BLOOMING PRAIRIE PUBLIC SCHOOLS ISD#756

ENROLLMENT PROJECTIONS

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Executive Summary

Since 2010-11
- The District's school age population increased by 80 students or 10.8 percent
- Blooming Prairie Public Schools' enrollment (excluding Early Childhood) increased by 114 students or 16.7 percent
- Resident enrollment (excluding Early Childhood) increased by 60 students or 9.7 percent
- Nonresidents make up 14.8 percent of total enrollment in 2020-21
- The market share of the Blooming Prairie Public Schools is 82.6 percent
  - The Blooming Prairie Public Schools had a net gain of 44 students from other public options in 2020-21

In ten years, that is, in 2030-31
- Blooming Prairie Public Schools' enrollment (excluding Early Childhood) is projected to range from 833 to 924 or 4.4 percent to 15.8 percent more than the 2020-21 enrollment of 798 students
- Kindergarten is projected to be larger than the previous year's Grade 12, which is a continuation of the pattern of the past ten years
- Modest net out migration is projected to continue driven by the loss of students between Grade 10 and Grade 12

In five years, that is, in 2025-26
- K-6 enrollment projected to be 28 to 73 students larger than in 2020-21
- High school enrollment (7-12) will decrease

What could occur to make these projections too high or too low
- Too high
  - Projected kindergarten is too high
  - More students chose other education options
  - A recession, which would slow growth

- Too low
  - Projected kindergarten is too low
  - More nonresident students
  - Additional housing units constructed

ENROLLMENT PROJECTIONS

Introduction

Attending school is compulsory; therefore, the number of enrolled students is a demographic phenomenon. Public school enrollment is affected by the size of a school district's school age population and the education choices available to district residents. A district's school age population is closely related to other population characteristics of the district, especially the age of the district's population. For example, the age of adults, especially the number of women of prime childbearing age, effects the number of births, which translates into kindergarten classes five to six years later. The age of adults also effects population mobility because older people move less frequently than younger people. The movement of families with children under 18 years also effects enrollment and in a mobile society, enrollment changes throughout the school year as families with children move. While most population trends find expression in school districts, there is also change that is unpredictable and sometimes very local.

While population changes affect the total number of school age children residing in a school district, Minnesota students and their families have education choices. These choices also effect enrollment in a district's schools. Therefore, when analyzing public school enrollment, choice must be considered as well as population dynamics. Choice includes nonpublic schools, home schools, and the public options of open enrollment, charter schools and alternative schools. Two other choices exist: a) dropping out of high school, and b) delaying starting kindergarten (academic red shirting).

Enrollment Trends

Enrollment in the Blooming Prairie Public Schools

Enrollment in the Past Year

Minnesota public school enrollment in 2020-21 was affected by the COVID-19 Pandemic. Enrollment in the Blooming Prairie Public Schools was modestly affected. About 15 students more than expected were homeschooled and more PSEO students were noted.

The 2020-21 Kindergarten class was exceptionally large while the Grade 1 class was smaller than expected. Students who did not enroll in 2020-21 are likely to return to the Blooming Prairie Public Schools in 2021-22.

Current Enrollment/Past Trends

Enrollment trends play out over extended periods of time. Both total enrollment and resident enrollment increased since 2010-11. In the past ten years, total enrollment increased by 114 students or 16.7 percent while resident enrollment increased by 60 students or 9.7 percent. Total enrollment increased more than resident enrollment because nonresident enrollment increased from 64 to 118 students. In 2020-21, nonresidents make up 14.8 percent of total enrollment. The percentage of nonresidents was 9.4 percent in 2010-11.

ENROLLMENT										
2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
684	697	704	703	692	699	720	715	744	776	798

Source: Blooming Prairie School District, Fall Enrollment. (ADMs for 2010-11 to 2019-20; 2020-21 is March 30, 2021 attendance) Excludes Early Childhood

RESIDENT ENROLLMENT										
2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
620	640	635	622	611	610	629	627	651	661	680

Resident enrollment is total enrollment less open enrollment in and tuition enrollment in (see page 5)
Source: Blooming Prairie School District, Fall Enrollment. Excludes Early Childhood

Like all population change, school enrollment changes result from two different phenomena—natural increase/decrease and net migration. 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 falling enrollment that are reflected as natural increase/decrease. As the next table shows, since 2010-11, Blooming Prairie Public Schools' Kindergarten classes were larger than the previous year's Grade 12 every year. Natural increase added 184 students to Blooming Prairie's enrollment since 2010-11.

