PORTLAND AND DAVID DOUGLAS

A Comparison Using the Database Initiative Project

Oregon Business Council

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Introduction

For the first time Oregon has a tool that allows us to examine trends in school funding and student performance at the district and individual school level. The new tool is called the Database Initiative Project (DBI). The purpose of the DBI is to make comparisons and help decision makers identify issues and explore changes in practice that will lead to improved schools.

The Database Initiative Project currently collects and reports detailed school-level data for fifteen Oregon school districts and one Education Service District. The information is housed on a website that is accessible to the public: **http://dbi.ode.state.or.us** This site provides access to school-level information on spending, staffing, school processes, student performance, and demographics. It is intended to satisfy inquiries ranging from curiosity and general interest to sophisticated data analysis.

The 1999 Legislature allocated funds to the Department of Education to expand the Database Initiative Project to include all school districts.

This study uses the DBI to compare the Portland and David Douglas school districts. It was initiated by the Oregon Business Council for two reasons. First, to test the limits of the Database Initiative Project and make recommendations about how it could be improved. Second, to compare two school districts, Portland and David Douglas, and identify the impact of different policies on student funding and student performance.

Most of the information used in this study is for the 1997-98 school year.

Acknowledgements

This report was drafted by Deirdre Molander at the Oregon Business Council. Active participants in the study included financial officers Jim Scherzinger of the Portland Public School District, and Gary Haase and Courtney Wilton of the David Douglas School District. They provided key background information that helped explain differences in the districts. Other participants in the study included Nancy Heligman from the Department of Education and the Database Initiative Project and Clem Lausberg, an independent consultant to a number of Portland area school districts.

Executive Summary

The key value of the database is as a management tool. It allows school districts and principals, as well as outside groups and the public, to compare their education programs and results to others. The following summarizes our findings based mainly on data from the 1997-98 school year.

District Characteristics

- Portland and David Douglas School Districts are both located within the City of Portland and are adjacent to each other. A comparison of the student composition of Portland relative to David Douglas shows that the districts have almost the same share of special education (11% vs. 12%) and poverty students (19% vs. 18%) and Portland has fewer ESL students than David Douglas (7% vs. 12%).
- Portland is the state's largest school district with enrollment of 55,321 - 10 high schools, 17 middle, 63 elementary, and 19 alternative schools/programs. David Douglas' size is more typical of mid-sized Oregon districts with enrollment of 7,546 students - 1 high school, 2 middle, 8 elementary, and 1 alternative school.
- Between 1990 and 1998, David Douglas enrollment rose 18 percent. Portland's enrollment grew by only 1.7 percent over the same time period. Between 1998 and 1999, David Douglas enrollment was up 1.8 percent, while Portland enrollment dropped 1.4 percent.
- Portland School District is below the state median socio-economic level, but has schools at both the top and the bottom end of the range. David Douglas is also below the state median, but its schools are clustered in the middle socio-economic levels. Portland has higher average household incomes ($55,462 vs. $45,223) and more college-educated residents (59% vs. 45%).

District Expenditures

- Prior to passage of Measure 5, Portland spent considerably more than David Douglas and the state average. Consequently, the state's efforts to equalize spending have impacted Portland much more than districts like David Douglas whose per student costs were brought up to the state average.
- The DBI district profile found Portland spends about $250 per student more than David Douglas and about $200 more per student than the pilot average ($5,498, $5,256, and $5,313 respectively). The disparity in spending is greater if fund transfers are included in the equation.
- The central support costs per student are roughly the same in both districts ($200), however Portland spends more per student than David Douglas, in direct classroom support ($3,463 vs. $3,321) and in building support ($1,075 vs. $868), but less on other classroom support such as instructional aides ($766 vs. $867).
- Portland has two relatively high cost areas compared to David Douglas: teacher salaries and building support.
- Portland has more experienced teachers with an average 16.4 years experience to 11.8 years at David Douglas. David Douglas has pursued a policy of hiring less experienced teachers and therefore has lower average salaries. The experience and salary ranges are

also broader for Portland (schools range from 7 to 22 years and $35,000 to $53,000 in average salaries), compared to David Douglas (schools range from 7 to 14 years and $39,000 to $45,000).

