STILLWATER AREA PUBLIC SCHOOLS ISD#834

ENROLLMENT PROJECTIONS

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STILLWATER AREA PUBLIC SCHOOLS ENROLLMENT PROJECTIONS

Executive Summary

Since 2009-10

- The District's school age population decreased by 129 students or -1.2 percent
- Stillwater Area Public Schools' enrollment (excluding Early Childhood) decreased by 300 students or -3.5 percent
- Resident enrollment (excluding Early Childhood) decreased by 363 students or -4.3 percent
- Nonresidents make up 3.9 percent of total enrollment in 2019-20
- The market share of the Stillwater Area Public Schools is 72.7 percent
    - The Stillwater Area Public Schools had a net loss of 1,499 students to other public options in 2018-19 and the loss was 1,494 in 2019-20

In ten years, that is, in 2029-30

- Stillwater Area Public Schools' enrollment (excluding Early Childhood) is projected to range from 8,881 to 9,153. 2019-20 enrollment is 8,380
- Kindergarten is projected to be smaller than the previous year's Grade 12, which is a continuation of the pattern of the past ten years
    - Natural decrease is depressing enrollment growth
- Net in migration is projected to continue

In five years, that is, in 2024-25

- K-5 enrollment projected to be 55 to 180 students larger than in 2019-20. Two of the seven elementary schools show enrollment decline. Most new residential construction is in the Lake Elmo attendance area
- Middle school enrollment will increase 89 to 149 students from 2019-20. Oak Land Middle School's enrollment increases
- High school enrollment will increase 112 to 123 students from 2019-20

Housing Data

- Number of new single-family detached units in next three years only 67 percent of the past three years (582 compared to 872)
- The yield per unit of Stillwater Area Public Schools students in new single-family detached units is low (0.25)

What could occur to make these projections too high or too low

- Too high
    - A recession, the result of COVID-19, could slow residential development
    - Projected kindergarten is too high
    - More students attend charter schools or open enroll out of the Stillwater Area Public Schools

- Too low
    - Projected kindergarten is too low
    - More students open enroll into the Stillwater Area Public Schools

CHAPTER I

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 redshirting).

Enrollment Trends

Enrollment in the Stillwater Area Public Schools

Current Enrollment/Past Trends

Enrollment trends play out over extended periods of time. Both total enrollment and resident enrollment decreased since 2009-10. In the past ten years, total enrollment decreased by 300 students or -3.5 percent while resident enrollment decreased by 363 students or -4.3 percent. Total enrollment decreased less than resident enrollment because nonresident enrollment increased from 266 to 329 students. In 2019-20, nonresidents make up 3.9 percent of total enrollment. The percentage of nonresidents was 3.1 percent in 2009-10.

ENROLLMENT										
2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
8,680	8,644	8,479	8,419	8,415	8,392	8,322	8,401	8,267	8,351	8,380

Source: Stillwater School District, Fall Enrollment. Excludes Early Childhood

RESIDENT ENROLLMENT										
2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
8,414	8,365	8,222	8,156	8,117	8,090	8,002	8,059	7,934	8,006	8,051

Resident enrollment is total enrollment less open enrollment in and tuition enrollment in (see page 6)
Source: Stillwater School District, Fall Enrollment. Excludes Early Childhood

To better understand enrollment change, it is important to understand the components of this change. 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, every year since fall 2009, Stillwater Area Public Schools' Kindergarten classes were smaller than the previous year's Grade 12. Natural decrease depressed growth by 2,209 students since 2009-10.

COMPONENTS OF ENROLLMENT CHANGE				
October To October	Total		Natural Increase/ Decrease	Net Migration
	#	%		
2009 to 2010	-36	-0.4%	-190	154
2010 to 2011	-165	-1.9%	-248	83
2011 to 2012	-60	-0.7%	-256	196
2012 to 2013	-4	0.0%	-214	210
2013 to 2014	-23	-0.3%	-177	154
2014 to 2015	-70	-0.8%	-262	192
2015 to 2016	79	0.9%	-208	287
2016 to 2017	-134	-1.6%	-241	107
2017 to 2018	84	1.0%	-201	285
2018 to 2019	29	0.3%	-212	241
Total	300	---	-2,209	1,909

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 extremely 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 was positive every year in the past ten years. Since 2009-10, net migration added 1,909 students to the Stillwater Area Public Schools. The combination of net migration and natural increase/decrease is the change in enrollment.

Student Choices in the Stillwater 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, 6.9 percent of all enrolled students were enrolled in traditional nonpublic schools and 2.0 percent of enrolled students were homeschooled in 2018-19. In the Stillwater School District, 7.7 percent of enrolled students were in traditional nonpublic schools. Homeschooled students accounted for 3.0 percent of all enrolled students.

NONPUBLIC SETTINGS			
Year	Traditional Nonpublic Schools	Home Schools	Total
2009-10	1,109	273	1,382
2010-11	1,069	282	1,351
2011-12	1,031	292	1,323
2012-13	973	273	1,246
2013-14	992	302	1,294
2014-15	942	266	1,208
2015-16	873	298	1,171
2016-17	896	301	1,197
2017-18	841	296	1,137
2018-19	853	330	1,183
2019-20	844	273	1,117

Source: Stillwater School District

The proportion of ISD #834 residents in nonpublic settings is higher than the statewide percentages. Combining home school students and nonpublic students, 10.7 percent of Stillwater School District residents were in nonpublic settings. In Minnesota, 8.9 percent were enrolled in nonpublic settings. In the past ten years, traditional nonpublic enrollment decreased statewide while

homeschooled children increased. In the Stillwater School District, traditional nonpublic enrollment decreased 23.9 percent while the number of homeschooled students fluctuated over the decade but was same number in 2019-20 as in 2009-10.

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 Stillwater School District. In 2018-19, 345 nonresident students enrolled into the Stillwater Area Public Schools while 514 district residents attended public schools elsewhere through open enrollment. In 2019-20, 329 nonresidents were enrolled in the Stillwater Area Public Schools while 524 residents attended a public school elsewhere through open enrollment.

PUBLIC OPTIONS						
	In		Out			
Year	Open Enrollment*	Tuition Agreements	Open Enrollment*	Tuition Agreements	Charter Schools	Net
2009-10	266		394		960	-1,088
2010-11	279		472		1,044	-1,237
2011-12	257		507		1,045	-1,295
2012-13	263		598		1,076	-1,411
2013-14	298		602		1,074	-1,378
2014-15	302		621		1,121	-1,440
2015-16	320		591		1,234	-1,505
2016-17	342		561		1,215	-1,434
2017-18	333		573		1,365	-1,605
2018-19	345	(1)	558	(44)	1,286	-1,499
2019-20	329		568	(44 est.)	1,255	-1,494

*Includes Tuition agreements students. Tuition agreement students in parenthesis from MARRS reports (included in open enrollment)

Source: Stillwater School District

Nonresident students who open enrolled in the Stillwater Area Public Schools accounted for 4.1 percent of Stillwater's total enrollment in 2018-19. Students leaving the District to attend public schools elsewhere (open enrollment) represented 4.6 percent of the District's school age residents. In 2018-19, 8.7 percent of Minnesota students chose open enrollment.

Charter Schools. Charter schools are another public education option. While 6.3 percent of Minnesota students attended charter schools in 2018-19, 11.6 percent of Stillwater School District residents attended charter schools.

As the education choice data show, in 2018-19, the District had a net loss of 1,499 students to other public options with most of this loss to charter schools.

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 Stillwater Area Public Schools' resident students to district residents attending traditional nonpublic schools, being homeschooled, and opting for open enrollment out, charter schools and other public options.

Based on 2009-10 and 2019-20, the estimated resident school age population decreased from 11,200 to 11,071 students, a decrease of 129 students or -1.2 percent. Resident enrollment in the Stillwater Area Public Schools (excluding Early Childhood) decreased by 363 students or -4.3 percent during the same period. Based on the estimated 2019-20 enrolled population of 11,071, the Stillwater Area Public Schools (excluding Early Childhood) captured 72.7 percent of the District's school age population. In 2009-10, market share was 75.1 percent showing that competition for students is increasing. A decrease in market share is typical in Minnesota.

STILLWATER SCHOOL DISTRICT ESTIMATED RESIDENT SCHOOL AGE POPULATION					
Year	Stillwater Public Schools Resident Enrollment	Nonpublic Settings	Public Options	Other*	Total
2009-10	8,414	1,382	1,354	50	11,200
2010-11	8,365	1,351	1,516	20	11,252
2011-12	8,222	1,323	1,552	15	11,112
2012-13	8,156	1,246	1,674	30	11,106
2013-14	8,117	1,294	1,676	15	11,102
2014-15	8,090	1,208	1,742	14	11,054
2015-16	8,002	1,171	1,825	37	11,035
2016-17	8,059	1,197	1,776	43	11,075
2017-18	7,934	1,137	1,938	45	11,054
2018-19	8,006	1,183	1,844	57	11,090
2019-20	8,051	1,117	1,823	80	11,071

*Unknown, either nonpublic or charter
Excludes Early Childhood

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. However, the 2019-20 kindergarten class is smaller than the 2009-10 kindergarten class.

The number of students per grade varies in the Stillwater Area Public Schools. A way of expressing the differences by grade is to look at the "average" number of students per grade. For example, in 2019-20, the average elementary grade (K-5) has 592 students. The average middle school grade (6-8) has 666 students and the average high school grade is 697 students. Net in migration occurs between Grade 5 and Grade 6 and between Grade 6 and Grade 7, especially in the past three years. This influx of students explains the larger middle school average grade size. Net in migration also occurs between Grade 8 and Grade 9, the beginning of high school. Based on current grade sizes, there is no "built in" growth momentum from larger elementary grades, which means net in migration and/or larger kindergarten classes are required for enrollment growth.

Minnesota's largest graduating high school class since 1978 graduated in 2009. Statewide, graduating classes will be getting smaller. Based on Stillwater's enrollment history, its largest recent senior class graduated in 2011.

ENROLLMENT											
Grade	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
K	603	618	594	552	548	599	550	551	539	582	570
1	634	604	599	609	561	544	599	572	551	549	598
2	614	631	623	618	621	576	569	631	546	577	573
3	606	607	626	620	615	618	573	589	610	557	589
4	620	624	612	637	643	633	618	583	579	617	575
5	656	641	620	613	663	644	631	642	577	603	647
6	602	662	641	627	640	653	652	634	654	611	638
7	690	622	662	647	646	640	654	656	651	686	650
8	701	704	627	665	649	650	648	674	673	665	709
9	658	698	721	657	675	682	685	677	710	711	664
10	726	663	687	703	671	672	701	706	686	723	713
11	762	728	659	709	707	669	683	706	708	688	716
12	732	765	724	675	698	727	673	694	709	723	694
12+	76	77	84	87	78	85	86	86	74	59	44
Total	8,680	8,644	8,479	8,419	8,415	8,392	8,322	8,401	8,267	8,351	8,380

Source: Stillwater School District, Fall Enrollment. 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 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. Residential construction has returned to pre-recession levels and home prices have recovered from the Great Recession. Single-family detached unit construction increased in the Stillwater School District and these units have the highest per unit yield of school age children. A robust housing market results in more mobility and this influences enrollment.

- The economy. Although the most recent recession has been over for some time, until recently, annual economic growth has been slow. Another recession, a result of the COVID-19 pandemic, is unfolding.

