

**DECISION**INSITE 

Enrollment Impact Specialists

# Annual Enrollment Projection Report


Strategic  
Decision  
Support  
for School  
Districts

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# ANALYSIS OF ENROLLMENT PROJECTIONS

FALL 2019

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WEST CONTRA COSTA USD

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# WEST CONTRA COSTA USD

## EXECUTIVE SUMMARY

### ENROLLMENT PROJECTIONS - FALL 2019

DecisionInsite is pleased to present this report of findings to the Board of Education and Executive Staff of West Contra Costa USD. Both a Conservative and Moderate projection have been generated for the district. Assuming district revenue is generated on a per pupil basis, the Conservative projection is more suitable for budget planning purposes while the Moderate projection is more suitable for facilities planning purposes.

### KINDERGARTEN ENROLLMENT

In general, Kindergarten enrollment over the past three years has been relatively stable. The data also show that the difference between the graduating cohort and the incoming cohort has been relatively stable. Note that both studies project an increase at the Kindergarten level.

### COHORT PATTERNS

A typical student cohort ages from grade to grade relatively unchanged from the previous year. Historically, 3 cohorts show more than a 5% annual change.

### NEW HOUSING DEVELOPMENT

Approximately 5,400 new residential units are projected to be occupied over the next 10 years. During that period, the annual impact in any given year, based on the Moderate Study, is estimated in peak years to be 537 students.

### DISTRICT-WIDE ENROLLMENT PROJECTION

Overall the projections forecast a slight increase across the 10-year period based upon the historical enrollment trends and any projected new residential development.

### MORE INFORMATION

A richer and more comprehensive review of both studies is contained in the Final Report accompanying this Executive Summary. A wealth of more detailed information and analysis regarding both studies is also quickly and easily accessible online.

Respectfully Prepared and Submitted by:

The **DecisionInsite** Team

January 10, 2019

# WEST CONTRA COSTA USD

## DISTRICT ENROLLMENT PROJECTIONS

### RECENT CHANGES IN ENROLLMENT

Familiarity with recent historical enrollment patterns and trends establishes the foundation for understanding projected enrollment. Percentages in the table below compare the current year enrollment to that of three years ago.

4 Year History Change	
Kindergarten	103%
Gr K-6	98%
Gr 7-8	96%
Gr 9-12	98%
District	98%

FIGURE 1

### KINDERGARTEN IMPACT

Kindergarten enrollment is a significant driver of overall future district-wide enrollment. A trend at Kindergarten from year to year, or a trend in the difference between the district's graduating cohort in a given year and the Kindergarten cohort the subsequent year, will eventually be reflected in the total district enrollment count. (Note that these projections reflect changes in age eligibility for California Kindergarten. The result is a diminished Kindergarten cohort in years 2012-2014, with similar reductions in other grade levels as those cohorts age through the system.)

In general, Kindergarten enrollment over the past three years has been relatively stable. The data in the table below also show that the difference between the graduating cohort and the incoming cohort has been relatively stable.

[More details: Reports > History > District-wide > History Years Enrollment]

Percent Change of Previous Year			
	2016	2017	2018
Kindergarten	102%	105%	96%
Grade 12 to K	114%	117%	113%
Total K-12	100%	100%	99%

FIGURE 2

Transition K enrollment is forecast as a separate grade level. Transition K is projected to be as much as three times the enrollment of the first year of the program, but never to exceed 25% of the projected Kindergarten enrollment.

[All data in this report excludes Transition K unless specifically noted. More details: Reports > Projections > District-wide > Transition Kindergarten]

### LIVE BIRTH TRENDS

Live birth trends have an impact in large geographies, and on long range projections. However, in smaller areas of study, such as a school district, population mobility is often a mitigating if not an overriding factor, thereby reducing

the effectiveness of live births as a predictor of enrollment. Consequently, DecisionInsite has found that recent Kindergarten enrollment trends by sub-geographies to be a better, more reliable predictor of future Kindergarten enrollment.

#### COHORT IMPACT

A typical student cohort ages from grade to grade relatively unchanged from the previous year. By contrast, the cohort matriculating from Kindergarten to Grade 1 is a common example of a cohort increase, typically attributable to students returning from a private school.

In the following table, cohort changes with more than a 2% variance from static are marked accordingly. Those with more than a 5% changed are marked as 'Significant'.

Average Cohort Change Past Three Years			
Cohort	Percent	+/-	Significant
K > 1	102%	++++	
1 > 2	100%		
2 > 3	100%		
3 > 4	100%		
4 > 5	95%	----	SSSS
5 > 6	93%	----	SSSS
6 > 7	87%	----	SSSS
7 > 8	99%		
8 > 9	101%		
9 > 10	103%	++++	
10 > 11	101%		
11 > 12	99%		

FIGURE 3

#### INCOMING OUT-OF-DISTRICT TRANSFER IMPACT

The number of students served from outside the district boundaries can impact enrollment. It is a factor over which the district may have some control. For the past two years, the number of out-of-district students served annually has been approximately 266, and has been increasing.

