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**DAVID DOUGLAS SCHOOL DISTRICT
ENROLLMENT FORECASTS
2014-15 TO 2033-34**



Portland State
UNIVERSITY
**Population Research
Center**



MAY, 2014

**DAVID DOUGLAS SCHOOL DISTRICT
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2014-15 TO 2033-34**

**Prepared By
Population Research Center
Portland State University**

MAY, 2014

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EXECUTIVE SUMMARY

This report presents the results of a demographic study conducted by the Portland State University Population Research Center (PRC) for the David Douglas School District (DDSD). The study includes analysis of population, housing and enrollment trends affecting the District in recent years, estimates of the impacts of housing development on DDSD enrollment, and forecasts of district-wide and individual school enrollments for the 2014-15 to 2033-34 school years.

Population and Housing Trends

- Between 2000 and 2010, total population within the DDSD grew by more than 13,000 persons, from 50,723 persons to 63,907 (Table 3).
- Most of the District's population growth between 2000 and 2010 was attributable to net migration — we estimate that about 8,800 more people moved into the DDSD than out (Chart 6).
- The District's 26 percent growth in the past decade exceeded the City of Portland's 10 percent growth and the Portland metropolitan area's 15 percent growth.
- Between 2010 and 2013, the DDSD added another 2,500 residents, but the rate of growth was about half of the rate that the District experienced in the 2000s.
- The District's housing stock grew by almost 4,500 units between 2000 and 2010, after having gained 2,800 units between 1990 and 2000 (Table 4).
- The share of households that included one or more children increased within the DDSD between 1990 and 2010, while falling in the remainder of Multnomah County.

District-wide Enrollment Trends

- DDSD enrolled 10,705 K-12 students in Fall 2013, an increase of 167 students (1.6%) from Fall 2012.
- This growth is a contrast to the previous two years, which included a loss of 173 students in 2011-12 and a gain of just 53 students in 2012-13.
- Most of the growth between the 2012-13 and 2013-14 school years occurred at the elementary level; the District's K-5th grade enrollment grew by 117 students (2.4%).
- The 912 Kindergarten students counted in Fall 2013 represent the largest class in DDSD history; the 73 student increase from Fall 2012 corresponds with a peak in birth cohorts in 2007-08, just before the recession impacted birth rates locally and nationally.
- Since 2003-04 the DDSD has added 1,503 K-12 students. District enrollment grew by 16 percent over the 10 year period compared with statewide K-12 growth of just three percent.
- In the previous 10 years, from 1993-94 to 2003-04, the DDSD gained 2,386 students. Its 35 percent growth rate exceeded the statewide growth of seven percent.

Individual School Enrollment Trends

- In the eight years since the current grade configurations were adopted, seven of the District's nine elementary schools have experienced net growth of 20 or more students, led by gains of 100 students at Menlo Park and 96 students at Mill Park (Table 9).
- Over the same period, since Ron Russell opened in 2005-06, the District's three middle schools have all experienced net growth, led by a gain of 73 students at Ron Russell.
- The DDSD has added 289 high school students in the past eight years.
- More recently, enrollment has fluctuated at each of the secondary schools; overall middle school and high school enrollments are slightly below their 2010-11 peak.

Population Forecast

Our cohort-component model incorporates long term trends in fertility, mortality, and migration, resulting in average annual population growth similar to the past 10 years numerically, but a declining rate of growth as the population base expands.

- Fertility rates among women under age 30 are significantly higher among DDSD residents compared with Oregon and Multnomah County residents in the same age groups (Chart 4).
- Following national and state trends, fertility rates have been falling in the DDSD for women under 30, and increasing for women age 30 and older (Chart 5).
- We expect fertility rates for women under 30 to continue to decline, but remain above Oregon and Multnomah County rates.
- Net migration has contributed very little to DDSD population in the first four years of the current decade; we expect it to increase for the remainder of the decade, but the overall level in the 2010s will fall short of the net gains during the 2000s (Chart 6).
- Continued growth due to net migration is expected beyond 2020; following historic patterns, young adults in their 20s and 30s will constitute the largest net inflow by age group.
- In spite of the inflow of young adults, the population is aging, and school-age residents will become a smaller share of overall population (Table 11).

District-wide Enrollment Forecast — Cohort Model

The enrollment forecast is linked to the cohort-component population forecast, and is informed by residential capacity inventories compiled by Metro and the City of Portland.

- Kindergarten enrollments throughout the next five years are likely to be smaller than in 2013-14, reflecting the downturn in births during and after the recession (Chart 7).

- The recent growth in incoming kindergarten classes, combined with a return to positive net in-migration, will contribute to growth of nearly 500 elementary students in the first five years of the forecast, by 2018-19 (Table 1).
- Middle and high school enrollments will also grow, but at a slower rate than elementary enrollment.
- Enrollment growth is expected to accelerate at the middle school level beginning in the 2017-18 school year, and at the high school level beginning in the 2020-21 school year.
- Over the very long run, for the 20 year forecast horizon, the DDSD is expected to add about 2,900 students.
- Average annual numeric growth will be similar to the past 10 years, when the District added 1,500 students.
- For the 20 year period, DDSD adds about 1,300 K-5th grade students, 700 6th-8th grade students, and 900 9th-12th grade students.

District-wide Enrollment Forecast — Housing Model

The City of Portland is currently updating its Comprehensive Plan, a long-range 20-year plan. A preferred scenario for household and employment growth has not yet been adopted, but four alternative growth scenarios were prepared in 2013 as part of the City's Periodic Review work program.¹ All four scenarios include growth of about 132,000 households citywide between 2010 and 2035, but the allocation of growth differs among the scenarios.

As an alternative to the baseline cohort model, we modelled potential enrollment growth based on the amount of housing growth and diversity of housing types allocated to the DDSD, using an average of the four scenarios. About 19,000 housing units are added within the District over the 25 years, or about 15,000 over the 20 year horizon of these enrollment forecasts. That would be a significant increase over the current housing stock, which totals about 25,000. However,

¹ City of Portland, Bureau of Planning and Sustainability, *Comprehensive Plan Update, Growth Scenarios Background Report*. May, 2013. Retrieved from <https://www.portlandoregon.gov/bps/article/449300>.

DDSD enrollment would grow at a much slower rate than the rate of housing growth within the District, due to decreases in household size and an increasing share of smaller housing units associated with changing demand and limited land supply.

- Among all housing types, the greatest average number of DDSD students per home is found in single family homes 10 years old or newer (Chart 2 and Table 7).
- Single family homes 20 years old and older average just over half as many DDSD students as the newest homes (Chart 3).
- If no new housing were added, the District could expect to lose over 800 students in 20 years due to families aging in single family homes, based on rates observed in Fall 2013.
- Only about 30 percent of the City's housing forecast within DDSD consists of single family homes, and only about 16 percent are detached homes, which currently are a majority of the District's housing units.
- A growing share of new housing units will be studios and one bedrooms, home to less than one-fifth as many students per unit as the District's current stock of apartments.
- We estimated the number of students per housing unit for each of the City's 11 housing types, based on rates observed in Fall 2013 (Appendix B).
- Applying these rates, the new housing accounts for K-12 enrollment growth of nearly 4,400 students, offset by the loss of over 800 students from existing homes, for a net gain of 3,535 students over the 20 year forecast horizon (Table 2).

Enrollment Forecasts at Individual Schools

- Enrollment targets for individual schools are based on growth by attendance area from the housing model, scaled down and controlled to the district-wide cohort enrollment forecast each year.
- The biggest growth occurs at Cherry Park, Ventura Park, and Floyd Light, where many new multiple-family units are forecast in and around Gateway, as well as Gilbert Park and Gilbert Heights, where the largest single family growth will occur (Table 14).

Table 1
Enrollment History and Forecast - Cohort Model*
David Douglas School District

School Year	K-5	6-8	9-12	K-12 Total	
2003-04	4,237	2,175	2,790	9,202	
-- Historic --	2008-09	4,790	2,437	3,103	10,330
	5 Year Change	553	262	313	1,128
		13%	12%	11%	12%
	2013-14	5,006	2,424	3,275	10,705
	5 Year Change	216	-13	172	375
	5%	-1%	6%	4%	
-- Forecast --	2018-19	5,488	2,609	3,394	11,491
	5 Year Change	482	185	119	786
		10%	8%	4%	7%
	2023-24	5,704	2,852	3,864	12,420
	5 Year Change	216	243	470	929
		4%	9%	14%	8%
	2028-29	5,967	3,004	3,988	12,959
	5 Year Change	263	152	124	539
		5%	5%	3%	4%
	2033-34	6,292	3,126	4,209	13,627
5 Year Change	325	122	221	668	
	5%	4%	6%	5%	
20 Year Change	1,286	702	934	2,922	
	26%	29%	29%	27%	

**Forecast based on long-term trends in migration, fertility, and school enrollment.*

Population Research Center, PSU. April 2014.

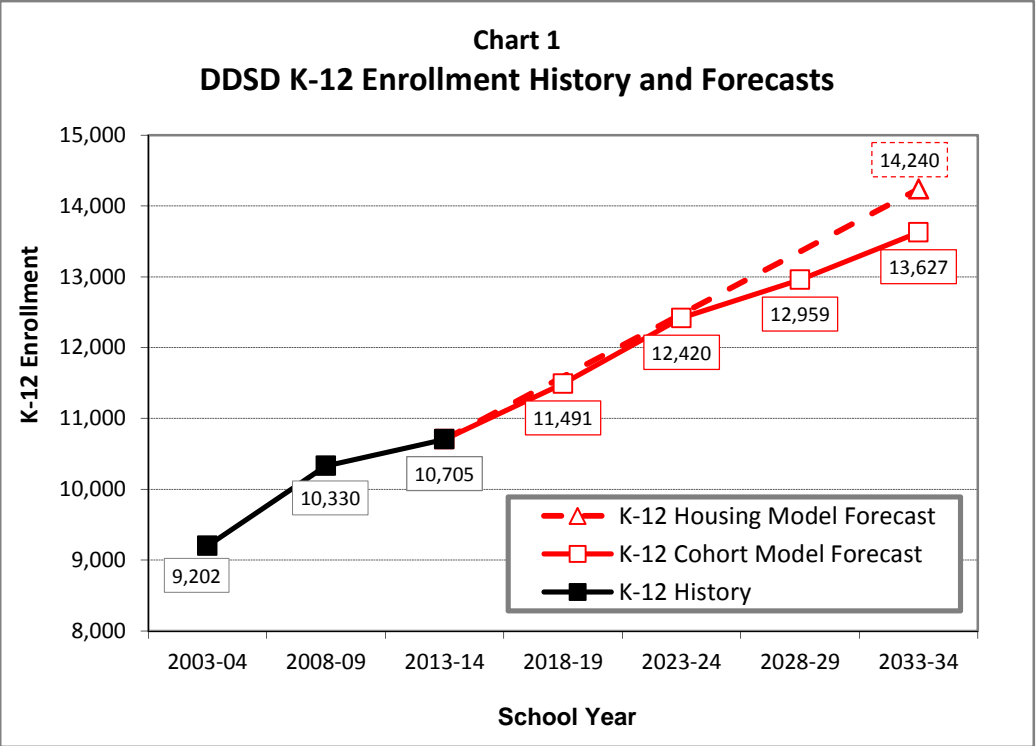
Table 2
Alternative Enrollment Forecast - Housing Model*
David Douglas School District

School Year	K-5	6-8	9-12	K-12 Total
2013-14	5,006	2,424	3,275	10,705
2033-34	6,783	3,229	4,228	14,240
20 Year Change	1,777	805	953	3,535
	35%	33%	29%	33%

**Forecast based on future housing, average of four growth scenarios, and Fall 2013 student generation rates by housing type and grade level. See*

<http://www.portlandoregon.gov/bps/article/449310>, City of Portland.