COMPONENTS OF ENROLLMENT CHANGE				
October To October	Total		Natural Increase/ Decrease	Net Migration
	#	%		
2010 to 2011	13	1.9%	16	-3
2011 to 2012	7	1.0%	4	3
2012 to 2013	-1	-0.1%	19	-20
2013 to 2014	-11	-1.6%	7	-18
2014 to 2015	7	1.0%	5	2
2015 to 2016	21	3.0%	26	-5
2016 to 2017	-5	-0.7%	8	-13
2017 to 2018	29	4.1%	33	-4
2018 to 2019	32	1.3%	37	-5
2019 to 2020	22	2.8%	29	-7
Total	114	---	184	-70

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's boundaries. 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 exceptionally low among children, the same number of students is expected 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.

This 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 a public school outside the district. 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.

Based on the described methodology, net migration cost the Blooming Prairie Public Schools 70 students since 2010-11. Net out migration occurred in all but two years in the past ten years. The combination of net migration and natural increase/decrease is the change in enrollment. In the past ten years, enrollment increased by 114 students because incoming kindergarten classes were larger than Grade 12 classes the previous year.

Student Choices in the Blooming Prairie School District

The number of education options available affects enrollment in a district's public schools. Nonpublic schools have been an option for many years. More recently, home schools became another option. Since their inception, public school options are attracting more students every year. Open enrollment allows residents of one district to attend the public schools in another district. Charter schools are another public option. All these choices mean competition for students.

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 are faith based as well.

In Minnesota, 6.7 percent of all enrolled students were enrolled in traditional nonpublic schools and 2.1 percent of enrolled students were homeschooled in 2019-20. In the Blooming Prairie School District, only 5 students or 0.6 percent of district residents enrolled in traditional nonpublic schools. Homeschooled students accounted for 4.6 percent of all enrolled students.

NONPUBLIC SETTINGS			
Year	Traditional Nonpublic Schools	Home Schools	Total
2010-11	14	14	28
2011-12	16	17	33
2012-13	19	14	33
2013-14	20	19	39
2014-15	17	12	29
2015-16	8	28	36
2016-17	8	37	45
2017-18	5	33	38
2018-19	6	36	42
2019-20	5	36	41
2020-21	6	50	56

Source: Blooming Prairie School District

The proportion of ISD #756 residents in nonpublic settings is lower than the statewide percentages. Combining home school students and nonpublic students, 5.2 percent of Blooming Prairie School District residents were in nonpublic settings. In Minnesota, 8.8 percent of all students were enrolled in nonpublic settings. In the past ten years, traditional nonpublic enrollment decreased statewide while homeschooled children increased. The same trends are present In the Blooming Prairie School District.

<u>Public Options</u>

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 Blooming Prairie School District. In 2019-20, 115 nonresident students open enrolled into the Blooming Prairie Public Schools while 65 district residents attended public schools elsewhere through open enrollment. In 2020-21, 118 nonresidents were open enrolled in the Blooming Prairie Public Schools while an estimated 65 residents attend a public school elsewhere through open enrollment.

	In		Out			
Year	Open Enrollment	Tuition Agreements	Open Enrollment	Tuition Agreements	Charter Schools	Net
2010-11	63	1	80	13	2	-19
2011-12	57	0	72	15	1	-16
2012-13	69	0	72	11	2	-5
2013-14	81	0	73	17	2	6
2014-15	81	0	67	19	2	12
2015-16	89	0	68	15	7	14
2016-17	91	0	74	16	7	10
2017-18	88	0	76	15	9	3
2018-19	93	0	64	12	9	20
2019-20	115	0	65	13	9	41
2020-21	118	0	65*	13*	9*	44

*Estimate
Net excludes the tuition agreements
Source: Blooming Prairie School District

Nonresident students who open enrolled in the Blooming Prairie Public Schools accounted for 14.8 percent of Blooming Prairie's total enrollment in 2019-20. Students leaving the District to attend public schools elsewhere (open enrollment) represented 8.2 percent of the District's school age residents. In 2019-20, 8.7 percent of Minnesota students chose open enrollment.

Charter Schools. Charter schools are another public education option. While 6.4 percent of Minnesota students attended charter schools in 2019-20, 1.1 percent of Blooming Prairie School District residents attended charter schools.

As the education choice data show, in 2019-20, the District had a net gain of 41 students from other public options. Since 2010-11, open enrollment in increased but open enrollment out decreased.

K-12 Market Share of District School Age Residents

Estimating market share requires an estimate of a school district's school age population. The best estimate results from adding Blooming Prairie Public Schools' resident students to the district residents attending traditional nonpublic schools, being homeschooled, and opting for open enrollment out, charter schools and other public options.

