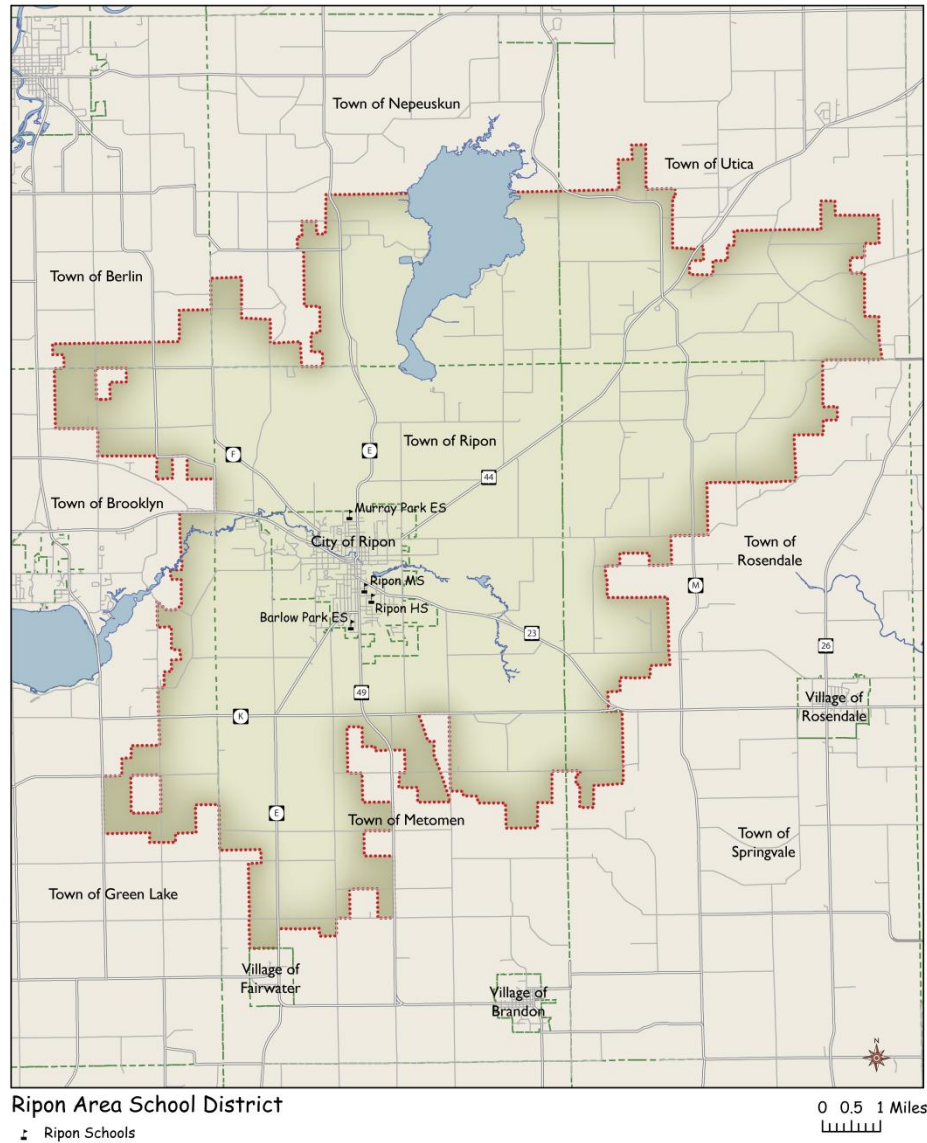


# Planning for the Schools of Tomorrow



## School Enrollment Projections Series Ripon Area School District

May 2013

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## Introduction

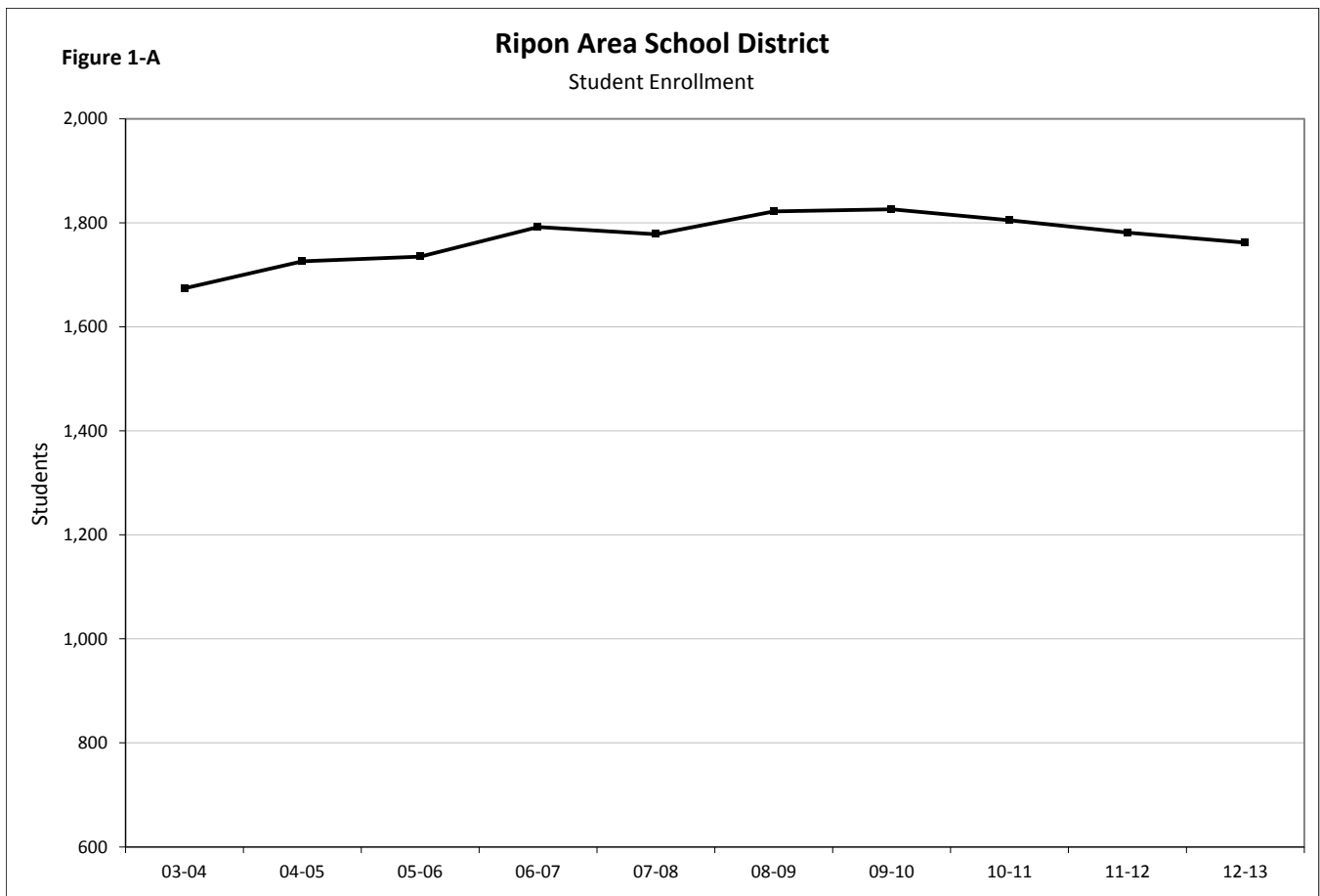
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This report offers a summary of the Enrollment Projection Analysis completed for the Ripon Area School District by the Applied Population Laboratory, University of Wisconsin – Madison. Projections (2013-2022) are provided for the district as a whole, and individually for each grade and grade grouping. The projection process uses a combination of historical enrollment data, birth trends and projections, housing starts data, and population trends and projections to create reasonable assumptions about future growth scenarios and the likely impact on the school district.

## District Enrollment History

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Figure 1-A and Tables 1 and 2 display the last ten years of enrollment history for the Ripon Area School District. Table 2 does not show grade 4K individually, but 4K enrollment is included in the Total section of the table. District enrollment has increased by 88 students over the last ten years, but in the past five years enrollment has declined by -3.3%.



**TABLE 1**  
**Student Enrollment**  
**Ripon Area School District**

	SCHOOL YEAR									
	03-04	04-05	05-06	06-07	07-08	08-09	09-10	10-11	11-12	12-13
4K	0	0	0	75	83	79	86	94	90	77
K	105	132	126	108	118	127	115	126	119	114
1	139	107	135	130	108	121	128	115	119	114
2	151	143	114	137	140	106	124	129	122	120
3	123	151	139	116	138	144	100	128	128	120
4	109	124	154	139	118	135	142	103	129	125
5	120	121	130	151	134	124	143	134	102	134
6	133	124	122	138	147	140	126	143	130	103
7	135	130	130	120	142	152	145	121	142	138
8	129	139	130	127	126	148	154	145	125	144
9	150	136	143	133	127	129	150	154	150	123
10	134	150	137	139	132	129	127	145	155	151
11	138	133	145	136	140	145	137	127	146	143
12	108	136	130	143	125	143	149	141	124	156
<b>TOTAL</b>	<b>1,674</b>	<b>1,726</b>	<b>1,735</b>	<b>1,792</b>	<b>1,778</b>	<b>1,822</b>	<b>1,826</b>	<b>1,805</b>	<b>1,781</b>	<b>1,762</b>
K-12	1,674	1,726	1,735	1,717	1,695	1,743	1,740	1,711	1,691	1,685
K-5	747	778	798	781	756	757	752	735	719	727
6-8	397	393	382	385	415	440	425	409	397	385
9-12	530	555	555	551	524	546	563	567	575	573

**TABLE 2**  
**Student Enrollment Changes**  
**Ripon Area School District**

GRADE	ABSOLUTE CHANGE			PERCENT CHANGE			AVERAGE ANNUAL PERCENT CHANGE		
	'03 to '12	'03 to '07	'08 to '12	'03 to '12	'03 to '07	'08 to '12	'03 to '12	'03 to '07	'08 to '12
K	9	13	-13	8.6	12.4	-10.2	1.0	3.1	-2.6
1	-25	-31	-7	-18.0	-22.3	-5.8	-2.0	-5.6	-1.4
2	-31	-11	14	-20.5	-7.3	13.2	-2.3	-1.8	3.3
3	-3	15	-24	-2.4	12.2	-16.7	-0.3	3.0	-4.2
4	16	9	-10	14.7	8.3	-7.4	1.6	2.1	-1.9
5	14	14	10	11.7	11.7	8.1	1.3	2.9	2.0
6	-30	14	-37	-22.6	10.5	-26.4	-2.5	2.6	-6.6
7	3	7	-14	2.2	5.2	-9.2	0.2	1.3	-2.3
8	15	-3	-4	11.6	-2.3	-2.7	1.3	-0.6	-0.7
9	-27	-23	-6	-18.0	-15.3	-4.7	-2.0	-3.8	-1.2
10	17	-2	22	12.7	-1.5	17.1	1.4	-0.4	4.3
11	5	2	-2	3.6	1.4	-1.4	0.4	0.4	-0.3
12	48	17	13	44.4	15.7	9.1	4.9	3.9	2.3
<b>TOTAL</b>	<b>88</b>	<b>104</b>	<b>-60</b>	<b>5.3</b>	<b>6.2</b>	<b>-3.3</b>	<b>0.6</b>	<b>1.6</b>	<b>-0.8</b>
K-12	11	21	-58	0.7	1.3	-3.3	0.1	0.3	-0.8
K-5	-20	9	-30	-2.7	1.2	-4.0	-0.3	0.3	-1.0
6-8	-12	18	-55	-3.0	4.5	-12.5	-0.3	1.1	-3.1
9-12	43	-6	27	8.1	-1.1	4.9	0.9	-0.3	1.2



Figure 1-B shows enrollment history broken down by grade groupings (4K, K-5, 6-8, and 9-12). Elementary and middle school enrollment have both decreased over the last ten years, declining by 20 and 12 students respectively. High school enrollment on the other hand has increased by 43 students since the 2003/04 school year.