- Building support costs are significantly higher in Portland than in David Douglas ($1,075 vs. $868). Portland's building support costs are higher because Portland's buildings are older and they are not used to full capacity. If Portland could reduce its building support costs to levels similar to David Douglas it could hire 208 more teachers, this would reduce their student teacher ratio from 21.4 to 19.8.[1]
- Portland has higher student teacher ratios than David Douglas (21.4 vs. 19.6). However, the districts distribute their staff differently. Portland has slightly lower elementary class sizes (26 vs. 27), but much larger class sizes at the high school level.
- Portland's staff mix differs among schools. This is due in part to funding (desegregation dollars are focused in lower SES areas), in part to the district's magnet school program and in part to budget practice (principals in Portland have more autonomy over how to distribute staff). David Douglas has a more uniform staffing policy, with each elementary school containing a counselor, librarian, physical education and music teacher.

Student Assessment Scores

- In most cases, Portland has higher scores on state tests than David Douglas. However, Portland has a much wider range of scores by school, while David Douglas scores by school are more clustered around the average.
- As expected, there is a relationship between socio-economic status and student achievement. In general, Portland schools with higher socio-economic status have higher test scores and schools with lower socio-economic status have lower test scores.
- There are schools that have low socio-economic status and relatively high test scores. For example, there are six Portland elementary schools with socio-economic status rankings below 100 (on a scale of 1-727) and with 3rd grade test scores that are above the state average. David Douglas also had elementary schools with low socio-economic status and above average test scores.

Technical Recommendations

- Include general fund transfers and federal funds per student in the school and district profiles. The profiles currently include only general fund expenditures, however the other indicators in the profiles (e.g. class size, student teacher ratio, staffing) are dependent on all funds not just general fund expenditures. For consistency it would be helpful to include all funds that provide resources for the other indicators included in the profiles.
- Provide clearer accounting of the Education Service District funds. For example, Portland receives a majority of its funding from the ESD in cash to serve special education students, while David Douglas receives the majority "off budget" in the form

[1] Portland spends $1,075/student on building support compared to $868 in David Douglas. The difference is $207/student. Portland has 55,321 students for a total savings of $11,451,447. If we assume that a new teacher including benefits costs $55,000 then Portland could hire 208 new teachers. The current student:teacher ratio is 21.4, there are 55,321 students which translates to 2,585 teachers. If we add 208 teachers to this figure, we get 2,793 teachers and a new student teacher ratio of 19.8.

of services. This has the effect of raising the amount of funding per student in Portland relative to David Douglas because the ESD services received by David Douglas are not recorded in the spending per student.

- Include information on foundation and in-school support. Some districts have large foundations that subsidize their funding and influence the schools' ability provide education services.
- Provide information on the philosophy and programs at the district and school level. This information would allow schools and districts to learn from each other about best practices.
- Provide information on legislatively mandated support received outside the state's funding formula. For example, currently no mention is made of the considerable additional support Portland receives for its desegregation and pension bond costs.

What do we know about Portland and David Douglas communities?
Portland and David Douglas School Districts are both located within the City of Portland and are adjacent to each other. Portland is the state's largest school district with a 1997-98 enrollment 55,321. It operates 10 high schools, 17 middle schools, 63 elementary schools, and 19 alternative schools/programs. David Douglas' size is more typical of mid-sized Oregon school districts with an enrollment of 7,546. It operates 1 high school, 2 middle schools, 8 elementary schools and 1 alternative school.

While both districts operate in a distinctly urban setting, their financial fates have differed significantly in recent years. Prior to passage of Measure 5, Portland spent considerably more than David Douglas and the state average.[2] Consequently, the state's efforts to equalize spending have impacted Portland much more than districts like David Douglas whose per student costs were brought up to the state average.

The districts also differ in enrollment trends over the past decade. Between 1990 and 1998, David Douglas enrollment rose 18 percent. Portland's enrollment grew by only 1.7 percent over the same time period. Between the 1998 and 1999 school years, for example, David Douglas enrollment was up 1.8 percent, while Portland's enrollment dropped 1.4 percent. Portland has a smaller share of households with children than David Douglas (27% vs. 34%), which may be contributing to the enrollment decline of recent years.

The districts vary slightly in terms of economic profile. Portland School District is below the state median socio-economic level, but has schools at both the top and the bottom end of the range. David Douglas is also below the state median, but its schools are clustered in the middle socio-economic levels. Portland has higher average household incomes ($55,462 vs. $45,223) and more college-educated residents (59% vs. 45%).

