Oregon Small Schools Initiative Evaluation

Quantitative Analysis 2004-2009

Prepared for

Employers for Education Excellence

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INTRODUCTION

Beginning in 2003, education leaders throughout Oregon made bold commitments to implement a small high school model as an alternative to the traditional, comprehensive high school model. The effort was motivated by a still growing body of research indicating that small schools can significantly improve student academic and social outcomes without necessarily costing more per student to operate. Now, in 2010, eight previously existing comprehensive high schools and six brand new high schools educate their students using a small schools model. Students at these schools represent nearly six percent of Oregon's high school students.

To implement this model, E3: Employers for Education Excellence developed the Oregon Small Schools Initiative (OSSI). The Initiative was funded by grants from Meyer Memorial Trust ($13.5 million) and the Bill & Melinda Gates Foundation ($15 million). Recognizing that size alone does not determine a school's success, the Initiative developed a comprehensive approach to creating "rigorous, relevant, and personalized" high schools that sought to enhance the benefits of small enrollments through support of strong leadership, enhanced professional development, and other education best practices. By design, schools selected to participate in the Initiative enroll significantly higher numbers of students of color and economically disadvantaged students than the averages for other Oregon high schools.

OSSI's organizers committed to rigorous statistical analysis of outcomes made possible by unusual, privileged access to anonymous student-level data provided by the Oregon Department of Education. This report presents our analysis of five years of these data, evaluating the work of 35[1] small high schools that opened in three cohorts, or waves, between 2004-05 and 2007-08. We avoid drawing strong conclusions about overall Initiative outcomes because, as of 2009-10, a majority of Initiative students were enrolled at schools open for four or fewer years—for 25 of the 35 schools, the most recent available data (2008-09) do not include even a single cohort of graduates who started in 9th grade as Initiative students. Nevertheless, this report contains good news for small school advocates, and even the newer schools show promise.

KEY FINDINGS

Table ES.1 summarizes key findings from the regression analysis, identifying statistically significant improvements in student outcomes associated with OSSI enrollment. In general, all students benefit about equally from OSSI enrollment.

[1] We exclude three small schools at the Madison High School campus as they only operated as small schools for a single year.

But we also find some evidence that the OSSI model specifically benefits historically disadvantaged populations for some outcomes, suggesting success towards closing achievement gaps.

Wave 1, the longest operating set of Initiative schools, has demonstrated improvement on every outcome analyzed other than attendance. The relatively newer small schools in Wave 2 and Wave 3 have shown improvement for one or more outcomes. With the exception of Wave 1 attendance and Wave 3 post-secondary enrollment, OSSI students perform at or above average for otherwise similar non-OSSI students in every outcome.

Table ES.1: Are OSSI outcomes significantly better than those predicted by student characteristics?

Outcome	Wave 1	Wave 2	Wave 3	Student subpopulations
Math benchmark attainment	10.5 percentage points higher			Possible additional benefit for African American students
Reading benchmark attainment	7.0 percentage points higher		4.3 percentage points higher	Possible additional benefit for special education students
Attendance	Below average	19 percent fewer absences per year		Additional "OSSI effect" benefitting Hispanic students
Student withdrawals	At Oregon average, but improved by 25 percent			Additional "OSSI effect" benefitting Hispanic students
12th grade graduation	3.0 percentage points higher		3.9 percentage points higher	
Post-secondary enrollment of graduates	At Oregon average, but improved 10 percent		Below average	

Note: Empty cells in the table indicate that no statistically significant difference exists between OSSI students and otherwise similar non-OSSI students. Wave 1 improvements reflect changes between 2004-05 and 2008-09.

In this report we also look at the cost of operating schools based on the OSSI model, and conclude that the model does not necessarily require a significantly greater investment per student than would a traditional high school serving the same students. In terms of cost per student achieving a desired outcome (e.g., cost per high school graduate), small schools may be even more cost effective than larger, comprehensive high schools.

Through the 2012-13 school year, we will continue to monitor these schools' progress towards increasing student achievement, graduation, and post-secondary enrollment. In anticipation of this work, Initiative staff prepared a summary of conditions and promising strategies that have driven the success of the most successful OSSI schools, as identified by ECONorthwest. The consensus is compelling and logical, highlighting many of OSSI's founding principles. As a conclusion to this report, we summarize some of the identified best practices.

Chapter 1

Evaluation Overview

INTRODUCTION

Employers for Education Excellence (E3), responding to a growing body of research from around the country on the academic and social benefits of small schools, developed the Oregon Small Schools Initiative (OSSI). The Initiative, funded by grants from Meyer Memorial Trust ($13.5 million) and the Bill & Melinda Gates Foundation ($15 million), sought to increase student achievement and graduation. The Initiative supported the creation of new and restructured high schools serving student bodies with relatively high proportions of economically disadvantaged[2] or minority students. Recognizing that size alone does not determine a school's success, the Initiative developed a comprehensive approach to creating "rigorous, relevant, and personalized" high schools that sought to enhance the benefits of small enrollments through support of strong leadership, enhanced professional development, and other education best practices.

The Initiative ultimately funded the creation of 38 small high schools in Oregon through conversion of several existing large high schools into campuses comprising several small schools and through the development of a number of "new start" schools, typically charter or magnet schools, that have stand-alone facilities in addition to small student bodies. The schools were awarded OSSI grant funding to implement national best practices aimed at meeting three fundamental Initiative goals:

1. Close the achievement gap experienced by low-income students, students of color, and English language learners;

2. Increase high school graduation rates; and

3. Increase the number of college- and career-ready graduating students.

The approach to education implemented at the OSSI schools was unified to some extent through Initiative-wide tools such as the OSSI School Change Rubric, a description of attributes of high-achieving schools, with which each Initiative school was to align.[3] But schools also had significant freedom within the rubric in selecting specific programmatic elements. This flexibility allowed each school to serve as an educational reform experiment—the schools shared common guiding principles and access to Initiative resources such as school change coaches—but there was no completely unified small school "treatment." Some of

[2] Students from low-income households who are therefore eligible for the free and reduced price school lunch program.

[3] See *The Big Picture on Oregon's Small Schools: The Oregon Small Schools Initiative*, September 2010, Employers for Education Excellence.

the variation in performance across Initiative schools is likely attributable, in part, to the flexibility afforded the schools.

In early 2009, E3 engaged ECONorthwest to conduct an evaluation of the progress Initiative schools have made toward achieving the three program goals. This report updates and extends preliminary analyses produced by ECONorthwest in 2009 and our more recent *Statewide overview of academic achievement and high school completion at Initiative schools 2004-05 through 2008-09*.

Institutional change takes time. Our understanding of how the Initiative transforms students' educational experience will continue to evolve as the schools mature. Although Initiative-funded schools have graduated several cohorts of students that could have attended an Initiative school for four academic years, the project is still relatively new. As the grant funding for OSSI draws to a close, 73 percent of 2008-09 OSSI enrollments (the most recent available data) were at schools open as Initiative schools for three or fewer years. In other words, by the end of the analysis period *most schools* had not graduated a cohort of students who started as OSSI students in 9th grade. Continued evaluation of OSSI student outcomes will improve our understanding about OSSI's success at transforming the educational experience of its students. *Nonetheless, our findings indicate that when well implemented, the OSSI model can measurably improve student outcomes.*

RESEARCH ON THE IMPACT OF SMALL SCHOOLS

OSSI's reform efforts coincided with a growing interest in small schools across the country and with a broader national initiative by the Bill & Melinda Gates Foundation to promote the creation of small schools, although the foundation's priorities have since shifted to other elements of reform. Despite the existence of numerous OSSI-like initiatives across the country, there is relatively little rigorous empirical evidence quantifying the beneficial impacts of recent small schools initiatives.[4]

A recent evaluation of the New York City Small Schools of Choice (SSC) program conducted by MDRC is an exception.[5] In 2002, New York City created 123 new small schools of choice. The SSC schools are four-year public high schools, with approximately 100 students per grade. Open to students at all levels of academic achievement, the schools are located in historically disadvantaged communities.

In contrast to OSSI's focus on neighborhood schools, SSC uses a lottery to match students to one of up to 12 schools based on each student's stated

[4] See Lawrence, et al, *Dollars and Sense: The cost effectiveness of small schools* (KnowledgeWorks Foundation, 2002), and the MDRC report cited below for summaries of the research quantifying the benefits of small schools generally.

[5] Bloom, Thompson, Unterman, Herlihy, and Payne, *Transforming the High School Experience: How New York City's new small schools are boosting student achievement and graduation rates*, MDRC, June 2010.

preferences. SSCs give priority to students who live within the same borough, and those who are "known" to the school (by having contacted or visited the school, or by having met with a school representative). SSCs do not consider student academic performance in admission decisions.

When an SSC has more applicants than spaces, the district uses a lottery-like process to randomly assign students to the SSC or to another school in the district. The SSC lottery gave evaluators an opportunity to rigorously establish the impacts of SSCs on student outcomes. The evaluation report identifies better attendance, credit attainment, and graduation outcomes for SSC students. Compared to outcomes for the control group, SSC students:

- Had a 6.8 percentage point higher graduation rate
- Were 10 percentage points more likely to be on track for on-time graduation
- Were 7.8 percentage points less likely to fail more than one core subject
- Had attendance rates two to three percentage points higher
- Had greater English, but not math, achievement

These promising findings are broadly consistent with, and somewhat more positive than, other recent research on small schools initiatives. For example, an evaluation of the Bill & Melinda Gates Foundation's national initiative indicated positive reading achievement outcomes at small schools and better attendance at new (as opposed to redesigned) small schools.[6] An evaluation of the Oakland New Small Schools Initiative also reported improved attendance outcomes at Initiative schools. Student groups at New Small Schools were more likely to meet or exceed predicted standardized test scores versus student groups at the comparison schools, but average test scores lagged in small schools during their first year of operation. Overall, the report concludes that student performance improved at some small schools but not all.[7]

Another evaluation of small schools[8] focused on two small school reform strategies: creating new, small schools, and converting large schools into smaller learning communities. The authors found that the start-up schools showed positive results in terms of attendance and the conversion schools showed some indication of improvement in school climate (personalization, high expectations, and respect and responsibility). However, the results were not as strong as anticipated.

Controlling for prior student achievement and demographic variables, the evaluation found better achievement test performance in both English &

[6] Rhodes, et al, *Getting to Results: Student outcomes in new and redesigned high schools*, American Institutes for Research and SRI International, July 2005.

[7] Strategic Measurement and Evaluation, Inc., *An Evaluation of the Oakland New Small School Initiative*, September 2007.

[8] Shear, et al, "Contrasting paths to small-school reform: Results of a 5-year evaluation of the Bill & Melinda Gates Foundation's National High Schools Initiative", *Teachers College Record,* September 2008, pp. 1986-2039.

Language Arts (ELA) and mathematics in one school district for students in the new small schools, but in three other districts, scores for students in start-up schools and in conventional high schools were essentially equivalent. Findings from the study of student work collected before and after school conversion were mixed: the quality of students' ELA work went up, but their mathematics work became weaker.

The authors note that prior research on school reform efforts suggests that school improvements typically take more than 3 years to appear and it is possible that the school conversions will simply require more time to achieve deeper differences in school climate, student engagement, and achievement. These evaluations typically find, as we do here, a wide variation in outcomes across schools, and recommend further investigation of the specific factors that drive the relative successes of some small schools and not others.

DATA SOURCES AND METHODOLOGY

Our analysis focuses on four outcome areas: academic achievement (as measured by performance on the Oregon Assessment of Knowledge and Skills (OAKS) statewide achievement tests), attendance, high school completion, and post-secondary enrollment after graduation. As in our 2009 evaluation report, we address two fundamental research questions for each outcome of interest:

> ***Question 1:*** *How do OSSI student outcomes compare to those of non-OSSI students?*
>
> ***Question 2:*** *Have outcomes at OSSI schools improved over time?*

Question 1 addresses the straightforward issue of whether outcomes at Initiative schools are better than at non-Initiative schools. Initiative schools serve a high proportion of disadvantaged students (see Figure 2.2), and may produce outcomes below state averages but that nonetheless exceed expectations *given the students they serve*. Thus, answering this question requires more than simple comparisons of data aggregated to the school level. In this report, we compare OSSI and non-OSSI outcomes for students with otherwise similar characteristics to provide more accurate performance benchmarks.

Question 2 refines the answers to Question 1. First, because institutional change is disruptive, and as already noted, most Initiative schools are relatively new, positive outcome trends suggest the direction of OSSI impacts over time, even if current outcomes are not yet up to par. Second, schools restructured through the Initiative, the "conversion schools," were selected in part because of the demographics of their student bodies, but several were significantly under-performing prior to conversion even after accounting for the challenging student populations they served. For these schools, the Initiative would appear to have had a positive impact if we observe a significant *improvement* in outcomes after OSSI conversion, even if the schools remain below average.

We assess outcomes for all OSSI students, but also look for differential impacts of OSSI enrollment on specific subpopulations defined by observable student characteristics, such as race and eligibility for free- or reduced-price lunch. This deeper look provides insight into the success of Initiative schools at closing achievement gaps between students with particular demographic characteristics. *In most cases, we find that all student subpopulations benefit about equally from OSSI enrollment*. These findings are largely consistent with findings from other analyses of Oregon OAKS data conducted by ECONorthwest—students at a given school typically learn at about the same rate on average, regardless of their demographic characteristics. The detailed findings in subsequent chapters identify a few cases where we do find statistically significant differences in outcomes across OSSI subpopulations.

Because of the high proportion of disadvantaged students at Initiative schools, findings of positive impacts for OSSI students in the aggregate suggest success at closing achievement gaps even without evidence that OSSI enrollment benefits some types of students more than others. Indeed, this result may be preferred—by definition, if some groups benefit more than average, others benefit less.

We also investigated whether school type (new small school versus conversion school) or organizational autonomy affects outcomes. As with student demographics, we find relatively little evidence of differential impacts of these school characteristics across OSSI schools. School-level variation appears to play a much larger role in student outcomes than broad characterizations about how schools are organized.

We do not assess the impact of individual programmatic elements, such as schools' use of technology or fidelity to other OSSI components. E3 staff concluded that schools would have difficulty quantifying their implementation of such specific practices in a way conducive to statistical analysis. As a result, the positive findings in this report do not comprise a detailed recipe for creating a successful small school. Rather, they indicate the likely impact of the common elements of the OSSI treatment (including programmatic flexibility) and serve as guideposts for further investigation into the best practices that drive the success of individual schools. This approach addresses the Initiative's stated objective to "act as a catalyst to transform teaching and learning in Oregon high schools."

The remainder of this chapter provides an overview of our data sources and analytic methods. Subsequent chapters provide detailed evaluation findings and conclusions. A data appendix provides detailed tabulations for achievement, dropout, graduation, and post-secondary enrollment outcomes.

DATA SOURCES

Our evaluation relies primarily on a large, student-level database comprised of files made available to ECONorthwest by the Oregon Department of Education (ODE). The database consists of de-identified (i.e., it excludes personal identifiers such as names) student-level data, and includes information about student demographics, enrollments, attendance, disciplinary actions, achievement scores,

and other data elements for all students enrolled in an Oregon public school between Fall 2003 and Spring 2009. Data coverage for later school years is more comprehensive. For example, the 2003-04 data are essentially limited to achievement test scores. Because of data limitations, specific analyses rely on different subsets of this data.

Because the information is sensitive, access to ODE student-level data is highly restricted. Our access to the data, facilitated by E3 and its funders, has been critical to our evaluation. Without it, much of the analysis presented below would have been impossible.

During the summer of 2010, ODE provided ECONorthwest with data that links information about recent Oregon high school students to post-secondary enrollment records from the National Student Clearinghouse (NSC). NSC manages data covering about 90 percent of US college students. The NSC data match allows us to track students' educational trajectory in the years following high school graduation. These linked data are also unique, and provide a detailed and systematic look at post-secondary enrollment of all Oregon high school graduates.

Additional data are derived from surveys submitted by OSSI schools, ODE expenditure reports, and a variety of other sources.

DATA DEFINITIONS

We classify students according to demographic characteristics and enrollment in special programs. The student characteristics of primary interest for our analysis include:

- **Race/ethnicity.** We classify individuals as to whether they self-identified as American Indian/Alaska Native, Asian/Asian American/Pacific Islander, African American, or Hispanic.

- **Socioeconomic status (SES).** We use each student's status as economically disadvantaged or not as a proxy for socioeconomic status. While not perfect, this ODE data, which is used to identify eligibility for the free or reduced-price lunch program, is the only reasonably consistent SES indicator available.

- **Enrollment in special programs and other designations.** We further classify students according to several additional indicators. We focus on students designated as having limited English proficiency, requiring special education, or as Talented and Gifted (TAG).

Throughout this report, we present findings that refer to data elements with seemingly intuitive definitions but that do not necessarily correspond exactly to definitions used by ODE for reporting purposes. Where our definitions vary from standard reporting definitions, we have intentionally constructed an alternative variable to better address the underlying question. Where appropriate, we

highlight important differences in the text, but two examples deserve mention here.

Our assignment of students to schools provides the most important definitional difference. In contrast to ODE reports that assign students to schools based on enrollment on a particular day (*e.g.*, October 1st), for the quantitative analysis we assign students to schools based on their longest enrollment during an academic year. As a result, enrollment totals will not exactly match official enrollments reported by ODE. In this case, we are implicitly assigning accountability to the school at which each student was enrolled for the longest period of time.[9]

Data regarding a student's economically disadvantaged status also deserve mentioning. Schools must identify students' economically disadvantaged status to determine Adequate Yearly Progress (AYP) outcomes under the No Child Left Behind Act (NCLB). As a result, we have accurate data for students who sit for one or more achievement tests during the relevant academic year. For students who do not take a test, including most students in grades 9, 11, and 12, economically disadvantaged status data come from administrative records submitted by schools to ODE. ODE does not require schools to report this data for non-test takers, and schools do not uniformly or consistently record it.

These issues do not affect our analysis of achievement test scores. For other analyses, we use the following method to classify students as economically disadvantaged: if the student took a 10th grade test, we assign the status indicated in the testing data; if no 10th grade test data exist, we assign status based on 8th grade tests; if both 8th and 10th grade test data are missing, we assign status according to the most recent non-test data submitted by schools. A reasonable interpretation is that our indicator identifies students who have recently been identified as economically disadvantaged, but not necessarily in the current academic year.

Because our data series covers a relatively short period of time, this method ultimately produces different assignments depending on the year of enrollment (e.g., we have no test data for 12th graders enrolled during 2004-05). We believe that on balance, these differences do not materially affect our results.

OUTCOME DATA

We analyze outcome indicators in four major areas:

- **Achievement.** For reading and math, we examine student outcomes on Oregon's Assessment of Knowledge and Skills (OAKS) tests. We

[9] During the Woodburn campus's first year with small schools (2006-07) students enrolled at Woodburn SD's alternative high school, Woodburn Success High School, were identified by ODE as enrolled at Woodburn High School. We have no way to separately identify these alternative school enrollments. We do not believe this data limitation significantly affects our analysis except where noted in the text.

assess students' 10th grade test scores, 10th grade benchmark attainment, and growth in test score between 8th and 10th grade.

- **Attendance.** We assess attendance rates by grade and attendance improvement between 8th grade and a reference grade (e.g., 9th grade).

- **High school completion and dropout.** We examine student withdrawals/early-leavers and high school completion. We *do not* directly address on-time graduation rates because most Initiative schools are too new to have had a cohort of students for four years.

- **Post-secondary enrollment.** We assess the likelihood that recent 12th graders will enroll in a post-secondary program in the academic year following 12th grade.

Achievement and high school completion outcomes relate directly to common conceptions of high school success—higher achievement scores and greater graduation rates presumably indicate greater school success in preparing students for work and further education after high school. While we do not have data to address post-high school success in the labor force, the college enrollment data suggests how well small schools are preparing their students for the advanced education necessary for students to succeed in a large number of careers that pay well enough to support economic self-sufficiency.

We also analyze student attendance as an indicator of student engagement and school culture, to provide a more comprehensive evaluation. A student's absence may suggest that the student does not derive sufficient value from attending. Attendance, on the other hand, may suggest that a student does find some value in attending, at least relative to alternative activities in which the student could engage.

Although we reported on discipline in our earlier 2009 report, we do not update our findings in this final report. As we noted in 2009, interpreting trends in disciplinary actions and differences in discipline rates across schools is complicated. All else equal, fewer disciplinary actions would presumably be preferred to more. But a higher prevalence of disciplinary actions at a given school does not necessarily indicate a higher current or future prevalence of undesirable actions by students. Rather, it may indicate that school authorities are addressing negative behavior earlier and more often.

NOTES ON ACHIEVEMENT OUTCOMES

Our analysis of academic achievement examines 10th grade student outcomes on Oregon's OAKS tests (Oregon does not have a regular assessment for 9th, 11th, or 12th grades). Our analysis focuses on math and reading, but we present selected statistics from science and writing test data as well.

OAKS scores are expressed in RIT points, abbreviated from Rasch Units, where each point increase identifies an equal amount of improvement. For

example, an improvement of ten points from 230 to 240 indicates an equal amount of academic growth as an improvement from 210 to 220. Student scores indicate both a student's level of proficiency and, by comparing 10th grade scores to the same student's 8th grade scores, achievement growth. The state assigns each score to one of five proficiency levels, the top two levels being "meet" and "exceed." We evaluate the impact of OSSI enrollment on whether students meet or exceed the state benchmark proficiency standard.

For our analysis, we use students' highest score for the relevant academic year. An increasing proportion of 9th graders take "challenge" tests that can substitute for a 10th grade test. For students whose 9th grade test is used in official 10th grade AYP calculations, we assign the student's score to the academic year in which they are in 10th grade, but assign the score to the students 9th grade school.

NOTES ON THE ATTENDANCE OUTCOMES

Our regression analysis of attendance examines 2008-09 absences for all grades to provide a current snapshot of attendance at OSSI schools. We also evaluate changes in 9th grade attendance over time. A student's attendance is highly correlated across years, and 9th grade attendance likely establishes the pattern for a student's remaining high school years. For attendance in particular, multiple enrollments during a single academic year complicate analysis and interpretation. During any given academic year, about seven percent of high school students enroll in more than one Oregon school, and these students' annual attendance rates incorporate information reflecting their experiences at multiple schools.

