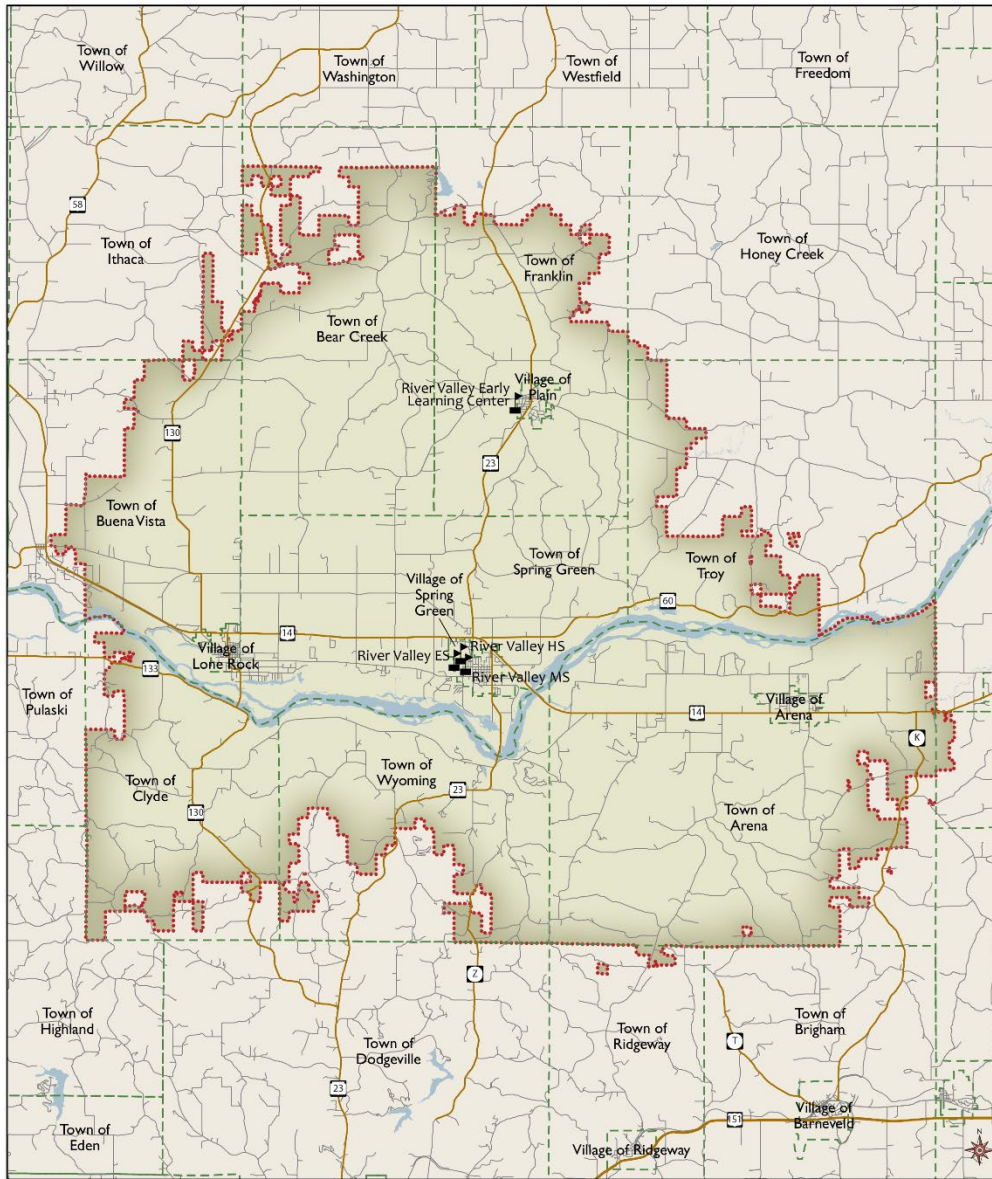# Planning for the Schools of Tomorrow

River Valley School District

Schools

0   1 Mile

School Enrollment Projections Series
River Valley School District

February 2022

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Table of Contents

Executive Summary

This report provides an enrollment projections analysis for the River Valley School District by the Applied Population Laboratory (APL), University of Wisconsin-Madison. The district-wide enrollment for the current 2021/22 school year is 1,123 students. The report takes into consideration past enrollment, current and projected births, and overall trends in population and housing to determine future student enrollment.

- In the last five years, the district has experienced decreasing enrollment at the early learning center (-8.8%) and the elementary school (-13%). Enrollment in grades 5-8 and 9-12 have also been decreasing, 7.6% and 8.4% respectively.

- Overall, trends in births and kindergarten have been declining, however recent kindergarten trends show less decline. Single-family home construction has averaged eighteen new homes annually during the last five years.

- All four models project 4K-12 enrollment to decrease, averaging almost a ten percent decline in the next five years. The Baseline model projects the greatest decline in enrollment, while the Kindergarten Trend model projects the least amount of decrease.

- The Early Learning Center enrollment is likely to decrease the most in the near term, declining by twenty-one percent. Elementary school enrollment is likely to see enrollment decrease by eleven percent in the near term.

- Middle school enrollment will decline the least over the next five years, decreasing by six percent. High school will experience steady enrollment the next three years followed by slightly decreasing enrollment with a decline of eight percent in five years.

- District-level projections should be viewed as having high reliability over the next five years, but increasingly enrollment will likely deviate from the projections over time, especially at the younger grades.

Introduction

Enrollment projections for River Valley School District are presented district-wide, individually for each grade and for grade groupings. The projection process uses a combination of historical enrollment data, birth trends and projections, and housing and population trends to create reasonable assumptions about future growth scenarios and the likely impact on enrollment in the school district.

Projections Compared to Enrollment

The APL completed an enrollment projections analysis for the River Valley School District six years ago, that allows an evaluation of these past projections to district enrollment. Figure A compares the actual enrollment to the district projections that were completed in October 2015. All models under projected enrollment the first three years, especially the Two-Year Trend model. However, during the last three years the projections (except the Two-Year model) were similar to the actual enrollment. The Kindergarten Trend model was the most accurate for 2019/20 and 2021/22 and the Five-Year Trend model was more accurate in 2020/21.

Figure A

Comparison of Projections Models to Actual Enrollment
River Valley School District
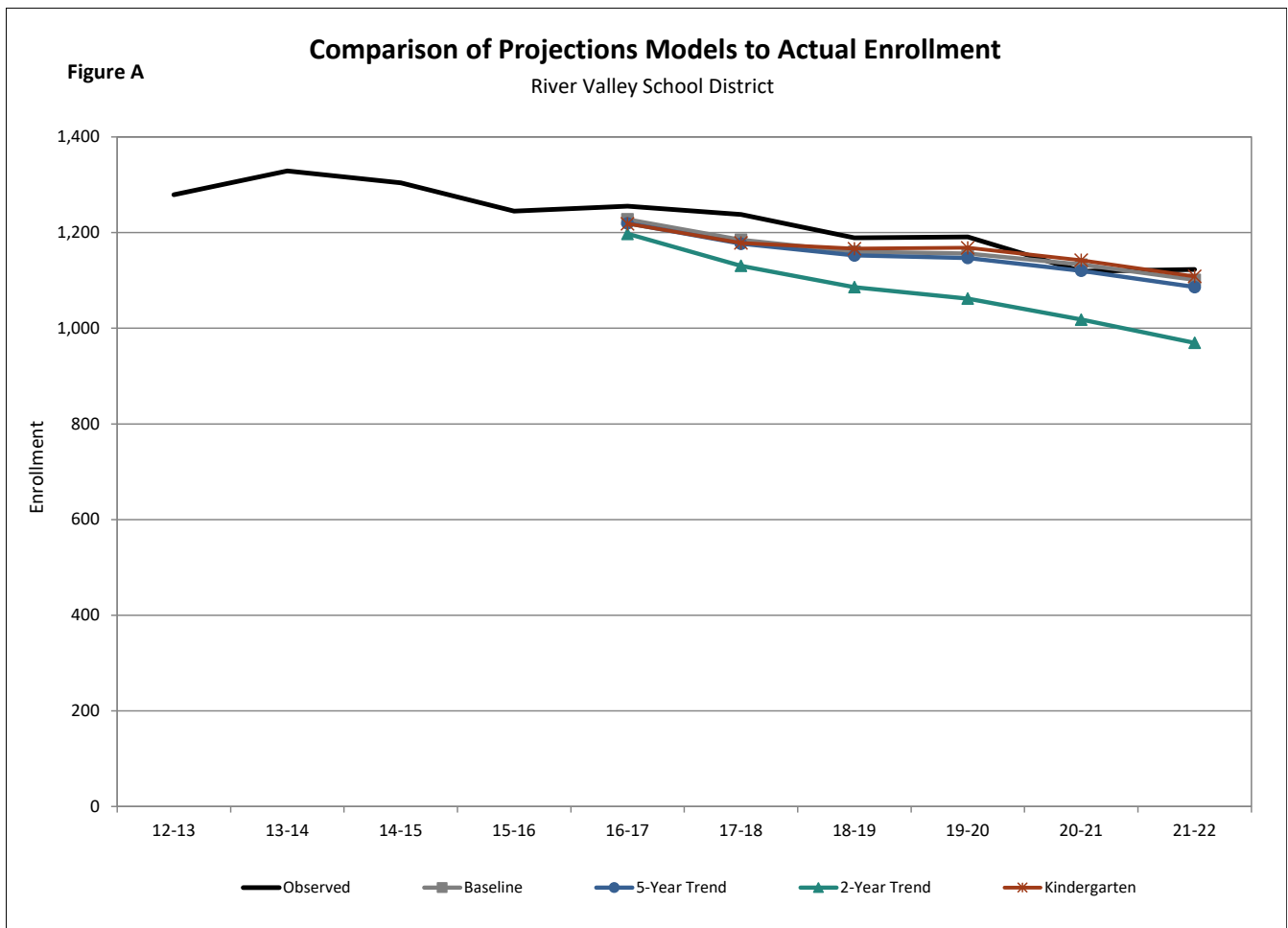
District Enrollment History

Figure 1-A and Table 1-A display the last ten years of enrollment in the River Valley School District. District 4K-12 enrollment has decreased overall in the past ten years, from 1,279 students in the 2012/13 school year to 1,123 students in 2021/22. This is a decrease of 156 students, or a 12% decrease in the number of students attending River Valley schools.
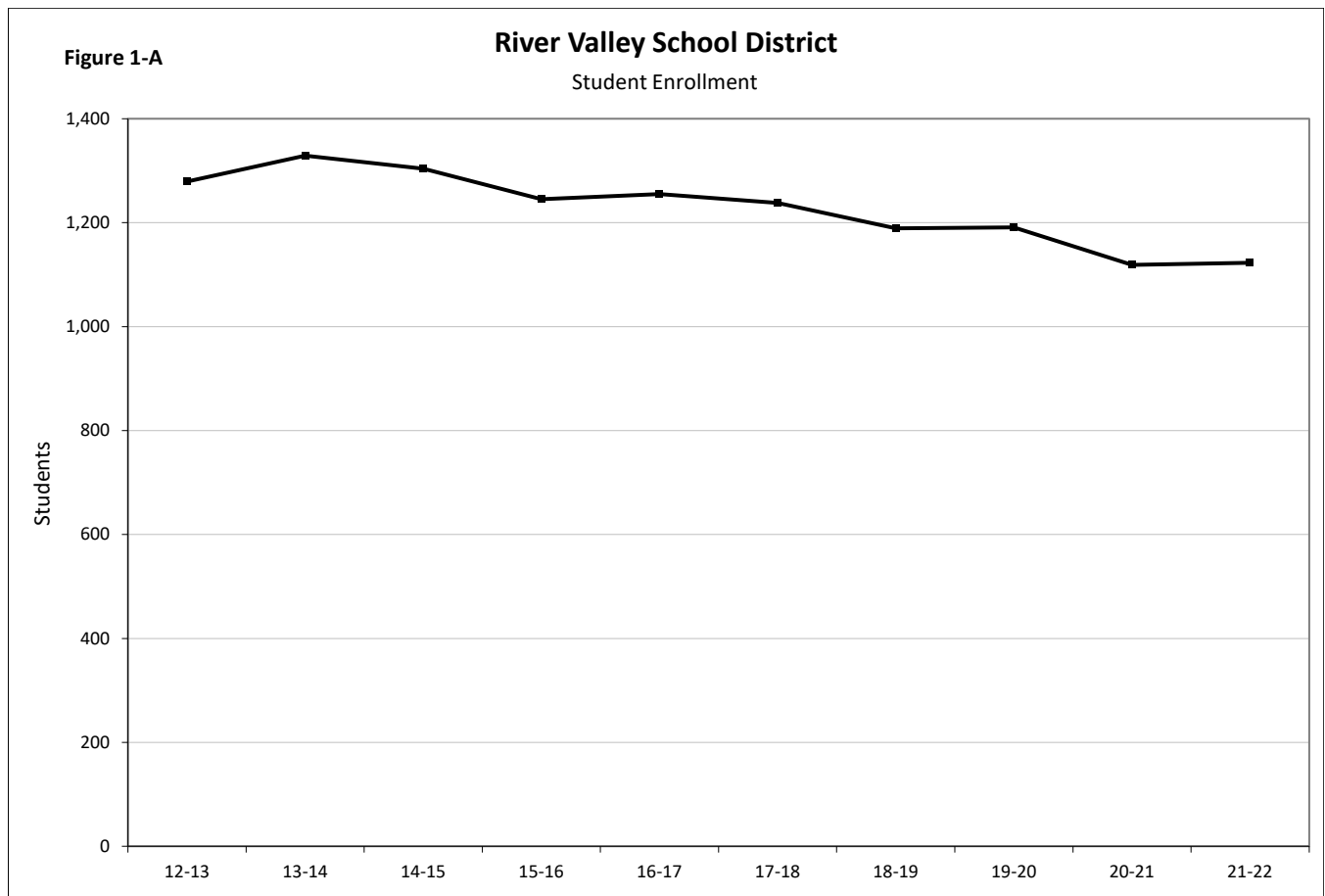

