Enrollment Projection 2011/12

**Information Management Systems** 

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### **TABLE OF CONTENTS**

Projection Interpretation Guide	I
Table of Area Births	1
Actual Enrollment	2
Projected Enrollment using Method 1	3
Enrollment Graphs - Method 1	6
Projected Enrollment using Method 2	10
Enrollment Graphs - Method 2	13
Projected Enrollment using Method 3	17
Enrollment Graphs - Method 3	20
Cross - Method Graphs	24
Projected Teacher/Pupil Ratios - 1/22 to 1/32	28
Accuracy Table	34

### INFORMATION MANAGEMENT SYSTEMS Enrollment Projection Interpretation Guide

Information Management Systems has gone to great lengths to make our enrollment projection report as easy to understand as possible. However, being a primarily statistical report, it does require a certain amount of analysis. This guide is designed to assist you in that analysis. The entire enrollment projection report is explained page by page to help you understand the meaning and significance of each number.

We use three variations of the Cohort Survival Method to project enrollments. This method analyzes the survival ratios for your students and then projects those ratios into the future. The survival ratio compares how many students are in a particular grade this year against how many students were in the preceding grade the previous year. For example, if there are 100 first graders in 2000-01 and 113 second graders in 2001-02 then the survival ratio for that 2nd grade class is 113%. The manner in which each of the projection methods use the survival ratios is described below.

All of the students listed in grades K through 12 are projected in this fashion. Any grades listed in the report other than K-12, such as PreK, Special Ed, or Ungraded, are projected by looking at the survival trends within that grade, rather than the trend from the preceding grade. The unevenness of grade progression for these students prohibits the standard technique.

#### Page 1: County Births

This table shows the number of resident births for your district's county for the past eleven years. These numbers, obtained from your state's health department, are used to project what proportion of children born in your county become students at your schools. Because the department of health cannot compile birth statistics for a particular year until at least the middle of the next year, the current year's birth rate is an estimate. This number is based upon past births and national and local trends in the birth rate.

#### Table 1: Actual Enrollments

This may be the most important table in the projection package, as it shows the past enrollment upon which the rest of your report is based. The table has your district's enrollment for the past six years listed by grade. The number under the enrollment figure is the survival ratio for that grade in that year. Numbers above 100 (in blue) indicate an increase in enrollment from the previous grade/year, while numbers below 100 (in red) indicate a loss of enrollment.

When checking these numbers, be alert for extremely large variations in the ratios because they serve as indicators for trends in your district's enrollment, or errors in the enrollment numbers. The summary table at the bottom of this page, and most of the other pages, simply aggregates the table above it into groups corresponding with your district's grade/building configuration.

#### **Projection Method 1**

Projection method 1 uses the survival ratios for the past five years in a particular grade. It arrives at a mean value to use in projecting how many students in the previous grade the prior year will become students in that grade that year. This method is the most accurate for school districts that have not experienced major impacts on their district in recent years. The closing or opening of a private school, the addition of a preschool program, or re-zoning of your district are a few of the occurrences that may have affected your past enrollment, and in turn, your future enrollment projections. To find out which of the three projection methods might be most accurate for your schools, please refer to the accuracy table on the last page of this report.

#### Table 2: Projected Enrollment by Method 1

This table predicts what your enrollment will be up to five years into the future, grade by grade. The blue figures under the enrollment numbers are the multipliers that are used to represent the survival ratio that particular grade has shown in the past. Numbers far from 100 indicate that either a loss or a gain of enrollment has occurred, and care should be taken to determine what the cause of this fluctuation might be.

#### Table 3: Comparison by Method 1

This table summarizes the past two pages by showing past, present, and projected future enrollment. The small numbers indicate the percentage difference between that year's enrollment and the current year's, blue for enrollment above the current year's, and red when below. The key numbers on this table are the percent changes for the grade configuration summaries for the future. These indicate the extent, as a percentage of this year's enrollment, to which your district will either lose (red) or gain (blue) enrollment.

### Table 4: 10 Year Projections by Method 1

This table shows what enrollment will look like ten years into the future. You will notice that, starting six years into the future, some grades are omitted from the report. This is because birth rates, which are the base from which the projections work, are very difficult to project with any accuracy. Without birth data, Kindergarten enrollment becomes impossible to project six years from now, and each higher grade falls out the following year.

Although this gives only a partial glimpse of your enrollment ten years from now, we feel it is better to exclude some information than to possibly be misleading with inaccurate data.

#### Enrollment Graphs as projected by Method 1

The first set of charts, one for each grade grouping, depicts the information from the past three tables in graphic form. Each graph deals with one of your district's building levels. The last chart is usually reserved for total district enrollment. The upper chart on each page tracks your enrollment level, while the lower tracks the percentage difference between your current enrollment and the enrollment in that year.

#### **Projection Method 2**

The second method used to project the enrollment of your school district uses the survival ratio for only the current year to project enrollment. This method may be most accurate for your school if it has recently experienced a change in its enrollment trends. The closing of a private school in your district last year will affect your enrollment this year, and in years to come. Under these and similar circumstances, method 2 will have the best predictive power. Please refer to Table 17 on the last page of the report to determine which method was best able to predict this year's enrollment.

#### Table 5: Projected Enrollment by Method 2

This table predicts what your enrollment will be up to five years into the future, grade by grade. The blue figures under the enrollment numbers are the multipliers that are used to represent the survival ratio that particular grade has shown in the past. Numbers far from 100 indicate that either a loss or a gain has occurred, and care should be taken to determine what the cause of this fluctuation might be.

#### Table 6: Comparison by Method 2

This table summarizes the previous page with your historical information by showing past, present, and projected future enrollment. The small numbers indicate the percentage difference between that year's enrollment and the current year's. The key numbers on this table are the percent changes for the summary groups for the future. These indicate the extent, as a percentage of this year's enrollment, to which your district will either lose (red) or gain (blue) enrollment.

#### Table 7: 10 Year Projections by Method 2

This table shows what enrollment will look like ten years into the future. You will notice that, starting six years into the future, some grades are omitted from the report. This is because birth rates, which are the base from which the projections work, are very difficult to project with any accuracy. Without birth data, Kindergarten enrollment becomes impossible to project six years from now, and each higher grade falls out the following year.

Although this gives only a partial glimpse of your enrollment ten years from now, we feel it is better to exclude some information than to possibly be misleading with inaccurate data.

#### Enrollment Graphs as projected by Method 2

The second set of graphs depicts the information from the past three tables in graphic form. Each graph deals with one of your district's building levels. The last chart is usually reserved for total district enrollment. The upper chart on each page tracks your enrollment level, while the lower tracks the percentage difference between your current enrollment and the enrollment in that year.

### **Projection method 3**

This method uses the average arrived at by method 1 and combines that with the one year ratio used by method 2. The resulting ratio emphasizes current trends in your enrollment while tempering that with the trends of the past. This method will best suit districts that have had fluctuations in their enrollment due to temporary occurrences, but do not expect those occurrences to overwhelmingly impact future enrollment. As with the other methods, Table 17 shows which method has the best predictive power for your particular situation.

### Table 8: Projected Enrollment by Method 3

This table predicts what your enrollment will be up to five years into the future, grade by grade. The blue figures under the enrollment numbers are the multipliers that are used to represent the survival ratio that particular grade has shown in the past. Numbers far from 100 indicate that either a loss or a gain has occurred, and care should be taken to determine what the cause of this fluctuation might be.

### Table 9: Comparison by Method 3

This table summarizes the previous page with your historical information by showing past, present, and projected future enrollment. The small numbers indicate the percentage difference between that year's enrollment and the current year's. The key numbers on this table are the percent changes for the summary groups for the future. These indicate the extent, as a percentage of this year's enrollment, to which your district will either lose (red numbers) or gain (blue numbers) enrollment.

### Table 10: 10 Year Projections by Method 3

This table shows what enrollment will look like ten years into the future. You will notice that, starting six years into the future, some grades are omitted from the report. This is because birth rates, which are the base from which the projections work, are very difficult to project with any accuracy. Without birth data, Kindergarten enrollment becomes impossible to project six years from now, and each higher grade falls out the next year.

Although this gives only a partial glimpse of your enrollment ten years from now, we feel it is better to exclude some information than to possibly be misleading with inaccurate data.

### Enrollment graphs as projected by Method 3

The third method graphs depict the information from the past three tables in graphic form. Each graph deals with one of your district's building levels. The last chart is usually reserved for total district enrollment. The upper chart on each page tracks your enrollment level, while the lower tracks the percentage difference between your current enrollment and the enrollment in that year.

#### Cross – Method Charts

These charts (one for each grade grouping) look at your projected enrollment across the three projection methods. Each chart begins with your current enrollment with a separate line for each method tracing your projection out five years into the future. When all three lines stay close together, your projected enrollment does not significantly vary across the different projection methods.

However, when the three lines diverge, the three methods are projecting relatively different enrollments. Care should be taken in choosing the correct method on which to rely.

#### Tables 11-16: Teacher Projections

These six tables use projection Method 1, as the most conservative of the three methods, to forecast teacher needs for the next ten years. The tables are arranged according to selected Teacher: Pupil ratios (1:22 thru 1:32). As with the ten year enrollment projections, lower grades fall out of the system in later years due to projection limitations.

