

Education Expenditure Trends in Oregon

For The Quality Education Commission

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INTRODUCTION

Policymakers in Oregon and a number of other states have expressed increasing interest in policies that would allocate proportionally more resources to direct instructional activities as a way to improve student achievement. We look at historical spending patterns in this report to assess the resource allocation in Oregon schools has changed over time. This information may give us clues about how resources might be re-allocated to improve student achievement.

We begin with an overview of historic trends in Oregon's educational spending per student. Next, we present a detailed interstate comparison of 2003-04 spending by accounting object and function. This analysis illustrates Oregon's relatively high staff compensation expenditures in the context of below average, relative to the nation, spending per student. The final section presents additional analysis of the State's 2004-05 expenditures, highlighting several areas where increased efficiency could free significant resources for instructional use.

TRENDS IN SPENDING PER STUDENT

A variety of methods exist to calculate spending per student, and many can be appropriate if the method is transparent and described thoroughly. For the purposes of the following analyses, we will focus primarily on a single measure, *current expenditures per student in fall enrollment*, which is commonly used by the National Center for Education Statistics and National Education Association for state spending rankings. *Current expenditures* consist of spending for the day-to-day operation of local public schools but *exclude* capital outlay and interest payments on debt. These expenditures include such items as salaries for school personnel, fixed charges, student transportation, textbooks and materials, and energy costs. *Students in fall enrollment* is the count of students enrolled in the fall of the school year, usually October (October 1 in Oregon).

Table 1 reports Oregon's current expenditures for Public K-12 Schools increased from \$2.5 billion in 1990-91 to \$4.2 billion in 2001-02. Over that period, per student spending grew at an annual average rate of 3.8 percent. Subsequent to the 2001-02 school year, the effects of the economic downturn and corresponding state fiscal crisis are apparent with per student spending increasing from \$7,639 to only \$7,841 during the period 2001-02 through 2004-05. The state projects per student spending to increase to \$8,631 by 2006-07.

Table 1: Actual and Projected Current Expenditures per Fall Enrollee, Oregon, 1991-2007 (Not Inflation Adjusted)

School Year	Fall Enrollment	Current Expenditures per Fall Enrollee	Current Expenditures for Public K-12 Schools (000s)
90-91	484,652	5,063	2,453,934
91-92	498,614	5,268	2,626,803
92-93	510,122	5,585	2,849,009
93-94	516,611	5,522	2,852,723
94-95	521,945	5,649	2,948,539
95-96	527,914	5,790	3,056,801
96-97	537,854	5,920	3,184,100
97-98	541,346	6,419	3,474,900
98-99	542,809	6,828	3,706,300
99-00	545,085	7,148	3,896,287
00-01	545,680	7,536	4,112,069
01-02	551,679	7,639	4,214,512
02-03	554,071	7,491	4,150,747
03-04	551,273	7,618	4,199,485
04-05 est.	552,339	7,841	4,331,044
05-06 est.	559,215	8,055	4,504,286
06-07 est.	562,570	8,586	4,830,256
Annual Growth Rates			
90-91 to 01-02	1.2%	3.8%	5.0%
01-02 to 06-07	0.4%	2.4%	2.8%

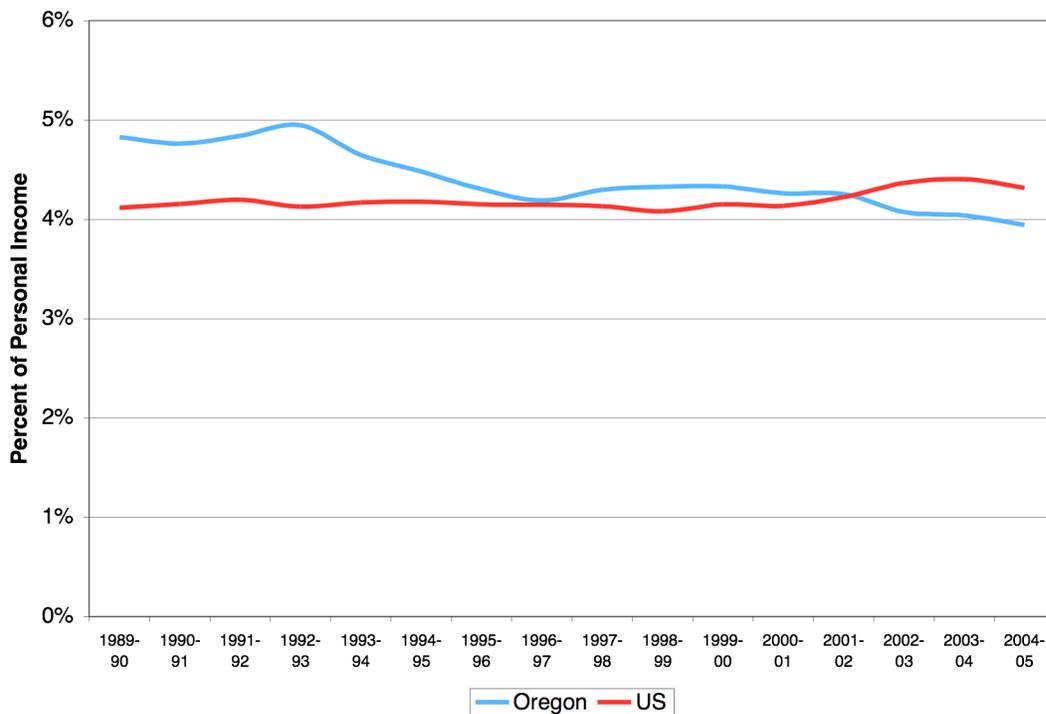
Source: Oregon Department of Education and National Center for Education Statistics

A comparison of current expenditures to total personal income in the state is a common and useful measure of trends in K-12 spending. Total personal income in the state is one measure of the state's capacity to spend on K-12 and other public services. Oregon's total personal income increased at an average annual rate of 6 percent during 1989 to 2002 (from \$47.6 billion to \$101.4 billion). From 2002 to 2005, Oregon's total personal income continued to increase, reaching \$116.9 billion in 2005.

