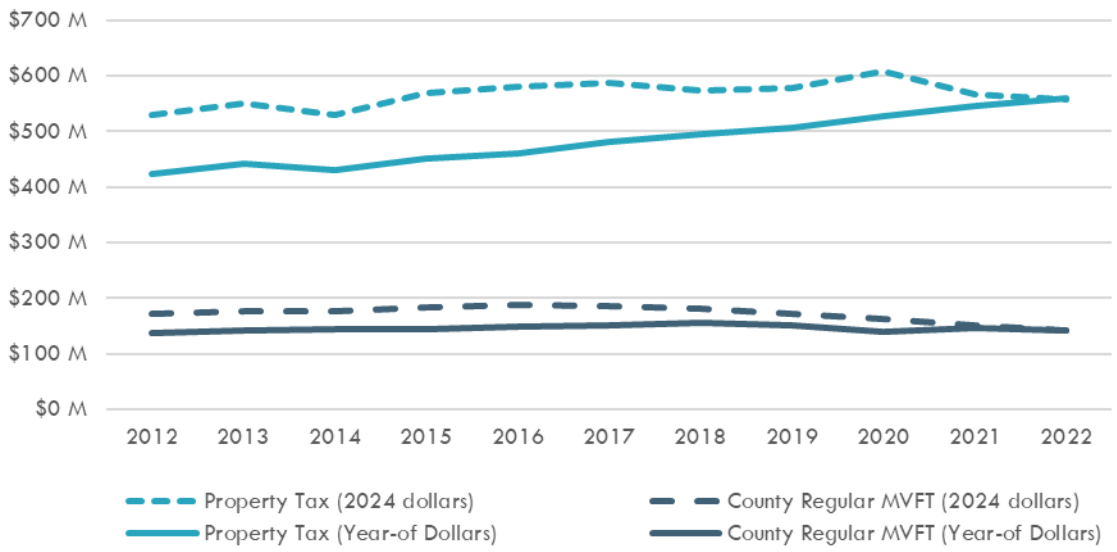
Revenue Trends

Limited growth in primary revenue sources

County governments in Washington are highly reliant on property tax revenues and MVFT as sources of transportation funding. As shown in *Exhibit 11*, from 2018 to 2022, county road fund property tax revenues made up approximately half of annual total county transportation revenues and MVFT made up approximately 20% of annual total county transportation revenues.

Exhibit 15 shows the county road fund property tax and regular MVFT from 2012 to 2022, in both year-of dollars and 2024 dollars. Property tax has grown over this period but remained relatively flat in 2024 dollars, which suggests that the purchasing power of this revenue source has not grown over time. The growth of road property tax revenues is constrained by the statutory maximum of $2.25 per $1,000 of assessed value and by the 1% growth limit on total property tax revenue.[26] MVFT has remained flat, even declining after 2019, as driving habits changed due to the COVID-19 pandemic.

Exhibit 15: County Regular Road Property Tax and MVFT, 2012-2022



Note: Adjusted to 2024 dollars using the WSDOT 2021 Q3 Cost Construction Index.

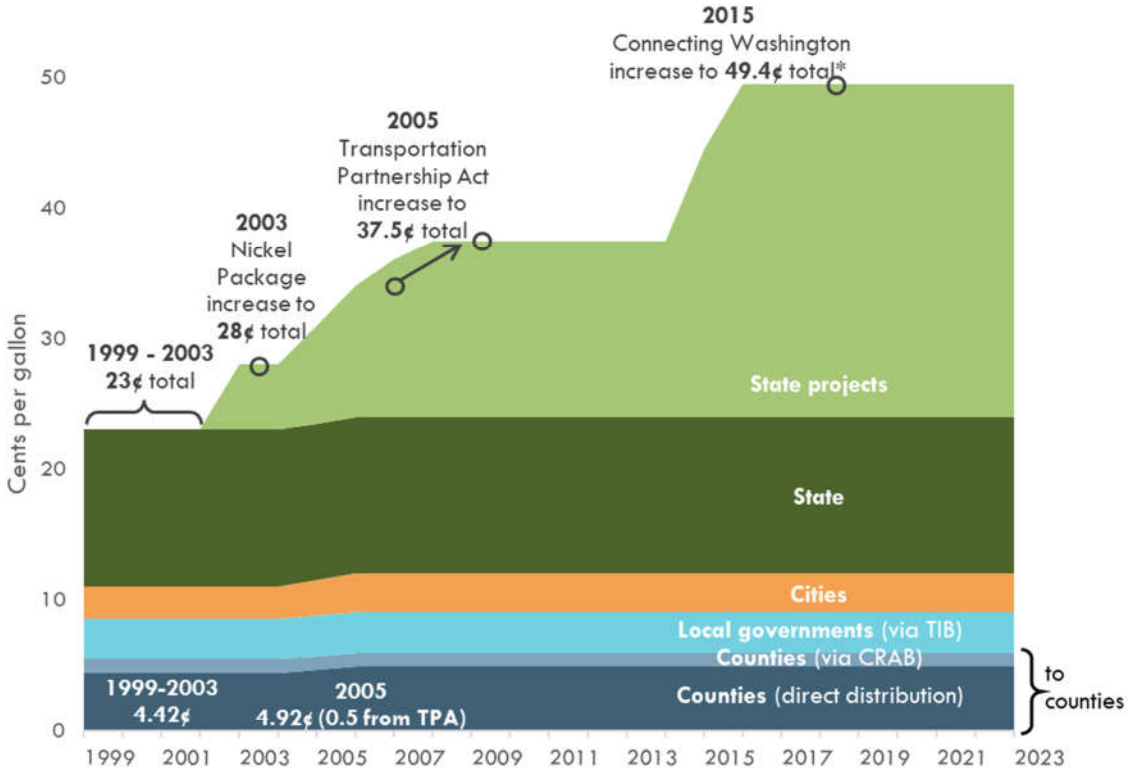
Sources: CRAB, 2024; WSDOT, 2024; BERK, 2024.

While the total MVFT rate has increased over time, the amount dedicated to counties has stayed the same since 2005 (*Exhibit 16*). The Washington State Economic and Revenue Forecast Council's (ERFC) September 2024 Transportation Revenue Forecast estimates MVFT revenues through 2034. According to the ERFC forecast, MVFT revenue is projected to remain flat, or even decrease by 1% annually in some years (*Exhibit 17*). The September 2024 forecasted MVFT revenue for the 10-year period 2024-2033 is 10% lower than the June 2024 forecasted revenue.[27]

[26] RCW 36.82.040.

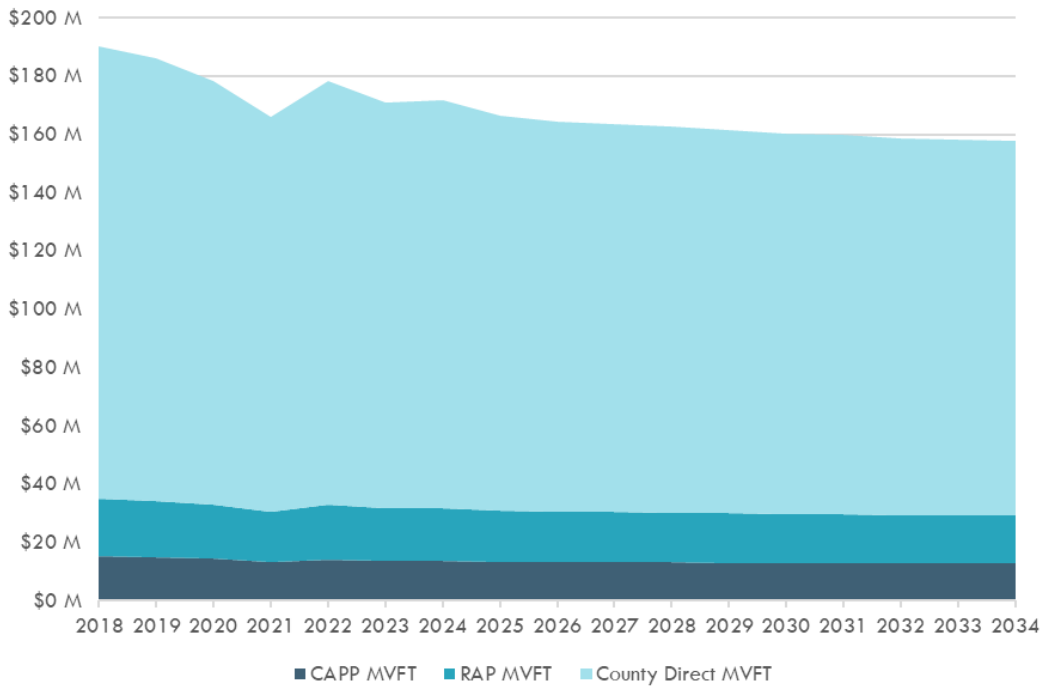
[27] Washington State Transportation Commission, 2024, "September 2024 Transportation Revenue Forecast: State Transportation Revenue Overview."

Exhibit 16: Distribution of MVFT Revenue, 1999-2023



Source: BERK, 2024.