Population Research Center, PSU. April 2014.



INTRODUCTION

The Portland State University Population Research Center (PRC) has prepared long-range enrollment forecasts for the David Douglas School District (DDSD) and its schools. This report contains enrollment history and local area population and housing trends, and forecasts for a 20 year horizon from 2014-15 to 2033-34. Information sources include the U.S. Census Bureau, birth data from the Oregon Center for Health Statistics, historic school enrollment data, and housing development data, residential capacity data, and forecasts from the City of Portland and from Metro.

The district is a 12 square mile rectangle and spans east from I-205 to roughly SE 142nd and from Halsey Street on the North to the Clackamas County Line (S.E. Clatsop Street) to the South.² Its neighborhoods include Mill Park, most of Hazelwood and Powellhurst-Gilbert, and portions of Pleasant Valley and Lents, all within the City of Portland.

Following this introduction are sections presenting recent population, housing, and enrollment trends within the District. Next are the results of the district-wide enrollment forecasts and individual school forecasts, and a description of the methodology used to produce them. Appendix A contains a profile comparing census data for the District from 2000 and 2010, and a table with selected population and household variables from the 2010 Census by elementary attendance area. Finally, Appendix B has a description of 11 types of housing units that may be developed in the City of Portland in the next 20 years, and our estimate of the average number of DDSD K-12 students who may reside in each unit built within the District.

² David Douglas School District, retrieved from <http://www.ddouglas.k12.or.us/en/about>.

POPULATION AND HOUSING TRENDS, 2000 to 2013

Between 2000 and 2010, total population within the DDSD grew by 26 percent, from 50,723 persons to 63,907. This growth rate exceeded the City of Portland's 10 percent growth and the Portland metropolitan area's 15 percent growth in the decade. Between 2010 and 2013, the DDSD added another 2,500 residents, but the rate of growth was about half of the rate that the District experienced in the 2000s. Table 3 includes PRC's 2013 population estimates for the DDSD, city, county, and region.

Table 3 City, School District, and Region Population, 2000, 2010, and 2013					
	2000	2010	2013	Avg. Annual Growth Rate	
				2000-2010	2010-2013
City of Portland	529,121	583,776	592,120	1.0%	0.4%
David Douglas S.D. ¹	50,723	63,907	66,418	2.3%	1.2%
Multnomah County	660,486	735,334	756,530	1.1%	0.9%
Portland-Vancouver-Hillsboro MSA ²	1,927,881	2,226,009	2,291,650	1.4%	0.9%

1. DDSD 2013 estimate is an extrapolation of Census Bureau's 2012 estimate (see <http://www.census.gov/did/www/saipe/index.html>).
2. Portland-Vancouver-Hillsboro MSA consists of Clackamas, Columbia, Multnomah, Washington, Yamhill (OR) and Clark and Skamania (WA) Counties.
Sources: U.S. Census Bureau, 2000 and 2010 censuses aggregated to DDSD boundary by PSU Population Research Center; Portland State University Population Research Center, July 1, 2013 estimates; State of Washington Office of Financial Management April 1, 2013 estimates.

Table 4 presents additional characteristics for DDSD compiled from the decennial censuses of 1990, 2000, and 2010. The figures are based on our aggregation of census block data to approximate the District boundaries. Over the 20-year period the DDSD's housing stock increased by 44 percent (7,300 units), compared to 26 percent within the remainder of Multnomah County. Within the DDSD, the *share* of households that included one or more children under age 18 grew (from 34% to 36%), while the *share* in the remainder of the county fell (from 30% to 26%). Between 1990 and 2010 the *number* of households with children grew by 51 percent in the DDSD, but only 10 percent in the remainder of Multnomah County.

Table 4
David Douglas School District
Housing and Household Characteristics, 1990, 2000, and 2010

	1990	2000	2010	10 year Change	
				'90-'00	'00-'10
Housing Units	16,729	19,529	24,022	2,800	4,493
Households	16,055	18,480	22,642	2,425	4,162
Households with children < 18 <i>share of total</i>	5,429 34%	6,791 37%	8,198 36%	1,362	1,407
Households with no children < 18 <i>share of total</i>	10,626 66%	11,689 63%	14,444 64%	1,063	2,755
Household Population	40,426	49,441	62,224	9,015	12,783
Persons per Household	2.52	2.68	2.75	0.16	0.07

Source: U.S. Census Bureau, 1990, 2000, and 2010 Censuses; data aggregated to DDS D boundary by Portland State University Population Research Center.

Recent building permit data in Tables 5 and 6 show how the pace of development slowed beginning in 2008 as the housing crisis and recession unfolded. In 2013, single family permits had their strongest year since 2008, while multi-family activity remained stagnant. In early 2014, permits were issued for the 90 unit Rose Apartments at NE 97th Ave. and Everett Street.

Table 5
City of Portland Residential Building Permits
David Douglas S.D. Totals, 2005 to 2013

Permit Year	Single Family Homes ¹	Multiple Family Units ²	Total Housing Units
2005	242	219	461
2006	240	139	379
2007	276	145	421
2008	127	63	190
2009	54	67	121
2010	50	53	103
2011	72	6	78
2012	51	136	187
2013	83	2	85
2005-2013 Total	1195	830	2025

1. Includes detached homes and attached rowhomes.

2. Excludes senior housing developments; includes accessory dwelling units.

Source: Data from City of Portland, Bureau of Planning and Sustainability; attendance areas joined to data by PSU, Population Research Center.

Table 6
City of Portland Residential Building Permits
by DDSD Attendance Area, 2005 to 2013

Attendance Area	New Single Family Homes¹ by Year Permitted			9 Year Total
	2005-07	2008-10	2011-13	
Cherry Park	27	9	13	49
Earl Boyles	53	13	14	80
Gilbert Heights	137	54	88	279
Gilbert Park	241	33	8	282
Lincoln Park	91	39	23	153
Menlo Park	81	6	4	91
Mill Park	39	17	17	73
Ventura Park	51	15	3	69
West Powellhurst	38	45	36	119
Alice Ott	394	90	99	583
Floyd Light	187	38	33	258
Ron Russell	177	103	74	354
District Total	758	231	206	1195

Attendance Area	New Multiple Family Units² by Year Permitted			9 Year Total
	2005-07	2008-10	2011-13	
Cherry Park	100	2	68	170
Earl Boyles	28	10	0	38
Gilbert Heights	135	11	1	147
Gilbert Park	5	17	1	23
Lincoln Park	33	0	6	39
Menlo Park	6	11	60	77
Mill Park	103	2	0	105
Ventura Park	64	122	6	192
West Powellhurst	29	8	2	39
Alice Ott	144	28	6	178
Floyd Light	173	135	134	442
Ron Russell	186	20	4	210
District Total	503	183	144	830

1. Includes detached homes and attached rowhomes.

2. Excludes senior housing developments; includes accessory dwelling units.

Source: Data from City of Portland, Bureau of Planning and Sustainability;
attendance areas joined to data by PSU, Population Research Center.

HOUSING AND ENROLLMENT

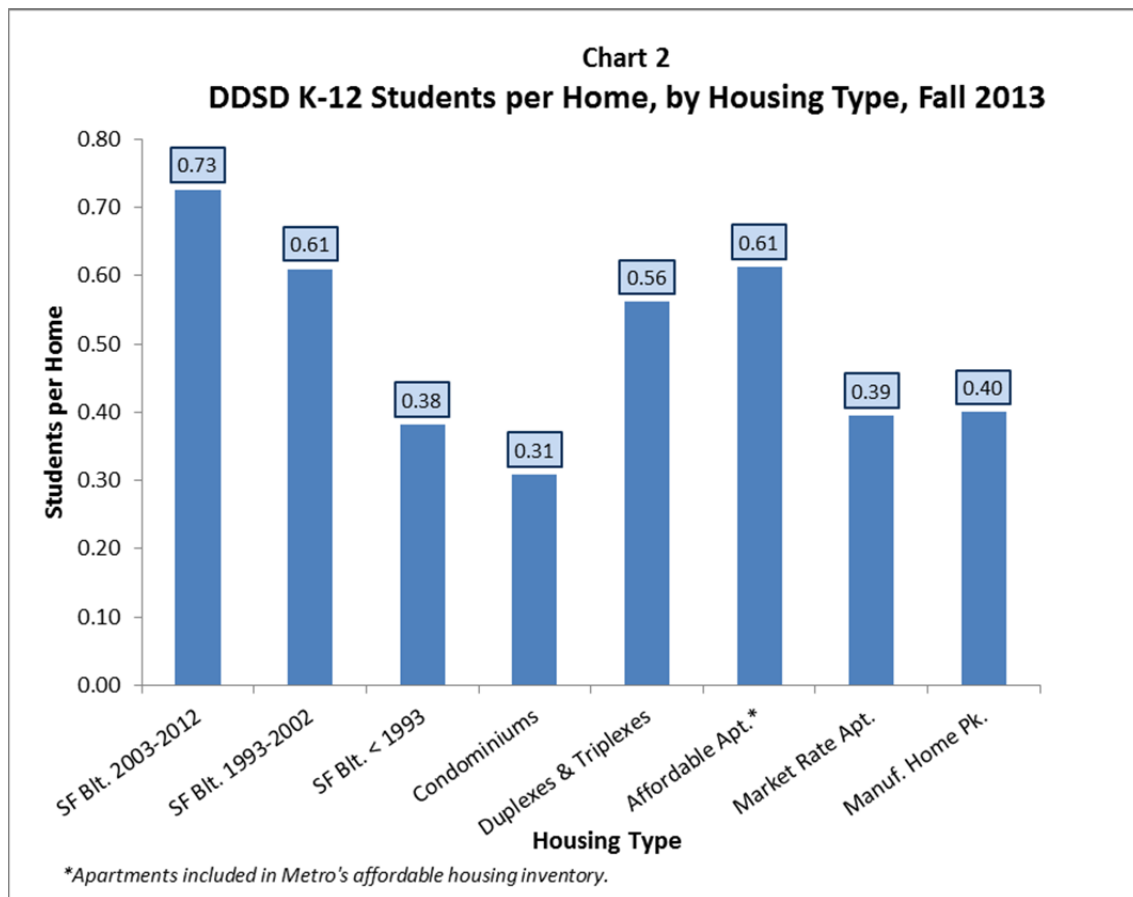
How many children are expected to live in future new homes and attend DDSD schools? Because each housing development is unique, the number of resident public school students per home may depend on factors including affordability, proximity to schools, the number of bedrooms, and the presence or absence of child-friendly amenities within the development and in the surrounding neighborhood. However, district-wide average student generation rates may be useful as a baseline for estimating potential student generation from planned and proposed developments. Furthermore, measuring the number of students in older homes helps to explain the “aging in place” phenomenon that can lead to enrollment losses as families age.

Using data from Metro, we compiled a current housing inventory in a spatial file based on parcels that differentiates single family homes, duplexes/triplexes, apartments, condominiums, and manufactured home parks. We then combined this file with student address points from Fall 2013 in order to quantify the number of students by housing type.