Because we assign each student to the school of longest enrollment during an academic year, we therefore implicitly hold that school accountable for the student's entire year of attendance. In practice, this approach simplifies the calculations and does not appear to significantly distort our analysis. In 2008-09, 7.1 percent of high school students attended more than one school. Of these, most were enrolled at their school of longest enrollment for at least half of the school year. While the remaining "enrollment outliers"—those with exceptionally long, short, or numerous enrollments—could affect the results, we have found no evidence of meaningful distortion.

NOTES ON THE DROPOUT/WITHDRAWAL OUTCOMES

Our calculated dropout rates tend to exceed those published by ODE. We believe the most important driver of the discrepancies to be that we have less information about GED recipients than is available to ODE. These students often officially drop out, but are removed from the dropout roles if they receive a GED in a timely manner. These students would still be classified as dropouts in our analysis (arguably, a student who withdraws from school should not be attributed as a success to that school by virtue of receiving a GED through another institution).

Our classification of students who complete a school year without graduating but do not enroll in the following academic year also differs from ODE's standard approach. We assign these dropouts to the academic year in which the student was last enrolled. ODE uses this method for the purposes of calculating cohort graduation rates, but the standard AYP dropout rates published by ODE assign these students to the year in which they failed to re-enroll.

NOTES ON THE HIGH SCHOOL GRADUATION OUTCOMES

More than for other outcomes analyzed in this report, high school completion data is used to calculate a wide variety of related, but different, dropout and graduation rates. In this report, we define 12th grade graduation rates as the share of a school's 12th graders who earn a regular diploma during the academic year.

The 12th grade graduation rate is in many ways the simplest, and somewhat naïve, way to define a graduation rate because it does not account for the fact that many students do not even make it to 12th grade (i.e., they drop out). The current standard used for AYP reporting purposes, defined by the National Center for Education Statistics (NCES), calculates the graduation rate as total graduates divided by the sum of graduates plus dropouts from grades 9 through 12 during an academic year. But this method is also less than ideal. Improvements in data availability now permit ODE to track "cohort" or "on-time" graduation rates at Oregon high schools. The cohort rate indicates the share of a school's 9th grade class from a given year who receive a regular diploma within four years.

While conceptually more appealing, we do not estimate four-year graduation probabilities for this analysis. To do so, we would have to rely on 2004-05 and 2005-06 9th grade cohorts, which would completely eliminate Wave 2 and Wave 3 from the analysis. Cohort analysis will become increasingly meaningful in future years as an increasing number of OSSI schools graduate classes who were OSSI students as 9th graders.

Finally, we do not present NCES graduation statistics because they cannot be used in a student-level regression analysis. But the general patterns of 12th grade graduation presented in this report are not qualitatively very different from trends in the NCES statistics.[10] The reported levels are, however, very different because of the definitional differences. Total completion rates are about 11 percentage points higher for the 12th grade graduation rate compared to the NCES rate.

NOTES ON THE POST-SECONDARY ENROLLMENT ANALYSIS

Post-secondary enrollment data were provided by ODE. ODE, in turn, obtained enrollment data through a large data match with National Student Clearinghouse databases. The NSC data cover enrollments at nearly all, large

[10] Our March 2010 "Statewide overview of academic achievement and high school completion at Initiative schools 2004-05 through 2008-09" includes NCES graduation rate statistics.

post-secondary institutions in the United States, but are not comprehensive. Coverage has increased over time, although summary data suggests no major changes during our analysis period. We cannot, however, rule out the possibility that inclusion or exclusion of certain institutions affects our results. All regression results include yearly indicator variables that help to address this concern.

For every student, we identify the institution of a student's longest enrollment during an academic year. If the student was enrolled for at least 70 days, we include the enrollment in our analysis. This eliminates about four percent of all enrollments. While we may miss some legitimate enrollments where a student completed a short course of study, the number missed is likely small. We do not have access to comprehensive data that indicate the outcome for a given semester or trimester (e.g., withdrawal versus completion of credits).

METHODOLOGY

By design, Initiative schools serve relatively high proportions of minority students and students of low socioeconomic status. Academic success is less likely for these groups than for other students, as evidenced by persistent achievement gaps between these groups and other students on standardized tests, and their greater dropout rates. Because demographics at Initiative schools vary so dramatically from the mean, simple comparisons of school performance and state averages are misleading. Adequately evaluating Initiative schools and answering the evaluation questions requires statistical methods that control for observed demographic differences to provide better measures of school success.

For our study, we rely on natural variation in student and school characteristics to estimate the impact of OSSI. Conceptually, we proceed in several steps. First, we estimate the relationship between a student's *observable* characteristics, such as race or socioeconomic status (e.g., whether a student is identified as economically disadvantaged), and the outcome measure of interest, such as student scores on the OAKS math test.

We then predict an OAKS math score for each student by applying our estimates to the characteristics of each student. We might find, for example, that economically disadvantaged students have lower average math scores than do non-disadvantaged students. We would thus predict lower math scores for all economically disadvantaged students. After we have accounted for the impact of every observable characteristic, we can compare scores for OSSI and non-OSSI students that are otherwise as similar as possible. In other words, we have *controlled for observable individual characteristics*.

If OSSI students systematically out-perform these predictions, we have statistical evidence suggesting that enrollment at Initiative schools improves student outcomes. In practice, we accomplish these steps simultaneously using multivariate regression techniques. Due to data availability and timing of the outcome of interest, the regression models do not all include the same individual-level characteristics. Additional technical information regarding the analysis is available from ECONorthwest.

MODELING ACHIEVEMENT

For both math and reading, we regressed a multi-year panel of students' score gains between 8th and 10th grade on a variety of student characteristics. A separate model was used to predict whether a student would meet or exceed the state achievement benchmark. Student characteristics included: age, gender, race and ethnicity, free or reduced price lunch eligibility and other programmatic indicators, 8th grade math and reading test scores, whether the student took a 9th grade "challenge" test and other testing data, student enrollment patterns during the academic year, and indicators for each academic year to control for cohort effects.

To estimate differences in outcomes between OSSI and non-OSSI students, our regression models included separate indicators for each wave of enrollment. This allows us to identify how the "OSSI effect" on achievement varies with wave, over time within a wave, and with student demographic characteristics.

MODELING ATTENDANCE/ABSENTEEISM

Our regression model for absenteeism is similar to those for math and reading scores, and includes student demographics, program eligibility, and a student's enrollment patterns during the academic year. Students' 8th grade absence rate is included as a control, serving a similar purpose as do 8th grade achievement scores in the achievement regressions. As in the achievement regressions, we allow the "OSSI effect" on attendance to vary with wave, over time within a wave, and with student demographic characteristics.

MODELING STUDENT WITHDRAWALS

We discuss findings from two models that predict student withdrawals, both of which include a similar set of student demographic and enrollment indicators as our other models. The first model is a regression of 2008-09 outcomes only. This provides a snapshot of recent conditions and allows us to include controls for 8th grade achievement scores, an important predictor of high school success. We also report results from a regression of a panel of data spanning 2005-06 through 2008-09. This allows analysis of change over time, but does not allow us to include 8th grade scores and the results must be interpreted with caution because of increases in Wave 2 and Wave 3 schools with 12th grade students across years.[11] A regression of 9th grade withdrawals, which can include 8th grade scores for students enrolled in earlier years, is of limited use here because dropouts are much more likely in later grades.

MODELING HIGH SCHOOL GRADUATION

We discuss findings from two regression specifications for our analysis of 12th grade graduation as well. The first is restricted to 2008-09 outcomes to provide evidence about current conditions. This single year cross-section allows us to

[11] Including indicators for each Initiative school individually would shed little light on how Initiative schools perform overall.

include a control for whether a student is enrolled at the same school in 11th and 12th grade, as well as 8th grade achievement scores, important predictors of future graduation. We also discuss findings from a panel regression for 2004-05 through 2008-09 that does not include controls for 8th grade scores or prior enrollment.

MODELING POST-SECONDARY ENROLLMENT

The regression models we employ to analyze post-secondary enrollment closely resemble those used for high school graduation. We include all 12th grade enrollees in this analysis regardless of whether they receive a regular diploma. Doing so implicitly accounts for changes in graduation rates that might affect college enrollment rates and allows us to ask whether Initiative schools are doing better linking 12th graders to post-secondary education.

INTERPRETING THE RESULTS

The interpretation of our findings varies with data availability and the outcome of interest, and throughout this report we discuss the practical implications, and potential limitations, of each finding. Due to differences in the analytic method used, the appropriate interpretation also differs depending on which of the two fundamental questions is addressed by the finding:

1. **Findings that OSSI students outperform similar non-OSSI students (Question 1).** When statistically significant, such findings would indicate whether OSSI enrollees demonstrate better outcomes than would be predicted based on their characteristics—they measure the extent to which improved outcomes are associated with OSSI enrollment, but are not definitive as to whether OSSI program elements *caused* the improvement.

2. **Findings that outcomes at Initiative schools have improved over time (Question 2).** Statistically significant, positive findings of this type would indicate that outcomes have improved at OSSI schools over time, regardless of whether students are above or below predictions based on demographics alone. Statistically significant findings about improvement over time would identify trends in how programs develop, but would not *necessarily* directly identify the causal impacts of Initiative programs on student outcomes.

We generally report results as statistically significant only if the associated p-value is less than 0.05. In other words, the probability that a specific result is not truly different from zero is less than five percent. In some cases we note as suggestive findings where $p<0.10$. Although not significant at the more conventional five percent level, we consider such results worthy of additional attention as more data become available.

Chapter 2 Implementation and Enrollment

INTRODUCTION

In total, 17 high school campuses were identified as Initiative schools at some point in time. These include conversion schools, large regular high schools that were reorganized into several smaller schools at the same site, and new start schools that opened as new, small schools with Initiative funding. The conversion schools are further classified according to their organizational structure as either fully autonomous ("Full") where individual small schools operate as independent entities, even as part of conversion school campuses, or as semi-autonomous ("Semi"), where individual schools at the same site operate as closer to Small Learning Communities. We consider a student an Initiative student only with an enrollment at a school that has implemented the small schools model in the student's grade. One conversion school did not open as planned and two others were open as Initiative schools for two or fewer academic years (see Table 2.2, below). We do not include these schools' students as OSSI enrollees.

In addition to differences in organizational structure, programmatic elements also varied from school to school, but the number of Initiative schools is small compared to the variation in implementation, and even quantifying this variation is difficult. Table 2.1 is derived from survey data submitted by small schools to E3 for reporting to the Bill & Melinda Gates Foundation funders. The table identifies whether a small school provided each of several selected program elements, such as requirements for parent involvement in education, during the 2009-10 academic year.

Nearly every school offered post-secondary awareness, scholarship information sessions, and at least one of the summer or extended learning programs. But the schools are far from uniform in their offerings, and not all schools are represented because not all schools submitted surveys in any given year (Table 2.1 only includes schools that submitted a survey for 2009-2010). Although the surveys contain useful information on program elements and outcome data that might be valuable in understanding the successes of individual schools, the pattern of missing surveys does not allow us to reliably aggregate the survey data for any given year, or to construct meaningful trends across time.

Table 2.1: Selected program element availability by school, 2009-10

Campus	School	Post-secondary awareness programs	Scholarship information sessions	Summer programs	Extended day programs	Extended week programs	Parent involvement requirement
Crater	CANS	Yes	Yes				
	BIS	Yes	Yes				
	Renaissance Academy	Yes	Yes	Yes	Yes		
	CAHPS	Yes	Yes		Yes	Yes	
	EagleRidge High School	Yes	Yes				
	Health Science School	Yes				Yes	
	LEP	Yes	Yes		Yes		
Marshall	Biz Tech	Yes	Yes	Yes	Yes		
	RAA	Yes	Yes	Yes	Yes	Yes	Yes
	MACA	Yes	Yes		Yes		
Newberg	Blue School	Yes	Yes	Yes	Yes		
	Green School	Yes	Yes	Yes	Yes		
	S.I.L.V.E.R. School	Yes	Yes	Yes	Yes		
	Yellow School	Yes	Yes	Yes	Yes		
North Eugene	AoA	Yes	Yes	Yes	Yes		
	NIHS	Yes	Yes	Yes	Yes	Yes	
	School of IDEAS	Yes	Yes	Yes	Yes		
Roosevelt	SEIS	Yes		Yes	Yes		
South Medford	BACH	Yes	Yes	Yes			
	CHAMPS	Yes	Yes	Yes	Yes		
	Discovery	Yes	Yes	Yes			
	Freshman Academy	Yes	Yes	Yes	Yes		
	A3	Yes	Yes				Yes
Wood-burn	WAAST	Yes	Yes	Yes	Yes	Yes	
	WACA	Yes	Yes	Yes	Yes	Yes	
	WAIS	Yes	Yes	Yes	Yes	Yes	
	WeBSS	Yes	Yes	Yes	Yes	Yes	Yes

Source: OSSI school survey data

IMPLEMENTATION IN THREE WAVES

The schools opened in several waves from 2004-05 to 2007-08, and not all Initiative schools enrolled students in all grades during their first years of operation. The staggered implementation could clearly distort time trends in outcomes aggregated across all Initiative schools. To avoid this, we assign schools to one of three waves based on the year a school was open as an Initiative school *and* had 10th grade enrollments. This assignment accounts for the staggered implementation schedule and provides the most stable sets of schools for tracking outcomes over time, although the wave assignment does not align exactly with schools' opening year (see Table 2.2), and not all included schools received Initiative funding in every year.

The staggered implementation schedule, relatively short analysis period, and different types of school structure (fully autonomous conversion schools, semi-autonomous conversion schools, and new starts) have implications for interpreting our findings. Most importantly, the specific question of whether the small schools "treatment" can improve performance at already struggling schools is clearly only relevant for the conversion schools.

Table 2.2 summarizes the information used to classify school campuses. At present, we are tracking results at 14 campuses encompassing a total of 34 small schools. As of 2008-09, not all schools were funded by the Initiative, but all schools retained their Initiative structure, so we include them as relevant to

understanding the impacts of OSSI's small schools model. A total of 22 small schools were being funded during 2009-10, the Initiative's final year. We include students at these schools as Initiative students in the rest of the report.[12]

Table 2.2: OSSI school classification

Wave	Campus	Type of small school	Level of autonomy	First open as an OSSI school in:	Final year with a small school structure	Outcomes included as of academic year:	All-grade dropout data included as of academic year:
1	Liberty	Conversion	Semi	03-04	N/A	04-05	04-05
	Marshall	Conversion	Full	04-05	N/A	04-05	04-05
	Nixyaawii	New Start	Full	04-05	N/A	04-05	04-05
	Roosevelt	Conversion	Full	04-05	N/A	04-05	04-05
2	A3	New Start	Full	06-07	N/A	06-07	08-09
	Newberg	Conversion	Semi	06-07	N/A	06-07	07-08
	North Eugene	Conversion	Semi	06-07	N/A	06-07	08-09
	Woodburn	Conversion	Full	06-07	N/A	06-07	06-07
3	Crater	Conversion	Full	07-08	N/A	07-08	07-08
	Eagle Ridge	New Start	Full	07-08	N/A	07-08	09-10
	HS2	New Start	Full	06-07	N/A	07_08	09-10
	LÊP	New Start	Full	06-07	N/A	07-08	09-10
	MACA	New Start	Full	07-08	N/A	07-08	09-10
	South Medford	Conversion	Semi	06-07	N/A	07-08	09-10
Excl-uded	Lebanon	Conversion	N/A	04-05	05-06	Excluded	Excluded
	Madison	Conversion	N/A	07-08	07-08	Excluded	Excluded
	North Medford	Conversion	N/A	N/A	N/A	Excluded	Excluded

As the most mature Initiative programs, our discussion of outcomes focuses more heavily on Wave 1 schools, although we also note important trends at newer schools. Most of our data about the much newer Wave 2 and Wave 3 schools reflects outcomes for these schools' early years, and we view observed trends as suggestive rather than conclusive about their ultimate success.

[12] Health and Science School (HS2) enrollments were not identifiable in ODE records prior to the 2008-09 academic year.

Under the assumption that the small schools model has a positive impact on student performance, it is reasonable to hypothesize that students enrolled at a small school for multiple grades will, on average, have better outcomes than those with fewer years of exposure. One implication of this would be that, all else equal, outcomes should continue to improve for several years after a school opens simply because it takes four years for a school to graduate a class of students with four years of exposure to the small school environment and because it takes time for staff to operationalize the small school structure and practices.

Our 2009 report provides some evidence to support this hypothesis, concluding that school outcomes did not typically improve until the second year of operation. As of 2008-09, we can observe the "OSSI effect" on 10th grade achievement for every wave because all schools had been open as small schools for at least two years by 2008-09, the most recent year for which data were available for analysis. However, only Wave 1 had graduated a class with four years of small schools experience by 2008-09. And, while the number of OSSI students was close to 11,000 during 2008-09, 73% of OSSI students attended Initiative schools that had been open for three or fewer years.

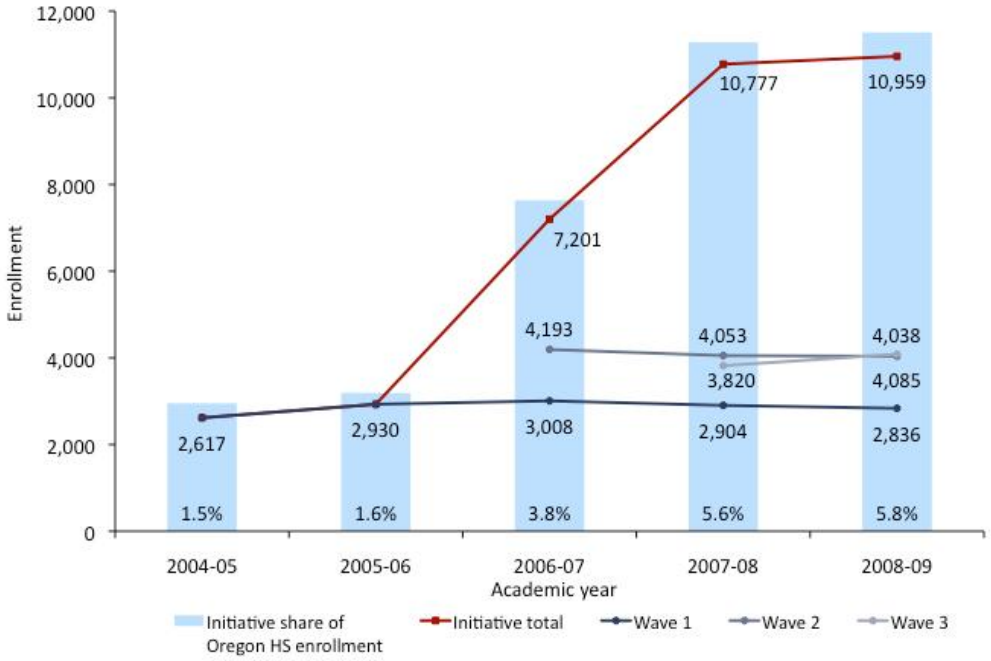
Finally, four of the five new start schools opened in 2006-07 or 2007-08. *Combined with their small size, this prohibits drawing any strong conclusions about performance differences between new and conversion schools, or between fully autonomous and other schools.* Note also that, by definition, there are no pre-existing conditions, as there are for conversion schools, to use as a baseline for estimating the immediate impact of opening a small school.

INITIATIVE ENROLLMENT OVER TIME

Figure 2.1 displays the number of students enrolled in each wave and total Initiative enrollment as a share of total Oregon high school enrollment over time. *Small schools enrollment has grown considerably as a share of Oregon high school enrollment—from 1.5 percent in 2004-05 to 5.8 percent in 2008-09.* The school implementation timeline has driven the overall growth in OSSI enrollment. Trends in Wave 2 and Wave 3 enrollments from year to year incorporate the impact of staggered implementation at some schools. For example, two Wave 2 sites, A3 and North Eugene, did not enroll 12th grade students in their small schools until 2008-09, and have contributed an increasing number of students to the Wave 2 total because of this.

For the quantitative analysis, we assign students to schools using their school of longest enrollment, producing slightly different enrollment counts than those presented in Figure 2.1. Table 2.2 provides a comparison of enrollment trends calculated using each method. The table further tabulates the "longest enrollment" data separately by grade, school organizational structure and Wave. For some outcomes, the quantitative analysis excludes the small number of students not assigned to a specific grade during 2007-08 and earlier academic years.

Figure 2.1: OSSI Wave enrollment and share of Oregon high school enrollment, 2004-05 through 2008-09



Note: Based on October 1 enrollment.

Source: ECONorthwest analysis of ODE student-level data.

Table 2.3: OSSI enrollment by academic year, grade, organizational structure, and Wave

Population	Academic year				
	04-05	05-06	06-07	07-08	08-09
9th grade	863	968	2,679	3,082	3,095
10th grade	721	841	1,962	2,941	3,067
11th grade	638	701	1,097	2,160	2,728
12th grade	563	542	951	1,674	1,937
Ungraded	20	20	22	20	0
Conversion	2,753	2,999	6,413	9,318	9,783
Fully autonomous	1,510	1,703	3,146	4,462	4,385
Semi-autonomous	1,243	1,296	3,267	4,856	5,398
New Start	52	73	298	559	1,044
Wave 1	2,805	3,072	3,149	2,997	2,928
Wave 2	0	0	2,914	3,934	4,120
Wave 3	0	0	648	2,946	3,779
Total (longegst enrollment)	*2,805*	*3,072*	*6,711*	*9,877*	*10,827*
Total (Oct. 1 enrollment)	*2,617*	*2,930*	*7,201*	*10,777*	*10,959*

Source: ECONorthwest analysis of ODE data.

