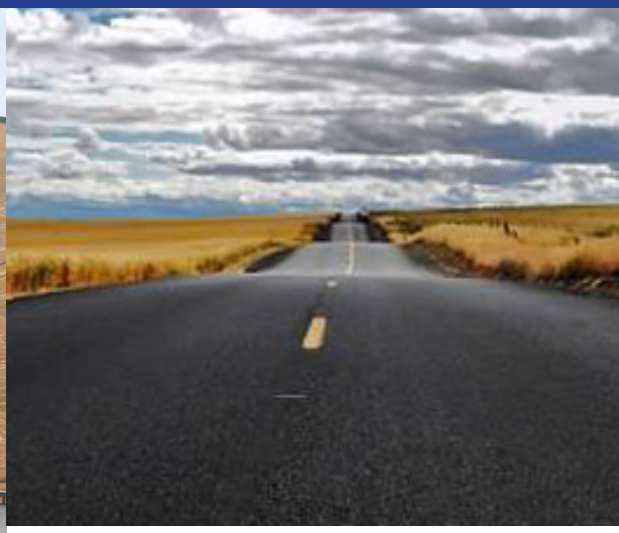
2014 COUNTY ROAD NEEDS STUDY



AOC
Association of Oregon Counties

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EXECUTIVE SUMMARY

The statewide revenue forecast over the next five years shows a 54 percent annual shortfall for county road departments. This translates into the need for an additional $505 million per year for counties based on revenue forecasts.

THE COUNTY ROAD SYSTEM

County roads are a critical component of Oregon's integrated road system. Oregon's road system totals approximately 68,141 miles. Counties are responsible for the largest share of Oregon's road system, with 26,670 miles under county jurisdiction (39 percent). The county road system also includes 3,421 bridges and approximately 26,000 culverts.

OBJECTIVES

The objective of the County Road Needs Study is to determine and demonstrate the funding needed to maintain and manage the county road system to meet the needs of the traveling public over the next five years (2014-2018).

This study describes:

- Anticipated funding for county roads;
- The impact forecasted revenues will have on service delivery over the next five years;
- How federal funding priorities will influence county projects;
- Which activities are a priority for counties along with the needed additional funding; and
- How the different regions of the state are facing changes in revenues and services.

METHODS

Each county was provided with forecasted revenues from the U.S. Forest Service (USFS), the Federal Highway Administration's (FHWA) Surface Transportation Program (STP) and the State Highway Fund (SHF) allocations to counties from 2014-2018. Each of the 36 county road departments was asked to estimate locally generated funds for their county.

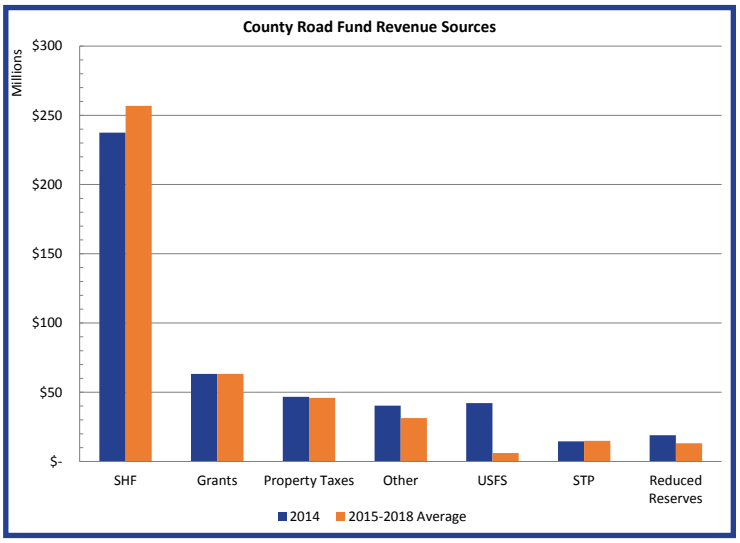
Each county identified the projects and services they anticipate will be provided in the upcoming five calendar years (2014-2018). Counties were then asked to consider the condition of their road system and report what projects and activities need to be done and how much those projects/activities would cost.

EXPENDITURES

County road departments categorized expenditures by:

- Capital construction which includes bridge construction, road reconstruction, safety projects, intersections, and bicycle/pedestrian projects;
- Pavement preservation which includes chip seals and pavement overlays; and
- Maintenance, repairs and operations which includes roadway drainage, shoulder maintenance, bridge maintenance, vegetation management, and storm response and repairs.

FUNDING



Almost all of the funding budgeted for county roads is earmarked for road purposes only. The funding sources are USFS revenue, Federal-Aid, Oregon's SHF and locally generated revenue. Currently, the majority of revenue comes from the SHF. For over 100 years, many counties have relied on forest revenue to fund their roads. These payments have significantly declined to approximately 42 percent of what was received in the early 1990's. The last payment was received in 2014. However, unless there is a future extension of the Secure Rural Schools and Community Self-Determination Act, federal forest revenues to counties are anticipated to drop to less than 4 percent of early 1990's level. This study does not assume a reauthorization and therefore, no Secure Rural Schools payment after 2014.

CONCLUSION

Road departments are making the maintenance and perservation of roads the top priority, because it is far more economical to maintain what you have than it is to let the roads deteriorate, and have to pay for a rebuild. Anticipated revenue will not even meet the need for maintenance. Pavement preservation, such as overlays, and capital construction projects, such as road rebuilds and bridge reconstruction, have been on hold. Over the next five years, counties anticipate a 63 percent shortfall for pavement preservation projects and a 71 percent shortfall for capital construction.

Total County Road Needs

(annual average for the period 2014 - 2018)

	Anticipated Funding	Additional Funding Needed	Total Funding Needed	Shortfall
Capital Construction	$134,565,992	$334,244,738	$468,810,730	71%
Pavement Preservation	$53,082,755	$92,066,364	$145,149,119	63%
Maintenance, Repairs and Operations	$244,571,904	$78,885,513	$323,457,417	24%
Total	$432,220,651	$505,196,616	$937,417,267	54%

Counties are facing an additional need for $505 million per year to keep up with the needs of the traveling public. If a gas tax increase (and commensurate increase in weight-mile tax) were to meet the need, the state would need to increase the gas tax by an estimated $0.64 per gallon (for every cent increase in the gas tax, counties estimate receiving about $7.9 million). To meet the county needs for only capital construction projects, the gas tax would need to be increased by $0.42. To only meet the need for pavement preservation and maintenance, repairs and operations, counties would need an estimated $0.22 increase per gallon. Counties understand these increases are unlikely in the current fiscal climate, but the numbers demonstrate the overwhelming funding shortfall.

INTRODUCTION

County roads are a critical component of Oregon's integrated road system. Oregon's road system totals approximately 68,141 miles which are maintained primarily by counties, cities, federal land management agencies, and the Oregon Department of Transportation (ODOT). Counties are responsible for the largest share of Oregon's road system, with 26,670 miles under county jurisdiction (39 percent). The county road system also includes 3,421 bridges and approximately 26,000 culverts.

Oregon's roads are a critical component of economic development and job growth. They provide essential links for commerce and economic development including local food to market delivery, access to Oregon's deep-water ports and the freight rail network, routes to recreational areas and tourist attractions, connectivity between cities streets and state highways and access to federal lands.

The needs of individual counties differ substantially depending on local uses, population and weather. Furthermore, there are many different types of county roads. Counties are responsible for urban and suburban roads that are generally found in or along an urban growth boundary. Many county roads are found in the rural parts of the state and are primarily used by agriculture and forest industries.

Road types are defined according to federal standards by their functional classification. "Arterial" roads are designed and operated almost exclusively for through-traffic. "Local" roads primarily provide access for adjacent property owners to the roadway network. "Collector" roads are the true backbone of the county road system. They provide the links between farms, forests, factories, schools and residences to the rest of the county, city and state road system. Counties are responsible for 864 miles of arterials, 11,382 miles of collectors and 14,424 miles of local roads, totaling 26,670 miles of roadway.

Almost all county roads are school bus, mail carrier and emergency vehicle routes. Many are forest roads that provide access to these important public lands, including critical access to crews fighting wildfires. Counties take the responsibility for their county roads seriously. From construction of new roads and bridges to grading gravel roads and cleaning out ditches, county road departments understand the needs of the traveling public and work to provide a safe infrastructure.

OBJECTIVES

In 2006, the Association of Oregon Counties (AOC) released the first County Road Needs Study that reported the anticipated needs of road departments from 2006-2011. The current study is an update of that report and looks at the same road construction and maintenance activities anticipated by individual county road departments.

The objective of this study is to determine and demonstrate the funding needed to maintain and manage the county road system to meet the needs of the traveling public for the next five years.

This study will describe:

- Anticipated funding for county roads;
- The impact forecasted revenues will have on service delivery over the next five years;
- How federal funding priorities will influence county projects;
- Which activities are a priority for counties along with the needed additional funding;
- How the different regions of the state are facing changes in revenues and services; and
- Major changes since the 2006 County Road Needs Study.

METHODOLOGY

Study Assumptions

Assumptions that were made during the collection and analysis of information received from county road departments include:

- ODOT data was utilized where it was considered a uniform and consistent source of data. Examples include statewide road mileage counts and State Highway Fund revenue forecasts.
- U.S. Forest Service (USFS) Secure Rural Schools (SRS) funding is not anticipated to be extended past the current authorization. For the final four years of the study USFS revenue is anticipated to be based on actual timber receipts which were forecast based on historic USFS data.
- The other estimated future budget revenues were based upon reasonable forecasts from historical data.
- Numbers in the study do not reflect any increase for inflation except where specifically noted. The study evaluates 2014 – 2018 with no change in the value of the dollar from 2014.

Data Review

Data collected in the survey was reviewed and thoroughly checked for accuracy and consistency among counties. The information was analyzed as a state and by region. Regions are Eastern, Southwest, Willamette and North Coast, and Metro. The regions were determined based upon similar attributes including geography, population and primary funding sources.

Study Anomalies

The following anomalies have large impacts on the statewide figures for county road fund revenues and/or expenditures. In other words, the overall statewide situation is significantly altered when the anomalies are included in the analysis.

