

EASTERN CARVER COUNTY SCHOOL DISTRICT #112

ENROLLMENT PROJECTIONS

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EASTERN CARVER COUNTY SCHOOL DISTRICT ENROLLMENT PROJECTIONS

Executive Summary

- Projected enrollment
 - Total K-12 enrollment is flat over the next ten years
 - From 2011-12 to 2021-22, enrollment change ranges from -51 students to +147 students
 - This compares to a +1,257 student or 16.8 percent increase in the past ten years
 - Elementary enrollment decreases short term (next five years) as well as long term (next ten years)
 - Resident live births declined in the past several years
 - Middle school enrollment is flat in the short term but declines in the long term
 - High school enrollment increases both in the short term and the long term
 - By building:
 - Chanhassen Elementary School declines by 16 percent in five years
 - Clover Ridge and Bluff Creek show small enrollment increases
 - Pioneer Ridge Middle School declines by 18 percent in five years
- Modest increase in single-family detached housing units projected by 2015 (+755 units)
 - Increase is too small to stop enrollment decline
- New units and the sale of existing units do not increase student yield as much as in most other districts
- Eastern Carver County Public Schools capture a slightly lower percentage of students than most other districts
 - Net loss of about 800 students through public options (open enrollment and charter schools)
 - Larger than "average" percentage of students enroll in private schools

CHAPTER 1

DISTRICT WIDE ENROLLMENT PROJECTIONS

Introduction

The Eastern Carver County School District includes all or parts of four cities and three townships in Carver County. The four cities are: Carver, Chanhassen, Chaska and Victoria. The three townships are: Dahlgren, Laketown and San Francisco. As of October 2011, the district had 18,269 dwelling units of which 11,876 or 65 percent were single-family detached housing units. These single-family detached units produce 85 percent of resident students. As the following table shows, 45 percent of all housing units are in Chaska while another 33 are percent in Chanhassen. Although the current housing market has been sluggish, residential development continues in the Eastern Carver County School District.

SINGLE-FAMILY HOUSING UNITS October 2011				
Municipality	Total Dwelling Units	Single-Family Detached	Single-Family Attached*	Apartment Complexes**
Carver	1,178	1,028	132	18
Chanhassen	6,028	3,580	1,987	461
Chaska	8,239	4,725	1,789	1,725
Dahlgren Twp	280	280	0	0
Laketown Twp	187	187	0	0
San Francisco Twp	138	138	0	0
Victoria	2,219	1,938	183	98
Total	18,269	11,876	4,091	2,302

*Townhomes, Duplex, Triplex, 4-Plex

**Complexes with more than 4 units

Source: Carver County Geographic Information System and MCD Building Inspection Departments

School age population is closely related to other population characteristics. For example, age can affect the number of births in a school district. A larger number of women of prime childbearing age results in more births and larger kindergarten classes five years later. Moving from one locale to another is also related to age; and the movement of families with children under 18 years of age can have a major effect on school enrollment. Population "turnover" is ongoing in a mobile society and enrollment changes throughout the school year as families and children move. In this study, enrollment projections are for the fall headcount, that is, headcount on or about October 1.

While population changes affect the total number of school age children residing in a school district, Minnesota students and their families have education choices. Therefore, when analyzing public school enrollment, choice must be considered as well as population dynamics. Choice includes nonpublic schools, home schools, and the public choices of open enrollment, charter schools and alternative schools. Two others choices exist: a) dropping out of high school, and b) attending a kindergarten alternative.

Enrollment Trends

Enrollment in the Eastern Carver County Public Schools

Current Enrollment/Past Trends

Total enrollment in the Eastern Carver County Public Schools is 1,257 students or 16.8 percent higher in 2011-12 than in 2002-03. Growth was robust during this ten-year period.

K-12 TOTAL ENROLLMENT									
2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
7,719	7,931	8,091	8,397	8,585	8,662	8,630	8,838	8,908	8,976

Source: Eastern Carver County School District, Fall Enrollment. Excludes Early Childhood and the ALC

Like all population changes, school enrollment change results from two different phenomena. The difference between the size of the incoming kindergarten class and the previous year's Grade 12, called natural increase or decrease, measures the change in past birth numbers or cohort change. For example, the Baby Boom (1946-1964) and the Baby Bust (1965-1976) set in motion cycles of rising and

COMPONENTS OF ENROLLMENT CHANGE				
Fall to Fall	Total		Natural Increase/Decrease	Net Migration
	#	%		
2002 to 2003	212	2.7	101	111
2003 to 2004	160	2.0	110	50
2004 to 2005	306	3.8	138	168
2005 to 2006	188	2.2	66	122
2006 to 2007	77	0.9	2	75
2007 to 2008	-32	0.4	-35	3
2008 to 2009	208	2.4	81	127
2009 to 2010	70	0.8	23	47
2010 to 2011	68	0.8	-22	90

falling enrollment that are reflected as natural increase/decrease. As the table above shows, in the past ten years, Eastern Carver County's kindergarten classes were larger than the previous year's resident

Grade 12 every year except for two years. This trend usually results in enrollment growth and it accounted for nearly 40 percent of the enrollment increase in the Eastern Carver County Public Schools.

The other phenomenon affecting school enrollment is migration, an indirectly derived estimate. Migration is the term used when people move across a boundary or border, in this case, the school district boundary. Net migration is calculated by the progression from grade-to-grade of public school students. For example, public school Kindergarten students are moved to Grade 1 in the following year, Grade 1 students to Grade 2, etc. Because the probability of death is very low among children, the same number of children should be in the next higher grade the following year. Therefore, if the number of students changes, migration is assumed to have occurred. A positive number indicates a net flow into the public schools and a negative number reflects a net flow out of the public schools.

Net in migration accounted for more than sixty percent of the enrollment growth in the Eastern Carver County Public Schools. Net migration was positive every year although the numbers are smaller in the later part of the decade.

Student Choices in the Eastern Carver County School District

Minnesota students and their families have education choices. Nonpublic schools have been an option for many years. More recently, home schools became another option. Since its inception, public school options are attracting more students. Open enrollment allows residents of one district to attend public schools in another district. Charter schools are another public option. All these choices mean competition for a district’s public schools.

Nonpublic Enrollment and Home Schools

Today, nonpublic enrollment falls into two categories—traditional nonpublic schools and home schools. Most traditional nonpublic schools are associated with religious institutions and many home school curriculums also have religious ties.

NONPUBLIC SETTINGS			
Year	Traditional Nonpublic Schools	Home Schools	Total
2002-03	1,486	170	1,656
2003-04	1,550	167	1,717
2004-05	1,579	185	1,764
2005-06	1,562	220	1,782
2006-07	1,608	203	1,811
2007-08	1,643	219	1,862
2008-09	1,715	260	1,975
2009-10	1,619	263	1,882
2010-11	1,547	266	1,813
2011-12	n.a.	n.a.	n.a.

Source: Eastern Carver County School District

In Minnesota, 8.4 percent of all enrolled students were enrolled in traditional nonpublic schools and 1.7 percent of enrolled students were home schooled in 2009-10. In the Eastern Carver County School District, 14.3 percent of enrolled students were in traditional nonpublic schools and 2.3 percent were home schooled in 2009-10.

The proportion of students in nonpublic settings is higher than the statewide percentages. Combining home school students and nonpublic students, 16.6 percent of Eastern Carver County district residents were in nonpublic settings. In Minnesota, 10.1 percent were enrolled in nonpublic settings. In the past ten years, traditional nonpublic enrollment decreased statewide while home schooled children increased. In the Eastern Carver County School District, traditional nonpublic enrollment peaked at 1,715 students in 2008-09 and has been declining since then. The number of home schooled students is small but has increased steadily.

Public Options

Open Enrollment. Open enrollment allows Minnesota students to attend public schools outside their district of residence. The application to open enroll is made by the student and his/her parents and families generally provide their own school transportation. No tuition is charged.

Some students attend public schools outside their home district because their home district enters into an agreement with another district, usually to provide specialized services. This is called a tuition agreement, but this arrangement is not technically a student choice.

Since its beginning, open enrollment has attracted more and more students statewide and in the Eastern Carver County School District. In 2009-10, 250 nonresident students open enrolled into the Eastern Carver County Public Schools while 644 district residents attended public schools elsewhere through open enrollment.

PUBLIC OPTIONS					
Year	In	Out			Net
	Open Enrollment & Tuition	Open Enrollment & Tuition	Charter Schools	Other Options (included in Open)	
2002-03	141	390	51	---	-300
2003-04	107	306	126	---	-325
2004-05	132	330	123	---	-321
2005-06	135	432	146	---	-443
2006-07	202	536	158	---	-492
2007-08	182	564	160	---	-542
2008-09	209	536	181	---	-508
2009-10	250	644	209	---	-603
2010-11	260	730	256	---	-726
2011-12	242	767	289	---	-814

Open enrollment out includes online learning and special education out of district
 Source: Eastern Carver County School District

Nonresident students who open enroll into the Eastern Carver County Public Schools accounted for 2.8 percent of Eastern Carver County's total enrollment in 2009-10. Students leaving the district to attend public schools elsewhere represented 5.7 percent of district school age residents. In 2009-10, 5.7 percent of Minnesota students chose open enrollment.

Charter Schools. Charter schools are another public education option. While 3.9 percent of Minnesota students attend charter schools, only 1.8 percent of Eastern Carver County School District residents attend charter schools.

In 2009-10, public options resulted in a gain of 250 nonresident students and a loss of 853 resident students. In 2011-12, the Eastern Carver County Public Schools gained 242 nonresident students and lost 1,056 resident students.

Summary of District School Age Residents

Based on 2002-03 and 2010-11, the estimated school age population residing in the district increased from 9,675 to 11,447, an increase of 1,772 students or 18.3 percent. During this same period, resident enrollment in the Eastern Carver County Public Schools increased by 1,070 students or 14.1 percent. These percentages indicate that the Eastern Carver County Public Schools' market share decreased. Market share can be expressed as a capture rate. Based on the estimated 2010-11 enrolled population of 11,447, the Eastern Carver County Public Schools captured 75.5 percent of the district's school age population. In 2002-03, the capture rate was 78.3 percent. Eastern Carver County's current market share is slightly lower than that of many other suburban Twin Cities school districts.