What do we know about Portland and David Douglas funding?
The DBI district profile found Portland spends about $250 per student more than David Douglas and about $200 more per student than the pilot average ($5,498, $5,256, and $5,313 respectively).

The disparity in spending is even greater if fund transfers are included in the equation. As noted in the Definition section of this report, expenditures do not include general fund transfers. This is a significant exclusion. For Portland it totals approximately $22 million or about $400 per student. For David Douglas, the amount is approximately $1 million or about $130 per student. [3] Most of this difference ($240 per student) occurs because Portland is paying off debt it issued when it entered the PERS system.

These spending figures also do not include federal funds. In 1997-98 Portland received $527 per student in federal funds and David Douglas received $387. Federal funds are typically for poverty and special education students. While both districts are eligible for poverty related Title 1, special education student funding, and other categorical funds available to all

[2] In 1990-91, for example, Portland expended $5,862 in current expenditures per student, compared to $4,314 for David Douglas and a statewide average of $4,589. Analysis by Clem Lausberg, data from the Oregon Department of Education Audited 1990-91 current expenditures per student.
[3] Information provided by Courtney Wilton, data from the Tax Supervising Commission, Annual Report.

Oregon districts, the Portland School District has aggressively pursued competitive grant funds. (Note: Other indicators listed on the district and school profiles include staff funded from sources in addition to the general fund.)

Why does Portland have more money to spend per student?

The records show that Portland does not have more of the type of students that the state funding formula provides additional funding for, such as special education students, students in poverty and English-as-a-Second-Language (ESL) students. A comparison of the student composition of Portland relative to David Douglas shows that the districts have almost the same share of special education (11% vs. 12%) and poverty students (19% vs. 18%) and Portland has fewer ESL students than David Douglas (7% vs. 12%). (Note: Portland has a higher share of students with more severe disabilities than David Douglas and the state average (34%, 27% and 25% respectively), but the funding formula does not apply different weights for different levels of disability.)

There are several potential explanations for Portland's higher level of funding. First, Portland receives $6.2 million for voluntary desegregation plan expenses. Second, Portland receives a majority of its funding from the ESD in cash to serve special education students, while David Douglas receives the majority "off budget" in the form of services. This has the effect of raising the amount of funding per student in Portland relative to David Douglas because the ESD services received by David Douglas are not recorded in the spending per student.

Another possible explanation is the weighting that the state funding formula applies for teacher experience. Portland has more experienced teachers, which entitles the district to additional money through the state funding formula.

How do Portland and David Douglas spend their funds?

The central support costs per student are roughly the same in both districts ($200), however Portland spends more per student than David Douglas, in direct classroom support ($3,463 vs. $3,321) and in building support[4] ($1,075 vs. $868), but less on other classroom support such as instructional aides ($766 vs. $867).

These differences are partially explained by the difference in average teacher salary. Portland has more experienced teachers with an average 16.4 years experience to 11.8 years at David Douglas.[5] David Douglas has pursued a policy of hiring less experienced teachers and therefore has lower average salaries. The experience and salary ranges are also broader for Portland (schools range from 7 to 22 years and $35,000 to $53,000 in average salaries), compared to David Douglas (schools range from 7 to 14 years and $39,000 to $45,000).

In terms of building support, Portland has older school buildings and uses the space less efficiently than David Douglas. Portland operates a number of schools at less than full

[4] Building support costs include: costs of operation and maintenance of plant, student transportation, food services, technology services, and other support services.

[5] Analysis by Clem Lausberg, data from Oregon Department of Education Final Allocation, State School Fund 1997-98.

capacity whereas buildings within the David Douglas district are almost all completely full.[6] Also, half of Portland schools are over 60 years old; none of David Douglas schools are over 60 years old. In addition, David Douglas has installed more efficient natural gas heating in all schools while most Portland schools use oil heat.[7]

One possible explanation for Portland's lower spending per student on other classroom support may be David Douglas' policy to hire instructional assistants whenever classroom size exceeds certain limits. For example, if enrollment in a 1st grade class exceeds 26, then the class gets three and a half hours of assistant time per class section. The percentage of staff that are instructional assistants in Portland is lower than David Douglas (9.5% vs. 14.5%). However, Portland's data are not directly comparable to David Douglas, so it is not possible to state this explanation with certainty.

