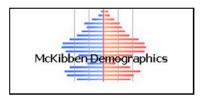


# Carlisle Area School District, PA Demographic Study

September 2015







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#### **Executive Summary**

- 1. The total fertility rate for the Carlisle Area School District over the life of the forecasts is below replacement level. (1.82 vs. the replacement level of 2.1)
- 2. Most 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 district's out migration flow.
- 4. The primary factor causing the district's enrollment to increase is the sustained level of in-migration of young households/families and a moderation in the number of households that are "empty nest".
- 5. Changes in year-to-year enrollment will primarily be due to larger cohorts entering and moving through the school system in conjunction with smaller cohorts leaving the system.
- 6. The elementary enrollment will begin a slow decline after 2019.
- 7. The median age of the population will increase from 38.9 in 2010 to 39.2 in 2025.
- 8. The primary cause in the rise of the high school enrollment after 2019 is due to the wave of relatively large grade cohorts currently in the elementary and middle school grades.
- 9. Even if the district continues to have a modest level of annual new housing unit construction, the rate, magnitude and price of existing home sales will become the increasingly dominant factor affecting the amount of population and enrollment change.
- 10. Total district enrollment is forecasted to increase by 212 students, or 4.3%, between 2014-15 and 2019-20. Total enrollment will grow by 120 students, or 2.3%, from 2019-20 to 2024-25.







#### 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. The future population and enrollment change of each school district is influenced by a variety of factors. 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 the 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 is 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 non-demographic factors, 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 and financial 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 Carlisle Area School District. 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 Carlisle Area School District provided enrollments by grade and attendance center for the school years 2010-2011 to 2014-15. Birth and death data for the years 2000 through 2012 were obtained from the Pennsylvania Department of Health. The net migration values were calculated using Internal Revenue Service migration reports for the years 2000 through 2011. 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 and demographic characteristics 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 350 of the over 15,000 current households in the district would have been included. For comparison 2,300 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 relative to the age structure of the forecast area was addressed. While there was a slight drop in the average household size in the Carlisle Area School District 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 2024. 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 20-29) rather than any fluctuation in an area's fertility rate.

The total fertility rate (TFR), the average number of births a woman will have in her lifetime, is estimated to be 1.82 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 inmigration. Therefore, in the absence of migration, fertility alone would be insufficient to maintain the current level of population and enrollment within the Carlisle Area School District over the course of the forecast period.

A close examination of data for the Carlisle Area School District has shown the age specific pattern of 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 Carlisle Area School District (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 most 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. The second group of out-migrants is those householders aged 70 and older who are downsizing their residences. Most of the local inmigration occurs in the 0-to-4 and 25-39 age groups (bulk of which is from areas within 75 miles of the Carlisle Area School District) primarily consisting of younger adults and their children.

As the Cumberland County area 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 Carlisle Area School District and its attendance areas will remain the same through the year 2024. Below is a list of assumptions and issues that are specific to the Carlisle Area School District. 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 Carlisle Area School District assume that throughout the study period:

- a. There will be no short term economic recovery in the next 18 months and the national, state or regional economy does not go into deep recession at anytime during the 10 years of the forecasts; (Deep recession is defined as four consecutive quarters where the GDP contracts greater than 1% per quarter)
- b. Interest rates have reached an 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%;
- c. The rate of mortgage approval stays at 1999-2003 levels and lenders do not return to "subprime" mortgage practices;
- d. There are no additional restrictions placed on home mortgage lenders or additional bankruptcies of major credit providers;
- e. The rate of housing foreclosures does not exceed 125% of the 2005-2007 average of Cumberland County for any year in the forecasts:
- f. All currently planned, platted, and approved housing developments are built out and completed by 2023. All housing units constructed are occupied by 2024;
- g. The unemployment rates for the Cumberland County area will remain below 6.0% for the 10 years of the forecasts;
- h. The rate of students transferring into and out of the Carlisle Area School District will remain at the 2010-11 to 2014-15 average;
- i. The inflation rate for gasoline will stay below5% per year for the 10 years of the forecasts;
- j. There will be no building moratorium within the district;

- k. Businesses within the district and the Carlisle Area School District area will remain viable;
- 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;
- m. 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 55;
- n. Private school and home school attendance rates will remain constant;
- o. The recent decline in new home construction has ended and building rates have stabilized;
- p. The rate of foreclosures for commercial property remains at the 2004-2008 average for Cumberland County;

If a major employer in the district or in the Cumberland County 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 Carlisle Area School District 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 out-migration 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 if a mathematical extrapolation of historical trends. Conversely, a cohort-component 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 Carlisle Area School District and its attendance areas);
- a set of age-specific fertility rates for the district to be used over the forecast period and its attendance areas;
- a set of age-specific survival (mortality) rates for the district and its attendance areas;
- 4. a set of age-specific migration rates for the district and its attendance areas; and;
- 5. 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 Carlisle

Area School District is classified as a "small area" population (as compared to the population of the state of Pennsylvania or to that of the United States). Small area population forecasts are more complicated to 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 forecast of the migration 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 Carlisle Area School District 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 Carlisle Area School District.

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 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 Carlisle Area School District 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: Enrollment Forecasts**

#### Carlisle Area School District: Total District Enrollment

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
K	357	359	372	357	334	362	366	364	361	354	351	345	339	332	333
1	392	371	389	384	390	375	388	392	390	387	380	375	367	361	354
2	373	389	383	380	376	395	381	394	398	396	396	388	383	373	367
3	366	352	411	385	381	377	398	385	398	402	401	401	394	389	379
4	356	378	345	391	388	388	380	403	390	403	408	406	406	399	394
5	389	369	376	342	397	388	391	379	403	391	405	410	408	409	402
SE	31	34	28	22	23	23	23	23	23	23	23	23	23	23	23
Total: K-5	2264	2252	2304	2261	2289	2308	2327	2340	2363	2356	2364	2348	2320	2286	2252
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
6	333	392	350	373	343	393	384	389	376	401	391	405	413	412	412
7	322	355	426	362	372	355	407	397	403	391	419	408	423	431	431
8	377	335	358	389	367	369	352	403	393	401	391	419	408	423	433
SE	23	21	27	21	22	22	22	22	22	22	22	22	22	22	22
Total: 6-8	1055	1103	1161	1145	1104	1139	1165	1211	1194	1215	1223	1254	1266	1288	1298
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
9	409	405	384	381	442	400	403	384	440	430	439	429	460	448	465
10	348	380	371	367	357	411	372	375	357	409	400	410	401	430	419
11	358	314	359	355	340	336	386	350	353	336	384	378	387	379	406
12	339	337	300	340	334	320	316	363	329	332	316	363	357	366	358
9-10 E/S	12	13	23	18	24	24	24	24	24	24	24	24	24	24	24
11-12 E/S	17	14	17	20	25	25	25	25	25	25	25	25	25	25	25
CAEP	3	6	7	3	4	4	4	4	4	4	4	4	4	4	4
Total: 9-12	1486	1469	1461	1484	1526	1520	1530	1525	1532	1560	1592	1633	1658	1676	1701
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Total: K-12	4805	4824	4926	4890	4919	4967	5022	5076	5089	5131	5179	5235	5244	5250	5251

Forecasts Developed August 2015

Green cells (2014-15 and earlier) are historical data

Blue cells (2015-16 and later) are forecasted years

# Carlisle Area School District: Total District Enrollment Changes

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Total: K-12	4805	4824	4926	4890	4919	4967	5022	5076	5089	5131	5179	5235	5244	5250	5251
Change		19	102	-36	29	48	55	54	13	42	48	56	9	6	1
%-Change		0.4%	2.1%	-0.7%	0.6%	1.0%	1.1%	1.1%	0.3%	0.8%	0.9%	1.1%	0.2%	0.1%	0.0%
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Total: K-5	2264	2252	2304	2261	2289	2308	2327	2340	2363	2356	2364	2348	2320	2286	2252
Change		-12	52	-43	28	19	19	13	23	-7	8	-16	-28	-34	-34
%-Change		-0.5%	2.3%	-1.9%	1.2%	0.8%	0.8%	0.6%	1.0%	-0.3%	0.3%	-0.7%	-1.2%	-1.5%	-1.5%
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Total: 6-8	1055	1103	1161	1145	1104	1139	1165	1211	1194	1215	1223	1254	1266	1288	1298
Change		48	58	-16	-41	35	26	46	-17	21	8	31	12	22	10
%-Change		4.5%	5.3%	-1.4%	-3.6%	3.2%	2.3%	3.9%	-1.4%	1.8%	0.7%	2.5%	1.0%	1.7%	0.8%
	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Total: 9-12	1486	1469	1461	1484	1526	1520	1530	1525	1532	1560	1592	1633	1658	1676	1701
Change		-17	-8	23	42	-6	10	<b>-</b> 5	7	28	32	41	25	18	25
%-Change		-1.1%	-0.5%	1.6%	2.8%	-0.4%	0.7%	-0.3%	0.5%	1.8%	2.1%	2.6%	1.5%	1.1%	1.5%

