MSD Washington Township, IN Demographic Study

June 2015
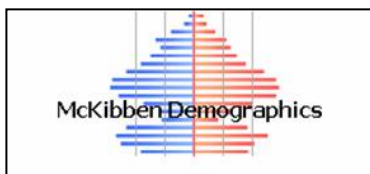
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Executive Summary – MSD Washington Township Population and Enrollment Forecasts - June 2015

1. The total fertility rate for the MSD Washington Township district over the life of the forecasts is below replacement level. (1.96 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 service area's out migration flow.

4. The primary factor causing the district's enrollment to increase is the steady level of in-migration of young households/families and an increase in the number of households over age 70 that are out-migrating.

5. Changes in year-to-year enrollment (at least for the next 6 years) 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 slight decline after 2018.

7. The median age of the population will increase from 36.7 in 2010 to 38.2 in 2025.

8. The primary cause in the rise of the high school enrollment after 2020 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 home 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 356 students, or 3.2%, between 2014-15 and 2019-20. Total enrollment will grow by 298 students, or 2.6%, 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 MSD Washington Township. 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 MSD Washington Township 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 Indiana 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 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 1,200 of the over 40,000 current households in the district would have been included. For comparison 6,800 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 MSD Washington Township 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 1.96 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 migration, fertility alone would be insufficient to maintain the current level of population and enrollment within MSD Washington Township over the course of the forecast period.

A close examination of data for MSD Washington Township 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 MSD Washington Township (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 in-migration occurs in the 0-to-4 and 25-39 age groups (bulk of which are from areas within 50 miles of MSD Washington Township) primarily consisting of younger adults and their children.

As the Marion 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 MSD Washington Township and its attendance areas will remain the same through the year 2024. Below is a list of assumptions and issues that are specific to MSD Washington Township. 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 MSD Washington Township 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 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%;

c. 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;

e. The rate of housing foreclosures does not exceed 125% of the 2005-2007 average of Marion 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 Metropolitan Indianapolis will remain below 6.5% for the 10 years of the forecasts;

h. The rate of students transferring into and out of MSD Washington Township will remain at the 2010-11 to 2014-15 average;

i. The inflation rate for gasoline will stay below 5% 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 MSD Washington Township area will remain viable;

l. 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 Marion County;

If a major employer in the district or in the Greater Indianapolis 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 MSD Washington Township 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:

1.   a base-year population (here, the 2010 Census population for MSD Washington Township 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;

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, MSD Washington Township is classified as a "small area" population (as compared to the population of the state of Indiana 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 MSD Washington Township 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 MSD Washington Township.

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 MSD Washington Township 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 $\pm2.0\%$ for the life of the forecasts.

REFERENCES

McKibben, J.
The Impact of Policy Changes on Forecasting for School Districts. Population   Research and Policy Review, Vol. 15, No. 5-6, December 1996

McKibben, J., M. Gann, and K. Faust.
The Baby Boomlet's Role in Future College Enrollment. American Demographics, June 1999.

Peters, G. and R. Larkin
Population Geography. 7th Edition. Dubuque, IA: Kendall Hunt Publishing. 2002.

Siegel, J. and D. Swanson
The Methods and Materials of Demography: Second Edition, Academic Press: New York, New York. 2004.

Smith, S., J. Tayman and D. Swanson
State and Local Population Projections, Academic Press, New York, New York. 2001.

Appendix A: Enrollment Forecasts

M.S.D. of Washington Township: 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	750	788	823	856	883	892	874	855	837	820	821	811	804	800	814
1	889	860	896	898	893	914	922	909	899	891	882	874	864	856	850
2	892	842	812	844	888	873	894	904	892	882	887	878	870	860	853
3	785	851	866	801	856	882	869	894	904	892	890	896	886	878	868
4	866	795	827	814	824	849	875	864	888	898	898	896	902	892	884
5	866	862	807	802	816	825	847	875	865	888	910	910	908	914	904
Total: K-5	5048	4998	5031	5015	5160	5235	5281	5301	5285	5271	5288	5265	5234	5200	5173
	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	812	866	910	778	835	841	850	872	901	891	915	938	938	936	941
7	747	820	880	866	820	844	848	858	880	909	899	923	947	947	945
8	851	750	836	893	899	839	864	868	878	900	931	920	945	969	969
Total: 6-8	2410	2436	2626	2537	2554	2524	2562	2598	2659	2700	2745	2781	2830	2852	2855
	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	934	942	854	889	964	980	915	942	946	957	981	1005	994	1021	1047
10	902	904	874	805	905	935	951	888	914	918	928	942	965	954	980
11	951	851	894	847	806	887	916	932	870	896	900	900	914	936	925
12	688	852	791	895	844	786	865	893	909	848	874	873	873	887	908
Total: 9-12	3475	3550	3413	3436	3520	3588	3647	3655	3639	3619	3683	3720	3746	3798	3860
	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	10933	10984	11070	10988	11234	11347	11490	11554	11583	11590	11716	11766	11810	11850	11888

Forecasts Developed June 2015

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

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

M.S.D. of Washington Township: 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
K-5 Change		-50	33	-16	145	75	46	20	-16	-14	17	-23	-31	-34	-27
K-5 %-Change		-1.0%	0.7%	-0.3%	2.9%	1.5%	0.9%	0.4%	-0.3%	-0.3%	0.3%	-0.4%	-0.6%	-0.6%	-0.5%
	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
6-8th Change		26	190	-89	17	-30	38	36	61	41	45	36	49	22	3
6-8th %-Change		1.1%	7.8%	-3.4%	0.7%	-1.2%	1.5%	1.4%	2.3%	1.5%	1.7%	1.3%	1.8%	0.8%	0.1%
	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
9-12th Change		75	-137	24	83	68	59	8	-16	-20	64	37	26	52	62
9-12th %-Change		2.1%	-3.9%	0.7%	2.4%	1.9%	1.6%	0.2%	-0.4%	-0.5%	1.8%	1.0%	0.7%	1.4%	1.6%
	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-12th Change		51	86	-81	245	113	143	64	29	7	126	50	44	40	38
K-12th %-Change		0.5%	0.8%	-0.7%	2.2%	1.0%	1.3%	0.6%	0.3%	0.1%	1.1%	0.4%	0.4%	0.3%	0.3%

Total: K-5

Total: 6-8

Total: 9-12

Total: K-12

Allisonville Elementary

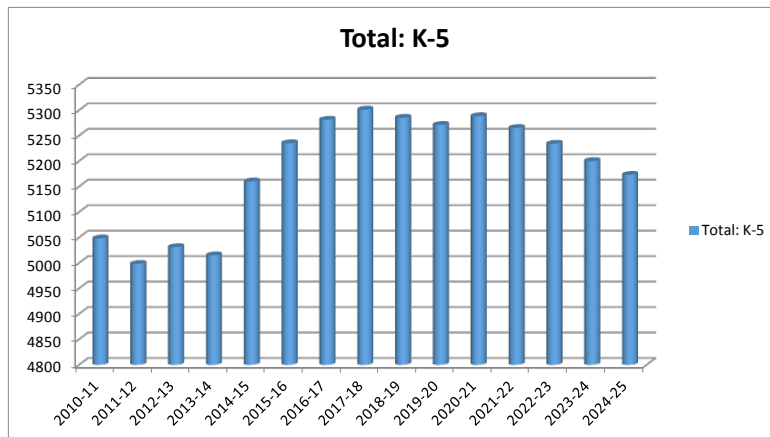|	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
K	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	161	149	142	143	151	153	168	162	159	158	156	154	152	150	149
2	147	160	156	144	143	154	156	171	165	162	163	161	159	157	155
3	140	146	177	155	153	147	159	161	176	170	168	170	167	165	163
4	151	148	155	162	159	156	150	162	164	180	175	173	175	172	170
5	146	151	158	155	168	162	159	153	165	167	185	180	178	180	177
Total K-5	745	754	788	759	774	772	792	809	829	837	847	838	831	824	814
Change		9	34	-29	15	-2	20	17	20	8	10	-9	-7	-7	-10
% Change		1.2%	4.5%	-3.7%	2.0%	-0.3%	2.6%	2.1%	2.5%	1.0%	1.2%	-1.1%	-0.8%	-0.8%	-1.2%

