

Billings Public Schools, MT Demographic Study

August 2018





BILLINGS PUBLIC SCHOOLS, MT DEMOGRAPHIC STUDY



Table of Contents

Executive Summary	1
Introduction	2
Data	2
Assumptions	3
Methodology	4
References	5
Appendix A: Supplemental Tables	6
Appendix B: Population Forecasts	15
Appendix C: Population Pyramids	27
Appendix D: Enrollment Forecasts	39
Appendix E: Live-Attend and Map Analysis	72





Executive Summary

- 1. The resident total fertility rate for the Billings Public Schools over the life of the forecasts is below replacement level. (2.04 versus replacement level of 2.1)
- 2. Most non-college in-migration to the district continues to occur in the 0-to-4 and 25-to-39 year-old age groups.
- 3. The local 18-to-24 year-old population continues to leave the district, going to college or moving to other urbanized areas. This population group accounts for the largest segment of the service area's out-migration flow. The second largest out-migration flow is the 30-to-44 year-old population moving to suburban areas.
- 4. The primary factors causing the district's enrollment to decline after 2024 are the large cohorts leaving after 12th grade and an increase in the number of empty nest households.
- 5. Changes in year-to-year enrollment (until the 2022-23 school year) will primarily be due to larger grade cohorts entering and moving through the school system in conjunction with smaller grade cohorts leaving the system.
- 6. The elementary enrollment will have a slight decline after the 2022-23 school year. This is due primarily to the fact that the rising 5th grade cohort will be greater than 1,250 in size.
- 7. The median age of the population will increase from 37.5 in 2010 to 38.7 in 2025. This is a large increase for a major urbanized area.
- 8. Even as the district continues to have a sustained level of new home construction, particularly compared to the 2001-2008 time period; the rate, magnitude and price of existing home sales will become the increasingly dominant factors affecting the amount of population and enrollment change.
- 9. Total enrollment is forecasted to increase by 93 students, or .6%, between 2017-18 and 2022-23. Total enrollment will decrease by 97 students, or -0.6%, from 2022-23 to 2027-28.
- 10. Forecasts account for moving Independent Elementary District to Castle Rock MS (starting 2018-19), and impact of the new Lockwood High School District leaving BPS (starting 2019-20).







INTRODUCTION

By demographic principle, distinctions are made between projections and forecasts. A projection extrapolates the past (and present) into the future with little or no attempt to take into account any factors that may impact the extrapolation (e.g., changes in fertility rates, housing patterns or migration patterns) while a forecast results when a projection is modified by reasoning to take into account the aforementioned factors.

To maximize the use of this study as a planning tool, the ultimate goal is not simply to project the past into the future, but rather to assess various factors' impact on the future. A variety of factors influence the future population and enrollment changes of each school district. Not all factors will influence the entire school district at the same level. Some may affect different areas at dissimilar magnitudes and rates causing changes at varying points of time within the same district. The forecaster's judgment, based on a thorough and intimate study of the district, has been used to modify the demographic trends and factors to more accurately predict likely changes. Therefore, strictly speaking, this study is a forecast, not a projection; and the amount of modification of the demographic trends varies between different areas of the district as well as within the timeframe of the forecast.

To calculate population forecasts of any type, particularly for smaller populations such as a school district, realistic suppositions must be made as to what the future will bring in terms of age specific fertility rates and residents' demographic behavior at certain points of the life course. The demographic history of the school district and its interplay with the social and economic history of the area is the starting point and basis of most of these suppositions particularly on key factors such as the age structure of the area. The unique nature of each district's and attendance area's demographic composition and rate of change over time must be assessed and understood to be factors throughout the life of the forecast series. Moreover, no two populations, particularly at the school district and attendance area level, have exactly the same characteristics.

The manifest purpose of these forecasts is to ascertain the demographic factors that will ultimately influence the enrollment levels in the district's schools. There are of course, other non-demographic factors that affect enrollment levels over time. These factors include, but are not limited to: transfer policies within the district, student transfers to and from neighboring districts, placement of "special programs" within school facilities that may serve students from outside the attendance area, state or federal mandates that dictate the movement of students from one facility to another (No Child Left Behind was an excellent example of this factor), the development of charter schools in the district, the prevalence of home schooling in the area, and the dynamics of local private schools.

Unless the district specifically requests the calculation of forecasts that reflect the effects of changes in these nondemographic factors (such as state policy changes or economic

changes for example), their influences are held constant for the life of the forecasts. Again, the main function of these forecasts is to determine what impact demographic changes will have on future enrollment. It is quite possible to calculate special "scenario" forecasts to measure the impact of school policy modifications as well as planned economic or facility changes. However in this case the results of these population and enrollment forecast are meant to represent the most likely scenario for changes over the next 10 years in the district and its attendance areas.

The first part of the report will examine the assumptions made in calculating the population forecasts for the Billings Public Schools. Since the results of the population forecasts drive the subsequent enrollment forecasts, the assumptions listed in this section are paramount to understanding the area's demographic dynamics. The remainder of the report is an explanation and analysis of the district's population forecasts and how they will shape the district's grade level enrollment forecasts.

DATA

The data used for the forecasts come from a variety of sources. The Billings Public Schools provided enrollments by grade and attendance center for the school years 2015-2016 to 2017-18. Birth and death data for the years 2000 through 2015 were obtained from the Montana Department of Health. The net migration values were calculated using Internal Revenue Service migration reports for the years 2000 through 2016. The data used for the calculation of migration models came from the United States Bureau of the Census, 2005 to 2010, and the models were designed using demographic and economic factors. The base age-sex population counts used are from the results of the 2010 Census.

Recently the Census Bureau began releasing annual estimates of demographic variables at the block group and tract level from the American Community Survey (ACS). There has been wide scale reporting of these results in the national, state and local media. However, due to the methodological problems the Census Bureau is experiencing with their estimates derived from ACS data, particularly in areas with a population of less than 60,000, the results of the ACS are not used in these forecasts. For example, given the sampling framework used by the Census Bureau, each year only 1,400 of the over 45,000 current households in the district would have been included. For comparison 6,600 households in the district were included in the sample for the long form questionnaire in the 2000 Census. As a result of this small sample size, the ACS survey result from the last 5 years must be aggregated to produce the tract and block group estimates.

To develop the population forecast models, past migration patterns, current age specific fertility patterns, the magnitude and dynamics of the gross migration, the age specific mortality trends, the distribution of the population by age and sex, the rate and type of existing housing unit sales, and future housing unit construction are considered to be primary variables. In addition, the change in household size





BILLINGS PUBLIC SCHOOLS, MT **DEMOGRAPHIC STUDY**



relative to the age structure of the forecast area was addressed. While there was a slight drop in the average household size in the Billings Public Schools as well as most other areas of the state during the previous 20 years, the rate of this decline has been forecasted to slow over the next ten years.

ASSUMPTIONS

For these forecasts, the mortality probabilities are held constant at the levels calculated for the year 2010. While the number of deaths in an area are impacted by and will change given the proportion of the local population over age 65, in the absence of an extraordinary event such as a natural disaster or a breakthrough in the treatment of heart disease, death rates rarely move rapidly in any direction, particularly at the school district or attendance area level. Thus, significant changes are not foreseen in district's mortality rates between now and the year 2027. Any increases forecasted in the number of deaths will be due primarily to the general aging of the district's population and specifically to the increase in the number of residents aged 65 and older.

Similarly, fertility rates are assumed to stay fairly constant for the life of the forecasts. Like mortality rates, age specific fertility rates rarely change quickly or dramatically, particularly in small areas. Even with the recently reported rise in the fertility rates of the United States, overall fertility rates have stayed within a 10% range for most of the last 40 years. In fact, the vast majority of year to year change in an area's number of births is due to changes in the number of women in child bearing ages (particularly ages 20-to-29) rather than any fluctuation in an area's fertility rate.

The resident total fertility rate (TFR), the average number of births a woman will have while living in the school district during her lifetime, is estimated to be 2.04 for the total district for the ten years of the population forecasts. A TFR of 2.1 births per woman is considered to be the theoretical "replacement level" of fertility necessary for a population to remain constant in the absence of in-migration. Therefore, in the absence of any migration into or out of the district, fertility alone would not be sufficient to maintain the current level of population and enrollment within the Billings Public Schools over the course of the forecast period.

A close examination of data for the Billings Public Schools has shown the age specific pattern of the non-college net migration will be nearly constant throughout the life of the forecasts. While the number of in and out migrants has changed in past years for the Billings Public Schools (and will change again over the next 10 years), the basic age pattern of the migrants has stayed nearly the same over the last 30 years. Based on the analysis of data it is safe to assume this age specific migration trend will remain unchanged into the future. This pattern of migration shows that the largest of the local out-migration occurring in the 18-to-24 year-old age group as young adults leave the area to go to college or move to other urbanized areas. A second group of out-migrants are those householders aged 30-to-44 years old that move to the outlying suburban areas. Most of the non-college local in-migration

occurs in the 0-to-4 and 20-to-29 age groups (the bulk of the which come from areas within 150 miles of the Billings Public Schools) primarily consisting of younger adults and their children.

As Yellowstone County is not currently contemplating any major expansions or contractions, the forecasts also assume that the current economic, political, social, and environmental factors, as well as the transportation and public works infrastructure (with a few notable exceptions) of the Billings Public Schools and its attendance areas will remain the same through the year 2027. Below is a list of assumptions and issues that are specific to the Billings Public Schools. These issues have been used to modify the population forecast models to more accurately predict the impact of these factors on each area's population change. Specifically, the forecasts for the Billings Public Schools assume that throughout the study period:

- The national, state or regional economy does not go into deep recession at any time during the 10 years of the forecasts; (Deep recession is defined as four consecutive quarters where the GDP contracts greater than 1% per quarter)
- Interest rates have reached a historic low and will not fluctuate more than one percentage point in the short term; the interest rate for a 30 year fixed home mortgage stays below 5.0%;
- The rate of mortgage approval stays at 1999-2003 levels and lenders do not return to "sub-prime" mortgage practices;
- d. There are no additional restrictions placed on home mortgage lenders or additional bankruptcies of major credit providers;
- The rate of housing foreclosures does not exceed 125% of the 2005-2007 average of Yellowstone County for any year in the forecasts;
- All currently platted and approved housing developments are built out and completed by 2026. All housing units constructed are occupied by 2027;
- The unemployment rate for Yellowstone County will remain below 7.5% for the 10 years of the forecasts;
- The rate of students transferring in to and out of the Billings Public Schools will remain at the 2013-14 to 2017-18 average;
- No additional private or charter school opens in the district over the next 10 years;
- The Lockwood School District doesn't become a K-12 district anytime in the next 10 years;
- No existing private or charter school closes in the district over the next 10 years;
- The State of Montana does not change the current policies on school vouchers or open enrollment over the next 10 years;
- The inflation rate for gasoline will stay below 5% per year for the 10 years of the forecasts;
- There will be no building moratorium within the district;





BILLINGS PUBLIC SCHOOLS, MT **DEMOGRAPHIC STUDY**



- o. Businesses within the district and the Billings Public Schools area will remain viable;
- p. The number of existing home sales in the district that are a result of "distress sales" (homes worth less than the current mortgage value) will not exceed 20% of total homes sales in the district for any given year;
- Housing turnover rates (sale of existing homes in the district) will remain at their current levels. The majority of existing home sales are made by home owners over the age of 60;
- Private school and home school attendance rates will remain constant:
- The rate of foreclosures for commercial property remains at the 2004-2008 average for Yellowstone County;
- Forecasts account for moving Independent Elementary District to Castle Rock MS (starting 2018-19), and impact of the new Lockwood High School District leaving BPS (starting 2019-20).

If a major employer in the district or in the greater Billings Metropolitan Area closes, reduces, or expands its operations, the population forecasts would need to be adjusted to reflect the changes brought about by the change in economic and employment conditions. The same holds true for any type of natural disaster, major change in the local infrastructure (e.g., highway construction, water and sewer expansion, changes in zoning regulations etc.), a further economic downturn, any additional weakness in the housing market or any instance, or situation that causes rapid and dramatic population changes that could not be foreseen at the time the forecasts were calculated.

The high proportion of high school graduates from the Billings Public Schools that attend college or move to urban areas outside of the district for employment is a significant demographic factor. Their departure is a major reason for the extremely high out-migration in the 18-to-24 age group, and was taken into account when calculating these forecasts. The out-migration of graduating high school seniors is expected to continue over the period of the forecasts and the rate of outmigration has been forecasted to remain the same over the life of the forecast series.

Finally, all demographic trends (i.e., births, deaths, and migration) are assumed to be linear in nature and annualized over the forecast period. For example, if 1,000 births are forecasted for a 5-year period, an equal number, or proportion of the births are assumed to occur every year, 200 per year. Actual year-to-year variations do and will occur, but overall year to year trends are expected to be constant.

METHODOLOGY

The population forecasts presented in this report are the result of using the Cohort-Component Method of population forecasting. (Siegel, and Swanson, 2004: 561-601) (Smith et. al. 2004) As stated in the INTRODUCTION, the difference between a projection and a forecast is in the use of

explicit judgment based upon the unique features of the area under study. Strictly speaking, a cohort projection refers to the future population that would result from a mathematical extrapolation of historical trends. Conversely, a cohortcomponent forecast refers to the future population that is expected because of a studied and purposeful selection of the components of change (i.e., births, deaths, and migration) and forecast models are developed to measure the impact of these changes in each specific geographic area.

Five sets of data are required to generate population and enrollment forecasts. These five data sets are:

- a base-year population (here, the 2010 Census population for Billings Public Schools and its attendance areas);
- 2. a set of age-specific fertility rates for the district to be used over the forecast period and its attendance areas;
- 3. a set of age-specific survival (mortality) rates for the district and its attendance areas;
- a set of age-specific migration rates for the district and its attendance areas; and;
- the historical enrollment figures by grade.

The most significant and difficult aspect of producing enrollment forecasts is the generation of the population forecasts in which the school age population (and enrollment) is embedded. In turn, the most challenging aspect of generating the population forecasts is found in deriving the rates of change in fertility, mortality, and migration. From the standpoint of demographic analysis, the Billings Public Schools is classified as a "small area" population (as compared to the population of the state of Montana or to that of the United States). Small area population forecasts are more complicated to forecast of the migration calculate because local variations in fertility, mortality, and migration may be more irregular than those at the regional, state or national scale. Especially challenging is the rates for local areas, because changes in the area's socioeconomic characteristics can quickly change from past and current patterns. (Peters and Larkin, 2002)

The population forecasts for Billings Public Schools were calculated using a cohort-component method with the populations divided into male and female groups by five-year age cohorts that range from 0-to-4 years of age to 85 years of age and older (85+). Age- and sex-specific fertility, mortality, and migration models were constructed to specifically reflect the unique demographic characteristics of each of the attendance areas in the Billings Public Schools.

The enrollment forecasts were calculated using a modified average survivorship method. Average survivor rates (i.e., the proportion of students who progress from one grade level to the next given the average amount of net migration for that grade level) over the previous five years of year-to-year enrollment data were calculated for grades two through twelve. This procedure is used to identify specific grades where there are large numbers of students changing





BILLINGS PUBLIC SCHOOLS, MT DEMOGRAPHIC STUDY



facilities for non-demographic factors, such as private school transfers or enrollment in special programs.