- Multnomah County is legally bound to send an estimated $28.5 million each year to cities within their county. Intergovernmental agreements obligate the county to transfer a payment amount based on actual receipts (Portland and Gresham) or based on change in the consumer price index (Troutdale and Fairview). Each intergovernmental agreement was developed as city annexations occurred and road jurisdiction was defined. This funding obligation is dedicated for road use and is based on thousands of lane miles of transferred system. **This $28.5 million is included in the statewide analysis.**
- Multnomah County anticipates spending a total of $307.5 million to construct the Sellwood Bridge. $214 million is programmed to be spent between 2014 and the end of 2016 when the project is planned for completion. In 2009, Multnomah County adopted a county vehicle registration fee to help fund the Sellwood Bridge project. As required by law, any funds derived from this fee will

be used exclusively to replace the Sellwood Bridge. The fee will be in effect until the construction bonds are retired, which is currently estimated to be in 2030. Additionally, the City of Portland is contributing $74.75 million in funds from the new revenue derived from the State of Oregon's Jobs and Transportation Act (JTA). ODOT will contribute $30 million in JTA funds derived from 2012 Senate Bill 1543. An additional $15.6 million was secured from the FHWA and $17.7 million from a FHWA Transportation Investment Generating Economic Recovery (TIGER) grant to help fund this project. This $214 million is 56 percent of the non-property tax, locally generated road fund revenues. For the five-year period it constitutes just over half of all the money being spent on county bridge replacements in Oregon. **For these reasons, throughout this report, the funding and expenditures for the Sellwood Bridge are left out of the tables, charts and graphs, unless otherwise noted.**

- Washington County anticipates receiving approximately $39 million a year of property taxes in their overall county transportation budget. However, these funds are not part of the county's "Road Fund." These earmarked property taxes are generated by the county's Major Streets Transportation Improvement Program (MSTIP), Urban Road Maintenance District (URMD) and Service District for Lighting (SDL). MSTIP funds (approx. $33 million) are used exclusively for capital safety and capacity improvements on major roads (arterials and collectors) countywide, including city streets. URMD funds (approx. $4 million) are restricted only to maintenance of local and neighborhood route roads and minor safety improvements in urban unincorporated areas, and the SDL (approx. $2 million) provides street lighting in the unincorporated areas. **This represents 85 percent of all property taxes collected for county road related purposes and is included in the statewide analysis.**

Revenue Calculations

Each county was provided with forecasted revenues from the USFS, the Federal Highway Administration's (FHWA) Surface Transportation Program (STP) and the State Highway Fund (SHF) allocations to counties from 2014-2018. Each of the 36 county road departments was asked to provide estimates of locally generated funds for their county. These are labeled throughout this report as "anticipated revenues."

Expenditure Calculations

Each county identified the projects and services they anticipate will be provided in the upcoming five calendar years (2014-2018), assuming the forecasted funding levels and sources are accurate. Counties were then asked to consider the condition of their road system and report what projects and activities need to be done and how much those items would cost.

Expenditures were categorized by:

- Capital construction
- Pavement preservation
- Maintenance, repairs and operations

EXPENDITURES

Capital Construction

Currently, one of the primary needs for capital construction projects is to rebuild deteriorating roads. Maintenance dollars are spread thin for most counties, causing road condition to degrade. The condition of some roads has declined to the point where an overlay will not preserve the road, therefore a rebuild is necessary.

Another need for capital construction projects is to keep up with population growth. Oregon must be able to increase capacity on the road system. Furthermore, economic growth requires improved roads to allow for the development of new residential and business areas. Additionally, many counties capital projects are driven by multi-modal needs and requirements. Keeping in mind that most of the county system was constructed over a half of a century ago, well before the establishment of multi-modal standards, counties are now struggling to find capital funds to add bicycle and pedestrian facilities to their roads.

Many counties have developed Transportation System Plans (TSP's) that identify the needed capital improvement projects to support the county's comprehensive land use plan. TSP's have gone through public review processes to determine the public's priorities. The TSP's have a list of projects scheduled to be constructed. This list was used to select the "anticipated funding" capital projects. The remaining projects in the TSP's lists were used to determine the "additional funding needed."

For this study, county road officials were asked to categorize capital construction projects by the following "type":

- Major construction and re-construction
- Bridge
- Intersections
- Bicycle/pedestrian
- Fish passage
- Safety projects
- Other

This was a difficult task because most major projects provide work in several of the other categories of improvements. For example, a major roadway reconstruction will almost certainly include bike paths and other safety elements. It may also include a new bridge or intersection improvements, such as signals. As a result, the individual project types listed as bridge, intersections, bike/pedestrian, fish passage and safety are for "stand alone" projects and do not include work done in "major construction."

"Other" construction projects include numerous slide repairs and stream bank stabilizations, as well as many projects that do not fit in any other category.

Pavement Preservation

A good pavement preservation program is the keystone to sustaining any road system. The public judges the effectiveness of a road agency by the surface condition of its roadways. Smooth, even, pavements provide the public with a good quality ride, enhanced safety, and protect the public's investment in the road asset. Alternatively, roads that are cracking and have a rough surface are not safe. Potholes, ruts and uneven surfaces present motorists with hazardous situations, put extra wear and tear on vehicles, and can damage freight.

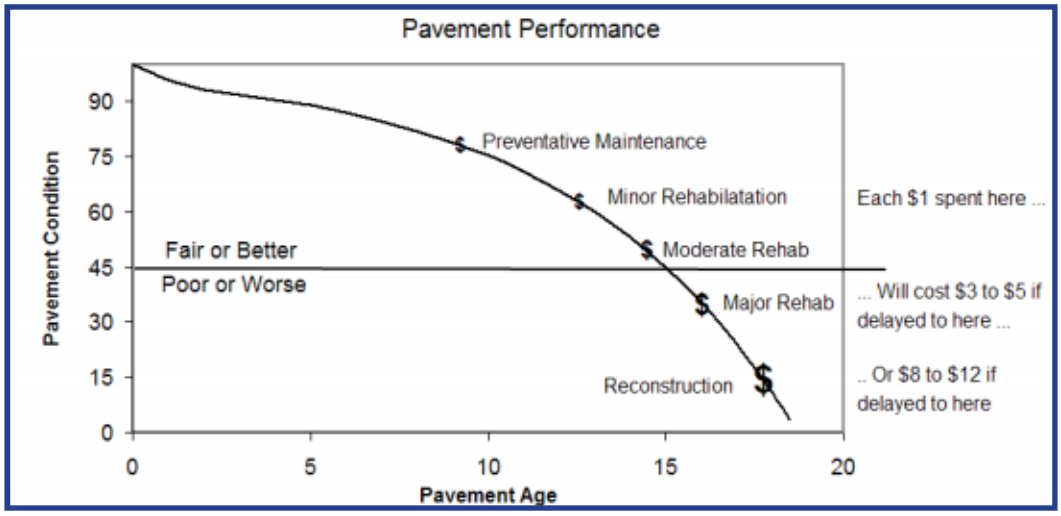


Chart-01: Pavement Performance. Taken from the ODOT 2012 Pavement Condition Report.

The most cost-effective way to maintain the roadway system is to provide timely preventive treatments to the pavement. Costs increase significantly if roadways are allowed to deteriorate too far. Many more years of roadway life can be achieved by regular, less expensive preventative maintenance such as chip seals. Periodic overlays eliminate the need for major repairs or full replacement of a badly deteriorated road. Many more miles of roadway can be maintained, with the same budget, by applying lower cost preventative treatments than can be achieved by performing major repairs (Chart-01).

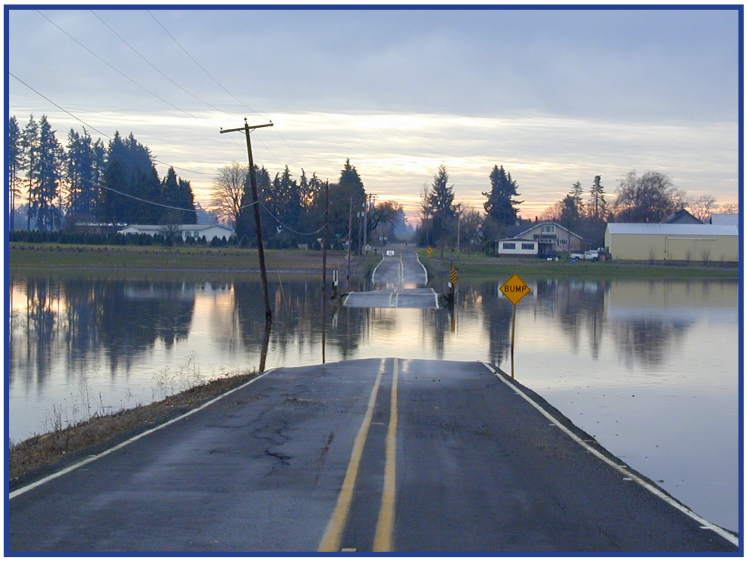
Maintenance, Repairs and Operations

Maintenance, repairs and operations tasks are the highest priority for county road departments. Many of the services that county road departments provide in this area require quick response. For example, snow plowing, drainage, sign repairs, vegetation control, guardrail repairs and pothole repairs become safety concerns if not attended to in a timely fashion. Unfortunately, the public does not see much of this work happening. Storm response usually takes places at night or in the early hours of the morning. Maintenance activities generally take place during business hours when the majority of the county residents are at work.

County road officials were asked to put maintenance, repairs and operations tasks into "types", which are listed below:

- **Pavement Repairs:** This category includes crack sealing and filling potholes to address pavement failures.

