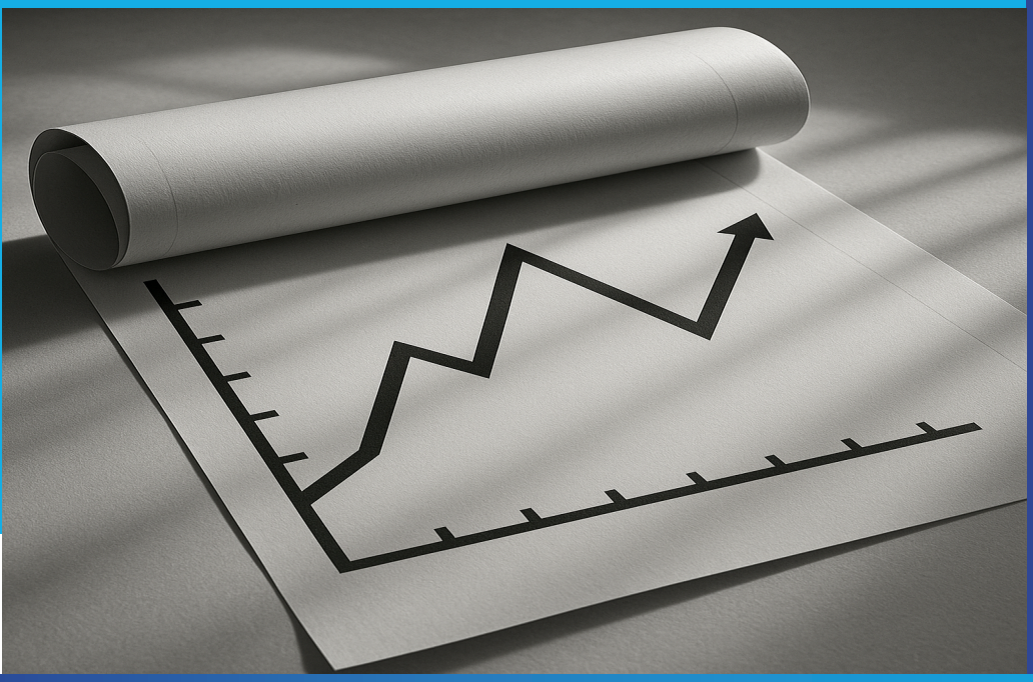
Facilities Master Plan

Enrollment Projections Supplement



WEST VALLEY SCHOOL DISTRICT

July 1, 2025

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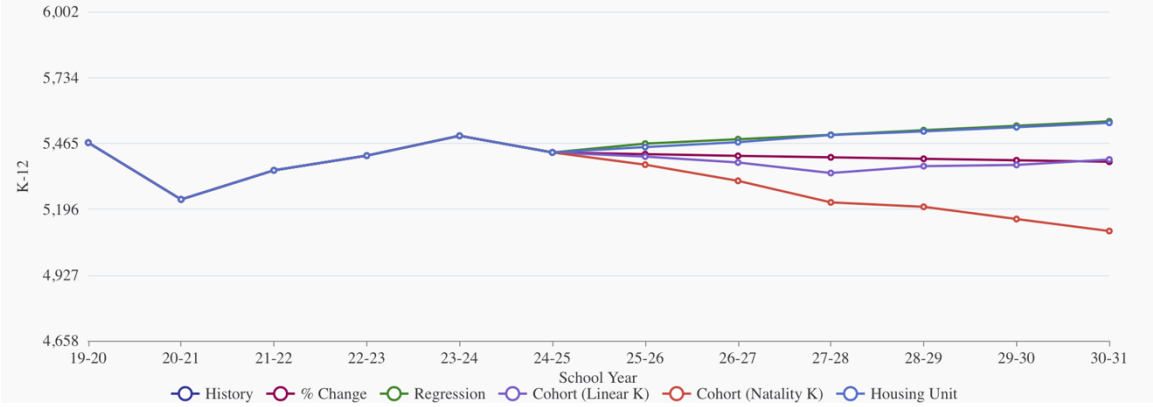
ENROLLMENT PROJECTIONS SUPPLEMENT

This supplement contains the detailed enrollment projection information summarized in the district's Facility Master Plan. The projections have been generated through reviewing community growth issues, planning and zoning information, historical enrollment data, computerized enrollment projection models, and estimating the impact of future enrollments on the capacity of school buildings. The consulting team has used both qualitative and quantitative information to develop the projections. A variety of "headcount" (rather than FTE) enrollment projection models have been used as a means of looking at future growth in different ways. Because most of these models use historical information as the basis for projections, the school district is encouraged to update these projections annually.

2.1 Historical Data

Historical enrollment information shows a steady decrease in student enrollment over the past six years. Exhibit 2-1 charts the enrollment history for the West Valley School District for K-12 students as well as shows the projections across five different models.