[More details: Reports > History > District-wide > Out of District]

#### KEY VARIABLES IN PROJECTING DISTRICT ENROLLMENT

Both a Conservative and Moderate projection have been generated for the district. Assuming district revenue is generated on a per pupil basis, the Conservative projection is more suitable for budget planning purposes while the Moderate projection is more suitable for facilities planning purposes.

As a matter of standard practice, DecisionInsite does not typically include specialized schools or programs such as Home and Hospital Programs, Community Day Schools or Independent Study Programs in the Enrollment Projections. Our work is focused on projecting grade level enrollment for typical schools that are reported to the state.

The major variables that distinguish the Conservative projection from the Moderate are described in the table below.

Key Variables Controlling the Projections Algorithm	
Kindergarten Enrollment Change	Applies the lesser or greater of 3-4 year history trend in each studyblock to the appropriate study.
Cohort Change	Applies the lesser or greater of 3-4 year history trend in each studyblock to the appropriate study.
K Enrollment Change Cap	Restricts the effect of anomalous spikes in Kindergarten history
K Enrollment Change Floor	Restricts the effect of anomalous spikes in Kindergarten history
Incoming Out-of-District Transfers	For each grade level span, applies the lesser or greater of 1-2 year history to the lograde; ages through existing students.
Dwelling Units	Moderate study assumes developer's phasing calendar. Conservative study shifts the developer's calendar toward the out-years.
Student Generation Rates	Typical of recent history by product type.

FIGURE 4

## IMPACT OF PROJECTED NEW DWELLING UNITS

### PROJECTED OCCUPANCY

Approximately 5,400 new residential units are projected to be occupied over the next 10 years. The tables below show the mix of proposed units across the three dwelling unit types. The Moderate table summarizes the plans described by developers while the Conservative table estimates a more likely scenario based on anticipated market conditions. The most recent residential research was completed in November 2018 by Madelynn Vesque.

[More details: Residential > Reports > Proposed Dwelling Units]

New Dwelling Units Projected to be Occupied by Year (Moderate)										
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Multi-family	61	269	901	702	310	381				
Attached	30	263	300	683	678	677				
Detached	60	68	65							
Totals:	151	600	1266	1385	988	1058	0	0	0	0

FIGURE 5

New Dwelling Units Projected to be Occupied by Year (Conservative)										
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Multi-family	42	208	659	660	305	422	251	58	19	
Attached	21	184	224	600	468	511	371	252		
Detached	42	66	57	28						
Totals:	105	458	940	1288	773	933	622	310	19	0

FIGURE 6



The graph below depicts visually the differences between the phasing projected in the Moderate and Conservative studies.

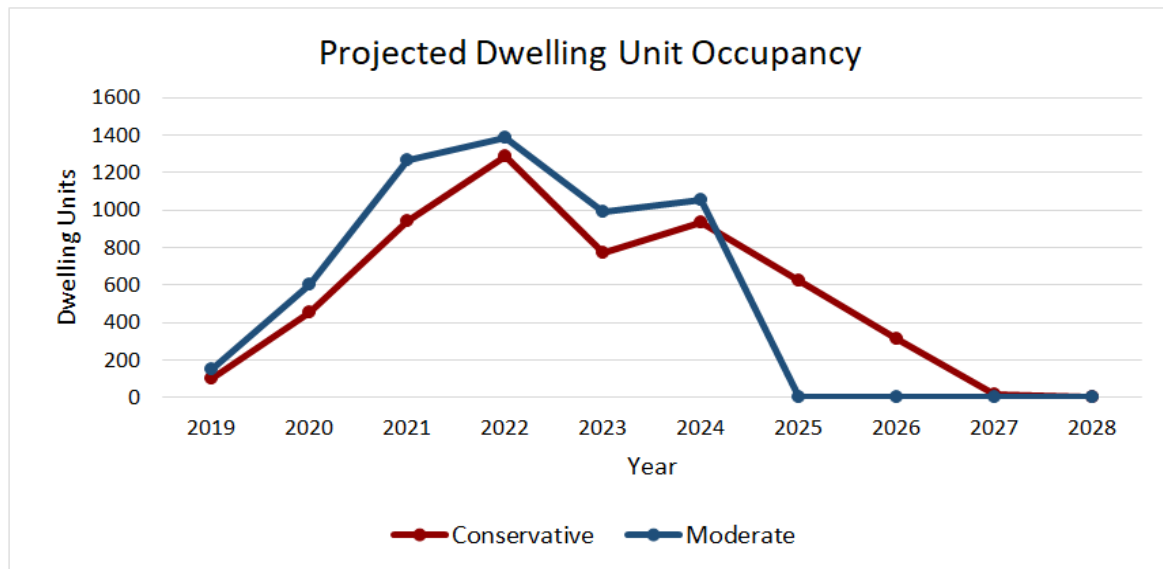


FIGURE 7

#### STUDENTS GENERATED

Over the period of years during which these units will become occupied, the impact, based on the Moderate scenario, is shown in the table below. The "Annual" row projects the number of students new to the district from these units, in a given year. The "Aggregate" row projects the accumulated increase in students served by the district through the year indicated.

