

Secretary of State Audit Report

Kate Brown, Secretary of State

Gary Blackmer, Director, Audits Division



Oregon Department of Transportation: Better Workforce Planning Needed to Maintain Staff Expertise for Quality Construction

Summary

The Oregon Department of Transportation (ODOT) faces a substantial challenge to its maintenance and construction responsibilities. In recent years, ODOT has reduced its Highway Division (Highways) workforce in response to projections of declining gas taxes. At the same time, short-term bond funding has increased Highways' workload in some parts of the state, requiring greater reliance on non-permanent workers.

Our audit found that ODOT needs better succession planning to prevent the loss of skills and expertise amid Highways' personnel changes. Looking forward, retirements among long-term staff are likely to increase in coming years. Better workforce planning could help ODOT preserve contractor oversight, and avoid increased project costs and delays.

Highways budgeted roughly \$1.9 billion for the 2013-15 biennium to build and maintain highways and bridges, funded largely through federal and state gas taxes and borrowing with state bonds.

Growth in federal and state gas tax revenues has slowed as vehicles have become more fuel-efficient and fewer miles are driven. These resource limitations, along with uncertainty of federal and state funding in the future make long-term project planning more difficult, and compelled ODOT to begin reducing its future workforce in 2011.

While gas tax growth slowed, major short-term funding packages increased the workload while ODOT management committed to a 5% reduction in staff.

Retirements aided in these reductions, and they are likely to increase further since more than one-third of the Highways workforce is eligible for retirement in the next five years.

ODOT has not carried out succession planning for technical disciplines to ensure it retains adequate expertise in its workforce. To help transfer knowledge, management intended to use temporary development assignments to create opportunities for less experienced staff to work closely with and learn from experienced personnel. Instead, to meet the

higher workloads, staff in developmental positions are used to increase capacity to work on projects.

As a result, Highways could lose skills and expertise needed to perform its duties. Insufficient numbers of experienced personnel in the design and inspection functions could delay projects, increase their costs, and reduce contractor oversight, with the risk of lower quality of construction.

To address this situation, ODOT needs to improve several elements of its workforce planning to ensure that it maintains adequate technical expertise now and in the future.

For example, ODOT has not yet documented what skills and expertise are needed for the most crucial tasks, a first step in workforce planning.

We recommend ODOT consider all sources of revenue when determining needed staffing levels, identify and document critical technical skills and expertise, develop organizational succession plan strategies to address gaps in needed skills and expertise, and consider using developmental and double-filled positions to train less experienced staff.

Agency Response

The agency response is attached at the end of the report.

Background

ODOT is responsible for providing Oregonians with a safe, efficient transportation system that supports economic opportunity and livable communities. The Highways Division (Highways) is responsible for constructing and maintaining this system, which includes both federal and state highways and bridges. The system covers federal highways such as Interstate 5 and state highways such as OR224 in the Portland area.

Oregon's transportation system is aging. The need to repair or replace older bridges and highways will increase, while state and federal gas tax revenues that help pay for construction are dropping. Congress and Oregon's Legislature have stepped in with more federal funds and state bond money, but these funds are not permanent, complicating personnel decisions within Highways.

Pressured by long-term funding uncertainty, ODOT management initiated a plan in 2011 that included reductions in ODOT's permanent positions. These reductions occurred despite an increase in bond-funded construction projects.

In the face of staff reductions, federal guidance identifies workforce planning for both current and future needs as crucial to ensure adequate technical expertise remains.

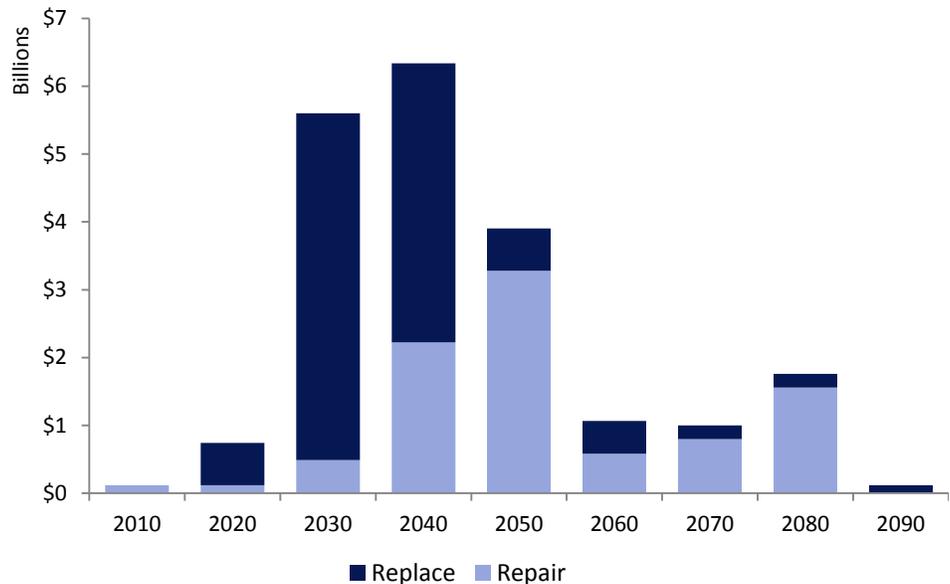
Growing transportation needs conflict with long-term funding availability

Aging infrastructure

Oregon, like much of the country, faces a significant transportation infrastructure challenge. During the 1950s and 1960s, the country made a huge investment in highways and bridges, including Interstate 5 through Oregon. As these investments age, repair and replacement needs increase.

Figure 1 shows Oregon's future bridge repair and replacement needs. Much of the bulge in 2030 and 2040 mirrors the significant bridge building of the 1950s and 1960s.

Figure 1: Estimated Bridge Needs by Decade



Source: Legislative Fiscal Office 2013-15 Budget Analysis

Gas taxes are no longer a reliable long-term funding source

Oregon has a less reliable funding source to address its long-term transportation needs. The federal gas tax, which funds the Highway Trust Fund, has not been raised since 1993. Growth in federal and state gas tax revenues, the backbone for funding Highways' construction program, has slowed as vehicle fuel efficiency has increased and miles driven has decreased.

Since 2004, fuel economy has increased by 4.3 miles-per-gallon, or 22%. The federal government is requiring further increases.

In response to declining gas tax revenues, Congress passed Moving Ahead for Progress (MAP-21) legislation, which temporarily supplements the Highway Trust Fund's declining balances.

