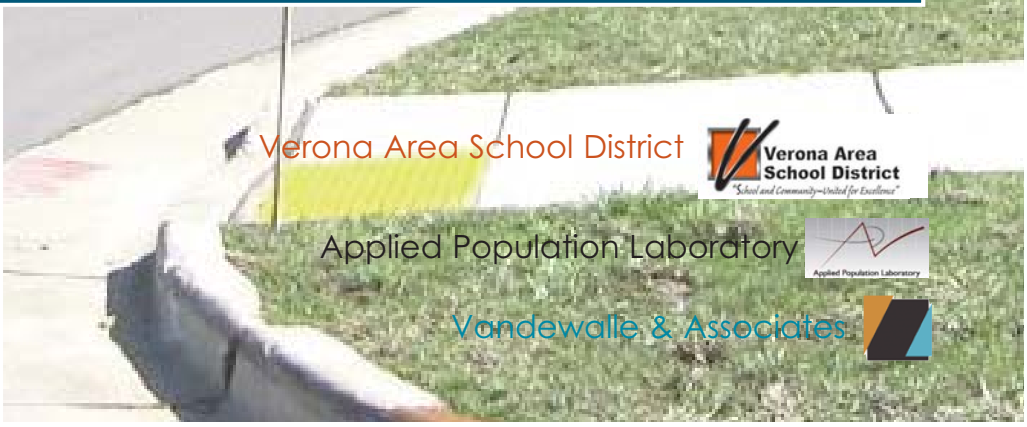
VERONA AREA SCHOOL DISTRICT
LONG RANGE FACILITIES PLAN

February 2008



Verona Area School District

Applied Population Laboratory

Vandewalle & Associates

Acknowledgements

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Summary

A Strong and Growing District

Over the past two decades, the Verona Area School District has been one of the fastest growing school districts in Wisconsin. Student growth has been driven by the District's excellent reputation, the quality of life in the Verona/Fitchburg area, and the region's strong economy. Student growth has led to the construction of new school facilities—most recently Glacier Edge Elementary in 2006.

Driven by projected community growth, student enrollment increases are expected to continue into the future. These increases will continue to point to the need for additional and expanded school facilities over the next two decades. To assure that the District's facility needs are addressed in the most efficient and effective way possible, long range facility master planning based on careful research and discussion is essential.

Study Purposes

This study is intended to provide the School District with a framework within which to make informed decisions regarding the future of its educational facilities. The study includes projections of student population growth within the Verona Area School District over the next twenty years, and compares those projections with existing school capacities. This comparison suggests where and when current capacities will be exceeded. The study then includes suggestions on the types and timing of new and expanded facilities that will likely be needed. Finally, ideas related to locations for futures schools are shared.

Study Methodology

In an effort to generate the most accurate and comprehensive estimates of student population growth in the District, two methodologies for projecting student population were utilized and combined. The Grade Progression method is based on a demographic analysis of the District's population, and considers factors such as birth rates and in-migration in the District. For the Housing Unit projection method, consultants analyzed city and town growth plans over the next twenty years, focusing in particular on areas planned for residential development.

Student enrollment projections were then compared with existing school capacities within three grade groupings: K-5 (elementary), 6-8 (middle), and 9-12 (high). School capacity figures were derived from the District's 2006 School Capacity Study, which was completed in 2006 by the architectural firm, Plunkett-Raysich. These comparisons revealed in what grade groups and when school capacities would be exceeded. Next, based on preferred maximum school sizes, as determined by the School Board, the consultant projected the need, type, and timing of new and expanded school facilities over the next twenty years. Specific options for addressing those needs were derived through discussions and analysis among the consultant, District officials and staff, the Board of Education, and the public.

Key Findings

By 2016, the capacity of schools within all three grade groupings (K-5, 6-8, 9-12) in the Verona Area School District is projected to be exceeded. Existing capacities within elementary schools are expected to be exceeded the soonest, by about 2012, followed soon after by middle and then high school capacities. Therefore, addressing school capacities through new and expanded facilities will require a comprehensive solution considering all grade levels and school types.

The following table summarizes the suggested approach for addressing the District's projected enrollment and facility space needs. The approach suggests the need for analysis, siting, and construction of new or

expanded schools within four general time periods. Discussion, planning, design, and funding for each identified construction project would have to occur well in advance of the time the District requires each respective school to be opened. The table is a summary only; readers are encouraged to read the full *Long-Range Facilities Plan* for the detailed analysis and assumptions. For example, one key assumption was that School District boundaries would remain unchanged.

FACILITY TYPES	TIME PERIODS			
	2008 – 2010	2011 – 2015	2016 – 2020	2021 – 2026
Elementary	Explore potential for expansion to existing elementary schools* Identify and acquire new elementary school site(s)	Explore school attendance area shifts Construct first additional elementary school Identify and acquire next new elementary school site(s)	Explore school attendance area shifts Construct second additional elementary school	One additional elementary school may be needed at or soon after the end of this final time period
Middle	Explore potential for expansions to and attendance area shifts for current middle schools	If feasible and desirable, expand existing middle school(s)* Identify and acquire new middle school site (sooner if campus site identified)	Construct new middle school (may be deferred until next period if significant expansions made to existing school(s))	See note under 2016 – 2020 time period One additional middle school may be needed soon after the end of this final time period
High	Explore potential for expansion to existing school. Explore opportunities for partnerships with other education providers in region to help address high school capacity needs and educational interests	Decide on future high school(s) configuration and emphasis Identify and acquire high school site if new construction direction selected	Engage in major high school construction or expansion project, including potential for a specialized high school	

**Expansion may necessitate redrawing district boundaries*

The best locations for these new schools are based on a range of factors, including the locations of existing schools, planned neighborhood growth areas, and transportation access. In general, the best areas for new schools appear to be near the northwest corner of the District, near the current Town of Verona/City of Fitchburg border, in Fitchburg near the present campus there, and south of the Highway 151 bypass in Verona.

Chapter One: Background Information

This chapter is intended to provide a general overview of the Verona Area School District, including its history, boundaries, student profile, regional setting, and operating policies as they affect facilities planning. This information establishes a framework for considering the District's many possible futures, and provides a context within which specific decisions can be made.

Chapter Overview

- Enrollment in the District has been increasing steadily, up by roughly 600 students over the last ten years, with the most consistent enrollment increases occurring at the high school level.
- The District strives to offer a high quality, comprehensive education by keeping class and school sizes relatively small, and this stance was reinforced through participation during this planning process.
- Local communities within the School District have seen relatively rapid and steady growth over the last two decades, with that growth expected to continue over the next two decades.
- Given its regional location, number of component local communities, and reputation for quality education, the District will continue to face accelerating growth pressures over the planning period.

Current School District Boundaries

The Verona Area School District is comprised mostly of land in the City and Town of Verona and the City of Fitchburg, and also includes some areas of the City of Madison, the towns of Springdale and Montrose, and a small portion of the Town of Middleton, all in Dane County, Wisconsin. School District boundaries are illustrated on Map 1. Based on an agreement with the Madison Metropolitan School District, boundaries continue to evolve slightly north of Highway PD. The maps in this report reflect the ultimate, agreed-upon boundary.

Verona Area School District Facilities

The District currently operates nine schools, including 4 elementary schools, two middle schools, one high school, and two charter schools.

Country View Elementary School serves students in grades K-5. The school is located in the northwest portion of the City of Verona (710 Lone Pine Way). Country View Elementary was built in 2000. Enrollment in the 2007/08 school year was 547, slightly above the school's ideal capacity of 539. There is probably not available site area to allow future expansion of Country View Elementary.

Stoner Prairie Elementary School serves students in grades K-5. The school is located in the City of Fitchburg (5830 Devoro Road). The school was constructed in 1987 and expanded in 2005. Enrollment in the 2007/08 school year was 422, and the school's capacity is 496. Stoner Prairie may have some expansion potential. It is located in a campus with Savanna Oaks Middle School.

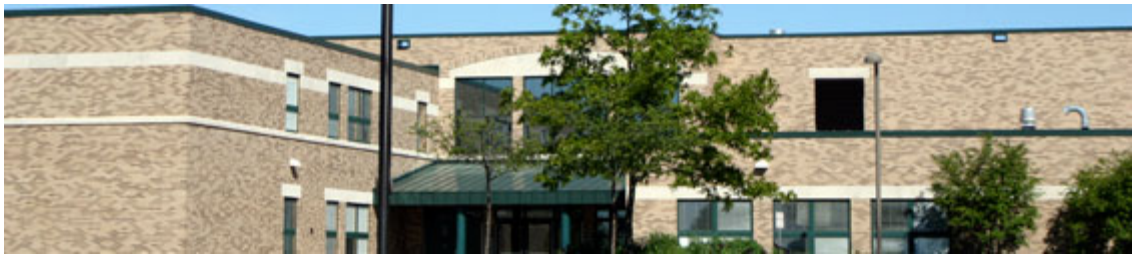
Sugar Creek Elementary School serves students in grades K-5. The school is located in the central portion of the City of Verona (420 Church Avenue). The school was built in 1956 and expanded in 2000. Enrollment in the 2007/08 school year was 314 and the school's capacity is 454. There is not adequate space on site to expand Sugar Creek Elementary.

Glacier Edge Elementary School serves students in grades K-5. The school is located in the southeast portion of the City of Verona (800 Kimball Lane). Built in 2006, Glacier Edge is the newest school in the Verona Area School District. Enrollment in the 2007/08 school year was 369, and the school's capacity is 497. There is probably not space on the site to expand Glacier Edge Elementary in the future.

MAP 1: SCHOOL ATTENDANCE AREA ANALYSIS

Badger Ridge Middle School serves students in grades 6-8. The school is located in the north central portion of the City of Verona (740 North Main Street). The school was built in 1991. Enrollment in the 2007/08 school year was 441, and the school's capacity is 510. The school building is shared with the Core Knowledge Charter School, and the school is located on the same campus as the Verona Area High School. The future expansion potential for Badger Ridge Middle School was not evaluated as part of this study.

Savanna Oaks Middle School serves students in grades 6-8. The school is located in the City of Fitchburg (5890 Lacy Road). The school was built in 1996 and expanded in 2000. Enrollment in the 2007/08 school year was 444, and the school's capacity is 587. The future expansion potential for Savanna Oaks Middle School was not evaluated as part of this study.



Verona Area High School serves students in grades 9-12. The school is located in the City of Verona (300 Richard Street). The school was built in 1968 and expanded in 1993 and again in 1999. Enrollment in the 2007/08 school year was 1,492, and the school's capacity is 1,632. Achieving this enrollment figure for the high school may require significant programmatic and space utilization adjustments, perhaps including a "zero hour," lunch room shifts, and other compromises in class sizes and common area utilization. The future expansion potential for the High School was not evaluated in detail as part of this study.

Verona Area Core Knowledge Charter School serves students in grades K-8. The school is located in the north central portion of the City of Verona (740 North Main Street) and shares the building with Badger Ridge Middle School. The school was founded in 1996. Enrollment in the 2007/08 school year was 375, and the school's capacity is 413. The school was assumed to maintain a consistent enrollment over this study's projection period.

New Century Charter School serves students in grades K-5. The school is located in the central portion of the City of Verona (401 West Verona Avenue). The school building was constructed in 1917, but the Charter School wasn't founded until 1995. Enrollment in the 2007/08 school year was 102, and the school's capacity is 124. This school was assumed to maintain a consistent enrollment over this study's projection period.

The District's Administrative offices are located on the same campus as the high school, in a separate building. The District has no other land holdings at the time of this report except for one lot located near Country View Elementary School.

School District Demographics

The demographic information provided in Figure 1.1 for the Verona Area School District is derived from the 2000 U.S. Census and compiled by the National Center for Education Statistics. In 2000, 29 percent of the District's total population was under the age of 19, and 38 percent of households had children under the age of 18. Roughly four percent of families in the District had incomes below the poverty level, which is considerably lower than the national average of eleven percent.

Figure 1.1: Verona Area School District Demographics, 2000

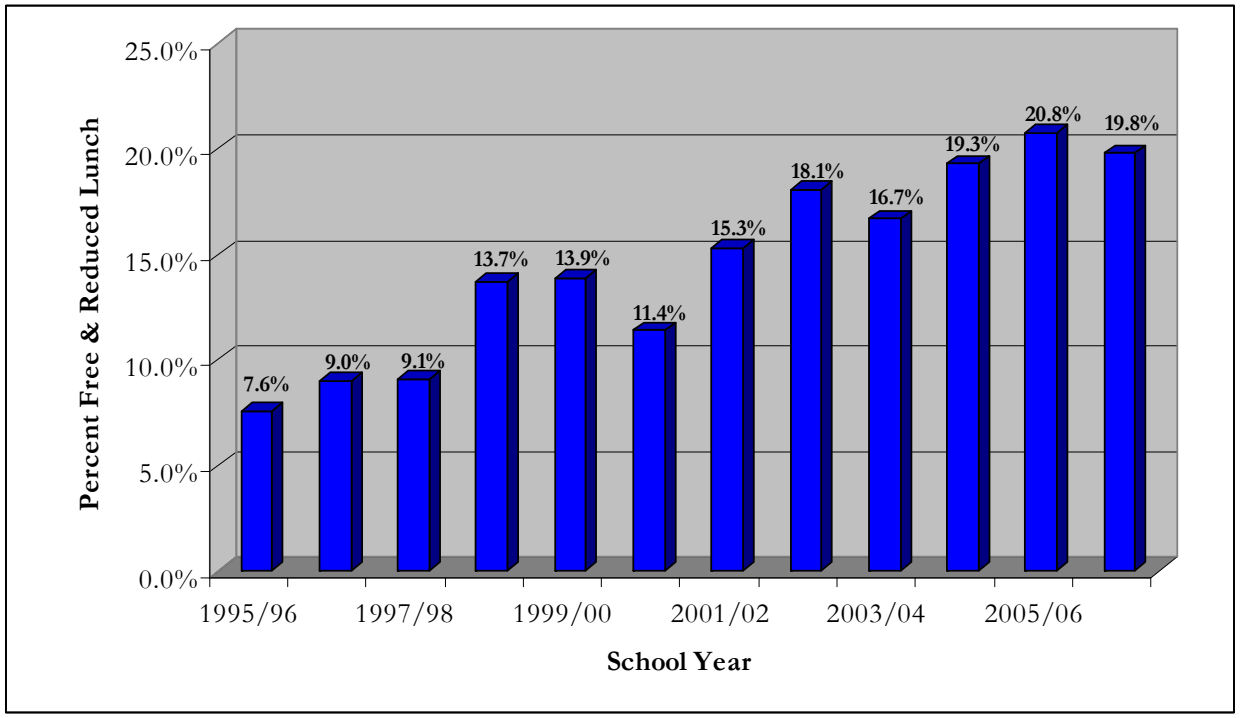
	Number	Percent
Total Population	23,290	--
Sex and Age		
Males < 19 years old	3,560	15.2%
Females < 19 years old	3,205	13.8%
Race		
White alone	21,060	90.4%
Black or African American alone	890	3.8%
American Indian and Alaska Native alone	20	0.08%
Asian alone	515	2.2%
Some other race alone	369	1.6%
Two or more races	440	1.9%
Housing		
Total Housing Units	9,405	--
Total Occupied Housing Units	9,105	96.8%
Owner Occupied Housing Units	5,705	60.6%
Renter Occupied Housing Units	3,400	36.1%
Median Value of Owner-Occupied Housing Units		
Median Gross Rent of Rental Units		
Households		
Total Number of Households	9,140	
Average Household Size	2.50	--
Number of Households with Children under 18	3,510	38.4%
Educational Attainment		
Total Male Population over the age of 25	7,240	--
12th grade, no diploma	100	1.4%
High school graduate (includes equivalency)	1,300	17.9%
Some college, 1 or more years, no degree	955	13.1%
Bachelor's degree	2,125	29.3%
Master's degree	815	11.2%
Professional school degree	380	5.2%
Doctorate degree	330	4.5%
Total Female Population over the age of 25	7,790	--
12th grade, no diploma	95	1.2%
High school graduate (includes equivalency)	1,525	19.6%
Some college, 1 or more years, no degree	1,080	13.8%
Bachelor's degree	2,155	27.6%
Master's degree	800	10.3%
Professional school degree	200	2.6%
Doctorate degree	110	1.4%
Income (1999)		
Median Per Capita Income	$28,353	--
Median Household Income	$61,961	--
Households below poverty level	330	

Source: National Center for Education Statistics, Department of Education & Bureau of the Census, Department of Commerce, 2000

Figure 1.2 show the percent of the District's student population enrolled in the Free and Reduced Lunch Program from the 1995/96 school year through the 2006/07 school year. These data indicate that over the 11-year period enrollment in this program has increased over 12 percent. In 2006/07, nearly one-fifth of the student population received a free or reduced lunch.

Figure 1.2:

Percent of Student Population Enrolled in the Free and Reduced Lunch Program



Enrollment History, 1997-2006

Figures 1.3 through 1.6 present the last ten years of enrollment history for the Verona Area School District. Overall, District enrollment has increased steadily over the last ten years, with a slight decline occurring in 2005/06. These upward trends are also consistent with population increases in the communities that comprise the District. Between the 1997/98 school year and the 2006/07 school year, K-12 enrollment in the Verona Area School District increased by 597 students, or roughly 15%, with an average annual increase of 1.7% per year.

Figure 1.3: Enrollment History, 1997/98-2006/07

	School Year									
Grade	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07
K	290	291	266	285	318	330	318	292	322	318
1	331	317	314	268	298	328	353	322	291	331
2	290	333	322	328	295	309	320	349	319	308
3	355	290	347	338	327	293	325	343	336	337
4	296	351	306	357	339	346	312	329	335	360
5	359	291	367	315	371	334	345	316	329	352
6	297	359	293	380	335	392	350	339	319	341
7	316	306	368	299	385	344	394	355	330	342
8	301	329	296	356	312	386	347	388	356	331
9	312	299	317	298	358	333	402	372	386	374
10	269	314	306	317	303	363	325	381	354	388
11	267	275	309	300	315	301	352	320	369	352
12	233	276	279	312	291	318	295	353	306	367
Total	**3,940**	**4,049**	**4,105**	**4,176**	**4,265**	**4,404**	**4,462**	**4,487**	**4,386**	**4,537**
K-5	1,921	1,873	1,922	1,891	1,948	1,940	1,973	1,951	1,932	2,006
6-8	914	994	957	1,035	1,032	1,122	1,094	1,082	1,005	1,014
9-12	1,081	1,164	1,211	1,227	1,267	1,315	1,374	1,425	1,415	1,481

Figure 1.4: Enrollment Changes, 1997/98-2006/07

	Absolute Change			Percent Change			Average Annual Percent Change		
Grade	'97 to '06	'97 to '01	'02 to '06	'97 to '06	'97 to '01	'02 to '06	'97 to '06	'97 to '01	'02 to '06
K	28	28	-12	9.7%	9.7%	-3.6%	1.1%	2.4%	-0.9%
1	0	-33	3	0%	-10.0%	0.9%	0%	-2.5%	0.2%
2	18	5	-1	6.2%	1.7%	-0.3%	0.7%	0.4%	-0.1%
3	-18	-28	44	-5.1%	-7.9%	15.0%	-0.6%	-2.0%	3.8%
4	64	43	14	21.6%	14.5%	4.0%	2.4%	3.6%	1.0%
5	-7	12	18	-1.9%	3.3%	5.4%	-0.2%	0.8%	1.3%
6	44	38	-51	14.8%	12.8%	-13.0%	1.6%	3.2%	-3.3%
7	26	69	-2	8.2%	21.8%	-0.6%	0.9%	5.5%	-0.1%
8	30	11	-55	10.0%	3.7%	-14.2%	1.1%	0.9%	-3.6%
9	62	46	41	19.9%	14.7%	12.3%	2.2%	3.7%	3.1%
10	119	34	25	44.2%	12.6%	6.9%	4.9%	3.2%	1.7%
11	85	48	51	31.8%	18.0%	16.9%	3.5%	4.5%	4.2%
12	134	58	49	57.5%	24.9%	15.4%	6.4%	6.2%	3.9%
Total	**597**	**325**	**133**	**15.2%**	**8.2%**	**3.0%**	**1.7%**	**2.1%**	**0.8%**
K-5	85	27	66	4.4%	1.4%	3.4%	0.5%	0.4%	0.9%
6-8	100	118	-108	10.9%	12.9%	-9.6%	1.2%	3.2%	-2.4%
9-12	400	186	166	37.0%	17.2%	12.6%	4.1%	4.3%	3.2%