From our work measuring average student generation rates (SGRs) in several other Portland area districts, we have observed that single family homes less than 10 years old consistently have the greatest average number of students, while those 20 years old and older average the fewest. These observations are also valid in DDSD in 2013. For District homes less than 10 years old, the average number of DDSD K-12 students per single family home was 0.73, or nearly three students in every four homes. This is higher than rates that we have measured for new single family homes in recent studies for other area school districts.³ Homes built between 1993 and 2002 had a lower K-12 average of 0.61 students, and homes built before 1993 have an average of just 0.38 DDSD K-12 students per home.

Chart 2 depicts these rates by age of single family home as well as rates for other types of homes. Duplexes and triplexes (0.56) and rental apartments (0.44) had higher SGRs than condos (0.31) or manufactured homes in parks (0.40). However, all of these rates are higher in DDSD than those that we have measured in the same housing types in other metro area districts.

³ For example, Fall 2012 rates were 0.64 in the North Clackamas School District, 0.62 in the Lake Oswego School District, and 0.48 in the Oregon City School District. In Fall 2011, there were 0.53 Gresham-Barlow School District students per new home.



The SGRs are presented in greater detail in Table 7, including grade level detail and for single family homes built in the last two decades, lot size. Most homes on lots smaller than 2,750 square feet are attached, or nearly attached; homes on these lots are categorized as row homes in the table, while homes on lots larger than 2,750 square feet are categorized as detached homes. There are fewer DDSD students, on average, in homes on smaller lots compared with those on larger lots. Row homes built since 2003 average 0.56 K-12 students, compared with 0.78 for detached homes.

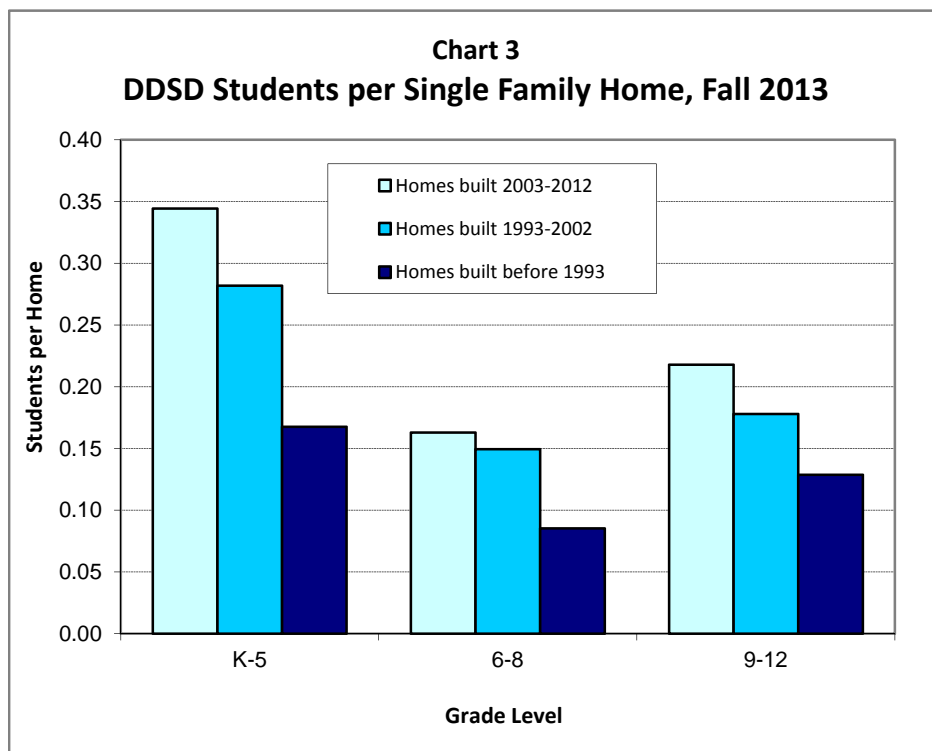
Table 7
Average Number of DDSD Students per Home, Fall 2013
By Housing Type and Grade Level

	Grade Level			
	K-5	6-8	9-12	K-12
Single family homes built 2003-2012	0.34	0.16	0.22	0.73
<i>detached homes built 2003-2012</i>	<i>0.37</i>	<i>0.18</i>	<i>0.24</i>	<i>0.78</i>
<i>row homes built 2003-2012</i>	<i>0.28</i>	<i>0.12</i>	<i>0.16</i>	<i>0.56</i>
Single family homes built 1993-2002	0.28	0.15	0.18	0.61
<i>detached homes built 1993-2002</i>	<i>0.29</i>	<i>0.15</i>	<i>0.18</i>	<i>0.63</i>
<i>row homes built 1993-2002</i>	<i>0.22</i>	<i>0.10</i>	<i>0.13</i>	<i>0.44</i>
Single family homes built before 1993	0.17	0.09	0.13	0.38
Condominiums	0.18	0.06	0.07	0.31
Apartments (4+ unit buildings)	0.23	0.10	0.11	0.44
<i>affordable*</i>	<i>0.31</i>	<i>0.15</i>	<i>0.16</i>	<i>0.61</i>
<i>market rate</i>	<i>0.21</i>	<i>0.08</i>	<i>0.10</i>	<i>0.39</i>
Duplexes and Triplexes	0.27	0.14	0.15	0.56
Manufactured homes in M.H. Parks	0.20	0.10	0.10	0.40

**Apartments included in Metro's affordable housing inventory.*

Source: Data compiled by PSU-PRC, using DDSD student data and geographic shape files from Metro RLIS. Excludes senior housing developments.

Fall 2013 SGRs for single family homes are shown in Chart 3, illustrating “aging in place”. Homes that are 10 years old or newer have an average of 0.34 DDSD grade K-5 students, which is greater than the 0.28 found in homes 10-20 years old, and double the 0.17 average in homes more than 20 years old. Homes that are 10-20 years old have nearly as many middle and high school students as newer homes, but these homes will soon have fewer K-12 residents overall, much like the homes built before 1993 that are now more than 20 years old. Although younger families may eventually occupy the older homes, owner-occupied homes turn over to new owners very gradually, and the new owners will represent a diverse mix of households that may not include as many families with children as the newer homes.



ENROLLMENT TRENDS

The DDSO enrolled 10,705 K-12 students in Fall 2013, an increase of 167 students (1.6%) from Fall 2012. This growth is a contrast to the previous two years, which included a loss of 173 students in 2011-12 and a gain of just 53 students in 2012-13. However, it is similar to the District's average annual gain over the past 10 years. Between 2003-04 and 2013-14, the DDSO added 1,503 K-12 students (16%). During the same period, statewide K-12 enrollment increased by only three percent. In the previous 10 years, from 1993-94 to 2003-04, the DDSO gained 2,386 students (35%), far exceeding the statewide growth rate of seven percent.

Growth in the 2013-14 school year was greatest in the elementary grades. District-run elementary schools added 117 students (2.4 percent) in 2013-14, led by a 73 student increase in Kindergarten enrollment in Fall 2013 compared with Fall 2012. The 912 kindergarten students in Fall 2013 were born during a peak in birth cohorts in 2007 and 2008, just before the recession impacted birth rates locally and nationally. These kindergarteners, the high school class of 2026, represent the largest enrollment at any grade in the history of DDSO.

Middle school (6th-8th grade) enrollment was essentially unchanged between Fall 2012 and Fall 2013, with a net loss of 12 students (0.5%). District-wide middle school enrollment is about the same as it was five years ago in 2008-09. High school grades (9th-12th) added 62 students (1.9%) this year, but Fall 2013 enrollment remained below its Fall 2010 peak.

The most recent enrollment growth can be attributed in part to momentum from previous growth. Several drivers of growth have slowed in the past several years, including housing development, birth rates, and displacement of lower income families from close-in Portland neighborhoods. Until 2008, DDSO was experiencing an average net gain from in-migration of two percent a year at each elementary cohort. Since 2008, relatively few new homes have been built, and net migration has been close to zero. Elementary cohorts have not gained from migration, but elementary enrollment has increased as the large birth cohorts from 2006 to 2008 have entered kindergarten.

Table 8 summarizes the enrollment history for the District by grade level annually for the past 10 years, from 2003-04 to 2013-14.

Table 8
David Douglas School District, Enrollment History, 2003-04 to 2013-14

Grade	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
K	658	718	741	728	766	787	774	770	834	839	912
1	722	705	757	773	749	804	801	767	767	858	844
2	710	737	721	764	825	773	802	801	771	770	835
3	710	721	774	717	766	829	771	812	803	774	767
4	684	720	741	776	734	783	835	790	819	805	784
5	676	705	749	750	796	745	785	839	765	784	810
6	744	710	740	767	812	839	794	822	837	800	796
7	713	771	751	738	781	787	857	789	807	837	800
8	718	727	788	751	759	811	804	869	762	799	828
9	734	767	763	831	800	761	815	831	871	759	830
10	762	734	781	773	821	793	783	839	792	852	782
11	648	745	694	741	726	763	768	766	761	767	820
12	646	624	748	698	745	759	835	859	799	803	805
UE*	77	61	74	71	69	69	58	64	64	59	54
US*	0	0	0	0	20	27	38	40	33	32	38
Total	9,202	9,445	9,822	9,878	10,169	10,330	10,520	10,658	10,485	10,538	10,705
<i>Annual change</i>		243	377	56	291	161	190	138	-173	53	167
		2.6%	4.0%	0.6%	2.9%	1.6%	1.8%	1.3%	-1.6%	0.5%	1.6%
K-5	4,237	4,367	4,557	4,579	4,705	4,790	4,826	4,843	4,823	4,889	5,006
6-8	2,175	2,208	2,279	2,256	2,352	2,437	2,455	2,480	2,406	2,436	2,424
9-12	2,790	2,870	2,986	3,043	3,112	3,103	3,239	3,335	3,256	3,213	3,275

	5 Year Change: 2003-04 to 2008-09		5 Year Change: 2008-09 to 2013-14		10 Year Change: 2003-04 to 2013-14	
	Change	Pct.	Change	Pct.	Change	Pct.
K-5	553	13%	216	5%	769	18%
6-8	262	12%	-13	-1%	249	11%
9-12	313	11%	172	6%	485	17%
Total	1,128	12%	375	4%	1,503	16%

*UE are ungraded elementary and US are ungraded high school special education students, included in the K-5 and 9-12 totals.

Source: David Douglas School District

Private and Home School Enrollment and District “Capture Rate”

The most reliable estimates of private school enrollment by residence come from census data. The 2000 Census and the more recent American Community Survey (ACS) included questions about school enrollment by level and by type (public or private). The ACS estimate from surveys conducted from 2008 to 2012 indicates that only 7.4 percent ($\pm 2.4\%$)⁴ of DDSD 1st-12th grade students are enrolled in private schools. This estimate is lower than Multnomah County’s 9.9 percent ($\pm 0.7\%$) private school share, though the difference is not statistically significant due to the margin of error.

Another difference between DDSD enrollment and child population can be attributed to home schooling. Home schooled students between the ages of 7 and 18 living in the District are required to register with the Multnomah Education Service District (MESD). The MESD reports that 218 residents of the DDSD were registered as home schooled in 2012-13, accounting for about two percent of the District’s school-age residents.⁵

For purposes of forecasting enrollment, the ratios of kindergarten and first grade public school enrollment to overall population in the corresponding ages are very important. These ratios are called “capture rates.” Once a student is enrolled in the public schools in first grade, it is very likely that they will continue to be enrolled in subsequent grades, unless their family moves out of the District. To calculate the public school capture rates, we compared DDSD kindergarten and 1st grade enrollments, including Arthur Academy, in 2009-10 and 2010-11 to the 2010 Census. The public schools captured about 87 percent of the kindergarten-age population and 89 percent of the 1st grade age population. That means that about 13 percent of kindergarten-age children and 11 percent of first grade age children were not enrolled in DDSD schools. These children include students who were enrolled in private schools, net transfers to and from other public school districts, and home schooled students.

