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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 (+3569 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/McMinville 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 Battleground), 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.

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 Clackamas (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.

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.
There is no gender breakdown. Test results, combined with students: total population, students with disabilities (special designed to capture the broad diversity of disadvantaged ence. Test results are divided and analyzed in 10 subgroups, currently required in reading/language arts and mathematics, states' individual assessment tools and standards. Tests are Under NCLB, every school tests its students using their appropriate standards, that all classroom teachers be highly qualified (according to the standards of their states), and that students attending persistently dangerous schools (those with three consecutive years of student expulsions for weapons, violent behavior, and/or arrests) be allowed to transfer to safer schools.

Under NCLB, every school tests its students using their states’ individual assessment tools and standards. Tests are currently required in reading/language arts and mathematics, and, beginning in 2007-2008, they will be required in sci- ence. Test results are divided and analyzed in 10 subgroups, designed to capture the broad diversity of disadvantaged students: total population, students with disabilities (special education), students with limited English proficiency, white, African-American, Asian/Pacific Islander, American Indian, Hispanic, other ethnicities, and economically disadvantaged. There is no gender breakdown. Test results, combined with ever, the only challenge districts face. In the ur- ban eastern districts of Parkrose, Reynolds, and North Clackamas, grad- uation rates were cause for not meeting AYP. In Clark County, districts had difficulty meeting AYP for low income, limited English, special education, black, and Hispanic subgroups. Many schools and dis- tricts face challenging times ahead. Even high- ly successful schools, those that have taken incredible measures to help their disadvan- taged students, can be designed as not meet- ing AYP if they fail one subgroup in one test. NCLB intended to de- moralize hardworking educators and create a public perception of fail- ure? Only to the most cynical observer. Most educational research- ers would argue that there is nothing inher- ently wrong with high standards and account- ability. Alone, however, tougher standards and punitive measures for schools are probably not the solution to the prob- lems that AYP deter- mining reveals. The key to student achieve- ment has always been providing teachers and students with the mix of support, resources, mo- tivation, pressure, lead- ership, and professional skills they need to suc-ceed. Time will tell if NCLB can do that.  

A Note on Data

Few societal endeavors generate more data and statistics than does public educa- tion. Unfortunately, there seems to be no universal standards for collecting data, and even few universal standards exist, there is no guarantee that they are followed to the letter. Consequently, comparisons of demographic information and achievement results between schools, districts, and (especially) states should be undertaken cautiously.

In the construction of the maps for this at- las, we exercised great care to incorporate the best and most recent publicly available educational and demographic datasets from the Washington Office of the Super- intendent of Public Instruction (OSPI), the Oregon Department of Education (ODE), and the 2000 United States Census. Spa- tial data were from the Clark County GIS database, Metro's Regional Land Information System (RLIS), and Oregon Geospa- tial Data Clearinghouse. Randy Belford of these datasets line up directly in time and space. The brief discussion here cannot begin to describe the many methodological problems inherent in the construction of these maps.

Is it misleading to map 2000 census data on top of math scores from 2003? Pos- sibly. Is it a challenge to compare the 1-year dropout rate among 8-12 graders (from WA and OR), the 4-year drop- out rate among 9-12 graders (from WA), and the cohort dropout rate for the class of 2002 (from WA) on the same map? Definitely. Is it a feasible to compare the achievement scores of Washington 4th graders to Oregon 4th graders? Yes, but those are the grades when testing occurs and the best and most recent publicly available data is limited. Most readers should have questions about how and why some of the data are depicted the way they are. We encourage them to research these areas further. We feel bringing up these questions (and maybe answers?) to our attention.

Figure 10

No Child Left Behind

The No Child Left Behind Act of 2001 (NCLB), signed by President Bush in January 2002, is the reauthorization and dramatic restructuring of the Elementary and Secondary Education Act of 1965 (ESEA). The ESEA, originating with other Great Society legislation in the mid-1960s, was intended to help the nation’s disadvantaged students. Nearly 40 years later, children from many socio-economic groups still do not achieve at the level of more privileged peers. What can NCLB do about what is often call the “achievement gap?” NCLB, like most federal legislation, is a com- plex mix of guidelines, mandates, penalties, and promises of funding. Its most significant requirements are that states, districts, and districts 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 targets for students with disabilities. This is not, how-