- **Gravel Road Grading and Re-Rocking:** Counties are responsible for over 10,000 miles of unpaved roads. Much of Oregon's agricultural and forest products are hauled to market over these roads. Gravel roads that have an uneven surface or inadequate drainage are unsafe for the traveling public. Therefore, the primary activity for any gravel road is grading the surface several times a year and adding fresh crushed rock to replace rock worn out by usage.
- **Roadway Drainage:** Proper drainage involves keeping water off of the road and away from the shoulders. Water that is trapped under a roadway causes the road base to liquefy, which leads to pavement failure. Ditches and culverts must be kept clean to keep water moving.
- **Shoulder Maintenance:** Dangerous ruts develop along the edge of pavement and gravel shoulders when shoulders are not graded regularly. As with all gravel maintenance, the gravel must be refreshed as needed.
- **Bridge Maintenance and Repairs:** This work includes tasks such as cleaning, painting and the repair or replacement of damaged parts. These projects include careful environmental consideration and sometimes require permits from state and federal agencies.
- **Vegetation Management:** Grass, brush and trees must be maintained within the right-of-way to ensure adequate roadway visibility and safety of the traveling public. Counties are also responsible for noxious weed control within their right-of-ways.
- **Traffic Control:** Motorists depend on traffic signs and signals, paint striping and lane markings, and directional signs to navigate roads safely. Counties are responsible for the maintenance and replacement of these signs and markings on their roads.

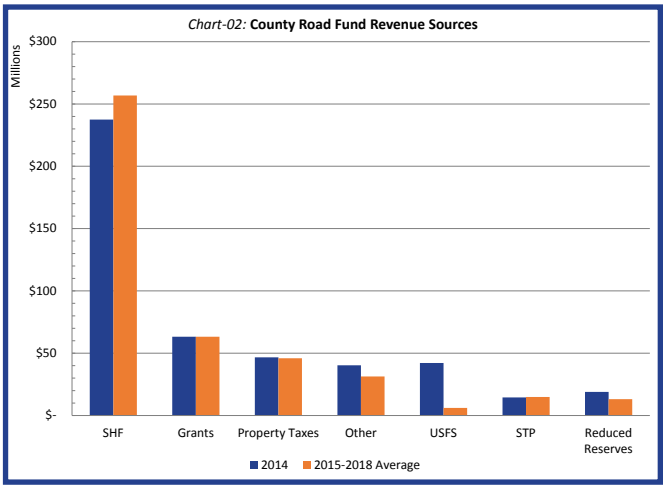


- **Guard Rail Maintenance:** Guard rails have to be replaced after every accident and when they wear out with age. Prompt repair or replacement of guard rail is essential to maintain a safe roadway for the traveling public.
- **Storm Response and Repairs:** This is the highest priority, but unscheduled, work that has to be done with every storm. Common activities during storms are:
  - » Cleaning debris from culvert inlets, ditches and bridge abutments
  - » Removing trees which have fallen into the roadway
  - » Removing slide debris from roadways
  - » Rebuilding washed-out roadways
  - » Posting "High Water" signs
  - » Snow plowing
  - » Placing sand on icy roads
- **Environmental Compliance:** Within the last 15 years, there has been an increased effort driven by the Environmental Protection Agency (EPA) through Oregon's Department of Environmental Quality (DEQ) to improve the quality of storm water runoff. The primary conduits for this effort are through Municipal Separate Storm Sewer System (MS4) permits and storm water management plans to address Total Maximum Daily Loads (TMDL's). Counties are required to comply and do so through the use of best management practices. Counties have been using existing funding (primarily gas tax revenue) to implement the conditions of the permits and plans to the best of their ability.
- **System Management:** Counties oversee the activities of others who have the right to be in the road right-of-ways. Permit programs are used to control such things as location of utilities, new driveways and oversize/overweight vehicles.
- **Transfers:** Other local agencies receive road revenue transfers from 15 counties for road and street purposes. These transfers amount to approximately $31 million a year.
- Other activities include, but are not limited to:
  - » Willamette River ferries
  - » Dust control
  - » Roadside hazards
  - » Railroad crossings
  - » Cattle guards
  - » Dead animal removal
  - » Litter pickup

FUNDING

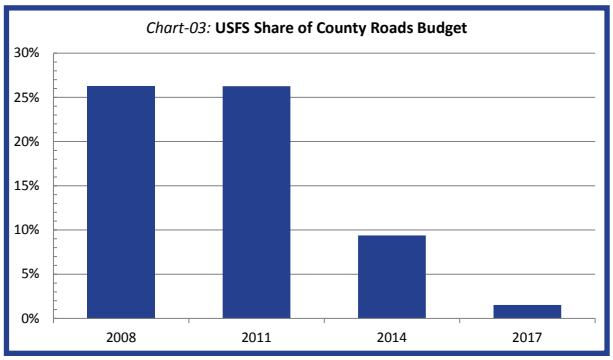
County road departments have a unique and challenging fiscal environment. Each county has their own diverse combination of funding sources. Almost all of the funding budgeted for county roads are earmarked for road purposes only. The funding sources are U.S. Forest Service (USFS) revenue, Federal-Aid, Oregon's State Highway Fund (SHF) and locally generated revenue (Chart-02).

The majority of revenue for county roads come from the State Highway Fund. Most of the grants are Federal Highway Administration (FHWA) dollars, which are managed by ODOT and do not directly flow through the county road fund budgets. Other grants, which are minor compared with the FHWA grants include: Oregon Watershed Enhancement Board dollars for fish passage projects, the ODOT Bicycle/Pedestrian grant program and a few other one-time-only grant programs.



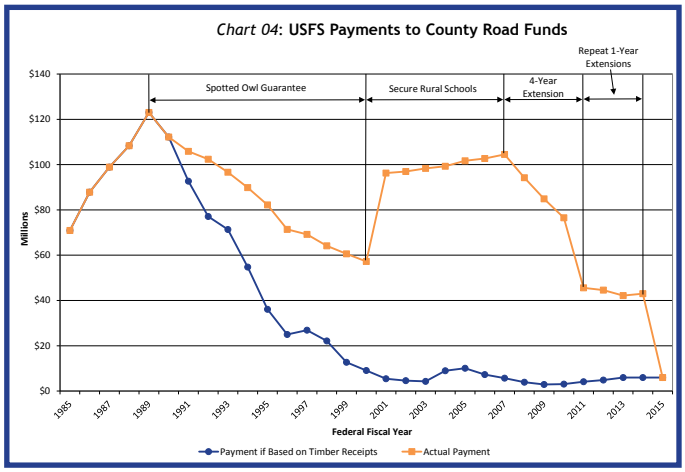
USFS Revenue

For over 100 years, the federal government has shared revenue generated from logging of federal forests lands with local governments. The payments are to help offset the loss of tax revenue due to lands being managed by the federal government instead of private owners. Sharing the revenue from the logging of federal forests with counties also recognizes the services counties provide to the lands, including the upkeep of roads.



Over a century ago, in 1908, Congress designated 25 percent of revenues derived from U.S. Forest Service activities to be paid to counties in which national forests are located. The funds are to be used for the benefit of roads and schools. In Oregon, state law designates 75 percent of these funds to county roads and 25 percent to schools.

Prior to 1990, federal forest receipts were the most significant source of federal funds coming directly to Oregon counties for road purposes. Beginning in the late 1980's, the federal government greatly reduced logging on federal land to preserve spotted owl and salmon habitats, among other endangered species. As logging revenue dramatically diminished so did the timber receipts to the county road departments, as seen in Chart-03.



Beginning in 1989 Congress passed a series of "payment guarantees" to compensate county roads and schools for the loss of USFS timber revenues. Each "guarantee" has been at a reduced level from the previous one. The last payment, received in early 2014, averaged approximately 42 percent of the USFS payments in the early 1990's. Unless there is a future extension of the Secure Rural Schools and Community Self-Determination Act, revenues to counties are anticipated to drop to less than 4 percent of early 1990's level. In 2011, about 26 percent of county road budgets were derived from USFS payments, by 2015 that number will drop to under 2 percent (Chart-04).

Federal-Aid

Almost all Federal-Aid to counties comes from the Federal Highway Administration (FHWA), through the Oregon Department of Transportation (ODOT). The federal government taxes fuels used by all cars and trucks. These taxes are used to fund highways and transit. The two primary ways county roads receive FHWA funds are:

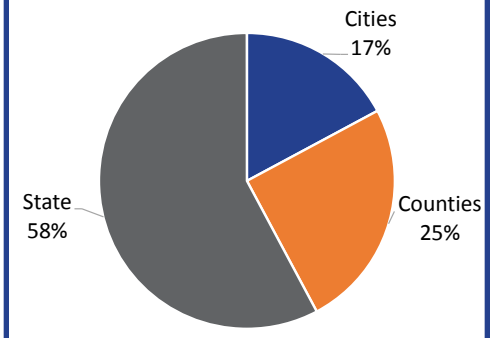
- **Surface Transportation Program (STP) Funds:** Each county receives an annual allocation of STP Funds. The allocation formula is set by an agreement between ODOT, the Association of Oregon Counties (AOC) and the League of Oregon Cities (LOC). STP funding is the most flexible FHWA fund, and can be used for almost any transportation service, except for routine maintenance, such as patching a pothole. Most counties use this funding on pavement preservation projects. A majority of the STP funding the counties receive is exchanged with ODOT at a rate of 94 cents of state funding for every dollar of federal funding. This omits the funds from some federal regulations, and instead they can be treated as if they came from the SHF. This greatly helps counties use these funds efficiently for the highest priority functions.
- **FHWA Grants:** Most of the FHWA funding comes in the form of grants for specific projects. Each county acquires these grants through competitive processes administered by ODOT, local Metropolitan Planning Organizations (MPOs) or Area Commissions on Transportation (ACT). Once the project has been approved, the design and construction contracts are administered by ODOT. The funding usually does not flow through the county road fund budget. Rather the county makes the "local Federal-Aid match" to ODOT. The match is usually 10.27 percent, although it can vary.

State Highway Funds

The State Highway Fund (SHF) provides revenues for County Roads. SHF revenues are primarily derived from:

- Gasoline and diesel taxes
- Truck weight-mile taxes
- Motor vehicles registration and title fees
- Driver license fees

Chart-05: **State Highway Fund Actual Allocation Ratio**



The state highway funds are distributed between the Oregon Department of Transportation, counties and cities (Chart-05). Counties currently receive approximately 25 percent of the SHF, however new funds have been appropriated 30 percent to counties for over three decades. Each county's allocation of the SHF is based upon the number of registered vehicles in each county. State highway funds are anticipated to contribute $252 million dollars a year to county road budgets, which comprises 63 percent of their incoming revenues. Oregon law requires that at least 1 percent of SHF revenues be spent on bicycle and pedestrian facilities.