Forecasts Developed June 2015

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

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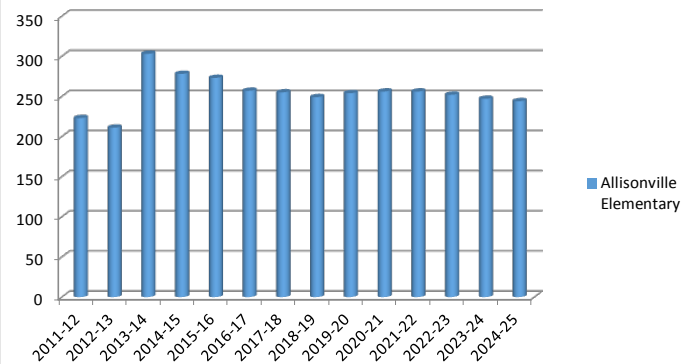
Crooked Creek Elementary

	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	98	88	116	117	128	124	123	123	122	121	118	116	115	114	116
1	105	98	97	108	118	122	119	118	118	117	116	115	113	112	111
2	99	101	101	87	120	116	120	118	117	117	118	117	116	114	113
3	106	97	108	121	90	122	118	124	122	121	122	123	122	121	119
4	120	105	95	99	129	89	121	117	123	121	122	123	124	123	122
5	113	116	110	94	110	130	90	123	119	125	125	126	127	128	127
Total K-5	641	605	627	626	695	703	691	723	721	722	721	720	717	712	708
Change		-36	22	-1	69	8	-12	32	-2	1	-1	-1	-3	-5	-4
% Change		-5.6%	3.6%	-0.2%	11.0%	1.2%	-1.7%	4.6%	-0.3%	0.1%	-0.1%	-0.1%	-0.4%	-0.7%	-0.6%

Forecasts Developed June 2015

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

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

Fox Hill 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	127	131	126	146	133	134	132	131	130	129	129	127	125	124	126
1	129	129	127	140	145	138	137	135	134	133	132	130	128	126	125
2	110	130	117	123	142	144	137	136	134	133	134	133	131	129	127
3	113	129	143	125	128	146	148	141	140	138	138	139	138	136	134
4	119	124	116	125	130	127	145	147	140	139	139	139	140	139	137
5	117	130	122	123	123	133	130	148	150	143	143	143	143	144	143
Total K-5	715	773	751	782	801	822	829	838	828	815	815	811	805	798	792
Change		58	-22	31	19	21	7	9	-10	-13	0	-4	-6	-7	-6
% Change		8.1%	-2.8%	4.1%	2.4%	2.6%	0.9%	1.1%	-1.2%	-1.6%	0.0%	-0.5%	-0.7%	-0.9%	-0.8%

Forecasts Developed June 2015

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

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

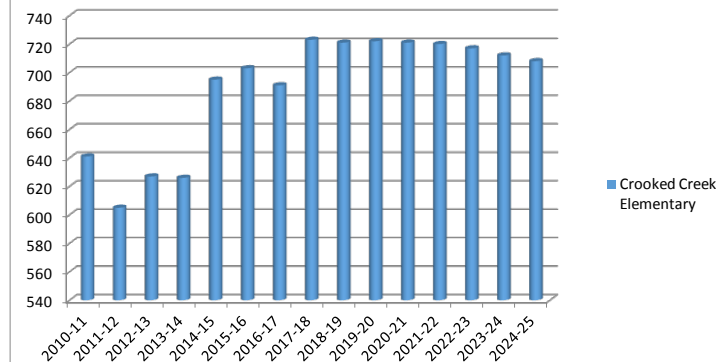**Fox Hill Elementary**
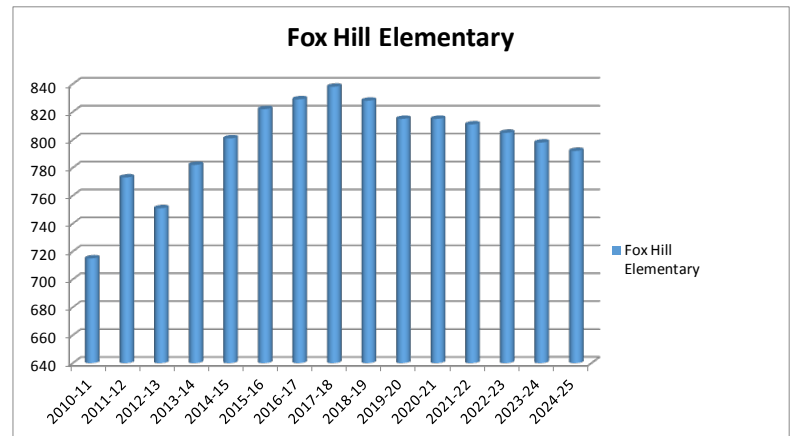
Greenbriar Elementary

	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	99	98	123	122	131	130	130	129	127	126	130	129	128	128	129
1	172	146	147	152	147	156	159	158	157	155	154	153	152	151	150
2	154	153	127	137	144	138	147	149	149	148	149	148	147	146	145
3	118	128	145	114	142	137	131	140	142	142	142	143	142	141	140
4	145	100	112	127	117	132	127	122	130	132	135	135	136	135	134
5	151	114	108	114	137	115	129	124	120	127	131	134	134	135	134
Total K-5	839	739	762	766	818	808	823	822	825	830	841	842	839	836	832
Change		-100	23	4	52	-10	15	-1	3	5	11	1	-3	-3	-4
% Change		-11.9%	3.1%	0.5%	6.8%	-1.2%	1.9%	-0.1%	0.4%	0.6%	1.3%	0.1%	-0.4%	-0.4%	-0.5%

Forecasts Developed June 2015

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

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

Greenbriar Elementary

Revised 8/17/2015

John Strange 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	177	227	208	216	235	256	242	228	215	204	202	199	196	196	202
1	92	84	107	90	81	81	80	78	76	74	73	72	71	70	70
2	97	89	65	97	91	79	79	78	76	74	73	72	71	70	69
3	95	92	70	61	89	86	75	75	74	72	71	70	69	68	67
4	96	99	85	79	70	94	91	80	80	78	77	76	75	74	73
5	89	91	81	67	73	66	88	86	75	75	74	73	72	71	70
Total K-5	646	682	616	610	639	662	655	625	596	577	570	562	554	549	551
Change		36	-66	-6	29	23	-7	-30	-29	-19	-7	-8	-8	-5	2
% Change		5.6%	-9.7%	-1.0%	4.8%	3.6%	-1.1%	-4.6%	-4.6%	-3.2%	-1.2%	-1.4%	-1.4%	-0.9%	0.4%

Forecasts Developed June 2015

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

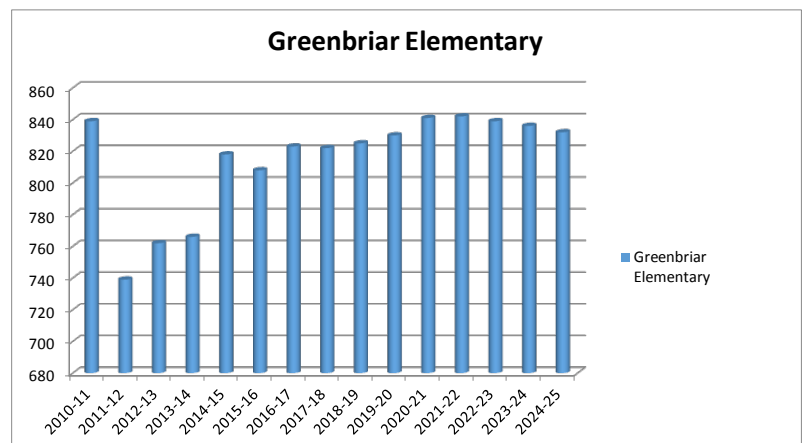Blue cells (2015-16 and later) are forecasted years