- 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. Will a higher percentage of this generation remain childless? 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.

- Short-term and long-term effects of the Covid-19 pandemic. Unknown.

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, the entire grade is assumed to "survive" to the next higher grade in the following year.

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 Stillwater Area 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. Over time, the size of a cohort will increase or decrease because of migration as its progresses through the grades. For example, the 2009-10 kindergarten class had 603 members. This same cohort had 713 members in Grade 10 in 2019-20.

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 proxy 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, Stillwater Area Public Schools' kindergarten will be projected based on the Minnesota State Demography Center's projections of Minnesota 0-year-olds.

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 in 2008, 2009, 2010 and 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 they have not returned to the 2007 level. Further, 2016, 2017 and 2018 Minnesota resident births were lower than births in 2014.

As the history of resident births shows, in 2018, Minnesota resident births were 2,705 births or -3.9 percent lower than in 2003. Washington County resident births were 198 births or -6.8 percent lower 15 years later. While births fluctuated in these 16 years, the trend is downward.

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 school year will be referred to as the kindergarten pool.

RESIDENT LIVE BIRTHS		
Year	Minnesota	Washington County
2003	70,053	2,930
2004	70,617	2,856
2005	70,950	2,870
2006	73,515	2,960
2007	73,675	2,943
2008	72,382	2,891
2009	70,617	2,781
2010	68,407	2,868
2011	68,416	2,818
2012	68,783	2,793
2013	69,183	2,857
2014	69,916	2,888
2015	69,835	2,800
2016	68,824	2,867
2017	68,603	2,725
2018	67,348	2,732

Source: Minnesota Department of Health

RESIDENT LIVE BIRTHS SEPTEMBER 1 TO AUGUST 31	
Year	District
2004-2005	453
2005-2006	433
2006-2007	399
2007-2008	379
2008-2009	322
2009-2010	359
2010-2011	332
2011-2012	338
2012-2013	341
2013-2014	351
2014-2015	356
2015-2016	403
2016-2017	392
2017-2018	390
2018-2019	369

Source: Minnesota Department of Health

Upon special request, the Minnesota Department of Health will provide resident births by address, so births can be geocoded to a school district's boundaries. However, "out-of-wedlock" births may be withheld because unmarried parents can choose whether to make birth information by address public. This policy results in under reporting of births by address. Thus, using address data adds two additional sources of annual fluctuation to resident births—the percentage of "out-of-wedlock" births every year and the percentage of parents withholding reporting by address every year. Therefore, the advantage of an additional year of data needs to be evaluated against the potential negative effects of these additional sources of variability. As a result of these challenges in addition to the fact that Stillwater's kindergarten is about 60 percent larger than District births would indicate, the resident live births for Washington County will be used as a proxy for District births.

The next table shows the District pool as well as the Washington County pool along with Stillwater Area Public Schools' kindergarten classes percentage of these two pools. Like many other percentages, the ratio of kindergarten students to the pool fluctuates. 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.)

Stillwater's share of the Washington County kindergarten pool has been very stable, making Washington County resident births a good proxy. The ratios in past 11 years average 20.00 percent. More recently, the average of the ratios for the past five years is 19.68 percent; the past four years' average is 19.75 percent. The past three years' average is 19.86 percent and the past two years' average is 20.17 percent. These averages will result in similar projections. Therefore, the average of the past three years (19.86 percent) will be used for the low kindergarten assumption and the ratio of the highest most recent year (2018-19) of 20.52 percent will be used for the high kindergarten assumption.

STILLWATER'S KINDERGARTEN AS A PERCENTAGE OF THE DISTRICT AND COUNTY KINDERGARTEN POOLS					
Birth Years	Stillwater District Pool	Percentage	Washington County Pool	Percentage	Kindergarten Year
2003; 2004	---	--	2,881	20.93%	2009-10
2004; 2005	453	136.42%	2,865	21.57%	2010-11
2005; 2006	433	137.18%	2,930	20.27%	2011-12
2006; 2007	399	138.35%	2,949	18.72%	2012-13
2007; 2008	379	144.59%	2,908	18.84%	2013-14
2008; 2009	322	186.02%	2,817	21.26%	2014-15
2009; 2010	359	153.20%	2,840	19.37%	2015-16
2010; 2011	332	165.96%	2,834	19.44%	2016-17
2011; 2012	338	159.47%	2,801	19.24%	2017-18
2012; 2013	341	170.67%	2,836	20.52%	2018-19
2013; 2014	351	162.395	2,878	19.81%	2019-20
2014; 2015	356		2,829		2020-21
2015; 2016	403		2,845		2021-22
2016; 2017	392		2,772		2022-23
2017; 2018	390		2,729		2023-24
2018; 2019	369		n.a.		2024-25

To extend kindergarten projections beyond 2023-24, projected Minnesota 0-year-olds will be used as a guide. In 2017, resident births were 1,709 births lower than the projected 2017 0-year-olds or 97.6 percent of the projected number. In 2018, resident births were 3,047 or 95.7 percent lower than originally projected. 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 98 percent of the projected number, which may be generous. Note that the projections of Minnesota 0-year-olds are essentially flat between 2017 and 2025. Even when extending the projections to 2050, the number of projected Minnesota 0-year-olds rarely reaches 70,600.

PROJECTED MINNESOTA O-YEAR OLDS		
Year	Projected Number	Adjusted Number
2017 Actual	**68,603**	
2017	70,312	
2018 Actual	**67,348**	
2018	70,395	68,987
2019	70,373	68,966
2020	70,325	68,919
2021	70,274	68,869
2022	70,227	68,822
2023	70,191	68,787
2024	70,164	68,761
2025	70,161	68,757

Source: Minnesota Demographic Center

In the past 16 years, Washington County resident births decreased slightly from 4.18 percent of Minnesota resident births to 4.06 percent of Minnesota resident births, although the percentages fluctuated from year to year ranging from 3.94 to 4.19 percent. The percentage of Washington County resident births to Minnesota resident births averaged 4.07 percent in the past 16 years and the average is also 4.07 percent for the past five years. Therefore, if Washington County resident births are 4.07 percent of Minnesota's 0-year-olds for the next several 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.

WASHINGTON COUNTY KINDERGARTEN POOL	
2020-21	**2,829**
2021-22	**2,845**
2022-23	**2,772**
2023-24	**2,729**
2024-25	2,783
2025-26	2,805
2026-27	2,804
2027-28	2,802
2028-29	2,800
2029-30	2,799

Pool based on actual births bolded

When the kindergarten to birth ratio is applied to the kindergarten pool, kindergarten projections result. Through 2023-24, the kindergarten projections are based on actual births. The lowest kindergarten projection (based on the 19.86 percent ratio) results in 5,555 kindergarten

KINDERGARTEN PROJECTIONS		
	@19.86%	@20.52%
2019-20	**570**	**570**
2020-21	562	581
2021-22	565	584
2022-23	551	569
2023-24	542	560
2024-25	553	571
2025-26	557	576
2026-27	557	575
2027-28	556	575
2028-29	556	575
2029-30	556	574
Total	5,555	5,740

students over ten years while the highest kindergarten projection (20.52 percent ratio) yields 5,740 kindergarten students over ten years. This compares with 5,703 kindergarten students over the past ten

years. The last projection years will not have the same number of kindergarten students every year as projected, but kindergarten is likely to fluctuate around these numbers.

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 two following tables show net migration in raw numbers. As these numbers indicate, net migration has been positive for the last ten years with the highest net in migration years occurring in the past four years. The lowest recent net in migration year (fall 2016 to fall 2017) represents the time when four elementary schools closed, a new elementary school opened, and elementary grade configuration went from K-6 to K-5. Even with these many changes, there was still net in migration.

The next table shows net migration for every grade transition. In the Stillwater Area Public Schools, net migration is nearly always positive between Kindergarten and Grade 1 and the ten year-history shows net migration was usually positive at all the other elementary grades except for the year that four elementary schools closed.

There is a net inflow from Grade 5 to Grade 6 and from Grade 6 to Grade 7, which has increased in the past two years. This pattern suggests that some students attending private schools, charter schools or being homeschooled transfer to the Stillwater Area Public Schools for middle school. There is also a net inflow at Grade 9, the beginning of high school.

NET MIGRATION OCTOBER TO OCTOBER										
	09 to 10	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
K to 1	1	-19	15	9	-4	0	22	0	10	16
1 to 2	-3	19	19	12	15	25	32	-26	26	24
2 to 3	-7	-5	-3	-3	-3	-3	20	-21	11	12
3 to 4	18	5	11	23	18	0	10	-10	7	18
4 to 5	21	-4	1	26	1	-2	24	-6	24	30
5 to 6	**6**	**0**	**7**	**27**	**-10**	**8**	**3**	**12**	**34**	**35**
6 to 7	**20**	**0**	**6**	**19**	**0**	**1**	**4**	**17**	**32**	**39**
7 to 8	14	5	3	2	4	8	20	17	14	23
8 to 9	**-3**	**17**	**30**	**10**	**33**	**35**	**29**	**36**	**38**	**-1**
9 to 10	5	-11	-18	14	-3	19	21	9	13	2
10 to 11	2	-4	22	4	-2	11	5	2	2	-7
11 to 12+	80	80	103	67	105	90	97	77	74	50
Total	154	83	196	210	154	192	287	107	285	241
Percent	1.8%	1.0%	2.3%	2.5%	1.8%	2.3%	3.4%	1.3%	3.4%	2.9%

The next table summarizes net migration by aggregating net migration by the elementary grades (Kindergarten-Grade 5), the middle school grades (6-8) and the high school grades (9-12). Except for fall 2016 to fall 2017, net migration is nearly always positive at K-5. At the middle school grades, net migration was positive in all but one year. At the high school grades, net migration is always positive but some of this net in migration is an artifact of some students remaining in Grade 12 for more than one year.

NET MIGRATION OCTOBER TO OCTOBER										
	09 to 10	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
K-5	30	-4	43	67	27	20	108	-63	78	100
6-8	40	5	16	48	-6	17	27	46	80	97
9-12+	84	82	137	95	133	155	152	124	127	44
Total	154	83	196	210	154	192	287	107	285	241

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 OCTOBER TO OCTOBER										
	09 to 10	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
K to 1	1.002	0.969	1.025	1.016	0.993	1.000	1.040	1.000	1.019	1.027
1 to 2	0.995	1.031	1.032	1.020	1.027	1.046	1.053	0.955	1.047	1.044
2 to 3	0.989	0.992	0.995	0.995	0.995	0.995	1.035	0.967	1.020	1.021
3 to 4	1.030	1.008	1.018	1.037	1.029	1.000	1.017	0.983	1.011	1.032
4 to 5	1.034	0.994	1.002	1.041	1.002	0.997	1.039	0.990	1.041	1.049
5 to 6	**1.009**	**1.000**	**1.011**	**1.044**	**0.985**	**1.012**	**1.005**	**1.019**	**1.059**	**1.058**
6 to 7	**1.033**	**1.000**	**1.009**	**1.030**	**1.000**	**1.002**	**1.006**	**1.027**	**1.049**	**1.064**
7 to 8	1.020	1.008	1.005	1.003	1.006	1.013	1.031	1.026	1.022	1.034
8 to 9	**0.996**	**1.024**	**1.048**	**1.015**	**1.051**	**1.054**	**1.045**	**1.053**	**1.056**	**0.998**
9 to 10	1.008	0.984	0.975	1.021	0.996	1.028	1.031	1.013	1.018	1.003
10 to 11	1.003	0.994	1.032	1.006	0.997	1.016	1.007	1.003	1.003	0.990
11 to 12+	1.105	1.110	1.156	1.094	1.149	1.135	1.142	1.109	1.105	1.073

For the Stillwater Area Public Schools, nearly all survival rates are above 1.000. However, at the end of the 2016-17 school year, four elementary schools closed. This resulted in the loss of some elementary students which appears as net out migration when fall 2016 is compared to fall 2017. These

survival rates should be avoided in the projections because they represent a one-time event. Also, 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 four years but excluding the fall 2016 to fall 2017 reflects recent history. Survival rates were averaged for the past four years excluding fall 2016 to fall 2017 and the past two years.