Figure 1.5: Verona Area School District K-12 Enrollment History, 1997-2006

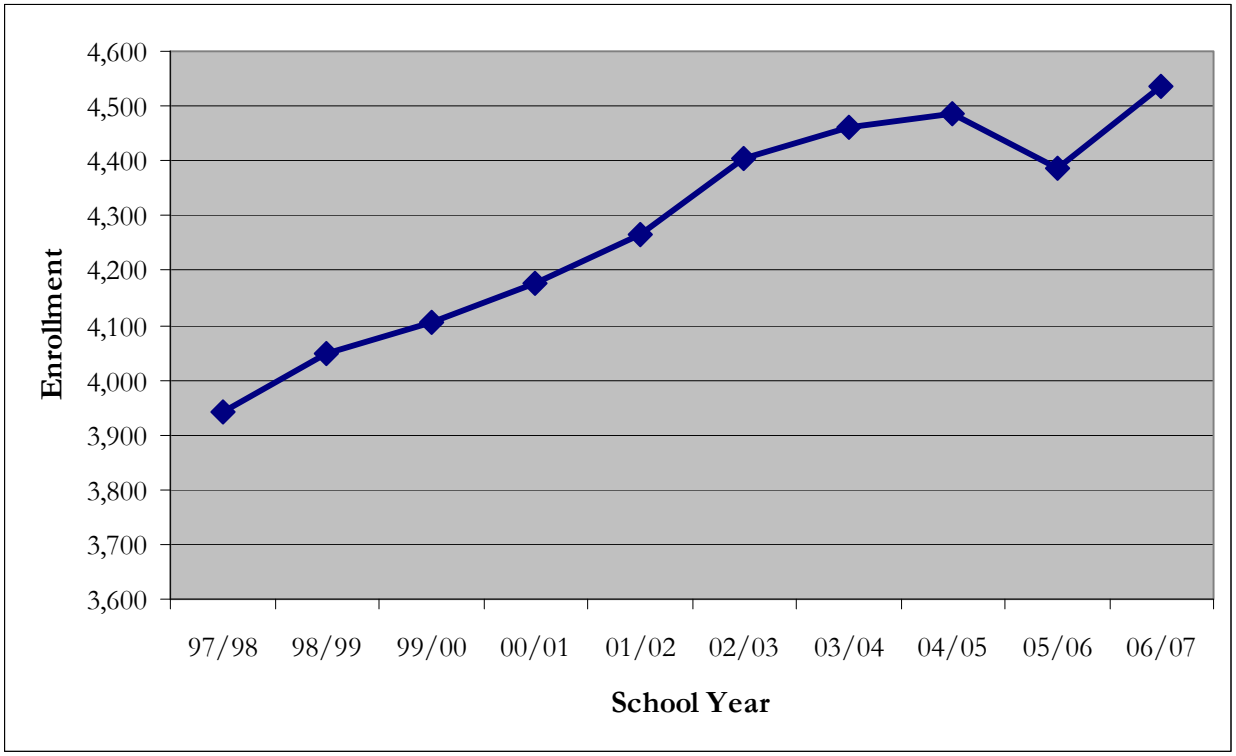
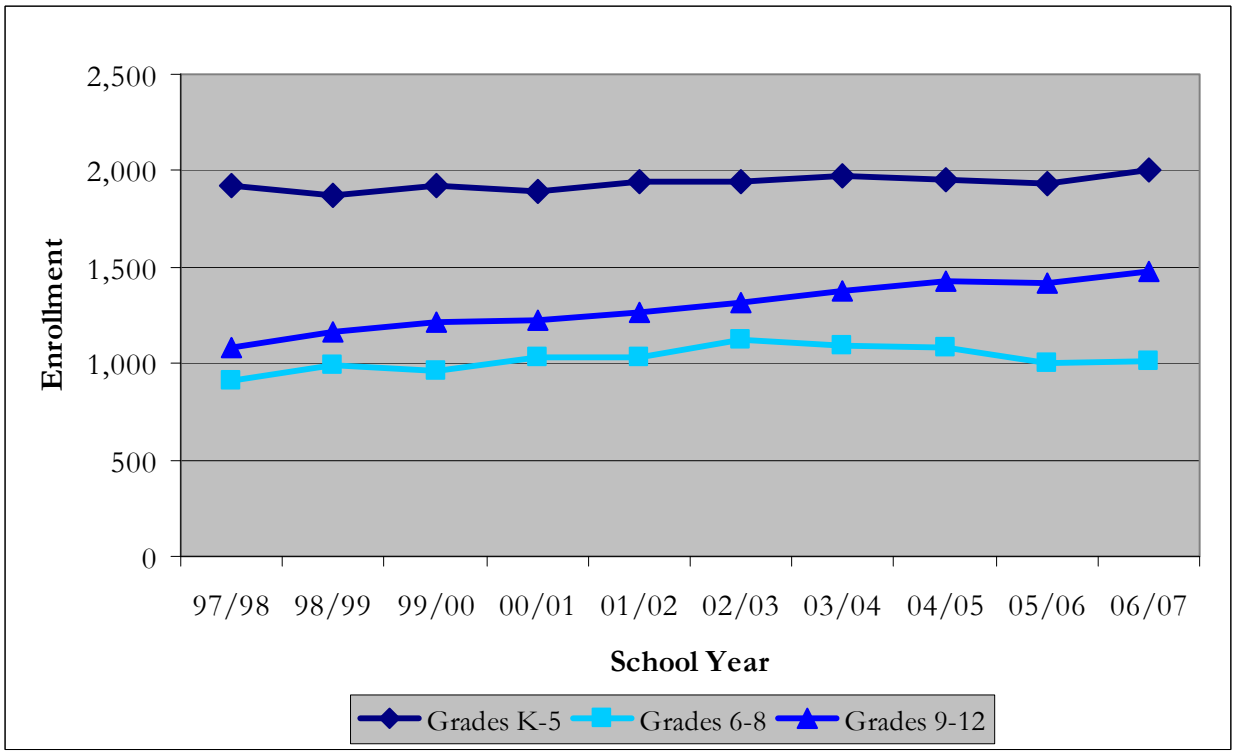


Figure 1.6: Verona Area School District Enrollment History by Grade Grouping, 1997-2006



Regional Growth Trends

Population growth in the communities that make up the Verona Area District has had an obvious impact on student enrollment. Population growth from 1990 to 2006 for the communities that comprise the District is presented in Figure 1.7. Between 1990 and 2006, population has grown substantially in the District, particularly in the cities of Verona and Fitchburg. Both of these communities have been at the epicenter of metropolitan growth in the Madison area for many years. These cities have served as "bedroom" communities, with many residents commuting into Madison or Middleton for employment. More recently, as a result of business park development in Fitchburg and the relocation of Epic Systems into the City of Verona, the area has been experiencing economic development as well.

Figure 1.7: Regional Growth Trends

	1990	2000	2006	Total Population Change		Annual Percent Change	
Municipality	Census	Census	Estimate	1990-2000	2000-2006	1990-2000	2000-2006
City of Verona	5,374	7,052	10,048	1,678	2,996	3%	6%
City of Fitchburg	15,648	20,501	22,506	4,853	2,005	3%	2%
City of Madison	191,262	208,054	223,389	16,792	15,335	1%	1%
Town of Verona	2,137	2,153	2,080	16	-73	0%	-1%
Town of Montrose	1,032	1,134	1,134	102	0	1%	0%
Town of Springdale	1,258	1,530	1,715	272	185	2%	2%

Source: U.S. Census, 1990 & 2000; 2006 estimate

Figure 1.8 presents population data within the Verona Area School District for the years 1990 and 2000. 2006 data was unavailable for the District. Annual percentage growth during this time period was higher than for each of the communities that comprise the District, indicating that a substantial portion of the growth occurring in these communities was in the areas located within the Verona Area School District.

Figure 1.8: Verona Area School District Population Growth Trends

	1990	2000		
	Census	Census	Total Population Change, 1990-2000	Annual Percent Change, 1990-2000
Verona Area School District	16,306	23,290	6,984	4%

Source: National Center for Education Statistics and the U.S. Bureau of the Census, 1990-2000

Adjoining School Districts and Private Schools

The Verona Area School District is bordered by five other school districts. These districts are listed in Figure 1.9, along with their 2001/02-2006/07 enrollments. Compared to the enrollment trends of the surrounding Districts, the Verona Area School District has experienced a higher rate growth in enrollment than the Madison Metropolitan School District, a rate of growth similar to the Oregon School District and the Belleville School District, and a slightly lower rate of growth than the Mount Horeb and Middleton-Cross Plains districts.

Figure 1.9: Comparison of Adjacent School District Enrollment Trends

School District	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	'01-'06 Absolute Change	'01-'06 Annual Percent Change
Verona Area School District	**4,265**	**4,404**	**4,462**	**4,487**	**4,386**	**4,537**	272	1%
Madison Metropolitan District	25,087	24,893	24,966	24,913	24,894	24,452	-635	-1%
Oregon School District	3,430	3,480	3,429	3,468	2,200	3,549	119	1%
Mount Horeb School District	1,979	1,986	2,055	2,057	2,103	2,174	195	2%
Middleton-Cross Plains School District	5,125	5,224	5,330	5,500	5,629	5,616	491	2%
Belleville School District	888	897	868	900	914	933	45	1%

Source: Wisconsin Department of Public Instruction

Given the District's location within the Madison metropolitan area, parents living in the Verona Area School District have the option of sending their children to a wide variety of private schools in the region. While there is not data available indicating the number of Verona Area children enrolled in private schools, Figure 1.10 lists total enrollment in several nearby private schools. Figure 1.10 lists all private schools for which enrollment data is available within the Verona Area District and all immediately surrounding districts, with the exception of the Madison Metropolitan School District. For the Madison District, only the Edgewood School Campus and Edgewood High have been listed because these schools have historically been known to draw the highest number of students from within the Verona Area District area.

Figure 1.10: Private School Enrollment

School (School District Location)	Grades	2004/05	2005/06	2006/07
Kids Express Learning Center (Verona Area)	Pre-K-1	232	200	271
St. Francis Xavier (Middleton-Cross Plains)	Pre-K-8	196	203	214
St. Peter's Catholic (Middleton-Cross Plains)	Pre-K-5	32	37	29
Peace Through Christ Lutheran (Middleton-Cross Plains)	1-8	7	8	8
St. Ambrose Academy (Middleton-Cross Plains)	7-12	9	14	Not available
Westside Christian School (Middleton-Cross Plains)	Pre-K-8	95	102	113
Edgewood Campus School (Madison)	Pre-K-8	306	294	295
Edgewood High (Madison)	9-12	616	592	627

Madison Area Technical College

Madison Area Technical College (MATC) is a nationally recognized community college serving all or part of 12 counties in south-central Wisconsin. MATC's main campus is located on the north side of the City of Madison. The school offers a comprehensive curriculum of technical, liberal arts, and science education; adult basic education and continuing education; and customized training for employers. MATC's 2012 growth plan indicates the school's goal to establish additional satellite campuses in Dane County, and more specifically, to have a campus located no more than a half an hour from anyone living in Dane County. The school is presently exploring options to build a satellite facility in the Fitchburg area.

Current District Policies Affecting Facilities Planning

The Verona Area School District has numerous policies that govern its future direction and day-to-day operations. The policies listed below can have a significant impact on current facility usage and future needs.

Class Size

Policies on class size affect overall school capacities. Current literature suggests that small class sizes positively affect a student's learning potential. As such, the Verona Area School District strives to maintain relatively small class sizes for all grade levels. In order to remain eligible for financial aid through the State's Student Achievement Guarantee in Education (SAGE) program, the District is required to maintain student-teacher ratios of roughly 18:1 for grades K through 3. In addition, it is the school's general policy to maintain elementary schools that have less than 600 students. For all other grade levels, student-teacher ratios are defined by the Verona Area School District/Verona Area Education Association Collective Bargaining Agreement, roughly 25:1 for grades 4 and 5 and 30:1 for grades 6 through 12. Generally, the District strives to maintain the smallest classes possible based on total school enrollment, available space, and programmatic considerations.

Open Enrollment

Wisconsin's open enrollment program permits parents to enroll their children in schools outside of the school district in which they reside. However, school districts have the authority to accept or decline open enrollment applications. Therefore, a school district's open enrollment policies impact the amount and type of space that a district must provide. The open enrollment program has become increasingly popular since its inception in 1998/99. During the 2004/05 school year, 18,223 students in Wisconsin were open enrolled, up from 2,464 students in 1998/99.

In recent years, open enrollment has had minimal impact on the Verona Area School District's total enrollment, with roughly the same number of students open enrolled *out* of the District as are open enrolled *into* the District.

Parallel Planning and Participation Efforts

At the outset of this planning process (February 2006), the District hosted a public workshop to gather public input related to long-term goals and policies for future school facilities. Results of the workshop indicated that participants would support efforts to purchase land for school facilities well in advance of the need for such facilities. In general, smaller schools and smaller classes size were preferred. Participants also generally indicated that a 2000-student high school would be too large, but that high schools with roughly 1000 students would be the ideal size. The majority of participants agreed that the District should make well-thought out, well-researched decisions about when new school facilities are necessary.

Near the close of this planning process, the District hosted a second workshop to present preliminary results and gather feedback prior to the finalization of this report.

In 2006, the Verona Area School District hired the firm Plunkett-Raysich to prepare a comprehensive analysis of the capacity of each of the District's schools. This was an important component to integrate into this *Long Range Facilities Plan*. Capacity numbers are reported in later chapters of this *Plan* and have been used to analyze the effects of long-term enrollment projections on the need to construct new or expanded school facilities.

Applicable Local Community Plans

Local planning efforts are of key importance when planning for future school facilities, as these plans help estimate the timing, location, and nature of future residential development in a school district, and, in turn, when and where new school facilities will be needed.

In an effort to generate the most accurate and comprehensive estimates of student population growth in the Verona Area School District, two methodologies for projecting student population were utilized and combined. One of these methodologies, the Housing Unit projection method, involved a professional analysis of city and town growth plans over the next twenty years, focusing in particular on areas planned for residential development. This analysis began with a review of adopted community land use (or comprehensive) plans, supplemented by discussions with local staff and officials. The District's consultant analyzed and extrapolated from comprehensive or land use plans for the cities of Verona, Fitchburg, and Madison, and the towns of Verona, Montrose, and Springdale, as summarized below.

City of Verona Plan

The City of Verona's land use plan, adopted in 2005, illustrates desired future land uses for the land within and surrounding the City's 2005 municipal limits. The east and west edges of Verona are characterized by extensive public park lands and environmental corridors, which will continue to direct future City growth primarily to the south, southeast, and northwest over the planning period. Urban residential development was planned for the south, southeast, and northwest areas of the City, with preferred future densities based on the City's existing zoning ordinance. Future mixed use development was planned for the southwest portion of the City, north of Highway 151.

The City of Verona's 2005 residential growth phasing plan was also taken into consideration when projecting the timing of future residential development. In order to comply with State Statutes, the City of Verona is in the process of updating its Future Land Use Plan as part of a broader comprehensive planning process before the year 2010.

Town of Verona Plan

The Town of Verona's comprehensive plan, adopted in 2006, includes suggestions for future unsewered residential development in the northwest and southeast portions of the Town, with lands in the southwest portion of the Town reserved for agriculture.

Also considered as part of this planning process was the December 2006 Future Land Use Plan for Consolidated Verona, which evolved out of City and Town discussions regarding potential community consolidation. At the time of this writing, the Future Land Use Plan for a Consolidated Verona had not been adopted by either the Town of City, but consolidation talks were ongoing.

City of Fitchburg Plan

Adopted Fitchburg plans include the City's 1995 General Land Use Plan and 2002 updated Future Land Use Map. In 2003, during the early stages of the City's comprehensive planning process to update these documents, Fitchburg determined that it may be necessary to expand its Urban Service Area before the entire comprehensive planning process could be completed. In order to serve as an interim guide to this anticipated expansion, the City completed a Future Urban Development Area (FUDA) study and map, which outlined future development areas. Within the Verona Area School District, the FUDA map illustrates future neighborhood growth in the Lacy Road/Seminole Highway area, called the Stoner Prairie neighborhood.

At the time this *Plan* was written, Fitchburg's comprehensive planning process was incomplete, and the City was analyzing and considering several alternative future growth scenarios. Between the time the housing unit enrollment projections (presented in Chapter Two) were prepared and the time this *Plan* was adopted, Fitchburg's preferred growth scenario changed, which may have a marginal impact on the residential development projections presented in this *Long-Range Facilities Plan*. Nevertheless, the growth scenario used to prepare the projections in this *Plan* and the City's subsequent revisions to that scenario each shift future development attention east of the Verona Area School District, as compared with the 1995/2002 Fitchburg plans.

Also during the time of this writing, the City of Fitchburg began exercising its extraterritorial land division review authority for the first time in the City's history. Under State Statutes, the City has the power to approve or deny land divisions in unincorporated areas that are within its extraterritorial jurisdiction, outside of City boundaries. This could potentially impact the amount and location of residential development in the Town of Verona, particularly between the cities of Fitchburg and Verona, possibly reducing the amount of residential development projected to occur in these areas.

City of Madison Plan

The City of Madison's Comprehensive Plan, adopted in 2005, was reviewed to determine Madison's future land use plans for lands within the District. Madison's plans call for a relatively high density urban neighborhood in the northwest portion of District, in lands presently within the Town of Verona and planned by the Town for rural residential development at much lower future densities.

Other Local and Regional Plans

Town of Springdale and Town of Montrose plans were also analyzed as part of this planning process. Future plans for these towns focus primarily on agricultural preservation, especially in the Town of Montrose, and future development is planned to occur at relatively low densities.

Other regional and local plans that have the potential to influence growth in the District were also analyzed and considered as part of this process. These included the Verona Road/West Beltline Study, which identified options for relieving increasing traffic congestion on Verona Road; conceptual plans for the Lower Badger Mill Creek sewer interceptor; and the Madison-Verona Boundary Agreement, which relates to lands north of the City of Verona.

Chapter Two: Student Enrollment Projections

This chapter features student enrollment projections for the Verona Area School District over the next ten to 20 years. Student enrollment projections are obviously a critical early step in determining where, when, and what types of new school facilities may be necessary. To increase confidence in the projections, the consultants used two separate projection methodologies: the Grade Progression ratio method and the Housing Unit method. Together, these methods take into consideration a variety of factors that influence student population growth, including in-migration/out-migration, birth rates, and the expected pace and location of future residential development.

Chapter Overview

- Two methods were used to project future school enrollments: the Grade Progression method and Housing Unit method. When analyzed together, these methods increase the accuracy of projections.
- Most Grade Progression models project significant elementary school enrollment increases over the next five years, with middle and high school enrollment picking up over the following five years.
- Housing Unit enrollment projections generally fall in the middle of results of the Grade Progression method results, except for High School enrollment, where the Housing Unit method suggests greater increases.
- The enrollment projections within this chapter, when analyzed and combined, provide important information that leads to the enrollment versus capacity analysis in the next chapter.

Grade Progression Enrollment Projection Methodology

The Grade Progression ratio method, or the "cohort survival method," is a projection technique commonly used to generate school enrollment projections. Using this methodology, the average percentage of students progressing from one grade to the next constitutes the basic multiplier that is used to project future enrollment. This method alone is relatively accurate, but additional benefits are derived when taking into account other variables such as birth trends. Overall, the advantages of using the Grade Progression enrollment projection method are that it measures the annual change for each grade and highlights recent changes that can assist the School District in identifying new programmatic needs and/or policy issues.

Four different Grade Progression models were utilized. These include the Baseline Projection, the Last 5-Year Trend Projection, the Last 2-Year "Trend" Projection, and the Kindergarten Regression Projection. The distinctions between each of these models will be described in subsequent sections of this chapter. The following two sections describe the processes for generating Grade Progression ratios and present data on birth trends and projections.

Grade Progression Ratios

Figure 2.1 shows the Grade Progression ratios for the Verona Area School District. These ratios depict District enrollment changes, year to year and grade to grade. The ratios measure the effects of in-migration and out-migration, as well as the transfer of students between private and public schools. The ratios are calculated for several pairs of years and then an average of these is calculated for each grade. These average change ratios are used in the final equations to project future enrollment by grade.

The Grade Progression ratios presented in Figure 2.1 can be interpreted in the following way. The Baseline Average ratio for grades 6:7 is 1.020. This means that in the Verona Area School District, the seventh grade is on average 2% *larger* each year than the sixth grade class was the previous year (the result of transfers from other schools and in-migration into the District). The 10:11 Baseline Average ratio of 0.984 indicates that on average 98% of children in the 10th grade progress to the 11th grade in the Verona Area School District, or 2% of the 10th grade students to do not go on to attend 11th grade in the District.

Put another way, a ratio greater than 1.0 indicate an increase in the number of students as the cohort moves from one grade to the next, whereas a ratio less than 1.0 indicates a loss of students from one grade to the next. The Last 5-Year Trend and Last 2-Year "Trend" ratios presented at the bottom of Figure 2.1 will be used in preparing the Last 5-Year Trend, Last 2-Year "Trend," and Kindergarten Regression projection models. The Last 5-Year Trend ratios weigh enrollment change patterns from the last five years more heavily, and the Last 2-Year "Trend" ratios weigh enrollment change patterns from the last two years more heavily. (The word "Trend" is placed in parentheses because demographers generally do not consider what happens over a brief two year period to be a trend.)

Figure 2.1: Verona Area School District Grade Progression Ratios

	Grades												
School Year	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
97-98/98-99	1.039	1.093	1.006	1.000	0.989	0.983	1.000	1.030	1.041	0.993	1.006	1.022	1.034
98-99/99-00	1.051	1.079	1.016	1.042	1.055	1.046	1.007	1.025	0.967	0.964	1.023	0.984	1.015
99-00/00-01	1.084	1.008	1.045	1.050	1.029	1.029	1.035	1.020	0.967	1.007	1.000	0.980	1.010
00-01/01-02	1.314	1.046	1.101	0.997	1.003	1.039	1.063	1.013	1.043	1.006	1.017	0.994	0.970
01-02/02-03	1.369	1.031	1.037	0.993	1.058	0.985	1.057	1.027	1.003	1.067	1.014	0.993	1.010
02-03/03-04	1.395	1.070	0.976	1.052	1.065	0.997	1.048	1.013	1.009	1.041	0.976	0.970	0.980
03-04/04-05	1.098	1.013	0.989	1.072	1.012	1.013	0.983	1.014	0.977	1.072	0.948	0.985	1.003
04-05/05-06	1.288	0.997	0.991	0.963	0.977	1.000	1.009	0.973	1.003	0.995	0.952	0.969	0.956
05-06/06-07	1.104	1.028	1.058	1.056	1.071	1.051	1.036	1.072	1.003	1.051	1.005	0.994	0.995
Baseline Average	**1.156**	**1.039**	**1.020**	**1.027**	**1.037**	**1.021**	**1.028**	**1.020**	**0.999**	**1.015**	**1.006**	**0.984**	**0.997**
Last 5 Year Trend	**1.251**	**1.028**	**1.010**	**1.027**	**1.037**	**1.009**	**1.027**	**1.020**	**0.999**	**1.045**	**0.979**	**0.982**	**0.989**
Last 2 Year "Trend"	**1.196**	**1.012**	**1.025**	**1.010**	**1.024**	**1.025**	**1.023**	**1.023**	**1.003**	**1.023**	**0.978**	**0.981**	**0.975**

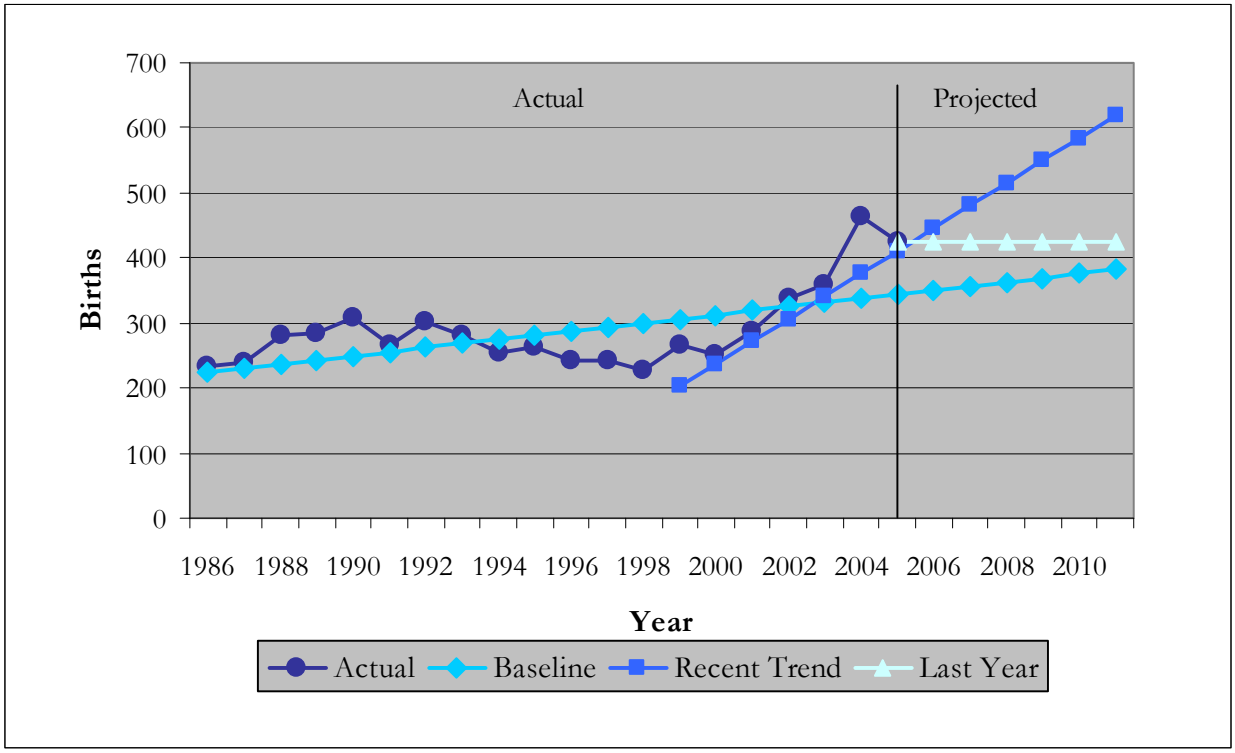
Note: Shaded progression ratios are excluded from the Baseline Average because they are considered to be outliers. That is, they are more than one standard deviation from the mean

Birth Trends and Projections

Historical and projected birth data were used to generate the B:K ratio presented in Figure 2.2, which shows the number of births from 1986 through 2005, collected from the Department of Health and Family Services, and birth projections for 2006 to 2011. Resident births from the cities of Verona and Fitchburg and the towns of Verona, Montrose, and Springdale were used to calculate birth projections. Because only a small portion of the City of Madison is in the Verona Area School District, City of Madison birth data is not incorporated into birth trends and projections.