Figure 1 shows that from 1989 to 2002 the share of Oregon's total personal income spent on K-12 current expenditures fell from 4.8 percent to 4.0 percent—indicating that K-12 spending did not keep pace with Oregon's expanding economy during the 1990s. Oregon's percentage of personal income spent peaked in 1992 at almost 5 percent. Over the period, Oregon's spending per total personal income trended toward the national average, which remained in the 4.1 to 4.2 percent range. The decade could be characterized as one in which Oregon transitioned from an above average spender on K-12 to an average spender. Immediately following this time period, from 2002 to 2005, the share of Oregon's total personal income spent on K-12 current expenditures fell below the national average of 4.4 percent, to roughly 4.1 percent in 2002-03. The downward trend

continues in subsequent years, decreasing to 4.0 percent in 2004-05. Limitations on property taxes and, in recent years, voters' rejection of temporary tax increases underlie Oregon's downward trend.

Figure 1: Current Expenditures as a Share of Total Personal Income, US and Oregon, 1989-90 through 2004-05



Source: ECONorthwest based on NCES, NEA, and Bureau of Economic Analysis data

DETAILED ANALYSIS OF 1997-2004 SPENDING

Data from the National Center for Education Statistics (NCES) also permit an in-depth analysis of Oregon's K-12 spending over time. In Table 2, the accounting functions and objects appear in the same table. So, for example, we can isolate salaries paid to people who were engaged in instructional activities. Oregon spent \$2,412 per student on instruction-related salaries in 1996-97 and \$2,876 in 2003-04. Meanwhile, total current expenditures increased from \$5,920 to \$7,618, or 3.7 percent annually.

While overall spending increased 3.7 percent annually, growth rates vary considerably by function/object pair. For example, spending on salaries for operations and maintenance declined 1 percent annually while benefits in the staff and student support area increased by 8.1 percent per year. Areas of high per student growth include benefits (across almost all functional categories), as well as the staff and student support and transportation functions. Spending per student on instruction increased at a slower rate than the overall spending total.

Table 2: Oregon Spending per Student Average Annual Growth Rate 1996-1997 to 2003-2004

OREGON SPENDING PER STUDENT 1996-97

	Instruction	Staff and Student Support	General and School Administration	Operations and Maintenance	Student Transportation	Food and Enterprise	TOTAL
Salaries	2,412	449	345	227	80	60	3,574
Benefits	793	174	117	89	33	27	1,232
Services, Supplies, Other	380	158	63	256	130	126	1,113
TOTAL	3,584	782	525	573	243	213	5,920

OREGON SPENDING PER STUDENT 2003-04

	Instruction	Staff and Student Support	General and School Administration	Operations and Maintenance	Student Transportation	Food and Enterprise	TOTAL
Salaries	2,876	668	380	212	100	72	4,307
Benefits	1,158	300	150	101	53	38	1,800
Services, Supplies, Other	498	278	67	326	181	161	1,510
TOTAL	4,532	1,246	596	639	334	271	7,618

OREGON SPENDING PER STUDENT AVERAGE ANNUAL GROWTH RATE 1996-1997 TO 2003-2004

	Instruction	Staff and Student Support	General and School Administration	Operations and Maintenance	Student Transportation	Food and Enterprise	TOTAL
Salaries	2.5%	5.8%	1.4%	-1.0%	3.2%	2.5%	2.7%
Benefits	5.6%	8.1%	3.6%	1.8%	7.0%	5.1%	5.6%
Services, Supplies, Other	4.0%	8.3%	0.7%	3.5%	4.9%	3.6%	4.5%
TOTAL	3.4%	6.9%	1.8%	1.6%	4.7%	3.5%	3.7%

Source: ECONorthwest analysis of National Center for Education Statistics data

DETAILED ANALYSIS OF 2003-04 EXPENDITURES

Data from the National Center for Education Statistics (NCES) data permit a detailed interstate review of two broad accounting categories known as “objects” and “functions”. Spending *objects* disaggregate spending by salaries, benefits, purchased services, and supplies. Spending *functions* include expenditures on instruction, school administration, operations and maintenance, and student transportation. In this section, we conduct a detailed review of expenditures for the 2003-04 school year—the most recent year data for interstate comparisons are available.