Based on 2010-11 and 2020-21, the estimated resident school age population increased from 743 to 823 students, an increase of 80 students or 10.8 percent. Resident enrollment in the Blooming Prairie Public Schools (excluding Early Childhood) increased by 60 students or 9.7 percent during the same period. Based on the estimated 2020-21 enrolled population of 823, the Blooming Prairie Public Schools (excluding Early Childhood) captured 82.6 percent of the District's school age population. In 2010-11, market share was 83.4 percent. A decrease in market share is typical in Minnesota.

BLOOMING PRAIRIE SCHOOL DISTRICT ESTIMATED RESIDENT SCHOOL AGE POPULATION				
Year	Blooming Prairie Public Schools Resident Enrollment	Nonpublic Settings	Public Options	Other	Total
2010-11	620	28	95	---	743
2011-12	640	33	88	---	761
2012-13	635	33	85	---	753
2013-14	622	39	92	---	753
2014-15	611	29	88	---	728
2015-16	610	36	90	---	736
2016-17	629	45	97	---	771
2017-18	627	38	100	---	765
2018-19	651	42	85	---	778
2019-20	661	41	87	---	789
2020-21	680	56	87	---	823

History of Enrollment by Grade

The history of enrollment contains patterns with implications for future enrollment. First, the kindergarten class fluctuated in size from year to year as did the birth years that correspond to the

kindergarten classes. In 2018-19, the District added a Bridges Program that adds 9-10 kindergarten students every year. Kindergarten class size history shows when this change occurred. However, the 2020-21 kindergarten class, the largest kindergarten class in the past ten years, exceeds the normal size of the Bridges Program. Did the COVID Pandemic stimulate more nonresident families to enroll children in Blooming Prairie's kindergarten?

The number of students per grade varies in the Blooming Prairie Public Schools. A way of expressing size differences by grade is to look at the "average" number of students per grade. For example, in 2020-21, the average elementary grade (K-6) has 61 students. The average high school grade (7-12) has 62 students. Based on current grade sizes, there is no "built in" growth momentum from larger elementary grades, which means future enrollment growth depends on kindergarten class size and open enrollment in.

Minnesota's largest graduating high school class since 1978 graduated in 2009. Statewide, graduating classes will be getting smaller. Based on Blooming Prairie's enrollment history, its largest recent senior class is likely to be the class of 2021.

ENROLLMENT											
Grade	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
K	58	64	60	59	48	58	56	59	66	69	76
1	52	58	62	61	55	50	59	57	62	68	56
2	54	52	58	64	58	55	52	60	56	62	62
3	47	56	53	54	67	62	59	55	60	56	64
4	44	49	62	57	53	66	62	56	56	59	54
5	49	46	48	63	59	55	66	64	54	55	62
6	62	52	45	48	69	61	56	67	60	52	51
7	45	60	52	47	46	73	59	59	68	62	56
8	70	46	63	48	44	47	70	58	59	71	64
9	47	69	49	61	49	42	48	66	59	59	75
10	47	46	66	41	59	46	43	49	65	58	61
11	61	43	46	59	32	54	39	32	47	58	57
12	48	56	40	41	53	30	51	33	32	47	60
Total	684	697	704	703	692	699	720	715	744	776	798

Source: Blooming Prairie School District, (ADMs except 2020-21). Excludes Early Childhood

Enrollment Projections

Projection Background

Some factors affecting future school enrollment are known. However, other crucial factors are less clear. The difficulty in quantifying the effect of these factors is a challenge. 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. Around 2020, for the first time in history, Minnesota's 65+ population is expected to exceed the 5-17 population (K-12 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. Further, the percentage of households with school age children will decline.

- Fertility. Today, completed fertility (1.84) is below replacement level and there is little reason to think this will change. Completed fertility refers to the number of children born per woman throughout her childbearing years. In Minnesota, White non-Hispanic women have below replacement fertility. (Replacement is 2.11 children per female at the end of childbearing.) Fertility rates for Asian and Hispanic women are now near replacement. Black women (African American and African-born) have the highest fertility level, just below 3, that is, just less than 3 children per woman at the end of childbearing.

Unknowns

The unknowns reflect changes in the housing market, the economy and in international immigration.

- The housing markets. A robust housing market results in more mobility and this influences enrollment.

- The economy. The COVID-19 effect on the economy seems to be abating and a strong recovery is anticipated. However, another recession is likely sometime in the next ten years, i.e., in the projection period.