Figure 1-A

River Valley School District
Student Enrollment

TABLE 1-A
Student Enrollment
River Valley School District

	SCHOOL YEAR									
	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22
4K		62	57	64	57	71	57	56	59	52
K	89	92	97	65	77	65	72	61	52	72
1	84	93	88	82	66	70	61	71	63	58
2	73	77	84	80	86	70	61	68	66	66
3	85	75	73	82	77	87	67	68	66	70
4	97	89	72	73	89	76	87	70	61	70
5	95	93	89	71	76	91	80	91	66	69
6	93	104	108	100	88	85	97	87	89	78
7	100	93	100	105	97	92	86	105	88	93
8	113	96	85	102	103	100	94	91	103	100
9	113	120	104	89	120	111	109	100	97	104
10	111	117	123	104	92	123	112	105	90	91
11	117	113	110	123	105	88	113	109	107	95
12	109	105	114	105	122	109	93	109	112	105
TOTAL	1,279	1,329	1,304	1,245	1,255	1,238	1,189	1,191	1,119	1,123
4K-K	89	154	154	129	134	136	129	117	111	124
1-4	339	334	317	317	318	303	276	277	256	264
5-8	401	386	382	378	364	368	357	374	346	340
9-12	450	455	451	421	439	431	427	423	406	395

Table 1-B displays the last five years of open enrollment history. The open enrollment program permits children to attend school in a district other than where they live. Both open enrollment "in" and "out" students have increased over five years with the number of students enrolling out of the district greater than the number of students enrolling in.

TABLE 1-B
Open Enrollment Transfers
River Valley School District

				Net Change by Grade Groupings		
School Year	In	Out	Net	1-4	5-8	9-12
2017-18	40	104	-64	-25	-9	-23
2018-19	49	118	-69	-19	-15	-23
2019-20	48	115	-67	-16	-13	-29
2020-21	43	139	-96	-29	-21	-33
2021-22	53	119	-66	-7	-23	-23

TABLE 2
Student Enrollment Changes
River Valley School District

GRADE	ABSOLUTE CHANGE			PERCENT CHANGE			AVERAGE ANNUAL PERCENT CHANGE		
	'12 to '21	'12 to '16	'17 to '21	'12 to '21	'12 to '16	'17 to '21	'12 to '21	'12 to '16	'17 to '21
4K	-10	57	-19	-16.1	-	-26.8	-2.0	-	-6.7
K	-17	-12	7	-19.1	-13.5	10.8	-2.1	-3.4	2.7
1	-26	-18	-12	-31.0	-21.4	-17.1	-3.4	-5.4	-4.3
2	-7	13	-4	-9.6	17.8	-5.7	-1.1	4.5	-1.4
3	-15	-8	-17	-17.6	-9.4	-19.5	-2.0	-2.4	-4.9
4	-27	-8	-6	-27.8	-8.2	-7.9	-3.1	-2.1	-2.0
5	-26	-19	-22	-27.4	-20.0	-24.2	-3.0	-5.0	-6.0
6	-15	-5	-7	-16.1	-5.4	-8.2	-1.8	-1.3	-2.1
7	-7	-3	1	-7.0	-3.0	1.1	-0.8	-0.8	0.3
8	-13	-10	0	-11.5	-8.8	0.0	-1.3	-2.2	0.0
9	-9	7	-7	-8.0	6.2	-6.3	-0.9	1.5	-1.6
10	-20	-19	-32	-18.0	-17.1	-26.0	-2.0	-4.3	-6.5
11	-22	-12	7	-18.8	-10.3	8.0	-2.1	-2.6	2.0
12	-4	13	-4	-3.7	11.9	-3.7	-0.4	3.0	-0.9
TOTAL	**-156**	**-24**	**-115**	**-12.2**	**-1.9**	**-9.3**	**-1.4**	**-0.5**	**-2.3**
4K-K	35	45	-12	39.3	50.6	-8.8	4.4	12.6	-2.2
1-4	-75	-21	-39	-22.1	-6.2	-12.9	-2.5	-1.5	-3.2
5-8	-61	-37	-28	-15.2	-9.2	-7.6	-1.7	-2.3	-1.9
9-12	-55	-11	-36	-12.2	-2.4	-8.4	-1.4	-0.6	-2.1

Table 2 shows the change in enrollment over the last ten years. The Early Learning Center enrollment has increased by 4.4% annually over the last ten years. The elementary school enrollment has decreased by 2.5% annually over the last ten years, while the middle school enrollment has decreased by 1.7% annually. The high school enrollment has decreased the least, declining by 1.4% annually over the past ten year. Figure 1-B shows the enrollment broken down by grade groupings (4K-K, 1-4, 5-8, and 9-12).

Figure 1-B

River Valley School District
Student Enrollment by Grade Grouping

Legend: 4K-K · 1-4 · 5-8 · 9-12
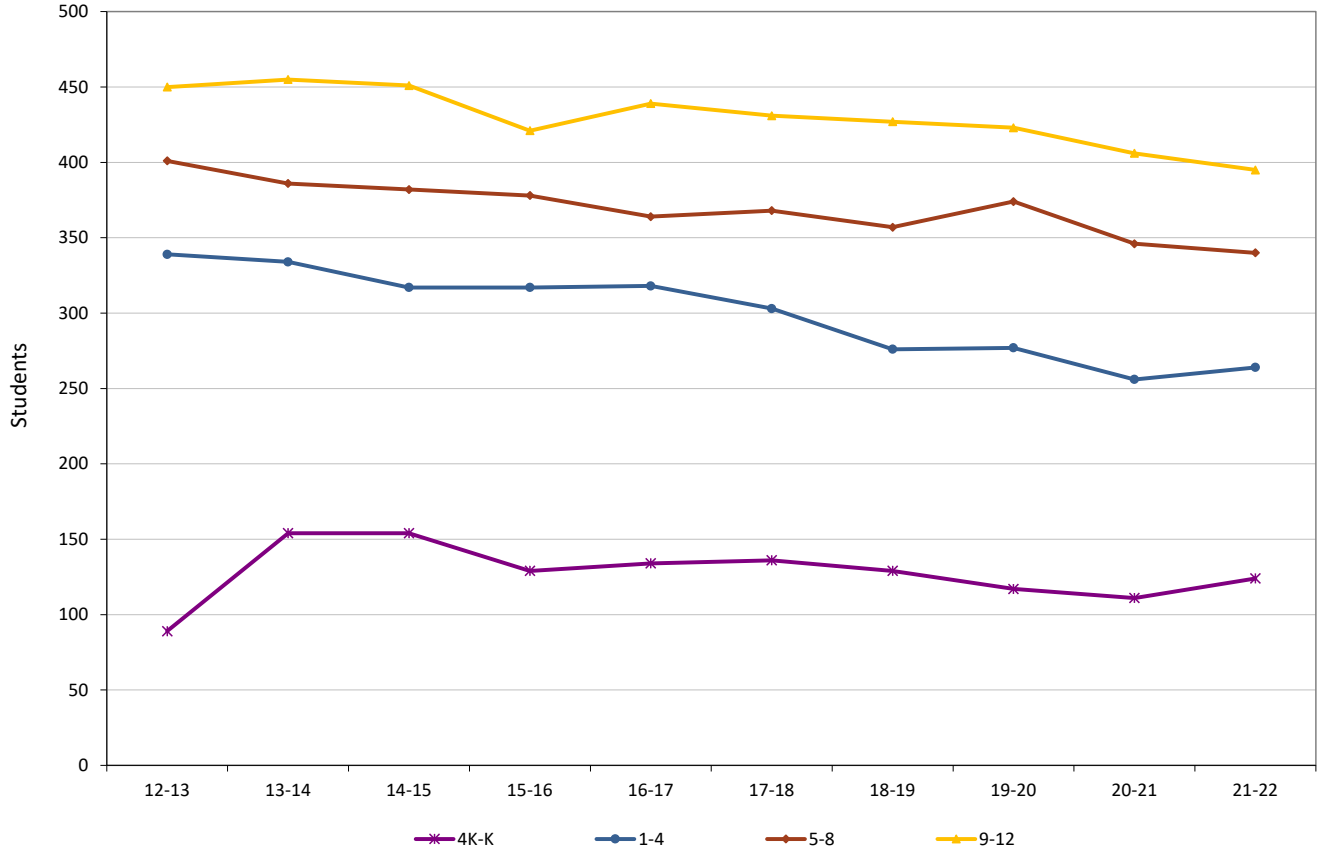
Figure 1-C shows the grade structure in Fall 2021 with the number of 4K at the bottom and the number of 12th graders at the top. The average grade size for grades 9-12 is 99 with 12th grade being the largest among high school grades. Grades 5-8 average grade size is smaller at 85 with 8th grade being largest among middle school grades. Grades 1-4 average grade size is 66 with 4th and 5th grades being largest among elementary school grades.