EXHIBIT 0-1
WEST VALLEY SCHOOL DISTRICT
ENROLLMENT HISTORY – GRAPHIC[1]



Source: K12enroll.com

[1] *The resolution of graphical exhibits in this study have often been adjusted for improved comparative purposes. As a result, the slope of the lines on many line charts may be accentuated more than if the chart had a zero base in the vertical scale.*

2.2 Enrollment Projection - Average Percentage Change

2.2.1 Methodology

The average percentage change model calculates future school enrollment growth based on the historical average enrollment changes. This model multiplies the historical average percentage change times the prior year enrollment to project future enrollments.

2.2.2 Calculations and Projections

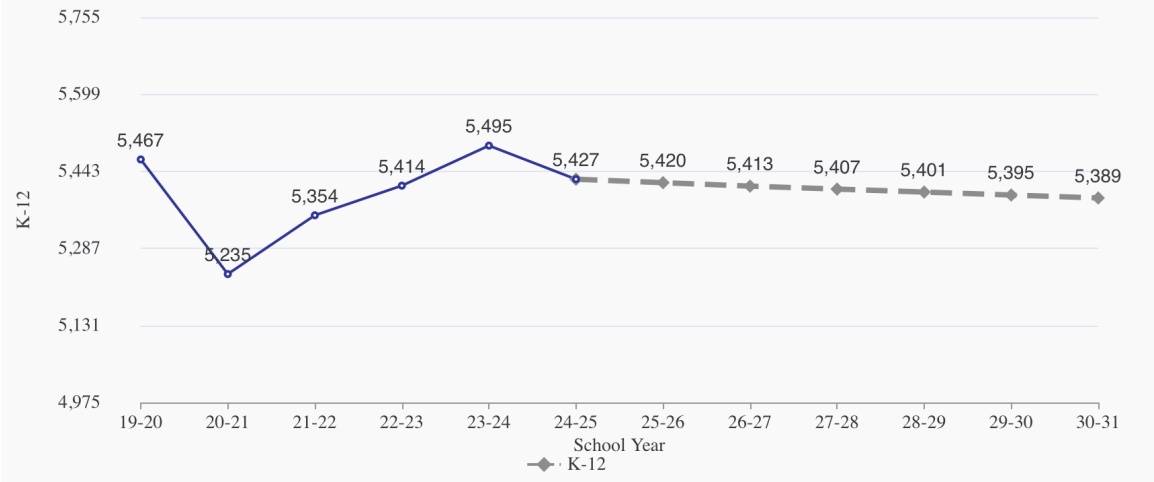
The average enrollment change during this period for grades K-5 indicates a decrease of 1.3% while grades 6-8 project a decrease of 5.5%. The high school enrollment during this period projects an increase of 4.3%. Overall, the K-12 enrollment is projected to decrease by 12.3%. This model is incredibly sensitive to grade level bubbles of students moving through the system, as well as to recent increases in high school retention and enrollment. Overall, this model projections enrollments for the K-12 system will remain relatively stable, decreasing a very negligible 38 students over the next six years. Exhibit 2-2 is a table detailing the projected enrollments using the percentage change factors which are calculated by averaging the enrollment increases and decreases over the last six years. Exhibit 2-3 is a graphical representation of the table information.

EXHIBIT 0-2
WEST VALLEY SCHOOL DISTRICT
PERCENTAGE CHANGE MODEL

	25-26	26-27	27-28	28-29	29-30	30-31
K-5	2,335	2,330	2,325	2,320	2,315	2,310
6-8	1,268	1,256	1,244	1,232	1,220	1,209
9-12	1,820	1,833	1,846	1,859	1,872	1,885
K-12	5,420	5,413	5,407	5,401	5,395	5,389

Source: K12enroll.com

EXHIBIT 0-3
WEST VALLEY SCHOOL DISTRICT
PERCENTAGE CHANGE MODEL – GRAPHIC



Source: K12enroll.com

2.3 Enrollment Projection - Linear Regression Model

2.3.1 Methodology

Linear regression is a mathematical approach to estimating an unknown future value of a variable by performing statistical calculations on known historical values. Once calculated, several future values for different future dates can then be plotted to provide a "regression line" or "trend line". There are many types of regression formulas. Since recent enrollment growth has followed a more-or-less constant path, a linear regression formula was chosen. This straight-line model estimates future enrollment -- a model that finds the linear trend based on the historical data.