John Strange Elementary
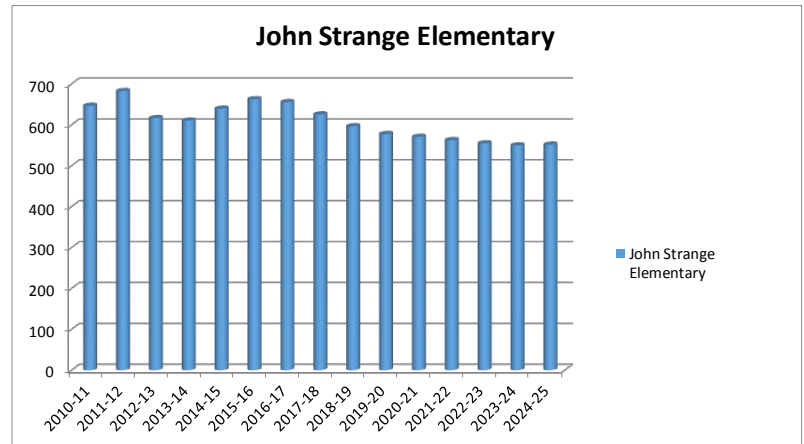
Nora Elementary

	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	128	123	120	128	122	114	113	111	110	108	109	108	108	107	108
1	114	134	152	133	124	127	121	120	118	117	115	114	113	112	111
2	152	99	123	138	124	118	121	115	114	112	112	110	109	108	108
3	115	130	116	119	129	119	113	116	110	109	109	109	107	106	105
4	109	114	123	117	108	125	115	110	113	107	107	107	107	105	104
5	117	122	121	120	104	107	124	114	109	112	108	108	108	108	106
Total K-5	735	722	755	755	711	710	707	686	674	665	660	656	652	646	642
Change		-13	33	0	-44	-1	-3	-21	-12	-9	-5	-4	-4	-6	-4
% Change		-1.8%	4.6%	0.0%	-5.8%	-0.1%	-0.4%	-3.0%	-1.7%	-1.3%	-0.8%	-0.6%	-0.6%	-0.9%	-0.6%

Forecasts Developed June 2015

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

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

Nora Elementary

Spring Mill 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	121	121	130	127	134	134	134	133	133	132	133	132	132	131	133
1	116	120	124	132	127	137	138	138	137	137	136	136	135	135	134
2	133	110	123	118	124	124	134	137	137	136	138	137	137	136	136
3	98	129	107	106	125	125	125	137	140	140	140	142	141	141	140
4	126	105	141	105	111	126	126	126	138	141	143	143	145	144	144
5	133	138	107	129	101	112	127	127	127	139	144	146	146	148	147
Total K-5	727	723	732	717	722	758	784	798	812	825	834	836	836	835	834
Change		-4	9	-15	5	36	26	14	14	13	9	2	0	-1	-1
% Change		-0.6%	1.2%	-2.0%	0.7%	5.0%	3.4%	1.8%	1.8%	1.6%	1.1%	0.2%	0.0%	-0.1%	-0.1%

Forecasts Developed June 2015

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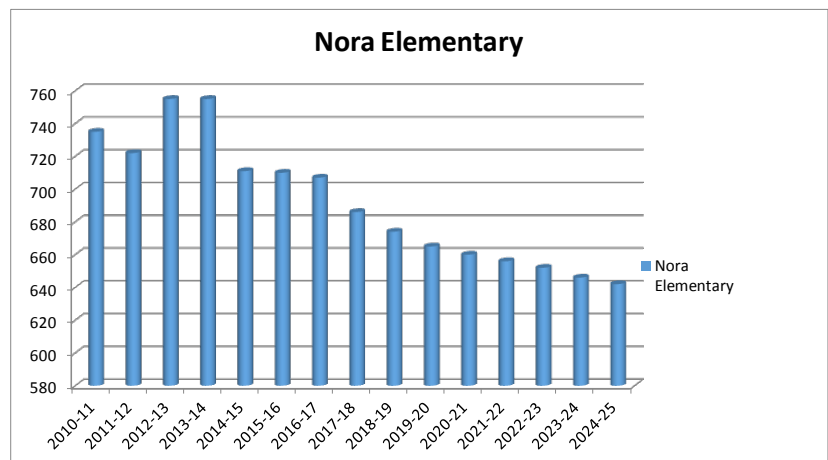
Blue cells (2015-16 and later) are forecasted years

Spring Mill Elementary
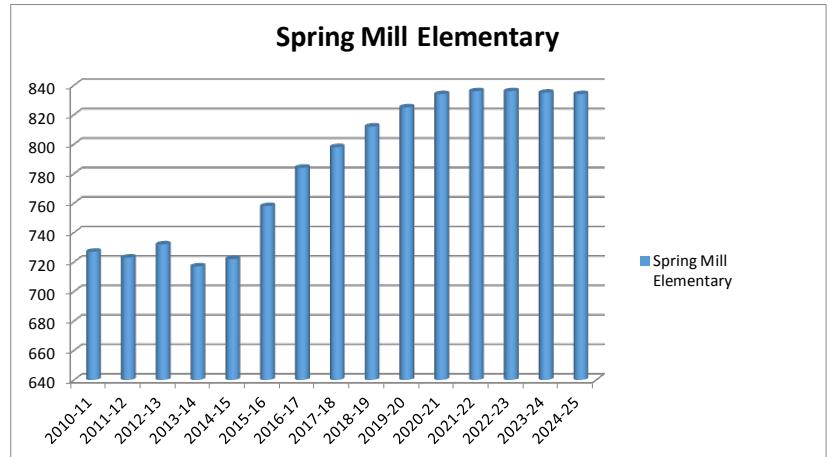
Eastwood Middle School

	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	242	250	257	249	267	261	264	271	280	277	284	291	291	291	292
7	212	252	257	263	279	278	271	275	282	291	288	295	303	303	303
8	258	216	248	277	283	293	292	285	289	296	306	302	310	318	318
Total: 6-8	712	718	762	789	829	832	827	831	851	864	878	888	904	912	913
Change		6	44	27	40	3	-5	4	20	13	14	10	16	8	1
% Change		0.8%	6.1%	3.5%	5.1%	0.4%	-0.6%	0.5%	2.4%	1.5%	1.6%	1.1%	1.8%	0.9%	0.1%

Forecasts Developed June 2015

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

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

Eastwood Middle School

Northview 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	301	318	315	258	273	286	289	296	306	303	311	319	319	318	320
7	223	278	312	285	267	265	277	280	287	297	294	302	309	309	308
8	274	210	304	294	282	264	262	274	277	284	294	291	299	306	306
Total: 6-8	798	806	931	837	822	815	828	850	870	884	899	912	927	933	934
Change		8	125	-94	-15	-7	13	22	20	14	15	13	15	6	1
% Change		1.0%	15.5%	-10.1%	-1.8%	-0.9%	1.6%	2.7%	2.4%	1.6%	1.7%	1.4%	1.6%	0.6%	0.1%

Forecasts Developed June 2015

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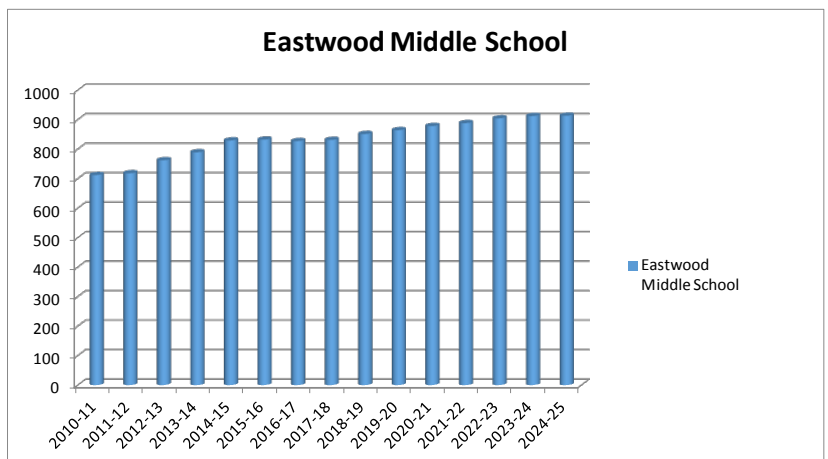
Blue cells (2015-16 and later) are forecasted years
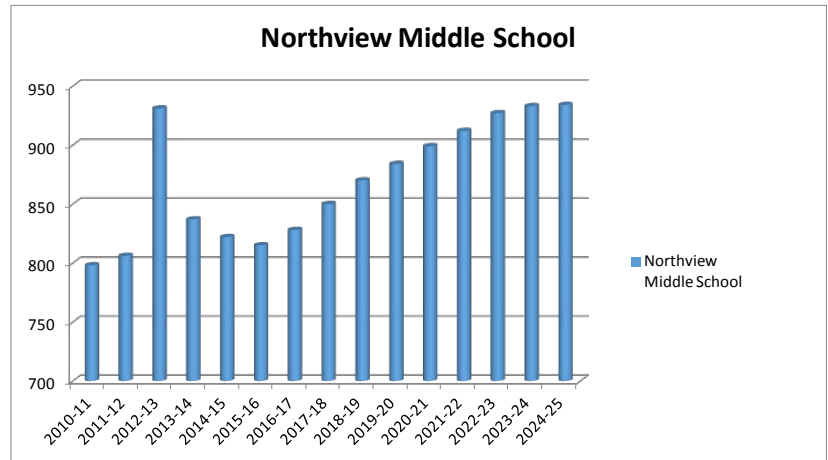
Westlane Middle School