Property Taxes

Property tax levies for county roads comprise a very small portion of total road revenue and are used by only seven counties: Clatsop, Gilliam, Malheur, Polk, Sherman, Tillamook and Washington. Oregon law prohibits counties from using property taxes for road purposes unless the tax was specifically dedicated to county roads by a vote of the citizens.

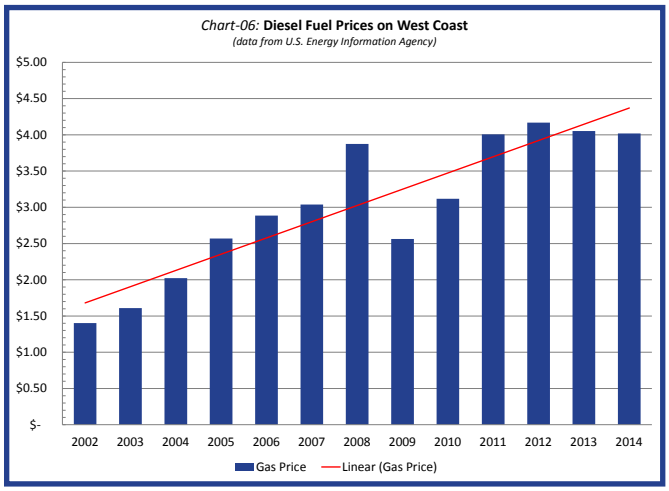
Other Local Funding Sources

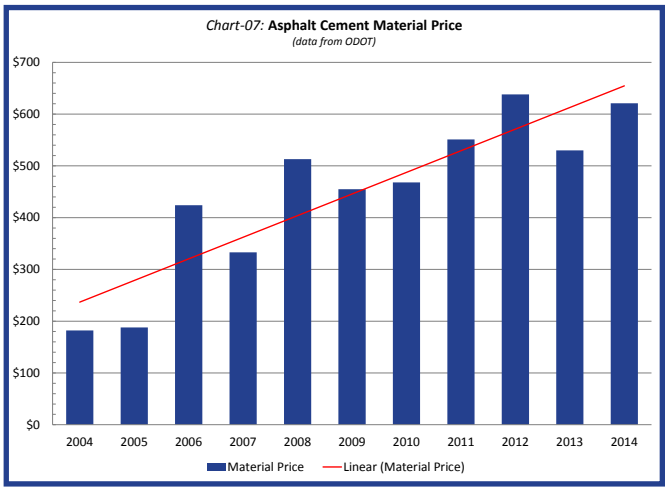
There are a wide variety of local funding sources. Some of the larger ones are:

- **County Gas Tax:** Multnomah and Washington Counties are the only counties with this tax, and they both distribute some of the revenues to cities within their jurisdictions.
- **County Vehicle Registration:** Multnomah County is the only county with this fee, and it is dedicated to bonds for the Sellwood Bridge Project. The study generally excludes the registration fee revenue for the completion of the Sellwood Bridge construction, unless otherwise noted.
- **System Development Charges:** Seven counties[1] collect these fees, which can only be used to pay for capital improvements to meet capacity requirements as a result of new development.
- **Reduced Reserves:** Several counties had created a reserve within their road fund in anticipation of the time when USFS revenues would go away. That time has come. Seven counties[2] are in the process of using substantial reserves in order to fund normal maintenance and operations activities. Furthermore, some counties have elected to utilize their road reserves to fund public safety, which decreases the funds available for roads.

Cost of Doing Business

Compounding the problem of declining road revenues is the constantly growing cost of road construction, preservation and maintenance. Although inflation alone would have increased the cost of doing business considerably, the significant rise in the cost of concrete, steel and petroleum products has skyrocketed well beyond the overall rate of inflation. The charts below show the increase in prices over the last decade (Chart-06 and 07). The trend is startling, and expected to continue. Most road department maintenance equipment and trucks use diesel fuel, which has increased 287 percent from 2002, up to an average of $4 per gallon. Looking at another measure of the growth in the cost of road construction and preservation, the asphalt cement material price has also increased 341 percent in the past decade.





[1] Clackamas, Deschutes, Hood River, Jackson, Jefferson, Marion, Washington

[2] Curry, Deschutes, Douglas, Grant, Harney, Lake, Lane

THE BOTTOM LINE

It is no surprise that the financial needs of county road departments are great. Statewide, the revenue forecast over the next five years shows a 54 percent annual shortfall. This translates into the need for an additional $505 million per year (Table-01).

Currently, road departments are making the maintenance and perservation of roads the top priority. As mentioned earlier, it is far more economical to maintain what you have than it is to let the roads deteriorate and have to pay for a rebuild. This is why the majority of the funding currently in county road budgets is going towards pavement preservation, maintenance, repairs and operations. There is significant need for capital construction such as road rebuilds and bridge reconstruction (Chart-08), however, the focus is on existing infrastructure (Chart-09).

Table-01: **Total County Road Needs**

(annual average for the period 2014 - 2018)

	Anticipated Funding	Additional Funding Needed	Total Funding Needed	Shortfall
Capital Construction	$134,565,992	$334,244,738	$468,810,730	71%
Pavement Preservation	$53,082,755	$92,066,364	$145,149,119	63%
Maintenance, Repairs and Operations	$244,571,904	$78,885,513	$323,457,417	24%
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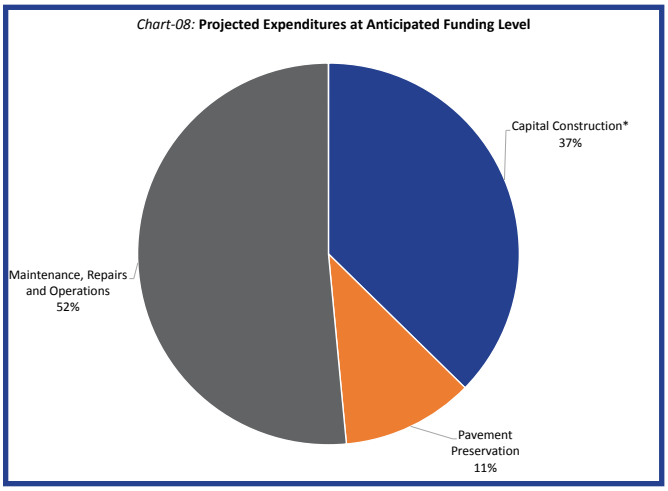
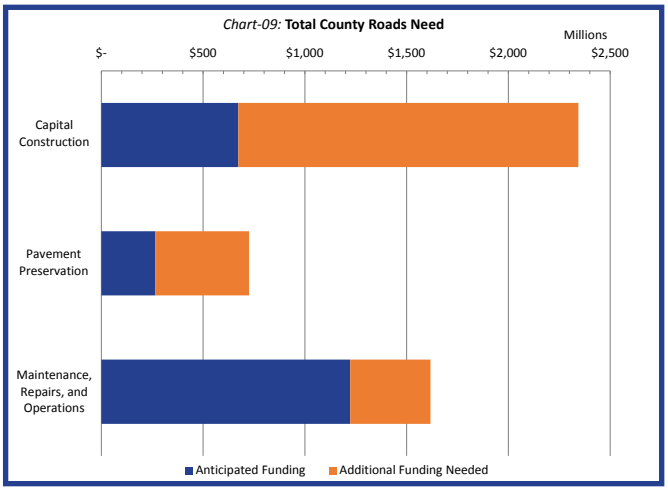
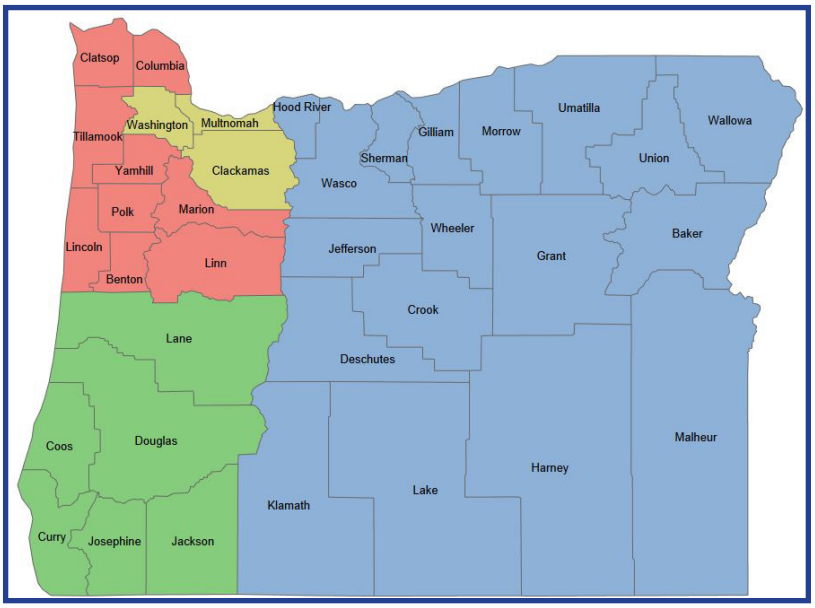