Over time, birth rates in the District have been increasing. Under the Baseline model (which is based upon long-term trends), the number of births is projected to continue to trend upwards. The Recent Trend line weighs birth trends from the last seven years more heavily when projecting future births, and therefore projects dramatic increases in births through 2011. The Last Year trend line was calculated using the assumption that future births will occur at the same rate as the last year for which data is available.

Figure 2.2: Verona Area School Area Births, 1986-2011



Grade Progression Student Enrollment Projection Results

This section features enrollment projections using the four different Grade Progression models. An analysis of which of the four models probably will most accurately reflect actual future enrollment is presented near the end of this chapter.

School enrollment projections are more accurate for grades K-5, than they are for later grades. The projections are also more reliable over the first five projection years than they are in the subsequent five years. Grade progression projections become increasingly unreliable after ten years, so they are not presented in this report.

Baseline Projection Model

The Baseline Projection model uses the Baseline Average Grade Progression ratio from Figure 2.1 and projects student enrollments under the assumption that average year to year and grade to grade trends over the past ten years will continue into the next ten years. This model extrapolates enrollment trends from the past ten years and birth trends into the future. Using the Baseline Projection model, overall District enrollment is projected to increase by 35 percent between 2007 and 2016 (Figure 2.3).

Figure 2.3: Baseline Projection Model, 2007/08-2016/17

	School Year									
Grade	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17
K	390	415	535	492	405	413	420	427	435	442
1	330	405	431	556	511	421	429	436	444	452
2	338	337	413	440	568	521	430	437	445	453
3	316	347	346	424	452	583	535	441	449	457
4	349	328	360	359	440	469	605	555	458	466
5	367	357	335	367	367	449	479	617	566	467
6	362	378	367	344	377	377	462	492	634	582
7	348	369	385	374	351	385	384	471	502	647
8	342	348	369	385	374	351	385	384	470	501
9	336	347	353	374	391	379	356	390	390	478
10	376	338	349	355	377	393	382	358	393	392
11	382	370	333	343	349	370	387	375	352	386
12	351	381	369	332	342	348	369	386	374	351
Total	**4,587**	**4,719**	**4,945**	**5,146**	**5,303**	**5,459**	**5,621**	**5,771**	**5,913**	**6,074**
K-5	2,091	2,189	2,421	2,639	2,742	2,856	2,897	2,914	2,797	2,736
6-8	1,051	1,094	1,120	1,103	1,102	1,112	1,230	1,347	1,606	1,730
9-12	1,445	1,436	1,404	1,404	1,459	1,491	1,494	1,510	1,509	1,608

Last 5-Year Trend Program

The Last 5-Year Trend model uses the Grade Progression ratios from the last five years and birth trends from the last seven years to project what future enrollments would look like if more recent migration rates and birth trends are representative of future trends. Under the Last 5-Year Trend model, enrollment in the Verona Area School District is projected to increase approximately 70 percent over the next decade (Figure 2.4).

Figure 2.4: Last 5-Year Trend Projection Model, 2007/08-2016/17

	School Year									
Grade	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17
K	422	449	579	532	557	601	644	688	731	775
1	327	433	461	595	546	573	617	662	707	751
2	334	330	438	466	601	552	578	624	669	714
3	316	343	339	449	479	617	567	594	641	687
4	349	328	356	351	466	496	640	588	616	664
5	363	353	331	359	355	470	501	646	593	622
6	361	373	362	340	369	364	483	514	663	609
7	348	369	380	369	347	376	371	492	524	676
8	342	347	368	380	369	346	376	371	492	524
9	346	357	363	385	397	385	362	393	388	514
10	366	339	350	355	377	389	377	354	384	380
11	381	360	333	343	349	370	382	371	348	378
12	348	377	355	329	339	345	366	378	366	344
Total	**4,604**	**4,757**	**5,015**	**5,254**	**5,551**	**5,885**	**6,264**	**6,674**	**7,122**	**7,637**
K-5	2,112	2,236	2,504	2,753	3,004	3,309	3,548	3,801	3,956	4,213
6-8	1,051	1,089	1,110	1,089	1,084	1,087	1,230	1,378	1,679	1,809
9-12	1,441	1,432	1,401	1,412	1,462	1,489	1,487	1,495	1,486	1,615

Last 2-Year "Trend" Projection

The Last 2-Year "Trend" model uses the 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. Using the Last 2-Year "Trend" model, K-12 enrollment is projected to increase by approximately 60 percent over the next decade. (Figure 2.5).

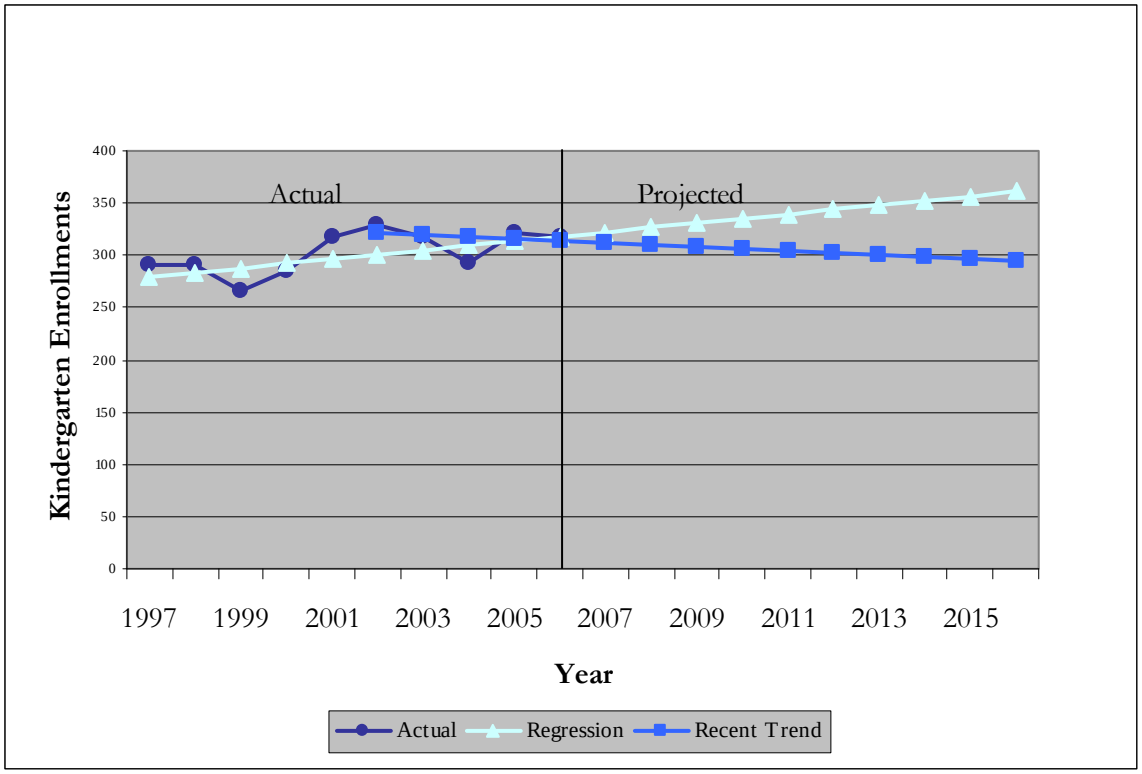
Figure 2.5: Last 2-Year "Trend" Projection Model, 2007/08-2016/17

	School Year									
Grade	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17
K	403	429	554	508	533	574	616	658	699	741
1	322	408	435	561	515	539	582	624	666	708
2	339	330	418	445	574	527	553	596	639	682
3	311	342	333	422	450	580	532	558	601	645
4	345	318	351	341	432	460	594	545	571	616
5	369	354	327	360	350	443	472	609	559	586
6	360	378	362	334	368	358	453	483	623	572
7	349	368	386	370	342	376	366	464	494	637
8	343	350	369	387	371	343	377	367	465	495
9	339	351	358	378	396	380	350	386	375	476
10	366	331	343	350	370	388	372	343	377	367
11	381	359	325	337	343	363	380	365	336	370
12	343	371	350	317	329	335	354	371	356	328
Total	**4,570**	**4,690**	**4,910**	**5,110**	**5,372**	**5,666**	**6,001**	**6,367**	**6,762**	**7,223**
K-5	2,089	2,182	2,417	2,637	2,853	3,124	3,348	3,589	3,736	3,978
6-8	1,052	1,096	1,118	1,092	1,081	1,076	1,196	1,314	1,582	1,704
9-12	1,429	1,413	1,376	1,382	1,438	1,465	1,456	1,464	1,445	1,541

Kindergarten Regression Trend Projection

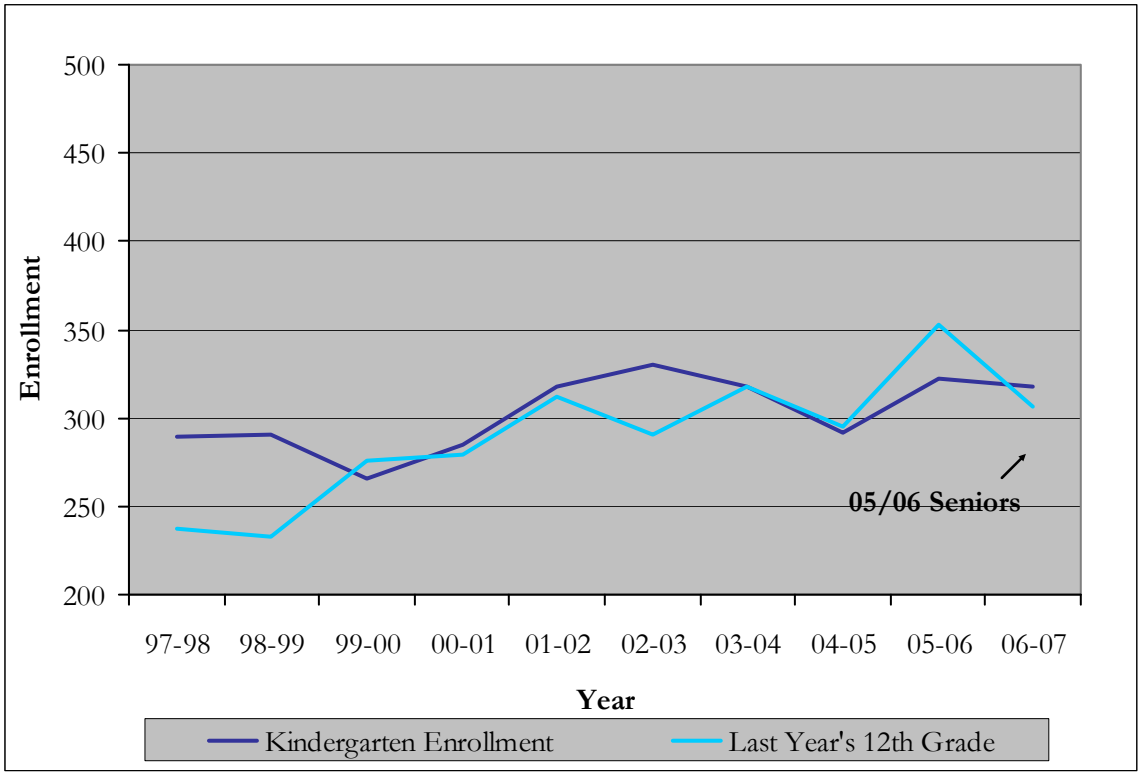
Due to the span of years between the birth of a child and when he or she enters kindergarten, the traditional Grade Progression ratio method of projecting kindergarten students varies in accuracy. More specifically, during those five years between birth and kindergarten, it is difficult to predict whether the child's family will move out of the District, whether the child will be open enrolled in another District, or whether the child will be sent to a parochial school. Therefore, an alternative method for projecting kindergarten enrollment analyzes past trends in kindergarten enrollment and projects future enrollment based on this trend. Figure 2.6 illustrates actual kindergarten enrollment in the District from 1997 to the present and the discrepancy between the Baseline Regression and Recent Trend Regression. As a result of the decrease in Kindergarten enrollment in 2004, the Recent Trend Regression projects a decrease in kindergarten enrollment.

Figure 2.6: Verona Area School District Kindergarten Regression, 1997-2016



In addition to examining kindergarten enrollment trends on their own, another useful analysis is to compare kindergarten enrollment to the number of seniors that graduated high school last year. This analysis provides a snapshot of how the age structure of the District is shifting either from older to younger or younger to older students. School districts tend to experience overall growth when the number of kindergarteners enrolling in the district outnumbers graduating seniors. Conversely, when the number of kindergarteners enrolling each year does not at minimum replace the number of graduating seniors, the school district experiences an overall decline in enrollment. Figure 2.7 illustrates that in all years except 99/00 and 05/06 graduating seniors were fully replaced by the entering kindergarteners in the Verona Area School District.

Figure 2.7: Verona Area School District Kindergarten Replacement, 1998-2006



In consideration of this analysis, the Kindergarten Regression Method uses the Recent Trend Regression to determine the projected number of kindergartners. Within this method, the 5-Year Trend progression ratios are then used for projecting students in grades 1-12. According to this hybrid projection method, K-12 enrollment in the Verona Area School District is projected to remain relatively steady over the next decade (Figure 2.8).

Figure 2.8: Kindergarten Regression Trend Projection Model, 2007/08-2016/17

	School Year									
Grade	07-08	08-09	09-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17
K	312	310	308	306	304	302	300	298	296	294
1	327	321	319	317	314	312	310	308	306	304
2	334	330	324	322	320	318	316	313	311	309
3	316	343	339	333	331	328	326	324	322	320
4	349	328	356	351	345	343	340	338	336	334
5	363	353	331	359	355	348	346	344	341	339
6	361	373	362	340	369	364	357	355	353	350
7	348	369	380	369	347	376	371	364	362	360
8	342	347	368	380	369	346	376	371	364	362
9	346	357	363	385	397	385	362	393	388	380
10	366	339	350	355	377	389	377	354	384	380
11	381	360	333	343	349	370	382	371	348	378
12	348	377	355	329	339	345	366	378	366	344
Total	**4,494**	**4,506**	**4,488**	**4,489**	**4,515**	**4,527**	**4,530**	**4,511**	**4,478**	**4,454**
K-5	2,002	1,985	1,977	1,988	1,968	1,951	1,938	1,926	1,913	1,900
6-8	1,051	1,089	1,110	1,089	1,084	1,087	1,104	1,090	1,079	1,072
9-12	1,441	1,432	1,401	1,412	1,462	1,489	1,487	1,495	1,486	1,482

Housing Unit Projection Methodology and Intermediate Results

Like the Grade Progression methods, the Housing Unit enrollment projection method depends somewhat on demographic information. However, the key difference is that the Housing Unit method relies on a professional analysis of local city and town land use or comprehensive plans to project future School District enrollment. Also, the Housing Unit method was carried forward twenty years, as opposed to the limits of ten year projections for the Grade Progression methods. Most community land use plans have twenty year time horizons. Still, even under the Housing Unit method, projections for the second ten years of the period are less reliable than projections for the first ten years.

Calculating Students-per-Housing Unit

The first step of the Housing Unit method analysis was to divide the number of students enrolled in the District in 2005/06 by the number of housing units located in the District at that time[1]. This yielded an average ratio of students per housing unit for the year 2005. Separate student-per-housing unit ratios were calculated for grades K-5, grades 6-8, and grades 9-12. For this calculation, housing unit data was derived from two sources. First, the number of housing units in the District in the year 2000 was determined based

[1] A housing unit is defined as a house, an apartment, a mobile home or trailer, a group of rooms, or a single room occupied or intended to be occupied as separate living quarters.

on 2000 census data. Then, building permit data was used to calculate the number of housing units added to the District between 2000 and 2005.

It was assumed that fluctuations in projected students-per-housing unit ratios would bear a direct relationship to projected changes in average household sizes. Wisconsin Department of Administration (DOA) household size projections were recorded for each community in the District through the year 2025. Then, these values were weighted based on how much of the School District's land is within each of the towns and cities in the District, and all weighted values were added together to generate one average household size projection for the entire District. For example, the City of Fitchburg comprises an estimated 30 percent of land in the Verona Area School District, so Fitchburg's average household size projection was multiplied by 0.30 and then added to the weighted values for each of the other communities represented in the District. Next, the percentage change in household size based on DOA projections was calculated for each five-year increment through the year 2025. Students-per-housing unit were then projected to change at this same rate over the twenty year projection period.

The students-per-housing unit ratios used to prepare the housing unit enrollment projections are presented in Figure 2.9.

Figure 2.9: Students-per-Housing Unit Projection Ratios

Grade Levels	2005/06 VASD Student Enrollment	Total # of Housing Units in District, 2005	Students-Per-Housing Unit 2005	Students-Per-Housing Unit 2010	Students-Per-Housing Unit 2015	Students-Per-Housing Unit 2020	Students-Per-Housing Unit 2025
K-5	1,932	9,776	0.197	0.195	0.193	0.192	0.192
6-8	1,005	9,776	0.102	0.101	0.100	0.100	0.100
9-12	1,415	9,776	0.144	0.142	0.141	0.141	0.141

Defining and Mapping Neighborhood Areas for Later Analysis

As an early step in projecting students by smaller geographic areas, the District was broken into 43 "neighborhoods" (see Map 2). Neighborhood boundaries were determined based upon the locations of natural and man-made features that function as real or perceived dividing lines when development is occurring (e.g. rivers, highways, municipal boundaries). Neighborhood boundaries were also selected with some relationship to community plans; dividing lines between different land uses and different locally-defined neighborhoods were also used as factors for neighborhood area boundaries on Map 2. Neighborhood area boundaries were not drawn to reflect current school attendance areas; these instead are shown on Map 1.

MAP 2: NEIGHBORHOOD AREAS FOR HOUSING UNIT PROJECTIONS

Analysis of Local Community Plans and Initiatives

The consultant analyzed a myriad of community land use plans, private development plans, known development constraints (e.g. location of floodplains, poor soils, vacant land availability), and other development determinants (e.g. access to highways, availability of urban services, existing development patterns, etc.). Information on the anticipated location and phasing of future residential development was obtained through discussions with town and city officials and planners and through the consultant's understanding of the Madison-area market. The City of Verona's residential growth management program was also considered and honored.

Overall, the analysis of future land use plans yield a projected number of additional housing units in the District over the next 20 years. Projections were made for each of the 43 neighborhood areas. Next, the students-per-housing unit ratios described above were applied to these future housing unit counts to project the number of students that will be added to the District over the next 20 years as a result of planned residential development.

This analysis is normally complicated due to the differences among communities in land use classification systems, differences in community-desired versus actually expected development densities, and sometimes major swings in the housing market. Further complicating matters is that different local communities often have a different future land use vision for the same piece of land. In Wisconsin, cities may prepare plans for areas beyond their municipal boundaries that they believe are related to their future growth. Nowhere in the Verona Area School District is the difference between adopted plans of the affected town and city more pronounced than in the northwest corner of the District (Neighborhood Areas B and E). There, the adopted Town of Verona plan suggests low density residential development on private well and septic systems and the City of Madison plan suggests a relatively high density urban neighborhood on public sewer and water.

A Need for Different Scenarios for Planned Community Growth

The differences among local community plans within the School District suggested the potential that—like the Grade Progression models—the analysis of different Housing Unit scenarios would be appropriate. This interest in different Housing Unit scenarios was compounded by the extremely dynamic local planning and jurisdictional environment during the Long Range Facilities Plan process.

During this School District planning process, the City and Town of Verona were actively engaged in discussions regarding potential community consolidation, which is regulated by Wisconsin Statutes. These discussions involved a range of different issues and considerations. Part of those considerations included a desired future land use pattern for the consolidated community. In December 2006, an ad hoc committee of representatives from both communities prepared the *Future Land Use Plan for a Consolidated Verona*. That plan included a future land use map and policies where are, in many places, different from the adopted plans of both the City and Town of Verona. The *Future Land Use Plan for a Consolidated Verona* has not been adopted by either community and consolidation talks are ongoing.

Also, the City of Fitchburg was in the process of updating its comprehensive plan/land use plan during this School District planning process. Fitchburg staff and officials are considering fairly significant shifts from currently-adopted land use plans and policies. At the time of writing, these shifts appeared to suggest focusing future development attention towards the railroad and Highway 14 corridors, which are east of the Verona Area School District. Fitchburg's discussions on growth directions and policies were ongoing at the time of writing.

Housing Unit Method: Scenario A

Scenario A, as depicted on Map 3, is based upon adopted community plans at the time of writing of this report. For areas planned for residential development, the consultant predicted the expected density and pace of housing development. Where there were differences between adopted community plans, the consultant used their professional experience with the development market and understanding of Wisconsin law to identify the most likely future land use pattern. Figure 2.10 identifies the number of additional housing units projected for each five-year increment through 2025/26 based on Scenario A. In total, between 2005 and 2026, under Scenario A, an additional 11,602 housing units are anticipated within the School District.