	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	269	298	338	271	295	294	297	305	315	311	320	328	328	327	329
7	312	290	311	318	274	301	300	303	311	321	317	326	335	335	334
8	319	324	284	322	334	282	310	309	312	320	331	327	336	345	345
Total: 6-8	900	912	933	911	903	877	907	917	938	952	968	981	999	1007	1008
Change		12	21	-22	-8	-26	30	10	21	14	16	13	18	8	1
% Change		1.3%	2.3%	-2.4%	-0.9%	-2.9%	3.4%	1.1%	2.3%	1.5%	1.7%	1.3%	1.8%	0.8%	0.1%

Forecasts Developed June 2015

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

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

Revised 8/17/2015

North Central 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	934	942	854	889	964	980	915	942	946	957	981	1005	994	1021	1047
10	902	904	874	805	905	935	951	888	914	918	928	942	965	954	980
11	951	851	894	847	806	887	916	932	870	896	900	900	914	936	925
12	688	852	791	895	844	786	865	893	909	848	874	873	873	887	908
Total: 9-12	3475	3550	3413	3436	3520	3588	3647	3655	3639	3619	3683	3720	3746	3798	3860
Change		75	-137	24	83	68.34	59	8	-16	-20	64	37	26	52	62
% Change		2.1%	-3.9%	0.7%	2.4%	1.9%	1.6%	0.2%	-0.4%	-0.5%	1.8%	1.0%	0.7%	1.4%	1.6%

Forecasts Developed June 2015

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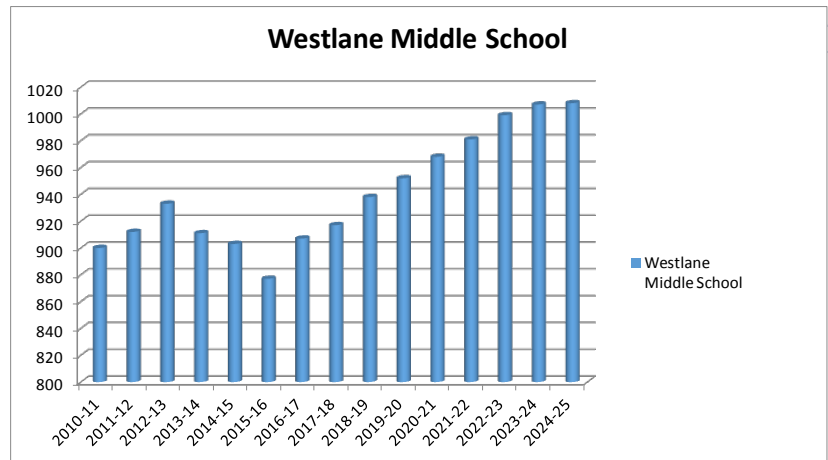
Blue cells (2015-16 and later) are forecasted years

North Central High School

Revised 8/17/2015
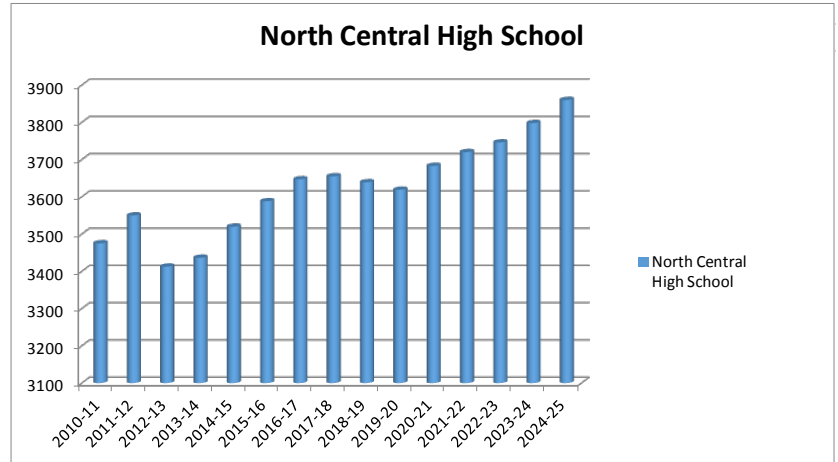
Appendix B: Population Forecasts

M.S.D. Washington Township

Total	2010	2015	2020	2025
0-4	5,462	5,580	5,450	5,230
5-9	5,030	5,090	5,140	5,000
10-14	4,987	5,000	5,070	5,120
15-19	5,124	5,270	5,310	5,340
20-24	6,767	6,850	6,960	6,940
25-29	8,620	8,480	8,430	8,580
30-34	6,155	6,610	6,630	6,660
35-39	5,269	5,300	5,740	5,810
40-44	5,003	4,940	4,980	5,440
45-49	5,547	4,950	4,930	4,930
50-54	6,026	5,470	4,940	4,880
55-59	5,923	5,890	5,360	4,830
60-64	4,947	5,720	5,680	5,200
65-69	3,426	4,660	5,400	5,340
70-74	2,765	3,180	4,310	5,000
75-79	2,395	2,430	2,780	3,810
80-84	2,054	1,940	1,960	2,260
85+	2,311	2,580	2,670	2,770
Total	87,807	89,940	91,740	93,140
Median Age	36.7	37.0	37.5	38.2

	2010-2015	2015-2020	2020-2025
Births	5,500	5,390	5,200
Deaths	3,670	3,890	4,150
Natural Increase	1,830	1,500	1,050
Net Migration	300	280	250
Change	2,130	1,780	1,300

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

Allisonville Elementary

Total	2010	2015	2020	2025
0-4	1,007	1,100	1,040	1,020
5-9	891	910	1,000	960
10-14	878	890	910	1,000
15-19	873	850	870	890
20-24	1,776	1,860	1,840	1,770
25-29	2,494	2,540	2,620	2,540
30-34	1,474	1,380	1,430	1,610
35-39	1,093	1,030	940	1,030
40-44	1,013	1,060	1,000	910
45-49	1,111	1,000	1,060	980
50-54	1,169	1,090	990	1,040
55-59	1,169	1,140	1,070	970
60-64	1,038	1,130	1,100	1,040
65-69	669	980	1,070	1,050
70-74	537	630	920	1,000
75-79	491	480	550	810
80-84	455	400	390	440
85+	502	570	580	570
Total	18,640	19,040	19,380	19,630
Median Age	34.8	35.0	34.9	35.1

	2010-2015	2015-2020	2020-2025
Births	1,080	1,020	990
Deaths	780	810	850
Natural Increase	300	210	140
Net Migration	110	110	100
Change	410	320	240

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

Crooked Creek Elementary

Total	2010	2015	2020	2025
0-4	469	490	470	450
5-9	454	490	510	490
10-14	540	450	490	510
15-19	560	570	490	510
20-24	599	660	670	570
25-29	536	560	620	640
30-34	509	500	530	590
35-39	517	500	490	520
40-44	544	510	490	490
45-49	612	540	510	490
50-54	696	610	540	510
55-59	732	680	590	520
60-64	617	700	660	570
65-69	504	590	670	620
70-74	374	470	540	620
75-79	290	330	420	490
80-84	206	240	270	330
85+	183	230	270	310
Total	8,942	9,120	9,230	9,230
Median Age	42.6	43.3	43.5	43.4