SPENDING BY OBJECT

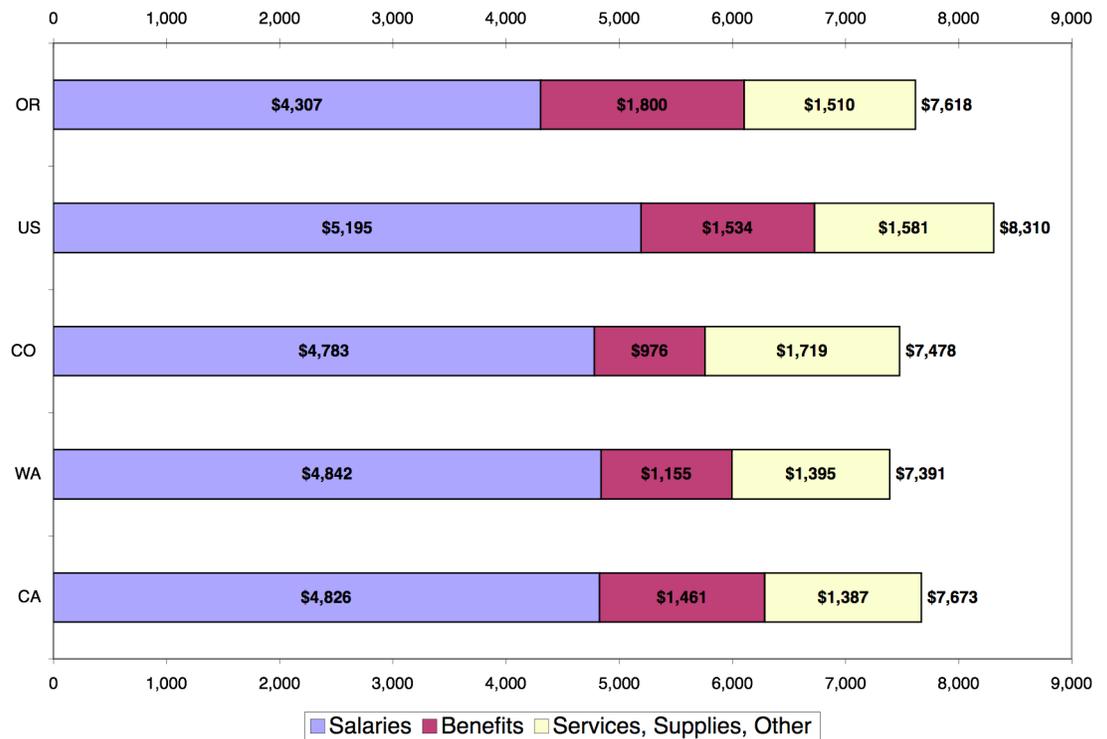
Figure 2 compares Oregon’s spending per student (fall 2003 enrollees) in 2003-04 by accounting objects to comparable measures for the United States and two neighboring states: California and Washington. The NCES accounting framework includes the following categories:

- **Salaries.** Gross salaries of staff involved in instruction and administration of school activities including those of teachers, instructional aides, principals, librarians, counselors, support staff, and district administrators.
- **Benefits.** Staff benefits include amounts paid on behalf of employees for items including group insurance, social security contributions, retirement contributions, tuition reimbursement, unemployment compensation, and workers’ compensation.

- **Services, Supplies, Other.** Such services include computer-assisted instructional expenditures, travel for instructional staff, per diem expenses, as well as the services of medical doctors, social workers, psychologists, psychiatrists, audiologists, and other consultants. Supplies includes classroom teaching supplies, audiovisual supplies, books, periodicals, medical supplies, films, tapes, and paper supplies. Also in this category is tuition spending, consisting of payments from public schools to private schools and public schools outside of the state. The “other” portion captures membership dues paid by schools or districts on behalf of staff and other goods and services that not captured in the categories mentioned above.

Overall, Oregon spent \$7,618 per student of which 57 percent (or \$4,532 per student) was associated with salaries and 24 percent (or, \$1,800 per student) with benefits. The figure shows Oregon spends \$888 less per student on salaries than the U.S. average. However, the lower spending per student on salaries is offset by the higher spending per student on benefits (+\$266). Oregon’s spending per student is below the national average for supplies, tuition and other spending (- \$71). Oregon’s total spending per student is below the national average (-\$692). Oregon’s salaries per student are below both Washington’s and California’s. However, as with the national comparison, Oregon’s benefit expenditures per student are considerably higher: \$645 above Washington’s and \$339 above California’s. Oregon’s spending per student is comparable to both Washington’s and California’s for supplies, tuition, and other spending.

Figure 2: Current Expenditures per Student in Fall Enrollment by Object, 2003-04



Source: ECONorthwest calculated from National Center for Education Statistics data

SALARIES AND BENEFITS PER STAFF MEMBER

Using the same underlying salary and benefit data used to calculate *per student* averages in Figure 2, we can also calculate average values *per staff member*. In 2003-04, Table 3 shows Oregon ranked 18th nationally and paid an average salary of \$43,751 per full time equivalent staff member (measured across all staff employed by public schools). Oregon ranked 5th in benefit expenditures, spending an average of \$18,288 per staff member. Combining the salary and benefit figures, Oregon ranks 12th nationally in the average cost of the total compensation package per K-12 staff member (\$62,039).

Table 3: Average Salary, Benefits, and Total Compensation Cost per Full Time Equivalent Staff Member, Selected States Fall 2003

Salary Per Staff FTE			Benefit Cost Per Staff FTE			Total Compensation Per Staff FTE		
Rank	State	Average	Rank	State	Average	Rank	State	Average
1	New York	\$56,729	1	Wisconsin	\$20,257	1	New York	\$75,556
2	District of Columbia	\$56,039	2	Rhode Island	\$19,275	2	Rhode Island	\$73,029
3	California	\$54,035	3	New York	\$18,828	3	New Jersey	\$70,921
4	Rhode Island	\$53,754	4	Michigan	\$18,466	4	California	\$70,389
5	New Jersey	\$53,644	5	Oregon	\$18,288	5	Massachusetts	\$66,534
14	Washington	\$45,246	28	Washington	\$10,790	12	Oregon	\$62,039
18	Oregon	\$43,751				19	Washington	\$56,036
United States		\$42,394	United States		\$12,518	United States		\$54,912

Source: ECONorthwest calculated with National Center for Education Statistics data