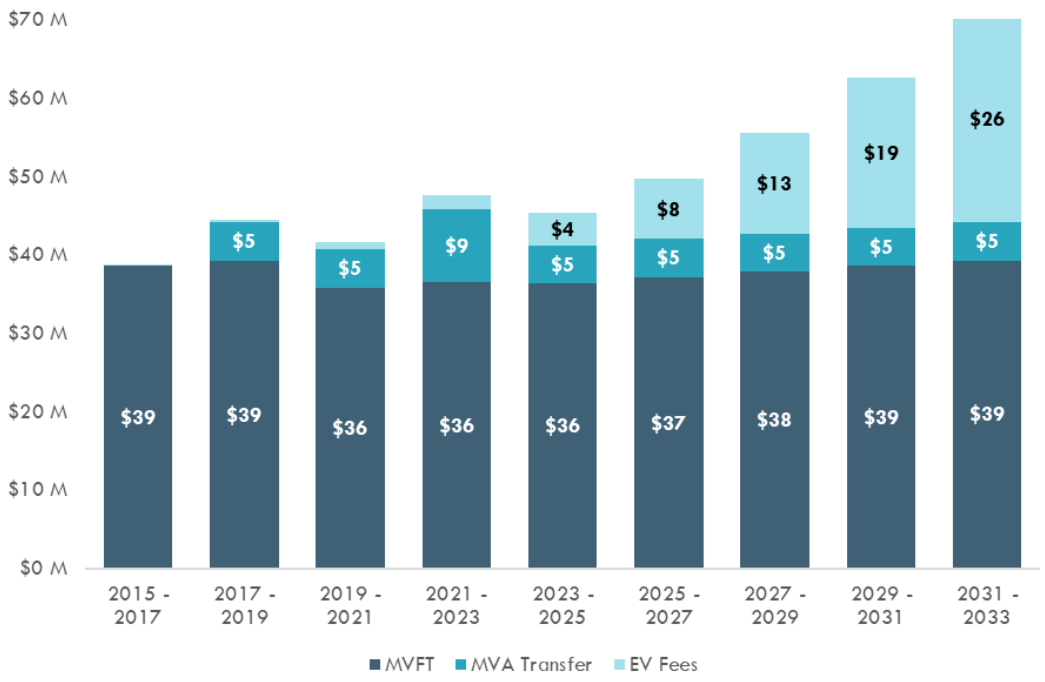
Exhibit 17: Budgeted and Forecasted MVFT Revenues for CAPP, RAP, and Net Distribution to Counties, 2018-2034



Sources: Washington State Economic and Revenue Forecast Council, 2024; BERK, 2024.

In contrast, the ERFC forecasts that revenue from Electric Vehicle (EV) fees is projected to increase. *Exhibit 18* shows the budgeted and forecasted revenues for the Rural Arterial Trust Account, which receives a portion of EV fees, along with MVFT revenues, and funds CRAB's Rural Arterial Program. The projected increase in EV fees could provide additional capacity for CRAB to fund projects on county arterials.

Exhibit 18: Budgeted and Forecasted RATA Funding, 2015-2033



Sources: CRAB, 2024; Washington State Economic and Revenue Forecast Council, 2024; BERK, 2024.

Limited funding for local access roads

Local access roads are an important part of the county road network; in some cases, a local access road is the only access for a neighborhood. Local funding is the only source for maintenance and improvements on local access roads, which make up over 60% of total centerline miles across all counties, as shown in *Exhibit 4*. During interviews, county staff identified funding for local access roads as a high priority need. CRAB's Grant Effectiveness Study also highlighted the lack of grant funding for county local access roads.

Exploration of new revenues

The Joint Transportation Committee (JTC) received a report in June 2024 evaluating a potential **retail delivery fee** in Washington.[28] This is a funding mechanism recently implemented in other states. A fee related to the transportation of goods has a strong link to road improvements, as the road network is impacted by the rise in e-commerce. As of July 2024, Colorado and Minnesota assess fees on taxable retail items delivered to an address in their respective states. The retailer or marketplace facilitator already responsible for collecting the state sales tax on tangible personal property sold and delivered must also collect and remit the retail delivery fee. The revenue generated from a retail delivery fee

[28] Washington State Joint Transportation Committee, 2024, "Retail Delivery Fee Analysis."

could be used to support improvements to the road network. The State would need to determine how to use or distribute these revenues.

At the direction of the State Legislature, the Washington State Transportation Commission (WSTC) has worked with a steering committee and consultants for over a decade to examine the feasibility of transitioning from the gas tax to a road usage charge (RUC). Using funds from the FHWA Surface Transportation System Funding Alternatives Program, WSTC has explored policy and program options and conducted a pilot program to test implementation issues. A road usage charge is a per-mile charge drivers would pay based on how much they use Washington's road system rather than by the gallons of gas they purchase.[29] This system would collect funding for the upkeep of roads and bridges as an alternative to gas taxes, which are decreasing as electric vehicles become more common and gas-powered vehicles are expected to be phased out by 2035. A RUC program has been proposed at the State Legislature but has not been approved. HB 1832, introduced in the 2023-2024 Legislative Session, proposed to implement a voluntary RUC program.[30] In this legislation, the EV fees would be waived for those participating in the program. While this may provide more revenue for direct distribution to counties, it would also result in less revenue for CRAB's Rural Arterial Program, which receives a portion of EV fees.

[29] Washington State Transportation Commission, 2024, "Road Usage Charge FAQ."

[30] Washington State Legislature, 2023, HB 1832.

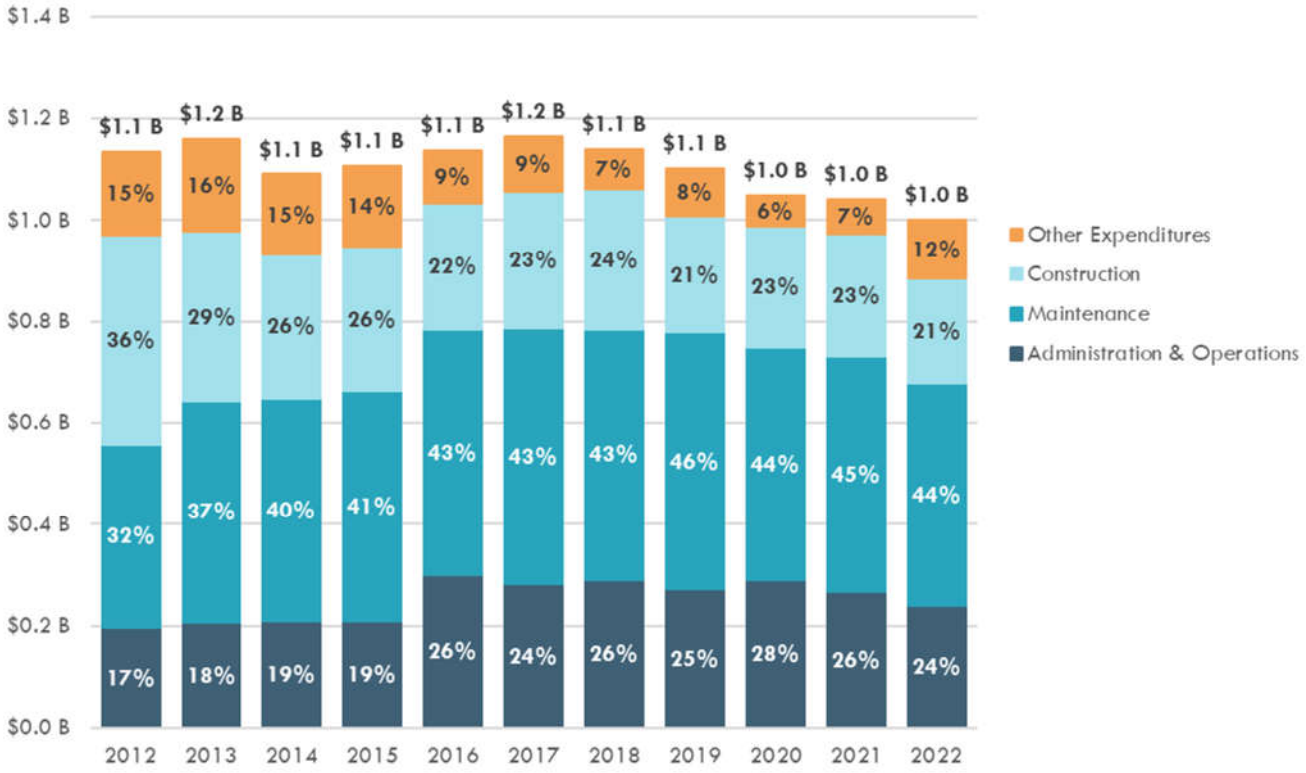
County Transportation Expenditures

County transportation expenditures can be grouped into four basic categories: administration and operations, maintenance, construction, and other expenditures (which includes ferry expenditures, payment on debt, and traffic policing). The 2020 study describes these categories in more detail. In this section, we analyze the mix of expenditures across all counties and discuss trends.

Historical Trend

In 2022 compared to 2012, total county transportation expenditures in year-of dollars increased, with increased spending on administration, operations, and maintenance, and decreased spending on construction. While total expenditures in year-of dollars have increased, total expenditures adjusted to 2024 dollars using the WSDOT Cost Construction Index have decreased, which follows the trend of total revenues discussed in **County Transportation Revenues** (*Exhibit 19*). On average, from 2018 to 2022, total expenditures across all counties were approximately $1.1 billion per year in 2024 dollars.

Exhibit 19: County Transportation Expenditures in 2024 Dollars, 2012-2022



Notes: Other Expenditures includes ferry, bond, traffic policing (Road Fund portion only), and other expenditures. Construction expenditure amounts do not include State ad & award Federal Aid participation. Adjusted to 2024 dollars using the WSDOT Cost Construction Index updated in 2021 Q3.