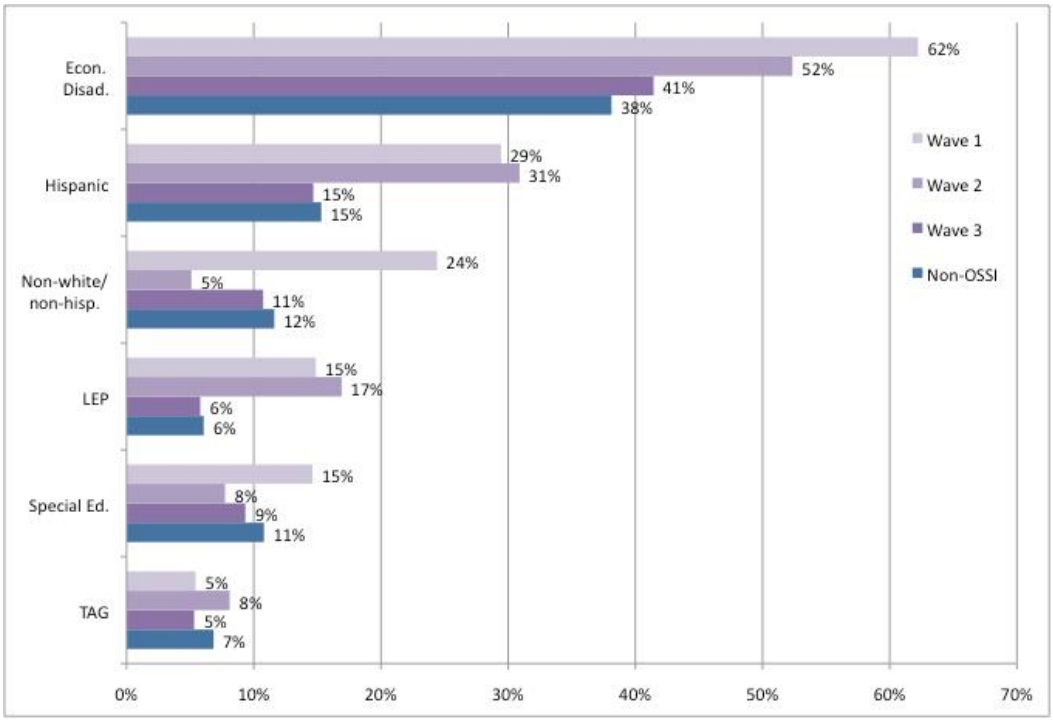
STUDENT DEMOGRAPHICS

By design, Initiative schools serve student populations with demographics that differ dramatically from statewide averages (see Figure 2.2).

Figure 2.2 highlights the striking differences between Oregon's OSSI and non-OSSI high school enrollees. Student characteristics differ by wave, with Wave 1 and 2 students appearing markedly different from non-OSSI students.

Wave 3 students are much more similar to the rest of the state, although the share of students identified as economically disadvantaged is several percentage points higher than it is among non-OSSI students.

Figure 2.2: Demographic characteristics of OSSI and non-OSSI students by Wave, 2008-09



Note: School assigned based on a student's longest enrollment

Source: ECONorthwest analysis of ODE data.

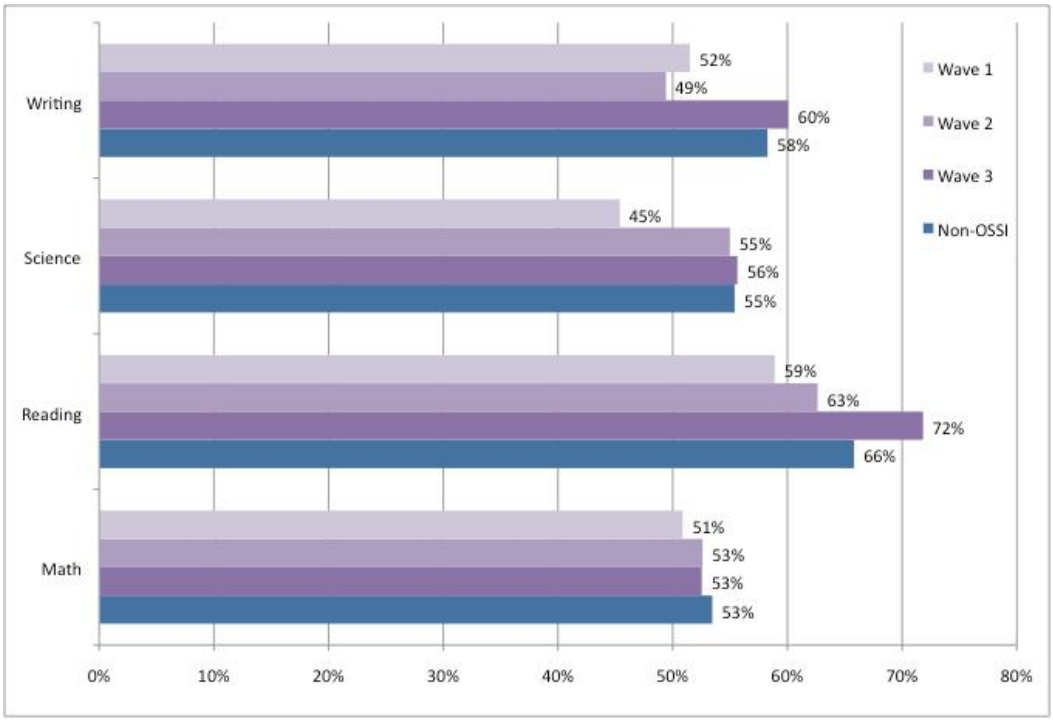
Our statistical analysis accounts for differential outcomes across *observable* characteristics, but we cannot rule out the possibility that *unobservable* student or school factors moderate program impacts as well. For example, the economically disadvantaged students at Initiative schools may come from families with lower average household incomes than economically disadvantaged students at other schools, but the economically disadvantaged status indicator does not reveal this information, and such differences may well affect student outcomes.

Academic Achievement

INTRODUCTION

Our analysis of academic achievement examines 10th grade student outcomes on Oregon's OAKS tests (Oregon does not have a regular assessment for 9th, 11th, or 12th grades). We focus on math and reading, but we present selected statistics from science and writing test data as well. Figure 3.1 provides an overview of OSSI 10th grade students' OAKS performance by subject, relative to all other Oregon 10th graders. The chart identifies the share of students in each wave who at least met the 10th grade benchmark in each subject in 2009-10.[13] For most subjects, OSSI students perform near the state average, although outcomes vary by Wave. For example, Wave 3 students have higher meet/exceed rates in science and reading than do non-OSSI students, while Wave 1 falls below the state average in all subjects. Wave 2 students have relatively high meet/exceed rates in science, reading, and math, but a relatively low rate in writing.

Figure 3.1: 10th grade meet/exceed rates by subject and Wave, all students, 2009-10



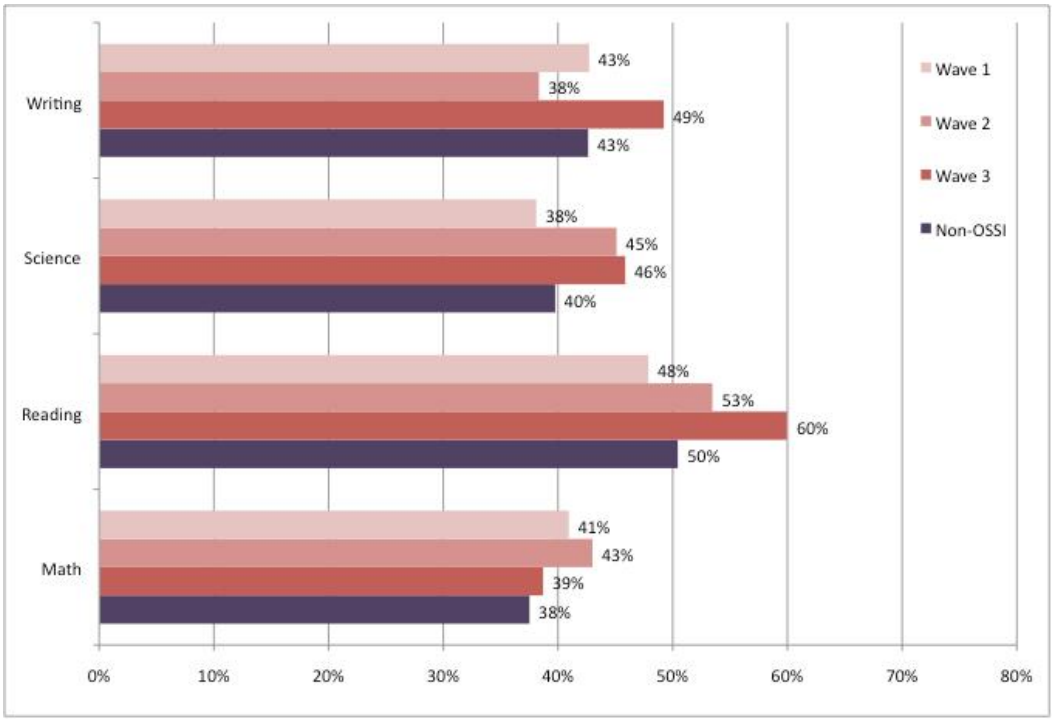
Source: ECONorthwest analysis of ODE school-level data.

But aggregate averages can be misleading. As demonstrated in Chapter 2, OSSI students come disproportionately from disadvantaged backgrounds. This, in

[13] At the time of publication, we did not have access to 2009-10 student-level achievement data from ODE. Thus, the data in Figures 3.1 and 3.2 are not strictly comparable to other statistics presented later in this chapter.

turn, affects student performance and complicates interpretation of the overall averages. Figure 3.2 is similar to Figure 3.1, but is restricted to students identified as economically disadvantaged. This figure highlights the persistent achievement gap demonstrated by Oregon students—*economically disadvantaged students have much lower average meet/exceed rates than do other students. Within this student population, however, OSSI students perform relatively well.* Wave 3 now stands out as exceeding the non-OSSI average by a wide margin in all subjects, Wave 2 also exceeds the non-OSSI average, although by smaller margins in most subjects. Wave 1 student performance is above average in writing and math, and closer to the average in the other subjects. The contrast between Figures 3.1 and 3.2 also underscore the importance of considering factors beyond test scores when evaluating the small schools impact, as we do in this report.

Figure 3.2: 10th grade meet/exceed rates of economically disadvantaged students, by subject and Wave, 2009-10



Source: ECONorthwest analysis of ODE school-level data.

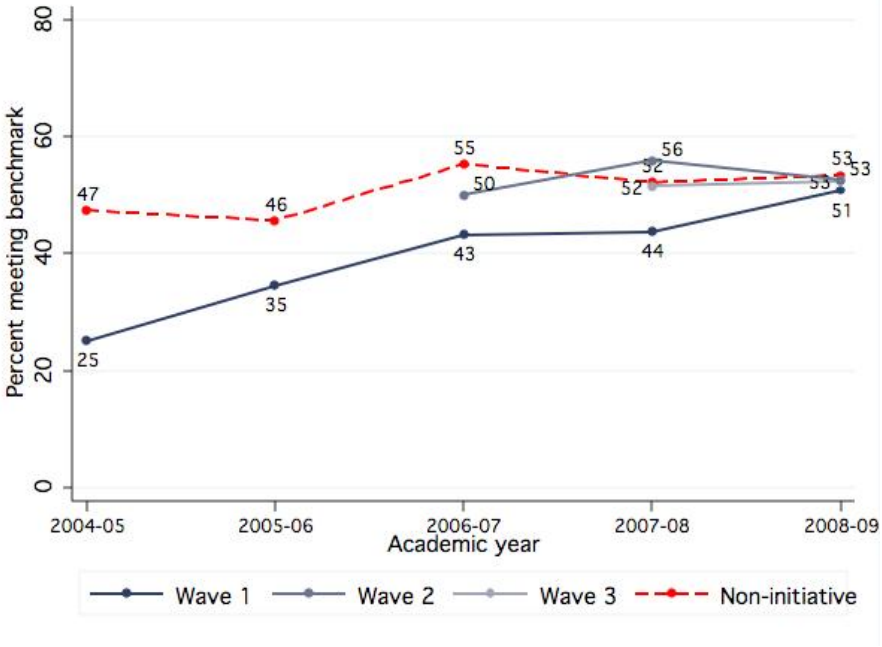
MATH ACHIEVEMENT

The figures above indicate that OSSI students are, in the aggregate, about average in math achievement, but that *the Initiative's economically disadvantaged students outperform non-Initiative economically disadvantaged students, which suggests OSSI success towards closing the achievement gap.* Examining trends over time provides additional evidence suggestive of positive Initiative impacts.

Figure 3.3 displays the time trends in 10th grade math meet/exceed rates for each wave of schools and for all non-OSSI students combined. Outcomes for Wave 1 students were well below average when their schools opened as Initiative

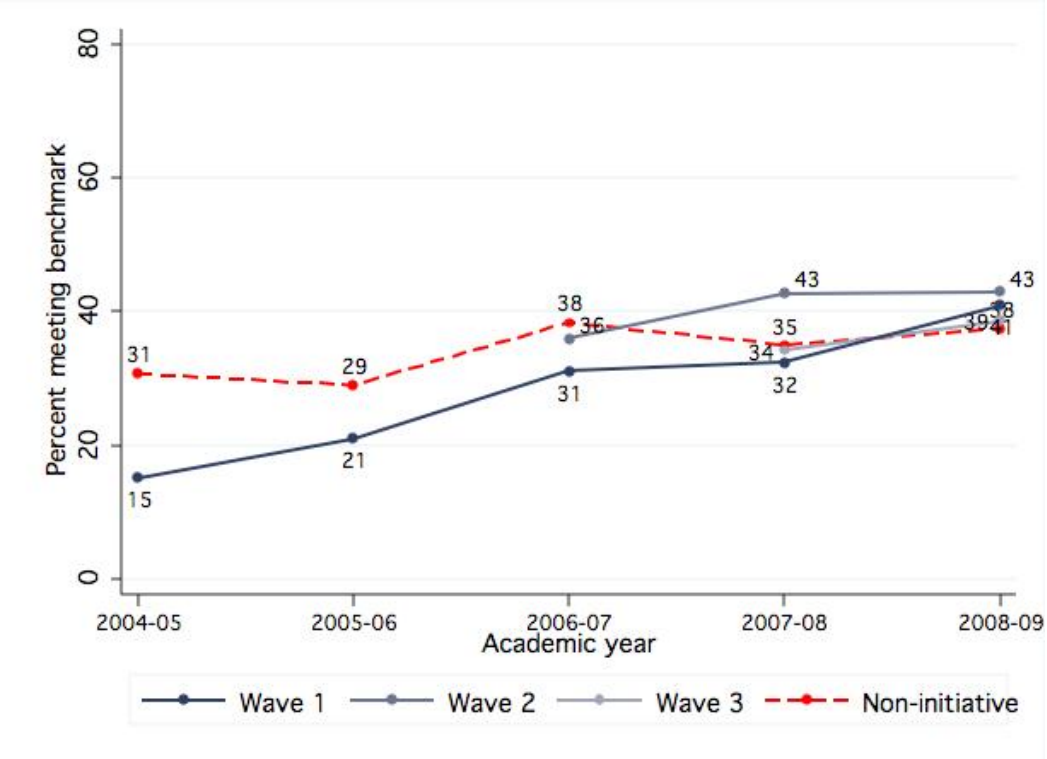
schools, a continuation of conditions prior to conversion, but the schools also demonstrated a strong upward trend in the following years (this is especially true for the two Portland campuses in this wave, Marshall and Roosevelt). Wave 2 and Wave 3 schools opened much closer to the statewide average. Outcomes for non-OSSI students also improved slightly during the period of analysis, although much of this increase can be attributed to ODE's reduction in the benchmark cutoff scores for 2006-07 and subsequent academic years.

Figure 3.3: 10th grade math meet/exceed rates over time by Wave, all students



Source: ECONorthwest analysis of ODE data.

Figure 3.4: 10th grade math meet/exceed rates of economically disadvantaged students over time, by Wave



Source: ECONorthwest analysis of ODE data.

Performance by Initiative economically disadvantaged students demonstrates a similar, but more dramatic pattern (see Figure 3.4). The meet/exceed rate more than doubled between 2004-05 and 2008-09 for Wave 1 students. *In 2008-09, the meet/exceed rate for every wave surpasses that for non-Initiative economically disadvantaged students.*

The trends highlighted in Figure 3.3 are encouraging. Because Initiative schools educate students that disproportionately come from disadvantaged backgrounds, the even more promising outcomes highlighted in Figure 3.4 underline the importance of accounting for differences in student characteristics such as socioeconomic status and academic achievement prior to high school. Table 3.1 begins to address these issues. The table displays average 10th grade math scores for OSSI and non-OSSI students during 2008-09, as well as the average score gain between 8th and 10th grade during 2005-06 through 2008-09 (we do not have the data to calculate score gains for earlier years).

The trends in average RIT scores tell a similar story to Figures 3.1 and 3.2: In 2008-09, OSSI students performed at about the statewide average on the OAKS math test. But 8th to 10th grade score gains, one measure of learning gains during 9th and 10th grades, tell a more interesting story that is consistent with the improvements suggested by Figures 3.3 and 3.4: *10th grade scores may be about average, but gains are much higher for many OSSI students, and the gains grew*

markedly over time for Wave 1 students. We employed multivariate regression techniques to determine the statistical significance of these differences.

Table 3.1: 10th grade average OAKS math scores and 8th to 10th grade gains over time by OSSI enrollment and socioeconomic status

	Ave. RIT score (08-09)	Ave. gain 8th to 10th grade 08-09	07-08	06-07	05-06
All students					
Wave 1	234.7	2.9	1.1	0.7	0.6
Wave 2	234.9	0.5	2.0	-0.4	N/A
Wave 3	234.8	-0.4	1.0	N/A	N/A
Non-OSSI	235.8	0.1	0.3	0.0	1.8
Economically disadvantaged students					
Wave 1	232.6	3.0	2.0	1.6	1.6
Wave 2	232.9	0.4	1.6	-0.2	N/A
Wave 3	232.0	-0.1	2.1	N/A	N/A
Non-OSSI	232.0	0.8	0.8	0.7	2.5

Source: ECONorthwest analysis of ODE data.

MATH ACHIEVEMENT REGRESSION ANALYSIS

Estimates from our regression model indicate that Wave 1 small school enrollment is associated with statistically significant increases in score gains and, therefore, in 10th grade OAKS scores. In 2008-09, Wave 1 students had 10th grade scores that were on average 1.8 points higher than would be predicted on the basis of demographic characteristics and all included observable characteristics other than the OSSI enrollment indicators.

Increases in average RIT scores should translate into greater meet/exceed rates, but gains may not be distributed evenly across students. A separate regression model that predicts the probability a student will at least meet the state benchmark indicates that the RIT gains associated with Wave 1 enrollment in 2008-09 translated into a 10.5 percentage point higher meet/exceed rate than would have been otherwise predicted.

The improvement in gains for Wave 1 students between 2005-06 and 2008-09 is also statistically significant.[14] *The results indicate that, relative to the Non-OSSI average, Wave 1 scores in 2008-09 are 4.2 points higher than they would have been for the same students in 2005-06.*[15]

In 2008-09, score gains for Wave 2 and Wave 3 students were not significantly above those of non-OSSI students but we note that, although Wave 1 improved significantly in every year between 2005-06 and 2008-09, the average Wave 1 gain did not exceed that for otherwise similar non-OSSI students until all Wave 1 schools had been open for at least three years. Wave 2 reached this level

[14] We cannot calculate 8th to 10th grade score gains for years prior to 2005-06.

[15] The actual average Wave 1 gain only increased by 2.3 points. But the non-OSSI gain *decreased* by 1.7 points during the same period, so Wave 1 student gains improved by about 4 (2.3 + 1.7) points relative to the non-OSSI average.

of program longevity in 2008-09 and Wave 3 not until 2009-10, one year past the end of our analysis period. Three additional years of planned data collection and analysis will greatly improve our understanding about persistent improvements at schools in the later waves.

SCHOOL STRUCTURE AND STUDENT CHARACTERISTICS

We find no convincing evidence that a school's structure (fully autonomous or not) or type (new or conversion) has a differential impact on the "OSSI effect" on math scores. If these differences are in fact important, they are drowned out by the variation in performance across individual OSSI schools.[16]

Similarly, the regression analysis indicates that all student groups receive a similar benefit from enrollment in an Initiative school—no student subgroup is losing ground in terms of score gains. *Further, the analysis indicates that African American students and special education students exhibit slightly stronger "OSSI effects" than other OSSI students on 8th to 10th grade score gains*. The additional gains of African American students are statistically significant in 2008-09, but not in earlier years or for OSSI enrollment combined across years.

Although not apparent in score gains, OSSI score gains for American Indians and those of students with limited English proficiency were less uniform in math meet/exceed rates. In 2008-09, Wave 1 students in both groups had higher meet/exceed rates by a few percentage points than otherwise similar non-OSSI students, but lower rates if enrolled in a Wave 2 or Wave 3 school. Only the American Indian student difference was statistically significant at conventional levels, and this effect reflects conditions for a very small sample of students—there were 38 Wave 2 and Wave 3 American Indian students in 2008-09, mostly concentrated at a small subset of Initiative schools. It would be inappropriate to draw strong conclusions about OSSI impacts on American Indian students based on this small sample.