SPENDING PER STUDENT (BY FUNCTION)

NCES data also allow a similar analysis of per student spending by accounting function. Under this analysis, we consider the same level of spending (\$7,618 per student in Oregon) but separate the total by functional uses. NCES defines the following functional categories:

- **Instruction.** Spending associated with regular and part-time teachers, teacher aides, homebound teachers, hospital-based teachers, substitute teachers, and teachers on sabbatical leave.
- **Student and Staff Support.** *Student support services* consists of spending associated with attendance and social work services, guidance, health, speech pathology, and audiology. *Instructional staff support* consists of spending for supervisors of instruction, curriculum coordinators, and inservice training staff, school library staff, audiovisual staff, educational television staff, and staff involved in the development of computer-assisted instruction.
- For the purposes of this analysis, we have also included “*other support*” services in this category, which includes expenses for the business support staff including the chief business officer, the staff for supervisor of fiscal services, budgeting, payroll, financial accounting, internal auditing, purchasing, warehousing, printing, and duplicating staff. The category also captures central support staff involved in planning, research, development, evaluation, and data processing.
- **General and School Administration.** Spending associated with board of education staff, board secretary, and negotiation staff, the superintendent’s staff, the superintendent, the office of the principal, department chairpersons, and the principal.
- **Operation and Maintenance.** Spending associated with the operations and maintenance supervisor, operation staff (heating, lighting, ventilation,

repairing, and replacing facilities and equipment), care and upkeep of grounds, and equipment staff.

- **Student Transportation.** Spending associated with the student transportation supervision staff, staff for vehicle operation, monitoring of students, and vehicle maintenance.
- **Food and Enterprise Operations.** This category captures gross spending associated with food services and enterprise operations financed by user charges.

Figure 3 shows Oregon's per student spending on instruction is \$566 below the U.S. average and falls between levels reported for Washington (Oregon is \$130 above) and California's (Oregon is \$125 below).

Overall, Oregon spends more than the U.S. average in the staff and student support category (+\$145). A major source of difference in per-student expenditures is in the so-called "other" support service area, which includes budgeting, payroll, purchasing, and warehouse activities. Oregon's Secretary of State recently concluded Oregon could close the gap in spending on these services by taking advantage of economies of scale through bulk purchasing, obtaining donations and in-kind contributions from foundations and local businesses, and sharing the cost of specialized staff across schools and districts¹.

Oregon's \$329 per student expenditure on transportation is close to the U.S. average (-\$3) but exceeds Washington's and California's level by \$46 and \$145, respectively. Oregon's higher expenditures can be explained by two factors: (1) Oregon transports a higher proportion of its students at public expense than some other Western states² and (2) Oregon's expenditures per student transported are relatively high³. As such, any initiatives to reduce student transportation expenditures in Oregon would have to incorporate some combination of transporting fewer students and reducing the per-unit costs of transporting students.

In other non-instructional areas, Oregon's per student spending falls below the national average. Per student spending of \$639 on operations and maintenance is \$159 less than the national average and is \$49 less than Washington's, and \$110 less than California's, spending per student. While lower per student spending may facilitate higher short-term spending in other areas, it may also result in

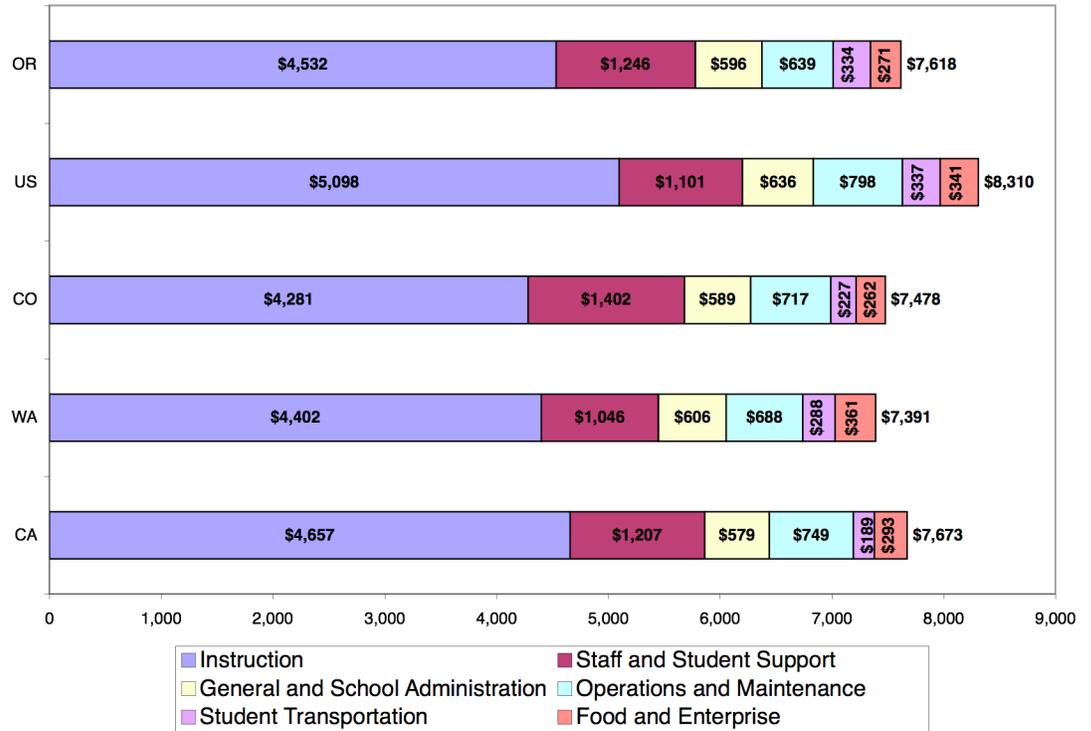
¹ See Oregon Secretary of State. May 19, 2004. *Oregon Department of Education: Analysis of Spending for K-12 Student Support Services*. Salem, Oregon.