2.3.2 Calculations and Projections

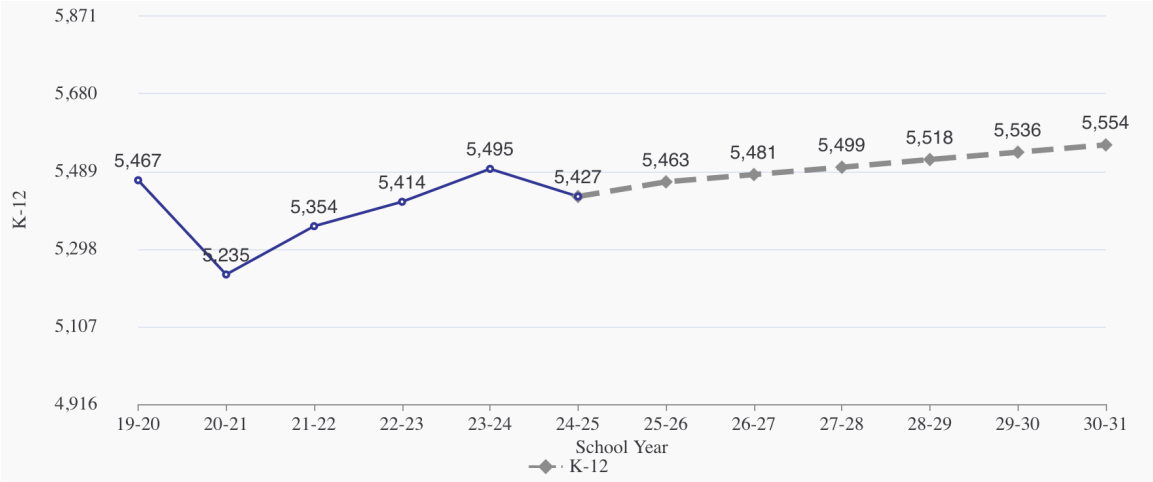
Exhibit 2-4 is a table detailing the projected enrollment using the regression model and based on the historical enrollments for the last six years. This model predicts that enrollment for grades K-5 will increase 4.0%, while middle school enrollment will decrease by 5.3% and high school enrollment will increase by 5.6%. Overall, this model predicts that the K-12 system will increase by 2.3%, or approximately 127 students over the next six years. Exhibit 2-5 is a graphical representation of enrollment history and the K-12 projection from the table data.

EXHIBIT 0-4
WEST VALLEY SCHOOL DISTRICT
LINEAR REGRESSION MODEL

	25-26	26-27	27-28	28-29	29-30	30-31
K-5	2,382	2,392	2,403	2,413	2,423	2,434
6-8	1,265	1,254	1,244	1,233	1,223	1,212
9-12	1,816	1,835	1,853	1,871	1,890	1,908
K-12	5,463	5,481	5,499	5,518	5,536	5,554

Source: K12enroll.com

EXHIBIT 0-5
WEST VALLEY SCHOOL DISTRICT
LINEAR REGRESSION MODEL – GRAPHIC



Source: K12enroll.com

2.4 Enrollment Projection – Cohort Survival Model (Linear K)

2.4.1 Methodology

The cohort survival method calculates the growth or decline in enrollment in a grade level over a period of six years based on the ratio of students who are enrolled each of the previous years, the "survival rate". This ratio is then applied to the incoming class to calculate the trends in that class as it "moves" or graduates through the school system. For example, if history shows that between the first and second grades, the classes for the last six years have grown by an average of 3.5%, then the size of incoming classes for the next six years are calculated by multiplying them by 103.5%. If the history shows a declining trend, the multiplying factor will be less than 100%. The cohort survival model accounts for the net effect of students transferring in and out of the school system, or between schools, for any reason. For example, if 15 students transfer out of the public school system into a private school and 20 students transfer in because of a new business in town, the net effect is five additional students. This increase in students will be reflected in a higher "survival" rate.

One of the more difficult challenges of projecting enrollments with the cohort survival model is the determination of future kindergarten enrollments. This is critical, especially for communities experiencing rapid demographic change. There are two methods of projecting kindergarten enrollments. This first model (Linear K) projects future kindergarten enrollments using a linear regression line based on the historical kindergarten enrollments.

2.4.2 Calculations and Projections

Exhibit 2-6 is a table detailing the projected enrollments using the cohort survival method based on the enrollment over the last six years and using a linear regression model for the kindergarten projection. When analyzing future enrollment projections, one must always be aware of the kindergarten enrollment data. The impact of the survival cohort, especially in the elementary grades, is most influenced by the kindergarten enrollment. If kindergarten enrollment increases, all future years are similarly affected.