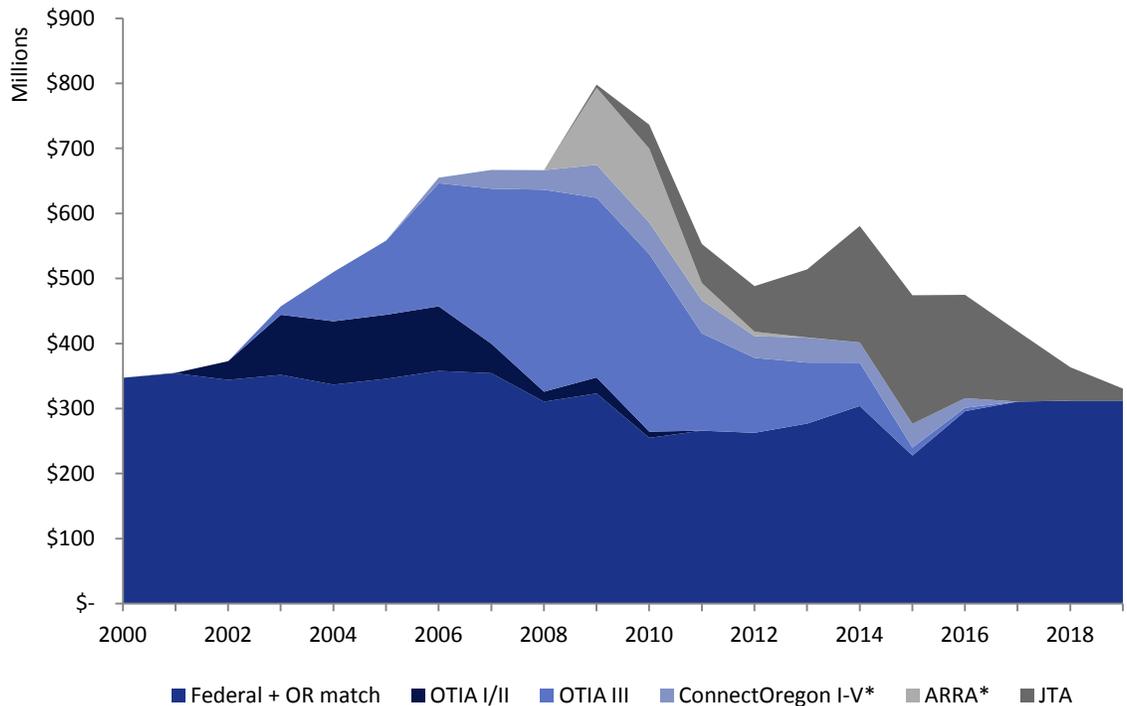
The federal gas tax...has not been raised since 1993.

The Oregon Legislature also responded by approving the following series of bond packages:

- *2001 Oregon Transportation Investment Act (OTIA I and II)* - \$500 million in bonds to fund about 170 projects.
- *2003 OTIA III* - \$1.9 billion in bonds to fund specific projects, including bridges, road maintenance, and modernization.
- *2009 Jobs and Transportation ACT (JTA)* - \$960 million in revenues for Highways from increased vehicle fees, gas tax, and weight-mile taxes to fund highway projects.

Highways' construction program increasingly relies on the borrowed money from these bond packages. In the 2013-2015 biennium, proceeds from bonds account for about 40% of the construction program's \$1.9 billion budget.

Figure 2: ODOT Construction Program Funding



Source: Highway Budget Office – Updated September 30, 2013. Includes actuals through June 2013; projections are not adjusted for inflation.

*ConnectOR is a state lottery bond based transportation funding initiative. ARRA (American Recovery and Reinvestment Act), commonly known as stimulus funding, provided federal funding to states and local governments to aid in economic recovery.

Short-term and uncertain funding conflicts with long-term transportation planning

Funding construction with short-term, temporary sources makes it harder for Highways to plan for long-term projects.

MAP-21 proceeds, for example, paid for just two years of projects, in 2013 and 2014. Yet large construction projects can take a few years to plan and a decade to complete. Additionally, there is no certainty the revenues from this program will be renewed.

The Governor of Oregon has joined with other state governors in urging Congressional leaders to reauthorize transportation funding. President Obama is proposing a \$302 billion, four-year transportation reauthorization proposal. If additional funding is not authorized to supplement declining gas tax revenues, Highways has said it will need to postpone projects and reduce staff.

Proceeds from state bond packages are dedicated to specific projects and are temporary, reducing Highways' planning flexibility. For example, the JTA package is slated to pay for 51 state and local government projects over 11 years, through 2019.

The increased reliance on bond funding will also lead to significant debt service over an extended time, reducing funding available for construction projects. Whenever bond proceeds run out, ODOT, Congress, the legislature or some combination of the three will need to find other ways to address infrastructure needs in the future.

ODOT's "Rightsizing" initiative

The bond programs, though temporary, have funded new projects and significantly increased Highways' workload through 2019.

However, Highways has chosen to base its staffing primarily on its gas tax revenues. In 2011, it implemented "Rightsizing" to cut the workforce through attrition to levels that could be supported by that declining revenue. ODOT management stated that the primary purpose for instituting downsizing now was to avoid future layoffs, which can complicate workforce management.

By 2015, ODOT's downsizing program will reduce the number of permanent employees by 5%, with the potential for further reductions if revenues decrease.

The Jobs and Transportation Act is slated to pay for 51 state and local projects

Audit Results

The purpose of our audit was to determine if ODOT's workforce planning ensures adequate skills and expertise in critical function areas within Highways' construction program. Critical function areas are those that require staff with the necessary skills, knowledge, and experience to ensure roads and bridges are adequately constructed and safe.

For the purposes of our audit, we identified two examples of critical function areas within the construction program:

- design, including staff who perform initial roadway and bridge design work and provide technical support throughout construction;
- inspections, including staff who ensure projects are built to contract specifications.

Maintaining knowledgeable and experienced staff in these critical function areas requires sound workforce and succession planning strategies. We compared ODOT's strategies to accepted best practices, and identified areas where ODOT's approach could be improved.