² Based on data from School Transportation News, in 2000-01, Oregon transported 49 percent of K-12 students at public expense compared to California (16 percent), Washington (48 percent), Idaho (44 percent), and Utah (34 percent).

³ Based on data from School Transportation News and NCES, in 2000-01, Oregon's spent \$753 per student transported, which exceeded the U.S. average (\$645) and levels in a number of nearby states: Washington (\$606), Idaho (\$660), and Utah (\$469). California spent \$1,121 per student transported in 2000-01.

deferred maintenance that could cause increased maintenance or capital expenditures in the long-term.

Figure 3: Current Expenditures per Student in Fall Enrollment by Function 2003-04



Source: ECONorthwest calculations based on National Center for Education Statistics data.

ADDITIONAL ANALYSIS

Empirical evidence, including a production function analysis performed by ECONorthwest suggests that additional resources devoted to instructional activities leads to improved student achievement. The analysis of historical spending patterns suggests that there may be room for improving efficiency in funding certain non-instructional activities, freeing more resources for instruction.

The preceding review of education spending in Oregon highlights features of the State’s educational expenditures that warrant further investigation. While some trends reflect changing market conditions outside the control of the educational system (e.g., increases in transportation costs driven by increased fuel prices), others may identify inefficiencies and suggest that redirecting resources would allow more productive uses of existing funds:

- Slower growth in spending on administration than on instruction and other categories suggests that districts have made progress in reducing administrative overhead costs relative to other expenditure categories. To the extent that they do not impair districts’ ability to effectively run their

schools and programs, such reductions can liberate resources for other uses.

- The increase in spending on benefits across all function categories is consistent with the dramatic increase in employer PERS contribution rates and the rapid increases in health insurance premiums faced by Oregon school districts. To the extent that those costs can be reduced, cost savings can be directed to programs or uses that contribute directly to improved student outcomes.
- Spending on staff and student support services may increase the effectiveness of classroom instruction. If so, the observed faster expenditure growth in this area relative to instructional spending provides a critical supplement to instructional activities. If, on the other hand, the spending growth reflects inefficiency, then opportunities exist to redirect resources to more productive uses.
- The more rapid growth in transportation expenditures certainly reflects recent increases in fuel prices, but it may also reflect inefficiencies that result from Oregon's approach to funding student transportation. By reimbursing districts for 70% or more of their transportation expenditures, the state is providing little or no incentive for districts to seek transportation cost savings. More study is needed to determine better mechanisms for funding transportation.

The following sections address these issues using district-level expenditure data from Oregon Department of Education (ODE) for the 2004-2005 school year. Similar analyses over longer periods of time would help to identify changing spending patterns associated with particular district characteristics, such as enrollment. In general, however, identifying significant savings will likely require detailed analysis of individual districts.

INSTRUCTIONAL EXPENDITURES

In Oregon, instructional expenditures have, on average, grown 3.4 percent annually between 1996 and 2003, slightly below the 3.7 percent average annual growth rate in educational spending, but much faster than the growth in administration expenditures. Faster growth in expenditures on employee benefits accounted for approximately one third of the growth in both total and instruction spending, although benefits account for only about one quarter of all expenditures in these categories. This contrasts with slower growth in instructional salaries.

While these statewide trends are generally consistent with changes in the costs of providing educational services in Oregon, they mask significant variation across districts. In the 2004-2005 school year, for example, instructional expenditures for districts with total enrollment over 1,000 varied from \$3,837 to \$6,305 per student, a range equal in magnitude to over half of the statewide average. Table 4 provides an overview of the variation across Oregon in instructional spending as a percent of total expenditures.

Table 4: Share of Expenditures Devoted to Instruction, 2004-05

Share of Expenditures used for Instruction	Number of Districts	Number of students	Percent of total state enrollment
less than 45%	9	467	0.1%
45% to 50%	13	3332	0.6%
50% to 55%	53	58349	10.6%
55% to 60%	84	325834	59.2%
60% to 65%	37	162486	29.5%

Source: ECONorthwest analysis of Oregon Department of Education data

The share of expenditures used for instructional purposes ranged from 50 to 64 percent across districts with enrollment over 1,000. While, the disparities are much greater across smaller districts, these districts account for only 7 percent of student enrollment. Oregon's largest school districts devote a higher percentage of total expenditures to instruction than the median district (57.7 to 62.6 percent versus the median of 56.2 percent), although they fall evenly on either side of the median share for districts with enrollment between 10,000 and 20,000 (60.1 percent).⁴

The variation in expenditure patterns presents a puzzle, in that instructional expenditure gaps persist, even among districts of similar size, but also provides an opportunity to identify best practices. Applying these best practices in districts that spend comparatively little on instruction could improve efficiency and educational outcomes. Comparing the components of non-instructional spending across school districts that spend relatively more and those that spend relatively less on instruction provides insight into the extent to which differences in instructional spending reflect disparities in overall funding versus variation in the composition of expenditures. In particular, variations in the composition of expenditures across similar districts can indicate opportunities for improving resource use at the district level.

