

Across-the-Board Improvement in Graduation Rates: *Preliminary Results of Research into the Portland Public Schools Class of 2007*

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Two years ago, Portland became one of the first cities in the country to use a new methodology to understand how individual students fare in school – and ultimately, who graduates from high school and who does not.

By examining the progress of every single student in a district-wide graduating class, a cohort study can weigh many different academic performance markers over the course of a student's time in school to determine which measures most closely predict the risk that student will leave school without graduating. That data-driven approach can then help connect those students with the support they need as early in their school career as possible – leading to greater success in helping students graduate.

The first such Portland Public Schools cohort study, for the class of 2004, was released two years ago, and quickly rallied attention to Portland's dropout problem and spurred increased community and school district support for students. That study was commissioned by Connected by 25, a coalition of more than 50 local corporations, nonprofit organizations, governments and school districts, foundations and educational and advocacy groups. That coalition quickly responded to the findings by orchestrating summer programs for youth between 8th and 9th grades, and for a campaign dubbed "Ninth Grade Counts" to emphasize the critical importance of broad support to help students make a successful start to their high school careers.

Portland Public Schools, with funding from the Bill & Melinda Gates Foundation, last year commissioned a follow-up cohort study of the class of 2007. The goal was two-fold: First, to assess whether the school district had made progress in the intervening three years between cohorts; and second, and far more importantly, to dig deeper and review students' performance data in younger grades to detect whether earlier warning signs might help the school district and its partners intervene and get students back on track to successful graduation years before they enter high school.

The full cohort study, including an executive summary and technical report, will be completed and published by the end of June 2009. However, a preliminary comparison of top-line results from the 2007 cohort with those from 2004 shows significant progress across all categories of students, by academic performance indicators and by common demographic groups such as race, ethnicity and gender.

Given the high level of interest in Portland Public Schools' graduation rates, and the ongoing high school design work involving the community, it is timely to release those preliminary results now, before the full research is published.

Preliminary results from the 2007 cohort study show significant improvement in graduation success. The cohort graduation rate has gone up more than 6 percentage points, to 63.2 percent. Interestingly, an increasing percentage of students who did not graduate in 4 years with their class earned their final credits in the fifth year, indicating that students may be receiving more support to clear the final hurdle to earn the diploma.

Table 1: Cohort graduation rates

	2004	2007	Improvement
Graduation in 4 years	54.0%	57.0%	3%
Additional graduates in 5 th year	3 %	6.2%	3.2%
Total graduation rate	57.0%	63.2%	6.2%

What “graduation rates” measure – and the value of the cohort methodology

There are at least a half-dozen ways to calculate a school district’s graduation rate. Most, like the method used by the Oregon Department of Education, rely on snapshot numbers of a district’s enrollment at different grades. Using a mathematical formula, they calculate a graduation rate based on the number of students who received a diploma compared to the number of students remaining enrolled or dropping out across the high school grades.

It is important to note that in many cases, what are called “graduation rates” are little more than educated guesses.

The cohort method relies on tracking individual students. Any student who enrolled in Portland Public Schools with the expectation of becoming a member of the class of 2007 is included in this cohort. That could cover a wide range of student experiences: a student who has been with PPS since starting kindergarten in the fall of 1994, a student who moved to town and started 9th grade in 2003, or a senior whose first year in a Portland high school was 12th grade. No matter when students entered the cohort, they became part of the class of 2007. Removed from the cohort were those who officially transferred to another school district (some may not have notified PPS of their move, but showed up in another Oregon district that uses the same electronic student information system, eSIS). The cohort study then attempted to assign a specific outcome to all students: whether they graduated in June 2007, or within the following year; whether they earned a regular diploma or a modified diploma (a small share of students, mainly in special education); whether they officially withdrew (dropping out) or simply stopped showing up for school.