Figure 2.10: Scenario A—Projected Housing Unit Growth by Neighborhood

Neighborhood Area (As depicted in Map 4)	Total Housing Units under Scenario A					Housing Unit Growth 2005/06-2025/26
	2005/06*	2010/2011	2015/2016	2020/2021	2025/2026	
A	57	62	67	72	77	**20**
AA	1	0	0	0	0	**-1**
B	56	58	558	1498	1706	**1,650**
BB	112	115	118	121	124	**12**
C	21	26	31	36	41	**20**
CC	344	344	384	424	464	**120**
D	24	28	40	80	124	**100**
DD	56	61	66	76	86	**30**
E	61	63	1213	2363	3513	**3,452**
EE	12	14	16	21	26	**14**
F	446	655	672	679	750	**304**
FF	50	54	60	220	380	**330**
G	2	4	6	173	340	**338**
GG	57	63	69	79	89	**32**
H	458	523	669	881	1093	**635**
HH	24	25	27	28	29	**5**
I	482	498	502	506	510	**28**
II	64	88	112	136	160	**96**
J	310	377	445	512	580	**270**
JJ	28	201	475	749	849	**821**
K	500	508	516	520	524	**24**
KK	603	893	903	913	915	**312**
L	81	89	97	99	101	**20**
LL	79	94	109	124	139	**60**
M	138	146	154	156	156	**18**
MM	44	46	49	51	54	**10**
N	238	246	254	256	258	**20**
NN	7	8	9	10	11	**4**
O	790	798	804	808	810	**20**
OO	76	83	90	97	104	**28**
P	793	795	797	799	801	**8**
PP	94	101	108	115	122	**28**
Q	1387	1390	1393	1496	1605	**218**
QQ	44	47	148	249	350	**306**
R	13	10	7	4	2	**-11**
S	15	102	225	416	606	**591**
T	33	38	73	234	395	**362**
U	143	168	197	256	393	**250**
V	5	38	193	349	505	**500**
W	464	542	697	777	858	**394**
X	448	465	483	500	518	**70**
Y	699	784	786	790	793	**94**
Z	417	417	417	417	417	**0**

Neighborhood Area (As depicted in Map 4)	Total Housing Units under Scenario A					**Housing Unit Growth 2005/06-2025/26**
	2005/06*	2010/2011	2015/2016	2020/2021	2025/2026	
Total Projected Housing Units	**9,776**	**11,067**	**14,039**	**18,090**	**21,378**	**+11,602**

**Based on U.S. Census data for 2000 plus building permit data for 2000-2005*

MAP 3 FUTURE LAND USE SCENARIO A

MAP 4 PROJECTED HOUSING GROWTH SCENARIO A

Housing Unit Method: Scenario B

Scenario B, as depicted on Map 5, is based upon alternative community plans being considered at the time of writing of this report. These included the December 2006 *Future Land Use Plan for a Consolidated Verona* and a City of Fitchburg committee's preferred growth scenario as of June 2007. It should be noted that between June 2007 and the time this *Plan* was adopted, Fitchburg made additional revisions to its preferred long-range growth scenario, which may have a marginal impact on the amount and location of residential development being projected for the Verona Area School District. Each of these efforts has generated a future land use map and policies that are, in many places, different from adopted city and town plans. For lands within the City and Town of Verona, Scenario B assumed that the *Future Land Use Plan for a Consolidated Verona* would control. For areas within other towns in the district, adopted town plans were used for this scenario. For areas planned for residential development, the consultant predicted the expected density and pace of housing development for Scenario B. Figure 2.11 identifies the number of additional housing units projected for each five-year increment through 2025/26 based on Scenario B. In total, between 2005 and 2026, under Scenario B, an additional 10,749 housing units are anticipated within the School District. This is 853 units fewer than under Scenario A.

Figure 2.11: Scenario B—Projected Housing Unit Growth by Neighborhood

Neighborhood Area (Depicted in Map 6)	Total Housing Units under Scenario B					Housing Unit Growth 2005/06-2025/26
	2005/06*	2010/2011	2015/2016	2020/2021	2025/2026	
A	57	62	67	72	77	**20**
AA	1	0	0	0	0	**-1**
B	56	58	228	398	568	**512**
BB	112	115	118	121	124	**12**
C	21	26	31	36	41	**20**
CC	344	344	344	344	344	**0**
D	24	28	40	80	124	**100**
DD	56	61	68	92	96	**40**
E	61	63	674	1285	1896	**1835**
EE	12	14	16	21	26	**14**
F	446	655	672	679	750	**304**
FF	50	54	110	166	223	**173**
G	2	4	6	323	641	**639**
GG	57	63	69	79	89	**32**
H	458	523	744	965	1187	**729**
HH	24	25	27	28	29	**5**
I	482	498	502	506	510	**28**
II	64	88	314	540	767	**703**
J	310	377	445	512	580	**270**
JJ	28	201	475	749	849	**821**
K	500	508	516	520	524	**24**
KK	603	893	903	913	915	**312**
L	81	89	97	99	101	**20**
LL	79	292	505	718	933	**854**
M	138	146	154	156	156	**18**
MM	44	46	49	51	54	**10**
N	238	246	254	256	258	**20**
NN	7	8	9	10	11	**4**
O	790	798	804	808	810	**20**

Neighborhood Area (Depicted in Map 6)	Total Housing Units under Scenario B					**Housing Unit Growth 2005/06-2025/26**
	2005/06*	2010/2011	2015/2016	2020/2021	2025/2026	
OO	76	83	90	97	104	**28**
P	793	795	797	799	801	**8**
PP	94	101	108	115	122	**28**
Q	1387	1390	1393	1496	1605	**218**
QQ	44	47	302	557	812	**768**
R	13	10	7	4	2	**-11**
S	15	70	290	470	651	**636**
T	33	39	146	253	361	**328**
U	143	168	437	706	976	**833**
V	5	10	15	20	25	**20**
W	464	512	560	607	655	**191**
X	448	465	483	500	518	**70**
Y	699	784	786	790	793	**94**
Z	417	417	417	417	417	**0**
Projected Total Housing Units	**9,776**	**11,176**	**14,072**	**17,358**	**20,525**	**+10,749**

**Based on U.S. Census data for 2000 plus building permit data for 2000-2005*

MAP 5 FUTURE LAND USE SCENARIO B

MAP 6 PROJECT HOUSING GROWTH SCENARIO B

Housing Unit Method: Scenario C

Scenario C, as depicted on Map 7, is a hybrid of Scenarios A and B, and represents a future in which the Verona consolidation does not take place, but in which Fitchburg's amended growth plans as of June 2007 are adopted and implemented. So, for lands within the City and Town of Verona (as well as the other towns in the School District), Scenario C is the same as Scenario A. For lands within the City of Fitchburg, Scenario C is the same as Scenario B. It should be noted that between June 2007 and the time this *Plan* was adopted, Fitchburg made additional revisions to its preferred long-range growth scenario, which may have a marginal impact on the amount and location of residential development being projected for the Verona Area School District. Figure 2.12 identifies the number of additional housing units projected for each five-year increment through 2025/26 based on Scenario C. In total, between 2005 and 2026, under Scenario C, an additional 10,820 housing units are anticipated within the School District. This is slightly more than Scenario B, but less than Scenario A.

Figure 2.12: Scenario C—Projected Housing Unit Growth by Neighborhood

Neighborhood Area (as depicted in Map 8)	Total Housing Units under Scenario C					Housing Unit Growth 2005/06-2025/26
	2005/06*	2010/2011	2015/2016	2020/2021	2025/2026	
A	57	62	67	72	77	**20**
AA	1	0	0	0	0	**-1**
B	56	58	558	1498	1706	**1650**
BB	112	115	118	121	124	**12**
C	21	26	31	36	41	**20**
CC	344	344	344	344	344	**0**
D	24	28	40	80	124	**100**
DD	56	61	68	92	96	**40**
E	61	63	1213	2363	3513	**3452**
EE	12	14	16	21	26	**14**
F	446	655	672	679	750	**304**
FF	50	54	60	220	380	**330**
G	2	4	6	173	340	**338**
GG	57	63	69	79	89	**32**
H	458	523	669	881	1093	**635**
HH	24	25	27	28	29	**5**
I	482	498	502	506	510	**28**
II	64	88	112	136	160	**96**
J	310	377	445	512	580	**270**
JJ	28	201	475	749	849	**821**
K	500	508	516	520	524	**24**
KK	603	893	903	913	915	**312**
L	81	89	97	99	101	**20**
LL	79	94	109	124	139	**60**
M	138	146	154	156	156	**18**
MM	44	46	49	51	54	**10**
N	238	246	254	256	258	**20**
NN	7	8	9	10	11	**4**
O	790	798	804	808	810	**20**

Neighborhood Area (as depicted in Map 8)	Total Housing Units under Scenario C					**Housing Unit Growth 2005/06-2025/26**
	2005/06*	2010/2011	2015/2016	2020/2021	2025/2026	
OO	76	83	90	97	104	**28**
P	793	795	797	799	801	**8**
PP	94	101	108	115	122	**28**
Q	1387	1390	1393	1496	1605	**218**
QQ	44	47	148	249	350	**306**
R	13	10	7	4	2	**-11**
S	15	70	290	470	651	**636**
T	33	39	146	253	361	**328**
U	143	168	197	256	393	**250**
V	5	10	15	20	25	**20**
W	464	512	560	607	655	**191**
X	448	465	483	500	518	**70**
Y	699	784	786	790	793	**94**
Z	417	417	417	417	417	**0**
Total Projected	**9,776**	**10,978**	**13,824**	**17,600**	**20,596**	**+10,820**

**Based on U.S. Census data for 2000 plus building permit data for 2000-2005*

MAP 7 FUTURE LAND USE SCENARIO C

MAP 8 PROJECTED HOUSING GROWTH SCENARIO C

Housing Unit Enrollment Projection Final Results

Figures 2.13 through 2.15 show the number of students projected by neighborhood and by grade grouping for the years 2011/12, 2016/17, 2020/21, and 2025/26 and for each of the three growth scenarios. Student enrollment projections were generated by multiplying the projection ratios shown in Figure 2.9 by the projected housing unit growth for the three scenarios in Figures 2.10 through 2.12.

Under the Housing Unit method, total District enrollment is projected to increase by between 97 and 106 percent between the 2005/06 school year and 2025/26. Where actual enrollments land within these ranges depends on which of the three Housing Unit method scenarios are realized. In summary:

- Total district enrollment is projected to increase to up to a total of 6,400 students by 2016/17 and up to a total of 9,200 students by 2025/26. Total district enrollment was 4,501 students in September 2007.
- Enrollment in grades K-5 is projected to increase to up to a total of 2,800 students by 2016/17 and up to a total of 4,100 students by 2025/26. Total K-5 enrollment was 2,006 students in the 2006/07 school year.
- Enrollment in grades 6-8 is projected to increase to up to a total of 1,500 students by 2016/17 and up to a total of 2,100 students by 2025/26. Total 6-8 enrollment was 1,014 students in the 2006/07 school year.
- Enrollment in grades 9-12 is projected to increase to up to a total of 2,100 students by 2016/17 and up to a total of 3,000 students by 2025/26. Total 9-12 enrollment was 1,481 students in 2006/07 school year.

Figure 2.13: Scenario A—Projected Student Enrollment

	2011/12 Enrollment Projections				2016/17 Enrollment Projections				2020/21 Enrollment Projections				2025/26 Enrollment Projections			
Neighborhood Area (Depicted in Map 4)	K-5	6-8	9-12	**All Grades**	K-5	6-8	9-12	**All Grades**	K-5	6-8	9-12	**All Grades**	K-5	6-8	9-12	**All Grades**
A	12	6	9	28	13	7	10	29	14	7	10	31	15	8	11	33
AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B	31	16	22	69	144	75	105	323	288	150	211	649	328	171	241	739
BB	22	12	16	51	23	12	17	51	23	12	17	52	24	12	17	54
C	5	3	4	12	6	3	5	14	7	4	5	16	8	4	6	18
CC	68	35	50	154	76	39	55	170	81	42	60	184	89	46	65	201
D	6	3	4	13	9	5	7	21	15	8	11	35	24	12	17	54
DD	12	6	9	27	13	7	10	29	15	8	11	33	17	9	12	37
E	57	29	41	127	278	144	203	626	454	236	333	1023	674	351	495	1521
EE	3	1	2	6	3	2	2	7	4	2	3	9	5	3	4	11
F	128	66	93	288	130	67	95	292	130	68	96	294	144	75	106	325
FF	11	6	8	24	18	9	13	40	42	22	31	95	73	38	54	165
G	1	0	1	2	8	4	6	17	33	17	24	75	65	34	48	147
GG	12	6	9	28	14	7	10	31	15	8	11	34	17	9	13	39
H	107	56	78	241	137	71	100	309	169	88	124	381	210	109	154	473
HH	5	3	4	11	5	3	4	12	5	3	4	12	6	3	4	13
I	97	50	71	218	97	50	71	218	97	51	71	219	98	51	72	221
II	18	9	13	41	23	12	16	51	26	14	19	59	31	16	23	69
J	76	39	55	171	88	46	65	199	98	51	72	222	111	58	82	251
JJ	50	26	36	112	102	53	75	230	144	75	106	324	163	85	120	368
K	99	51	72	223	100	52	73	224	100	52	73	225	101	52	74	227
KK	174	90	127	391	174	91	128	393	175	91	129	395	176	92	129	396
L	18	9	13	40	19	10	14	42	19	10	14	43	19	10	14	44
LL	19	10	14	42	22	11	16	49	24	12	17	54	27	14	20	60
M	29	15	21	65	30	15	22	67	30	16	22	68	30	16	22	68
MM	9	5	7	20	10	5	7	21	10	5	7	22	10	5	8	23
N	48	25	35	108	49	25	36	110	49	26	36	111	50	26	36	112
NN	2	1	1	4	2	1	1	4	2	1	1	4	2	1	2	5

	2011/12 Enrollment Projections				2016/17 Enrollment Projections				2020/21 Enrollment Projections				2025/26 Enrollment Projections			
O	156	81	113	349	155	80	113	349	155	81	114	350	156	81	114	351
OO	16	9	12	37	18	9	13	40	19	10	14	42	20	10	15	45
P	155	80	113	348	154	80	112	346	153	80	113	346	154	80	113	347
PP	20	10	15	45	21	11	15	47	22	12	16	50	23	12	17	53
Q	271	140	197	608	273	141	199	613	287	150	211	648	308	161	226	695
QQ	13	7	10	29	32	17	24	73	48	25	35	108	67	35	49	152
R	2	1	1	4	1	1	1	3	1	0	1	2	0	0	0	1
S	25	13	18	55	51	26	37	114	80	42	59	180	116	61	85	262
T	9	5	6	20	20	11	15	46	45	23	33	101	76	40	56	171
U	34	18	25	76	40	21	29	91	49	26	36	111	75	39	55	170
V	13	7	10	30	43	22	32	97	67	35	49	151	97	51	71	219
W	111	58	81	250	137	71	101	309	149	78	110	336	165	86	121	372
X	91	47	66	205	94	49	69	211	96	50	71	217	99	52	73	224
Y	153	79	111	343	152	79	111	341	152	79	111	342	152	79	112	343
Z	81	42	59	182	80	42	59	181	80	42	59	181	80	42	59	181
District-Wide Projected Enrollment	2,268	1,175	1,653	**5,096**	2,863	1,485	2,093	**6,441**	3,473	1,809	2,551	**7,833**	4,105	2,138	3,014	**9,257**

Figure 2.14: Scenario B—Projected Student Enrollment

	2011/12 Enrollment Projections				2016/17 Enrollment Projections				2020/21 Enrollment Projections				2025/26 Enrollment Projections			
Neighborhood Area (Depicted in Map 6)	K-5	6-8	9-12	**All Grades**	K-5	6-8	9-12	**All Grades**	K-5	6-8	9-12	**All Grades**	K-5	6-8	9-12	**All Grades**
A	12	6	9	28	13	7	10	29	14	7	10	31	15	8	11	33
AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B	18	9	13	40	50	26	37	114	76	40	56	172	109	57	80	246
BB	22	12	16	51	23	12	17	51	23	12	17	52	24	12	17	54
C	5	3	4	12	6	3	5	14	7	4	5	16	8	4	6	18
CC	67	35	49	150	66	34	49	149	66	34	49	149	66	34	49	149
D	6	3	4	13	9	5	7	21	15	8	11	35	24	12	17	54
DD	12	6	9	27	14	7	10	32	18	9	13	40	18	10	14	42
E	36	19	26	81	153	80	112	345	247	129	181	556	364	190	267	821
EE	3	1	2	6	3	2	2	7	4	2	3	9	5	3	4	11
F	128	66	93	288	130	67	95	292	130	68	96	294	144	75	106	325
FF	13	7	9	28	23	12	17	53	32	17	23	72	43	22	31	97
G	1	0	1	2	13	7	10	30	62	32	46	140	123	64	90	278
GG	12	6	9	28	14	7	10	31	15	8	11	34	17	9	13	39
H	110	57	80	248	152	79	111	342	185	97	136	418	228	119	167	514
HH	5	3	4	11	5	3	4	12	5	3	4	12	6	3	4	13
I	97	50	71	218	97	50	71	218	97	51	71	219	98	51	72	221
II	26	13	19	58	69	36	51	156	104	54	76	234	147	77	108	332
J	76	39	55	171	88	46	65	199	98	51	72	222	111	58	82	251
JJ	50	26	36	112	102	53	75	230	144	75	106	324	163	85	120	368
K	99	51	72	223	100	52	73	224	100	52	73	225	101	52	74	227
KK	174	90	127	391	174	91	128	393	175	91	129	395	176	92	129	396
L	18	9	13	40	19	10	14	42	19	10	14	43	19	10	14	44
LL	65	34	47	146	106	55	77	238	138	72	101	311	179	93	132	404
M	29	15	21	65	30	15	22	67	30	16	22	68	30	16	22	68
MM	9	5	7	20	10	5	7	21	10	5	7	22	10	5	8	23
N	48	25	35	108	49	25	36	110	49	26	36	111	50	26	36	112
NN	2	1	1	4	2	1	1	4	2	1	1	4	2	1	2	5
O	156	81	113	349	155	80	113	349	155	81	114	350	156	81	114	351

	2011/12 Enrollment Projections				2016/17 Enrollment Projections				2020/21 Enrollment Projections				2025/26 Enrollment Projections			
Neighborhood Area (Depicted in Map 6)	K-5	6-8	9-12	**All Grades**	K-5	6-8	9-12	**All Grades**	K-5	6-8	9-12	**All Grades**	K-5	6-8	9-12	**All Grades**
OO	16	9	12	37	18	9	13	40	19	10	14	42	20	10	15	45
P	155	80	113	348	154	80	112	346	153	80	113	346	154	80	113	347
PP	20	10	15	45	21	11	15	47	22	12	16	50	23	12	17	53
Q	271	140	197	608	273	141	199	613	287	150	211	648	308	161	226	695
QQ	19	10	14	43	68	35	50	153	107	56	79	241	156	81	114	352
R	2	1	1	4	1	1	1	3	1	0	1	2	0	0	0	1
S	22	11	16	50	63	33	46	141	90	47	66	204	125	65	92	282
T	12	6	9	26	32	17	24	73	49	25	36	110	69	36	51	156
U	43	22	31	97	95	49	69	213	136	71	100	306	187	98	138	423
V	2	1	2	5	3	2	2	7	4	2	3	9	5	3	4	11
W	101	53	74	228	110	57	80	247	117	61	86	263	126	66	92	284
X	91	47	66	205	94	49	69	211	96	50	71	217	99	52	73	224
Y	153	79	111	343	152	79	111	341	152	79	111	342	152	79	112	343
Z	81	42	59	182	80	42	59	181	80	42	59	181	80	42	59	181
District-Wide Projected Enrollment	2,286	1,185	1,666	**5,137**	2,839	1,473	2,077	**6,389**	3,333	1,736	2,447	**7,516**	3,941	2,053	2,894	**8,888**

Figure 2.15: Scenario C—Projected Student Enrollment

	2011/12 Enrollment Projections				2016/17 Enrollment Projections				2020/21 Enrollment Projections				2025/26 Enrollment Projections			
Neighborhood (Depicted in Map 8)	K-5	6-8	9-12	**All Grades**	K-5	6-8	9-12	**All Grades**	K-5	6-8	9-12	**All Grades**	K-5	6-8	9-12	**All Grades**
A	12	6	9	28	13	7	10	29	14	7	10	31	15	8	11	33
AA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B	31	16	22	69	144	75	105	323	288	150	211	649	328	171	241	739
BB	22	12	16	51	23	12	17	51	23	12	17	52	24	12	17	54
C	5	3	4	12	6	3	5	14	7	4	5	16	8	4	6	18
CC	67	35	49	150	66	34	49	149	66	34	49	149	66	34	49	149
D	6	3	4	13	9	5	7	21	15	8	11	35	24	12	17	54
DD	12	6	9	27	14	7	10	32	18	9	13	40	18	10	14	42
E	57	29	41	127	278	144	203	626	454	236	333	1023	674	351	495	1521
EE	3	1	2	6	3	2	2	7	4	2	3	9	5	3	4	11
F	128	66	93	288	130	67	95	292	130	68	96	294	144	75	106	325
FF	11	6	8	24	18	9	13	40	42	22	31	95	73	38	54	165
G	1	0	1	2	8	4	6	17	33	17	24	75	65	34	48	147
GG	12	6	9	28	14	7	10	31	15	8	11	34	17	9	13	39
H	107	56	78	241	137	71	100	309	169	88	124	381	210	109	154	473
HH	5	3	4	11	5	3	4	12	5	3	4	12	6	3	4	13
I	97	50	71	218	97	50	71	218	97	51	71	219	98	51	72	221
II	18	9	13	41	23	12	16	51	26	14	19	59	31	16	23	69
J	76	39	55	171	88	46	65	199	98	51	72	222	111	58	82	251
JJ	50	26	36	112	102	53	75	230	144	75	106	324	163	85	120	368
K	99	51	72	223	100	52	73	224	100	52	73	225	101	52	74	227
KK	174	90	127	391	174	91	128	393	175	91	129	395	176	92	129	396
L	18	9	13	40	19	10	14	42	19	10	14	43	19	10	14	44
LL	19	10	14	42	22	11	16	49	24	12	17	54	27	14	20	60
M	29	15	21	65	30	15	22	67	30	16	22	68	30	16	22	68
MM	9	5	7	20	10	5	7	21	10	5	7	22	10	5	8	23
N	48	25	35	108	49	25	36	110	49	26	36	111	50	26	36	112
NN	2	1	1	4	2	1	1	4	2	1	1	4	2	1	2	5
O	156	81	113	349	155	80	113	349	155	81	114	350	156	81	114	351

	2011/12 Enrollment Projections				2016/17 Enrollment Projections				2020/21 Enrollment Projections				2025/26 Enrollment Projections			
Neighborhood (Depicted in Map 8)	K-5	6-8	9-12	**All Grades**	K-5	6-8	9-12	**All Grades**	K-5	6-8	9-12	**All Grades**	K-5	6-8	9-12	**All Grades**
OO	16	9	12	37	18	9	13	40	19	10	14	42	20	10	15	45
P	155	80	113	348	154	80	112	346	153	80	113	346	154	80	113	347
PP	20	10	15	45	21	11	15	47	22	12	16	50	23	12	17	53
Q	271	140	197	608	273	141	199	613	287	150	211	648	308	161	226	695
QQ	13	7	10	29	32	17	24	73	48	25	35	108	67	35	49	152
R	2	1	1	4	1	1	1	3	1	0	1	2	0	0	0	1
S	22	11	16	50	63	33	46	141	90	47	66	204	125	65	92	282
T	12	6	9	26	32	17	24	73	49	25	36	110	69	36	51	156
U	34	18	25	76	40	21	29	91	49	26	36	111	75	39	55	170
V	2	1	2	5	3	2	2	7	4	2	3	9	5	3	4	11
W	101	53	74	228	110	57	80	247	117	61	86	263	126	66	92	284
X	91	47	66	205	94	49	69	211	96	50	71	217	99	52	73	224
Y	153	79	111	343	152	79	111	341	152	79	111	342	152	79	112	343
Z	81	42	59	182	80	42	59	181	80	42	59	181	80	42	59	181
District-Wide Projected Enrollment	2,246	1,164	1,637	**5,047**	2,810	1,458	2,056	**6,324**	3,379	1,760	2,482	**7,621**	3,954	2,060	2,904	**8,918**

Projection Analysis

The results of the Grade Progression method projections and Housing Unit projections can be dizzying without further analysis and distillation.