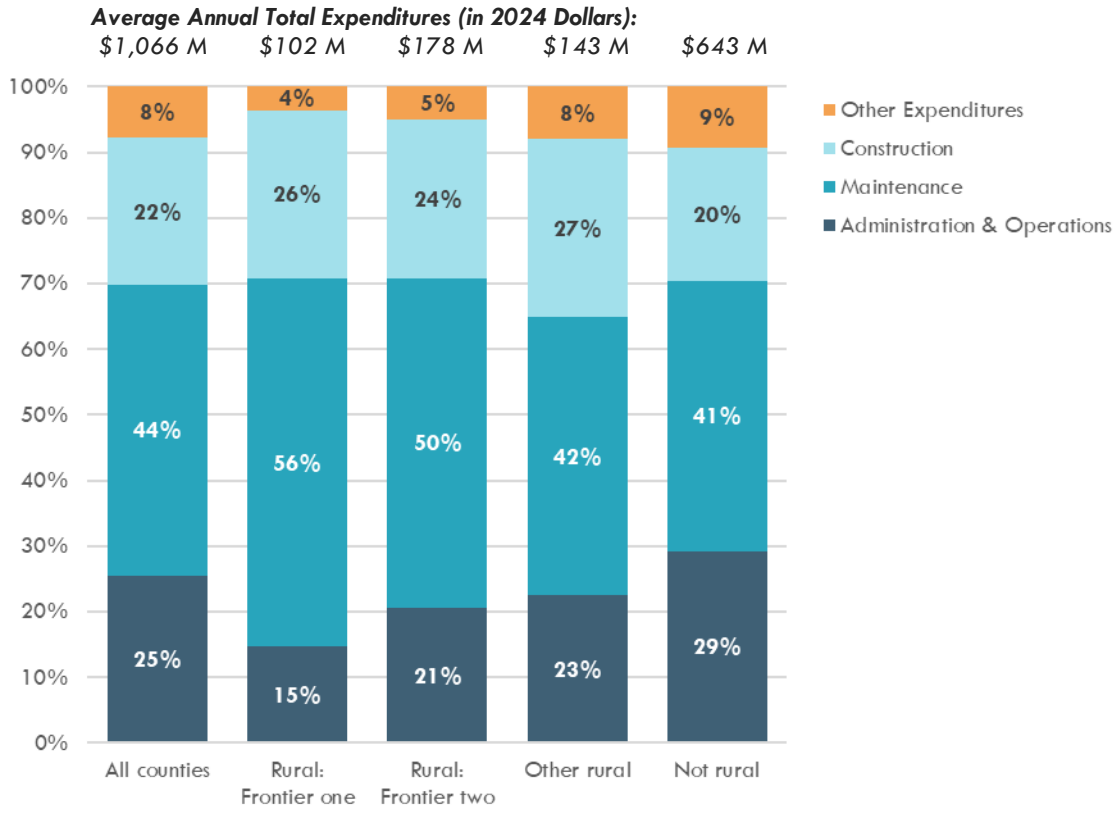
Sources: CRAB, 2024; WSDOT Cost Construction Index, 2021; BERK, 2024.

Overall Mix

Exhibit 19 also shows the share of total expenditures by category. Across all counties, in 2022 compared to 2012, spending on construction as a share of total expenditures decreased from 36% to 21%; spending on administration and operations increased from 17% to 24%; and spending on maintenance increased from 32% to 44%.

As with revenues, the distribution of county transportation expenditures varies depending on county designation. Compared to the expenditure mix for all counties, frontier one and frontier two rural counties spend more on maintenance, while counties that are not rural spend more on administration and operations (*Exhibit 20*).

Exhibit 20: Shares of County Transportation Expenditure Categories by County Designation, 2018-2022 Average



Notes: Labels rounded to the nearest percent. Other Expenditures includes ferry, bond, traffic policing (Road Fund portion only), and other expenditures. Construction expenditure amounts do not include State ad & award Federal Aid participation. Adjusted to 2024 dollars using the WSDOT Cost Construction Index updated in 2021 Q3. County designation is based on population density and/or land size. See ***Appendix B: County Rural Designation*** *for more details.*

Sources: CRAB, 2024; WSDOT Cost Construction Index, 2021; BERK, 2024.

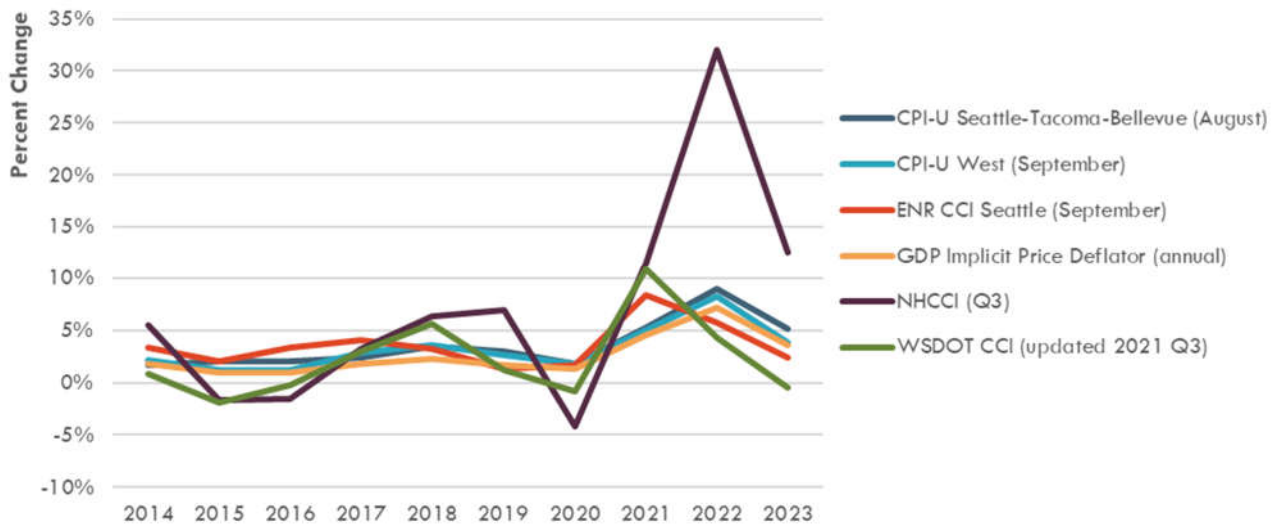
Expenditure Trends

Rising costs

Costs have been increasing in Washington state, as well as across the U.S. *Exhibit 21* compares the percentage change in selected indices that measure changes in prices and costs for various subsets of goods and services, as well as various geographies. This comparison shows high growth in construction costs from 2020 to 2021. In particular, the National Highway Construction Cost Index (NHCCI), a price index that can be used to track price changes associated with highway construction costs developed by the U.S. Department of Transportation Bureau of Transportation Statistics (BTS), increased significantly from 2020 to 2023. BTS cites the increase in crude oil prices and the cost of materials as among the reasons for this increase.[31] The Construction Cost Index for Seattle, published by the Engineering News-Record, shows increasing costs from 2014 to 2023, with a notable increase of 8.4% from 2020 to 2021. The WSDOT Cost Construction Index updated in 2021 tracks with the overall trend of the NHCCI, with an increase of 10.9% from 2020 to 2021 and slower growth in 2022 and 2023.

The price indices in *Exhibit 21* show sustained growth from 2014 to 2023. The Gross Domestic Product (GDP) Implicit Price Deflator measures changes in the prices of goods and services produced in the U.S., while the Consumer Price Index for All Urban Consumers (CPI-U) measures changes in prices paid by consumers in a specified geography for a selected basket of goods and services.

Exhibit 21: Comparison of Annual Percent Change for Selected Price and Cost Indices, 2014-2023



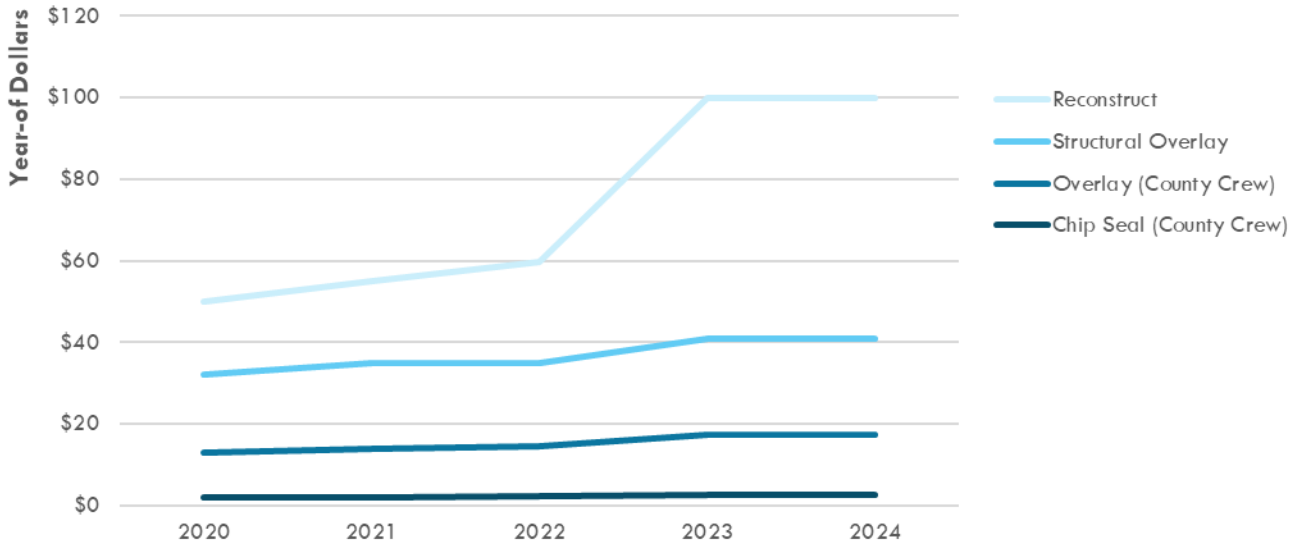
Notes: CPI-U West is the consumer price index for all urban consumers in Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. The CPI-U, GDP Implicit Price Deflator, and NHCCI trends shown are not seasonally adjusted. The ENR CCI is not seasonally adjusted. The WSDOT CCI shown was updated in 2021 Q3.

Sources: U.S. Bureau of Labor Statistics, 2024; Engineering News-Record, 2024; U.S. Bureau of Economic Analysis, 2024; Federal Reserve Bank of St. Louis, 2024; U.S. Department of Transportation Federal Highway Administration, 2024; WSDOT Cost Construction Index, 2021; BERK, 2024.

[31] U.S. Department of Transportation Bureau of Transportation Statistics, 2024, "Increases in Highway Construction Costs Could Reduce BIL Funding Allocated to Transportation Up to 40% Over the Next Five Years."

County transportation departments are feeling the impact of these rising costs. *Exhibit 22* provides an example from Spokane County of the increased cost of road treatments. In year-of dollars, the cost of reconstruction per square yard doubled from 2020 to 2024. These increased costs have driven the increase in Spokane County's estimated backlog, which is calculated based on a roadway inventory by pavement surface condition (PSC) and cost per square yard of treatment. Though Spokane County's overall pavement surface condition declined only slightly over this period (from 75 in 2020 to 73 in 2024), the total backlog in year-of dollars increased from $224 million in 2020 to $428 million in 2024.[32] The majority of Spokane County's backlog is on local access roads.

Exhibit 22: Treatment Cost per Square Yard, Spokane County, 2020-2024



Sources: Spokane County, 2024; BERK, 2024.