The survivorship rates were modified or adjusted to reflect the average rate of forecasted in and out migration of 5-to-9, 10-to-14 and 15-to-17 year-old cohorts to each of the attendance centers in Billings Public Schools for the period 2010 to 2015. These survivorship rates then were adjusted to reflect the forecasted changes in age-specific migration the district should experience over the next five years. These modified survivorship rates were used to project the enrollment of grades 2 through 12 for the period 2015 to 2020. The survivorship rates were adjusted again for the period 2020 to 2025 to reflect the predicted changes in the amount of age-specific migration in the district for the period.

The forecasted enrollments for kindergarten and first grade are derived from the 5-to-9 year-old population of the age-sex population forecast at the elementary attendance center district level. This procedure allows the changes in the incoming grade sizes to be factors of forecasted population change and not an extrapolation of previous class sizes. Given the potentially large amount of variation in kindergarten enrollment due to parental choice, changes in the state's minimum age requirement, and differing district policies on allowing children to start kindergarten early, first grade enrollment is deemed to be a more accurate and reliable starting point for the forecasts. (McKibben, 1996) The level of the accuracy for both the population and enrollment forecasts at the school district level is estimated to be ±2.0% for the life of the forecasts.

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Appendix A: Supplemental Tables

Table 1: Forecasted Elementary Area Population Change, 2010 to 2020

			2010-2015		2015-2020	2010-2020
	2010	2015	Change	2020	Change	Change
ALKALI CREEK	5,269	5,450	3.3%	5,600	2.8%	6.3%
ARROWHEAD	7,089	6,930	-2.3%	6,740	-2.7%	-4.9%
BEARTOOTH	4,077	4,270	4.5%	4,420	3.5%	8.4%
BENCH	4,678	4,930	5.1%	5,180	5.1%	10.7%
BIG SKY	6,492	6,740	3.7%	6,950	3.1%	7.1%
BITTERROOT	3,888	4,110	5.4%	4,350	5.8%	11.9%
BOULDER	4,523	4,450	-1.6%	4,480	0.7%	-1.0%
BROADWATER	5,782	6,080	4.9%	6,310	3.8%	9.1%
BURLINGTON	3,653	3,770	3.1%	3,840	1.9%	5.1%
CENTRAL HEIGHTS	4,370	4,400	0.7%	4,460	1.4%	2.1%
EAGLE CLIFFS	3,930	4,080	3.7%	4,250	4.2%	8.1%
HIGHLAND	5,682	5,730	0.8%	5,750	0.3%	1.2%
MCKINLEY	7,074	7,290	3.0%	7,440	2.1%	5.2%
MEADOWLARK	5,740	5,870	2.2%	5,980	1.9%	4.2%
MILES	4,802	4,870	1.4%	4,890	0.4%	1.8%
NEWMAN	2,776	2,900	4.3%	3,020	4.1%	8.8%
ORCHARD	4,810	5,090	5.5%	5,360	5.3%	11.4%
POLY	5,007	4,890	-2.4%	4,870	-0.4%	-2.7%
PONDEROSA	4,968	5,110	2.8%	5,210	2.0%	4.9%
ROSE PARK	5,089	5,130	0.8%	5,160	0.6%	1.4%
SANDSTONE	4,649	4,930	5.7%	5,150	4.5%	10.8%
WASHINGTON	3,504	3 <i>,</i> 750	6.6%	3,960	5.6%	13.0%
DISTRICT TOTAL	107,851	110,770	2.6%	113,370	2.3%	5.1%

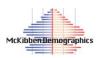




Table 2: Household Characteristics by Elementary Area, 2010 Census

	HH w/ Pop	% HH w/ Pop	Total	Household	Persons Per
	Under 18	Under 18	Households	Population	Household
ALKALI CREEK	646	31.6%	2,046	5,259	2.57
ARROWHEAD	843	30.0%	2,806	6,860	2.44
BEARTOOTH	588	40.3%	1,459	3,974	2.72
BENCH	655	32.7%	2,004	4,647	2.32
BIG SKY	777	25.3%	3,074	6,467	2.10
BITTERROOT	531	32.6%	1,630	3,888	2.39
BOULDER	509	27.4%	1,855	4,295	2.32
BROADWATER	688	24.9%	2,768	5,747	2.08
BURLINGTON	452	28.6%	1,580	3,653	2.31
CENTRAL HEIGHTS	516	26.0%	1,988	4,347	2.19
EAGLE CLIFFS	595	44.1%	1,349	3,883	2.88
HIGHLAND	554	21.8%	2,540	5,213	2.05
MCKINLEY	702	20.2%	3,480	6,570	1.89
MEADOWLARK	760	34.7%	2,193	5,717	2.61
MILES	532	25.7%	2,072	4,662	2.25
NEWMAN	357	30.5%	1,172	2,776	2.37
ORCHARD	618	32.0%	1,934	4,662	2.41
POLY	549	25.7%	2,136	4,886	2.29
PONDEROSA	551	32.4%	1,701	4,197	2.47
ROSE PARK	560	27.2%	2,060	4,688	2.28
SANDSTONE	698	37.3%	1,871	4,633	2.48
WASHINGTON	467	29.1%	1,603	3,490	2.18
DISTRICT TOTAL	13,148	29.0%	45,321	104,514	2.31







Table 3: Householder Characteristics by Elementary Area, 2010 Census

	Percentage of	Domonto so of	Percentage of
	Householders aged	Percentage of	Householders Who
	35-54	Householders aged 65+	Own Homes
ALKALI CREEK	41.0%	17.8%	83.3%
ARROWHEAD	35.4%	34.8%	75.1%
BEARTOOTH	40.4%	19.9%	82.9%
BENCH	33.3%	22.6%	56.6%
BIG SKY	31.2%	22.9%	56.2%
BITTERROOT	35.3%	24.1%	66.9%
BOULDER	31.5%	32.0%	73.9%
BROADWATER	37.5%	13.7%	49.2%
BURLINGTON	33.5%	28.8%	69.1%
CENTRAL HEIGHTS	30.5%	31.3%	72.4%
EAGLE CLIFFS	44.9%	16.1%	90.3%
HIGHLAND	30.0%	26.6%	61.7%
MCKINLEY	34.3%	15.3%	28.9%
MEADOWLARK	40.0%	26.4%	80.2%
MILES	33.2%	27.9%	64.9%
NEWMAN	36.8%	20.5%	76.0%
ORCHARD	41.0%	14.7%	46.8%
POLY	29.1%	37.5%	77.3%
PONDEROSA	37.0%	21.5%	61.7%
ROSE PARK	27.9%	32.6%	74.0%
SANDSTONE	39.0%	14.7%	59.4%
WASHINGTON	33.9%	15.7%	45.5%
DISTRICT TOTAL	34.9%	23.6%	64.0%





Table 4: Percentage of Households that are Single Person Households and Single Person Households that are over age 65 by Elementary Area , 2010 Census

	Percentage of Single	Percentage of Single Person
	Person Households	Households and are 65+
ALKALI CREEK	21.3%	5.9%
ARROWHEAD	27.9%	19.2%
BEARTOOTH	19.1%	7.7%
BENCH	32.5%	11.0%
BIG SKY	36.2%	13.4%
BITTERROOT	29.0%	12.4%
BOULDER	32.7%	17.6%
BROADWATER	40.9%	7.5%
BURLINGTON	34.4%	15.3%
CENTRAL HEIGHTS	34.2%	16.0%
EAGLE CLIFFS	13.8%	5.9%
HIGHLAND	39.5%	14.4%
MCKINLEY	51.4%	10.4%
MEADOWLARK	21.4%	11.0%
MILES	33.0%	13.2%
NEWMAN	29.5%	9.5%
ORCHARD	35.2%	7.8%
POLY	29.2%	17.1%
PONDEROSA	30.6%	10.4%
ROSE PARK	28.9%	14.7%
SANDSTONE	25.9%	6.6%
WASHINGTON	36.5%	8.3%
DISTRICT TOTAL	32.4%	11.9%





Table 5: Elementary Enrollment (K-5), 2017, 2022, 2027

	2017	2022	2017-2022	2027	2022-2027	2017-2027
	2017	2022	Change	2027	Change	Change
ALKALI CREEK	331	358	8.2%	345	-3.6%	4.2%
ARROWHEAD	434	445	2.5%	502	12.8%	15.7%
BEARTOOTH	385	418	8.6%	407	-2.6%	5.7%
BENCH	385	401	4.2%	379	-5.5%	-1.6%
BIG SKY	407	385	-5.4%	365	-5.2%	-10.3%
BITTERROOT	369	420	13.8%	391	-6.9%	6.0%
BOULDER	428	398	-7.0%	362	-9.0%	-15.4%
BROADWATER	373	359	-3.8%	355	-1.1%	-4.8%
BURLINGTON	227	255	12.3%	242	-5.1%	6.6%
CENTRAL HEIGHTS	267	221	-17.2%	220	-0.5%	-17.6%
EAGLE CLIFFS	374	406	8.6%	384	-5.4%	2.7%
HIGHLAND	292	282	-3.4%	275	-2.5%	-5.8%
MCKINLEY	263	246	-6.5%	240	-2.4%	-8.7%
MEADOWLARK	480	508	5.8%	493	-3.0%	2.7%
MILES	267	250	-6.4%	239	-4.4%	-10.5%
NEWMAN	222	205	-7.7%	214	4.4%	-3.6%
ORCHARD	367	340	-7.4%	332	-2.4%	-9.5%
POLY	342	308	-9.9%	312	1.3%	-8.8%
PONDEROSA	270	229	-15.2%	240	4.8%	-11.1%
ROSE PARK	256	263	2.7%	260	-1.1%	1.6%
SANDSTONE	405	411	1.5%	412	0.2%	1.7%
WASHINGTON	296	360	21.6%	337	-6.4%	13.9%
DISTRICT TOTAL	7,440	7,468	0.4%	7,306	-2.2%	-1.8%

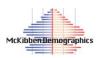






Table 6: Age Under One to Age Ten Population Counts, by Year of Age, by Elementary Area: 2010 Census

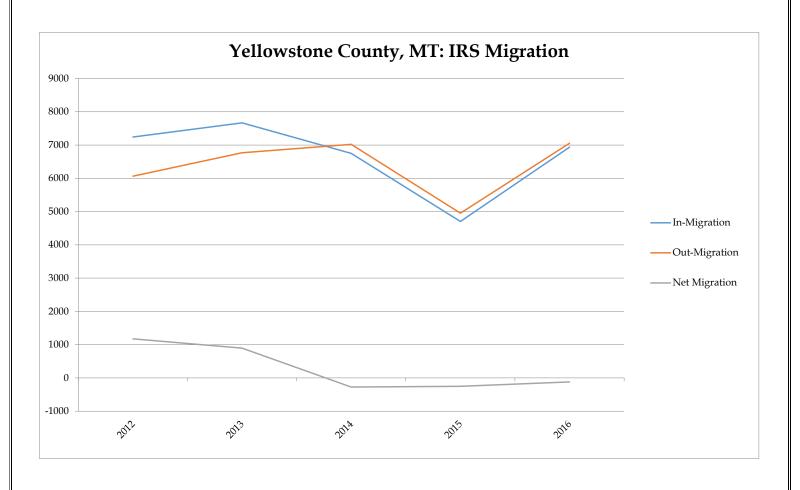
Elementary Alea. 2010 Census											
	Under 1 year	1 year	2 years	3 years	4 years	5 years	6 years	7 years	8 years	9 years	10 years
ALKALI CREEK	58	62	55	65	64	77	77	74	83	52	78
ARROWHEAD	58	68	73	76	91	93	87	97	84	99	87
BEARTOOTH	55	73	52	76	62	85	50	62	56	82	64
BENCH	81	91	96	90	66	77	71	54	58	64	44
BIG SKY	73	91	100	86	74	73	68	78	58	77	73
BITTERROOT	77	64	72	68	<i>7</i> 5	60	53	58	40	51	46
BOULDER	48	39	53	66	53	64	56	62	47	53	61
BROADWATER	100	94	68	84	79	54	81	68	73	61	58
BURLINGTON	60	59	51	54	48	40	49	54	51	34	57
CENTRAL HEIGHTS	59	56	66	57	64	50	45	52	47	44	43
EAGLE CLIFFS	57	61	71	65	79	68	60	69	66	68	52
HIGHLAND	66	65	73	63	46	54	61	47	53	58	59
MCKINLEY	103	93	114	91	90	67	77	66	52	78	48
MEADOWLARK	56	71	82	77	67	96	70	85	74	80	89
MILES	64	49	59	69	47	56	47	54	53	48	48
NEWMAN	39	43	44	52	42	39	40	45	36	28	24
ORCHARD	80	82	100	91	74	76	70	70	71	69	68
POLY	41	55	50	51	48	56	65	63	50	55	57
PONDEROSA	77	84	65	79	71	81	58	74	61	60	64
ROSE PARK	69	58	59	68	69	45	46	48	41	53	42
SANDSTONE	79	77	73	98	57	78	68	59	70	56	61
WASHINGTON	65	65	62	70	59	63	48	45	41	31	43
DISTRICT TOTAL	1,465	1,498	1,538	1,595	1,425	1,451	1,347	1,382	1,266	1,301	1,265





Internal Revenue Service Migration

	2016 In-Migration				2016 Out-Migration			
				Mean				Mean
			Persons per	Household			Persons per	Household
	Households	Persons	Household	Income	Households	Persons	Household	Income
Yellowstone County Total Migration-US and Foreign	3,782	6,935	1.83	\$51,943	3,750	7,055	1.88	\$53,587
Yellowstone County Total Migration-US	3,762	6,893	1.83	\$51,919	3,750	7,055	1.88	\$53,587
Yellowstone County Total Migration-Same State	1,380	2,506	1.82	\$47,278	1,493	2,654	1.78	\$47,054
Yellowstone County Total Migration-Different State	2,382	4,387	1.84	\$54,607	2,257	4,401	1.95	\$57,908
Yellowstone County Total Migration-Foreign								
Yellowstone County Non-migrants	60,723	123,836	2.04	\$71,641	60,723	123,836	2.04	\$71,641
Gallatin County	218	329	1.51	\$52,417	172	257	1.49	\$36,878
Missoula County	138	202	1.46	\$67,754	107	162	1.51	\$31,981
Carbon County	134	282	2.10	\$62,090	129	213	1.65	\$40,302
Maricopa County	103	173	1.68	\$54,068	55	108	1.96	\$39,982
Stillwater County	98	189	1.93	\$49,255	106	227	2.14	\$53,142