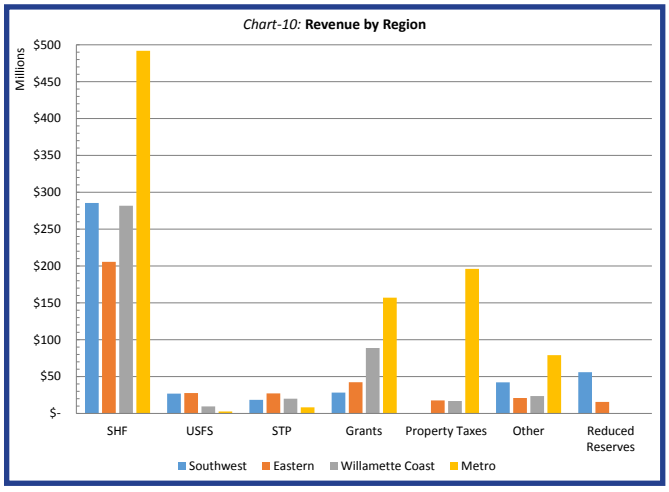
*: Includes the Sellwood Bridge Project

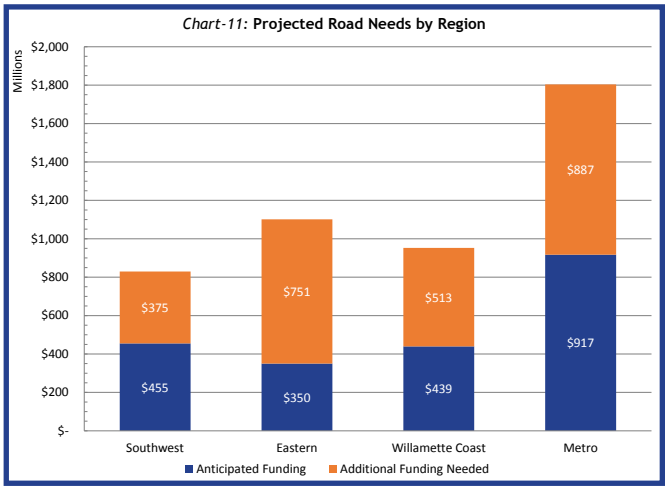
STUDY REGIONS

While the majority of challenges county road departments face are common throughout the state, many of the structural financial challenges are unique to specific counties and regions within the state. Funding county roads is a complex challenge that varies drastically from one region to another (Chart-10). Additionally, counties in varying areas have differing priorities and projects, which are key to their areas (Chart-11).



The County Roads Needs Study categorizes Oregon's 36 counties into four distinct regions: Eastern, Southwest, Willamette Coast and Metro. The counties are clustered by similarities in geography, economies, population distribution and common challenges in funding road projects. The sections on the individual regions contain more detail about specific activities and needs. They are found in the Appendix of this report.





CONCLUSION

Oregon's counties are diverse. Each county's current spending and anticipated budget needs are intended to meet the various requirements of their residents and the traveling public. Statewide, the revenue forecast over the next five years shows a 54 percent annual shortfall for county road departments. This translates into the need for an additional $505 million per year for counties alone, based on revenue forecasts and counties maintaining a 30 percent share of new State Highway Funds. If a gas tax increase (and commensurate increase in weight-mile tax) were to meet the need, the state would need to increase the gas tax by an estimated $0.64 per gallon (for every cent increase in the gas tax, counties estimate receiving about $7.9 million). To meet the county needs for capital construction projects, the gas tax would need to be increased by $0.42. To only meet the need for pavement preservation and maintenance, repairs and operations, counties would need an estimated $0.22 increase per gallon. Counties understand these increases are unlikely in the current fiscal climate, but the numbers demonstrate the overwhelming shortfall.

Some counties are looking at local ways to generate revenue. Local gas tax, vehicle registration fees and road districts are options, but viable only for counties with populations that would generate adequate funding and where there is public support.

For now, the focus is on preserving and maintaing the existing infrastructure. Counties are spending their money where they get the biggest return. However, many counties are finding it difficult to rely on unpredictable SRS payments and are seeing dramatic decreases in funding. Some of Oregon's counties are already struggling to meet even the most basic operational needs.

New revenue must be provided to ensure the transportation system is kept whole.

EASTERN REGION

APPENDIX A

Counties
Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, Wheeler

Population
519,370

Square Miles
665,555

Share of State / Federal Land
56%

Total Road Mileage
13,449

Share Unpaved Roads
57%

Anticipated Funding
$350 Million

Additional Funding Needed
$751 Million

Shortfall in Funding
68%

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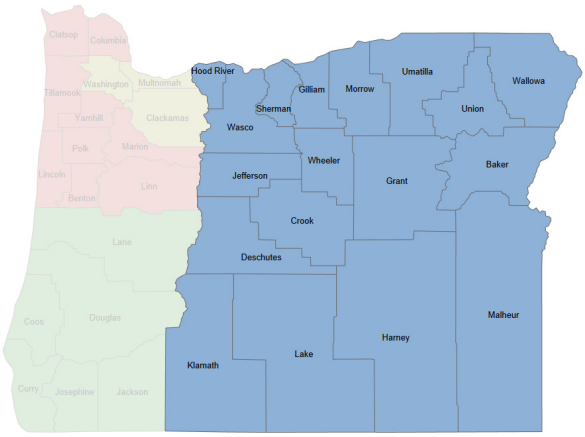
The Eastern Region includes the counties that generally lie on the east side of the Cascade Mountain range. These 18 counties represent nearly 70 percent of the total area of the state. 56 percent of the land in this region is owned by the federal government, with significant shares owned by the USFS and the Bureau of Land Management (BLM). These federal lands are exempt from property taxes and force this region to lean on other revenue streams to support county government.

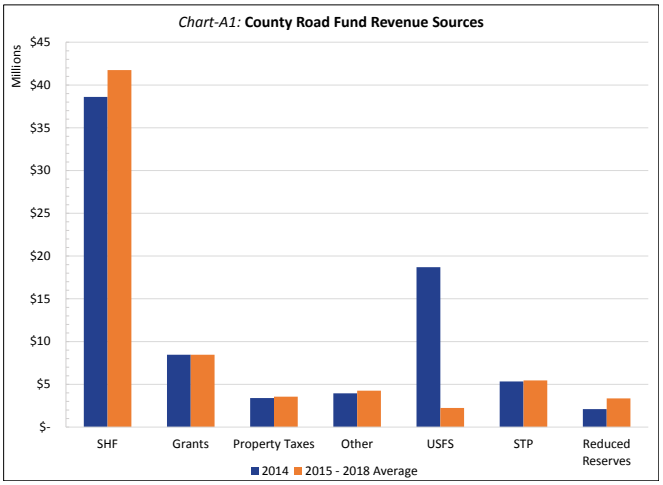


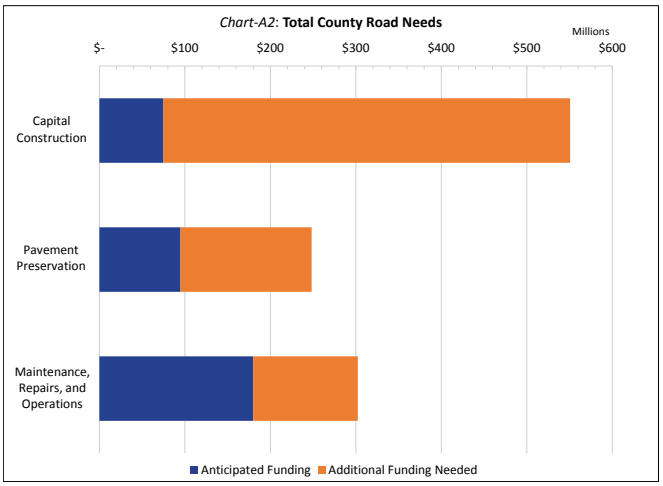
The Eastern Region has significant economic diversity, although agriculture is a consistently important component of the regional economy. In some parts of the region, economic activity surrounding wheat and livestock is enormously important, while others depend on cherry and other fruit crops. The ability to get these crops to market depends heavily on having a functional and well-maintained county road system. For many of the counties in this region, USFS timber payments and SRS payments are disproportionately high shares of the county road budget. Losing the SRS payments will have an enormous negative impact on these counties ability to maintain their roads (Chart-A1). Throughout the Eastern Region, public sector employment is a large and consistent share of the economy. In the northern portion of this region there has been substantial private investment in wind power, and therefore revenue generated to the county, although this has not translated into lasting employment gains.


Wasco County

Counties in this region have relatively stable, if not declining, populations; the exception being Deschutes County which has seen substantial growth. One result of the low regional population is there are far fewer registered vehicles in each county than in the western half of the state. State Highway Fund (SHF) dollars are distributed based upon vehicle registrations; therefore a result of low population density is a relatively low level of SHF dollars. Additionally, local funding options such as a local gas tax or registration fee would not have a significant impact on road budgets because of the small number of residents. The

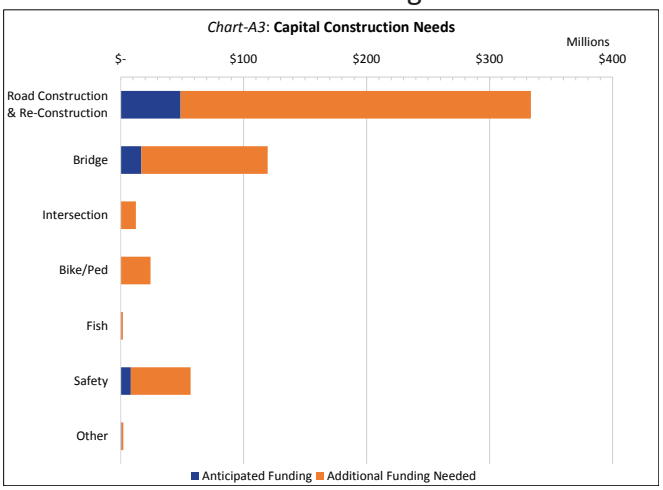
Chart-A1: **County Road Fund Revenue Sources**