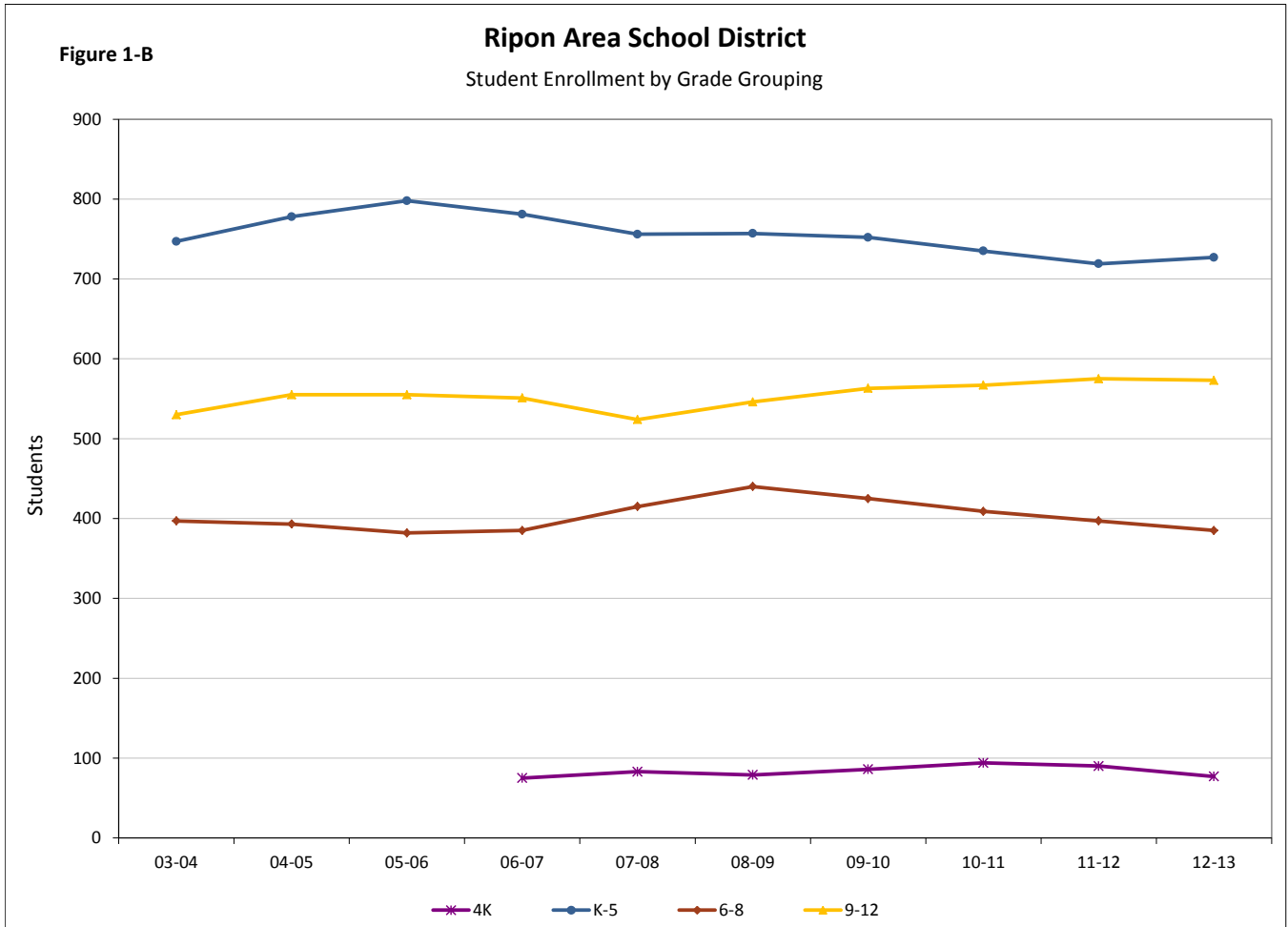
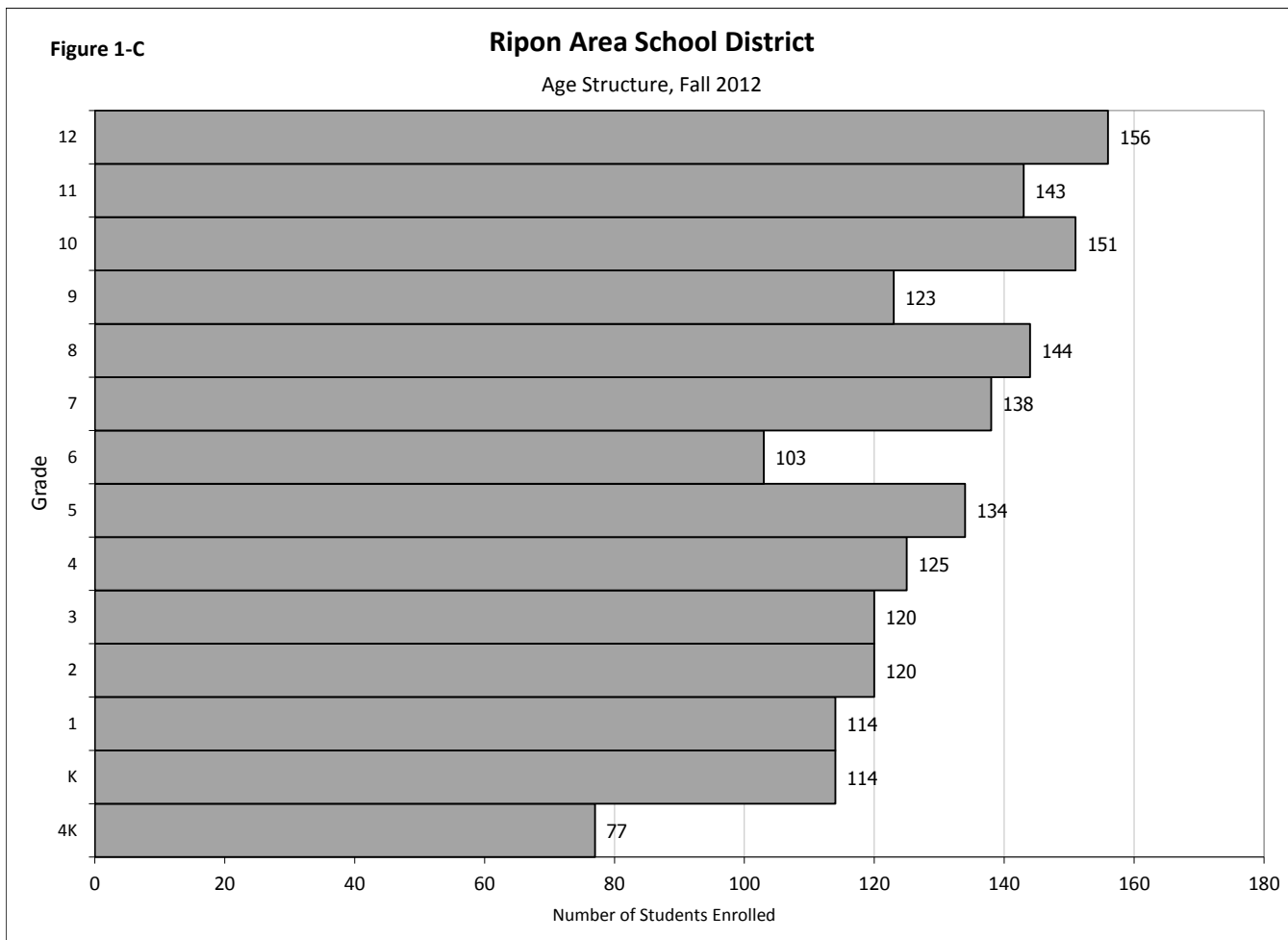
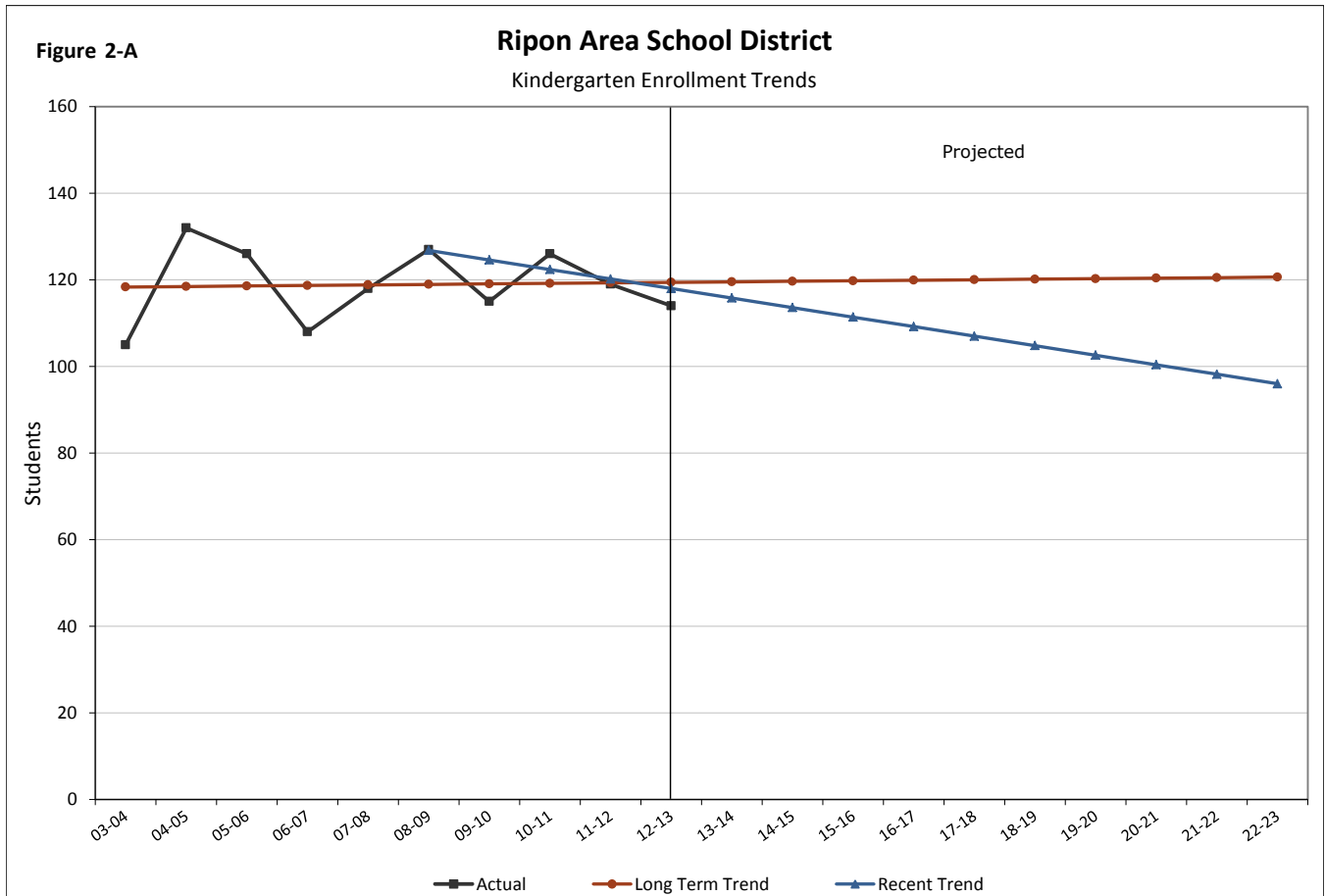


Figure 1-C shows the age structure in fall 2012 of the student population with the number of 4 year old kindergarteners at the bottom and the number of 12<sup>th</sup> graders at top. High school cohorts are relatively large, in comparison to other age groups. The largest grades this school year include 10<sup>th</sup> and 12<sup>th</sup> grades. Cohorts in grades K-3 are relatively small this school year.