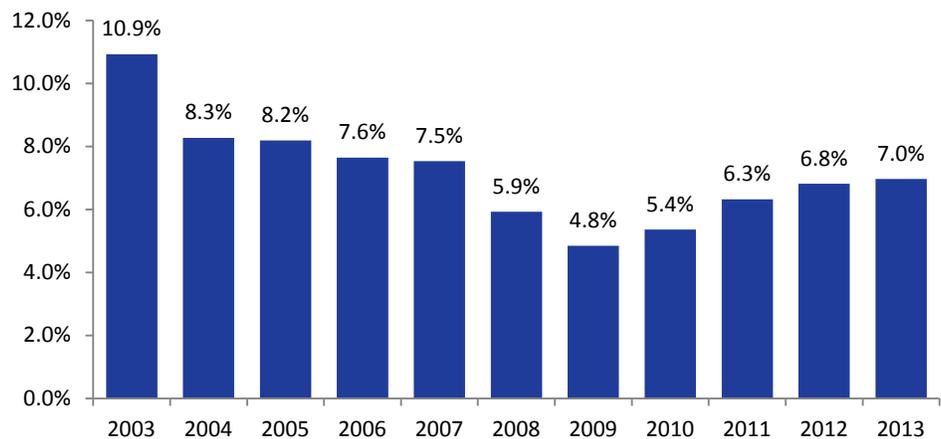
ODOT is losing experienced staff, skills, and expertise

Highways is losing experienced staff, skills, and expertise in the construction program through downsizing and through staff turnover caused by retirements and resignations. Many federal, state, and local agencies are also grappling with retirements and the loss of qualified personnel.

Highways' recent turnover remains below levels from 2003 to 2007 (See Figure 1). It has ranged from 5 to 8% most years, except in 2003, and has been increasing since 2009. Some of this increase may be related to an improved economy. Highways employees told us as the economy improved more employees left for higher-paying private-sector jobs.

Highways lost over 400 employees to retirement from 2008-2013

Figure 3: Highway Division Turnover Rate



Retirements have also increased since the height of the recession (See Figure 2). In total, Highways lost over 400 employees to retirement from 2008-2013, and 35% of Highway’s workforce is eligible to retire in the next 5 years. New staff has and will be hired to fill many of the positions not set aside for downsizing. Though other factors such as the condition of the economy and healthcare costs could affect retirement decisions, it is likely that more employees with significant experience will be leaving.

Figure 4: Separation by Cause



High turnover in 2003 resulted in a significant drain of institutional knowledge, several Highways employees told us. According to Highways’ management and employees, this was a result of legislatively mandated position reductions and outsourcing requirements, which came with the approval of the Oregon Transportation Investment Act (OTIA) bond packages.

One bridge engineer told us that when the OTIA projects were outsourced, experienced engineers left because they thought they would just be reviewing work. These employees left for the private sector so they could continue to engineer bridges. He noted that this left Highways with fewer and less experienced staff.

Workload often exceeds staff capacity

Oregon’s 2009 Jobs and Transportation Act (JTA) bond package provided an additional \$960 million in revenues for specific projects on a specific timeline. However, the JTA legislation did not include any additional positions. These additional projects, staffing reductions in 2003 and vacancies created by recent downsizing have reduced Highway’s workforce, and created some large gaps between the workload needs and the ability of staff to do all the work. ODOT management stated that they

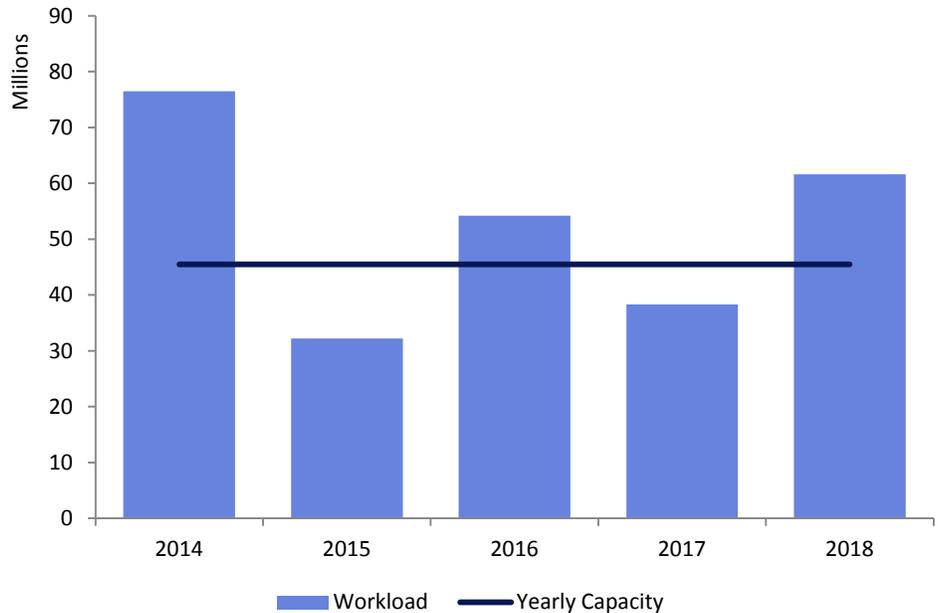
have relied upon a temporary workforce and increased contracting to address its workload.

Highways determines its workload for design staff each year and the capacity of the staff to deliver the work. Design staff provide technical support for Highway’s project delivery, construction, and planning programs. Some regions have a good match between workload and capacity of their design staff. In January 2014, Highways management began consolidating the Central and Eastern Oregon design staffs citing a decrease in forecast workload. However, in the northwestern regions of Oregon, the workload needs are higher for many reasons including larger populations and amounts of infrastructure, and large dollar JTA projects.

Some regions have a future workload that will far exceed staff capacity. Using ODOT provided workload and capacity data, we looked at workload and yearly capacity of the design staff for Portland-Metro, Salem-Metro and Southern Oregon for a five-year period beginning in 2014. In 13 of the 15 combined years, the projected workload would exceed capacity by significant margins.