READING ACHIEVEMENT

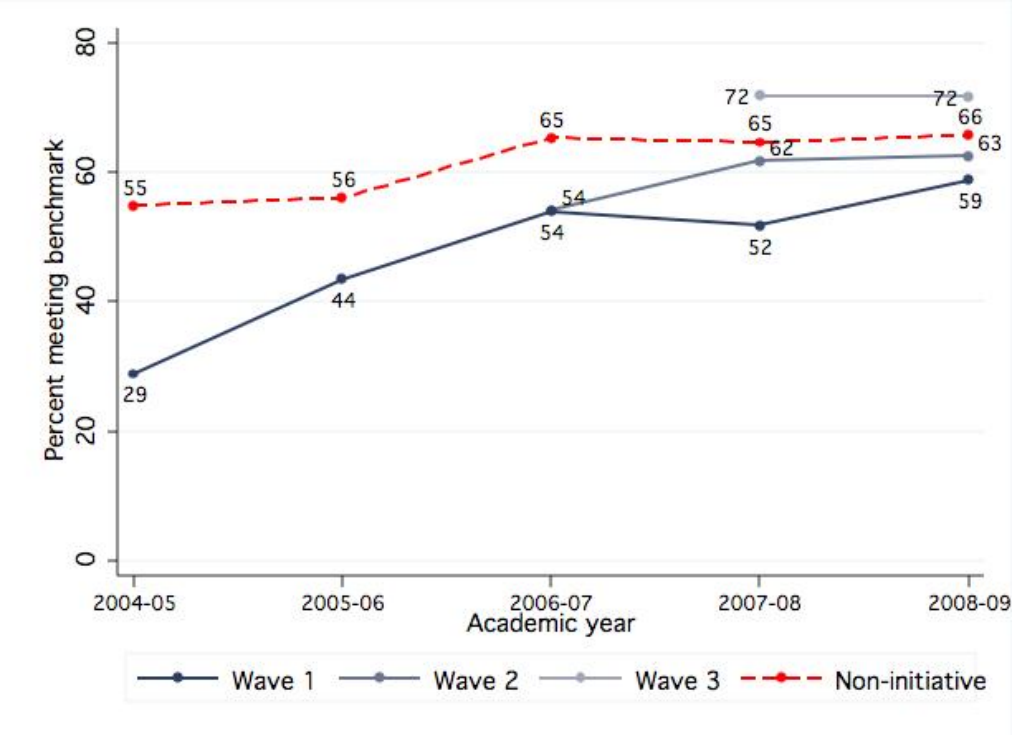
Figures 3.1 and 3.2 suggest much more varied success in reading than in math during 2008-09, although *trends* over time are similar. Figures 3.5 and 3.6, similar to Figures 3.3 and 3.4 for math, illustrate. As for math, we attribute much of the statewide increase in reading meet/exceed rates apparent in these figures to changes in the benchmark cutoff scores that occurred in 2006-07.

The Wave 1 meet/exceed rate for reading was very low at the beginning of the Initiative, with less than one third of students meeting the state benchmark. But the rate doubled by 2008-09, although still short of the non-OSSI average. The Wave 2 average also improved somewhat during these schools' early years, while Wave 3 students met the state benchmark at greater rates than did non-OSSI

[16] One possible advantage of full autonomy, noted by OSSI staff, is that fully autonomous school staff work with data specific to the schools students, whereas semi-autonomous schools often have to rely on campus-wide data.

students in both years Wave 3 schools were open. As for math, Initiative outcomes for economically disadvantaged students are even better relative to non-OSSI economically disadvantaged students. Both Wave 2 and Wave 3 economically disadvantaged students outperformed their non-OSSI counterparts in 2008-09.

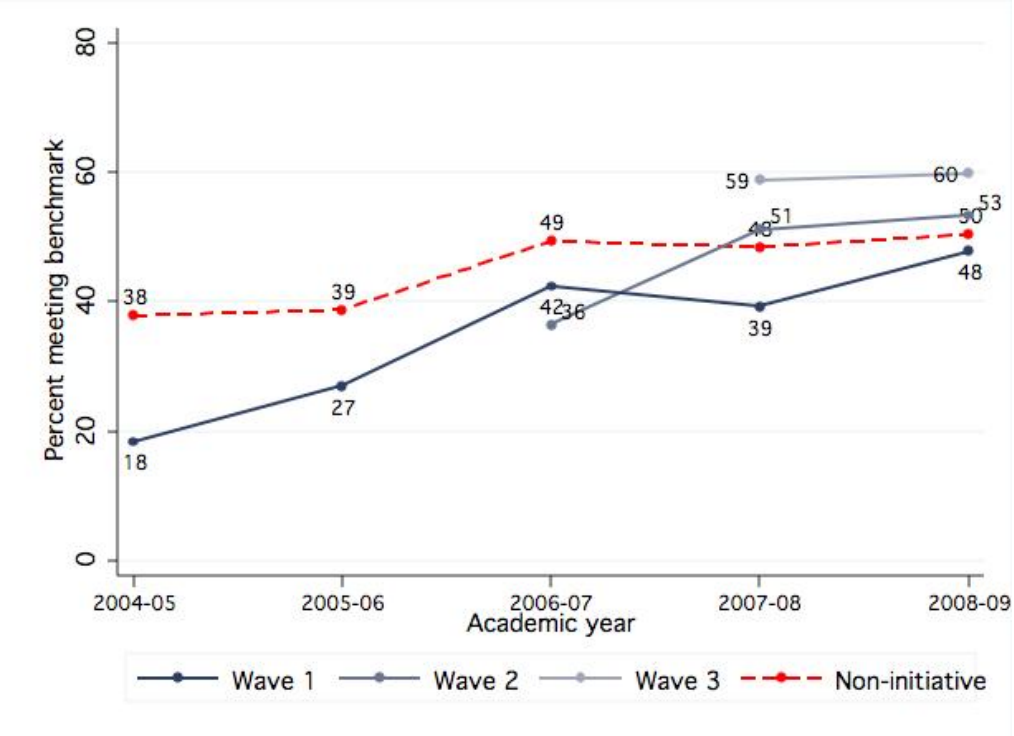
Figure 3.5: 10th grade reading meet/exceed rates over time by Wave, all students



Source: ECONorthwest analysis of ODE data.

Table 3.2 displays average score gains by Wave, year, and economically disadvantaged status. Again, the patterns typically mirror those seen for math. Wave 1 score gains exceeded those of non-OSSI students by more in 2008-09 than in earlier years. The other two Waves had larger average gains, but to a lesser degree.

Figure 3.6: 10th grade reading meet/exceed rates over time by Wave, all students



Source: ECONorthwest analysis of ODE data.

Table 3.2: 10th grade average OAKS reading scores and 8th to 10th grade gains over time by OSSI enrollment and socioeconomic status

	Ave. RIT score (08-09)	Ave. gain 8th to 10th grade 08-09	07-08	06-07	05-06
All students					
Wave 1	236.8	6.5	4.9	6.6	5.1
Wave 2	237.3	5.3	4.6	4.7	N/A
Wave 3	238.8	5.5	5.0	N/A	N/A
Non-OSSI	238.5	4.9	4.7	5.7	5.9
Economically disadvantaged students					
Wave 1	234.4	6.6	5.3	7.1	5.7
Wave 2	235.4	5.8	4.8	4.6	N/A
Wave 3	236.3	5.9	5.6	N/A	N/A
Non-OSSI	235.0	5.1	5.1	6.2	6.1

Source: ECONorthwest analysis of ODE data.

READING ACHIEVEMENT REGRESSION ANALYSIS

As in math, Wave 1 schools have performed the best relative to non-OSSI students. In 2008-09, Wave 1 students had reading gains that were 1.4 RIT points higher than otherwise similar non-OSSI students. Although similar in magnitude to the estimated Wave 1 effect on math scores, it is smaller relative to the average reading gain of about 5 RIT points. Wave 1 2006-07 average score gains also exceeded predictions based on observable characteristics. In 2008-09, the estimates imply that the Wave 1 reading meet/exceed rate was 7.0 percentage points higher than would be predicted without OSSI enrollment.

The average Wave 1 gains in each of the three years 2006-07 through 2008-09 was higher than in 2005-06 by a statistically significant margin. Compared to 2005-06, Wave 1 gains in 2008-09 were 3.8 RIT points higher relative to the non-OSSI average than they were for otherwise similar students. This improvement at Wave 1 schools is similar in magnitude to our Wave 1 estimate for math gains, but smaller relative to the typical reading score gain of 5.1 RIT points.

Wave 3 score gains were not significantly above the non-OSSI average, but in 2008-09 the Wave 3 meet/exceed rate was significantly greater than predicted based on student characteristics. Our estimates imply that this rate was 4.3 percentage points higher for Wave 3 students.

SCHOOL STRUCTURE AND STUDENT CHARACTERISTICS

We find that OSSI's special education students demonstrated a statistically significant additional gain of 1.1 RIT points, above and beyond the gain for OSSI students, when compared to otherwise similar non-OSSI special education students. We also find statistically significant impacts on American Indian performance that are similar in magnitude but in the opposite direction. However, as noted above, OSSI's American Indian students are heavily concentrated at a small number of schools. It would be inappropriate to draw broad conclusions about how Initiative schools impact American Indian performance based largely on outcomes at a very small number of schools.

We find no impact on Asian students' reading score gains or on those of students with limited English proficiency, but the "OSSI effect" on the former group's meet/exceed rate was slightly greater than the OSSI average, while students with limited English proficiency benefited slightly less from OSSI enrollment. This last effect was statistically significant, but tiny in magnitude.

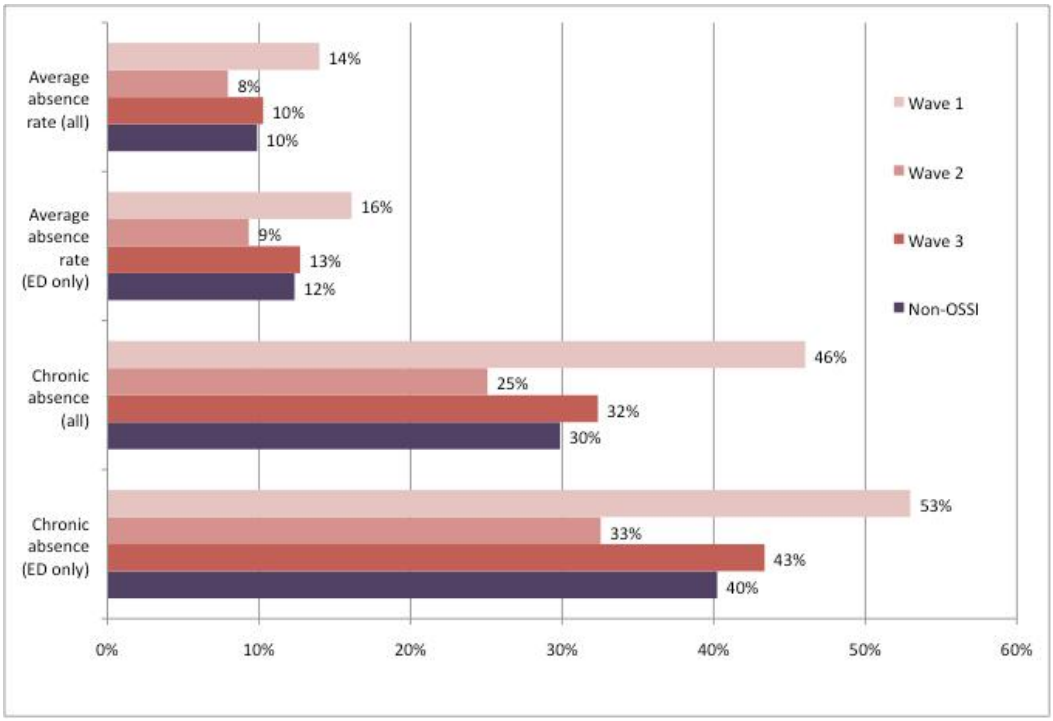
Attendance

INTRODUCTION

In this section, we present findings regarding two measures of attendance. First, we examine student absenteeism, where we define the absence rate as the percent of enrolled school days during an academic year that a student was recorded as absent at school. Second, we examine differences in whether or not students were "chronically absent" during an academic year. For this report we define students with attendance rates below 90 percent, equivalent to missing about three weeks of school, as chronically absent. By this definition, about 30 percent of Oregon's high school students were chronically absent in 2008-09.

Over time, attendance in Oregon has declined slightly for both measures, with the overall OSSI average rising to converge with the state average over time. In 2008-09, attendance among Oregon's non-OSSI high school students averaged 90.1 percent—equivalent to an absence rate of 9.9 percent. For OSSI students, average attendance stood at an essentially identical 89.6 percent. As for other outcomes, the underlying variation across schools is large. Figure 4.1 illustrates the variation by Wave, showing average absence rates and the share of high school students who were chronically absent in 2008-09.

Figure 4.1: Absence rates and chronic absenteeism by Wave, 2008-09

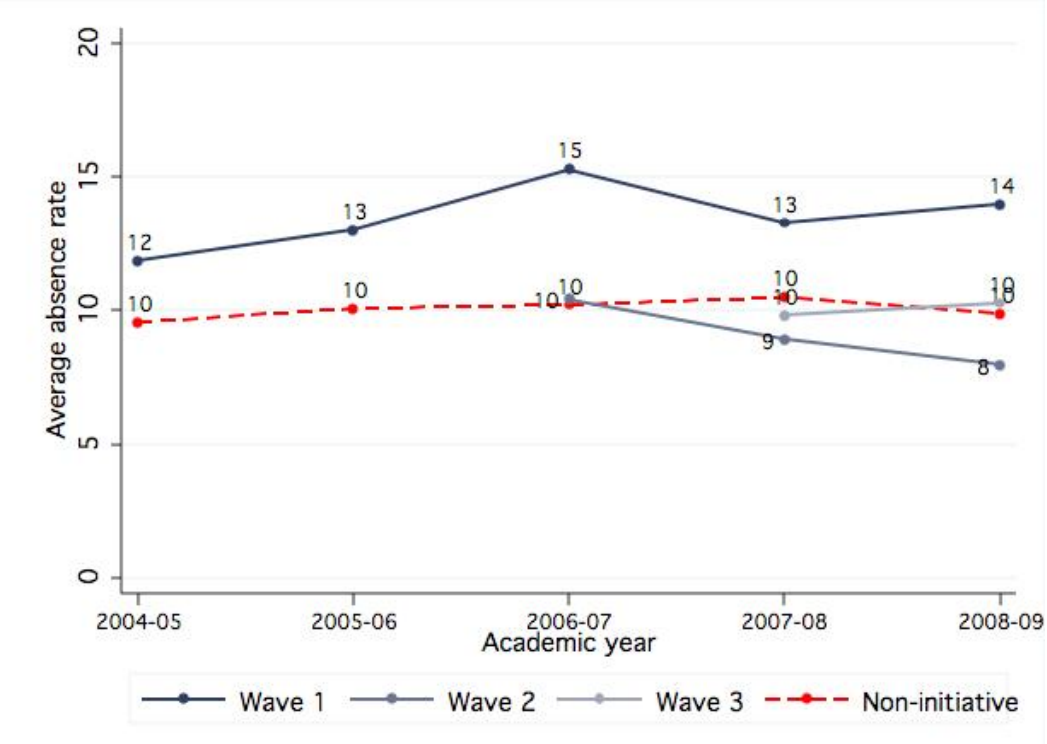


Source: ECONorthwest analysis of ODE data.

Wave 1 students clearly have worse attendance than other groups, and the four percentage-point difference in average absence rate between Wave 1 and non-OSSI students translates into a 16 percentage point difference in chronic absenteeism. Wave 2 has lower absenteeism than non-OSSI students, while Wave 3 students have a very similar absence rate and slightly higher rate of chronic absenteeism. Figure 4.1 also highlights that, as for achievement, there is an important outcome gap in attendance across student subpopulation—missing school may drive, or exaggerate the influence of other drivers of gaps in academic achievement. There is an approximately two percentage-point difference in average attendance for economically disadvantaged students relative to the overall average. The difference in chronic absenteeism is ten percentage points.

Figures 4.2 and 4.3 display the absence rate over time by Wave, for all students and for economically disadvantaged students. Patterns in chronic absenteeism magnify the trends in these figures. Absences at Wave 1 schools have increased absolutely and relative to average rate for non-OSSI students. Wave 2 attendance has improved over time, while Wave 3 absences have not changed significantly over the two years of observation. However, the Wave 2 and Wave 3 trends incorporate the effect of adding students in later grades for later years (e.g., several Wave 3 schools added 11th grade only in 2008-09). *This is important because absences tend to increase with grade, so the trends for these waves may actually be more positive than they appear.*

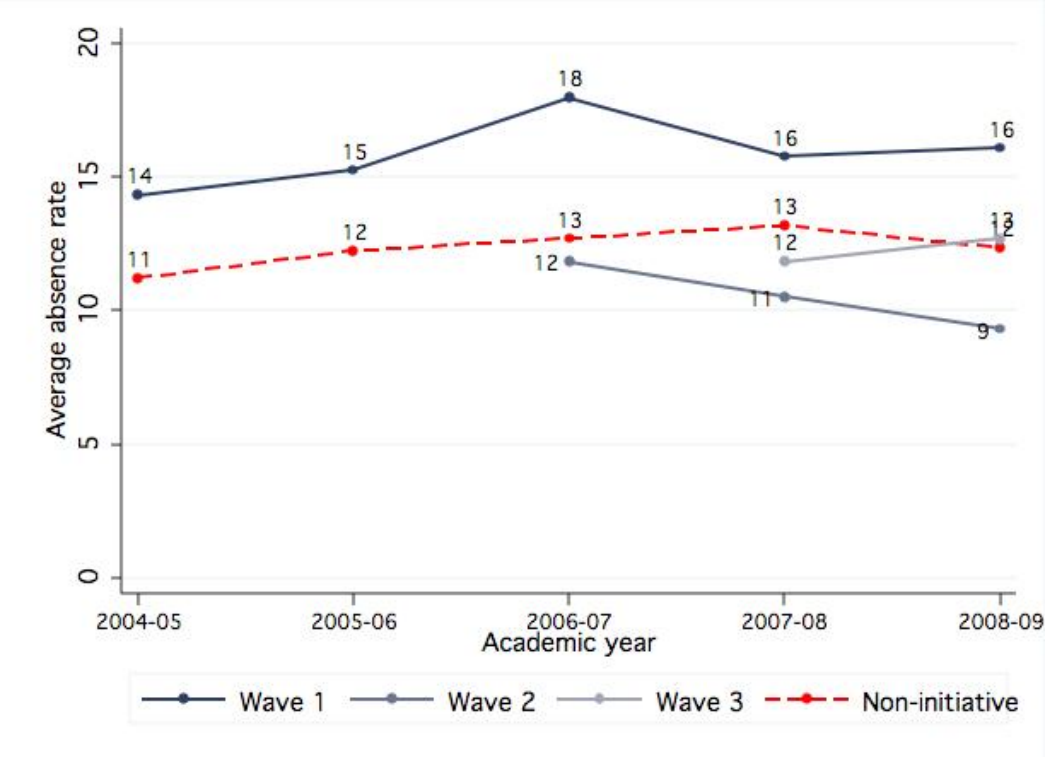
Figure 4.2: Absence rate over time by Wave, all students



Source: ECONorthwest analysis of ODE data.

Wave 2 and Wave 3 absences appear relatively more favorable when comparing only economically disadvantaged students. Even though absences were higher for these students, they were typically further below the average for non-OSSI economically disadvantaged students. For Wave 1, however, absences were higher in absolute terms and the gap between Wave 1 and non-OSSI students was similar to that for all students.

Figure 4.3: Absence rate over time by Wave, economically disadvantaged students



Source: ECONorthwest analysis of ODE data.

Overall, attendance at Initiative schools does not fall far below the statewide average, but Wave 1 schools in particular performed well below this benchmark throughout the analysis period. As for the other indicators, the appropriate questions to ask are whether attendance is better than would be expected based on student characteristics and whether attendance has improved over time at Initiative schools, relative to expectations based on student characteristics.

ATTENDANCE REGRESSION ANALYSIS

At the highest level, we find that the broad patterns noted in the preceding section are statistically meaningful, if not always positive. In 2008-09, after controlling for observable characteristics, the Wave 1 absence rate was 2.5 percentage points higher than the average for non-OSSI students, which translates into missing about 25 percent more days than average; the Wave 2 absence rate was 1.9 percentage points lower than for non-OSSI students, or 19 percent fewer

absent days than average. Wave 3 outcomes were statistically indistinguishable from outcomes for non-OSSI students.

Over time, Wave 1 attendance has been the most uneven. Our analysis indicates that 9th grade absence rate was actually close to the non-OSSI average in 2005-06 and 2007-08, but not during 2006-07 or more recently. *Overall, we conclude that attendance outcomes have not meaningfully improved at Wave 1 schools.* In some sense, this makes the achievement gains at Wave 1 schools that much more impressive. *Wave 2, on the other hand, demonstrated statistically significant year-to-year reductions in the 9th grade absence rates between 2006-07 and 2008-09 of about 0.7 percentage points per year.* The staggered implementation makes analysis of absences in later grades less reliable, but the data suggest that improvements at Wave 2 schools are at least as strong for 10th grade students as for 9th graders.

SCHOOL STRUCTURE AND STUDENT CHARACTERISTICS

As with achievement outcomes, we find no evidence that the different organizational structures of OSSI schools have a differential impact on attendance outcomes. The only statistically significant difference in the "OSSI effect" across student subpopulations was between Hispanic and non-Hispanic students. In 2008-09, Hispanic OSSI students had absence rates that were 1.2 percentage points lower than would otherwise be predicted after accounting for the Wave-specific OSSI effects. This more than erases the predicted 0.9 percentage point by which Hispanic absence rates exceeded the statewide average, after controlling for other factors. In other words, Initiative schools have erased the Hispanic "attendance gap" apparent across the state. This improvement is largely due to improved attendance for Hispanic students at Wave 2 and Wave 3 schools.

Chapter 5 High School Completion and Post-secondary Enrollment

HIGH SCHOOL COMPLETION

One of the most useful, generally applicable, markers of school success is the share of students who finish high school in a reasonable amount of time. A high school diploma does not necessarily indicate the skill level of an individual student, but the event of graduating indicates at least that the student was engaged enough to attend class and complete an adequate number of credits. To some extent, achievement scores, attendance, and discipline are merely signposts that indicate whether a student is more or less likely to achieve the goal of graduation. Dropout rates serve as an equally telling indicator for a school's failure to engage all enrollees.

Of course, students leave school for many reasons. Staff at Portland's conversion schools on the Marshall and Roosevelt campuses have suggested that one driver for the schools' current and historically high dropouts rates (and possibly the schools' high absenteeism as well) is due to the transience of the student body—a relatively large share are homeless or living in unstable housing situations. Completely eliminating high school dropouts is an unattainable goal. But, all else equal, a higher dropout rate, suggests a mismatch between the needs of students and the services offered by their school.

In this section, we describe findings from our analysis of high school completion at Initiative schools. In particular, we examine student withdrawals—students who leave high school without graduating—and the share of a school's 12th grade students who receive a regular diploma during the academic year (see Chapter 1 for details on these definitions). Because relatively few students have had the opportunity to attend an Initiative school for a full four years, we would anticipate any positive impacts we find to grow as Initiative schools graduate increasing numbers of students who started as OSSI 9th graders.