	2010-2015	2015-2020	2020-2025
Births	470	460	440
Deaths	390	450	500
Natural Increase	80	10	-60
Net Migration	90	90	80
Change	170	100	20

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

Fox Hill Elementary

Total	2010	2015	2020	2025
0-4	885	870	860	810
5-9	776	910	890	870
10-14	786	770	900	880
15-19	733	740	730	860
20-24	692	690	700	690
25-29	900	910	880	900
30-34	820	860	870	840
35-39	720	780	810	820
40-44	685	670	730	760
45-49	742	680	670	720
50-54	789	730	680	650
55-59	783	770	720	660
60-64	643	760	750	700
65-69	434	610	710	710
70-74	309	410	570	670
75-79	281	280	360	500
80-84	217	230	220	290
85+	322	320	320	330
Total	11,517	11,990	12,370	12,660
Median Age	36.2	36.6	37.2	37.9

	2010-2015	2015-2020	2020-2025
Births	780	780	730
Deaths	450	480	520
Natural Increase	330	300	210
Net Migration	110	100	100
Change	440	400	310

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

Greenbriar Elementary

Total	2010	2015	2020	2025
0-4	960	940	960	940
5-9	817	740	720	700
10-14	742	800	730	720
15-19	844	910	980	920
20-24	1,174	1,210	1,270	1,390
25-29	1,528	1,530	1,550	1,690
30-34	1,024	1,160	1,170	1,130
35-39	808	830	960	940
40-44	725	680	710	820
45-49	744	720	680	690
50-54	862	740	710	660
55-59	730	850	720	700
60-64	611	700	810	690
65-69	380	580	670	780
70-74	370	360	540	630
75-79	346	330	310	480
80-84	289	280	270	260
85+	321	360	380	390
Total	13,276	13,720	14,140	14,530
Median Age	32.8	33.1	33.7	34.0

	2010-2015	2015-2020	2020-2025
Births	1,000	1,010	1,000
Deaths	500	530	550
Natural Increase	500	480	450
Net Migration	-60	-60	-70
Change	440	420	380

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

John Strange Elementary

Total	2010	2015	2020	2025
0-4	567	480	470	430
5-9	579	520	490	470
10-14	590	590	530	490
15-19	653	580	570	520
20-24	614	590	490	530
25-29	753	600	500	450
30-34	641	800	690	570
35-39	670	680	840	730
40-44	670	710	700	860
45-49	790	690	710	720
50-54	950	780	710	730
55-59	940	930	770	700
60-64	707	910	900	750
65-69	457	670	870	820
70-74	406	430	620	780
75-79	282	350	380	550
80-84	195	220	290	310
85+	201	240	270	340
Total	10,664	10,770	10,800	10,750
Median Age	42.0	43.8	45.8	47.3

	2010-2015	2015-2020	2020-2025
Births	480	460	420
Deaths	420	480	560
Natural Increase	60	-20	-140
Net Migration	50	50	40
Change	110	30	-100

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

Nora Elementary

Total	2010	2015	2020	2025
0-4	915	960	920	880
5-9	772	760	710	700
10-14	661	760	750	700
15-19	706	860	950	910
20-24	1,249	1,130	1,270	1,310
25-29	1,652	1,670	1,540	1,630
30-34	1,100	1,130	1,240	1,180
35-39	844	870	900	1,040
40-44	747	700	740	800
45-49	791	710	690	730
50-54	791	780	700	690
55-59	741	770	760	690
60-64	583	720	750	740
65-69	441	550	670	700
70-74	314	410	510	640
75-79	291	280	360	460
80-84	307	230	220	300
85+	391	410	390	370
Total	13,297	13,700	14,070	14,470
Median Age	33.2	33.1	33.6	34.7

	2010-2015	2015-2020	2020-2025
Births	1,000	990	960
Deaths	530	530	550
Natural Increase	470	460	410
Net Migration	-70	-70	-60
Change	400	390	350

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

Spring Mill Elementary

Total	2010	2015	2020	2025
0-4	658	740	730	700
5-9	741	760	820	810
10-14	790	740	760	820
15-19	754	760	720	730
20-24	664	710	720	680
25-29	758	670	720	730
30-34	586	780	700	740
35-39	617	610	800	730
40-44	618	610	610	800
45-49	756	610	610	600
50-54	769	740	610	600
55-59	827	750	730	590
60-64	747	800	710	710
65-69	541	680	740	660
70-74	455	470	610	660
75-79	415	380	400	520
80-84	384	340	300	330
85+	391	450	460	460
Total	11,471	11,600	11,750	11,870
Median Age	41.4	40.2	39.4	40.0

	2010-2015	2015-2020	2020-2025
Births	690	670	660
Deaths	600	610	620
Natural Increase	90	60	40
Net Migration	70	60	60
Change	160	120	100

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

Appendix C: Population Pyramids

Washington Township Total Popluation – 2010 Census
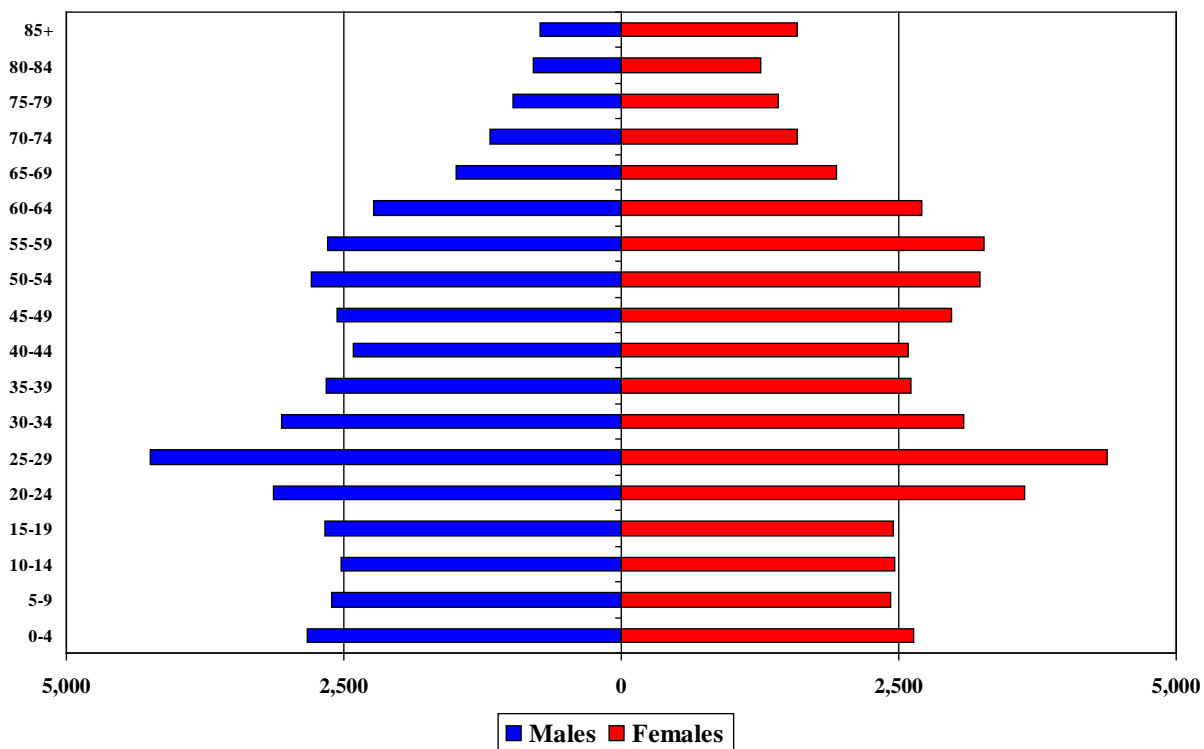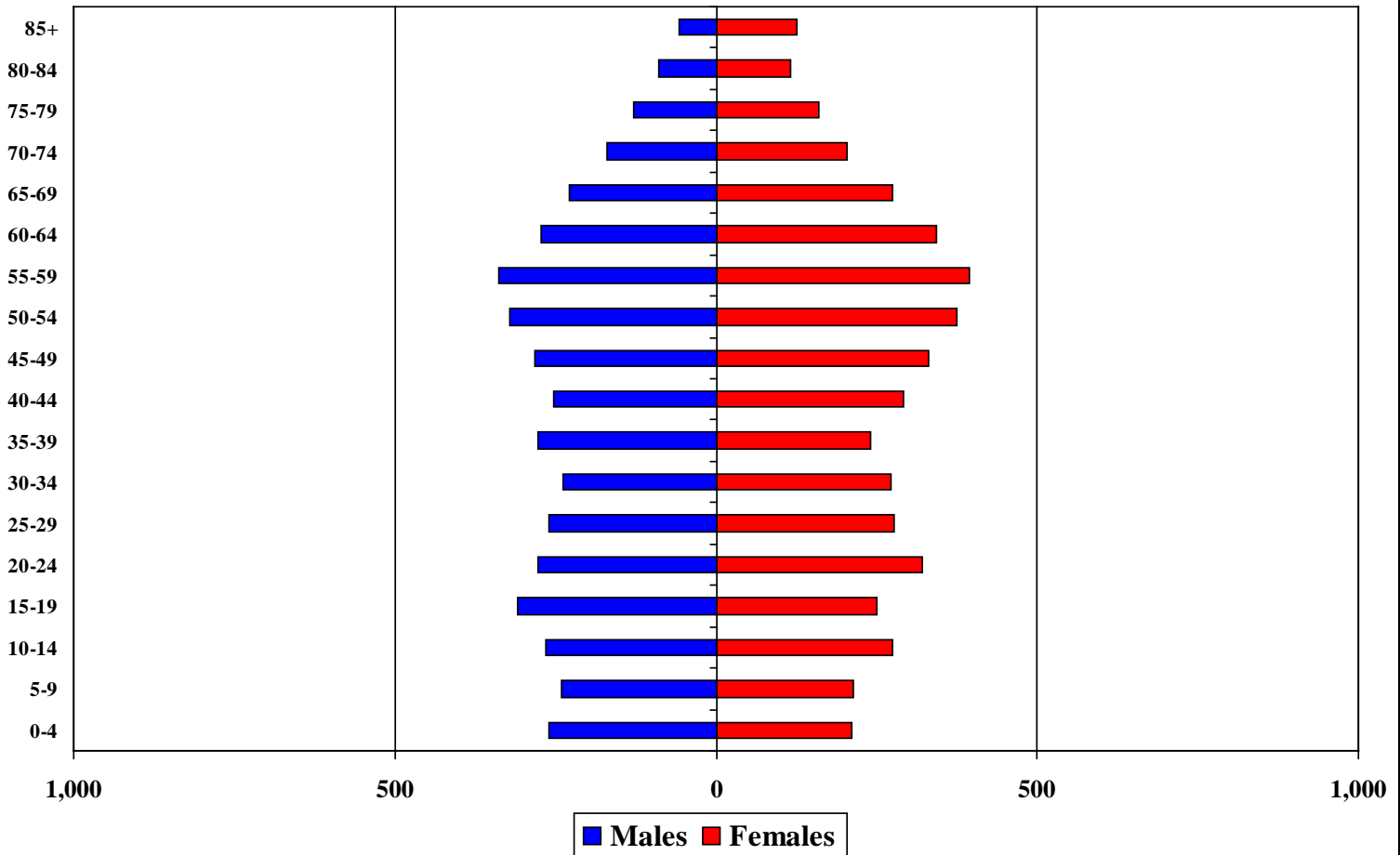
Allisonville Elementary – 2010 Census