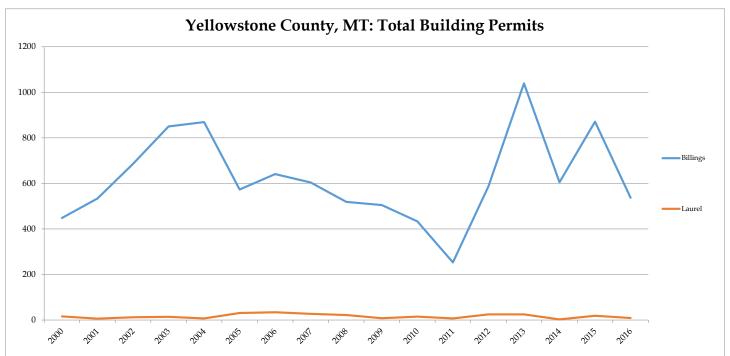


United States Census Bureau Building Permits

	United States Census dureau duriding Fermits										
		Single Fa	mily Units	Dual Occu	pancy Units	Three or Four Units Five or More Units				Total	
Year	Name	Buildings	Total Units	Buildings	Total Units	Buildings	Total Units	Buildings	Total Units	Buildings	Total Units
2000	Billings	404	404	2	4	3	12	4	28	413	448
2000	Laurel	4	4	3	6	2	6	0	0	9	16
2001	Billings	530	530	0	0	1	4	0	0	531	534
2001	Laurel	4	4	1	2	0	0	0	0	5	6
2002	Billings	568	568	4	8	1	3	9	107	582	686
2002	Laurel	8	8	2	4	0	0	0	0	10	12
2003	Billings	646	646	3	6	1	3	5	195	655	850
2003	Laurel	3	3	1	2	3	9	0	0	7	14
2004	Billings	587	587	0	0	12	48	11	234	610	869
2004	Laurel	7	7	0	0	0	0	0	0	7	7
2005	Billings	516	516	0	0	6	23	5	34	527	573
2005	Laurel	25	25	1	2	1	4	0	0	27	31
2006	Billings	603	603	3	6	1	4	2	28	609	641
2006	Laurel	32	32	1	2	0	0	0	0	33	34
2007	Billings	604	604	0	0	0	0	0	0	604	604
2007	Laurel	15	15	4	8	1	4	0	0	20	27
2008	Billings	519	519	0	0	0	0	0	0	519	519
2008	Laurel	14	14	4	8	0	0	0	0	18	22
2009	Billings	438	438	1	2	0	0	1	65	440	505
2009	Laurel	8	8	0	0	0	0	0	0	8	8
2010	Billings	308	308	0	0	20	79	4	46	332	433
2010	Laurel	7	7	1	2	2	6	0	0	10	15
2011	Billings	243	243	5	10	0	0	0	0	248	253
2011	Laurel	7	7	0	0	0	0	0	0	7	7
2012	Billings	406	406	1	2	1	4	15	175	423	587
2012	Laurel	10	10	4	8	0	0	1	7	15	25
2013	Billings	481	481	0	0	2	8	24	550	507	1039
2013	Laurel	3	3	11	22	0	0	0	0	14	25
2014	Billings	473	473	1	2	4	16	9	114	487	605
2014	Laurel	1	1	1	2	0	0	0	0	2	3
2015	Billings	641	641	0	0	1	3	7	227	649	871
2015	Laurel	11	11	4	8	0	0	0	0	15	19
2016	Billings	525	525	0	0	0	0	1	12	526	537
2016	Laurel	7	7	1	2	0	0	0	0	8	9











Appendix B: Population Forecasts

15

Billings Public Schools

Total	2010	2015	2020	2025
0-4	7,521	7,320	7,030	6,600
5-9	6,747	7,450	7,370	7,130
10-14	6,347	6,750	7,450	7,370
15-19	6,596	6,320	6,710	7,390
20-24	7,832	7,650	7,350	7,610
25-29	8,486	8,460	8,270	7,970
30-34	7,166	7,880	7,850	7,700
35-39	6,336	6,990	7,750	7,770
40-44	6,141	6,340	6,970	7,720
45-49	7,383	6,020	6,230	6,920
50-54	8,041	7,290	5,960	6,140
55-59	7,278	7,570	6,860	5,600
60-64	5,914	6,520	6,810	6,140
65-69	4,377	5,500	6,130	6,350
70-74	3,410	4,190	5,260	5,800
75-79	2,899	3,010	3,720	4,640
80-84	2,580	2,570	2,650	3,250
85+	2,797	2,940	3,000	3,080
Total	107,851	110,770	113,370	115,180
Median Age	37.5	37.5	38.0	38.7

	2010 to	2015 to	2020 to
	2015	2020	2025
Births	7,130	6,890	6,560
Deaths	5,240	5,430	5,670
Natural Increase	1,890	1,460	890
Net Migration	1,110	1,060	1,030
Change	3,000	2,520	1,920

Differences between period Totals may not equal Change due to rounding.

Alkali Creek Elementary School

Total	2010	2015	2020	2025
0-4	303	320	280	260
5-9	362	350	370	340
10-14	378	360	350	370
15-19	357	360	340	330
20-24	232	210	240	220
25-29	303	260	240	260
30-34	316	350	300	280
35-39	311	360	390	340
40-44	343	360	400	430
45-49	367	340	360	400
50-54	523	360	340	340
55-59	500	500	350	320
60-64	370	470	480	330
65-69	248	340	430	450
70-74	163	230	320	400
75-79	91	150	210	280
80-84	60	80	130	180
85+	43	50	70	100
Total	5,269	5,450	5,600	5,630
Median Age	41.1	42.2	43.6	44.8

	2010 to	2015 to	2020 to
	2015	2020	2025
Births	300	290	260
Deaths	190	230	280
Natural Increase	110	60	-20
Net Migration	80	70	70
Change	190	130	50

Differences between period Totals may not equal Change due to rounding.







Arrowhead Elementary School

Total	2010	2015	2020	2025
0-4	366	350	360	300
5-9	461	460	450	500
10-14	484	460	460	450
15-19	475	450	430	430
20-24	240	210	220	200
25-29	238	270	230	240
30-34	274	270	290	250
35-39	370	340	310	340
40-44	457	390	330	300
45-49	532	450	380	330
50-54	577	520	440	380
55-59	551	560	510	430
60-64	464	520	530	480
65-69	329	430	480	490
70-74	232	310	400	450
75-79	222	230	280	360
80-84	278	220	210	250
85+	539	490	430	370
Total	7,089	6,930	6,740	6,550
Median Age	46.7	47.9	48.8	49.0

	2010 to	2015 to	2020 to
	2015	2020	2025
Births	300	300	260
Deaths	550	510	490
Natural Increase	-250	-210	-230
Net Migration	60	50	50
Change	-190	-160	-180

Differences between period Totals may not equal Change due to rounding.

Beartooth Elementary School

Total	2010	2015	2020	2025
0-4	318	330	330	330
5-9	336	340	360	350
10-14	300	340	340	360
15-19	261	260	300	300
20-24	202	230	230	260
25-29	277	270	300	280
30-34	340	310	290	320
35-39	276	330	300	290
40-44	279	270	330	300
45-49	283	280	270	330
50-54	230	280	270	260
55-59	244	230	260	260
60-64	203	230	210	250
65-69	177	170	200	180
70-74	123	140	130	160
75-79	102	100	120	120
80-84	60	90	100	100
85+	68	70	80	100
Total	4,077	4,270	4,420	4,550
Median Age	35.1	35.8	36.0	36.3

	2010 to	2015 to	2020 to
	2015	2020	2025
Births	280	270	290
Deaths	150	170	190
Natural Increase	130	100	100
Net Migration	70	70	60
Change	200	170	160

Differences between period Totals may not equal Change due to rounding.





Revised: 08/28/2018



Bench Elementary School

Total	2010	2015	2020	2025
0-4	423	390	410	390
5-9	324	380	370	390
10-14	293	320	380	370
15-19	274	270	300	360
20-24	352	330	310	340
25-29	386	380	360	350
30-34	323	420	400	390
35-39	309	340	440	430
40-44	256	310	340	430
45-49	297	250	300	340
50-54	266	290	250	300
55-59	296	260	290	240
60-64	246	270	240	270
65-69	199	210	240	200
70-74	164	170	170	200
75-79	122	150	150	160
80-84	87	110	130	130
85+	62	80	100	120
Total	4,678	4,930	5,180	5,410
Median Age	34.4	34.7	35.7	36.3

	2010	to	2015 to	2020 to
	201	5	2020	2025
Births	39	90	400	390
Deaths	13	80	210	230
Natural Increase	2	10	190	160
Net Migration	Į.	50	50	60
Change	20	60	240	220

Differences between period Totals may not equal Change due to rounding.

Big Sky Elementary School

Total	2010	2	2015	2020	2025
0-4	425		450	430	410
5-9	354		390	410	390
10-14	349		360	390	410
15-19	316		320	320	350
20-24	600		580	580	560
25-29	687		630	620	610
30-34	503		590	540	530
35-39	379		460	550	510
40-44	330		370	460	550
45-49	412		320	370	460
50-54	436		410	320	370
55-59	413		420	390	310
60-64	327		390	400	370
65-69	226		300	360	370
70-74	196		210	280	340
75-79	194		170	190	250
80-84	163		180	150	170
85+	181		190	190	190
Total	6,492		6,740	6,950	7,150
Median Age	35.1	3	35.5	36.7	38.1

	2010 to	2015 to	2020 to
	2015	2020	2025
Births	480	450	430
Deaths	310	320	330
Natural Increase	170	130	100
Net Migration	90	90	80
Change	260	220	180

Differences between period Totals may not equal Change due to rounding.







Bitterroot Elementary School

Total	2010	2015	2020	2025
0-4	356	360	340	320
5-9	262	350	400	420
10-14	223	260	350	400
15-19	206	200	240	330
20-24	255	240	240	280
25-29	314	290	280	270
30-34	318	350	330	320
35-39	229	320	350	330
40-44	229	220	320	350
45-49	254	220	220	310
50-54	260	250	220	220
55-59	227	250	240	220
60-64	197	220	240	220
65-69	168	140	160	180
70-74	138	140	110	110
75-79	116	120	120	90
80-84	83	110	100	110
85+	53	70	90	110
Total	3,888	4,110	4,350	4,590
Median Age	35.2	35.1	34.9	34.3

	2010 to	2015 to	2020 to
	2015	2020	2025
Births	300	320	320
Deaths	160	180	190
Natural Increase	140	140	130
Net Migration	110	100	100
Change	250	240	230

Differences between period Totals may not equal Change due to rounding.

Boulder Elementary School

Total	2010	20	15	2020	2025
0-4	259		300	270	250
5-9	282		300	350	290
10-14	289		280	300	350
15-19	252		270	260	290
20-24	240		260	290	280
25-29	213		240	280	290
30-34	241		230	260	280
35-39	231		240	250	280
40-44	245		230	240	250
45-49	314		240	230	240
50-54	305		310	240	220
55-59	316		290	290	230
60-64	283		290	280	280
65-69	192		240	250	240
70-74	172		160	210	220
75-79	192		140	130	190
80-84	194		160	110	120
85+	303		270	240	200
Total	4,523	4	4,450	4,480	4,500
Median Age	45.2	42	3	39.6	38.9

	2010 to	2015 to	2020 to
	2015	2020	2025
Births	260	260	250
Deaths	340	300	270
Natural Increase	-80	-40	-20
Net Migration	40	40	40
Change	-40	0	20

Differences between period Totals may not equal Change due to rounding.





Revised: 08/28/2018



Broadwater Elementary School

Total	2010	2015	2020	2025
0-4	425	470	410	370
5-9	337	410	450	390
10-14	253	340	410	450
15-19	302	270	350	430
20-24	554	480	450	530
25-29	657	630	560	530
30-34	458	530	510	440
35-39	386	400	470	450
40-44	324	360	360	430
45-49	411	310	340	340
50-54	473	410	300	330
55-59	398	450	390	290
60-64	272	350	410	350
65-69	178	250	330	370
70-74	111	170	250	320
75-79	86	100	150	220
80-84	71	70	80	130
85+	86	80	90	100
Total	5,782	6,080	6,310	6,470
Median Age	34.0	34.2	35.2	36.1

	2	010 to	2015 to	2020 to
		2015	2020	2025
Births		480	430	390
Deaths		200	220	250
Natural Increase		280	210	140
Net Migration		30	30	30
Change		310	240	170

Differences between period Totals may not equal Change due to rounding.

Burlington Elementary School

Total	2010	2015	2020	2025
0-4	272	250	240	230
5-9	228	240	230	220
10-14	228	230	240	230
15-19	201	220	220	230
20-24	245	260	280	280
25-29	296	320	340	360
30-34	236	220	240	260
35-39	187	220	200	220
40-44	199	200	230	220
45-49	258	210	210	250
50-54	264	260	210	210
55-59	222	250	250	200
60-64	178	190	210	210
65-69	159	180	190	210
70-74	144	160	180	180
75-79	123	130	140	150
80-84	101	110	110	120
85+	112	120	120	130
Total	3,653	3,770	3,840	3,910
Median Age	38.2	38.3	38.3	38.3

	2010	to	2015 to	2020 to	
	201	.5	2020	2025	
Births	2	270	260	250	ĺ
Deaths	2	200	210	220	
Natural Increase		70	50	30	
Net Migration		40	40	40	
Change	1	10	90	70	

Differences between period Totals may not equal Change due to rounding.





Revised: 08/28/2018



Central Heights Elementary School

Total	2010	2015	2020	2025
0-4	302	250	250	220
5-9	238	300	240	240
10-14	218	230	300	240
15-19	241	210	230	290
20-24	301	260	220	250
25-29	309	320	280	240
30-34	265	330	340	300
35-39	251	280	350	350
40-44	225	260	290	350
45-49	288	220	260	280
50-54	317	280	220	260
55-59	262	290	260	200
60-64	248	230	250	230
65-69	240	230	230	250
70-74	187	240	230	210
75-79	166	160	200	190
80-84	165	150	140	180
85+	147	160	170	160
Total	4,370	4,400	4,460	4,440
Median Age	41.3	40.4	40.3	41.3

	2010 to	2015 to	2020 to
	2015	2020	2025
Births	260	260	230
Deaths	270	270	270
Natural Increase	-10	-10	-40
Net Migration	50	40	40
Change	40	30	0

Differences between period Totals may not equal Change due to rounding.

Eagle Cliffs Elementary School

		_			
Total	2010		2015	2020	2025
0-4	333		350	340	290
5-9	332		340	360	340
10-14	321		330	340	360
15-19	307		300	310	320
20-24	155		150	150	160
25-29	225		230	230	230
30-34	293		250	260	260
35-39	300		300	270	290
40-44	237		300	300	280
45-49	286		230	300	300
50-54	308		280	230	290
55-59	283		290	260	210
60-64	214		250	250	230
65-69	126		200	230	230
70-74	81		130	200	230
75-79	39		70	110	180
80-84	45		30	70	100
85+	44		50	40	60
Total	3,930		4,080	4,250	4,360
Median Age	35.0		36.5	37.5	38.8

	2010 t	0	2015 to	2020 to	
	2015		2020	2025	
Births	28	0	260	260	
Deaths	14	0	140	160	
Natural Increase	14	0	120	100	
Net Migration	3	0	30	30	
Change	17	0	150	130	

Differences between period Totals may not equal Change due to rounding.





Revised: 08/28/2018



Highland Elementary School

Total	2010	2015	2020	2025
0-4	311	310	300	300
5-9	273	290	290	290
10-14	245	280	300	300
15-19	486	390	430	420
20-24	560	540	440	470
25-29	502	510	490	410
30-34	400	410	420	420
35-39	273	380	390	420
40-44	276	280	380	390
45-49	321	270	260	380
50-54	380	320	260	260
55-59	371	350	290	250
60-64	346	330	300	250
65-69	265	330	320	300
70-74	175	270	330	320
75-79	163	150	240	300
80-84	181	140	130	210
85+	157	180	180	170
Total	5,682	5,730	5,750	5,860
Median Age	36.2	36.8	37.6	38.8

	2010 to	2015 to	2020 to
	2015	2020	2025
Births	310	310	300
Deaths	300	290	300
Natural Increase	10	20	0
Net Migration	50	50	40
Change	60	70	40

Differences between period Totals may not equal Change due to rounding.