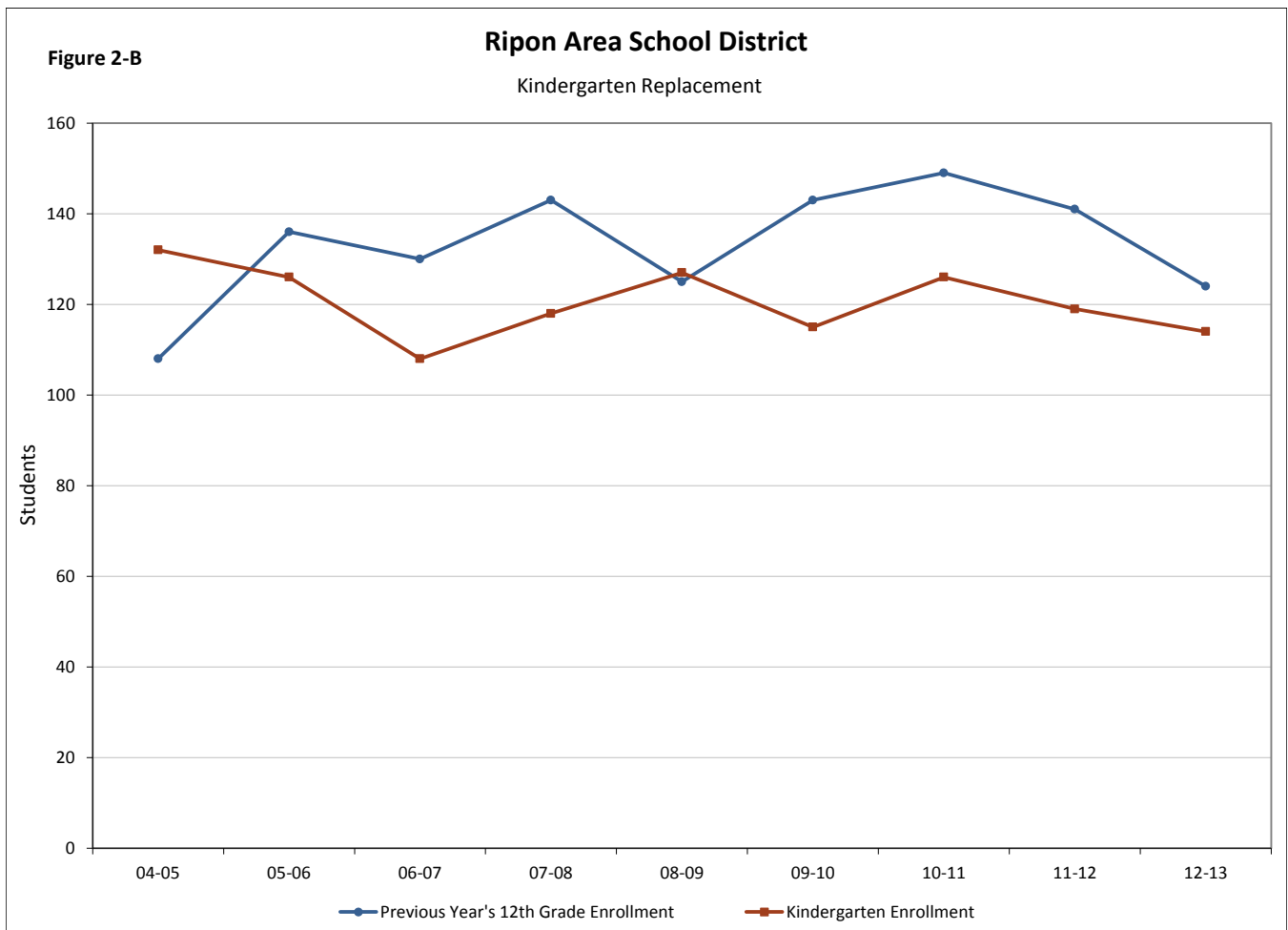
## Kindergarten Enrollment Trends

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 decreasing, elementary and middle school enrollment might be expected to decrease in the near future, while high school enrollment may decrease further 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 2003/04 and 2012/13. The “Recent Trend” line emphasizes kindergarten enrollment changes over the last five years. In Ripon Area School District, the long term trend line shows a slight increase, while the recent trend indicates a decrease in kindergarten enrollment.





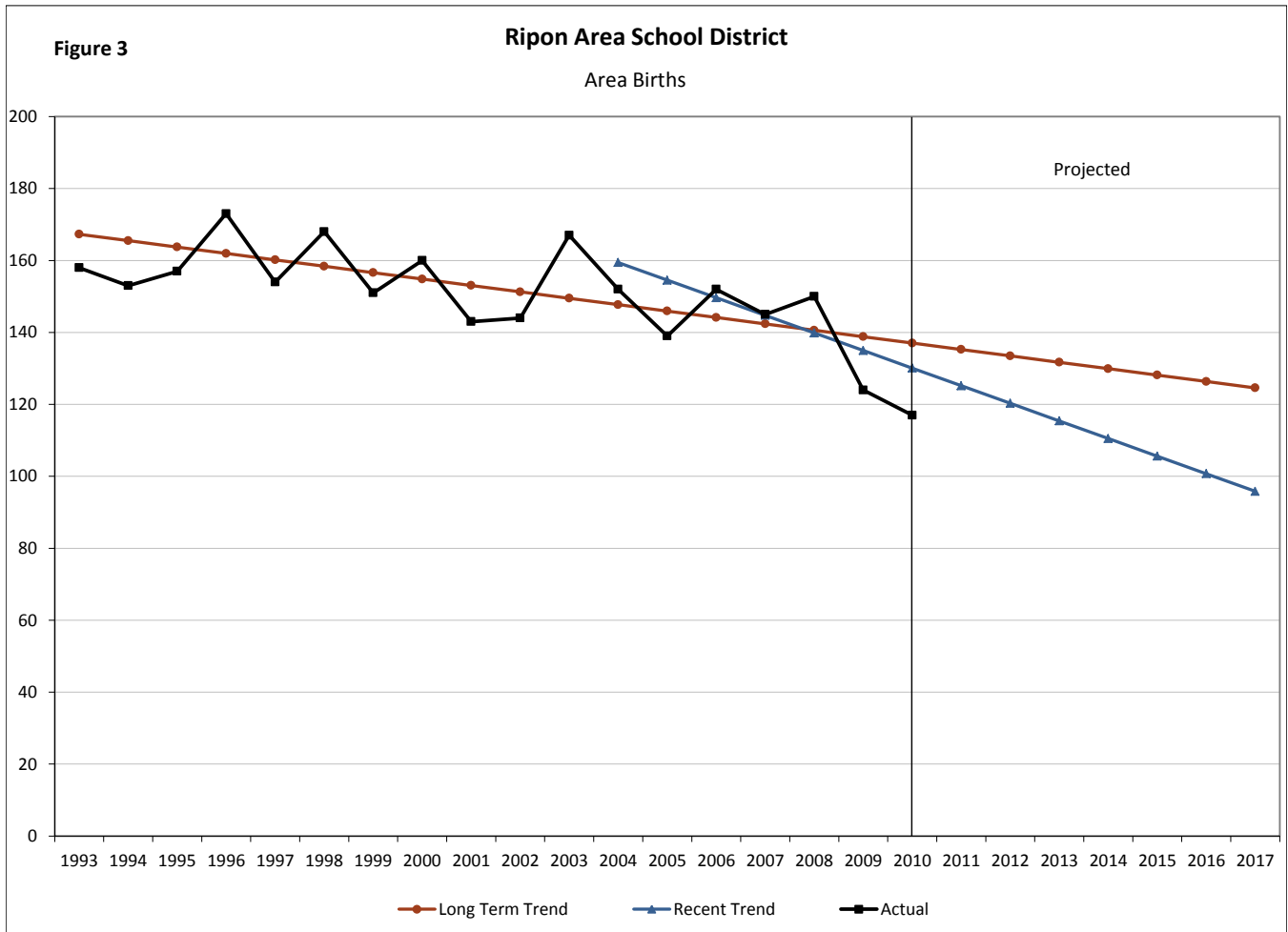
In addition to examining kindergarten enrollment on its own, comparing kindergarten enrollment to outgoing 12<sup>th</sup> graders offers a snapshot of how the age structure of district enrollment is shifting either from older to younger, or younger to older. Districts tend to experience overall growth when kindergarten enrollment outpaces outgoing students, and they tend to experience decline when kindergarteners do not fully replace the number of 12<sup>th</sup> grade graduates. In the Ripon Area School District, 12<sup>th</sup> graders were not fully replaced by kindergarteners the majority of the time.



## Birth Trends and Projections

We use historical and projected birth data to forecast the number of kindergarten students who will enroll in the Ripon Area School District in the future years. Figure 3 shows (in black) the number of births to mothers living in municipalities that fall within school district boundaries, by year, from 1993-2010, as collected from the Wisconsin Department of Health Services. The number of births has fluctuated over the years in the City of Ripon and the surrounding towns, but has overall decreased.

We extrapolate these birth trends into the future to correspond with our Baseline and Recent Trend projection models, using the B:K grade progression ratios to transform births into future kindergarteners. The red line in Figure 3 represents birth trends over the long term (between 1993 and 2010). The blue line examines birth patterns for the last seven years and corresponds to the Recent Trend projection models (5 Year and 2 Year trend models) shown later in this report.



Year	1993	1994	1995	1996	1997	1998	1999	2000	2001
# of Births	158	153	157	173	154	168	151	160	143
Year	2002	2003	2004	2005	2006	2007	2008	2009	2010
# of Births	144	167	152	139	152	145	150	124	117

Source: WI Department of Health Services



## Population Trends

This section examines population trends of the recent past for municipalities that fall within the Ripon Area School District area. Changes in the total population of the district area, particularly when examined by age, provide clues into how the school age population may be changing.

Table 3 and Figures 4-A and 4-B provide U.S. Census counts and Wisconsin Department of Administration (DOA) estimates for district area municipalities from 1990 to 2012. These municipal estimates can be compared with estimates for Fond du Lac County and the State of Wisconsin. The Ripon district area grew from 1990 to 2005, but population has remained steady since then. There was only a slight increase of 0.3% from 2000 to 2010.

**TABLE 3**  
**Total Population by Municipality: 1990-2012**  
**Ripon Area School District**

Municipality	POPULATION						
	Census 1990	est. 1995	Census 2000	est. 2005	Census 2010	est. 2011	est. 2012
T.Brooklyn	1,798	1,894	1,904	1,957	1,826	1,830	1,835
T.Metomen	685	673	709	719	741	740	739
T.Nepeuskun	647	659	689	715	710	714	721
T.Ripon	1,419	1,440	1,379	1,406	1,400	1,405	1,406
T.Rosendale	770	768	783	786	695	694	693
T.Utica	1,046	1,061	1,168	1,232	1,299	1,303	1,304
C.Ripon	7,241	7,447	7,450	7,559	7,733	7,712	7,706
<b>District Area</b>	<b>13,606</b>	<b>13,942</b>	<b>14,082</b>	<b>14,374</b>	<b>14,404</b>	<b>14,398</b>	<b>14,404</b>
Fond du Lac County	90,083	93,388	97,296	100,180	101,633	101,740	101,955
State of Wisconsin	4,891,769	5,101,581	5,363,715	5,580,757	5,686,986	5,694,236	5,703,500

Municipality	PERCENT CHANGE						AVG. ANNUAL 2000-2010
	1990 to 1995	1995 to 2000	2000 to 2005	2005 to 2010	2010 to 2011	2011 to 2012	
T.Brooklyn	5.3%	0.5%	2.8%	-6.7%	0.2%	0.3%	-0.5%
T.Metomen	-1.8%	5.3%	1.4%	3.1%	-0.1%	-0.1%	0.5%
T.Nepeuskun	1.9%	4.6%	3.8%	-0.7%	0.6%	1.0%	0.3%
T.Ripon	1.5%	-4.2%	2.0%	-0.4%	0.4%	0.1%	0.2%
T.Rosendale	-0.3%	2.0%	0.4%	-11.6%	-0.1%	-0.1%	-1.2%
T.Utica	1.4%	10.1%	5.5%	5.4%	0.3%	0.1%	1.2%
C.Ripon	2.8%	0.0%	1.5%	2.3%	-0.3%	-0.1%	0.4%
<b>District Area</b>	<b>2.5%</b>	<b>1.0%</b>	<b>2.1%</b>	<b>0.2%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.3%</b>
Fond du Lac County	3.7%	4.2%	3.0%	1.5%	0.1%	0.2%	0.5%
State of Wisconsin	4.3%	5.1%	4.0%	1.9%	0.1%	0.2%	0.7%