Table 5.1 presents graduation and dropout outcomes by Wave for the 2008-09 academic year. Because of the staggered implementation, the Wave 2 and Wave 3 outcomes are not reflective of graduates at every school—some schools had not graduated a 12th grade class as of 2008-09. *Overall, Initiative outcomes appear very favorable compared to those for non-OSSI students.* Wave 1 dropout rates are higher than for Waves 2 and 3, with rates at the Wave 1 Portland schools higher still, continuing a longstanding historical pattern. The sections below examine in more detail withdrawals and graduation individually.

Table 5.1: 12th grade graduation and all-grade dropout rates by wave, 2008-09

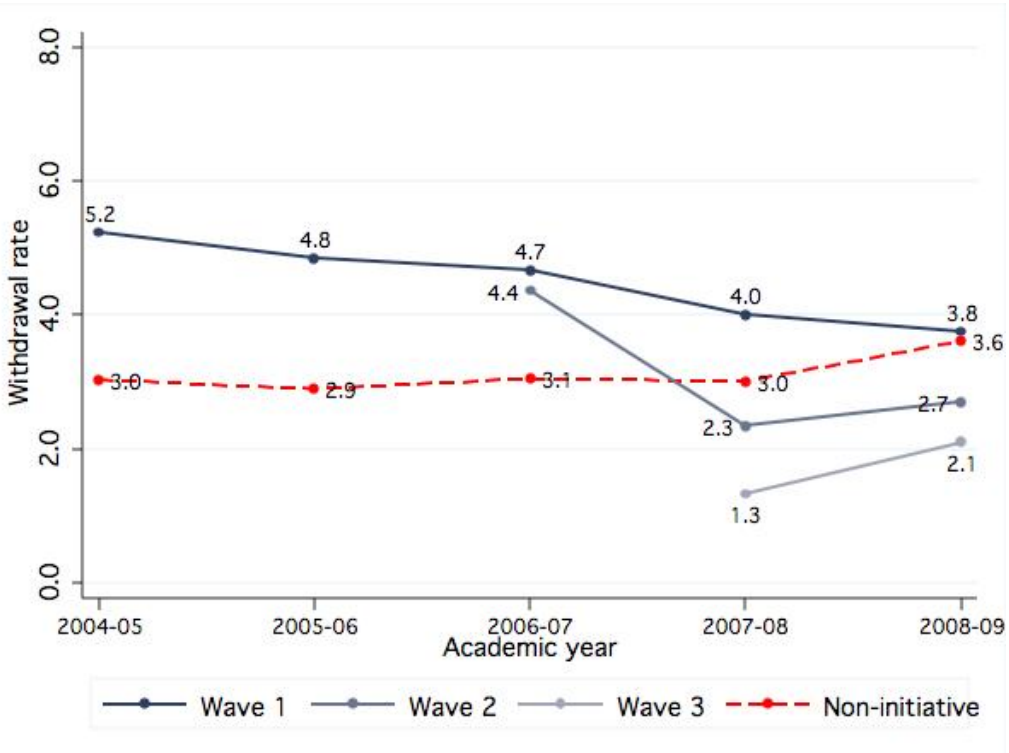
	12th grade graduation rate		Dropout rate	
	All students	ED only	All students	ED only
Wave 1	71.8%	76.6%	4.4%	3.8%
Wave 2	66.7%	75.3%	2.8%	2.7%
Wave 3	74.0%	80.2%	3.7%	2.1%
Non-OSSI	61.5%	67.3%	4.4%	3.6%

Note: OSSI statistics include only OSSI schools with a 12th grade in the relevant academic year.
Source: ECONorthwest analysis of ODE data.

TRENDS IN STUDENT WITHDRAWALS

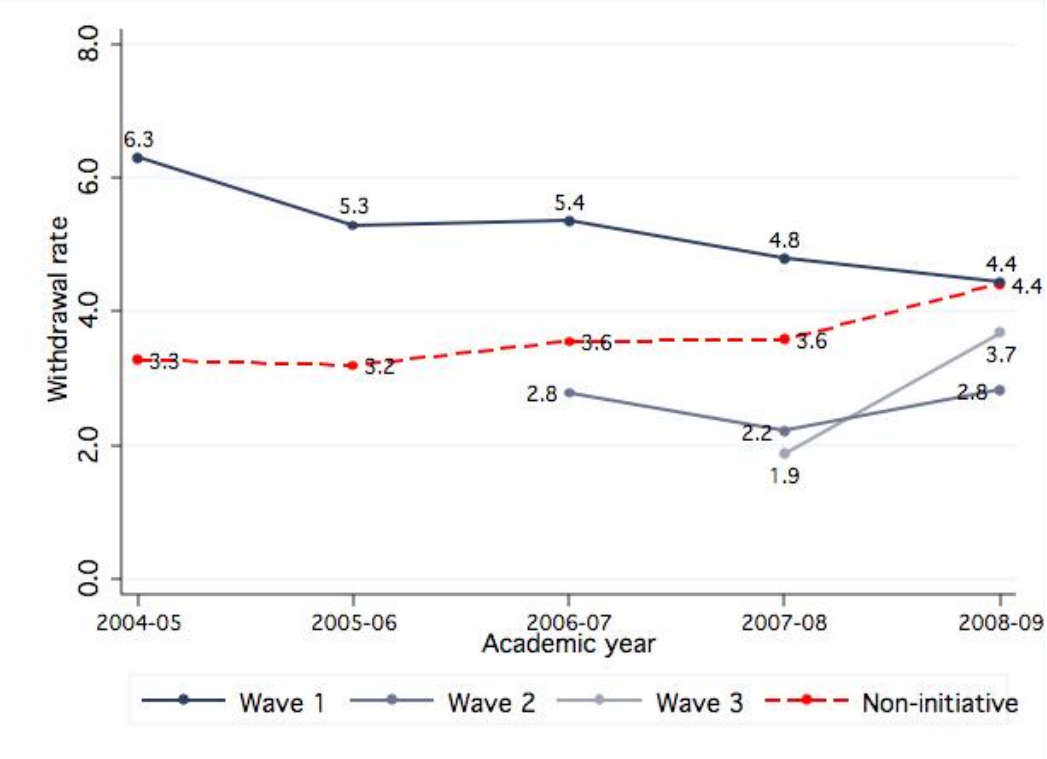
Figure 5.1 illustrates the time trends in student withdrawals by Wave. The Wave 1 trend suggests strong improvement in reducing historically high dropout rates to converge with the non-OSSI average by 2008-09. The Wave 2 and Wave 3 trends reflect, in part, the effect of additional Initiative schools adding 12th grade over time. Regardless, the average dropout rate for both waves was below the non-OSSI average in 2007-08 and 2008-09. Figure 5.2 shows very similar patterns for economically disadvantaged student outcomes, with Initiative outcomes slightly more favorable relative to the non-OSSI average. The next section presents our regression results assessing the significance of these trends.

Figure 5.1: Withdrawal rate over time, by enrollment status and Wave, all students



Note: Includes only schools with 12th grade enrollees during the relevant academic year.
Source: ECONorthwest analysis of ODE data.

Figure 5.2: Withdrawal rate over time, by enrollment status and Wave, economically disadvantaged students



Note: Includes only schools with 12th grade enrollees during the relevant academic year.
Source: ECONorthwest analysis of ODE data.

WITHDRAWALS REGRESSION ANALYSIS

In 2008-09, Initiative dropout rates were not significantly different from the non-OSSI average, which represents an important improvement for Wave 1 schools. Our panel regression analysis indicates that Wave 1 dropout rates declined by a statistically significant 1.2 percentage points, on average, between 2005-06 and 2008-09, after controlling for observable characteristics.

SCHOOL STRUCTURE AND STUDENT CHARACTERISTICS

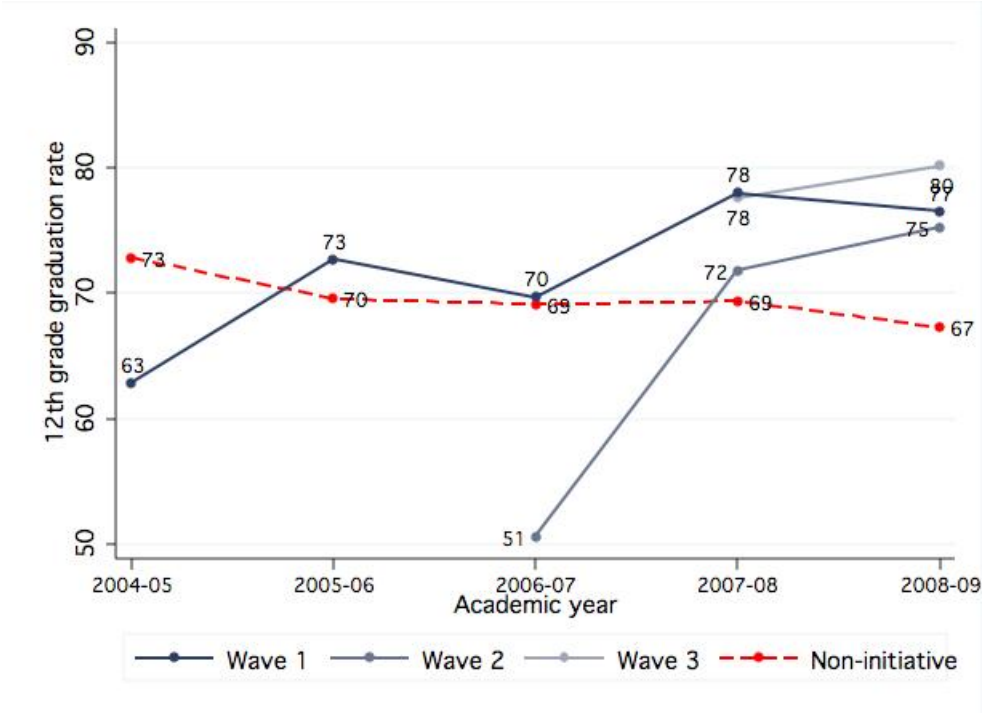
We find no differential impact on outcomes by an OSSI school's type. *We do, however, find that in 2008-09, the Initiative's Hispanic students were 1.3 percentage points less likely to drop out than would have been predicted in the absence of OSSI. This essentially erases the Hispanic "dropout gap" that exists statewide after controlling for other factors.*

The Initiative's special education students were, on the other hand, 0.8 percentage points more likely to drop out than would otherwise have been predicted for Initiative students, a finding that deserves continued attention. But overall, the Initiative's special education students drop out at rates similar to the statewide average.

TRENDS IN 12TH GRADE GRADUATION

Figure 5.3 displays the time trend in 12th grade graduation over time. *Initiative trends are positive across Waves, in contrast to a declining non-OSSI average. Wave 1 demonstrates the same pattern of long-term improvement seen for several other outcomes. As illustrated in Figure 5.4, the Initiative's economically disadvantaged students outperformed the non-OSSI average during the last two years of the analysis period.*

Figure 5.3: 12th grade graduation rate over time, by enrollment status and Wave, all students

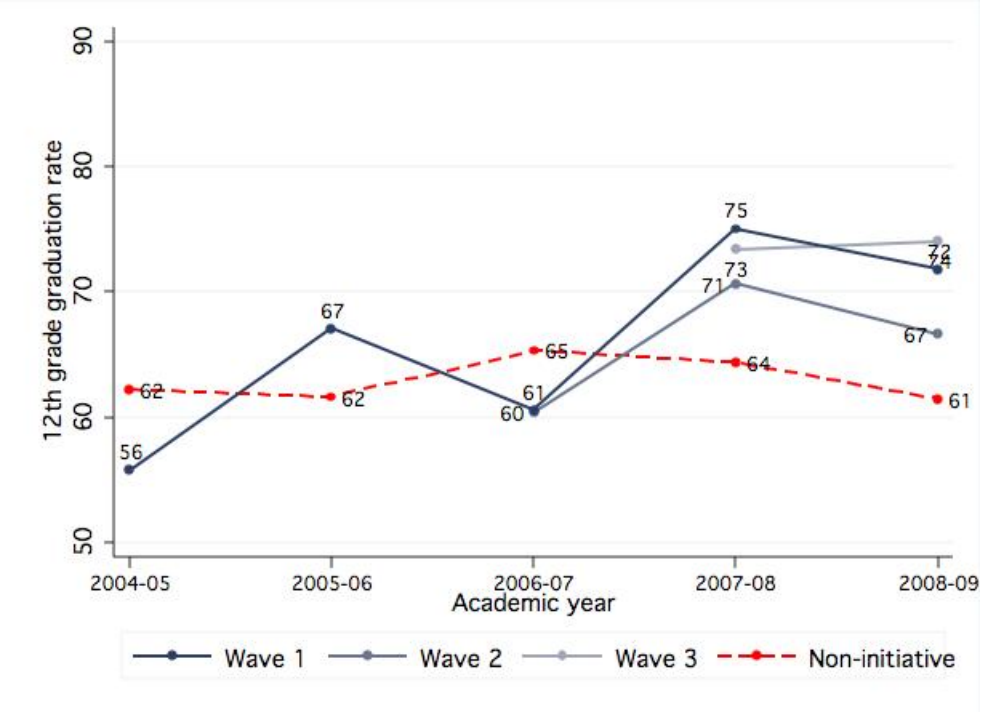


Source: ECONorthwest analysis of ODE data.

The seemingly incredible improvement in Wave 2 outcomes is due to changes at the Woodburn campus. As noted in the introduction, ODE identified students enrolled at Woodburn SD's alternative high school as enrolled at the regular high school. As a result, a number of alternative school students are included in the Wave 2 average for that year. We have no way to separately identify which students. In 2007-08, alternative high school enrollments were separately identifiable, and not included in the Wave 2 total, explaining the dramatic jump.

We again find similar patterns to those for all students and for economically disadvantaged students (see Figure 5.4). The remaining sections of this chapter present our regression findings.

Figure 5.4: 12th grade graduation rate over time, by enrollment status economically disadvantaged students



Source: ECONorthwest analysis of ODE data.

12TH GRADE GRADUATION REGRESSION ANALYSIS

Our regression analysis indicates that Wave 1 and Wave 3 12th graders were on average 3.0 and 3.9 percentage points, respectively, more likely to graduate with a regular diploma. After controlling for observable characteristics, Wave 2 outcomes, although better than the non-OSSI average, were not better to a statistically significant degree.

The panel regression provides strong, statistically significant evidence of improvement. Wave 1 12th grade graduation rates improved by an average of 1.2 percentage points per year between 2004-05 and 2008-09, while the Wave 3 rate increased by 1.5 percentage points between 2007-08 and 2008-09.

SCHOOL STRUCTURE AND STUDENT CHARACTERISTICS

We find no statistically significant differences in the "OSSI effect" by school type or structure, although the impact of new start schools is nearly significant at conventional levels. However, these schools have so far graduated very few students—most of the new start schools are too new to fully address this question.

We find that OSSI students with limited English proficiency had significantly lower 2008-09 12th grade graduation rates than otherwise similar OSSI students. But this finding is driven by very low graduation rates among students with limited English proficiency at Newberg and Woodburn's AIS school during 2008-09. The lack of a similar result from the panel regression suggests that this finding

is not an overarching issue for the Initiative, although results at Newberg and AIS deserve further scrutiny.

In contrast to our 2009 outcome report, we do not find that economically disadvantaged students experience a larger OSSI effect than other OSSI students, but neither do they experience a lower effect.

POST-SECONDARY ENROLLMENT

Although college is not necessarily appropriate for every student, it is a critical stepping-stone from high school graduation towards stable, family-wage employment for many. A key goal of the Initiative was to increase career readiness and post-secondary enrollment for its students, and college awareness and preparation begins early at many Initiative schools, and is a focus for these schools throughout the high school years. While we discuss post-graduation college enrollment below, enrollment is itself only a start. Few Initiative high school graduates have, as a group, had sufficient time to complete a two-year degree, let alone a BA or other four-year degree. Answers to important questions about OSSI impacts on post-secondary persistence and completion must wait for additional time to pass and data to accumulate.

Below, we classify a student's post-secondary enrollment by the type of college at which the student was enrolled for the longest during the relevant academic year: CCWD[17] (the student's longest enrollment was at an Oregon community college), OUS (the student's longest enrollment was at an Oregon University System four-year institution), and "Other." Virtually all of the longest enrollments in the "Other" category represent enrollments at private four-year schools in Oregon and public and private four-year schools in other states.

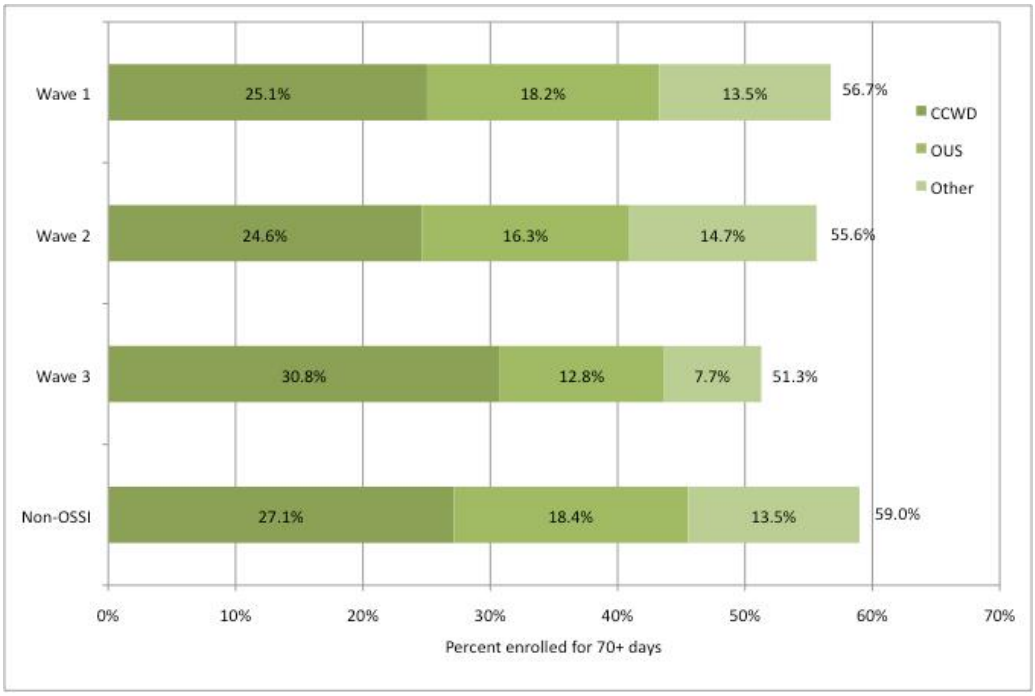
For this first look at the post-secondary experiences of OSSI graduates, we restrict attention to post-secondary enrollments of 12th grade students in the academic year following graduation. This allows us to track enrollments for Wave 1 12th grade from 2004-05 through 2008-09, for Wave 2 12th graders from 2006-07 through 2008-09, and for Wave 3 12th graders from 2007-08 and 2008-09.

OVERVIEW OF POST-SECONDARY ENROLLMENT OUTCOMES

Figure 5.5 displays post-secondary enrollment outcomes for 2008-09 graduates. In all, 59 percent of non-OSSI graduates enrolled at a post-secondary institution for more than 70 days during 2009-10, higher than the totals for the three OSSI Waves of 57 percent, 56 percent, and 52 percent, respectively.

[17] Oregon's department of Community Colleges and Workforce Development

Figure 5.5: Post-secondary enrollment in the academic year following 12th grade, by Wave and type of college, 2008-09 graduates

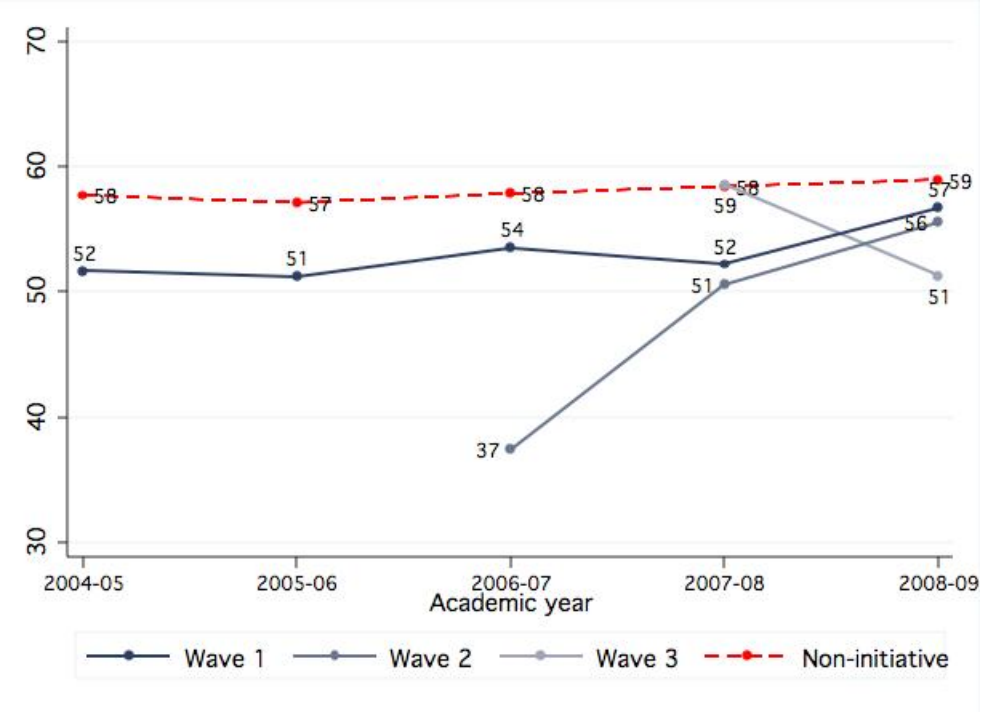


Source: ECONorthwest analysis of ODE and NSC data.

The type of institution attended also varies somewhat by Wave. For example, Wave 3 students, with lower overall college-going rates, were several percentage points more likely than graduates from other waves to attend a CCWD school. Note, however, that the number of OSSI graduates represented by each statistic in the figure is relatively small. Wave 1 had 280 post-secondary enrollments during 2008-09, Wave 2 students had 415, and Wave 3 only 169. Because of these relatively small numbers of OSSI graduates, we see the following analysis as preliminary and not necessarily reflective of OSSI outcomes we will observe over the next several years.