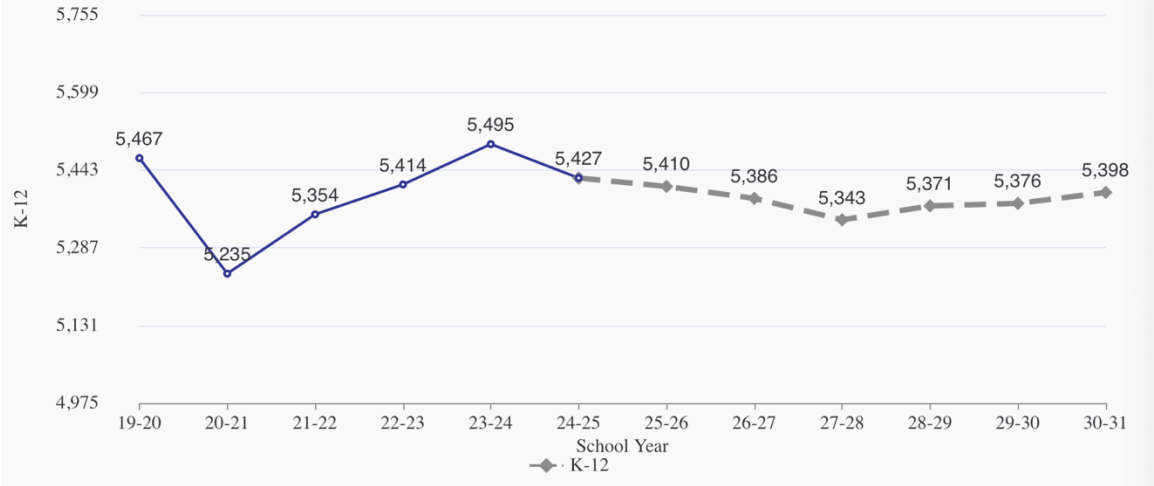
This model predicts that grades K-5 will increase by 2.1%, grades 6-8 will decrease by 1.0% and grades 9-12 will decrease by 3.7%. The overall K-12 enrollment projection is for a very a relatively flat loss of only 29 students, or 0.5%, over the next six years. Exhibit 2-7 is a graphical representation of the table data.

EXHIBIT 0-6
WEST VALLEY SCHOOL DISTRICT
COHORT SURVIVAL MODEL (LINEAR K)

	25-26	26-27	27-28	28-29	29-30	30-31
K-5	2,333	2,356	2,343	2,355	2,353	2,390
6-8	1,284	1,274	1,294	1,281	1,313	1,267
9-12	1,793	1,756	1,706	1,735	1,710	1,741
K-12	5,410	5,386	5,343	5,371	5,376	5,398

Source: K12enroll.com

EXHIBIT 0-7
WEST VALLEY SCHOOL DISTRICT
COHORT SURVIVAL MODEL (LINEAR K) – GRAPHIC



Source: K12enroll.com

2.5 Enrollment Projection – Cohort Survival Model (Natality K)

2.5.1 Methodology

As stated earlier, when analyzing future projections, one must always be aware of the kindergarten enrollment data. The impact of the survival cohort, especially in the elementary grades, is most influenced by the kindergarten enrollment. If kindergarten enrollment increases, all future years are similarly affected. Instead of using a linear regression formula to determine kindergarten enrollments, this model uses birth rate (natality) information. It is based on the correlation between historical birth rates (natality rates) and historical kindergarten enrollments. The natality correlation model works well when projecting kindergarten enrollments for the next six years but must be combined with the regression model when projecting for extended periods.

2.5.2 Calculations and Projections

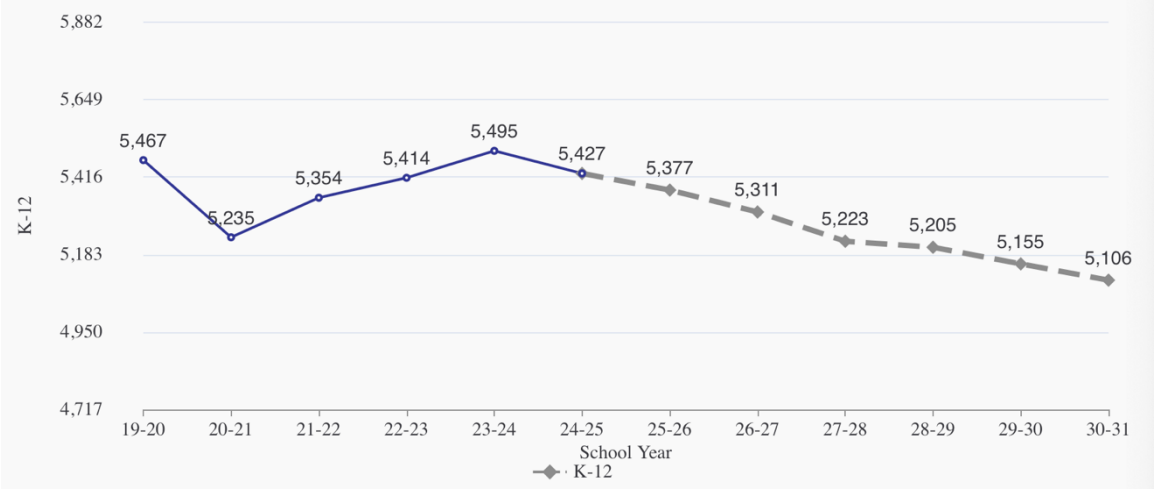
Exhibit 2-8 details the projections impacted by birth rates in Yakima County. This model shows decreases in line with state and national averages of declining birth rates. For elementary school this model projects a decrease of 10.3%, for middle school a decrease of 1.0% and for high school a decrease of 3.7%. Overall, this model predicts a K-12 decrease of 5.9% over the next six years, representing 321 students. Exhibit 2-9 is a graphical representation of the table data.

