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Secretary of State

State of Oregon

**DEPARTMENT OF EDUCATION**

**Public School Infrastructure**

**Opportunities to Improve Planning and Funding**



**Audits Division**

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*Auditing for a Better Oregon*

The Honorable John Kitzhaber, M.D.  
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Salem, Oregon 97310-4047

The Honorable Stan Bunn  
Superintendent of Public Instruction  
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This report contains the results of our audit of Oregon's K-12 public school infrastructure. With the marked shift in funding of K-12 education over the last decade from local sources to the state, it may now be prudent for the state to assess whether it should have an increased role in the oversight of school facilities. Presently, school facility management is the responsibility of local school districts, with the state's involvement limited to the conduct of regulatory inspections.

While school officials differ on what the role of the state should be in this area, all commonly struggle with having too few resources to effectively plan for facilities based on long-term, cost-effective strategies.

We found that opportunities exist to improve school facility planning and funding. Specifically, the state should consider providing additional guidance to school districts to help implement facilities management best practices and should explore options for creating a dedicated, stable, and equitable funding source for school facilities.

OREGON AUDITS DIVISION

John N. Lattimer  
Director

Fieldwork Completion Date:  
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# EXECUTIVE SUMMARY

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## Public School Infrastructure

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### Background and Purpose

***Oregon has more than \$9.1 billion invested in its public school infrastructure.***

Oregon's investment in its public school infrastructure is sizable. Statewide, more than 1,200 school buildings are in operation, with an estimated replacement value of \$9.1 billion. Optimal stewardship of this investment requires the use of best practices for facilities planning and funding. Best practices include objective analyses of building systems, structures, and long-term facility needs and the performance of regular preventive maintenance. Best practices also require that these activities be supported by a system of funding that is equitable, dedicated, continuous, and sufficient. The purpose of this audit was to review existing practices for school facility planning and funding and identify opportunities for the state to improve the process.

### Results in Brief

***School districts struggle to maintain existing facilities, with \$2.4 billion in needed spending for maintenance***

During this audit, we observed numerous facility concerns including old mechanical and electrical systems, damage from leaking roofs, warped and buckling floors, classrooms with poor ventilation, condemned and crumbling buildings, and the presence of hazardous materials that were being managed by school districts. We found that facility planning and funding methods, at the state and local levels, are short-term, fragmented, and generally inadequate to properly manage Oregon's growing school infrastructure needs. Specifically, we recommend that the Oregon Legislative Assembly and the Department of Education consider the following:

- *School facility planning.* Provide additional guidance to school districts to help implement facilities management best practices. School districts struggle with having too few resources to effectively plan for facilities based on long-term, best use of space considerations. Limited facilities funding has created school facilities planning that is short-term and reactive, with the focus on making emergency repairs, averting immediate crises, and maintaining failing systems and equipment. Short-term solutions for meeting facility needs often become permanent

*and renewal.*

***Funding for school facilities rests on a complex system of local resources, creating inequities in building conditions.***

and more costly in the long run. We estimate that Oregon's school facilities have \$2.4 billion in maintenance and renewal needs to resolve.

- **School facility funding. Explore options for creating a dedicated, stable, and equitable funding source for school facilities.** Oregon's school districts need assistance to get beyond the cycle of deferred maintenance compounded by emergency repairs. The current funding structure for school facilities rests on a complex system of local resources. School districts must rely on the sale of local general obligations bonds to finance district facility needs and make repair and replacement decisions based largely on their ability to pass bonds. This source of funding does not provide stable, long-term facility support and requires that school districts overcome several obstacles, including the political nature of the process, the high cost of obtaining needed bond expertise, and the limitations on the use of bond money. When school districts are not able to pass bonds, they often turn to alternative funding strategies, such as budget reallocations, private financing, and selling property. As a result, we observed substandard as well as optimal school facility conditions between and sometimes within school districts, with substandard conditions being more common in school districts with low property wealth and an inability to pass bonds. Funding inequities such as these can ultimately lead to expensive lawsuits. As of March 2000, at least 18 states had litigation in process and unsettled lawsuits involving school-funding inequities.

## **Agency Response**

The Department of Education generally agreed with the conclusions and recommendations in this report.

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# Background and Introduction

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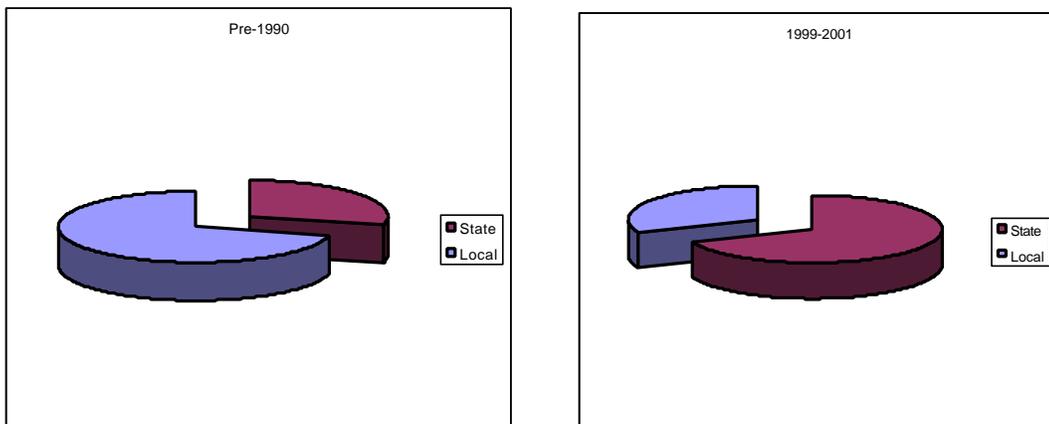
***Oregon has a sizeable investment in public school infrastructure.***

***The state's role in funding public education has increased dramatically.***

Public school infrastructure in Oregon is sizable. Statewide, more than 1,200 school buildings serve the needs of students and surrounding communities. During the day, school buildings house educational, nutritional, and supplemental programs. In the evening, these buildings are used by communities for educational and recreational programs, meetings, or other local interest purposes. This investment in public school infrastructure is managed by Oregon's 198 individual school districts. These school districts are unique in terms of their size, geographic area, student population, local constituency base, and the issues they face, yet are similar in that all strive toward the primary purpose of providing a quality education to their students.