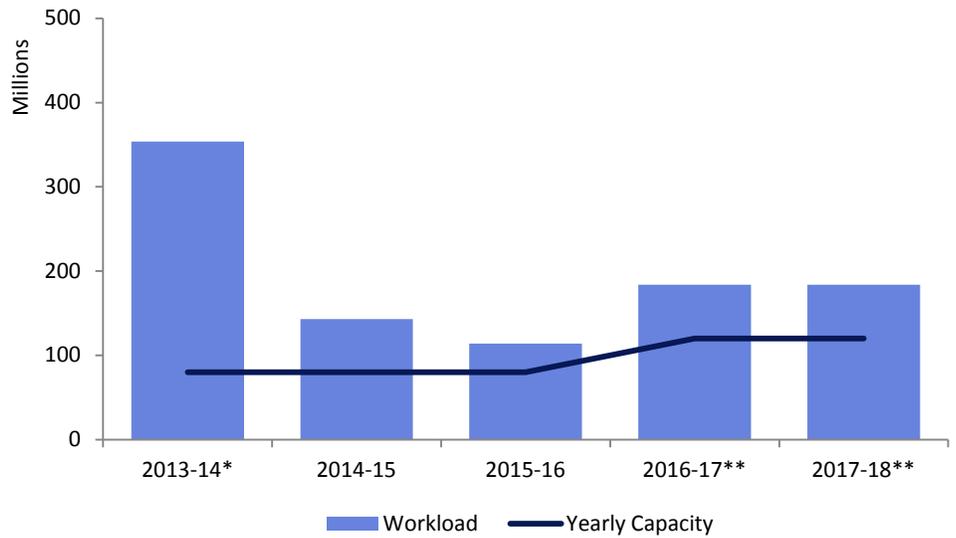
The following figures highlight the workload and staff capacity in the three regions.

Figure 5: Portland-Metro Region Workload and Staff Capacity



Source: Highways Portland-Metro Tech Center

Figure 6: Salem-Metro Region Workload and Staff Capacity

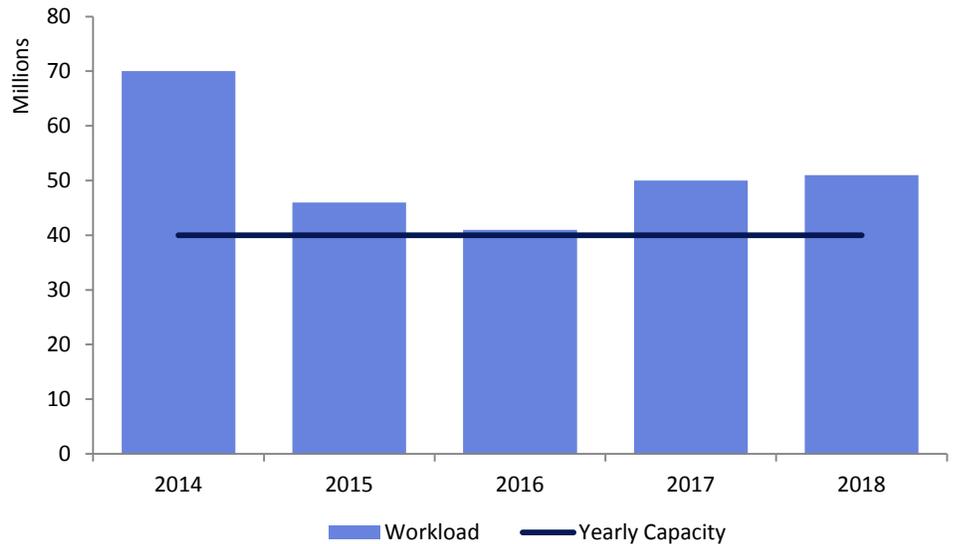


Source: Highways Salem-Metro Tech Center

* The Pioneer Mountain/US20 project accounted for \$79.6 million of the workload for the 2013-14 fiscal year.

** The Tech Center combined fiscal years 2016-18, however we divided the workload and capacity evenly between the two years.

Figure 7: Southern Oregon Region Workload and Staff Capacity



Source: Highways Southern Oregon Tech Center

With the increase in workload, Highways is at risk of not having an adequate workforce with the skills and expertise necessary to accomplish its mission and operations.

Gaps could decrease long-term quality

Industry best practices recognize the need for experienced, competent staff and acknowledge that less experienced staff and less time for in-depth quality checks can affect quality.

We spoke with over 70 ODOT employees throughout Oregon, from bridge engineers to project inspectors. We heard some common concerns from numerous employees in all geographic regions and across technical disciplines.

Highways' employees reported concerns that capacity gaps in the design and inspection functions have reduced contractor oversight and could lead to a decrease in construction quality.

Some quality indicators such as pavement smoothness are tracked by ODOT and have not shown any indication of diminished quality. While the indicators Highways tracks have not shown a decrease in quality, there are risks of decline in the future.

Another indicator of quality for Oregon's highways and bridges is their life-cycle costs, which reflect construction and maintenance costs over their useful life. Completed construction projects can last anywhere from 15 years for pavement to more than 75 years for bridges. In some cases, impacts to design, materials, and construction quality might result in earlier replacements years from now.

Capacity gaps could lead to incomplete project designs

Many roadway and bridge design engineers also told us high workloads and capacity gaps have caused delays and increased costs on projects. Designs must go out to bid on time, they said, but there are not always enough staff to produce project plans complete enough to generate accurate bids.

Some staff said that many plans sent out to bid are incomplete. In addition, some reported plans are "biddable, not buildable," missing important information due to the limited time designers can spend on the project.

Incomplete plans can lead to multiple contractor claims after the work is done or to change orders during the job, adding more costs for project requirements inadequately detailed in plans.

Additionally, engineers can end up issuing several appendices to answer contractor questions because the project designs were incomplete when the project went out to bid. For example, incomplete design plans required ODOT to issue nine separate addenda on the Interstate 5 Woodburn interchange project.

Capacity gaps and limitations can lead to incomplete projects plans that are "biddable, not buildable".

Capacity gaps could limit inspectors' ability to ensure quality work

Capacity gaps can affect inspectors' ability to perform quality reviews of contracted work. Inspectors are responsible for overseeing contractor work, including reviewing design plans and visiting construction sites to ensure the work meets project specifications.

We were told inspectors sometimes drive through a project site and count that as their inspection. Inadequate inspections occur, they said, because there are fewer inspection staff responsible for more work, they are covering too many projects, and projects are at times located far apart from each other.

Some inspectors told us they sometimes drive through a project site and count that as their inspection.

One manager we spoke with said the amount of work inspectors must do has increased, but he did not think there had been a dramatic drop in the number of inspectors.

It is difficult to say whether the manager or the inspectors are correct. ODOT does not have a job classification specific to inspections and the employees performing inspections have multiple job titles. It is clear, however, that some inspectors felt their workload prevents them from completing adequate inspections.