The age/sex distribution of this area shows a large concentration of 20-34 year olds in the area. This is consistent for an area where half of the housing units are rental. However there are not a corresponding large number of 0-4 year old preschoolers given the fact that 40% of the area's households are single person.

■ Males ■ Females
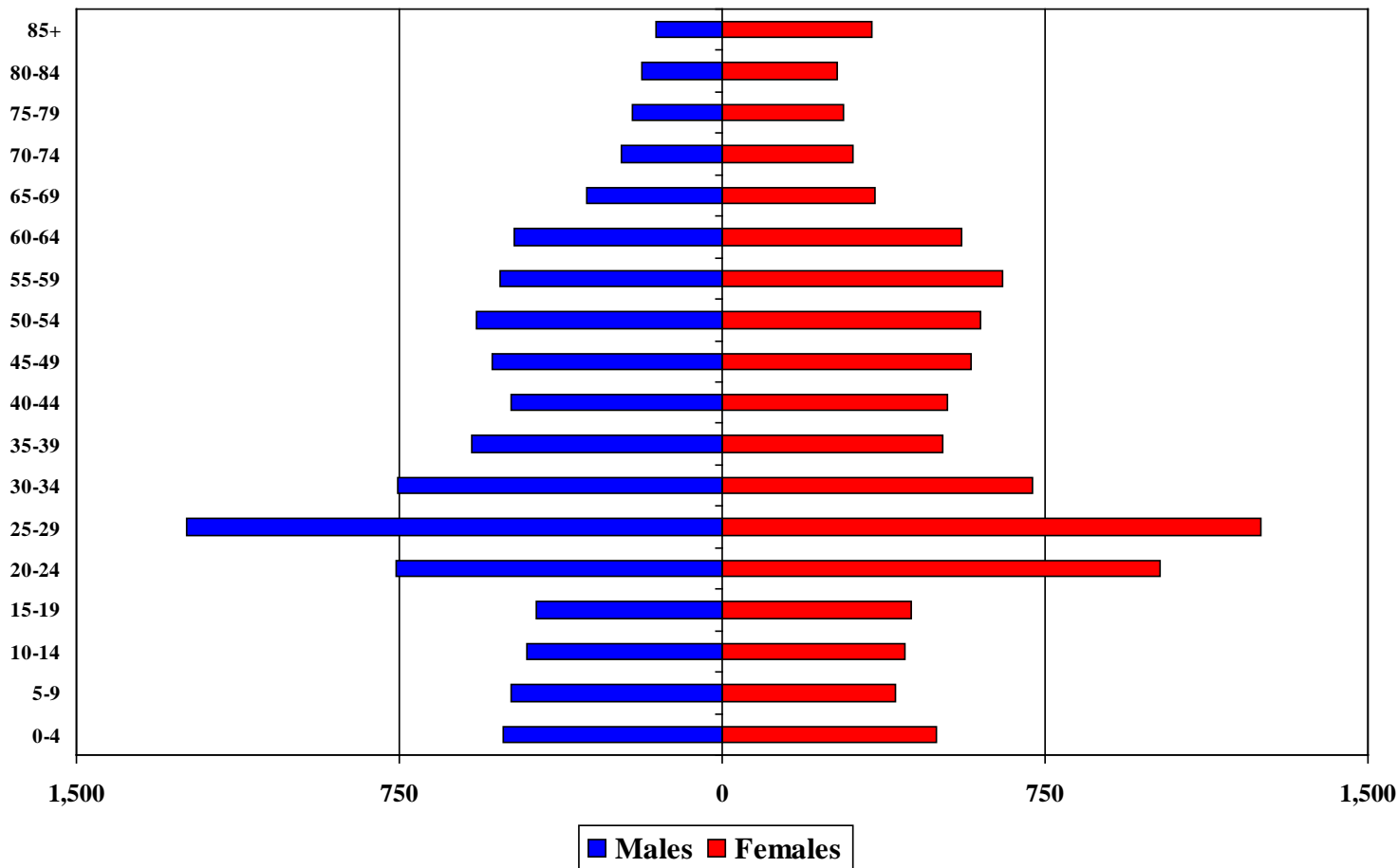
Crooked Creek Elementary – 2010 Census

The largest age group in the area is the 50-59 group. This is to be expected, given that this area has the district's highest percentage of owner occupies houses (73%). This area will experience an increase of empty nest households over the next 10 years. Unfortunately, the current population in their 50s is most likely not to downsize from these home over the next decade.

Fox Hill Elementary – 2010 Census

The two parts of the attendance area have very different demographic characteristics. The smaller western section is almost all apartments, while the larger eastern section is roughly 70% owner occupied. Hence, the western section is the source of the relatively large number of 25-34 year olds and their corresponding 0-4 year old children. The eastern section is dominated by empty nest 50-59 year old households.