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



Figure 4-A

### Ripon Area School District

Population for Area Municipalities

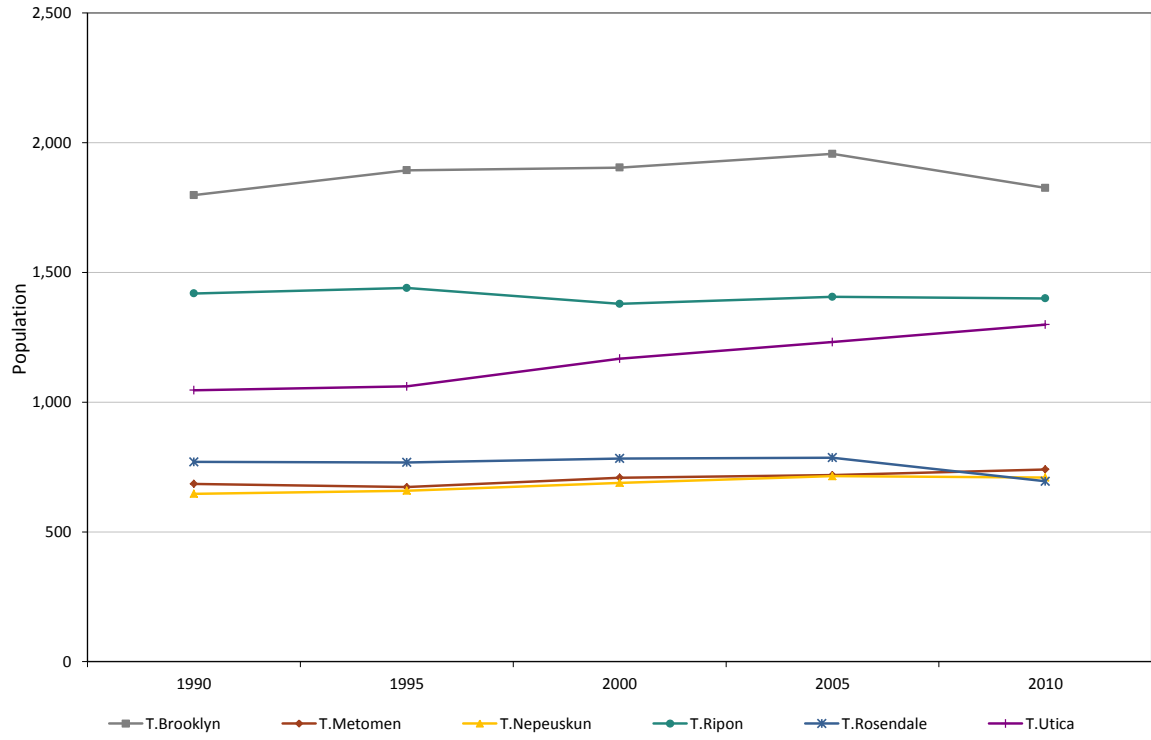
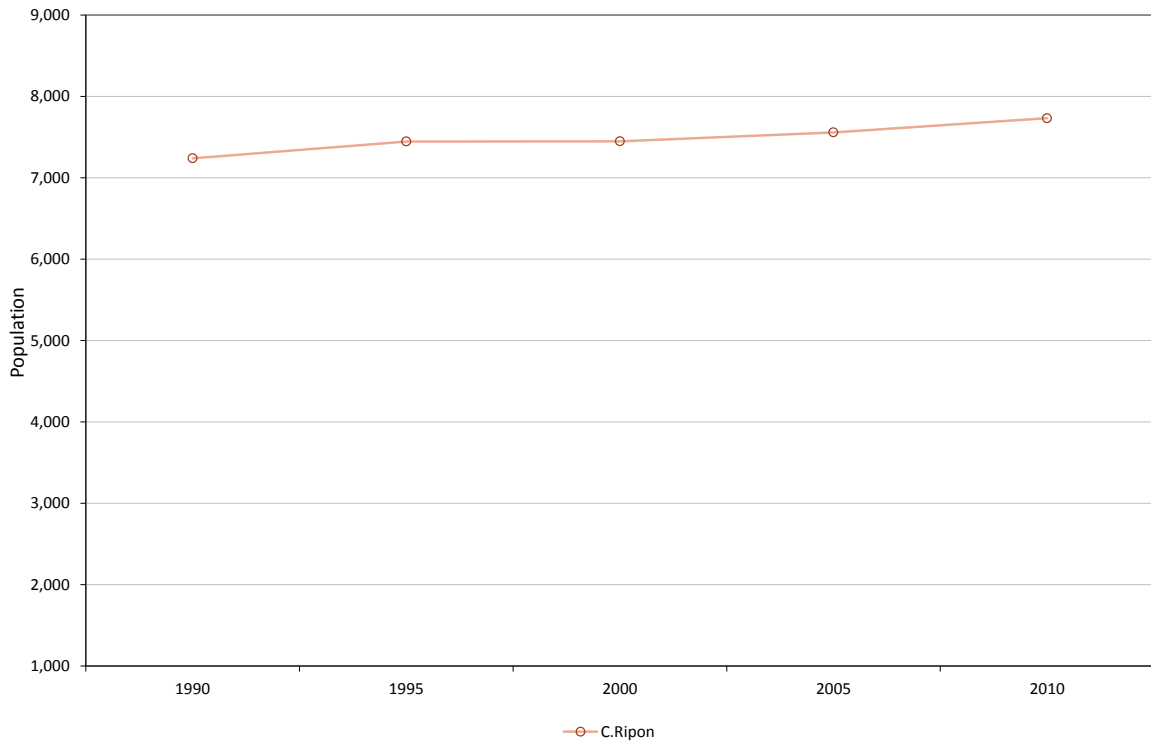


Figure 4-B

### Ripon Area School District

Population for Area Municipalities



Breakdown of the population by race/ethnicity for the Ripon Area School District area is provided in Table 4. The population in the district area municipalities is majority non-Hispanic white, but the Hispanic population accounts for the second largest population in almost all municipalities.

**TABLE 4**  
**Race/Ethnicity Population by Municipality: 2010**  
**Ripon Area School District**

Municipality	Total	White	African American	Hispanic	Asian	American Indian
T.Brooklyn	1,826	1,781	7	18	9	5
T.Metomen	741	722	1	6	2	9
T.Nepeuskun	710	681	3	13	6	7
T.Ripon	1,400	1,300	4	68	24	4
T.Rosendale	695	679	1	0	0	11
T.Utica	1,299	1,261	0	19	11	7
C.Ripon	7,733	7,162	63	388	68	32
<b>District Area</b>	<b>14,404</b>	<b>13,586</b>	<b>79</b>	<b>512</b>	<b>120</b>	<b>75</b>
Fond du Lac County	101,633	93,398	1,636	4,368	1,303	735
State of Wisconsin	5,686,986	4,738,411	380,660	336,056	143,931	68,593

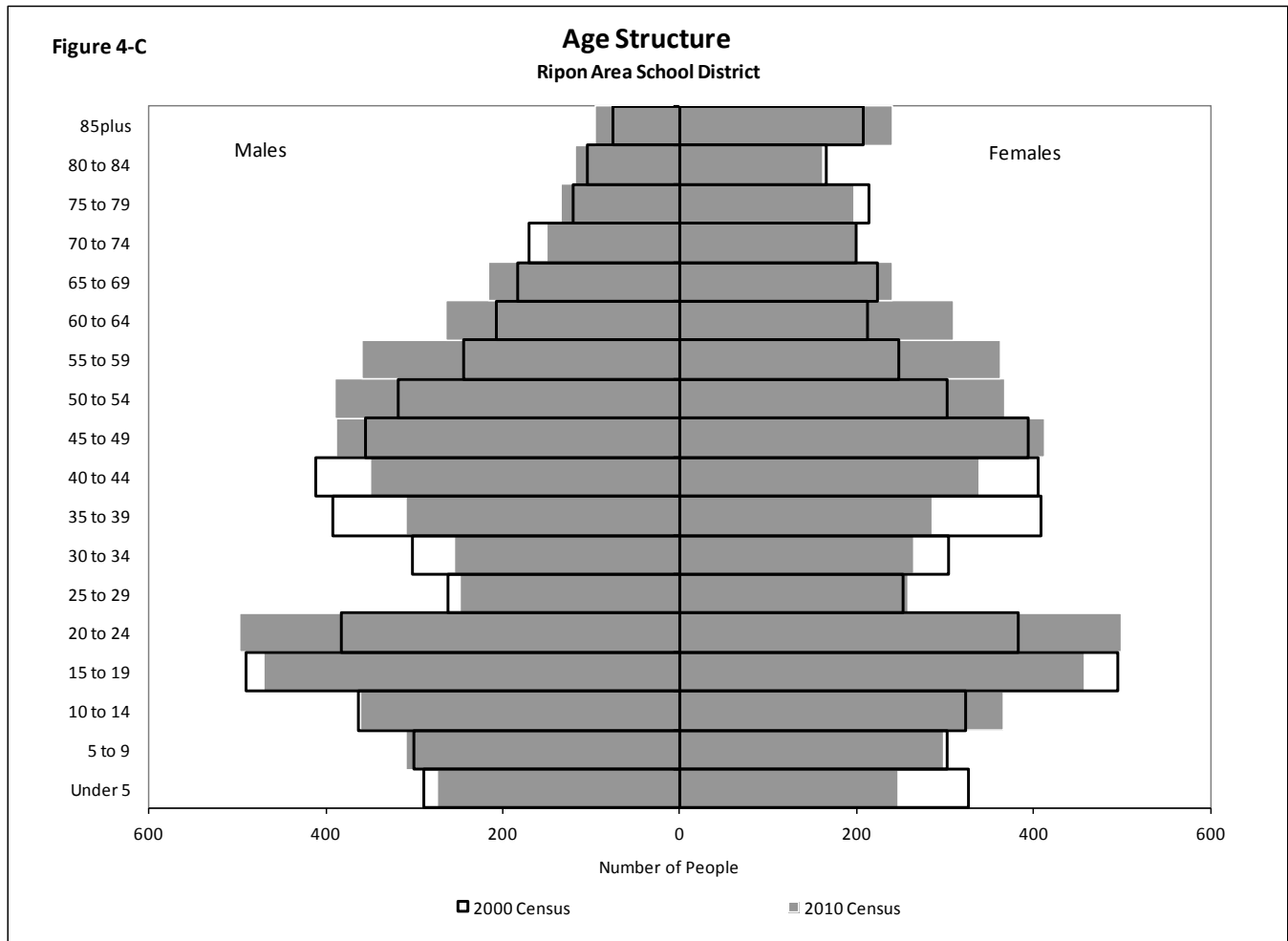
**Percent of Total Population**

Municipality	White	African American	Hispanic	Asian	American Indian
T.Brooklyn	97.54%	0.38%	0.99%	0.49%	0.27%
T.Metomen	97.44%	0.13%	0.81%	0.27%	1.21%
T.Nepeuskun	95.92%	0.42%	1.83%	0.85%	0.99%
T.Ripon	92.86%	0.29%	4.86%	1.71%	0.29%
T.Rosendale	97.70%	0.14%	0.00%	0.00%	1.58%
T.Utica	97.07%	0.00%	1.46%	0.85%	0.54%
C.Ripon	92.62%	0.81%	5.02%	0.88%	0.41%
<b>District Area</b>	<b>94.32%</b>	<b>0.55%</b>	<b>3.55%</b>	<b>0.83%</b>	<b>0.52%</b>
Fond du Lac County	91.90%	1.61%	4.30%	1.28%	0.72%
State of Wisconsin	83.32%	6.69%	5.91%	2.53%	1.21%

Source: <http://legis.wisconsin.gov/ltsb/redistricting/data.htm>



Figure 4-C compares the population by age for 2000 and 2010 from the U.S. Census Bureau. Children age 4 and younger have decreased, school age children age 5-9 has remained relatively the same, and children age 10-14 has increased some. The 15-19 age group is the largest of the school age population but has decreased since 2000.



## Past Housing Development

Table 5 shows the number of housing starts in the Ripon Area School District over the past ten years. Area housing starts have fluctuated from a high of 94 total units in 2005 to a low of 16 new housing starts in 2008. There has been a slight uptick in home construction the last three years.

**TABLE 5**  
**School District Area Housing Starts**  
**Ripon Area School District**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
<b>District Area</b>										
<b>TOTAL</b>	52	62	42	94	36	27	16	22	17	41
Single Family	52	46	40	28	36	25	16	22	17	17
Two Family	0	0	2	2	0	2	0	0	0	0
Multi-family	0	16	0	64	0	0	0	0	0	24
<b>T.Brooklyn</b>										
<b>TOTAL</b>	12	13	13	10	16	9	10	11	5	5
Single Family	12	13	13	10	16	9	10	11	5	5
Two Family	0	0	0	0	0	0	0	0	0	0
Multi-family	0	0	0	0	0	0	0	0	0	0
<b>T.Metomen</b>										
<b>TOTAL</b>	3	3	2	4	1	3	0	0	1	1
Single Family	3	3	2	4	1	3	0	0	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
<b>T.Nepeuskun</b>										
<b>TOTAL</b>	7	5	1	0	4	3	1	3	4	5
Single Family	7	5	1	0	4	3	1	3	4	5
Two Family	0	0	0	0	0	0	0	0	0	0
Multi-family	0	0	0	0	0	0	0	0	0	0
<b>T.Ripon</b>										
<b>TOTAL</b>	5	7	6	3	5	4	1	0	3	1
Single Family	5	7	6	3	5	4	1	0	3	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
<b>T.Rosendale</b>										
<b>TOTAL</b>	4	1	1	1	1	1	2	0	1	0
Single Family	4	1	1	1	1	1	2	0	1	0
Two Family	0	0	0	0	0	0	0	0	0	0
Multi-family	0	0	0	0	0	0	0	0	0	0
<b>T.Utica</b>										
<b>TOTAL</b>	10	11	6	4	2	0	0	4	3	2
Single Family	10	11	6	4	2	0	0	4	3	2
Two Family	0	0	0	0	0	0	0	0	0	0
Multi-family	0	0	0	0	0	0	0	0	0	0
<b>C.Ripon</b>										
<b>TOTAL</b>	11	22	13	72	7	7	2	4	0	27
Single Family	11	6	11	6	7	5	2	4	0	3
Two Family	0	0	2	2	0	2	0	0	0	0
Multi-family	0	16	0	64	0	0	0	0	0	24

Source: Demographic Services Center, WIDOA



Examining trends in recent housing development can help to explain how in-migration into the Ripon Area 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. If the number of housing starts is expected to decrease significantly above and beyond recent levels, lack of in-migration may play an increasing role in school district enrollment. However, it is important to recognize that the number of housing starts in any given year is dependent upon a large number of confounding variables (decisions of local, county, and state policy makers, residential developers, interest rates, demand for housing, etc.), making future growth patterns difficult to predict.