Forecasts Developed August 2015

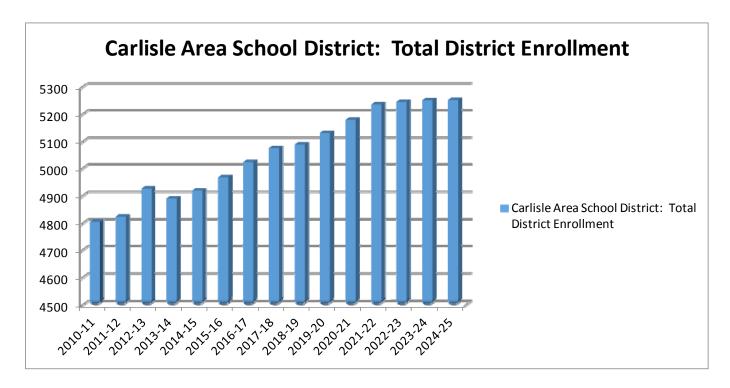
Green cells (2014-15 and earlier) are historical data

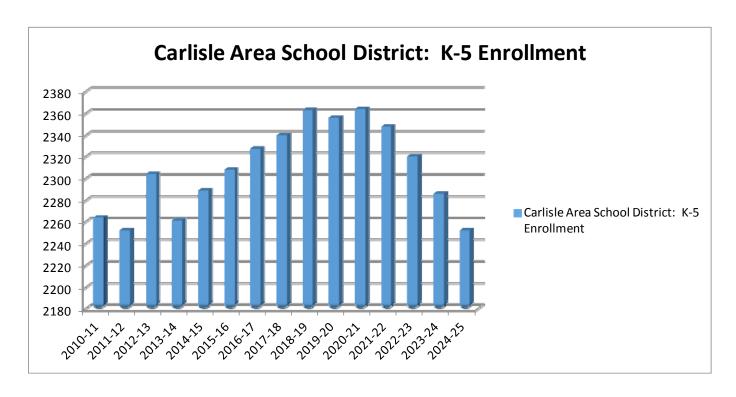
Blue cells (2015-16 and later) are forecasted years







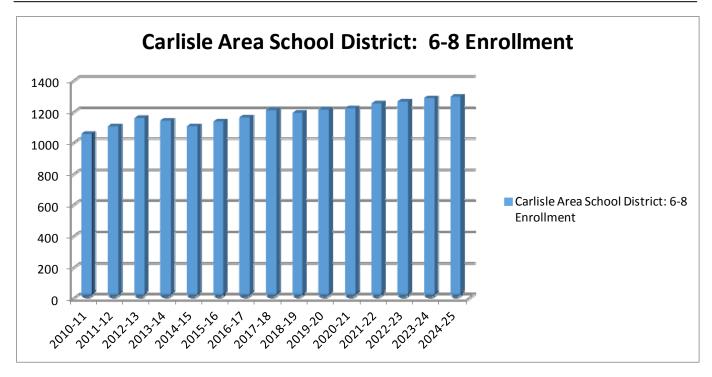


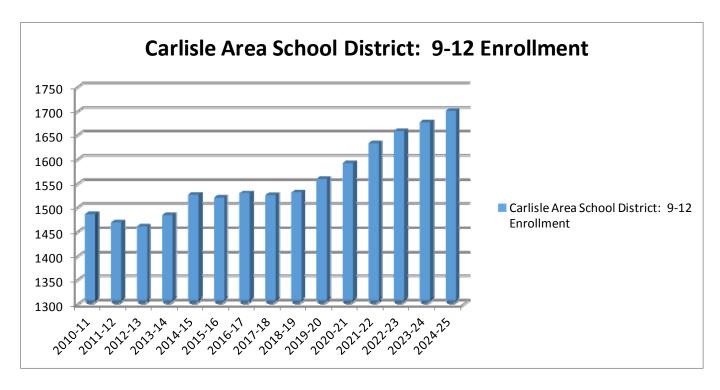
















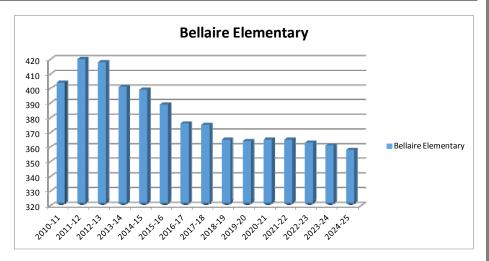


# **Bellaire Elementary**

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
K	70	74	73	69	66	64	65	64	64	63	62	61	60	59	60
1	72	78	64	71	62	61	62	63	62	62	61	61	60	59	58
2	64	71	79	62	72	61	60	61	62	61	63	62	62	61	60
3	66	60	70	73	60	69	59	58	59	60	59	61	60	60	59
4	57	72	59	68	74	61	70	60	59	60	61	60	62	61	61
5	75	65	73	58	65	73	60	69	59	58	59	60	59	61	60
SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total K-5	404	420	418	401	399	389	376	375	365	364	365	365	363	361	358
Change		16	-2	-17	-2	-10	-13	-1	-10	-1	1	0	-2	-2	-3
% Change		4.0%	-0.5%	-4.1%	-0.5%	-2.5%	-3.3%	-0.3%	-2.7%	-0.3%	0.3%	0.0%	-0.5%	-0.6%	-0.8%

Forecasts Developed August 2015

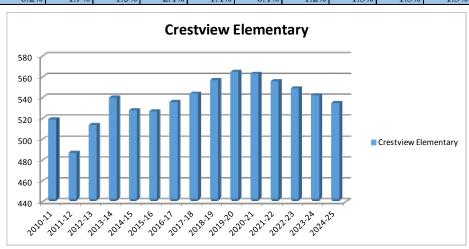
Green cells (2014-15 and earlier) are historical data Blue cells (2015-16 and later) are forecasted years



# **Crestview Elementary**

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
K	80	63	73	65	73	75	75	74	74	73	74	73	72	71	70
1	97	94	87	91	83	90	91	91	90	90	89	88	87	86	85
2	83	93	100	88	83	87	95	96	96	95	94	93	92	90	89
3	73	73	101	103	91	86	90	99	100	100	98	97	96	95	93
4	83	76	82	102	93	94	89	93	102	103	102	100	99	98	97
5	95	88	71	91	105	95	96	91	95	104	106	105	103	102	101
SE	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total K-5	519	487	514	540	528	527	536	544	557	565	563	556	549	542	535
Change		-32	27	26	-12	-1	9	8	13	8	-2	-7	-7	-7	-7
% Change		-6.2%	5.5%	5.1%	-2.2%	-0.2%	1.7%	1.5%	2.4%	1.4%	-0.4%	-1.2%	-1.3%	-1.3%	-1.3%

Forecasts Developed August 2015







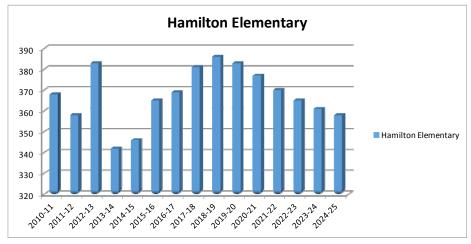


# **Hamilton Elementary**

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
K	74	73	84	67	68	75	74	74	73	72	71	70	69	68	69
1	66	61	63	73	73	72	73	72	72	71	70	69	68	67	66
2	65	64	63	51	60	67	66	67	66	66	65	64	63	62	61
3	61	54	67	58	48	56	63	62	63	62	61	60	60	59	58
4	52	56	52	49	55	45	52	59	58	59	57	56	55	55	54
5	50	50	54	44	42	50	41	47	54	53	53	51	50	50	50
SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total K-5	368	358	383	342	346	365	369	381	386	383	377	370	365	361	358
Change		-10	25	-41	4	19	4	12	5	-3	-6	-7	-5	-4	-3
% Change		-2.7%	7.0%	-10.7%	1.2%	5.5%	1.1%	3.3%	1.3%	-0.8%	-1.6%	-1.9%	-1.4%	-1.1%	-0.8%

Forecasts Developed August 2015

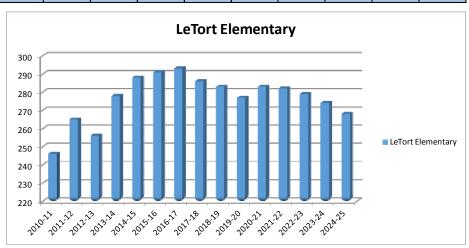
Green cells (2014-15 and earlier) are historical data Blue cells (2015-16 and later) are forecasted years