EXHIBIT 0-8
WEST VALLEY SCHOOL DISTRICT
COHORT SURVIVAL MODEL (NATALITY K)

	25-26	26-27	27-28	28-29	29-30	30-31
K-5	2,300	2,281	2,223	2,189	2,132	2,098
6-8	1,284	1,274	1,294	1,281	1,313	1,267
9-12	1,793	1,756	1,706	1,735	1,710	1,741
K-12	5,377	5,311	5,223	5,205	5,155	5,106

Source: K12enroll.com

EXHIBIT 0-9
WEST VALLEY SCHOOL DISTRICT
COHORT SURVIVAL MODEL (NATALITY K) – GRAPHIC



Source: K12enroll.com

2.6 Enrollment Projection – Students Per Housing Unit

2.6.1 Methodology

The students per housing unit model of projecting growth uses housing unit data from the U.S. Census. The number of students in the district is divided by the housing unit count to develop a ratio of students per housing unit. This ratio is commonly called a "yield factor." That yield factor is then applied to projected future housing growth for the study period. (It is important to note that a yield factor is different than a student generation rate commonly used in impact fee studies. Student generation rates deal exclusively with new housing construction and give you a picture at a point in time of how many students live only in new housing. Student yield factors deal with how many students live in all housing in the district. It includes students living in "old houses" as well as students moving into new housing.)

2.6.2 Calculations and Projections

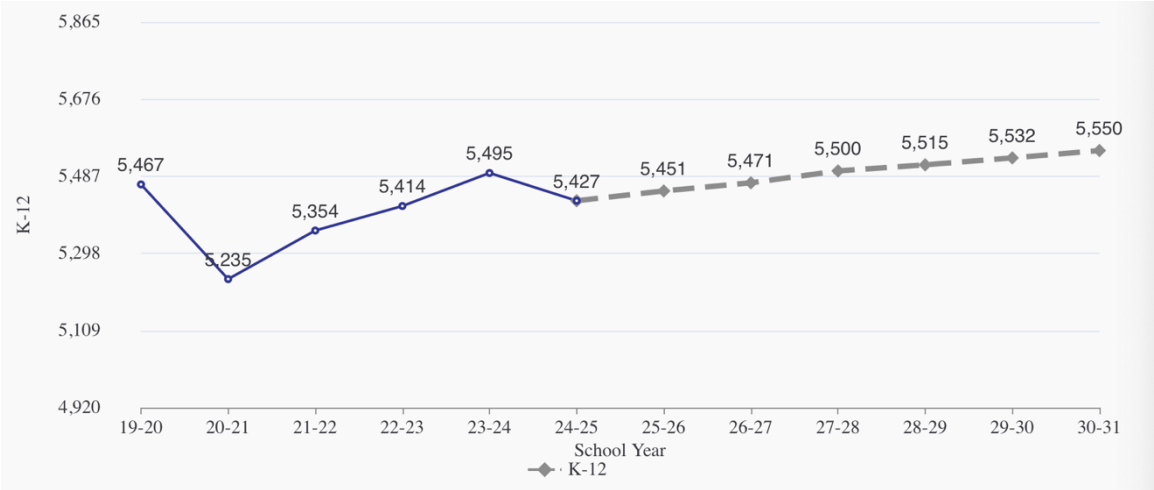
As detailed in Exhibit 2-10, this model predicts that grades K-5 will increase by 3.0%, grades 6-8 will increase by 4.5% and grades 9-12 will decrease by 0.4%. The overall K-12 enrollment projection is for a very a relatively flat increase of 122 students, or 2.2%, over the next six years. Exhibit 2-11 is a graphical representation of the table data.

EXHIBIT 0-10
WEST VALLEY SCHOOL DISTRICT
STUDENT PER HOUSING UNIT MODEL

	25-26	26-27	27-28	28-29	29-30	30-31
K-5	2,367	2,376	2,389	2,396	2,402	2,411
6-8	1,314	1,319	1,326	1,329	1,333	1,338
9-12	1,768	1,775	1,784	1,789	1,795	1,800
K-12	5,449	5,470	5,499	5,514	5,530	5,549

Source: K12enroll.com

EXHIBIT 0-11
WEST VALLEY SCHOOL DISTRICT
STUDENT PER HOUSING UNIT MODEL



Source: K12enroll.com

2.7 Summary

2.7.1 K-12 Summary Information

The consulting team used five different enrollment projection models to estimate future enrollments, discounting one of them as referenced above. Each model emphasizes different types of data and therefore is limited in its effectiveness as a predictive tool. Although all models use historical information, two models, (the percentage change model and the regression model) place special emphasis on that historical data. These models are quite effective predictors if there is no forecast of rapid community growth or decline and student population rates have had minimal fluctuation.