McKinley Elementary School

Total	2010	2015	2020	2025
0-4	491	390	370	370
5-9	340	410	330	290
10-14	284	330	400	320
15-19	372	360	410	480
20-24	803	770	760	810
25-29	812	820	790	790
30-34	547	650	660	630
35-39	485	460	560	580
40-44	405	400	380	480
45-49	493	370	370	350
50-54	576	490	350	360
55-59	473	540	440	330
60-64	325	420	460	390
65-69	222	320	410	460
70-74	161	220	310	400
75-79	92	150	200	280
80-84	93	80	130	180
85+	100	110	110	120
Total	7,074	7,290	7,440	7,620
Median Age	34.0	34.3	35.0	36.0

	2010 to	20	015 to	2020 to	
	2015	2	2020	2025	
Births	430		410	400	
Deaths	260		280	300	
Natural Increase	170		130	100	
Net Migration	40		40	40	
Change	210		170	140	

Differences between period Totals may not equal Change due to rounding.







Meadowlark Elementary School

Total	2010	2015	2020	2025
0-4	352	410	400	390
5-9	404	380	450	450
10-14	450	410	380	450
15-19	401	440	390	360
20-24	283	280	300	250
25-29	306	310	310	320
30-34	317	330	330	330
35-39	349	330	350	350
40-44	361	370	370	380
45-49	446	360	370	360
50-54	465	430	350	360
55-59	395	430	410	320
60-64	334	340	380	350
65-69	245	330	330	370
70-74	203	250	310	320
75-79	196	180	230	270
80-84	130	170	160	190
85+	100	120	160	170
Total	5,740	5,870	5,980	5,990
Median Age	40.1	40.6	41.1	41.3

	2010 to	2015 to	2020 to
	2015	2020	2025
Births	340	320	310
Deaths	270	310	320
Natural Increase	70	10	-10
Net Migration	60	70	70
Change	130	80	60

Differences between period Totals may not equal Change due to rounding.

Miles Avenue Elementary School

Total	2010	2015	2020	2025
0-4	288	26	260	240
5-9	258	27	250	240
10-14	250	26	270	250
15-19	272	27	280	290
20-24	367	36	350	360
25-29	400	41	390	390
30-34	300	33	340	320
35-39	260	30	330	330
40-44	272	26	300	330
45-49	332	27	260	300
50-54	335	33	270	250
55-59	281	31	310	240
60-64	268	25	270	260
65-69	211	26	230	260
70-74	193	21	260	240
75-79	192	18	190	230
80-84	164	17	150	170
85+	159	17	180	190
Total	4,802	4,87	4,890	4,890
Median Age	40.1	39.6	39.6	40.4

	2010 to	2015 to	2020 to
	2015	2020	2025
Births	280	270	250
Deaths	280	290	290
Natural Increase	0	-20	-40
Net Migration	40	40	40
Change	40	20	0

Differences between period Totals may not equal Change due to rounding.







Newman Elementary School

Total	2010	2015	2020	2025
0-4	220	200	210	210
5-9	188	200	190	200
10-14	132	190	200	190
15-19	152	120	180	200
20-24	203	230	180	240
25-29	252	280	290	240
30-34	207	230	260	270
35-39	158	130	170	200
40-44	166	170	130	170
45-49	222	160	160	130
50-54	221	220	160	160
55-59	160	200	200	150
60-64	156	140	180	180
65-69	102	160	140	170
70-74	85	100	150	140
75-79	57	70	100	140
80-84	59	50	70	80
85+	36	50	50	60
Total	2,776	2,900	3,020	3,130
Median Age	36.1	35.0	35.0	35.4

	2010 to	2015 to	2020 to
	2015	2020	2025
Births	200	210	210
Deaths	110	120	140
Natural Increase	90	90	70
Net Migration	40	30	30
Change	130	120	100

Differences between period Totals may not equal Change due to rounding.

Orchard Elementary School

Total	2010	2015	2020	2025
		l		
0-4	427	410	380	370
5-9	356	390	370	350
10-14	306	350	390	370
15-19	305	320	360	400
20-24	378	370	380	420
25-29	377	410	400	410
30-34	338	360	390	380
35-39	282	320	340	370
40-44	316	280	320	340
45-49	380	310	270	320
50-54	403	370	310	270
55-59	303	370	350	280
60-64	240	260	330	300
65-69	146	230	260	310
70-74	85	150	240	250
75-79	85	70	140	210
80-84	36	70	70	120
85+	47	50	60	70
Total	4,810	5,090	5,360	5,540
Median Age	33.8	34.1	35.1	35.9

	2010 to	2015 to	2020 to
	2015	2020	2025
Births	410	380	370
Deaths	160	190	210
Natural Increase	250	190	160
Net Migration	40	40	40
Change	290	230	200

Differences between period Totals may not equal Change due to rounding.







Poly Drive Elementary School

Total	2010	2015	2020	2025
0-4	245	250	260	240
5-9	289	310	300	300
10-14	290	290	310	300
15-19	274	260	270	280
20-24	221	190	180	190
25-29	238	260	230	220
30-34	233	280	300	270
35-39	240	280	330	340
40-44	215	230	280	330
45-49	302	210	230	280
50-54	400	300	210	230
55-59	422	370	280	190
60-64	363	360	320	240
65-69	316	340	350	300
70-74	256	300	320	330
75-79	195	210	260	270
80-84	238	170	190	220
85+	269	280	250	230
Total	5,007	4,890	4,870	4,760
Median Age	49.3	47.3	44.6	43.6

Deaths 390 350 340 Natural Increase -140 -110 -120 Net Migration 40 40 40		2010 to	2015 to	2020 to
Deaths 390 350 340 Natural Increase -140 -110 -120 Net Migration 40 40 40		2015	2020	2025
Natural Increase -140 -110 -120 Net Migration 40 40 40	Births	250	240	220
Net Migration 40 40	Deaths	390	350	340
	Natural Increase	-140	-110	-120
Cl	Net Migration	40	40	40
-100 -70 -80	Change	-100	-70	-80

Differences between period Totals may not equal Change due to rounding.

Ponderosa Elementary School

Total	2010	2015	2020	2025
0-4	376	270	240	230
5-9	335	350	240	210
10-14	295	340	350	240
15-19	261	280	320	330
20-24	344	280	300	330
25-29	481	390	320	340
30-34	414	490	410	330
35-39	326	430	510	420
40-44	299	340	440	520
45-49	364	290	330	430
50-54	366	360	290	330
55-59	320	340	330	270
60-64	225	280	300	290
65-69	160	210	270	280
70-74	156	160	210	260
75-79	111	130	140	190
80-84	85	100	130	120
85+	51	70	80	110
Total	4,968	5,110	5,210	5,230
Median Age	34.7	36.8	39.2	41.8

	2010 to	2015 to	2020 to	ì
	2015	2020	2025	1
Births	290	260	250	Ì
Deaths	200	220	240	Ì
Natural Increase	90	40	10	Ì
Net Migration	40	40	40	Ì
Change	130	80	50	Ì

Differences between period Totals may not equal Change due to rounding.







Rose Park Elementary School

Total	2010	2015	2020	2025
0-4	323	290	280	270
5-9	233	300	280	270
10-14	259	230	300	280
15-19	335	260	230	300
20-24	560	690	620	500
25-29	358	400	530	500
30-34	269	280	310	470
35-39	239	220	230	280
40-44	230	240	220	230
45-49	295	230	230	220
50-54	329	290	230	230
55-59	378	300	260	200
60-64	303	330	270	230
65-69	233	290	320	250
70-74	197	230	300	320
75-79	200	180	210	260
80-84	193	180	150	190
85+	157	190	190	190
Total	5,089	5,130	5,160	5,190
Median Age	39.3	37.6	35.7	35.1

	2010 to	2015 to	2020 to
	2015	2020	2025
Births	310	310	290
Deaths	310	300	300
Natural Increase	0	10	-10
Net Migration	40	40	30
Change	40	50	20

Differences between period Totals may not equal Change due to rounding.

Sandstone Elementary School

Total	2010	2015	2020	2025
0-4	384	390	370	350
5-9	331	380	370	360
10-14	317	330	380	370
15-19	355	320	330	380
20-24	354	380	340	350
25-29	435	400	420	380
30-34	275	370	340	360
35-39	308	280	380	340
40-44	279	310	280	380
45-49	297	280	320	290
50-54	372	300	280	320
55-59	288	350	280	270
60-64	236	250	310	250
65-69	138	230	250	300
70-74	119	140	230	250
75-79	73	110	120	200
80-84	45	60	90	100
85+	40	50	60	70
Total	4,649	4,930	5,150	5,320
Median Age	32.7	33.6	35.3	36.6

	2010 to	2015 to	2020 to
	2015	2020	2025
Births	390	370	360
Deaths	150	180	200
Natural Increase	240	190	160
Net Migration	30	30	30
Change	270	220	190

Differences between period Totals may not equal Change due to rounding.







Washington Elementary School

Total	2010	2015	2020	2025
0-4	321	320	300	260
5-9	228	310	310	300
10-14	184	230	310	310
15-19	191	170	210	290
20-24	383	350	290	330
25-29	418	430	380	310
30-34	298	300	330	290
35-39	186	270	280	310
40-44	199	190	270	280
45-49	229	200	190	280
50-54	235	230	210	190
55-59	176	220	220	190
60-64	116	150	190	180
65-69	99	110	150	180
70-74	69	100	120	150
75-79	81	60	90	100
80-84	48	70	50	80
85+	43	40	60	60
Total	3,504	3,750	3,960	4,090
Median Age	30.5	31.1	32.7	34.2

	2010 to	2015 to	2020 to
	2015	2020	2025
Births	320	310	270
Deaths	120	140	150
Natural Increase	200	170	120
Net Migration	40	30	30
Change	240	200	150
			~

Differences between period Totals may not equal Change due to rounding.