Portland has higher student teacher ratios than David Douglas (21.4 vs. 19.6). However, the districts distribute their staff differently. Portland has slightly lower elementary class sizes (26 vs. 27), but much larger class sizes at the high school level. In addition, Portland's staff mix differs among schools. This is due in part to funding (desegregation dollars are focused in lower SES areas), in part to the district's magnet school program and in part to budget practice (principals in Portland have more autonomy over how to distribute staff.). David Douglas has a more uniform staffing policy, with each elementary school containing a counselor, librarian, physical education and music teacher.

How does student performance compare?

This comparison examines the percentage of students that meet or exceed the state standards in reading and math (April 1998). In most cases, Portland has higher reading and math test scores than David Douglas. However, Portland has a much wider range of scores by school, while David Douglas scores by school are more clustered around the average.

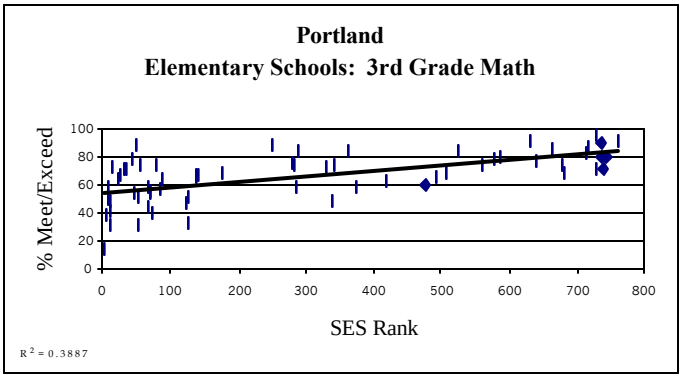
Reading	Portland	David Douglas	State
	% Meet (range)	% Meet (range)	% Meet (range)
3rd Grade	72% (17-100)	71% (53-92)	78%
5th Grade	65% (30-93)	59% (42-74)	66%
8th Grade	51% (0-89)	48% (44-54)	55%
10th Grade	45% (0-80)	46% (n/a)	48%

Math	Portland	David Douglas	State
	% Meet (range)	% Meet (range)	% Meet (range)
3rd Grade	67% (14-96)	61% (49-77)	67%
5th Grade	61% (22-100)	60% (42-82)	61%
8th Grade	52% (10-89)	39% (35-43)	50%
10th Grade	33% (0-72)	24% (n/a)	32%

[6] David Douglas buses students to distribute them more evenly among schools. David Douglas has higher transportation costs than Portland. Under the state funding formula in 1997-98, for example, David Douglas reported $250 per student in reimbursable home to school transportation compared to $215 for Portland. (Data provided by Clem Lausberg.)

[7] Analysis performed by Clem Lausberg based on information provided by Gary Haase at David Douglas School District.

A comparison of student performance relative to socio-economic status at the individual school level generated two findings. (See Appendix A) First, as expected, there is a relationship between socio-economic status and student achievement. In general, Portland schools with higher socio-economic status have higher test scores and schools with lower socio-economic status have lower test scores.[8] However, the second finding is that this relationship does not hold true for all schools. In fact there are schools that have low socio-economic status and relatively high test scores. For example, there are six Portland elementary schools with socio-economic status rankings below 100 (on a scale of 1-727) and with 3rd grade math scores that are above the state average.[9] The following chart illustrates the relationship between math scores and a school's socio-economic status ranking.



How does this translate into the school buildings?
In order to examine these differences in more detail, we selected an elementary, middle and high school from each district. The schools were selected because they had similar socio-economic status rankings. The goal was to examine how schools with similar socio-economic profiles structured their education programs. We examined differences in the overall spending per student and how these differences translated into class size, student teacher ratio, teacher salary and student performance.

Elementary School – Llewellyn (Portland) and Gilbert Heights (David Douglas)
Llewellyn is a much smaller school than Gilbert Heights (360 vs. 611). While the socio-economic status ranking for the schools is close (290 vs. 310), Llewellen has no ESL students and 10 percent of Gilbert Heights students are ESL. Llewellen also has a lower percentage of students eligible for free lunch (39% vs. 48%).

Llewellyn spends more per student than Gilbert Heights ($5,376 vs. $4,636). The central support costs per student ($200) and other classroom support costs per student ($700) are roughly the same, however Llewellyn spends more per student than Gilbert Heights in direct classroom support ($3,451 vs. $2,955) and in building support ($1,075 vs. $782).