⁴ The margin of error of the estimate at the 90 percent confidence level is 2.4 percent.

⁵ Oregon Department of Education. Retrieved from <http://www.ode.state.or.us/search/page/?id=2081>.

Charter Schools

The District charter school, Arthur Academy, is not included in the enrollment history or forecasts in this report. The school opened in 2002-03 with kindergarten and first grade classes, and added a grade each year until it became K-5 in 2006-07. By 2007-08 Arthur Academy enrolled 149 students, and has remained fairly stable since that time, reaching a high of 157 in 2013-14. DDSD has no secondary charter schools, and many Arthur Academy students enroll at DDSD middle schools after completing 5th grade, typically resulting in larger 6th grade enrollments each year compared with the previous years' 5th grade enrollment in district-run schools.

Depending on the specifics of the charter agreement, charter schools may have fewer limitations than district-run schools on enrolling students from outside of their home district. It is likely that some DDSD residents are enrolled at charter schools in other districts, though reliable data is not available to measure the extent to which this occurs.

Enrollment at Individual Schools

Enrollment changes at elementary schools between Fall 2012 and Fall 2013 ranged from a loss of nine students at Earl Boyles to a gain of 50 students at Gilbert Heights. More generally, five of the District's elementary schools had stable enrollments, remaining within nine students of their Fall 2012 total, while four (Gilbert Heights, Gilbert Park, Mill Park, and West Powellhurst) had significant growth of 20 or more students. Although Cherry Park and Earl Boyles both lost a small number of students between Fall 2012 and Fall 2013, they experienced the largest growth among DDSD elementary schools during the 2013-14 school year, with a gain of 25 students at Cherry Park and 37 at Earl Boyles between October and April.

Enrollment trends at elementary schools over the past three to five years are somewhat complicated by the transportation of kindergarten students from several schools to North Powellhurst between 2008-09 and 2010-11. A more relevant comparison may be to enrollments eight years ago in 2005-06, when current boundaries were first adopted and North Powellhurst kindergarten was not operating. Only Earl Boyles and West Powellhurst had 2013-14 enrollments similar to their 2005-06 enrollments. The other seven elementary schools have grown, led by growth of 100 students at Menlo Park and 96 students at Mill Park. Significant

growth ranging from 64 to 71 students has also occurred at Lincoln Park, Gilbert Park, and Gilbert Heights.

With only three grades, enrollments at middle schools are susceptible to fluctuations from year to year based on the size of individual classes. Each of the District's three middle schools has experienced both growth and decline in individual years since 2009-10. However, all three have gained students over the longer period since 2005-06, led by growth of 73 students at Ron Russell.

Enrollment at David Douglas High School grew rapidly until reaching a peak of 3,070 in 2010-11. In the three years since, enrollment has remained at or above 3,000, but has not re-attained its peak. Enrollment at Fir Ridge generally grows during the year, and its April 25th enrollment of 222 is 34 students larger than its October 2013 count.

Total enrollment at each of the District's schools and recent enrollment trends by school are shown in Table 9.

Table 9
Enrollment History for Individual Schools

School	Historic Enrollment						8 year change 2005-06 to 2013-14	
	2005-06 ¹	2009-10 ²	2010-11 ²	2011-12	2012-13	2013-14	Number	Percent
Cherry Park	453	473	431	447	476	473	20	4.4%
Earl Boyles	423	430	403	411	427	418	-5	-1.2%
Gilbert Heights ²	590	550	536	603	611	661	71	12.0%
Gilbert Park ²	617	594	593	641	653	683	66	10.7%
Lincoln Park ²	582	577	599	641	637	646	64	11.0%
Menlo Park	428	482	508	491	530	528	100	23.4%
Mill Park ²	515	535	533	584	589	611	96	18.6%
Ventura Park	473	470	524	547	507	507	34	7.2%
West Powellhurst ²	476	443	473	458	459	479	3	0.6%
North Powellhurst (K only)	0	272	243	0	0	0	0	--
Elementary Totals	4,557	4,826	4,843	4,823	4,889	5,006	449	9.9%
Alice Ott	697	744	764	739	722	742	45	6.5%
Floyd Light	776	802	830	824	854	803	27	3.5%
Ron Russell	806	909	886	843	860	879	73	9.1%
Middle School Totals	2,279	2,455	2,480	2,406	2,436	2,424	145	6.4%
David Douglas	2,776	2,983	3,070	3,025	3,002	3,049	273	9.8%
Fir Ridge Campus	210	218	225	198	179	188	-22	-10.5%
Community Transition	0	38	40	33	32	38	38	--
High School Totals	2,986	3,239	3,335	3,256	3,213	3,275	289	9.7%
District Totals	9,822	10,520	10,658	10,485	10,538	10,705	883	9.0%

1. Current boundaries and grade configurations were adopted in 2005-06.

2. In 2008-09 to 2010-11 about one third of the District's kindergarten students attended North Powellhurst. Schools that sent some or all of their kindergarten classes to North Powellhurst report fewer students in 2008-09 to 2010-11 than in subsequent years.

Source: David Douglas School District

ENROLLMENT FORECASTS

Potential Residential Development

The level of future residential development is unknown, and depends on market demand and household preferences in neighborhoods, housing types, and accessibility to jobs and services. The DDSD comprises less than three percent of the Portland metro area's population and housing, and both the pace of regional growth and the share of that growth that will occur within the DDSD are uncertain. Although the District has consistently grown faster than the region over the past 20 years, it is imperative to ask whether there is capacity for the growth to be sustained for the next 20 years and if so, whether historic growth trends likely to continue.

Fortunately, this is a good time to be asking those questions, as Metro developed a Buildable Lands Inventory (BLI) to guide its most recent regional household and employment growth forecast distribution, which was adopted in November 2012.⁶ The City of Portland also compiled its own BLI and growth forecast allocations as part of its Comprehensive Plan update.⁷ Our analysis of Metro's BLI indicates that there is capacity for over 25,000 housing units to be added within the DDSD. The City's BLI includes capacity within DDSD for even more units than in Metro's BLI. These inventories suggest that if the growth of 4,500 units that occurred between 2000 and 2010 were to continue at a similar pace over the next 20 years, there would be no constraint to residential development based on current capacity.

Our allocation of Metro's forecast to an area approximating the DDSD suggests that about 7,700 households would be added between 2010 and 2030, and an additional 9,000 added between 2030 and 2040. We also allocated the City's growth forecasts to the DDSD using small area data consistent with the four scenarios outlined in the *City's Comprehensive Plan Update, Growth Scenarios Background Report*, resulting in a range of 12,000 to 22,000 households.

⁶ Metro, Research Center and Planning and Development Department, *Regional Forecast Distribution Methodology & Assumptions*. November, 2012. Retrieved at http://library.oregonmetro.gov/files/technical_documentation_methodology_assumptions.pdf.

⁷ City of Portland, Buildable Lands Inventory. See <http://www.portlandonline.com/PortlandPlan/index.cfm?c=54647>.

District-wide Long-range Forecast Methodology: Cohort Model

To ensure that enrollment forecasts are consistent with the dynamics of likely population growth within the District, we combine the grade progression enrollment model with a demographic cohort-component model used to forecast population for the District by age and sex. The components of population change are births, deaths, and migration. Using age-specific fertility rates, age-sex specific mortality rates, age-sex specific migration rates, estimates of recent net migration levels, and forecasts of future migration levels, each component is applied to the base year population in a manner that simulates the actual dynamics of population change.

The 2000 and 2010 Census results were used as a baseline for the population forecasts. By “surviving” the 2000 population and 2000s births (estimating the population in each age group that would survive to the year 2010) and comparing the “survived” population to the actual 2010 population by age group, we were able to estimate the overall level of net migration between 2000 and 2010, as well as net migration by gender and age cohort. The net migration data was used to develop initial net migration rates, which were used as a baseline for rates used to forecast net migration for the 2010 to 2040 period.

We estimated the number of births to women residing within the District each year from 1999 to 2012, using data from the Oregon Department of Human Services, Center for Health Statistics. Detailed information including the age of mothers was used to calculate fertility rates by age group for both 2000 and 2010. Fertility trends in the DDSD are consistent with state and national long term trends, with declining fertility rates for women under 30 and increasing rates for women 30 and over. However, DDSD rates remained significantly higher than state and county rates among for women under age 30, as shown in Chart 4.

Chart 5 illustrates how we adjusted future fertility rates for DDSD women under age 30 based on the expectation of continued decline. Even with these adjustments, the rates for women under age 30 in the DDSD in 2030 are higher than the state and county rates observed in 2010.

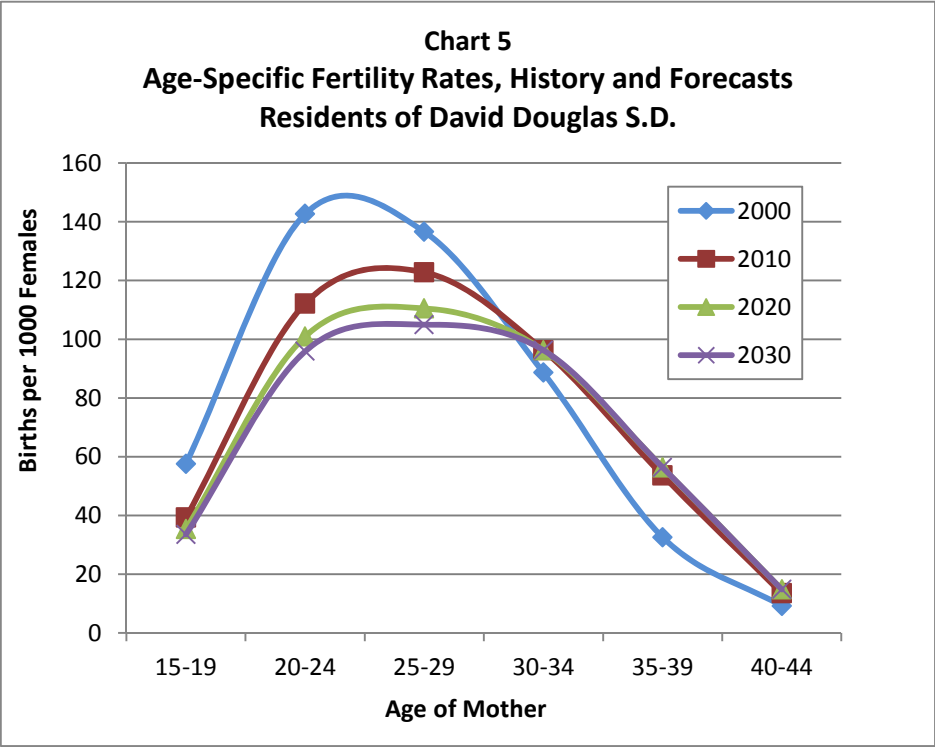
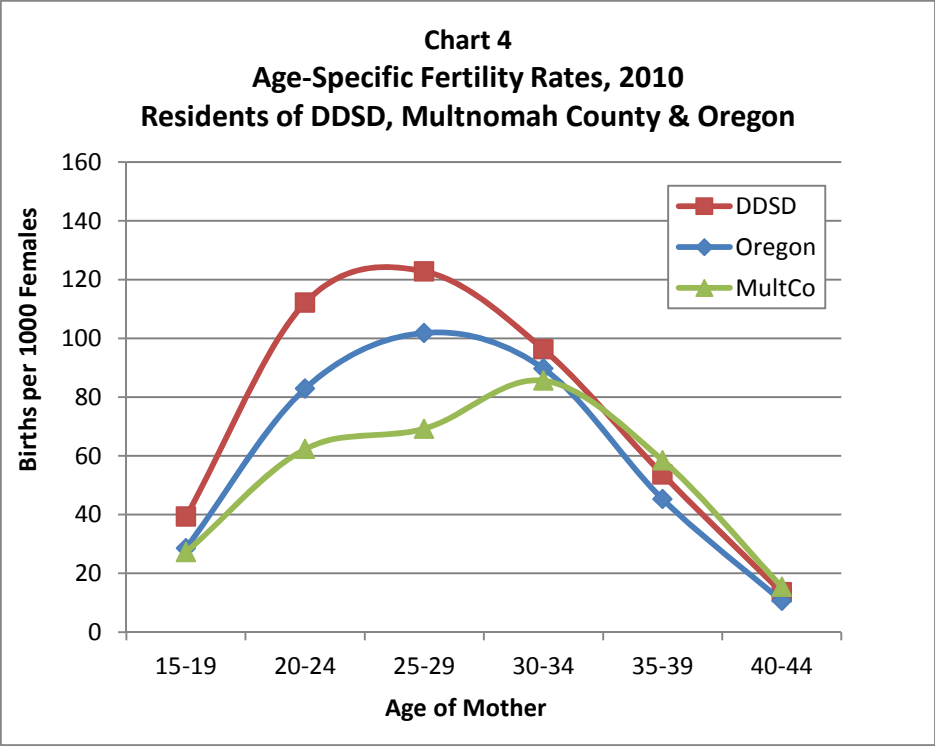