EASTERN CARVER COUNTY SCHOOL DISTRICT ESTIMATED RESIDENT SCHOOL AGE POPULATION				
Year	Eastern Carver County Public Schools Resident Enrollment	Nonpublic Schools	Public Options	Total
2002-03	7,578	1,656	441	9,675
2003-04	7,824	1,717	432	9,973
2004-05	7,959	1,764	453	10,176
2005-06	8,262	1,782	578	10,622
2006-07	8,383	1,811	694	10,868
2007-08	8,480	1,862	724	11,066
2008-09	8,421	1,975	717	11,113
2009-10	8,588	1,882	853	11,323
2010-11	8,648	1,813	986	11,447
2011-12	8,734	n.a.	1,056	

History of Resident Enrollment by Grade

The history of public school enrollment contains several patterns with implications for the future. First, the kindergarten class size increased from 2002-03 through 2006-07, when kindergarten was at an all time high. Since 2006-07, however, kindergarten is characterized by large annual fluctuations with no discernable upward trend. The 2011-12 kindergarten was the same size as the kindergarten class in 2007-08 (605 students). Further, the 2011-12 kindergarten was of comparable size to those of 2002-03 and 2003-04. The recession probably effected kindergarten growth. How long kindergarten will remain at current levels is unclear but birth data suggest that kindergarten is not likely to increase until the latter half of this decade.

ENROLLMENT										
Grade	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
K	608	612	639	664	681	605	597	672	645	605
1	648	648	641	691	710	716	643	651	700	653
2	622	648	659	672	702	709	709	653	649	716
3	593	634	660	673	669	701	707	723	671	635
4	633	596	638	689	688	676	705	704	736	677
5	613	638	598	651	689	693	659	705	698	737
6	587	643	633	601	650	702	692	678	726	707
7	612	591	622	641	609	665	696	722	692	743
8	581	624	594	631	648	615	658	715	719	698
9	599	621	654	609	668	663	646	689	718	792
10	552	601	605	647	612	666	663	645	694	720
11	560	546	622	613	656	619	664	659	633	683
12	511	529	526	615	603	632	591	622	627	610
Total	7,719	7,931	8,091	8,397	8,585	8,662	8,630	8,838	8,908	8,976

Source: Eastern Carver County School District. Excludes Early Childhood and ALC

The number of students per grade is smaller in the elementary grades, which means the current grade distribution of students does not have any "built in" growth momentum. The largest number of students per grade are in Grades 5 through 10. Another way of expressing the difference by grade is to look at the average number of students per grade. For example, the average elementary grade has 670 students. The average middle school grade has 716 students, while the average for the high school grades is 701 students. The middle school and high school grades reflect some net inflow from nonpublic schools; however, there is no doubt that kindergarten through Grade 4 are smaller than the next higher grades.

Minnesota's largest graduating Grade 12 since 1978 graduated in 2009. State wide, graduating classes will be getting smaller as the high school population gets smaller. Based on elementary enrollment and current migration patterns, enrollment in Eastern Carver County's high school will increase during the next ten years.

Enrollment Projections

Projection Background

Some factors affecting future school enrollment are known. However, other important factors are less clear at this time. First, the trends around which there is confidence.

Trends Where Confidence is High

- Aging. The population in the U.S. and Minnesota is aging. By 2020, 16-17 percent of Minnesota’s population will be 65 years old or older. In 2010, the elderly made up 12.9 percent of the population. There is no historical precedent for this high proportion of older population; therefore, society is entering uncharted waters as to the effects of this change. However, we know that aging will affect the housing market and reduce geographic mobility because older people move less frequently than younger people.
- Decrease in the school age population per household. From 2000 to 2010, the number of school age children per household decreased sharply as Baby Boomer households empty nested and started to “age in place.” After 2010, households with children will be headed primarily by Generation X parents who are members of a much smaller generation. Gen X (1965-1976) is only 60 percent the size of the Baby Boom (1946-1964) generation, which means the percentage of households with 5-17-year-olds will continue to decrease but more slowly. After 2015, most parents will belong to Gen Y (1977-1995), the children of the Boomers who are also a large generation, and the student yield per household will increase slightly.
- Shift in size of key adult age groups. The size of the Baby Boom generation and the Baby Bust generation, reflected in the next table, will result in significant changes in the size of adult age groups, which in turn will affect the demand for new housing units. The modest increase in the 20-34 year-old population between 2010 and 2020 is especially significant for the demand for “first” homes (includes apartments) and the decrease in 35-54 year-olds will affect the “move up” market. Growth in the 55+ year-old markets will create demand for housing for mature adults and seniors; however, these units will not yield school age children.

AGE TWIN CITIES METRO AREA POPULATION (11-COUNTIES)					
Age	2000	2010	2020	Change 2000-2010	Change 2010-2020
20-34 yrs	629,898	693,040	725,670	63,142	32,630
35-54 yrs	902,531	981,060	952,870	78,529	-28,190
55-64 yrs	217,880	359,720	460,080	141,840	100,360
65+ yrs	275,183	338,110	499,110	62,927	161,000
Sum	2,025,492	2,371,930	2,637,730	346,438	265,800

Source: Minnesota Demographic Center, 2007

These population changes by age point to a future very different from the recent past. Demand for additional housing will slow because the adult population age 20+ will increase more slowly and the 35-54 year-old age group that helped fuel the housing boom will decrease from 2010-2020. Furthermore, 60 percent of the increase in adults 20 years of age and older will be persons 65+ years of age. There may be more sellers than buyers in the housing market.

- **Fertility.** Today, completed fertility is near the replacement level. Completed fertility refers to the number of children born per woman throughout her childbearing years. In the U.S., White non Hispanic and Black women have near or below replacement fertility. (Replacement is 2.11 children per female at the end of childbearing.) Fertility rates are likely to remain at or near replacement levels. Hispanic women and immigrant women have higher fertility.
- **Births.** Births fell after 1990 in the U.S. and in Minnesota; however, since 2003, births have been increasing. An uptick in births was expected in the late 1990s and early in this decade because births were higher in 1968. (Today, the median age for women giving birth is about 30 years of age.) In 2007, births were higher than at any time since 1964; however, 2007 births were well below the peak Minnesota birth year of 1959 (88,000 resident births). Births fell in the U.S. and Minnesota in 2008, 2009 and 2010. These declines are attributed to the poor economy.

As the history of resident births shows, from 1996 to 2009, resident births in Minnesota increased 10.9 percent while resident births in Carver County increased 9.0 percent.

RESIDENT LIVE BIRTHS		
Year	Minnesota	Carver County
1996	63,681	1,048
1997	64,491	1,029
1998	65,207	1,052
1999	65,953	1,086
2000	67,451	1,140
2001	66,617	1,183
2002	68,037	1,165
2003	70,053	1,182
2004	70,617	1,253
2005	70,950	1,237
2006	73,515	1,338
2007	73,675	1,269
2008	72,382	1,194
2009	70,617	1,142
2010	n.a.	n.a.

Source: Minnesota Department of Health

- **Enrollment cycles.** Births will increase again and a third enrollment cycle will occur in the first half of this century. Already, kindergarten classes are increasing in many districts, a sign of the

beginning of this third enrollment cycle. The end of the third enrollment cycle is projected to be around 2040. (From start to finish, these cycles last about 30 years.)

Unknowns

The unknowns reflect recent changes such as the collapse of the housing market and tighter credit. Another unknown is the longer-term effect of the recession on domestic migration and international immigration, especially in a jobless recovery. Furthermore, will attitude and behavior changes prompted by the recession last?

- Collapse of the housing market and tighter credit. A high level of mobility was possible with a robust housing market with rapid appreciation and easy credit. This has now changed with the collapse of the housing market and tighter credit. The change in the housing market has slowed growth in the Eastern Carver County School District.
- The recession. Although the recession is officially over, the stagnant job market slowed population movement between and within states. Minnesota felt the effect of this change as fewer young and middle-aged adults moved to Minnesota slowing population growth in the Twin Cities metro area. The recession also increased public school enrollment as some families decided that nonpublic schools were beyond their current financial resources.

Cohort Survival Method

The most common and most robust model for projecting school enrollment is the cohort survival method. The first step in the cohort survival method is aging the population. In a standard cohort survival model, aging the population involves estimating the number of deaths expected in an age group before it reaches the next older age group. When the cohort survival method is applied to school enrollment, the first step is to move a grade to the next higher grade. However, because mortality is so low in the school age population, the entire grade is assumed to “survive” to the next higher grade in the following year.

Once a grade or cohort has been “aged” to the next grade, net migration is added to or subtracted from that grade. Using survival rates accomplishes both “aging” and migration in a single step. Over time, the size of a cohort will increase or decrease as a result of migration as its progresses through the grades. For example, the 2002-03 kindergarten class had 608 members. This same cohort had 792 members in Grade 9 in 2011-12, a substantial increase.

The projection of future kindergarten class size is important in long-term enrollment projections because these students will be in school over the life of the projection. If a school census exists, it is a resource for short-term kindergarten projections, i.e., a couple of years. However, school censuses are notoriously inaccurate for children less than four years of age.

To project kindergarten, the best theoretical approach, but the least practical, is to project births based on the age of the female population. These birth projections then must be survived to age five and then adjusted for migration to yield kindergarten projections. Determining the age of females in a school district is the first challenge and then, many assumptions must be made, making this approach impractical.

A simpler approach is to use resident births as a proxy for kindergarten five years later. Of course, not every child born in the district will enter the district's kindergarten classes five to six years later. However, some "native born" children who move out before enrolling in kindergarten will be replaced by children born elsewhere who move into the district before entering kindergarten. If the number of "ins" and "outs" are equal, the net effect is zero and the kindergarten class would be 100 percent of resident births.

Using earlier births as a proxy for kindergarten results in kindergarten projections for only a few years into the future. To extend kindergarten projections another five years, Eastern Carver County's kindergarten will be projected based on the Minnesota Demographic Center's projection of Carver County resident births.

Kindergarten Assumptions

Although births five years earlier are a good proxy for a kindergarten class, kindergarten students must be 5 years-old by September 1. This age requirement means that about one-third of the kindergarten class is born six years earlier not five years earlier. For example, one-third of the 2011-12 kindergarten class was born in 2005 and two-thirds were born in 2006. Adjusting birth years to fit the age requirements of kindergarten creates a kindergarten pool.

Upon special request, the Minnesota Department of Health will provide resident births by address so the births can be geocoded to a school district's boundaries. Some "out-of-wedlock" births may be withheld because unmarried parents may choose whether to make birth information by address

DISTRICT RESIDENT LIVE BIRTHS SEPTEMBER 1 TO AUGUST 31	
1996-1997	579
1997-1998	593
1998-1999	576
1999-2000	621
2000-2001	664
2001-2002	615
2002-2003	647
2003-2004	658
2004-2005	677
2005-2006	724
2006-2007	715
2007-2008	635
2008-2009	605
2009-2010	605
2010-2011	607

Source: Minnesota Department of Health

public. As long as this segment's behavior does not change, a history of a district's resident births should be reliable. All resident births are reported in city and county data.