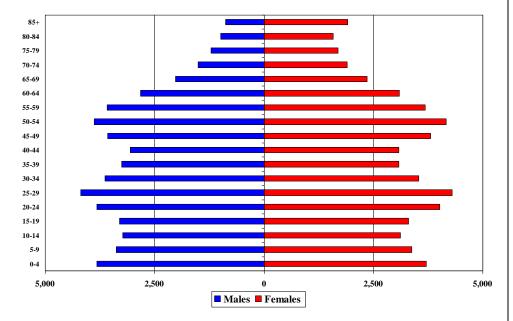




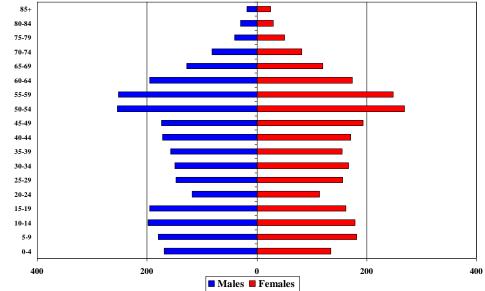


Appendix C: Population Pyramids

Billings Public Schools Total Population - 2010 Census



Alkali Creek Elementary School Total Population - 2010 Census

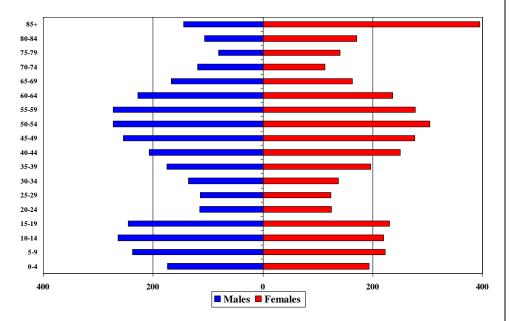




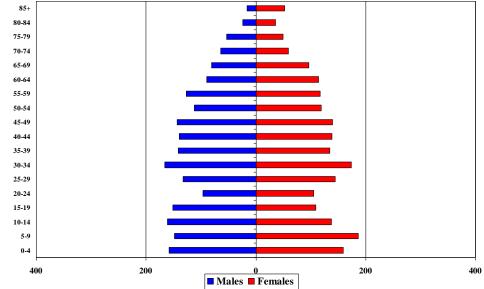




Arrowhead Elementary School Total Population - 2010 Census



Beartooth Elementary School Total Population - 2010 Census

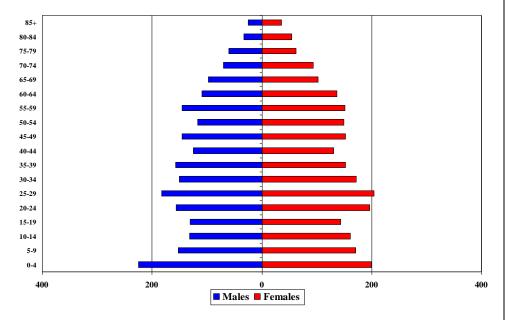




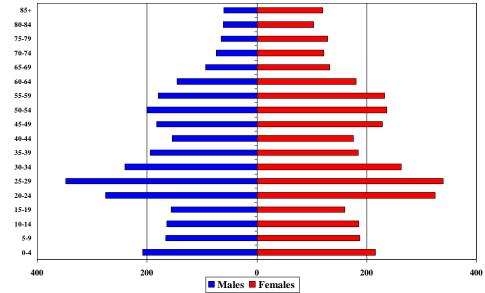




Bench Elementary School Total Population - 2010 Census



Big Sky Elementary School Total Population - 2010 Census

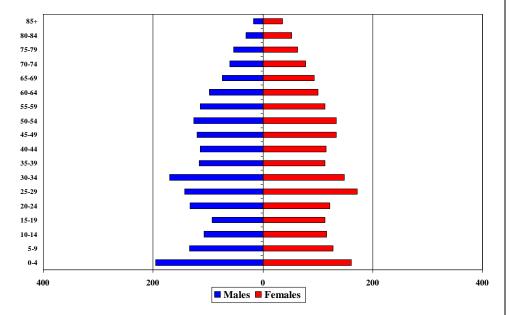




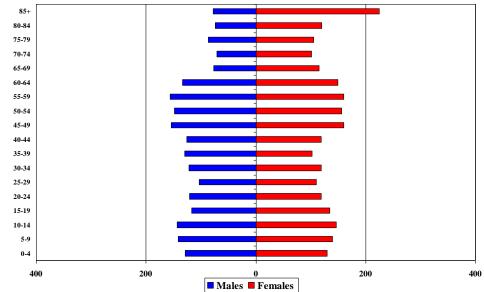




Bitterroot Elementary School Total Population - 2010 Census



Boulder Elementary School Total Population - 2010 Census

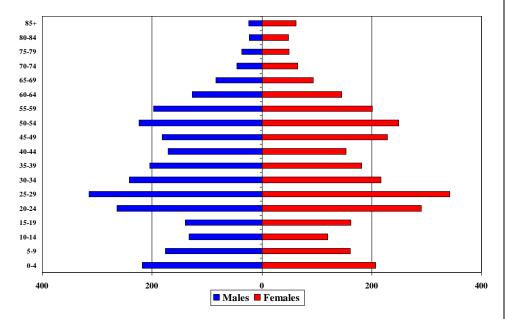




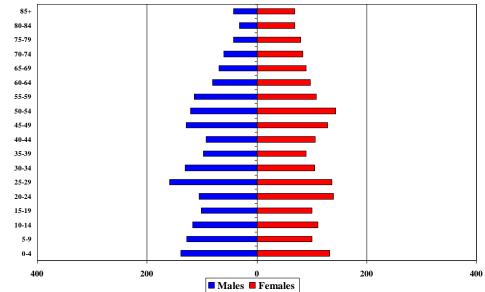




Broadwater Elementary School Total Population - 2010 Census



Burlington Elementary School Total Population - 2010 Census

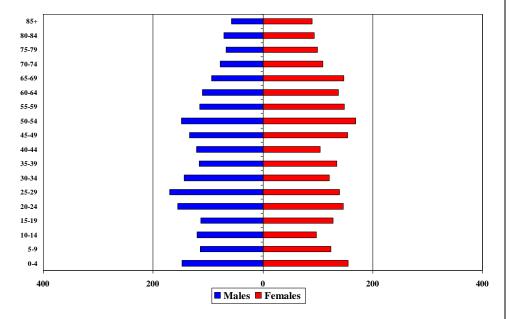




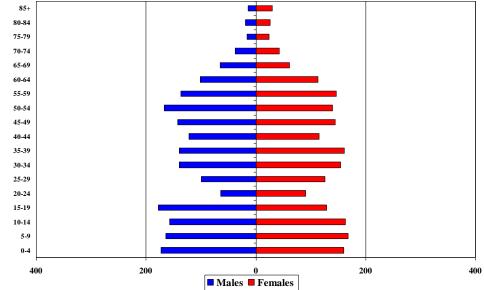




Central Heights Elementary School Total Population - 2010 Census



Eagle Cliffs Elementary School Total Population - 2010 Census

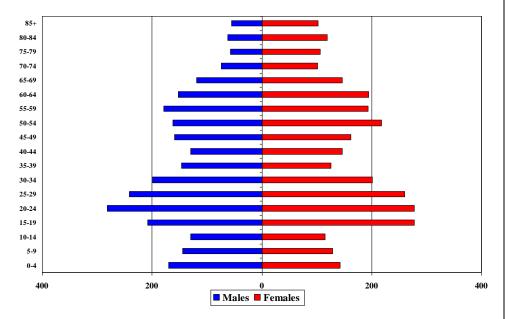




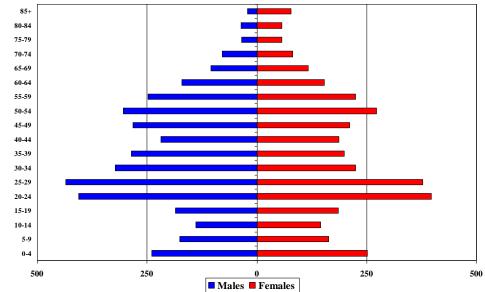




Highland Elementary School Total Population - 2010 Census



McKinley Elementary School Total Population - 2010 Census

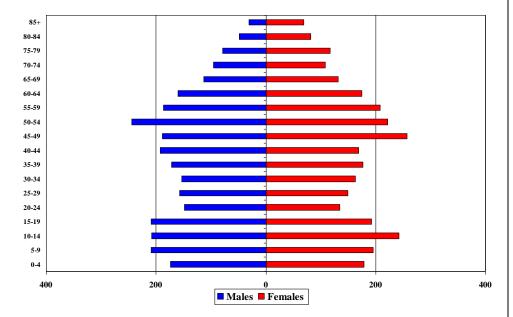




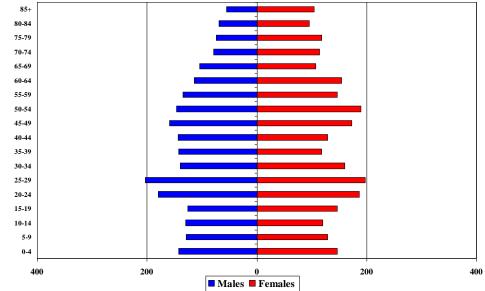




Meadowlark Elementary School Total Population - 2010 Census



Miles Avenue Elementary School Total Population - 2010 Census

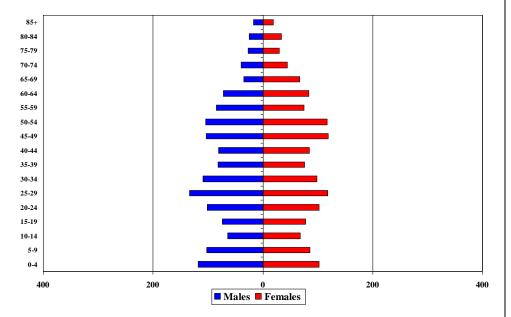




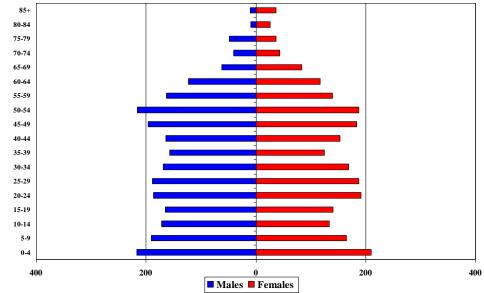




Newman Elementary School Total Population - 2010 Census



Orchard Elementary School Total Population - 2010 Census

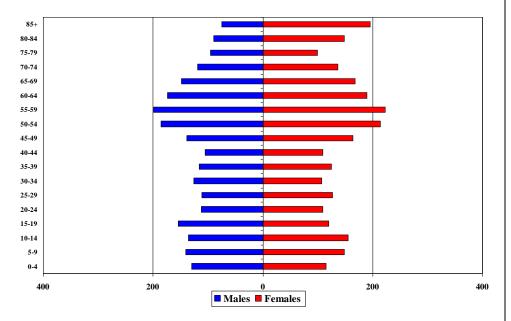




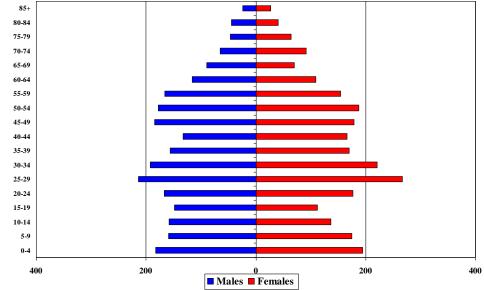




Poly Drive Elementary School Total Population - 2010 Census



Ponderosa Elementary School Total Population - 2010 Census

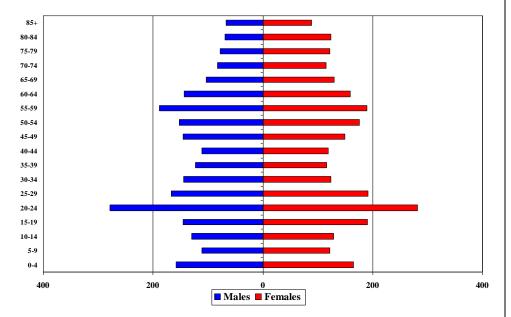




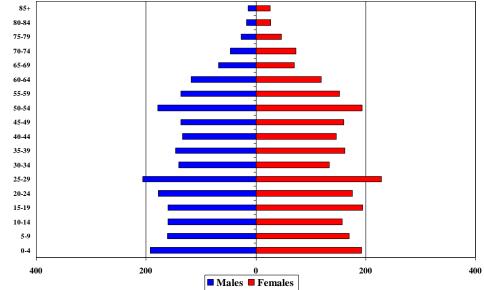




Rose Park Elementary School Total Population - 2010 Census



Sandstone Elementary School Total Population - 2010 Census

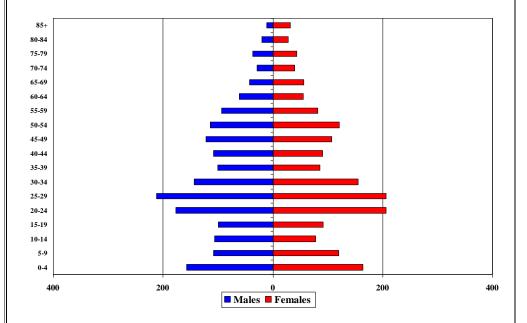








Washington Elementary School Total Population - 2010 Census









Appendix D: Enrollment Forecasts

Billings Public Schools

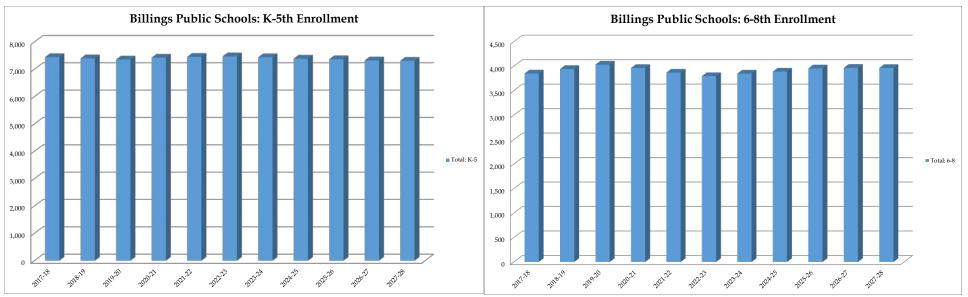
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
К	1,208	1,234	1,232	1,239	1,226	1,215	1,202	1,190	1,169	1,153	1,176
1	1,222	1,256	1,258	1,257	1,253	1,243	1,232	1,219	1,207	1,191	1,176
2	1,225	1,217	1,248	1,255	1,253	1,249	1,239	1,229	1,235	1,223	1,207
3	1,216	1,220	1,214	1,251	1,258	1,257	1,253	1,243	1,243	1,248	1,236
4	1,271	1,201	1,207	1,208	1,247	1,254	1,253	1,250	1,248	1,247	1,252
5	1,298	1,268	1,194	1,211	1,213	1,250	1,256	1,255	1,261	1,259	1,259
Total: K-5	7,440	7,396	7,353	7,421	7,450	7,468	7,435	7,386	7,363	7,321	7,306
6	1,265	1,301	1,280	1,198	1,217	1,205	1,252	1,259	1,259	1,260	1,256
7	1,275	1,349	1,385	1,360	1,273	1,300	1,278	1,333	1,341	1,342	1,344
8	1,308	1,290	1,365	1,402	1,376	1,289	1,316	1,294	1,351	1,360	1,360
Total: 6-8	3,848	3,940	4,030	3,960	3,866	3,794	3,846	3,886	3,951	3,963	3,960
9	1,479	1,517	1,496	1,485	1,524	1,496	1,403	1,432	1,409	1,468	1,477
10	1,383	1,396	1,430	1,306	1,400	1,437	1,411	1,322	1,351	1,328	1,383
11	1,326	1,323	1,337	1,366	1,249	1,339	1,375	1,350	1,265	1,292	1,270
12	1,182	1,292	1,288	1,302	1,329	1,217	1,304	1,339	1,315	1,231	1,258
Total: 9-12	5,370	5,528	5,551	5,459	5,502	5,489	5,493	5,443	5,340	5,319	5,388
Total: K-12	16,658	16,864	16,934	16,840	16,818	16,751	16,774	16,715	16,654	16,603	16,654
Total: K-12	16,658	16,864	16,934	16,840	16,818	16,751	16,774	16,715	16,654	16,603	16,654
Change		206	69	-94		-67	23	-59	-61	- 51	51
Percent Change		1.2%	0.4%	-0.6%	-0.1%	-0.4%	0.1%	-0.4%	-0.4%	-0.3%	0.3%
Г											
Total: K-5	7,440	7,396	7,353	7,421	7,450	7,468	7,435	7,386	7,363	7,321	7,306
Change		-44	-43	68		18	-33	-49	-23	-42	<i>-</i> 15
Percent Change		-0.6%	-0.6%	0.9%	0.4%	0.2%	-0.4%	-0.7%	-0.3%	-0.6%	-0.2%
T . 1 . 0	2.040	2040	4.020	2060	2000	2 704	2046	2 00 6	0.054	2.062	2.060
Total: 6-8	3,848	3,940	4,030	3,960	3,866	3,794	3,846	3,886	3,951	3,963	3,960
Change		92	89			-72					
Percent Change		2.4%	2.3%	<i>-</i> 1.7%	-2.4%	<i>-</i> 1.9%	1.4%	1.0%	1.7%	0.3%	-0.1%
Total: 9-12	5,370	5,528	5,551	5,459	5,502	5,489	5,493	5,443	5,340	5,319	5,388
Change	3,370	158	23			-13	3,493	-50	-103		69
Percent Change		2.9%	0.4%			-0.2%	0.1%		-1.9%		
	ned Angr		0.1/0	1.7 /0	0.0 /0	0.2/0	0.1 /0	0.7/0	1.7 /0	0.1/0	1.0 /0
Forecasts Developed August 2018 Green Cells (2017-18 and earlier) are historical data											
Green Cells (2017	7-18 and 6	earlier) ar	e historic	al data							

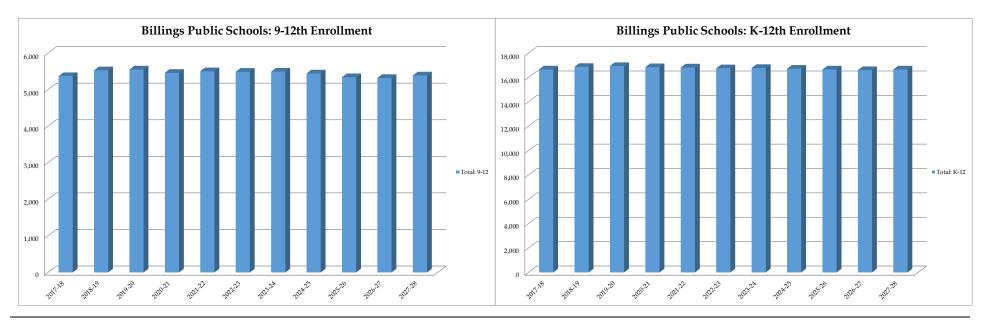




BILLINGS PUBLIC SCHOOLS, MT DEMOGRAPHIC STUDY













Alkali Creek Elementary School

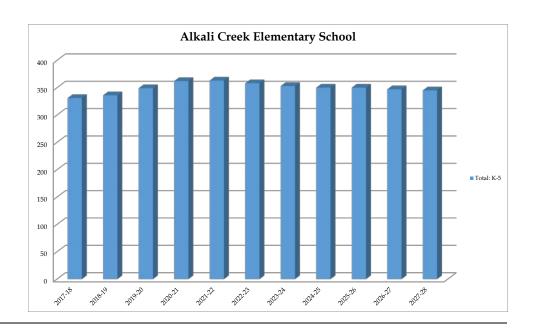
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	52	55	55	55	54	53	52	52	51	50	51
1	62	61	60	60	59	58	57	56	55	54	53
2	60	64	63	62	62	61	60	59	59	58	57
3	51	61	65	64	63	63	62	61	61	61	60
4	46	48	57	62	61	60	60	60	60	60	60
5	60	47	49	59	64	63	62	62	64	64	64
Total: K-5	331	336	349	362	363	358	353	350	350	347	345

Total: K-5	331	336	349	362	363	358	353	350	350	347	345
Change		5	13	13	1	- 5	-5	-3	0	-3	-2
Percent Change		1.5%	3.9%	3.7%	0.3%	-1.4%	-1.4%	-0.8%	0.0%	-0.9%	-0.6%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Arrowhead Elementary School

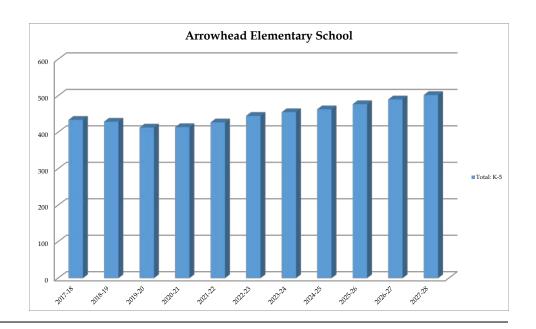
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	40	42	43	43	44	45	46	47	47	48	49
1	62	68	70	71	72	74	75	77	78	79	80
2	68	64	70	74	75	76	78	79	82	83	85
3	80	72	68	76	80	81	82	84	87	90	91
4	95	83	75	72	81	85	86	87	91	94	97
5	89	100	87	78	75	84	88	89	92	96	100
Total: K-5	434	429	413	414	427	445	455	463	477	490	502