#### **LeTort Elementary**

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
K	46	50	50	51	39	46	47	47	46	44	43	42	42	41	40
1	32	41	47	49	47	38	43	44	44	43	41	41	40	40	39
2	49	39	33	54	48	49	40	45	46	46	46	43	43	42	42
3	43	52	42	40	55	50	51	42	47	48	49	49	46	46	45
4	37	48	42	44	49	58	53	54	45	50	52	53	53	50	50
5	39	35	42	40	50	50	59	54	55	46	52	54	55	55	52
SE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total K-5	246	265	256	278	288	291	293	286	283	277	283	282	279	274	268
Change		19	-9	22	10	3	2	-7	-3	-6	6	-1	-3	-5	-6
% Change		7.7%	-3.4%	8.6%	3.6%	1.0%	0.7%	-2.4%	-1.0%	-2.1%	2.2%	-0.4%	-1.1%	-1.8%	-2.2%

Forecasts Developed August 2015







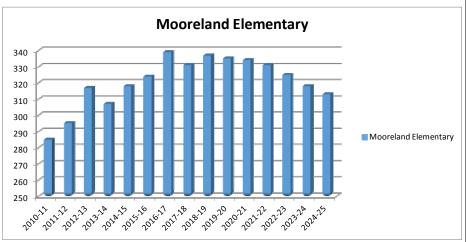


# **Mooreland Elementary**

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
K	28	44	34	40	36	39	40	40	39	39	39	38	37	36	37
1	47	37	60	46	53	51	52	53	53	52	52	51	49	48	47
2	51	42	46	60	49	55	53	54	55	55	54	54	53	50	49
3	43	53	54	43	66	52	59	57	58	59	58	57	57	56	53
4	51	44	55	58	49	70	55	63	60	61	62	61	60	60	59
5	50	57	55	54	59	51	74	58	66	63	63	64	63	62	62
SE	15	18	13	6	6	6	6	6	6	6	6	6	6	6	6
Total K-5	285	295	317	307	318	324	339	331	337	335	334	331	325	318	313
Change		10	22	-10	11	6	15	-8	6	-2	-1	-3	-6	-7	<b>-</b> 5
% Change		3.5%	7.5%	-3.2%	3.6%	1.9%	4.6%	-2.4%	1.8%	-0.6%	-0.3%	-0.9%	-1.8%	-2.2%	-1.6%

Forecasts Developed August 2015

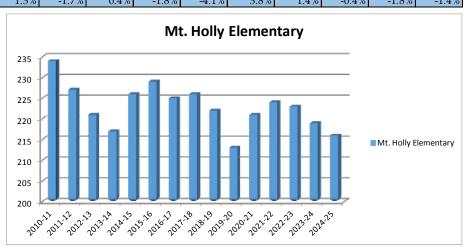
Green cells (2014-15 and earlier) are historical data
Blue cells (2015-16 and later) are forecasted years



#### Mt. Holly Elementary

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
K	30	34	39	39	23	32	34	35	35	34	33	32	31	30	32
1	46	28	38	36	45	30	33	35	36	36	35	34	33	32	31
2	28	46	32	38	43	48	32	35	37	38	39	38	37	36	35
3	41	29	42	37	34	42	47	31	34	36	39	40	39	38	37
4	42	42	24	35	37	32	39	44	29	32	35	37	38	37	36
5	39	41	37	25	35	36	31	37	42	28	31	34	36	37	36
SE	8	7	9	7	9	9	9	9	9	9	9	9	9	9	9
Total K-5	234	227	221	217	226	229	225	226	222	213	221	224	223	219	216
Change		-7	-6	-4	9	3	-4	1	-4	-9	8	3	-1	-4	-3
% Change		-3.0%	-2.6%	-1.8%	4.1%	1.3%	-1.7%	0.4%	-1.8%	-4.1%	3.8%	1.4%	-0.4%	-1.8%	-1.4%

Forecasts Developed August 2015







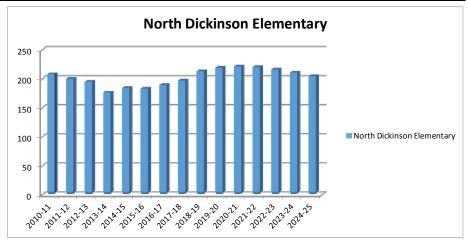


# **North Dickinson Elementary**

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
K	29	21	19	26	29	31	31	30	30	29	29	29	28	27	25
1	32	32	30	18	27	33	34	34	33	33	32	31	30	29	28
2	33	34	30	27	21	28	35	36	36	35	35	34	33	32	31
3	39	31	35	31	27	22	29	36	37	37	37	37	36	35	34
4	34	40	31	35	31	28	22	30	37	38	39	39	39	38	37
5	41	33	44	30	41	33	30	23	32	39	41	42	42	42	41
SE	0	9	6	9	8	8	8	8	8	8	8	8	8	8	8
Total K-5	208	200	195	176	184	183	189	197	213	219	221	220	216	211	204
Change		-8	-5	-19	8	-1	6	8	16	6	2	-1	-4	-5	-7
% Change		-3.8%	-2.5%	-9.7%	4.5%	-0.5%	3.3%	4.2%	8.1%	2.8%	0.9%	-0.5%	-1.8%	-2.3%	-3.3%

Forecasts Developed August 2015

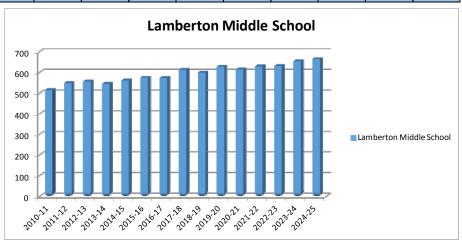
Green cells (2014-15 and earlier) are historical data Blue cells (2015-16 and later) are forecasted years



#### **Lamberton Middle School**

		2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
	6	174	187	158	188	166	194	179	204	181	205	187	198	206	208	208
	7	157	184	203	170	193	176	206	190	216	194	219	200	212	220	223
	8	174	168	182	178	192	195	178	208	192	220	198	223	204	216	224
	SE	10	10	13	10	10	10	10	10	10	10	10	10	10	10	10
,	Гotal: 6-8	515	549	556	546	561	575	573	612	599	629	614	631	632	654	665
	Change		34	7	-10	15	14	-2	39	-13	30	-15	17	1	22	11
9/	6 Change		6.6%	1.3%	-1.8%	2.7%	2.5%	-0.3%	6.8%	-2.1%	5.0%	-2.4%	2.8%	0.2%	3.5%	1.7%

Forecasts Developed August 2015







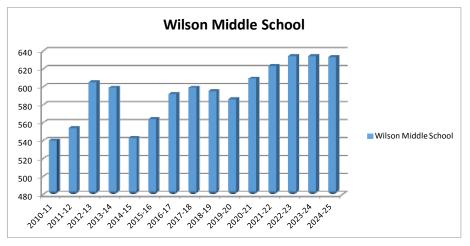


#### Wilson Middle School

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
6	159	205	192	185	177	199	205	185	195	196	204	207	207	204	204
7	165	171	223	192	179	179	201	207	187	197	200	208	211	211	208
8	203	167	176	211	175	174	174	195	201	181	193	196	204	207	209
SE	13	11	14	11	12	12	12	12	12	12	12	12	12	12	12
Total: 6-8	540	554	605	599	543	564	592	599	595	586	609	623	634	634	633
Change		14	51	-6	-56	21	28	7	-4	-9	23	14	11	0	-1
% Change	·	2.6%	9.2%	-1.0%	-9.3%	3.9%	5.0%	1.2%	-0.7%	-1.5%	3.9%	2.3%	1.8%	0.0%	-0.2%

Forecasts Developed August 2015

Green cells (2014-15 and earlier) are historical data Blue cells (2015-16 and later) are forecasted years



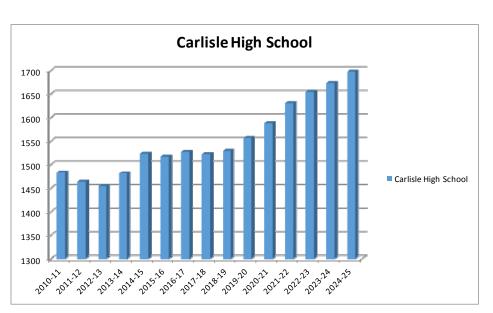
Carlisle High School

	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
9	409	405	384	381	442	400	403	384	440	430	439	429	460	448	465
10	348	380	371	367	357	411	372	375	357	409	400	410	401	430	419
11	358	314	359	355	340	336	386	350	353	336	384	378	387	379	406
12	339	337	300	340	334	320	316	363	329	332	316	363	357	366	358
E/S	29	27	40	38	49	49	49	49	49	49	49	49	49	49	49
Total: 9-12	1483	1463	1454	1481	1522	1516	1526	1521	1528	1556	1588	1629	1654	1672	1697
Change	·	-20	-9	27	41	-6	10	-5	7	28	32	41	25	18	25
% Change		-1.3%	-0.6%	1.9%	2.8%	-0.4%	0.7%	-0.3%	0.5%	1.8%	2.1%	2.6%	1.5%	1.1%	1.5%