In the past decade, the state's role in funding public education has markedly increased. The implementation of Measure 5 in 1990 and Measure 50 in 1997 limited taxes on property and changed Oregon's funding of schools for Kindergarten through 12<sup>th</sup> grade (K-12). Prior to 1990, the state provided less than 30 percent of K-12 funding, with local funding sources providing the majority of funds. During the current 1999-2001 biennium, the state will provide \$4.6 billion for K-12 education, funding about 70 percent of the K-12 funding and representing 43 percent of the state's general and lottery fund spending. Figure 1 shows the shift in state funding from before 1990 to 1999-2001.

**Figure 1**  
**Shift in School Funding**



***The state school fund provides more than \$2.2 billion in financial support to school districts.***

***The state provides only a limited amount of funding dedicated to school facilities.***

The State School Fund is the largest source of funding for school districts, with 1999-2000 distributions of more than \$2.2 billion. State School Fund money is allocated to school districts through the State School Funding Formula. This formula is primarily based on the weighted student counts of Oregon's districts. School districts can use state school funds for any purpose, including the maintenance and upkeep of school buildings. However, the State School Funding Formula does not provide additional funds for districts with unique facilities or maintenance needs.

School districts also receive a limited amount of state funding targeted to school facility purposes:

- **New Facilities Grant.** This grant reimburses school districts up to 8 percent of a new facility's construction costs. The grant is intended to fund equipment purchases for the new facility. School districts must apply to receive the grant and about \$7.7 million was distributed during the 1999-2000 school year.
- **Lottery Bonds.** Starting with the 1998-1999 school year, the state has provided school districts with funds from the sale of state lottery bonds. These funds are distributed based on the State School Funding Formula weighted student counts. Lottery bond funding is restricted to funding the acquisition, construction, improvement, remodeling, maintenance and repair of Oregon public school facilities. Schools may also use lottery money to pay for land, site preparation and the purchase of modular or portable buildings. Other permissible uses include the purchase of computers, software, textbooks, furniture, vehicles, and the cost of planning or issuing bonds. To date, the state has provided school districts with \$277 million in lottery bond money. Estimates show that there is currently only \$270 million in additional lottery bonding capacity remaining to the state for all purposes, including education, if the current bonds' credit ratings are maintained.

In terms of overall spending on school facility maintenance, the state's Database Initiative showed 8.8 percent of total school district expenditures in 1999-2000 being spent for this purpose.

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***School districts rely on local funding for school facility improvements.***

Local funding is the primary means of financing the renovation and construction of school facilities. School districts can obtain local funds through the sale of general obligation bonds and local option levies, subject to voter approval. This local funding process was impacted by Measures 5 and 50, which placed limitations on the use of bond money and established more restrictive election approval requirements.

***The Department of Education does not oversee school infrastructure.***

While the Oregon Department of Education (department) leads the state's role in public education and is responsible for overseeing the implementation of educational programs statewide, it does not oversee school infrastructure. Under direction of the State Board of Education and the State Superintendent of Public Instruction, the department provides school districts with leadership, state school fund allocations, and services to promote achievement and academic excellence within Oregon's schools. By statute, however, local school districts are responsible for maintaining school buildings within their jurisdiction. Without statutory directive mandating involvement with school infrastructure, the department does not believe that it has a role in this aspect of public education.



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# Audit Results

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***Oregon's public school infrastructure has more than \$9.1 billion in estimated replacement value.***

Oregon's K-12 school facilities represent a significant public investment with an estimated replacement cost of more than \$9.1 billion.<sup>1</sup> Infrastructure capital construction and maintenance directly compete with K-12 program and instructional priorities for funding. Facility planning and funding methods, at the state and local levels, are short-term, fragmented, and generally inadequate to properly manage Oregon's growing school infrastructure needs. These needs, coupled with existing practices for planning and funding, call for the state to strengthen its oversight and financial support of school facilities. Optimal stewardship of this investment requires the use of best practices for facilities planning and funding. Best practices include objective analyses of building systems, structures, and long-term facility needs and the performance of regular preventive maintenance. Best practices also require that these activities be supported by a system of funding that is equitable, dedicated, continuous, and sufficient.<sup>2</sup>

## **Oregon Needs to Improve Its School Facilities Planning Practices**

***School districts struggle to maintain existing facilities.***

Limited facilities funding has created school facilities planning that is short-term and reactive, with the focus on making emergency repairs, maintaining failing systems and equipment, and preserving the health and safety of students and staff. To assess the condition of the state's school facilities, we visited 33 school buildings in 17 school districts and interviewed superintendents, principals, and maintenance personnel. While school officials differed in their perspectives on what the role of the state should be in this area, all commonly struggle with having too few resources to effectively plan for facilities based on long-term, best use of space considerations. School district leaders are forced to fulfill short-term maintenance needs driven by the existence of old infrastructure and operating

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<sup>1</sup> Using our sample population of schools, we calculated the replacement value for Oregon's school buildings based on a national estimate by the Education Writers' Association. Researchers, including the U. S. General Accounting Office, commonly used this estimate as no complete national data has been compiled for the current replacement value for school buildings. In Oregon, a study of school infrastructure completed on behalf of the Governor's Office did estimate a replacement value of \$10 billion for Oregon's schools. Our estimate compares similarly to this result.