High workload affects staff morale and could increase attrition

Staff and mid-level managers have received warnings of steep revenue and workload declines. Leaders have warned of such declines for years, staff said, only to have additional construction money materialize from state or federal sources.

Some staff and managers reported that these warnings of decreased funding, coupled with the large workload, have increased levels of stress, tension, and a feeling of burnout. This could further increase turnover, leading to more loss of skills and expertise.

Highways management does not appear to have many strategies to track employee morale. However, in December 2013 ODOT conducted an employee survey for the first time in many years that can give management a baseline measurement for some of these issues. Management told us they intend to use the results from the survey to track employee engagement and find opportunities for improvement.

ODOT management has some data on the reasons for employee turnover over the last five years. In addition, they intend to implement additional strategies to determine why employees leave the organization, including adding an exit survey to the separation process.

Better workforce planning could ensure continuity of expertise and capacity

Highways has not adequately considered skills and expertise in workforce planning initiatives.

Given the significant challenges ahead, it is important for Highways to assess mission-critical skills and expertise and develop plans to close skill gaps in their workforce. Agencies must also address the risk of losing institutional knowledge as long-term employees resign or retire.

Because Highways has not adequately considered skills and expertise in workforce planning initiatives or implemented technical succession planning strategies, they are less able to monitor and evaluate their workforce to ensure adequate coverage in technical areas.

Federal guidelines spell out these workforce planning steps. In addition, in 2007, ODOT received more specific guidance when a consultant analyzed the department's workforce composition and recommended changes to improve ODOT's workforce planning.

Workforce planning can mitigate the negative effects of losing experienced personnel. Regardless of staffing reductions, federal guidelines suggest government agencies such as ODOT need an adequate number of in-house staff with appropriate training, experience, and expertise to effectively perform and maintain control of their missions and operations.

Skills and expertise not only include knowledge of how to perform the work, but also the ability to understand the agency's requirements, formulate alternatives as necessary, and properly manage and be accountable for the work product.

Staff should also have the ability and expertise to oversee and manage any contractors used to support the government workforce. For agencies to meet these expectations, they must employ effective workforce and succession planning strategies.

The need for strong transportation workforce planning is well established

Industry best practices can be used to improve ODOT's ability to respond to institutional knowledge loss and capacity gaps, as well as improve the skills and expertise of the workforce.

Necessary steps in workforce planning include identifying technical skills and expertise, identifying continuity issues, and developing a business plan based on long-term needs, not on position replacement. Highways can use readily available industry tools to identify the skills and expertise necessary to maintain control over its mission and operations.

The Transportation Curriculum Coordination Council (TC3) was formed as a partnership between the Federal Highway Administration, state departments of transportation, and other stakeholders. TC3 identified technical areas and developed guidance and training on the skills and

expertise required to execute the work. Highways can use the resulting guidance to improve the skills and expertise (also called “core competencies”) of its technical workforce.

In 2007, ODOT received specific advice on how to improve its workforce planning, when it hired a consultant to analyze the Department’s workforce composition. The consultant reviewed staffing levels, identified risks in recruitment and retention, and analyzed gaps in organizational skills and expertise. The consultant also recommended changes to improve ODOT’s ability to carry out its mission.

ODOT focuses on staffing levels, not skills and expertise

The consultant recommended that ODOT assess employee skills needed and determine how to fill those needs. Specifically, the consultant said this should be done at the organizational level and should include identifying core competencies critical to maintain control over the transportation system.

Highways has done some work to address this recommendation by reviewing crew staffing levels. However, we found Highways’ focus on the number of staff in certain positions is limited, as it does not assess the workforce as a whole, which both the consultant’s report and best practices in workforce planning recommend.

ODOT matches workforce to revenue projections, not actual workload

Currently, Highway’s workforce planning initiative focuses on the risks of revenue loss. Highways management examines revenue projections for at least four years into the future and matches the size of the workforce to those revenues. Additionally, Highways’ regional management plans their annual staffing needs based on available revenues for the upcoming construction season.

The decision to downsize came after Highways identified a gap between future revenues and expenditures.

However, Highways did not consider the added workload associated with funding other than its gas tax revenue. Most significantly, the projections did not include the revenues from Oregon’s JTA package, which earmarked nearly \$1 billion to Highways for additional transportation projects. When we asked Highways management about this decision, they said they did not include JTA revenues because they were not permanent funds. We found that while the legislature authorized these revenues once, Highways will receive the funding over a span of 11 years ending in 2019, adding an average of \$90 million per year (ranging from \$5 million to about \$200 million per year) in revenues for earmarked projects.

Highways did not include revenues from the Jobs and Transportation Act when projecting its revenues and workforce reductions.

ODOT methods for filling workload gaps do not adequately address the need to develop in-house skills

When we asked Highways management how they will manage the capacity gaps, they said they can outsource projects or hire non-permanent workers.

Contractors, short-term temporary employees, and limited duration employees can help supplement Highways' workforce. Unfortunately, those options also reduce the opportunity to build and maintain the skills and expertise of in-house staff.

Temporary employees are generally limited to working for only six months each year. Limited duration positions, at times filled by returning retirees, are authorized for a biennium. The division has increased hiring in both categories.

As a result, regions have been able to increase capacity, but not rebuild or transfer institutional knowledge as employees leave.

Outsourcing, or contracting out design and construction, is also a common strategy. According to Highways management, several factors are considered when determining which projects to contract out. However, the consultant report noted, and our audit work confirmed, those factors do not include the opportunity to bolster staff skills and expertise. Staff reported concerns that Highways often contracts the most challenging and interesting projects, which is a missed opportunity for building in-house skills and expertise. Transportation project planning and the outsourcing process are also lengthy, limiting outsourcing's usefulness for projects that require a short turnaround time.

The consultant report also identified a risk that there are not enough staff with the right skills necessary to oversee outsourced contract work. While Highways does have some employee development tools like internships graduate engineer programs and inspection certifications, interviews with Highways staff revealed this risk is still an issue.

ODOT management has the following tools they can use to increase the skills of permanent staff as appropriate:

- Developmental or rotational positions: Temporary assignments designed to provide employees opportunities to learn new skills or a new work environment.
- Work out of class designations: Occur when employees are temporarily assigned duties at a higher-level classification than their current position.
- Double filling of a position: State policy allows limited use to train less experienced staff or as part of succession planning.