Figures 2.16 through 2.31 bring together enrollment projections resulting from three of the four Grade Progression methods for the first ten projection years, plus one of the Housing Unit scenario projections for the entire 20-year projection period. (The 2-Year "Trend" Grade Progression model was excluded from the composite enrollment projections because the methodology is similar to that used in the 5-Year Trend Projection model, but it is not as reliable because it is only based upon two years of enrollment history instead of five.)

These projections are averaged together in Chapter IV to analyze the sufficiency of the District's existing school facilities with respect to capacity, and to identify future school facility needs. The averaging tends to minimize the impact of the biases and weaknesses of each projection method if considered separately.

"Scenario A" Projection Summary

Figures 2.16 through 2.19 show the 10- to 20-year projection lines for total district enrollment, grade K-5 enrollment, grade 6-8 enrollment, and grade 9-12 enrollment, using the results of four different projection methods including Scenario A as the selected Housing Unit method. These are the base figures that in Chapter IV are assembled into the composite projection that relies on Scenario A as the selected Housing Unit scenario.

Figure 2.16: Enrollment Projection Scenarios, District-wide, Scenario A

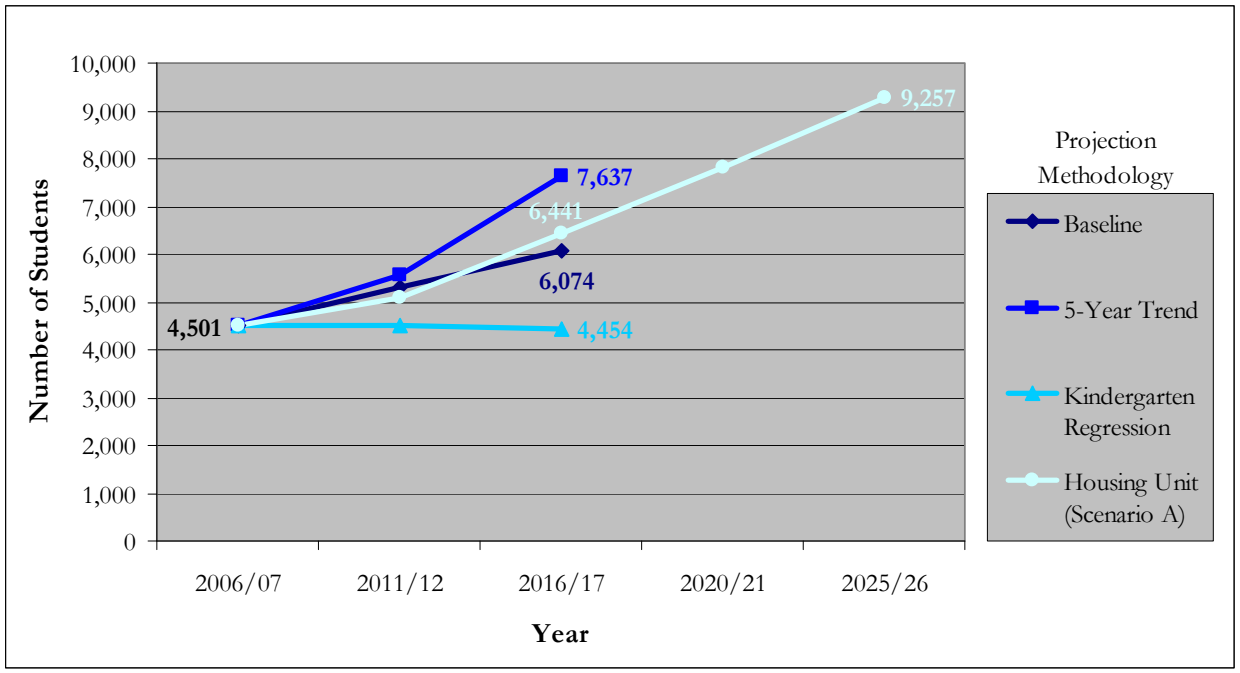


Figure 2.17: Enrollment Projection Scenarios, Grades K-5, Scenario A

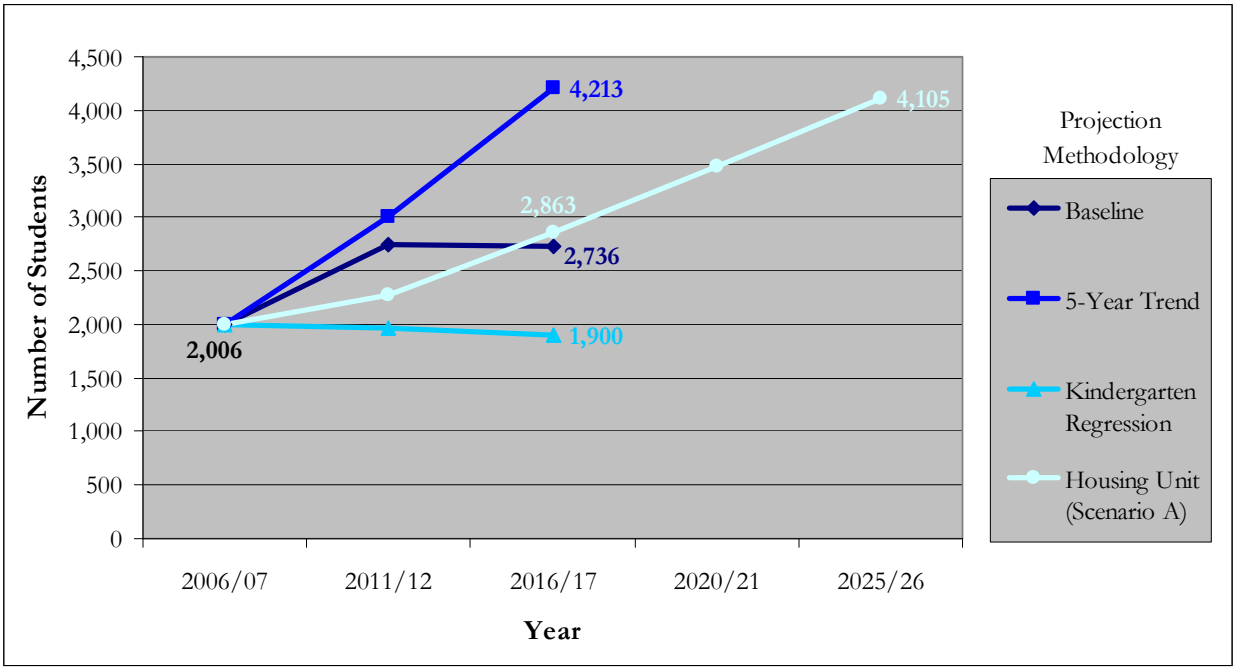


Figure 2.18: Enrollment Projection Scenarios, Grades 6-8, Scenario A

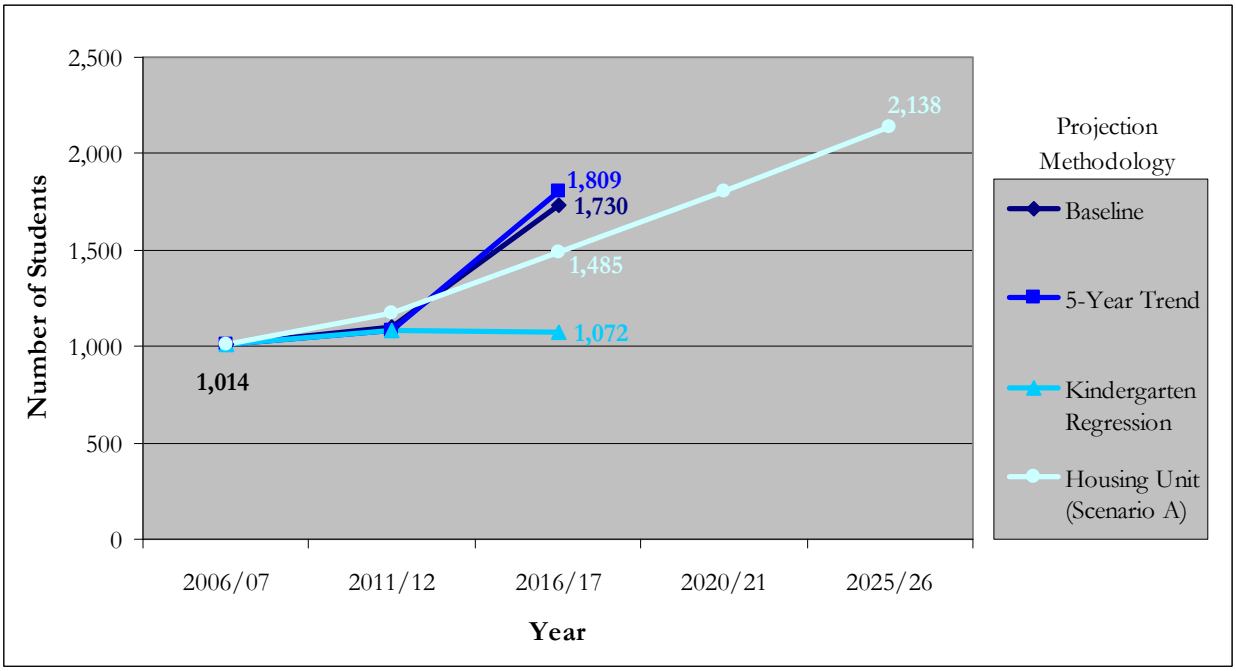
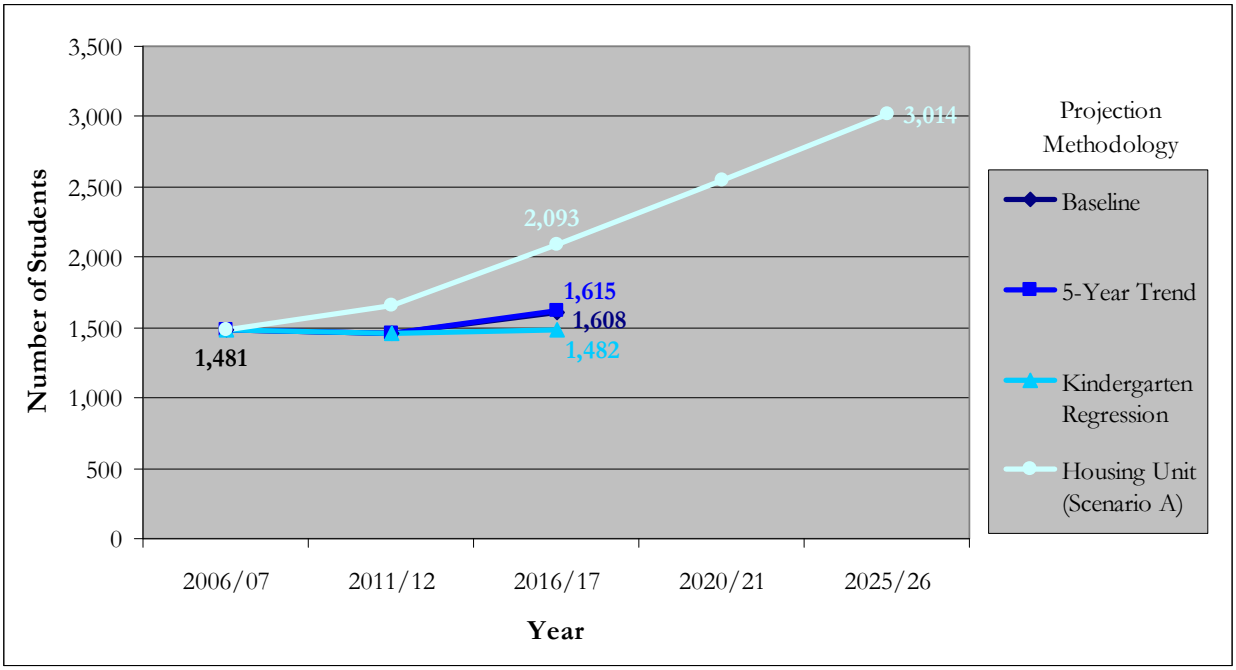


Figure 2.19: Enrollment Projection Scenarios, Grades 9-12, Scenario A



"Scenario B" Projection Summary

Figures 2.20 through 2.23 show the 10- to 20-year projection lines for total district enrollment, grade K-5 enrollment, grade 6-8 enrollment, and grade 9-12 enrollment, using the results of four different projection methods including Scenario B as the selected Housing Unit method. These are the base figures that in Chapter IV are assembled into the composite projection that relies on Scenario B as the selected Housing Unit scenario.

Figure 2.20: Enrollment Projection Scenarios, District Wide, Scenario B

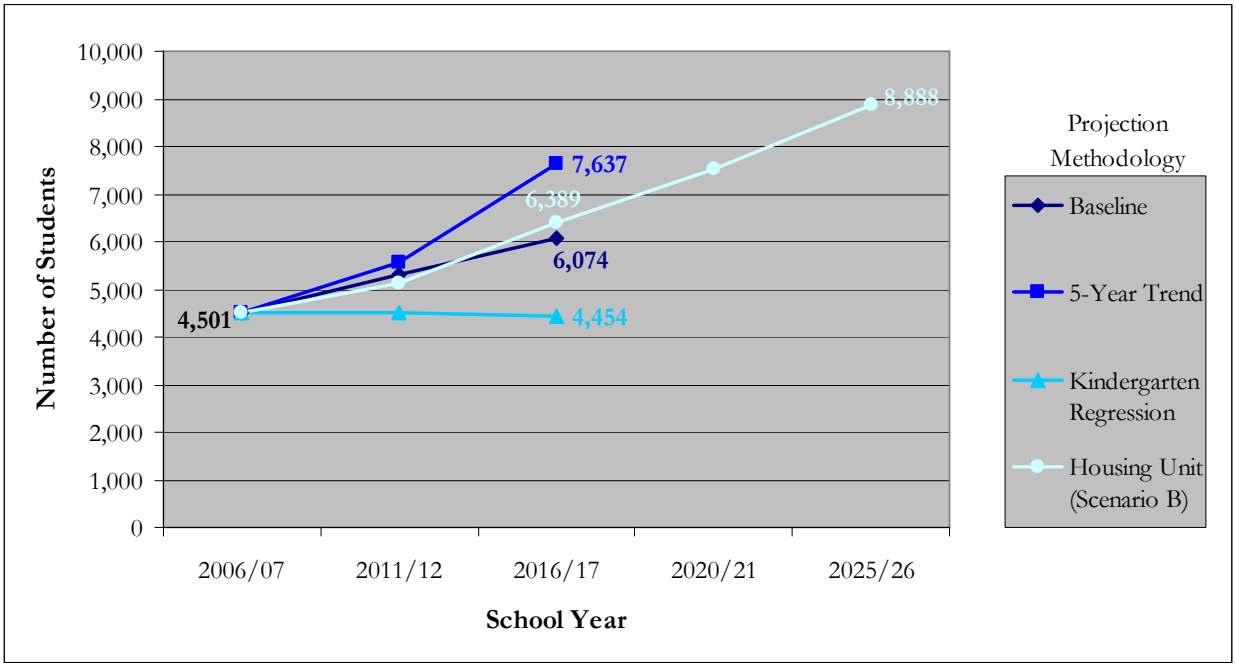


Figure 2.21: Enrollment Projection Scenarios, Grades K-5, Scenario B

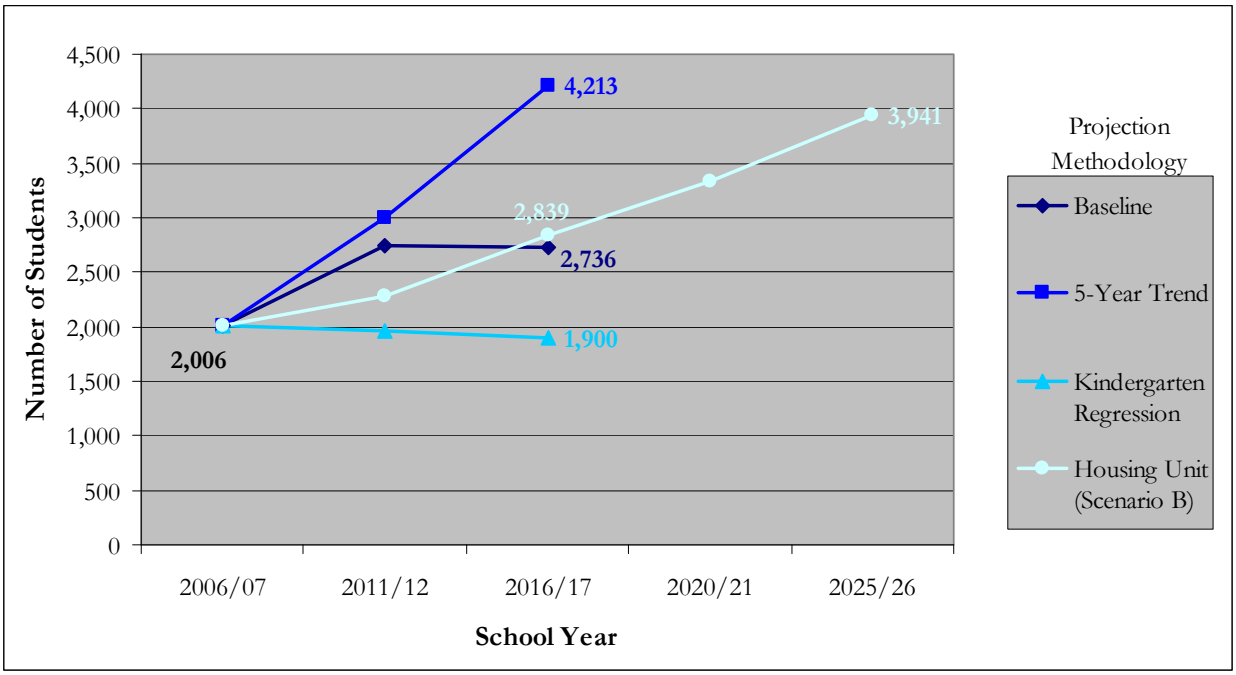


Figure 2.22: Enrollment Projection Scenarios, Grades 6-8, Scenario B

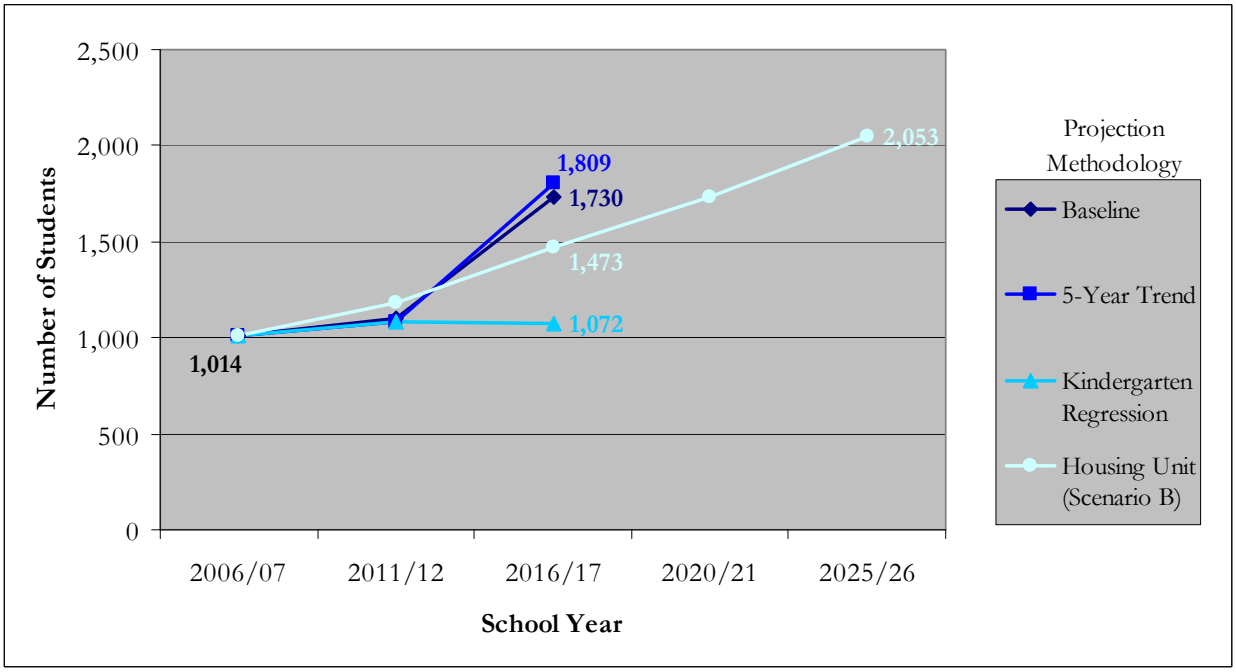
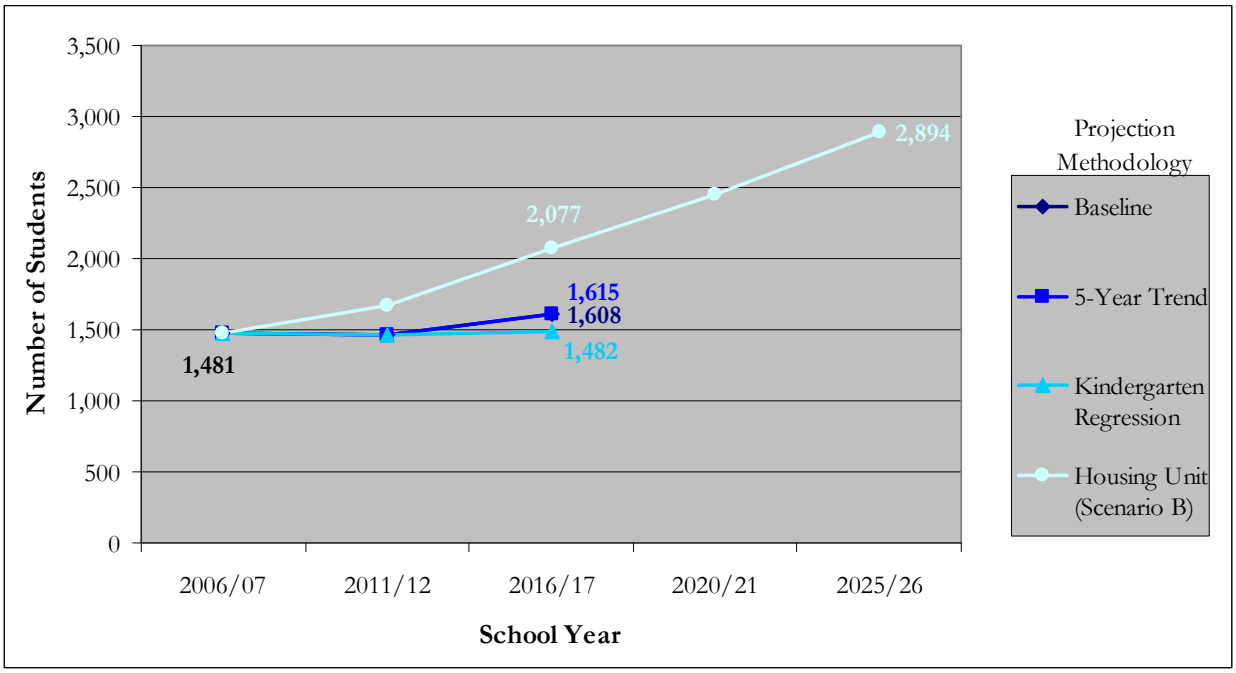


Figure 2.23: Enrollment Projection Scenarios, Grades 9-12, Scenario B



"Scenario C" Projection Summary

Figures 2.24 through 2.27 show the 10- to 20-year projection lines for total district enrollment, grade K-5 enrollment, grade 6-8 enrollment, and grade 9-12 enrollment, using the results of four different projection methods including Scenario C as the selected Housing Unit method. These are the base figures that in Chapter IV are assembled into the composite projection that relies on Scenario C as the selected Housing Unit scenario.