Figure 1-C

River Valley School District

Grade Structure, Fall 2021

Grade	Number of Students Enrolled
12	105
11	95
10	91
9	104
8	100
7	93
6	78
5	69
4	70
3	70
2	66
1	58
K	72
4K	52
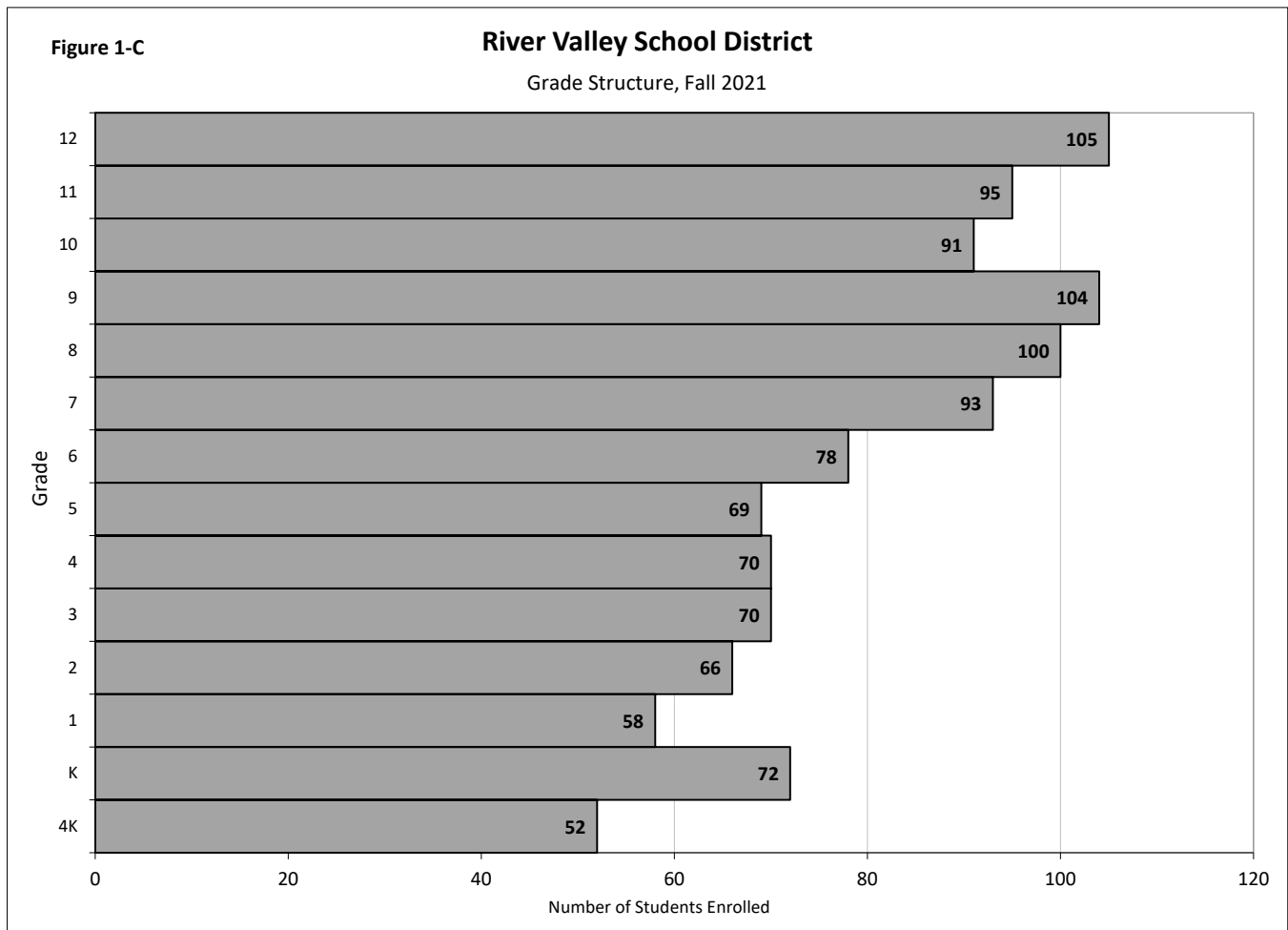
Kindergarten Enrollment Trends

Examining trends in kindergarten enrollment is particularly informative for gaining perspective on future district enrollment, as today's kindergarteners will gradually make up tomorrow's students at the higher grade levels as they age and move through the school system. When kindergarten enrollment is increasing, elementary and middle school enrollment might be expected to increase in the future, while high school enrollment may increase farther in the future. Figure 2-A shows kindergarten enrollment history in black, and trend lines depicting kindergarten enrollment in red and blue. The "Long Term Trend" line (shown in red) averages kindergarten enrollment changes between 2012/13 and 2021/22. The "Recent Trend" line (shown in blue) emphasizes kindergarten enrollment changes over the last five years. In the River Valley School District, recent kindergarten trends show slightly decreasing enrollment, while the long-term kindergarten trend indicates more significant decline. The recent trend will be used to project kindergartners for the Kindergarten Trend model found later in this report.

Figure 2-A

River Valley School District
Kindergarten Enrollment Trends
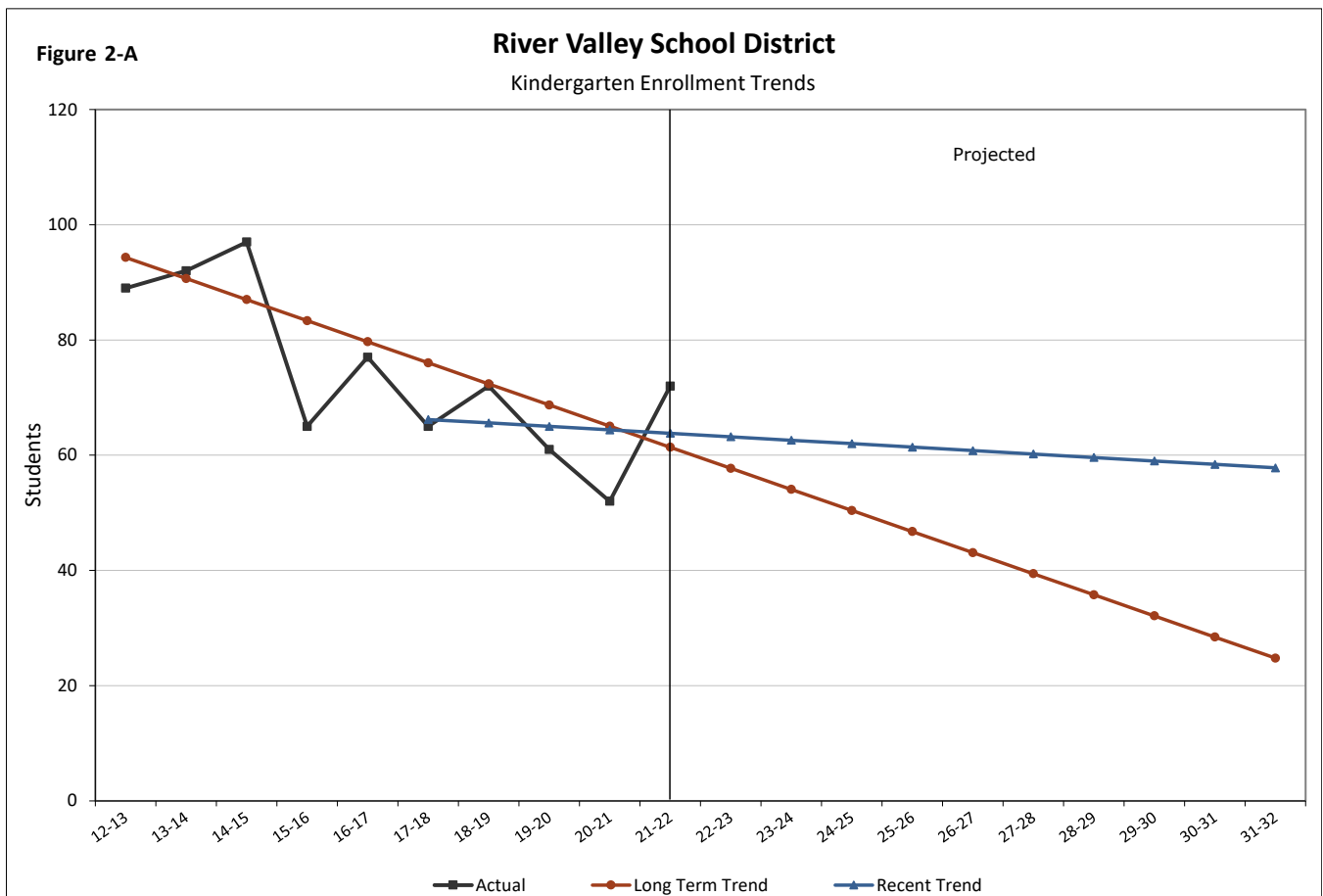
In addition to examining kindergarten enrollment on its own, comparing incoming kindergarteners to the previous year's outgoing 12th graders offers a snapshot of how the age structure of district enrollment is shifting either from older to younger, or younger to older. Districts tend to experience overall growth when kindergarten enrollment outpaces outgoing 12th graders, and they tend to experience decline when kindergarteners do not fully replace the number of graduates. As illustrated in Figure 2-B, kindergartners have not replaced outgoing 12th graders all ten years.

Figure 2-B

River Valley School District

Kindergarten Replacement
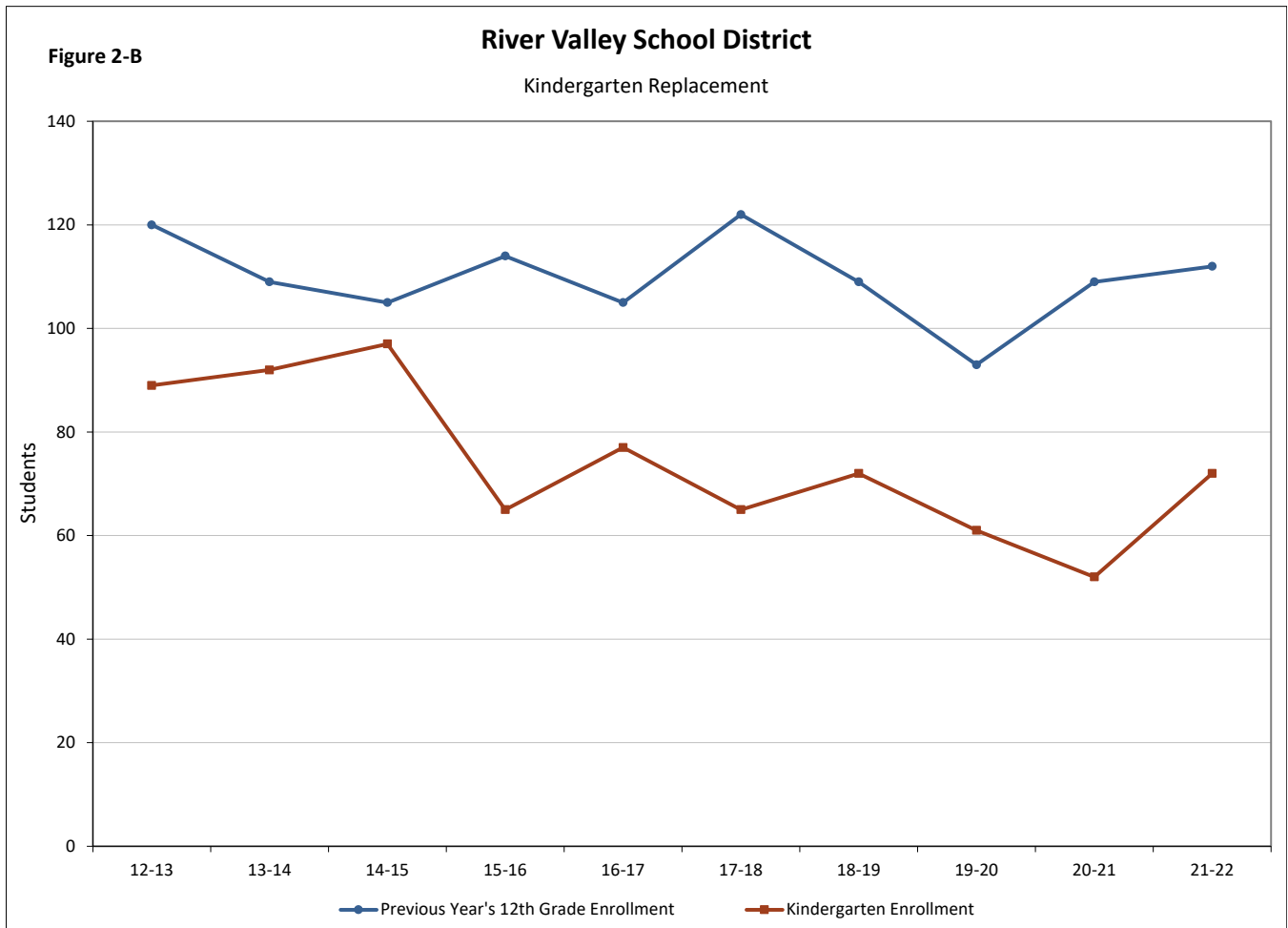
Birth Trends and Projections

We use historical and projected birth data to forecast the number of 4K and 5K students who will enroll in the River Valley School District in future years. Birth data, as collected and summarized by the Wisconsin Department of Health Services, is available at the municipal level. Figure 3 shows the number of municipal births, by year, from 2004 through 2020.