All of these tools can be used to both fill a capacity gap and provide professional development to less experienced staff. However, ODOT has used these assignments primarily to plug needs created by increased workload, rather than to build employee skills.

Also, ODOT leadership does not know which employees are working in rotations, as there is no central mechanism to track the positions. In addition, the use of double-fills is limited. According to ODOT staff, the legislature directed them to use double-fills less frequently in Highways, with a 69% drop since a peak in 2004.

In addition, we learned employees in developmental positions are also receiving little professional development. When we discussed this with Highways management, they confirmed these positions are not being used to develop staff, but rather to address the large volume of work.

ODOT has not implemented strategies to ensure knowledge and experience are transferred.

More guidance needed to train inexperienced employees in critical inspection duties

Some employees reported that their work relies heavily on experience and professional judgment, but ODOT's strategies to transfer knowledge to newer employees are general and not specifically focused on technical positions.

Highways does have guidelines outlining expectations for inspections work. However, situations do arise where guidance that is more specific would help. For example, contractor work often occurs in multiple locations simultaneously, and inspectors must rely on experience and professional judgment to determine which work is the most important for them to inspect. Inspectors we spoke to shared that guidance which defines the most critical contract work needing inspection would help.

As experienced inspectors retire or resign, institutional knowledge will be lost and inexperienced staff will have fewer experienced colleagues to learn from.

That scenario, likely given ODOT's aging workforce, increases the importance of developing a standard for what is "critical" for on-site inspections. Having a standard is also consistent with industry best practices, which recommend documenting processes to counter the loss of institutional knowledge when long-tenured staff retire.

ODOT's succession planning focuses on management positions, not technical skills and expertise

During the audit, we learned that Human Resources has taken some steps toward succession planning throughout ODOT. Within Highways, we found the agency is doing some succession planning for management, but not at key technical levels, including design and inspections.

When we asked staff about plans for retaining adequate expertise as technical staff resign or retire, few staff were able to share strategies ODOT was employing to address the loss of institutional knowledge.

Similar to general workforce planning, key steps in technical succession planning are to map work processes and skills essential to achieving Highways' mission, determine who the in-house experts in those areas are, identify gaps in the workforce, and plan to prevent future gaps.

Seven years ago, the consultant report identified the need for a systematic, objective assessment of the core competencies required to deliver Highways' services by region and discipline over the next five years.

ODOT took steps to address many of the concerns highlighted in the consultant report, including requesting additional positions and reviewing staffing levels on project delivery teams. However, the legislature only approved half of the additional positions ODOT requested. Additionally, retirements and turnover remained so low during the recession that the need for technical succession planning was not urgent.

ODOT management reported that its current workforce planning efforts, including technical succession planning, still do not consider the skills and expertise needed to maintain coverage in Highways.

Recommendations

For the Highway Division, ODOT management should:

- consider adopting the technical guidance provided by the Transportation Curriculum Coordination Council;
- identify and document critical technical skills and expertise;
- analyze current workforce to ensure ODOT retains the critical skills and expertise needed to address current and future infrastructure needs;
- identify expected gaps in critical technical disciplines and develop strategies to address gaps;
- revisit consultant report recommendations; and
- consider all sources of revenue when determining needed staffing levels.

To improve staff professional development, Highway Division management should:

- develop a system to use, monitor and evaluate developmental and rotational opportunities;
- consider using developmental, work out of class and double-fill positions to train less experienced staff and serve as a succession planning tool; and
- develop a staffing strategy that allows Highways to both respond to fluctuating workload and develop in-house skills and expertise.

With regard to managing positions, Highway Division management should review unfilled positions to determine if their decision to leave these open aligns with skill and expertise needs.

Objectives, Scope and Methodology

Our audit objective was to determine if ODOT's workforce planning ensures adequate skills and expertise in critical function areas within Highways' construction program.

The scope of our audit included workforce management practices within ODOT's Highway Division, specifically the construction program. We did not review ODOT activities in other divisions, nor did we develop findings related to the maintenance program in the Highway Division.

We reviewed applicable state laws and rules, policies, and management best practices related to transportation agencies. We reviewed Highway Division and agency policies and procedures, performance measures, and strategic planning documents. To understand historical context and budget concerns, we analyzed documents prepared by the Oregon Legislative Fiscal Office. We also reviewed reports prepared by ODOT's internal auditors and a consultant that were related to our audit objectives.

We reviewed work done by other transportation departments, both at the state and federal level, to identify risks associated with a decrease in workforce competency.

We interviewed more than 70 agency and division employees, to identify common challenges across regions and technical disciplines. In addition, we interviewed members of the Service Employees International Union and the Association of Engineering Employees of Oregon, and local government administrators from different regions within the state. We also interviewed staff and reviewed guidance from the Federal Highway Administration.

We reviewed position management plans provided by Highways to gain an understanding of its staff planning practices and changes due to Rightsizing. We conducted interviews to gain an accurate understanding of workforce planning and budgeting processes. We obtained information regarding ODOT's workforce management and succession planning practices. We also reviewed the strategic plan and technical competency information developed by the Transportation Curriculum Coordination Council.

We obtained human resource data from ODOT covering the period 2003 to 2013. We tested this data using the state's personnel system and found it to be reliable. We used the data to analyze workforce demographics, employee types and job classifications, turnover rate, and payroll trends. We also obtained capacity and workload data from ODOT's regions, conducting interviews to gain an understanding of the data and reasonable assurance of its reliability. However, we did not conduct independent data reliability testing.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.