Table 10
Estimated and Forecast Births
David Douglas School District

Year	Births
2000	878
2001	787
2002	840
2003	868
2004	903
2005	879
2006	1,081
2007	1,062
2008	1,044
2009	1,015
2010	1,005
2011	1,026
2012	958
2013 (forecast)	1,027
2014 (forecast)	1,026
2015 (forecast)	1,031
2016 (forecast)	1,040
2017 (forecast)	1,051
2018 (forecast)	1,061
2019 (forecast)	1,070
2020 (forecast)	1,078
2021 (forecast)	1,090
2022 (forecast)	1,101
2023 (forecast)	1,114
2024 (forecast)	1,126
2025 (forecast)	1,138
2026 (forecast)	1,149
2027 (forecast)	1,162
2028 (forecast)	1,174

Source: 2000-2012 birth data from Oregon Center for Health Statistics allocated to DDSB boundary by PSU-PRC. 2013-2028 forecasts, PSU-PRC.

The total fertility rate (TFR) is an estimate of the number of children that would be born to the average woman during her child-bearing years based on age-specific fertility rates observed at a given time. The estimated TFR for the District fell from 2.34 in 2000 to 2.19 in 2010. Due to the adjustments in fertility among women under 30 in our forecast, the District's TFR falls further to 2.07 in 2020 and 2.01 in 2030.

Birth totals fell more than eight percent in the U.S. and Oregon between 2007 and 2011, and remained at 2011 levels in 2012.⁸ The Pew Research Center's analysis of multiple economic and demographic data sources confirms the close correlation between the economic downturn and the nation's fertility downturn.⁹ Pew reports that 2011 birth rates were the lowest ever recorded in the U.S.¹⁰ In the DDSD, the number of births continued to decline in 2012. Table 10 shows historic births estimated from 2000 to 2012 as well as forecasts from 2013 until 2028, the period that will have an impact on the enrollment forecasts presented in this study. Although fertility rates do not increase in the long run, the 2013 forecast is an increase over the unusually low 2012 total, and births gradually increase over the forecast period due to population growth.

Historic school enrollment is linked to the population forecast in two ways. First, the kindergarten and first grade enrollments at the time of the most recent census (the 2009-10 school year) are compared to the population at the appropriate ages counted in the census. The "capture rate," or ratio of enrollment to population, is an estimate of the share of area children who are enrolled in DDSD schools. Assumptions for capture rates based on census data are used to bring new kindergarten and first grade students into the District's enrollment. Forecast capture rates are 88 percent for kindergarten-age DDSD residents and 89 percent for first grade residents.

The other way that historic population and enrollment are linked is through migration. Annual changes in school enrollment by cohort closely follow trends in the net migration of children in the District's population. Once the students are in first grade, a set of baseline grade progression rates (GPRs) are used to move students from one grade to the next. Grade progression rates are the ratio of enrollment in an individual grade to enrollment in the previous grade the previous year. Baseline rates, usually 1.00 for elementary grades, represent a

⁸ *Births: Final Data for 2012*. National Center for Health Statistics, National Vital Statistics Reports, Volume 62, Number 9. *Oregon Vital Statistics Annual Report, 2012*. Oregon Health Authority, Center for Health Statistics.

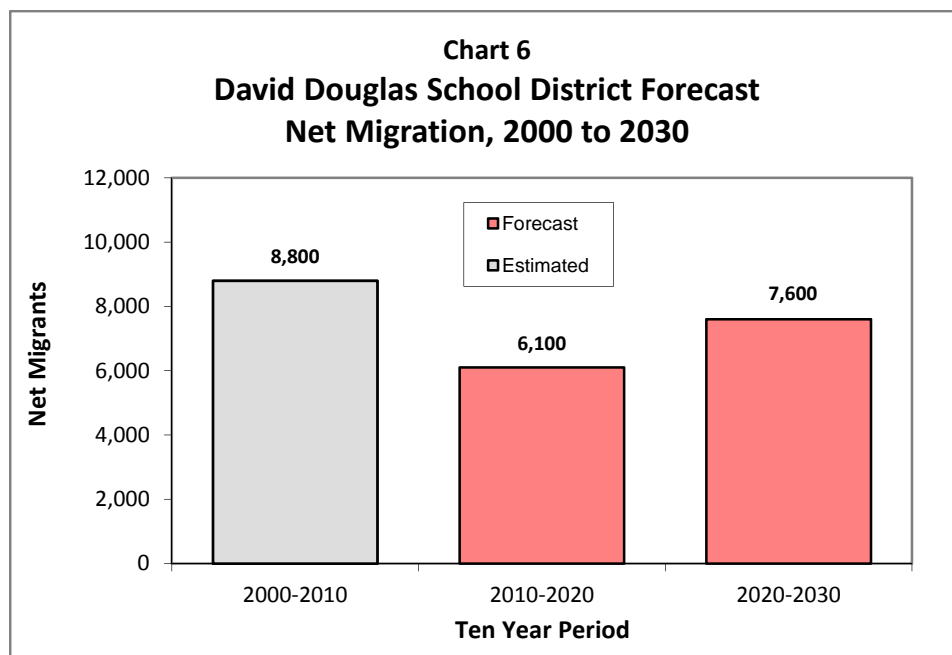
⁹ "In a Down Economy, Fewer Births." Pew Research Center, Pew Social & Demographic Trends, October 2011.

¹⁰ "U.S. Birth Rate Falls to a Record Low; Decline Is Greatest Among Immigrants." Pew Research Center, Pew Social & Demographic Trends, November 2012.

scenario under which there is no change due to migration. Enrollment change beyond the baseline is added (or subtracted, if appropriate) at each grade level depending on the migration levels of the overall population by single years of age.

Population Forecast

The District added over 13,000 residents in the 2000s, including about 8,800 added due to net in-migration (more people moving in than moving out). Net migration has contributed very little to DDSD population in the first four years of the current decade; we expect it to increase for the remainder of the decade, but the overall level in the 2010s will fall short of the net gains during the 2000s. Continued growth due to net migration is expected beyond 2020; following historic patterns, young adults in their 20s and 30s will constitute the largest net inflow by age group. Chart 6 shows the 1990 to 2010 estimates and 2010 to 2030 forecasts of DDSD population growth attributable to net migration.



The district-wide population forecast by age group is presented in Table 11. The forecast for 2030 population in the DDSD is 86,453, an increase of 22,546 persons from the 2010 Census (1.5 percent average annual growth). School-age population (5 to 17) is forecast to increase at a slower rate than overall population. The 3,116 person growth in school-age population amounts to 27 percent in the 20 year period between 2010 and 2030, or 1.2 percent annually.

By 2020, the fastest growing age groups are in the “baby boom” generation that will be in its 60s and 70s, but the numerically largest groups are consistently between age 25 and 44 throughout the forecast horizon. To derive a forecast of household growth to compare to forecasts from Metro and the City of Portland, we applied 2010 household formation rates by age group to the 2030 population forecasts, resulting in a net increase of about 9,200 households from 2010 to 2030.

Table 11
Population by Age Group
David Douglas School District, 2000 to 2030

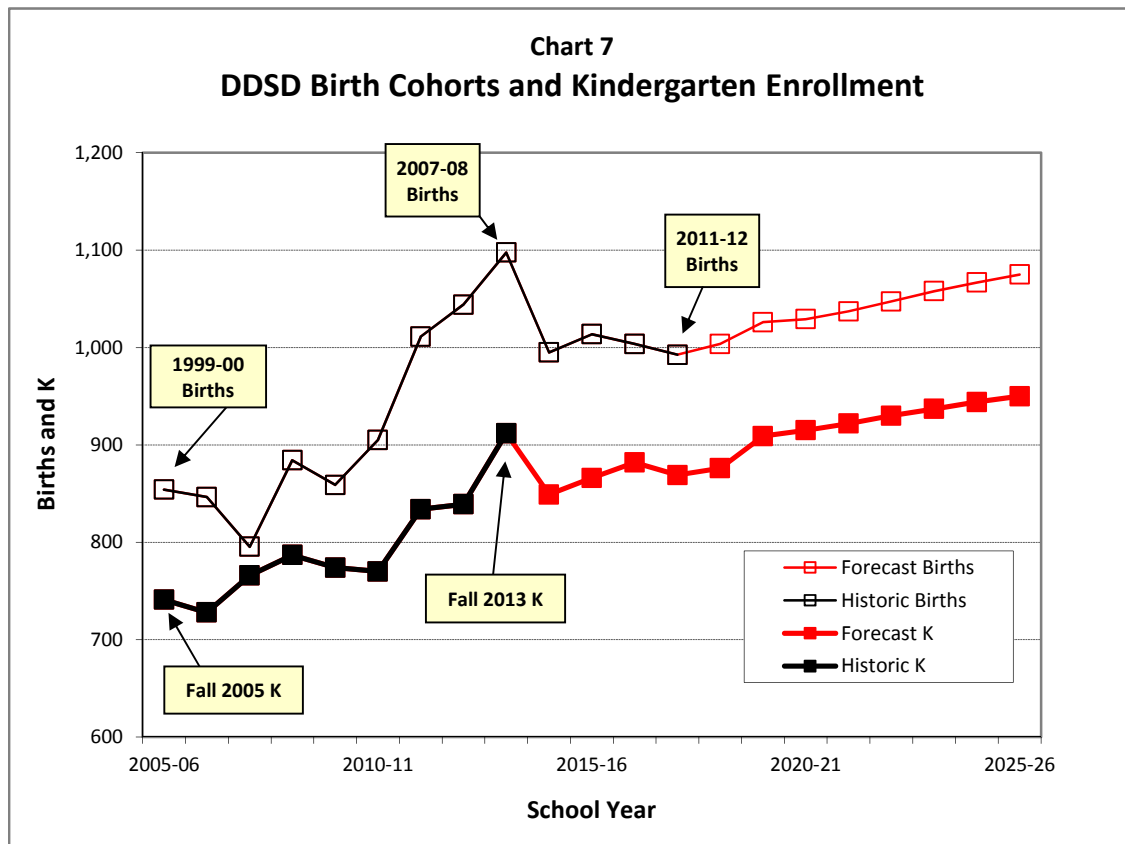
	2000 Census	2010 Census	2020 Forecast	2030 Forecast	2010 to 2030 Change	
					Number	Percent
Under Age 5	3,897	4,920	5,361	5,910	990	20%
Age 5 to 9	3,671	4,576	5,256	5,767	1,191	26%
Age 10 to 14	3,615	4,428	5,183	5,678	1,250	28%
Age 15 to 17	2,051	2,657	2,892	3,332	675	25%
Age 18 to 19	1,348	1,730	1,935	2,250	520	30%
Age 20 to 24	3,379	4,344	4,905	5,797	1,453	33%
Age 25 to 29	3,614	4,909	5,438	6,096	1,187	24%
Age 30 to 34	3,599	4,969	5,446	6,268	1,299	26%
Age 35 to 39	4,021	4,341	5,422	6,061	1,720	40%
Age 40 to 44	4,028	4,306	5,461	6,045	1,739	40%
Age 45 to 49	3,704	4,330	4,481	5,629	1,299	30%
Age 50 to 54	2,931	4,257	4,383	5,582	1,325	31%
Age 55 to 59	2,138	3,808	4,307	4,475	667	18%
Age 60 to 64	1,692	2,881	4,077	4,210	1,329	46%
Age 65 to 69	1,555	1,933	3,410	3,857	1,924	100%
Age 70 to 74	1,738	1,445	2,425	3,440	1,995	138%
Age 75 to 79	1,562	1,297	1,567	2,650	1,353	104%
Age 80 to 84	1,159	1,229	1,010	1,682	453	37%
Age 85 and over	1,021	1,547	1,569	1,725	178	12%
Total Population	50,723	63,907	74,528	86,453	22,546	35%
Total age 5 to 17	9,337	11,661	13,331	14,777	3,116	27%
share age 5 to 17	18.4%	18.2%	17.9%	17.1%		