Figure 3

River Valley School District
Area Births

Year	2004	2005	2006	2007	2008	2009	2010	2011	
# of Births	103	116	108	108	112	114	91	114	
Year	2012	2013	2014	2015	2016	2017	2018	2019	2020
# of Births	93	81	92	106	99	85	85	74	79
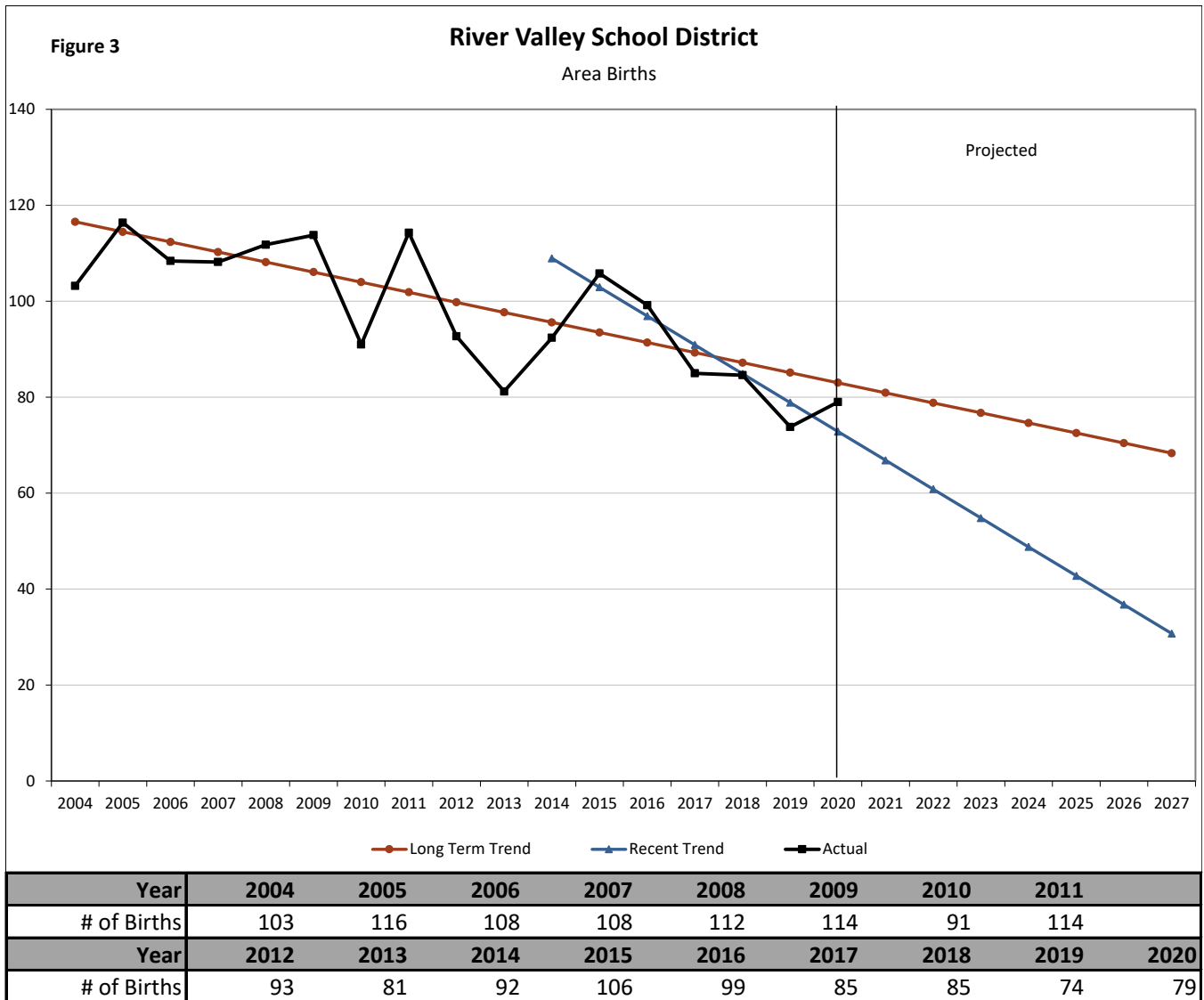
Source: WI Department of Health Services

We extrapolate long- and short-range birth trends into the future to correspond with our baseline and recent trend models. Long-term and recent birth trends indicate a decreasing number of births. The red line represents the birth trends over the past seventeen years and is utilized in the Baseline model. The blue line denotes birth patterns for the last seven years and is applied in the Five-Year and Three-Year trend models.

Population Estimates

This section examines population trends of the recent past for the municipalities within the district. Changes in the total population of the district area provide clues into how the school-age population may be changing. Table 3 provides the U.S. Census population counts for 2010 and 2020 and the Wisconsin Department of Administration's estimates on a biennial basis for 2012 to 2018.

Table 3
Total Population by Municipality: 2010-2020
River Valley School District

| Municipality | POPULATION | | | | | |
	Census 2010	est. 2012	est. 2014	est. 2016	est. 2018	Census 2020
V.Lone Rock	888	887	883	877	873	829
T.Buena Vista	1,869	1,883	1,886	1,894	1,907	1,807
V.Plain	773	770	771	761	754	749
V.Spring Green	1,628	1,632	1,631	1,625	1,630	1,566
T.Bear Creek	595	598	604	608	611	641
T.Franklin	652	646	649	654	661	668
T.Spring Green	1,697	1,701	1,705	1,699	1,713	1,828
V. Arena	834	830	827	825	830	844
T. Arena	1,456	1,465	1,476	1,488	1,503	1,486
T. Clyde	306	307	309	311	312	292
T.Wyoming	302	302	302	299	304	317
District Area	8,936	8,947	8,956	8,943	8,979	8,932
Sauk County	61,976	61,994	62,092	62,187	62,822	65,763
State of Wisconsin	5,686,986	5,703,525	5,732,981	5,775,120	5,816,231	5,893,718

| Municipality | PERCENT CHANGE | | | | | |
	2010 to 2012	2012 to 2014	2014 to 2016	2016 to 2018	2018 to 2020	2010 to 2020
V.Lone Rock	-0.1%	-0.5%	-0.7%	-0.5%	-5.0%	-6.6%
T.Buena Vista	0.7%	0.2%	0.4%	0.7%	-5.2%	-3.3%
V.Plain	-0.4%	0.1%	-1.3%	-0.9%	-0.7%	-3.1%
V.Spring Green	0.2%	-0.1%	-0.4%	0.3%	-3.9%	-3.8%
T.Bear Creek	0.5%	1.0%	0.7%	0.5%	4.9%	7.7%
T.Franklin	-0.9%	0.5%	0.8%	1.1%	1.1%	2.5%
T.Spring Green	0.2%	0.2%	-0.4%	0.8%	6.7%	7.7%
V. Arena	-0.5%	-0.4%	-0.2%	0.6%	1.7%	1.2%
T. Arena	0.6%	0.8%	0.8%	1.0%	-1.1%	2.1%
T. Clyde	0.3%	0.7%	0.6%	0.3%	-6.4%	-4.6%
T.Wyoming	0.0%	0.0%	-1.0%	1.7%	4.3%	5.0%
District Area	0.1%	0.1%	-0.1%	0.4%	-0.5%	0.0%
Sauk County	0.0%	0.2%	0.2%	1.0%	4.7%	6.1%
State of Wisconsin	0.3%	0.5%	0.7%	0.7%	1.3%	3.6%

Source: U. S. Census Bureau & Demographic Services Center, WIDOA

Figure 4 compares the 2010 Census population by age for the River Valley School District with the 2019 estimates from the American Community Survey because detailed age data from the 2020 Census is not yet available. When reviewing this table ages 0 to 24 are in five-year increments, while ages 25 and older are in ten-year increments. All school age children have declined.

Figure 4

River Valley School District
2010-2019 Age Structure
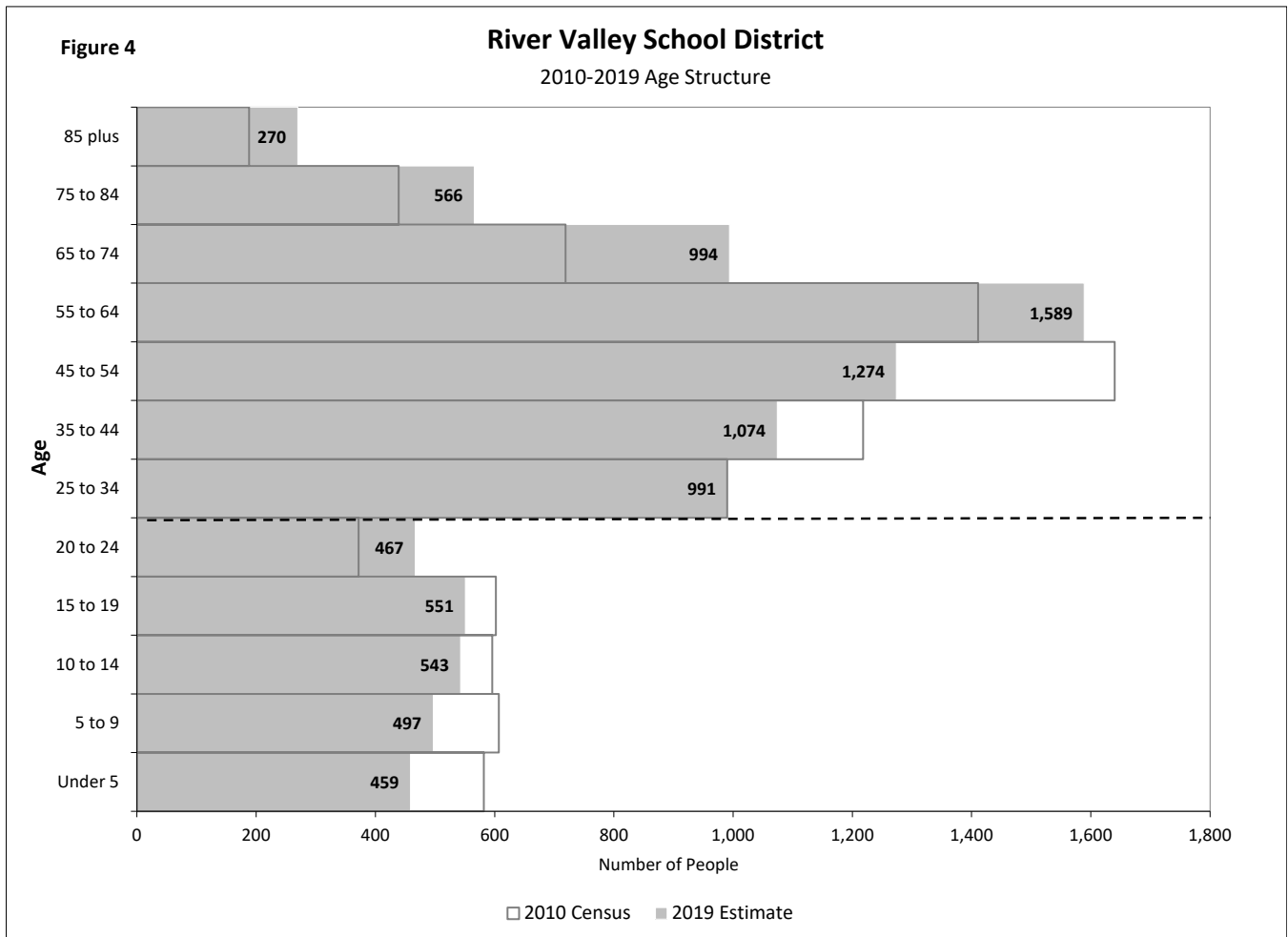
Table 4 also provides the population as enumerated in 2010 by the decennial Census and estimated over the 2015-19 period by the American Community Survey, showing the change in age structure. In specific age groups:

- The number of young people ages 0-19 decreased by an estimated 337.
- Young adults (ages 20-34) in the district area have increased, growing by an estimated 96.
- The adult population ages 35-64 has seen a decrease of 332 residents in terms of the estimated population.
- Older adults, age 65 and over, have increased by 484 residents. This gain can be attributable to the Baby Boom generation, the cohort who were approximately ages 45-64 at 2010.

TABLE 4
Population by Age, 2010-2019
River Valley School District

Age	2010	2019	Difference
Under 5	582	459	-123
5 to 9	607	497	-110
10 to 14	596	543	-53
15 to 19	602	551	-51
20 to 24	372	467	95
25 to 34	990	991	1
35 to 44	1,218	1,074	-144
45 to 54	1,640	1,274	-366
55 to 64	1,411	1,589	178
65 to 74	719	994	275
75 to 84	439	566	127
85 plus	188	270	82
Total	9,364	9,275	-89

Source: U. S. Census Bureau

Past Housing Trends

Examining trends in recent housing development can help to explain how in-migration into the River Valley School District area might be affecting school enrollment. If the number of housing starts in the district area is expected to be reasonably consistent for the next several years, then we assume that in-migration of school-age children will also remain relatively consistent or even decline as households age in place.