Oregon

John A. Kitzhaber, M.D., Governor

Department of Transportation

Office of the Director

355 Capitol St NE

Salem, OR 97301

Phone: (503) 986-3289

Fax: (503) 986-3432

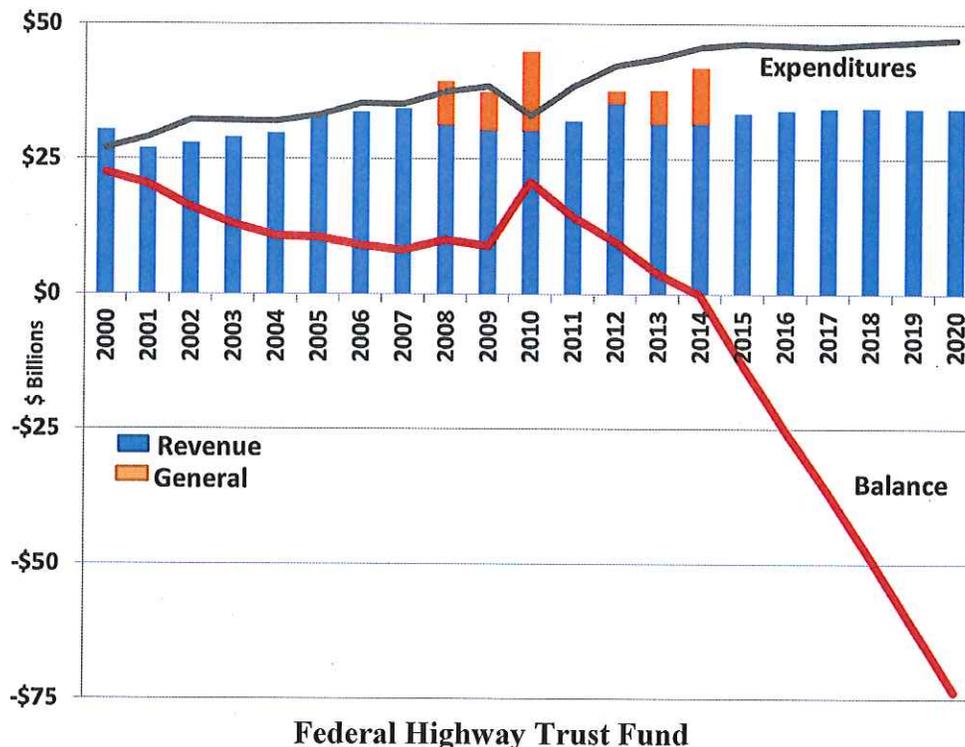
June 13, 2014

Gary Blackmer, Director
Secretary of State, Audits Division
255 Capitol Street NE, Suite 500
Salem, Oregon 97310

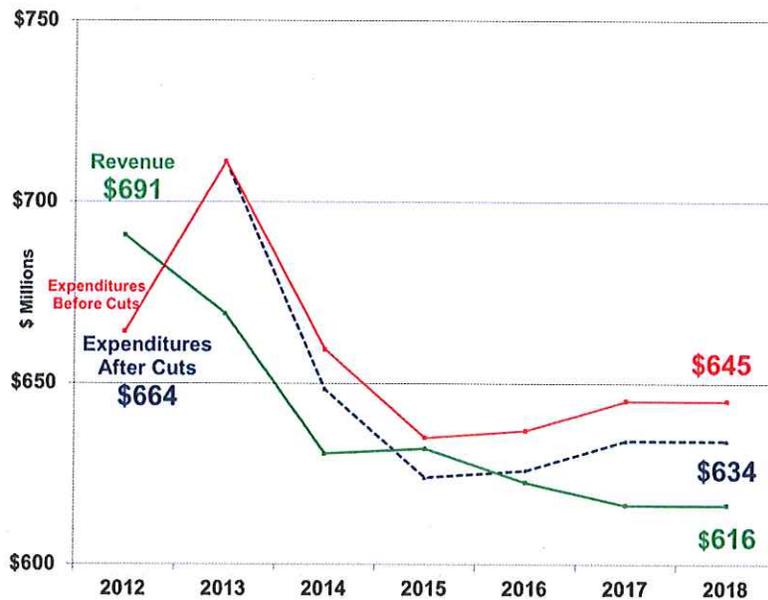
Dear Mr. Blackmer:

Thank you for the opportunity to comment on the draft audit report on workforce planning. ODOT agrees that we can improve our workforce and succession planning efforts for technical positions and is committed to doing so.

As the report acknowledges, ODOT faces numerous challenges related to balancing workload and revenues. Transportation funding is transitioning out of a decade that saw a succession of large bonded funding packages to one of unstable and uncertain federal and state gas tax revenue. The results can be seen in ODOT's 2015-2017 biennial budget request, which shows the Highway Division with \$650 million less than the current biennium. At the same time, a \$15 billion annual gap between federal gas tax revenue and expenditures from the Highway Trust Fund have made federal funding levels unpredictable and unsustainable with ongoing Congressional action needed to infuse general funds into the Highway Trust Fund. Should Congress not continue transferring these additional monies, the level of federal funds will drop dramatically as early as this summer.



These significant changes in funding have caused us to reassess program priorities and future workload needs. With more than a third of Highway Division’s resources dedicated to servicing debt on past projects, we have shifted the focus of state funds towards continuing maintenance and operations with available federal funds directed towards capital construction projects. These construction projects are improvements to the transportation system and planning has already been adversely impacted by uncertainty about future federal funding and the significant risk that it could be cut. In April 2014, ODOT postponed the selection and development of capital construction for projects beyond 2018. Uncertainty about federal funding has also made it very difficult to predict future workforce needs, as we can’t predict the amount of federal funding we will receive six months from now—much less how much funding we will receive six years from now as we plan our long-term capital program and the workforce needed to deliver these projects.