- Immigration. Both the economy and public policy affect international immigration. Future students from international migration are impossible to predict.

- Delay/postponement of childbearing. The Millennials are delaying marriage, childbearing, and home ownership. What the long-term effects of these delays mean is unknown. The outcome of this delay will influence future school enrollment.

- Competition. The establishment of charter schools is hard to predict, and open enrollment continues to increase.

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 used to project school enrollment, the first step is to move a grade to the next higher grade. Because mortality is so low in the school age population, <u>the entire grade is assumed to "survive" to the next higher grade in the following year</u>.

After aging the current enrollment, two key assumptions must be made. These assumptions concern the size of future kindergarten classes and the number of students who will move in or out of the district's schools. Some of these students may physically move in or out of the District. Other students may transfer between the Blooming Prairie Public Schools and other education options available to them. Both these phenomena effect the "survival rates."

Once a grade or cohort has been "aged" to the next higher grade, net migration is added to or subtracted from that grade. Using survival rates accomplishes both "aging" and migration in a single step. <u>Over time, the size of a cohort will increase or decrease because of migration as its progresses through the grades</u>. For example, the 2010-11 kindergarten class had 58 members. This same cohort had 61 members in Grade 10 in 2020-21.

The future size of kindergarten classes is especially important in long-term enrollment projections because these students will be in school over the life of the projections. 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, in part, because the preschool population is more mobile than the school age population.

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 <u>proxy</u> for kindergarten five to six 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 "district born" children who move out before enrolling in kindergarten will be replaced by children born elsewhere who move in 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. However, no public-school system captures all the potential students. Some kindergarten students attend private schools or are homeschooled. Others may attend a charter school or open enroll at another district. Therefore, a public school's kindergarten to birth ratio is expected to be less than 100 percent. If the ratio is 100 percent or higher, more preschool children are moving into the district or open enrolling into the district (in migration) than leaving (out migration).

If births are used as a kindergarten proxy, kindergarten projections are available for only a few years into the future. To extend kindergarten projections another five years, Blooming Prairie Public Schools' kindergarten will be projected based on the Minnesota State Demography Center's projections of Minnesota 0-year-olds.

While several counties contain parts of the District, about 65 percent of the District is in Steele County. Therefore, Steele County (minus Owatonna City) resident births will be used as a proxy for District births.

Kindergarten Assumptions

After 1990, births fell in the U.S. and in Minnesota; however, from 2003 through 2007, births increased and in 2007, U.S. births were higher than at any time since 1964. Then from 2008 through 2011, births fell in the U.S. and Minnesota. These declines are attributed to the poor economy. Beginning in 2012, Minnesota resident births began to increase but did not returned to their 2007 level. Then, births began to decline again. From 2015 through 2019 Minnesota resident births were lower than 2014 births.

As the history of resident births shows, in 2019, Minnesota resident births were 4,581 births or -6.5 percent lower than in 2004. Steele County resident births were 61 births or -16.0 percent lower 15 years later. (The largest number of Steele County resident births occurred in 2007 and 2008.) When Owatonna City births are removed from Steele County births, resident births in the remainder of the county decreased by -23.2 percent.

About one-third (33 percent) of births occur between September 1 and December 31 every year. Therefore, about two-thirds of those eligible for kindergarten were born 5 years earlier and one-third were born 6 years earlier. Adjusting resident births to fit the kindergarten age requirement will be referred to as the kindergarten pool.

RESIDENT LIVE BIRTHS				
Calendar Year	Minnesota	Steele County	Owatonna City	Remainder of County
2004	70,614	507	382	125
2005	70,920	520	384	136
2006	73,515	541	416	125
2007	73,675	549	430	119
2008	72,382	568	431	137
2009	70,617	509	395	114
2010	68,407	480	366	114
2011	68,416	480	397	83
2012	68,783	451	335	116
2013	69,183	473	378	95
2014	69,916	509	402	107
2015	69,835	469	390	79
2016	69,746	422	316	106
2017	68,603	421	349	72
2018	67,348	385	311	74
2019	66,033	417	321	96

Source: Minnesota Department of Health

The next table shows the Steele County Remainder kindergarten pool along with Blooming Prairie Public Schools' kindergarten classes percentage of that pool. Like many other percentages, the ratio of kindergarten students to the pool fluctuates. The ratio for 2020-21 is the highest in the past ten years and may be atypically high. Typically, a more stable trend appears when rates are averaged. (Calculating an average of the kindergarten to birth ratio for two or more years smooth out annual fluctuations and produces a more "typical" ratio for that period.)