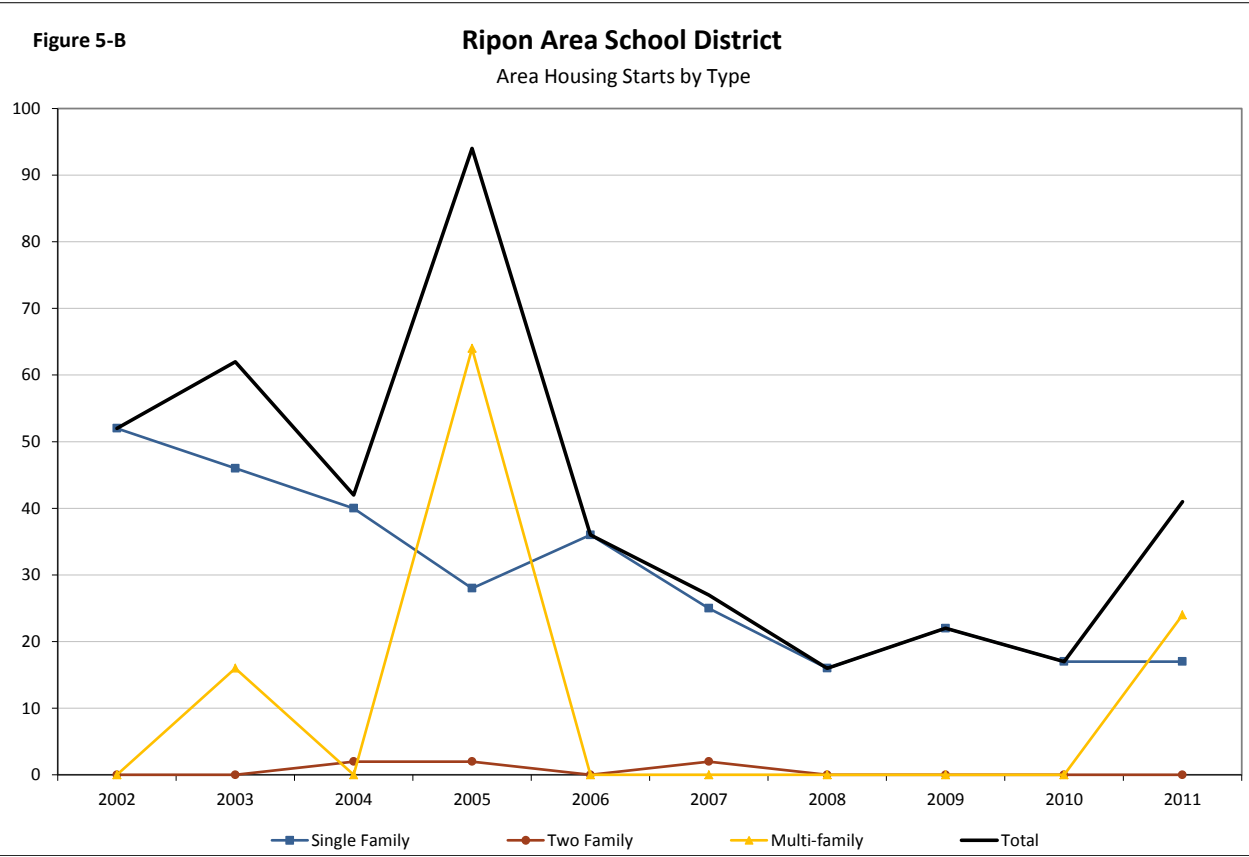
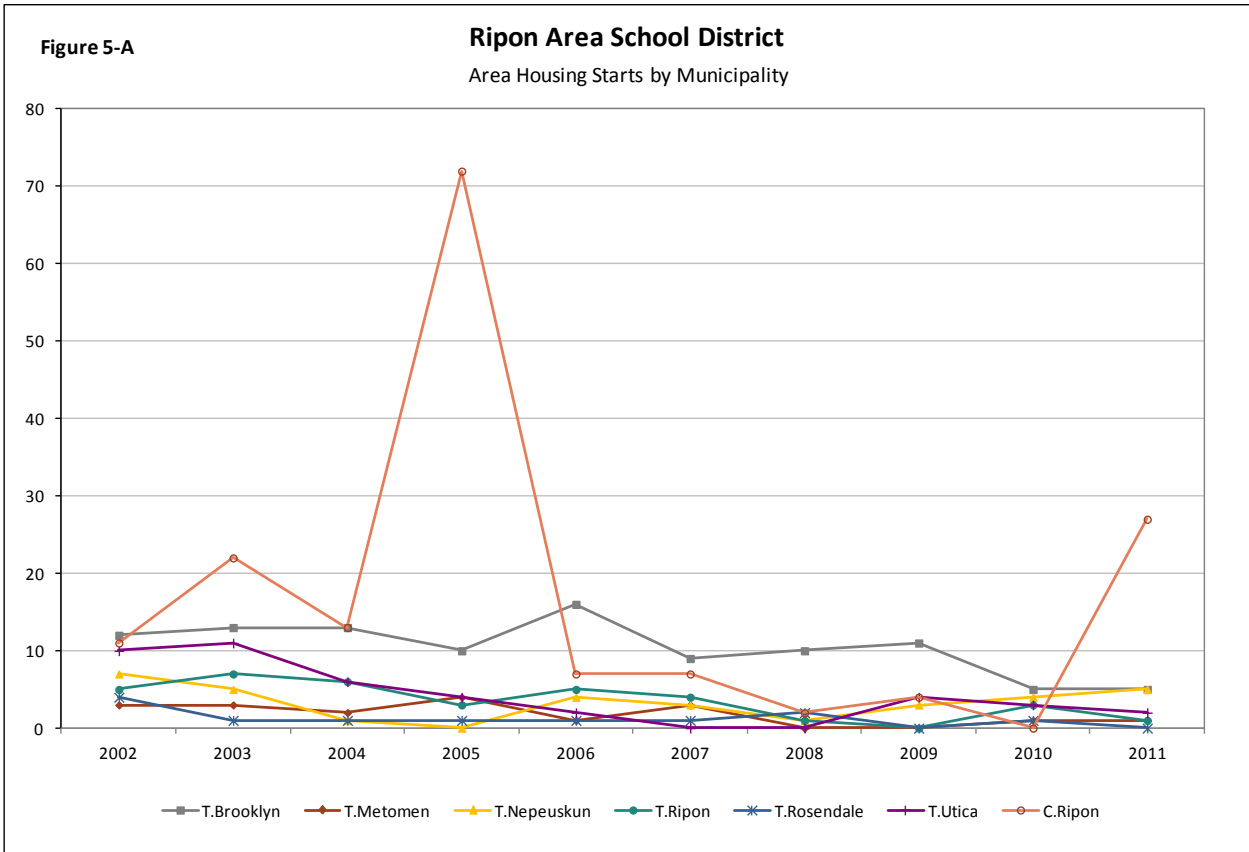
The majority of housing development over the last ten years has occurred in the City of Ripon and Town of Brooklyn. Most of the development in the area has consisted of single-family homes. Multi-family units were constructed in 2003, 2005, and 2011 in the City of Ripon. Single family home construction peaked in 2002 with 52 new homes and has declined since that time. Households in single family homes, on average, contain more school-aged children than in two-family and multi-family complexes. The housing construction boom peaked in the Ripon area earlier than much of the state where home construction peaked in 2005. Although the entire district area has experienced decline in housing development over the past ten years, development has leveled off over the last four years.

It is also important to consider that turnover in ownership of existing housing stock also contributes to changes in enrollment. A district can maintain or even increase enrollment depending upon the cycle of resident homeowners, regardless of housing starts. For instance, a younger community will have a higher child-per-household ratio, whereas an older community will have a lower child-per-household ration. However, within a few years a 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. Absent new housing development or housing turnover, families age in place and the number of school-aged children eventually declines. Turnover in ownership does not happen overnight, however, and slow turnover may happen for several years at varying rates.

Figure 5-A shows the number of residential building permits issued by municipality for communities that fall within the Ripon Area School District area. Figure 5-B shows housing starts in the area by type of housing unit—single family home, duplex, and multi-family housing unit.







## Method

In order to generate school enrollment projections, we rely on a commonly used demographic technique called the “cohort survival 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 schools or home schooling will impact future enrollment. In order to project incoming kindergarten students, we gather data on births from the Wisconsin Department of Health Services and assume that a certain percentage of the children born to mothers residing in the school district area will enroll as kindergarteners five to six years later. Finally, we customize projections to best fit an individual district’s needs by adjusting the basic model based on information about birth trends, recent housing development, economic changes, or population projections.

### Grade Progression Ratios

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

Table 6 shows the grade progression ratios for the Ripon Area 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.