Students Generated by Residential Development (Moderate)										
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Aggregate		264	801	1238	1471	1734	1782	1842	1917	1982
Annual	59	205	537	437	233	263	48	60	75	65

FIGURE 8

The table below reflects the students generated using the Conservative estimate of projected Dwelling Units.

Students Generated by Residential Development (Conservative)										
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Aggregate		204	599	1012	1218	1467	1654	1755	1832	1894
Annual	43	161	395	413	206	249	187	101	77	62

FIGURE 9

#### STUDENT GENERATION RATES

Moderate student generation rates are typical of students enrolled from existing developments of similar product type. Conservative student generation rates, if different, are designed to anticipate a diminution in family size.

[More details: Residential > Reports > Student Generation Rates]

A complete report regarding new residential development is available online in the DI System under 'Reports > District Documents > Residential Research Summary xxxx' where xxxx is the projection year the report is associated with. This report includes a map of proposed dwelling unit projects, the phasing by dwelling unit type in each project, students generated by new development by studyblock, student generation rates. Additional individual reports can be found online in the DI system under 'Residential > Reports'.

## PROJECTED ENROLLMENT CHANGES BY LEVEL

The tables below display the five-year district-wide projections by grade level and allow a comparison to enrollment in the current year.

### CONSERVATIVE 5 YEAR DISTRICT-WIDE PROJECTION BY GRADE LEVEL

Grade	2018	2019	2020	2021	2022	2023
TK	373	377	377	383	389	384
K	2282	2305	2309	2341	2379	2351
1	2372	2305	2336	2366	2398	2413
2	2293	2360	2300	2356	2386	2408
3	2304	2276	2355	2320	2374	2394
4	2251	2299	2279	2382	2346	2386
5	2173	2131	2189	2170	2269	2227
6	2121	2019	1987	2051	2034	2115
7	1818	1839	1755	1734	1800	1775
8	1880	1796	1821	1746	1724	1791
9	1883	1884	1814	1847	1783	1743
10	1945	1913	1923	1872	1904	1818
11	2018	1947	1921	1952	1900	1916
12	1940	1973	1911	1893	1923	1885
Subtotals:	27653	27424	27277	27413	27609	27606
Pct Chg:	-1.2%	-0.8%	-0.5%	0.5%	0.7%	0.0%

FIGURE 10

# MODERATE 5 YEAR DISTRICT-WIDE PROJECTION BY GRADE LEVEL

Grade	2018	2019	2020	2021	2022	2023
TK	373	383	386	395	402	404
K	2282	2342	2364	2417	2457	2470
1	2372	2334	2406	2464	2505	2523
2	2293	2384	2354	2460	2508	2527
3	2304	2298	2404	2408	2502	2529
4	2251	2325	2329	2469	2461	2529
5	2173	2161	2246	2252	2376	2349
6	2121	2044	2043	2137	2135	2226
7	1818	1865	1803	1811	1900	1890
8	1880	1823	1874	1822	1825	1906
9	1883	1913	1871	1939	1887	1870
10	1945	1940	1982	1966	2023	1931
11	2018	1971	1975	2045	2017	2047
12	1940	1995	1957	1970	2036	2012
Subtotals:	27653	27778	27994	28555	29034	29213
Pct Chg:	-1.2%	0.5%	0.8%	2.0%	1.7%	0.6%

FIGURE 11

As the following graph illustrates, overall the projections forecast a slight increase across the 10-year period based upon the historical enrollment trends and any projected new residential development.

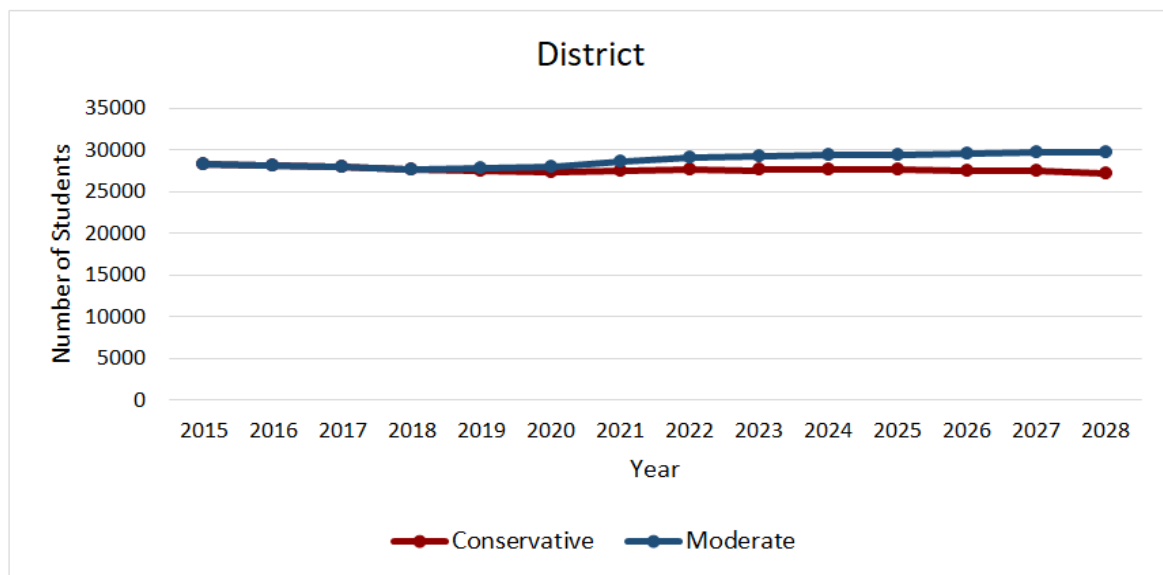


FIGURE 12

The tables below compare the Conservative and Moderate enrollment projections by key grade level groupings. Projected changes in enrollment at Kindergarten or lower grade level groupings will eventually impact total district enrollment.