Grade	Past 4 years*	Past 2 years
K to 1	1.029	1.023
1 to 2	1.048	1.046
2 to 3	1.025	1.021
3 to 4	1.020	1.022
4 to 5	1.043	1.045
5 to 6	**1.041**	**1.059**
6 to 7	**1.040**	**1.057**
7 to 8	1.029	1.028
8 to 9	**1.033**	**1.027**
9 to 10	1.017	1.011
10 to 11	1.000	0.997
11 to 12+	1.107	1.089

*Minus fall 2016 to fall 2017

The difference between these two sets of survival rates can be seen in the projections below. Using the low kindergarten assumption, the next table shows that the survival rates of the past two years result in higher projections in ten years; however, the low net migration assumption results in more K-5 students. The high net migration assumption results in more middle school and high school students, which is realistic based on the large charter school enrollment.

SUMMARY OF EFFECTS OF SURVIVAL RATES IN TEN YEARS WITH LOW KINDERGARTEN ASSUMPTION				
Survival Rates	Total	K-5	6-8	9-12+
Past 4 years*	8,881	3,622	2,105	3,154
Past 2 years	8,936	3,595	2,148	3,193

*Minus fall 2016 to fall 2017

The average of survival rates for the past four years minus fall 2016 to fall 2017 will be called the low migration assumption while the average of the survival rates for the past two years will be called the high net migration assumption.

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 272-student difference between the lowest projection and the highest projection. The kindergarten assumptions account for a 216-217 student difference in the ten years. The migration assumptions account for a 55-56 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 501 students or 6.0 percent by 2029-30. In five years, enrollment is 282 students or 3.4 percent higher than today.

The highest projection, based on the high kindergarten and high migration assumptions, shows enrollment increasing by 773 students or 9.2 percent between 2019-20 and 2029-30. In five years, enrollment increases by 424 students or 5.1 percent.

In between the highest and lowest projections are two other projections. In 2029-30, these two projections differ by 161 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 first five projections years.

ENROLLMENT PROJECTIONS				
Year	Low K Low Mig	Low K High Mig	High K Low Mig	High K High Mig
2019-20	**8,380**	**8,380**	**8,380**	**8,380**
2020-21	8,482	8,476	8,501	8,495
2021-22	8,534	8,535	8,572	8,574
2022-23	8,571	8,582	8,629	8,640
2023-24	8,652	8,675	8,730	8,753
2024-25	8,662	8,707	8,760	8,804
2025-26	8,725	8,792	8,846	8,911
2026-27	8,779	8,854	8,922	8,996
2027-28	8,782	8,853	8,949	9,020
2028-29	8,850	8,914	9,040	9,106
2029-30	8,881	8,936	9,097	9,153

Excludes Early Childhood

Looking at the projections based on the elementary, middle school and high school grades is instructive. In the first five projection years, K-5 enrollment is from 55 students to 180 students higher than today. In ten years, K-5 enrollment ranges from 43 students to 190 students higher than today. For the first five projection years, the kindergarten students have already been born.

ENROLLMENT PROJECTIONS				
	K-5	6-8	9-12+	Total
2019-20	**3,552**	**1,997**	**2,831**	**8,380**
2024-25				
Low K/Low Mig	3,633	2,086	2,943	8,662
Low K/High Mig	3,607	2,146	2,954	8,707
High K/Low Mig	3,732	2,086	2,943	8,760
High K/High Mig	3,705	2,146	2,954	8,804
2029-30				
Low K/Low Mig	3,622	2,105	3,154	8,881
Low K/High Mig	3,595	2,148	3,193	8,936
High K/Low Mig	3,742	2,175	3,180	9,097
High K/High Mig	3,715	2,219	3,219	9,153

Excludes Early Childhood

In the first five projection years, middle school enrollment is 89 to 149 students higher than today. In the second five projection years, middle school enrollment continues to increase and ranges from 108 to 222 students larger than today. In the second five projection years, the kindergarten assumptions effect the middle school projections but in the first five years only the current grade size and the migration assumptions are affecting the size of the middle school grades.

High school enrollment is projected to increase by 112 to 123 students in the first five projection years. In the second five projection years, high school enrollment is 323 to 388 students larger 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. However, remember that the high school numbers are affected by students remaining in Grade 12 for more than one year.

In 2029-30, the 2019-20 kindergarten class will be in Grade 10, which means that all the grades below Grade 10 are products of the projection assumptions.

COMPONENTS OF PROJECTED ENROLLMENT CHANGE				
Oct. to Oct.	Total		Natural Increase/	Net
2019 to 2029	#	%	Decrease	Migration
Low K/Low Mig	501	6.0%	-2,337	2,838
Low K/High Mig	556	6.6%	-2,234	2,790
High K/Low Mig	717	8.6%	-2,152	2,869
High K/High Mig	773	9.2%	-2,049	2,822

Excludes Early Childhood

The projections from 2019-20 to 2029-30 reflect the following changes in the components of enrollment change. The Stillwater Area Public Schools will continue to experience natural decrease, that is, the incoming kindergarten classes will be smaller than the previous years' Grade 12. In the past ten years, natural decrease averaged 221 students per year while the average for the past five years was 225 students per year. In the next ten years, natural decrease averages 205 to 234 students per year

depending on the kindergarten and migration assumptions showing that natural decrease is comparable to the past ten years.

Net in migration continues throughout the projection period. The projections show net in migration averaging 279 to 287 per year depending on the assumptions. In the past four years, excluding fall 2016 to fall 2017, net in migration averaged 271 students per year while in the past two years net in migration averaged 263 students per year. The migration assumptions show the levels of net in migration they were designed to deliver. However, net in migration in the past ten years averaged only 191 students per year.

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 resident 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. The following data reflect resident students enrolled in the Stillwater Area Public Schools, not all District residents.

- *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.*

Eighty-five (85.4 percent) of Stillwater Public School resident students live in single-family detached units. Single-family detached units yield more than one-third of a student per unit (0.35). Six (6.3) percent of students reside in apartments where yield most often ranges from 0.11 to 0.15. Three (3.0) percent of students reside in single-family attached homes, that is townhomes, where per unit yield is 0.15; and another three (3.2) percent reside in mobile homes.

STILLWATER AREA PUBLIC SCHOOLS HOUSING TYPE BY STUDENT YIELD			
Housing Type	Units	Resident	
		K-12 Students	K-12 Yield
Single-Family Detached	19,163	6,721	0.35
Single-Family Attached*	1,576	239	0.15
Apartments	n.a.	499	n.a.
Condominium units	1,622	147	0.09
Duplex units	244	9	0.04
Mobile Homes	n.a.	255	n.a.
Total	---	7,870	---

*Townhomes
Note that the number of resident students is lower than cited earlier (8,051) because not all addresses can be plotted
Source: Washington County Geographic Information System and Student Information System

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

  Like most other school districts, there is a difference in student yield per unit by the age of the unit. Units built in 2000 or later have a yield of 0.57 students per unit while units built before 1960 yield 0.23 students per unit. Today, 25.4 percent of all single-family detached units were built in 2000 or later but they house 41.0 percent of resident students in single-family detached units.

STILLWATER AREA PUBLIC SCHOOLS SINGLE-FAMILY DETACHED RESIDENT STUDENT YIELD BY YEAR BUILT			
Year Built	Units	Resident K-12	
		#	Yield
2000 or Later	4,872	2,756	0.57
1980-99	5,638	1,747	0.31
1960-79	4,551	1,273	0.28
Pre 1960	4,102	945	0.23
Total	19,163	6,721	0.35

Source: Washington County Geographic Information System and District Student Information System

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

  Newly built single-family detached units have a per unit student yield of 0.25, an exceptionally low yield per unit. The difference in yields for existing units that sold recently and those that did not turnover is modest (0.41 versus 0.35 respectively). Overall, changes in the single-family detached housing stock does not significantly contribute to resident enrollment growth.

STILLWATER AREA PUBLIC SCHOOLS SINGLE-FAMILY DETACHED UNITS BY SALES STATUS (2017 to 2019)		
Status	Units	Resident K-12 Yield
New*	872	0.25
Existing (pre 2017)		
Not Sold	15,737	0.35
Sold	2,554	0.41
Total	19,163	0.35

*Built 2017 through 2019 (three years)

Source: Washington County Geographic Information System and District Student Information System

- *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 per unit than the lowest priced units.*

  Unlike most school districts, the highest valued single-family detached units do not have the highest student yield per unit (0.35). Student yield per unit is highest in mid-valued units ($350,000-$449,999) where the per unit yield is 0.43. More modestly valued units have per unit yields below the District average.

STILLWATER AREA PUBLIC SCHOOLS SINGLE-FAMILY DETACHED RESIDENT STUDENT YIELD BY MARKET VALUE			
Estimated Market Value	Single-Family Units	Resident K-12	
		#	Yield
$550,000 or More	3,499	1,229	0.35
$450,000-$549,999	3,052	1,178	0.39
$350,000-$449,999	4,882	2,111	0.43
$250,000-$349,999	5,002	1,577	0.32
Less than $249,999	2,728	626	0.23
Total	19,163	6,721	0.35

Source: Washington County Geographic Information System and District Student Information System

- *Different racial/ethnic groups and/or major language groups have different housing patterns by unit type.*

  Of the 7,870 resident students, 19.2 percent are classified as minority students. These minority students are more likely to live in multi-family and other types of units than White students (19 percent versus 3 percent). Ninety-two (92) percent of White students live in single-family detached units while 58 percent of minority students live in single-family detached units.

STILLWATER AREA PUBLIC SCHOOLS HOUSING TYPE BY RACE/ETHNICITY OF STUDENTS										
	Resident Minority Students									
Attendance Area	Total		Single-Family Detached		Single-Family Attached*		Multi-Family		Other**	
	#	%	#	%	#	%	#	%	#	%
District wide	1,511	100%	879	58%	107	7%	287	19%	238	16%
	Resident White Students									
	#	%	#	%	#	%	#	%	#	%
District wide	6,359	100%	5,840	92%	132	2%	214	3%	173	3%

*Townhomes

**Mobile Homes, Condominiums, Duplexes

- *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*.

  No data on age are available.