Since 2010-11, Blooming Prairie's share of the kindergarten pool has increased reflecting an increasing proportion of nonresident kindergarten students. The Bridges Program resulted in the percentage climbing to 64.7 percent and 67.0 percent. However, the 86.4 percent ratio of the most recent year is unusually high.

For kindergarten projections, the average of the past three year's ratios (72.7 percent) will be used for the low assumption and a ratio of 80 percent to reflect more nonresidents will be used for the high assumption. Eighty (80) percent is higher than the average of the past two years (76.7 percent). Note that the size of the kindergarten pool is decreasing.

	BLOOMING PRAIRIE'S KINDERGARTEN AS A PERCENTAGE OF THE STEELE COUNTY REMAINDER KINDERGARTEN POOL		
Birth Years	Kindergarten Pool	Percentage	Kindergarten Year
2004; 2005	132	43.9%	2010-11
2005; 2006	129	49.6%	2011-12
2006; 2007	121	49.6%	2012-13
2007; 2008	131	45.0%	2013-14
2008; 2009	121	39.7%	2014-15
2009; 2010	114	50.9%	2015-16
2010; 2011	94	59.6%	2016-17
2011; 2012	105	56.2%	2017-18
2012; 2013	102	64.7%	2018-19
2013; 2014	103	67.0%	2019-20
2014; 2015	88	86.4%	2020-21
2015; 2016	97		2021-22
2016; 2017	83		2022-23
2017; 2018	74		2023-24
2018; 2019	88		2024-25

To extend kindergarten projections beyond 2024-25, projected Minnesota 0-year-olds will be used as a guide. In 2019, resident births were 4,340 births lower than the projected 2019 0-year-olds or 93.8 percent of the projected number. There is no reason to believe that births will increase to equal the projections of 0-year-olds. Therefore, the projected number of 0-year-olds will be adjusted to be 93.8 percent of the projection (adjustment shown in parentheses). Note that the projections of Minnesota 0-year-olds are essentially flat between 2019 and 2026. Even these projections may be too high. Most demographers predict the global pandemic will depress births in the United States and worldwide for several years. While there may be local exceptions, fewer births should be anticipated.

PROJECTED MINNESOTA O-YEAR OLDS		
Year	Projected Number	Adjusted Number
2017 Actual	**68,603**	
2017	70,312	
2018 Actual	**67,348**	
2018	70,395	
2019 Actual	**66,033**	
2019	70,373	
2020	70,325	65,965
2021	70,274	65,917
2022	70,227	65,873
2023	70,191	65,814
2024	70,164	65,811
2025	70,161	65,811
2026	70,161	65,811

Source: Minnesota Demographic Center

In the past fifteen years, Steele County resident births decreased slightly from 0.72 percent of Minnesota resident births to 0.63 percent of Minnesota resident births, although in the intervening years the percentages fluctuated from year to year ranging from a low of 0.57 to a high of 0.77 percent. Therefore, if Steele County resident births are 0.63 percent (2019 percentage) of Minnesota's 0-year-olds for the next several years, and the Steele Country Remainder is 22 percent of Steele County births, the average of the past 16 years, the kindergarten pool would be as shown in the next table. Although the projections show how "flat" these numbers are likely to be, these numbers are sensitive to small changes in the assumptions.

STEELE COUNTY REMAINDER KINDERGARTEN POOL	
2020-21	**88**
2021-22	**97**
2022-23	**83**
2023-24	**74**
2024-25	**88**
2025-26	93
2026-27	91
2027-28	91
2028-29	91
2029-30	91
2030-31	91

Pool based on actual births bolded

When the kindergarten to birth ratio is applied to the kindergarten pool, kindergarten projections result. Through 2024-25, the kindergarten projections are based on actual births. The lowest kindergarten projection (based on the 72.7 percent ratio) results in 647 kindergarten students over ten years while the highest kindergarten projection (80.0 percent ratio) yields 712 kindergarten students over ten years. In the past ten years there were 615 kindergarten students. Both assumptions produce more kindergarten students than in the past ten years.

KINDERGARTEN PROJECTIONS		
	@72.7%	@80.0%
2020-21	**76**	**76**
2021-22	71	78
2022-23	60	66
2023-24	54	59
2024-25	64	70
2025-26	68	74
2026-27	66	73
2027-28	66	73
2028-29	66	73
2029-30	66	73
2030-31	66	73
Total	647	712

Net Migration Assumptions

The method for calculating migration was explained earlier in this report. However, the limitations of the methodology are worth repeating. The method of calculating migration does not distinguish between physical movement across a 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 district's public schools. 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.