The other three models use historical enrollments but also take into account student mobility patterns and the effects of the natality rates in prior years. The two cohort survival models are perhaps the best-known predictive tool using this type of data. However, like the percentage increase model and the regression model, the cohort survival model loses its predictive capabilities in communities that experience, or are expected to experience, very rapid changes in student growth or decline.

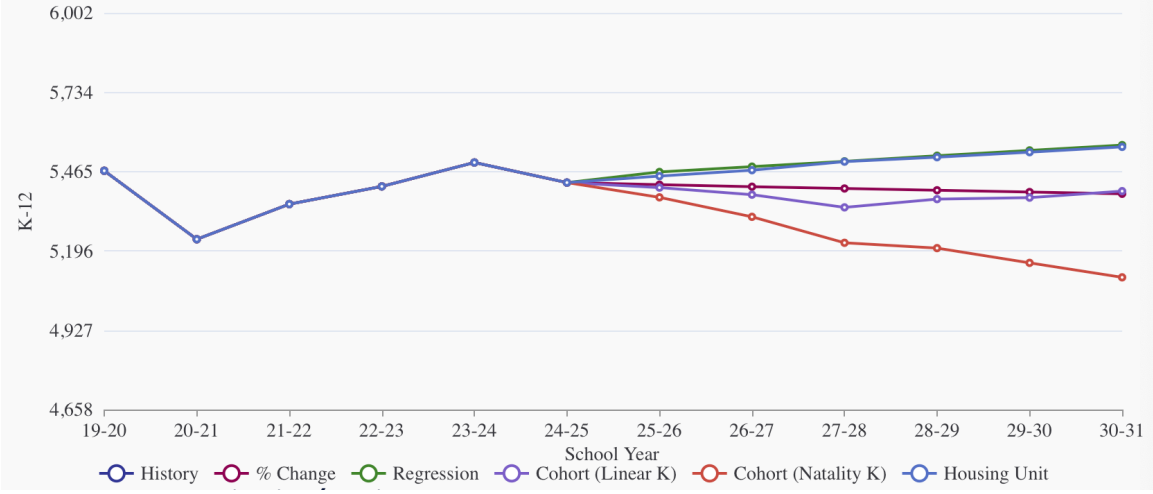
All of the five models indicate relatively flat enrollment growth or decline. Two models indicate a small amount of growth, one model indicates a slight decline in enrollment, and two models indicate nearly flat projections. This relatively similar pattern of projections increases overall confidence of the projections. Exhibit 2-12 is the summary table of the K-12 projections. Exhibit 2-13 is a graphic representation of the data in the table.

EXHIBIT 0-12
WEST VALLEY SCHOOL DISTRICT
SUMMARY OF K-12 MODELS

	25-26	26-27	27-28	28-29	29-30	30-31
% Change	5,420	5,413	5,407	5,401	5,395	5,389
Regression	5,463	5,481	5,499	5,518	5,536	5,554
Cohort (Linear K)	5,410	5,386	5,343	5,371	5,376	5,398
Cohort (Natality K)	5,377	5,311	5,223	5,205	5,155	5,106
Student per Housing Unit	5,449	5,469	5,498	5,513	5,530	5,548

Source: K12enroll.com

EXHIBIT 0-13
WEST VALLEY SCHOOL DISTRICT
K-12 ENROLLMENT SUMMARY - GRAPHIC



Source: K12enroll.com

Based on the information in the sections and exhibits above, the consulting team has calculated a "best estimate" that we believe most accurately represents the general direction of the prediction models.

Typically, the consulting team recommends that the district use this "best estimate" model for planning. The consulting team has also calculated a "lower estimate" and "higher estimate" for consideration by the district as they reflect on local issues that may have near-term impacts not factored into the projections. Exhibit 2-14 is a table detailing the "lower estimate," "higher estimate," and "best estimate."

EXHIBIT 0-14
WEST VALLEY SCHOOL DISTRICT
K-12 ENROLLMENT ESTIMATE RECOMMENDATION

	25-26	26-27	27-28	28-29	29-30	30-31
Lower Estimate	5,393	5,351	5,290	5,287	5,259	5,236
Best Estimate	5,423	5,412	5,394	5,401	5,398	5,399
Higher Estimate	5,453	5,473	5,498	5,515	5,537	5,562

Source: K12enroll.com

The green line in Exhibit 2-15 represents the "best estimate" of future enrollments. Both the "lower estimate" and "higher estimate" are also plotted on the graphic representation of the information in Exhibit 2-14.