From 1996-1997 to 2010-2011, the resident births pools for District #112 increased nearly 5 percent; however, births peaked in 2005-2006. In 2008-09, 2009-10 and 2010-11, the resident births pools were at their lowest since 1998-99. This means kindergarten classes will be smaller in the future.

The next table shows resident births by minor civil division. These data hint at future enrollment at the district's various elementary schools. Births are increasing in Carver, Chaska and Victoria. However, in Chanhassen, births fell by 31 percent since 1996-97.

RESIDENT BIRTHS BY MINOR CIVIL DIVISION							
SEPTEMBER 1 TO AUGUST 31							
Year	Carver	Chanhassen	Chaska	Dahlgren Twp	Laketown Twp	San Francisco Twp	Victoria
1996-1997	13	222	287	4	2	5	46
1997-1998	15	232	267	10	8	5	56
1998-1999	16	217	267	7	4	4	61
1999-2000	21	231	291	10	3	4	61
2000-2001	40	267	265	10	8	2	72
2001-2002	41	212	281	14	3	5	59
2002-2003	57	231	267	7	4	2	79
2003-2004	57	200	290	8	4	3	96
2004-2005	59	166	364	6	3	4	75
2005-2006	80	178	352	4	5	2	103
2006-2007	72	164	369	10	5	2	93
2007-2008	67	146	333	9	3	3	74
2008-2009	57	158	321	5	2	0	62
2009-2010	69	134	339	9	2	2	50
2010-2011	67	153	313	5	1	2	66

Source: Minnesota Department of Health

A kindergarten pool was constructed based on district resident births. Applying a ratio of Eastern Carver County's kindergarten to the kindergarten pool takes advantage of actual births in the past several years. With district birth data available through September 2011, the kindergarten classes can be projected from actual births through 2016-17.

Eastern Carver County's kindergarten as a percentage of the district pool shows that kindergarten classes were larger than the pool earlier but are currently smaller than the pool. This points to a change in the migration of preschool age children. Furthermore, the annual percentages fluctuated widely (83.6 percent to 110.9 percent). The period from 2002-03 to 2006-07 was marked by percentages greater than 100 percent while the subsequent years, except for one, have percentages less than 100 percent. Again, the collapse of the housing market and the recession may have affected the relationship of kindergarten to the kindergarten pool.

Based on the district pool, averaging the capture rates of the past five years yields a capture rate of 94.3 percent. The average of the past five years with the two outliers (102.1 percent and 83.6 percent) removed is 95.3 percent. The average capture rate over the past six years is 96.7 percent.

Two kindergarten projections are desirable. Based on recent history, the five year average and the six year average look to be the most reasonable. It is difficult to imagine that capture rates will consistently exceed 100 in the next five years just as it is difficult to imagine that capture rates will be as low as 84 percent every year over the next five years. The five year average (94.3 percent) will be called the low assumption and the six year average (95.7 percent) will be called the high assumption.

EASTERN CARVER COUNTY'S KINDERGARTEN AS A PERCENTAGE OF THE DISTRICT KINDERGARTEN POOL			
Birth Years	Eastern Carver County District Pool	Percentage	Kindergarten Year
1996; 1997	579	105.0	2002-03
1997; 1998	593	103.2	2003-04
1998; 1999	576	110.9	2004-05
1999; 2000	621	106.9	2005-06
2000; 2001	664	102.6	2006-07
2001; 2002	615	98.4	2007-08
2002; 2003	647	92.3	2008-09
2003; 2004	658	102.1	2009-10
2004; 2005	677	95.3	2010-11
2005; 2006	724	83.6	2011-12
2006; 2007	715		2012-13
2007; 2008	635		2013-14
2008; 2009	605		2014-15
2009; 2010	605		2015-16
2010; 2011	607		2016-17

To extend the kindergarten projections beyond 2015-16, Eastern Carver County's kindergarten will be based on the Minnesota Demographic Center's projections of Carver County resident births. However, the birth projections for Carver County are higher than actual births. To compensate for this over projection, the Demographic Center's projections will be adjusted downward by 25-27 percent to reflect the growing variance between actual births and projected births.

To create an Eastern Carver County kindergarten pool, district births must be projected. In the past 13 years, the district's share of Carver County resident births averages 54.5 percent. (The percentage was never higher than 56.8 percent and never lower than 52.1 percent.) Future district resident births were projected to be 55 percent of the county's resident births.

RESIDENT BIRTHS CARVER COUNTY				
Year	Births			
	Original Projection	Actual	Difference	Adjusted Projection
2005	1,309	1,237	94.5%	
2006	1,355	1,338	98.7%	
2007	1,401	1,269	90.6%	
2008	1,447	1,194	82.5%	
2009	1,493	1,142	76.5%	
2010	1,539			1,154
2011	1,564			1,168
2012	1,590			1,181
2013	1,615			1,195
2014	1,641			1,209
2015	1,667			1,223
2016	1,681			1,227

Adjusted projection is 75 percent lower than original projection in 2010 and 73 percent lower by 2016

Source: Minnesota Demographic Center

PROJECTED DISTRICT KINDERGARTEN POOL	
2017-18	647
2018-19	655
2019-20	662
2020-21	670
2021-22	674

Starting in 2016-17, kindergarten projections will equal 95.7 or 94.3 percent of the district's projected pool. These are the same percentages applied to the kindergarten pool based on actual births.

KINDERGARTEN ASSUMPTIONS		
Year	@95.7%	@94.3%
2012-13	684	674
2013-14	608	599
2014-15	579	571
2015-16	579	571
2016-17	581	572
2017-18	619	610
2018-19	627	618
2019-20	634	624
2020-21	641	632
2021-22	645	636

These kindergarten projections result in smaller kindergarten classes for several years. The kindergarten pool increases in the later projection years and so do the kindergarten projections. The housing market should recover by 2016 making this increase reasonable. Furthermore, the large Gen Y population will be in its prime childbearing years. The question is whether growth will produce larger kindergarten classes than those projected for 2020.

Net Migration Assumptions

The method for estimating migration does not distinguish between physical movement across the district’s boundaries and education choices, such as transferring from a nonpublic school to a public school, transferring to a charter school or open enrolling in another public school. Further, students who move into or out of a school district but never enroll in the district’s public schools are not reflected in the migration numbers in this report.

In the past ten years, annual net migration fluctuated from year to year but was positive every year. On average, net migration was higher earlier in the past ten-year period than it has been in the past four years, another indication of the effect of the recent recession. The next table shows net migration aggregated by the elementary grades (Kindergarten-Grade 5), the middle school grades and the high school grades. Kindergarten to Grade 5 net in migration accounted for a majority of the resident net in migration in most years; however, the past year saw more net in migration in the high school grades and relatively low net in migration at the elementary grades.

NET MIGRATION									
SCHOOL YEAR TO SCHOOL YEAR									
	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07	07 to 08	08 to 09	09 to 10	10 to 11
K-5	60	58	139	69	45	16	75	51	17
6-8	46	-23	20	14	34	-14	68	32	32
9-12	5	15	9	39	-4	1	-16	-36	41
Total	111	50	168	122	75	3	127	47	90

In the Eastern Carver County Public Schools, net in migration occurs every year between Kindergarten and Grade 1; however, this past year this net in migration was the smallest of any year of the past ten years. Net in migration between Kindergarten and Grade 1 is typical in Minnesota's public schools, especially when kindergarten is half-day. The progression from grade to grade in the remaining elementary grades fluctuates but is usually small, especially in recent years. This suggests that residential development brings preschool children rather than elementary students. Eastern Carver County also has relatively large and consistent net in migration from Grade 8 to Grade 9, when nonpublic students transfer into the public schools. The next largest net in migration is from Grade 6 to Grade 7, especially in the past three years. This is another time when nonpublic students tend to enter the public schools. After Grade 10, the high school grades show losses. This too is typical.

NET MIGRATION BY GRADE SCHOOL YEAR TO SCHOOL YEAR									
	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07	07 to 08	08 to 09	09 to 10	10 to 11
K to 1	40	29	52	46	35	38	54	28	8
1 to 2	0	11	31	11	-1	-7	10	-2	16
2 to 3	12	12	14	-3	-1	-2	14	18	-14
3 to 4	3	4	29	15	7	4	-3	13	6
4 to 5	5	2	13	0	5	-17	0	-6	1
5 to 6	30	-5	3	-1	13	-1	19	21	9
6 to 7	4	-21	8	8	15	-6	30	14	17
7 to 8	12	3	9	7	6	-7	19	-3	6
8 to 9	40	30	15	37	15	31	31	3	73
9 to 10	2	-16	-7	3	-2	0	-1	5	2
10 to 11	-6	21	8	9	7	-2	-4	-12	-11
11 to 12	-31	-20	-7	-10	-24	-28	-42	-32	-23
Total	111	50	168	122	75	3	127	47	90
Percent	1.4	0.6	2.1	1.5	0.9	--	1.5	0.5	1.0

Migration is converted to survival rates for projection purposes. These rates show the percentage change from grade to grade each year. For example, 1.00 indicates no change or 100 percent of the grade progressed to the next highest grade. Any number over 1.00 reflects the percentage increase while a number below 1.00 reflects the percentage decrease. For example, 0.98 indicates a 2 percent decrease.

SURVIVAL RATES SCHOOL YEAR TO SCHOOL YEAR									
	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07	07 to 08	08 to 09	09 to 10	10 to 11
K to 1	1.066	1.047	1.081	1.069	1.051	1.063	1.090	1.042	1.012
1 to 2	1.000	1.017	1.048	1.016	0.999	0.990	1.016	0.997	1.023
2 to 3	1.019	1.019	1.021	0.996	0.999	0.997	1.020	1.028	0.978
3 to 4	1.005	1.006	1.044	1.022	1.010	1.006	0.996	1.018	1.009
4 to 5	1.008	1.003	1.020	1.000	1.007	0.975	1.000	0.991	1.001
5 to 6	1.049	0.992	1.005	0.998	1.019	0.999	1.029	1.030	1.013
6 to 7	1.007	0.967	1.013	1.013	1.023	0.991	1.043	1.021	1.023
7 to 8	1.020	1.005	1.014	1.011	1.010	0.989	1.027	0.996	1.009
8 to 9	1.069	1.048	1.025	1.059	1.023	1.050	1.047	1.004	1.102
9 to 10	1.003	0.974	0.989	1.005	0.997	1.000	0.998	1.007	1.003
10 to 11	0.989	1.035	1.013	1.014	1.011	0.997	0.994	0.981	0.984
11 to 12	0.945	0.963	0.989	0.984	0.963	0.955	0.937	0.951	0.964

One of the advantages of the cohort survival method is that it produces projections for every grade. However, this requires migration assumptions for every grade. To mirror possibilities, two migration assumptions were considered. The desired outcome was a low end and a high end of recent

experience. The average of survival rates for the past three years (2008-2011) is slightly lower than the average for the first five years (2002-2007).