Total: K-5	434	429	413	414	427	445	455	463	477	490	502
Change		-5	-16	1	13	18	10	8	14	13	12
Percent Change		-1.2%	-3.7%	0.2%	3.1%	4.2%	2.2%	1.8%	3.0%	2.7%	2.4%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Beartooth Elementary School

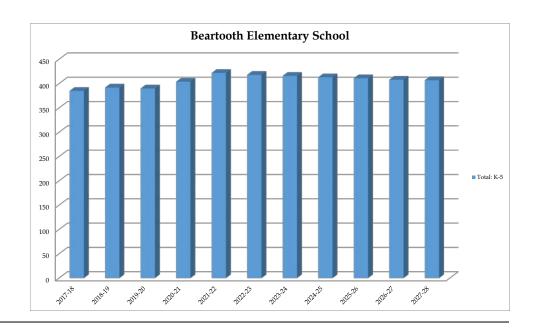
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	62	65	66	68	67	66	65	64	64	63	64
1	69	68	68	69	69	68	67	66	65	65	64
2	50	70	69	69	70	70	69	68	69	68	68
3	58	52	73	70	70	71	71	70	69	70	69
4	75	59	53	74	71	71	72	72	71	70	71
5	71	78	61	54	75	72	72	73	73	72	71
Total: K-5	385	392	390	404	422	418	416	413	411	408	407

Total: K-5	385	392	390	404	422	418	416	413	411	408	407
Change		7	-2	14	18	-4	-2	-3	-2	-3	-1
Percent Change		1.8%	-0.5%	3.6%	4.5%	-0.9%	-0.5%	-0.7%	-0.5%	-0.7%	-0.2%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Bench Elementary School

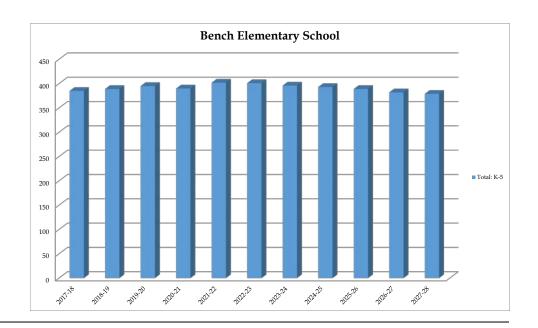
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	73	71	70	69	68	68	67	67	66	64	66
1	67	68	67	66	66	65	65	64	64	63	62
2	57	71	72	70	69	69	68	68	65	65	64
3	75	55	68	71	69	68	68	67	67	64	64
4	57	71	52	65	68	66	65	65	64	64	61
5	56	53	66	49	62	65	63	62	63	62	62
Total: K-5	385	389	395	390	402	401	396	393	389	382	379

Total: K-5	385	389	395	390	402	401	396	393	389	382	379
Change		4	6	-5	12	-1	-5	-3	-4	-7	-3
Percent Change		1.0%	1.5%	-1.3%	3.1%	-0.2%	-1.2%	-0.8%	-1.0%	-1.8%	-0.8%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Big Sky Elementary School

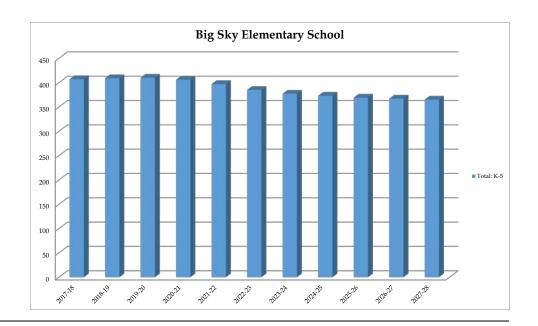
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	68	69	68	66	66	65	64	64	61	60	61
1	69	65	64	63	62	62	61	60	60	59	58
2	72	72	68	65	64	63	63	62	62	62	61
3	71	75	75	69	66	65	64	64	63	63	63
4	62	65	69	71	65	62	61	60	61	60	60
5	65	63	66	72	74	68	64	63	62	63	62
Total: K-5	407	409	410	406	397	385	377	373	369	367	365

Total: K-5	407	409	410	406	397	385	377	373	369	367	365
Change		2	1	-4	-9	-12	-8	-4	-4	-2	-2
Percent Change		0.5%	0.2%	-1.0%	-2.2%	-3.0%	-2.1%	-1.1%	-1.1%	-0.5%	-0.5%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Bitterroot Elementary School

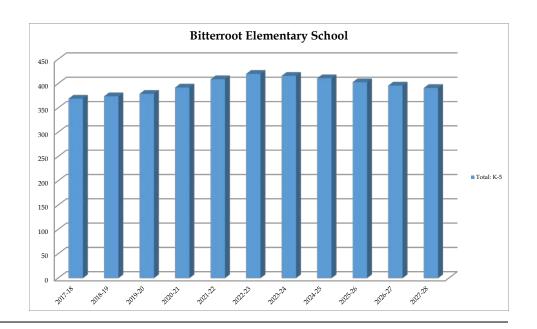
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	65	65	64	66	65	64	63	62	61	60	61
1	55	68	68	67	67	66	65	64	63	62	61
2	50	56	69	69	68	68	67	66	67	66	64
3	58	53	59	72	72	71	71	70	67	68	67
4	68	60	55	61	74	74	73	73	71	68	69
5	73	72	64	57	63	77	77	76	74	72	69
Total: K-5	369	374	379	392	409	420	416	411	403	396	391

Total: K-5	369	374	379	392	409	420	416	411	403	396	391
Change		5	5	13	17	11	-4	-5		-7	-5
Percent Change		1.4%	1.3%	3.4%	4.3%	2.7%	-1.0%	-1.2%	-1.9%	-1.7%	-1.3%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Boulder Elementary School

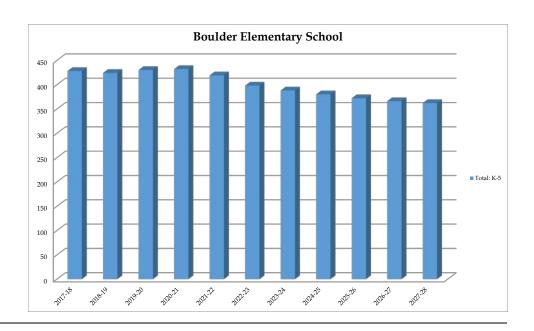
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	82	81	79	81	79	78	77	75	74	73	74
1	80	67	65	63	62	61	60	59	58	57	56
2	73	83	70	66	64	63	62	61	60	59	58
3	59	72	81	69	65	63	62	61	60	59	58
4	59	60	73	79	68	64	62	61	60	59	58
5	75	61	62	74	81	69	65	63	60	59	58
Total: K-5	428	424	430	432	419	398	388	380	372	366	362

Total: K-5	428	424	430	432	419	398	388	380	372	366	362
Change		-4	6	2	-13	-21	-10	-8	-8	-6	-4
Percent Change		-0.9%	1.4%	0.5%	-3.0%	-5.0%	-2.5%	-2.1%	-2.1%	-1.6%	-1.1%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Broadwater Elementary School

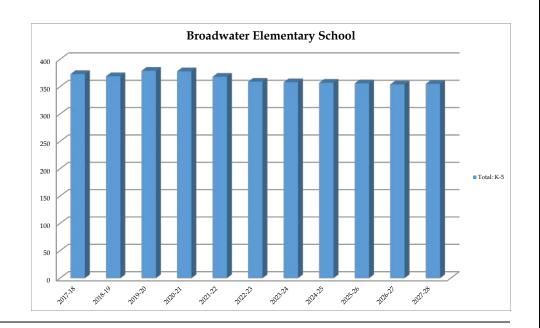
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	55	58	59	59	58	58	57	57	56	56	57
1	66	58	59	60	60	59	59	58	58	57	57
2	69	70	61	61	62	62	61	61	60	60	59
3	61	68	69	60	60	61	61	60	62	61	61
4	56	65	72	72	62	62	63	63	61	63	62
5	66	50	59	66	66	57	57	58	59	57	59
Total: K-5	373	369	379	378	368	359	358	357	356	354	355

Total: K-5	373	369	379	378	368	359	358	357	356	354	355
Change		-4	10	-1	-10	-9	-1	-1	-1	-2	1
Percent Change		-1.1%	2.7%	-0.3%	-2.6%	-2.4%	-0.3%	-0.3%	-0.3%	-0.6%	0.3%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Burlington Elementary School

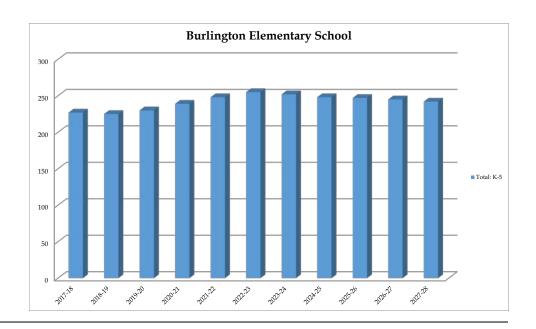
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	46	45	44	44	44	43	43	42	42	41	40
1	38	49	48	47	46	46	45	45	44	44	43
2	33	35	45	45	44	43	43	42	43	42	42
3	35	31	33	43	43	42	41	41	40	41	40
4	35	34	30	32	42	42	41	40	40	39	40
5	40	31	30	28	29	39	39	38	38	38	37
Total: K-5	227	225	230	239	248	255	252	248	247	245	242

Total: K-5	227	225	230	239	248	255	252	248	247	245	242
Change		-2	5	9	9	7	-3	-4	-1	-2	-3
Percent Change		-0.9%	2.2%	3.9%	3.8%	2.8%	-1.2%	-1.6%	-0.4%	-0.8%	-1.2%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Central Heights Elementary School

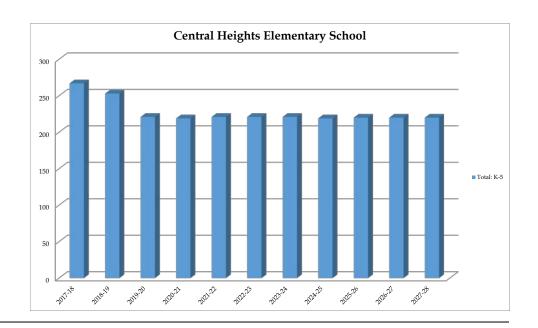
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	38	39	39	37	37	36	36	35	35	34	35
1	37	36	37	37	36	36	35	35	34	34	33
2	34	34	33	35	35	34	34	34	34	33	33
3	39	35	35	35	37	37	36	36	37	37	36
4	67	40	36	37	37	39	39	38	39	40	40
5	52	69	41	38	39	39	41	41	41	42	43
Total: K-5	267	253	221	219	221	221	221	219	220	220	220

Total: K-5	267	253	221	219	221	221	221	219	220	220	220
Change		-14	-32	-2	2	0	0	-2	1	0	0
Percent Change		-5.2%	-12.6%	-0.9%	0.9%	0.0%	0.0%	-0.9%	0.5%	0.0%	0.0%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Eagle Cliffs Elementary School

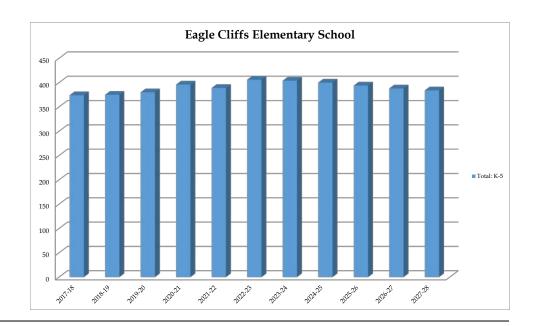
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	62	63	64	65	64	63	62	61	60	59	60
1	50	65	66	67	66	65	64	63	62	61	60
2	74	51	66	67	68	67	66	65	64	63	62
3	57	73	50	67	68	69	68	67	66	65	64
4	65	59	76	52	70	71	72	71	70	69	68
5	66	64	58	78	53	71	72	73	72	71	70
Total: K-5	374	375	380	396	389	406	404	400	394	388	384

Total: K-5	374	375	380	396	389	406	404	400	394	388	384
Change		1	5	16	-7	17	-2	-4	-6	-6	-4
Percent Change		0.3%	1.3%	4.2%	-1.8%	4.4%	-0.5%	-1.0%	-1.5%	-1.5%	-1.0%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Highland Elementary School

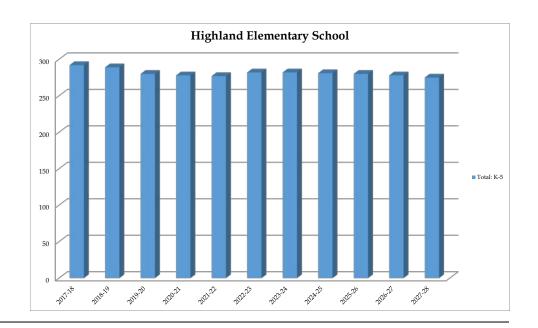
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	46	47	48	49	48	48	47	47	46	45	44
1	45	49	49	50	50	49	49	48	48	47	46
2	48	41	44	45	46	46	45	45	45	45	44
3	52	49	42	46	47	48	48	47	47	47	47
4	52	49	46	40	44	45	46	46	46	46	46
5	49	54	51	48	42	46	47	48	48	48	48
Total: K-5	292	289	280	278	277	282	282	281	280	278	275

Total: K-5	292	289	280	278	277	282	282	281	280	278	275
Change		-3	-9	-2	-1	5	0	-1	-1	-2	-3
Percent Change		-1.0%	-3.1%	-0.7%	-0.4%	1.8%	0.0%	-0.4%	-0.4%	-0.7%	-1.1%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









McKinley Elementary School

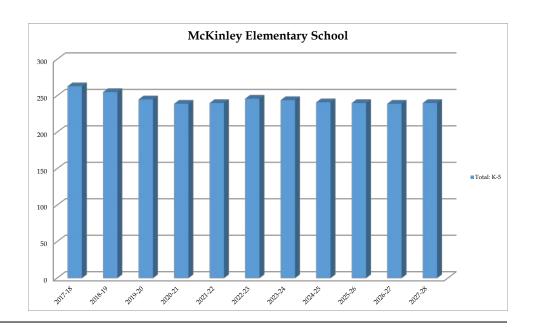
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	49	52	50	50	48	48	47	47	45	45	46
1	37	46	46	45	45	44	44	43	43	42	42
2	40	33	41	42	41	41	40	40	40	40	39
3	47	38	31	39	40	39	39	38	39	39	39
4	45	45	36	30	38	39	38	38	37	38	38
5	45	41	41	33	28	35	36	35	36	35	36
Total: K-5	263	255	245	239	240	246	244	241	240	239	240

Total: K-5	263	255	245	239	240	246	244	241	240	239	240
Change		-8	-10	-6	1	6	-2	-3	-1	-1	1
Percent Change		-3.0%	-3.9%	-2.4%	0.4%	2.5%	-0.8%	-1.2%	-0.4%	-0.4%	0.4%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Meadowlark Elementary School