Males Females
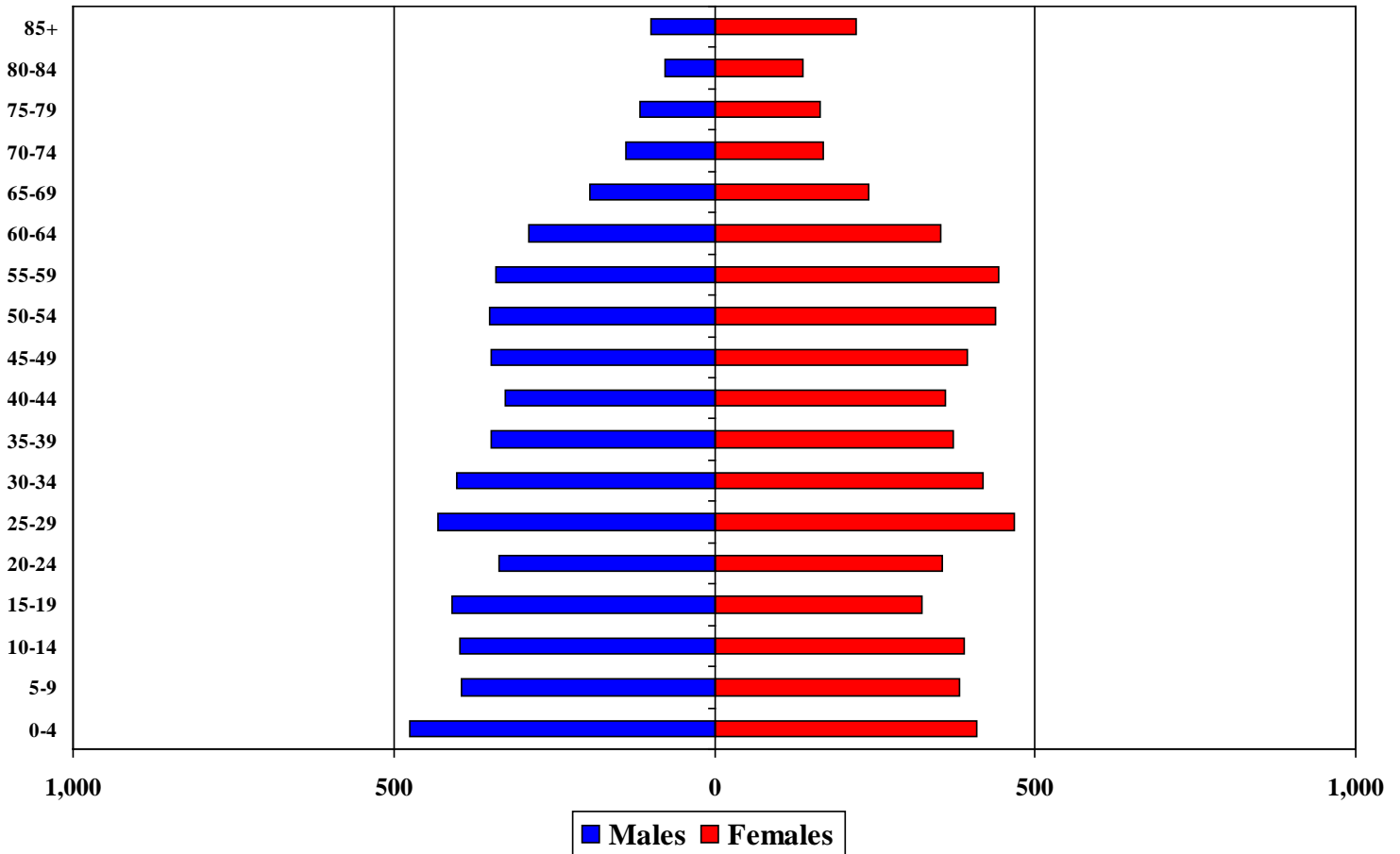
Greenbriar Elementary – 2010 Census

Like Fox Hill, the two sections of Greenbriar have different demographic characteristics. The larger north section is majority renters and the smaller south section is home owners. However, unlike Allisonville, the renters in this area tend to have preschool age children (as seen in the larger 0-4 year old age groups). This is also seen in the fact that the northern area has an average household size of 2.83, far above the district average of 2.17.
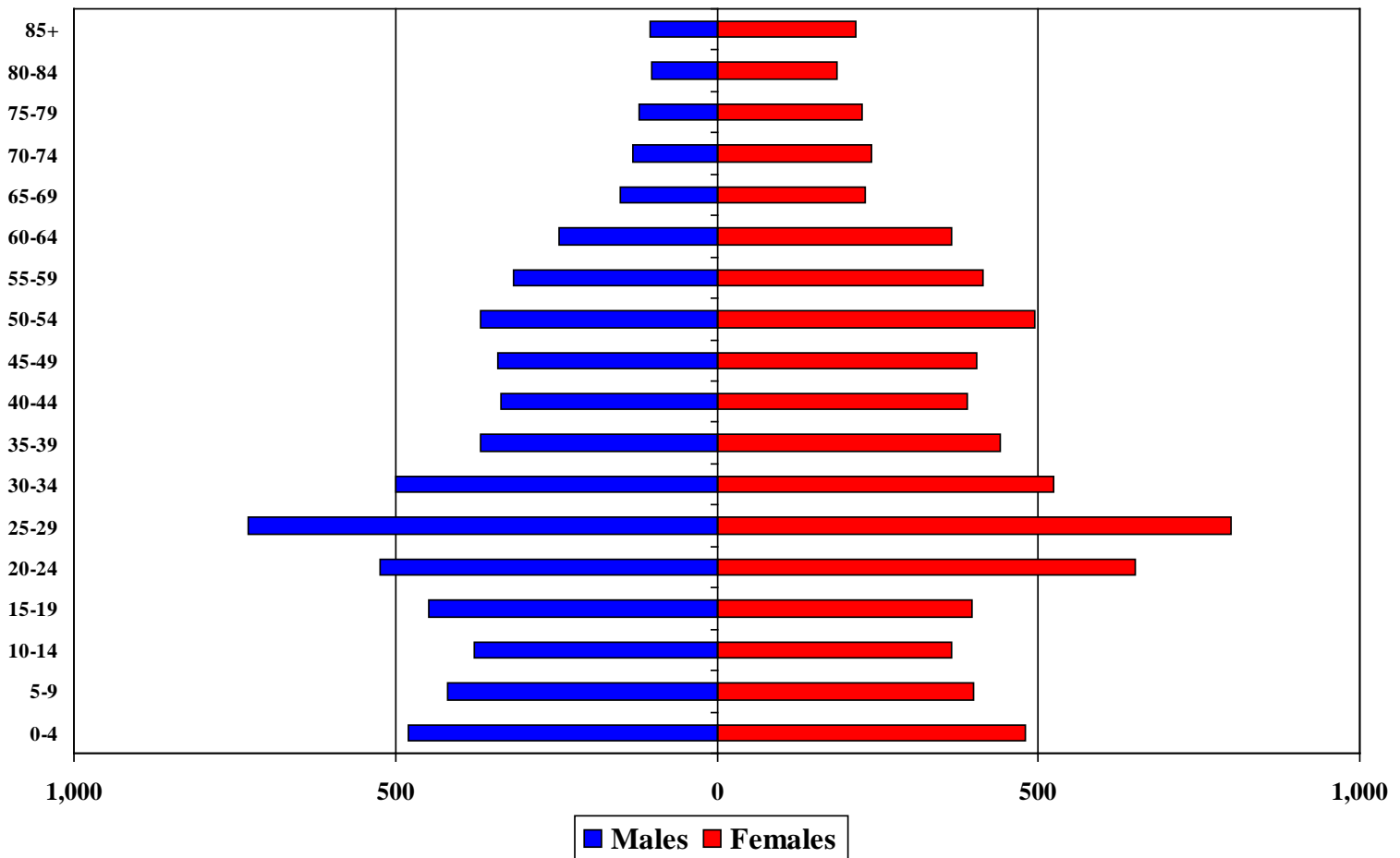
John Strange Elementary – 2010 Census