STILLWATER AREA PUBLIC SCHOOLS STUDENT YIELD BY MINOR CIVIL DIVISION				
Minor Civil Division	Single-Family Detached Homes	Median Value of Single-Family Detached Homes	K-12 Students	Resident K-12 Student Yield
Afton	1,110	$494,250	265	0.24
Bayport	803	$261,100	295	0.37
Baytown Township	736	$573,650	251	0.34
Denmark Township	2	$342,700	0	0.00
Grant	667	$466,200	147	0.22
Hugo	205	$432,100	35	0.17
Lake Elmo	2,473	$450,100	970	0.39
Lake St. Croix Beach	467	$237,500	105	0.22
Lakeland	695	$284,400	184	0.26
Lakeland Shores	122	$340,300	53	0.43
Marine on St. Croix	306	$392,650	45	0.15
May Township	1,037	$474,600	183	0.18
Oak Park Heights	817	$260,900	279	0.34
St. Mary's Point	165	$299,200	38	0.23
Stillwater	5,445	$304,600	2,153	0.40
Stillwater Township	765	$495,900	211	0.28
Woodbury	2,005	$389,600	1,003	0.50
West Lakeland Township	1,343	$480,400	504	0.38
Total	19,163	---	6,721	0.35

Source: Washington County Geographic Information Systems and Student Information System

The table above provides information on the component parts of the District. Note how K-12 student yield varies by minor civil division with the highest single-family detached per unit yield in Woodbury where the per unit yield is 0.50 students. Student per unit yield is lowest in Marine on St. Croix (0.15), Hugo (0.17), and May Township (0.18).

Projections

The next table shows residential unit projections for the next three years. Most units will be apartment units, which do not yield many school age children per unit. The projection for single-family detached units (582) is only 67 percent of the number built in the past three years (872).

PROJECTED NEW DEVELOPMENT FOR NEXT THREE YEARS			
City	Single-Family Detached	Townhome Units	Apartment Units
Afton	21	0	0
Bayport	47	0	0
Baytown Twp.	0	0	0
Denmark	0	0	0
Grant	18	0	0
Hugo	0	0	0
Lake Elmo	343	80	300
Lake St. Croix Beach	0	0	0
Lakeland	0	0	0
Lakeland Shores	0	0	0
Marine-on-St. Croix	3	0	0
May Twp.	6	0	0
Oak Park Heights	0	0	0
St. Mary's Point	0	0	0
Stillwater	90	0	200
Stillwater Twp.	0	0	0
Woodbury	39	296	255
West Lakeland Twp.	15	0	0
Total	582	376	755

Source: City/Township staff

PERCENT OF EXISTING SINGLE-FAMILY DETACHED UNITS WITH TURNOVER ANNUALLY (January 1, 2017-December 31, 2019)	
Attendance Area	%
District	5.7%

HOUSING UNIT METHOD PROJECTIONS RESIDENT K-12 STILLWATER PUBLIC SCHOOL STUDENTS 2022-23					
	Resident K-12 Students				
Attendance Area	Single-Family Units	All Other Units*	Total		2019-20 Total
District	7,075	1,149	8,224		7,870

*Not included are 56 students expected from new townhomes and 83 students expected from new apartments. These may or may not be additional students

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.

The next table compares the cohort survival projections with the housing unit method projection. In 2019-20, nonresidents made up 3.9 percent of total enrollment. Using the same percentage, the housing unit projection was adjusted to reflect total enrollment. The housing unit method projection for total enrollment is slightly lower than the cohort projections but near the low kindergarten assumption projections.

COMPARISON OF PROJECTIONS 2022-23	
Projections	K-12 Students
Housing Unit Method (residents)	8,224
Housing Unit Method (total)	8,558
Low K/Low M	8,571
Low K/High M	8,582
High K/High M	8,629
High K/High M	8,640

Talking with many developers raises concerns related to the current pandemic. Developers are moving forward with construction plans for now but emphasize that the number of actual units built may change. Major factors include how fast the economy comes back, whether there is a second wave of the COVID-19 virus, and whether there is a vaccine.

CHAPTER II

ENROLLMENT PROJECTIONS FOR ELEMENTARY SCHOOLS AND ELEMENTRY 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 brief 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 elementary schools and the District's seven elementary attendance areas and one special program.

Past Trends

The following table shows six years of K-5 enrollment. At the end of the 2016-17, four elementary schools closed and at the beginning of 2017-18, one elementary school opened. Further, beginning in 2017-18 elementary schools became K-5 versus K-6. Since 2014-15, K-5 enrollment decreased by 62 students or -1.7 percent. However, the six schools in operation all six years had K-5 enrollment increases. Stonebridge had the smallest increase (25 students or 6.1 percent) while each of the other five schools saw increases ranging from 62 students to 72 students with percentage increases ranging from 12.9 percent (Rutherford) to 20.5 percent (Anderson).

ENROLLMENT GRADES K-5						
School	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Afton-Lakeland	417	432	437	444	448	479
Anderson	302	307	332	343	343	364
Brookview	0	0	0	425	444	480
Lake Elmo	629	639	676	598	663	697
Lily Lake	405	376	390	478	485	477
Marine	129	134	120	0	0	0
Oak Park	390	370	326	0	0	0
Rutherford	502	493	505	612	599	567
Stonebridge	408	381	403	458	455	433
Withrow	160	169	169	0	0	0
Valley Crossing	272	239	210	0	0	0
Gate 4/5	0	0	0	44	48	55
Total	3,614	3,540	3,568	3,402	3,485	3,552

Enrollment by year reflects boundaries in effect that year

KINDERGARTEN						
School	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Afton-Lakeland	76	76	67	66	75	79
Anderson	62	55	44	60	62	58
Brookview	0	0	0	89	86	95
Lake Elmo	113	94	108	104	124	109
Lily Lake	58	58	75	79	83	84
Marine	23	17	17	0	0	0
Oak Park	50	50	40	0	0	0
Rutherford	66	72	88	76	83	75
Stonebridge	64	57	59	65	69	70
Withrow	39	23	22	0	0	0
Valley Crossing	48	48	31	0	0	0
Total	599	550	551	539	582	570

District-wide, kindergarten decreased by 29 students or -4.8 percent. Of the six schools in operation all six years, two saw kindergarten class sizes decrease (Anderson and Lake Elmo) while the other four schools had kindergarten increases. The largest kindergarten increase occurred at Lily Lake with 26 more students or an increase of 44.8 percent.

NET MIGRATION GRADES K-5					
School	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
Afton-Lakeland	2	12	12	7	28
Anderson	-1	28	11	-13	6
Brookview	0	0	0	-8	0
Lake Elmo	33	24	-60	40	34
Lily Lake	-11	10	87	-1	-4
Marine	7	-6	0	0	0
Oak Park	15	17	0	0	0
Rutherford	9	23	115	20	10
Stonebridge	-15	21	53	10	-6
Withrow	12	5	0	0	0
Valley Crossing	-31	-26	0	0	0
Gate 4/5	0	0	0	0	-1
Sum	20	108	218	55	67
Total	20	108	-63	78	100

Since 2014-15, K-5 net migration was positive every year except for the year that four elementary schools closed. That year district-wide there was a net loss of 63 students; however, elementary net in migration has grown since that event. The sum of the individual schools is distorted and does not match the district-wide total because the closed schools resulted in net in migration for

the remaining schools. The opening of Brookview and the Gate 4/5 program add to the distortion of net migration by school in the past two net migration years.

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 size 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, the method has a weakness when enrollment growth is anticipated from large numbers of additional housing units.

Kindergarten

As the history of resident births by address shows, births fluctuated by attendance area. Resident births declined in the Stonebridge and Rutherford attendance areas. The largest increases in births were in the Lake Elmo and Anderson attendance areas. A comparison of attendance area births and kindergarten class sizes shows significant migration between birth and kindergarten; therefore, kindergarten projections by school will not be based on these birth data.

RESIDENT BIRTHS BY ATTENDANCE AREAS
(September 1-August 31)

Attendance Area	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Afton-Lakeland	38	28	41	58	51	47	49
Anderson	38	61	45	50	55	57	36
Brookview	25	22	32	24	28	24	24
Lake Elmo	32	27	26	41	52	68	66
Lily Lake	70	74	73	98	84	74	74
Rutherford	69	60	63	50	56	46	62
Stonebridge	69	79	76	82	66	74	58
Total	341	351	356	403	392	390	369

KINDERGARTEN PROJECTIONS

Year	Low	High
2020-21	562	581
2021-22	565	584
2022-23	551	569
2023-24	542	560
2025-26	553	571

Kindergarten projections by school will be based on the district-wide high kindergarten projections because building capacity is of interest to the District. Further, in five years, the difference between the low and high kindergarten projections is only 18 students. Distributed over 7 schools, this

small difference is insufficient to warrant separate projections based on the low kindergarten projections. Future kindergarten students will be allocated to individual schools based on each school's 2019-20 kindergarten share with a small adjustment for Lake Elmo, Afton-Lakeland, and Lily Lake.

PERCENT OF KINDERGARTEN AT EACH SCHOOL							
School	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Projection
Afton-Lakeland	12.7	13.8	12.2	12.2	12.9	13.9	13.8
Anderson	10.3	10.0	8.0	11.1	10.7	10.2	10.2
Brookview				16.5	14.8	16.6	16.6
Lake Elmo	18.9	17.1	19.6	19.3	21.3	19.1	19.3
Lily Lake	9.7	10.5	13.6	14.7	14.2	14.7	14.6
Marine	3.8	3.1	3.1				
Oak Park	8.4	9.1	7.2				
Rutherford	11.0	13.1	16.0	14.1	14.2	13.2	13.2
Stonebridge	10.7	10.4	10.7	12.1	11.9	12.3	12.3
Withrow	6.5	4.2	4.0				
Valley Crossing	8.0	8.7	5.6				
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

KINDERGARTEN PROJECTIONS BY SCHOOL						
School	**2019-20**	2020-21	2021-22	2022-23	2023-24	2024-25
Afton-Lakeland	**79**	80	81	79	77	79
Anderson	**58**	59	60	58	57	58
Brookview	**95**	96	97	94	93	95
Lake Elmo	**109**	112	113	110	108	110
Lily Lake	**84**	85	85	83	82	83
Rutherford	**75**	77	77	75	74	75
Stonebridge	**70**	71	72	70	69	70
Total	**570**	581	584	569	560	571

Migration

SURVIVAL RATES USED IN THE PROJECTIONS					
School	K to 1	1 to 2	2 to 3	3 to 4	4 to 5
Afton-Lakeland	1.092	1.035	1.047	0.993	1.076
Anderson	1.016	1.045	0.944	0.961	0.973
Brookview	0.977	0.990	1.060	0.939	0.985
Lake Elmo	1.006	1.094	1.038	1.054	1.094
Lily Lake	0.994	1.014	0.942	0.993	1.027
Rutherford	1.069	1.041	1.049	0.954	1.056
Stonebridge	1.031	1.049	1.007	0.903	1.045

Each school's survival rates for the past two years were averaged, which was the starting point for each school. However, some adjustments were made to Lake Elmo survival rates.

Projections

Enrollment projections by school will extend only five years into the future. The 2019-20 kindergarten will be in Grade 5 in 2024-25. Therefore, enrollment in the last projection year (2024-25) 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 A)

The sum of the kindergarten classes of each school equals the district-wide high kindergarten projection. Other grades, however, were not controlled to the district-wide total for those grades. The kindergarten and migration assumptions are smoothed trend lines seeking to approximate five years in the future, which means that any single year may differ from the projections.