While almost all researchers recommend that schools, districts and states develop data systems that can track all students as they move through the schools – the basis for a longitudinal cohort study – this type of method now is rarely used. Portland Public Schools is one of the first school districts to undertake not one, but two cohort studies. Such studies are by nature more time-intensive and involved than the simpler calculation

based on enrollment snapshots. Cohort studies also rely heavily on data keeping at individual schools, and often by individual secretaries and other staff with heavy workloads. Rigorous recordkeeping and follow-up is needed to ensure that students' withdrawals are really counted as withdrawals, transfers as transfers and graduates as graduates.

The limitations of that underlying record-keeping are evident in the 2007 PPS cohort study, as well as in cohort studies of other districts nationwide. More than 30 percent of the cohort was classified as “no shows.” Those are students who were enrolled in one quarter but did not show up in the next quarter, but who didn't officially transfer to another district. Did they end up in another school district, perhaps graduating? Or did they drop out? Given their patterns of behavior and the timing of departures from school, it is likely that few continued on to a diploma. For that reason, this report refers to both “no shows” and “withdrawns” (students age 16 and older who legally withdraw from school) as “leaving school without graduating.”

Table 2: The “graduation rate” for the PPS class of 2007 by different methods

Method	Used by	Formula	PPS 2007 Graduation Rate
National Governor's Association Compact	NGA effort to move toward common reporting; Oregon Department of Education to adopt modified NGA method in 2009	On-time grads in 2006-07/((1 st -time 9 th graders in 2003-04) + (transfers in) - (transfers out))	68.1%
Manhattan Institute	Developed by researcher Jay Greene for national studies	2007 grads/2003-04 9 th graders + estimated population growth	65.5%
Oregon State	Oregon Department of Education uses a modified National Center for Education Statistics formula for annual reports	Regular diplomas 2007/(Regular diplomas + dropouts for grades 9-12 in during 2006-07)	65.4%
2007 Cohort Study	Portland Public Schools report to identify performance indicators related to graduation success	On-time diplomas 2007+ diplomas in following year/ All non-transfer students in 2007 cohort	63.2%*
Cumulative Promotion Index	America's Promise, Education Week, others for national comparisons	(10 th graders, fall 2007/9 th graders fall 2006) x (11 th graders, fall 2007/10 th graders fall 2006) x (12 th graders, fall 2007/11 th graders fall 2006) x (Grads 2007/12 th graders fall 2006)	61.3%

*This rate includes students who graduated with a modified diploma and also counts the students graduating in the year following June 2007 (6.2%, see table above). Without those factors, the rate would be 54.1%

The purpose of the cohort study is not to construe a better or “more accurate” way to calculate a graduation or dropout rate for Portland Public Schools. Every method and calculation has its own shortcomings and value. The Oregon Department of Education's statistics, for example, remain the best way to compare Portland Public Schools with other Oregon school districts. The power of the cohort study, rather, lies in its ability to help a school district pinpoint the early indicators that a student may not be headed

toward graduation, so that individual students can receive the targeted support needed to succeed.

Graduation rates increase – for all students and for groups with greatest risks

The 2004 cohort study found that academic indicators – far more than a student’s race or family income – were strong predictors of students’ likelihood of graduation. Three critical groups were significantly more likely to graduate than their peers:

- Students who met or exceeded benchmark in 8th grade standards assessments;
- Students who passed all of their core courses (English, math, science and social studies) in 9th grade; and
- Students who had been enrolled in Portland Public Schools by the beginning of 9th grade.

Those results have led Portland Public Schools and its community partners to focus more attention and support on students who did not meet 8th grade benchmarks, on 9th grade students to help them pass their courses, and on late entrants to PPS as they enrolled in high school.

Preliminary results from the 2007 cohort study show significant improvement in graduation success, not only for the class of 2007 as a whole, but also for these particular groups at greater risk. Interestingly, graduation rates increased significantly for students at the highest achieving levels on their 8th grade assessments – exceeding – as much as for those at the lower ratings.