The next two tables show net migration in raw numbers. As these numbers show, net migration has been negative for all but two years out of the past ten years. Therefore, some net out migration appears to be the typical pattern.

The next table shows net migration for every grade transition. These numbers suggest a stable student population until the high school grades, especially Grade 10 and above. The past year saw a large loss between Kindergarten and Grade 1 (-13 students), which may be COVID Pandemic related. Net migration is usually positive in the Blooming Prairie Public Schools at this grade transition. The past year also saw net out migration (-6 students) between Grade 1 and Grade 2. This is also atypical for the Blooming Prairie Public Schools.

There is a net inflow of students in the early high school grades, which is typical in Minnesota, but here is a pronounced net outflow between Grade 10 and Grade 11 and again between Grade 11 and

Grade 12. This pattern is also typical in Minnesota as students may be attending ALC, electing PSEO or dropping out of high school.

	NET MIGRATION YEAR TO YEAR									
	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20
K to 1	0	-2	1	-4	2	1	1	3	2	-13
1 to 2	0	0	2	-3	0	2	1	-1	0	-6
2 to 3	2	1	-4	3	4	4	3	0	0	2
3 to 4	2	6	4	-1	-1	0	-3	1	-1	-2
4 to 5	2	-1	1	2	2	0	2	-2	-1	3
5 to 6	3	-1	0	6	2	1	1	-4	-2	-4
6 to 7	-2	0	2	-2	4	-2	3	1	2	4
7 to 8	1	3	-4	-3	1	-3	-1	0	3	2
8 to 9	-1	3	-2	1	-2	1	-4	1	0	4
9 to 10	-1	-3	-8	-2	-3	1	1	-1	-1	2
10 to 11	-4	0	-7	-9	-5	-7	-11	-2	-7	-1
11 to 12	-5	-3	-5	-6	-2	-3	-6	0	0	2
Total	-3	3	-20	-18	2	-5	-13	-4	-5	-7
Percent	-0.4	0.4	-2.7	-3.0	0.3	-0.7	-1.9	-0.8	-0.8	-1.0

The next table summarizes net migration by aggregating net migration by the elementary grades (Kindergarten-Grade 6), and the high school grades (7-12).   Net migration was always positive at K-6 until the past three years. Note the especially large net out migration this past year, which is most likely COVID related.   At the high school grades, net migration was always negative except for the past year when it was positive.

	NET MIGRATION YEAR TO YEAR									
	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20
K-6	9	3	4	3	9	8	5	-3	-2	-20
7-12	-12	0	-24	-21	-7	-13	-18	-1	-3	13
Total	-3	3	-20	-18	2	-5	-13	-4	-5	-7

Net migration numbers when compared to the number of students in a grade result in the percent of students retained, that is, survival rates. Survival rates are an effective way to analyze the number of students retained, added, or lost each year at each grade. For example, 1.000 indicates no change or 100 percent of the grade progressed to the next highest grade. Any number over 1.000 reflects the percentage increase while a number below 1.000 reflects the percentage decrease. For example, 0.98 indicates a 2 percent decrease.

SURVIVAL RATES YEAR TO YEAR										
	10 to 11	11 to 12	12 to 13	13 to 14	14 to 15	15 to 16	16 to 17	17 to 18	18 to 19	19 to 20
K to 1	1.000	0.969	1.017	0.932	1.042	1.017	1.018	1.051	1.030	0.812
1 to 2	1.000	1.000	1.032	0.951	1.000	1.040	1.017	0.982	1.000	0.912
2 to 3	1.037	1.019	0.931	1.047	1.069	1.073	1.058	1.000	1.000	1.032
3 to 4	1.043	1.107	1.075	0.981	0.985	1.000	0.949	1.018	0.983	0.964
4 to 5	1.045	0.980	1.016	1.035	1.038	1.000	1.032	0.964	0.982	1.051
5 to 6	1.061	0.978	1.000	1.095	1.034	1.018	1.015	0.938	0.963	0.927
6 to 7	0.968	1.000	1.044	0.958	1.058	0.967	1.054	1.015	1.033	1.077
7 to 8	1.022	1.050	0.923	0.936	1.022	0.959	0.983	1.000	1.044	1.032
8 to 9	0.986	1.065	0.968	1.021	0.955	1.021	0.943	1.017	1.000	1.056
9 to 10	0.979	0.957	0.837	0.967	0.939	1.024	1.021	0.985	0.983	1.034
10 to 11	0.915	1.000	0.894	0.780	0.915	0.848	0.744	0.959	0.892	0.983
11 to 12	0.918	0.930	0.891	0.898	0.938	0.944	0.846	1.000	1.000	1.034

For the Blooming Prairie Public Schools, some survival rates are above 1.000 and some are below but the elementary grade survival rates tend to be above 1.000. However, like many other enrollment measures, survival rates fluctuate from year to year. Calculating an average of two or more years is a way to smooth out these annual fluctuations. Focusing on the past five years captures the most recent past. However, the past year may be atypical because of the COVID Pandemic; therefore, survival rates were averaged for the past five years, the past four years, the past three years, omitting the most recent year.