	2000-2010	2010-2020	2020-2030
Population Change	13,184	10,621	11,926
Percent	26%	17%	16%
Average Annual	2.3%	1.5%	1.5%

Source: U.S. Census Bureau, 2000, and 2010 Censuses; data aggregated to DDSD boundary by Portland State University Population Research Center. PSU-PRC Forecasts, 2020 and 2030.

District-wide Enrollment Forecast – Cohort Model

Chart 7 compares the historic and forecast number of births in the District with the historic and forecast number of DDSD kindergarten students. Births correspond to kindergarten cohorts (September to August). Although many children move into and out of the District between birth and age five, and not all District residents attend DDSD kindergartens, the trend in kindergarten enrollment has generally followed the trend in the birth cohort. However, the gap between births and kindergarten enrollment is now wider than it was several years ago, as a consequence of lower net migration. Because of the recent downturn in births, incoming kindergarten classes for the next five years are expected to be smaller than the size of the Fall 2013 class. The expected migration of young adults and families into the District will result in kindergarten enrollments re-attaining their current level beginning in 2019-20.



Until 2008-09, the District's growth was fueled by migration; there were consistently more households moving in than out. Table 12 illustrates how the DDSD gained students due to migration at every elementary and middle grade level. During the five years between 2003-04

and 2008-09, GPRs averaged about 1.02, indicating two percent growth due to migration for each grade cohort each year. Another way to describe it is that there were 102 students in each grade for every 100 students in the previous grade the previous year. For the most recent five years, from 2008-09 to 2013-14, there has not been a gain attributable to migration of school-age children. The forecast includes enrollment growth due to migration, though at a lower rate than in the 2003-04 to 2008-09 period. The higher rate for the 5th to 6th grade transition in both the history and forecast reflects Arthur Academy students enrolling in District-run middle schools.

Table 12 Grade Progression Rates¹ David Douglas S.D. History and Forecast				
Grade Transition	5 Year Average: 2003-04 to 2008-09	5 Year Average: 2008-09 to 2013-14	Baseline (without the influence of migration)	Forecast Average: 2013-14 to 2033-34
K-1	1.05	1.01	-- ²	1.02
1-2	1.03	1.00	1.000	1.01
2-3	1.01	1.00	1.000	1.01
3-4	1.02	1.01	1.010	1.02
4-5	1.02	0.99	0.990	1.00
5-6	1.05	1.03	1.000	1.03
6-7	1.02	1.00	1.000	1.01
7-8	1.02	1.00	1.000	1.01
8-9	1.05	1.02	1.015	1.02
9-10	1.00	1.00	1.000	1.01
10-11	0.95	0.96	0.960	0.97
11-12	1.00	1.07	1.050	1.06

1. Ratio of enrollment in an individual grade to enrollment in the previous grade the previous year.
2. The enrollment forecast model uses capture rates for first grade; K-1 baseline GPRs are not used.

The recent growth in incoming kindergarten classes, combined with a return to positive net in-migration, will contribute to growth of nearly 500 elementary students in the first five years of the forecast, by 2018-19.

Middle and high school enrollments will also grow between 2013-14 and 2018-19, but at a slower rate than elementary enrollment.

Enrollment growth is expected to accelerate at the middle school level beginning in the 2017-18 school year, and at the high school level beginning in the 2020-21 school year.

Over the long run, for the 20 year forecast horizon, the DDS is expected to add about 2,900 students. The average annual numeric growth of 146 students per year will be similar to the past 10 years, when the District averaged 150 student per year growth.

For the 20 year period, DDS adds about 1,300 K-5th grade students, 700 6th-8th grade students, and 900 9th-12th grade students.

Table 13 at the end of this section contains grade level forecasts for the David Douglas School District for each year from 2014-15 to 2023-24, as well as 2028-29 and 2033-34. The forecasts are also summarized by grade level groups (K-5, 6-8, and 9-12).

District-wide Enrollment Forecast — Housing Model

The City of Portland is currently updating its Comprehensive Plan, a long-range 20-year plan. A preferred scenario for household and employment growth has not yet been adopted, but four alternative growth scenarios were prepared in 2013 as part of the City's Periodic Review work program.¹¹ All four scenarios include growth of about 132,000 households citywide between 2010 and 2035, but the allocation of growth differs among the scenarios.

As an alternative to the baseline cohort model, we modelled potential enrollment growth based on the amount of housing growth and diversity of housing types allocated to the DDS, using an average of the four scenarios. About 19,000 housing units are added within the District over the 25 years, or about 15,000 over the 20 year horizon of these enrollment forecasts. That would be a significant increase over the current housing stock, which totals about 25,000. However, DDS enrollment would grow at a much slower rate than the rate of housing growth within the District, due to decreases in household size and an increasing share of smaller housing units associated with changing demand and limited land supply.

¹¹ City of Portland, Bureau of Planning and Sustainability, *Comprehensive Plan Update, Growth Scenarios Background Report*. May, 2013. Retrieved from <https://www.portlandoregon.gov/bps/article/449300>.

To determine the potential 20 year enrollment growth consistent with the forecast of 15,000 additional units, we estimated the number of students per housing unit for each of the City's 11 housing types, based on the rates observed in Fall 2013 and presented earlier in the "Housing and Enrollment" section of this report. The estimates are shown for each housing type in Appendix B.

Only about 30 percent of the City's housing forecast within DDSD consists of single family homes, and only about 16 percent are detached homes, which currently are a majority of the District's housing units. A growing share of new housing units will be studios and one bedroom units, home to less than one-fifth as many students per unit as the District's current stock of apartments.

The added housing would result in K-12 enrollment growth of nearly 4,400 students, based on the forecast growth by housing type and the SGRs for each type. However, this growth would be offset by the loss of over 800 students due to families aging in single family homes, for a net gain of 3,535 students over the 20 year forecast horizon. This is about 600 more students than the growth under the baseline cohort forecast.

Enrollment Forecasts at Individual Schools

Forecasts for individual schools are prepared under a scenario in which current boundaries and grade configurations remain constant. Of course, school districts typically respond to enrollment change in various ways that might alter the status quo, such as attendance area boundary changes, opening new schools, or offering special programs. If new charter or private schools open, enrollment at District-run schools may be affected. However, the individual school forecasts depict what future enrollments might be under current conditions.

The methodology for the individual school forecasts relies on unique sets of GPRs for each school. New kindergarten classes were forecast each year based on recent trends and birth cohorts within elementary attendance areas. Subsequent grades were forecast using GPRs based initially on recent rates and adjusted based on expected levels of housing growth. The final forecasts for individual schools are controlled to match the district-wide forecasts.

The distribution of growth among individual schools was roughly based on the City's housing forecast by type within each school's attendance area. However, since the housing model produces more growth than we expect under the baseline cohort model, targets were scaled back and controlled to the district-wide cohort model forecast each year.

Among the District's current elementary schools, the biggest growth occurs at Cherry Park, which includes the Gateway Urban Renewal Area where capacity exists for thousands of multiple family units. Ventura Park also gains enrollment from Gateway area development, as well as potential multiple family development near the 122nd Avenue MAX station. Gilbert Park and Gilbert Heights, where the largest single family growth will occur, are also poised to remain among the fastest growing of the District's current attendance areas.

Table 14 presents the enrollment forecasts for each school, grouped by school level (elementary, middle, and high).

Table 13

David Douglas School District, Enrollment Forecasts, 2014-15 to 2023-24, 2028-29, 2033-34

Actual		Forecast											
Grade	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2028-29	2033-34
K	912	849	866	882	869	876	909	915	922	930	937	982	1,038
1	844	932	866	883	900	885	892	925	931	939	946	988	1,045
2	835	849	940	874	891	907	892	898	931	938	945	983	1,041
3	767	841	857	949	883	899	915	899	905	939	945	982	1,038
4	784	781	858	874	968	900	916	932	915	922	956	993	1,045
5	810	781	781	858	874	967	899	915	930	914	921	985	1,031
6	796	837	807	808	885	900	994	925	941	956	940	1,004	1,047
7	800	800	842	813	814	890	905	999	930	946	961	1,002	1,041
8	828	803	805	848	819	819	895	910	1,004	935	951	998	1,038
9	830	844	821	823	867	837	837	914	929	1,025	954	1,012	1,053
10	782	834	850	827	829	873	843	842	919	935	1,031	983	1,054
11	820	754	806	822	800	801	843	814	813	888	903	943	1,008
12	805	865	797	853	870	845	846	890	860	859	938	1,012	1,056
UE*	54	54	54	54	54	54	54	54	54	54	54	54	54
US*	38	38	38	38	38	38	38	38	38	38	38	38	38
Total	10,705	10,862	10,988	11,206	11,361	11,491	11,678	11,870	12,022	12,218	12,420	12,959	13,627
Annual change or		157	126	218	155	130	187	192	152	196	202	108**	134**
** Avg. annl. change		1.5%	1.2%	2.0%	1.4%	1.1%	1.6%	1.6%	1.3%	1.6%	1.7%	0.9%	1.0%
K-5	5,006	5,087	5,222	5,374	5,439	5,488	5,477	5,538	5,588	5,636	5,704	5,967	6,292
6-8	2,424	2,440	2,454	2,469	2,518	2,609	2,794	2,834	2,875	2,837	2,852	3,004	3,126
9-12	3,275	3,335	3,312	3,363	3,404	3,394	3,407	3,498	3,559	3,745	3,864	3,988	4,209

	5 Year Change: 2013-14 to 2018-19		5 Year Change: 2018-19 to 2023-24		10 Year Change: 2013-14 to 2023-24		20 Year Change: 2013-14 to 2033-34	
	Growth	Pct.	Growth	Pct.	Growth	Pct.	Growth	Pct.
K-5	482	10%	216	4%	698	14%	1,286	26%
6-8	185	8%	243	9%	428	18%	702	29%
9-12	119	4%	470	14%	589	18%	934	29%
Total	786	7%	929	8%	1,715	16%	2,922	27%

*UE are ungraded elementary and US are ungraded high school special education students, included in the K-5 and 9-12 totals.