Excluding a handful of the smallest districts, the relationship between district size and share of educational expenditures devoted to instruction is, at best, extremely weak, larger school districts nonetheless face constraints that differ in type and in magnitude from those faced by smaller districts. Smaller, rural districts, for example, will likely spend relatively more on transportation than larger districts because students are more likely to live further from their school. For these reasons, the composition of non-instructional spending varies with district size, independently of spending on instruction.

Table 5 presents a comparison of 2004-2005 spending between districts that devoted a relatively large share of expenditures to instruction and those that devoted a relatively small share, by enrollment. The table is restricted to districts with total enrollment between 1,001 and 20,000 students. The exhibit omits a

⁴ ECONorthwest analysis of Oregon Department of Education data, 2004-05 school year.

number of smaller districts, but accounts for 71 percent of total enrollment for the state. The display also omits the state’s three largest districts (Beaverton, Portland Public, and Salem/Keizer), as these districts are large enough to significantly skew the results when combined with other districts. Within each group, districts are distinguished by whether they devote a larger or smaller share of total expenditures to instruction than the median district within the group. Per-student totals are calculated for high and low districts by summing expenditures across all similar districts and dividing by the number of enrolled students in those districts, excluding the median district.

Table 5: Per-student Expenditure Gaps by District Size, 2004-2005

	District Enrollment			
	1,001-2,500	2,501-5,000	5,001-10,000	10,001-20,000
Total expenditure gap	11	571	(171)	343
Instructional expenditure gap	340	778	160	438
Difference in instructional share between high and low instructional-share districts	4.07%	5.51%	3.37%	3.04%
Instructional gap as a percent of statewide average instructional expenditures	7.1%	16.3%	3.4%	9.2%
Share of statewide enrollment	10.9%	16.4%	20.8%	23.1%

Source: ECONorthwest analysis of Oregon Department of Education data

Each “gap” identifies the difference in expenditures between high and low instructional-share districts. A positive gap indicates that high-instructional share districts spend more than low-instructional share districts. The gap in instructional expenditures bears no obvious relationship to district size, either in magnitude or as a share of total expenditures. Low instructional-share districts spend more in total per student than high instructional-share districts in one of the groups; in the other three groups, the instructional gap is larger than the total expenditure gap, suggesting offsetting expenditure differentials. Overall, the data suggest that variation in instructional expenditures is not due solely to the overall level of resources available to a district.

By definition, districts that spend relatively more on instruction must spend relatively less on something else. Tables 6 and 7 contain per student expenditure detail for several district groupings and individually for the three largest districts, and allow comparisons of spending composition across high and low instructional-share districts. The tables illustrate several commonalities evident across districts of varying sizes:

- Across district groups, those with relatively low instructional expenditures spend more per student than those with relatively high instructional expenditures in a majority of categories, although the differences are often small. Transportation, administration, and operations and maintenance stand out in particular.

- Lower student support expenditures correlate strongly with higher instructional support expenditures across districts, particularly for smaller districts.
- For smaller districts, per student, general and school administration expenses are generally appreciably higher in districts spending relatively little on instruction. For larger districts, a similar pattern holds for expenditures on central administration.
- Spending on enterprise and community services and on supplemental retirement programs also tended to be relatively high in districts with low instructional spending, although the difference is pronounced only for the smallest districts.

No single non-instructional expenditure category appears to explain much of the difference in instructional spending. However, the patterns noted above provide the impetus for in-depth investigation to determine whether reallocating expenditures in low instructional-share districts could produce appreciable benefits. Despite relatively slow growth in administrative expenditures overall, the fact that low-instructional share districts appear to have relatively high administrative expenditures suggests one productive avenue of investigation.

Obvious differences between districts with high and low instructional shares are most evident in the smallest districts. Addressing these differences specifically will not produce significant savings across the state, although the specific reforms could apply to larger districts as well. However, comparisons between similar districts of all sizes highlight large variations in expenditure patterns. This enhances the likelihood that evaluations of individual districts will uncover best practices that could improve the allocation of educational resources across the state.

Table 6: Per-student Expenditures by Function and District Size, 2004-2005

	District Enrollment			
	1,001-2,500	2,501-5,000	5,001-10,000	10,001-20,000
High Instructional Share				
Instruction	4,825	5,104	4,550	4,795
Student Support	492	536	478	563
Instructional Support	263	273	305	285
General Administration	181	136	82	84
School Administration	506	518	461	470
Business Activities (less transport & opps/maint)	190	168	125	173
Operations & Maintenance	773	670	645	640
Student Transportation	401	360	351	338
Central Administration	188	213	216	218
Supplemental Retirement Program	80	111	86	54
Enterprise and Community Services	308	316	323	305
Total	8,209	8,405	7,621	7,926
Low Instructional Share				
Instruction	4,485	4,326	4,389	4,357
Student Support	538	510	506	501
Instructional Support	300	310	267	254
General Administration	192	124	79	71
School Administration	535	498	502	479
Business Activities (less transport & opps/maint)	241	164	148	183
Operations & Maintenance	729	763	684	664
Student Transportation	468	433	379	360
Central Administration	209	243	270	350
Supplemental Retirement Program	79	134	179	56
Enterprise and Community Services	423	327	388	309
Total	8,198	7,834	7,792	7,583
Difference				
Instruction	(340)	(778)	(160)	(438)
Student Support	45	(26)	28	(63)
Instructional Support	37	37	(38)	(31)
General Administration	11	(12)	(3)	(13)
School Administration	28	(20)	41	9
Business Activities (less transport & opps/maint)	51	(3)	23	10
Operations & Maintenance	(45)	93	39	23
Student Transportation	67	74	28	21
Central Administration	21	30	54	133
Supplemental Retirement Program	(1)	23	93	1
Enterprise and Community Services	114	11	66	3
Total	(11)	(571)	171	(343)