Another example of rising costs is for fish passage barrier removal projects. The average cost for a typical county crossing replacement is $1.25 million.[33] However, costs vary by project, due to variability in site conditions which may include excavation of existing roads and relocation of utilities depending on the proximity of the site to urban areas. WDFW construction standards for new stream-crossing structures are also stricter than for existing ones and may raise the costs for counties to remove and correct fish passage barriers.[34] WDFW estimates that statewide fish barrier removal costs have increased by roughly 3% in the last budget cycle, noting that many projects in the 2021-2023 and 2023-2025 funding cycles are still active and seeing cost increases (*Exhibit 23*).

[32] This data/information was provided by Spokane County staff.

[33] Washington Department of Fish and Wildlife, Washington State Department of Transportation, and Brian Abbott Fish Barrier Removal Board, 2021, *Biennial Report on the Development of a Statewide Fish Passage Barrier Removal Strategy*.

[34] In October 2023, WDFW staff briefed the WDFW Commission on draft rule language to create a new WAC section which includes specifications for fish passage improvement structures. See presentation materials here.

Exhibit 23: Statewide Fish Barrier Removal Board Cost Increases

Biennium	Budget	Cost Increase to Date From This Cohort	Average Total Cost Increase
2017-2019	$18.9 million	$2.5 million	13.6%
2019-2021	$24.7 million	$1.8 million	7.5%
2021-2023	$25.0 million	$0.98 million	3.9%
2023-2025	$48.4 million	$1.31 million	2.7%

Source: Washington Department of Fish and Wildlife staff, 9/16/2024; BERK, 2024.

Extended project timelines

Another challenge counties are facing is an overall slowdown in completing projects. As the overall project timeline gets pushed back, inflation can push up total costs. During interviews, we heard that staffing challenges, permit requirements, and energy policy changes are some reasons for these delays. Further research would be needed to understand the potential impact of these factors on costs and project delivery.

Staffing challenges. County transportation departments and departments that distribute funds such as WSDOT Local Programs are experiencing staffing challenges which may limit the ability to complete projects. Even if additional funding were provided to complete projects, counties may need additional staff.[35] Increased funding for capital projects without additional operating support may lead to delays in completing projects. WSDOT Local Programs noted that they received a large increase in capital programs but have the same level of staffing, which has led to delays. Local Programs estimates needing an additional nine positions statewide to support local jurisdictions with projects funded with federal dollars or direct state appropriations.[36]

Permit requirements. As an example, in our interviews with county staff, they highlighted a new environmental regulation regarding tire dust that is contributing to increased costs and a longer project timeline. According to the Washington Department of Ecology, 6PPD is a chemical that prevents automative tires from degrading. When 6PPD is exposed to air, it reacts with ozone to create 6PPDQ, which has been found to be lethal to coho salmon and can contaminate water systems.[37] Counties are required to meet requirements to treat 6PPDQ and tire debris before it reaches the stormwater system.

[35] Another indicator that county project work is experiencing delays is the percentage of county forces work (the construction or improvement of county roads with county employees, as opposed to contracting out), which has decreased since 2020. While there are many factors behind the use of county forces, this trend suggests an overall slowdown in getting projects to completion.

[36] WSDOT Local Programs, "Fall 2024 Newsletter."

[37] Washington State Department of Ecology, 2024, "Tire anti-degradant (6PPD) and 6PPD-quinone."

Tire Dust Regulation, Jefferson County

Jefferson County is constructing a new fish passable structure and recently requested a budget amendment from the Brian Abbott Fish Barrier Removal Board (FBRB), which funded the project. The original project budget was $295,000 based on an estimate prepared in 2022. The cost estimate as of 2024 is $726,000. One factor in this significant increase is consultant fees, which rose approximately 15% between 2022 and 2024. The County's own staff cost increased as well due to salary increases. Another factor is the cost associated with meeting the 6PPDQ requirement. The County noted that starting in 2022, stormwater design is now a significant component of a bridge design; prior to 2022 this was a minor and easily addressed design component. FBRB staff estimate that approximately half of the cost increase, or $215,000, is due to the new 6PPDQ permitting requirement.

This information was provided by staff at the Fish Barrier Removal Board.

Energy policy changes. County staff noted that there is some uncertainty about how the State's transition to zero-emission vehicles (ZEV) will impact their fleet purchase needs. The Department of Ecology has standards for zero-emission vehicles that "require manufacturers to sell increasing percentages of new ZEVs in Washington or purchase credits generated by those who exceed sales requirements."[38] One county described that this requirement creates a backlog, as manufacturers must sell a certain number of electric vehicles for every gas-powered vehicle. This challenge may impact rural counties more than urban ones, as a gas-powered vehicle may be better suited for travel in a large, rural county with minimal charging infrastructure.

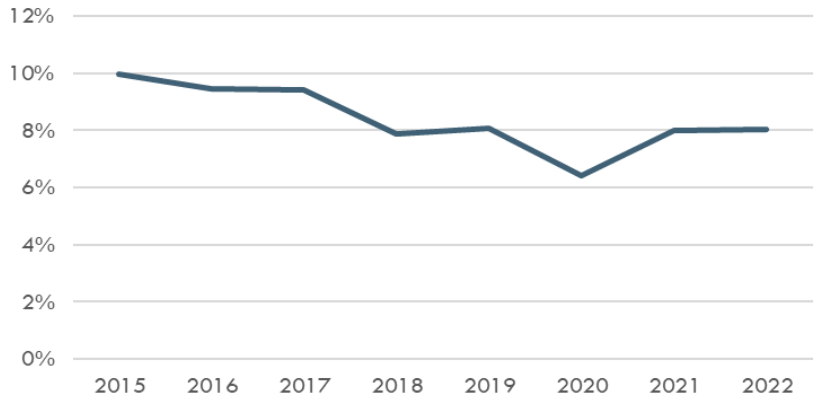
Longer cycles of infrastructure preservation

Lengthening the time it takes to return to maintain the same stretch of infrastructure can contribute to higher lifecycle costs. Data from CRAB shows that across all counties, the percentage of system miles resurfaced annually has decreased from 10% in 2015 to 8% in 2022 (*Exhibit 24*). If a county can resurface 8% of the system each year, it will take approximately 12.5 years to return to the same segment. The cycle of preservation may be even longer for more rural counties. In 2022, the percentage of system miles resurfaced annually in rural frontier one counties was approximately 5%.[39]

[38] Washington State Department of Ecology, 2024, "Vehicle Emission Standards."

[39] BERK calculation based on CRAB data.

Exhibit 24: Percent of System Miles Resurfaced Annually, 2015-2022

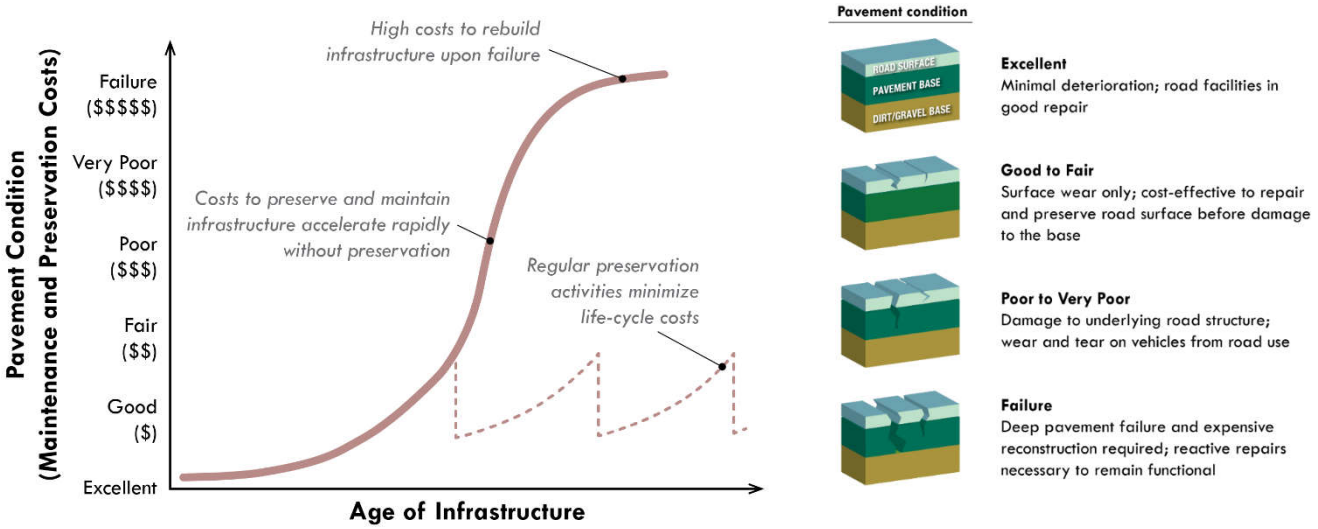


Percent of System Miles Resurfaced	Estimated Time to Return to the Same Segment
12%	8.3 years
10%	10 years
8%	12.5 years

Sources: CRAB, 2024; BERK, 2024.

As discussed in our 2020 report, failing to maintain an asset in a state of good repair leads to increasing costs in the long run, as the cost of reconstructing a road is higher than the cost of repairing it.[40] *Exhibit 25* illustrates how costs compound over time without regular preservation activities.

Exhibit 25: Compounding Lifecycle Costs Over Time and Descriptions of Pavement Lifecycle Conditions



Sources: O'Brien, "Evolution and Benefits of Preventive Maintenance Strategies," NCHRP Synthesis 153, 1989; as cited in from Federal Highway Administration, "Financial Planning for Transportation Asset Management: An Overview," February 2015; WSDOT, 2018; BERK, 2020.

[40] See Chapter 2, section 4 in the 2020 report for more on asset management.

Estimated Funding Need and Funding Gap

We estimate the gap in funding for the county transportation system by comparing the estimated amount of spending (what counties can currently afford to fund based on their actual expenditures) to the estimated amount of funding needed. We consider the following three categories of costs:

- **Programmatic costs,** which are related to regular maintenance and administrative overhead associated with managing a transportation system.
- **Capital costs,** which include activities necessary to maintain facilities in good repair, prevent major depreciation, and minimize lifecycle costs and investments to enhance the existing system through new construction or purchases.
- **Additional costs,** which would address specific needs and further enhance the existing system. These costs include fish passage barrier removal and investments in safety, ADA compliance, and active transportation.