Forecasts Developed August 2015

Green cells (2014-15 and earlier) are historical data

Blue cells (2015-16 and later) are forecasted years









#### **Appendix B: Population Forecasts** Carlisle Area School District

									Cariis
Males	2010	2015	2020	2025	Females	2010	2015	2020	2025
0-4	1,102	1,150	1,100	1,030	0-4	1,092	1,100	1,060	1,020
5-9	1,119	1,110	1,140	1,110	5-9	1,075	1,110	1,110	1,060
10-14	1,066	1,120	1,120	1,160	10-14	1,040	1,090	1,110	1,110
15-19	1,289	1,340	1,390	1,410	15-19	1,473	1,430	1,460	1,500
20-24	1,514	1,530	1,590	1,620	20-24	1,627	1,610	1,560	1,590
25-29	1,183	1,240	1,240	1,300	25-29	1,263	1,330	1,310	1,250
30-34	1,050	1,160	1,190	1,200	30-34	1,016	1,230	1,300	1,280
35-39	1,038	1,060	1,170	1,220	35-39	1,054	1,020	1,270	1,330
40-44	1,196	1,040	1,070	1,180	40-44	1,222	1,070	1,030	1,270
45-49	1,326	1,180	1,030	1,050	45-49	1,312	1,220	1,060	1,030
50-54	1,310	1,310	1,160	1,000	50-54	1,329	1,300	1,200	1,050
55-59	1,186	1,280	1,270	1,120	55-59	1,280	1,300	1,270	1,180
60-64	1,075	1,140	1,210	1,220	60-64	1,205	1,250	1,280	1,250
65-69	781	940	1,010	1,110	65-69	865	1,100	1,140	1,180
70-74	537	670	830	880	70-74	639	790	1,010	1,070
75-79	417	440	530	680	75-79	593	550	690	920
80-84	317	320	340	440	80-84	507	510	490	610
85+	260	300	330	330	85+	716	780	830	850
Total	17,766	18,330	18,720	19,060	Total	19,308	19,790	20,180	20,550

11100 0011001 2 1011100								
Total	2010	2015	2020	2025				
0-4	2,194	2,250	2,160	2,050				
5-9	2,194	2,220	2,250	2,170				
10-14	2,106	2,210	2,230	2,270				
15-19	2,762	2,770	2,850	2,910				
20-24	3,141	3,140	3,150	3,210				
25-29	2,446	2,570	2,550	2,550				
30-34	2,066	2,390	2,490	2,480				
35-39	2,092	2,080	2,440	2,550				
40-44	2,418	2,110	2,100	2,450				
45-49	2,638	2,400	2,090	2,080				
50-54	2,639	2,610	2,360	2,050				
55-59	2,466	2,580	2,540	2,300				
60-64	2,280	2,390	2,490	2,470				
65-69	1,646	2,040	2,150	2,290				
70-74	1,176	1,460	1,840	1,950				
75-79	1,010	990	1,220	1,600				
80-84	824	830	830	1,050				
85+	976	1,080	1,160	1,180				
Total	37,074	38,120	38,900	39,610				
Median Age	38.9	38.6	38.6	39.2				

	2010 to 2015	2015 to 2020	2020 to 2025
Births	2,030	1,980	1,880
Deaths	1,570	1,670	1,800
Natural Increase	460	310	80
Net Migration	530	550	500
Change	990	860	580
Differences between	oon noried T	otale mari not	- cours!

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

#### В

Males	2010	2015	2020	2025
0-4	166	170	160	160
5-9	170	160	160	150
10-14	123	160	150	150
15-19	302	320	360	350
20-24	423	400	420	460
25-29	191	220	200	220
30-34	164	170	200	180
35-39	138	140	160	190
40-44	164	140	140	160
45-49	158	160	140	140
50-54	180	160	160	130
55-59	165	170	150	150
60-64	152	160	170	140
65-69	108	140	150	160
70-74	93	100	130	130
75-79	53	80	80	110
80-84	55	40	60	60
85+	22	40	40	50
Total	2,828	2,930	3,030	3,090

Females	2010	2015	2020	2025
0-4	183	160	150	150
5-9	158	170	150	140
10-14	142	150	160	140
15-19	371	340	350	360
20-24	428	470	440	450
25-29	201	230	270	240
30-34	158	180	210	250
35-39	148	140	170	200
40-44	162	150	140	170
45-49	190	160	150	140
50-54	163	190	160	150
55-59	181	160	180	160
60-64	187	180	160	180
65-69	139	180	170	150
70-74	89	130	170	160
75-79	91	80	120	160
80-84	75	80	70	100
85+	51	80	100	100
Total	3,115	3,230	3,320	3,400

ellaire Elementary								
Total	2010	2015	2020	2025				
0-4	349	330	310	310				
5-9	328	330	310	290				
10-14	265	310	310	290				
15-19	673	660	710	710				
20-24	851	870	860	910				
25-29	392	450	470	460				
30-34	322	350	410	430				
35-39	286	280	330	390				
40-44	326	290	280	330				
45-49	348	320	290	280				
50-54	343	350	320	280				
55-59	346	330	330	310				
60-64	339	340	330	320				
65-69	248	320	320	310				
70-74	181	230	300	290				
75-79	143	160	200	270				
80-84	130	120	130	160				
85+	73	120	140	150				
Total	5,943	6,160	6,350	6,490				
Median Age	31.8	31.9	32.5	33.2				

	2010 to 2015	2015 to 2020	2020 to 2025
Births	310	310	310
Deaths	210	230	260
Natural Increase	100	80	50
Net Migration	100	100	100
Change	200	180	150
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Differences between period Totals may not equal Change due to rounding.

#### **Crestview Elementary**

Males	2010	2015	2020	2025
0-4	222	230	220	200
5-9	271	260	270	260
10-14	241	270	260	270
15-19	217	200	230	220
20-24	187	180	170	200
25-29	207	220	220	200
30-34	229	230	240	240
35-39	264	250	250	260
40-44	255	260	250	250
45-49	280	250	260	240
50-54	284	280	250	250
55-59	275	280	270	240
60-64	238	260	260	260
65-69	179	210	230	240
70-74	118	150	180	200
75-79	81	90	110	140
80-84	55	60	70	90
85+	34	50	60	60
Total	3,637	3,730	3,800	3,820

Females	2010	2015	2020	2025
0-4	212	230	220	200
5-9	228	250	260	250
10-14	221	230	250	260
15-19	183	190	190	210
20-24	191	150	150	160
25-29	223	230	180	180
30-34	198	250	250	200
35-39	250	220	270	270
40-44	261	250	220	270
45-49	313	260	250	220
50-54	297	310	260	250
55-59	284	290	310	250
60-64	266	280	280	300
65-69	203	240	250	260
70-74	134	180	220	230
75-79	103	110	150	190
80-84	74	90	90	130
85+	51	80	100	120
Total	3,693	3,840	3,900	3,950

Total	2010	2015	2020	2025
0-4	435	460	440	400
5-9	499	510	530	510
10-14	463	500	510	530
15-19	400	390	420	430
20-24	378	330	320	360
25-29	430	450	400	380
30-34	427	480	490	440
35-39	514	470	520	530
40-44	516	510	470	520
45-49	593	510	510	460
50-54	581	590	510	500
55-59	559	570	580	490
60-64	504	540	540	560
65-69	382	450	480	500
70-74	252	330	400	430
75-79	183	200	260	330
80-84	129	150	160	220
85+	85	130	160	180
Total	7,329	7,570	7,700	7,770
Median Age	41.2	41.9	42.3	42.9

	2010 to 2015	2015 to 2020	2020 to 2025
Births	370	350	310
Deaths	270	310	350
Natural Increase	100	40	-40
Net Migration	120	120	110
Change	220	160	70