EXHIBIT 0-15
WEST VALLEY SCHOOL DISTRICT
K-12 ENROLLMENT ESTIMATE RECOMMENDATION – GRAPHIC

Source: K12enroll.com

2.7.2 Grade Span Summary Information

Most school planning activities related to enrollment projections require some additional information in addition to the overall K-12 estimates. The consulting team has provided additional information on a grade span basis for the district's consideration. Exhibit 2-16 provides details of the "best" predictions on a grade level grouping basis. (Please note that totals on the grade level "best" groupings may not equal the totals on K-12 summary table above due to rounding and a variety of technical matters related to the statistical models used.) Exhibits 2-17 through 2-19 are a series of graphical representations of the information in the table related to the "lower estimate," "higher estimate," and "best estimate" of the district's three current grade spans.

EXHIBIT 0-16
WEST VALLEY SCHOOL DISTRICT
SUMMARY OF GRADE LEVEL SPAN MODELS

K-5

	25-26	26-27	27-28	28-29	29-30	30-31
% Change	2,335	2,330	2,325	2,320	2,315	2,310
Regression	2,382	2,392	2,403	2,413	2,423	2,434
Cohort (Linear K)	2,333	2,356	2,343	2,355	2,353	2,390
Cohort (Natality K)	2,300	2,281	2,223	2,189	2,132	2,098
Student per Housing Unit	2,367	2,375	2,388	2,395	2,402	2,410
Lower Estimate	2,314	2,307	2,273	2,254	2,221	2,206
Best Estimate	2,343	2,346	2,336	2,334	2,325	2,328
Higher Estimate	2,372	2,385	2,399	2,414	2,429	2,450

Source: K12enroll.com

6-8

	25-26	26-27	27-28	28-29	29-30	30-31
% Change	1,268	1,256	1,244	1,232	1,220	1,209
Regression	1,265	1,254	1,244	1,233	1,223	1,212
Cohort (Linear K)	1,284	1,274	1,294	1,281	1,313	1,267
Cohort (Natality K)	1,284	1,274	1,294	1,281	1,313	1,267
Student per Housing Unit	1,314	1,319	1,326	1,329	1,333	1,338
Lower Estimate	1,266	1,252	1,248	1,235	1,231	1,211
Best Estimate	1,283	1,275	1,280	1,271	1,280	1,258
Higher Estimate	1,300	1,298	1,312	1,307	1,329	1,305

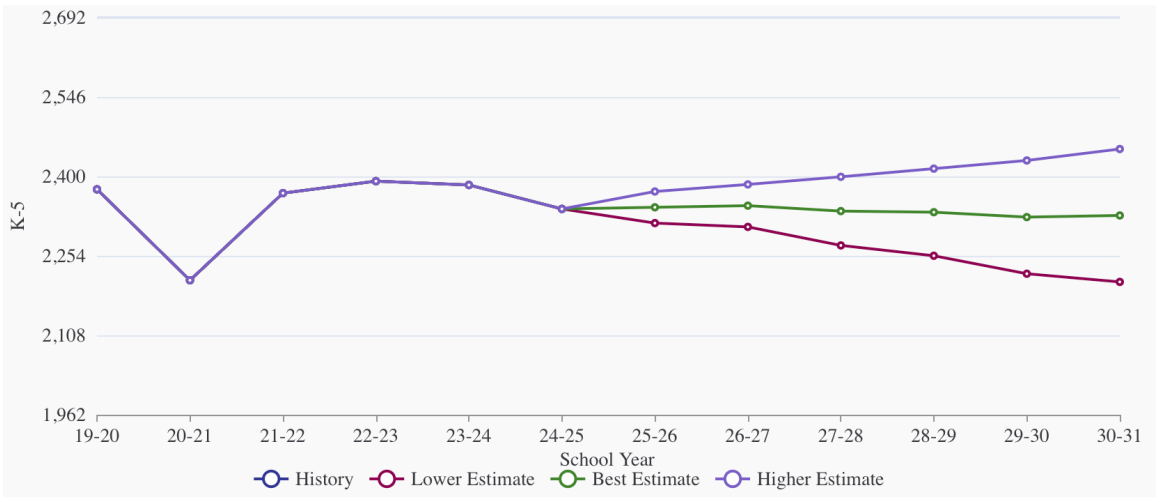
Source: K12enroll.com

9-12

	25-26	26-27	27-28	28-29	29-30	30-31
% Change	1,820	1,833	1,846	1,859	1,872	1,885
Regression	1,816	1,835	1,853	1,871	1,890	1,908
Cohort (Linear K)	1,793	1,756	1,706	1,735	1,710	1,741
Cohort (Natality K)	1,793	1,756	1,706	1,735	1,710	1,741
Student per Housing Unit	1,768	1,775	1,784	1,789	1,795	1,800
Lower Estimate	1,779	1,755	1,715	1,739	1,718	1,745
Best Estimate	1,798	1,791	1,779	1,797	1,795	1,815
Higher Estimate	1,817	1,827	1,843	1,855	1,872	1,885