#### Table 17: Method Accuracy

This table is used to show which of the three projections methods has the best predictive power for your district. This is done by creating a projection of THIS YEAR'S enrollment using past data and then comparing it to this year's actual enrollment. The method showing the smallest total (K-12) error should have the best ability to predict what your future enrollment will be.

As in other tables, projections below the current year's level are shown in red, and those above are shown in blue.

### Births for Monroe County

<u>YEAR</u>	<u>BIRTHS</u>
2001	593
2002	559
2003	624
2004	587
2005	615
2006	633
2007	666
2008	674
2009	632
2010	642
2011	648

### Table 1 - Actual Enrollments

GRADE	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
PK		100.00	100.00	100.00	100.00	148 100.00
К	229	178 31.84	195 31.25	235 40.03	199 32.36	218 34.44
1	211	231 100.87	181 101.69	202 103.59	243 103.40	190 95.48
2	217	218 103.32	233 100.87	189 104.42	206 101.98	242 99.59
3	192	222 102.30	222 101.83	228 97.85	198 104.76	199 96.60
4	194	197 102.60	233 104.95	226 101.80	237 103.95	199 100.51
5	220	202 104.12	193 97.97	226 97.00	233 103.10	230 97.05
6	225	243 110.45	217 107.43	191 98.96	228 100.88	233 100.00
7	211	220 97.78	248 102.06	216 99.54	202 105.76	232 101.75
8	222	223 105.69	222 100.91	247 99.60	220 101.85	198 98.02
9	288	266 119.82	242 108.52	246 110.81	263 106.48	224 101.82
10	240	285 98.96	272 102.26	238 98.35	246 100.00	248 94.30
11	280	237 98.75	265 92.98	258 94.85	233 97.90	246 100.00
12	295	288 102.86	230 97.05	274 103.40	285 110.47	257 110.30

PK-5	1,263	1,248	1,257	1,306	1,316	1,426
<mark>6-8</mark>	658	686	687	654	650	663
9-12	1,103	1,076	1,009	1,016	1,027	975
PK-12	3,024	3,010	2,953	2,976	2,993	3,064

### Table 2 - Enrollment Projected Five Years Method 1

GRADE	2012-13	2013-14	2014-15	2015-16	2016-17
РК	148	148	148	148	148
	100.00	100.00	100.00	100.00	100.00
к	226	229	215	218	220
	33.98	33.98	33.98	33.98	33.98
1	220	228	231	217	220
•	101.01	101.01	101.01	101.01	101.01
2	194	224	233	236	221
	102.03	102.03	102.03	102.03	102.03
3	244	195	226	235	238
<u> </u>	100.67	100.67	100.67	100.67	100.67
4	204	251	200	232	241
-	102.76	102.76	102.76	102.76	102.76
5	199	204	251	200	232
	99.85	99.85	99.85	99.85	99.85
6	238	206	211	260	207
•	103.55	103.55	103.55	103.55	103.55
7	236	241	209	214	264
	101.38	101.38	101.38	101.38	101.38
8	235	239	244	212	217
0	101.21	101.21	101.21	101.21	101.21
9	217	257	262	267	232
<u> </u>	109.49	109.49	109.49	109.49	109.49
10	221	214	254	259	264
	98.77	98.77	98.77	98.77	98.77
11	240	214	207	246	251
	96.90	96.90	96.90	96.90	96.90
12	258	252	224	217	258
12	104.81	104.81	104.81	104.81	104.81

PK-5	1,435	1,479	1,504	1,486	1,520	
6-8	709	686	664	686	688	
9-12	936	937	947	989	1,005	
PK-12	3,080	3,102	3,115	3,161	3,213	

### Table 3 - Comparison of Past and Projected Enrollments Method 1

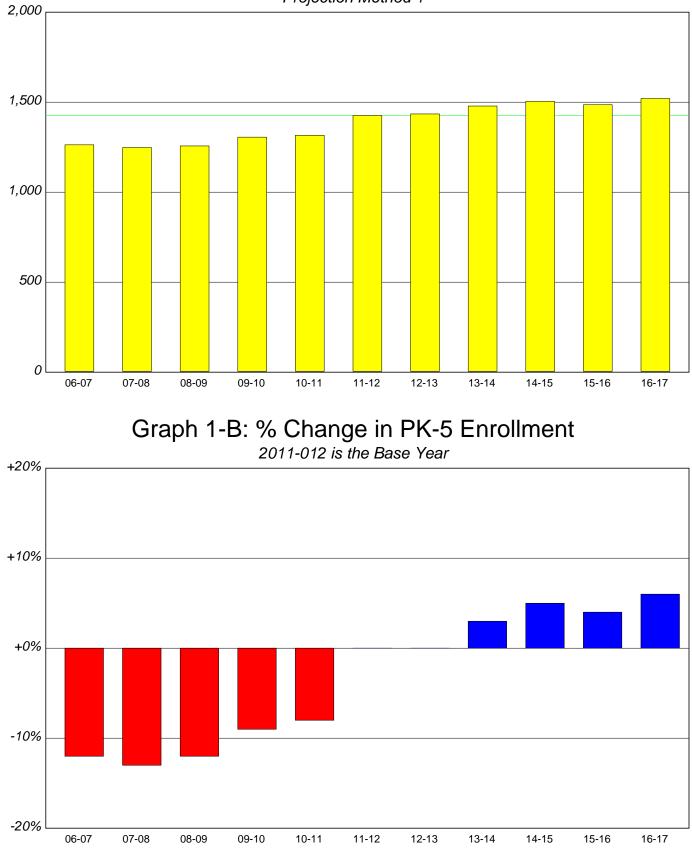
GF	RADE	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
6	РК						148	148	148	148	148	148
	<b>N</b>	-100.00%	-100.00%	-100.00%	-100.00%	-100.00%	+0.00%	+0.00%	+0.00%	+0.00%	+0.00%	+0.00%
	K	229	178	195	235	199	218	226	229	215	218	220
	N	+5.05%	-18.35%	-10.55%	+7.80%	-8.72%	+0.00%	+3.67%	+5.05%	-1.38%	+0.00%	+0.92%
	1	211	231	181	202	243	190	220	228	231	217	220
	•	+11.05%	+21.58%	-4.74%	+6.32%	+27.89%	+0.00%	+15.79%	+20.00%	+21.58%	+14.21%	+15.79%
	2	217	218	233	189	206	242	194	224	233	236	221
	2	-10.33%	-9.92%	-3.72%	-21.90%	-14.88%	+0.00%	-19.83%	-7.44%	-3.72%	-2.48%	-8.68%
	3	192	222	222	228	198	199	244	195	226	235	238
	3	-3.52%	+11.56%	+11.56%	+14.57%	-0.50%	+0.00%	+22.61%	-2.01%	+13.57%	+18.09%	+19.60%
	4	194	197	233	226	237	199	204	251	200	232	241
	4	-2.51%	-1.01%	+17.09%	+13.57%	+19.10%	+0.00%	+2.51%	+26.13%	+0.50%	+16.58%	+21.11%
	5	220	202	193	226	233	230	199	204	251	200	232
	5	-4.35%	-12.17%	-16.09%	-1.74%	+1.30%	+0.00%	-13.48%	-11.30%	+9.13%	-13.04%	+0.87%
	6	225	243	217	191	228	233	238	206	211	260	207
	0	-3.43%	+4.29%	-6.87%	-18.03%	-2.15%	+0.00%	+2.15%	-11.59%	-9.44%	+11.59%	-11.16%
	7	211	220	248	216	202	232	236	241	209	214	264
	1	-9.05%	-5.17%	+6.90%	-6.90%	-12.93%	+0.00%	+1.72%	+3.88%	-9.91%	-7.76%	+13.79%
	8	222	223	222	247	220	198	235	239	244	212	217
	0	+12.12%	+12.63%	+12.12%	+24.75%	+11.11%	+0.00%	+18.69%	+20.71%	+23.23%	+7.07%	+9.60%
	9	288	266	242	246	263	224	217	257	262	267	232
	9	+28.57%	+18.75%	+8.04%	+9.82%	+17.41%	+0.00%	-3.13%	+14.73%	+16.96%	+19.20%	+3.57%
	10	240	285	272	238	246	248	221	214	254	259	264
	10	-3.23%	+14.92%	+9.68%	-4.03%	-0.81%	+0.00%	-10.89%	-13.71%	+2.42%	+4.44%	+6.45%
	11	280	237	265	258	233	246	240	214	207	246	251
	11	+13.82%	-3.66%	+7.72%	+4.88%	-5.28%	+0.00%	-2.44%	-13.01%	-15.85%	+0.00%	+2.03%
	12	295	288	230	274	285	257	258	252	224	217	258
	12	+14.79%	+12.06%	-10.51%	+6.61%	+10.89%	+0.00%	+0.39%	-1.95%	-12.84%	-15.56%	+0.39%

PK-5	1,263	1,248	1,257	1,306	1,316	1,426	1,435	1,479	1,504	1,486	1,520
1 K-5	-11.43%	-12.48%	-11.85%	-8.42%	-7.71%	+0.00%	+0.63%	+3.72%	+5.47%	+4.21%	+6.59%
6-8	658	686	687	654	650	663	709	686	664	686	688
0-0	-0.75%	+3.47%	+3.62%	-1.36%	-1.96%	+0.00%	+6.94%	+3.47%	+0.15%	+3.47%	+3.77%
9-12	1,103	1,076	1,009	1,016	1,027	975	936	937	947	989	1,005
9-12	+13.13%	+10.36%	+3.49%	+4.21%	+5.33%	+0.00%	-4.00%	-3.90%	-2.87%	+1.44%	+3.08%
PK-12	3,024	3,010	2,953	2,976	2,993	3,064	3,080	3,102	3,115	3,161	3,213
FN-14	-1.31%	-1.76%	-3.62%	-2.87%	-2.32%	+0.00%	+0.52%	+1.24%	+1.66%	+3.17%	+4.86%