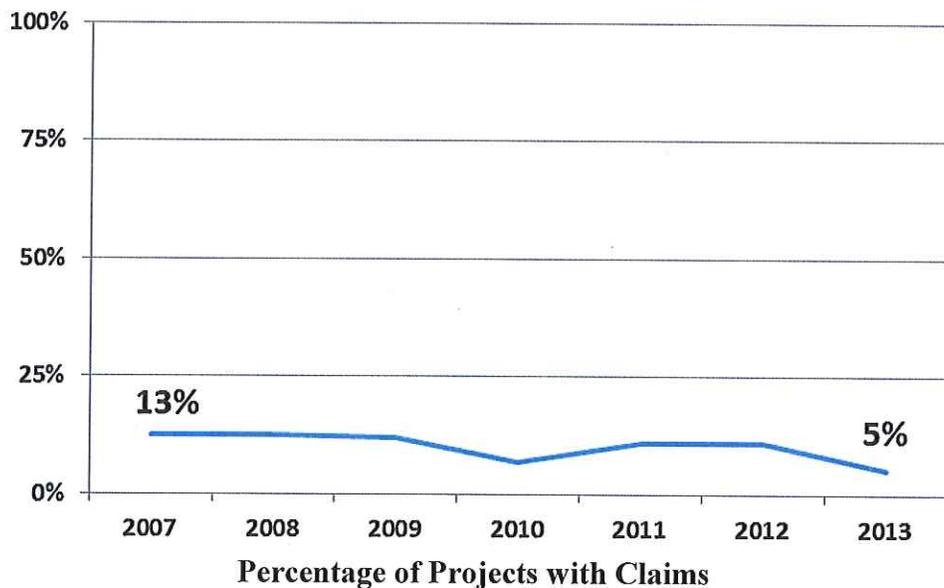
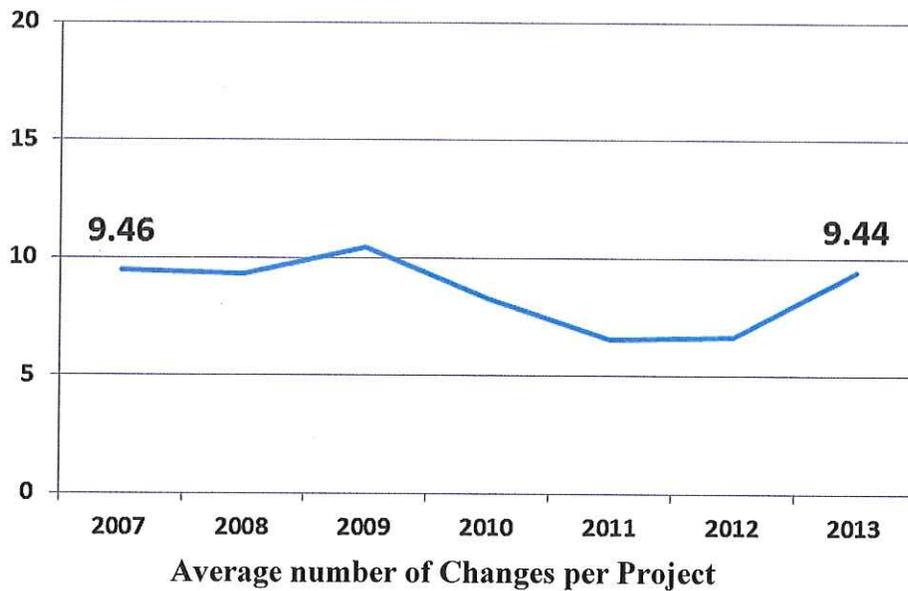
State Highway Fund: Before and After 5% FTE Expenditure Reduction (2012 baseline)

Due to rising personal service costs and a reduction in the amount of revenue available to the department after paying debt service for bonded programs, a significant gap has opened between State Highway Fund revenues and expenditures. ODOT has proactively taken steps to close the gap between revenues and expenditures, and has done so while maintaining flexibility to address varying workload needs in the future. Turnover and varying workload are challenges that all organizations face. To meet those challenges, ODOT uses multiple sources in addition to permanent employees, including limited duration, seasonal, and temporary employees, as well as contractors. This allows better alignment of resources with workload without the need for layoffs when workload decreases, as we have seen in other states. These layoffs would be devastating to employee morale and to the technical skills in the organization. The chart above depicts the problem ODOT faced in the growing delta between state revenue and expenditures. The 5 percent FTE reductions have appropriately narrowed the gap in 2015 and beyond.

ODOT employs several strategies for workforce development to counteract the loss of expertise when employees resign or retire. For example, we develop future leaders through our Leadership Academies as well as our various intern and graduate engineering programs. We are also committed to improving the skills of current employees. ODOT currently provides 96 courses in our technical

training program; over the last three years we held more than 300 classes providing more than 60,000 person-hours of training. ODOT also supports the development of technical skills through employees obtaining professional certifications and licenses.

Likewise, project quality is critical; ODOT monitors several design and construction quality measures. The report acknowledges that none of these indicators has shown a decrease in quality. Among the indicators: the number of addenda on a project; the number of changes during project construction; the number of construction projects with claims; and the percentage of construction projects with claims. These numbers have been consistent even through the peak of the \$1.3 billion OTIA III bridge program, which ODOT delivered on time and under budget.



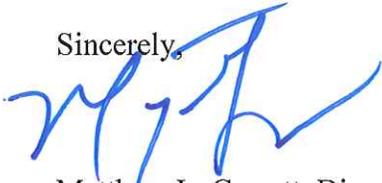
The report does not discuss ODOT's quality assurance programs for design and construction, which provide multiple levels of oversight and review to ensure consistent quality. One purpose of these programs is to ensure that quality never relies on one person, but on checks and balances among

multiple personnel and functions. Training programs, certifications, and licenses required for staff performing these functions also help ensure quality.

While we agree that ODOT can improve its workforce planning practices, we want to clarify that projects funded through bonds were included in our annual work planning process to match workload with staffing. However, we did not include one-time funds in our planning for a financially sustainable organization. We were also disappointed that the audit methodology did not include data analysis to support some key assertions. For example, the audit concluded that we are losing expertise, but did not provide an analysis of which areas or skill sets are being lost; having this data would be useful as we seek to improve workforce planning. The audit also relied on interviews to conclude that design and inspection functions may have suffered diminished quality. We take these concerns very seriously and will follow up. We would have liked to have had the benefit of the auditor's independent analysis of corroborating data, which we made available, and feel it was a missed opportunity to inform our direction on this issue.

Thank you for the recommendations in the report. We will incorporate them, as appropriate, as we move forward in improving our workforce and succession planning for technical positions.

Sincerely,



Matthew L. Garrett, Director
Oregon Department of Transportation

cc: Sandra Hilton
Amanda Lamb
Kyle Rossi

About the Secretary of State Audits Division

The Oregon Constitution provides that the Secretary of State shall be, by virtue of her office, Auditor of Public Accounts. The Audits Division exists to carry out this duty. The division reports to the elected Secretary of State and is independent of the Executive, Legislative, and Judicial branches of Oregon government. The division audits all state officers, agencies, boards, and commissions and oversees audits and financial reporting for local governments.

Audit Team

William K. Garber, MPA, CGFM, Deputy Director

Sandra K. Hilton, CPA, Audit Manager

Kyle A. Rossi, Senior Auditor

Amanda L. Lamb, MPA, Staff Auditor

This report, a public record, is intended to promote the best possible management of public resources. Copies may be obtained from:

website: sos.oregon.gov/audits

phone: 503-986-2255

mail: Oregon Audits Division
255 Capitol Street NE, Suite 500
Salem, Oregon 97310

The courtesies and cooperation extended by officials and employees of the Oregon Department of Transportation during the course of this audit were commendable and sincerely appreciated.