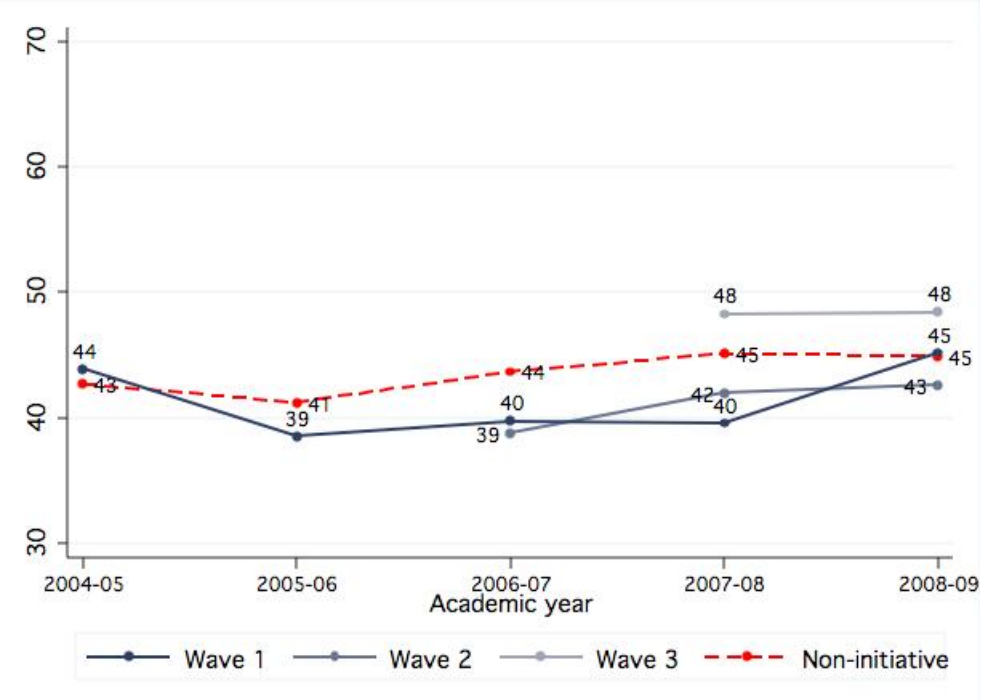
Figure 5.6 displays post-secondary enrollment trends over time for all students. Figure 5.7 is similar, but restricted to economically disadvantaged graduates. The jump in Wave 2 post-secondary enrollment between 2006-07 and 2007-08 results primarily from the fact that from this Wave only Woodburn small schools had graduates in 2006-07. Other Wave 2 schools graduated their first 12th grade students in later years. Data distortion might also arise from the fact that 2006-07 enrollments associated with the Woodburn campus include an unknown number of enrollments at Woodburn SD's alternative high school.

Figure 5.6: Post-secondary enrollment following 12th grade by Wave, 2004-05 through 2008-09, all graduates



Source: ECONorthwest analysis of ODE and NSC data.

Figure 5.7: Post-secondary enrollment following 12th grade by Wave, 2004-05 through 2008-09, economically disadvantaged graduates



Source: ECONorthwest analysis of ODE and NSC data.

The figures indicate that, statewide, post-secondary enrollment has been relatively flat, when expressed as a share of recent graduates. There is also a clear "enrollment gap," with non-OSSI economically disadvantaged graduates about 15 percentage points less likely to have a post-secondary enrollment than the non-OSSI average. This gap exists on top of the higher dropout rates and lower graduation rates experienced by economically disadvantaged students. The figures also suggest possible improvement over time for Wave 1 and Wave 2 students, although the improvement has not been nearly as dramatic as for other outcomes. And overall, OSSI outcomes appear slightly better than non-OSSI in 2008-09 for economically disadvantaged students.

More so than for some of the other outcomes, Wave-level averages mask a great deal of variation in performance at individual schools. For example, the Liberty and North Eugene campuses both had nearly 60 percent of 2008-09 12th graders enrolled in post-secondary education during 2009-10. This compares very favorably to the non-OSSI average of 45 percent. But three Initiative schools had fewer than 30 percent of students enroll, and several more had between 30 and 40 percent enroll. Given this variation, there are likely factors operating at individual schools which deserve closer attention.

POST-SECONDARY ENROLLMENT REGRESSION ANALYSIS

Wave 1 and Wave 2 students who were in 12th grade during 2008-09 attended college at rates statistically indistinguishable from otherwise similar non-OSSI students. Wave 3 students were, on the other hand, 4.9 percentage points less likely than otherwise similar non-OSSI students were to enroll. Much of this deficit results from the statistically significant decline in post-secondary enrollment among Wave 3 schools between the 12th-grade classes of 2007-08 and 2008-09. Because these schools adopted the OSSI model very recently, it is too early to draw conclusions about their relative success. On the other hand, *the share of Wave 1 12th grade students attending college increased steadily between 2004-05 and 2008-09, by an average of 1.6 percentage points per year.*

SCHOOL STRUCTURE AND STUDENT CHARACTERISTICS

New start schools have had low college attendance rates, an effect that is statistically significant even after controlling for other student characteristics. But only one new start (Nixyaawii) has graduated more than one 12th grade class, so there is too little evidence to draw conclusions about school type on college enrollment. We find no evidence that Initiative schools differentially affect college enrollment outcomes by student subpopulation.

Chapter 6 Input Analysis and Conclusions

INTRODUCTION

Prior chapters examine student outcomes across the three Waves of Initiative schools. *While success has been uneven, we find evidence of significant improvement across many outcomes for Wave 1 schools, and for selected outcomes at Wave 2 and Wave 3 schools. It seems likely that outcomes will improve at these "younger" schools if they continue to implement the OSSI model.* As funding from the Bill & Melinda Gates Foundation and Meyer Memorial Trust ends, it is worth stepping back and asking what $28 million in Initiative money purchased. It is premature to attempt precise calculations of, for example, incremental investment per additional high school graduate created—much of the OSSI money was devoted to planning, and we do not yet have the data to fully evaluate outcomes for many schools.

In this concluding chapter, we ask related, but somewhat easier to answer, questions about OSSI inputs: First, how big was the Initiative's investment and how do expenditures at OSSI schools compare to those at Oregon's traditional high schools? Second, what types of innovations did the $28 million purchase that created success at the Initiative's most successful schools? We address the first question with a brief analysis of OSSI investments in the context of state spending per high school student. We also estimate the costs of operating a fully enrolled conversion school campus using Oregon's Quality Education Model (QEM) model schools as a baseline. We address the second question qualitatively, relying on the consensus of Initiative staff about what successful Initiative schools were doing to promote academic achievement, reduce the dropout rate, and increase high school graduation.

OSSI INVESTMENTS IN CONTEXT

Determining whether small schools built on the OSSI model can or necessarily will be cost effective is beyond the scope of this evaluation. *Some existing research suggests that small schools can be cost effective, particularly when considering the potential for improved outcomes attributable to small schools.* We briefly discuss two Dollars and Sense reports published by KnowledgeWorks foundation that lay out a case for the cost-effectiveness of small schools.[18] Although these studies focus on small schools similar to OSSI's new start schools, many of the findings regarding operational cost savings likely apply to small schools that exist on OSSI's conversion campuses.

[18] See Bingler et al, *Dollars and Sense: The cost effectiveness of small schools*, KnowledgeWorks (2002) and Lawrence et al, *Dollars and Sense II: Lessons from good, cost-effective small schools*, Knowledgeworks (2005).

The first Dollars and Sense report, highlighting research suggesting the benefits of small schools, notes that one reason small schools often look more expensive than traditional schools is that costs are measured by the total number of students rather than the number of graduates, while counting diplomas may be a better measure of output than simple student days. Measuring the cost of education by graduate accounts for some of the "hidden" costs of large schools and reduces the stated costs of small schools.

The second report offers additional evidence that small schools can operate cost-effectively. The research consisted of site visits and budget analyses of 25 small schools as well as analysis of more than 3,000 construction projects. On average, the 25 small schools highlighted spent 17% less per student than the per-pupil expenditure for their districts and achieved equal or better results. Cost-saving strategies used by these schools are grouped into five categories: staffing, educational program, services, sources of funding, and facilities (including construction, maintenance, and operations).

The strategies are incredibly varied and creative, which points to one of the key findings of the report: "small schools can be flexible and nimble, just because they are small." The innovative thinking required of small-school administrators, staff, and communities is highlighted as one of the main challenges related to small schools. However, they cite their sample of 25 schools as proof that small, cost-effective schools can be achieved in various kinds of communities.

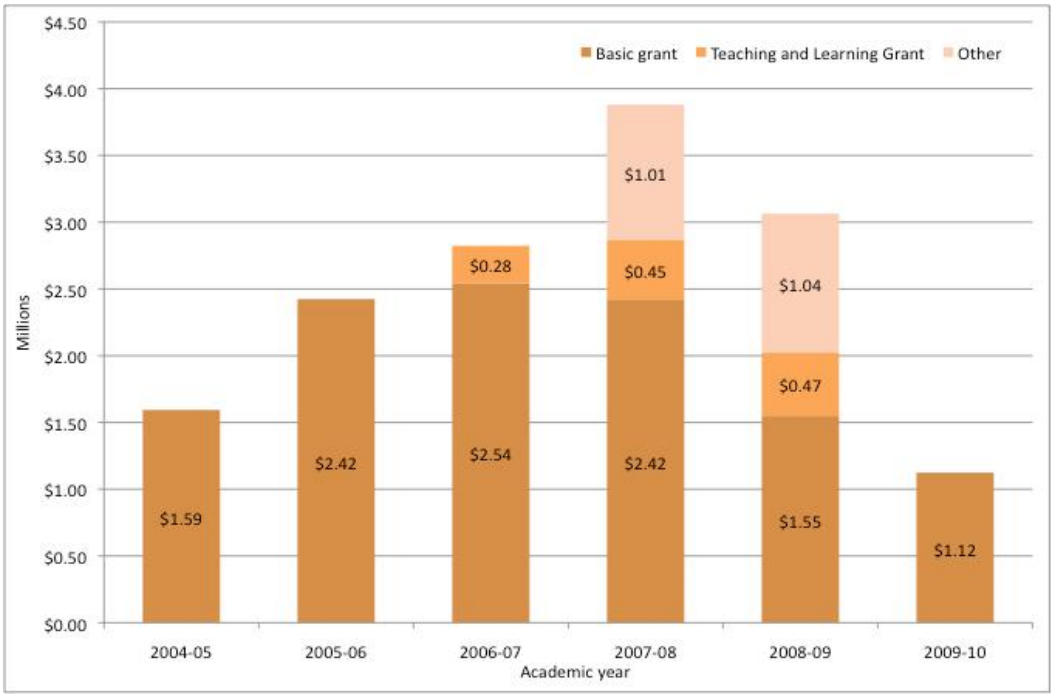
Rather than focus solely on new creation of new, small high schools, OSSI's goal was to promote educational reform through the small schools model, within the existing policy and fiscal context. Thus, OSSI investments reflect supplements to schools' existing funding streams. Figure 7.1 and Figure 7.2 represent OSSI investments in total and per student to give a sense of scale for the Initiative.

Figure 7.1 displays total OSSI investments over time, distributed across three categories: the basic or extension grants that were awarded to the schools, teaching and learning fund payments, and other funding that included staff coaching, E3 professional development events and workshops, and equity support consulting services. Much of the basic grant award was used during school planning years. The other two categories were relevant only during 2006-07 through 2008-09. Initiative funding was phased out as of the end of 2009-10, but most of the schools will continue as small schools.

To produce Figure 7.2, we include the investments reported by OSSI and divide by the total enrollment at Initiative schools included in our analysis. These schools do not align perfectly with schools that actually received grants. For example, the Liberty campus did not receive funding in 2008-09. But all schools were started with an OSSI grant, and all have continued as small schools. Because we include students at these schools in our analysis, it is appropriate to include them when considering 2008-09 investments relative to outcomes. 2007-08 was the Initiative's year of greatest funding, while enrollments have continued to increase since then at some schools and grades. Clearly, 2009-10 investments per

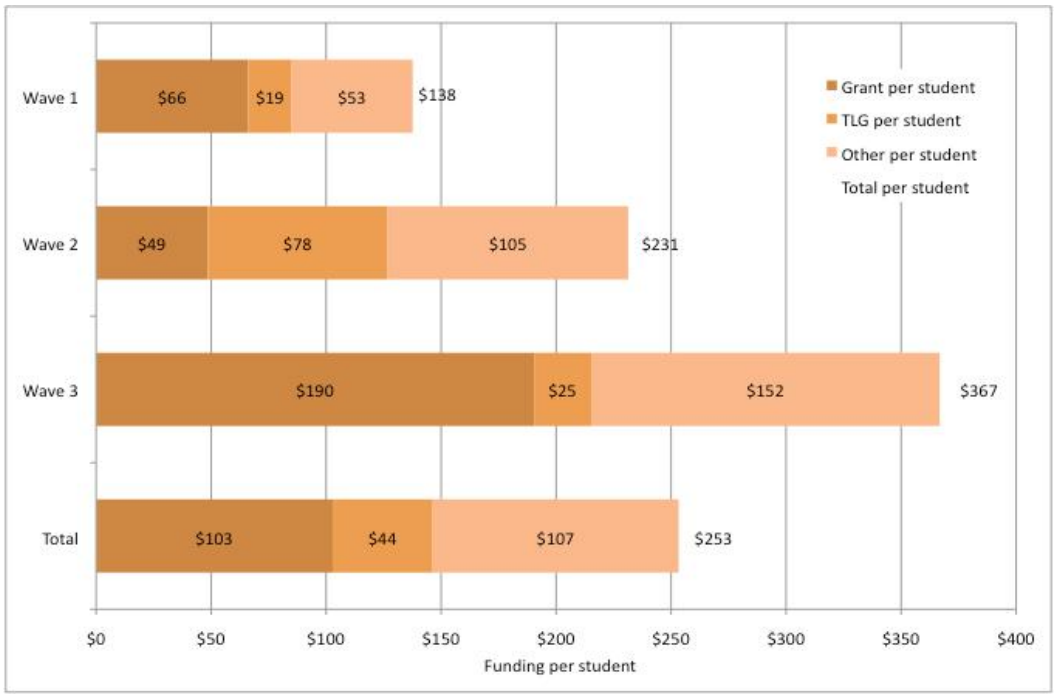
student were quite low. Future data will shed light on the extent to which Initiative schools can build on current success without grant funding.

Figure 7.1: OSSI investments by year and function



Source: ECONorthwest analysis of OSSI expenditure data.

Figure 7.2: 2008-09 OSSI investments per student, by function and Wave



Source: ECONorthwest analysis of OSSI expenditures and ODE data.

SMALL SCHOOL OPERATING COSTS

Conceptually, we can allocate OSSI funds to investments in school start-up costs and to ongoing investments necessary to implement the small schools model. Policymakers must consider both types of cost when deciding whether to implement the OSSI model. But the start-up costs must be amortized across the future stream of benefits derived from the investment. In practice, the distinction between the two is not always clear. Grants awarded to schools during the planning stage fall into the first category. But we do not know how much of the OSSI investment during schools' operational years would be necessary to support the successes discussed in earlier chapters. However, OSSI intended the grants to fund start-up costs rather than ongoing operational costs. *We have no evidence to suggest that operating an OSSI model school, once implemented, necessarily costs significantly more per student than a traditional comprehensive high school.*

Of course, OSSI investments do not necessarily reflect the total cost of implementing small schools. To the extent that small schools can achieve cost savings in some areas suggested by Dollars and Sense, the net per student (or per graduate) cost of OSSI schools could be lower, even if the OSSI model really requires additional investments in, for example, staff coaching, to maintain academic outcomes at their current levels. Other factors, such as the Title 1 status of several Initiative schools, affect spending per student, but should not be considered negative—Title 1 provides additional resources to student populations that typically face greater barriers to achievement than their peers at non-Title 1 schools. Per student spending varies by district as well, reflecting factors such as prevailing wage rates and administrative overhead.

Table 7.1 presents 2008-09 operating costs per student for selected OSSI campuses and for comparison high schools in districts with an OSSI school.[19] As suggested by the table, per student operating costs vary considerably across schools and districts. *Among OSSI campuses, per student costs range from well below the statewide average (e.g., Crater), to well above (e.g., Marshall) the average.* Within districts, costs typically vary by much less, and we attribute a significant share of the remaining variation to differences in average student socioeconomic status.

To assess the importance of the observed differences, we implemented a regression of per student operating costs on district size, share of a school's student population identified as economically disadvantaged, and whether a school is an OSSI school. *The regression results indicate that district size and the size of a school's economically disadvantaged population significantly affect per student costs but that, on average, OSSI schools do not cost more than traditional high schools to a statistically significant degree.*

[19]The table includes all OSSI schools enrolling all four grades in 2008-09 with the exception of Nixyaawii, for which we had incomplete data. Crater, Newberg, and Woodburn are the only high school campuses in their respective districts. As a result, we do not include non-OSSI comparisons for these schools. The comparison schools each had at least 25 percent of the student body identified economically disadvantaged.

Table 7.1: Operating costs per student for selected Oregon high schools, 2008-09

District	Campus	Type of school	% econ. disadvant-aged	2008-09 enrollment	2008-09 operating cost per student
Central Point	Crater	Conversion	36.3	1,577	$7,419
Eugene	Churchill	Non-OSSI	29.4	1,163	$11,157
	North Eugene	Conversion	34.7	1,013	$11,419
Hillsboro	Hillsboro	Non-OSSI	40.6	1,556	$9,450
	Liberty	Conversion	40.3	1,311	$9,662
Newberg	Newberg	Conversion	27.1	1,632	$9,025
Portland	Benson	Non-OSSI	57.7	1,134	$11,996
	Franklin	Non-OSSI	48.8	1,007	$12,375
	Marshall	Conversion	73.8	774	$13,210
	Roosevelt	Conversion	56.8	703	$13,029
Springfield	A3	New Start	43.1	144	$11,195
	Springfield	Non-OSSI	47.6	1,394	$9,691
	Thurston	Non-OSSI	29.4	1,558	$8,961
Woodburn	Woodburn	Conversion	75.8	1,262	$11,972
Statewide average for four-year high schools					*$9,795*

Notes: Enrollment is the denominator used by ODE to calculate operating costs per student. Operating costs include those portions of OSSI funding that appear in the school's chart of accounts.

Source: ECONorthwest analysis of ODE data.

Nonetheless, the variation illustrated in Table 7.1 might concern policymakers evaluating the costs of small schools. Thus, we examine the question of cost from an additional perspective. Oregon's Quality Education Commission, established to determine the funding levels required to meet Oregon's education goals, maintains a Quality Education Model (QEM) that includes baseline estimates for the cost of operating a prototype high school. The prototype is not intended to prescribe spending or staffing levels but it can serve as a useful benchmark for evaluating how the cost of a small high school might differ from that of a traditional high school.[20]

To do so, we modified the 2009-10 QEM baseline cost estimates for the prototype school of 1,000 students to allow a comparison of a similar traditional high school of 1,200 to an otherwise similar high school campus encompassing three, fully enrolled small schools of 400 students each. The modifications consisted of (1) scaling inputs, such as teacher FTE, that are likely to scale linearly with enrollment, and (2) adjusting all other inputs, such as instructional support staff that do not necessarily scale linearly with student enrollment. After the adjustments, we compare the model schools on a per student basis.

Inputs assumed to scale linearly (e.g., a 10 percent increase in enrollment requires a 10 percent increase in the amount of an input to maintain adequate

[20] For more information on the Commission and the QEM, see http://www.ode.state.or.us/search/results/?id=166 (accessed Septemer 30, 2010).

services) include: instructional staff, computer hardware and software, supplies, expenditures on extracurricular activities, professional development, student support costs (e.g., transportation), and district administrative support. A school's cost per student for these inputs does not vary with school size.

The remaining inputs are instructional support staff (e.g., librarians) and administration. We treat these inputs as follows: we assume each small school has a single principal (the traditional high school would have a principal and two assistant principals); the three schools of 400 share a single school nurse, while the traditional school has a full-time nurse, and all other instructional support staff are scaled based on results from a simple regression analysis of instructional support staffing and school size.[21]

After adjusting input costs, we find that our model small school would have required $9,497 per student in operating costs, compared to $9,358 for the traditional school. This finding, that schools with smaller enrollments do not necessarily cost more than do larger schools is consistent with a 2002 ODE report that concluded, "At sizes above about 300 students, costs per student do not vary much as school sizes get larger."[22]

In the current fiscal climate, of course, even a small incremental cost is a concern, not to mention the difficulties of finding startup funds for new small schools. But our findings do not suggest the need for a massive additional investment to achieve what has been fairly remarkable success at some of the Initiative schools. *If a model OSSI school can, for example, boost graduation rates by three or four percentage points, as have the Wave 1 and Wave 3 schools, the model becomes less costly to operate, on a per graduate basis, than a traditional high school.* The key is determining why the most successful Initiative schools succeeded while others have not.

OSSI INNOVATIONS

Table 7.2 summarizes key findings from the outcome evaluation. *Wave 1, the longest operating set of Initiative schools, has demonstrated improvement on every outcome analyzed other than attendance. The relatively newer small schools in Wave 2 and Wave 3 have shown improvement for one or more outcomes. We also find some evidence that the small schools model benefits historically disadvantaged populations for four of the outcomes. Overall, our findings suggest that, while variation exists across schools, a well-implemented small school model can significantly improve student outcomes.*

[21] As expected, the regression indicates that larger schools can exploit economies of scale in instructional support staffing. In other words, larger schools have, on average, fewer support staff FTE per student than do smaller schools. This fact increases the relative cost of a small school.

[22] Pg. 16, *The Costs of Operating Small Schools in Oregon*, ODE School Finance, Data, and Analysis Office, October 25, 2002.

Table 7.2: Are OSSI outcomes significantly better than those predicted by student characteristics?

Outcome	Wave 1	Wave 2	Wave 3	Student subpopulations
Math benchmark attainment	10.5 percentage points higher			Possible additional benefit for African American students
Reading benchmark attainment	7.0 percentage points higher		4.3 percentage points higher	Possible additional benefit for special education students
Attendance	Below average	19 percent fewer absences per year		Additional "OSSI effect" benefitting Hispanic students
Student withdrawals	At Oregon average, but improved by 25 percent			Additional "OSSI effect" benefitting Hispanic students
12th grade graduation	3.0 percentage points higher		3.9 percentage points higher	
Post-secondary enrollment of graduates	At Oregon average, but improved 10 percent		Below average	

Note: Empty cells in the table indicate that no statistically significant difference exists between OSSI students and otherwise similar non-OSSI students. Wave 1 improvements reflect changes between 2004-05 and 2008-09.