COMPARISON OF SURVIVAL RATES AVERAGED OMITTING THE PAST YEAR				
Grade	Past 5 years	Past 4 years	Past 3 years	Past 2 years
K to 1	1.029	1.033	1.041	---
1 to 2	1.010	1.000	0.991	---
2 to 3	1.033	1.019	1.000	---
3 to 4	0.988	0.983	1.001	---
4 to 5	0.995	0.993	0.973	---
5 to 6	0.984	0.972	0.951	---
6 to 7	1.017	1.034	1.024	---
7 to 8	0.997	1.009	1.022	---
8 to 9	0.995	0.987	1.009	---
9 to 10	1.003	0.996	0.984	---
10 to 11	0.861	0.865	0.926	---
11 to 12	0.948	0.949	1.000	---

The differences among these survival rates can be seen in the projections. By using the low kindergarten assumption, the number of resident kindergarten students is the same in all projections, so

the differences are solely the result of the survival rates. The next table shows that the average of the most recent survival rates results in the lowest projection in ten years. The three projections differ by 23 students with a 13-student difference at K-6 and a 10-student difference at 7-12.

SUMMARY OF EFFECTS OF SURVIVAL RATES IN TEN YEARS WITH LOW KINDERGARTEN ASSUMPTION			
Survival Rates	Total	K-6	7-12
Past 5 years*	856	482	375
Past 4 years*	842	474	368
Past 3 years*	833	469	365

*Excludes the past year

The effects of the survival rates are clear in the table above showing that these rates produce similar results; however, a reasonable range of likely outcomes occurs between the averages of the past three years and the past five years. These averages will be used for the projections.

PROJECTED SURVIVAL RATES		
Grade	Low (Past 3 years*)	High (Past 5 Years*)
K to 1	1.041	1.029
1 to 2	0.991	1.010
2 to 3	1.000	1.033
3 to 4	1.001	0.988
4 to 5	0.973	0.995
5 to 6	0.951	0.984
6 to 7	1.024	1.017
7 to 8	1.022	0.997
8 to 9	1.009	0.995
9 to 10	0.984	1.003
10 to 11	0.926	0.861
11 to 12	1.000	0.948

*Excludes the past 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 a 91-student difference between the lowest projection and the highest projection. The kindergarten assumptions account for a 66-68-student difference in the ten years while the migration assumptions account for a 23-25-student difference in ten years. These numbers show that the kindergarten assumptions account for more of the difference among the projections than the migration assumptions. This means selecting the most likely projection hinges on the kindergarten assumptions.

The lowest projection is based on the low kindergarten and low migration assumptions. In this projection, enrollment increases by 35 students or 4.4 percent by 2030-31. In five years, enrollment is 8 students or -1.0 percent lower than today. Note that 2027-28 is the first year that shows any meaningful enrollment growth.

The highest projection, based on the high kindergarten and high migration assumptions, shows enrollment increasing by 126 students or 15.8 percent between 2020-21 and 2030-30. In five years, enrollment increases by 30 students or 3.8 percent.

In between the highest and lowest projections are two other projections. In 2030-31, these two projections differ by 43 students. As a group, the four projections reflect a range of possibilities with all four projections showing enrollment increasing; however, growth is faster in the last five projections years.

ENROLLMENT PROJECTIONS				
Year	Low K Low Mig	Low K High Mig	High K Low Mig	High K High Mig
2020-21	**798**	**798**	**798**	**798**
2021-22	804	801	811	808
2022-23	802	797	815	810
2023-24	794	793	813	811
2024-25	785	788	810	813
2025-26	790	797	821	828
2026-27	797	809	835	848
2027-28	810	827	855	873
2028-29	815	835	867	888
2029-30	829	849	888	910
2030-31	833	856	899	924

Excludes Early Childhood

The projections from 2020-21 to 2030-31 reflect the following changes in the components of enrollment change. The Blooming Prairie Public Schools will experience **natural increase**, that is, the incoming Kindergarten classes will be larger than the previous years' Grade 12. This is a continuation of the pattern of the past ten years. In the past ten years natural increase averaged 18 students per year. In the next ten years, natural increase averages 8 to 14 students per year in the low kindergarten projections and 15 to 20 per year in the high kindergarten projections.