### 5 YEAR ENROLLMENT TRENDS: MODERATE AND CONSERVATIVE COMPARED

Change by Level	Cnsv	Mod
<b>Kindergarten</b>	2351	2470
Change	103%	108%
<b>Gr K-6</b>	16294	17153
Change	103%	109%
<b>Gr 7-8</b>	3566	3796
Change	96%	103%
<b>Gr 9-12</b>	7362	7860
Change	95%	101%
<b>District</b>	27222	28809
Change	100%	106%

FIGURE 13

Note that an averaging of both studies project an increase at the Kindergarten level.

The table below compares the ten-year projections. In the 10-year future at Kindergarten, both studies, averaged together, project a relatively stable trend.

### 10 YEAR ENROLLMENT TRENDS: MODERATE AND CONSERVATIVE COMPARED

Change by Level	Cnsv	Mod
<b>Kindergarten</b>	2181	2459
Change	96%	108%
<b>Gr K-6</b>	15763	17255
Change	100%	109%
<b>Gr 7-8</b>	3715	3988
Change	100%	108%
<b>Gr 9-12</b>	7368	8061
Change	95%	104%
<b>District</b>	26846	29304
Change	98%	107%

FIGURE 14

The graphs below compare the Conservative and Moderate enrollment projections by key grade level groupings.

## ELEMENTARY SCHOOL LEVEL

The projected elementary school enrollment shows a slight increase.

[More details: Reports > Projections > Individual Schools > Projections > All Elementary Schools]

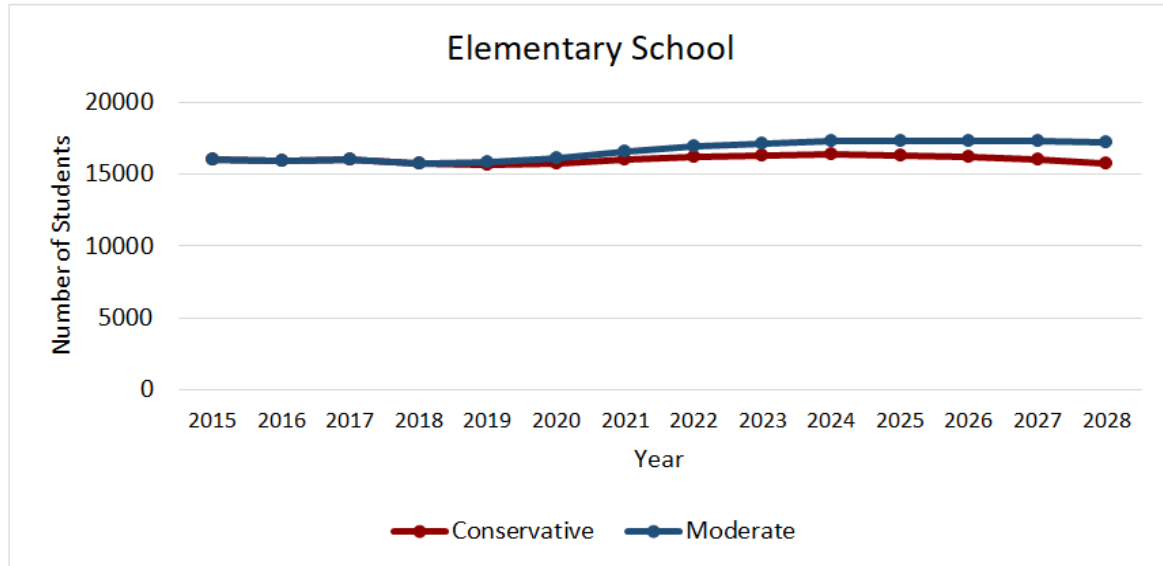


FIGURE 15

## MIDDLE SCHOOL LEVEL

The projected middle school enrollment shows a slight increase.