In this section, we summarize how we developed estimates of spending and funding need for each cost category. We first present the estimated annual funding gap for programmatic and capital costs, then the estimated funding gap with additional investments. We present these gaps as ranges between a low-end and high-end estimate to account for the inherent level of uncertainty when forecasting county transportation needs across all counties in the state.

Programmatic Costs

Programmatic costs are the general costs of running county transportation departments and providing basic transportation functions to the community. These costs typically relate to:

- Administration and operations, including personnel management and facilities management.
- Road maintenance, including day-to-day patching and pothole repair.

Methodology to Estimate Spending

We used data from CRAB to calculate 2018-2022 average expenditures in 2024 dollars for administration and operations (including facilities management) and maintenance.

Methodology to Estimate Funding Need

We used data from CRAB to forecast programmatic expenditures from 2023 to 2029 based on the historical (2012-2022) trend of expenditures in 2024 dollars. The estimated annual funding need is the annual average over the 2025 to 2029 period expressed in 2024 dollars.

Upper and lower bounds for total programmatic funding need are calculated using a 10% plus or minus range around the initial estimates. This approach of presenting estimates as a range of probable costs based on a percentage above and below initial estimates is consistent with WSDOT's Planning Level Cost Estimation methodology.[41]

[41] Murshed, Ph.D., P.E., D., & McCorkhill, P. (2012, December). *Planning Level Cost Estimation*. Retrieved from Washington State Department of Transportation: https://www.wsdot.wa.gov/mapsdata/travel/pdf/PLCEManual_12-12-2012.pdf

Capital Costs

Capital costs are the costs of system preservation (maintaining the existing county transportation system in a state of good repair) and system improvement (expanding the capacity and function of the system to meet ongoing needs through new construction or purchases). As in the 2020 study, we focused on capital costs relating to roads and bridges.

Methodology to Estimate Spending

We used data from CRAB to calculate 2018-2022 average expenditures in 2024 dollars for construction.

Methodology to Estimate Funding Need

We used the same approach as the 2020 study to estimate the funding need for system preservation, which are activities necessary to prevent major depreciation and minimize lifecycle costs, of roads and bridges. To estimate system improvement funding need, we reviewed Transportation Improvement Plans from counties or the State if the county TIP was not readily available.

System Preservation (Roads). We estimated a total road preservation funding need using road inventory data and unit costs of preservation. These estimates do not include deferred maintenance costs for roads (see box).

- **Road Inventory.** Data on county roadways comes from the federal Highway Pavement Management System (HPMS), which provides information about the condition and safety of highways in the state and presents an inventory of other roadways as well. HPMS includes data on the location and length of roadways, along with a general functional classification for roadway segments and limited pavement condition information.
- **Unit Costs.** We based our road preservation unit cost estimates on costs that were estimated for the 2020 study. These unit costs were calculated based on costs per mile for prototype preservation projects that varied according to the functional class of the roadway or size of the roadway, geography by WSDOT region, and urban or rural locations based on WSDOT designations. These costs also considered different types of treatment (such as chip seals, grind and asphalt overlays, and seal coating) and a recommended schedule of preservation. For this study, we adjusted the unit costs to 2024 dollars using the WSDOT Cost Construction Index updated in 2021 Q3. The estimated unit costs we used for urban and rural roads are summarized in *Exhibit 26* and *Exhibit 27*.

Deferred Maintenance Costs for Roads

As discussed in our 2020 report, deferred maintenance is challenging to evaluate as historical spending data does not capture the backlog of maintenance work to be completed. In addition, as discussed in **Expenditure Trends**, costs compound over time as preservation activities are delayed.

We estimate that total road deferred maintenance costs for all counties are roughly between $3.4 billion and $4.3 billion (see **Appendix C: Calculation of Estimated Deferred Maintenance Costs for Roads**). As the timeframe for addressing deferred maintenance is highly variable, we do not estimate an annual need for deferred maintenance of roads based on this order of magnitude estimate, and thus do not include it in our funding gap calculations.

- **Annual Need.** We multiplied the unit cost assumptions by the total length in centerline miles of roadways in urban and rural communities to estimate the annual county road preservation need. We then estimated an upper and lower bound to account for the fact that many local transportation and public works departments may not apply regular preservation treatments to local roads (focusing preservation activities on maintaining the condition of major routes instead). The upper bound estimate of preservation costs includes preservation of all roads (arterial, collector, and local), while the lower bound excludes preservation of local roads.

Exhibit 26: Annualized Preservation Costs per Centerline-Mile for Urban Roadways, by WSDOT Region and Functional Class in 2024 Dollars

WSDOT Region	Annualized Preservation Costs Per Centerline-Mile		
	Arterial	Collector	Local
North Central	$133,845	$60,605	$35,509
Olympic	$155,938	$68,108	$38,154
South Central	$138,039	$62,148	$36,869
Southwest	$147,701	$64,134	$36,621
Northwest	$158,096	$69,359	$37,230
Eastern	$131,527	$60,000	$35,014

Notes: Adjusted to 2024 dollars using the WSDOT Cost Construction Index updated in 2021 Q3.

Sources: Perteet, 2020; WSDOT Cost Construction Index, 2021; BERK, 2024.

Exhibit 27: Annualized Preservation Costs per Centerline-Mile for Rural Roadways, by WSDOT Region and Functional Class in 2024 Dollars

WSDOT Region	Annualized Preservation Costs Per Centerline-Mile	
	Collector	Local
North Central	$24,689	$2,485
Olympic	$26,969	$2,671
South Central	$25,987	$2,581
Southwest	$25,799	$2,564
Northwest	$26,263	$2,607
Eastern	$24,311	$2,451

Notes: Adjusted to 2024 dollars using the WSDOT Cost Construction Index updated in 2021 Q3.

Sources: Perteet, 2020; WSDOT Cost Construction Index, 2021; BERK, 2024.

System Preservation (Bridges). We estimated a total bridge preservation need using bridge inventory data and unit costs for two types of preservation: regular preservation activities during the lifecycle of the bridge, and replacement or major refurbishment of the bridge after the end of its functional lifetime. These estimates include deferred maintenance costs for bridges.

- **Bridge Inventory.** We used entries in the 2018 NBI and information from CRAB on short-span bridges with spans of 20 feet or less, which are not included in the NBI.
- **Unit Costs.** We based our bridge preservation unit cost estimates on costs that were estimated for the 2020 study. For regular bridge preservation, lifetime maintenance costs per square foot were calculated using data from the NBI on the size of the bridge deck and primary construction material used (concrete or steel). For system-wide bridge replacement costs, costs per square foot were calculated using data on the age and condition of bridges from the NBI. As in the 2020 study, we assumed that both regular bridge preservation and system-wide bridge replacement costs were considered preservation (even the expansion of existing bridge capacity during rehabilitation or replacement) and preservation costs were assumed to be the same across different geographies. For short-span bridges, we assumed that bridges were replaced at the end of their expected lifetimes, as a condition classification comparable to what is in the NBI data was not available in the data we used for short-span bridges. We adjusted these unit costs to 2024 dollars using the WSDOT Cost Construction Index updated in 2021 Q3. *Exhibit 28* shows the estimated annual unit costs based on the type of preservation and bridge material.
- **Annual Need.** Upper and lower bounds for system preservation of bridges need are based on a 10% plus or minus range around the initial estimated amount.

Exhibit 28: Annual Bridge Preservation Unit Cost Estimates by Preservation Type and Bridge Material Type in 2024 Dollars

Preservation Type	Bridge Material Type	
	Steel	Concrete
Lifetime Maintenance Cost	$805 / SF	$648 / SF
Replacement Cost	$1,004 / SF	$929 / SF

Note: Adjusted to 2024 dollars using the WSDOT Cost Construction Index updated in 2021 Q3.

Sources: Perteet, 2020; WSDOT Cost Construction Index, 2021; BERK, 2024.

System Improvement. To estimate the funding need for system improvements of roads and bridges, we reviewed each county's TIP or the next six years. If the county TIP was unavailable, we reviewed the 2024-2027 STIP and identified projects for that county. A county TIP is useful in that it lists the county's priority projects. However, one note to this approach is that county TIPs differ in how funding-constrained they are, as some counties list only projects with secured funding, while others may include projects with unsecured funding.

In our review of the county TIPs and the STIP, we identified projects as system improvement projects if they indicated new construction of roads or bridges. To provide bounds for our estimates, we assumed that a low-end estimate for system improvement was the total cost of funded projects over the period represented in the TIPs and a high-end estimate was the total cost of all listed projects over the period of the TIPs, even if funding was not yet identified. We then annualized these low and high total estimates to derive an estimated annual system improvement funding need. We assumed that costs in the county TIPs and the STIP were in 2024 dollars.

Estimated Funding Gap for Programmatic and Capital Costs

We estimated an annual funding gap for programmatic and capital costs by comparing average county transportation spending to low and high estimates of funding need. *Exhibit 29* summarizes our calculations and *Exhibit 30* presents a graphical comparison of these estimates. **We estimate that the annual funding gap for county transportation programmatic and capital costs is between $759 million and $1.42 billion.** We present this gap as a range to account for the inherent level of uncertainty when forecasting county transportation needs across all counties in the state. The low-end estimate is 5% higher than the low-end of the 2020 estimate ($719 million in 2020 dollars) and the high-end estimate is 15% higher than the high-end of the 2020 estimate ($1.23 billion in 2020 dollars).

