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Periodic Atlas: Mapping School & Society

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When communities change economically, culturally, and politically, few institutions are expected to adapt and respond as quickly as are public schools. In part, this expectation is justifiable. Free and compulsory education is a cornerstone of modern democracy. But do we expect too much? Should our public schools, whose funding we always seem to begrudge, be expected to overcome issues of poverty, race, and language that other societal institutions struggle with unsuccessfully? If we leave no child behind, if we save our struggling public schools, if our students achieve, are we addressing those issues in the most efficient and fundamental way? Or, are we merely asking our schools (our children, if you will) to be the standard bearers, to fight alone, in a battle they cannot hope to win without more support?

This edition of the Periodic Atlas provides a series of snapshots of the region’s schools and school districts, based on the most recent available data. Its maps highlight just some of the many challenges, successes, and failures of education in the metroscape. It raises more questions than it answers.

The map on this page (figure 1) serves as a locator for school districts featured in subsequent figures, and as an indicator of the relative size of the student population in each district. Student enrollment is concentrated in the four urban districts of Portland, Beaverton, Vancouver, and Evergreen public schools. Roughly 41% of the metroscape’s 323,850 students attend a school in one of these four districts. The Portland Public School (PPS) District, with 48,883 students in October 2003, is the metroscape’s largest. Roughly 15% of students attend a PPS school. The next largest, in order, are Beaverton with 35,333 students, Evergreen with 23,369 students, and Vancouver with 22,556 students. The smallest districts in the metroscape are Green Mountain (WA), whose one elementary school contains 124 students, and Vancouver (OR) with 541 students, and Riverdale (OR) with 555 students.

Change in Student Enrollment

Perhaps more intriguing than one year’s enrollment data, is the change in student enrollment over time. Figure 2 shows the percent change in student enrollment over the four most recent years for which data are available. In Oregon, the comparison is from 1999 to 2003, and in Washington from 1999 to 2002. While most suburban districts have grown, enrollment in the Portland school district and many smaller rural districts has declined. Portland lost 5,243 students (-9.78% of its 1999-2000 enrollment), the largest numerical decline of any school district in Oregon. Smaller rural districts like Rainier (-214 students, -15.16%), Colton (-64 students, -7.92%) and La Center (-65 students, -4.65%) also shrank. When it comes to growth in enrollment, Evergreen saw the largest numerical increase (+5609 students, +18.03%), while Sherwood (+697 students, +25.92%) and Camas (+847 students, +24.28) had the largest percentage increases among larger districts. David Douglas (+1319 students, +16.62%) and North Clackamas (+1555 students, +10.64%), districts that occupy the urban/suburban fringe, also saw double digit growth.

Explaining changes in student enrollment is complex, and relates primarily to changes in the size of the general population and the percentage of families with school age children in each district. However, seeing the consequences of increasing enrollment (without corresponding increases in funding and staffing levels) can be simpler. Average elementary classroom size (figure 3) is not determined solely by a district’s enrollment. Far from it. Available facilities and staffing levels play a more fundamental role in defining the classroom environment. Still, there is an intriguing amount of correlation between the smaller classroom sizes of the rural and urban districts, and the larger classroom sizes of the rapidly growing suburban districts. Are those schools growing fast enough to keep up with their growing student populations? (Note: Washington keeps data on student/teacher ratios, rather than average elementary classroom size, and was not included in this analysis).
Race, Culture, and Language

Figures 4, 5, and 6 illustrate some of the current demographic characteristics of the metroscape’s changing student population. Minority students (as a percentage of the total student population) are concentrated in two areas: urban core (districts in the cities of Portland, Beaverton, Hillsboro, Gresham, and Vancouver) and rural western districts (the two “pockets” of Dayton/McMinnville and Forest Grove). In some of these districts, minorities make up nearly 40% of the student population.

The Hispanic population (as a percentage of the total student population) is concentrated in the western rural districts and in the urban Reynolds school district. In these districts, the minority population is mostly Hispanic. The other districts have a larger variety of ethnicities. The exact breakdown can vary tremendously, from the large number of African-American students in the Portland school district (16.5% of the total student population), to the surprising percentage of Pacific Islander students in the Evergreen (WA) school district (7.3% of the total student population).