Figure 2.24: Enrollment Projection Scenarios, District-Wide, Scenario C

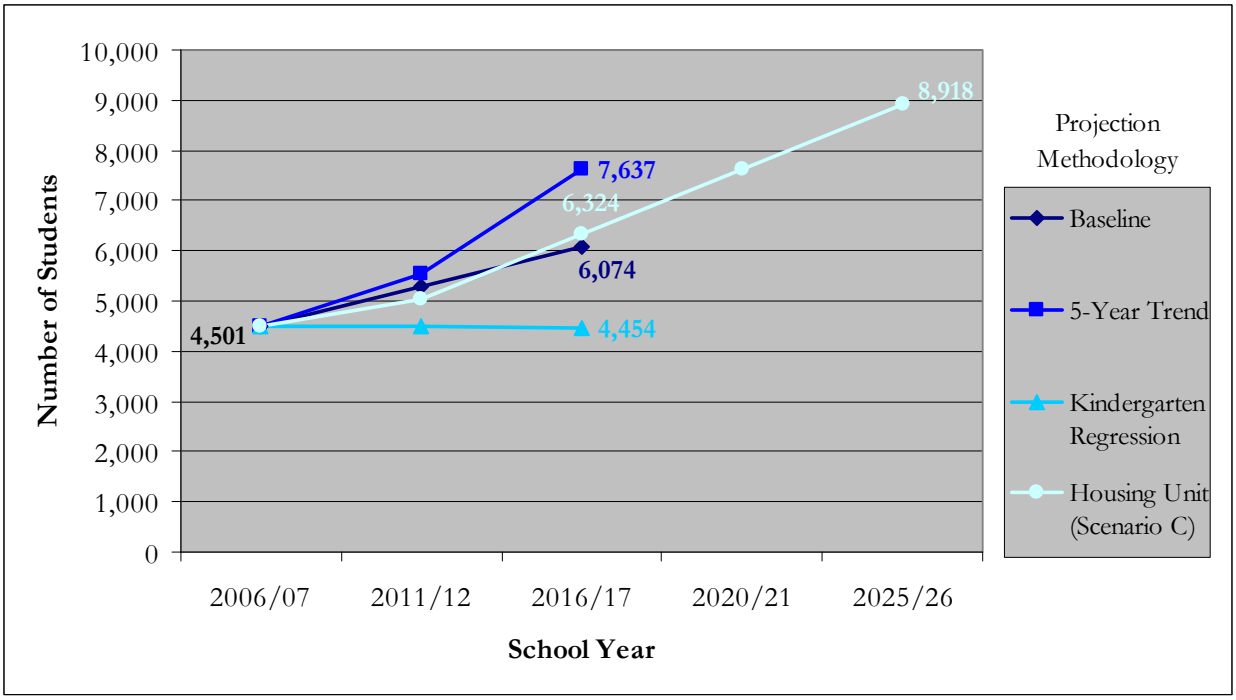


Figure 2.25: Enrollment Projection Scenarios, Grades K-5, Scenario C

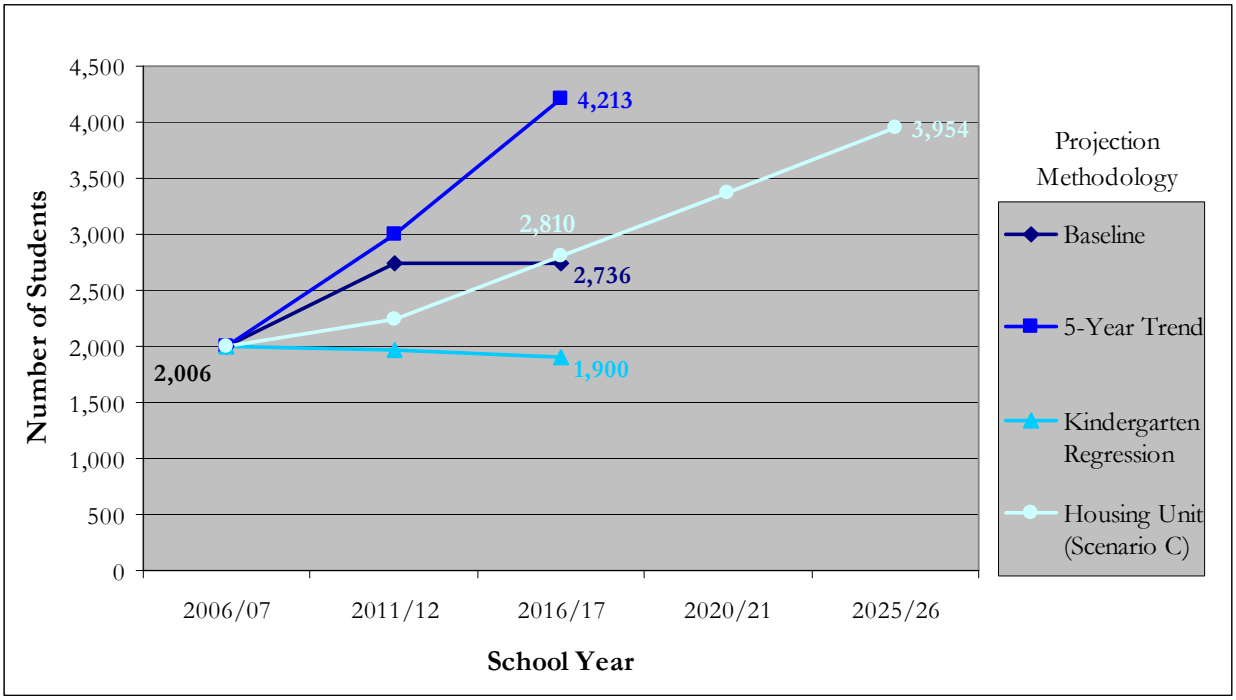


Figure 2.26: Enrollment Projection Scenarios, Grades 6-8, Scenario C

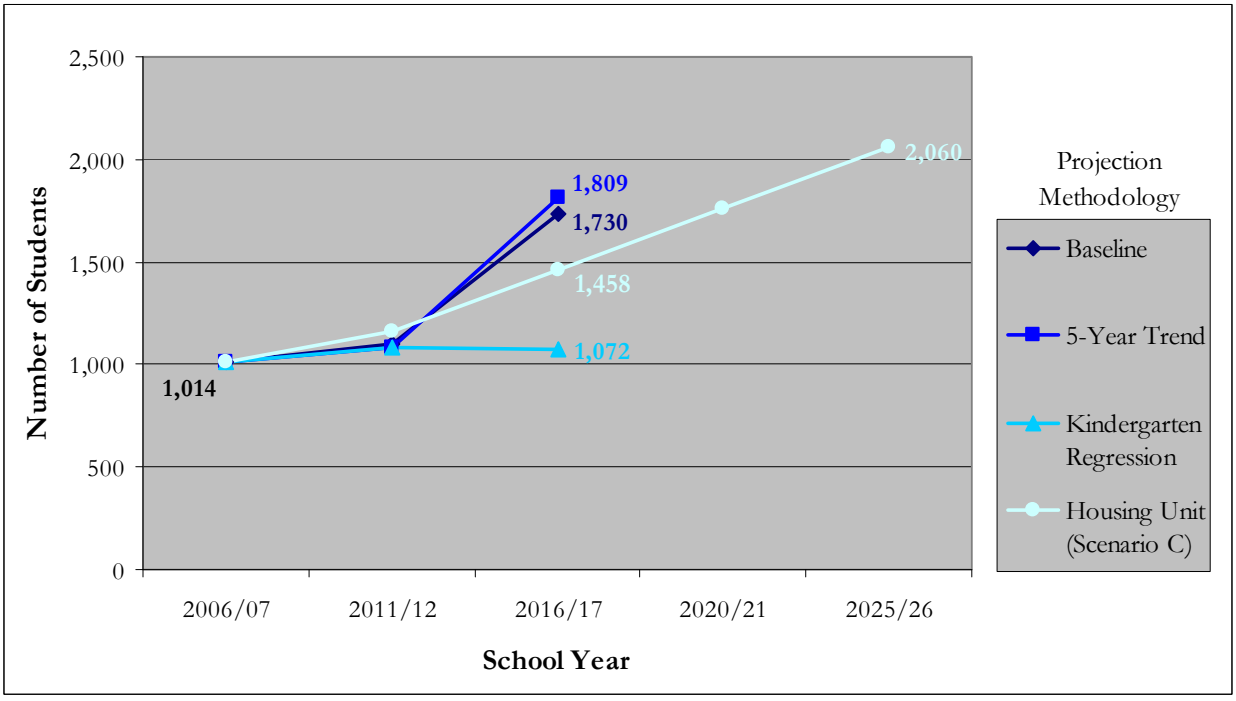
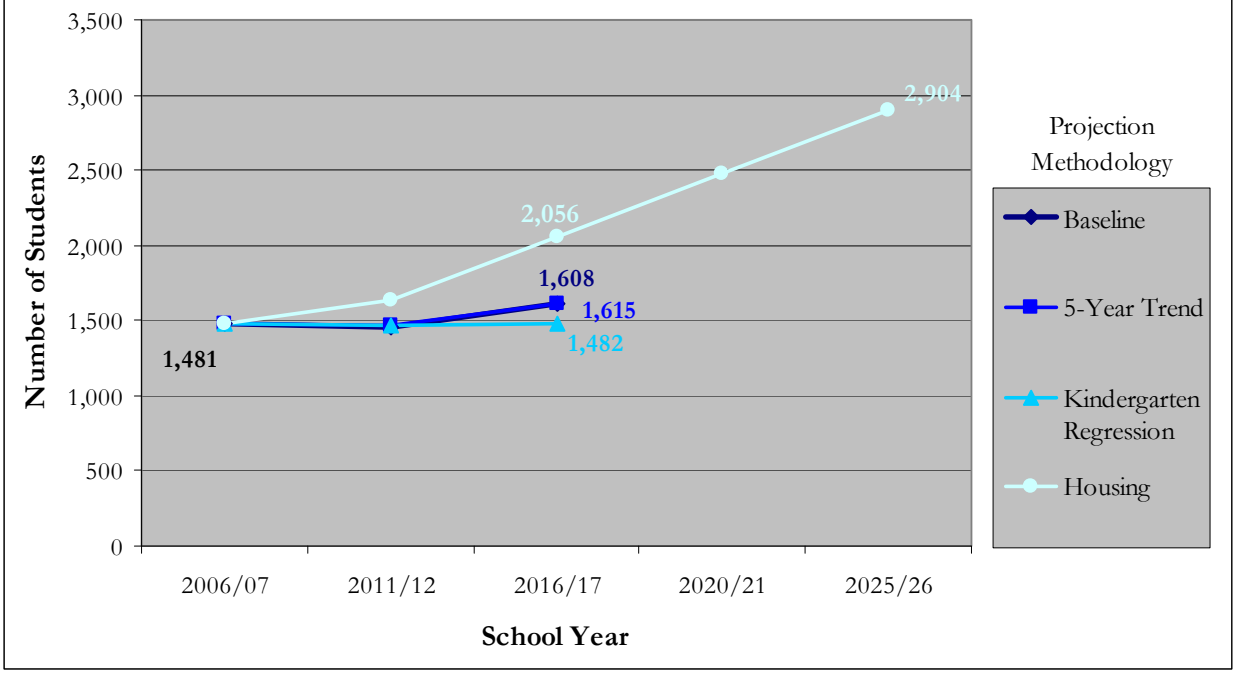


Figure 2.27: Enrollment Projection Scenarios, Grades 9-12, Scenario C



Figures 2.28 through 2.31 show the 10- to 20-year projection lines for total district enrollment, grade K-5 enrollment, grade 6-8 enrollment, and grade 9-12 enrollment, using the results of the four different projection methods, as well as the results of all three Housing Unit projection scenarios. Figures 2.28 through 2.31 summarize, in table format, the data shown above in Figures 2.16 through 2.27

Figure 2.28: Enrollment Projection Scenarios, District-Wide Summary

	Number of Students 2006/07	Number of Students 2011/12	Number of Students 2016/17	Number of Students 2020/21	Number of Students 2025/26
Baseline	4,501	5,303	6,074	--	--
5-Year Trend	4,501	5,550	7,637	--	--
Kindergarten Regression	4,501	4,514	4,454	--	--
Housing Unit (Scenario A)	4,501	5,096	6,441	7,833	9,257
Housing Unit (Scenario B)	4,501	5,137	6,389	7,516	8,888
Housing Unit (Scenario C)	4,501	5,047	6,324	7,621	8,918

Figure 2.29: Enrollment Projection Scenarios, Grades K-5 Summary

	Number of Students 2006/07	Number of Students 2011/12	Number of Students 2016/17	Number of Students 2020/21	Number of Students 2025/26
Baseline	2,006	2,742	2,736	--	--
5-Year Trend	2,006	3,004	4,213	--	--
Kindergarten Regression	2,006	1,968	1,900	--	--
Housing Unit (Scenario A)	2,006	2,268	2,863	3,473	4,105
Housing Unit (Scenario B)	2,006	2,286	2,839	3,333	3,941
Housing Unit (Scenario C)	2,006	2,246	2,810	3,379	3,954

Figure 2.30: Enrollment Projection Scenarios, Grades 6-8 Summary

	Number of Students 2006/07	Number of Students 2011/12	Number of Students 2016/17	Number of Students 2020/21	Number of Students 2025/26
Baseline	1,014	1,102	1,730	--	--
5-Year Trend	1,014	1,084	1,809	--	--
Kindergarten Regression	1,014	1,084	1,072	--	--
Housing Unit (Scenario A)	1,014	1,175	1,485	1,809	2,138
Housing Unit (Scenario B)	1,014	1,185	1,473	1,736	2,053
Housing Unit (Scenario C)	1,014	1,164	1,458	1,760	2,060

Figure 2.31: Enrollment Projection Scenarios, Grades 9-12 Summary

	Number of Students 2006/07	Number of Students 2011/12	Number of Students 2016/17	Number of Students 2020/21	Number of Students 2025/26
Baseline	1,481	1,459	1,608	--	--
5-Year Trend	1,481	1,462	1,615	--	--
Kindergarten Regression	1,481	1,462	1,482	--	--
Housing Unit (Scenario A)	1,481	1,653	2,093	2,551	3,014
Housing Unit (Scenario B)	1,481	1,666	2,077	2,447	2,894
Housing Unit (Scenario C)	1,481	1,637	2,056	2,482	2,904

Chapter Three: School Facilities Needs Analysis

This chapter provides an analysis of the information presented in Chapter Two in terms of how it will affect the need for additional, expanded, or modified school facilities in the future. This is accomplished by comparing enrollment projections with school capacity estimates and by suggesting programmatic or demographic trends that may influence facility needs.

Chapter Overview

- All grade levels in the District are projected to exceed their current capacities sometime in the 2010s.
- Enrollment in grades K-5 is projected to exceed current school capacities—as calculated by the District's 2006 capacity study—by about the 2011/12 school year.
- Enrollment in grades 6-8 is projected to exceed current school capacities—as calculated by the District's 2006 capacity study--by 2016/2017 or slightly before.
- Enrollment in grades 9-12 is projected to exceed current high school capacity—as calculated by the District's 2006 capacity study—by about the 2016/17 school year.

School Facility Capacity Versus Composite Enrollment Projections

In order to estimate when and to what extent the District's existing schools will exceed their capacity over the next ten to 20 years, the following graphs illustrate each grade groupings (e.g., K-5) current school capacity compared with its *composite* enrollment projection. Composite enrollment projections are the average results of the four projection methods presented at the end of Chapter Two (Baseline, 5-Year Trend, Kindergarten Regression, and Housing Unit), using each of the three Housing Unit scenarios in separate model runs.

Capacity Versus Enrollment Projections: Grades K-5

The District's elementary school grade capacity was determined by summing the combined capacity of the elementary schools within the District, based on the 2006 capacity study. This summation process likely overestimates actual capacity somewhat, due to the number of elementary schools summed. Next, the enrollment projections described in the previous chapter were averaged, creating one composite enrollment projection with variations for each of the three Housing Unit scenarios considered. Figures 3.1 through 3.4 show the results of this analysis.

Figure 3.1: Existing School Capacities v. Composite Enrollment Projection, Grades K-5, Scenario A

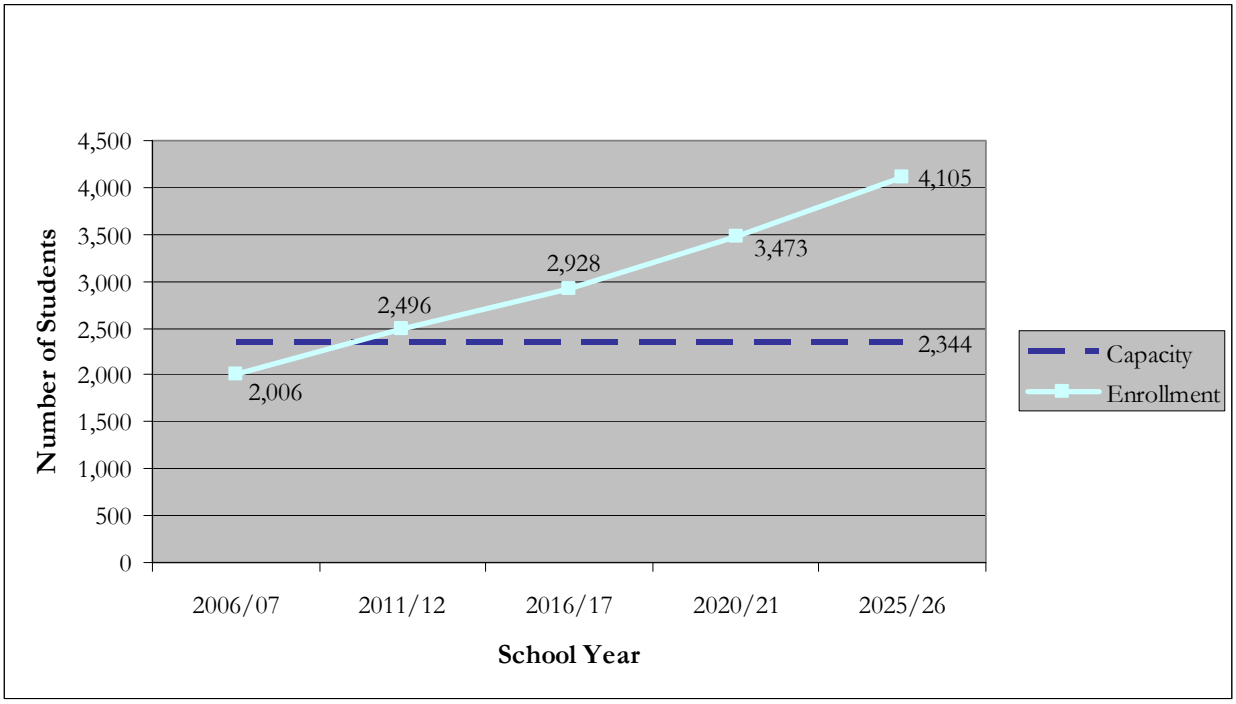


Figure 3.2: Existing School Capacities v. Composite Enrollment Projection, Grades K-5, Scenario B