The first five years had significantly higher net in migration from Kindergarten to Grade 1, Grade 4 to Grade 5 and from Grade 10 to Grade 11 and Grade 11 to Grade 12. These later two net in migration rates make a difference in high school enrollment but the effects are short lived. The higher net in migration between Kindergarten and Grade 1 has a long-term effect on enrollment. Note that the past three years saw a significantly higher net in migration between Grade 5 and Grade 6 and Grade 6 and Grade 7.

COMPARISON OF SURVIVAL RATES			
AVERAGED			
Grade	Past 3 years	First 5 years	Difference (% pt.)
K to 1	1.051	1.063	1.2
1 to 2	1.012	1.016	0.4
2 to 3	1.009	1.011	0.2
3 to 4	1.008	1.017	0.9
4 to 5	0.997	1.008	1.1
5 to 6	1.024	1.013	-1.1
6 to 7	1.029	1.005	-2.4
7 to 8	1.011	1.012	0.1
8 to 9	1.051	1.045	-0.6
9 to 10	1.003	0.994	-0.9
10 to 11	0.986	1.012	2.6
11 to 12	0.951	0.969	1.8

PROJECTED SURVIVAL RATES		
Grade	Low	High
K to 1	1.051	1.063
1 to 2	1.012	1.016
2 to 3	1.009	1.011
3 to 4	1.008	1.017
4 to 5	0.997	1.008
5 to 6	1.024	1.013
6 to 7	1.029	1.005
7 to 8	1.011	1.012
8 to 9	1.051	1.045
9 to 10	1.003	0.994
10 to 11	0.986	1.012
11 to 12	0.951	0.969

Because net migration will be projected based on survival rates by grade, the percentage change will be the same each year while the actual number of students added or subtracted by grade may change from year to year.

Projection Results

The kindergarten and net migration assumptions are trend lines, which remove annual fluctuations. However, the future, like the past, will be characterized by annual fluctuation, sometimes large. Because there is no reasonable way to forecast when fluctuations around trend lines will occur, it is arbitrary to project them. Furthermore, long-term projections are designed to approximate a future point in time not to yield the best projection for each intervening year between the present and the projection end date. For this reason, long-term projections should not be used for annual budgeting purposes. The district should continue to use its version of the cohort survival methodology for annual enrollment projections.

Four cohort projections are shown in the next table. In ten years, there is only a 198 student difference between the lowest projection and the highest projection. While, the assumptions are different, they are not substantially different. For example, the migration assumptions result in a difference of 100 students over ten years. Similarly, the kindergarten assumptions result in about a 98 or 99 student difference over the ten years. With the modest projection of additional single-family detached housing units, these modest kindergarten and migration assumptions appear reasonable.

The lowest projection is based on the low kindergarten and low migration assumptions. In this projection, enrollment decreased by -51 students by 2021-22. In the intervening years, enrollment increases to 9,171 students in 2013-14 and then slowly declines, a result of the kindergarten projections.

The highest projection, based on the high kindergarten and high migration assumptions, shows an enrollment increase of 147 students or 1.6 percent between 2011-12 and 2021-22. The intervening years show the same pattern as the lowest projection, that is, enrollment peaks at 9,221 in 2013-14 and then declines as the result of the low number of births in 2008, 2009 and 2010.

In between the highest and lowest projections are two other virtually identical projections. Because the difference between the two kindergarten assumptions (98-99 students) is identical to the difference between the two migration assumptions (99-100 students), these assumptions cancel each other in these projections.

ENROLLMENT PROJECTIONS				
Year	Low K Low Mig	Low K High Mig	High K Low Mig	High K High Mig
2011-12	8,976	8,976	8,976	8,976
2012-13	9,129	9,149	9,139	9,159
2013-14	9,171	9,201	9,190	9,221
2014-15	9,150	9,172	9,178	9,201
2015-16	9,062	9,080	9,099	9,117
2016-17	9,025	9,043	9,072	9,090
2017-18	8,969	8,990	9,025	9,047
2018-19	8,943	8,982	9,009	9,050
2019-20	8,875	8,938	8,953	9,017
2020-21	8,879	8,962	8,967	9,051
2021-22	8,925	9,024	9,023	9,123

Looking at the projections based on the elementary, middle school and high school grades is instructive. Resident K-5 enrollment is lower than it is today for the first five projection years. In 2021-22, only the highest projection shows a larger K-5 than today; however, the difference is only 10 students. Without rapid residential development or higher birth numbers, K-5 will be smaller in the future.

ENROLLMENT PROJECTIONS				
	K-5	6-8	9-12	Total
2011-12	4,023	2,148	2,805	8,976
2016-17				
Low K/Low Mig	3,804	2,131	3,090	9,025
Low K/High Mig	3,875	2,123	3,045	9,043
High K/Low Mig	3,850	2,131	3,090	9,072
High K/High Mig	3,922	2,123	3,045	9,090
2021-22				
Low K/Low Mig	3,904	1,968	3,053	8,925
Low K/High Mig	3,974	1,989	3,060	9,024
High K/Low Mig	3,962	1,996	3,065	9,023
High K/High Mig	4,033	2,017	3,072	9,123

In the first five projection years, middle school enrollment is flat, that is, only 17-25 students lower than today. In 2016-17, grades resulting from the kindergarten assumptions have not yet reached the middle school so we see the effects of the migration assumptions only. Therefore, the projections are virtually the same. By 2021-22, the kindergarten assumptions effect the middle school population, which results in a middle school enrollment that is lower than it is today.

High school enrollment is higher than today throughout the projection period. However, these projections show high school enrollment peaking in 2016-17 in the low migration assumption projections and then decreasing slightly, but essentially flat. In the high migration assumption projections, high school enrollment rises and then falls slightly but is higher in 2021-22 than it was in 2016-17. However, the difference is small. High school enrollment could be called flat between 2016-17 and 2021-22.

In 2021-22, the 2011-12 kindergarten class will be in Grade 10, which means that all the grades below Grade 10 are products of the projection assumptions. Detailed grade by year projections are at the end of this report.

Housing Unit Method

The housing unit method is another way of projecting population and school enrollment. While the number of dwelling units is related to the number of school age children, dwelling units alone do not determine the number of school age children. The number of school age children per unit is another critical variable.

The chief reason to use the housing unit method is to understand the effect of additional housing units. It could be said that housing stock is like DNA. It determines the size and characteristics of the resident school age population. In the past ten years, geographic information system (GIS) technology became more widely available. This has allowed for the overlay of students and housing. Housing type, age and value are determined from the tax assessment records for all residential property in a school district.

Year built and value emerge as important housing characteristics. Year built reflects how families lived in a particular era and is a proxy for square feet and characteristics such as number of bedrooms, number of bathrooms and number of garage spaces. The presence of a master suite, walk-in closets, etc. can also be inferred from year built. Value also implies some of these same characteristics plus lot size, location and interior amenities such as kitchen and bathroom appointments and finishes.

The relationship between housing unit characteristics and student numbers and characteristics have been established by work in three states. Findings based on school districts in three states include the following:

- Dwelling unit type affects the school age child per unit ratio. Detached single-family units have the highest school age child per unit ratio. Attached single-family units, such as townhouses, have significantly fewer children per unit than single-family detached units while apartment units have even fewer school age children per unit, although there are some local exceptions. For enrollment projection purposes, the change in single-family detached housing units is what affects the number of school age children in a district.

Eighty-five (85) percent of resident students in the Eastern Carver County Public Schools come from the district's single-family detached units. Yet, only about 65 percent of the district's dwelling units are single-family detached units.

- Newer single-family units yield more students per unit than older units.

K-12 STUDENT YIELD IN SINGLE-FAMILY DETACHED UNITS BY ERA BUILT			
Era Built	Single-Family Detached Units	K-12 Students in Single-Family Detached Units	K-12 Students per Unit
2000 and later	3,218	2,674	0.83
1980-1999	5,783	3,395	0.59
Pre 1980	2,875	982	0.34
Total	11,876	7,051	0.59

- As units sell (turnover) the student yield increases, especially in units that are more than 10-15 years old. Because so many district units are relatively new, the effect of turnover is small in the Eastern Carver County School District. Note that nearly 60 percent of students in the new housing units are in K-5. New units are needed to keep elementary enrollment increasing.

STUDENT YIELD FROM SINGLE-FAMILY DETACHED UNITS			
Grades	Existing Units		New Units
	Non Movers	Movers (New Residents)	
K-5	.25	.27	.31
6-8	.14	.09	.12
9-12	.20	.10	.10
K-12	.59	.46	.53

- The market value of single-family detached units affects the school age child per unit ratio with more moderately priced units having more school age children. In higher value units, children are usually older in most districts.
- Different racial/ethnic groups and/or major language groups have different housing patterns by unit type.
- As the population ages, more dwelling units are being built for mature adults (55+ years) and for seniors. These units will have zero school age children per unit.

Versions of the Housing Unit Method

The Housing Unit Method has two versions. One version is based on adding the projected number of dwelling units to the existing stock and then applying a child per dwelling unit estimate to the total dwelling unit count. The other version of the method or the housing starts method is based on estimating the school age children per new unit and adding these students to student population from existing units. Both versions of the Housing Unit Method face some of the same challenges. Historically, the weakness of both versions was the difficulty in quantifying the effect of housing turnover and the demographic change that occurs when existing housing units are sold. With yield data from the Housing and Enrollment study, some of these problems are overcome. A unit's status, i.e., new; existing but recently sold; and existing not sold recently, becomes an important element in the housing unit method projections. The student yields for each status type are different and student yields also differ by geographic area within the district. Even with these major improvements, the method does not yield projections by grade.

Projections

Dwelling Unit Growth

As of October 2011, the Eastern Carver County School District is estimated to have 18,269 dwelling units (housing units) including apartments. Some of these units may be vacant, but for the purposes of this report, all dwelling units will be treated as occupied.

DWELLING UNITS (October 2011)	
Major Type*	Number
Single-family detached	11,876
Single-family attached*	4,091
Apartment complexes**	2,302
Total	18,269

*Townhomes, Duplex, Triplex, 4-Plex

**Complexes with more than 4 units

Source: Carver County Geographic Information System and MCD Building Inspection Departments

Based on projections from the cities and townships, 755 single-family detached units will be built in the district in the next several years. These units should yield 400 K-12 students; however, this increase will not occur in a single year.