COHORT SURVIVAL METHOD PROJECTIONS BY SCHOOL				
			Change	
School	**2019-20**	2024-25	#	%
Afton-Lakeland	**479**	542	63	13.2%
Anderson	**364**	349	-15	-4.1%
Brookview	**480**	559	79	16.5%
Lake Elmo	**697**	747	50	7.2%
Lily Lake	**477**	490	13	2.7%
Rutherford	**567**	501	-66	-11.6%
Stonebridge	**433**	437	4	0.9%
Gate 4/5	**55**	80	25	45.5%
Sum	**3,552**	3,705	153	4.3%
District Total	**3,552**	3,705	153	4.3%

District-wide K-5 increases 4.3 percent in five years. Two of the seven schools show enrollment declines. Anderson decreases by 15 students; however, the projected decrease at Rutherford is 66 students. Anderson's decrease results from a slight net out migration starting with the transition from Grade 2 to Grade 3. Rutherford's decrease results from natural decrease, that is, more Grade 5 students age out every spring compared to the fall's incoming kindergarten students. Brookview, Afton-Lakeland and Lake Elmo increased by 50 students or more. Brookview's increase results from natural increase, that is, the incoming kindergarten class is larger than the departing Grade 5 the previous spring. While Lake Elmo increases, its growth is dampened by a large natural decrease every year. Afton-Lakeland benefits from high rates of net in migration.

As the next table shows, the sum of the individual school projections is a good fit with the district-wide projections. The sum of the individual schools is the same as the high kindergarten/high migration district-wide projections for 2024-25. Gate 4/5 is projected to increase by five students per year, which is like the past.

COHORT SURVIVAL METHOD PROJECTIONS BY SCHOOL BY YEAR HIGH KINDERGARTEN/HIGH MIGRATION						
School	**2019-20**	2020-21	2021-22	2022-23	2023-24	2024-25
Afton-Lakeland	**479**	494	503	526	537	542
Anderson	**364**	354	354	356	356	349
Brookview	**480**	503	529	549	549	559
Lake Elmo	**697**	701	738	758	763	747
Lily Lake	**477**	488	494	483	492	490
Rutherford	**567**	548	537	514	512	501
Stonebridge	**433**	422	432	431	434	437
Gate 4/5	**55**	60	65	70	75	80
Sum	**3,552**	3,570	3,652	3,687	3,718	3,705
District Total	**3,552**	3,577	3,654	3,688	3,720	3,705
Difference	**0**	-7	-2	-1	-2	0

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 by showing the effect of new housing units and the sale of existing units. The method's weakness is that it does not 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 Stillwater 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 for 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

As reported earlier, 582 additional single-family detached units are anticipated in the next three years. (Three years is about the maximum number of years local officials have confidence in their data.)

Note that the projected number of single-family detached units is less than the number of single-family detached units built in the past three years (872).

PROJECTED NEW SINGLE-FAMILY DETACHED UNITS						
Attendance Area	2020	2021	2022	2023	2024	Total
Afton-Lakeland	10	14	12	---	---	36
Anderson	0	24	23	---	---	47
Brookview	0	20	19	---	---	39
Lake Elmo	41	176	126	---	---	343
Lily Lake	4	4	4	---	---	12
Rutherford	10	10	10	---	---	30
Stonebridge	25	25	25	---	---	75
District Total	90	273	219	---	---	582

Source: City/Township staff

The next two tables show estimated annual single-family detached unit sales and the Stillwater Area Public Schools' resident K-5 yields by attendance area. The sales data are based on sales of existing units between January 1, 2017 and December 31, 2019. Rates of turnover vary widely. Afton-Lakeland and Rutherford attendance areas have the lowest rates of annual sales while the Lake Elmo attendance area has the highest rates of sales.

PERCENT OF EXISTING SINGLE-FAMILY DETACHED UNITS WITH TURNOVER ANNUALLY (2017-2019)	
Attendance Area	%
Afton-Lakeland	3.6%
Andersen	6.7%
Brookview	6.0%
Lake Elmo	10.3%
Lily Lake	5.0%
Rutherford	3.6%
Stonebridge	5.3%
District	5.7%

K-5 RESIDENT STUDENT YIELD FROM SINGLE-FAMILY UNITS BY SALE STATUS (January 1, 2017-December 31, 2019)						
	Existing Units				New Units (2017-2019)	
	Not Sold		Sold (New Residents)			
Attendance Area	#	Yield	#	Yield	#	Yield
Afton-Lakeland	3,047	0.12	431	0.25	49	0.14
Andersen	1,512	0.17	266	0.23	131	0.11
Brookview	1,318	0.22	283	0.26	8	0.38
Lake Elmo	1,559	0.16	265	0.21	496	0.15
Lily Lake	2,682	0.11	466	0.18	9	0.00
Rutherford	2,796	0.12	383	0.23	37	0.16
Stonebridge	2,823	0.12	460	0.20	142	0.10
District	15,737	0.14	2,554	0.22	872	0.14

District-wide, resident K-5 yield per single-family detached unit increased when a unit sold (0.22 students compared to 0.14 students when a unit did not turnover). Every attendance area saw per unit yield increases when a unit was sold. However, the yield per unit from new units was extremely low. Except for the Brookview attendance area, per student yields from new units were often like the per unit yields of units that did not turnover.

New single-family detached units were highly concentrated by geography. Eighty-eight percent of new single-family detached units were in three attendance areas—Lake Elmo, Stonebridge, and Anderson. Fifty-seven percent were in the Lake Elmo attendance area alone.

Not all students live in single-family detached units. Of those not residing in single-family detached units, the largest number live in apartments. Rather than trying to project resident students from non-single-family detached units, the 2019-20 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.

RESIDENT STUDENTS FROM OTHER DWELLING UNIT TYPES* 2019-20	
Attendance Area	K-5 Resident Students
Afton-Lakeland	11
Andersen	21
Brookview	44
Lake Elmo	252
Lily Lake	86
Rutherford	86
Stonebridge	38
District total	538

*Townhomes, Condominiums, Duplexes, Mobile Homes, Apartments

Projections

The housing unit method produces reasonable 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 its inability to detect trends that signal changes or enrollment decline. For schools with declining enrollment, the housing unit method is unreliable and over projects enrollment.

Housing stock does not provide many clues about the age of the inhabitants, which is vital for 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 factors 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 housing unit method more "static" than the cohort survival method.

HOUSING UNIT METHOD PROJECTIONS
RESIDENT K-5 STILLWATER PUBLIC SCHOOL STUDENTS
BY ATTENDANCE AREA
2022-23

Attendance Area	Resident K-5 Students				
	Single-Family Units	All Other Units	Total		2019-20 Total
Afton-Lakeland	526	11	537		500
Anderson	356	21	377		356
Brookview	391	44	435		416
Lake Elmo	453	252	705		641
Lily Lake	406	86	492		454
Rutherford	466	86	552		516
Stonebridge	487	38	525		490
District Total	3,085	538	3,623		3,373

Assumptions surrounding new units are also a challenge. It is usually assumed that new units mean new residents to the district. Sometimes this is true, but not always. People also move within a school district. 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.

The housing unit method projections show Stillwater Area Public Schools' resident K-5 potential from current housing units plus the projected additional units. With this method, the district total is the sum of the attendance area projections. Projections from the housing starts method show an increase of 250 resident K-5 Stillwater Public School students or 7.4 percent from 2019-20 to 2022-23. If nonresidents are 3.9 percent of elementary enrollment, then total K-5 enrollment would be 3,770 . The highest cohort survival method projection is lower than the housing unit projection after nonresidents

are added. However, it is likely that the housing unit projections overstate future enrollment in attendance areas especially where the projected increase is small.

Note that the K-5 projections below are less alike than the housing unit projections and cohort projections for K-12 enrollment.

COMPARISON OF PROJECTIONS 2022-23	
Projections	K-5 Students
Housing Unit Method (residents)	3,623
Housing Unit Method (total)	3,770
Low K/Low M	3,649
Low K/High M	3,631
High K/Low M	3,701
High K/High M	3,688

School and Attendance Area Projections

STILLWATER AREA PUBLIC SCHOOLS K-5 RESIDENT STUDENTS BY ATTENDANCE AREA AND BY SCHOOL ATTENDED									
	Attendance Area								
School	Afton-Lakeland	Anderson	Brookview	Lake Elmo	Lily Lake	Rutherford	Stonebridge		Total
Afton-Lakeland	453	6	0	7	1	4	0		471
Anderson	14	323	0	3	12	1	3		356
Brookview	9	1	399	53	0	0	2		464
Lake Elmo	16	7	15	568	15	14	16		651
Lily Lake	5	15	1	5	376	17	37		456
Rutherford	0	2	1	5	27	474	40		549
Stonebridge	3	2	0	0	23	6	392		426
Total	500	356	416	641	454	516	490		3,373
% in Area	90.6%	90.7%	95.9%	88.6%	82.8%	91.9%	80.0%		---

To make a meaningful comparison of the individual school projections and the attendance area projections is very difficult because and the number of attendance area residents who attend the school in their attendance area varies and the percentage of nonresidents also varies from school to school.

CHAPTER III

ENROLLMENT PROJECTIONS FOR MIDDLE SCHOOLS

Two middle schools serve students in the Stillwater School District and each middle school has an attendance area, with the following elementary schools "feeding" their respective middle school.

Oak Land Middle School

- Afton-Lakeland
- Anderson
- Brookview
- Lake Elmo

Stillwater Middle School

- Lily Lake
- Rutherford
- Stonebridge

Past Trends

In the past five years, middle school enrollment increased by 25 students or 1.3 percent. However, this enrollment increase was not evenly distributed. Oak Land Middle School increased by 143 students while Stillwater Middle School decreased by 118 students.

ENROLLMENT MIDDLE SCHOOLS						
School	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Oak Land MS	830	821	849	932	944	973
Stillwater MS	1,142	1,166	1,157	1,046	1,018	1,024
Total	1,972	1,987	2,006	1,978	1,962	1,997

2014-15 through 2016-17 middle school was Grades 6-9; 2017-18 through 2019-20 middle school was Grades 5-8

Middle School Projections

Individual Middle School Projections

Individual middle school projections will be made using the cohort survival method.

Grade 5

Grade 5 from the respective feeder schools will be treated as the starting point for the middle school projections. The sum of the individual elementary schools' Grade 5 classes equals the district-wide high kindergarten/high migration projection for Grade 5. Other grades, however, were not controlled to the district-wide total for those grades. As the next table shows, the number of 5th Graders increases by 18 students in the next five years. This means that projected middle school enrollment relies on net migration.

GRADE 5 BY SCHOOL						
School	**2019-20**	2020-21	2021-22	2022-23	2023-24	2024-25
Oak Land MS	**361**	327	326	369	403	394
Stillwater MS*	**286**	274	303	256	279	271
Total	**647**	601	629	625	682	665

*Grade 5 students at Gate 4/5 are included as feeding into the Stillwater Middle School

Migration

To project migration, the average of the past two years' survival rates will be used, the same assumption used in the high kindergarten/high migration projection.

PROJECTED SURVIVAL RATES			
School	5 to 6	6 to 7	7 to 8
Oak Land MS	1.039	1.069	1.034
Stillwater MS	1.079	1.045	1.021

Projections

Middle school enrollment increases by 149 students or 7.5 percent in five years. The sum of the individual school projections is a good fit with the high kindergarten/high migration projections with a difference of only 2 students in five years.

As the next two tables show, Oak Land Middle School increases by 253 students or 26.0 percent while Stillwater Middle School decreases by 102 students or -10.0 percent.