**TABLE 6**  
Grade Progression Ratios  
Ripon Area School District

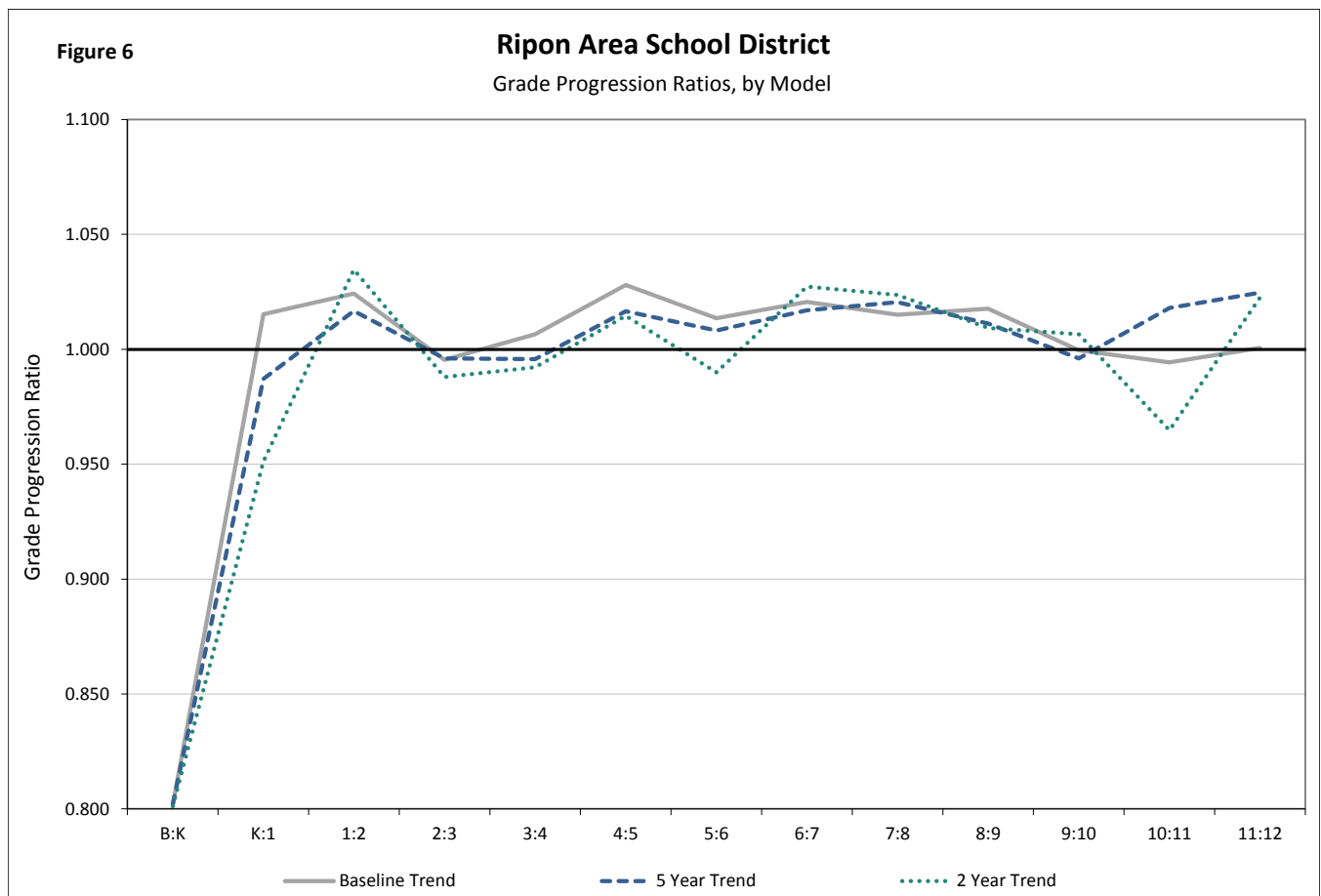
YEAR CHANGES	B:K	K:1	1:2	2:3	3:4	4:5	5:6	6:7	7:8	8:9	9:10	10:11	11:12
03-04/04-05	0.808	1.019	1.029	1.000	1.008	1.110	1.033	0.977	1.030	1.054	1.000	0.993	0.986
04-05/05-06	0.804	1.023	1.065	0.972	1.020	1.048	1.008	1.048	1.000	1.029	1.007	0.967	0.977
05-06/06-07	0.688	1.032	1.015	1.018	1.000	0.981	1.062	0.984	0.977	1.023	0.972	0.993	0.986
06-07/07-08	0.794	1.000	1.077	1.007	1.017	0.964	0.974	1.029	1.050	1.000	0.992	1.007	0.919
07-08/08-09	0.884	1.025	0.981	1.029	0.978	1.051	1.045	1.034	1.042	1.024	1.016	1.098	1.021
08-09/09-10	0.722	1.008	1.025	0.943	0.986	1.059	1.016	1.036	1.013	1.014	0.984	1.062	1.028
09-10/10-11	0.802	1.000	1.008	1.032	1.030	0.944	1.000	0.960	1.000	1.000	0.967	1.000	1.029
10-11/11-12	0.830	0.944	1.061	0.992	1.008	0.990	0.970	0.993	1.033	1.034	1.006	1.007	0.976
11-12/12-13	0.772	0.958	1.008	0.984	0.977	1.039	1.010	1.062	1.014	0.984	1.007	0.923	1.068
<b>Baseline</b>	<b>0.802</b>	<b>1.015</b>	<b>1.024</b>	<b>0.995</b>	<b>1.007</b>	<b>1.028</b>	<b>1.014</b>	<b>1.021</b>	<b>1.015</b>	<b>1.018</b>	<b>1.000</b>	<b>0.994</b>	<b>1.001</b>
<b>5 Year Trend</b>	<b>0.802</b>	<b>0.987</b>	<b>1.017</b>	<b>0.996</b>	<b>0.996</b>	<b>1.017</b>	<b>1.008</b>	<b>1.017</b>	<b>1.021</b>	<b>1.011</b>	<b>0.996</b>	<b>1.018</b>	<b>1.025</b>
<b>2 Year "Trend"</b>	<b>0.801</b>	<b>0.951</b>	<b>1.035</b>	<b>0.988</b>	<b>0.992</b>	<b>1.015</b>	<b>0.990</b>	<b>1.027</b>	<b>1.024</b>	<b>1.009</b>	<b>1.007</b>	<b>0.965</b>	<b>1.022</b>

\*Shaded progression ratios are excluded from the Baseline Average



The grade progression ratios can be interpreted in the following manner. The Baseline ratio for K:1 is 1.015. This means that in the Ripon Area School District, the first grade is on average 1.5% larger than the kindergarten class was the previous year (the result of transfers from other schools and immigration into the district). The B:K (birth to kindergarten) Baseline ratio of 0.802 indicates that on average, approximately 80% of area births enter kindergarten five years later. Outliers (ratios outside of one standard deviation of the mean) are not included in the calculation of the Baseline average ratios.

In order to examine future enrollment under different growth assumptions, we generate three sets of grade progression ratios that correspond to the different projection models shown later in this report. In addition to the Baseline ratios (averages 10 years of data), we examine rates of transfer in the last 5 years and the last 2 years, effectively weighing enrollment change patterns from different time periods more heavily than the Baseline. Any significant deviations from the rates of in- and out-migration in the district area will have a corresponding effect on enrollment. These additional models allow us to examine alternative outcomes compared to the overall trends of the Baseline model. Figure 6 shows the differences between these three sets of grade progression ratios.



## School Enrollment Projections

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When considering all of 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 further into the future. This is especially true for grades K-5, because the students who will enter kindergarten after 2017 have not yet been born. Overall, our projections are more reliable over the next five years (up to the 2017/18 school year) than they are in the latter half of the next decade.

### 4K Enrollment and Projections

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To generate 4K enrollment projections, we assume that the number of children born in the district area who will enter the 4K program will decrease slightly over the next ten years. A grade progression ratio of .568 (five year average) will be used to project future four year old kindergartners. Table 7 shows observed transfer ratios between birth and 4K for the last seven school years, future transfer ratio between birth and 4K, observed enrollment in the 4K program, and projected enrollment in the 4K program from 2013/14 to 2022/23. These 4K projections will be used for all four projection models.

**TABLE 7**  
**4K Enrollment and Projections**  
**Ripon Area School District**

Birth/4K Year	B:4K	Enrollment
01-02/06-07	0.478	75
02-03/07-08	0.558	83
03-04/08-09	0.550	79
04-05/09-10	0.540	86
05-06/10-11	0.599	94
06-07/11-12	0.628	90
07-08/12-13	0.522	77
08-09/13-14	0.568	75
09-10/14-15	0.568	68
10-11/15-16	0.568	73
11-12/16-17	0.568	76
12-13/17-18	0.568	75
13-14/18-19	0.568	74
14-15/19-20	0.568	73
15-16/20-21	0.568	72
16-17/21-22	0.568	71
17-18/22-23	0.568	70



Baseline Projections

The Baseline model (Table 8) projects enrollments using the assumption that average trends year to year, grade to grade, will continue into the future. This model assumes that long term (past ten years) trends in enrollment, migration, and births will be representative of future trends in the district.

This model projects that 4K-12 enrollment will decline over the next five years, decreasing from 1,762 students in 2012/13 to 1,654 students in 2017/18 (6% decrease).

**TABLE 8**  
**Baseline Projection Model**  
**Ripon Area School District**

	SCHOOL YEAR									
	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23
4K	75	68	73	76	75	74	73	72	71	70
K	119	106	96	104	107	106	105	103	102	100
1	116	121	108	97	105	109	108	106	105	103
2	117	119	124	111	100	108	112	110	109	107
3	119	116	118	123	110	99	107	111	110	108
4	121	120	117	119	124	111	100	108	112	111
5	129	124	124	120	122	127	114	102	111	115
6	136	130	126	125	122	124	129	116	104	112
7	105	139	133	128	128	124	126	132	118	106
8	140	107	141	135	130	130	126	128	134	120
9	147	143	109	143	137	133	132	129	130	136
10	123	146	142	109	143	137	133	132	128	130
11	150	122	146	142	108	142	136	132	131	128
12	143	150	122	146	142	108	142	137	132	131
<b>TOTAL</b>	<b>1,739</b>	<b>1,711</b>	<b>1,678</b>	<b>1,677</b>	<b>1,654</b>	<b>1,632</b>	<b>1,643</b>	<b>1,618</b>	<b>1,597</b>	<b>1,579</b>
K-12	1,664	1,643	1,604	1,601	1,578	1,558	1,570	1,546	1,526	1,509
K-5	720	706	686	673	668	660	645	641	648	645
6-8	381	376	399	389	380	378	382	375	355	338
9-12	563	562	519	539	530	520	544	529	522	526



## 5 Year Trend Projections

The 5 Year Trend model (Table 9) uses the grade progression ratios from the last five years and recent birth trends in the school district area to project what future enrollments would look like if more recent patterns were representative of future trends. With recent migration rates and birth trends weighted more heavily, 4K-12 enrollment in Ripon Area School District is projected to decrease from 1,762 students in 2012/13 to 1,608 students in 2017/18 (8.7% decrease).

**TABLE 9**  
**5 Year Trend Projection Model**  
**Ripon Area School District**

GRADE	SCHOOL YEAR									
	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23
4K	75	68	73	76	75	74	73	72	71	70
K	119	106	96	98	98	94	90	86	82	78
1	113	117	105	94	97	97	93	89	85	81
2	116	114	119	107	96	99	98	94	90	86
3	120	115	114	119	106	96	98	98	94	90
4	119	119	115	113	118	106	95	98	97	93
5	127	121	121	117	115	120	108	97	99	99
6	135	128	122	122	118	116	121	109	98	100
7	105	137	130	125	124	120	118	123	110	99
8	141	107	140	133	127	127	122	121	126	113
9	146	142	108	142	134	129	128	124	122	127
10	123	145	142	108	141	134	128	127	123	122
11	154	125	148	144	110	144	136	130	130	125
12	147	158	128	151	148	112	147	140	134	133
<b>TOTAL</b>	<b>1,738</b>	<b>1,704</b>	<b>1,662</b>	<b>1,649</b>	<b>1,608</b>	<b>1,566</b>	<b>1,556</b>	<b>1,507</b>	<b>1,461</b>	<b>1,417</b>
K-12	1,663	1,636	1,588	1,573	1,533	1,492	1,483	1,435	1,390	1,347
K-5	713	694	670	649	631	611	582	561	548	528
6-8	381	372	393	379	369	363	362	353	334	312
9-12	568	570	525	545	533	518	540	521	508	507



2 Year "Trend" Projections

The 2 Year "Trend" model (Table 10) uses the grade progression ratios from the last two years to project what future enrollments would look like if even more recent patterns were representative of future trends. For the 2 Year "Trend" model, 4K-12 enrollment is projected to decrease by 186 students over the next five years. This is 10.5% decrease in enrollment.

**TABLE 10**  
**2 Year "Trend" Projection Model**  
**Ripon Area School District**

GRADE	SCHOOL YEAR									
	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23
4K	75	68	73	76	75	74	73	72	71	70
K	119	106	96	98	98	94	90	86	82	78
1	108	113	101	91	93	93	89	85	82	78
2	118	112	117	105	94	97	96	92	88	85
3	119	117	111	116	103	93	95	95	91	87
4	119	118	116	110	115	103	92	95	94	90
5	127	121	119	117	112	116	104	94	96	96
6	133	126	120	118	116	110	115	103	93	95
7	106	136	129	123	121	119	113	118	106	95
8	141	108	139	132	126	124	122	116	121	108
9	145	143	109	141	133	127	125	123	117	122
10	124	146	143	110	142	134	128	126	124	118
11	146	119	141	138	106	137	129	123	122	120
12	146	149	122	144	142	109	140	132	126	124
<b>TOTAL</b>	<b>1,726</b>	<b>1,682</b>	<b>1,637</b>	<b>1,619</b>	<b>1,576</b>	<b>1,529</b>	<b>1,513</b>	<b>1,461</b>	<b>1,413</b>	<b>1,367</b>
K-12	1,650	1,614	1,564	1,543	1,500	1,455	1,440	1,389	1,342	1,297
K-5	710	686	659	636	615	595	567	547	534	514
6-8	380	370	388	373	363	354	351	337	320	299
9-12	561	557	516	534	523	506	522	505	489	484



## Kindergarten Trend Projections

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 5 Year Trend progression ratios are used for projecting the other grades (1-12) 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 similar to the long term kindergarten trend, regardless of the number of observed births in the school district area.

According to this hybrid projection method (Table 11), 4K-12 enrollment would decrease over the next five years from 1,762 students in 2012/13 to 1,690 students in 2017/18 (4% decrease). This projection forecasts a less severe enrollment decline than the other projection models because in the Ripon Area School District kindergarten enrollment has not declined as quickly as births.