Population Research Center, Portland State University, April 2014

Table 14
Enrollment Forecasts for Individual Schools
2018-19, 2023-24, 2028-29, 2033-34

School	Actual 2013-14	Forecast				Change 2013-14- 2033-34
		2018-19	2023-24	2028-29	2033-34	2033-34
Cherry Park	473	525	614	685	767	294
Earl Boyles	418	466	462	468	477	59
Gilbert Heights	661	754	749	774	817	156
Gilbert Park	683	748	786	830	876	193
Lincoln Park	646	695	717	739	761	115
Menlo Park	528	551	571	589	620	92
Mill Park	611	670	669	690	712	101
Ventura Park	507	551	593	630	674	167
West Powellhurst	479	528	543	562	588	109
Elementary Totals	5,006	5,488	5,704	5,967	6,292	1,286
Alice Ott	742	794	882	921	952	210
Floyd Light	803	924	976	1,060	1,132	329
Ron Russell	879	891	994	1,023	1,042	163
Middle School Totals	2,424	2,609	2,852	3,004	3,126	702
David Douglas	3,049	3,168	3,638	3,762	3,983	934
Fir Ridge Campus	188	188	188	188	188	0
Community Transition	38	38	38	38	38	0
High School Totals	3,275	3,394	3,864	3,988	4,209	934
District Totals	10,705	11,491	12,420	12,959	13,627	2,922

Population Research Center, Portland State University, April 2014

APPENDIX A

2010 CENSUS DATA FOR THE DISTRICT AND ATTENDANCE AREAS

2000 and 2010 Census Profile, David Douglas School District.....	page A-1
Population, Households, and Housing Units by Elementary Area, 2010 Census....	page A-6

2000 and 2010 Census Profile

David Douglas School District

Approximation based on census blocks

POPULATION	2000		2010		Change	
SEX AND AGE						
Total population	50,723	100.0%	63,907	100.0%	13,184	26.0%
Under 5 years	3,897	7.7%	4,920	7.7%	1,023	26.3%
5 to 9 years	3,671	7.2%	4,576	7.2%	905	24.7%
10 to 14 years	3,615	7.1%	4,428	6.9%	813	22.5%
15 to 19 years	3,399	6.7%	4,387	6.9%	988	29.1%
20 to 24 years	3,379	6.7%	4,344	6.8%	965	28.6%
25 to 29 years	3,614	7.1%	4,909	7.7%	1,295	35.8%
30 to 34 years	3,599	7.1%	4,969	7.8%	1,370	38.1%
35 to 39 years	4,021	7.9%	4,341	6.8%	320	8.0%
40 to 44 years	4,028	7.9%	4,306	6.7%	278	6.9%
45 to 49 years	3,704	7.3%	4,330	6.8%	626	16.9%
50 to 54 years	2,931	5.8%	4,257	6.7%	1,326	45.2%
55 to 59 years	2,138	4.2%	3,808	6.0%	1,670	78.1%
60 to 64 years	1,692	3.3%	2,881	4.5%	1,189	70.3%
65 to 69 years	1,555	3.1%	1,933	3.0%	378	24.3%
70 to 74 years	1,738	3.4%	1,445	2.3%	-293	-16.9%
75 to 79 years	1,562	3.1%	1,297	2.0%	-265	-17.0%
80 to 84 years	1,159	2.3%	1,229	1.9%	70	6.0%
85 years and over	1,021	2.0%	1,547	2.4%	526	51.5%
Median age (years)	35.2		34.4		-0.8	
Under 18 years	13,234	26.1%	16,581	25.9%	3,347	25.3%
18 to 64 years	30,454	60.0%	39,875	62.4%	9,421	30.9%
65 years and over	7,035	13.9%	7,451	11.7%	416	5.9%
Male population	24,765	100.0%	31,309	100.0%	6,544	26.4%
Under 5 years	1,980	8.0%	2,493	8.0%	513	25.9%
5 to 9 years	1,901	7.7%	2,292	7.3%	391	20.6%
10 to 14 years	1,862	7.5%	2,322	7.4%	460	24.7%
15 to 19 years	1,702	6.9%	2,266	7.2%	564	33.1%
20 to 24 years	1,671	6.7%	2,197	7.0%	526	31.5%
25 to 29 years	1,863	7.5%	2,395	7.6%	532	28.6%
30 to 34 years	1,784	7.2%	2,477	7.9%	693	38.8%
35 to 39 years	2,083	8.4%	2,185	7.0%	102	4.9%
40 to 44 years	2,024	8.2%	2,150	6.9%	126	6.2%
45 to 49 years	1,839	7.4%	2,190	7.0%	351	19.1%
50 to 54 years	1,477	6.0%	2,095	6.7%	618	41.8%
55 to 59 years	1,046	4.2%	1,858	5.9%	812	77.6%
60 to 64 years	797	3.2%	1,398	4.5%	601	75.4%
65 to 69 years	707	2.9%	893	2.9%	186	26.3%
70 to 74 years	708	2.9%	614	2.0%	-94	-13.3%
75 to 79 years	623	2.5%	520	1.7%	-103	-16.5%
80 to 84 years	387	1.6%	455	1.5%	68	17.6%
85 years and over	311	1.3%	509	1.6%	198	63.7%

Sources: U.S. Census Bureau, 2010 Census, Summary File 1; 2000 Census, Summary File 1.

Tabulated by Population Research Center, Portland State University.

www.pdx.edu/prc

2000 and 2010 Census Profile

David Douglas School District

Approximation based on census blocks

POPULATION (continued)	2000		2010		Change	
Male population (continued)						
Median age (years)	33.9		33.4		-0.5	
Under 18 years	6,757	27.3%	8,472	27.1%	1,715	25.4%
18 to 64 years	15,272	61.7%	19,846	63.4%	4,574	30.0%
65 years and over	2,736	11.0%	2,991	9.6%	255	9.3%
Female population	25,958	100.0%	32,598	100.0%	6,640	25.6%
Under 5 years	1,917	7.4%	2,427	7.4%	510	26.6%
5 to 9 years	1,770	6.8%	2,284	7.0%	514	29.0%
10 to 14 years	1,753	6.8%	2,106	6.5%	353	20.1%
15 to 19 years	1,697	6.5%	2,121	6.5%	424	25.0%
20 to 24 years	1,708	6.6%	2,147	6.6%	439	25.7%
25 to 29 years	1,751	6.7%	2,514	7.7%	763	43.6%
30 to 34 years	1,815	7.0%	2,492	7.6%	677	37.3%
35 to 39 years	1,938	7.5%	2,156	6.6%	218	11.2%
40 to 44 years	2,004	7.7%	2,156	6.6%	152	7.6%
45 to 49 years	1,865	7.2%	2,140	6.6%	275	14.7%
50 to 54 years	1,454	5.6%	2,162	6.6%	708	48.7%
55 to 59 years	1,092	4.2%	1,950	6.0%	858	78.6%
60 to 64 years	895	3.4%	1,483	4.5%	588	65.7%
65 to 69 years	848	3.3%	1,040	3.2%	192	22.6%
70 to 74 years	1,030	4.0%	831	2.5%	-199	-19.3%
75 to 79 years	939	3.6%	777	2.4%	-162	-17.3%
80 to 84 years	772	3.0%	774	2.4%	2	0.3%
85 years and over	710	2.7%	1,038	3.2%	328	46.2%
Median age (years)	36.5		35.5		-1.0	
Under 18 years	6,477	25.0%	8,109	24.9%	1,632	25.2%
18 to 64 years	15,182	58.5%	20,029	61.4%	4,847	31.9%
65 years and over	4,299	16.6%	4,460	13.7%	161	3.7%

AREA AND DENSITY

2010 Land Area - Acres ¹	6,930	6,930		
Persons per acre	7.3	9.2	1.9	26.0%
Persons per square mile	4,684	5,902	1,218	26.0%

RACE

Total population	50,723	100.0%	63,907	100.0%	13,184	26.0%
White alone	40,145	79.1%	43,637	68.3%	3,492	8.7%
Black or African American alone	1,356	2.7%	4,025	6.3%	2,669	196.8%
American Indian and Alaska Native alone	542	1.1%	776	1.2%	234	43.2%
Asian alone	4,179	8.2%	7,184	11.2%	3,005	71.9%
Native Hawaiian and Other Pacific Islander alone	139	0.3%	570	0.9%	431	310.1%
Some Other Race alone	2,304	4.5%	4,711	7.4%	2,407	104.5%
Two or More Races	2,058	4.1%	3,004	4.7%	946	46.0%

Sources: U.S. Census Bureau, 2010 Census, Summary File 1; 2000 Census, Summary File 1.

Tabulated by Population Research Center, Portland State University.

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2000 and 2010 Census Profile

David Douglas School District

Approximation based on census blocks

POPULATION (continued)	2000		2010		Change	
RACE (continued)						
Race alone or in combination with one or more other races ²						
White	41,958	82.7%	46,248	72.4%	4,290	10.2%
Black or African American	1,818	3.6%	5,042	7.9%	3,224	177.3%
American Indian and Alaska Native	1,061	2.1%	1,716	2.7%	655	61.7%
Asian	4,723	9.3%	8,015	12.5%	3,292	69.7%
Native Hawaiian and Other Pacific Islander	269	0.5%	822	1.3%	553	205.6%
Some Other Race	3,097	6.1%	5,352	8.4%	2,255	72.8%
HISPANIC OR LATINO AND RACE						
Total population	50,723	100.0%	63,907	100.0%	13,184	26.0%
Hispanic or Latino	4,041	8.0%	9,238	14.5%	5,197	128.6%
Not Hispanic or Latino	46,682	92.0%	54,669	85.5%	7,987	17.1%
White alone	38,843	76.6%	40,216	62.9%	1,373	3.5%
Black or African American alone	1,306	2.6%	3,845	6.0%	2,539	194.4%
American Indian and Alaska Native alone	469	0.9%	543	0.8%	74	15.8%
Asian alone	4,155	8.2%	7,147	11.2%	2,992	72.0%
Native Hawaiian and Other Pacific Islander alone	129	0.3%	551	0.9%	422	327.1%
Some Other Race alone	54	0.1%	135	0.2%	81	150.0%
Two or More Races	1,726	3.4%	2,232	3.5%	506	29.3%
RELATIONSHIP						
Total population	50,723	100.0%	63,907	100.0%	13,184	26.0%
In households	49,441	97.5%	62,224	97.4%	12,783	25.9%
In family households	40,992	80.8%	51,315	80.3%	10,323	25.2%
Householder	12,263	24.2%	14,622	22.9%	2,359	19.2%
Spouse ³	8,784	17.3%	9,616	15.0%	832	9.5%
Child	14,900	29.4%	19,515	30.5%	4,615	31.0%
Own child under 18 years	11,772	23.2%	14,529	22.7%	2,757	23.4%
Other relatives	3,111	6.1%	5,061	7.9%	1,950	62.7%
Nonrelatives	1,934	3.8%	2,501	3.9%	567	29.3%
In nonfamily households	8,449	16.7%	10,909	17.1%	2,460	29.1%
Householder	6,217	12.3%	8,020	12.5%	1,803	29.0%
Nonrelatives	2,232	4.4%	2,889	4.5%	657	29.4%
Population under 18 in households	13,221	99.9%	16,538	99.7%	3,317	25.1%
Population 18 to 64 in households	30,138	99.0%	39,012	97.8%	8,874	29.4%
Population 65 and over in households	6,082	86.5%	6,674	89.6%	592	9.7%
In group quarters	1,282	2.5%	1,683	2.6%	401	31.3%

Sources: U.S. Census Bureau, 2010 Census, Summary File 1; 2000 Census, Summary File 1.