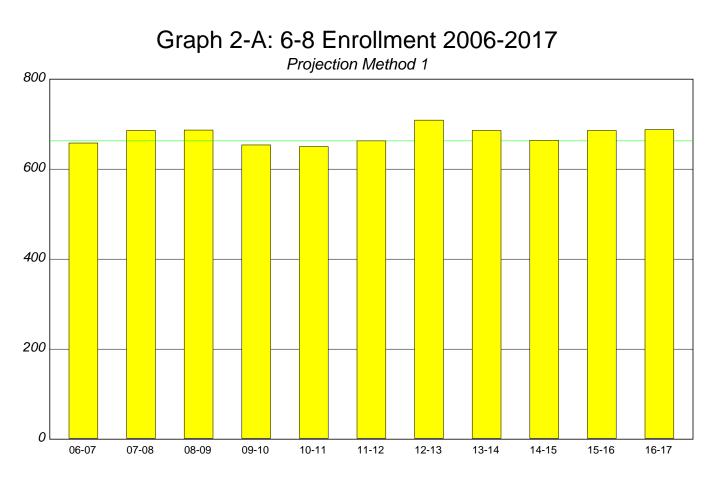
Table 4 - Enrollment Projected Ten Years Method 1

GRADE	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
PK	148	148	148	148	148	148	148	148	148	148
ĸ	226	229	215	218	220	0	0	0	0	0
1	220	228	231	217	220	222	0	0	0	0
2	194	224	233	236	221	224	227	0	0	0
3	244	195	226	235	238	222	226	229	0	0
4	204	251	200	232	241	245	228	232	235	0
5	199	204	251	200	232	241	245	228	232	235
6	238	206	211	260	207	240	250	254	236	240
7	236	241	209	214	264	210	243	253	257	239
8	235	239	244	212	217	267	213	246	256	260
9	217	257	262	267	232	238	292	233	269	280
10	221	214	254	259	264	229	235	288	230	266
11	240	214	207	246	251	256	222	228	279	223
12	258	252	224	217	258	263	268	233	239	292

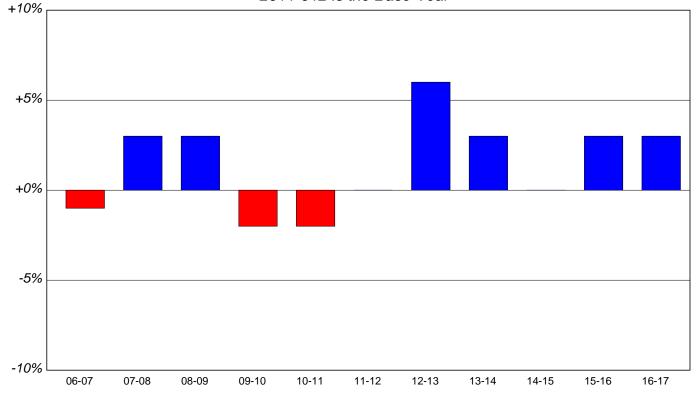
Graph 1-A: PK-5 Enrollment 2006-2017



**NOTE:** See Table 3 for specific enrollment numbers

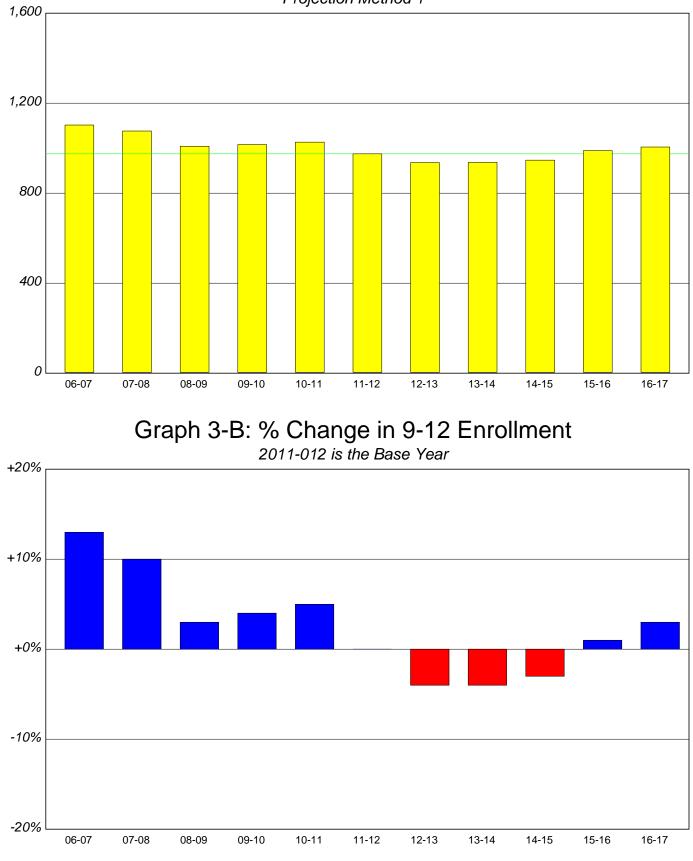


Graph 2-B: % Change in 6-8 Enrollment 2011-012 is the Base Year

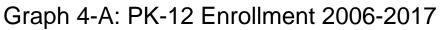


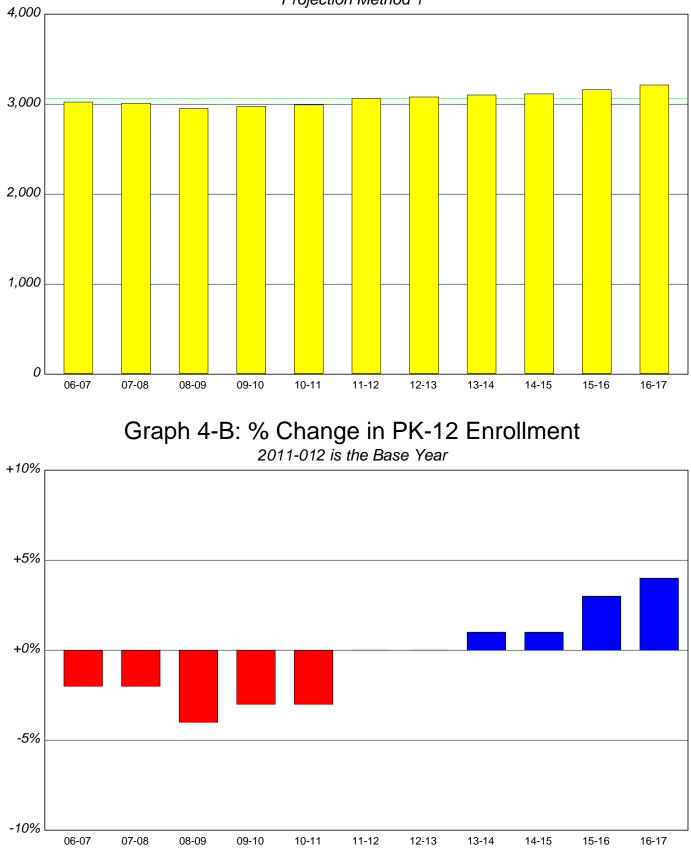
**NOTE:** See Table 3 for specific enrollment numbers

Graph 3-A: 9-12 Enrollment 2006-2017



**NOTE:** See Table 3 for specific enrollment numbers





**NOTE:** See Table 3 for specific enrollment numbers

### Table 5 - Enrollment Projected Five Years Method 2

GRADE	2012-13	2013-14	2014-15	2015-16	2016-17
РК	148	148	148	148	148
•••	100.00	100.00	100.00	100.00	100.00
к	229	232	218	221	223
	34.44	34.44	34.44	34.44	34.44
1	208	219	222	208	211
· ·	95.48	95.48	95.48	95.48	95.48
2	189	207	218	221	207
	99.59	99.59	99.59	99.59	99.59
3	234	183	200	211	213
<u> </u>	96.60	96.60	96.60	96.60	96.60
4	200	235	184	201	212
	100.51	100.51	100.51	100.51	100.51
5	193	194	228	179	195
5	97.05	97.05	97.05	97.05	97.05
6	230	193	194	228	179
0	100.00	100.00	100.00	100.00	100.00
7	237	234	196	197	232
	101.75	101.75	101.75	101.75	101.75
8	227	232	229	192	193
0	98.02	98.02	98.02	98.02	98.02
9	202	231	236	233	195
9	101.82	101.82	101.82	101.82	101.82
10	211	190	218	223	220
10	94.30	94.30	94.30	94.30	94.30
11	248	211	190	218	223
	100.00	100.00	100.00	100.00	100.00
12	271	274	233	210	240
12	110.30	110.30	110.30	110.30	110.30

PK-5	1,401	1,418	1,418	1,389	1,409	
6-8	694	659	619	617	604	
9-12	932	906	877	884	878	
PK-12	3,027	2,983	2,914	2,890	2,891	