The explanation for the difference in classroom funding per student is partially explained by the slightly smaller class size in Llewellyn (26 vs. 28). However the student teacher ratio is

[8] There are too few David Douglas schools to determine the relationship between SES and student performance.
[9] Elementary Schools: Rigler (SES-33, 71% meet/exceed standard); Ball (SES-34, 71% meet/exceed); Vestal (SES-14, 73% meet/exceed); Creston (SES-78, 74% meet/exceed); Woodlawn (SES-56, 75% meet/exceed); Sunnyside (SES-44, 78% meet/exceed); Brooklyn (SES-51, 88% meet/exceed).

about the same (24 vs. 23). Another reason is the difference in average teacher salary at the schools. The average teacher salary at Llewellyn is $46,079 and average teacher salary at Gilbert Heights is $43,407.

The difference in building support could be due to lower utilization and/or the age of the buildings. Llewellyn only has 360 students compared to 611 in Gilbert Heights, therefore the building support costs are spread over a fewer number of students. In addition, Llewelyn was built in 1928 and has never been remodeled, while Gilbert Heights was built in 1958 and remodeled in 1994.

Llewellyn has a higher percentage of 3rd grade students meeting or exceeding state standards in reading (80% vs. 53%) and math (84% vs. 50%). Llewellen also has a higher percentage of 5th grade students meeting or exceeding the state reading (66% vs. 58%) and math (71% vs. 43%) standards, however Llewellyn is below Gilbert Heights in writing (48% vs. 54%).

Middle School – Hosford (Portland) and Alice Ott (David Douglas)
Hosford has slightly lower enrollment than Alice Ott (482 vs. 544). While the socio-economic status ranking for the schools is close (145 vs. 144), Hosford has a higher percentage ESL students (15% vs. 4%) and students that are eligible for free lunch (47% vs. 43%).

Overall, Hosford spends more per student than Alice Ott ($6,520 vs. $5,104). The central support costs per student ($200), building support costs per student ($1,000), and other classroom support ($1,000) are roughly the same. However Hosford spends more per student than Alice Ott in direct classroom support ($4,234 vs. $2,992).

The explanation for the difference in classroom funding per student lies in class size, student teacher ratio and teacher salary. Hosford and Alice Ott have about the same size math classes (25), but Hosford has much smaller English classes (20 vs. 26) and the student/teacher ratio in Hosford is much lower than Alice Ott (17 vs. 20). In addition, average teacher salary at Hosford is $47,283 compared to just $41,811 at Alice Ott.

Hosford has a higher percentage of 8th grade students meeting or exceeding state standards in reading and math, but Alice Ott students perform better in writing: reading (52% vs. 44%), math (52% vs. 35%) and writing (54% vs. 56%).

High School – Franklin (Portland) and David Douglas (David Douglas)
Franklin has slightly lower enrollment than David Douglas (1,564 vs. 1,914). While the socio-economic status ranking for the schools is close (141 vs. 150), Franklin has a higher percentage of ESL students (10% vs. 7%) and students that are eligible for free lunch (32% vs. 25%).

Overall, Franklin spends less per student than David Douglas ($5,631 vs. $6,447). The central support costs per student ($200) and building support costs per student ($1,000) are roughly the same, however Franklin spends less per student than David Douglas in direct classroom support ($3,390 vs. $4,083) and in other classroom support ($973 vs. $1,154).

The explanation for the difference in classroom funding per student lies in class size and student teacher ratio. Franklin has significantly larger classes than David Douglas: secondary math class (32 vs. 20) and secondary English class (28 vs. 18). Franklin has a higher student teacher ratio than David Douglas (21 vs. 17). The lower number of teachers in the classroom at Franklin translates to lower direct classroom spending per student despite slightly higher teacher salaries. The average teacher salary at Franklin is $45,956 compared to $44,274 at David Douglas.

Franklin lags David Douglas in the percentage of students meeting or exceeding state standards: reading (29% vs. 48%), math (24% vs. 26%) and writing (51% vs. 55%).

Conclusion

The Database Initiative Project (DBI) is an excellent resource for district and individual school analysis. It is well organized, easy to use and provides the most pertinent information about Oregon's K-12 education system. In addition, the DBI staff are knowledgeable and responsive to questions from users. Based on our experience, we believe this is a useful tool that will be help school administrators, teachers, parents, and elected officials to study other districts and identify ways to improve their own schools.

Appendix A
Math Scores and Socio-Economic Status Ranking by School