Oregon and Washington both provide specialized educational classes for students whose first language is not English. In Oregon, it is called the English as Second Language (ESL) program. In Washington, students are classified as having Limited English Proficiency (LEP). While districts with a high Hispanic population provide most of their ESL courses for Spanish speakers, other districts serve other minorities. For example, of the 3,929 LEP students in the three largest Clark County districts (Vancouver, Evergreen, and Battle Ground), 2,101 speak either Russian or Ukrainian (53% of the students), while only 1,179 speak Spanish (30% of the students). The remaining 17% speak any one of more than 35 other languages.
High school dropout rates are notoriously difficult to evaluate and compare. And once you collect dropout data, what it tells you about the quality of a school district or the opportunities available to students in particular high schools is debatable. Given the constraints of methodology and applicability, figure 7 presents dropout data for the 2001-02 school year in several different ways.

The background map depicts the one-year dropout rate for each school district in the metroscape. The highest dropout rates on the Oregon side of the river (using the data collection methodology of the National Center for Education Statistics) appear in Portland and the rural southwestern districts. The highest dropout rates in Clark County (using the methodology of the No Child Left Behind Act of 2001) are in Vancouver.

The four-year and cohort dropout rates for individual high schools (including special programs for at-risk youth) are depicted as graduated blue dots on the map. The larger the blue dot, the higher the dropout rate. Some high schools and special programs in the metroscape did not report dropout statistics and are not included. The four-year dropout rate, collected by Oregon, is the aggregated dropout rate for all grades (9-12) in 2001-02. It represents the proportion of the ninth grade class that would drop out prior to graduation if that year’s data on four grades were really four years of data on one class. The cohort dropout rate, collected by Washington, is based on the actual dropout rate of the class of 2002. It represents the cumulative dropout rate of the students who began 9th grade in fall 1998 and were expected to graduate “on-time.”

The four-year dropout rates at individual high schools mirror those of their districts. Leading the way in Oregon are the urban high schools of Roosevelt (27.2%), Jefferson (21.1%), and Marshall (20.8%) and the rural high schools of Amity (22.7%) and McMinnville (21.8%). The highest cohort dropout rates in Clark County can be found at Lewis and Clark (27.5%), Legacy (15.3%), Fort Vancouver (12.2%), and Hudson’s Bay (11.6%) high schools.

Links Between Community High School Dropout Rate and Free/Reduced Price Lunch Eligibility Levels

Is there any link between the level of education in a community and the socio-economic status of its children, as measured through eligibility for free and reduced price lunches? The prevailing wisdom among education researchers is “yes.” The adjacent map is an attempt to visualize that correlation in school districts in one small section of the metroscape. The base map consists of tracts from the 2000 US Census. These tracts have been colored according to their percentage of resident high school “noncompleters” (the population 25 years and over that has no high school diploma or its equivalent). Figure 9, stretching from Gresham to Beaverton, uses the free and reduced lunch (FRP) data for individual schools to create a three-dimensional surface on the noncompleter census tract base map. Areas where few students are eligible for FRP lunches show up as valleys, and areas where many students are eligible for FRP lunches show up as mountains. Although there are some small exceptions, mountains tend to be blue and valleys brown.

Student eligibility for free or reduced-price (FRP) lunch under the National School Lunch Program is a common measure of economic disadvantage among student populations. Eligibility is based on federal poverty guidelines, and varies by income and household size. In 2002-03 (the most recent year for which data are available), a family of four earning less than $33,485/year is eligible for reduced price meals. The same family earning less than $23,530/year is eligible for free meals.