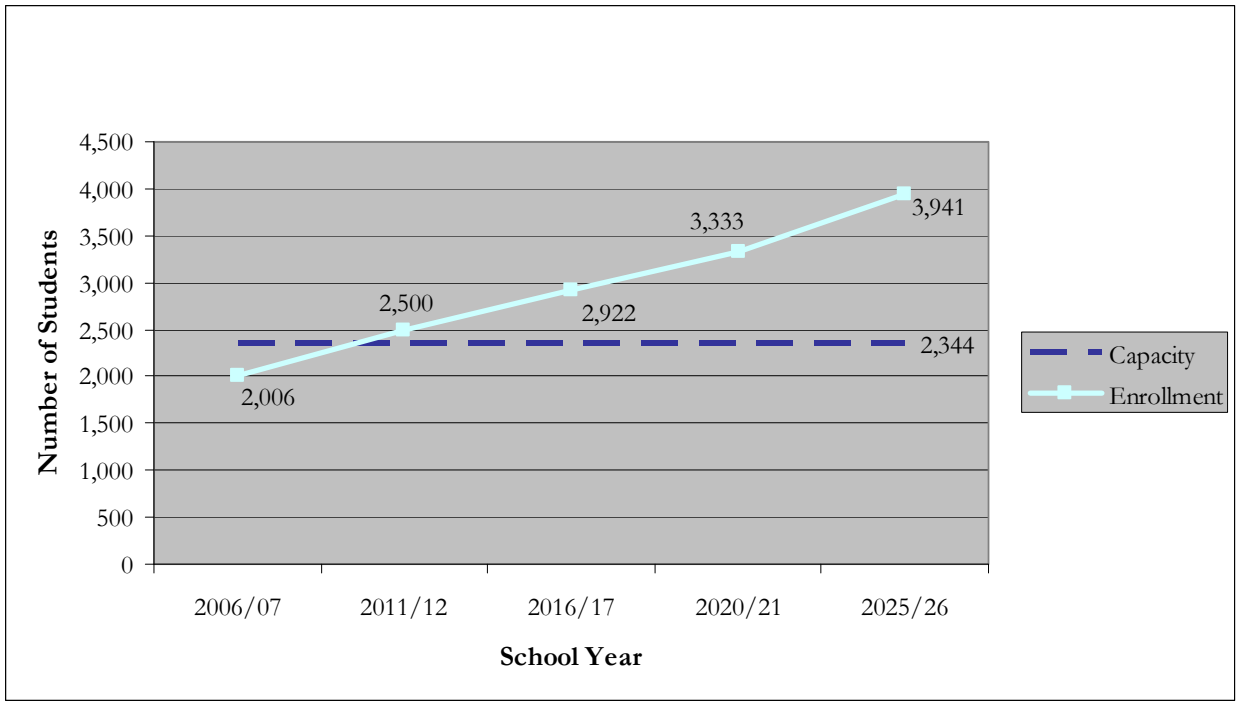


Figure 3.3: Existing School Capacities v. Composite Enrollment Projection, Grades K-5, Scenario C

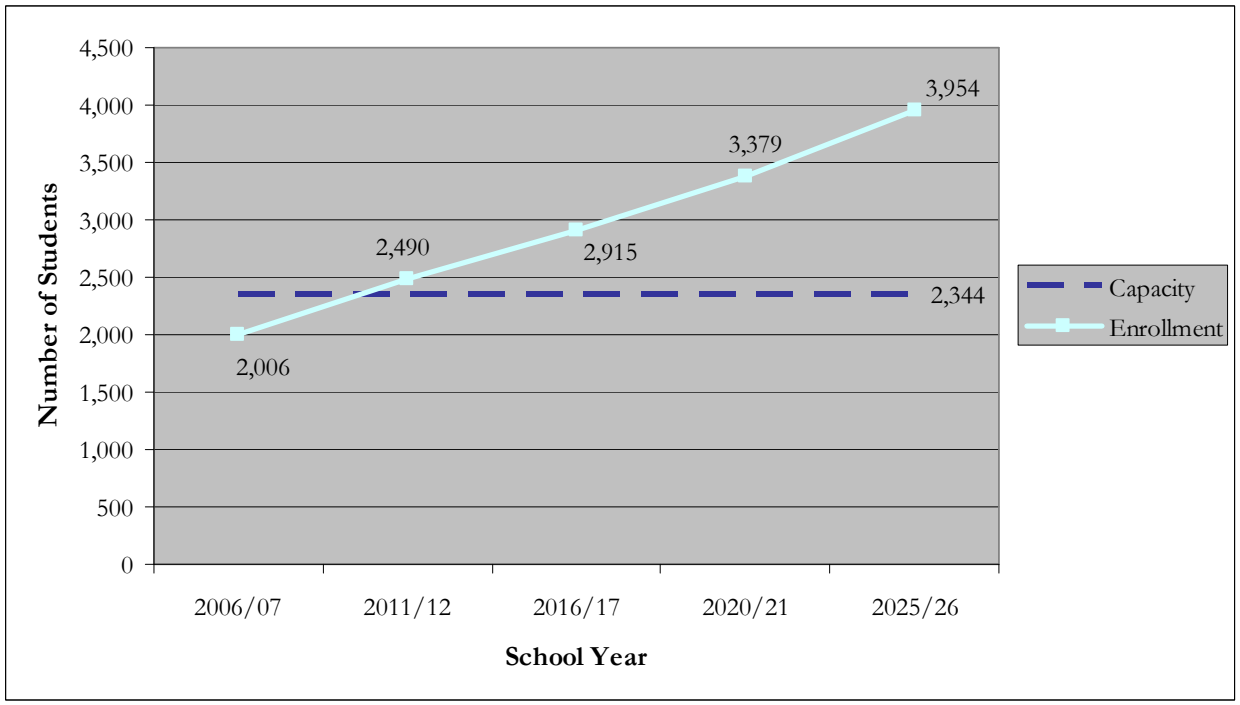


Figure 3.4: Existing School Capacities v. Composite Enrollment Projection, Grades K-5, All Housing Unit Scenarios

	Number of Students 2006/07	Number of Students 2011/12	Number of Students 2016/17	Number of Students 2020/21	Number of Students 2025/26
Capacity	2,344	2,344	2,344	2,344	2,344
Enrollment Using Housing Unit (Scenario A)	2,006	2,496	2,928	3,473	4,105
Enrollment Using Housing Unit (Scenario B)	2,006	2,500	2,922	3,333	3,941
Enrollment Using Housing Unit (Scenario C)	2,006	2,490	2,915	3,379	3,954

An analysis of the above figures suggests that projected elementary school enrollment:

- will exceed existing school facility capacity by roughly 100 students by 2011/12
- will be roughly 520 students over existing capacity by 2016/17
- will be between 730 and 860 students over existing capacity by 2020/21
- will be between 1,290 and 1,440 students over existing capacity by 2025/26

If the District established a 4-year old kindergarten, this may increase these projections, and elementary school capacities would be exceeded sooner and by greater amounts.

Capacity Versus Enrollment Projections: Grades 6-8

The District's middle school grade capacity was determined by summing the combined capacity of the middle schools within the District, based on the 2006 capacity study. This summation process may overestimate actual capacity somewhat, because middle school students are housed in three separate schools. Next, the enrollment projections described in the previous chapter were averaged, creating one composite enrollment projection with variations for each of the three Housing Unit scenarios considered. Figures 3.5 through 3.8 show the results of this analysis.

Figure 3.5: Existing School Capacities v. Composite Enrollment Projection, Grades 6-8, Scenario A

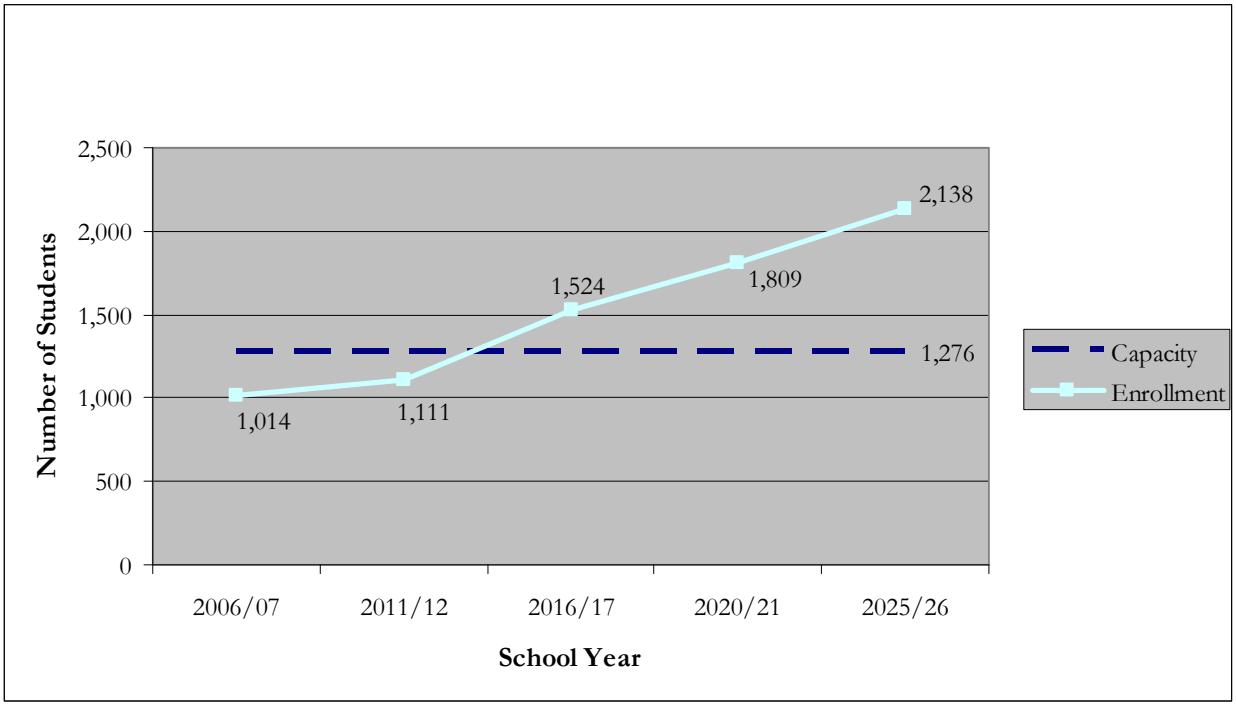


Figure 3.6: Existing School Capacities v. Composite Enrollment Projection, Grades 6-8, Scenario B

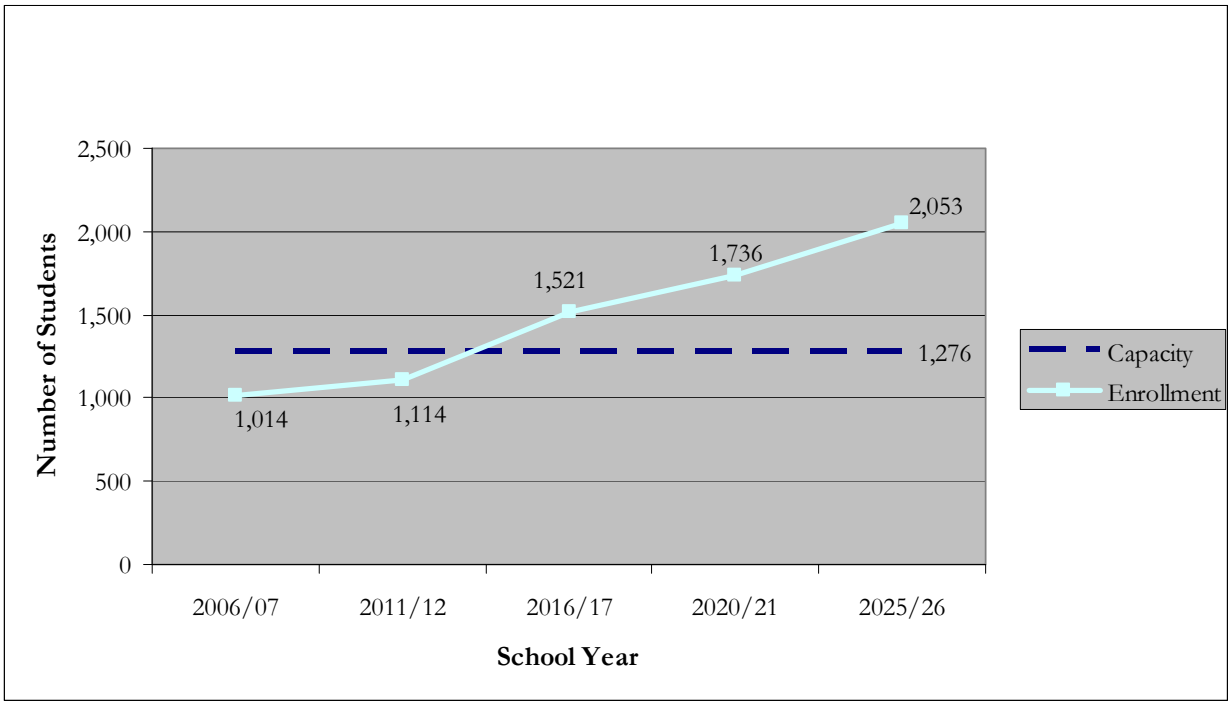


Figure 3.7: Existing School Capacities v. Composite Enrollment Projection, Grades 6-8, Scenario C

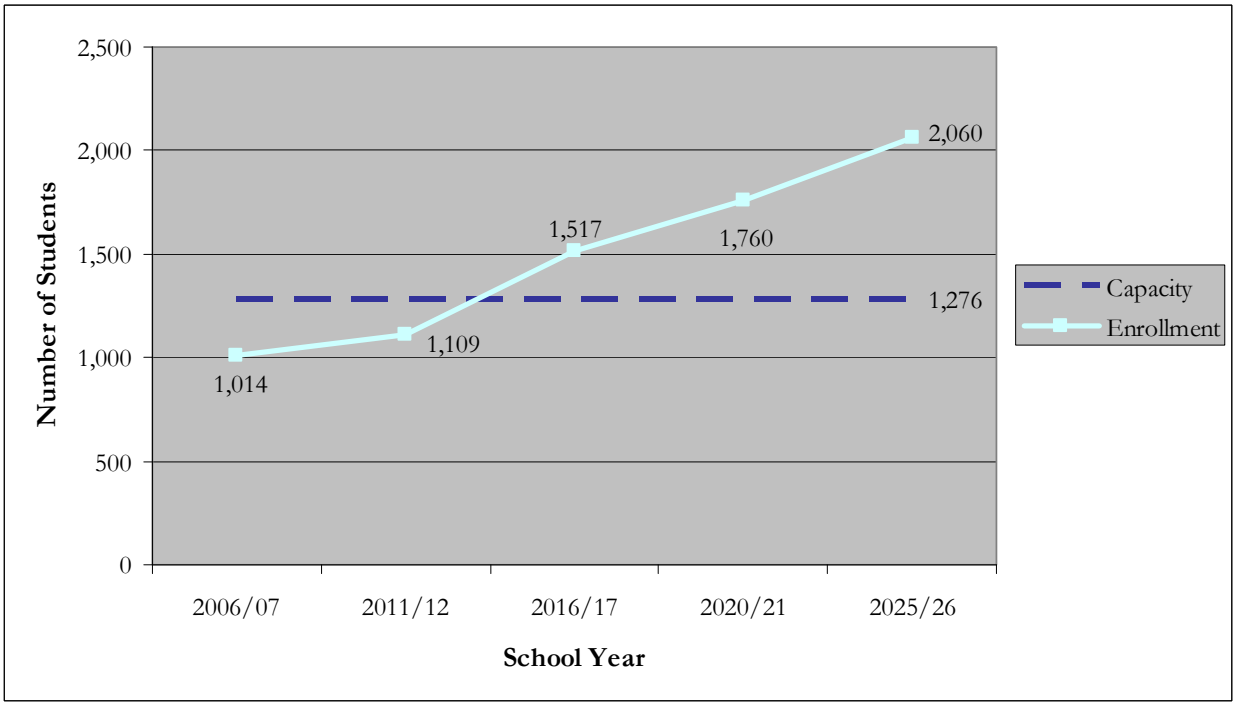


Figure 3.8: Existing School Capacities v. Composite Enrollment Projection, Grades 6-8, All Housing Unit Scenarios

	Number of Students 2006/07	Number of Students 2011/12	Number of Students 2016/17	Number of Students 2020/21	Number of Students 2025/26
Capacity	1,276	1,276	1,276	1,276	1,276
Enrollment Using Housing Unit (Scenario A)	1,014	1,111	1,524	1,809	2,138
Enrollment Using Housing Unit (Scenario B)	1,014	1,114	1,521	1,736	2,053
Enrollment Using Housing Unit (Scenario C)	1,014	1,109	1,517	1,760	2,060

An analysis of the above figures suggests that projected middle school enrollment:

- will exceed existing middle school facility capacity soon after 2011/12
- will be roughly 215 students over existing capacity by 2016/17
- will be between 320 and 390 students over existing capacity by 2020/21
- will be between 615 and 690 students over existing capacity by 2025/26

Capacity Versus Enrollment Projections: Grades 9-12

The District's high school grade capacity was based on the 2006 capacity study. As described in Chapter II, it is probable that significant programmatic changes would be necessary to achieve this high school capacity. Next, the enrollment projections described in the previous chapter were averaged, creating one composite enrollment projection with variations for each of the three Housing Unit scenarios considered. Figures 3.9 through 3.12 show the results of this analysis.

Figure 3.9: Existing School Capacities v. Composite Enrollment Projection, Grades 9-12, Scenario A

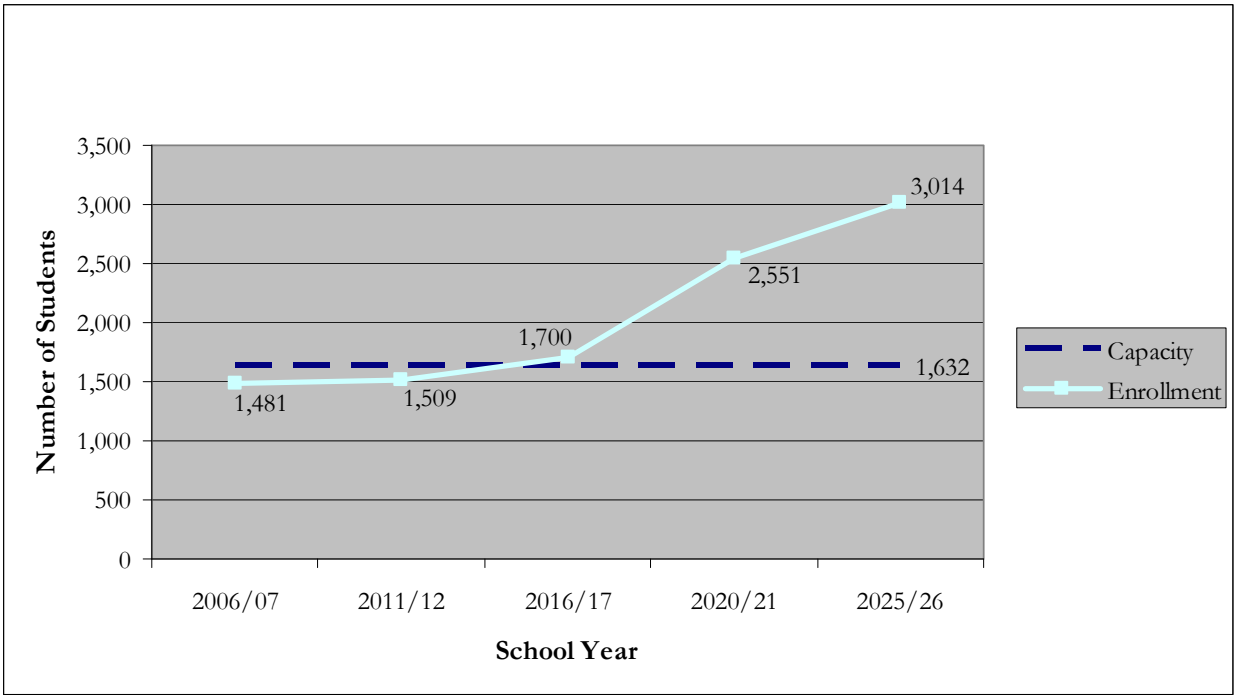


Figure 3.10: Existing School Capacities v. Composite Enrollment Projection, Grades 9-12, Scenario B

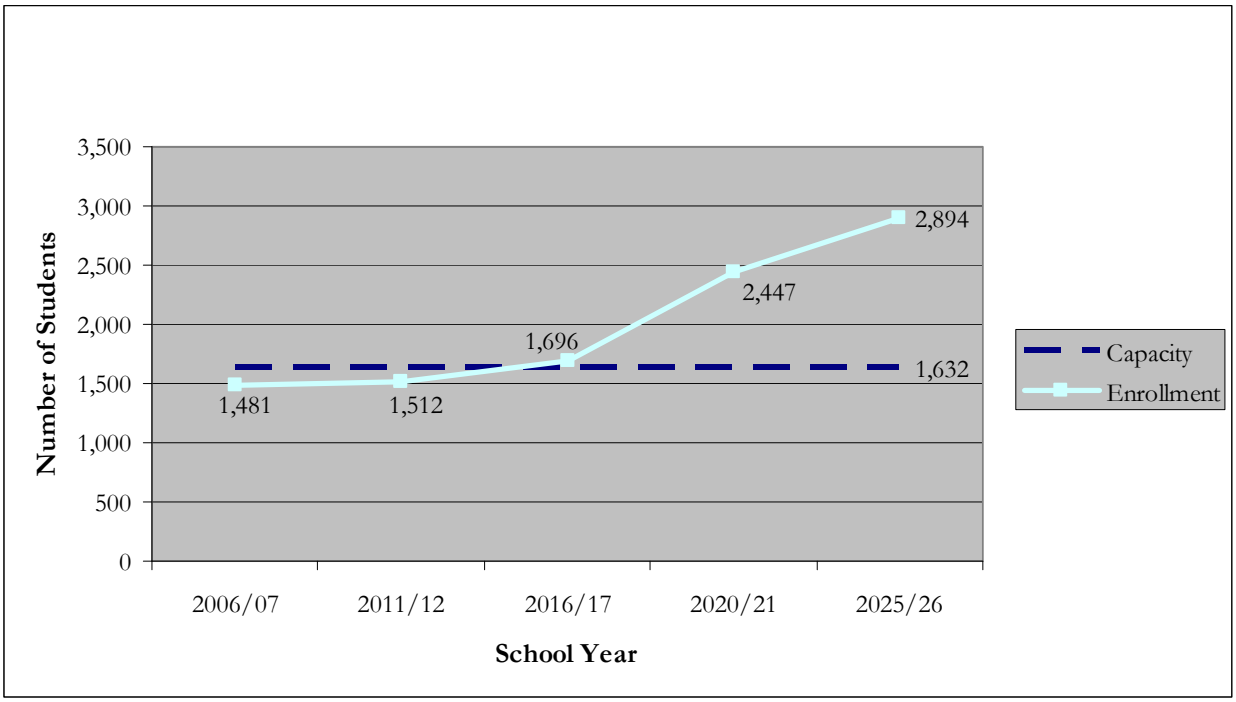


Figure 3.11: Existing School Capacities v. Composite Enrollment Projection, Grades 9-12, Scenario C