COMPONENTS OF PROJECTED ENROLLMENT CHANGE				
Oct. to Oct.	Total		Natural Increase/	Net
2020 to 2030	#	%	Decrease	Migration
Low K/Low Mig	35	4.4%	83	-48
Low K/High Mig	58	7.3%	138	-80
High K/Low Mig	101	12.7%	148	-47
High K/High Mig	126	15.8%	203	-77

Excludes Early Childhood

Net out migration is projected to continue with the low migration assumptions, averaging a negative 5 students per year. Net migration averages a negative 8 students per year with the high migration assumptions. In the past ten years, net migration averaged a negative 7 students per year. The net migration assumptions produce results like the past ten years.

ENROLLMENT PROJECTIONS			
	K-6	7-12	Total
2020-21	**425**	**373**	**798**
2025-26			
Low K/Low Mig	453	337	790
Low K/High Mig	466	331	797
High K/Low Mig	484	337	821
High K/High Mig	498	331	828
2030-31			
Low K/Low Mig	469	365	833
Low K/High Mig	482	375	856
High K/Low Mig	516	383	899
High K/High Mig	531	394	924

Excludes Early Childhood

Looking at the projections based on the elementary and high school grades is instructive. In the first five projection years, K-6 enrollment is from 28 to 73 students higher than today. In ten years, K-6 enrollment ranges from 44 to 106 students higher than today.   For the first five projection years, the kindergarten students have already been born. In all four projections, elementary enrollment increases.

In the first five projection years, high school enrollment is lower than it is today by 36 to 42 students. In the second five projection years, high school enrollment ranges from 8 students lower than today to 21 students higher than today. The high school projections are almost totally a result of the migration assumptions. The kindergarten assumptions have only a small effect on the high school projections.

In 2030-31, the 2020-21 kindergarten class will be in Grade 10, which means that all the grades below Grade 10 are products of the projection assumptions.

District Housing Stock

Currently there are no additional housing units being built in the Blooming Prairie School District, although there is a high demand for housing units in the District. Some existing units have been replaced but these units have not added to the housing stock.

Unless additional housing units are added to the existing housing stock, the highest cohort model projections can only be realized by more nonresidents enrolling in the Blooming Prairie Public Schools.

The following section is provided as a guideline for assessing the affects of additional housing units.

Housing Unit Method

The housing unit method provides another way of projecting population and school enrollment. While the number of dwelling units (housing 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 also a key variable in the projection equation.

The main reason to use the housing unit method is to understand the effect of additional housing units on enrollment. It could be said that housing stock is like DNA. It determines the size and characteristics of the <u>resident</u> school age population.

After dwelling unit type, year built, and market value emerge as the most important housing characteristics. Year built reflects how families lived in that 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 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 enrollment has been established by findings based on school districts in four states (Minnesota, Wisconsin, Illinois, and Colorado). These findings are in italics.

- *Dwelling unit type affects the school age child per unit yield. Single-family detached units have the highest school age child per unit yield. Single-family attached, 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.*

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

- *As single-family detached units sell (turnover), student yield usually increases in the newer units. In older units, yield is likely to decrease.*

- *The market value of single-family detached units affects the school age child per unit yield. Moderately priced to higher priced units yield more school age children than the lowest priced units.*

- *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.*

Projecting school enrollment from housing units has many limitations. The housing unit method produces reasonably reliable results for school districts when enrollment is stable or increasing. (The housing unit performs best when hay fields, corn fields or wheat fields are converted into residential units in a rapidly growing district.) The method's greatest weakness is in its inability to detect trends that signal enrollment decline. Housing stock does not provide many clues about the age of the inhabitants, which is vital to school enrollment projections. Further, the housing unit method does not reflect existing differences in grade size or how these differences will affect future enrollment. Projected smaller kindergarten classes are not reflected either. When either of these characteristics is present, the housing unit method cannot detect them because yield per unit remains at today's level throughout the projection period. This makes the method "static" and often results in over projecting enrollment especially when natural decrease is present.

Another problem with the housing unit method is the assumption surrounding new units. It is usually assumed that new units mean new residents to the district. Sometimes this is true, but not always. People move within a school district as well. Even if the occupants of new housing units are "new" to the district, they do not necessarily translate into additional school enrollment because the population in existing units may be changing as well.