As we note throughout, aggregate OSSI outcomes mask significant variation in recent school-level outcomes and in how much individual schools have improved.[23] Keeping in mind that school-level performance, particularly for small schools, can swing dramatically from year to year, it is worth investigating why the most successful schools have succeeded, and where the OSSI model has broken down for less successful schools. In short, what innovations has OSSI engendered that drive the successes?

During 2010, ECONorthwest met with E3 staff to identify standout schools in academic achievement, dropout prevention, and graduation. E3 then worked with Initiative coaching staff to identify commonalities in how the successful schools approached each outcome. The qualitative results of this process were not amenable to statistical analysis and we cannot confirm the importance of any technique. But the consensus is nonetheless compelling and logical, highlighting many of the fundamental principals that drove OSSI. The identified practices do not provide a precise recipe for success, but they nonetheless provide potentially useful guidance for all Initiative schools in the coming years. Appendix A contains the summary of conditions, strategies, and interventions identified at the most successful Initiative schools. We conclude with a brief summary of this document.

[23] Our 2010 *Statewide overview of academic achievement and high school completion at Initiative schools 2004-05 through 2008-09* includes detailed school-level data for many of the outcomes considered here.

GENERAL CONDITIONS

Staff identified several conditions present in all schools with strongly positive data outcomes:

- **Focused, student-centered vision.** The school has a focused vision tied to their instructional framework, is student-centered, and authentically engages students in their learning.

- **Collaborative time is a priority.** Each successful school made well-planned collaborative time a high priority. The time is focused on student learning and teacher practices

- **Adults know students well.** The small school community allows adults to know every student. At successful schools, staff have high expectations for themselves and for students—they can and do provide the support necessary to meet the expectations

- **Authentic communication is a focus.** Communication within the school and with the broader school community is authentic, and reflects the vision of the school

THE IMPETUS FOR CHANGE

The school change coaches identified three key factors that created the impetus for change:

- **Data.** In every case, data led to the decision to target a specific area of concern (e.g., dropout rates). Schools maintained a "whole school approach" to data analysis. Specific techniques included transcript analysis, evaluation of data about incoming 8th grade students, and data disaggregated by subgroups. OSSI coaches indicated that these specific approaches made data use more effective.

- **Equity.** A focus on equity, facilitated in part by OSSI's "Leading for Educational Equity Institute," was also critical. The focus on equity helped staff identify and address inequitable policies and practices, attitudes about disadvantaged students, and cultural gaps.

- **Shared commitment.** Collaboration and complete buy-in on specific targets were critical factors to success. The small school structure facilitates this collaboration.

CONDITIONS AND STRATEGIES FOR CHANGE

The coaches also identified specific strategies and conditions necessary for change that seemed to drive success in math, reading, writing, high school completion, and college readiness (see Appendix A). While they highlight a wide variety of practices as important to the success of one or more schools, many are

common to several outcome areas. Some of these practices could apply equally well to large high schools (e.g., analysis of student data), but the coaches reported that nearly all were made easier because of the small school structure.

Due to a grant by Meyer Memorial Trust, Initiative schools will receive one additional year of support to allow school and Initiative staff to further test and study the impact of specific practices.

Appendix A: OSSI's assessment of factors that drive school success

Oregon Small Schools Initiative

Conditions, Strategies, Interventions that impacted our three goals:

- Increase graduation rates
- Decrease dropout rates
- Close the achievement gap

In our analysis, we determined that the factors that impact student achievement and overall success in high school fell into three categories:

1) Conditions necessary for change
2) Impetus for change
3) Strategies and/or interventions

GENERAL CONDITIONS/PRINCIPLES present in all small schools with positive data outcomes

- Work in the school is guided by a focused vision and instructional framework.
- Collaborative time is focused on student learning and teacher practice. Collaborative time is scheduled, well planned, prioritized and facilitated.
- Schools are student-centered. Students are authentically engaged in their learning.
- Decisions about policies and instructional practice are informed by data.
- Adults in schools know students well, hold themselves and students to high expectations and provide the support necessary to meet those expectations. There is an environment of collegiality and professionalism.
- Communication, both within the school and with the larger school community, is authentic and reflects the unique vision and purpose of the school.

IMPETUS FOR CHANGE

Data: For nearly every school that we studied, the use of data led to the decision to target a specific area of concern, such as math scores, dropout rates, writing scores, etc. There were specific ways in which the data was used, however, that made this practice particularly effective.

- Whole-school approach
- Transcript analysis (included training and practice in reading transcripts, graduation requirements, OUS admissions requirements)

- Use of incoming freshmen 8th-grade data
- Data disaggregated by race/ethnicity, gender, SES

Equity: Every OSSI school sent at least one team to a "Leading for Educational Equity Institute" developed and facilitated by OSSI coaches. Through these institutes, school teams developed the skill, will and capacity to tackle difficult concepts and conversations with their staff and students.

- Identification of inequitable policies and practices within their schools that prevent many students from being successful in school.
- Attitudes and beliefs among staff members about disadvantaged students, their capacity for learning and the need for targeted interventions.
- Analysis of the disaggregated data, and the implications for their school, programs, courses, and supports.
- The cultural gaps that exist and ways to increase responsiveness to those gaps.

Shared commitment: The small school structure made it not only possible but necessary for staffs to reach collective understanding and agreement, which resulted in a school-wide approach to the reform efforts.

- Small school staffs reached consensus on which areas to target for growth.
- Small school staffs reached consensus on the strategies and/or interventions to be used. When necessary, professional development was provided and supported.

Following are the areas that were measured for student growth, along with a list of conditions, strategies, and interventions that supported the growth and were employed by schools showing significant gains in those areas. Schools did not employ all conditions and strategies listed. Rather, each successful school employed a targeted combination.

MATH

- Standards-based instruction and proficiency grading with a culture that promotes achievement for each student
- De-tracking of curriculum with scaffolding support
- College prep (Algebra 1 +) default curriculum
- Applied math through integrated projects
- Peer observations and feedback to improve instruction
- Collaborative structures with time and emphasis on integrating curriculum, meeting standards, instructional strategies to increase student engagement, and student supports
- Highly skilled, knowledgeable math teachers who continually reflect on and improve their practice using nationally recognized "best practices"
- Administrative involvement with teachers to create, implement and monitor math goals in a deliberate, focused, data-driven math improvement plan
- Flexibility in scheduling to provide additional time and ways to increase math instruction

- Common curriculum integrating Algebra 1 and Geometry, revisiting major concepts from each during a two-year cycle
- Intersessions and Extended Learning Options (e.g. before/after school, summer school, Saturday school, 2 period block math classes, on-site tutoring) for support, intervention and remediation
- Student group work
- Peer coaching by students
- Dedicated and undisturbed testing environments
- School-wide common teaching and learning practices around math
- Learning culture that supports and stresses the importance of higher level math for all graduates
- Focus on applied math problem solving with encouragement and deliberate teaching of multiple ways to attack math problems

READING

- Standards-based instruction and proficiency grading with a culture that promotes achievement for each student including public recognition of student achievement
- Strong instructional leadership and professional development in literacy across the curriculum
- Collaborative structures with time and emphasis on integrating curriculum, meeting standards, student engaging instructional strategies and student supports
- Culture that stresses importance of critical reading in an information society
- Active Reading Strategies taught and coached (before, during and after reading techniques)
- Baseline and growth data used to guide instruction and scaffold support
- Administrative involvement with teachers to create, implement and monitor literacy across the curriculum goals in a deliberate, focused, data-driven reading improvement plan
- Flexibility in scheduling to provide additional time and ways to increase reading instruction.
- Highly skilled, knowledgeable teachers who continually reflect on and improve their practice using nationally recognized "Best Practices" for reading and literacy across the curriculum
- Peer observations and feedback to improve instruction
- 8^{th} to 9^{th} grade focused interventions (e.g. summer school)
- Specific reading intervention class to provide additional targeted reading support
- Lexile (grade level) scores to guide differentiation, personalization and improve reading skills.
- SIOP / ESOL strategies which help ELL students and assist all students
- Peer coaching by students
- Intersessions and Extended Learning Options (e.g. before/after school, summer school, Saturday school, special reading classes, on-site tutoring, academic reading lab) for support, intervention and remediation

WRITING

- Literacy lab, including writing lessons
- Clear expectations for students via rubrics
- Literacy through Social Justice Professional Development
- Articulated professional development plan/calendar
- Schedule that supports increased time for writing development
- Grade-level team collaboration, professional learning communities
- Relationship with community college – dual credit opportunities
- Skilled, data-driven instructional leadership team
- Site visits to mentor school
- Writing curriculum developed for seminar (advisory) class
- Consistent lessons & strategies school-wide
- Modeling by Teaching and Learning Facilitator at staff meetings
- Learning walks target writing and student engagement / peer coaching
- Shared student work in professional learning communities
- Student academic intervention process
- Industry standards and real-world application of student writing in projects
- Student exhibitions of learning
- Use of technology (digital portfolios, blogs)
- College level writing class open to all students
- Dedicated testing environment
- Saturday school for sophomores
- Public recognition of student achievement

GRADUATION

- Campus open before and after school and some Saturdays
- GEAR UP staff & program
- Link Crew student leadership program
- Increased communication with parents and community
- Expeditionary Learning model
- Collaborative teams (professional learning communities, grade-level teams)
- Leadership team structure includes counselor
- Staff skills in use of data – what's needed to graduate
- Academic support structures, including lunchtime tutorials, student staffings,
- Strengthened ELL program
- Open Honors starting freshman year
- Student assemblies and celebrations focused on student achievement & number of graduates, college acceptances, etc.
- College visits
- Community speakers, including former students
- Increased extra-curricular activities, events, student involvement opportunities
- Strong student voice

- Common planning time
- Credit checks through advisory and teacher mentors
- AVID strategies
- Interventions at regular intervals
- Habits of Mind framework

DROPOUT

- High expectations in an environment of safety and support
- School-wide focus on student needs
- Cohesive staff, including teachers, counselor(s), principal, and office staff, dedicated to keeping students in school
- Administrator models for staff and supports each student
- Small school structure increases student visibility, accountability, connections, and support
- Collaborative, consistent review of data, including student surveys, grades, transcripts, and state assessments
- Exhibitions of student learning create ownership of learning
- Academic interventions such as tutorials, labs, after-school study groups, etc.
- Project-based learning in the community context
- Effective advisories
- Ongoing conferences with parents – teachers call home frequently
- Peer tutoring and support
- Strong student leadership group
- Credit based on academic proficiency
- Intensive attention to 9th grade failing grades informs instruction, assessment and interventions
- Interventions such as PBS and/or Anger Management class for students at risk of being 'pushed out' due to behavior issues
- Caring campus monitors "help" students get to class

COLLEGE READY

- Continuous conversations about college-going – all teachers and all students
- Expectations of staff that all students will be college ready
- Skilled instructional leadership team
- Increased AP, IB and dual credit courses
- Default college prep curriculum – barriers to enrollment in advanced courses are removed
- AVID
- Deliberate campaign to explain importance of 'choice' – students choose whether to go to college – all are eligible
- Students are taught how to form study groups and work in teams
- Integration of college readiness information and coaching into classes
- Increased college visitations and college recruitment activities

- Small school counselor is 'warm demander' along with other staff to push students to set high goals
- College staff on project review panels
- Effective advisories are intentionally focused on building a college-going culture
- Targeted college planning for all students
- Tracking of college applications and admission
- Public acknowledgment and celebration of college admission

Appendix B: OSSI Schools and Districts

This appendix identifies the individual small schools analyzed in the body of the report, provides common abbreviations of school names, and indicates whether the small school has a unique ODE school ID. In the student-level data, students at schools without a unique ID cannot be distinguished from those at other schools on the same campus.

Table B1.1: Initiative schools analyzed in the report

School district	School	Abbreviation	School has a unique ODE school ID
Beaverton	Health and Science School	HS2	Yes
Central Point	Crater High School Crater Renaissance Academy Crater School of Business Innovation Science Crater School of Health and Public Services	 Cr RA BIS CAHPS	Yes
Eugene	North Eugene High School North Academy of Arts North International High School North School of IDEAS	 AoA NIHS	No
Hillsboro	Liberty High School Arts Communication & Technology Academy Freshman Academy Hospitality & Human Services Academy	 ACT HHS	No
Klamath Falls City Schools	EagleRidge High School		Yes
McMinnville	Media Arts & Communications Academy	MACA	Yes
Medford	South Medford High School Bridging the Arts Communications and Humanitites Community Health and Medical Professions Schools Discovery Freshamn Academy	 BACH CHAMPS	No
Newberg	Newberg Senior High School Blue School Green School Red School Silver School Yellow School		No
Pendelton	Nixyaawii Community School		Yes
Portland	Marshall High School Biz Tech Pauling Academy of Integrated Sciences Renaisssance Arts Academy	 Pauling RA2	Yes
Portland	Roosevelt High School Arts Communication & Technology High School Pursuit of Wellness Education at Roosevelt Spanish English International High School	 ACT POWER SEIS	Yes
	Leadership & Entrepreneurship Public Charter High School	LEP	Yes
Springfield	Springfield Academy of Arts & Academics	A3	Yes
Woodburn	Woodburn High School Academy of International Studies Wellness Business and Sports School Woodburn Academy of Arts, Science & Technolohy Woodburn Arts & Communications Academy	 AIS WeBSS WAAST WACA	Yes

Appendix C: Data Appendix

This data appendix presents selected outcome measures for individual small schools over time. We include data for all students at each school and for the economically disadvantaged students at each school. Economically disadvantaged status is determined using the methods described in the report. The outcomes include math, reading, and writing meet/exceed rates, graduation and dropout rates, and the rate of post-high school college enrollment. For reasons cited in the report and because of limited data availability, outcome definitions used in this appendix do not necessarily align with standard ODE definitions or with outcome measures presented in the body of the report. Additional detail is available upon request. Specifically, the tables below report:

- 10th grade meet/exceed rates in math, reading, and writing for all 10th grade students whose longest enrollment is at an Initiative school during a relevant academic year. Data for 2009-10 is the exception. As of publication, we did not have access to student level data for 2009-10. We report school-level meet/exceed rates for 2009-10 as published by ODE. These rates are not strictly comparable to those for earlier years.

- Dropout rates are calculated using ODE's standard dropout calculations for Initiative schools with 9th through 12th grades in the relevant academic year. However, we do not have access to all of the data necessary to replicate ODE's reported dropout rates or the economically disadvantaged status of dropouts. Thus, our dropout rates do not match available ODE reports

- Graduation rates are calculated using the NCES method (graduation rate equals the total number of graduates divided by the sum of graduates and dropouts). However, we do not have access to all of the data necessary to replicate ODE's reported NCES graduation rates or the economically disadvantaged status of graduates and dropouts. Thus, our calculated graduation rates do not match available ODE reports. We do not present detail for the 12^{th} grade graduation rates discussed in the body of the report.

- Post-high school enrollment is defined as it is in the body of the report: We classify a high school graduate as enrolled in post-secondary education if our data include an enrollment of 70 or more days during the academic year following graduation.

Table C1: 10th grade OAKS math meet/exceed rate by school, 2004-05 to 2009-10*

OSSI Campus	All students						Economically disadvantaged students					
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10*	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10*
All Non-Initiative schools	*47.0*	*45.4*	*54.9*	*51.9*	*53.3*	*56.2*	*30.4*	*28.9*	*38.2*	*35.3*	*37.8*	*41.3*
Wave 1 schools	*24.7*	*34.3*	*42.5*	*43.6*	*51.4*	*54.5*	*15.0*	*21.4*	*31.1*	*33.8*	*42.0*	*47.7*
Liberty HS	31.7	44.6	56.7	52.8	63.5	69.9	14.8	20.5	35.7	32.0	47.5	61.0
Freshman Academy	--	--	--	--	--	--	--	--	--	--	--	--
ACT	--	--	--	--	--	--	--	--	--	--	--	--
HHS	--	--	--	--	--	--	--	--	--	--	--	--
Marshall HS	27.1	24.7	37.7	39.4	44.8	47.4	26.3	24.1	35.5	38.3	45.1	47.3
Biz Tech	29.6	26.2	32.2	31.0	29.8	38.8	28.6	25.5	29.5	29.4	28.6	35.7
Pauling	32.6	23.6	40.5	56.1	57.4	54.5	30.3	21.4	38.0	51.3	56.1	55.6
RA2	18.9	24.1	40.4	34.7	47.1	49.2	19.2	25.0	38.9	37.3	50.0	51.0
Nixyaawii Community School	0.0	12.5	14.3	11.8	7.1	0.0	**	**	**	15.4	12.5	12.5
Roosevelt HS	10.4	26.5	28.6	33.3	40.7	32.2	7.5	20.0	21.9	32.2	35.2	30.7
ACT	8.1	26.5	47.9	29.3	44.4	34.0	2.3	13.0	36.6	26.2	35.3	31.0
POWER	7.5	20.0	15.2	36.0	44.2	42.0	3.7	20.5	16.3	32.4	40.5	42.9
SEIS	16.7	34.6	19.3	35.1	33.8	20.4	16.2	26.7	14.9	38.5	31.5	18.6
Wave 2 schools	**	**	*52.1*	*56.1*	*52.9*	*61.1*	**	**	*35.9*	*42.8*	*43.6*	*56.5*
Academy for Arts & Academics	**	**	30.0	39.6	55.6	50.9	**	**	25.0	33.3	52.9	46.9
Newberg HS	**	**	69.6	74.5	63.1	71.5	**	**	48.9	53.8	47.0	61.9
Blue School	--	--	--	--	--	--	--	--	--	--	--	--
Green School	--	--	--	--	--	--	--	--	--	--	--	--
Red School	--	--	--	--	--	--	--	--	--	--	--	--
Silver School	--	--	--	--	--	--	--	--	--	--	--	--
Yellow Schools	--	--	--	--	--	--	--	--	--	--	--	--
North Eugene HS	**	**	**	50.8	46.7	56.5	**	**	**	32.1	35.2	49.1
AoA	--	--	--	--	--	--	--	--	--	--	--	--
NIHS	--	--	--	--	--	--	--	--	--	--	--	--
IDEAS	--	--	--	--	--	--	--	--	--	--	--	--
Woodburn HS	**	**	32.1	41.3	43.8	55.2	**	**	32.2	42.5	44.0	58.2
AIS	--	--	--	27.5	30.1	38.8	--	--	--	28.9	30.6	38.8
WAAST	--	--	--	45.3	41.8	65.1	--	--	--	46.7	41.1	76.2
WACA	--	--	--	54.4	48.1	55.2	--	--	--	55.1	48.6	55.2
WeBSS	--	--	--	36.8	53.3	59.0	--	--	--	37.3	53.8	59.0
Wave 3 schools	**	**	**	*50.6*	*51.6*	*47.9*	**	**	**	*33.0*	*40.5*	*45.8*
Crater HS	**	**	**	47.0	48.0	50.0	**	**	**	32.1	43.4	33.1
BIS	--	--	--	48.0	57.0	55.3	--	--	--	41.18	54.17	44.00
RA	--	--	--	45.5	44.3	39.4	--	--	--	22.9	40.0	30.6
CAHPS	--	--	--	54.4	52.0	62.2	--	--	--	43.5	47.6	29.6
CANS	--	--	--	40.4	38.3	44.1	--	--	--	29.4	33.3	31.9
EagleRidge HS	**	**	**	10.5	22.8	35.1	**	**	**	14.3	13.8	**
Health and Science School	**	**	**	**	57.1	60.4	**	**	**	**	28.0	48.3
LEP	**	**	**	22.4	31.5	22.3	**	**	**	6.9	20.6	14.3
MACA	**	**	**	45.8	53.2	48.8	**	**	**	22.2	40.0	37.5
South Medford HS	**	**	**	59.9	60.8	54.9	**	**	**	40.4	49.7	54.9
Freshman Academy	--	--	--	--	--	--	--	--	--	--	--	--
BACH	--	--	--	--	--	--	--	--	--	--	--	--
CHAMPS	--	--	--	--	--	--	--	--	--	--	--	--
Discovery	--	--	--	--	--	--	--	--	--	--	--	--

*2009-10 data based on ODE school-level reports. All other years based on analysis of student-level data. **Data suppressed. –No data, or only incomplete data available.

Source: ECONorthwest analysis of ODE data.