Table 3: Cohort graduation rates by student characteristic

Student characteristic	2004	2007	Improvement
Entry into cohort			
Joined before 9 th grade	66.0%	67.9%	1.9%
Joined in 9 th or later	37.7%	46.5%	8.8%
8th grade math test			
Very low	40.3%	48.4%	8.1%
Low	47.3%	55.4%	8.1%
Close to meeting	60.8%	71.7%	10.9%
Met	72.0%	82.3%	10.3%
Exceeded	83.7%	93.4%	9.7%
8th grade reading test			
Very low	40.7%	49.1%	8.4%
Low	49.8%	58.5%	8.7%
Close to meeting	63.2%	73.3%	10.2%
Met	77.1%	82.9%	5.8%
Exceeded	85.3%	92.7%	7.4%
9th grade course failures			
No Fs in core courses	84.1%	86.0%	1.9%
One or more Fs in core courses	44.2%	48.4%	4.2%

This data also shows the continued relevance of those risk indicators. Despite the improved graduation rates, success rates remain well below average for students entering PPS after the beginning of high school; for students scoring low or very low on their 8th grade assessments and for those who fail at least one core course in 9th grade.

Improvement seen among all demographic groups

The 2004 cohort study firmly established that academic risk factors – such as 8th grade benchmark performance and 9th grade course failures – are much stronger indicators that a student will not graduate than any demographic factors such as gender, race, ethnicity or family income. This was a powerful finding. It means that we can better identify which individual students of color and poor students are most at risk, eliminating inaccurate and unfair stereotyping of students based on race, ethnicity, immigrant status or family income.

However, that does not remove Portland Public Schools’ commitment to ensure equity of outcome for all students, particularly those who have historically not been well served by the school district. It is promising, then, to note that the preliminary comparison of the two cohort studies indicates an improving graduation rate among all gender and racial/ethnicity groups.

Table 4: Cohort graduation rates by student demographic

Student demographic	2004	2007	Improvement
Gender			
Female	59.8%	66.2%	6.4%
Male	54.4%	60.6%	6.2%
Race			
American Indian	39.2%	50.9%	11.7%
Asian/Pacific Islander	64.5%	70.8%	6.3%
African American	49.0%	55.3%	6.3%
Hispanic	38.9%	46.2%	7.3%
White	61.7%	68.3%	6.6%

As with the performance indicators above, despite significant improvements certain groups still lag. Portland Public Schools under this measure faces a large graduation gap, in particular for Hispanic, American Indian and African American students.

The cohort study as a prelude to action

These preliminary results show some reason for optimism that Portland Public Schools is on the right track in addressing the challenges of improving graduation rates. While this analysis and these preliminary results are an outcome of the 2007 cohort study, they are not the purpose of undertaking this exhaustive review of students’ performance over time.

For one thing, PPS is not prepared to develop a full cohort study every year, and thus should rely on more available and timely data to track on-going performance of its students and to fine-tune its interventions to keep students in school and on the path toward graduation. The Oregon Department of Education's graduation reporting, which is also broken down by demographics, is one useful tool for checking annual progress.

In addition, focusing too much attention on these top-line results also misses the true purpose and power of the cohort study: the ability to much more precisely identify the students most at risk not to graduate in order to intervene to help them at the earliest possible stages. Portland Public Schools and its partners, in the two years since the last cohort study, have focused school leaders and staff on innovative programs to help at these critical moments – such as summer programs between 8th and 9th grade, mentoring programs for 9th grade students and after-school support for identified students. Research by the Bridgespan Group confirms that these efforts are yielding some promising results.

The 2007 cohort study, when complete, will provide extremely valuable information on where and when risk escalates, thus providing early warning signals valid for students as soon as sixth grade. The report will identify the likelihood that individual students to graduate with their classmates, based on key performance indicators. The research will then help PPS assess which of its programs may be most effective, by evaluating which have helped students at the greatest risk beat the odds and go on to graduate.

The true value of any cohort study is not the class-to-class comparisons outlined in these preliminary results, but the data that can focus and spur action to improve results for students.