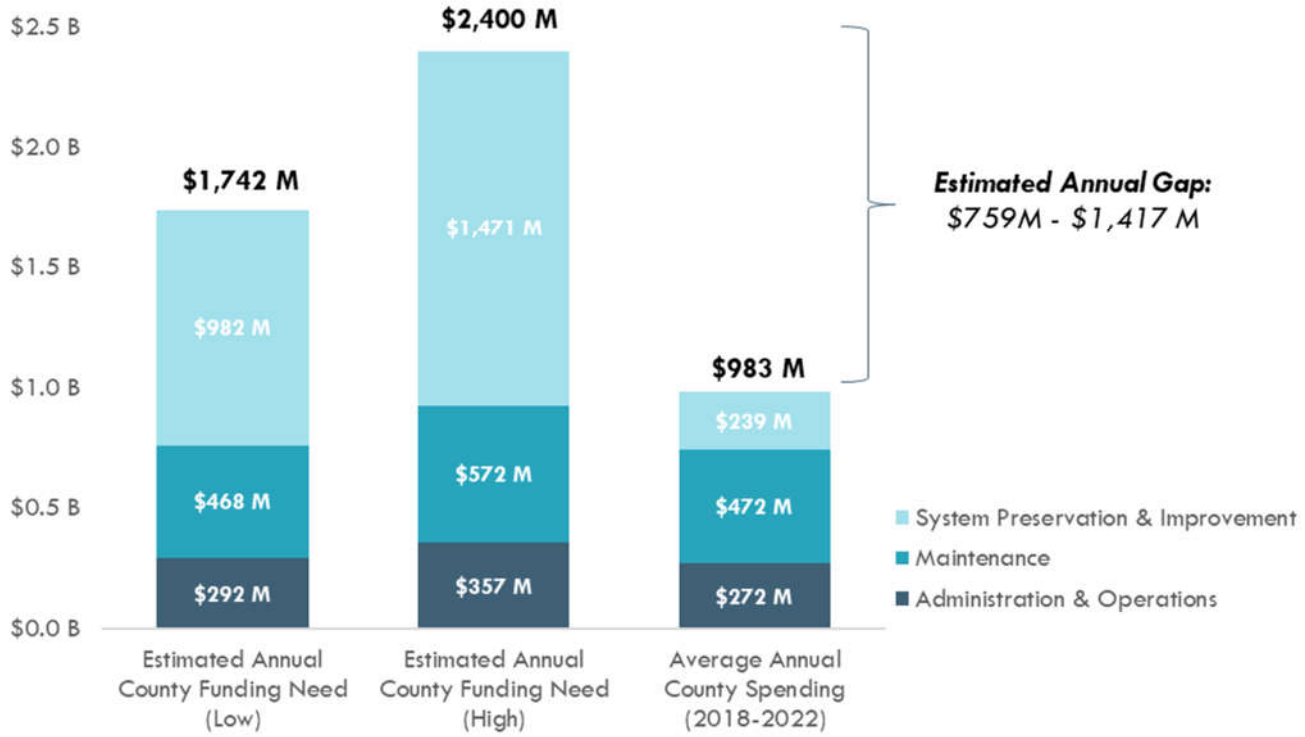
Exhibit 29: Estimated Annual Funding Gap for Programmatic and Capital Costs in 2024 Dollars

Cost Category	Average Annual County Spending (2018-2022)	Estimated Annual County Funding Need (Low)	Estimated Annual County Funding Need (High)	Estimated Annual Funding Gap
Programmatic Costs				
Administration & Operations	$272 M	$292 M	$357 M	
Maintenance	$472 M	$468 M	$572 M	
SUBTOTAL	***$744 M***	***$760 M***	***$929 M***	***$16 M to $185 M***
Capital Costs				
System Preservation		$943 M	$1,454 M	
Roadways Preservation		$444 M	$671 M	
Bridges Preservation and Replacement	Included in the subtotal below	$491 M	$734 M	
System Improvement		$46 M	$66 M	
Roadways		$42 M	$59 M	
Bridges		$4 M	$7 M	
SUBTOTAL	***$239 M***	***$982 M***	***$1,471 M***	***$743 M to $1,233 M***
TOTAL	**$983 M**	**$1,742 M**	**$2,400 M**	**$759 M to $1,417 M**

Notes: Adjusted to 2024 dollars using the WSDOT Cost Construction Index updated in 2021 Q3. Due to rounding, numbers presented above may not add up precisely to the totals provided. For average annual county spending, we combined system preservation and system improvement costs as historical expenditure data was not available at the level of detail necessary to disaggregate these costs.

Sources: CRAB, 2019-2023; Highway Performance Monitoring System, 2018; National Bridge Inventory, 2018; Perteet, 2020; County Transportation Improvement Plans, 2024; State Transportation Improvement Plan, 2024; WSDOT Cost Construction Index, 2021; BERK, 2024.

Exhibit 30: Comparison of Estimated Annual County Spending, Funding Need, and Funding Gap for Programmatic and Capital Costs in 2024 Dollars



Notes: Adjusted to 2024 dollars using the WSDOT Cost Construction Index updated in 2021 Q3. For average annual county spending, we combined system preservation and system improvement costs as historical expenditure data was not available at the level of detail necessary to disaggregate these costs.

Sources: CRAB, 2019-2023; Highway Performance Monitoring System, 2018; National Bridge Inventory, 2018; Perteet, 2020; County Transportation Improvement Plans, 2024; State Transportation Improvement Plan, 2024; WSDOT Cost Construction Index, 2021; BERK, 2024.

Regional Funding Gap, SWISS Counties

Working with WSAC staff, the SWISS Counties (Snohomish, Whatcom, Island, Skagit, and San Juan) identified their own gap between capital project costs and available funding. The total cost for SWISS counties to complete necessary transportation projects over the next 6 years is $646 million. SWISS counties have already secured $374 million through a mix of county funds, state and federal grants, and loans. SWISS counties still need an additional $272 million to fully fund all transportation projects.

The projects are grouped into the categories of safety, climate change mitigation, environmental protection, community connectivity, and increased regional connectivity. Other categories include preservation, mobility, economic development, operational efficiency, equity, and multimodal integration, but cost estimates for these categories are not included in the funding gap.

One example of a SWISS project focused on safety is the 84th Street and 123rd Ave NE intersection improvements project in Snohomish County. This project will construct full intersection improvements to address the high rate of severe accidents at this location. Funding has been secured through WSDOT's Highway Safety Improvement Program (HSIP) and the County Road Advisory Board's Rural Arterial Program (RAP). The project has a total cost of $6,134,000, but Snohomish County still needs to secure $744,000.

Skagit County's series of projects to reconstruct Francis Road to meet current road standards and improve safety along this corridor demonstrates increased regional SWISS connectivity. Francis Road serves as an alternative route to I-5, linking Snohomish and Whatcom Counties to Skagit County, as well as providing connections to Island and San Juan Counties via SR 20 and other routes. While Skagit County has secured funding from RAP, the Surface Transportation Block Program, HSIP, CRAB's County Arterial Preservation Program, and local funds, a $7.4 million funding gap remains before the $15.9 million project can be completed.

This information was prepared by WSAC staff.

Additional Costs

The 2020 study described additional investments counties make to address fish passage barrier removal, safety, ADA compliance, and active transportation, but did not include these costs in the estimated funding gap due to limited data. In this study, we estimated the costs of these additional investments based on projects identified in county TIPs or the State TIP if a county TIP was not readily available.

Methodology to Estimate Current Spending

We assume that current spending on these additional investments is included in the 2018-2022 average expenditures in the CRAB data for construction.

Methodology to Estimate Current Need

As with our approach to estimate the system improvement funding need for roads and bridges, we reviewed county TIPs and the STIP to estimate the funding need for additional investments. We classified projects as relating to fish passage barrier removal, safety, ADA compliance, and active transportation based on project descriptions in the TIPs:

- **Fish Passage Barrier Removal.** Counties identified $201 million in culvert or fish passage barrier projects over the period represented in the TIPs. This amount does not reflect the full need that counties face to address fish passage barriers, which was estimated to be $4.7 billion in the 2020 study, but rather what counties have identified and plan to address over period represented in the TIPs. The amount of secured funding for these projects was $121 million.
- **Investments in Safety.** Counties identified $281 million in safety-related projects, with $151 million in secured funding for these for these projects.
- **Investments in ADA Compliance.** Counties identified $5 million in ADA projects, with $4 million in secured funding for these projects.
- **Investments in Active Transportation.** Counties identified $186 million in active transportation projects, with $128 in secured funding for these projects.

We assumed that a low-end estimate for system improvement was the total cost of funded projects over the period represented in the TIPs and a high-end estimate was the total cost of all listed projects over the period of the TIPs, even if funding was not yet identified. We then annualized the low and high total estimates to derive bounds for an estimated annual funding need for these additional investments. We assumed that costs in the county TIPs and the STIP were in 2024 dollars.

In addition, some investments in safety and ADA compliance are captured in our estimated funding need for system preservation and system improvement of roads and bridges, as these calculations incorporated safety costs and general ADA compliance costs. For ADA compliance need, we did not include the full cost of improvements described in county ADA Transition Plans since at the time of our analysis, not all jurisdictions have yet implemented a plan, updated a plan, or included a comprehensive estimate of the cost of compliance in public reporting. In addition, it is unclear how much of these estimated costs would be folded into existing capital projects or draw upon other funding sources.

Estimated Funding Gap with Additional Costs

We estimated an annual funding gap with programmatic, capital, and additional costs by comparing average county transportation spending to low and high estimates of funding need. *Exhibit 31* summarizes our calculations and *Exhibit 32* presents a graphical comparison of these estimates. **We estimate that the annual funding gap for county transportation programmatic, capital, and additional costs is between $826 million and $1.53 billion.** We present this gap as a range to account for the inherent level of uncertainty when forecasting county transportation needs across all counties in the state. The low-end estimate is 15% higher than the low-end of the 2020 estimate ($719 million in 2020 dollars) and the high-end estimate is 24% higher than the high-end of the 2020 estimate ($1.23 billion in 2020 dollars).