### Table 6 - Comparison of Past and Projected Enrollments Method 2

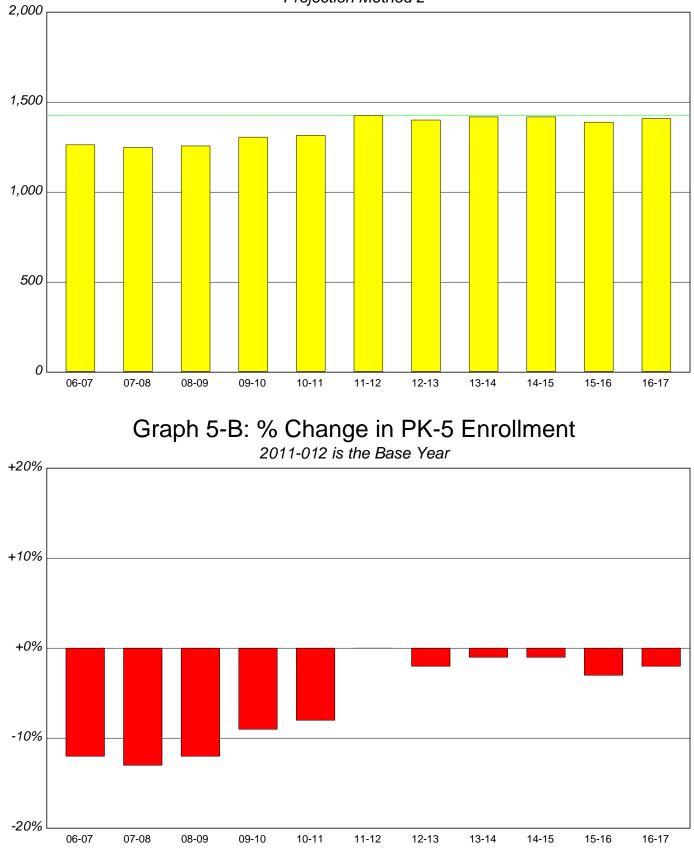
G	RADE	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
	PK						148	148	148	148	148	148
		-100.00%	-100.00%	-100.00%	-100.00%	-100.00%	+0.00%	+0.00%	+0.00%	+0.00%	+0.00%	+0.00%
	ĸ	229	178	195	235	199	218	229	232	218	221	223
	n	+5.05%	-18.35%	-10.55%	+7.80%	-8.72%	+0.00%	+5.05%	+6.42%	+0.00%	+1.38%	+2.29%
	1	211	231	181	202	243	190	208	219	222	208	211
	•	+11.05%	+21.58%	-4.74%	+6.32%	+27.89%	+0.00%	+9.47%	+15.26%	+16.84%	+9.47%	+11.05%
	2	217	218	233	189	206	242	189	207	218	221	207
	2	-10.33%	-9.92%	-3.72%	-21.90%	-14.88%	+0.00%	-21.90%	-14.46%	-9.92%	-8.68%	-14.46%
	3	192	222	222	228	198	199	234	183	200	211	213
	3	-3.52%	+11.56%	+11.56%	+14.57%	-0.50%	+0.00%	+17.59%	-8.04%	+0.50%	+6.03%	+7.04%
	4	194	197	233	226	237	199	200	235	184	201	212
		-2.51%	-1.01%	+17.09%	+13.57%	+19.10%	+0.00%	+0.50%	+18.09%	-7.54%	+1.01%	+6.53%
	5	220	202	193	226	233	230	193	194	228	179	195
	5	-4.35%	-12.17%	-16.09%	-1.74%	+1.30%	+0.00%	-16.09%	-15.65%	-0.87%	-22.17%	-15.22%
	6	225	243	217	191	228	233	230	193	194	228	179
	0	-3.43%	+4.29%	-6.87%	-18.03%	-2.15%	+0.00%	-1.29%	-17.17%	-16.74%	-2.15%	-23.18%
	7	211	220	248	216	202	232	237	234	196	197	232
	-	-9.05%	-5.17%	+6.90%	-6.90%	-12.93%	+0.00%	+2.16%	+0.86%	-15.52%	-15.09%	+0.00%
	8	222	223	222	247	220	198	227	232	229	192	193
	0	+12.12%	+12.63%	+12.12%	+24.75%	+11.11%	+0.00%	+14.65%	+17.17%	+15.66%	-3.03%	-2.53%
	9	288	266	242	246	263	224	202	231	236	233	195
	3	+28.57%	+18.75%	+8.04%	+9.82%	+17.41%	+0.00%	-9.82%	+3.13%	+5.36%	+4.02%	-12.95%
	10	240	285	272	238	246	248	211	190	218	223	220
	10	-3.23%	+14.92%	+9.68%	-4.03%	-0.81%	+0.00%	-14.92%	-23.39%	-12.10%	-10.08%	-11.29%
	11	280	237	265	258	233	246	248	211	190	218	223
	11	+13.82%	-3.66%	+7.72%	+4.88%	-5.28%	+0.00%	+0.81%	-14.23%	-22.76%	-11.38%	-9.35%
	12	295	288	230	274	285	257	271	274	233	210	240
	12	+14.79%	+12.06%	-10.51%	+6.61%	+10.89%	+0.00%	+5.45%	+6.61%	-9.34%	-18.29%	-6.61%

PK-5	1,263	1,248	1,257	1,306	1,316	1,426	1,401	1,418	1,418	1,389	1,409
FR-J	-11.43%	-12.48%	-11.85%	-8.42%	-7.71%	+0.00%	-1.75%	-0.56%	-0.56%	-2.59%	-1.19%
6-8	658	686	687	654	650	663	694	659	619	617	604
0-0	-0.75%	+3.47%	+3.62%	-1.36%	-1.96%	+0.00%	+4.68%	-0.60%	-6.64%	-6.94%	-8.90%
9-12	1,103	1,076	1,009	1,016	1,027	975	932	906	877	884	878
9-12	+13.13%	+10.36%	+3.49%	+4.21%	+5.33%	+0.00%	-4.41%	-7.08%	-10.05%	-9.33%	-9.95%
<b>PK-12</b>	3,024	3,010	2,953	2,976	2,993	3,064	3,027	2,983	2,914	2,890	2,891
FR-12	-1.31%	-1.76%	-3.62%	-2.87%	-2.32%	+0.00%	-1.21%	-2.64%	-4.90%	-5.68%	-5.65%

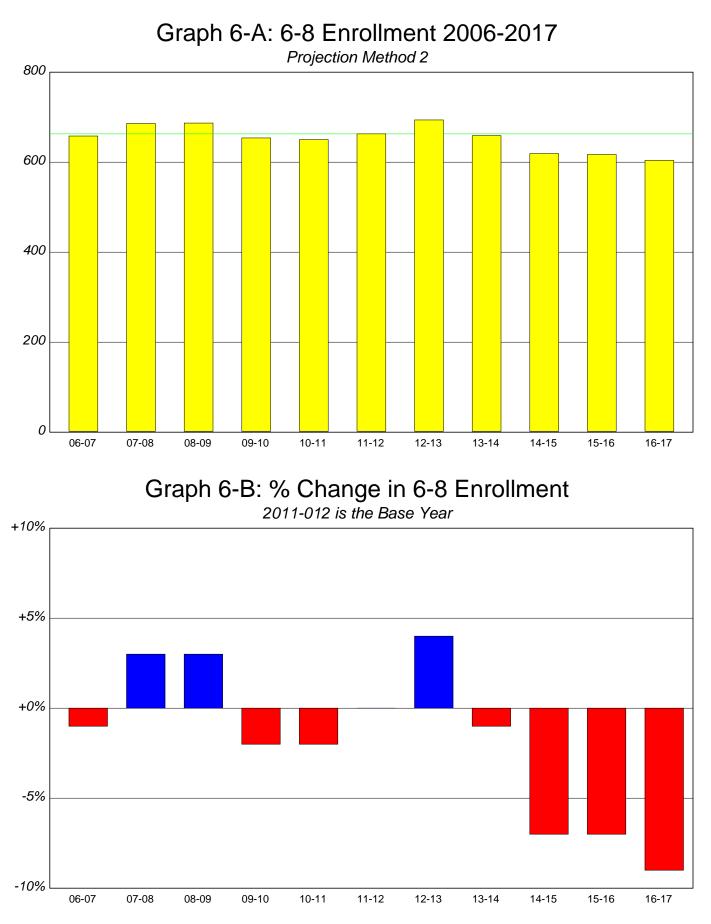
Table 7 - Enrollment Projected Ten Years Method 2

GRADE	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
PK	148	148	148	148	148	148	148	148	148	148
К	229	232	218	221	223	0	0	0	0	0
1	208	219	222	208	211	213	0	0	0	0
2	189	207	218	221	207	210	212	0	0	0
3	234	183	200	211	213	200	203	205	0	0
4	200	235	184	201	212	214	201	204	206	0
5	193	194	228	179	195	206	208	195	198	200
6	230	193	194	228	179	195	206	208	195	198
7	237	234	196	197	232	182	198	210	212	198
8	227	232	229	192	193	227	178	194	206	208
9	202	231	236	233	195	197	231	181	198	210
10	211	190	218	223	220	184	186	218	171	187
11	248	211	190	218	223	220	184	186	218	171
12	271	274	233	210	240	246	243	203	205	240