[More details: Reports > Projections > Selected Schools > All Middle Schools]

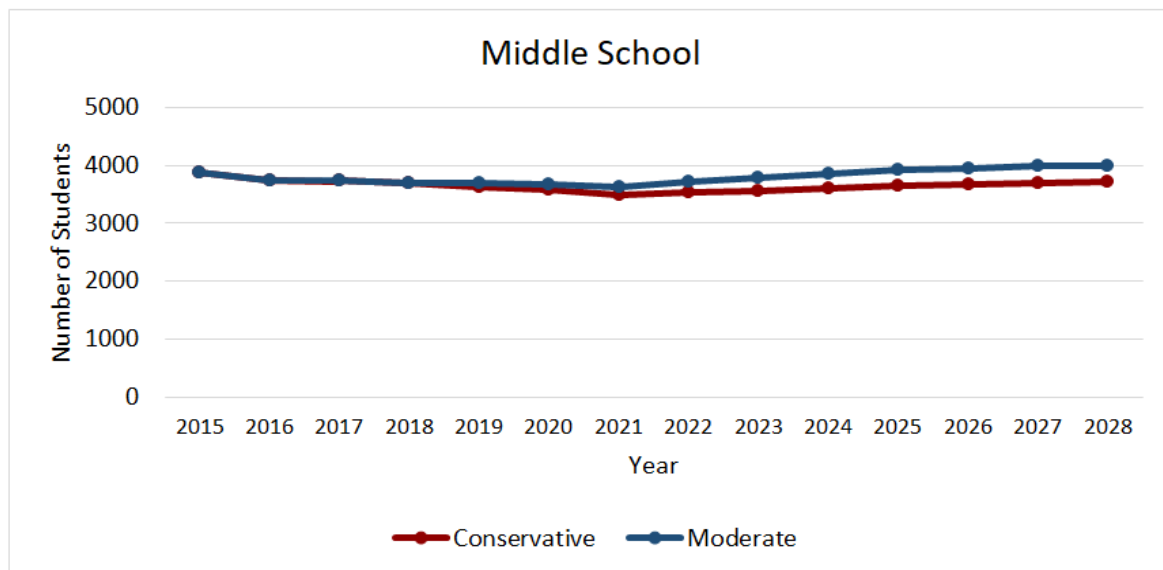


FIGURE 16

## HIGH SCHOOL LEVEL

The projected high school enrollment shows a relatively stable trend.

[More details: Reports > Projections > Selected Schools > All High Schools]

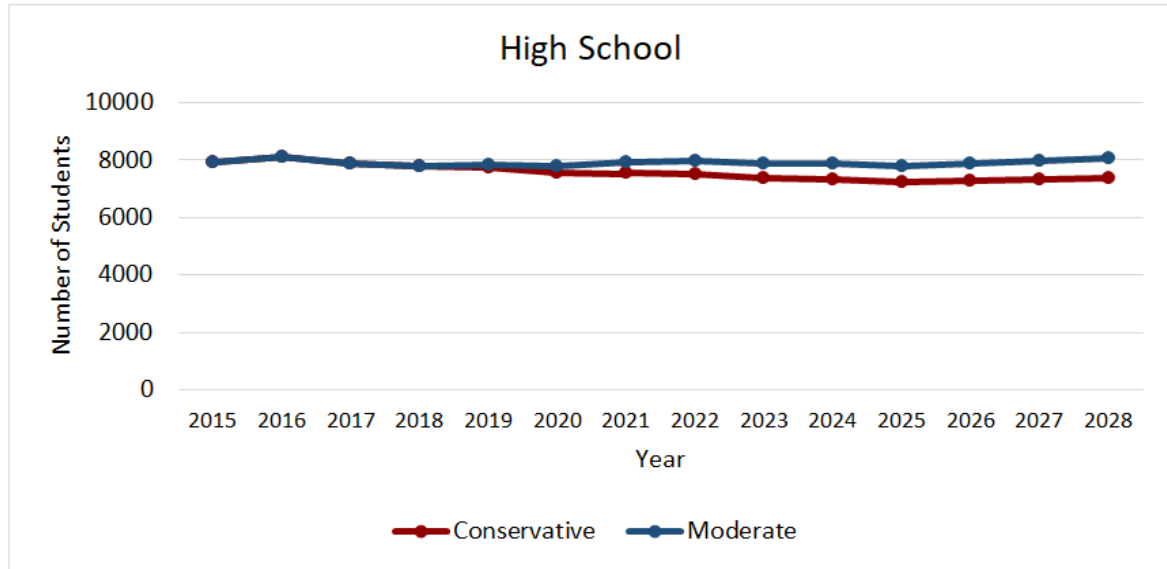


FIGURE 17

## SUMMARY OF DISTRICT PROJECTIONS BY YEAR

The complete district-wide projection table for each study is available online. Corresponding sets of individual School Projections are available online as well.

The tables below present a more detailed annual view of projected changes by grade level clusters for both projections. The “Pct Previous Year” row represents the percent of the previous year’s enrollment in each grade cluster that is projected in the subsequent year. The “Five Year Change” row represents the percent change projected over the enrollment five years prior.