<sup>2</sup> We compiled best practices for school facility planning and funding based on extensive research of state, federal, and industry data. Please refer to the scope and methodology section for a summary of the best practice information sources.

***Emergency projects tend to dominate available resources and cause scheduled maintenance to be deferred.***

systems. We observed numerous facility concerns including old mechanical and electrical systems, damage from leaking roofs, warped and buckling floors, classrooms with poor ventilation, condemned and crumbling buildings, and the presence of hazardous materials that are being managed by school districts.

To manage facility issues, school district personnel primarily rely on short-term plans based on internal assessments of known maintenance needs. This informal process consists of visual inspections to determine the relative functioning and integrity of building systems and features. This data is then combined with school officials' knowledge of existing and emergency repair needs. The result is a prioritized list of maintenance projects for the school district. Emergency projects such as heating system repairs, hazardous materials abatement, air, and water issues tend to dominate available resources and cause the deferral of scheduled maintenance. The deferral of scheduled maintenance contributes to increased system failures and reinforces reactive planning in response to emergency needs.

One common emergency repair is malfunctioning heating systems. Many schools we visited operate aging heating systems, many over fifty years old and often failing or operating inadequately. For example, heating units were only operational on one side of a school building we visited. School personnel turned thermostats in classrooms with heat to high and opened these rooms' windows and doors to the inside hallway in an effort to share heat with cold classrooms across the hall. School officials report spending an inordinate amount of resources finding parts and, in some cases, making parts to ensure that classrooms are heated.

***Hazardous materials contribute to the deferral of repair and renovation decisions.***

We found asbestos to be the most common hazardous material present in Oregon's schools. Of the 33 schools we visited, 20 contained asbestos. These schools each have a federally mandated asbestos management program in place, which requires the encapsulation and regular inspection of the asbestos. The presence of encapsulated asbestos can cause officials to defer or abandon repair and renovation decisions because of the high cost of asbestos abatement. For example, officials at one school are deferring the replacement of threadbare, stretched, and torn carpet in several of its classrooms because replacement requires the costly abatement of underlying asbestos tile. As a solution, the school is patching the carpet with duct tape.

Another example is polychlorinated biphenyls (PCBs), a toxic chemical which was used decades ago as an insulator and coolant in fluorescent lighting. Several school district officials stated that

***Environmental concerns limit the resources available for facility management.***

light fixtures containing PCBs had either been removed or were in the process of being removed for their district. However, the Environmental Protection Agency recently fined two Oregon school districts for improper handling of these toxic chemicals. PCB removal is a substantial expense and the fines, totaling more than \$400,000 for these two school districts, consume additional resources.

The primary air quality concern in Oregon's schools appears to be poor ventilation. Many of the schools we visited have no mechanical ventilation systems and rely on windows to provide fresh air. One school we visited has unventilated classrooms where temperatures have been measured at 90 and 88 degrees Fahrenheit in October and November. Other schools have converted storage areas and closet spaces with neither windows nor ventilation into classrooms to accommodate over capacity enrollments. Ventilation systems are a substantial cost. A school official at a small middle school stated that a new system for the school was estimated to cost \$125,000.

***The advanced age of Oregon's schools creates a growing need for maintenance and renewal.***

The majority of existing school buildings in Oregon are several decades or more old. We estimate that 76 percent of Oregon's schools were built at or before 1970, with the average age being 45 years. The age of these structures creates a growing need for maintenance and renewal. Once a building has reached an advanced age, however, school district officials are hesitant to invest significant funds making needed repairs. Officials report that emergency repairs pertaining to student safety are immediately addressed, but other needed repairs, such as upgrades to heating, mechanical, plumbing, and other structural systems, are commonly deferred because it is sometimes more cost effective to replace an entire building than to make a series of major repairs. The relatively old age of Oregon's school buildings, coupled with the practice of deferring major system repairs, heightens the need of school districts to operate their facilities in a mode of crisis management.

***School districts engage in limited formalized facilities planning.***

In terms of formal long-range planning, school districts often prepare these plans as a component of preparing bond proposals. Many long-range plans include professional assessments of the condition and integrity of school buildings. Some plans include population projections and demographic studies as well. Professional reports and assessments are used to make and substantiate capital construction and renovation plans. Although these analyses are objective, the motivation for them is highly subjective. In general, school districts do not annually propose bonds and do not update long-range plans in the interim. One school district we visited had not completed a long-range plan since 1987. This dated plan is still used as the basis to assess current facility needs. While we agree

such a plan may be useful to some degree, it seems likely that issues unforeseen in 1987 have emerged that should be formalized into current decision making. Another school district just completed a facilities study in preparation for an upcoming bond proposal. The last time the school district proposed a bond was 1968. In the interim, only informal facilities studies were completed.

## **School Facilities Planning Should Be Objective and Proactive**

***Taxpayer investments in school facilities can be preserved with well-planned facilities maintenance.***

Facilities planning based on reacting to short-term, immediate needs is not cost effective. Emergency repairs generally require more time and resources than those that are regularly scheduled and planned. Studies have found that well-planned preventive maintenance extends the useful life of building components, such as roofs or heating and ventilation systems, thereby preserving taxpayer investments. In particular, one study found that school districts with comprehensive preventive maintenance programs in place were more likely than other districts to report having most facility components in good condition.<sup>3</sup>

***Building condition assessments and the development of written short, long-range, and preventive maintenance plans are cornerstones of good facilities planning.***

To minimize cost and the incidence of corrective and emergency repairs, facilities planning should be based on objective analyses. Such analyses begin with a baseline assessment, which inventories and monitors the condition of mechanical and electrical systems as well as the architectural features of a building, and continue with the development of written short, long-range, and preventive maintenance plans. These plans should objectively assess the importance of capital and maintenance needs in the short-term and into the future, and ensure that tasks are completed in time to extend the useful life of an asset or detect critical wear before a system fails. Further, these plans should serve as guides for addressing emerging facility needs. Issues to plan for include population growth or decline, and economic and social changes within a community.