Graph 5-A: PK-5 Enrollment 2006-2017

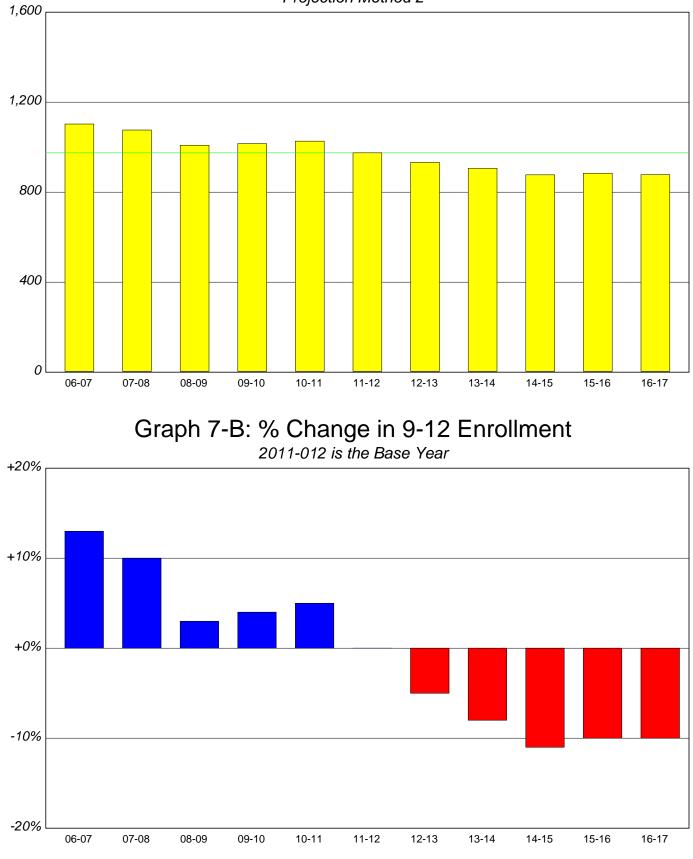


**NOTE:** See Table 6 for specific enrollment numbers



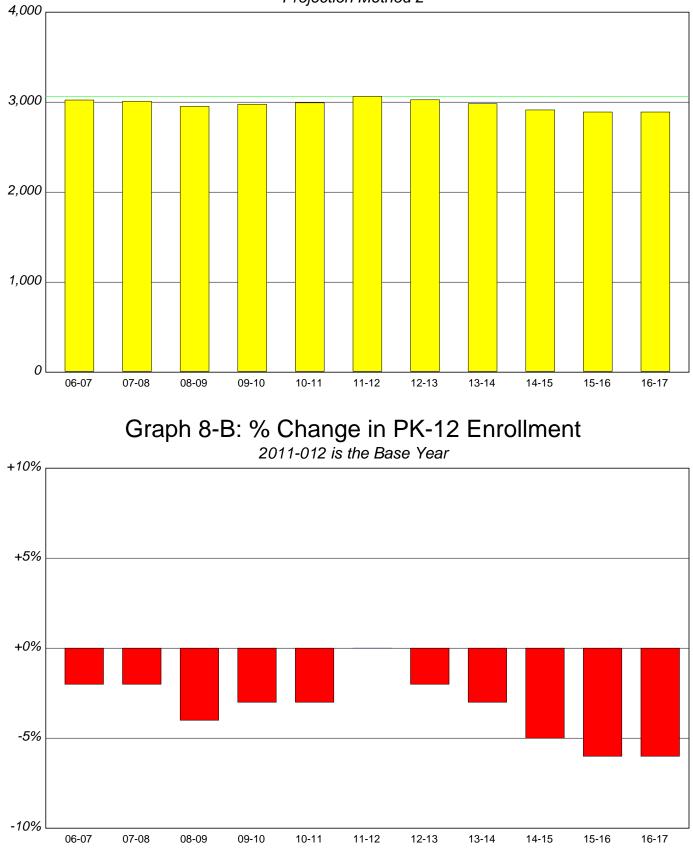
**NOTE:** See Table 6 for specific enrollment numbers

Graph 7-A: 9-12 Enrollment 2006-2017



**NOTE:** See Table 6 for specific enrollment numbers

### Graph 8-A: PK-12 Enrollment 2006-2017



**NOTE:** See Table 6 for specific enrollment numbers

### Table 8 - Enrollment Projected Five Years Method 3

GRADE	2012-13	2013-14	2014-15	2015-16	2016-17
РК	148	148	148	148	148
	100.00	100.00	100.00	100.00	100.00
к	228	231	216	220	222
	34.21	34.21	34.21	34.21	34.21
1	214	224	227	212	216
	98.24	98.24	98.24	98.24	98.24
2	192	216	226	229	214
2	100.81	100.81	100.81	100.81	100.81
3	239	189	213	223	226
3	98.64	98.64	98.64	98.64	98.64
4	202	243	192	216	227
	101.63	101.63	101.63	101.63	101.63
5	196	199	239	189	213
3	98.45	98.45	98.45	98.45	98.45
6	234	199	203	243	192
0	101.77	101.77	101.77	101.77	101.77
7	237	238	202	206	247
'	101.57	101.57	101.57	101.57	101.57
8	231	236	237	201	205
0	99.62	99.62	99.62	99.62	99.62
9	209	244	249	250	212
3	105.65	105.65	105.65	105.65	105.65
10	216	202	236	240	241
10	96.53	96.53	96.53	96.53	96.53
11	244	213	199	232	236
	98.45	98.45	98.45	98.45	98.45
12	265	262	229	214	250
12	107.56	107.56	107.56	107.56	107.56

PK-5	1,419	1,450	1,461	1,437	1,466
6-8	702	673	642	650	644
9-12	934	921	913	936	939
PK-12	3,055	3,044	3,016	3,023	3,049

### Table 9 - Comparison of Past and Projected Enrollments Method 3

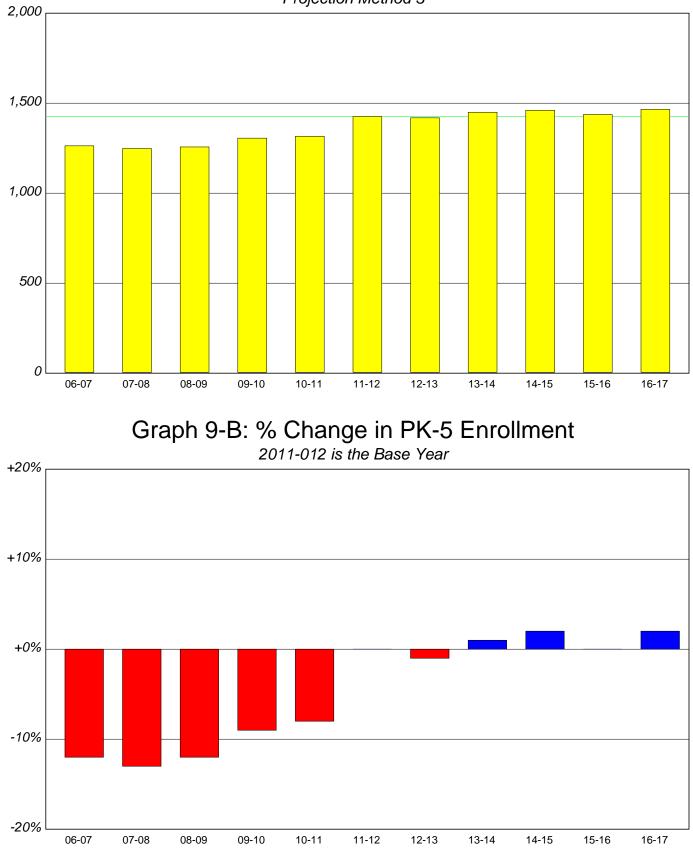
GRADE	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
PK						148	148	148	148	148	148
	-100.00%	-100.00%	-100.00%	-100.00%	-100.00%	+0.00%	+0.00%	+0.00%	+0.00%	+0.00%	+0.00%
ĸ	229	178	195	235	199	218	228	231	216	220	222
	+5.05%	-18.35%	-10.55%	+7.80%	-8.72%	+0.00%	+4.59%	+5.96%	-0.92%	+0.92%	+1.83%
1	211	231	181	202	243	190	214	224	227	212	216
<b></b>	+11.05%	+21.58%	-4.74%	+6.32%	+27.89%	+0.00%	+12.63%	+17.89%	+19.47%	+11.58%	+13.68%
2	217	218	233	189	206	242	192	216	226	229	214
2	-10.33%	-9.92%	-3.72%	-21.90%	-14.88%	+0.00%	-20.66%	-10.74%	-6.61%	-5.37%	-11.57%
3	192	222	222	228	198	199	239	189	213	223	226
<u> </u>	-3.52%	+11.56%	+11.56%	+14.57%	-0.50%	+0.00%	+20.10%	-5.03%	+7.04%	+12.06%	+13.57%
4	194	197	233	226	237	199	202	243	192	216	227
	-2.51%	-1.01%	+17.09%	+13.57%	+19.10%	+0.00%	+1.51%	+22.11%	-3.52%	+8.54%	+14.07%
5	220	202	193	226	233	230	196	199	239	189	213
	-4.35%	-12.17%	-16.09%	-1.74%	+1.30%	+0.00%	-14.78%	-13.48%	+3.91%	-17.83%	-7.39%
6	225	243	217	191	228	233	234	199	203	243	192
•	-3.43%	+4.29%	-6.87%	-18.03%	-2.15%	+0.00%	+0.43%	-14.59%	-12.88%	+4.29%	-17.60%
7	211	220	248	216	202	232	237	238	202	206	247
	-9.05%	-5.17%	+6.90%	-6.90%	-12.93%	+0.00%	+2.16%	+2.59%	-12.93%	-11.21%	+6.47%
8	222	223	222	247	220	198	231	236	237	201	205
0	+12.12%	+12.63%	+12.12%	+24.75%	+11.11%	+0.00%	+16.67%	+19.19%	+19.70%	+1.52%	+3.54%
9	288	266	242	246	263	224	209	244	249	250	212
	+28.57%	+18.75%	+8.04%	+9.82%	+17.41%	+0.00%	-6.70%	+8.93%	+11.16%	+11.61%	-5.36%
10	240	285	272	238	246	248	216	202	236	240	241
	-3.23%	+14.92%	+9.68%	-4.03%	-0.81%	+0.00%	-12.90%	-18.55%	-4.84%	-3.23%	-2.82%
11	280	237	265	258	233	246	244	213	199	232	236
	+13.82%	-3.66%	+7.72%	+4.88%	-5.28%	+0.00%	-0.81%	-13.41%	-19.11%	-5.69%	-4.07%
12	295	288	230	274	285	257	265	262	229	214	250
	+14.79%	+12.06%	-10.51%	+6.61%	+10.89%	+0.00%	+3.11%	+1.95%	-10.89%	-16.73%	-2.72%