Development in the area has consisted primarily of single-family homes. Households in single family homes, on average, contain more school-aged children than in two-family homes. Figure 5 shows housing starts in the area by type of housing unit: single-family homes and duplexes.

Figure 5

River Valley School District
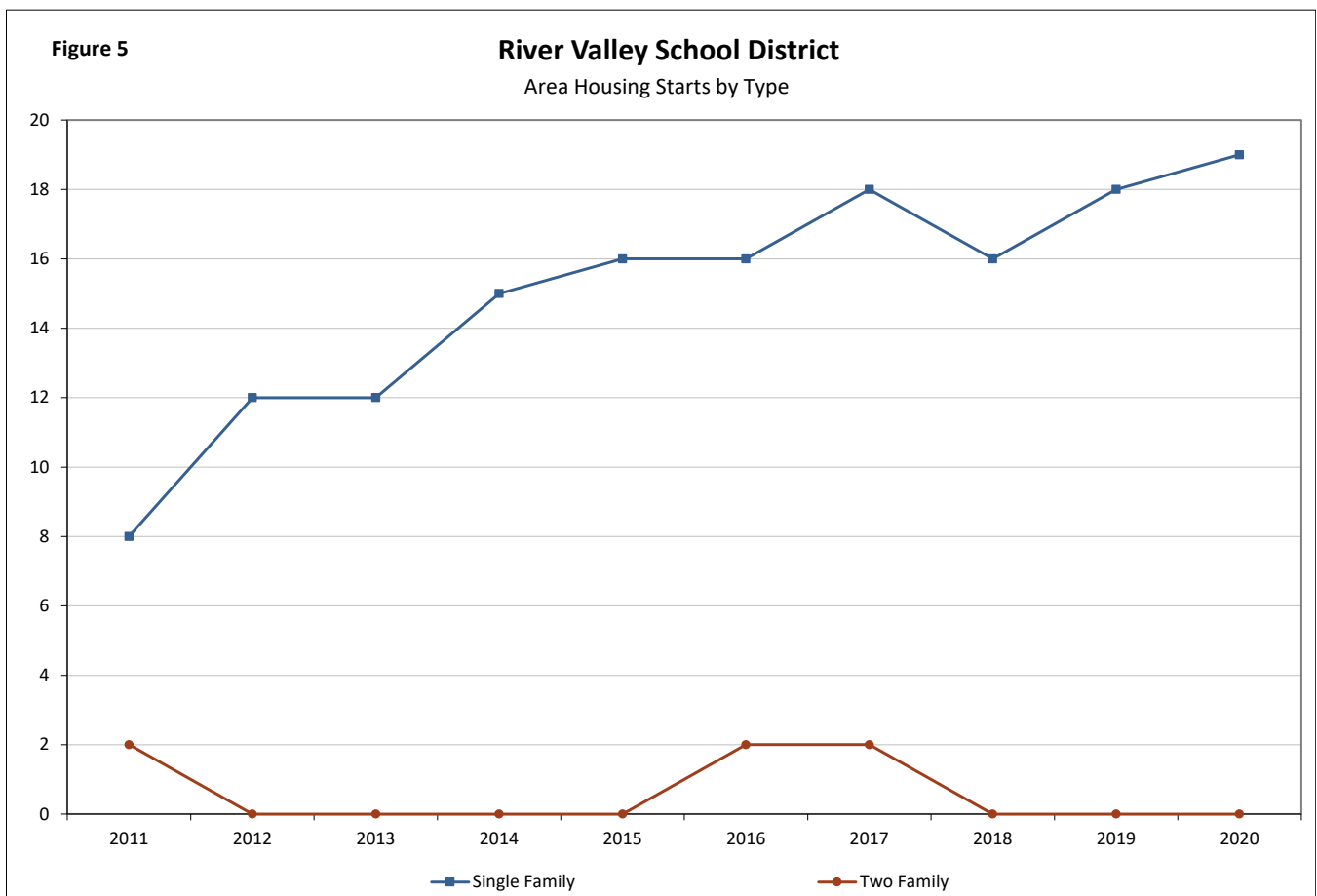### Area Housing Starts by Type

Table 5-A shows the number of new housing starts in the River Valley School District over the past ten years. The new housing totals in the table include the entire municipality although only portions of most towns are in the school district. District area housing starts saw a low in 2011 of 10 units and a high in 2017 of 20 units.

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
District Area										
TOTAL	**10**	**12**	**12**	**15**	**16**	**18**	**20**	**16**	**18**	**19**
Single Family	**8**	**12**	**12**	**15**	**16**	**16**	**18**	**16**	**18**	**19**
Two Family	**2**	**0**	**0**	**0**	**0**	**2**	**2**	**0**	**0**	**0**
V. Lone Rock										
TOTAL	**0**	**1**	**0**	**0**	**0**	**3**	**1**	**0**	**1**	**0**
Single Family	0	1	0	0	0	3	1	0	1	0
Two Family	0	0	0	0	0	0	0	0	0	0
T. Buena Vista										
TOTAL	**4**	**3**	**2**	**3**	**3**	**4**	**3**	**6**	**2**	**6**
Single Family	4	3	2	3	3	2	3	6	2	6
Two Family	0	0	0	0	0	2	0	0	0	0
V. Plain										
TOTAL	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**
Single Family	0	0	0	0	0	0	0	0	1	2
Two Family	0	0	0	0	0	0	0	0	0	0
V. Spring Green										
TOTAL	**2**	**2**	**1**	**1**	**1**	**4**	**3**	**3**	**1**	**1**
Single Family	0	2	1	1	1	4	1	3	1	1
Two Family	2	0	0	0	0	0	2	0	0	0
T. Bear Creek										
TOTAL	**1**	**2**	**4**	**5**	**1**	**1**	**5**	**2**	**8**	**2**
Single Family	1	2	4	5	1	1	5	2	8	2
Two Family	0	0	0	0	0	0	0	0	0	0
T. Franklin										
TOTAL	**0**	**3**	**1**	**4**	**5**	**1**	**3**	**1**	**1**	**1**
Single Family	0	3	1	4	5	1	3	1	1	1
Two Family	0	0	0	0	0	0	0	0	0	0
Multi-family	0	0	0	0	0	0	0	0	0	0
T. Spring Green										
TOTAL	**3**	**1**	**3**	**2**	**5**	**3**	**1**	**4**	**1**	**3**
Single Family	3	1	3	2	5	3	1	4	1	3
Two Family	0	0	0	0	0	0	0	0	0	0
V. Arena										
TOTAL	**0**	**0**	**1**	**0**	**1**	**2**	**4**	**0**	**3**	**4**
Single Family	0	0	1	0	1	2	4	0	3	4
Two Family	0	0	0	0	0	0	0	0	0	0
T. Arena										
TOTAL	**4**	**3**	**2**	**3**	**2**	**5**	**8**	**6**	**6**	**4**
Single Family	4	3	2	3	2	5	8	6	6	4
Two Family	0	0	0	0	0	0	0	0	0	0
T. Clyde										
TOTAL	**0**	**1**	**1**	**1**	**1**	**1**	**0**	**3**	**1**	**2**
Single Family	0	1	1	1	1	1	0	3	1	2
Two Family	0	0	0	0	0	0	0	0	0	0
T.Wyoming										
TOTAL	**1**	**1**	**0**	**0**	**2**	**1**	**2**	**2**	**2**	**1**
Single Family	1	1	0	0	2	1	2	2	2	1
Two Family	0	0	0	0	0	0	0	0	0	0

Source: Demographic Services Center, WIDOA

It is also important to consider that turnover in ownership of existing housing stock also contributes to changes in enrollment. Enrollment may change depending upon the cycle of resident homeowners. For instance, a younger community will have a higher child-per-household ratio, whereas an older community will have a lower child-per-household ratio. Several factors make predicting housing turnover difficult. These include variables like attractiveness to young families (demand), as well as suitable and available rental and owner-occupied housing (supply). In addition, housing turnover depends on even more elusive variables determined by housing market conditions, the economy, and individual choices of homeowners.

Turnover in ownership in an older community may result in an increase in the child-per-household number. As younger families move into the area, the school district will tend to see new students enrolling into the district's schools. A change in home ownership may happen over the course of several years at varying rates and may differ between neighborhoods. Absent new housing development or housing turnover, householders age in place and the number of school-aged children eventually declines.

Table 5-B shows the in-migration of the River Valley School District from the 2019 American Community Survey. 90.5% of district residents live in the home they lived in one year ago. This percentage is higher for owner-occupied homes at 93.1%, while predictably a smaller percentage of renters at 80.6% lived at their residence one year ago.

<div align="center">

TABLE 5-B
In-migration, one year ago (2019)
River Valley School District

</div>

	% Living in the Same House	% Moved within Same County	% Moved in from Different County	% Moved in from Different State or Country
Total	90.5	3.4	4.8	1.3
Owner-occupied	93.1	2.6	3.3	1.0
Renter-occupied	80.6	6.4	10.8	2.2
Median age (years)	45.9	34.3	30.0	49.5
Median income (dollars)	$33,309	$31,080	$30,000	$38,438

Source: ACS 2015-2019

Projection Method

 To generate school enrollment projections, we rely on a commonly used demographic technique called the "cohort survival" method or the "grade progression ratio" method. This method advances current students through the school system over time and applies rates of transfer (or "survival") as the students who are now in school age from year-to-year and grade-to-grade. It is through these rates of transfer that we make assumptions about how migration into and out of the district and transfers to and from different school districts will impact future enrollment.

Grade Progression Ratios

 Grade progression ratios are used to measure district enrollment changes that have occurred within the school district in the recent past. By examining these, we can better understand recent changes in enrollment. We use these ratios as the rates of transfer to inform future student projections.

 Table 6 and Figure 6, on the following page, show the grade progression ratios for the River Valley School District. The ratios measure the effects of in- and out-migration and the transfer of students between private and public schools. The ratios are calculated for several pairs of years and then averages of these based on different time frames are calculated for each grade.

 To predict future enrollment under different growth assumptions, three sets of grade progression ratios are calculated:

- Baseline averages ten years of progression ratios with outlying ratios excluded (those outside of one standard deviation of the mean).
- Five-Year Trend averages the past five years of progression ratios with no exclusions.
- Three-Year Trend averages the past two years of progression ratios with no exclusions.

 When the ratio is above 1.0 this indicates that enrollment tends to increase from year to year as each cohort of students advances. When the ratio is below 1.0 this indicates that enrollment tends to decrease from year to year.

 The grade progression ratios can be interpreted in the following manner. The Baseline ratio for 4:5 is 1.025. This means that on average, the fifth-grade class is 2.5% larger than the fourth-grade class from the previous year. The 9:10 Three-Year Trend ratio of .934 indicates that, on average, 93.4% of nineth graders progress to tenth grade.