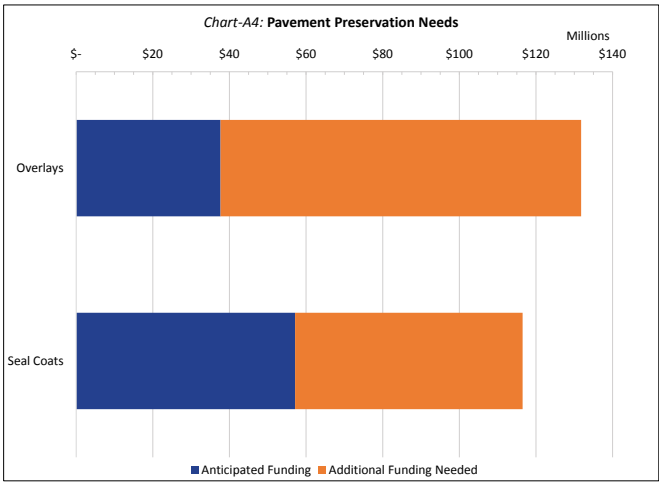


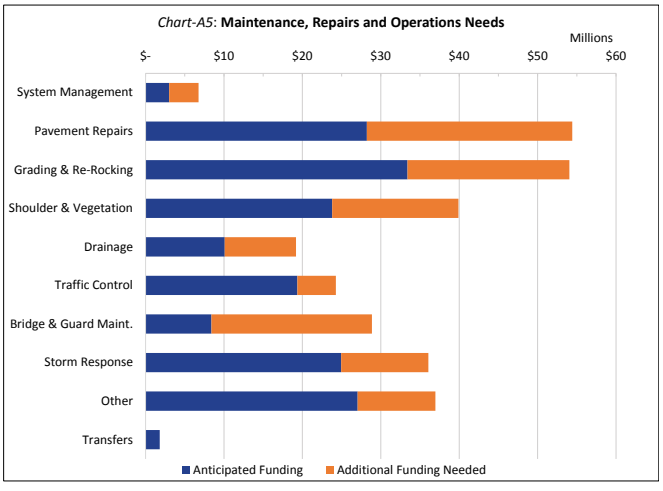
distribution formula for federal Surface Transportation Program (STP) funds benefits this region, since it depends on rural population and rural mileage.

The Eastern Region has unique challenges with more extreme swings in climate, which can cause potholes and other road failures. This region also has disproportionately high expenditures related to snow and ice removal. Another distinct challenge for this more rural region is the prevalence of unpaved roads, at over half of all road miles in this region. In the eastern part of the state, the need for increased road funding is the second largest among the four regions, at $751 million. Most dire among the regions, the Eastern Region can expect to receive only 32 percent of the funding needed, leaving a 68 percent shortfall for capital construction, pavement preservation, and maintenance, repairs and operations needs (Chart-A2).



The Eastern Region does not anticipate much funding for capital projects. Therefore, this is where we see the most need (Chart-A3). The priority is on pavement preservation and maintenance, repairs, and operations, as is apparent from the charts A4 and A5. Currently, this region is planning to spend the most on pavement preservation, yet still has the second largest need for increased funding to conduct overlays and seal coats.





SOUTHWEST REGION

APPENDIX B

Counties
Coos, Curry, Douglas, Jackson, Josephine, Lane

Population
839,260

Square Miles
17,243

Share of State / Federal Land
55%

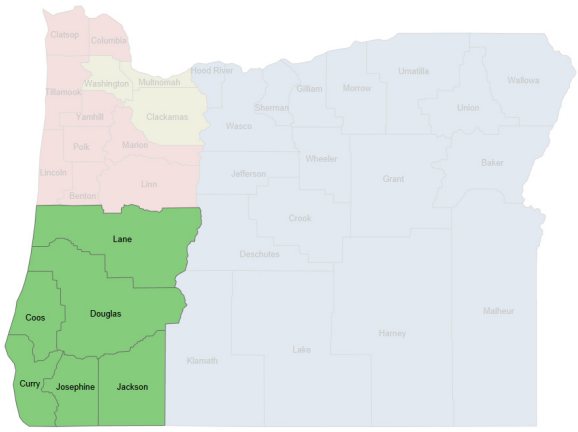
Total Road Mileage
4,854

Share Unpaved Roads
15%

Anticipated Funding
$455 Million

Additional Funding Needed
$375 Million

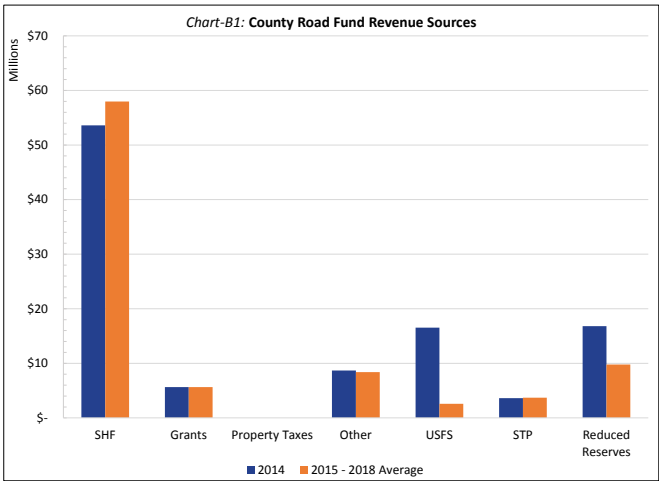
Shortfall in Funding
45%



Vast forests cover most of the counties in the Southwest Region. Although most of this region is rural, there are significant population centers, the largest of which is the City of Eugene in Lane County. This part of the state has half of Oregon's coastline, which is vital for the tourism and fishing industries. The counties in this region have traditionally relied upon federal and state forests and private timber companies to play a pivotal role in supporting their communities. Unfortunately, the decline of the timber and forest products industries has had a lasting effect on the unemployment rate, which remains stubbornly high in this region.


Lane County

Historically, counties in the Southwest Region have been heavily dependent on timber receipts and SRS payments for road construction, maintenance and operations. When the SRS payments are lost, as projected for 2015, these counties will have to dip heavily into their road reserves (Chart-B1). Generally, this region chose to build reserves for two reasons; one was the payments were previously sufficient to fund a healthy road system while building a reserve, and also because this portion of the state is prone to disastrous incidents of flooding and landslides during the rainy season. These events, although rare, are incredibly expensive, and having a reserve to help meet the need is of vital importance. Now that these counties have had to adjust over two decades to declining forest payments, their reserves have been tapped more and more frequently. On top of this, the state has allowed many of the counties in this region to use their road reserves for Sheriff's patrol purposes. While this has been an important aid to bolster public safety, it has been hastening the depletion of the county road funds when they are needed most. A combination of low historic property tax rates and a significant influx of older people moving to this region to retire have prompted the citizens in this region to be generally tax averse. These emerging trends have made it very difficult to pass property tax measures for general county government, public safety, much less for the maintenance of the county road



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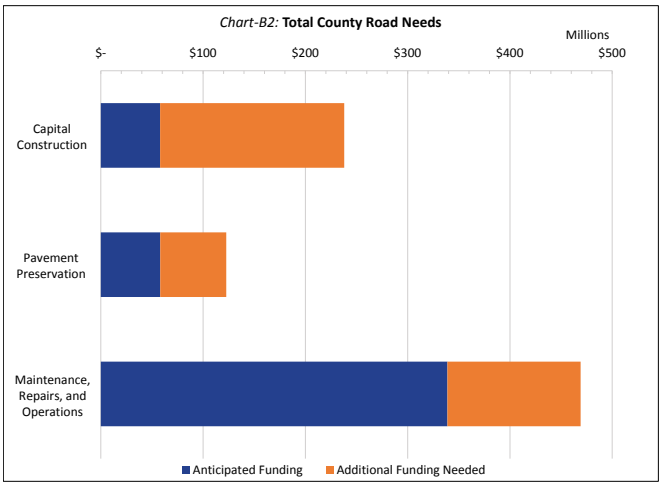
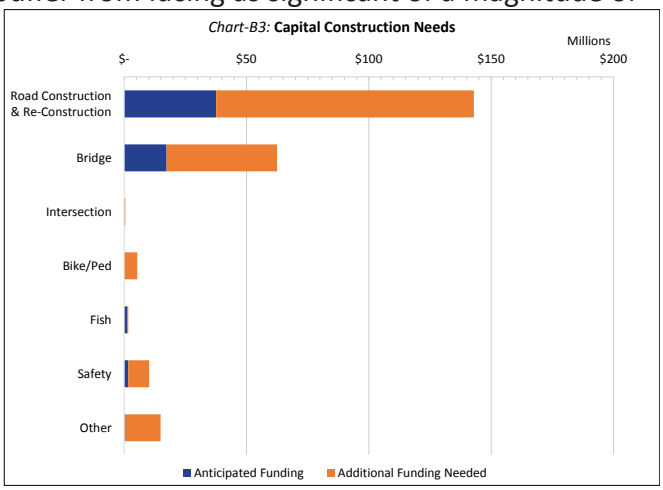


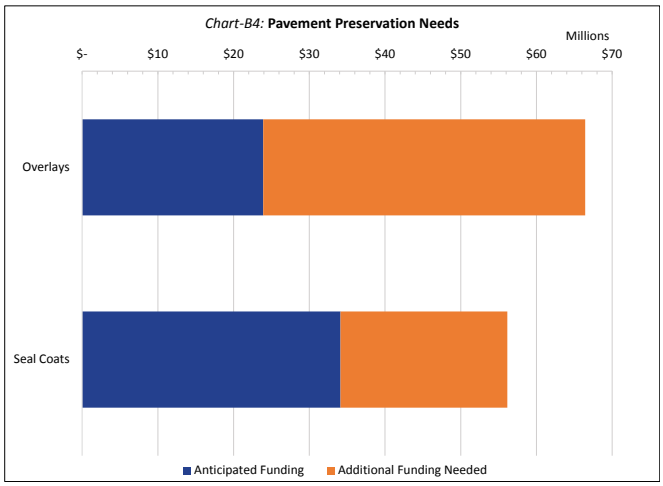
system. This can be seen in the fact that this region is the only one in the state without a single dollar of property taxes dedicated to road funding over the next five years (Chart-B1). Further, this region has received a disproportionately small amount of federal grant funding, exacerbated by the staffing reductions and funding problems facing many of the counties in this region.