PK-5	1,263	1,248	1,257	1,306	1,316	1,426	1,419	1,450	1,461	1,437	1,466
FR-J	-11.43%	-12.48%	-11.85%	-8.42%	-7.71%	+0.00%	-0.49%	+1.68%	+2.45%	+0.77%	+2.81%
6-8	658	686	687	654	650	663	702	673	642	650	644
0-0	-0.75%	+3.47%	+3.62%	-1.36%	-1.96%	+0.00%	+5.88%	+1.51%	-3.17%	-1.96%	-2.87%
9-12	1,103	1,076	1,009	1,016	1,027	975	934	921	913	936	939
9-12	+13.13%	+10.36%	+3.49%	+4.21%	+5.33%	+0.00%	-4.21%	-5.54%	-6.36%	-4.00%	-3.69%
<b>PK-12</b>	3,024	3,010	2,953	2,976	2,993	3,064	3,055	3,044	3,016	3,023	3,049
PR-12	-1.31%	-1.76%	-3.62%	-2.87%	-2.32%	+0.00%	-0.29%	-0.65%	-1.57%	-1.34%	-0.49%

Table 10 - Enrollment Projected Ten Years Method 3

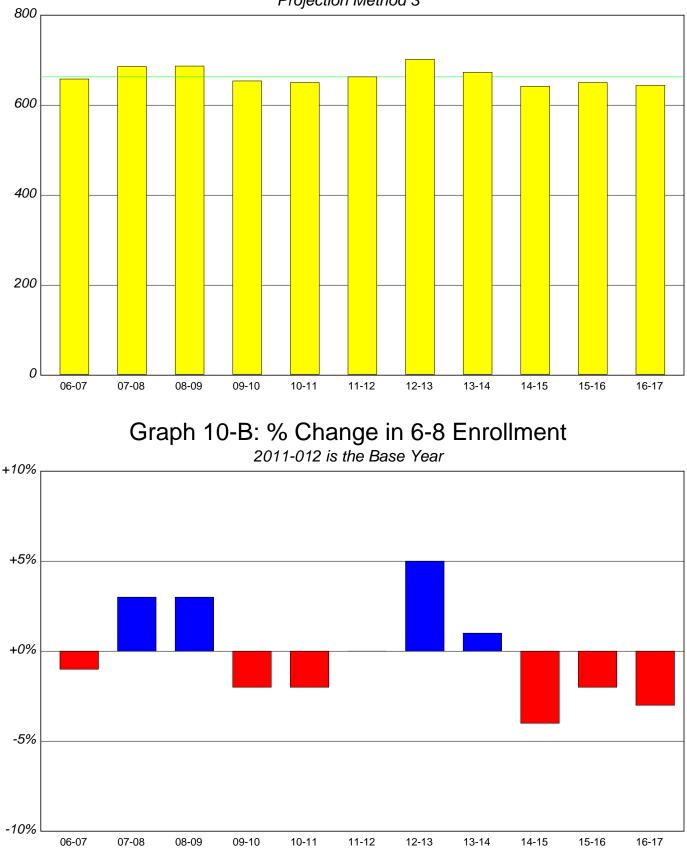
GRADE	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
PK	148	148	148	148	148	148	148	148	148	148
К	228	231	216	220	222	0	0	0	0	0
1	214	224	227	212	216	218	0	0	0	0
2	192	216	226	229	214	218	220	0	0	0
3	239	189	213	223	226	211	215	217	0	0
4	202	243	192	216	227	230	214	219	221	0
5	196	199	239	189	213	223	226	211	216	218
6	234	199	203	243	192	217	227	230	215	220
7	237	238	202	206	247	195	220	231	234	218
8	231	236	237	201	205	246	194	219	230	233
9	209	244	249	250	212	217	260	205	231	243
10	216	202	236	240	241	205	209	251	198	223
11	244	213	199	232	236	237	202	206	247	195
12	265	262	229	214	250	254	255	217	222	266

Graph 9-A: PK-5 Enrollment 2006-2017



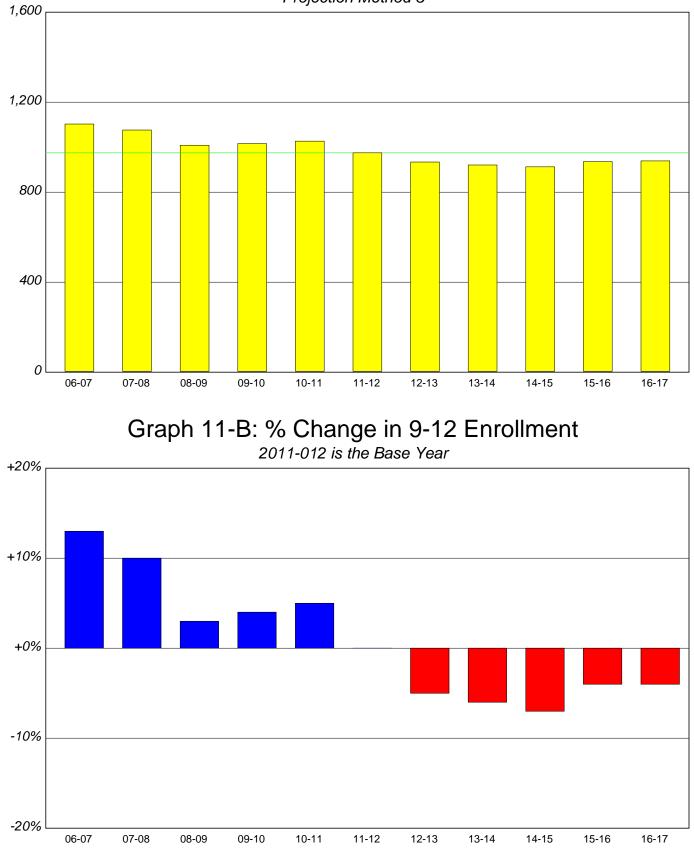
**NOTE:** See Table 9 for specific enrollment numbers





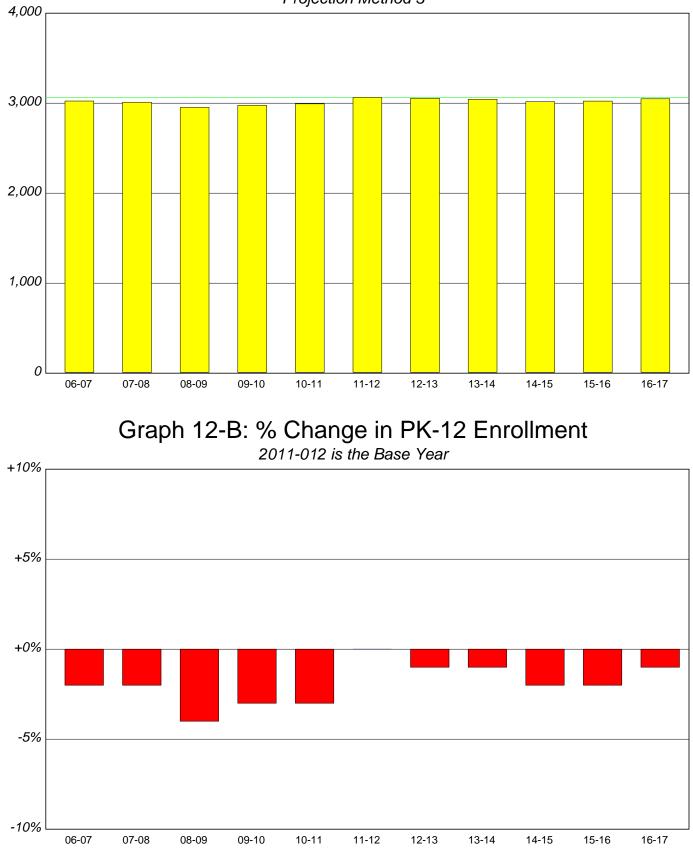
NOTE: See Table 9 for specific enrollment numbers