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<sup>3</sup> This study was a best practices review of preventive maintenance for local government buildings in Minnesota performed by the Office of Legislative Auditor, and included a comprehensive review of preventive maintenance programs and practices at the national, state, and local levels.

***Other states have established central oversight programs that include many aspects of good facility management practices.***

Other states have developed central programs to oversee school facilities, which include many good facility management practices. Arizona, California, Florida, Maryland, New Jersey, Ohio, and West Virginia are some of the states we found offering such programs. These states take an active role in providing school districts with increased information, guidance, and funds related to planning and implementing capital construction and renovation plans. Some of the programs also provide information and money to help address deferred maintenance, enabling school districts to move beyond emergency maintenance and towards planned and preventive practices. The following details examples of best practices identified:

- **Statewide conditions assessment.** Arizona maintains and updates a statewide assessment of all school building and facility conditions within the state. This assessment provides decision-makers and taxpayers the relative condition of school infrastructure. A similar program in New Jersey focuses on a subset of the state's schools and identifies deficiencies in each school building along with an estimate of the cost to remedy.
- **Statewide planning standards and technical assistance.** The states of Maryland and West Virginia provide school districts with written guidance as to school design issues and space planning standards. The state of Florida provides technical advice to school districts concerning site selection, construction planning, capacity studies, long-range facilities planning, and managing hazardous materials. California's Office of Public School Construction provides districts with prototypical architectural designs. Ohio provides technical assistance to eligible districts for the development of master facilities plans, site evaluations, and the design of new construction and renovations.
- **Comprehensive maintenance and long-range plans.** Some states oversee the development of timely and standardized long-range facility and maintenance plans. Both Maryland and West Virginia require school districts to develop maintenance plans and annual updates to their school facilities master plan. These plans figure prominently in the granting of state funds.

## Solutions for Meeting School Facility Needs Have Not Always Been Cost Effective

***Short-term solutions for meeting facility needs can often become permanent and more costly in the long run.***

Often school districts respond to immediate facility needs with solutions that are less expensive and designed to be temporary, but often become permanent and more costly in the long run. For example, to accommodate student population growth, many school districts have added portable buildings until they can pass a bond to renovate or replace existing structures. Of the 160 schools we surveyed, over 45 percent reported the use of temporary instructional rooms. In 1947, one school added portable buildings taken from a World War II prisoner of war camp, expecting to use these buildings as a temporary solution to meet space needs. These portables are still in use today as the school district was only recently able to pass a bond to replace the school. As portables age, schools must deal with numerous repairs and dry rot as these structures deteriorate. The increased maintenance and repair costs associated with portable classrooms do not make them a cost-effective solution in the long run. Further, portable classrooms may not be sufficient from a programmatic and safety standpoint. School officials cited concerns with portable classrooms not providing a conducive learning environment and the difficulties with securing and monitoring these outside structures.

***With help from the state, school districts could save money on the hiring of bond planning experts.***

Another area that is costly to school districts involves the hiring of bond planning expertise. Presently, most school districts hire needed experts, such as bond counsel, underwriters, and architects, without the benefits achieved from resource sharing or economies of scale. For example, one school district we visited expressed frustration in its hiring of architectural services. With no central resource available to help identify or evaluate potential architects, the school district hired a firm that ultimately did not meet their needs. The school district then hired a second architectural firm at an estimated additional cost of \$20,000. The superintendent of this district believes a central resource could add value by helping to create a list of qualified experts for use by school districts.

In terms of other bond costs, we estimate that school districts on average pay 0.23 percent more than the state for bond underwriting services. This percentage is small, but results in substantial additional costs. If school districts could take advantage of the lower rate for underwriting services achieved by

the state, more than \$2.1 million could have been saved on underwriting costs alone for the 29 school district bonds passed in the year 2000.

## Oregon Needs to Strengthen Its Funding of School Facilities

***Oregon's school facilities have not been a priority for funding.***

Oregon's current funding structure for school facilities rests on a complex system of local resources. While good facilities management practices suggest that facilities be supported by funding that is dedicated, continuous, and sufficient, Oregon's system of funding is not consistent with this model. Rather, school districts prioritize programs over facilities and direct existing state funds towards that purpose. School districts are left to rely on the sale of local general obligation bonds to finance district facility needs. This source of funding does not provide stable, long-term facility support and requires that school districts overcome several obstacles including the political nature of the process, the cost of obtaining needed bond expertise, and the restrictions on the use of bond money. When school districts are not able to pass bonds, they often turn to alternative funding strategies.

## Political Factors Hinder Access to Local Resources

***School districts rely on local funding and must package bond requests to appeal to voters, rather than on their facility needs.***

Planning a bond proposal is a highly political process. In nearly every school district we visited, officials expressed concern about politics impacting the timing and composition of a bond package. School officials repeatedly stated that successful bond packages must include something for every school in the school district, regardless of need, to appeal to a majority of voters. Moreover, the timing and amount of a bond proposal is often based not on facility funding needs but on the anticipated support of the community. For example, one school district we visited had an estimated \$61 million in needed repairs and renovations, yet only requested \$24 million in their most recent bond proposal because that was the amount believed that voters would support. Of the 15 schools in this district, 13 needed either full replacement or substantial classroom additions; however, the requested bond amount was limited to the replacement of just two schools and upgrades in the others. In another instance, a school district had an immediate need to begin constructing new facilities to accommodate rapidly growing enrollments. Yet, the school district

***Community support for bond proposals is not uniform.***

would not submit a

proposal because it recently had a successful bond and expected that voters would not likely support another request so soon.