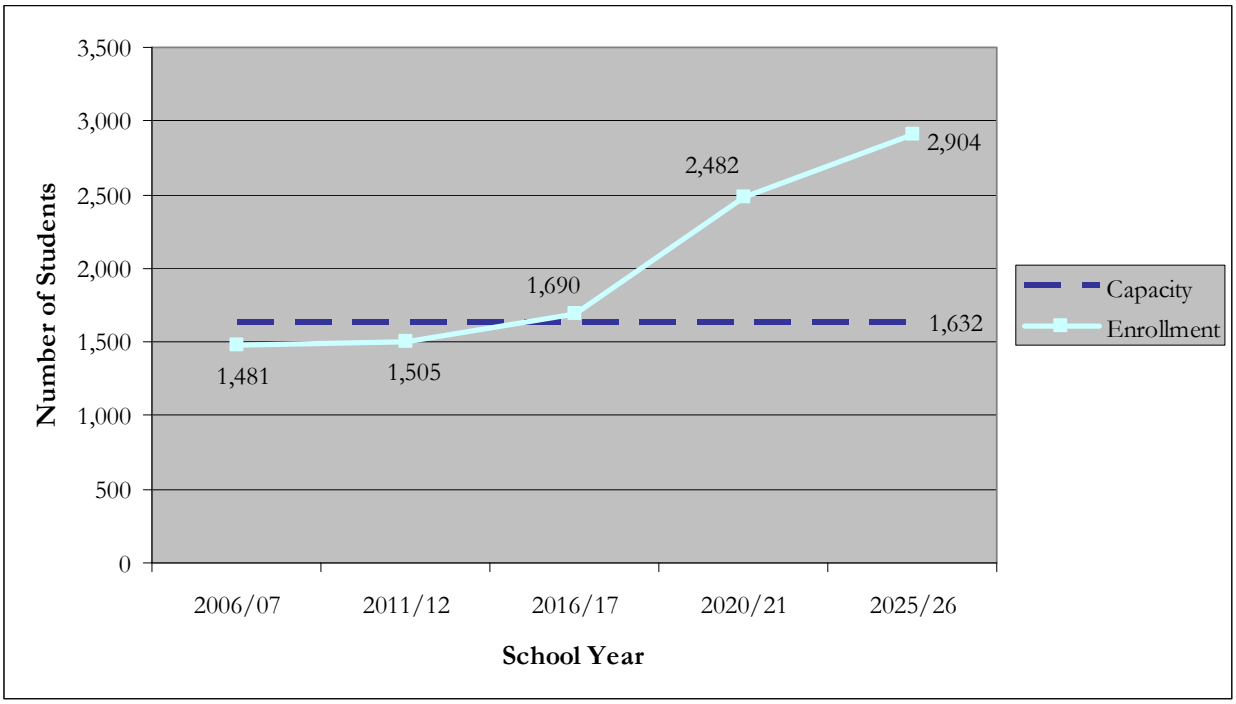


Figure 3.12: Existing School Capacities v. Composite Enrollment Projection, Grades 9-12, All Housing Unit Scenarios

	Number of Students 2006/07	Number of Students 2011/12	Number of Students 2016/17	Number of Students 2020/21	Number of Students 2025/26
Capacity	1,632	1,632	1,632	1,632	1,632
Enrollment Using Housing Unit (Scenario A)	1,481	1,509	1,700	2,551	3,014
Enrollment Using Housing Unit (Scenario B)	1,481	1,512	1,696	2,447	2,894
Enrollment Using Housing Unit (Scenario C)	1,481	1,505	1,690	2,482	2,904

An analysis of the above figures suggests that projected high school enrollment:

- is expected to reach high school facility capacity by 2016/17
- will be between 625 and 720 students over existing capacity by 2020/21
- will be between 1,040 and 1,140 students over existing capacity by 2025/26

Needs of Future Students

The analyses presented in this chapter suggest that the Verona Area School District will outgrow its existing school facilities at the elementary, middle, and high school levels over the projection period. In addition, the District should consider the following functional and programmatic factors when thinking about its future school facilities:

Modernized Facilities: Some Verona Area School District facilities are aging and do not meet modern standards, perhaps most notably the high school. In a society where ever-changing technologies are modifying the way that teachers teach and children learn, the District will need to carefully weigh the desire to control capital expenditures and the need to modernize its facilities. In addition, modern facilities help attract and retain teachers and reduce maintenance and energy costs.

Pre-K Programming: The District does not currently offer Pre-K programming, but is considering it. The District may explore several options for accommodating these expanded services. The District will need to decide whether or not it is important to offer a Pre-K program, and, if so, where to locate these students in light of elementary school aged enrollment projections versus existing capacities.

ELL/Bilingual Programming: The District will likely experience a growing demand for English Language Learner (ELL)/Bilingual programming to serve the Hispanic population. When considering how ELL programming may be accommodated, it will be important to recognize how facility space limitations and expanding classroom sizes may impact the overall learning environment and jeopardize the efficacy of an ELL program.

Small Class Sizes: Current literature suggests that small class sizes positively affect a student's learning potential. As such, the District strives to maintain small class sizes. However, as student enrollment grows over the next decade, it will be increasingly more challenging for the District to meet this goal.

Chapter Four: Options for Addressing School Facility Needs

Based upon the analysis presented in Chapter Three, this chapter outlines a list of planning goals that will help guide decision making in the District over the next twenty years. In addition, this chapter provides suggestions and options for addressing school capacity issues during this period in accordance with the goals. These options certainly do not represent all possible solutions, nor is one option necessarily intended to be exclusive of any other option. Notably, detailed architectural, site, and programmatic studies to definitively determine opportunities for expansions to existing schools were beyond the scope of this study. For options that require the purchase of additional land for future school facilities, Appendix A presents a list of criteria for site selection.

Chapter Overview

- Long range facility planning decisions should be guided by a set of overall goals for the District.
- Over the twenty year projection period, two new elementary schools are projected to be required. Possible expansion to an existing elementary school may defer the need for these schools, but not beyond the period.
- Approximately midway through the projection period, a new middle school is projected to be required. If feasible, expansions to existing middle schools could defer the need to construct a new middle school to perhaps five years later.
- Also approximately midway through the projection period, high school capacity will be exceeded. The District may consider constructing a new high school at that time, possibly a smaller high school with a focused curriculum and perhaps in collaboration with other education providers in the region.
- Locational decisions for new schools should correlate to areas of planned residential development, in addition to other considerations applicable to a multi-community school district.

Long-Term Planning Goals

Based on public and Committee direction during the planning process, the following goals were developed. These goals helped steer and may help in the evaluation of different facility options in the future.

Goal 1: Accommodate projected student enrollment increases
Enrollment in the Verona Area School District will continue to increase given the District's and component communities' desirability. The District will remain an active player in working with communities on their future plans. The District will also strive to comfortably accommodate an increased student population through its facilities and programming.

Goal 2: Provide schools in locations that are in identified community growth areas
The District will maintain and provide schools in areas where its component local communities have identified for development. In particular, school located in existing and planned residential development will be favored. Achievement of this goal minimizes transportation time and costs, and promotes walkable neighborhoods. Schools also better function as neighborhood focal points, gathering places, and sources of pride and community.

Goal 3: Maximize efficiency in school siting and construction
The District will seek facility siting and construction configurations that are energy efficient, cost effective, and environmentally sustainable. This goal also points to consideration of additional school campuses, where more than one school may share the same or adjacent sites, avoiding the duplication of some facilities and potentially requiring less land than separated sites. Manageable maintenance costs are also important.

Goal 4: Modernize facilities over time to meet current and emerging needs
In this era of rapidly accelerating technological advancement, it is important to keep pace through modern facilities that capture technological advances to increase student achievement. Increased energy costs also suggest the importance of more energy efficient buildings.

Goal 5: Promote class sizes consistent with providing quality educational services
Smaller class sizes are positively correlated to student achievement. The District seeks facility solutions that manage the size of classes, recognizing that increased enrollments may necessitate some short-term compromises in this area.

Goal 6: Promote school building capacities that are consistent with recognized standards and community desires
The District's Year 2000 Plan suggested 600 students as a desired upper limit for an elementary school. Through this planning process, the participating public did not favor a large (over 2,000 student) high school. While there has been less discussion on middle school capacities, middle schools of 800 students each provide an efficient use of space and personnel at a reasonable cost without losing personal contact with and among students.

Projected Elementary School Needs and Options

As concluded from previous chapters, projected elementary school enrollment:

- will exceed existing school facility capacity by roughly 100 students by 2011/12
- will be roughly 520 students over existing capacity by 2016/17
- will be between 730 and 860 students over existing capacity by 2020/21
- will be between 1,290 and 1,440 students over existing capacity by 2025/26

Expansion of existing elementary schools may be considered to defer the need to build new elementary schools to meet these expected needs. However, a general analysis of existing elementary schools suggests that only Stoner Prairie Elementary has some expansion potential. Expansion of Stoner Prairie could bring its capacity up to approximately 600 students, from its current capacity of 496 students. This limited expansion potential may defer the need to build a new elementary school for perhaps two years. Acquiring new school sites and designing new schools with future expansion in mind may be wise policy in light of ongoing projected enrollment increases.

Clearly, projected enrollments will require the construction of new elementary schools within the Verona Area School District over the twenty year projection period. To achieve its long-range facility planning goals, the District should plan for the construction of two new elementary schools within the 20-year projection period. A third new elementary school may be required near or soon after the end of projection period (2025/26). The first new school will likely be required for opening between 2011 and 2015, with the second being required later in the 2016 to 2020 time period.

Locational ideas for the new elementary schools are based in large part on areas that are planned to experience higher amounts of residential development over the period. Several maps in this report identify neighborhood areas that were used in data assembly and analysis. The District should explore site acquisition for elementary schools in the following neighborhood areas:

- Neighborhood Area E. This neighborhood is located near the northwest corner of the District, in an area targeted for fairly intensive neighborhood development on public sewer and water services over the next five to 20 years. This area is north of Highway PD and straddles Shady Oak Lane. Pending intergovernmental consolidation and boundary agreement discussions, this area will likely either become part of the City of Madison or a consolidated Verona in the future.

- Neighborhood Areas S or U. These neighborhoods straddle Fitchrona Road, near the current border of the City of Fitchburg and Town of Verona. Other main roads in this vicinity include Lacy and Grandview Roads. This area is envisioned for additional residential development by the affected communities, and there are ongoing explorations regarding the feasibility and timing of providing municipal sewer and water services.
- Neighborhood Areas JJ, J, or LL. These neighborhoods are located along and on either side of the Highway 151 bypass, near the City of Verona's southwest corner. These areas are targeted for residential, office, and mixed use development. There have been recent approvals for developments and sewer and water services south of the bypass in these areas.

The District should acquire appropriate sites for elementary schools well in advance of their need. This will allow for more reasonable acquisition prices, increase the range of sites available, and allow neighborhood planning and platting to be carried out with full regard to school siting. Alternatively, the District may collaborate with developers for school site acquisition at the time of concept planning for larger new subdivisions.

Elementary school sites should ideally be in the 15 to 20 acre range, although more urban two- or three-story schools may be accommodated on smaller sites. As a basis for comparison, Country View Elementary is located on a 20 acre site. If a combined elementary/middle school campus site is preferred, the District should seek a combined site in the 30 acre range. As a basis for comparison, the Savanna Oaks/Stoner Prairie site is 32.5 acres. Appendix A provides additional site selection criteria.

One short term (2008-2010) priority for assuring sufficient elementary school capacity is exploring the potential for expansion to Stoner Prairie through a detailed architectural, programmatic, and attendance area adjustment study. A second short-term priority would be to identify and acquire a school site within one of the neighborhood areas identified above. Regardless of the expansion potential of Stoner Prairie, a new elementary school site will need to be available before 2015. With these and other elementary school decisions, consideration of and action on school attendance area shifts will also be necessary.

Projected Middle School Needs and Options

As concluded from previous chapters, projected middle school enrollment:

- will exceed existing middle school facility capacity soon after 2011/12
- will be roughly 215 students over existing capacity by 2016/17
- will be between 320 and 390 students over existing capacity by 2020/21
- will be between 615 and 690 students over existing capacity by 2025/26

Expansion of existing middle schools may be considered to defer the need to build a new middle school to meet these expected needs. A detailed analysis of the expansion potential of the two current middle schools has not been completed. However, a general analysis of existing middle schools suggests that only Savanna Oaks Middle School may have some expansion potential. If it could be expanded, the need to build a new middle school could be deferred by perhaps two or three years from what this study otherwise projects.

If the District determines that expansion of the existing middle schools is not feasible or desirable, the District should plan for the construction of a new middle school in the 2016 to 2020 time period. It is possible that a fourth middle school may be required near or soon after the end of the projection period (2025/26), if expansions to existing middle schools are not made.

Locational ideas for a new middle school are based in large part on areas that are planned to experience higher amounts of residential development. The District should explore site acquisition for a new middle school in Neighborhood Area E, near the northwest corner of the District. This neighborhood area is

targeted for fairly intensive neighborhood development on public sewer and water services over the next five to 20 years. Neighborhood Area E would also allow for logical spacing of middle schools in light of current school locations and expected population growth. Neighborhood Areas JJ, J, or LL represents a second siting choice; however, perhaps these areas would best be considered for the ultimate fourth middle school.

The District should acquire an appropriate site for a new middle school well in advance of its need. This will allow for more reasonable acquisition prices, increase the range of sites available, and allow neighborhood planning and platting to be carried out with full regard to school siting. District collaboration with developers for middle school site acquisition at the time of subdivision platting may be more challenging than using this same approach for elementary schools. This is because middle school site sizes are generally larger than elementary school site sizes and because middle schools are viewed as slightly less desirable selling points for new neighborhoods.

Middle school sites should ideally be in the 20 to 25 acre range, although more urban two- or three-story schools may be accommodated on smaller sites. If a combined elementary/middle school campus site is preferred, the District should seek a combined site in the 30 acre range. If a combined middle/high school campus site is preferred, the District should seek a combined site in the 50 acre range. Appendix A provides additional site selection criteria.

One short term (2008-2010) priority for assuring sufficient middle school capacity is exploring the potential for expansions to Badger Ridge and/or Savanna Oaks middle schools through a detailed architectural, site evaluation, and programmatic study. This could be conducted in conjunction with the recommended study for Stoner Prairie Elementary School. If the District decides to pursue a combined elementary/middle school campus for the first new elementary and middle schools that will be needed, campus site identification and acquisition should occur in the short term too. With any middle school construction project, a middle school attendance area boundary adjustment study would also be necessary.

Projected High School Needs and Options

As concluded from previous chapters, projected high school enrollment:

- is expected to reach high school facility capacity by 2016/17
- will be between 625 and 720 students over existing capacity by 2020/21
- will be between 1,040 and 1,140 students over existing capacity by 2025/26

Therefore, the District should plan for a major high school construction or expansion project near the beginning of the 2016 to 2020 time period. There are two basic options for addressing high school capacity needs: expand the existing high school or build a second high school.

A detailed analysis of the expansion potential of the high school has not been completed. Given the layout of the school and modern school design standards, expansion may present programmatic challenges. Further, public sentiment does not appear to support a high school with over 2,000 students, which is not significantly above the current potential capacity of just over 1,600 students. Finally, a decision to expand the current high school would defer, but would not eliminate the need to build a second high school. For example, expansion of the current high school to accommodate 2,000 students may defer the need to build a new high school by perhaps five years.

The second option—that of building a second high school—does not have to mean building a second comprehensive high school that mirrors the programming of the current high school. Certainly, site selection and new building design should consider long-term potential expansion to a comprehensive high school. However, building the second high school as a much smaller facility initially, with a specialized focus, may be an attractive option for the District and the community it serves. The focus could be on technology, the arts, health care, international education, or other interest areas. It could be organized as a charter school. Core

curriculum and/or athletic facilities could continue to be offered at the current high school, if desired, to maintain connections.

Such a smaller focused high school presents numerous opportunities for collaboration in the region. One attractive idea could be a partnership with the Madison Area Technical College on a combined trade-oriented high school and technical college facility. MATC has been seeking to expand its presence on Madison's southwest side. Another (or overlapping) option would be to combine with other school districts in the area to accept students from multiple districts into such a "magnet" school. There are several models of curricula focused high schools throughout the country, many based on collaborations with technical colleges or among multiple school districts. The District should learn more about these models and continue to explore opportunities for partnerships with regional education providers.

Areas planned significant amounts of residential development, such as those identified above, should be considered as potential locations for a new high school. However, high school siting is less tied to neighborhood placement than elementary or middle school siting. Also, sites with good regional access are more important. Finally, cross-community issues and the needs of potential partners are also strong considerations. The District should explore a wide range of potential siting options, including the potential to expand the current Fitchburg school campus or identify a site near that campus.

If sited independently, the District should seek a site for a new high school in the 40 acre range, recognizing that not all that land may be required for the foreseeable future. If a combined middle/high school campus site is preferred, the District should seek a combined site in the 50 acre range. If other partnerships are developed, site size would need to consider their needs as well.

One short term (2008-2010) priority step would be to pursue opportunities for partnerships with other education providers in the region for a possible combined or collaborative "magnet" or otherwise focused high school facility.

Summary and Other Considerations

Figure 4.1 summarizes the facility options for addressing projected enrollment increases over the twenty-year planning period, generally in five year increments.

Figure 4.1: Summary of Long Range Facility Options

FACILITY TYPES	TIME PERIODS			
	2008 – 2010	2011 – 2015	2016 – 2020	2021 – 2026
Elementary	Explore potential for expansion to existing elementary schools* Identify and acquire new elementary school site(s)	Explore school attendance area shifts Construct first additional elementary school Identify and acquire next new elementary school site(s)	Explore school attendance area shifts Construct second additional elementary school	One additional elementary school may be needed at or soon after the end of this final time period
Middle	Explore potential for expansions to and attendance area shifts for current middle schools	If feasible and desirable, expand existing middle school(s)* Identify and acquire new middle school site (sooner if campus site identified)	Construct new middle school (may be deferred until next period if significant expansions made to existing school(s))	See note under 2016 – 2020 time period One additional middle school may be needed soon after the end of this final time period
High	Explore potential for expansion to existing school. Explore opportunities for partnerships with other education providers in region to help address high school capacity needs and educational interests	Decide on future high school(s) configuration and emphasis Identify and acquire high school site if new construction direction selected	Engage in major high school construction or expansion project, including potential for a specialized high school	

**Expansion may necessitate redrawing district boundaries*

The district confronts some "wildcard" considerations that may affect the suggested schedule included in the above table. These are summarized below for further consideration.

Potential Grade Shifts

To this point, this report has not considered the potential for shifting grades among the different schools as a way to address facility capacities. For example, shifting six grade students to elementary schools may relieve middle school capacity issues (but create more grade school capacity issues). As another example, shifting ninth graders to middle school may relieve high school capacity issues (but create more grade school capacity

issues). These are broader school policy issues that extend beyond the scope of this study. Also, in general, such grade shifts may temporarily address school capacity issues, or may shift them to another type of school, but do not solve inherent issues associated with a growing school district.

Potential Detachment of District Land

Possible inter-district boundary adjustments are another policy issue that may affect school enrollment projections within the District, and the need to respond to these projections through new or facilities. This report assumed that future boundaries of the Verona Area School District would not change beyond those changes already agreed to by the Verona and Madison districts.

Neighborhood Areas B and E, adjacent to the Madison Metropolitan School District and *possible* City of Madison growth areas, are expected to be home to significant amounts of new residential development over the next twenty years. These neighborhood areas are currently in the northwest corner of the Verona Area School District, north of Highway PD. If these two neighborhood areas were no longer in the Verona Area School District in the future, by the year 2025/26, there may be between 450 to 900 fewer elementary school students, 225 to 450 fewer middle school students, and 325 to 675 fewer high school students in the Verona Area School District. This may eliminate the need for one of the new elementary schools envisioned, and delay the need for new middle and high school projects. However, transfer of these lands away from the Verona Area School District would raise other financial, community, and property owner issues. Resolution of this policy matter is beyond the scope of this study.

Appendix A : School Site Selection Criteria

When the School District decides to purchase additional land for future school facilities, the following criteria will be useful in helping the District select an appropriate site. These criteria have been adapted from the book *Guide for Planning Educational Facilities*, by Deborah P. Moore, Editor, and from the book *To Create a School: A Design for Working Relationships, 4th ed.* (1995), written by Lloyd E. Frohreich, published by the Wisconsin Association for School Boards, Inc.

Site Selection Criteria

1. The site supports the intended educational programming.
2. The site's location is convenient for the majority of students, and is within an area that is anticipated to grow over the next 60-80 years.
3. The site is the right size and shape for the intended building and facilities.
4. The topography is conducive to the desired site development?
5. The general environment is aesthetically pleasing.
6. The site is safe for children and free from major traffic congestion.
7. The air quality is healthful
8. The site is free of industrial and traffic noise (both air and ground) and away from high voltage power lines.
9. The land drains properly and soil conditions are acceptable.
10. The site has trees and other natural vegetation.
11. There is healthful and properly treated water available.
12. There are not easements of any kind affecting the potential use of the site.
13. The site is suitably oriented for energy conservation.
14. The site is near other community facilities, such as libraries, parks, and museums.
15. The site's proximity to existing educational facilities is desirable.
16. The surrounding land is zoned appropriately and the site's development will enhance the value of the surrounding property.
17. Utility services are readily available, and if they are not, the cost of providing them will be reasonable for the school district.
18. The site is served by public protection services, particularly police and fire departments.
19. The site is easily accessible for service vehicles.
20. The land can be shared readily with the community and its organizations.
21. The site is reasonably central to the student population for transportation services.
22. The site is available, expandable, and reasonably priced.

General Site Size Criteria

The following criteria represent generally accepted standards for the size of school facility sites:

1. Elementary School Site: Minimum of 15 acres, plus an additional acre for each 100 students in the projected maximum enrollment. However, multi-story urban elementary schools may be located on smaller sites.

2. Middle School Site: Minimum of 25 acres, plus an additional acre for each 100 students in the projected maximum enrollment. However, the Verona Area School District has been comfortable with smaller sites, particularly when combined on a campus with an elementary or high school.

3. Comprehensive High School Site: Should be a minimum of 40 acres, plus an additional acre for each 100 students in the projected maximum enrollment. The District may be comfortable with 40 acres irregardless of school enrollment.

Rating Form for Potential School Site

Based upon the criteria listed above, the following form has been prepared for the purposes of rating and comparing potential future school sites[2].

Score Items as Follows:

5 = Superior 4 = Above Average 3 = Average 2 = Below Average 1 = Poor

Multiply the score times the weight and enter result in total column

Rating Criteria	Weight	Score	Total
Size			
1. Size (program support)	40		
2. Expandability (adaptability)	20		
3. Usable area	20		
Topography			
1. Elevation	10		
2. Drainage	10		
3. Soil	10		
4. Contour	10		
5. Shape	5		
6. Energy Factors	3		
7. Attractiveness	2		
Location			
1. Central Location	5		
2. Type of Neighborhood	5		
3. Zoning	5		
4. Accessibility	5		
5. Traffic Arteries	3		
6. Water Lines	3		
7. Sewer Lines	2		
8. Electricity Access	2		
9. Gas Lines	1		
10. Fire Protection	2		
11. Public Transportation	2		
12. Parks and Playgrounds	2		
13. Natural Hazards	1		
14. Noise	1		
15. Air Quality	1		
Cost			
1. Initial Cost	10		
2. Site Development	5		
3. Building Removal	5		
4. Installation of Utilities	5		
5. Street Development	5		
Grand Total			