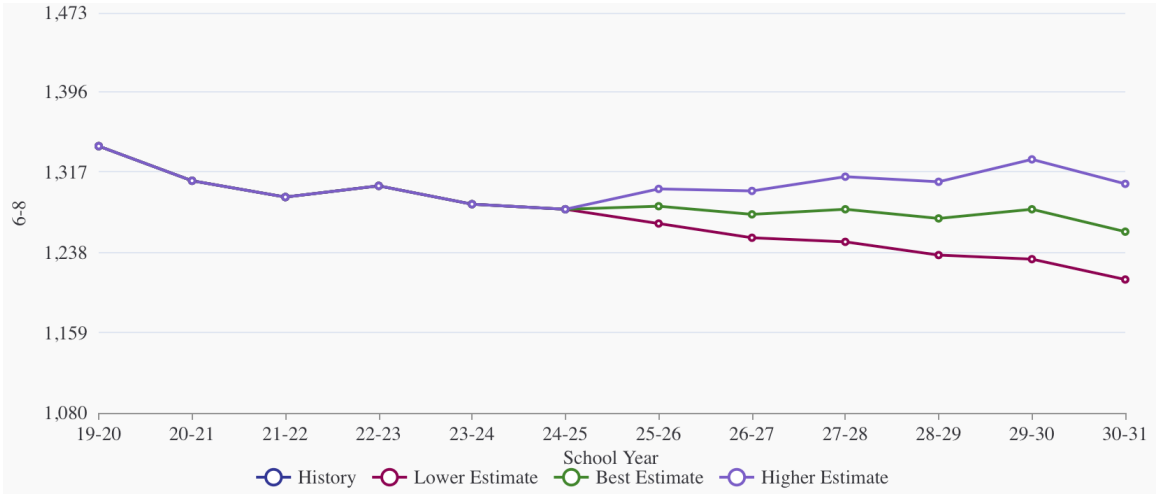
Source: K12enroll.com

EXHIBIT 0-17
WEST VALLEY SCHOOL DISTRICT
SUMMARY OF ELEMENTARY LEVEL MODELS – GRAPHIC



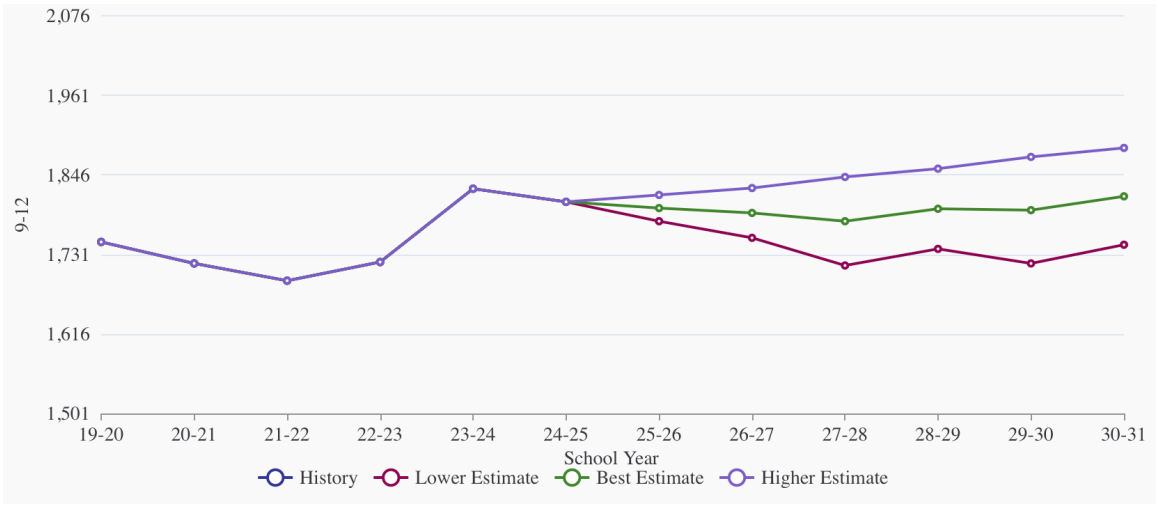
Source: K12enroll.com

EXHIBIT 0-18
WEST VALLEY SCHOOL DISTRICT
SUMMARY OF MIDDLE LEVEL MODELS – GRAPHIC



Source: K12enroll.com

EXHIBIT 0-19
WEST VALLEY SCHOOL DISTRICT
SUMMARY OF HIGH SCHOOL MODELS – GRAPHIC



Source: K12enroll.com

2.7.3 *Additional Considerations*

Every District has unique circumstances that should be considered when utilizing enrollment projection information and the West Valley School District has at least one important item that should be factored into enrollment planning.

a) West Valley School District has consistently generated compelling academic outcomes for students. Test scores, high school graduation rates, breadth of programmatic offerings, daily attendance and number of students matriculating to further education or successful careers place it apart from neighboring districts. Given the unique geography of the region, it is possible that the district may see additional growth at all grade levels from a higher number of students electing in from neighboring districts.