While community support is central to the bond process, it is not uniform throughout the state and varies depending upon demographic and other factors beyond a school district's control. Many school districts have consolidated from several smaller school districts, closing local schools in the process to operate more efficiently. Officials in one school district commented that communities in their district have strong feelings about the local schools. In this district, schools in one community were consolidated over 50 years ago, yet voters in this area will not support a bond unless these schools receive some benefit. Officials in another school district stated that the number of retirees on fixed incomes in a school district often influences a bond proposal's success. Officials also indicated that school district residents with school age children generally are more supportive of bond proposals.

***Bond proposal tax burdens vary significantly statewide and impact voter support.***

In terms of assessed property value, tax differences exist between property rich and property poor districts. A higher tax rate for a bond proposal impacts community support and decreases the likelihood that the bond will pass.

Differences in tax burdens are also affected by the composition of a school district's property tax base. The more businesses in a school district, the less the property tax burden falls on residential property voters. School officials in one school district stated that residential property taxes fund about 95 percent of bond payments. Another school district's analysis estimated that only 63 percent of taxes for its levy would be assessed to residential property. If a higher proportion of taxes fall on residential voters, voters may be less likely to support the bond.

**The Cost of Proposing a Bond Can Be Prohibitive**

***School districts must pay for experts and other fees to propose a***

To propose a bond, school districts must often pay architects, bond attorneys, financial advisors, county election fees, and other fees. Some large school districts have professional experts on staff, while other districts pay consulting fees each time they need professional planning assistance. The cost to propose a bond is a considerable expense to school districts. For example, one district spent more than \$125,000 for architect and attorney fees, community surveys, public

***bond.*** information documents, and necessary filing fees for a single bond proposal. If the bond passes, the cost of experts and other fees can be absorbed by the bond proceeds. If a bond fails, school districts must pay for planning and proposal costs from operating funds. For some school districts, the cost to propose a bond and the risk of failure can be prohibitive.

### **Limitations on the Use of Bond Money Impede Good Facilities Management Practices**

***Bond money cannot be used to finance foreseeable maintenance.***

Once a bond has passed, constitutional provisions limit the use of the bond money. One significant restriction is that school districts cannot finance foreseeable maintenance or any supplies or equipment that are not intrinsic to a school building. Some school districts have hired bond counsel for assistance with interpreting these restrictions. The constitutional provisions appear, for example, to prohibit spending bond funds on such key maintenance as painting and routine roofing. These two items are an essential part of preventive maintenance, as they protect the underlying building structure from exposure to weather elements and extend a building's life. Many school districts are unable to fund adequate painting and roofing needs with operating funds. These types of maintenance delays are a short-term strategy to address funding shortfalls and may result in higher long-term costs.

- Several school districts have made cuts to their painting programs, with one school district not having painted some of its buildings in 20-30 years. Another school district reported a \$150,000 painting backlog. The appearance of one school in this district was so poor that a local individual donated \$1,000 for painting. District officials expressed embarrassment that the painting need was so great as to warrant unsolicited contributions.
- Leaking roofs was a common maintenance concern expressed by school officials. Responding to the structural integrity needs of roofs was another. For example, the gym building at one school had a structurally deficient roof which collapsed in 1995. Fortunately, no one was injured in the incident because the collapse occurred during spring break. Insurance proceeds paid for that gym to be rebuilt; however, it was difficult for the school district to finance the cost of inspecting and upgrading the roofs of other schools in the district.

## School Districts Often Use Funding Alternatives

***Alternative funding strategies do not provide long-term financial support for school facilities.***

School districts often turn to alternative funding strategies when unable to pass a bond or levy or when available funding is not sufficient to meet facility needs. These alternatives are not long-term, stable sources of funding and have their own challenges. Some of the short-term strategies school districts use include:

- **Budget reallocations.** One strategy for dealing with shortfalls in facilities funding is to reallocate budgetary resources. Several school districts currently use bonds passed prior to Measure 50 to fund annual maintenance needs. These bond funds will soon be depleted. One school district will run out of available funds in less than a year, leaving it with \$2.5 million in facilities costs to fund its general operating budget. Some school districts used lottery bond money to fund all maintenance activities and shifted the funds from operations normally earmarked for maintenance to other purposes. State officials expect to soon exhaust the state's lottery bond funding ability. Estimates show that there is currently only \$270 million in additional lottery bonding capacity remaining to the state for all purposes, including education, if the current bonds' ratings are maintained. This amount is roughly equivalent to the amount of lottery bond money distributed to school districts over the past two years. School districts, however, depend on lottery bonds to fund facility needs. School district officials are uncertain about what they will do to make up for the funding shortfall once lottery-backed bond money is exhausted. One superintendent stated that once their lottery bond funds are gone the district will have to begin making staffing cuts. Another superintendent stated that programs would most likely need to be cut to make up for the loss of funds.
- **Private Financing.** School districts have sought private financing to fund many issues for which they generally issue bonds. Officials at one district reported taking out a traditional 15-year loan to finance the replacement of a high school's 35-year-old roof. After three failed bond proposal attempts, the district could not wait for a successful bond proposal because the roof repair had become critical. At present, this district is making the \$30,000 annual loan repayments for this replacement with funds from property sales and lottery bonds. District officials hope to pass a bond to pay off the loan before these proceeds run out.
- **Selling of Property.** School districts also are raising funds by selling off extraneous property. While the selling of property may

be reasonable in some circumstances, it is not a prudent long-term strategy for funding facilities. A district superintendent explained that excess property is being sold and the proceeds used to fund facility maintenance and upgrades. With the district running out of capital assets to sell, the superintendent was worried about where additional funds for maintenance would come from. While divesting this excess property may have been a good economic decision, decisions of this type should be made in the context of long-term facility plans.