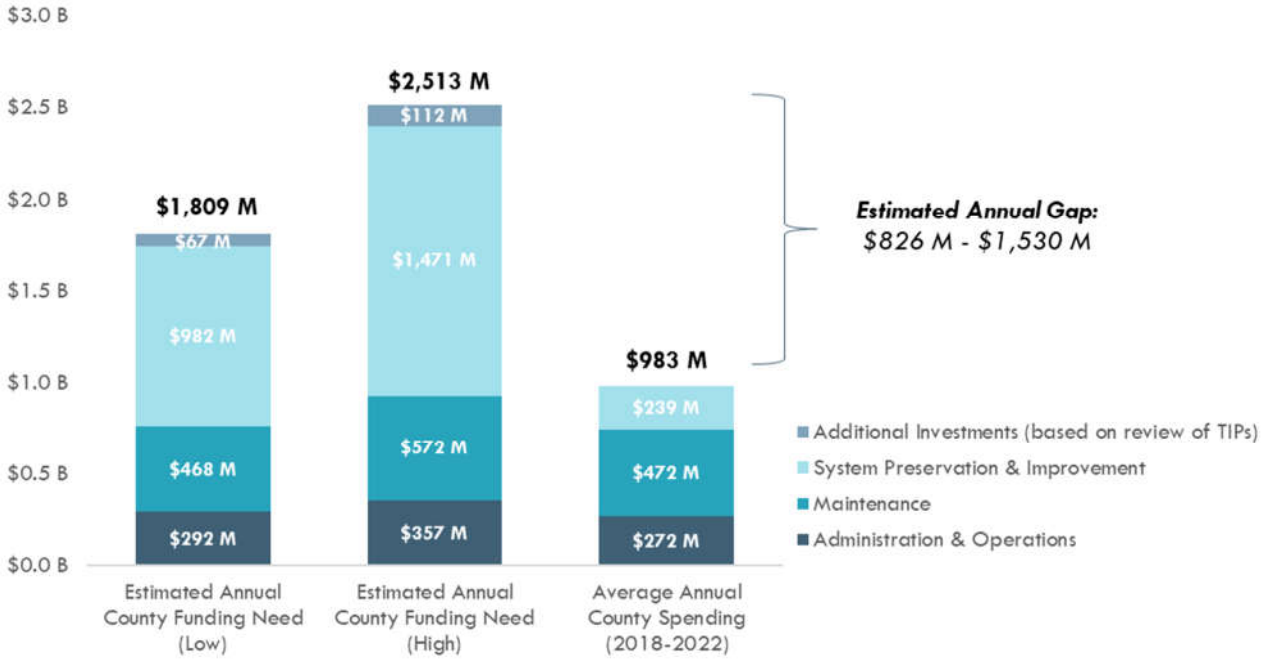
Exhibit 31: Estimated Annual Funding Gap for Programmatic, Capital, and Additional Costs in 2024 Dollars

Cost Category	Average Annual County Spending (2018-2022)	Estimated Annual County Funding Need (Low)	Estimated Annual County Funding Need (High)	Estimated Annual Funding Gap
Programmatic Costs				
Administration & Operations	$272 M	$292 M	$357 M	
Maintenance	$472 M	$468 M	$572 M	
SUBTOTAL	***$744 M***	***$760 M***	***$929 M***	***$16 M to $185 M***
Capital Costs				
System Preservation	Included in the subtotal below	$936 M	$1,406 M	
Road Preservation		$444 M	$671 M	
Bridge Preservation and Replacement		$491 M	$734 M	
System Improvement		$46 M	$66 M	
SUBTOTAL	***$239 M***	***$982 M***	***$1,471 M***	***$743 M to $1,233 M***
Other Investments				
Fish Passage Barrier Removal	Included in the System Preservation & System Improvement subtotal	$20 M	$34 M	
Safety Investments		$25 M	$47 M	
ADA Investments		$0.7 M	$0.8 M	
Active Transportation		$21 M	$31 M	
SUBTOTAL		***$67 M***	***$112 M***	
TOTAL	**$983 M**	**$1,809 M**	**$2,513 M**	**$826 M to $1,530 M**

Notes: Adjusted to 2024 dollars using the WSDOT Cost Construction Index updated in 2021 Q3. Due to rounding, numbers presented above may not add up precisely to the totals provided. For average annual county spending, we combined system preservation, system improvement, and additional costs as historical expenditure data was not available at the level of detail necessary to disaggregate these costs.

Sources: CRAB, 2019-2023; Highway Performance Monitoring System, 2018; National Bridge Inventory, 2018; Perteet, 2020; County Transportation Improvement Plans, 2024; State Transportation Improvement Plan, 2024; WSDOT Cost Construction Index, 2021; BERK, 2024.

Exhibit 32: Comparison of Estimated Annual County Spending, Funding Need, and Funding Gap for Programmatic, Capital, and Additional Costs in 2024 Dollars



Notes: Adjusted to 2024 dollars using the WSDOT Cost Construction Index updated in 2021 Q3. Due to rounding, numbers presented above may not add up precisely to the totals provided. For average annual county spending, we combined system preservation, system improvement, and additional costs as historical expenditure data was not available at the level of detail necessary to disaggregate these costs.

Sources: CRAB, 2019-2023; Highway Performance Monitoring System, 2018; National Bridge Inventory, 2018; Perteet, 2020; County Transportation Improvement Plans, 2024; State Transportation Improvement Plan, 2024; WSDOT Cost Construction Index, 2021; BERK, 2024.

Recommendations

Status of 2020 Recommendations

Since 2020, there have been changes in state statute, proposed legislation, and recently completed or ongoing studies that address recommendations made in the 2020 study (see box).

Changes in State Statute

Changes in state statute that increase funding for counties include:

- **Federal Funds Exchange Program.** The State appropriated $25 million for a pilot Federal Funds Exchange program in the 2023-2025 Transportation Budget.[42] This program allows jurisdictions to exchange federal funds for state funds. For example, a county could exchange federal STBG funds for state funds. A county could use state funds for its project and WSDOT would allocate the federal funds to another project. Requirements around using federal funds are more complicated than for state funds, which makes it beneficial for counties with fewer staff resources to use state funds. In FFY 2024, two counties (Pacific and Wahkiakum) requested to participate in the pilot program and will be programming $470,000 in state funds for transportation projects.[43]
- **CAPP Funding.** The Move Ahead WA package included an additional $80 million over 16 years, or $10 million per biennium, in direct distributions to counties through the CAPP program.[44] This is an increase of approximately 30%, as 2024 CAPP funding is budgeted at $15.4 million.[45] There has been no change in CAPP rules to incentivize preservation activities.
- **TBD Local Options.** In 2022, SB 5974 increased the TBD sales tax authority to 0.3%. Optionally, up to 0.1% may be imposed by a majority vote of the governing board if the TBD includes all the territory within the jurisdiction(s) forming the TBD and the tax may be renewed in 10-year increments indefinitely. At the time of this study, five counties established a TBD but only the TBD covering Point Roberts in Whatcom County had adopted a funding source.

Recommendations in the 2020 Study

A. Increase support for preservation through new or focused funding, incentives, and services to reduce lifecycle costs.

B. Increase efficiencies to capture greater value with existing funding.

C. Ensure any state alternative to the gas tax preserves revenue sharing with counties and maintains requirements that funding be invested for transportation purposes.

D. Strengthen incentives not to shift or divert county road levy funds.

E. Expand or enhance county transportation funding options.

[42] In the 2024 supplemental transportation budget, this amount was reduced to $7.5 million.

[43] WSDOT Local Programs, "Fall 2024 Newsletter."

[44] Washington State Association of Counties, "Transportation & Infrastructure Legislative Update: Week 9."

[45] September 2024 Transportation Forecast; CRAB also notes that the CAPP is funded with 0.45 cent of the fuel tax, which generates approximately $30 million per biennium, and $3 million per biennium from the Transportation Partnership Account (TPA).

Proposed Legislation

One sub-recommendation in the 2020 study was to allow property tax rates to match economic conditions to support revenues keeping pace with expenditures. In the 2023-2024 Legislative Session, bills were proposed that would increase the property tax revenue limit for local property taxes. HB 1670 and SB 5770 proposed to change the limit factor for revenue growth from 101 percent to 100 percent plus population change and inflation, with a cap of 103 percent. These bills were not adopted.

Recent Studies

One sub-recommendation in the 2020 study was to collaborate across governments and levels of governments to achieve best systemwide outcomes. In 2023, as directed by the Washington State Legislature, the JTC conducted a study to create a procedure for WSDOT to partner with local jurisdictions on preservation, maintenance, and construction on state highways.[46] This study involved a workgroup with representatives from cities, counties, public ports, CRAB, TIB, WSDOT, and the House and Senate Transportation Committees.

In addition, there is a project sponsored by the JTC currently underway to recommend practices that support expedited project delivery.[47] A workgroup is reviewing options for project streamlining to expedite project delivery that include but are not limited to: preapplication communication; partnership agreements; contracting processes; fund sources; mitigation; land use; rights-of-way; permitting; and shared technology. This project will be completed in mid-2025 and may identify opportunities that will support project delivery at the county level and enable counties to complete projects more quickly.

[46] Washington State Joint Transportation Committee, 2023, "WSDOT-Local Partnerships for Construction on State Roads."

[47] Washington State Legislature, 2024, ESHB 2134 (2023-2025 Supplemental Transportation Budget).

Current Recommendations

Based on the findings in this study, we recommend the following actions for state policymakers.

A. Increase support for preservation of local access roads and short-span bridges through new funding.

An area of great need for counties is funding for local access roads. In interviews for this study and for CRAB's Grant Effectiveness Study, counties commented that local access roads are a critical component of the county road network but are not eligible for current grant programs. Local access roads provide access to tribal land, government facilities, and national forests. CRAB notes that over 40% of local access road lane miles are within overburdened communities, which are geographic areas where vulnerable populations face multiple environmental harms and health impacts.[48] CRAB has submitted legislation for the 2025 session for a new grant program for local access roads that are not eligible for current grant funding sources.[49]

Short-span bridges on local access roads are also not currently eligible for federal or state funding. As there is no comprehensive inventory of these bridges, a first step is to collect an inventory of short-span bridges to better understand the need and determine if a new grant program should be recommended.

B. Increase support for project delivery through flexible match requirements.

One way to support project delivery is to adopt a flexible match requirement for grant programs. If a county must find matching dollars for a grant, it may delay a project that could otherwise move forward. CRAB's Grant Effectiveness Study also recommends adopting more flexible match requirements so that counties, particularly those with fewer resources, can contribute fewer local dollars as matching funds for a Rural Arterial Program grant.

C. Ensure any state alternative to the state gas tax preserves revenue sharing with counties and maintains requirements that funding be invested for transportation purposes.