Table C2: 10th grade OAKS reading meet/exceed rate by school, 2004-05 to 2009-10*

OSSI Campus	All students						Economically disadvantaged students					
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10*	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10*
All Non-Initiative schools	*54.5*	*55.9*	*65.0*	*64.4*	*65.7*	*71.0*	*37.4*	*38.5*	*49.3*	*48.6*	*50.6*	*57.3*
Wave 1 schools	*29.3*	*43.3*	*53.7*	*51.9*	*58.9*	*64.6*	*18.5*	*26.8*	*42.6*	*40.8*	*48.4*	*54.7*
Liberty HS	33.4	59.6	68.9	60.3	70.1	78.9	13.9	33.6	50.8	36.4	53.8	70.0
Freshman Academy	--	--	--	--	--	--	--	--	--	--	--	--
ACT	--	--	--	--	--	--	--	--	--	--	--	--
HHS	--	--	--	--	--	--	--	--	--	--	--	--
Marshall HS	29.6	27.8	49.3	51.5	54.5	60.9	29.3	24.4	42.3	50.7	52.4	58.1
Biz Tech	16.7	24.2	35.2	45.6	42.9	59.2	8.3	20.8	27.9	45.8	36.6	54.8
Pauling	34.1	32.7	56.0	60.7	60.0	61.4	40.6	31.0	46.9	55.0	60.0	58.3
RA2	35.1	27.1	56.2	49.3	60.0	61.9	34.6	22.0	51.4	52.0	60.0	60.8
Nixyaawii Community School	30.8	0.0	50.0	29.4	38.5	44.4	**	**	**	30.8	57.1	50.0
Roosevelt HS	20.0	29.8	36.2	37.0	45.5	40.1	15.1	23.8	35.3	35.0	39.0	32.3
ACT	21.3	36.9	51.4	32.8	54.1	44.4	17.1	29.5	56.4	28.6	45.1	44.2
POWER	15.6	24.6	30.4	39.2	47.1	50.0	6.5	22.7	34.0	35.1	43.2	33.3
SEIS	23.1	27.1	24.1	39.3	34.4	25.0	20.6	19.0	19.1	42.1	30.2	19.0
Wave 2 schools	**	**	*54.4*	*61.7*	*62.7*	*74.3*	**	**	*35.2*	*52.0*	*53.6*	*65.1*
Academy for Arts & Academics	**	**	54.5	87.5	83.3	85.5	**	**	53.8	81.0	70.6	78.1
Newberg HS	**	**	71.0	73.6	64.6	80.3	**	**	42.9	47.6	42.5	69.1
Blue School	--	--	--	--	--	--	--	--	--	--	--	--
Green School	--	--	--	--	--	--	--	--	--	--	--	--
Red School	--	--	--	--	--	--	--	--	--	--	--	--
Silver School	--	--	--	--	--	--	--	--	--	--	--	--
Yellow Schools	--	--	--	--	--	--	--	--	--	--	--	--
North Eugene HS	**	**	**	49.8	67.2	77.1	**	**	**	40.0	57.7	69.9
AoA	--	--	--	--	--	--	--	--	--	--	--	--
NIHS	--	--	--	--	--	--	--	--	--	--	--	--
IDEAS	--	--	--	--	--	--	--	--	--	--	--	--
Woodburn HS	**	**	32.7	52.8	54.9	63.6	**	**	31.8	54.4	56.0	60.6
AIS	--	--	--	39.7	39.1	35.8	--	--	--	41.4	38.8	35.8
WAAST	--	--	--	56.4	52.0	76.2	--	--	--	57.6	53.7	65.1
WACA	--	--	--	63.3	64.1	73.6	--	--	--	64.1	66.7	73.6
WeBSS	--	--	--	50.0	61.7	62.8	--	--	--	52.2	62.2	62.8
Wave 3 schools	**	**	**	*71.5*	*71.1*	*73.6*	**	**	**	*57.7*	*62.1*	*72.0*
Crater HS	**	**	**	68.3	67.7	76.6	**	**	**	59.3	61.6	68.0
BIS	--	--	--	68.0	67.0	80.9	--	--	--	52.94	58.33	72.0
RA	--	--	--	66.7	75.0	70.7	--	--	--	68.6	76.7	65.3
CAHPS	--	--	--	69.2	73.3	76.4	--	--	--	47.8	61.9	53.8
CANS	--	--	--	69.5	55.8	78.7	--	--	--	60.6	45.8	76.6
EagleRidge HS	**	**	**	44.7	46.3	54.3	**	**	**	42.9	40.7	**
Health and Science School	**	**	**	**	66.7	81.1	**	**	**	**	36.0	75.0
LEP	**	**	**	51.0	58.9	48.1	**	**	**	37.9	47.1	37.3
MACA	**	**	**	68.8	71.1	58.8	**	**	**	50.0	60.0	45.6
South Medford HS	**	**	**	78.5	80.4	81.1	**	**	**	61.9	75.4	81.1
Freshman Academy	--	--	--	--	--	--	--	--	--	--	--	--
BACH	--	--	--	--	--	--	--	--	--	--	--	--
CHAMPS	--	--	--	--	--	--	--	--	--	--	--	--
Discovery	--	--	--	--	--	--	--	--	--	--	--	--

*2009-10 data based on ODE school-level reports. All other years based on analysis of student-level data. **Data suppressed. –No data, or only incomplete data available.

Source: ECONorthwest analysis of ODE data.

Table C3: 10th grade OAKS writing meet/exceed rate by school, 2004-05 to 2009-10*

OSSI Campus	All students						Economically disadvantaged students					
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
All Non-Initiative schools	*56.3*	*55.9*	*54.9*	*56.3*	*55.2*	53.2	*39.7*	*38.3*	*37.8*	*40.2*	*39.2*	38.6
Wave 1 schools	*41.5*	*40.1*	*37.9*	*42.6*	*46.0*	51.2	*28.5*	*29.8*	*26.8*	*33.4*	*38.5*	44.0
Liberty HS	49.2	46.2	52.3	42.1	38.5	64.5	24.8	23.4	28.9	26.0	22.6	53.4
Freshman Academy	--	--	--	--	--	--	--	--	--	--	--	--
ACT	--	--	--	--	--	--	--	--	--	--	--	--
HHS	--	--	--	--	--	--	--	--	--	--	--	--
Marshall HS	34.7	31.6	33.2	52.4	56.3	*40.0*	32.9	29.5	31.7	45.5	51.8	*40.5*
Biz Tech	51.7	30.2	29.7	51.8	45.2	30.2	47.8	32.7	27.8	47.7	40.6	31.6
Pauling	19.4	27.8	33.3	53.7	72.7	51.4	25.0	19.5	30.8	44.4	67.6	46.7
RA2	36.1	36.8	35.8	51.7	52.3	40.0	28.0	35.9	35.2	44.2	47.9	43.8
Nixyaawii Community School	8.3	0.0	50.0	23.5	8.3	33.3	**	**	**	15.4	0.0	50.0
Roosevelt HS	32.3	39.2	20.4	33.6	54.1	*32.8*	30.9	36.2	18.2	30.0	47.0	*33.7*
ACT	34.5	46.2	21.4	30.2	61.0	28.2	37.8	40.0	21.2	22.6	53.7	32.3
POWER	25.7	36.5	21.1	36.6	70.7	55.3	13.6	39.5	19.6	36.4	66.7	54.8
SEIS	35.0	33.3	18.4	34.0	31.2	16.7	34.3	28.6	14.3	30.6	24.4	16.7
Wave 2 schools	--	--	*44.4*	*50.5*	*54.9*	50.4	--	--	*23.2*	*39.7*	*45.1*	42.0
Academy for Arts & Academics	--	--	57.1	70.8	60.0	61.8	--	--	61.5	71.4	64.7	56.3
Newberg HS	--	--	62.9	60.3	63.6	58.3	--	--	31.9	45.2	45.5	45.5
Blue School	--	--	--	--	--	--	--	--	--	--	--	--
Green School	--	--	--	--	--	--	--	--	--	--	--	--
Red School	--	--	--	--	--	--	--	--	--	--	--	--
Silver School	--	--	--	--	--	--	--	--	--	--	--	--
Yellow Schools	--	--	--	--	--	--	--	--	--	--	--	--
North Eugene HS	--	--	--	51.3	52.9	48.6	--	--	--	44.6	42.1	36.9
AoA	--	--	--	--	--	--	--	--	--	--	--	--
NIHS	--	--	--	--	--	--	--	--	--	--	--	--
IDEAS	--	--	--	--	--	--	--	--	--	--	--	--
Woodburn HS	--	--	18.2	34.1	44.8	*41.1*	--	--	18.3	34.1	44.8	*41.1*
AIS	--	--	--	48.5	39.7	36.8	--	--	--	48.5	39.7	36.8
WAAST	--	--	--	30.2	47.3	43.9	--	--	--	30.2	46.7	43.9
WACA	--	--	--	35.8	52.2	43.2	--	--	--	35.8	52.9	43.2
WeBSS	--	--	--	20.0	40.4	39.7	--	--	--	20.0	40.4	39.7
Wave 3 schools	--	--	--	*64.3*	*55.3*	47.8	--	--	--	*49.8*	*45.4*	46.0
Crater HS	--	--	--	65.5	66.3	*50.0*	--	--	--	55.3	66.0	*40.3*
BIS	--	--	--	54.7	67.4	66.3	--	--	--	29.41	63.64	68.0
RA	--	--	--	76.0	77.8	53.1	--	--	--	74.3	73.3	47.8
CAHPS	--	--	--	74.7	70.1	53.9	--	--	--	60.0	80.0	29.6
CANS	--	--	--	57.3	51.1	26.1	--	--	--	45.2	45.5	23.9
EagleRidge HS	--	--	--	25.0	30.4	42.4	--	--	--	28.6	20.0	**
Health and Science School	--	--	--	--	46.5	45.5	--	--	--	--	18.8	30.0
LEP	--	--	--	33.3	43.3	31.0	--	--	--	20.7	26.9	22.2
MACA	--	--	--	52.1	36.6	17.1	--	--	--	38.9	44.4	10.9
South Medford HS	--	--	--	70.6	55.7	56.0	--	--	--	54.6	48.3	56.0
Freshman Academy	--	--	--	--	--	--	--	--	--	--	--	--
BACH	--	--	--	--	--	--	--	--	--	--	--	--
CHAMPS	--	--	--	--	--	--	--	--	--	--	--	--
Discovery	--	--	--	--	--	--	--	--	--	--	--	--

*2009-10 data based on ODE school-level reports. All other years based on analysis of student-level data. **Data suppressed. –No data, or only incomplete data available.

Source: ECONorthwest analysis of ODE data.

Table C4: Graduation rates by school, 2004-05 to 2008-09

OSSI Campus	All students					Economically disadvantaged students				
	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09
All Non-Initiative schools	81.9	82.2	81.9	83.2	83.1	79.9	74.3	74.0	78.6	78.2
Wave 1 schools	59.5	67.4	67.6	76.9	78.9	64.4	56.5	59.3	74.1	80.7
Liberty HS	81.7	83.1	88.3	88.7	92.2	80.3	71.6	82.6	87.6	93.1
Freshman Academy	--	--	--	--	--	--	--	--	--	--
ACT (at Liberty)	--	--	--	--	--	--	--	--	--	--
HHS	--	--	--	--	--	--	--	--	--	--
Marshall HS	59.2	54.9	53.0	59.0	75.8	62.0	54.7	51.1	61.8	74.0
Biz Tech	61.7	51.8	43.6	48.1	73.7	59.5	51.4	42.9	48.9	70.5
Pauling	73.3	62.1	62.3	67.7	71.7	78.8	62.5	57.1	72.7	69.4
RA2	36.4	49.1	52.0	60.0	83.3	40.9	47.1	52.4	65.0	83.3
Nixyaawii Community School	40.0	71.4	63.3	76.5	70.6	50.0	83.3	71.4	83.3	66.7
Roosevelt HS	56.0	51.6	54.1	72.7	72.4	58.0	46.7	50.0	75.4	77.2
ACT	73.2	56.8	45.8	62.2	62.1	73.2	51.2	45.1	66.0	62.2
POWER	60.8	50.0	76.5	83.3	71.1	65.0	48.0	71.4	82.2	77.1
SEIS	35.6	46.0	50.0	78.0	93.5	40.0	40.9	44.4	79.5	93.1
Wave 2 schools	*52.6*	*53.7*	*51.7*	*61.5*	*58.9*	*60.1*	*55.9*	*37.0*	*71.1*	*69.0*
Academy for Arts & Academics	--	--	--	--	88.9	--	--	--	--	--
Newberg HS	79.9	77.9	79.9	85.7	82.1	63.8	53.7	58.7	85.1	82.5
Blue School	--	--	--	--	--	--	--	--	--	--
Green School	--	--	--	--	--	--	--	--	--	--
Red School	--	--	--	--	--	--	--	--	--	--
Silver School	--	--	--	--	--	--	--	--	--	--
Yellow Schools	--	--	--	--	--	--	--	--	--	--
North Eugene HS	--	--	--	--	--	--	--	--	--	--
AoA	--	--	--	--	--	--	--	--	--	--
NIHS	--	--	--	--	--	--	--	--	--	--
IDEAS	--	--	--	--	--	--	--	--	--	--
Woodburn HS**	64.6	65.2	67.1	86.4	82.4	64.6	65.2	67.1	86.4	82.4
AIS	--	--	--	77.4	73.0	--	--	--	77.4	73.0
WAAST	--	--	--	96.1	89.3	--	--	--	96.1	89.3
WACA	--	--	--	88.9	83.3	--	--	--	88.9	83.3
WeBSS	--	--	--	83.6	86.4	--	--	--	83.6	86.4
Wave 3 schools	*88.1*	*91.9*	*91.7*	*65.5*	*61.0*	*82.7*	*86.8*	*88.2*	*75.8*	*59.3*
Crater HS	89.9	93.3	93.6	95.0	86.8	86.5	93.3	97.2	87.1	78.1
BIS	--	--	--	94.3	78.3	--	--	--	--	75.0
RA	--	--	--	91.4	87.2	--	--	--	83.3	73.7
CAHPS	--	--	--	100.0	93.8	--	--	--	--	94.1
CANS	--	--	--	95.5	88.5	--	--	--	92.3	77.8
EagleRidge HS	--	--	--	--	--	--	--	--	--	--
Health and Science School	--	--	--	--	--	--	--	--	--	--
LEP	--	--	--	--	--	--	--	--	--	--
MACA	--	--	--	--	--	--	--	--	--	--
South Medford HS	87.9	91.7	91.4	92.4	90.9	80.0	81.2	81.6	91.9	90.5
Freshman Academy	--	--	--	--	--	--	--	--	--	--
BACH	--	--	--	--	--	--	--	--	--	--
CHAMPS	--	--	--	--	--	--	--	--	--	--
Discovery	--	--	--	--	--	--	--	--	--	--

*Data suppressed. –No data, or only incomplete data available. **Because of inconsistencies in the data over time, we classify all Woodburn-campus students as economically disadvantaged.
Source: ECONorthwest analysis of ODE data.

Table C5: Dropout rates by school, 2004-05 to 2008-09

OSSI Campus	All students					Economically disadvantaged students				
	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09
All Non-Initiative schools	4.1	4.0	4.1	3.9	4.0	3.5	4.6	4.9	4.1	4.2
Wave 1 schools	*10.3*	*8.3*	*9.1*	*5.7*	*5.4*	*6.8*	*8.5*	*7.3*	*5.9*	*3.5*
Liberty HS	3.5	3.5	2.4	2.8	1.7	3.3	5.0	2.9	2.7	1.2
Freshman Academy	--	--	--	--	--	--	--	--	--	--
ACT (at Liberty)	--	--	--	--	--	--	--	--	--	--
HHS	--	--	--	--	--	--	--	--	--	--
Marshall HS	8.5	9.3	9.0	8.8	5.8	7.5	8.0	9.5	8.5	4.8
Biz Tech	8.4	9.2	10.5	10.7	5.4	9.0	7.3	10.0	11.8	5.6
Pauling	6.2	8.9	9.1	9.1	9.2	4.3	8.0	10.7	7.8	8.0
RA2	11.1	9.9	7.6	6.8	3.6	9.2	8.7	8.0	6.1	2.4
Nixyaawii Community School	18.8	10.2	16.2	6.0	8.9	8.3	5.4	5.0	4.1	8.8
Roosevelt HS	9.2	12.1	8.6	6.9	5.3	8.6	11.8	8.5	5.8	4.1
ACT	5.0	12.5	14.1	11.1	8.6	4.9	10.8	13.3	8.9	7.1
POWER	7.7	11.3	2.8	4.4	5.9	6.7	11.2	2.6	4.4	4.3
SEIS	16.2	12.8	9.3	4.1	0.9	14.2	13.5	10.3	4.2	1.0
Wave 2 schools	*4.6*	*4.9*	*3.7*	*2.0*	*2.6*	*5.5*	*7.4*	*4.9*	*1.9*	*2.1*
Academy for Arts & Academics	**	**	**	0.9	1.4	**	**	**	**	**
Newberg HS	4.3	4.8	5.3	3.1	4.2	7.1	8.0	8.3	2.7	2.3
Blue School	--	--	--	--	--	--	--	--	--	--
Green School	--	--	--	--	--	--	--	--	--	--
Red School	--	--	--	--	--	--	--	--	--	--
Silver School	--	--	--	--	--	--	--	--	--	--
Yellow Schools	--	--	--	--	--	--	--	--	--	--
North Eugene HS	**	**	**	**	**	**	**	**	**	**
AoA	--	--	--	--	--	--	--	--	--	--
NIHS	--	--	--	--	--	--	--	--	--	--
IDEAS	--	--	--	--	--	--	--	--	--	--
Woodburn HS**	9.5	9.4	5.1	2.4	2.9	9.5	9.4	5.1	2.4	2.9
AIS	--	--	--	3.6	5.6	--	--	--	3.6	5.6
WAAST	--	--	--	0.6	1.7	--	--	--	0.6	1.7
WACA	--	--	--	2.3	2.3	--	--	--	2.3	2.3
WeBSS	--	--	--	3.1	2.0	--	--	--	3.1	2.0
Wave 3 schools	*2.3*	*1.5*	*1.7*	*1.0*	*2.2*	*2.0*	*1.6*	*1.6*	*0.8*	*2.6*
Crater HS	2.2	1.2	1.3	1.0	3.2	1.6	0.9	0.4	0.9	4.1
BIS	--	--	--	1.3	5.2	--	--	--	0.0	5.8
RA	--	--	--	1.9	3.3	--	--	--	2.2	5.5
CAHPS	--	--	--	0.0	1.3	--	--	--	0.0	0.8
CANS	--	--	--	0.8	2.9	--	--	--	0.8	3.7
EagleRidge HS	**	**	**	**	**	**	**	**	**	**
Health and Science School	**	**	**	**	**	**	**	**	**	**
LEP	--	--	6.9	4.8	12.1	--	--	--	--	12.1
MACA	**	**	**	**	**	**	**	**	**	**
South Medford HS	2.3	1.6	1.6	1.6	2.1	2.3	2.0	2.4	1.2	1.7
Freshman Academy	--	--	--	--	--	--	--	--	--	--
BACH	--	--	--	--	--	--	--	--	--	--
CHAMPS	--	--	--	--	--	--	--	--	--	--
Discovery	--	--	--	--	--	--	--	--	--	--

*Data suppressed. –No data, or only incomplete data available. **Because of inconsistencies in the data over time, we classify all Woodburn-campus students as economically disadvantaged.

Source: ECONorthwest analysis of ODE data.

Table C6: Post-secondary enrollment after graduation, by school, graduates of 2004-05 to 2008-09

OSSI Campus	All students					Economically disadvantaged students				
	2004-05	2005-06	2006-07	2007-08	2008-09	2004-05	2005-06	2006-07	2007-08	2008-09
All Non-Initiative schools	57.7	57.2	57.9	58.5	59.0	42.7	41.2	43.7	45.1	44.9
Wave 1 schools	*51.7*	*51.3*	*53.6*	*52.2*	*56.7*	*42.2*	*37.7*	*38.4*	*39.4*	*45.2*
Liberty HS	54.7	61.5	65.2	63.9	64.6	35.9	38.5	42.5	39.5	42.5
Freshman Academy	--	--	--	--	--	--	--	--	--	--
ACT	--	--	--	--	--	--	--	--	--	--
HHS	--	--	--	--	--	--	--	--	--	--
Marshall HS	47.3	45.5	48.8	39.6	53.8	45.8	52.3	48.5	43.2	50.6
Biz Tech	63.3	62.1	52.2	42.3	50.0	52.6	60.0	52.9	43.5	46.9
Pauling	43.8	44.4	51.4	35.0	47.4	50.0	57.1	53.6	41.9	43.5
RA2	16.7	26.1	42.3	43.3	64.9	14.3	25.0	38.1	44.4	60.7
Nixyaawii Community School	16.7	13.3	26.3	28.6	0.0	**	10.0	**	30.0	**
Roosevelt HS	51.6	41.7	33.3	41.7	46.9	47.1	32.7	28.3	37.6	44.6
ACT	45.2	41.5	31.4	40.0	52.9	37.0	26.3	29.6	38.9	50.0
POWER	65.6	53.1	50.0	50.0	45.5	68.0	47.6	47.1	45.9	44.8
SEIS	42.1	26.1	15.0	31.3	41.4	31.3	20.0	6.3	25.0	39.3
Wave 2 schools	**	**	**	*50.6*	*55.6*	**	**	**	*41.9*	*42.6*
Academy for Arts & Academics	**	**	**	**	31.3	**	**	**	**	50.0
Newberg HS	**	**	**	54.2	63.1	**	**	**	31.5	43.4
Blue School	--	--	--	--	--	--	--	--	--	--
Green School	--	--	--	--	--	--	--	--	--	--
Red School	--	--	--	--	--	--	--	--	--	--
Silver School	--	--	--	--	--	--	--	--	--	--
Yellow Schools	--	--	--	--	--	--	--	--	--	--
North Eugene HS	**	**	**	**	61.9	**	**	**	**	57.4
AoA	--	--	--	--	--	--	--	--	--	--
NIHS	--	--	--	--	--	--	--	--	--	--
IDEAS	--	--	--	--	--	--	--	--	--	--
Woodburn HS	**	**	37.4	44.7	37.2	**	**	**	46.3	37.7
AIS	--	--	--	36.6	40.4	--	--	--	38.5	39.5
WAAST	--	--	--	51.9	36.7	--	--	--	55.3	36.2
WACA	--	--	--	42.0	45.9	--	--	--	43.2	47.2
WeBSS	--	--	--	46.8	25.6	--	--	--	46.7	27.8
Wave 3 schools	**	**	**	*58.6*	*51.3*	**	**	**	*48.3*	*48.5*
Crater HS	**	**	**	58.6	51.3	**	**	**	48.3	48.5
BIS	--	--	--	68.4	49.3	--	--	--	20.0	40.0
RA	--	--	--	54.7	44.4	--	--	--	52.9	45.2
CAHPS	--	--	--	61.5	56.6	--	--	--	60.0	52.6
CANS	--	--	--	46.7	54.8	--	--	--	45.5	59.1
EagleRidge HS	**	**	**	**	**	**	**	**	**	**
Health and Science School	**	**	**	**	**	**	**	**	**	**
LEP	**	**	**	**	**	**	**	**	**	**
MACA	**	**	**	**	**	**	**	**	**	**
South Medford HS	**	**	**	**	**	**	**	**	**	**
Freshman Academy	--	--	--	--	--	--	--	--	--	--
BACH	--	--	--	--	--	--	--	--	--	--
CHAMPS	--	--	--	--	--	--	--	--	--	--
Discovery	--	--	--	--	--	--	--	--	--	--

*2009-10 data based on ODE school-level reports. All other years based on analysis of student-level data. **Data suppressed. –No data, or only incomplete data available.

Source: ECONorthwest analysis of ODE data.