Source: ECONorthwest analysis of Oregon Department of Education data

Table 7: Per-student Expenditures by Function, Large Districts 2004-2005

	District		
	Beaverton	Portland	Salem/Keizer
High Instructional Share			
Instruction	4,327	5,680	5,236
Student Support	523	1,037	726
Instructional Support	324	484	289
General Administration	49	80	40
School Administration	465	640	544
Business Activities (less transport & opps/maint)	112	189	122
Operations & Maintenance	577	713	498
Student Transportation	335	338	287
Central Administration	268	354	254
Supplemental Retirement Program	27	0	80
Enterprise and Community Services	281	335	287
Total	7,289	9,852	8,363

Source: ECONorthwest analysis of Oregon Department of Education data

EARLY RETIREMENT / PERS

The increase in spending on benefits across all function categories is consistent with the dramatic increase in employer PERS contribution rates and the rapid increases in health insurance premiums faced by Oregon school districts. To the extent that those costs can be reduced over time, either through more favorable market conditions or through explicit public policies, then the cost savings can be directed to programs/uses that contribute to improved student outcomes.

Since 2003, market and policy factors have combined to strengthen the fiscal position of PERS. Strong 2003-2005 investment returns boosted system assets, which earned 23.8 percent in 2003, 13.8 percent in 2004, and 13.2 percent in 2005. As a result, in December 2005, the system had \$4.1 billion more in assets than circa 2003 forecasts had foreseen. On the policy side, the adjustment of 1999's excess crediting to Tier I accounts, the update of actuarial tables, and redirection of member contributions to Individual Account Programs curbed the growth of Tier I-related liabilities.

The actuary's recent valuation (conditions as of December 31, 2005) reported an unfunded actuarial liability of \$4.6 billion. The system's funded ratio—assets divided by liabilities—stood at 91 percent, which is four percentage points above the average for 125 large public pension programs. Employer contributions will remain well above their historic average for much of the next decade. As discussed previously, employer rates (expressed as a share of payroll) would equal an average 16.6 percent through 2014 under expected investment returns (8.1 percent annually). Complex PERS Tier I rules make the forecasts highly dependent on investment outcomes. With particularly strong or weak investment returns, employer rates vary from 7 to 22 percent of payroll. Employers who “pick up” the member's PERS contribution will contribute an additional 6 percent of payroll.

The strategy of prepaying PERS liabilities by issuing debt appears to have paid off for some employers at this stage. Employers borrowed at rates between 5 and 6 percent and hoped that investments of the bond proceeds would earn 8 percent or more. Any gains from the strategy would reduce the PERS liabilities. Employers who borrowed and invested beginning in 2002 fared particularly well and earned the double-digit investment returns. Accounts for certain employers have grown so large, they may be sufficient to fund the employers' entire PERS/OPSRP liabilities for the next two decades and have resources left over after debt service on the bonds expires.

At present, individual districts have little control over existing PERS liabilities, with any significant changes likely to occur at the state level. Districts have more flexibility to determine early retirement policies. This flexibility has manifested as early retirement policies that vary widely across districts. In-depth study of individual districts may highlight best practices that would result in significant savings for many districts, although the variety of existing programs precludes a simple summary of current practices.

OTHER SUPPORT SERVICES / TECHNOLOGY

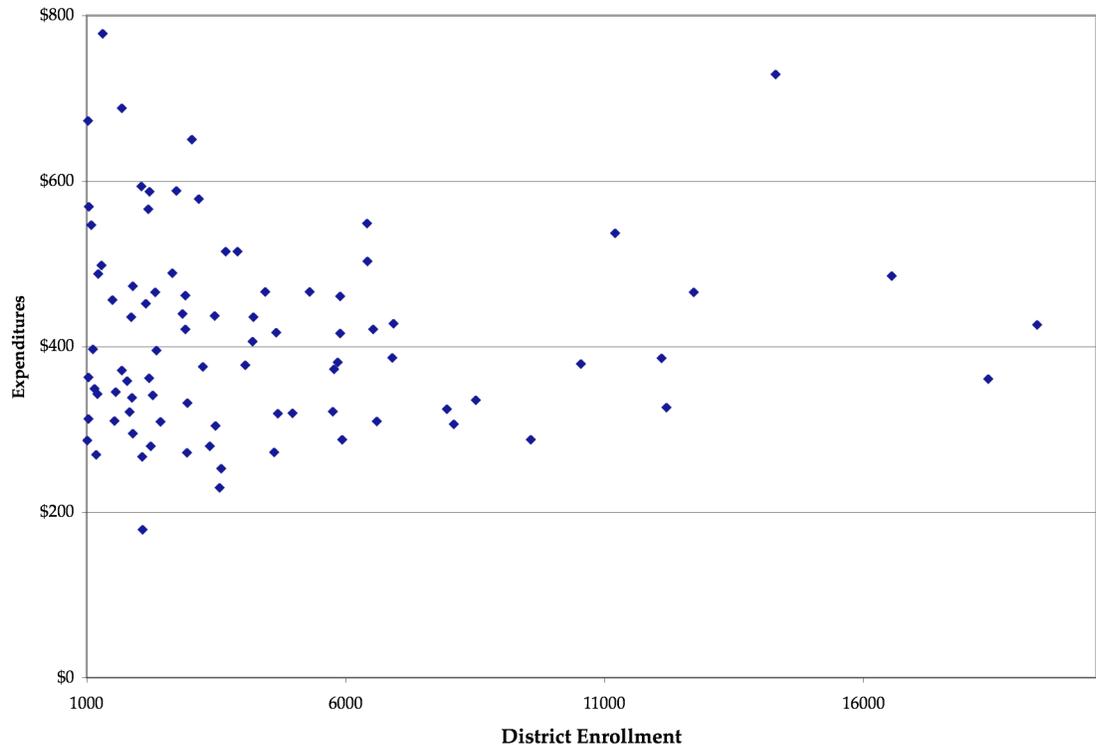
Staff and student support comprises the next largest spending category after instruction, and accounts for nearly twice the expenditures of the third largest category. This category includes a variety of expenditure types, such as fiscal, staff, and technology services, records management, and supplemental retirement program expenditures. To the extent that above average spending growth in these categories reflects inefficiency, opportunities exist to redirect resources to more productive uses. Statewide, growth in student and other support services has surpassed that of instructional spending, altering the distribution of expenditures by functional class. Determining whether this realignment of expenditures enhances instructional expenditures requires in-depth exploration, and answers may be district-specific.