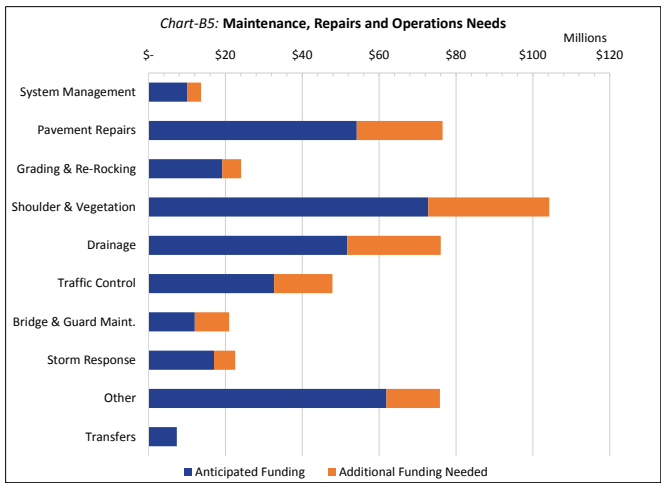
For several counties in the Southwest Region, reserves have served as a buffer from facing as significant of a magnitude of need as some of the other regions. The total need in this region is the lowest of the four regions, but the option of using reserves is rapidly evaporating; and when reserves are gone, they are gone with no funding to replace them.



The Southwest Region faces a revenue shortfall of 45 percent. The counties in the Southwest Region are putting the majority of their anticipated funding toward maintenance, repairs and operations, while the need for capital construction dollars is great (Chart-B2).

This region has the smallest expenditures and need in capital construction of the counties. Most of the funding need is for road and bridge construction (Chart-B3). The coastal portion of this region has some distinct challenges in maintaining the county road system. The coastal portion contains the most unstable geologic areas of the state where sinks and landslides commonly damage the road surfaces. Additionally, the destructive nature of salt water damages bridges. Across the Southwest Region, there are significant costs associated with the reoccurring risk of flood damage to roadways, bridges and culverts. Pavement preservation is important in this region, as seen in Chart-B4, with significant expenditures and need for both overlays and seal coats. Given the dense forests, mountains, and heavy rainfall in this region, a large portion of the maintenance budget goes towards drainage maintenance, storm response, pavement damage and vegetation management (Chart-B5).





WILLAMETTE & N. COAST REGION

APPENDIX C

Counties
Benton, Clatsop, Columbia, Lincoln, Linn, Marion, Polk, Tillamook, Yamhill

Population
866,790

Square Miles
9,175

Share of State / Federal Land
31%

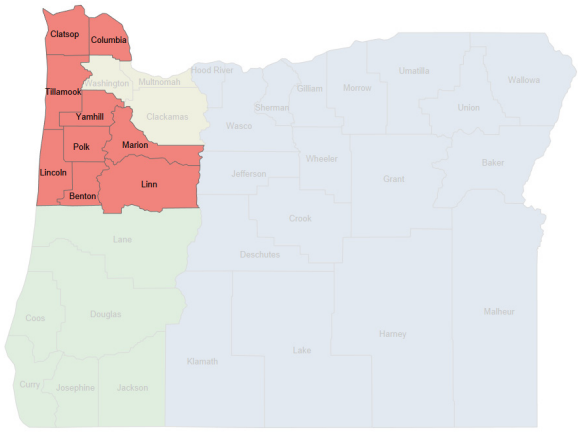
Total Road Mileage
5,267

Share Unpaved Roads
27%

Anticipated Funding
$439 Million

Additional Funding Needed
$513 Million

Shortfall in Funding
54%



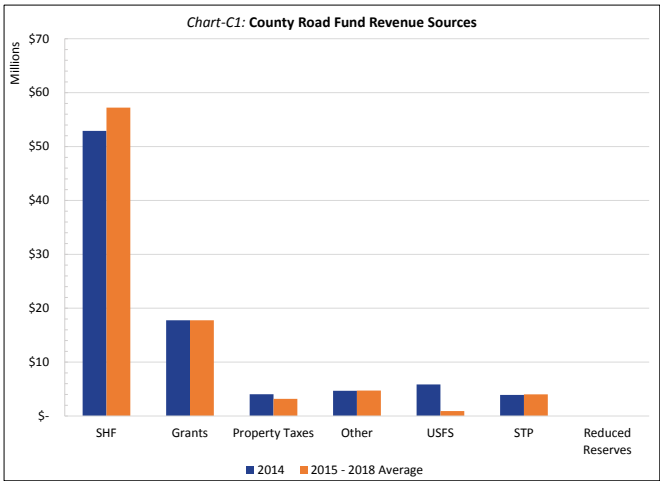
The Willamette and North Coast Region of the state has substantial geological diversity, with half of Oregon's coastline, large forests and the bountiful Willamette Valley at its heart. This results in an equally diverse employment and economic reality. Along the coast, dairy, fishing, timber and tourism are the largest components of the local economies. Farther inland, the counties in the Willamette Valley feature a strong agricultural industry, with grass seed, berries, nursery stock, and other crops. Also of significant importance to this region are the levels of public sector employment, with the State Capitol and relevant departments in Marion County, and Oregon State University in Benton County.

County road funding in this region is relatively balanced. The Willamette and North Coast Region has notable USFS and STP funding, given the smattering of federal forests and modest rural populations and county road mileages. With the elimination of SRS payments, this region is not facing a sudden dire funding dilemma. However, it does increase the unmet need by millions of dollars every year. Helpful in balancing the dedicated federal funds are the significant levels of grant funding received, which are greater than USFS and STP funding combined over the study's five-year period (Chart-C1). This region also has some property taxes committed to road funding. Reserves were never built up to the same level as in the Eastern and Southwest Regions, therefore this region is unable to tap their reserves.


Tillamook County

Similar to the Southwest Region, the Willamette and North Coast Region have challenges along the coast with rapid degradation of road surfaces and significant risk of flooding and landslide damage to county roads. The majority of anticipated funding is budgeted for maintenance, repairs and construction. Counties are focusing on maintaining what they have, however there is still need for capital construction projects (Chart-C2).

Chart-C1: **County Road Fund Revenue Sources**



Capital construction is important to this region, with the second highest antici-

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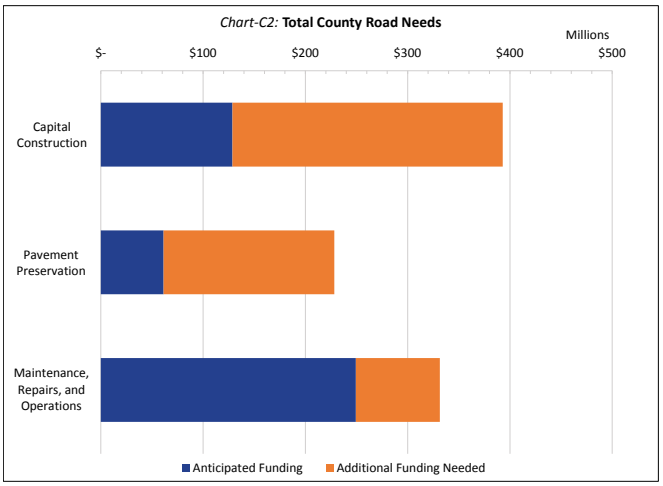
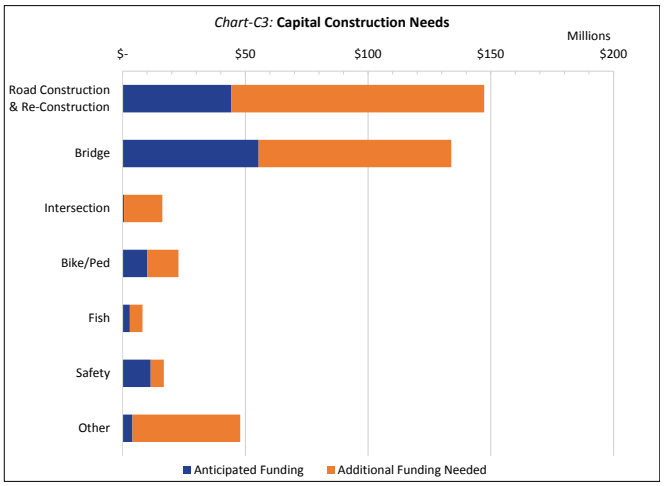
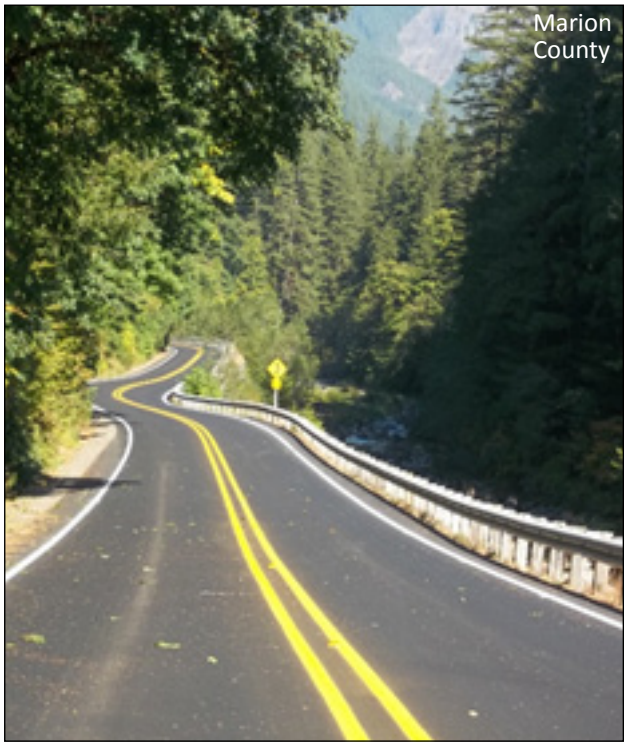
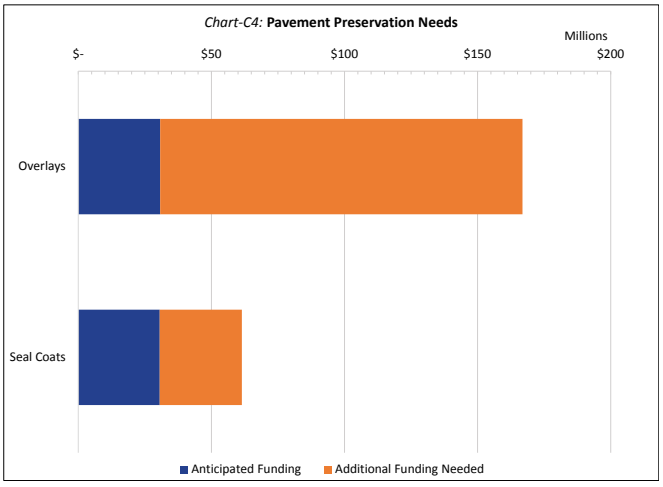
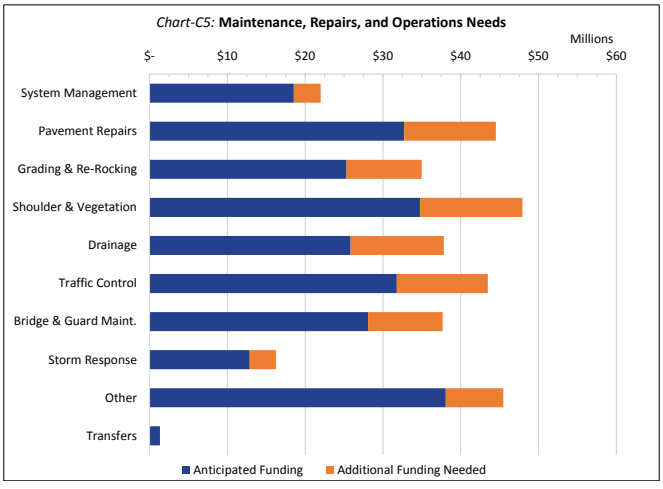