TABLE 6
Grade Progression Ratios
River Valley School District

YEAR CHANGES	B:K	K:1	1:2	2:3	3:4	4:5	5:6	6:7	7:8	8:9	9:10	10:11	11:12
12-13/13-14	0.828	1.045	0.917	1.027	1.047	0.959	1.095	1.000	0.960	1.062	1.035	1.018	0.897
13-14/14-15	0.896	0.957	0.903	0.948	0.960	1.000	1.161	0.962	0.914	1.083	1.025	0.940	1.009
14-15/15-16	0.588	0.845	0.909	0.976	1.000	0.986	1.124	0.972	1.020	1.047	1.000	1.000	0.955
15-16/16-17	0.681	1.015	1.049	0.963	1.085	1.041	1.239	0.970	0.981	1.176	1.034	1.010	0.992
16-17/17-18	0.659	0.909	1.061	1.012	0.987	1.022	1.118	1.045	1.031	1.078	1.025	0.957	1.038
17-18/18-19	0.676	0.938	0.871	0.957	1.000	1.053	1.066	1.012	1.022	1.090	1.009	0.919	1.057
18-19/19-20	0.610	0.986	1.115	1.115	1.045	1.046	1.088	1.082	1.058	1.064	0.963	0.973	0.965
19-20/20-21	0.611	1.033	0.930	0.971	0.897	0.943	0.978	1.011	0.981	1.066	0.900	1.019	1.028
20-21/21-22	0.812	1.115	1.048	1.061	1.061	1.131	1.182	1.045	1.136	1.010	0.938	1.056	0.981
Baseline	0.675	0.983	0.974	0.979	1.014	1.025	1.119	1.014	1.008	1.070	1.013	0.996	0.995
Five-Year Trend	0.674	0.996	1.005	1.023	1.023	1.063	1.113	1.039	1.046	1.061	0.967	0.985	1.014
Three-Year Trend	0.678	1.045	1.031	1.049	1.001	1.040	1.082	1.046	1.058	1.046	0.934	1.016	0.991

*Shaded progression ratios are excluded from the Baseline Average

Figure 6

River Valley School District
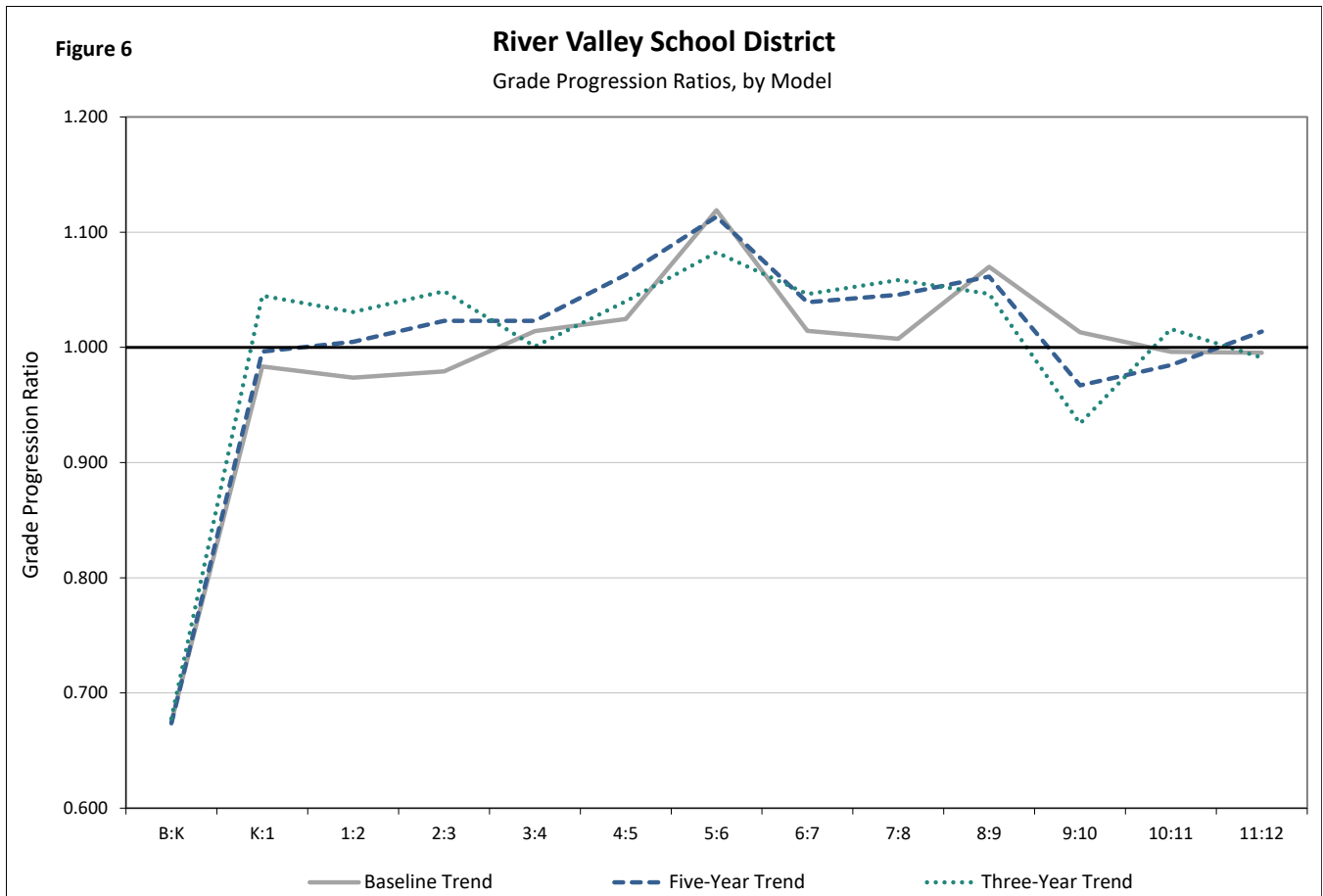Grade Progression Ratios, by Model

Table 7 shows the observed grade progression ratios between births and 4K and between 4K and kindergarten over the last ten years. The 4K:K ratios are not used in the projection calculations, but they provide an indication that kindergarten classes range from 7.3% to 16% larger than the prior year's four-year old kindergarten classes.

To generate 4K enrollment projections, the ten-year grade progression ratio average will be used to project 4K enrollment in the Baseline and Kindergarten Trend models. The five-year grade progression ratio average will be used to project 4K enrollment in the Five-Year Trend model. The three-year grade progression ratio average will be used to project 4K enrollment in the Three-Year Trend model.

TABLE 7
4K Grade Progression Ratios
River Valley School District

	B:4K	4K:K
12-13/13-14	0.573	-
13-14/14-15	0.515	1.565
14-15/15-16	0.566	1.140
15-16/16-17	0.578	1.203
16-17/17-18	0.667	1.140
17-18/18-19	0.570	1.014
18-19/19-20	0.658	1.070
19-20/20-21	0.666	0.929
20-21/21-22	0.513	1.220
Baseline	**0.590**	**1.160**
Five-Year Trend	**0.615**	**1.075**
Three-Year Trend	**0.612**	**1.073**

School Enrollment Projections

When considering all the projections provided in this report for decision-making, it is important to recognize that population projections of all types, including school enrollment projections, are more accurate in the immediate future than they are farther into the future. This is especially true for grades 4K-4, because the students who will enter four-year old kindergarten and kindergarten after 2026 have not yet been born. Overall, our projections are more reliable over the next five years (up to the 2026/27 school year) than they are in the latter half of the next decade.

Baseline Projections

The Baseline model (Table 8) projects enrollment using the assumption that long-term average trends year-to-year, grade-to-grade, will continue. This model assumes that the ten-year trend in enrollment, migration, and births will be representative of future trends in the district. This model projects that 4K-12 enrollment will decrease from 1,123 students in 2021/22 to 968 students in 2026/27, or a decline of 13.8%.

TABLE 8
Baseline Projection Model
River Valley School District

| | SCHOOL YEAR | | | | | | | | | |
	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32
4K	50	46	46	47	47	46	44	43	42	41
K	61	57	52	52	54	54	52	51	49	48
1	71	60	56	51	51	53	53	51	50	49
2	56	69	58	55	50	50	52	51	50	49
3	65	55	67	57	54	49	49	51	50	49
4	71	66	56	68	58	54	50	50	52	51
5	72	73	67	57	70	59	56	51	51	53
6	77	80	81	75	64	78	66	62	57	57
7	79	78	81	83	76	65	80	67	63	58
8	94	80	79	82	83	77	66	80	67	64
9	107	100	85	84	88	89	82	70	86	72
10	105	108	102	86	86	89	90	83	71	87
11	91	105	108	101	86	85	89	90	83	71
12	95	90	104	107	101	86	85	88	89	83
TOTAL	**1,093**	**1,067**	**1,044**	**1,008**	**968**	**934**	**913**	**889**	**861**	**830**
4K-K	111	103	98	99	101	99	97	94	91	89
1-4	263	249	238	231	213	207	203	203	202	197
5-8	322	311	309	297	294	280	267	260	238	231
9-12	398	404	399	379	360	349	346	332	329	313

The Five-Year Trend model (Table 9) uses the grade progression ratios from the last five years and recent trends in the number of births in the district area to project what future enrollment would look like if more recent patterns were representative of future trends.

With recent migration rates and birth trends weighted more heavily, enrollment in the school district is projected to decrease over time, decreasing from 1,123 students in 2021/22 to 1,013 students in 2026/27, or an 9.8% decline.

TABLE 9
Five-Year Trend Projection Model
River Valley School District

GRADE	SCHOOL YEAR									
	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32
4K	52	48	48	44	40	37	34	31	28	24
K	60	57	52	52	51	48	44	41	37	34
1	72	60	57	52	52	51	47	44	40	37
2	58	72	61	57	52	52	51	48	44	41
3	68	60	74	62	58	53	53	52	49	45
4	72	69	61	75	63	60	55	55	53	50
5	74	76	73	65	80	67	64	58	58	57
6	77	83	85	82	72	89	75	71	65	65
7	81	80	86	88	85	75	93	78	74	67
8	97	85	83	90	92	89	78	97	82	77
9	106	103	90	89	96	98	94	83	103	87
10	101	103	100	87	86	92	95	91	81	100
11	90	99	101	98	86	84	91	93	90	79
12	96	91	100	102	100	87	86	92	94	91
TOTAL	1,104	1,085	1,071	1,044	1,013	983	960	933	897	853
4K-K	113	105	100	96	91	85	78	71	65	58
1-4	269	261	252	247	226	216	206	198	187	173
5-8	330	324	328	325	329	321	310	304	278	266
9-12	393	396	391	376	367	361	365	360	368	356

The Three-Year Trend model (Table 10) uses the grade progression ratios from the last three years to project what future enrollment would look like if even more recent patterns were representative of future trends. For the Three-Year Trend model, enrollment is projected to decrease from 1,123 students in 2021/22 to 1,015 students in 2026/27, or a 9.6% decline.

TABLE 10
Three-Year Trend Projection Model
River Valley School District

GRADE	SCHOOL YEAR									
	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32
4K	52	47	47	44	40	37	34	31	27	24
K	61	57	52	52	51	48	44	41	37	34
1	75	64	60	55	55	54	50	46	43	39
2	60	78	66	62	57	56	55	52	48	44
3	69	63	81	69	65	59	59	58	54	50
4	70	69	63	81	69	65	59	59	58	54
5	73	73	72	65	85	72	68	62	62	60
6	75	79	79	78	71	92	77	73	67	67
7	82	78	82	83	82	74	96	81	76	70
8	98	86	83	87	87	86	78	101	86	81
9	105	103	90	87	91	91	90	82	106	90
10	97	98	96	84	81	85	85	84	76	99
11	92	99	99	98	86	82	87	87	86	78
12	94	92	98	98	97	85	81	86	86	85
TOTAL	**1,103**	**1,085**	**1,069**	**1,044**	**1,015**	**986**	**965**	**942**	**912**	**875**
4K-K	113	105	100	97	91	85	78	71	65	58
1-4	274	273	270	267	245	234	224	215	202	187
5-8	328	316	316	313	324	323	319	317	291	278
9-12	388	391	384	367	355	344	344	339	354	351

For this method we perform a trend analysis to project the number of future kindergarten students, rather than relying upon the traditional birth to kindergarten (B:K) progression ratio. Then, the five-year grade progression ratios are used for projecting the other grades (1st-12th) in the district. In other words, this model assumes that the number of new kindergarteners each year over the next decade will continue to follow a trend like the past trend in kindergarten enrollment, regardless of the number of observed births in the district area.

According to this hybrid projection method (Table 11), 4K-12 enrollment will decrease over time. The Kindergarten Trend model projects enrollment will decrease from 1,123 students in 2021/22 to 1,057 students in 2026/27 or decreasing by 5.9%.