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







#### **Hamilton Elementary**

									_
Males	2010	2015	2020	2025	Females	2010	2015	2020	2025
0-4	221	230	220	210	0-4	234	220	210	210
5-9	158	160	170	170	5-9	182	180	160	160
10-14	148	170	170	180	10-14	130	190	180	170
15-19	139	160	170	180	15-19	162	140	200	190
20-24	245	300	320	310	20-24	307	320	300	340
25-29	241	240	290	310	25-29	264	270	280	260
30-34	179	200	190	250	30-34	181	220	230	250
35-39	159	170	190	190	35-39	177	170	220	220
40-44	157	160	170	190	40-44	144	180	170	210
45-49	203	160	150	170	45-49	155	140	180	170
50-54	165	200	150	150	50-54	167	150	140	170
55-59	149	160	190	150	55-59	159	160	150	140
60-64	129	140	150	190	60-64	166	150	160	150
65-69	102	110	130	140	65-69	121	150	140	150
70-74	61	80	90	110	70-74	89	110	140	130
75-79	61	40	60	70	75-79	111	70	90	120
80-84	40	50	30	50	80-84	103	90	60	80
85+	46	40	50	40	85+	177	180	170	150
Total	2,602	2,770	2,890	3,060	Total	3,027	3,090	3,180	3,270

иницон Е	еше	mary	/	
Total	2010	2015	2020	2025
0-4	455	450	430	420
5-9	340	340	330	330
10-14	277	360	350	350
15-19	301	300	370	370
20-24	552	620	620	650
25-29	505	510	570	570
30-34	360	420	420	500
35-39	336	340	410	410
40-44	301	340	340	400
45-49	359	300	330	340
50-54	332	350	290	320
55-59	307	320	340	290
60-64	295	290	310	340
65-69	223	260	270	290
70-74	150	190	230	240
75-79	171	110	150	190
80-84	142	140	90	130
85+	223	220	220	190
Total	5,629	5,860	6,070	6,330
Median Age	35.3	34.2	34.3	34.8

	2010 to 2015	2015 to 2020	2020 to 2025
Births	410	400	390
Deaths	260	260	250
Natural Increase	150	140	140
Net Migration	80	80	70
Change	230	220	210

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

#### **LeTort Elementary**

	1		1						
Males	2010	2015	2020	2025	Females	2010	2015	2020	2025
0-4	178	160	150	140	0-4	144	150	150	140
5-9	136	170	150	150	5-9	137	140	150	140
10-14	179	130	170	150	10-14	145	130	130	140
15-19	129	160	110	150	15-19	131	120	110	120
20-24	131	140	170	120	20-24	155	140	130	120
25-29	151	150	150	180	25-29	197	170	160	150
30-34	137	170	160	160	30-34	139	210	180	170
35-39	111	150	180	170	35-39	123	150	230	200
40-44	180	110	150	180	40-44	177	120	150	230
45-49	204	180	110	150	45-49	178	180	120	150
50-54	122	200	170	110	50-54	118	180	170	120
55-59	82	120	190	170	55-59	77	120	170	170
60-64	73	80	110	190	60-64	92	80	110	170
65-69	49	60	70	100	65-69	56	80	70	100
70-74	34	40	50	60	70-74	36	50	70	60
75-79	22	30	30	40	75-79	27	30	40	70
80-84	10	20	20	30	80-84	18	20	30	40
85+	16	10	20	20	85+	35	30	40	40
Total	1,944	2,080	2,160	2,270	Total	1,985	2,100	2,210	2,330

e i ort Eie	шеп	tai y		
Total	2010	2015	2020	2025
0-4	322	310	300	280
5-9	273	310	300	290
10-14	324	260	300	290
15-19	260	280	220	270
20-24	286	280	300	240
25-29	348	320	310	330
30-34	276	380	340	330
35-39	234	300	410	370
40-44	357	230	300	410
45-49	382	360	230	300
50-54	240	380	340	230
55-59	159	240	360	340
60-64	165	160	220	360
65-69	105	140	140	200
70-74	70	90	120	120
75-79	49	60	70	110
80-84	28	40	50	70
85+	51	40	60	60
Total	3,929	4,180	4,370	4,600
Median Age	32.8	34.3	36.4	38.6

Deaths         90         110         130           Natural Increase         200         170         130           Net Migration         50         50         40		2010 to 2015	2015 to 2020	2020 to 2025
Natural Increase         200         170         130           Net Migration         50         50         40	Births	290	280	260
Net Migration         50         50         40	Deaths	90	110	130
0	Natural Increase	200	170	130
Change 250 220 170	Net Migration	50	50	40
	Change	250	220	170

## **Mooreland Elementary**

Males	2010	2015	2020	2025
0-4	134	160	150	140
5-9	150	160	170	160
10-14	150	150	160	170
15-19	277	300	300	310
20-24	361	330	350	350
25-29	207	210	170	200
30-34	148	160	160	120
35-39	165	140	140	150
40-44	153	150	130	130
45-49	174	150	150	120
50-54	202	170	150	150
55-59	190	200	170	140
60-64	219	180	190	160
65-69	153	200	170	180
70-74	115	140	190	150
75-79	119	100	120	160
80-84	117	90	80	100
85+	113	120	110	100
Total	3,147	3,110	3,060	2,990

Females	2010	2015	2020	2025
0-4	126	160	150	140
5-9	150	160	170	160
10-14	160	150	160	170
15-19	410	410	400	410
20-24	376	360	360	350
25-29	213	230	210	210
30-34	154	160	180	160
35-39	160	140	150	170
40-44	174	150	130	140
45-49	182	170	150	130
50-54	225	180	170	150
55-59	266	220	180	170
60-64	227	260	220	170
65-69	160	220	250	210
70-74	169	150	210	240
75-79	167	150	140	190
80-84	170	140	150	130
85+	355	340	330	320
Total	3,844	3,750	3,710	3,620

Total	2010	2015	2020	2025
0-4	260	320	300	280
5-9	300	320	340	320
10-14	310	300	320	340
15-19	687	710	700	720
20-24	737	690	710	700
25-29	420	440	380	410
30-34	302	320	340	280
35-39	325	280	290	320
40-44	327	300	260	270
45-49	356	320	300	250
50-54	427	350	320	300
55-59	456	420	350	310
60-64	446	440	410	330
65-69	313	420	420	390
70-74	284	290	400	390
75-79	286	250	260	350
80-84	287	230	230	230
85+	468	460	440	420
Total	6,991	6,860	6,770	6,610
Median Age	42.4	40.8	40.1	39.0

	2010 to 2015	2015 to 2020	2020 to 2025
Births	300	280	260
Deaths	480	450	450
Natural Increase	-180	-170	-190
Net Migration	50	50	50
Change	-130	-120	-140

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







# Mt. Holly Springs Elementary

									WIL. I
Males	2010	2015	2020	2025	Females	2010	2015	2020	2025
0-4	102	100	100	90	0-4	95	90	90	90
5-9	108	110	100	100	5-9	113	100	100	100
10-14	91	110	110	110	10-14	104	120	110	100
15-19	105	80	100	110	15-19	98	100	110	100
20-24	91	90	70	90	20-24	103	80	80	100
25-29	115	110	100	80	25-29	112	120	100	90
30-34	112	140	130	120	30-34	105	140	140	120
35-39	109	110	140	130	35-39	106	100	140	140
40-44	145	110	110	140	40-44	137	110	100	140
45-49	142	140	110	110	45-49	136	140	100	100
50-54	163	140	140	100	50-54	163	130	140	100
55-59	131	160	140	140	55-59	137	160	130	130
60-64	122	130	150	130	60-64	112	130	160	130
65-69	85	110	110	140	65-69	95	100	120	150
70-74	58	70	100	100	70-74	65	90	90	120
75-79	37	50	60	80	75-79	53	60	80	90
80-84	20	30	40	50	80-84	41	50	50	70
85+	13	20	20	30	85+	27	40	50	70
Total	1,749	1,810	1,830	1,850	Total	1,802	1,860	1,890	1,940

ony opin	-0	-		
Total	2010	2015	2020	2025
0-4	197	190	190	180
5-9	221	210	200	200
10-14	195	230	220	210
15-19	203	180	210	210
20-24	194	170	150	190
25-29	227	230	200	170
30-34	217	280	270	240
35-39	215	210	280	270
40-44	282	220	210	280
45-49	278	280	210	210
50-54	326	270	280	200
55-59	268	320	270	270
60-64	234	260	310	260
65-69	180	210	230	290
70-74	123	160	190	220
75-79	90	110	140	170
80-84	61	80	90	120
85+	40	60	70	100
Total	3,551	3,670	3,720	3,790
Median Age	41.9	43.1	43.3	44.0

	2010 to 2015	2015 to 2020	2020 to 2025
Births	190	190	180
Deaths	130	150	180
Natural Increase	60	40	0
Net Migration	40	40	30
Change	100	80	30