This recommendation is a continuation of a sub-recommendation in the 2020 study, as discussions about a Road Usage Charge (RUC) are ongoing. We recommend that any new statewide transportation revenue source should preserve the sharing of revenues with counties. If a RUC is implemented as a replacement to the state gas tax, we recommend ensuring that revenues are shared with counties and that their use is restricted for transportation purposes with local authority. The State should also determine how a RUC could impact revenues for the RATA and maintain funding for the Rural Arterial Program (RAP). The RATA receives a share of EV fees, which may decrease if a RUC is adopted. RAP is highly valued by counties and any loss in funding would reduce the amount of arterial preservation work that counties can complete.

D. Ease the property tax limit to support revenues keeping pace with expenses.

This recommendation is related to a sub-recommendation in the 2020 study, as this change has been proposed at the State Legislature but not adopted. Raising the property tax limit would allow local jurisdictions to generate sufficient revenue to match expenses, which have historically risen faster than 1%

[48] Washington State Office of Financial Management, 2024, "Identifying overburdened communities for HEAL & CCA investments."

[49] Washington State County Road Administration Board, 2024, "A Sneak Peek at What CRAB Has Been Up To."

per year due to inflation. This change would help counties fund services overall and may limit the diversion or shift of road levy funds to support general functions. Policymakers should also consider the impacts of higher property tax rates on community members. Jurisdictions would maintain the flexibility to increase its levy up to the limit.

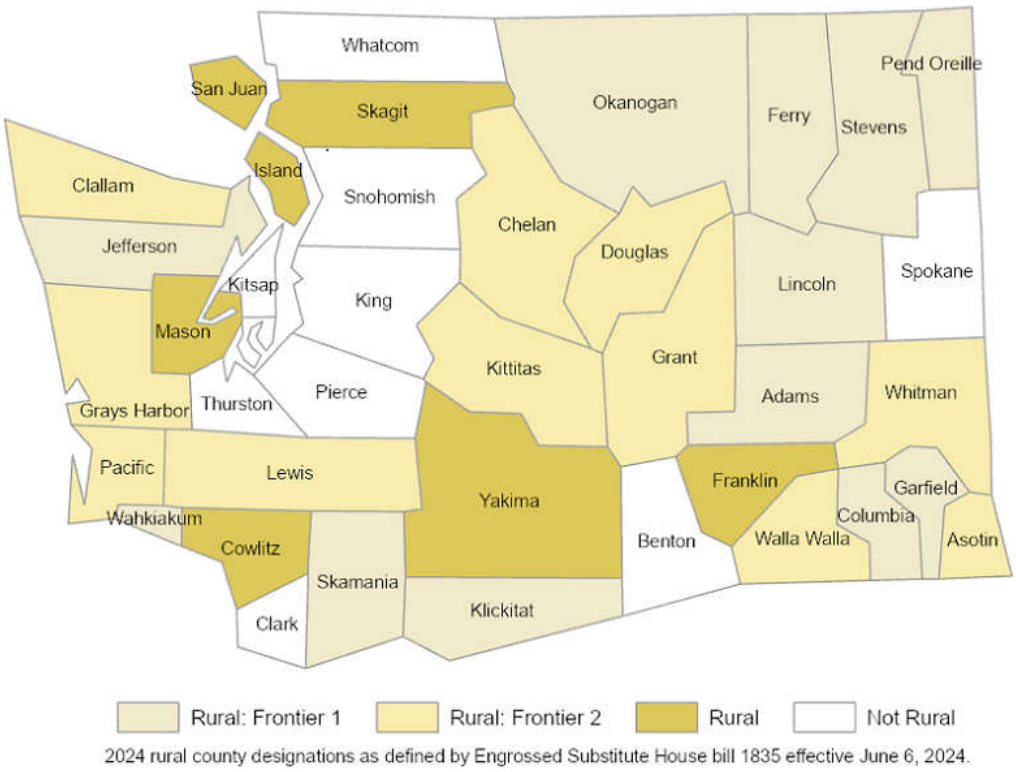
Appendix A: Interviewees

Name	Title	Organization
Mike Clark	Road System Inventory Manager	County Road Administration Board
Eric Hagenlock	IT Director	County Road Administration Board
Steve Johnson, PE	Grant Programs Manager	County Road Administration Board
Bree Norlander	Data Quality Assurance & Analysis Manager	County Road Administration Board
Derek Pohle, PE	Support, Training, and Compliance Manager	County Road Administration Board
Cathleen Buzan	Strategic Development Analyst – Sustainable Funding	King County
Tricia Davis	Director of Local Services	King County
JoAnn Kosai-Eng, PE	County Road Engineer	King County
Doug McCormick, PE	Public Works Deputy Director / County Engineer	Snohomish County
Kelly Snyder, MPA	Public Works Director	Snohomish County
Matt Zarecor, PE	County Engineer	Spokane County
Samuel Harris	Fish Passage Training Program Coordinator	Washington Department of Fish and Wildlife
Timothy Young	Inventory Section Manager	Washington Department of Fish and Wildlife
Jay Drye	Director, Local Programs	Washington Department of Transportation
Travis Dutton	Policy Analyst	Washington State Association of Counties

Appendix B: County Rural Designation

In 2024, the Washington State Legislature passed ESHB 1835 to designate "frontier one" and "frontier two" rural counties based on subcategories of population density. *Exhibit 33* summarizes these new rural designations and the number of counties in each designation.

Exhibit 33: Rural County Classification, as of April 1, 2024



Designation	Description	Number of Counties
Rural: Frontier one	Population density of 21 persons per square mile or fewer.	12
Rural: Frontier two	Population density of more than 21 persons per square mile but fewer than 50 people per square mile.	11
Other rural	Population density of more than 50 people per square mile but less than 100 persons per square mile; or the county is less than 225 square miles.	7
Not rural	Population density of more than 100 persons per square mile.	9

Source: Washington State Office of Financial Management, 2024; BERK, 2024.

Appendix C: Calculation of Estimated Deferred Maintenance Costs for Roads

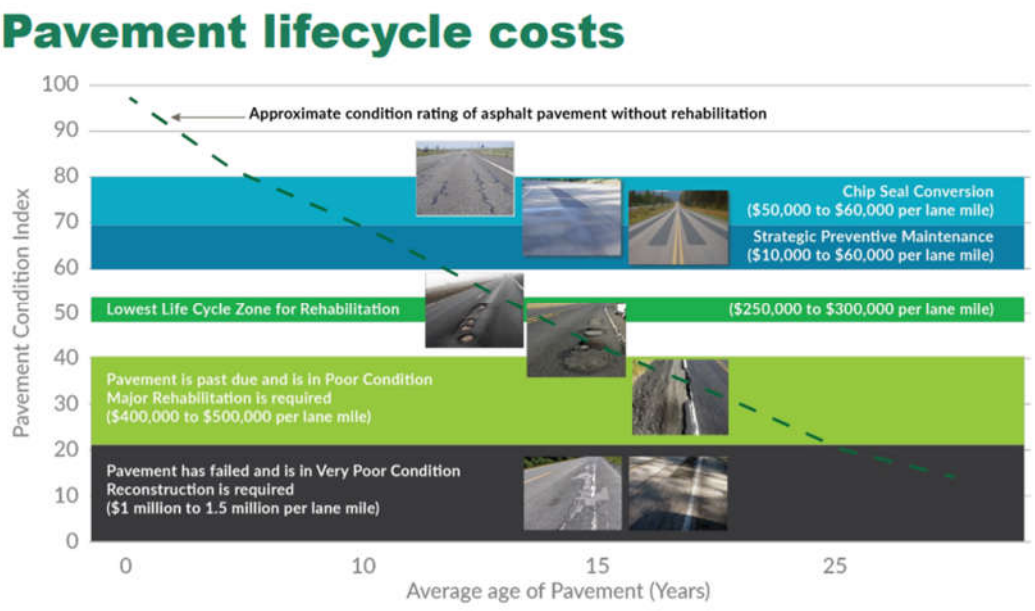
To capture an order of magnitude estimate for current total deferred maintenance costs for roads, we used CRAB's County Road Log, which includes pavement surface condition, location, and lengths of all county roadway segments. We do not estimate an annual need based on this total estimate, as the timeframe for addressing deferred maintenance needs is highly variable.

We used the following high-level assumptions to calculate total deferred maintenance costs for roads:

- Roadways with PSC above 80 follow ideal preservation costs.
- Roadways with PSC between 20 and 80 have deferred maintenance needs between ideal preservation cycles and full reconstruction (i.e., removing and replacing the pavement and base structure).
- Roadways with PSC below 20 require full reconstruction.

This approach aligns with WSDOT's approach to addressing pavement needs. *Exhibit 34* is from a presentation by WSDOT to the Senate Transportation Committee in September 2024. This graphic describes the type of maintenance needed for different pavement conditions.

Exhibit 34: WSDOT Pavement Lifecycle Costs



Source: WSDOT, 2024.

Using these categories of maintenance and costs per lane mile, we estimated the cost of addressing deferred maintenance for roads in *Exhibit 35*. As the WSDOT cost estimates are per lane mile while the road inventory data show centerline miles, we calculated the total cost by multiplying by a ratio of lane miles to centerline miles. Based on WSDOT data on the county road inventory (see *Exhibit 2*), the ratio of lane miles to centerline miles is approximately 2 to 1.

Exhibit 35: Deferred Maintenance Estimates in 2024 Dollars

Maintenance Category	PSC Range	Total Paved Centerline Miles	Cost per Lane Mile (Low)	Cost per Lane Mile (High)	Total Cost (Low)	Total Cost (High)
None	80-100	14,461	No deferred maintenance need estimated.			
Preventive Maintenance	60-79	5,800	$50,000	$60,000	$580 M	$696 M
Rehabilitation	40-59	1,880	$250,000	$300,000	$940 M	$1,128 M
Major Rehabilitation	20-39	1,234	$400,000	$500,000	$987 M	$1,234 M
Reconstruction	1-19	427	$1,000,000	$1,500,000	$854 M	$1,281 M
Total		**23,801**			**$3,361 M**	**$4,339 M**

Sources: CRAB, 2020; WSDOT, 2024; BERK, 2024.