TABLE 11
Kindergarten Trend Projection Model
River Valley School District

GRADE	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32
4K	50	46	46	47	47	46	44	43	42	41
K	63	63	62	61	61	60	60	59	58	58
1	72	63	62	62	61	61	60	59	59	58
2	58	72	63	63	62	61	61	60	60	59
3	68	60	74	65	64	63	63	62	62	61
4	72	69	61	75	66	66	65	64	64	63
5	74	76	73	65	80	70	70	69	68	68
6	77	83	85	82	72	89	78	78	77	76
7	81	80	86	88	85	75	93	81	81	80
8	97	85	83	90	92	89	78	97	85	84
9	106	103	90	89	96	98	94	83	103	90
10	101	103	100	87	86	92	95	91	81	100
11	90	99	101	98	86	84	91	93	90	79
12	96	91	100	102	100	87	86	92	94	91
TOTAL	1,104	1,091	1,087	1,074	1,057	1,042	1,037	1,033	1,023	1,008
4K-K	113	108	108	109	108	106	104	102	100	99
1-4	269	264	260	265	254	251	249	246	244	241
5-8	330	324	328	325	329	324	319	325	311	308
9-12	393	396	391	376	367	361	365	360	368	360

Comparison of Projection Models

Figures 7-11 and Tables 12-16 compare the four enrollment projection models broken down by 4K-12 enrollment and by grade groupings (4K-K, 1-4, 5-8, and 9-12).
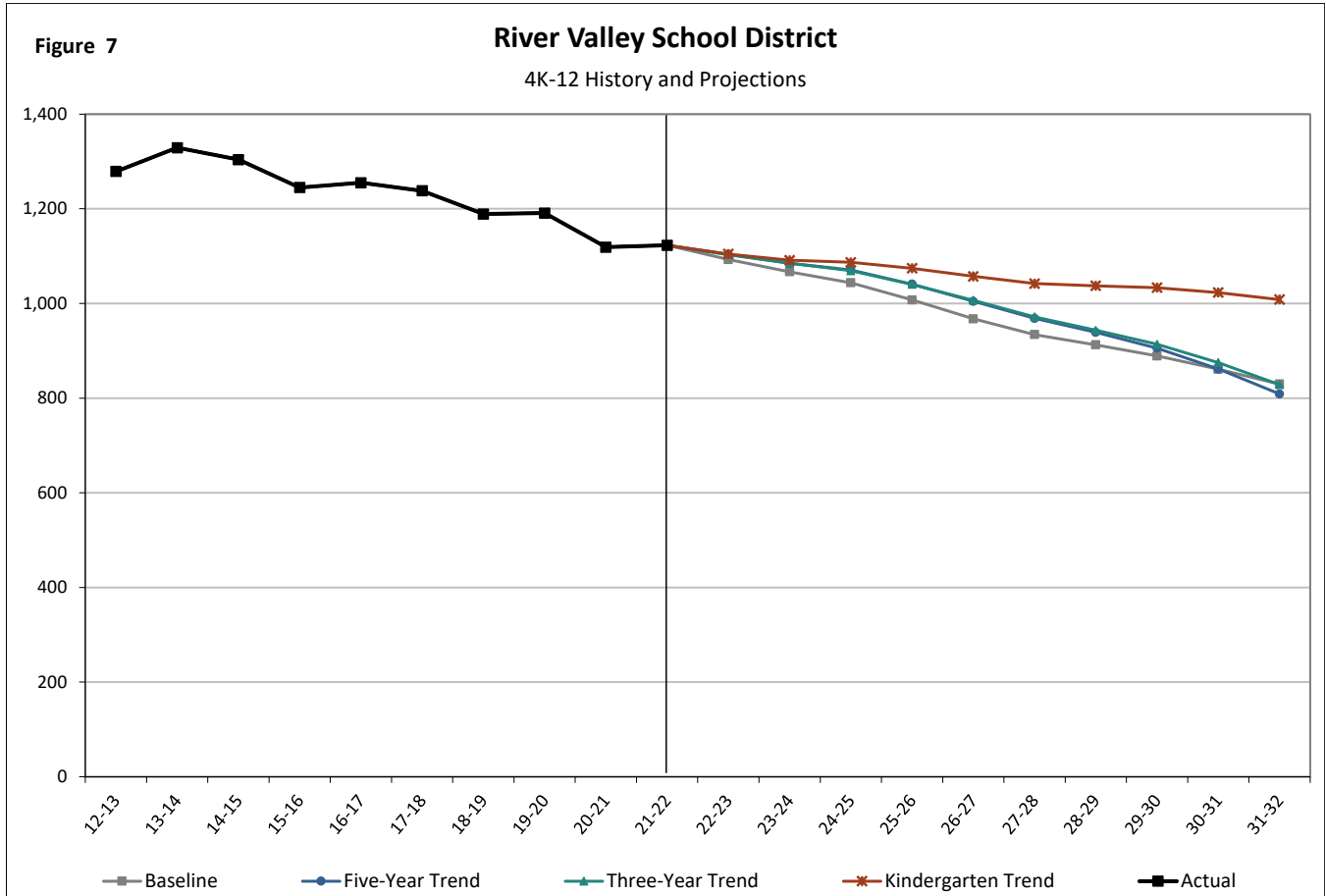

Figure 7

River Valley School District
4K-12 History and Projections

TABLE 12
Summary of 4K-12 Projections
River Valley School District

	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32
Baseline	1,093	1,067	1,044	1,008	968	934	913	889	861	830
Five-Year Trend	1,104	1,085	1,071	1,041	1,005	968	939	906	862	809
Three-Year Trend	1,103	1,085	1,069	1,040	1,007	972	943	914	875	829
Kindergarten Trend	1,104	1,091	1,087	1,074	1,057	1,042	1,037	1,033	1,023	1,008

From the 2021/22 enrollment of 1,123, all models show decline over the next five years. The Baseline model projects the greatest enrollment decrease, while the Kindergarten Trend projects the smallest enrollment decline. The projections five years from now (2026/27) range from 968 to 1,057 students.

Figure 8

River Valley School District
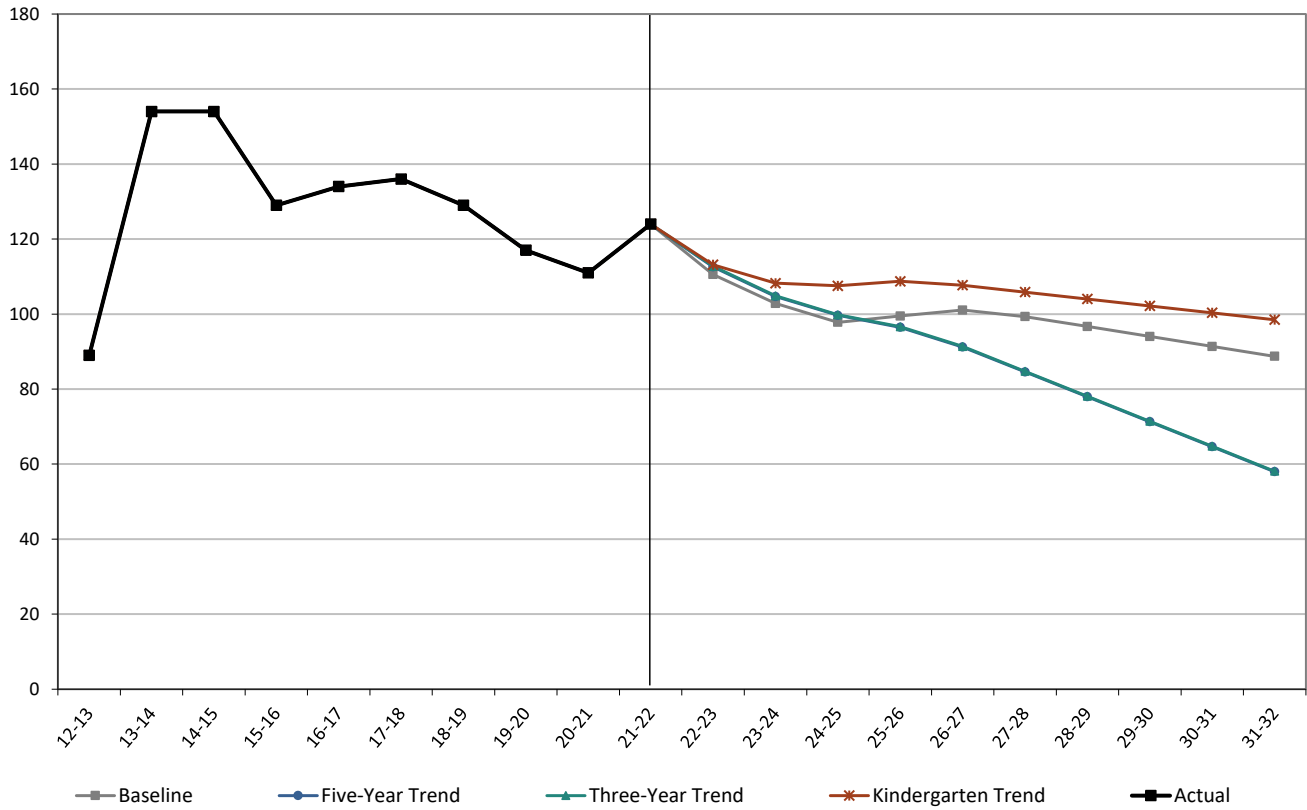### 4K-K History and Projections

Legend: Baseline — Five-Year Trend — Three-Year Trend — Kindergarten Trend — Actual

TABLE 13
Summary of 4K-K Projections
River Valley School District

	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32
Baseline	111	103	98	99	101	99	97	94	91	89
Five-Year Trend	113	105	100	96	91	85	78	71	65	58
Three-Year Trend	113	105	100	97	91	85	78	71	65	58
Kindergarten Trend	113	108	108	109	108	106	104	102	100	99

From the 4K-K enrollment of 124, the Five-Year and Three-Year trend models show declining enrollment, while the Baseline and Kindergarten Trend model show decreasing enrollment for three years followed by some leveling off. The Early Learning Center projections five years from now (2026/27) forecast a range of enrollment from 91 to 108.
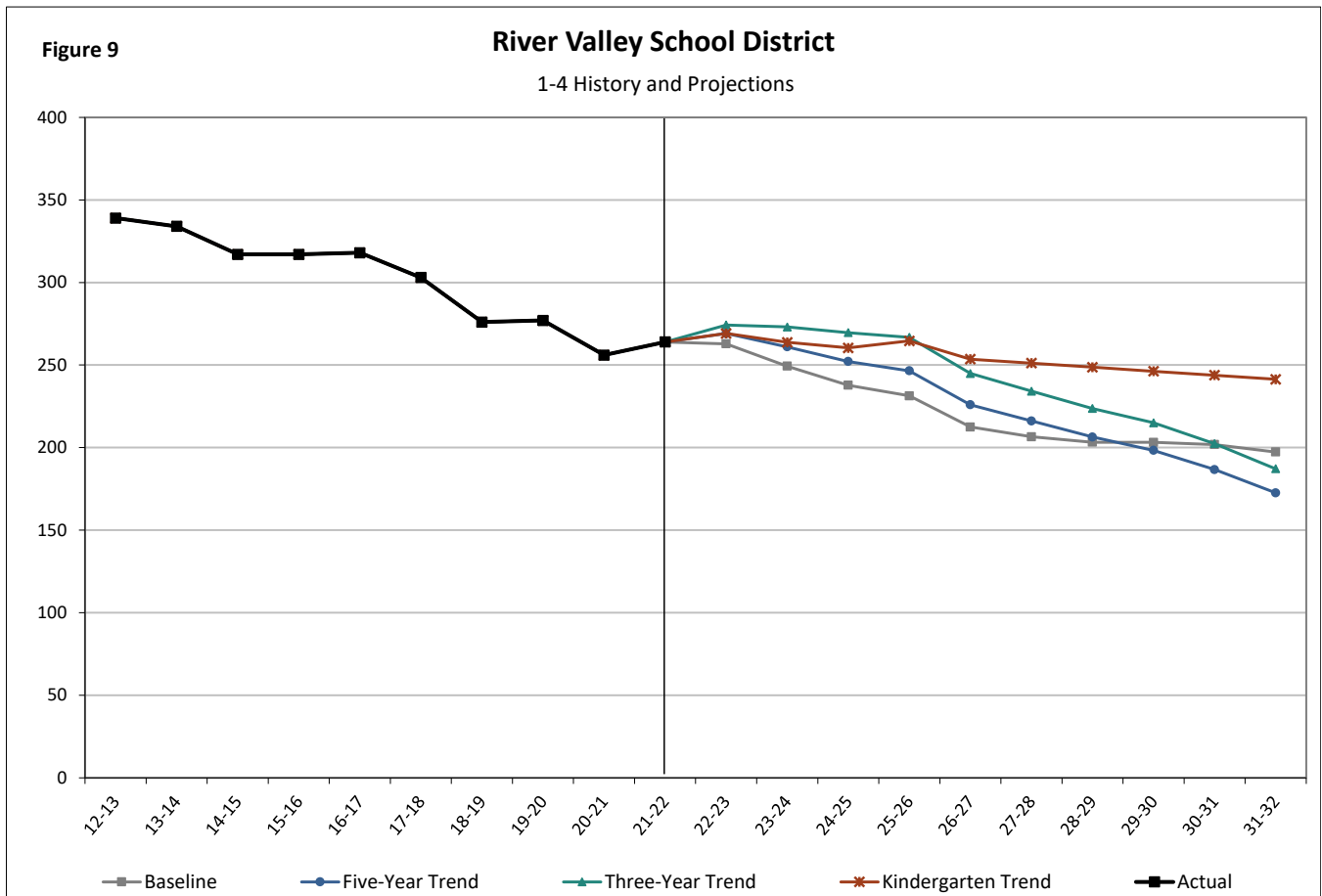
Figure 9