PROJECTED SINGLE-FAMILY DETACHED DEVELOPMENT					
	2012-13	2013-14	2014-15	2015-16	Total
Bluff Creek	84	86	91	91	352
Chanhassen	3	3	3	3	12
Chaska	5	5	5	5	20
Clover Ridge	45	10	25	35	115
East Union	0	0	10	10	20
Jonathan	36	36	36	36	144
Victoria	24	22	21	25	92
Victoria (South)	0	0	0	0	0
District	197	162	191	205	755

In addition to the single-family detached units, 412 single-family attached units are anticipated. However, these units will yield only 54 K-12 students (yield of 0.13 per unit).

PROJECTED SINGLE-FAMILY ATTACHED DEVELOPMENT					
	2012-13	2013-14	2014-15	2015-16	Total
Bluff Creek	50	14	20	44	128
Chanhassen	16	5	4	12	37
Chaska	15	15	15	15	60
Clover Ridge	0	0	25	15	40
East Union	0	0	5	10	15
Jonathan	0	0	0	0	0
Victoria	16	18	19	0	53
Victoria (South)	15	15	15	15	60
District	112	67	103	111	412

The five-year projection of additional single-family detached units averages 151 new homes per year. This is comparable to the past couple of years but significantly below the annual increases earlier. These data also suggest that enrollment will grow very slowly or even decline in the next ten years.

COUNTS OF NEW SINGLE-FAMILY DETACHED HOMES			
Year Built	Number	Year Built	Number
1995	380	2003	420
1996	398	2004	397
1997	370	2005	346
1998	430	2006	224
1999	407	2007	179
2000	395	2008	75
2001	415	2009	154
2002	475	2010	139

Source: Carver County Geographic Information System

Projections based on the housing unit method are in Chapter 2, which focuses on resident K-5 projections by attendance area.

CHAPTER 2

ENROLLMENT PROJECTIONS BY ELEMENTARY SCHOOLS AND ELEMENTARY ATTENDANCE AREAS

Projecting K-5 enrollment by school or attendance area is fraught with potential errors because the enrollment at any one school or in any one attendance area is small, which magnifies annual fluctuations. For this reason along with the short time that existing students are part of the K-5 student body, projections will be made for five years rather than ten years. This chapter focuses on the seven Eastern Carver County elementary schools and the district's seven elementary geographic attendance areas. Projecting K-5 enrollment by elementary schools is made more complex by the presence of the Kindergarten Center. For this reason, elementary enrollment projections by school will be for Grade 1 through Grade 5.

Past Trends

The following three tables show a five year history of Grade 1-5 enrollment, Grade 1 enrollment by school, and Kindergarten enrollment by school. Since 2007-08, Grade 1-5 enrollment decreased by -77 students or -2.2 percent. The largest decline in enrollment occurred in the Chaska Elementary School (-143). Bluff Creek (-53) and Chanhassen (-33) also had declines. Clover Ridge Elementary School experienced the largest increase (+70). East Union (+49), Victoria (+36) and Jonathan (+3) also posted increases.

ENROLLMENT GRADES 1-5					
School	2007-08	2008-09	2009-10	2010-11	2011-12
Bluff Creek	533	496	477	476	480
Chanhassen	488	476	502	478	455
Chaska	587	560	505	469	444
Clover Ridge	634	672	672	686	704
East Union	150	175	191	188	199
Jonathan	508	472	499	520	511
Victoria	595	606	590	637	625
Total	3,495	3,423	3,436	3,454	3,418

Grade 1 tells the story. From 2007-08 to 2011-12, Grade 1 decreased by -63 students. However, Grade 1 numbers fluctuated year to year. Four elementary schools showed declines. Victoria declined by -36 students, while Chaska declined by -27 students, Chanhassen by -17 students and Bluff Creek by -12 students. East Union showed the largest increase (+20). Clover Ridge increased by +7 while Jonathan increased by +2 students.

GRADE 1					
School	2007-08	2008-09	2009-10	2010-11	2011-12
Bluff Creek	102	84	85	94	90
Chanhassen	94	89	77	86	77
Chaska	108	92	88	84	81
Clover Ridge	145	127	151	141	152
East Union	26	42	42	45	46
Jonathan	98	93	92	114	100
Victoria	143	116	116	136	107
Total	716	643	651	700	653

District wide, the 2011-12 kindergarten was the same size as the 2007-08 kindergarten. Between these years, kindergarten fluctuated. During this same period, enrollment at the Kindergarten Center decreased by -139 students as more kindergarten students attended schools in their attendance areas. For projection purposes, kindergarten enrollment at each school will be held at approximately its 2011-12 level.

KINDERGARTEN					
School	2007-08	2008-09	2009-10	2010-11	2011-12
Kindergarten Center	524	357	434	435	385
Bluff Creek	0	40	59	57	44
Chanhassen	40	40	40	40	39
Chaska	0	0	38	20	34
Clover Ridge	0	0	0	0	0
East Union	0	0	0	0	0
Jonathan	41	100	41	40	42
Victoria	0	60	60	53	61
Total	605	597	672	645	605

Grades 1-5 net migration has been positive since 2009-10 but the net in migration is small. The larger net losses at some schools suggest boundary changes.

NET MIGRATION GRADES 1-5				
School	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
Bluff Creek	-7	-9	9	23
Chanhassen	-2	46	-8	8
Chaska	-10	-18	1	6
Clover Ridge	4	-6	2	-18
East Union	5	14	-13	-3
Jonathan	-11	22	7	-13
Victoria	-1	-28	25	6
Total	-22	21	23	9

K-5 Projections

Individual Elementary Schools

Individual school projections will be made using the cohort survival method. The advantage of this method is that it begins by aging the student population. Therefore, any differences in grade sizes are reflected in the projections when these classes leave elementary school. Further, this method is sensitive to the number of births in the immediate past. However, it is very difficult to calibrate migration rates to reflect new housing units in the cohort survival method, which is a disadvantage. Therefore, the method is weak in anticipating enrollment growth as the result of additional housing units.

Kindergarten

Kindergarten projections will be based on district wide projections, using both the low and the high kindergarten projections. Kindergarten students will be allocated to the individual schools based on each school's 2011-12 kindergarten population. The remainder of the kindergarten students will be at the Kindergarten Center. Over the projection period, the availability of classroom space may result in a different allocation of kindergarten by building.

KINDERGARTEN PROJECTIONS		
Year	Low	High
2012-13	674	684
2013-14	599	608
2014-15	571	579
2015-16	571	579
2016-17	572	581

KINDERGARTEN PROJECTIONS BY SCHOOL										
School	Low					High				
	2012-13	2013-14	2014-15	2015-16	2016-17	2012-13	2013-14	2014-15	2015-16	2016-17
Kindergarten Center	456	381	353	353	354	466	390	361	361	363
Bluff Creek	44	44	44	44	44	44	44	44	44	44
Chanhassen	40	40	40	40	40	40	40	40	40	40
Chaska	34	34	34	34	34	34	34	34	34	34
Clover Ridge	0	0	0	0	0	0	0	0	0	0
East Union	0	0	0	0	0	0	0	0	0	0
Jonathan	40	40	40	40	40	40	40	40	40	40
Victoria	60	60	60	60	60	60	60	60	60	60
Total	674	599	571	571	572	684	608	579	579	581

Grade 1

Projections by elementary school will start with Grade 1. District wide Grade 1 projections will be allocated to each school according to each school's share of Grade 1. The history of Grade 1 shares is

shown in the next table as is the three year average. The shares used in the individual school projections are adjusted two year averages. The adjustments reflect births and projected increases in single-family detached housing units.

PERCENT OF GRADE 1 AT EACH SCHOOL							
School	2007-08	2008-09	2009-10	2010-11	2011-12	Past 3 yr. avg.	Projection
Bluff Creek	14.2	13.1	13.1	13.4	13.8	13.4	13.4
Chanhassen	13.1	13.8	11.8	12.3	11.8	12.0	11.8
Chaska	15.1	14.3	13.5	12.0	12.4	12.6	12.4
Clover Ridge	20.3	19.8	23.2	20.2	23.3	22.3	23.3
East Union	3.6	6.5	6.5	6.4	7.0	6.6	6.4
Jonathan	13.7	14.5	14.1	16.3	15.3	15.2	15.2
Victoria	20.0	18.0	17.8	19.4	16.4	17.9	17.5

GRADE 1 PROJECTIONS						
Low/High						
School	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Bluff Creek	90	85/86	95/97	84/86	80/82	80/82
Chanhassen	77	75/76	83/86	74/76	71/71	71/71
Chaska	81	79/80	88/90	78/80	74/76	74/76
Clover Ridge	152	148/150	165/169	148/152	140/143	140/143
East Union	46	41/41	45/47	40/41	39/40	39/40
Jonathan	100	97/98	108/111	96/98	91/93	91/93
Victoria	107	111/112	124/127	110/113	105/108	105/108
District wide	653	636/643	708/727	630/646	600/615	600/615

RESIDENT BIRTHS BY ATTENDANCE AREAS								
(September 1 to August 31)								
School Year	Bluff Creek	Chanhassen	Chaska	Clover Ridge	East Union	Jonathan	Victoria	Total
2004-05	87	102	101	129	38	121	99	677
2005-06	90	110	105	138	41	119	121	724
2006-07	90	96	97	160	38	115	119	715
2007-08	70	92	89	151	37	107	89	635
2008-09	90	91	87	132	20	105	80	605
2009-10	66	81	92	150	31	108	77	605
2010-11	88	87	88	123	24	116	81	607

Migration

Each school's survival rates for the past two years were averaged. Averaging the survival rates removes some of the year to year fluctuations, although the average may not be the actual rate in any future year. Note the number of survival rates below 1.000. This means there is movement out of the district's public schools.

PROJECTED LOW SURVIVAL RATES					
School	K to 1	1 to 2	2 to 3	3 to 4	4 to 5
Bluff Creek	---	1.057	1.061	1.068	0.995
Chanhassen	---	1.016	0.993	1.005	0.992
Chaska	---	1.037	1.005	0.974	1.027
Clover Ridge	---	1.000	0.956	1.003	0.985
East Union	---	0.965	0.966	0.958	0.980
Jonathan	---	0.985	1.021	1.018	0.986
Victoria	---	1.029	1.035	1.048	1.020
District wide	1.051	1.012	1.009	1.008	0.997

PROJECTED HIGH SURVIVAL RATES					
School	K to 1	1 to 2	2 to 3	3 to 4	4 to 5
Bluff Creek	---	1.062	1.061	1.073	1.000
Chanhassen	---	1.021	0.993	1.010	0.997
Chaska	---	1.042	1.005	0.979	1.032
Clover Ridge	---	1.005	0.956	1.008	0.990
East Union	---	0.970	0.966	0.963	0.985
Jonathan	---	0.990	1.021	1.023	0.991
Victoria	---	1.037	1.035	1.053	1.025
District wide	1.063	1.016	1.011	1.017	1.008

Projection Results

Resident enrollment projections by school will extend only five years into the future. The 2011-12 kindergarten will be in Grade 5 in 2016-17. Therefore, enrollment in the last projection year (2016-17) is largely derived from the assumptions. A summary of the cohort survival projections by school is shown in the next table and annual projections are in a following table. (Background data are in the Appendix.)