### CONSERVATIVE PROJECTION

Change by Level	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
<b>Kindergarten</b>	2282	2305	2309	2341	2379	2351	2330	2301	2263	2222	2181
Pct Prev Yr	96%	101%	100%	101%	102%	99%	99%	99%	98%	98%	98%
5-Yr Change						103%					93%
<b>Gr K-6</b>	15796	15695	15755	15986	16186	16294	16355	16348	16197	16017	15763
Pct Prev Yr	99%	99%	100%	101%	101%	101%	100%	100%	99%	99%	98%
5-Yr Change						103%					97%
<b>Gr 7-8</b>	3698	3635	3576	3480	3524	3566	3609	3656	3675	3701	3715
Pct Prev Yr	99%	98%	98%	97%	101%	101%	101%	101%	101%	101%	100%
5-Yr Change						96%					104%
<b>Gr 9-12</b>	7786	7717	7569	7564	7510	7362	7332	7240	7279	7339	7368
Pct Prev Yr	99%	99%	98%	100%	99%	98%	100%	99%	101%	101%	100%
5-Yr Change						95%					100%
<b>District</b>	27280	27047	26900	27030	27220	27222	27296	27244	27151	27057	26846
Pct Prev Yr	99%	99%	99%	100%	101%	100%	100%	100%	100%	100%	99%
5-Yr Change						100%					99%

*NOTE: Gray column most recent history year.*

FIGURE 18

MODERATE PROJECTION

Change by Level	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
<b>Kindergarten</b>	2282	2342	2364	2417	2457	2470	2487	2480	2473	2466	2459
Pct Prev Yr	96%	103%	101%	102%	102%	101%	101%	100%	100%	100%	100%
5-Yr Change						108%					100%
<b>Gr K-6</b>	15796	15888	16146	16607	16944	17153	17326	17351	17308	17298	17255
Pct Prev Yr	99%	101%	102%	103%	102%	101%	101%	100%	100%	100%	100%
5-Yr Change						109%					101%
<b>Gr 7-8</b>	3698	3688	3677	3633	3725	3796	3862	3912	3945	3983	3988
Pct Prev Yr	99%	100%	100%	99%	103%	102%	102%	101%	101%	101%	100%
5-Yr Change						103%					105%
<b>Gr 9-12</b>	7786	7819	7785	7920	7963	7860	7873	7788	7878	7985	8061
Pct Prev Yr	99%	100%	100%	102%	101%	99%	100%	99%	101%	101%	101%
5-Yr Change						101%					103%
<b>District</b>	27280	27395	27608	28160	28632	28809	29061	29051	29131	29266	29304
Pct Prev Yr	99%	100%	101%	102%	102%	101%	101%	100%	100%	100%	100%
5-Yr Change						106%					102%

NOTE: Gray column most recent history year.

FIGURE 19



## GRADE LEVEL PROFILE COMPARISON

Another view of grade level enrollment can be seen in the chart below. The current grade level enrollment profile is compared with the projected grade level profile in the five and ten-year future.

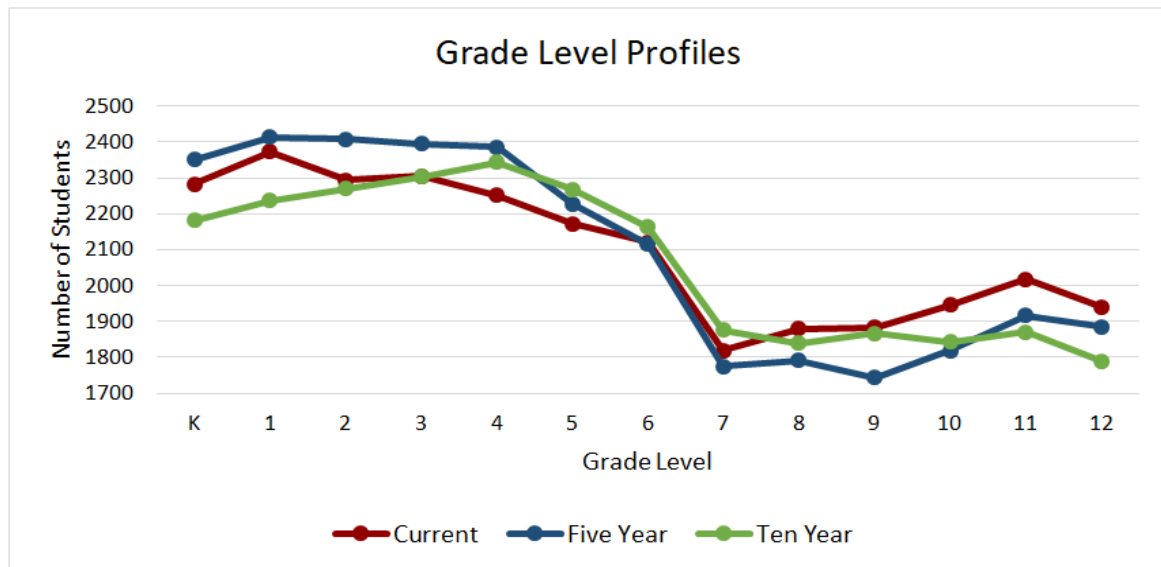


FIGURE 20

## PROJECTING SCHOOL ENROLLMENT

School projections are primarily a function of the proportion of district students who enroll at a given school, modified by intra-district transfers within a given school level that may occur subsequent to initial enrollment, and augmented by inter-district transfer students.

### SCHOOL DRAW IMPACT

A draw rate is the percentage of students who enroll at a particular grade level in a given school from a specified geographic area. Open enrollment among district schools is projected using this concept. Except for changes in school boundaries or other changes in policy, historical draw rates from a given geographic area to a specific school (including out-of-district students) are assumed in the projections.