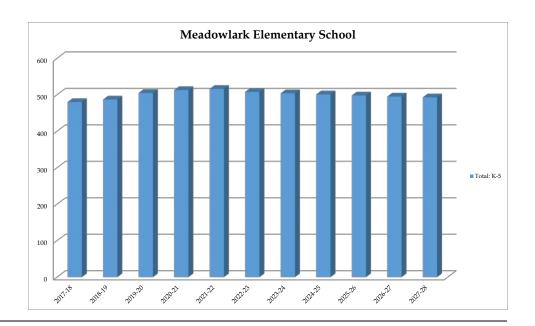
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	82	80	80	79	79	78	78	77	76	75	76
1	85	83	82	82	81	81	80	80	79	78	77
2	79	88	86	84	84	83	83	82	83	82	81
3	76	82	92	88	86	86	85	85	84	85	84
4	73	78	84	94	90	88	88	87	87	86	87
5	85	76	81	86	96	92	90	90	89	89	88
Total: K-5	480	487	505	513	516	508	504	501	498	495	493

Total: K-5	480	487	505	513	516	508	504	501	498	495	493
Change		7	18	8	3	-8	-4	-3	-3	-3	-2
Percent Change		1.5%	3.7%	1.6%	0.6%	-1.6%	-0.8%	-0.6%	-0.6%	-0.6%	-0.4%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Miles Avenue Elementary School

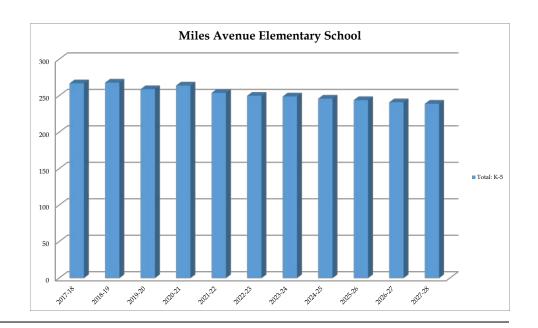
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	40	42	43	43	42	41	40	39	38	37	38
1	47	42	43	44	44	43	42	41	40	39	38
2	56	48	43	44	45	45	44	43	43	42	41
3	38	53	45	41	42	43	43	42	42	42	41
4	49	36	50	43	39	40	41	41	41	41	41
5	37	47	35	49	42	38	39	40	40	40	40
Total: K-5	267	268	259	264	254	250	249	246	244	241	239

Total: K-5	267	268	259	264	254	250	249	246	244	241	239
Change		1	-9	5	-10	-4	-1	-3	-2	-3	-2
Percent Change		0.4%	-3.4%	1.9%	-3.8%	-1.6%	-0.4%	-1.2%	-0.8%	-1.2%	-0.8%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Newman Elementary School

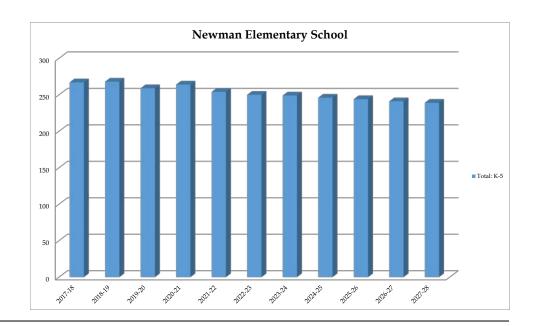
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	31	32	32	33	33	34	34	33	33	32	34
1	33	30	31	31	32	32	33	33	32	32	31
2	38	34	31	33	33	34	34	35	36	35	35
3	36	39	35	32	34	34	35	35	36	37	36
4	44	38	41	37	34	36	36	37	37	38	39
5	40	45	39	42	38	35	37	37	38	38	39
Total: K-5	222	218	209	208	204	205	209	210	212	212	214

Total: K-5	222	218	209	208	204	205	209	210	212	212	214
Change		-4	-9	-1	-4	1	4	1	2	0	2
Percent Change		-1.8%	-4.1%	-0.5%	-1.9%	0.5%	2.0%	0.5%	1.0%	0.0%	0.9%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









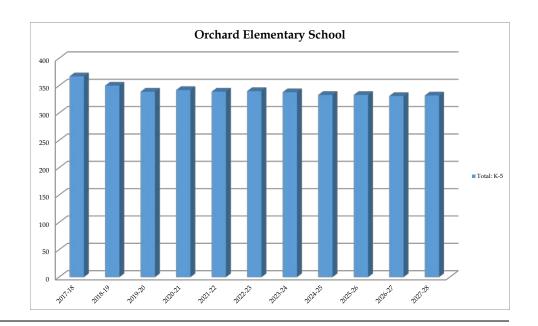
Orchard Elementary School

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	56	57	56	57	56	55	55	54	54	53	55
1	59	62	62	61	61	60	59	58	57	56	55
2	59	54	57	58	57	57	56	55	56	55	54
3	54	58	53	56	57	56	56	55	56	57	56
4	65	53	57	52	55	56	55	55	54	55	56
5	74	66	54	58	53	56	57	56	56	55	56
Total: K-5	367	350	339	342	339	340	338	333	333	331	332

Total: K-5	367	350	339	342	339	340	338	333	333	331	332
Change		-17	-11	3	-3	1	-2	-5		-2	1
Percent Change		-4.6%	-3.1%	0.9%	-0.9%	0.3%	-0.6%	-1.5%	0.0%	-0.6%	0.3%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data









Poly Drive Elementary School

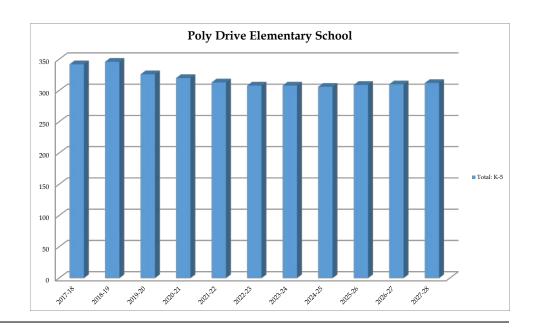
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	42	49	49	51	50	49	48	48	47	47	48
1	60	51	52	52	53	52	51	50	50	49	49
2	59	56	48	50	50	51	50	49	51	51	50
3	61	58	55	49	51	51	52	51	51	53	53
4	70	63	60	57	51	53	53	54	54	54	56
5	50	69	62	61	58	52	54	54	56	56	56
Total: K-5	342	346	326	320	313	308	308	306	309	310	312

Total: K-5	342	346	326	320	313	308	308	306	309	310	312
Change		4	-20	-6	-7	- 5	0	-2	3	1	2
Percent Change		1.2%	-5.8%	-1.8%	-2.2%	-1.6%	0.0%	-0.6%	1.0%	0.3%	0.6%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Ponderosa Elementary School

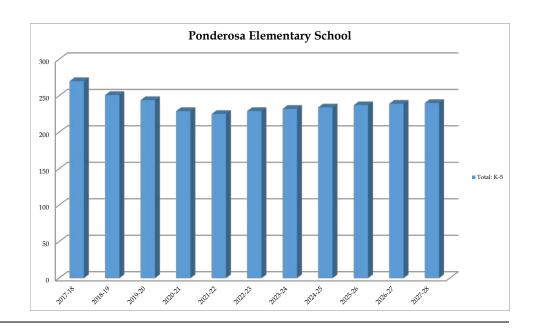
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	43	45	46	45	46	46	47	47	44	44	45
1	38	41	41	42	42	43	43	44	44	43	43
2	48	35	38	39	39	39	40	40	42	42	41
3	54	43	32	35	36	36	36	37	38	39	39
4	40	50	40	30	33	34	34	34	36	36	37
5	47	37	47	38	29	31	32	32	33	35	35
Total: K-5	270	251	244	229	225	229	232	234	237	239	240

Total: K-5	270	251	244	229	225	229	232	234	237	239	240
Change		-19	-7	-15	-4	4	3	2	3	2	1
Percent Change		<i>-</i> 7.0%	-2.8%	-6.1%	-1.7%	1.8%	1.3%	0.9%	1.3%	0.8%	0.4%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Rose Park Elementary School

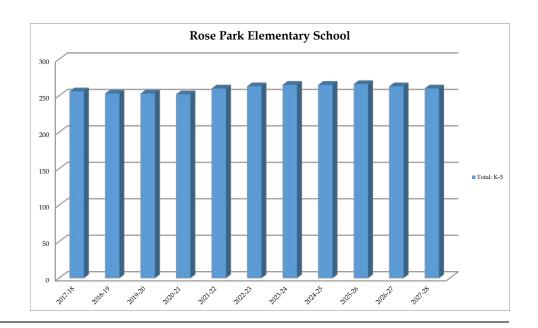
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	45	46	46	45	46	46	45	44	43	42	43
1	41	42	43	43	44	45	45	44	43	42	41
2	40	43	44	45	45	46	47	47	46	45	44
3	47	39	42	43	44	44	45	46	46	45	44
4	41	45	37	41	42	43	43	44	45	45	44
5	42	38	41	35	39	39	40	40	43	44	44
Total: K-5	256	253	253	252	260	263	265	265	266	263	260

Total: K-5	256	253	253	252	260	263	265	265	266	263	260
Change		-3	0	-1	8	3	2	0	1	-3	-3
Percent Change		-1.2%	0.0%	-0.4%	3.2%	1.2%	0.8%	0.0%	0.4%	-1.1%	-1.1%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Sandstone Elementary School

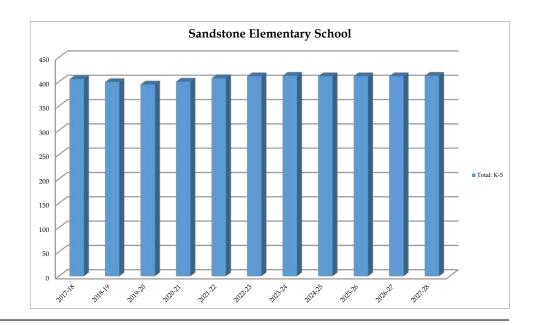
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	67	69	70	72	71	71	70	70	69	69	70
1	69	71	72	73	73	72	72	71	71	70	70
2	63	65	67	69	70	70	69	69	70	70	69
3	67	62	64	66	68	69	69	68	68	69	69
4	69	62	58	61	63	65	66	66	66	66	67
5	70	70	63	59	62	64	66	67	67	67	67
Total: K-5	405	399	394	400	407	411	412	411	411	411	412

Total: K-5	405	399	394	400	407	411	412	411	411	411	412
Change		-6	-5	6	7	4	1	-1	0	0	1
Percent Change		-1.5%	-1.3%	1.5%	1.8%	1.0%	0.2%	-0.2%	0.0%	0.0%	0.2%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Washington Elementary School

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
K	64	62	61	62	61	60	59	58	57	56	59
1	53	66	65	64	63	62	61	60	59	58	57
2	55	50	63	63	62	61	60	59	58	57	56
3	40	52	47	60	60	60	59	58	57	56	55
4	38	38	50	46	59	59	59	58	57	56	55
5	46	37	37	49	45	58	58	58	57	56	55
Total: K-5	296	305	323	344	350	360	356	351	345	339	337

Total: K-5	296	305	323	344	350	360	356	351	345	339	337
Change		9	18	21	6	10	-4	-5	-6	-6	-2
Percent Change		3.0%	5.9%	6.5%	1.7%	2.9%	-1.1%	-1.4%	-1.7%	<i>-</i> 1.7%	-0.6%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









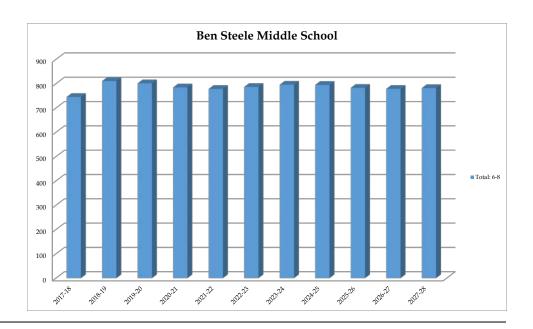
Ben Steele Middle School

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
6	264	259	255	247	254	263	256	253	251	251	256
7	266	267	262	257	250	256	266	258	255	254	254
8	215	285	285	280	275	267	274	284	276	273	272
Total: 6-8	745	811	801	784	778	786	796	795	782	778	782

Total: 6-8	745	811	801	784	778	786	796	795	782	778	782
Change		66	-9	-17	-6	8	9	-1	-12	-4	3
Percent Change		8.8%	-1.2%	-2.1%	-0.8%	1.0%	1.2%	-0.1%	-1.5%	-0.5%	0.4%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data









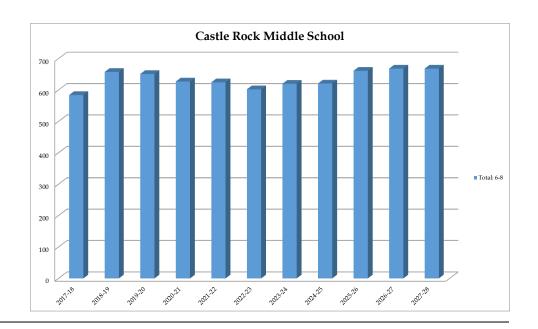
Castle Rock Middle School

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
6	185	182	179	163	184	156	182	186	188	187	186
7	188	237	233	230	208	236	200	233	238	241	239
8	211	239	239	235	232	210	238	202	235	240	243
Total: 6-8	584	658	651	627	625	602	620	621	661	668	668

Total: 6-8	584	658	651	627	625	602	620	621	661	668	668
Change		74	-7	-24	-3	-22	17	1	41	7	0
Percent Change		12.6%	-1.0%	-3.7%	-0.4%	-3.6%	2.9%	0.1%	6.5%	1.1%	0.0%

Forecasts Developed August 2018

Green Cells (2017-18 and earlier) are historical data









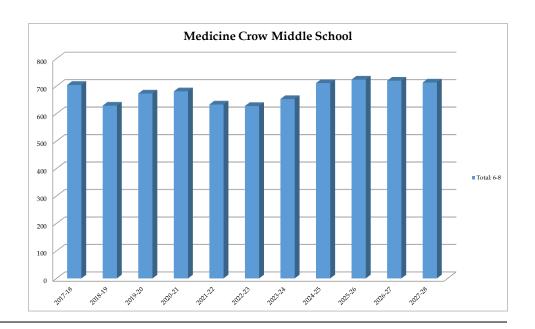
Medicine Crow Middle School

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
6	207	229	229	214	181	225	240	238	237	235	231
7	236	209	231	231	216	183	227	242	240	239	238
8	261	191	213	236	236	220	186	231	247	245	244
Total: 6-8	704	629	673	681	633	627	653	711	724	719	713

Total: 6-8	704	629	673	681	633	627	653	711	724	719	713
Change		-75	44	8	-48	-5	25	58	13	-4	-6
Percent Change		-10.7%	7.0%	1.2%	<i>-</i> 7.1%	-0.9%	4.0%	8.9%	1.8%	-0.6%	-0.9%

Forecasts Developed August 2018

Green Cells (2017-18 and earlier) are historical data









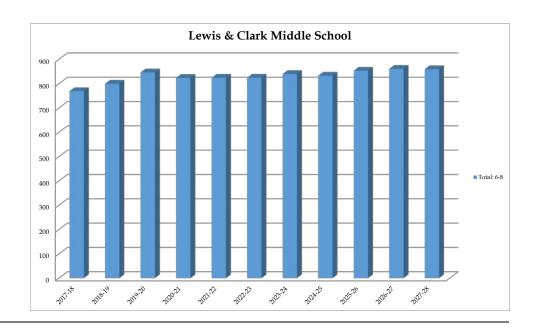
Lewis & Clark Middle School

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
6	270	269	253	249	271	251	263	267	269	270	266
7	230	292	291	273	269	293	271	284	288	291	292
8	269	239	303	302	284	280	305	282	296	300	302
Total: 6-8	769	800	846	824	824	824	840	833	853	861	859