ENROLLMENT PROJECTIONS MIDDLE SCHOOLS						
School	**2019-20**	2020-21	2021-22	2022-23	2023-24	2024-25
Oak Land MS	**973**	1,042	1,087	1,136	1,142	1,226
Stillwater MS	**1,024**	987	968	948	917	922
Sum	**1,997**	2,029	2,055	2,084	2,059	2,148
District Total	**1,997**	2,028	2,054	2,083	2,057	2,146
Difference	**0**	1	1	1	2	2

COHORT SURVIVAL METHOD PROJECTIONS BY SCHOOL				
			Change	
School	**2019-20**	2024-25	#	%
Oak Land MS	**973**	1,226	253	26.0%
Stillwater MS	**1,024**	922	-102	-10.0%
Sum	**1,997**	2,148	151	7.6%
District Total	**1,997**	2,146	149	7.5%

APPENDIX A

STILLWATER AREA PUBLIC SCHOOLS

AFTON-LAKELAND ELEMENTARY SCHOOL

ENROLLMENT HISTORY						
Grade	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
K	76	76	67	66	75	79
1	72	72	74	69	72	82
2	70	76	70	79	69	77
3	63	72	80	75	83	72
4	73	62	75	77	73	84
5	63	74	71	78	76	85
6	84	74	72	0	0	0
Total	501	506	509	444	448	479

NET MIGRATION					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	-4	-2	2	6	7
1 to 2	4	-2	5	0	5
2 to 3	2	4	5	4	3
3 to 4	-1	3	-3	-2	1
4 to 5	1	9	3	-1	12
5 to 6	11	-2	---	---	---
Total	13	10	12	7	28

SURVIVAL RATES					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	0.947	0.974	1.030	1.091	1.093
1 to 2	1.056	0.972	1.068	1.000	1.069
2 to 3	1.029	1.053	1.071	1.051	1.043
3 to 4	0.984	1.042	0.963	0.973	1.012
4 to 5	1.014	1.145	1.040	0.987	1.164
5 to 6	1.175	0.973	---	---	---

STILLWATER AREA PUBLIC SCHOOLS

ANDERSON ELEMENTARY SCHOOL

ENROLLMENT HISTORY						
Grade	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
K	62	55	44	60	62	58
1	44	62	67	56	57	67
2	42	49	66	64	58	60
3	56	39	52	67	59	56
4	49	55	43	47	64	57
5	49	47	60	49	43	66
6	55	48	52	0	0	0
Total	357	355	384	343	343	364

NET MIGRATION					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	0	12	12	-3	5
1 to 2	5	4	-3	2	3
2 to 3	-3	3	1	-5	-2
3 to 4	-1	4	-5	-3	-2
4 to 5	-2	5	6	-4	2
5 to 6	-1	5	---	---	---
Total	-2	33	11	-13	6

SURVIVAL RATES					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	1.000	1.218	1.273	0.950	1.081
1 to 2	1.114	1.065	0.955	1.036	1.053
2 to 3	0.929	1.061	1.015	0.922	0.966
3 to 4	0.982	1.103	0.904	0.955	0.966
4 to 5	0.959	1.091	1.140	0.915	1.031
5 to 6	0.980	1.106	---	---	---

STILLWATER AREA PUBLIC SCHOOLS

BROOKVIEW ELEMENTARY SCHOOL

ENROLLMENT HISTORY						
Grade	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
K				89	86	95
1				70	88	83
2				73	67	90
3				74	73	75
4				60	71	67
5				59	59	70
6				0	0	0
Total				425	444	480

NET MIGRATION					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1				-1	-3
1 to 2				-3	2
2 to 3				0	8
3 to 4				-3	-6
4 to 5				-1	-1
5 to 6				---	---
Total				-8	0

SURVIVAL RATES					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1				0.989	0.965
1 to 2				0.957	1.023
2 to 3				1.000	1.119
3 to 4				0.959	0.918
4 to 5				0.983	0.986
5 to 6				---	---

STILLWATER AREA PUBLIC SCHOOLS

LAKE ELMO ELEMENTARY SCHOOL

ENROLLMENT HISTORY						
Grade	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
K	113	94	108	104	124	109
1	97	123	97	91	106	123
2	103	110	137	81	105	116
3	106	103	110	127	91	109
4	93	114	102	96	128	100
5	117	95	122	99	109	140
6	94	124	124	0	0	0
Total	723	763	800	598	663	697

NET MIGRATION					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	10	3	-17	2	-1
1 to 2	13	14	-16	14	10
2 to 3	0	0	-10	10	4
3 to 4	8	-1	-14	1	9
4 to 5	2	8	-3	13	12
5 to 6	7	29	---	---	---
Total	40	53	-60	40	34

SURVIVAL RATES					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	1.088	1.032	0.843	1.019	0.992
1 to 2	1.134	1.114	0.835	1.154	1.094
2 to 3	1.000	1.000	0.927	1.123	1.038
3 to 4	1.075	0.990	0.873	1.008	1.099
4 to 5	1.022	1.070	0.971	1.135	1.094
5 to 6	1.060	1.305	---	---	---

STILLWATER AREA PUBLIC SCHOOLS

LILY LAKE ELEMENTARY SCHOOL

ENROLLMENT HISTORY						
Grade	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
K	58	58	75	79	83	84
1	63	52	59	88	77	84
2	60	61	57	78	95	73
3	78	58	65	71	73	90
4	70	76	56	87	69	74
5	76	71	78	75	88	72
6	87	70	66	0	0	0
Total	492	446	456	478	485	477

NET MIGRATION					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	-6	1	13	-2	-
1 to 2	-2	5	19	7	-4
2 to 3	-2	4	14	-5	-5
3 to 4	-2	-2	22	-2	1
4 to 5	1	2	19	1	3
5 to 6	-6	-5	---	---	---
Total	-17	5	87	-1	-4

SURVIVAL RATES					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	0.897	1.017	1.173	0.975	1.012
1 to 2	0.968	1.096	1.322	1.080	0.948
2 to 3	0.967	1.066	1.246	0.936	0.947
3 to 4	0.974	0.966	1.338	0.972	1.014
4 to 5	1.014	1.026	1.338	1.011	1.043
5 to 6	0.921	0.930	---	---	---

STILLWATER AREA PUBLIC SCHOOLS

MARINE ELEMENTARY SCHOOL

ENROLLMENT HISTORY						
Grade	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
K	23	17	17			
1	16	24	16			
2	19	19	22			
3	27	22	21			
4	25	27	21			
5	19	25	23			
6	24	22	24			
Total	153	156	144			

NET MIGRATION					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	1	-1			
1 to 2	3	-2			
2 to 3	3	2			
3 to 4	0	-1			
4 to 5	0	-4			
5 to 6	3	-1			
Total	10	-7			

SURVIVAL RATES					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	1.043	0.941			
1 to 2	1.188	0.917			
2 to 3	1.158	1.105			
3 to 4	1.000	0.955			
4 to 5	1.000	0.852			
5 to 6	1.158	0.960			

STILLWATER AREA PUBLIC SCHOOLS

OAK PARK ELEMENTARY SCHOOL

ENROLLMENT HISTORY						
Grade	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
K	50	50	40			
1	46	47	52			
2	52	45	45			
3	59	50	44			
4	98	77	59			
5	85	101	86			
6	97	87	101			
Total	487	457	427			

NET MIGRATION					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	-3	2			
1 to 2	-1	-2			
2 to 3	-2	-1			
3 to 4	18	9			
4 to 5	3	9			
5 to 6	2	0			
Total	17	17			

SURVIVAL RATES					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	0.940	1.040			
1 to 2	0.978	0.957			
2 to 3	0.962	0.978			
3 to 4	1.305	1.180			
4 to 5	1.031	1.117			
5 to 6	1.024	1.000			

STILLWATER AREA PUBLIC SCHOOLS

RUTHERFORD ELEMENTARY SCHOOL

ENROLLMENT HISTORY						
Grade	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
K	66	72	88	76	83	75
1	76	76	75	104	80	90
2	83	80	84	101	106	85
3	90	84	87	107	107	110
4	97	82	87	108	106	98
5	90	99	84	116	117	109
6	93	87	104	0	0	0
Total	598	580	609	612	599	567

NET MIGRATION					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	10	3	16	4	7
1 to 2	4	8	26	2	5
2 to 3	1	7	23	6	4
3 to 4	-8	3	21	-1	-9
4 to 5	2	2	29	9	3
5 to 6	-3	5	---	---	---
Total	6	28	115	20	10

SURVIVAL RATES					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	1.152	1.042	1.182	1.053	1.084
1 to 2	1.053	1.105	1.347	1.019	1.063
2 to 3	1.012	1.088	1.274	1.059	1.038
3 to 4	0.911	1.036	1.241	0.991	0.916
4 to 5	1.021	1.024	1.333	1.083	1.028
5 to 6	0.967	1.051	---	---	---

STILLWATER AREA PUBLIC SCHOOLS

STONEBRIDGE ELEMENTARY SCHOOL

ENROLLMENT HISTORY						
Grade	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
K	64	57	59	65	69	70
1	68	64	63	73	69	69
2	69	69	73	70	77	72
3	68	70	72	89	71	77
4	70	63	73	79	83	62
5	69	58	63	82	86	83
6	70	72	66	0	0	0
Total	478	453	469	458	455	433

NET MIGRATION					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	0	6	14	4	0
1 to 2	1	9	7	4	3
2 to 3	1	3	16	1	0
3 to 4	-5	3	7	-6	-9
4 to 5	-12	0	9	7	0
5 to 6	3	8	---	---	---
Total	-12	29	53	10	-6

SURVIVAL RATES					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	1.000	1.105	1.237	1.062	1.000
1 to 2	1.015	1.141	1.111	1.055	1.043
2 to 3	1.014	1.043	1.219	1.014	1.000
3 to 4	0.926	1.043	1.097	0.933	0.873
4 to 5	0.829	1.000	1.123	1.089	1.000
5 to 6	1.043	1.138	---	---	---

STILLWATER AREA PUBLIC SCHOOLS

WITHROW ELEMENTARY SCHOOL

ENROLLMENT HISTORY						
Grade	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
K	39	23	22			
1	18	42	25			
2	26	22	44			
3	28	27	24			
4	23	28	25			
5	26	27	29			
6	21	25	25			
Total	181	194	194			

NET MIGRATION					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	3	2			
1 to 2	4	2			
2 to 3	1	2			
3 to 4	0	-2			
4 to 5	4	1			
5 to 6	-1	-2			
Total	11	3			

SURVIVAL RATES					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	1.077	1.087			
1 to 2	1.222	1.048			
2 to 3	1.038	1.091			
3 to 4	1.000	0.926			
4 to 5	1.174	1.036			
5 to 6	0.962	0.926			

STILLWATER AREA PUBLIC SCHOOLS

VALLEY CROSSING ELEMENTARY SCHOOL

ENROLLMENT HISTORY						
Grade	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
K	48	48	31			
1	44	37	44			
2	52	38	33			
3	43	48	34			
4	35	34	42			
5	50	34	26			
6	28	43	0			
Total	300	282	210			

NET MIGRATION					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	-11	-4			
1 to 2	-6	-4			
2 to 3	-4	-4			
3 to 4	-9	-6			
4 to 5	-1	-8			
5 to 6	-7	---			
Total	-38	-26			

SURVIVAL RATES					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1	0.771	0.917			
1 to 2	0.864	0.892			
2 to 3	0.923	0.895			
3 to 4	0.791	0.875			
4 to 5	0.971	0.765			
5 to 6	0.860	---			