In the low projection, the sum of the individual school projections is only 13 students higher than the lowest district wide projection (low kindergarten and low migration projection). The sum of the high projections is identical to the highest district wide projection (high kindergarten and high migration projection). The individual school projections are a good fit with the district wide projections. In the lowest projection, elementary enrollment decreases by -219 students or -5.4 percent in five years.

Only Clover Ridge shows an enrollment increase. All the other schools show declines with the largest decline in Chanhassen (-15.6 percent). In the highest projection, elementary enrollment decreases by -101 students or -2.5 percent. Again, Clover Ridge shows a small enrollment increase as does Bluff Creek. The other schools show enrollment decreases.

COHORT SURVIVAL METHOD PROJECTIONS BY SCHOOL							
School	2011-12	2016-17		Change			
		Low	High	Low		High	
				Number	%	Number	%
Kindergarten Center	385	354	363	-31	-8.1%	-22	-5.7%
Bluff Creek	524	518	531	-6	-2.7%	7	1.3%
Chanhassen	494	417	430	-77	-15.6%	-64	-13.0%
Chaska	478	438	450	-40	-8.4%	-28	-5.9%
Clover Ridge	704	719	740	15	2.1%	36	5.1%
East Union	199	190	196	-9	-4.5%	-3	-1.5%
Jonathan	553	526	539	-27	-4.9%	-14	-2.5%
Victoria	686	655	673	-31	-4.5%	-13	-1.9%
Sum	4,023	3,817	3,922	-206	-5.1%	-101	-2.5%
District wide	4,023	3,804	3,922	-219	-5.4%	-101	-2.5%

The cohort survival method is especially sensitive to different grade sizes. Many of the enrollment declines by school are the result of large grades leaving elementary school before 2016-17. For example, Bluff Creek's 2011-12 Grade 2 and Grade 4 are larger than the other grades. In Chanhassen, Grades 4 and 5 are much larger. Chaska and Jonathan have large Grade 5s, while Victoria has a large Grade 2 and Grade 5. (See Appendix) As these large grades leave and are not replaced, enrollment declines.

COHORT SURVIVAL METHOD PROJECTIONS BY SCHOOL BY YEAR						
LOW						
School	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Kindergarten Center	385	456	381	353	353	354
Bluff Creek	524	531	542	552	528	518
Chanhassen	494	462	443	442	423	417
Chaska	478	461	461	460	445	438
Clover Ridge	704	699	733	731	731	719
East Union	199	207	205	204	196	190
Jonathan	553	532	543	549	534	526
Victoria	686	667	689	688	656	655
Sum	4,023	4,015	3,997	3,979	3,866	3,817
District wide	4,023	4,008	3,984	3,965	3,856	3,804

COHORT SURVIVAL METHOD PROJECTIONS BY SCHOOL BY YEAR						
HIGH						
School	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Kindergarten Center	385	466	390	361	361	363
Bluff Creek	524	533	548	561	539	531
Chanhassen	494	464	449	451	434	430
Chaska	478	463	467	468	455	450
Clover Ridge	704	704	742	745	749	740
East Union	199	208	208	209	202	196
Jonathan	553	534	549	558	546	539
Victoria	686	670	696	699	671	673
Sum	4,023	4,042	4,049	4,052	3,957	3,922
District wide	4,023	4,043	4,046	4,049	3,957	3,922

Attendance Area Projections

Attendance area projections will be made using the housing starts method. These projections show the potential of each attendance area to produce resident K-5 students. The housing starts method shows the effect of new housing units and the sale of existing units. The method's weakness is that it doesn't reflect changes in grade size or in births because the yields per unit remain the same throughout the projection period.

Method

The Housing Occupancy and Enrollment Study for the Eastern Carver County School District provides resident K-5 yields for existing units and new units. Yield data for existing units is broken out for recently sold units and units that did not turnover. The housing starts method will be calculated as follows:

New Single-Family Detached Units X K-5 yield = Projected students (A)

Existing Single-Family Detached Units X Percent Sold Annually = Units with movers (new residents) and units with non movers (no change)

--Existing Single-Family Detached Units (not sold) X K-5 yield = Projected students (B)

--Existing Single-Family Detached Units (sold) X K-5 yield = Projected students (C)

Add Projected Students from A, B and C = Projected students from Single-Family Detached Units

Add Projected Students from Single-Family Detached Units to Projected Students from Non Single-Family Detached Units = K-5 Resident Students by Attendance Area

Projections show only a modest number of new single-family detached homes through 2015-16 (755 units). Nearly one-half of these units are in the Bluff Creek attendance area while the Jonathan attendance area accounts for nearly 20 percent of the additional units. Every attendance area has some new units but the numbers are extremely small for Chanhassen, Chaska and East Union. (Victoria is shown as two parts because the areas are separated from each other; however, the resident K-5 enrollment projection will be reported as a single projection.)

PROJECTED NEW SINGLE-FAMILY DETACHED UNITS					
Attendance Area	2012-13	2013-14	2014-15	2015-16	Total
Bluff Creek	84	86	91	91	352
Chanhassen	3	3	3	3	12
Chaska	5	5	5	5	20
Clover Ridge	45	10	25	35	115
East Union	0	0	10	10	20
Jonathan	36	36	36	36	144
Victoria	24	22	21	25	92
Victoria (South)	0	0	0	0	0
District	197	162	191	205	755

The next two tables show estimated annual single-family detached unit sales and the K-5 Eastern Carver County Public School yields by attendance area. The sales data are based on sales in 2010 because in the two previous years, sales were very low.

The rate of sales each year differs by attendance area. Bluff Creek, Victoria and Clover Ridge have very high rates of sales. Turnover is much lower in East Union and Chanhassen.

PERCENT OF EXISTING SINGLE-FAMILY DETACHED UNITS WITH TURNOVER ANNUALLY (2010)	
Attendance Area	%
Bluff Creek	7%
Chanhassen	3%
Chaska	4%
Clover Ridge	6%
East Union	2%
Jonathan	5%
Victoria	7%
Victoria (South)	4%

Only Bluff Creek, Chaska and Jonathan consistently benefit from turnover and new units. In each of these attendance areas, resident K-5 yield is lowest in existing units with no turnover. Sales of existing units result in higher yields and new units produce the highest yields. New units have a lower yield in Chanhassen and Clover Ridge, which means that new units have a minimal affect on enrollment.

Clover Ridge is especially interesting. Existing units with turnover produce the highest resident K-5 yield. Unlike some districts, new units and turnover do not automatically result in higher yields in the Eastern Carver County School District.

K-5 RESIDENT STUDENT YIELD FROM SINGLE-FAMILY UNITS						
Attendance Area	Existing Units				New Units (2008-2011)	
	Non Movers		Movers (New Residents)			
	#	Yield	#	Yield	#	Yield
Bluff Creek	1,286	.23	157	.28	133	.30
Chanhassen	2,082	.17	153	.17	13	.15
Chaska	1,425	.22	116	.24	45	.35
Clover Ridge	1,656	.37	178	.25	100	.26
East Union	677	.30	48	.21	0	.00
Jonathan	1,540	.23	143	.29	81	.34
Victoria	1,513	.32	176	.41	63	.39
Victoria (South)	257	.17	31	.13	3	.00

Students also reside in non single-family detached units. The resident K-5 yield is very different in single-family attached units (townhomes, etc.) compared to single-family detached units. The next table dramatically illustrates this difference in the Eastern Carver County School District. Townhomes yield very few K-5 students.

RESIDENT STUDENT YIELD BY DWELLING UNIT TYPE			
Dwelling Type	Number	K-5 Yield	K-12 Yield
Single-Family Detached	11,876	0.26	0.59
Townhomes, et. al.	4,091	0.06	0.13
Apartments	2,302	0.13	0.24

Most students from other types of units are in apartments. Rather than trying to project resident students from non-single family detached units, the 2011-12 student numbers will be used throughout the projection period. This assumption has some weaknesses, but overall is less problematic than trying to project students in these units.

STUDENTS FROM OTHER DWELLING UNIT TYPES* 2011-12	
Attendance Area	K-5 Resident Students
Bluff Creek	125
Chanhassen	94
Chaska	174
Clover Ridge	91
East Union	0
Jonathan	170
Victoria	19
Victoria (South)	55
District wide	728

*Townhomes, Condos, Duplexes and Apartments

The housing unit method projections show the K-5 resident potential of current and projected new units. With this method, the district total is the sum of the attendance area projections. In 2011-12, there were 3,077 resident K-5 students residing in single-family detached units while another 728 resident K-5 students lived in other unit types. Based on a total K-5 enrollment of 4,023, 3,805 were residents and 218 K-5 students were nonresidents.

Projections from the housing starts method show an increase of +241 or +6.3 percent in resident K-5 students from 2011-12 to 2015-16.

HOUSING UNIT METHOD PROJECTIONS RESIDENT K-5 EASTERN CARVER COUNTY PUBLIC SCHOOL STUDENTS BY ATTENDANCE AREA 2015-16			
Attendance Area	Resident K-5 Students		
	Single-Family Units	All Other Units	Total
Bluff Creek	487	125	612
Chanhassen	384	94	478
Chaska	361	174	535
Clover Ridge	697	91	788
East Union	217	0	217
Jonathan	474	170	644
Victoria	702	74	776
District wide	3,322	728	4,050

School and Attendance Area Projections

The attendance area projections and the cohort projections by school are different. Because the cohort projections include nonresident students, the district wide projections should be higher than the attendance area projections. However, the attendance area projections, which do not include nonresident students, are higher than the highest cohort projection by nearly 100 students. Further, the cohort survival method projections show enrollment decreasing every year while the attendance area projections show enrollment increasing every year. How can this difference in direction be explained? Upon reflection, the different results make sense. The cohort projections reflect the larger grades that will leave elementary school during the projection period as well as the recent decline in births. The housing unit method does not capture either of these phenomena, hence, the attendance area projections are higher. Yet, the large cohorts leaving elementary school and fewer births produce enrollment decline and these events are real.