### INTRA-DISTRICT TRANSFERS

Transfers within the district are incorporated into the projections in order to anticipate the movement of students from one district school to another within the same level, e.g., transfer from a neighborhood school to a special school. Recent historical transfer patterns are typically assumed in the projections.

[More details: Reports > History > All Schools > Open Enrollment]

### INTER-DISTRICT TRANSFERS

Transfers into the district by out-of-district students, sometimes referred to as 'permit students', are an integral part of the district and school projections. Recent historical transfer patterns are typically assumed in the projections.

[More details: Reports > History > District-wide > Out of District]

## INDIVIDUAL SCHOOL PROJECTION TABLES

The complete set of individual school projection tables for each study is available online.

[More details: Reports > Projections > All Schools > Projections]

## MY SCHOOL LOCATOR

MySchoolLocator is a web-based service accessible to DecisionInsite clients. This service allows Internet users to enter a residential address, and find out which district schools are assigned to serve them. Public access to MySchoolLocator is via a unique URL on the District's web site. The URL for integration into your district's website can be found by opening the appropriate Locator study from within the DI system. Once open, select "Run MySchoolLocator" from the District Admin menu. The MySchoolLocator app will open in a new browser window and the link can be copied from the address bar in the browser. Specialized district users have access to customize the messages seen by those using MySchoolLocator.

## IMPACT OF THE PROJECTIONS ON SCHOOL CAPACITY

Facility challenges, if any, may exist if projected numbers exceed the current school capacity data. These challenges may also manifest differently in a Moderate or Conservative projection. Because school capacity data has not yet been entered into the system, all schools are shown as exceeding capacity.

[More details: Reports > Projections > All Schools > Over Capacity]

The table below lists up to five schools that are projected to experience the most change in enrollment in the 5-year future based on the Conservative projection.

[More details: Reports > Projections > All Schools > Ten Percent Change]

School	5-Yr Pct Change	10-Yr Pct Change
Ellerhorst	-28%	-34%
Verde	26%	16%
Lincoln	-26%	-28%
Olinda	25%	17%

FIGURE 21

## IMPACT OF SDC STUDENTS ON CAPACITY

Relative to the impact of SDC students on school capacity, note that SDC students are not included in the grade level counts, but are included in the capacity calculation as taking up one seat each.

## ANALYZING/STUDYING/REVIEWING THE ENROLLMENT PROJECTIONS

The projections of district and school enrollment are based on a complex mix of historical data, the projection of recent trends, and specific assumptions regarding the future. At DecisionInsite, we strongly encourage our clients to actively engage with the data with the aim of better understanding, further refining, and using the results to inform decisions about to be made. We believe increased effectiveness for both the district and DecisionInsite comes with increased and welcome dialogue.

Graphs or tables may be copied from the PDF version of this document using the Snapshot Tool inside PDF Reader.

Please do not hesitate to contact DecisionInsite regarding any questions or suggestions that may arise regarding these studies.

Respectfully Prepared and Submitted by:

The **DecisionInsite** Team

January 10, 2019

## APPENDIX

### ASSUMPTIONS AND METHODOLOGY

All projections are based on assumptions, and when read or shared are best prefaced with the phrase, "Based on these assumptions...", or "Based on these historical trends...". Particularly for projections more than 5 years out, "Enrollment Trend" is a far more accurate descriptor.

Three major factors drive district-wide student enrollment projections. These include:

1. recent kindergarten enrollment trends, modified by live birth data, if applicable,
2. changes in the grade level cohorts of students served as they age through, and
3. changes in the number of residential units within the district.

District-wide projections are disaggregated to school projections based on the historical patterns of:

1. the rates at which each school draws enrollment from various sections of the district, and
2. the pattern of transfers within the district at a given level from one school to another.

### DISTRICT PROJECTIONS

#### *Studyblocks*

For enrollment projections the district is divided into studyblocks. A studyblock is a custom unit of geography created by DecisionInsite for the purpose of generating reliable projections. They are generally based on elementary boundaries or some portion thereof. A studyblock serves as the basis for the analysis of students served by the district and by schools. The objective is to do analysis with a small enough geographic unit to sense small area changes but large enough to allow for reliable projection. Studyblocks typically encompass 500–1000 students.

#### *Kindergarten Enrollment*

The projected Kindergarten enrollment is a key variable in projecting K–12 enrollment. The base Kindergarten projection is determined by the trend of Kindergartners served in each studyblock in the previous 3 or 4 years. Depending on the circumstances, a growth trend in Kindergarten enrollment may be capped. Steep straight-line trends are mathematically moderated to avoid unrealistic results.

#### *School Capacities*

School capacities provided by the district are compared to projected enrollments. Districts are invited to calculate school capacities in a manner that best serves the enrollment projection environment, and enter them into the DI System.

A Special Day Class (SDC) student at the elementary level is calculated by default as requiring 1 seat. This value, at district option, may be changed to 3, on the assumption that a class of 10 SDC students will occupy a typical classroom.

#### *Students in the Projections*

Enrollment projections are limited to typical K–12 students. SDC students are projected as a stable percentage of the typical population unless all SDC students are mainstreamed. Excluded from the projections are students enrolled in Non-Public School (NPS), Adult High School, Home School, Adult Ed, Independent Study programs and other special schools.