STILLWATER AREA PUBLIC SCHOOLS

GATE 4/5 ELEMENTARY SCHOOL

ENROLLMENT HISTORY						
Grade	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
K						
1						
2						
3						
4				25	23	33
5				19	25	22
6				0	0	0
Total				44	48	55

NET MIGRATION					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1					
1 to 2					
2 to 3					
3 to 4					
4 to 5				0	-1
5 to 6					
Total				0	-1

SURVIVAL RATES					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
K to 1					
1 to 2					
2 to 3					
3 to 4					
4 to 5				1.000	0.957
5 to 6					

APPENDIX B

STILLWATER AREA PUBLIC SCHOOLS

OAK LAND MIDDLE SCHOOL

ENROLLMENT HISTORY						
Grade	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
5	364	351	365	285	287	361
6				320	310	307
7	263	264	304	296	333	325
8	284	263	276	316	301	341
9	283	294	269	0	0	0
Total	830	821	849	932	944	973

NET MIGRATION					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
5 to 6				25	20
6 to 7				13	15
7 to 8				5	8
8 to 9					
Total				43	43

SURVIVAL RATES					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
5 to 6				1.088	1.070
6 to 7				1.041	1.048
7 to 8				1.017	1.024
8 to 9					

STILLWATER AREA PUBLIC SCHOOLS

STILLWATER MIDDLE SCHOOL

ENROLLMENT HISTORY						
Grade	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
5	280	280	277	292	316	286
6				334	301	331
7	377	390	352	355	353	325
8	366	385	398	357	364	368
9	399	391	407	0	0	0
Total	1,142	1,166	1,157	1,046	1,018	1,024

NET MIGRATION					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
5 to 6				9	15
6 to 7				19	24
7 to 8				9	15
8 to 9					
Total				37	54

SURVIVAL RATES					
Grade Progression	2014-15 to 2015-16	2015-16 to 2016-17	2016-17 to 2017-18	2017-18 to 2018-19	2018-19 to 2019-20
5 to 6				1.031	1.047
6 to 7				1.057	1.080
7 to 8				1.025	1.042
8 to 9					

STILLWATER AREA PUBLIC SCHOOLS

AREA LEARNING CENTER & SAHS

ENROLLMENT HISTORY						
Grade	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
9			1		1	2
10	2	2	3	5	7	10
11	8	9	12	13	22	24
12	53	25	30	29	29	38
12+	31	33	35	26	27	44
Total	94	69	81	73	86	118

SUMMARY REPORT
STILLWATER AREA PUBLIC SCHOOLS ENROLLMENT PROJECTIONS
May 28, 2020

- Changed environment
  - Uncertainty over short-term and long-term effect of COVID-19 pandemic and shut down
    - Currently, a recession is unfolding
    - Developers uncertain about how many planned units will be built
  - Low fertility—do not count on more births
    - Births in the U.S., Minnesota and Washington County are going down
  - Lower mobility
    - Fewer than 10 percent of U.S. population moved in the past year. Since WWII averaged 20 percent a year
  - Population aging
    - 65+ may be 17 percent of Minnesota's population and moving to 20 percent or higher
  - Minnesota back to a pattern of net out migration (exporting people)
- Past ten years or since 2009-10, decade of decreases
  - The Stillwater School District saw a 1.2 percent decrease in school age children
  - Resident enrollment in the Stillwater Area Public Schools down 363 students or -4.3 percent
  - Total enrollment in the Stillwater Area Public Schools down 300 students or -3.5 percent
    - Nonresident enrollment increased from 266 to 329 students
    - Nonresidents were 3.9 percent of total enrollment in 2019-20
  - Marked by natural decrease, that is, each fall's incoming kindergarten was smaller than the previous year's Grade 12
    - Major reason for enrollment decline
  - Net <u>in</u> migration even when four elementary schools closed
- Housing data
  - Projected single-family detached housing units for the next three years (582 units) is only 67 percent the number of the past three years (872 units)—<u>so expect slower growth</u>. Single-family detached units yield the largest number of Stillwater Area Public School students per unit; 85 percent of students live in single-family detached units
  - The yield of resident Stillwater Area Public School K-12 students per newly built single-family detached units is exceptionally low at 0.25 per new unit (Have observed lower yields in other districts recently but none this low)
    - Even in the Lake Elmo attendance area where 496 new single-family detached units were built in the past three years, resident K-5 per unit yield for new construction was only 0.15
- Enrollment projections
  - Enrollment projected to increase; however, natural decrease continues to be a big factor depressing enrollment growth. Projected net in migration may be too high
  - In 2029-30, projected enrollment ranges from 8,881 students to 9,153 students. 2019-20 enrollment was 8,380

        - A housing unit method projection for K-12 is closest to the projections based on the low kindergarten assumption
    - The low kindergarten assumption and the high migration assumption seem to be the best (most realistic) assumptions
        - The low kindergarten assumption is based on a kindergarten to kindergarten pool ratio that except for one year is higher than any year from 2015-16 to date
        - The high migration assumption has lower survival rates at the elementary grades, which is the most recent pattern, and higher survival rates at the middle school grades, which is not only the most recent pattern but fits with the large enrollment at charter schools. These students appear to return to the Stillwater Area Public Schools at Grade 6 and Grade 7
    - Projections for 2024-25
        - Two of the seven elementary schools show a decrease in enrollment—Rutherford and Anderson
            - Reasons for decreases are different
        - Most elementary growth in three schools—but growth occurs for different reasons
            - Lake Elmo projected to increase but Lake Elmo's growth depressed by natural decrease
            - Brookview projected to increase because of natural increase
            - Afton-Lakeland's projected increase due to high survival rates (net in migration)
        - Oak Land Middle School's enrollment projected to increase while enrollment at Stillwater Middle School projected to decrease
            - Middle school enrollment driven by net in migration

    - Projections based on the low kindergarten assumption and the high migration assumption (best projection)

ENROLLMENT PROJECTIONS 2024-25			
	2019-20	2024-25	Change
Total	**8,380**	8,707	327
K-5	**3,552**	3,607	55
6-8	**1,997**	2,146	149
9-12	**2,831**	2,954	123

Afton-Lakeland High K/High Mig

	K (+Hdcp)	1st	2nd	3rd	4th	5th	K-5
2019-20 Actual	79	82	77	72	84	85	479
19-20 Cohort	80	79	82	77	72	84	474
Historical		1.092	1.035	1.047	0.993	1.076	0
20-21 Proj	80	86	85	81	71	90	494
20-21 Cohort	81	80	86	85	81	71	484
Historical		1.092	1.035	1.047	0.993	1.076	0
21-22 Proj	81	87	89	89	80	77	503
21-22 Cohort	79	81	87	89	89	80	506
Historical		1.092	1.035	1.047	0.993	1.076	0
22-23 Proj	79	88	90	93	88	86	526
22-23 Cohort	77	79	88	90	93	88	517
Historical		1.092	1.035	1.047	0.993	1.076	0
23-24 Proj	77	86	92	95	93	95	537
23-24 Cohort	79	77	86	92	95	93	521
Historical		1.092	1.035	1.047	0.993	1.076	0
24-25 Proj	79	84	89	96	94	100	542

Anderson High K/High Mig

	K (+Hdcp)	1st	2nd	3rd	4th	5th	K-5
2019-20 Actual	58	67	60	56	57	66	364
19-20 Cohort	59	58	67	60	56	57	357
Historical		1.016	1.045	0.944	0.961	0.973	0
20-21 Proj	59	59	70	57	54	55	354
20-21 Cohort	60	59	59	70	57	54	358
Historical		1.016	1.045	0.944	0.961	0.973	0
21-22 Proj	60	60	62	66	54	52	354
21-22 Cohort	58	60	60	62	66	54	360
Historical		1.016	1.045	0.944	0.961	0.973	0
22-23 Proj	58	61	63	58	64	53	356
22-23 Cohort	57	58	61	63	58	64	360
Historical		1.016	1.045	0.944	0.961	0.973	0
23-24 Proj	57	59	64	59	56	62	356
23-24 Cohort	58	57	59	64	59	56	353
Historical		1.016	1.045	0.944	0.961	0.973	0
24-25 Proj	58	58	62	60	57	54	349

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Brookview High K/High Mig

	K (+Hdcp)	1st	2nd	3rd	4th	5th	K-5
2019-20 Actual	95	83	90	75	67	70	480
19-20 Cohort	96	95	83	90	75	67	506
Historical		0.977	0.99	1.06	0.939	0.985	0
20-21 Proj	96	93	82	95	70	66	503
20-21 Cohort	97	96	93	82	95	70	534
Historical		0.977	0.99	1.06	0.939	0.985	0
21-22 Proj	97	94	92	87	90	69	529
21-22 Cohort	94	97	94	92	87	90	553
Historical		0.977	0.99	1.06	0.939	0.985	0
22-23 Proj	94	95	93	97	82	88	549
22-23 Cohort	93	94	95	93	97	82	554
Historical		0.977	0.99	1.06	0.939	0.985	0
23-24 Proj	93	92	94	98	91	81	549
23-24 Cohort	95	93	92	94	98	91	564
Historical		0.977	0.99	1.06	0.939	0.985	0
24-25 Proj	95	91	91	99	92	90	559

Lake Elmo High K/High Mig

	K (+Hdcp)	1st	2nd	3rd	4th	5th	K-5
2019-20 Actual	109	123	116	109	100	140	697
19-20 Cohort	112	109	123	116	109	100	669
Historical		1.006	1.094	1.038	1.054	1.094	0
20-21 Proj	112	110	135	120	115	109	701
20-21 Cohort	113	112	110	135	120	115	705
Historical		1.006	1.094	1.038	1.054	1.094	0
21-22 Proj	113	113	120	140	127	126	738
21-22 Cohort	110	113	113	120	140	127	722
Historical		1.006	1.094	1.038	1.054	1.094	0
22-23 Proj	110	114	123	125	147	139	758
22-23 Cohort	108	110	114	123	125	147	727
Historical		1.006	1.094	1.038	1.054	1.094	0
23-24 Proj	108	111	124	128	131	161	763
23-24 Cohort	110	108	111	124	128	131	712
Historical		1.006	1.094	1.038	1.054	1.094	0
24-25 Proj	110	109	121	129	135	144	747

Lily Lake High K/High Mig

	K (+Hdcp)	1st	2nd	3rd	4th	5th	K-5
2019-20 Actual	84	84	73	90	74	72	477
19-20 Cohort	85	84	84	73	90	74	490
Historical		0.994	1.014	0.942	0.993	1.027	0
20-21 Proj	85	83	85	69	89	76	488
20-21 Cohort	85	85	83	85	69	89	497
Historical		0.994	1.014	0.942	0.993	1.027	0
21-22 Proj	85	84	85	80	68	92	494
21-22 Cohort	83	85	84	85	80	68	486
Historical		0.994	1.014	0.942	0.993	1.027	0
22-23 Proj	83	84	86	80	80	70	483
22-23 Cohort	82	83	84	86	80	80	495
Historical		0.994	1.014	0.942	0.993	1.027	0
23-24 Proj	82	83	86	81	79	82	492
23-24 Cohort	83	82	83	86	81	79	493
Historical		0.994	1.014	0.942	0.993	1.027	0
24-25 Proj	83	82	84	81	80	81	490