Graph 11-A: 9-12 Enrollment 2006-2017



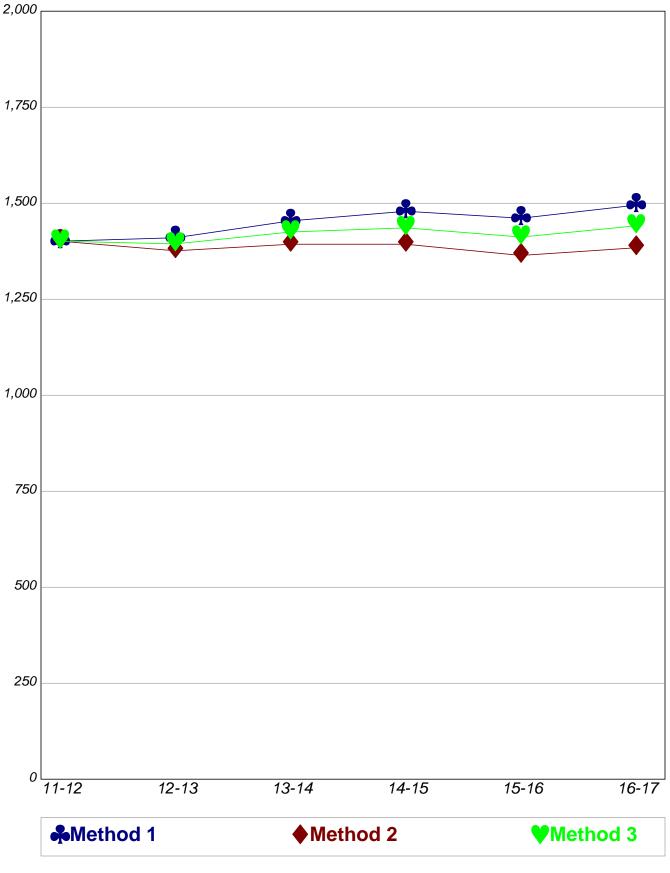
**NOTE:** See Table 9 for specific enrollment numbers

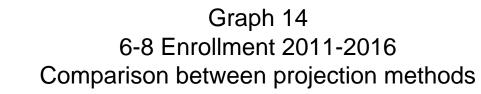
Graph 12-A: PK-12 Enrollment 2006-2017

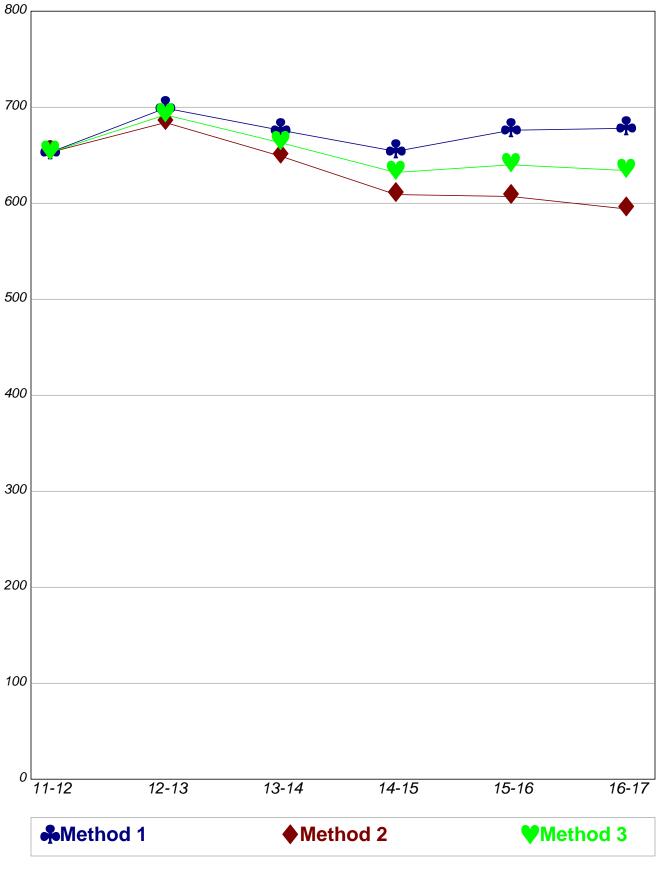


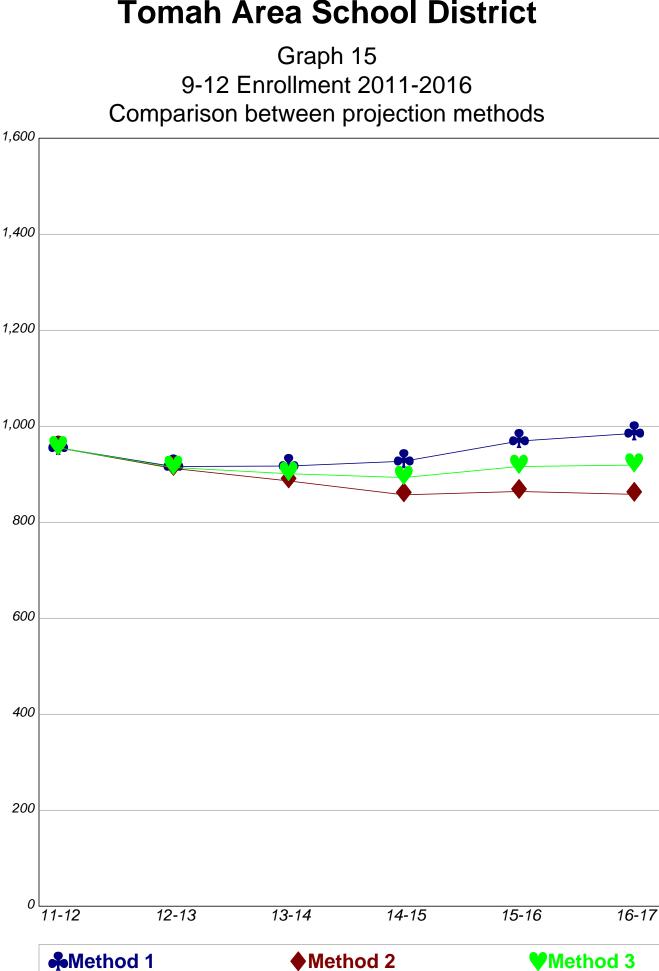
**NOTE:** See Table 9 for specific enrollment numbers

Graph 13 PK-5 Enrollment 2011-2016 Comparison between projection methods



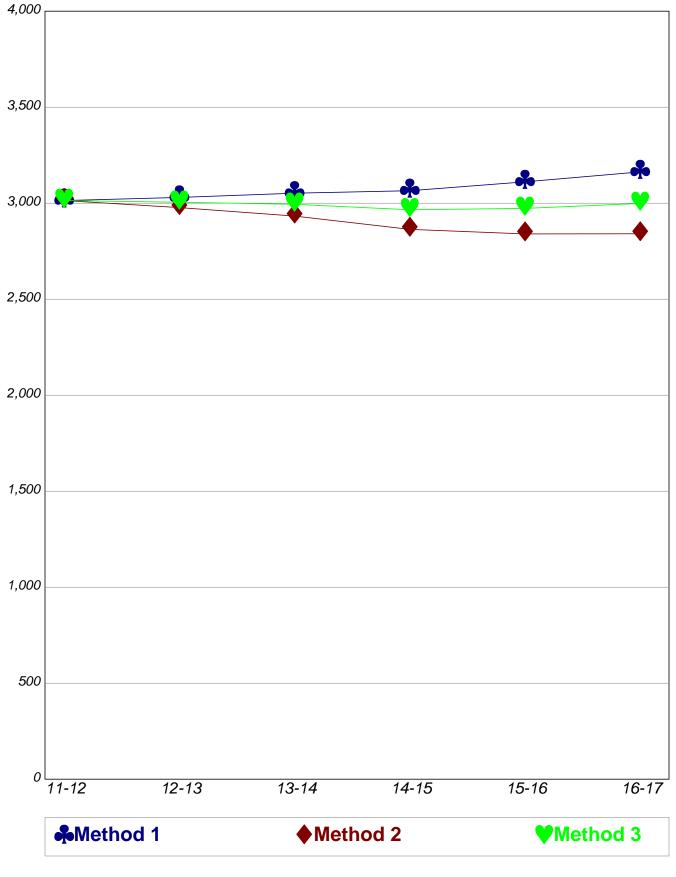






Method 1 Method 2

Graph 16 PK-12 Enrollment 2011-2016 Comparison between projection methods



### Table 11 - Teacher Requirements Projected Ten Years Teacher/Pupil Ratio = 1:22

GRADE	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
PK	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
K	10.3	10.4	9.8	9.9	10.0	0.0	0.0	0.0	0.0	0.0
1	10.0	10.4	10.5	9.9	10.0	10.1	0.0	0.0	0.0	0.0
2	8.8	10.2	10.6	10.7	10.0	10.2	10.3	0.0	0.0	0.0
3	11.1	8.9	10.3	10.7	10.8	10.1	10.3	10.4	0.0	0.0
4	9.3	11.4	9.1	10.5	11.0	11.1	10.4	10.5	10.7	0.0
5	9.0	9.3	11.4	9.1	10.5	11.0	11.1	10.4	10.5	10.7
6	10.8	9.4	9.6	11.8	9.4	10.9	11.4	11.5	10.7	10.9
7	10.7	11.0	9.5	9.7	12.0	9.5	11.0	11.5	11.7	10.9
8	10.7	10.9	11.1	9.6	9.9	12.1	9.7	11.2	11.6	11.8
9	9.9	11.7	11.9	12.1	10.5	10.8	13.3	10.6	12.2	12.7
10	10.0	9.7	11.5	11.8	12.0	10.4	10.7	13.1	10.5	12.1
11	10.9	9.7	9.4	11.2	11.4	11.6	10.1	10.4	12.7	10.1
12	11.7	11.5	10.2	9.9	11.7	12.0	12.2	10.6	10.9	13.3