FRP lunch eligibility is lowest in the suburban districts of Riverdale (3.2%), Lake Oswego (5.0%), West Linn (6.7%), Sherwood (8.4%), and Hood River (WA) (13.8%). It is highest in the urban districts of David Douglas (54.5%), Parkrose (52.3%), Reynolds (50.5%), and Vancouver (42.1%), and in the rural western districts of Dayton (51.9%), Sheridan (51.3%), and Forest Grove (49.7%). If the general health and welfare of our families is a barrier to student learning, urban and rural communities seem to face similar challenges.
Hispanic, other ethnicities, and economically disadvantaged.
African-American, Asian/Pacific Islander, American Indian,
education), students with limited English proficiency, white,
designed to capture the broad diversity of disadvantaged
e. Test results are divided and analyzed in 10 subgroups,
and, beginning in 2007-2008, they will be required in sci
currently required in reading/language arts and mathematics,
Under NCLB, every school tests its students using their
ons, violent behavior, and/or arrests) be allowed to transfer
with three consecutive years of student expulsions for weap
qualified (according to the standards of their states), and
establish accountable programs that test students against ap
of funding. Its most significant requirements are that states
plex mix of guidelines, mandates, penalties, and promises
of education research. Few societal endeavors generate more
tial data were from the Clark County GIS database, Metro’s Regional Land Information System (RLIS), and Oregon Geospa-
data from the Washington Office of the Superintendent of Public Instruction (OSPI), the Oregon Department of Ed-
and therefore provide the best comparable
data available. Most readers should have
questions about how and why some of the
we are, and the cohort dropout rate for the class
Maybe. Is it a challenge to compare the
5th graders’ AYP results: Yes, but those are
on top of math scores from 2003? Pos-
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Met) for metroscape school districts. Figures 11-13 are three
small “window” maps showing the AYP designations of in-
dividual schools in selected areas. In the metroscape, 21 of
reporting school districts did not meet AYP. In Oregon,
only 14 of 39 metroscape districts met 2003 AYP. Why?
The answer is not a simple one, but the windows and accom-
pnying tables provide some clues.
To determine whether a school district meets AYP, all of
the students in each subgroup are combined (as if they come
from one large population). This is how, for example, all of
the individual schools in Amity school district can meet AYP,
but the district itself does not. When all of the student scores
for each district are combined surprising things can appear.
In northwest metroscape, Amity, Dayton, McMinnville, and
Sheridan school districts all failed to meet AYP. These dis-
tricts all have large populations of Hispanic and low income
students. Across the board, the Hispanic and low income
students in those districts succeeded. However, the districts
failed to meet targets for students with disabilities. In fact,
most Oregon districts that did not meet AYP had difficulty with
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ever, the only challenge districts face. In the ur-
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The No Child Left Behind Act of 2001 (NCLB), signed by
President Bush in January 2002, is the reauthorization and
change of three subgroups to (1) the requirement that 95% of
all students take the tests and (2) that schools meet attendance and gra-
uation targets, are used to determine whether schools, districts, and states
have made “adequate yearly prog-
ress” (AYP) toward the goal of having 100% of students meeting rigorous
school year. Schools and districts as a whole, as well as all subgroups, must meet
achievement targets to be designated as having met AYP. In 2002-2003, the
achievement targets in Washing-
ton were 56.2% of fourth-, 35.9% of
seventh-, and 52.9% of tenth-graders
meeting or exceeding standards in English (reading proficiency), and 35.6% of fourths-, 24.2% of seventh, and 31.1% of tenth-graders meeting or exceeding standards in Mathemat-
ics. In Oregon, achievement targets were 40% of students meeting or ex-
ceeding standards in English, and 39% of students meeting or exceeding standards in mathematics. Schools that do not meet AYP are subject to escalating consequences. After
two consecutive years of not meeting AYP, students can transfer to other schools within a district, and eventually, after six years of not meeting AYP, schools are subject to complete
restructuring—up to and including conversion to a charter
school, replacement of all or most of the staff, and turn over to a private management company or the state.
Figure 10 shows the 2003 AYP designations (Met or Not Met) for metroscape school districts. Figures 11-13 are three
small “window” maps showing the AYP designations of indi-
vidual schools in selected areas. In the metroscape, 21 of
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Figure 10

No Child Left Behind

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change of three subgroups to (1) the requirement that 95% of
all students take the tests and (2) that schools meet attendance and graduation targets, are used to determine whether schools, districts, and states have made “adequate yearly progress” (AYP) toward the goal of having 100% of students meeting rigorous school year. Schools and districts as a whole, as well as all subgroups, must meet achievement targets to be designated as having met AYP. In 2002-2003, the achievement targets in Washington were 56.2% of fourth-, 35.9% of seventh-, and 52.9% of tenth-graders meeting or exceeding standards in English (reading proficiency), and 35.6% of fourths-, 24.2% of seventh, and 31.1% of tenth-graders meeting or exceeding standards in Mathematics. In Oregon, achievement targets were 40% of students meeting or exceeding standards in English, and 39% of students meeting or exceeding standards in mathematics. Schools that do not meet AYP are subject to escalating consequences. After two consecutive years of not meeting AYP, students can transfer to other schools within a district, and eventually, after six years of not meeting AYP, schools are subject to complete restructuring—up to and including conversion to a charter school, replacement of all or most of the staff, and turn over to a private management company or the state.

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