# North Dickinson Elementary

									INOI
Males	2010	2015	2020	2025	Females	2010	2015	2020	2025
0-4	78	100	100	90	0-4	98	90	90	90
5-9	125	90	120	120	5-9	107	110	120	110
10-14	134	130	100	130	10-14	138	120	120	130
15-19	120	120	120	90	15-19	119	130	100	110
20-24	76	90	90	90	20-24	67	90	100	70
25-29	71	90	110	110	25-29	53	80	110	120
30-34	81	90	110	130	30-34	81	70	110	130
35-39	92	100	110	130	35-39	90	100	90	130
40-44	142	110	120	130	40-44	167	110	120	110
45-49	165	140	110	120	45-49	158	170	110	120
50-54	195	160	140	110	50-54	196	160	160	110
55-59	194	190	160	130	55-59	176	190	150	160
60-64	142	190	180	150	60-64	155	170	190	150
65-69	105	110	150	150	65-69	91	130	140	160
70-74	58	90	90	130	70-74	57	80	110	130
75-79	45	50	70	80	75-79	42	50	70	100
80-84	20	30	40	60	80-84	27	40	40	60
85+	16	20	30	30	85+	21	30	40	50
Total	1,859	1,900	1,950	1,980	Total	1,843	1,920	1,970	2,040

Total	2010	2015	2020	2025
0-4	176	190	190	180
5-9	232	200	240	230
10-14	272	250	220	260
15-19	239	250	220	200
20-24	143	180	190	160
25-29	124	170	220	230
30-34	162	160	220	260
35-39	182	200	200	260
40-44	309	220	240	240
45-49	323	310	220	240
50-54	391	320	300	220
55-59	370	380	310	290
60-64	297	360	370	300
65-69	196	240	290	310
70-74	115	170	200	260
75-79	87	100	140	180
80-84	47	70	80	120
85+	37	50	70	80
Total	3,702	3,820	3,920	4,020
Median Age	45.2	46.5	45.5	44.8

	2010 to 2015	2015 to 2020	2020 to 2025
Births	160	170	170
Deaths	130	160	180
Natural Increase	30	10	-10
Net Migration	90	110	100
Change	120	120	90

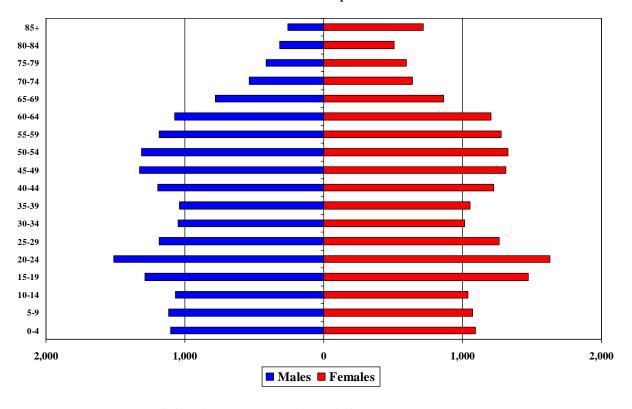




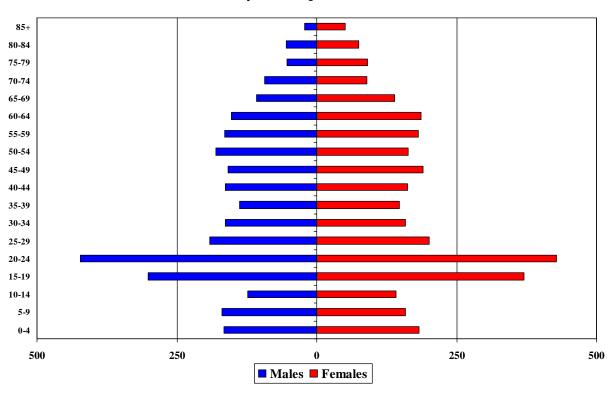


**Appendix C: Population Pyramids** 

#### Carlisle Area School District Total Population - 2010 Census



# **Bellaire Elementary Total Population - 2010 Census**

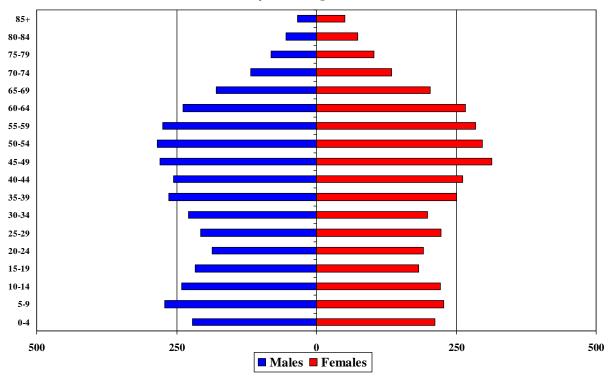




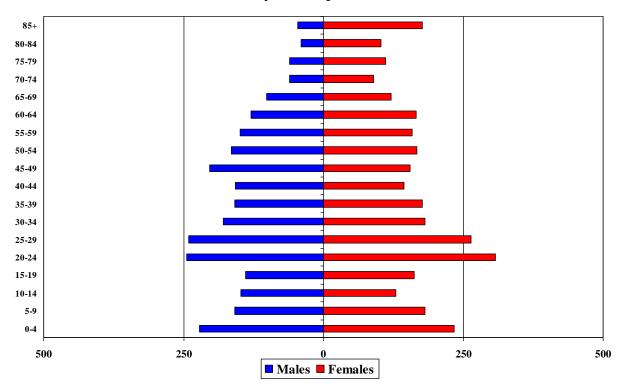








# **Hamilton Elementary Total Population - 2010 Census**

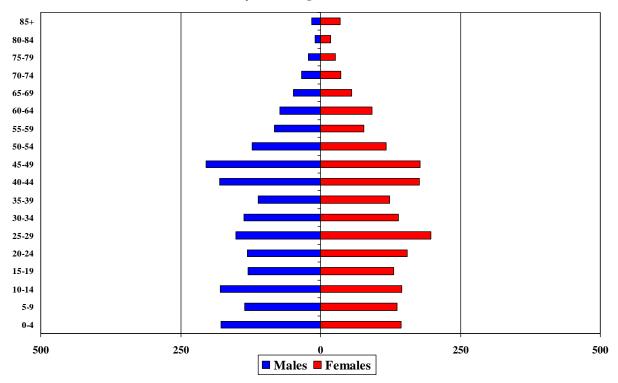




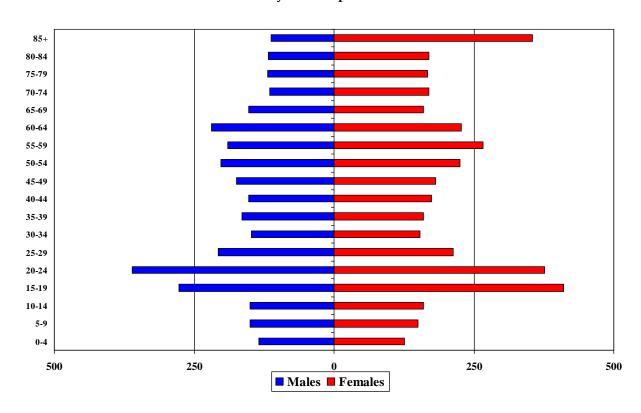








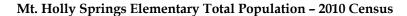
#### Mooreland Elementary Total Population - 2010 Census

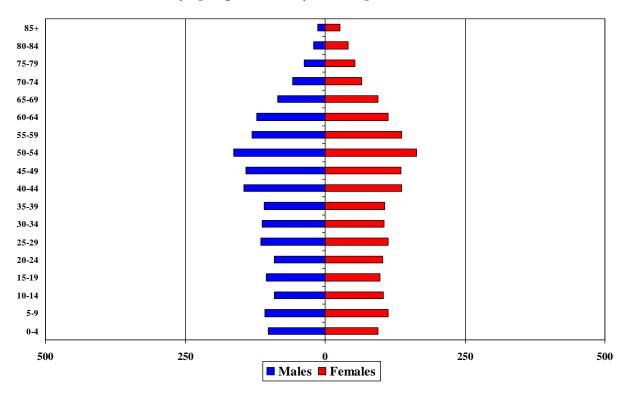




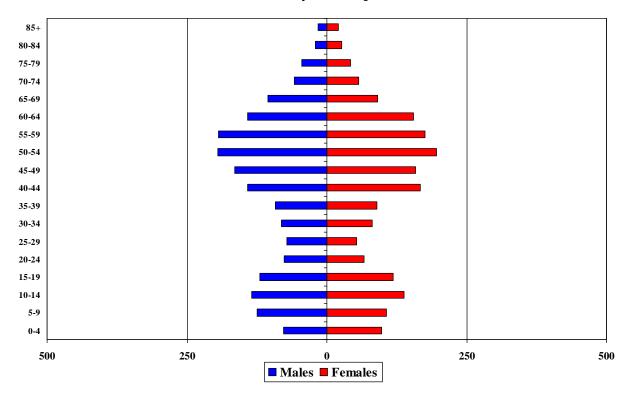








# North Dickinson Elementary Total Population - 2010 Census









#### Appendix D: Additional Tables

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

			2010-		2015-	2010-
			2015		2020	2020
	2010	2015	Change	2020	Change	Change
Bellaire	5,943	6,160	3.5%	6,350	3.1%	6.8%
Crestview	7,329	7,570	3.2%	7,700	1.7%	5.1%
Hamilton	5,629	5,860	3.9%	6,070	3.6%	7.8%
LeTort	3,929	4,180	6.0%	4,370	4.5%	11.2%
Mooreland	6,991	6,860	-1.9%	6,770	-1.3%	-3.2%
Mt. Holly Springs	3,551	3,670	3.2%	3,720	1.4%	4.8%
North Dickinson	3,702	3,820	3.1%	3,920	2.6%	5.9%
Total	37,074	38,120	2.7%	38,900	2.0%	4.9%