### Table 12 - Teacher Requirements Projected Ten Years Teacher/Pupil Ratio = 1:24

GRADE	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
PK	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
K	9.4	9.5	9.0	9.1	9.2	0.0	0.0	0.0	0.0	0.0
1	9.2	9.5	9.6	9.0	9.2	9.3	0.0	0.0	0.0	0.0
2	8.1	9.3	9.7	9.8	9.2	9.3	9.5	0.0	0.0	0.0
3	10.2	8.1	9.4	9.8	9.9	9.3	9.4	9.5	0.0	0.0
4	8.5	10.5	8.3	9.7	10.0	10.2	9.5	9.7	9.8	0.0
5	8.3	8.5	10.5	8.3	9.7	10.0	10.2	9.5	9.7	9.8
6	9.9	8.6	8.8	10.8	8.6	10.0	10.4	10.6	9.8	10.0
7	9.8	10.0	8.7	8.9	11.0	8.8	10.1	10.5	10.7	10.0
8	9.8	10.0	10.2	8.8	9.0	11.1	8.9	10.3	10.7	10.8
9	9.0	10.7	10.9	11.1	9.7	9.9	12.2	9.7	11.2	11.7
10	9.2	8.9	10.6	10.8	11.0	9.5	9.8	12.0	9.6	11.1
11	10.0	8.9	8.6	10.3	10.5	10.7	9.3	9.5	11.6	9.3
12	10.8	10.5	9.3	9.0	10.8	11.0	11.2	9.7	10.0	12.2

### Table 13 - Teacher Requirements Projected Ten Years Teacher/Pupil Ratio = 1:26

GRADE	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
PK	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
K	8.7	8.8	8.3	8.4	8.5	0.0	0.0	0.0	0.0	0.0
1	8.5	8.8	8.9	8.3	8.5	8.5	0.0	0.0	0.0	0.0
2	7.5	8.6	9.0	9.1	8.5	8.6	8.7	0.0	0.0	0.0
3	9.4	7.5	8.7	9.0	9.2	8.5	8.7	8.8	0.0	0.0
4	7.8	9.7	7.7	8.9	9.3	9.4	8.8	8.9	9.0	0.0
5	7.7	7.8	9.7	7.7	8.9	9.3	9.4	8.8	8.9	9.0
6	9.2	7.9	8.1	10.0	8.0	9.2	9.6	9.8	9.1	9.2
7	9.1	9.3	8.0	8.2	10.2	8.1	9.3	9.7	9.9	9.2
8	9.0	9.2	9.4	8.2	8.3	10.3	8.2	9.5	9.8	10.0
9	8.3	9.9	10.1	10.3	8.9	9.2	11.2	9.0	10.3	10.8
10	8.5	8.2	9.8	10.0	10.2	8.8	9.0	11.1	8.8	10.2
11	9.2	8.2	8.0	9.5	9.7	9.8	8.5	8.8	10.7	8.6
12	9.9	9.7	8.6	8.3	9.9	10.1	10.3	9.0	9.2	11.2

### Table 14 - Teacher Requirements Projected Ten Years Teacher/Pupil Ratio = 1:28

GRADE	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
PK	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
K	8.1	8.2	7.7	7.8	7.9	0.0	0.0	0.0	0.0	0.0
1	7.9	8.1	8.3	7.8	7.9	7.9	0.0	0.0	0.0	0.0
2	6.9	8.0	8.3	8.4	7.9	8.0	8.1	0.0	0.0	0.0
3	8.7	7.0	8.1	8.4	8.5	7.9	8.1	8.2	0.0	0.0
4	7.3	9.0	7.1	8.3	8.6	8.8	8.1	8.3	8.4	0.0
5	7.1	7.3	9.0	7.1	8.3	8.6	8.8	8.1	8.3	8.4
6	8.5	7.4	7.5	9.3	7.4	8.6	8.9	9.1	8.4	8.6
7	8.4	8.6	7.5	7.6	9.4	7.5	8.7	9.0	9.2	8.5
8	8.4	8.5	8.7	7.6	7.8	9.5	7.6	8.8	9.1	9.3
9	7.8	9.2	9.4	9.5	8.3	8.5	10.4	8.3	9.6	10.0
10	7.9	7.6	9.1	9.3	9.4	8.2	8.4	10.3	8.2	9.5
11	8.6	7.6	7.4	8.8	9.0	9.1	7.9	8.1	10.0	8.0
12	9.2	9.0	8.0	7.8	9.2	9.4	9.6	8.3	8.5	10.4

### Table 15 - Teacher Requirements Projected Ten Years Teacher/Pupil Ratio = 1:30

GRADE	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
PK	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
K	7.5	7.6	7.2	7.3	7.3	0.0	0.0	0.0	0.0	0.0
1	7.3	7.6	7.7	7.2	7.3	7.4	0.0	0.0	0.0	0.0
2	6.5	7.5	7.8	7.9	7.4	7.5	7.6	0.0	0.0	0.0
3	8.1	6.5	7.5	7.8	7.9	7.4	7.5	7.6	0.0	0.0
4	6.8	8.4	6.7	7.7	8.0	8.2	7.6	7.7	7.8	0.0
5	6.6	6.8	8.4	6.7	7.7	8.0	8.2	7.6	7.7	7.8
6	7.9	6.9	7.0	8.7	6.9	8.0	8.3	8.5	7.9	8.0
7	7.9	8.0	7.0	7.1	8.8	7.0	8.1	8.4	8.6	8.0
8	7.8	8.0	8.1	7.1	7.2	8.9	7.1	8.2	8.5	8.7
9	7.2	8.6	8.7	8.9	7.7	7.9	9.7	7.8	9.0	9.3
10	7.4	7.1	8.5	8.6	8.8	7.6	7.8	9.6	7.7	8.9
11	8.0	7.1	6.9	8.2	8.4	8.5	7.4	7.6	9.3	7.4
12	8.6	8.4	7.5	7.2	8.6	8.8	8.9	7.8	8.0	9.7

### Table 16 - Teacher Requirements Projected Ten Years Teacher/Pupil Ratio = 1:32

GRADE	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
PK	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
K	7.1	7.2	6.7	6.8	6.9	0.0	0.0	0.0	0.0	0.0
1	6.9	7.1	7.2	6.8	6.9	6.9	0.0	0.0	0.0	0.0
2	6.1	7.0	7.3	7.4	6.9	7.0	7.1	0.0	0.0	0.0
3	7.6	6.1	7.1	7.3	7.4	6.9	7.1	7.2	0.0	0.0
4	6.4	7.8	6.3	7.3	7.5	7.7	7.1	7.3	7.3	0.0
5	6.2	6.4	7.8	6.3	7.3	7.5	7.7	7.1	7.3	7.3
6	7.4	6.4	6.6	8.1	6.5	7.5	7.8	7.9	7.4	7.5
7	7.4	7.5	6.5	6.7	8.3	6.6	7.6	7.9	8.0	7.5
8	7.3	7.5	7.6	6.6	6.8	8.3	6.7	7.7	8.0	8.1
9	6.8	8.0	8.2	8.3	7.3	7.4	9.1	7.3	8.4	8.8
10	6.9	6.7	7.9	8.1	8.3	7.2	7.3	9.0	7.2	8.3
11	7.5	6.7	6.5	7.7	7.8	8.0	6.9	7.1	8.7	7.0
12	8.1	7.9	7.0	6.8	8.1	8.2	8.4	7.3	7.5	9.1

# Table 17 - Accuracy TableDifference Between Actual and Projected 2011-12 Enrollment

Grade <b>Pre-K</b>	Current Enrollment 148	Projectio	Method 1 % Projection Diff. 0 -100.00%		% Diff. •100.00%	Method 3 % Projection Diff. 0 -100.00%		
К	218	214	-1.65%	205	-6.04%	210	-3.85%	
1	190	204	+7.24%	206	+8.30%	205	+7.77%	
2	242	249	+3.07%	248	+2.40%	249	+2.74%	
3	199	209	+5.27%	216	+8.45%	213	+6.86%	
4	199	205	+2.81%	206	+3.43%	205	+3.12%	
5	230	238	+3.61%	244	+6.24%	241	+4.92%	
6	233	243	+4.43%	235	+0.88%	239	+2.66%	
7	232	231	-0.46%	241	+3.94%	236	+1.74%	
8	198	206	+4.07%	206	+3.91%	206	+3.99%	
9	224	245	+9.42%	234	+4.58%	240	+7.00%	
10	248	263	+5.93%	263	+6.05%	263	+5.99%	
11	246	236	-3.88%	241	-2.10%	239	-2.99%	
12	257	241	-6.22%	257	+0.15%	249	-3.03%	
PK-5	1,426	1,319	-7.50%	1,325	-7.08%	1,323	-7.22%	
6-8	663	680	+2.56%	682	+2.87%	681	+2.71%	
9-12	975	985	+1.03%	995	+2.05%	991	+1.64%	
PK-12	3,064	2,984	-2.61%	3,002	-2.02%	2,995	-2.25%	