K-5 ENROLLMENT PROJECTIONS			
Year	School (Sum)		Attendance Area*
	Low	High	
2011-12	4,023	4,023	3,805
2012-13	4,015	4,062	3,837
2013-14	3,997	4,049	3,901
2014-15	3,979	4,052	3,964
2015-16	3,866	3,957	4,050

*Resident only

In addition to the district wide differences, individual school projections will differ from their respective attendance area projections because most kindergarten students are not in elementary buildings. Therefore, the school projections should be lower than the attendance area projections.

K-5 ENROLLMENT PROJECTIONS 2015-16			
	School		Attendance Area*
	Low	High	
Kindergarten Center	353	361	---
Bluff Creek	528	539	612
Chanhassen	423	434	478
Chaska	445	455	535
Clover Ridge	731	749	788
East Union	196	202	217
Jonathan	534	546	644
Victoria	656	671	776
District wide	3,866	3,957	4,050

*Resident only

At the individual school level, the two sets of projections are most similar for East Union, Clover Ridge and Chanhassen. Ironically, East Union and Clover Ridge do not have kindergarten students in their buildings. The largest differences between the two sets of projections are for Victoria and Jonathan.

These projections point to the complexity of the interaction among the many factors that affect future enrollment. Based on what we know about the decline in births in the district, the difference in the size of grades, and the growing number of students selecting other public options, the lower numbers reflected in the cohort projections are probably more likely to be realized than the housing starts projections that produce the higher attendance area projections. For the housing start projections to be realized, the Eastern Carver County Public Schools would have to capture a larger share of the kindergarten pool in the next five years.

CHAPTER 3

ENROLLMENT PROJECTIONS BY MIDDLE SCHOOLS AND HIGH SCHOOLS

Middle Schools

The Eastern Carver County School District operates three middle schools. The newest middle school, Pioneer Ridge, opened in 2009-10. This new school required redrawing attendance areas, which in turn resulted in abbreviated trend lines. Projecting middle school enrollment by school is relatively straightforward because students are assigned to a middle school based on the elementary school they attend.

The following elementary schools "feed" each of the following middle schools:

Chaska Middle School East

- Jonathan Elementary School
- Victoria Elementary School

Chaska Middle School West

- Bluff Creek Elementary School
- Clover Ridge Elementary School
- East Union Elementary School

Pioneer Ridge Middle School

- Chanhassen Elementary School
- Chaska Elementary School

Past Trends

Middle school enrollment increased by 166 students or 8.4 percent since 2007-08. Since the opening of Pioneer Ridge, it's enrollment has been relatively flat while the enrollment at Chaska East has declined slightly. Chaska West has seen enrollment growth.

ENROLLMENT MIDDLE SCHOOL					
School	2007-08	2008-09	2009-10	2010-11	2011-12
Chaska East	982	989	703	684	689
Chaska West	1,000	1,063	704	736	759
Pioneer Ridge	0	0	708	717	700
Total	1,982	2,052	2,115	2,137	2,148

Middle School Projections

Individual middle school projections will be made using the cohort survival method. Grade 5 from the respective feeder schools will flow into each middle school and survival rates will be applied for each middle school grade progression.

Grade 5

Grade 5 from the respective feeder schools will be treated as the starting point for the middle school projections. As the following table shows, the number of Grade 5 students flowing to each middle school varies. While the numbers fluctuate from year to year, the number of Grade 5 students entering Chaska East and Pioneer Ridge decreases during the projection period. Only Chaska West shows an increase in students entering middle school. The smaller number of students entering middle school means that enrollment will decline in some middle schools.

GRADE 5 BY SCHOOL										
School	Low					High				
	2011-12	2013-13	2013-14	2014-15	2015-16	2011-12	2013-13	2013-14	2014-15	2015-16
Chaska East	262	217	217	260	223	262	218	219	262	226
Chaska West	267	266	268	293	291	267	268	271	296	296
Pioneer Ridge	208	192	159	182	161	208	194	161	184	165
Sum	737	675	644	735	675	737	680	651	742	687
District wide	737	675	638	726	670	737	682	651	742	688

Migration

To estimate migration, the survival rates of the past two years will be averaged, although some adjustments will be made. The history of survival rates is limited because Pioneer Ridge is so new. Also, its opening means the earlier survival rates for Chaska East and Chaska West have no relevance.

PROJECTED SURVIVAL RATES			
School	5 to 6	6 to 7	7 to 8
Chaska East	1.049	1.060	0.995
Chaska West	0.955	0.999	1.010
Pioneer Ridge	1.084	0.984	1.006
District wide low	1.024	1.029	1.011
District wide high	1.013	1.005	1.012

Projection Results

District wide, middle school enrollment is essentially flat between 2011-12 and 2016-17. The sum of the individual school projections are a good fit with the district wide projections, which increases confidence in the school projections. As the decline in Grade 5 predicted, Pioneer Ridge declines by about -125 students or about -18 percent over the projection period. Chaska West has modest growth while Chaska East increases by about 10 percent.

COHORT SURVIVAL METHOD PROJECTIONS BY SCHOOL							
School	2011-12	2016-17		Change			
		Low	High	Low		High	
				Number	%	Number	%
Chaska East	689	754	760	65	9.4%	71	10.3%
Chaska West	759	792	799	33	4.3%	40	5.3%
Pioneer Ridge	700	573	579	-127	-18.1	-121	-17.3%
Sum	2,148	2,119	2,138	-29	-1.4%	-10	-0.5%
District wide	2,148	2,131	2,123	-17	-0.8%	-25	-1.2%

High Schools

The Eastern Carver County School District operates two high schools. Like Pioneer Ridge Middle School, the Chanhassen High School opened in 2009-10. This, too, resulted in redrawing attendance area boundaries. However, no one middle school is exclusively in one high school attendance area, although, most of Chaska West is in the Chanhassen High School attendance area. However, the Chanhassen High School attendance area also includes parts of Pioneer Ridge and Chaska East. This makes projecting individual high school enrollments with any degree of accuracy almost impossible.

Past Trends

Since 2007-08, high school enrollment increased dramatically going from 1,917 students to 2,805 students, an increase of 888 or 46.3 percent.

ENROLLMENT HIGH SCHOOL					
School	2007-08	2008-09	2009-10	2010-11	2011-12
Chanhassen	0	0	1,058	1,463	1,586
Chaska	1,917	1,912	1,557	1,209	1,219
Total	1,917	1,912	2,615	2,672	2,805

High School Projections

High school enrollment is projected to increase. In the short term, the relative ratio of enrollment between the two high schools will probably remain unchanged, that is, Chanhassen High School will continue to enroll more than 55 percent of the district's high school students. After 2015-16, this ratio will probably change due to changes in middle school enrollment. Of course, this is not a problem per se, because attendance boundaries can be changed.

As the district wide projections show, with the low migration assumption, high school enrollment is likely to peak in 2016-17 but with the high migration assumption it does not peak until the final projection year of 2021-22. Of course, it could continue to increase beyond the projection period.

DISTRICT WIDE HIGH SCHOOL PROJECTIONS				
Year	Low K/ Low Mig	Low K/ High Mig	High K/ Low Mig	High K/ High Mig
2011-12	2,805	2,805	2,805	2,805
2012-13	2,887	2,907	2,887	2,907
2013-14	2,984	3,014	2,984	3,014
2014-15	3,035	3,038	3,035	3,038
2015-16	3,071	3,042	3,071	3,042
2016-17	3,090	3,045	3,090	3,045
2017-18	3,016	2,962	3,016	2,962
2018-19	3,053	3,008	3,053	3,008
2019-20	2,983	2,956	2,983	2,956
2020-21	2,959	2,952	2,959	2,952
2021-22	3,053	3,060	3,065	3,072

APPENDIX

EASTERN CARVER COUNTY KINDERGARTEN

ENROLLMENT HISTORY					
Grade	2007-08	2008-09	2009-10	2010-11	2011-12
K	605	597	672	645	605
1	716	643	651	700	653

NET MIGRATION				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
K to 1	38	54	28	8

SURVIVAL RATES				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
K to 1	1.063	1.090	1.042	1.012

**EASTERN CARVER COUNTY
BLUFF CREEK ELEMENTARY SCHOOL**

ENROLLMENT HISTORY					
Grade	2007-08	2008-09	2009-10	2010-11	2011-12
K	0	40	59	57	44
1	102	84	85	94	90
2	102	102	82	83	107
3	114	101	102	89	86
4	108	114	104	101	102
5	107	102	104	109	95
Total	533	543	536	533	524

NET MIGRATION (GRADES 1-5)				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
K to 1				
1 to 2	0	-2	-2	13
2 to 3	-1	0	7	3
3 to 4	0	3	-1	13
4 to 5	-6	-10	5	-6
Total	-7	-9	9	23

SURVIVAL RATES				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
K to 1				
1 to 2	1.000	0.976	0.976	1.138
2 to 3	0.990	1.000	1.085	1.036
3 to 4	1.000	1.030	0.990	1.146
4 to 5	0.944	0.912	1.048	0.941

**EASTERN CARVER COUNTY
CHANHASSEN ELEMENTARY SCHOOL**

ENROLLMENT HISTORY					
Grade	2007-08	2008-09	2009-10	2010-11	2011-12
K	40	40	40	40	39
1	94	89	77	86	77
2	104	92	106	75	91
3	92	103	105	103	76
4	100	95	112	106	103
5	98	98	102	108	108
Total	528	517	542	518	494

NET MIGRATION GRADES 1-5				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
K to 1				
1 to 2	-2	17	-2	5
2 to 3	-1	13	-3	1
3 to 4	3	9	1	0
4 to 5	-2	7	-4	2
Total	-2	46	-8	8

SURVIVAL RATES				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
K to 1				
1 to 2	0.979	1.191	0.974	1.058
2 to 3	0.990	1.141	0.972	1.013
3 to 4	1.033	1.087	1.010	1.000
4 to 5	0.980	1.074	0.964	1.019

**EASTERN CARVER COUNTY
CHASKA ELEMENTARY SCHOOL**

ENROLLMENT HISTORY					
Grade	2007-08	2008-09	2009-10	2010-11	2011-12
K	0	0	38	20	34
1	108	92	88	84	81
2	122	107	88	86	92
3	118	121	96	92	83
4	119	115	112	95	88
5	120	114	121	112	100
Total	587	549	543	489	478

NET MIGRATION GRADES 1-5				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
K to 1				
1 to 2	-1	-4	-2	8
2 to 3	-1	-11	4	-3
3 to 4	-3	-9	-1	-4
4 to 5	-5	6	0	5
Total	-10	-18	1	6

SURVIVAL RATES				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-2011 to 2011-12
K to 1				
1 to 2	0.991	0.957	0.977	1.095
2 to 3	0.992	0.897	1.045	0.965
3 to 4	0.975	0.926	0.990	0.957
4 to 5	0.958	1.052	1.000	1.053