### **Facilities Management Should Be Supported by Stable Funding**

***Officials in Oregon are concerned about the condition of the state's school facilities.***

Facilities management best practices require that school facility funding be dedicated, continuous and sufficient to support routine, preventive and long-range maintenance programs. Nationally, school facility funding and school facility equity are emerging priorities for federal, state, and local governments. In Oregon, school facility issues are being studied at both the state and local level. At the state level, the governor, legislators, and entities such as the Quality Education Commission have raised school facility concerns. As a local level example, the Portland Public School District created a Best Use of Facilities Task Force to determine the optimal use of the district's facilities given current demographic and financial conditions. Task force participants include district administrators, students, higher education officials, private sector business leaders, and other local government representatives.

***Judicial findings of inequity have compelled many states to revise their systems of school facility funding.***

Typically, however, judicial findings of inequity are compelling states to implement improved systems of facility funding. New Jersey's state Supreme Court determined that the quality of school facilities "cannot depend on the district's willingness or ability to raise taxes or incur debt." Ohio's Supreme Court ruled that the legislated appropriations to school districts were insufficient for the construction and maintenance of public school buildings. As of March 2000, at least 18 states had litigation in progress and unsettled lawsuits involving school funding inequities. Some of these lawsuits have directly challenged the adequacy of existing facility funding models, while others have challenged models indirectly by questioning the constitutionality of state school funding. In revising funding systems to meet standards of equity, many states have incorporated best practices, including:

- California's Office of Public School Construction administers grants for school construction and renovation. The grants are

distributed on a per-pupil basis to fund approved projects at a target rate of 50 percent for construction and 80 percent for renovation. California also provides dollar-for-dollar matching funds for approved deferred maintenance projects. Funds for these programs come from state bonds and the state general fund.

- New Jersey provides school facility funding based on a district's poverty level. The state funds facility needs in high poverty school districts at 100 percent. Other school districts receive between 40 and 100 percent funding of eligible costs. If a district places a proposal before voters and it is rejected twice, the district may apply for 100 percent state funding regardless of district wealth. Bonded state debt provides primary funding for this program.
- Ohio administers eight school facilities assistance programs through its School Facilities Commission. These programs provide monetary and technical assistance to Ohio school districts based on relative property wealth. The commission develops a ranked equity-based list for the purpose of allocating funds to school districts on a prioritized basis. The state provides its share of assistance with bond and tobacco settlement monies, while the rest of a project's cost is to be provided by voter approved bond or levy revenues.
- In Washington, the state provides matching funds for school facilities projects. The state match ranges from a low of 20 percent for the wealthiest school districts to a potential high of 100 percent for the poorest school districts. The formula is set by statute with a goal of providing a 50 percent match for the average district. The state funds this program from timber money. When authorizations of capital projects exceed available funds, the state may issue bonds backed by the interest on the common school fund.

## **School Facilities Oversight Needs Strengthening**

Oregon's school facilities oversight is performed at the local level as prescribed by statute. Department officials stated that they do not have statutory responsibility for facilities oversight. Oregon Revised Statute 326.310 requires the compilation of statistical information relative to the condition and operation of public schools, but allows the superintendent and the state board discretion in determining what

***Existing state oversight of school facilities is fragmented and narrow in scope.***

data is necessary for the advancement of education and for the information of the state board and the public. The superintendent and state board have not requested such data on school infrastructure. The department conducts site visits to assess programs, but does not regularly review infrastructure as part of these visits. Department officials noted that significant structural issues rarely come to their attention during these visits.

Some facilities oversight is performed by state regulatory agencies, such as the Fire Marshal, the Oregon Occupational Safety and Health Division (OR-OSHA), Building Codes Division, and Health Division. However, these oversight activities are narrow in scope and are not consistent with best practices other states use to assess and monitor school infrastructure on a statewide basis.

Best practices for managing school facilities indicate that there should be increased oversight, information, and resources available to school districts for properly planning and maintaining school infrastructure. In other states, this has entailed increased involvement on behalf of the state or a central building authority.

***In absence of a state role, other organizations have offered school districts assistance with infrastructure-related issues.***

School districts rely on non-state organizations for assistance with some infrastructure-related issues. The Oregon School Boards Association offers school districts many fee-based services including bond-planning seminars, access to property insurance, and loan financing. Another organization, the Oregon School Facilities Managers Association, is comprised of officials from several school districts and meets to share facility information. While some outside resources are available, school officials expressed frustration at having no help from the state and would like some centralized assistance. By far, the most common suggestion we heard from school officials was that the state needs to “power equalize” funding for facilities between property rich and property poor school districts within the state.

Other specific concerns raised include:

- **Access to expert services.** Access to needed expertise was a frequent concern. One superintendent stated that school districts have no one to go to for guidance on school facilities planning. Other officials described the extra costs incurred because of the need to contract with outside experts for construction and facilities planning expertise due to a lack of assistance at the state level. Another official thought that it

***Many school districts would like state assistance with facilities planning and funding, including access to expert services, conditions assessments, and construction project management services.***

***A few school districts do not want any additional assistance from the state.***

would be beneficial to have access to state level architectural plans for prototypical schools, while another stated that bond services could be provided “in bulk” in a much more cost-effective manner at the state level.

- **Assessment of school facility conditions.** Most school districts do not currently have the money or expertise to maintain detailed assessments of their facility conditions. One superintendent would like an in-depth study completed by the state on all school buildings and facilities. This information would provide decisionmakers an accurate picture of the current funding and space needs within Oregon’s schools.
- **Assistance with construction project planning and management.** Officials expressed concern about the inordinate amount of time spent planning for and managing construction projects. One high school principal commented that she has taken on the job of construction manager for the implementation of her school’s current capital construction project, which has greatly detracted from the amount of time she is able to devote to her primary job of administering programs.