Total: 6-8	769	800	846	824	824	824	840	833	853	861	859
Change		31	46	-22	1	0	15	-7	20	8	-1
Percent Change		4.0%	5.8%	-2.6%	0.1%	0.0%	1.8%	-0.8%	2.4%	0.9%	-0.2%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data









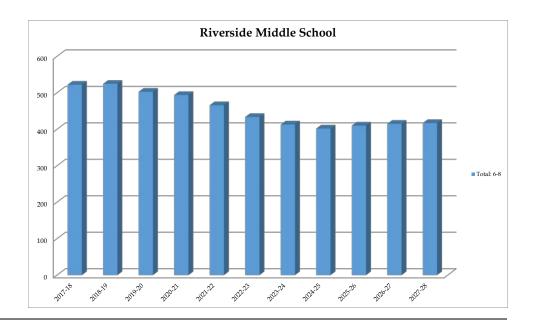
Riverside Middle School

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
6	159	172	157	150	145	126	131	134	133	135	136
7	190	169	182	167	159	154	133	138	142	141	143
8	173	184	163	177	162	154	149	129	134	138	137
Total: 6-8	522	524	503	494	466	433	413	402	410	415	417

Total: 6-8	522	524	503	494	466	433	413	402	410	415	417
Change		2	-22	-9	-28	-32	-21	-11	8	5	2
Percent Change		0.5%	-4.2%	-1.8%	-5.7%	-6.9%	-4.7%	-2.7%	2.0%	1.2%	0.5%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data









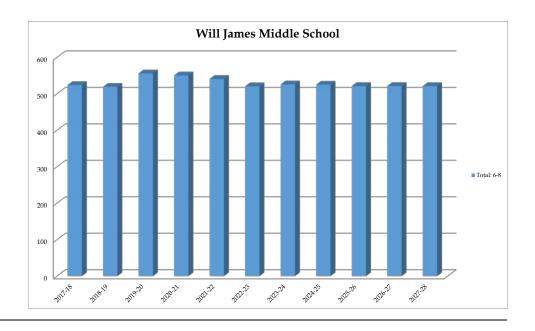
Will James Middle School

	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	2027-28
6	180	191	207	176	182	185	181	182	180	181	182
7	165	176	187	203	172	178	181	177	178	176	177
8	179	152	162	172	187	158	164	166	163	164	162
Total: 6-8	524	519	556	550	541	521	526	525	521	521	521

Total: 6-8	524	519	556	550	541	521	526	525	521	521	521
Change		-5	37	-6	-10	-20	5	-1	-4	0	0
Percent Change		-0.9%	7.1%	-1.0%	-1.7%	-3.7%	1.0%	-0.1%	-0.7%	0.0%	0.0%

Forecasts Developed December 2017

Green Cells (2017-18 and earlier) are historical data









Billings Senior High School

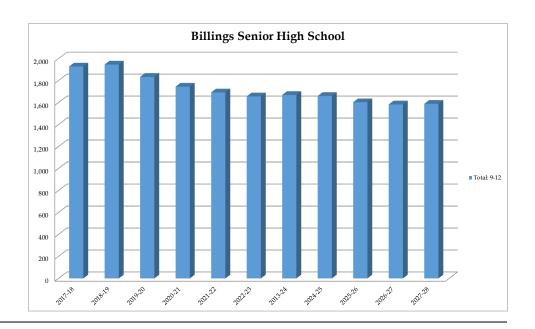
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2013-24	2024-25	2025-26	2026-27	2027-28
9	521	476	450	444	460	436	416	435	400	415	421
10	465	500	457	383	426	442	419	399	418	384	398
11	530	451	485	443	372	413	429	406	387	405	372
12	412	519	442	475	434	365	405	420	398	379	397
Total: 9-12	1,928	1,946	1,834	1,745	1,692	1,656	1,669	1,660	1,603	1,583	1,588

Total: 9-12	1,928	1,946	1,834	1,745	1,692	1,656	1,669	1,660	1,603	1,583	1,588
Change		18	-112	-89	-53	-36	13	-9	-57	-20	5
Percent Change		0.9%	-5.8%	-4.9%	-3.0%	-2.1%	0.8%	-0.5%	-3.4%	-1.2%	0.3%

Forecasts Developed August 2018

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Billings Skyview High School

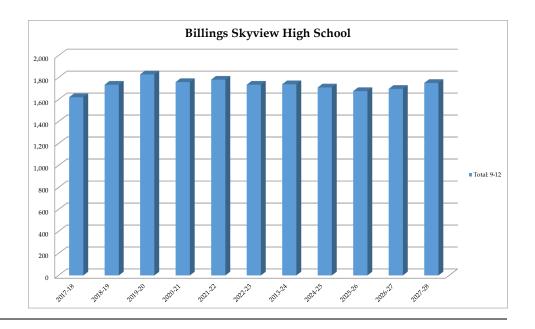
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2013-24	2024-25	2025-26	2026-27	2027-28
9	471	548	499	475	495	491	452	445	455	506	509
10	452	438	510	409	442	460	457	420	414	423	471
11	338	425	412	479	384	415	432	430	395	389	398
12	360	324	408	396	460	369	398	415	413	379	373
Total: 9-12	1,621	1,735	1,829	1,759	1,781	1,735	1,739	1,710	1,677	1,697	1,751

Total: 9-12	1,621	1,735	1,829	1,759	1,781	1,735	1,739	1,710	1,677	1,697	1,751
Change		114	94	-70	22	-46	4	-29	-33	20	54
Percent Change		7.0%	5.4%	-3.8%	1.3%	-2.6%	0.2%	-1.7%	-1.9%	1.2%	3.2%

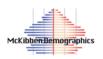
Forecasts Developed August 2018

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years









Billings West High School

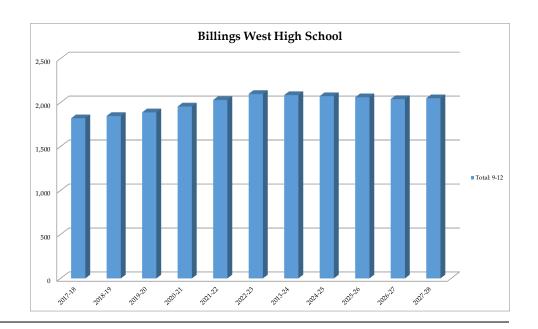
	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2013-24	2024-25	2025-26	2026-27	2027-28
9	487	493	547	566	569	569	535	552	554	547	547
10	466	458	463	514	532	535	535	503	519	521	514
11	458	447	440	444	493	511	514	514	483	498	500
12	410	449	438	431	435	483	501	504	504	473	488
Total: 9-12	1,821	1,847	1,888	1,955	2,029	2,098	2,085	2,073	2,060	2,039	2,049

Total: 9-12	1,821	1,847	1,888	1,955	2,029	2,098	2,085	2,073	2,060	2,039	2,049
Change		26	41	67	74	69	-13	-12	-13	-21	10
Percent Change		1.4%	2.2%	3.5%	3.8%	3.4%	-0.6%	-0.6%	-0.6%	-1.0%	0.5%

Forecasts Developed August 2018

Green Cells (2017-18 and earlier) are historical data

Blue Cells (2018-19 and later) are forecasted years







71 Revised: 08/28/2018



Appendix E: Live-Attend and Map Analysis

Live Attend Matrix

Where K-5th Students Attend

The table below gives details on the schools that students attend and the school zones where they live. The schools of attendance are listed on the left while the districts where students live are listed on the top line. The numbers highlighted in green are counts of students who attend the assigned schools for the zones where they live. This student data is from October 2nd, 2017.

											Wł	iere I	K-5th	Stude	nts L	ive											
		/\$	kali Cree	Elegan Brown Bar	Literrent Be	and start school and start school start special start special start special sp	School Start School	theological states and the states and the states and the states and the states are the states and the states are the states and the states are the states ar	dader der	General Street and But But	ginodi Literaturi Ce	ary School Liebensch	ol shool shool should be shown that the shool should be shown that the shool should be	ingriday si diang kang kang kang kang kang kang kang k	thool graphy of the fine of th	School School and Scho	School School	party Selection of the Charles of th	ol Schard	god pod pod proportion of the	idada Ro	de La Carte de La	, School Kerkenter	y School y S	in General Telegraphy	hard School	E Code, Literal Link 29
		342		381	416	424	369	408	378	223	245	393	291	297	471	278	234	373	378	326	271	410		11	1		
Alkali Creek Elementary School	331	289		6	6		5		1	1		9		4				2		1		7				42	
Arrowhead Elementary School	434	l	395			1		29	1					L	4				4							39	
Beartooth Elementary School	385	3	1	342	16		13					4	1	2						1		2				43	
Bench Elementary School	385	5		10	342	1	7					6		2				1				7	3	1		43	
Big Sky Elementary School	407		1		1	373	2		1		17				11	1										34	
Bitterroot Elementary School	369	13		9	12	1	327					1		1	2					1		1	1			42	
Boulder Elementary School	428	4	24			1		355		1					5	1			37							73	
Broadwater Elementary School	373	6			2	1	1		332			2	3	7	1	1	2	3	1	4		1	6			41	
Burlington Elementary School	227		1			6		3	1	178	1			1	6	12		1	12		4		1			49	
Central Heights Elementary School	267	5	10		1	9			2	2	200	1	3	3	6	16			6		3					67	
Eagle Cliffs Elementary School	374	6		2	3		2					344										15	2			30	
Highland Elementary School	292	2							4	1			268	8		1	1		2	2	3					24	
McKinley Elementary School	263		1						6	2	2		6	235		1		4	2	1	3					28	
Meadowlark Elementary School	480		2			5		2	1	18	11	1		1	424	4	4	2	2	1			1	1		56	
Miles Avenue Elementary School	267	[2			9	1	1	1	2	2		2	5		223	4			3	4		7	1		44	
Newman Elementary School	222				1		1					2	1			1	193	3		14	1		4		1	28	
Orchard Elementary School	367			1	1	3		1	1	2	1			7			5	314		30				1		53	
Poly Drive Elementary School	342	l						2		4	1			L	1	1		L	308		23			2		34	
Ponderosa Elementary School	270	[2				1					1		1	7	11		245	1			1		25	
Rose Park Elementary School	256	2	3	1	1	2		4	4	2	3	1	3	1	2	1		1	2	2	217	3		1		39	
Sandstone Elementary School	405	6			16		2					12		1			2					365		1		40	
Washington Elementary School	296	<u></u>		3	2	2	2	1	7	1	2			4	1	6		10	1	10	3		241			55	
Student Services	211	1	7	7	10	10	6	10	15	9	5	10	4	14	8	8	16	21	1	11	9	9	18	2			
Live in, Attend Out (K-5)		53	52	39	74	51	42	53	46	45	45	49	23	62	47	55	41	59	70	81	54	45	43				

72







Where 6-8th Students Live

Den Steel Castile Rock Medicine School Riverside Middle School Light Riverside Middle School Light Country Medicine School Light Country Middle School Light Country Middl

Where 6-8th Students Attend

		746	584	726	712	522	548	16	0	
Ben Steele Middle School	745	717		5	1	1	15	6		28
Castle Rock Middle School	584		557	5	19	2		1		27
Lewis & Clark Middle School	769	6	3	703	5	8	41	3		66
Medicine Crow Middle School	704		14		685	3		2		19
Riverside Middle School	522	3	3	7	1	502	3	3		20
Will James Middle School	524	19	7	6		2	489	1		35
Student Services	6	1			1	4				
Live in, Attend Out (6-8)		29	27	23	27	20	59			

Where 9-12th Students Live

Fillings Spring West they out of Linguistic Line Out, Autoral In Out of Linguistic Charles of Springer Out of Linguistic Charles of T

Where 9-12th Students Attend

Billings Senior High School 1928 1417 245 255 3 508 Billings West High School **1821** 161 **1625** 25 10 196 Skyview High School 1621 39 9 8 56 1561 Live In, Attend Out (9-12) 200 254 280







Map Analysis

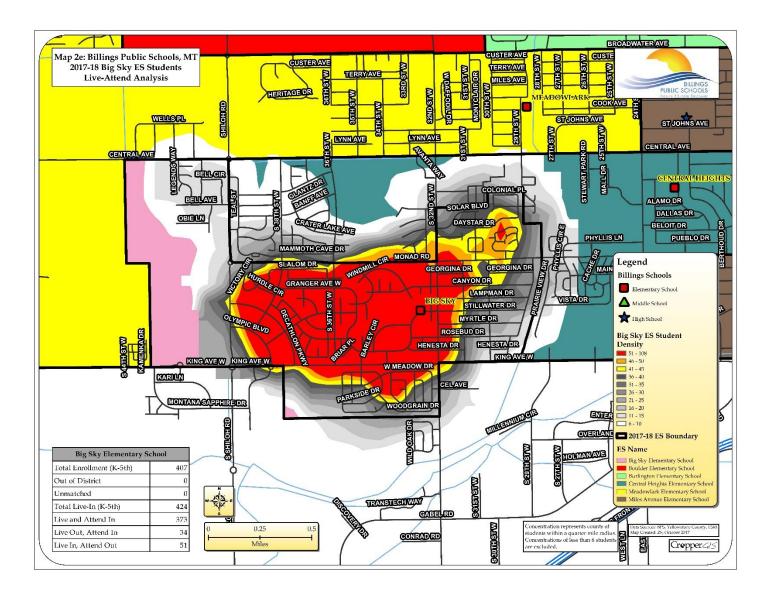
This map series focuses on illustrating the geographic distribution of 2017-18 Billings Public Schools students in relation to school attendance boundaries. This student data used for the following map series reflects the October 2nd, 2017 enrollment.

Below is an example of a map from this series.

Basic Map Elements

The legend explains how different features are represented, either by a point (e.g. schools), or by color schemes (e.g. student density), or by an area/polygon (e.g. attendance boundaries). The scale bar references the distance ratio of the map in relation to the real world.

The student density is classified by color representing the number of individual students in a quarter mile radius at a given point on a map. Density of 5 students or less is intentionally removed for privacy purposes.









Live-Attend Tables

Each map has a table listing various statistics about the student data in this region. Here is a guide for reading this table:

Big Sky Elementary School								
Total Enrollment (K-5th)	407							
Out of District	0							
Unmatched	0							
Total Live-In (K-5th)	424							
Live and Attend In	373							
Live Out, Attend In	34							
Live In, Attend Out	51							

<u>Total Enrollment</u> - the number of students attending Big Sky Elementary School.

<u>Out of District</u> – the number of students who live outside any of the Billings Public Schools attendance zone boundaries, for each level, yet attend this school.

 $\underline{\text{Unmatched}}$ - the number of students attending Big Sky Elementary School whose addresses were not located by the GIS.

<u>Total Live-In</u> – number of students who live within the school's attendance boundary, who are in the K-5th grade cohort. The 'total-live in' statistic here indicates there are 407 K-5th grade students living within the Big Sky Elementary School attendance boundary.

<u>Live and Attend In</u> – number of K-5th students who live within the attendance boundary, and also attend that school. In this example, 373 K-5th grade students who live within the Big Sky Elementary School attendance boundary also attend Big Sky Elementary School.

<u>Live Out, Attend In</u> – number of K-5th students who live outside of the Big Sky Elementary School attendance boundary, but attend Big Sky Elementary School.

<u>Live In, Attend Out</u> – number of K-5th students who live inside the Big Sky Elementary School attendance boundary, yet attend a different elementary school.