Table 2: Household Characteristics by Elementary Area, 2010 Census

	HH w/ Pop Under 18	% HH w/ Pop Under 18	Total Households	Household Population	Persons Per Household
Bellaire	631	29.30%	2152	5068	2.36
Crestview	931	31.40%	2965	7325	2.47
Hamilton	674	27.70%	2434	5309	2.18
Le Tort	563	33.90%	1660	3843	2.32
Mooreland	574	20.20%	2836	5848	2.06
Mt. Holly Springs	417	28.60%	1460	3543	2.43
North Dickinson	450	32.70%	1377	3702	2.69
Total	4240	28.50%	14884	34638	2.33

Table 3: Householder Characteristics by Elementary Area, 2010 Census

	Percentage of Householders aged 35-54	Percentage of Householders aged 65+	Percentage of Householders Who Own Homes
Bellaire	34.90%	24.20%	68.60%
Crestview	40.20%	22.40%	79.20%
Hamilton	33.60%	23.30%	45.00%
Le Tort	44.00%	13.60%	32.10%
Mooreland	28.80%	31.20%	57.80%
Mt. Holly Springs	40.20%	22.50%	74.90%
North Dickinson	44.60%	21.30%	90.80%
Total	37.00%	23.40%	63.40%







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 Person Households	Percentage of Single Person Households and are 65+
Bellaire	27.80%	10.90%
Crestview	24.00%	8.20%
Hamilton	39.70%	14.20%
Le Tort	37.50%	7.70%
Mooreland	38.60%	15.40%
Mt. Holly Springs	24.50%	8.30%
North Dickinson	13.10%	4.40%
Total	30.50%	10.50%

Table 5: Age Under One to Age Ten Population Counts, by Year of Age, by Elementary Area: 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
Bellaire	78	65	63	66	76	74	61	62	67	52	53
Crestview	84	83	81	91	115	107	93	91	103	97	108
Hamilton	95	91	98	89	74	65	79	78	54	48	57
Le Tort	62	70	64	72	47	52	60	55	60	53	74
Mooreland	42	47	60	50	57	63	60	49	71	67	53
Mt. Holly Springs	43	39	44	39	47	46	35	46	38	49	42
North Dickinson	28	39	32	37	42	48	39	48	49	49	59
Total	432	434	442	444	458	454	427	429	442	415	446





Table 6: Comparison of District Enrollment by Grade with 2010 Census Counts by Age, 2010-2014

	Table	o. Compa	115011 01	Distric	LEIHOII	ment by	Graue v	VILII ZUI	to Censu	is Counts	by Age,	2010-20	/14	
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	11 years	12 years	13 years
Carlisle														
Total	432	434	442	444	458	454	427	429	442	415	446	441	376	428
2011		22.4	200	271	201	200	20=	2.12	272	2.5			210	
2014		334	390	376	381	388	397	343	372	367	442	357	340	334
Enrollment		77.00%	88.20%	84.70%	83.20%	85.50%	93.00%	80.00%	84.20%	88.40%	99.10%	81.00%	90.40%	78.00%
2013			357	384	380	385	391	342	373	362	389	381	367	355
Enrollment			80.80%	86.50%	83.00%	84.80%	91.60%	79.70%	84.40%	87.20%	87.20%	86.40%	97.60%	82.90%
2012				372	389	383	411	345	376	350	426	358	384	371
Enrollment				83.80%	84.90%	84.40%	96.30%	80.40%	85.10%	84.30%	95.50%	81.20%	102.10%	86.70%
2011					359	371	389	352	378	369	392	355	335	405
Enrollment					78.40%	81.70%	91.10%	82.10%	85.50%	88.90%	87.90%	80.50%	89.10%	94.60%
2010						668	695	668	720	780	662	684	751	647
Enrollment						95.70%	92.10%	87.30%	94.70%	101.70%	84.40%	85.40%	102.60%	83.20%





#### Appendix E: Army War College Demographic Impact Review

The Army War College (AWC) is located within the Carlisle Area School District, and AWC personnel, including faculty, staff, and AWC students' children are eligible to attend the school district. Some statistics about the AWC include:

#### **AWC Permanent Party Team**

- 510 Assigned Military (439 officers/71 soldiers)
- 1,005 Professional Civilian Workforce
  - 188 Contracted Professionals
- 1,703 Total Permanently Assigned to the Barracks

#### **AWC Students**

- 433 US & International Students attend full-time Resident courses each year. Approximately the same number turns over annually.
- 811 US & International Distance Education Course Students (one month in residence)
- ~ 300 Students attend War College courses of less than 4 weeks in length each year

Total: up to 3247 Students, Faculty, Staff/Workforce at Carlisle at any one time

#### **AWC Families On and Off Post**

- 1,703 Permanent Party Family members (On and Off Post)
- 1,668 Students & Family members make their homes in local Communities
  - 739 Students & Family members living on-post
- 103k- 51,000 military retirees and 52,000 retiree Family members rely on Carlisle Barracks for medical, financial, and personnel services.

#### **AWC Economic Impact**

\$150M in Annual Military and Civilian Payroll and Contracts

54% of Carlisle Barracks households earn \$100K+ (Government pay only)

The AWC has indicated that it has no current plans to expand the number of housing units or college enrollment on the base. The AWC is located in the Carlisle Borough, and resides within the LeTort Elementary attendance area. Students attending Carlisle Area School District (CASD) schools have been consistent over the years. The tables below show the number of students living on the AWC base in 2009-10 and in 2014-15. The tables reflect a stable population over the last 5 years. There were 312 students living on base in 2009-10 versus 336 students living on base in 2014-15. Although the number of students living on base has remained stable, the distribution of students by grade level has changed over the past 5 years. In 2009-10, 56% of all students on the AWC were in Middle and High School Grades (grades 6-12). In 2014-15, 62% of all students living on the AWC were grades 6-12. The higher proportion of middle and high school students are expected to continue through the life of the AWC forecast.

2009-10 Carlisle	2009-10 Carlisle Area School District Students - Living on the Army War College Base													
Attending		Grades												
School	KG	KG 1 2 3 4 5 6 7 8 9 10 11 12 Total												
Bellaire ES	3	4	11	15	12	7								52
Crestview ES		1												1
Hamilton ES	1	8	3	3	9	9								33
LeTort ES	9	8	6	10	8	11								52
Lamberton MS							27	26	21					74
Wilson MS							4	2	3					9
Carlisle HS										31	20	27	13	91
Total	13	21	20	28	29	27	31	28	24	31	20	27	13	312
Source: CASD 20	009-10	) St	ude:	nt d	atal	base	2							

2014-15 Carlisle	Area	a Sc	hoo	1 D	istri	ict S	tud	ent	s - I	ivi	ng c	n t	he A	Army
	War College Base													
Attending		Grades												
School	KG	1	2	3	4	5	6	7	8	9	10	11	12	Total
Bellaire ES		6	6	5	3	10								30
Crestview ES		1		2	1	1								5
Hamilton ES	6	3	3	2	6	1								21
LeTort ES	5	11	10	8	19	16								69
Mooreland ES			1		1									2
Lamberton MS							23	36	25					84
Wilson MS							7	3	3					13
Carlisle HS										38	36	22	16	112
Total	11	21	20	17	30	28	30	39	28	38	36	22	16	336
Source: CASD 2014-15 Student database														

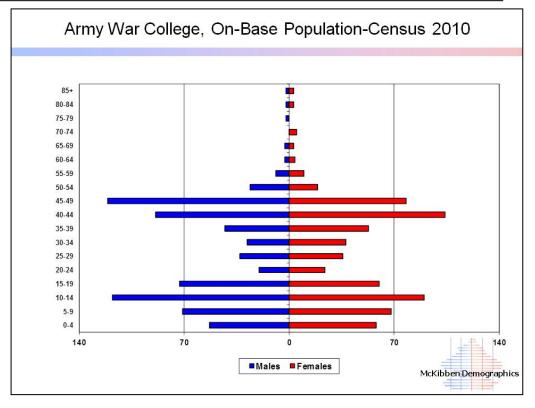






The population on the Army War College is fairly stable does not change significantly over time. As with any college environment, those attending the college come to town for school, but most leave back to their home state/city once they are finished with the educational classes they have been assigned.