School officials we interviewed indicated they recognize that school infrastructure is a significant public investment and that the state should provide more guidance and technical expertise. Many of the direct and indirect costs noted above could be curtailed for school districts if the state were to provide state-level assistance related to architectural, engineering, and construction planning expertise. Officials expressed wanting varying degrees of state involvement, but many said that there is a need. It should be noted that some district officials did not want additional oversight or help from the state. These officials clearly stated that they want additional funds from the state to deal with facilities issues, but that planning and maintenance decisions should remain at the local level.

## **Oregon Has Billions of Dollars in School Facility Maintenance and Renewal Needs**

Oregon’s schools have a fiscally overwhelming amount of maintenance and renewal needs as a result of inadequate planning and funding practices. For the purposes of this audit, we defined a school’s maintenance and renewal need as the total cost of all repairs, renovations, and modernizations needed to put school buildings in good overall condition where only routine maintenance is

***We estimate that Oregon will need to spend \$2.4 billion to put school buildings in good overall condition.***

required.<sup>4</sup> Overall condition includes both the physical condition and the ability of the buildings to meet the functional requirements of instructional programs. For newer schools, this amount would be limited to the cost of minor maintenance and repairs. Older schools, on the other hand, might include a substantial amount of deferred maintenance or the complete cost of building replacement in their totals.

To determine the extent of facility needs, we surveyed 160 schools statewide. Based on this survey, we estimate that Oregon will need to spend \$2.4 billion to put all of its school buildings in good overall condition. This amount represents an entire year's allocation of State School Fund money for all purposes to all school districts in the state. Over 85 percent of schools surveyed reported a need to spend money for this purpose, with the amount of need ranging from \$5,600 to \$27.5 million per school. An average Oregon school building requires funding of \$2.1 million to make needed facility improvements. The results of our survey compare similarly to federal studies of school building conditions conducted in 1995 by the U.S. General Accounting Office (GAO) and in 1999 by the National Center for Education Statistics (NCES). Adjusting for inflation, the GAO study found that the average maintenance and renewal needs to be \$2 million per school and the NCES study found the average per school need to be \$2.2 million. The results of our survey also compare similarly to a recent study completed by the Governor's Office in Oregon. The governor's study estimates for public education institutions (including community colleges and universities) more than \$2 billion in total backlog of maintenance needs, \$250 million annual need for facilities and infrastructure renewal, and more than \$3 billion in new building needs over the next ten years.

To supplement our statewide survey, we conducted site visits at 33 schools, where we observed school building conditions and interviewed school officials. A primary concern expressed by school officials was the substantial need to resolve deferred maintenance. For example, an official of a large urban district reported \$250 million in critical repairs needed, such as repairing leaking roofs and replacing plumbing, and only \$150 million in available bond money. School officials cited a lack of funds due to budget cuts as a primary reason for deferring maintenance. The facilities manager for a large urban district stated that half the district's facilities budget has been cut over the last three years from \$15 million to \$7.5 million in an

<sup>4</sup> We used this definition of maintenance and renewal costs to allow direct comparison with the national studies of school building conditions conducted by the U.S. General Accounting Office and the National Center for Education Statistics.

## Audit Results

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| effort to maintain programs.

## The Quality of Oregon’s School Facilities Are Variable and Non-Uniform

***The quality of school facility conditions can be linked to a district’s ability to pass bonds.***

***One school district has passed several bonds and has schools in very good condition.***

***Another school district has not been able to pass its bonds and struggles to maintain its***

A significant impact of inadequate planning and funding is the non-uniformity of school building conditions statewide. We observed instances of substandard as well as optimal school facility conditions between and sometimes within school districts. Our survey results indicate that substandard facility conditions are more common. This is likely the result of the old age of the majority of Oregon school buildings. However, substandard facility conditions were more frequently observed in school districts with low property wealth and an inability to pass bonds. School districts make repair and replacement decisions based largely on their ability to pass bonds. We found that, in general, school districts in property-rich areas were more likely to pass their bonds and thus have newer buildings and facilities. Conversely, school districts in lower property wealth areas find it harder to pass bonds and thus tend to have older, sometimes substandard, buildings and facilities. The following describes two examples of the non-uniform conditions we noted during our district visits:

- Voters in the first district have passed three bonds over the last ten years. As a result, four of the nine schools in the district are new and the others are in very good condition. School district officials stated that they are able to adequately fund building maintenance. Each year, the school district creates a capital improvement plan, which is used in the budgeting process to determine which facility items to fund. All nine schools have newer roofs under warranty and the district continues to maintain a 20-year roof replacement policy. The elementary school we visited in this district appeared to be in very good condition, with recent upgrades to its heating system and a new media center addition. The school recently had its old asbestos floor tile removed and replaced with modern flooring. School officials also reported that based on their routine assessment there are no existing structural safety issues or any problems with air quality.
- Voters in a second district have rejected two bond proposals in the past five years. Officials in this district stated that they could not afford all of the costs associated with the bond attempts and had to forgo some of the planning steps ordinarily completed. School district officials stated that a strategy of crisis management drives maintenance schedules and budgets, and there is not enough funding to plan for the long-term. Even though the school district did not have bond money available to construct new

**facilities.**

**One school was condemned for safety reasons.**

infrastructure, officials determined it was necessary for safety reasons to condemn one of its schools and move classes into portables. The school needed to be condemned because it contained exposed electrical wiring, a lack of fire walls, PCB light fixtures, asbestos floor tile, inadequate fire escapes, extensive water damage, leaking roofs, and dry rot. This school had been in operation since 1909 and was not condemned until 1996. The solution to move classes into portables, however, was not sufficient from a programmatic standpoint. Because of facility limitations with the portables, the school had to eliminate classes such as laboratory science, art, home economics, and woodshop. The district was finally successful in passing a bond in May 2000, and will use the proceeds in part to construct new facilities for this school. One could argue that this facility was advantageously used to or beyond its most useful life; however, the district sank emergency maintenance and repair costs into the facility's worn out infrastructure that will never be recovered through the cost depreciation model.