**TABLE 11**  
**Kindergarten Trend Projection Model**  
**Ripon Area School District**

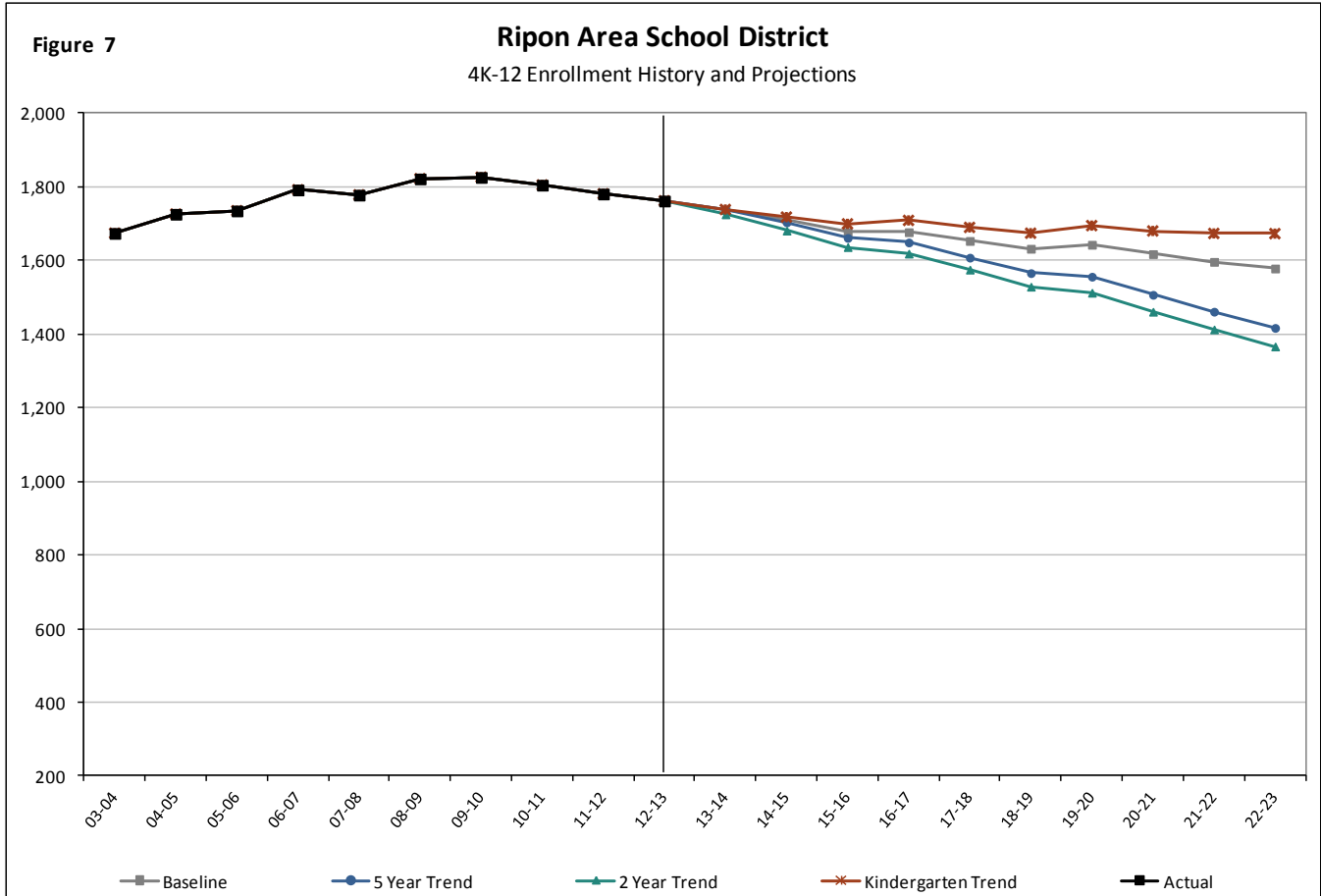
GRADE	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23
4K	75	68	73	76	75	74	73	72	71	70
K	120	120	120	120	120	120	120	120	121	121
1	113	118	118	118	118	118	119	119	119	119
2	116	114	120	120	120	120	120	121	121	121
3	120	115	114	119	120	120	120	120	120	120
4	119	119	115	113	119	119	119	119	119	120
5	127	121	121	117	115	121	121	121	121	121
6	135	128	122	122	118	116	122	122	122	122
7	105	137	130	125	124	120	118	124	124	124
8	141	107	140	133	127	127	122	121	127	127
9	146	142	108	142	134	129	128	124	122	128
10	123	145	142	108	141	134	128	127	123	122
11	154	125	148	144	110	144	136	130	130	125
12	147	158	128	151	148	112	147	140	134	133
<b>TOTAL</b>	<b>1,738</b>	<b>1,718</b>	<b>1,699</b>	<b>1,709</b>	<b>1,690</b>	<b>1,674</b>	<b>1,695</b>	<b>1,680</b>	<b>1,673</b>	<b>1,673</b>
K-12	1,663	1,650	1,626	1,633	1,615	1,600	1,622	1,608	1,602	1,603
K-5	714	708	708	708	713	719	720	720	721	722
6-8	381	372	393	379	369	363	362	367	373	373
9-12	568	570	525	545	533	518	540	521	508	508





## Comparison of Projection Models

Figures 7-11 and Tables 12-16 compare the four enrollment projection models broken down by total 4K-12 and K-12 enrollment and by grade groupings (K-5, 6-8, and 9-12).

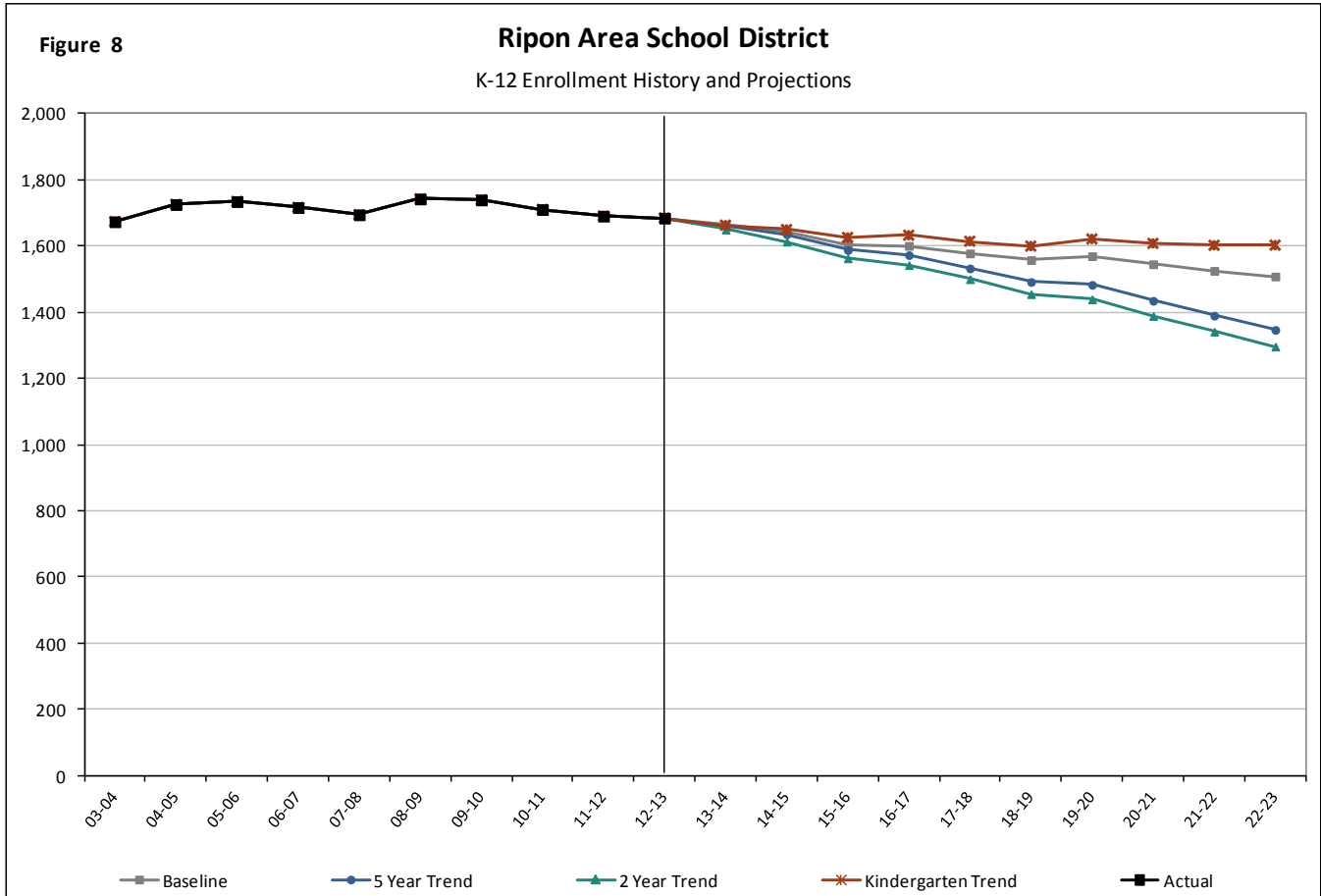


**TABLE 12**  
Summary of 4K-12 Enrollment Projections  
Ripon Area School District

	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23
Baseline	1,739	1,711	1,678	1,677	1,654	1,632	1,643	1,618	1,597	1,579
5 Year Trend	1,738	1,704	1,662	1,649	1,608	1,566	1,556	1,507	1,461	1,417
2 Year "Trend"	1,726	1,682	1,637	1,619	1,576	1,529	1,513	1,461	1,413	1,367
Kindergarten Trend	1,738	1,718	1,699	1,709	1,690	1,674	1,695	1,680	1,673	1,673

All models project a decrease in enrollment over time for the entire district. The Kindergarten Trend model projects the least amount of enrollment decline, while the Two Year "Trend" projects the most. District-wide 4K-12 enrollment projections five years from now (2017/18) predict a range of enrollment from 1,576 to 1,690 students.



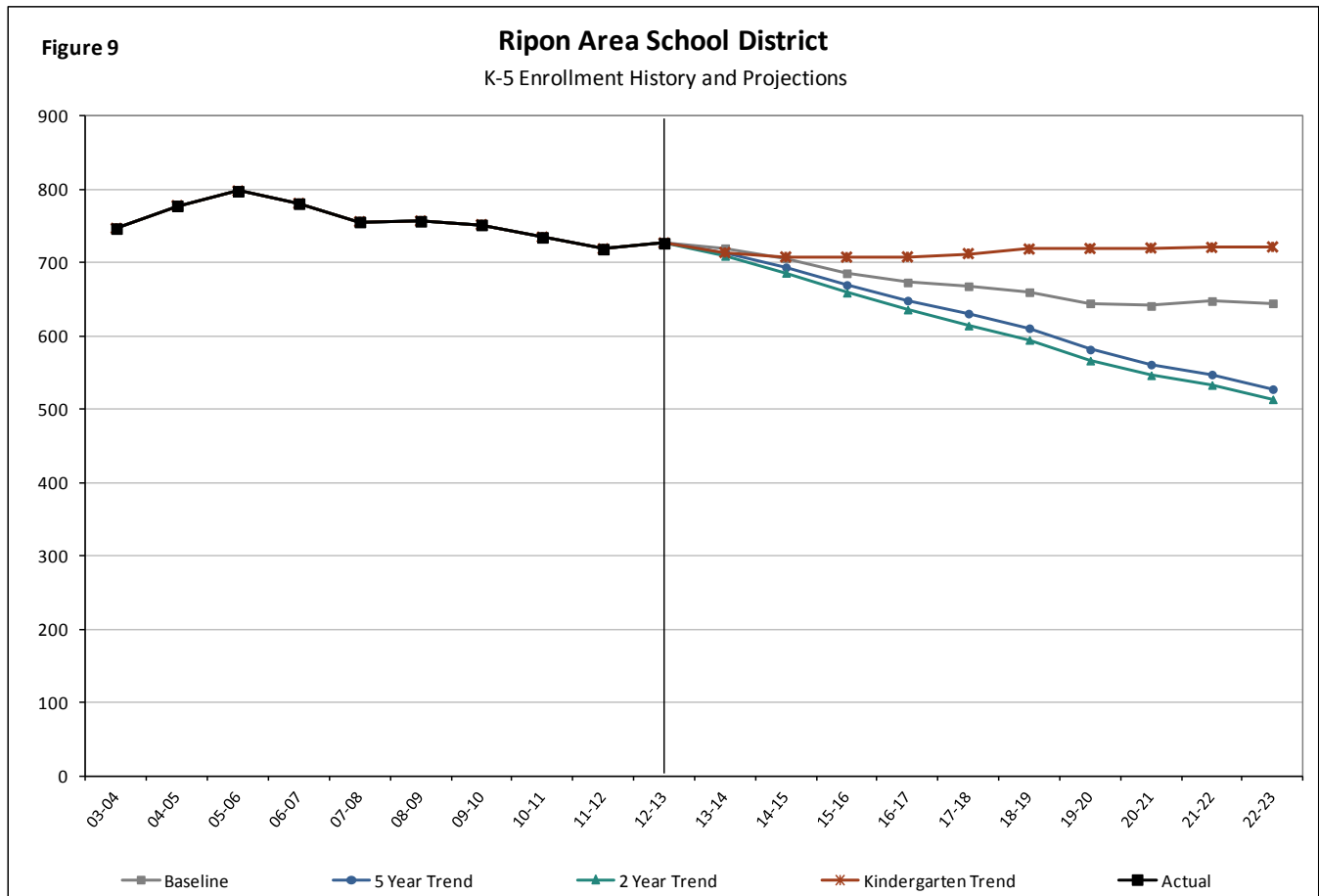


**TABLE 13**  
**Summary of K-12 Enrollment Projections**  
**Ripon Area School District**

	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23
Baseline	1,664	1,643	1,604	1,601	1,578	1,558	1,570	1,546	1,526	1,509
5 Year Trend	1,663	1,636	1,588	1,573	1,533	1,492	1,483	1,435	1,390	1,347
2 Year "Trend"	1,650	1,614	1,564	1,543	1,500	1,455	1,440	1,389	1,342	1,297
Kindergarten Trend	1,663	1,650	1,626	1,633	1,615	1,600	1,622	1,608	1,602	1,603

For K-12 enrollment, all projection models forecast decreasing enrollment over the next ten years with a similar projections pattern as the 4K-12 enrollment projections. For the 2017/18 school year, the Kindergarten Trend model predicts the highest projected enrollment of 1,615 students, while the Two Year "Trend" model predicts the lowest projected enrollment of 1,500.