The district-level ODE data provide limited insight into the inter-district variation in spending on these services. Support expenditures are clearly more variable across smaller districts, but overall do not demonstrate a strong correlation with district size. In addition, per-student expenditures on technology services, the largest sub-category of expenditures in this functional category, are, on average, lower in districts with relatively high instructional expenditures, although the difference is generally no larger in magnitude than the variation in other expenditure categories.

Figure 4 displays the distribution of districts' per-student expenditures for other support services by district enrollment. The figure excludes expenditures coded as supplemental retirement program expenses, as these expenditures do not appear to be coded consistently across districts, and omits districts with fewer than 1,000 students because we would expect extraordinarily high spending per student in these smaller districts. Figure 4 also excludes the state's three largest districts (Beaverton, Portland, and Salem/Keizer) for clarity. These "super

districts” purchase other support services consistent with other large districts in Oregon.

Figure 4: Expenditures on Other Support Services Less Supplemental Retirement, Per Student 2004-2005



Source: ECONorthwest analysis of Oregon Department of Education data

TRANSPORTATION

The rapid growth in transportation expenditures may reflect not only recent increases in fuel prices, but may also reflect persistent inefficiencies resulting from Oregon’s approach to funding student transportation. By reimbursing districts for 70% or more of their transportation expenditures, the state provides little or no incentive for districts to seek transportation cost savings. More study is needed to determine if there are better mechanisms for funding transportation services. At present, incomplete data prevent a comprehensive interstate comparison of education-related transportation costs, but ODE data provide valuable inter-district comparisons.

The appropriate metric with which to measure transportation expenditures is cost per rider-mile. The ODE data reports average daily ridership (ADR) and number of total number of rider-miles in addition to total transportation expenditures, but may not accurately reflect actual transportation activities. For example, the implied cost per mile ranges from \$0.24 to \$8.67 across districts, with a median of \$2.83. The difference between the district at the 10th percentile of the cost per mile distribution and that at the 90th is more reasonable (\$2.05 vs. \$4.69), but still large given that similarly sized districts exhibit nearly the same

degree of variability as do all districts. While cost per-mile and per-rider can be significantly higher in smaller districts because of overhead and longer distances traveled, districts with the highest cost per mile are not necessarily small. Furthermore, the relationship between reported ADR and enrollment is implausible in many cases. Table 8 illustrates this variation in transportation costs per mile.

Table 8: Transportation Expenditures Per Rider-Mile, 2004-2005.

Cost per mile	Number of Districts	Percent of Statewide Enrollment	Percent of Statewide ADR
less than \$1	9	0.0%	0.1%
\$1 to \$2	23	0.9%	1.2%
\$2 to \$3	78	22.2%	24.9%
\$3 to \$4	55	37.5%	33.4%
more than \$4	29	39.3%	40.4%

Source: ECONorthwest analysis of Oregon Department of Education data

If accurate, the data would allow estimates of total savings from given reductions in transportation costs per mile, but the extraordinary observed variation in ridership and costs do not instill much confidence that these calculations would be useful.

District-specific practices can further skew the data. For example, Portland Public Schools provides Tri-Met bus passes to some students, but does not report the cost of the passes as transportation expenses. In the case of passes for public transportation, constructing an appropriate measure of rider miles is more complicated, but this issue would only be important to determining whether the district is better off providing Tri-Met passes or directly providing transportation services, with the ultimate goal of establishing how best to provide necessary transportation services.

While data concerns limit confidence in conclusions drawn from the ODE data, the available information demonstrates the expected relationship between ridership, miles, and expenditures. In particular, a regression of the log of total miles and ADR on logged expenditures for districts with enrollment greater than 100 implies that a 10 percent increase in riders increases expenditures by 4.3 percent, holding miles driven constant, while a 10 percent increase in miles increases expenditures by 6.1 percent, holding riders constant. While these results imply the expected relative efficiency of larger districts in transporting students, the regression model leaves a significant fraction of transportation costs unexplained and actual costs per mile differ significantly from predicted costs. Fuel prices clearly play a major role in transportation costs, and have likely driven much of the statewide increase in transportation expenses in recent years, but cannot explain the extent of the variation in expenses across districts in a given year. However, given the current transportation funding mechanism, districts have little incentive to economize or to maintain accurate data.

Determining the extent of potential cost savings in transportation requires, at a minimum, restructuring district reimbursement policies to encourage accurate recordkeeping. Additional study of individual districts could then be used to establish best practices in student transportation across a variety of district types. Implementing these best practices would likely improve efficiency across the state, freeing additional resources for other educational needs.