**Poverty also impacts the condition of school facilities.**

The results of our statewide survey also point to a distinct difference in the non-uniformity of a school building's age and condition based on a school's level of poverty. A school's poverty status, as defined by greater than 70 percent student eligibility for free or reduced lunch, is related to differences in the age, condition, and structural composition of school buildings. Our analysis shows that high poverty schools have older facilities, a substantially greater need to replace at least one existing structure, and an increased use of temporary facilities, such as portables.

Figure 2 summarizes the differences between poverty and non-poverty schools and compares these differences to the statewide average:

**Figure 2  
Poverty Impacts on School Facilities**

School Condition	High Poverty Schools	Lower Poverty Schools	Statewide Average
School Building Age	52 years	44 years	45 years
Percent needing to replace at least one on-site building	19.6%	4.3%	5.2%
Percent of rooms that are temporary	8.1%	5.3%	5.5%

## Recommendations

To improve the condition of Oregon's schools, we recommend that the state expand its role in overseeing school facilities. The following are opportunities for the Oregon Legislative Assembly and the Department of Education to consider:

- 1. Provide additional guidance to school districts to help implement facilities management best practices.** Subject to direction by the Legislative Assembly, the department has an opportunity to provide additional guidance to school districts about facilities management best practices. Some best practice guidance includes:

  - Information related to the development of short, long-range, and preventive maintenance plans.
  - Standards for the development and content of district maintenance programs, such that preventive and routine maintenance are implemented on an ongoing basis.
  - The development of a statewide assessment to determine the condition of school infrastructure, including a cost estimation for resolving maintenance and renewal needs. This assessment would provide a baseline for the development of short and long-range school facility plans. A statewide assessment of school building conditions, complemented by guidance on maintenance programs and facilities planning, would allow decision-makers and school officials to jointly plan for school infrastructure improvements.
  - The hiring or central contracting with experts to provide architectural and engineering services to help school districts not only plan for the preparation of bond issues, but also create and maintain long-range facilities plans as a routinely implemented maintenance best practice.
- 2. Explore options for creating a dedicated, stable, and equitable funding source for school facilities.** The Legislative Assembly has an opportunity to improve the system of school facility funding by establishing a dedicated and stable funding source for school-related capital construction, renovation, and facilities maintenance. The Legislative Assembly should look for a source of funding that addresses the

inequities inherent in the current system and distributes funds based on an objective, need-based prioritization. If, however, the current local bonded indebtedness funding structure is to remain, the state should consider offering bond planning guidance to school districts, such as access to the services of the state's bond underwriters and other financial experts.



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## Objectives, Scope and Methodology

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The objective of our audit was to review existing practices for school facility planning and funding and identify opportunities for the state to improve the process.

To accomplish these objectives, we interviewed legislative officials, department officials, and regulatory personnel. We reviewed applicable laws, rules, and policies and procedures to determine the existence and status of mandates related to school facilities planning and funding. To identify best practices for school facility planning and funding, we researched relevant professional standards and information from other states, including Arizona, California, Florida, Maryland, Minnesota, New Jersey, Ohio, Washington, and West Virginia. We also reviewed national studies on school facility conditions, including studies conducted by the U.S. General Accounting Office, the National Center for Education Statistics, and the National Education Association.

To obtain statewide data about school building conditions, we surveyed a random sample of 160 schools out of a population of 1,173 schools. The sample population included schools with free and reduced lunch and report card information, and excluded charter and alternative programs and multiple schools operating at the same location. The random sample included stratification based on a school's poverty status and we achieved over a 97 percent response rate. The survey asked questions related to facilities planning and funding practices, estimations of deferred maintenance, the condition of mechanical and electrical systems, and the status of environmental factors within school buildings.

To gather additional, more detailed information about school building conditions, we conducted site visits at 33 schools within 17 school districts statewide. These schools were judgmentally chosen based on size, geographic location, type of school, district bond proposal experience, school building condition, and other survey results. Our site visits involved interviews with school building officials, superintendents, and facilities and maintenance personnel. We interviewed these individuals to determine their planning and funding practices for facilities and maintenance programs. During our site visits, we also conducted walkthroughs of school buildings in order to observe and document the relative condition and safety of school buildings. Fieldwork was conducted from October 2000 to January 2001.

We conducted our audit in accordance with generally accepted government auditing standards. We limited the scope of our review to the topic areas specified above.

## **Commendation**

The courtesies and cooperation extended by the officials and staff at the Department of Education and the participating school districts were commendable and much appreciated.

## **Audit Team**

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**AGENCY'S RESPONSE TO THE AUDIT REPORT**



STAN BUNN  
State Superintendent  
of Public Instruction



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May 17, 2001

Cathy Pollino  
Deputy Director  
Audits Division  
Secretary of State  
255 Capitol Street NE  
Salem, OR 97310

RE: Exit Draft, Department of Education, Public School Infrastructure – Opportunity to Improve Planning and Funding

Dear Ms. Pollino:

The Department of Education has reviewed the subject draft audit report attached to your cover letter dated May 3, 2001. We appreciate the audit work and extensive research that obviously went into the report.

The Department generally concurs with the conclusions and recommendations in the draft report. The report is accurate in its description that the Department does not have statutory directive mandating involvement with school facilities and that local school districts are responsible for maintaining their school buildings.

The recommendation concerning the Department providing additional guidance to school districts about facilities management best practices as noted in the audit report is contingent upon Legislative directive and on allocation by the Legislature of additional resources to the Department for that activity.

Thank you for courtesies by your audit team to the Department and to the schools they visited.

Sincerely,

Kate Dickson, Ph.D.  
Deputy Superintendent  
of Public Instruction

cc: Michael Greenfield, Director, Department of Administrative Services





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