#### *Attendance Boundaries*

Attendance boundaries are assumed to remain constant, unless otherwise noted by the district.

### *Closed Schools*

Opportunities for open enrollment (intra-district) are assumed to remain unchanged, unless otherwise noted by the district.

### *Inter-district Enrollment*

Students enrolled from other school districts are treated in aggregate in separate studyblocks. Students in Kindergarten and the initial grade at each level are projected only to the extent they exist in recent years. Students enrolled in other grade level cohorts are aged through to the highest grade at each level. These defaults may be modified at district request.

### *Cohort Percent Change*

Cohort percentage changes are calculated in order to assure sensitivity to perennial changes in students served by the district as they age from one grade level to the next. If every cohort were stable as it ages, the cohort percent change, from one grade to the next in each studyblock, would be calculated as 100%. For each studyblock, a cohort weighted average percent change over a defined number of years is calculated based on the change in the enrollment served as it ages from the previous grade level.

Average cohort percentages above 100% might, for example, reflect students returning from private schools. Cohort percentages below 100% might reflect drop-outs.

Growth studyblocks are those showing unusually high increases in enrollment and/or cohort percent change in recent years—due, typically, to new housing development. Once growth studyblocks are identified, their default cohort percent change rate is set to 100% so as not to over-project new residential growth. By default, growth is not predicted to continue unless new occupied dwelling units are projected.

### *Dwelling Unit Impact*

The predicted impact of new dwelling units on school enrollment is based on three factors: 1) new dwelling units, 2) the student generation rate for each unit type, and 3) the grade level distribution of newly generated students.

#### 1. Dwelling Units

New dwelling units are categorized into 3 housing types: Single Family Detached, Single Family Attached, and Multifamily. Developers and builders are contacted for information relative to their plans for occupancy of new dwelling units.

#### 2. Student Generation

Student generation rates are determined for each product type for each level: elementary, middle school and high school. Student generation rates are based on similar products types where such exist; otherwise, a default generation rate is used.

#### 3. Grade Level Distribution

For each level, students generated by new dwelling units are distributed across grade levels. These percentages are based on historical patterns where they exist; otherwise, default percentages are used.

## SCHOOL PROJECTIONS

Projecting enrollment at the school level is based on the concept of a school draw rate, i.e., the percent of students from a given studyblock who enroll in a given school at its lowest grade. Draw rates reflect the impact of open enrollment within a district. For example, if one-half the sixth-graders from a given studyblock enroll in a particular 6–8 middle school, that school has a draw rate of 50% from that studyblock.

The draw rate for the most recent year is applied by default to the projected district enrollment for that grade from a given studyblock. The draw rate ages with the cohort. In this way, if the underlying cohort changes, the number of students enrolled at the school will change accordingly.

Draw rates can be adjusted if necessary. Manipulation of draw rates is used, for example, to project the impact of changes in attendance boundaries, or the impact of closing a school to open enrollment.

#### *Intra-district Transfers*

Grade-level transfers within or across schools are included in the projections to accommodate fluctuations like retention, transfer to continuation school, or any other special programs a district may offer that result in students changing schools at other than the typical grade configuration shifts. Transfers are calculated by applying the percent of a grade level population at one school that is transferred in the following year to another school, or continued at the same grade level at a given school in the following year.

### CAVEATS ON PROJECTIONS AND METHODOLOGY

#### *On Projections*

Enrollment projections are based upon two critical factors: the student and school data from the school district and the mathematical formulas that are applied to those data. Projections fundamentally look at recent history as reflected in the student data and assume that past patterns and trends will continue into the future. The calculations assume that the historical data provided is at one year intervals based on enrollment at the beginning of each school year.

DecisionInsite takes great care in preparing a district's projections. A range of unpredicted anomalies, however, can cause reality to vary from the historical patterns. These include, but are not limited to, rapid changes in the economy, mortgage interest rates, the housing market, the job market, residential development plans, rental rates, etc. Anomalous changes that occur between the last set of student data and the first projection are not reflected in the projections unless the district works with DecisionInsite to amend the projections.

In the projections, calculations are mathematically precise. Each result is rounded to a whole number for ease of reading. This rounding sometimes results in the displayed whole numbers in a column not adding exactly to the displayed total of the column. This phenomenon, which is a result of rounding and not of any inaccuracy in the calculations, occurs both in the enrollment projections and in the community demographics.

#### *On Student Data*

DecisionInsite obtains historical student data files from the district. To the extent that the student data files are internally inconsistent from year to year, or the count of students in the files does not reflect the count of actual enrollees, errors are introduced to the projection calculations. For optimum results, the student data files must also consistently capture the same categories of students annually.

The calculations assume that the historical data provided is at one year intervals based on enrollment at the beginning of each school year. It is important that the student files obtained from the district are close to a common date each year, typically near the beginning of the school year. The snapshot of historical data near the beginning of the school year is best suited to our goal of projecting enrollment for the beginning of subsequent school years. To the extent the historical student data provided is not at one year intervals, or is not at a common date near the beginning of the school year, projections may reflect monthly fluctuations in enrollment that will diminish the accuracy of the projections.



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