Tabulated by Population Research Center, Portland State University.

www.pdx.edu/prc

2000 and 2010 Census Profile

David Douglas School District

Approximation based on census blocks

POPULATION (continued)	2000		2010		Change	
GROUP QUARTERS						
Total group quarters population	1,282	100.0%	1,683	100.0%	401	31.3%
Institutionalized population	859	67.0%	902	53.6%	43	5.0%
Male	345	26.9%	460	27.3%	115	33.3%
Female	514	40.1%	442	26.3%	-72	-14.0%
Noninstitutionalized population	423	33.0%	781	46.4%	358	84.6%
Male	191	14.9%	347	20.6%	156	81.7%
Female	232	18.1%	434	25.8%	202	87.1%
Population under 18 in group quarters	13	0.1%	43	0.3%	30	230.8%
Population 18 to 64 in group quarters	316	1.0%	863	2.2%	547	173.1%
Population 65 and over in group quarters	953	13.5%	777	10.4%	-176	-18.5%

HOUSEHOLDS	2000		2010		Change	
Total households	18,480	100.0%	22,642	100.0%	4,162	22.5%
Family households (families) ⁴	12,263	66.4%	14,622	64.6%	2,359	19.2%
With own children under 18 years	6,139	33.2%	7,314	32.3%	1,175	19.1%
Husband-wife family	8,784	47.5%	9,616	42.5%	832	9.5%
With own children under 18 years	4,094	22.2%	4,512	19.9%	418	10.2%
Male householder, no wife present	987	5.3%	1,419	6.3%	432	43.8%
With own children under 18 years	523	2.8%	679	3.0%	156	29.8%
Female householder, no husband present	2,492	13.5%	3,587	15.8%	1,095	43.9%
With own children under 18 years	1,522	8.2%	2,123	9.4%	601	39.5%
Nonfamily households ⁴	6,217	33.6%	8,020	35.4%	1,803	29.0%
Householder living alone	4,673	25.3%	5,980	26.4%	1,307	28.0%
Male	2,000	10.8%	2,613	11.5%	613	30.7%
65 years and over	390	2.1%	603	2.7%	213	54.6%
Female	2,673	14.5%	3,367	14.9%	694	26.0%
65 years and over	1,314	7.1%	1,577	7.0%	263	20.0%
Households with individuals under 18 years	6,791	36.7%	8,198	36.2%	1,407	20.7%
Households with individuals 65 years and over	4,417	23.9%	5,240	23.1%	823	18.6%
Average household size	2.68		2.75		0.07	2.7%
Average family size ⁴	3.19		3.34		0.15	4.8%

Sources: U.S. Census Bureau, 2010 Census, Summary File 1; 2000 Census, Summary File 1.
 Tabulated by Population Research Center, Portland State University.

www.pdx.edu/prc

2000 and 2010 Census Profile

David Douglas School District

Approximation based on census blocks

HOUSING UNITS	2000		2010		Change	
Total housing units	19,529	100.0%	24,022	100.0%	4,493	23.0%
Occupied housing units	18,480	94.6%	22,642	94.3%	4,162	22.5%
Owner occupied ⁵	11,102	60.1%	11,760	51.9%	658	5.9%
Owned with a mortgage or a loan	N/A		9,128	77.6%		
Owned free and clear	N/A		2,632	22.4%		
Renter occupied	7,378	39.9%	10,882	48.1%	3,504	47.5%
Vacant housing units ⁶	1,049	5.4%	1,380	5.7%	331	31.6%
For rent	561	53.5%	652	47.2%	91	16.2%
For sale only	271	25.8%	294	21.3%	23	8.5%
Rented or sold, not occupied	80	7.6%	73	5.3%	-7	-8.8%
For seasonal, recreational, or occasional use	33	3.1%	53	3.8%	20	60.6%
For migrant workers	0	0.0%	0	0.0%	0	--
All other vacants	104	9.9%	308	22.3%	204	196.2%
Owner-occupied housing units	11,102	60.1%	11,760	51.9%	658	5.9%
Population in owner-occupied housing units	30,347		32,699		2,352	7.8%
Average household size of owner-occupied units	2.73		2.78		0.05	1.8%
Renter-occupied housing units	7,378	39.9%	10,882	48.1%	3,504	47.5%
Population in renter-occupied housing units	19,094		29,525		10,431	54.6%
Average household size of renter-occupied units	2.59		2.71		0.12	4.6%

1. Land area of the 2010 census blocks that approximate the area.
2. In combination with one or more of the other races listed. The six numbers may add to more than the total population, and the six percentages may add to more than 100 percent because individuals may report more than one race.
3. "Spouse" represents spouse of the householder. It does not reflect all spouses in a household. Responses of "same-sex spouse" were edited during processing to "unmarried partner."
4. "Family households" consist of a householder and one or more other people related to the householder by birth, marriage, or adoption. They do not include same-sex married couples even if the marriage was performed in a state issuing marriage certificates for same-sex couples unless there is at least one additional person related to the householder by birth or adoption. Same-sex couple households with no relatives of the householder present are tabulated in nonfamily households. "Nonfamily households" consist of people living alone and households which do not have any members related to the householder.
5. Percentage distribution of ownership categories ("owned with a mortgage or a loan" and "owned free and clear") adds to 100 percent.
6. Percentage distribution of vacancy categories ("for rent," etc.) adds to 100 percent.

Sources: U.S. Census Bureau, 2010 Census, Summary File 1; 2000 Census, Summary File 1.
Tabulated by Population Research Center, Portland State University.

www.pdx.edu/prc

David Douglas School District
Population, Households, and Housing Units by Elementary Area, 2010 Census

Elementary Area	Population			Households				
	Total	Age 5-17	< Age 5	Total Households	With 1+ persons < Age 18	Share of HHs with persons < Age 18	Population in Households	Persons per Household
Cherry Park	7,370	1,012	491	3,223	800	25%	7,172	2.23
Earl Boyles	5,009	920	349	1,658	655	40%	4,772	2.88
Gilbert Heights	7,253	1,530	609	2,367	1,012	43%	7,083	2.99
Gilbert Park	9,224	1,826	692	2,965	1,182	40%	9,029	3.05
Lincoln Park	6,860	1,373	590	2,256	944	42%	6,754	2.99
Menlo Park	7,417	1,229	512	2,719	893	33%	7,022	2.58
Mill Park	7,015	1,419	653	2,332	964	41%	6,887	2.95
Ventura Park	7,734	1,204	512	2,985	914	31%	7,581	2.54
West Powellhurst	6,025	1,148	512	2,137	834	39%	5,924	2.77
DDSD Total	63,907	11,661	4,920	22,642	8,198	36%	62,224	2.75

Elementary Area	Housing Units						
	Total Housing Units	Occupied	Vacant	Vacancy Rate	Owner Occupied	Renter Occupied	Percent Owner Occupied
Cherry Park	3,491	3,223	268	7.7%	1,023	2,200	32%
Earl Boyles	1,760	1,658	102	5.8%	972	686	59%
Gilbert Heights	2,509	2,367	142	5.7%	1,309	1,058	55%
Gilbert Park	3,103	2,965	138	4.4%	2,171	794	73%
Lincoln Park	2,394	2,256	138	5.8%	1,125	1,131	50%
Menlo Park	2,890	2,719	171	5.9%	1,551	1,168	57%
Mill Park	2,441	2,332	109	4.5%	1,093	1,239	47%
Ventura Park	3,163	2,985	178	5.6%	1,465	1,520	49%
West Powellhurst	2,271	2,137	134	5.9%	1,051	1,086	49%
DDSD Total	24,022	22,642	1,380	5.7%	11,760	10,882	52%

Source: 2010 Census, Summary File 1, census block data aggregated to approximate DDSD 2013-14 attendance areas by PSU, Population Research Center.

APPENDIX B

STUDENT GENERATION RATES BY GROWTH SCENARIO HOUSING TYPES

Table 10. Housing Types

Excerpt from *Comprehensive Plan Update, Growth Scenarios Report*, City of Portland, May 2013. Full document at <http://www.portlandoregon.gov/bps/article/449310>. Estimated K-12 Student Generation Rates for DDS-D added by PSU-PRC (red text)

SINGLE FAMILY RESIDENCES		CORRIDOR APARTMENTS	
	Detached House A one- to three-story detached, single family dwelling on its own lot. Typically, lot size is more than 5,000 square feet. <10 years old 0.78 10-19 years old 0.63 20+ years old 0.38		Plex A dwelling having apartments with separate entrances to six or more units. This includes two-story houses having a complete apartment on each floor and side-by-side apartments on a single lot that share a common wall. 0.44
	Small Lot Single Family Residence A one- to three-story detached, single family dwelling on its own lot, but a smaller (2500 sq foot) lot. <10 years old 0.56 10-19 years old 0.44 20+ years old 0.38		Corridor Apartment A four-story residential apartment building, typically with one on-street entrance and internal entrances to individual units. 0.13
	Attached House (Medium Density) Characterized by individual units that share a common wall, with each unit on its own lot. Examples include townhomes and rowhouses. <10 years old 0.56 10-19 years old 0.44 20+ years old 0.38		Neighborhood Mixed Use A four-story residential apartment building with commercial uses on the ground floor. 0.13
	Attached House (High Density) Characterized by individual units that share a common wall. Many high-density attached houses include shared open space amenities in backyards or courtyards. Examples include duplexes, triplexes and units with shared courtyards. 0.56		Single Room Occupancy Unit (SRO) A studio apartment that does not have its own washing, laundry and kitchen facilities. Examples include affordable housing projects, assisted living facilities and college dormitories. 0.00
MID- TO HIGH-RISE APARTMENTS			
	Mid-Rise Mixed Use (Small Units) A six- to ten-story building with ground floor office or retail uses. Allocated units of this type tend to be predominantly studios and one-bedroom units and tend to have smaller units. 0.08		
	Mid-Rise Mixed Use (Large Units) A six- to ten-story building with ground floor office or retail uses. Typical units are larger, one- to four-bedroom units, and have a smaller number of studio units as part of the overall mix. 0.44		
	High-Rise Tower A 10+ story building containing residential apartments or condominium units. In addition to spectacular views, most high rises offer their residents a full range of amenities. Building features may include 24-hour concierge service, swimming pools, spas, saunas, tennis courts, exercise areas, party rooms and guest suites. 0.08		