River Valley School District
1-4 History and Projections

Legend: Baseline ■ · Five-Year Trend ● · Three-Year Trend ▲ · Kindergarten Trend ✳ · Actual ■

TABLE 14
Summary of 1-4 Projections
River Valley School District

	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32
Baseline	263	249	238	231	213	207	203	203	202	197
Five-Year Trend	269	261	252	247	226	216	206	198	187	173
Three-Year Trend	274	273	270	267	245	234	224	215	202	187
Kindergarten Trend	269	264	260	265	254	251	249	246	244	241

From the 1-4 enrollment of 264, the models indicate steady enrollment for the next two to three years followed by declining enrollment. The Kindergarten Trend model shows only a slight decrease in enrollment over time. Elementary school projections five years from now (2026/27) forecast a range of enrollment from 213 to 254.
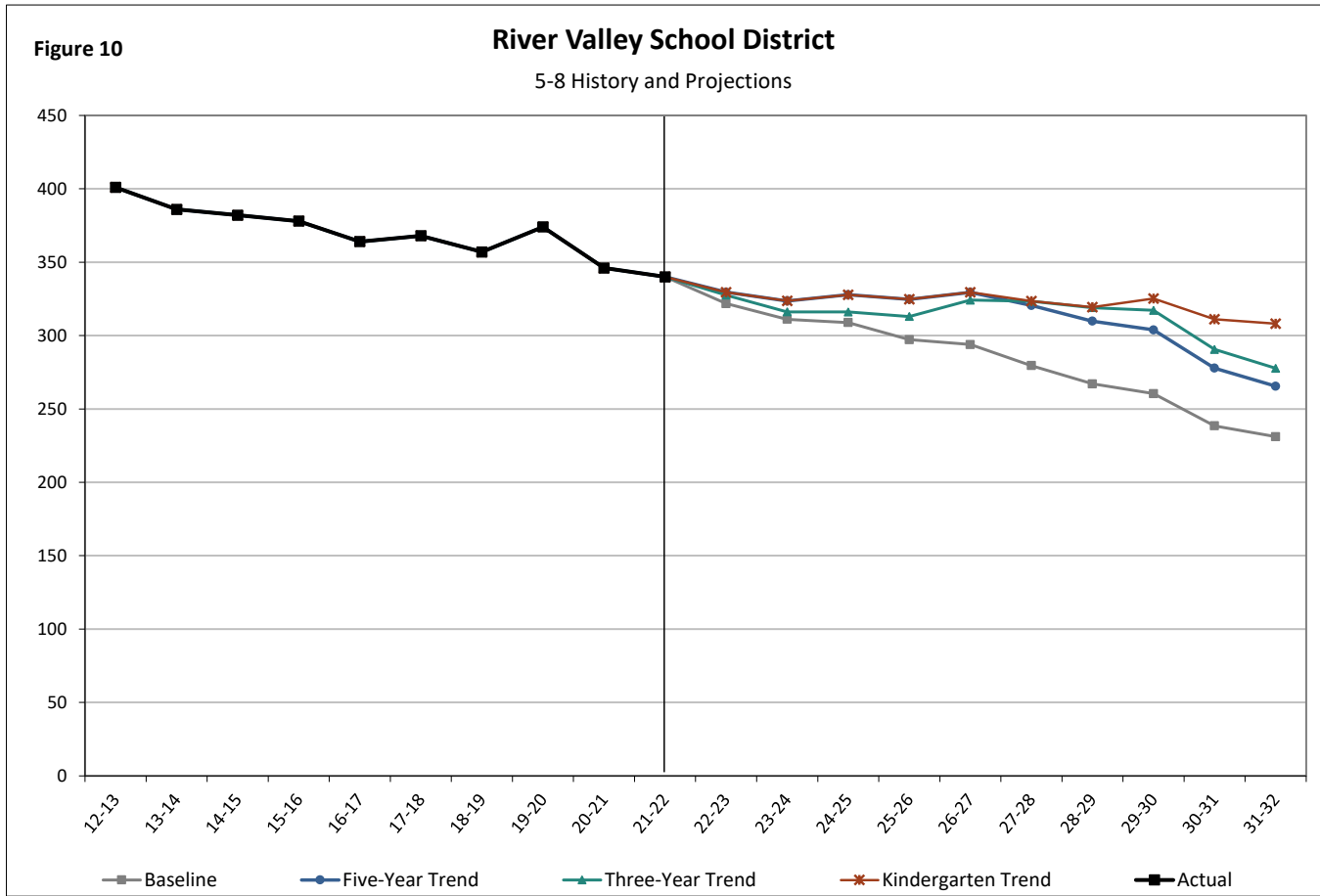
Figure 10

River Valley School District
5-8 History and Projections

TABLE 15
Summary of 5-8 Projections
River Valley School District

	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32
Baseline	322	311	309	297	294	280	267	260	238	231
Five-Year Trend	330	324	328	325	329	321	310	304	278	266
Three-Year Trend	328	316	316	313	324	323	319	317	291	278
Kindergarten Trend	330	324	328	325	329	324	319	325	311	308

5-8 enrollment in 2021/22 is 340. At the middle school grades, the Five-Year, Three-Year, and Kindergarten trend models project mostly steady enrollment the next five years, while the Baseline model indicate decline. Enrollment projections five years from now (2026/27) project a range of enrollment from 294 to 329.
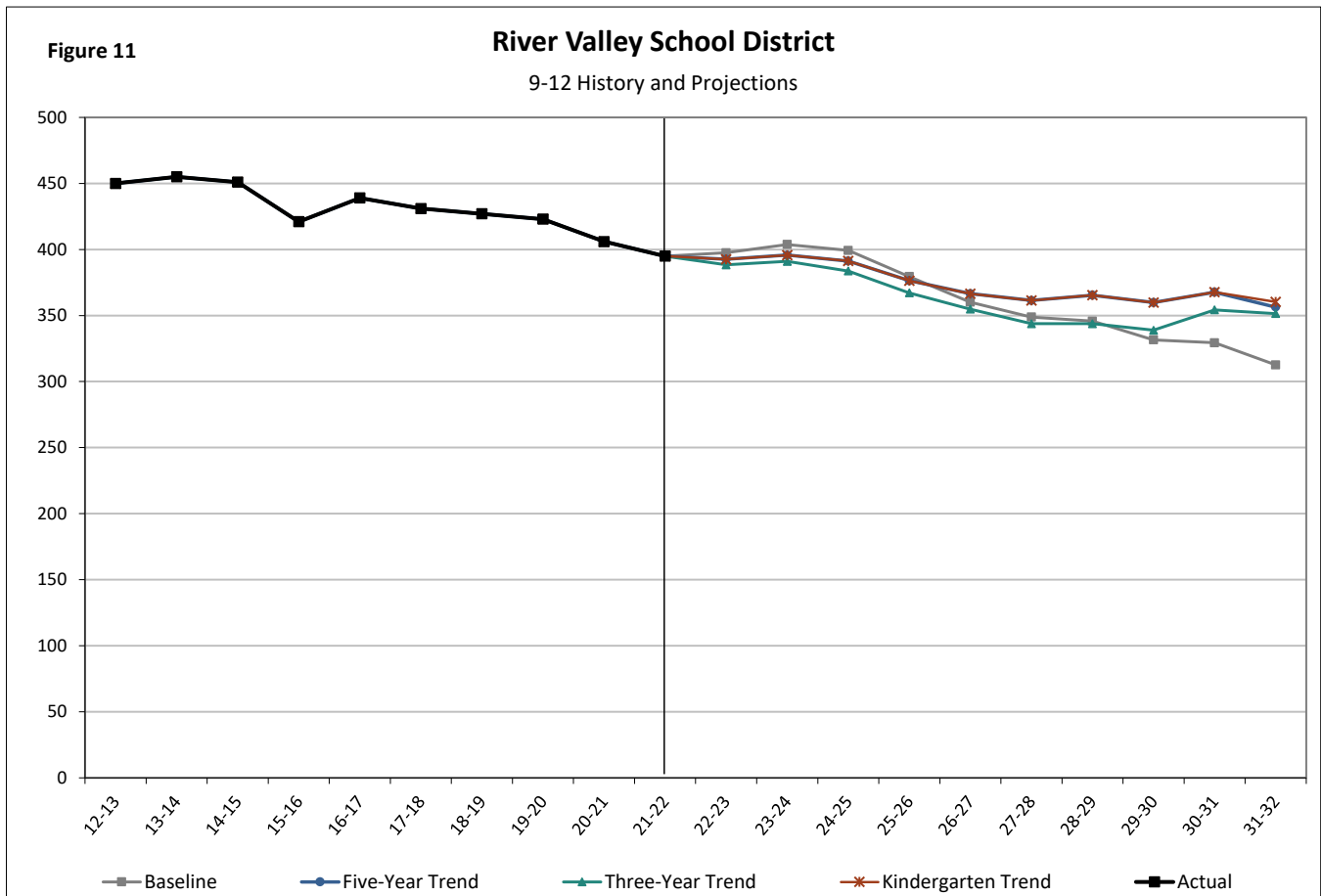
River Valley School District
9-12 History and Projections

Figure 11

TABLE 16
Summary of 9-12 Projections
River Valley School District

	22-23	23-24	24-25	25-26	26-27	27-28	28-29	29-30	30-31	31-32
Baseline	398	404	399	379	360	349	346	332	329	313
Five-Year Trend	393	396	391	376	367	361	365	360	368	356
Three-Year Trend	388	391	384	367	355	344	344	339	354	351
Kindergarten Trend	393	396	391	376	367	361	365	360	368	360

9-12 enrollment in 2021/22 is 395. For the high school grades, all projection models forecast steady enrollment the next three years followed by slightly decreasing enrollment. Enrollment projections five years from now (2026/27) project a range of enrollment from 355 to 367.

Conclusion

These district-level enrollment projections are based on models that incorporate past and current demographic information and the district's own enrollment. Because most of the students in the district's schools over the next few years have already been born or are already in school, and because their grade progression from one year to another is reasonably predictable, the total district-level projections should be viewed as having high accuracy over the next few years.

After a few years, and increasingly for the lower elementary grades, actual enrollment figures will likely deviate from these projections by ever-increasing amounts. The reason for this divergence is that birth trends, in-migration of pre-school age children, and transfers into the district are more difficult to predict, making meaningful incorporation into enrollment projections a challenge. As with nearly all types of forecasts, accuracy in these enrollment projections decreases over time.

Because the projections found in this report incorporate the consequences of migration to and from the district, any significant and sustained interruption of current or recent migration patterns will erode these models' accuracy from the initiation point of the new pattern.

District-wide enrollment projections point to the River Valley School District undergoing decreased enrollment in the near term. Over the next five years, the district might expect:

- 4K-12 enrollment will likely range from a decrease of 66 to 155 students, averaging a 9.8% decline.

- With trends in births and kindergartners showing decline, 4K-K enrollment will likely decrease by 16 to 33 students or averaging a 21% decrease.

- Elementary school enrollment (grades 1-4) will likely range from a decrease of 10 to 51 students or averaging a 11.3% decline.

- As the elementary students progress to middle school, grades 5-8 are likely to lose as many as 11 to 46 students, averaging a decrease of 6.1%.

- High school enrollment (grades 9-12) will lose as many as 28 to 40 students with an 8.4% decline.

The district should continue to monitor enrollment change and compare it with these projections, to assess the district's trajectory of future growth and the best-fitting projections model.