Stillwater Oak Land Middle School

	5th	6th	7th	8th	6-8
2019-20	361	307	325	341	973
19-20 Cohort	327	361	307	325	993
Historical		1.079	1.045	1.021	0
20-21 Proj	327	390	321	332	1042
20-21 Cohort	326	327	390	321	1037
Historical		1.079	1.045	1.021	0
21-22 Proj	326	353	407	328	1087
21-22 Cohort	369	326	353	407	1086
Historical		1.079	1.045	1.021	0
22-23 Proj	369	352	369	416	1136
21-22 Cohort	403	369	352	369	1089
Historical		1.079	1.045	1.021	0
22-23 Proj	403	398	368	376	1142
22-23 Cohort	394	403	398	368	1169
Historical		1.079	1.045	1.021	0
24-25 Proj	394	435	416	375	1226

Rutherford High K/High Mig

	K (+Hdcp)	1st	2nd	3rd	4th	5th	K-5
2019-20 Actual	75	90	85	110	98	109	567
19-20 Cohort	77	75	90	85	110	98	535
Historical		1.069	1.041	1.049	0.954	1.056	0
20-21 Proj	77	80	94	89	105	103	548
20-21 Cohort	77	77	80	94	89	105	522
Historical		1.069	1.041	1.049	0.954	1.056	0
21-22 Proj	77	82	83	98	85	111	537
21-22 Cohort	75	77	82	83	98	85	501
Historical		1.069	1.041	1.049	0.954	1.056	0
22-23 Proj	75	82	86	88	94	90	514
22-23 Cohort	74	75	82	86	88	94	498
Historical		1.069	1.041	1.049	0.954	1.056	0
23-24 Proj	74	80	86	90	84	99	512
23-24 Cohort	75	74	80	86	90	84	488
Historical		1.069	1.041	1.049	0.954	1.056	0
24-25 Proj	75	79	83	90	86	88	501

Stillwater Stillwater Middle School

	5th	6th	7th	8th	6-8
2019-20	286	331	325	368	1024
19-20 Cohort	274	286	331	325	942
Historical		1.039	1.069	1.034	0
20-21 Proj	274	297	354	336	987
20-21 Cohort	303	274	297	354	925
Historical		1.039	1.069	1.034	0
21-22 Proj	303	285	318	366	968
21-22 Cohort	256	303	285	318	905
Historical		1.039	1.069	1.034	0
22-23 Proj	256	315	304	328	948
21-22 Cohort	279	256	315	304	875
Historical		1.039	1.069	1.034	0
22-23 Proj	279	266	337	315	917
22-23 Cohort	271	279	266	337	882
Historical		1.039	1.069	1.034	0
24-25 Proj	271	290	284	348	922

Stonebridge High K/High Mig

	K (+Hdcp)	1st	2nd	3rd	4th	5th	K-5
2019-20 Actual	70	69	72	77	62	83	433
19-20 Cohort	71	70	69	72	77	62	421
Historical		1.031	1.049	1.007	0.903	1.045	0
20-21 Proj	71	72	72	73	70	65	422
20-21 Cohort	72	71	72	72	73	70	430
Historical		1.031	1.049	1.007	0.903	1.045	0
21-22 Proj	72	73	76	73	65	73	432
21-22 Cohort	70	72	73	76	73	65	429
Historical		1.031	1.049	1.007	0.903	1.045	0
22-23 Proj	70	74	77	76	66	68	431
22-23 Cohort	69	70	74	77	76	66	432
Historical		1.031	1.049	1.007	0.903	1.045	0
23-24 Proj	69	72	78	77	69	69	434
23-24 Cohort	70	69	72	78	77	69	435
Historical		1.031	1.049	1.007	0.903	1.045	0
24-25 Proj	70	71	76	78	70	72	437

Stillwater Low K/High Mig	K (+Hdcp)	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	K-5	6-8	9-12	K-12 total
2019-20 Actual	570	598	573	589	575	647	638	650	709	664	713	716	738	3552	1997	2831	8380
19-20 Cohort	562	570	598	573	589	575	647	638	650	709	664	713	716	3467	1935	2802	8204
Historical		1.023	1.046	1.021	1.022	1.045	1.059	1.057	1.028	1.027	1.011	0.997	1.089	0	0	0	0
20-21 Proj	562	583	626	585	602	601	685	674	668	728	671	711	780	3558	2028	2890	8476
20-21 Cohort	565	562	583	626	585	602	601	685	674	668	728	671	711	3523	1960	2779	8262
Historical		1.023	1.046	1.021	1.022	1.045	1.059	1.057	1.028	1.027	1.011	0.997	1.089	0	0	0	0
21-22 Proj	565	575	610	639	598	629	636	724	693	686	736	669	774	3615	2054	2866	8535
21-22 Cohort	551	565	575	610	639	598	629	636	724	693	686	736	669	3537	1990	2785	8312
Historical		1.023	1.046	1.021	1.022	1.045	1.059	1.057	1.028	1.027	1.011	0.997	1.089	0	0	0	0
22-23 Proj	551	578	601	623	653	625	666	673	745	712	694	734	729	3631	2083	2869	8582
22-23 Cohort	542	551	578	601	623	653	625	666	673	745	712	694	734	3548	1964	2884	8396
Historical		1.023	1.046	1.021	1.022	1.045	1.059	1.057	1.028	1.027	1.011	0.997	1.089	0	0	0	0
23-24 Proj	542	564	605	614	636	682	662	704	691	765	720	692	799	3643	2057	2975	8675
23-24 Cohort	553	542	564	605	614	636	682	662	704	691	765	720	692	3514	2048	2868	8429
Historical		1.023	1.046	1.021	1.022	1.045	1.059	1.057	1.028	1.027	1.011	0.997	1.089	0	0	0	0
24-25 Proj	553	554	590	617	628	665	722	699	724	710	773	718	753	3607	2146	2954	8707
24-25 Cohort	557	553	554	590	617	628	665	722	699	724	710	773	718	3499	2087	2925	8510
Historical		1.023	1.046	1.021	1.022	1.045	1.059	1.057	1.028	1.027	1.011	0.997	1.089	0	0	0	0
25-26 Proj	557	566	580	602	631	656	704	763	719	743	718	771	782	3591	2187	3014	8792
25-26 Cohort	557	557	566	580	602	631	656	704	763	719	743	718	771	3493	2124	2951	8567
Historical		1.023	1.046	1.021	1.022	1.045	1.059	1.057	1.028	1.027	1.011	0.997	1.089	0	0	0	0
26-27 Proj	557	570	592	592	615	659	694	744	785	738	752	716	839	3585	2224	3045	8854
26-27 Cohort	556	557	570	592	592	615	659	694	744	785	738	752	716	3482	2098	2991	8571
Historical		1.023	1.046	1.021	1.022	1.045	1.059	1.057	1.028	1.027	1.011	0.997	1.089	0	0	0	0
27-28 Proj	556	570	596	604	605	643	698	734	765	806	747	749	779	3574	2197	3081	8853
27-28 Cohort	556	556	570	596	604	605	643	698	734	765	806	747	749	3487	2075	3067	8629
Historical		1.023	1.046	1.021	1.022	1.045	1.059	1.057	1.028	1.027	1.011	0.997	1.089	0	0	0	0
28-29 Proj	556	569	596	609	617	632	681	738	755	786	815	744	816	3579	2173	3161	8914
28-29 Cohort	556	556	569	596	609	617	632	681	738	755	786	815	744	3503	2051	3100	8654
Historical		1.023	1.046	1.021	1.022	1.045	1.059	1.057	1.028	1.027	1.011	0.997	1.089	0	0	0	0
29-30 Proj	556	569	595	609	622	645	670	720	759	775	795	812	811	3595	2148	3193	8936

Stillwater Low K/Low Mig

	K (+Hdcp)	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	K-5	6-8	9-12	K-12 total
2019-20 Actual	570	598	573	589	575	647	638	650	709	664	713	716	738	3552	1997	2831	8380
19-20 Cohort	562	570	598	573	589	575	647	638	650	709	664	713	716	3467	1935	2802	8204
Historical		1.029	1.048	1.025	1.02	1.043	1.041	1.04	1.029	1.033	1.017	1	1.107	0	0	0	0
20-21 Proj	562	587	627	587	601	600	674	664	669	732	675	713	793	3563	2006	2913	8482
20-21 Cohort	565	562	587	627	587	601	600	674	664	669	732	675	713	3528	1937	2790	8255
Historical		1.029	1.048	1.025	1.02	1.043	1.041	1.04	1.029	1.033	1.017	1	1.107	0	0	0	0
21-22 Proj	565	578	615	642	599	627	624	700	683	691	745	675	789	3626	2008	2900	8534
21-22 Cohort	551	565	578	615	642	599	627	624	700	683	691	745	675	3550	1951	2794	8296
Historical		1.029	1.048	1.025	1.02	1.043	1.041	1.04	1.029	1.033	1.017	1	1.107	0	0	0	0
22-23 Proj	551	581	606	630	655	625	652	649	721	705	703	745	748	3649	2022	2900	8571
22-23 Cohort	542	551	581	606	630	655	625	652	649	721	705	703	745	3566	1926	2874	8366
Historical		1.029	1.048	1.025	1.02	1.043	1.041	1.04	1.029	1.033	1.017	1	1.107	0	0	0	0
23-24 Proj	542	567	609	621	643	683	650	678	668	745	717	703	825	3666	1997	2989	8652
23-24 Cohort	553	542	567	609	621	643	683	650	678	668	745	717	703	3535	2012	2833	8380
Historical		1.029	1.048	1.025	1.02	1.043	1.041	1.04	1.029	1.033	1.017	1	1.107	0	0	0	0
24-25 Proj	553	558	594	625	634	670	711	676	698	690	757	717	778	3633	2086	2943	8662
24-25 Cohort	557	553	558	594	625	634	670	711	676	698	690	757	717	3520	2058	2863	8441
Historical		1.029	1.048	1.025	1.02	1.043	1.041	1.04	1.029	1.033	1.017	1	1.107	0	0	0	0
25-26 Proj	557	569	584	609	637	661	698	740	696	721	702	757	794	3617	2134	2974	8725
25-26 Cohort	557	557	569	584	609	637	661	698	740	696	721	702	757	3514	2099	2876	8488
Historical		1.029	1.048	1.025	1.02	1.043	1.041	1.04	1.029	1.033	1.017	1	1.107	0	0	0	0
26-27 Proj	557	573	596	599	621	664	688	726	761	719	733	702	838	3611	2175	2993	8779
26-27 Cohort	556	557	573	596	599	621	664	688	726	761	719	733	702	3503	2078	2916	8497
Historical		1.029	1.048	1.025	1.02	1.043	1.041	1.04	1.029	1.033	1.017	1	1.107	0	0	0	0
27-28 Proj	556	573	601	611	611	648	692	715	747	786	731	733	777	3600	2154	3028	8782
27-28 Cohort	556	556	573	601	611	611	648	692	715	747	786	731	733	3508	2055	2998	8561
Historical		1.029	1.048	1.025	1.02	1.043	1.041	1.04	1.029	1.033	1.017	1	1.107	0	0	0	0
28-29 Proj	556	572	601	616	623	637	675	719	736	771	800	731	812	3605	2130	3114	8850
28-29 Cohort	556	556	572	601	616	623	637	675	719	736	771	800	731	3524	2031	3039	8594
Historical		1.029	1.048	1.025	1.02	1.043	1.041	1.04	1.029	1.033	1.017	1	1.107	0	0	0	0
29-30 Proj	556	572	600	616	628	650	663	701	740	761	784	800	810	3622	2105	3154	8881