The AWC has indicated that the average age of their students are 42 years old, where faculty and staff have a median age of 45. These are on the higher side of family formation ages, and populations of this age don't typically yield younger-aged children.



The population pyramid to the right shows the age/sex distribution of the on-base population (Census 2010). Smaller populations of 0-4 and 5-9 year olds can be seen on the pyramid, and the 10-14 year old population is larger. The most dominant age groups are the 40-45 and 45-49 year olds, which is consistent with average and median age figures provided by the AWC staff.

It should be noted that there is a large percentage of AWC students and faculty living off-base. Even though this is the case, the on-base population is a good representative sample of the total population that is served by the AWC. The ultimate goal of the AWC forecast is to determine the long-term impact of the base, and studying the on-base population is the best and most accurate method to do this. The on-base population is used as the sample for the AWC forecast because the exact number of children attending CASD that live off-base is unknown, but the on-base CASD students and Census statistics are known.

As indicated above, population and enrollment has been forecasted for on-base population, which will help CASD in understanding the long-term impact of the Army War College. The AWC forecasts are designed to be analyzed separately from the CASD enrollment forecast. The main enrollment forecasts created for CASD include students living on and off the AWC, but the AWC forecast identifies if the specific population serving the base will have a changing impact on the school district.

Enrollment forecast results for the AWC can be found on the following page.

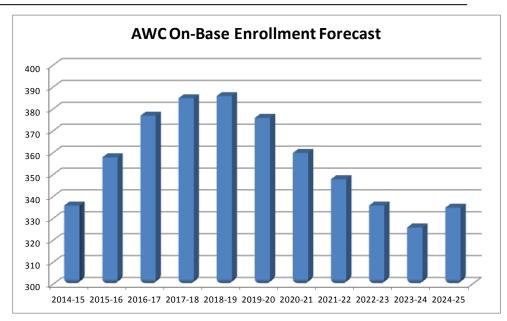






The bar graph to the right shows the on-base enrollment forecast for the Army War College. The forecast results show that enrollment growth is fairly stable through the life of the forecast.

There is an expected gain in students living on-base over the next 4 years, primarily because smaller cohorts are leaving the system and are being replaced with larger cohorts. Once this 'bubble' works its way through the system, the enrollment is forecasted to further stabilize and end close to the same number of students as 2014-15.



Although the total number of students remains nearly the same by the end of the forecast, the proportion of students between elementary to middle to high changes. By the end of the forecast, there is expected to be a larger number of high school students than 2014-15, and a smaller number of middle school students. The elementary

aged cohorts remain fairly stable through the life of the forecast.

To conclude, the Army War Base onbase population has been studied to assess the impact of the AWC on Carlisle Area School District schools.

Findings show that the AWC does have a substantial impact on the CASD and the jobs and population that the AWC brings into the CASD is critical to vitality of the school system, just

War College On-Base Enrollment Forecast													
Grades	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25		
K	11	14	14	14	15	15	14	14	14	14	13		
1	21	22	22	23	23	24	24	23	23	22	22		
2	20	20	21	21	22	22	23	23	22	22	21		
3	17	18	18	19	19	20	21	22	22	21	21		
4	30	18	19	19	20	20	21	22	23	23	22		
5	28	29	17	18	18	19	20	21	22	23	23		
Total: K-5	127	121	111	114	117	120	123	125	126	125	122		
6	30	29	30	18	19	19	20	21	22	23	24		
7	39	32	30	32	19	20	21	22	23	24	25		
8	28	40	33	31	33	19	21	22	23	24	25		
Total: 6-8	97	101	93	81	71	58	62	65	68	71	74		
9	38	40	57	47	44	47	27	30	32	33	35		
10	36	43	45	64	53	49	54	31	34	36	38		
11	22	39	46	49	69	57	54	59	34	37	40		
12	16	14	25	30	32	45	40	38	42	24	26		
Total: 9-12	112	136	173	190	198	198	175	158	142	130	139		
Total: K-12	336	358	377	385	386	376	360	348	336	326	335		
Green cells (2	Green cells (2014-15) are historical data												
Blue cells (20)													

as any large employer would.

Although the AWC does play a critical role in serving the Carlisle Area Schools and community, the population and students on the AWC base are not forecasted to have substantial changes in students or population.





#### **Appendix E: Live Attend Analysis**

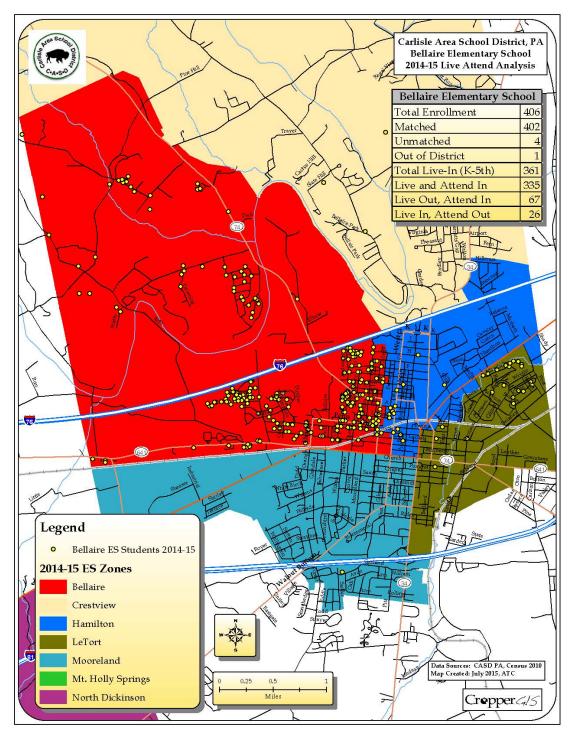
This map series focuses on illustrating the geographic distribution of Carlisle Area School District's 2014-2015 students in relation to school attendance boundaries.

Here 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 and students), 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.

Please note that each yellow dot represents a student's address, at which, multiple students could reside. Therefore, counting the number of dots shown on the map might not reflect the student population accurately.







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:

Bellaire Elementary School					
Total Enrollment	406				
Matched	402				
Unmatched	4				
Out of District	1				
Total Live-In (K-5th)	361				
Live and Attend In	335				
Live Out, Attend In	67				
Live In, Attend Out	26				

<u>Total Enrollment</u> - number of students attending Bellaire ES.

<u>Matched</u> – number of students attending Bellaire ES whose addresses were located by the GIS, and placed on the map.

<u>Unmatched</u> - number of students whose addresses were not able to be located, and have not been placed on the map.

<u>Out of District</u> – number of students who live outside of the Carlisle Area School District's boundaries, yet attend this school.

<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 361 K-5th grade students living within the Bellaire ES 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, 335 K-5th grade students who live within the Bellaire ES attendance boundary also attend Bellaire ES.

<u>Live Out, Attend In</u> – number of K-5th students who live outside of the Bellaire ES attendance boundary, but attend Bellaire ES. Any student records that are unmatched are not included in this count, since it is not known whether or not these unmatched students live within or outside the attendance boundary in question. Due to the methods used to calculate the statistics in this table, this is the only circumstance where this is relevant.

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





#### LIVE ATTEND MATRIX

The tables below give 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 zones where students live schools of attendance 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.

## K-5th Matrix Where 2014-15 K-5th Students Live

		\&	allaire	restriter	anillor	esort d	sootelas	id idi	orth Di	nit of Di	skrick Spratch
		361	528	369	314	304	205	191	41	12	
Bellaire Elementary School	406	335	9	18	37	1		1	1	4	67
Crestview Elementary School	528	11	485	11	5	2		1	12	1	42
Hamilton Elementary School	354	4	17	309	12	6			5	1	44
LeTort Elementary School	284	1	5	12	235	22	1	3	2	3	46
Mooreland Elementary School	316	5	3	7	20	269	1	5	4	2	45
Mt Holly Springs Elementary											
School	226	1	3	4	1	1	195	10	10	1	30
North Dickinson Elementary											***************************************
School	198	3	4	5	2	3	5	169	7		29
No School Attribute	13	1	2	3	2		3	2			
Live In Attend Out		26	43	60	79	35	10	22			

6-8th Matrix

Where 2014-15 6-8th Students Live

Where 2014-15 6-8th Students Attend

		/4	rinate.			
		560	551	14	5	
Lamberton Middle School	560	524	29	4	3	33
Wilson Middle School	543	26	505	10	2	36
No School Attribute	27	10	17			
Live In Attend Out		36	46			