pated expenditures of any region, and these are concentrated on road construction and bridge work (Chart-C3). This region spends roughly equal amounts on overlays and seal coats, but has the largest unmet need for funding in the pavement preservation category of any region (Chart-C4). Over time, if this need remains unmet the cost of maintaining the roads will rapidly increase. The Willamette Valley portion of this region has maintenance issues with the greater population density and heavy truck traffic from agricultural exports putting enormous pressure on the county road system. The diversity of challenges in this region are played out in the allocation of funds in the maintenance, repairs and operations needs category, with a balanced array of needs from traffic control to drainage and bridge maintenance (Chart-C5).









METRO REGION

APPENDIX D

Counties
Clackamas, Multnomah, Washington

Population
1,693,600

Square Miles
3,027

Share of State / Federal Land
40%

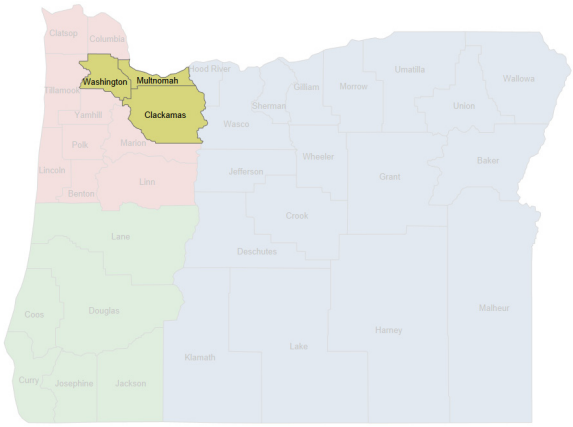
Total Road Mileage
3,100

Share Unpaved Roads
8%

Anticipated Funding
$934 Million

Additional Funding Needed
$887 Million

Shortfall in Funding
49%

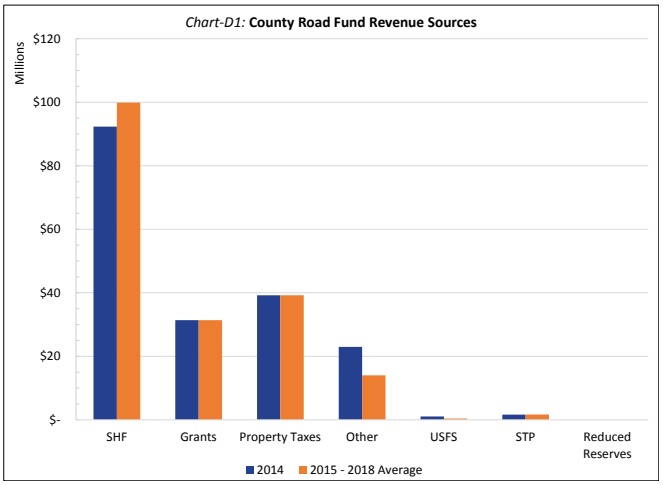


The Metro Region constitutes the three largest counties in terms of population, yet the smallest combined land mass of any region. This has resulted in high population density and a significant burden on the road system. In this region the population is mostly concentrated in urban and suburban areas surrounding Portland, however there are significant rural areas in Clackamas and Washington Counties. With the geographic distribution come unique facets to the regional economy. In this region there is enormous investment by high-tech manufacturing companies, as the region is home to a burgeoning high-tech and entrepreneurial "Silicon Forest." There are large levels of employment in service, retail and transportation industries with the Port of Portland and Portland International Airport in Multnomah County. This diversity in economic industries has helped to keep unemployment at relatively low levels around this region.


Washington County

One of the challenges this region faces are the bridges crossing the Willamette River. Five of these bridges are owned by Multnomah County, with the substantial operation, maintenance, repair and replacement costs associated with them.

Counties in the Metro Region are not intending to use any road reserve funds (Chart-D1). Federal STP funding allocated directly to counties is helpful, but it is a relatively small portion of the regional funding. Washington County has the largest property tax dedicated to roads in the state, which makes this region look as if it has rather enormous property tax revenues. Although the funding must be shared with cities in the county, local option gas taxes (categorized under "Other") are in place in Washington and Multnomah Counties, the only two counties in the state who exercise this option. A portion of State Highway Funds (SHF) and the local gas tax is transferred from Multnomah County to cities within the county to compensate the cities for the transfer of roads from Multnomah County. This region has the highest grant revenue, constituting almost half of the grants for road funding in the state. The most important revenue source for the Metro Region is SHF dollars, which are projected to reach



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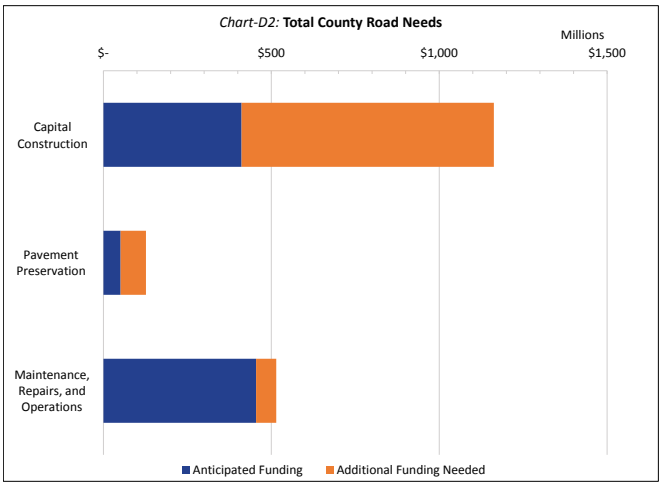
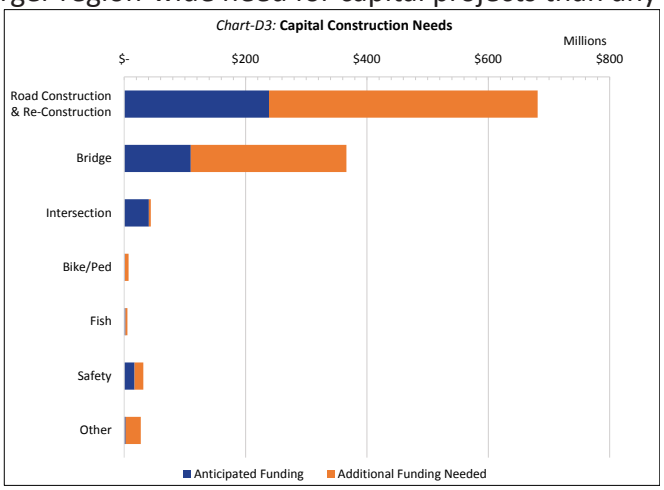
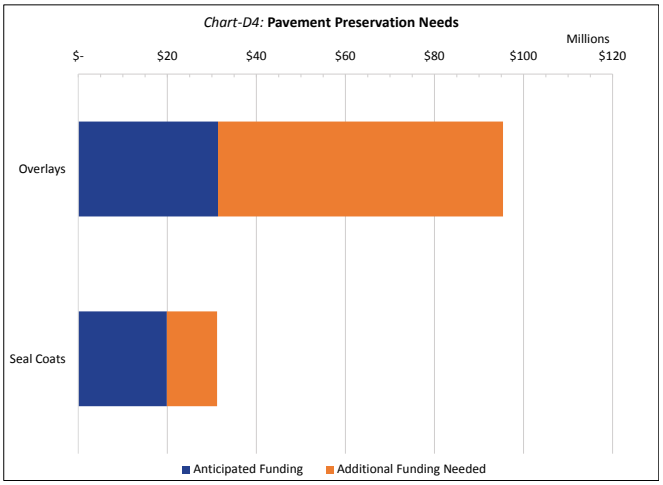


almost half a billion dollars in the study period. This region receives a significant share of the state distribution because of the high population density and therefore high density of registered vehicles which is the only determinant of each counties' SHF distributions.

This region faces a number of challenges and needs in the coming years. Counties in this region have had and will continue to have high levels of population growth and development, spurring a larger region-wide need for capital projects than any other regions entire need. This region anticipates spending roughly equal amounts on capital construction and maintenance, repairs, and operations (Chart-D2).



Again, to provide for the growing number of drivers in this region, counties are anticipating spending over three times the amount on capital projects than the next highest region, but still whittling away only a third of the capital improvement needs (Chart-D3).



High levels of average daily traffic (ADT) on county roads increases the frequency of maintenance and preservation and therefore increases the cost of keeping county roads in good condition (Charts-D4 & D5). Multnomah County in particular is responsible for maintaining the large and heavily used Willamette River bridges, which are very expensive to maintain.