**EASTERN CARVER COUNTY
CLOVER RIDGE ELEMENTARY SCHOOL**

ENROLLMENT HISTORY					
Grade	2008-09	2009-10	2010-11	2011-12	2011-12
K	0	0	0	0	0
1	145	127	151	141	152
2	123	142	131	154	138
3	126	128	143	128	144
4	127	130	118	147	125
5	113	125	129	116	145
Total	634	652	672	686	704

NET MIGRATION GRADES 1-5				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10-2010-11	2010-11-2011-12
K to 1				
1 to 2	-3	4	3	-3
2 to 3	5	1	-3	-10
3 to 4	4	-10	4	-3
4 to 5	-2	-1	-2	-2
Total	4	-6	2	-18

SURVIVAL RATES				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11-2011-12
K to 1				
1 to 2	0.979	1.031	1.020	0.979
2 to 3	1.041	1.007	0.977	0.935
3 to 4	1.032	0.922	1.028	0.977
4 to 5	0.984	0.992	0.983	0.986

**EASTERN CARVER COUNTY
EAST UNION ELEMENTARY SCHOOL**

ENROLLMENT HISTORY					
Grade	2007-08	2008-09	2009-10	2010-11	2011-12
K	0	0	0	0	0
1	26	42	42	45	46
2	32	28	47	38	46
3	32	33	32	45	37
4	33	32	35	28	43
5	27	35	35	32	27
Total	150	170	191	188	199

NET MIGRATION GRADES 1-5				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
K to 1				
1 to 2	2	5	-4	1
2 to 3	1	4	-2	-1
3 to 4	0	2	-4	-2
4 to 5	2	3	-3	-1
Total	5	14	-13	-3

SURVIVAL RATES				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
K to 1				
1 to 2	1.077	1.119	0.905	1.022
2 to 3	1.031	1.143	0.957	0.974
3 to 4	1.000	1.061	0.875	0.956
4 to 5	1.061	1.094	0.914	0.964

**EASTERN CARVER COUNTY
JONATHAN ELEMENTARY SCHOOL**

ENROLLMENT HISTORY					
Grade	2007-08	2008-09	2009-10	2010-11	2011-12
K	41	100	41	40	42
1	98	93	92	114	100
2	100	97	96	92	104
3	102	94	110	102	90
4	88	101	101	116	100
5	120	85	100	96	117
Total	549	570	540	560	553

NET MIGRATION GRADES 1-5				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
K to 1				
1 to 2	-1	3	0	-10
2 to 3	-6	13	6	-2
3 to 4	-1	7	6	-2
4 to 5	-3	-1	-5	1
Total	-11	22	7	-13

SURVIVAL RATES				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
K to 1				
1 to 2	0.990	1.032	1.000	0.912
2 to 3	0.940	1.134	1.063	0.978
3 to 4	0.990	1.074	1.055	0.980
4 to 5	0.966	0.990	0.950	1.009

**EASTERN CARVER COUNTY
VICTORIA ELEMENTARY SCHOOL**

ENROLLMENT HISTORY					
Grade	2007-08	2008-09	2009-10	2010-11	2011-12
K	0	60	60	53	61
1	143	116	116	136	107
2	126	141	103	121	138
3	117	127	135	112	119
4	101	118	122	143	116
5	108	100	114	125	145
Total	595	662	650	690	686

NET MIGRATION GRADES 1-5				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
K to 1				
1 to 2	-2	-13	5	2
2 to 3	1	-6	9	-2
3 to 4	1	-5	8	4
4 to 5	-1	-4	3	2
Total	-1	-28	25	6

SURVIVAL RATES				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
K to 1				
1 to 2	0.986	0.888	1.043	1.015
2 to 3	1.008	0.957	1.087	0.983
3 to 4	1.009	0.961	1.059	1.036
4 to 5	0.990	0.966	1.025	1.014

EASTERN CARVER COUNTY ELEMENTARY TOTAL

ENROLLMENT HISTORY					
Grade	2007-08	2008-09	2009-10	2010-11	2011-12
K	605	597	672	645	605
1	716	643	651	700	653
2	709	709	653	649	716
3	701	707	723	671	635
4	676	705	704	736	677
5	693	659	705	698	737
Total	4,100	4,020	4,108	4,099	4,023

NET MIGRATION				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
K to 1	38	54	28	8
1 to 2	-7	10	-2	16
2 to 3	-2	14	18	-14
3 to 4	4	-3	13	6
4 to 5	-17	0	-6	1
Total	16	75	51	17

SURVIVAL RATES				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
K to 1	1.063	1.090	1.042	1.012
1 to 2	0.990	1.016	0.997	1.023
2 to 3	0.997	1.020	1.028	0.978
3 to 4	1.006	0.996	1.018	1.009
4 to 5	0.975	1.000	0.991	1.001

**EASTERN CARVER COUNTY
CHASKA MIDDLE SCHOOL EAST**

ENROLLMENT HISTORY					
Grade	2007-08	2008-09	2009-10	2010-11	2011-12
5	228	194	214	221	262
6	336	351	210	225	229
7	308	332	247	216	243
8	338	306	246	243	217
Total	982	989	703	684	689

NET MIGRATION				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
5 to 6	123	16	11	8
6 to 7	-4	-104	6	18
7 to 8	-2	-86	-4	1
Total	117	-174	13	27

SURVIVAL RATES				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
5 to 6	1.539	1.082	1.051	1.036
6 to 7	0.988	0.704	1.029	1.080
7 to 8	0.994	0.741	0.984	1.005

**EASTERN CARVER COUNTY
CHASKA MIDDLE SCHOOL WEST**

ENROLLMENT HISTORY					
Grade	2007-08	2008-09	2009-10	2010-11	2011-12
5	247	263	268	257	267
6	366	346	239	256	243
7	357	369	232	249	263
8	277	348	233	231	253
Total	1,000	1,063	704	736	759

NET MIGRATION				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
5 to 6	99	-24	-29	-14
6 to 7	3	-114	-7	7
7 to 8	-9	-136	1	4
Total	93	-274	-35	-3

SURVIVAL RATES				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
5 to 6	1.401	0.909	0.892	0.946
6 to 7	1.008	0.671	0.971	1.027
7 to 8	0.975	0.631	1.004	1.016

**EASTERN CARVER COUNTY
PIONEER RIDGE MIDDLE SCHOOL**

ENROLLMENT HISTORY					
Grade	2007-08	2008-09	2009-10	2010-11	2011-12
5	218	213	223	220	208
6	0	0	229	245	235
7	0	0	243	227	237
8	0	0	236	245	228
Total			708	717	700

NET MIGRATION				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
5 to 6			22	15
6 to 7			-2	-8
7 to 8			2	1
Total			22	8

SURVIVAL RATES				
	2007-08 to 2008-09	2008-09 to 2009-10	2009-10 to 2010-11	2010-11 to 2011-12
5 to 6			1.099	1.068
6 to 7			0.991	0.967
7 to 8			1.008	1.004

HOUSING UNIT PROJECTIONS

HOUSING START PROJECTION BLUFF CREEK ATTENDANCE AREA					
	2011-12	2012-13	2013-14	2014-15	2015-16
Single-Family Units	1,573	1,547	1,743	1,834	1,925
Non Movers		1,463	1,361	1,266	1,177
Movers		110	212	307	396
New		84	86	91	91
K-5 Projections					
Non Movers		336	313	291	271
Movers		31	59	86	110
New		25	51	78	106
Total	374	392	423	455	487
Non S-F Units	125	125	125	125	125
Total	499	517	548	580	612

HOUSING START PROJECTION CHANHASSEN ATTENDANCE AREA					
	2011-12	2012-13	2013-14	2014-15	2015-16
Single-Family Units	2,248	2,251	2,254	2,257	2,260
Non Movers		2,181	2,116	2,053	1,991
Movers		67	132	195	257
New		3	3	3	3
K-5 Projections					
Non Movers		371	360	349	338
Movers		11	22	33	44
New		0	1	1	2
Total	391	382	383	383	384
Non S-F Units	94	94	94	94	94
Total	485	476	477	477	478

HOUSING START PROJECTION CHASKA ATTENDANCE AREA					
	2011-12	2012-13	2013-14	2014-15	2015-16
Single-Family Units	1,586	1,591	1,596	1,601	1,606
Non Movers		1,523	1,462	1,404	1,348
Movers		63	124	182	238
New		5	5	5	5
K-5 Projections					
Non Movers		335	322	309	297
Movers		15	30	44	57
New		2	4	5	7
Total	354	352	356	358	361
Non S-F Units	174	174	174	174	174
Total	528	526	530	532	535

HOUSING START PROJECTION CLOVER RIDGE ATTENDANCE AREA					
	2011-12	2012-13	2013-14	2014-15	2015-16
Single-Family Units	1,937	1,982	1,992	2,017	2,052
Non Movers		1,821	1,721	1,618	1,521
Movers		116	225	319	416
New		45	10	25	35
K-5 Projections					
Non Movers		674	637	599	563
Movers		29	56	80	104
New		12	14	21	30
Total	691	715	707	700	697
Non S-F Units	91	91	91	91	91
Total	782	806	798	791	788

HOUSING START PROJECTION EAST UNION ATTENDANCE AREA					
	2011-12	2012-13	2013-14	2014-15	2015-16
Single-Family Units	725	725	725	735	745
Non Movers		711	697	683	669
Movers		14	28	42	56
New		0	0	10	10
K-5 Projections					
Non Movers		213	209	205	201
Movers		3	6	9	12
New		0	0	2	4
Total	213	216	215	216	217
Non S-F Units	0	0	0	0	0
Total	213	216	215	216	217

HOUSING START PROJECTION JONATHAN ATTENDANCE AREA					
	2011-12	2012-13	2013-14	2014-15	2015-16
Single-Family Units	1,764	1,800	1,836	1,872	1,908
Non Movers		1,676	1,592	1,512	1,436
Movers		88	172	252	328
New		36	36	36	36
K-5 Projections					
Non Movers		385	366	348	330
Movers		26	50	73	95
New		12	24	37	49
Total	430	432	440	458	474
Non S-F Units	170	170	170	170	170
Total	600	593	610	628	644

HOUSING START PROJECTION VICTORIA ATTENDANCE AREA					
	2011-12	2012-13	2013-14	2014-15	2015-16
Single-Family Units	2,043	2,067	2,089	2,110	2,135
Non Movers		1,908	1,783	1,666	1,557
Movers		135	260	377	486
New		24	22	21	25
K-5 Projections					
Non Movers		568	531	495	461
Movers		52	100	145	205
New		9	18	26	36
Total	624	629	649	666	702
Non S-F Units	74	74	74	74	74
Total	698	703	723	740	776