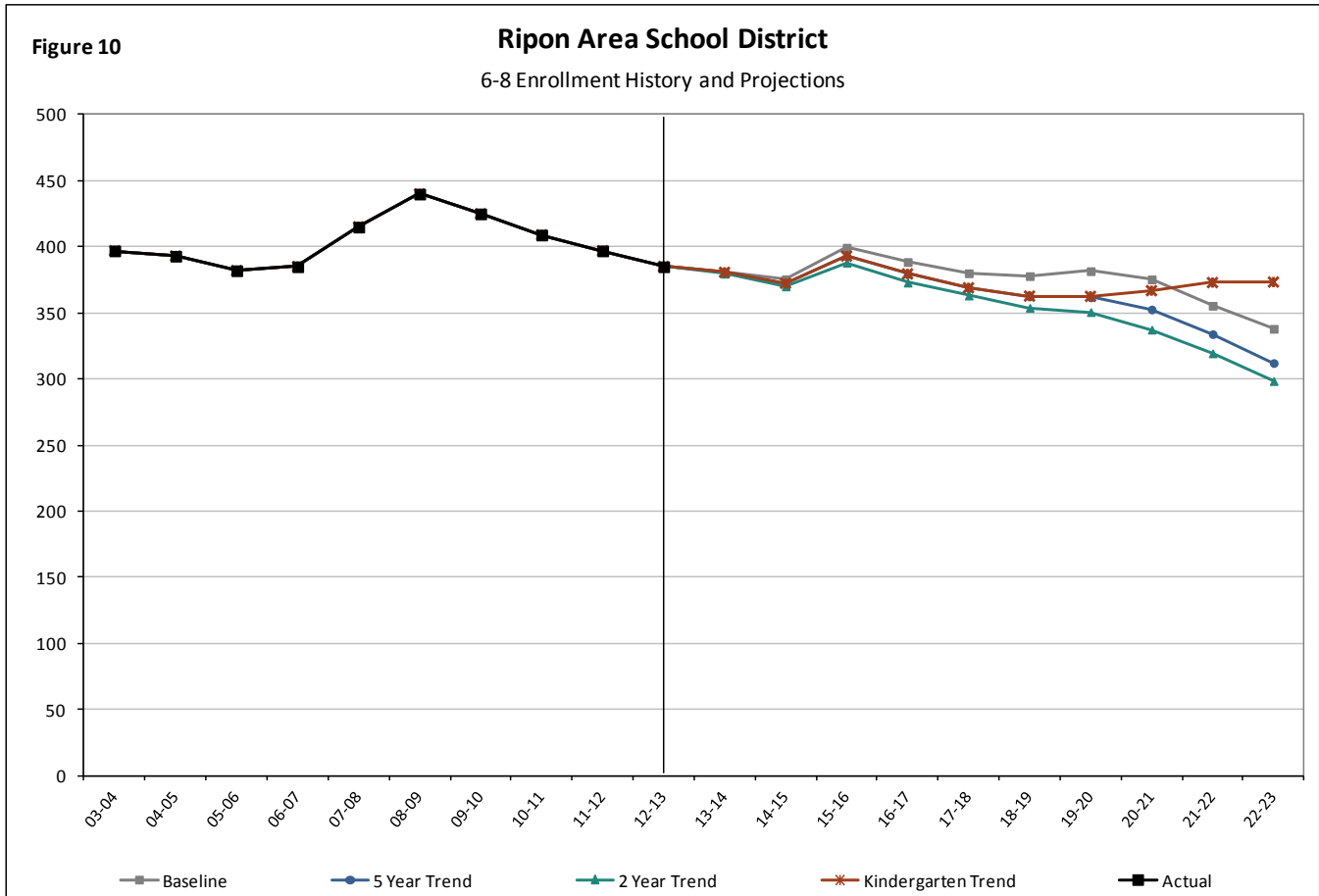


**TABLE 14**  
**Summary of K-5 Enrollment Projections**  
**Ripon Area School District**

	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23
Baseline	720	706	686	673	668	660	645	641	648	645
5 Year Trend	713	694	670	649	631	611	582	561	548	528
2 Year "Trend"	710	686	659	636	615	595	567	547	534	514
Kindergarten Trend	714	708	708	708	713	719	720	720	721	722

For grades K-5, all of the projection models project an enrollment decrease over the next five years. However, in the long term, the Five Year Trend and Two Year "Trend" forecast more significant enrollment decreases than the Baseline and Kindergarten Trend models. For the 2017/18 school year, enrollment is projected to range from 615 to 713 students.



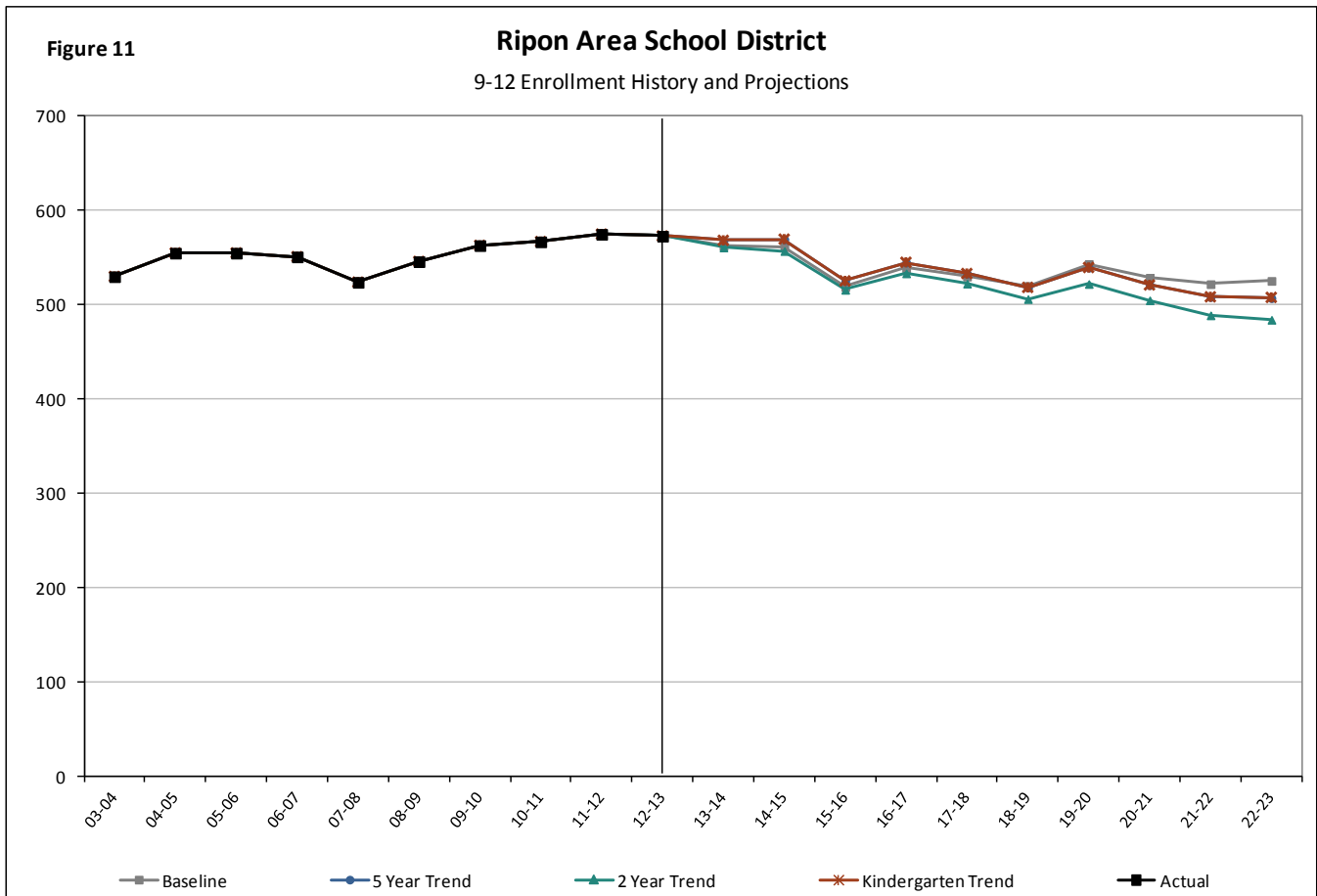


**TABLE 15**  
**Summary of 6-8 Enrollment Projections**  
**Ripon Area School District**

	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23
Baseline	381	376	399	389	380	378	382	375	355	338
5 Year Trend	381	372	393	379	369	363	362	353	334	312
2 Year "Trend"	380	370	388	373	363	354	351	337	320	299
Kindergarten Trend	381	372	393	379	369	363	362	367	373	373

At the middle school, all of the models project decreasing enrollment over the next two years then a slight increase in the third year followed by an enrollment decline. In five years, the Baseline model projects the smallest decrease in enrollment, while the Two Year "Trend" projects the largest decrease. By the 2017/18 school year enrollment is projected to range from 363 to 380 students.





**TABLE 16**  
**Summary of 9-12 Enrollment Projections**  
**Ripon Area School District**

	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-21	21-22	22-23
Baseline	563	562	519	539	530	520	544	529	522	526
5 Year Trend	568	570	525	545	533	518	540	521	508	507
2 Year "Trend"	561	557	516	534	523	506	522	505	489	484
Kindergarten Trend	568	570	525	545	533	518	540	521	508	508

All of models for the high school project steady enrollment for two years followed by a decline in enrollment. All of the projection models forecast similar enrollment decreases. By the 2017/18 school year, enrollment is projected to range from 523 to 533 students.



## Conclusions

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These district-level enrollment projections are based on models that incorporate recent past and current demographic information as well as the district's own enrollment data and assumptions about future housing development in the school district area. 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 highly 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 is that birth trends, in-migration of pre-school age children, and transfers into the district are more difficult to predict and therefore this makes meaningful incorporation into enrollment projections a challenge. As with nearly all types of forecasts, accuracy in these enrollment projections decreases over time.

In sum, the information provided in this school enrollment projection report points to decreasing enrollment in the Ripon Area School District over the next five to ten years. The Kindergarten Trend model projects a nominal decrease in enrollment, while the Five Year Trend and Two Year "Trend" project significant enrollment decline. Births have been decreasing in the school district area for some time now, and enrollment numbers have declined in the past five years. Depending on whether or not this low birth rate continues and if the kindergarten classes remain consistently lower will potentially influence future enrollment for the foreseeable future.

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 past migration patterns will erode these models' accuracy from the initiation point of the new pattern. The various projection models provide a realistic range of migration and transfer effects on the school district. Enrollment growth should be closely monitored for the next few years, and compared with these projections, to determine the trajectory of future growth. This type of monitoring program might help the district to determine which of the models seems to be the most realistic to use for planning purposes.