This area has demographic characteristics that are very similar to Crooked Creek. The largest age group in this area is 50-59 as well and the majority of these householders will not downsize from these housing units in the next 10 years.
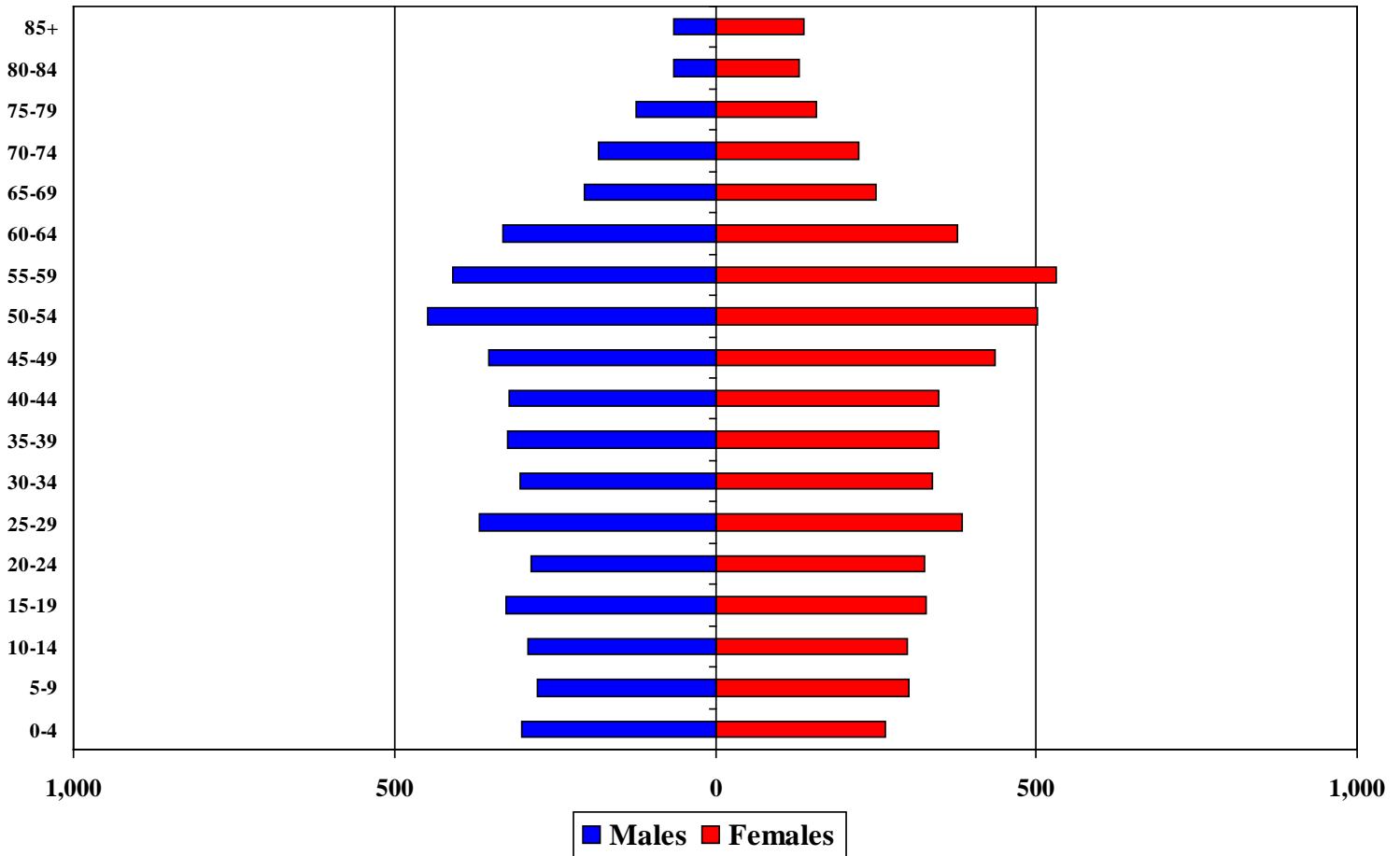
Nora Elementary – 2010 Census

Since this area is comprised of 6 different parts of the district, the population pyramid is influenced by several varied characteristics. However, area 3 (the central far north area of the district) comprise 2/3rd of Nora's households. Thus, most of the characteristics are heavily influence by that area's trends. To that end, the average of Nora's demographic trends looks similar to those of Greenbriar. The majority of the housing stock in rental and the age structure are dominated by 20-34 years old that are starting their families. This accounts for the large number of 0-4 year old population.
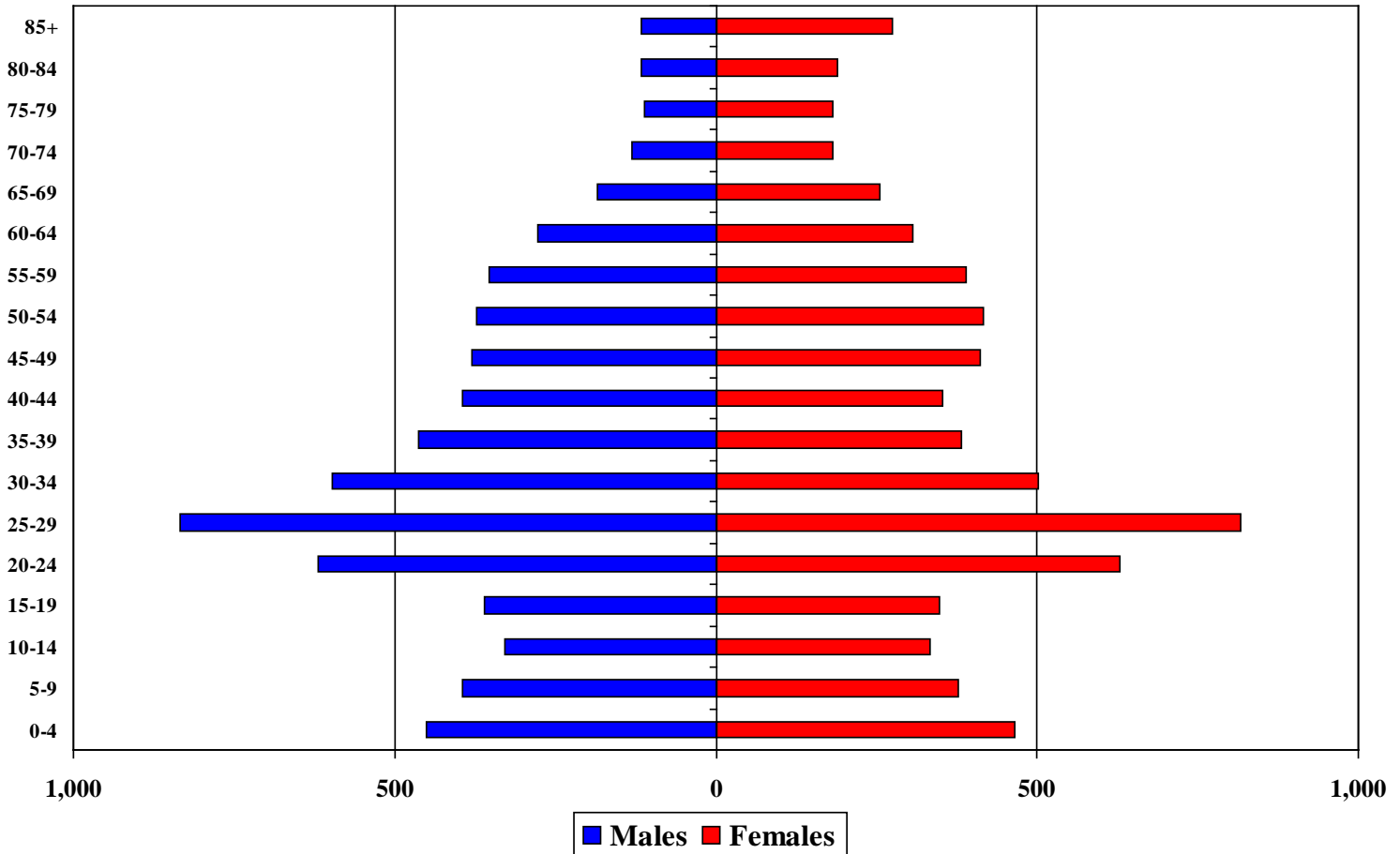
Spring Mill Elementary – 2010 Census

85% of this area's population lives in its northern section. Both sections have roughly 60% home owners who are mostly over age 45. This age structure means that this area will be empty nesting and the number of school age children living in the northern area will decline slightly over the next 10 years. However, the relatively large household size of the southern area should compensate for that decline.
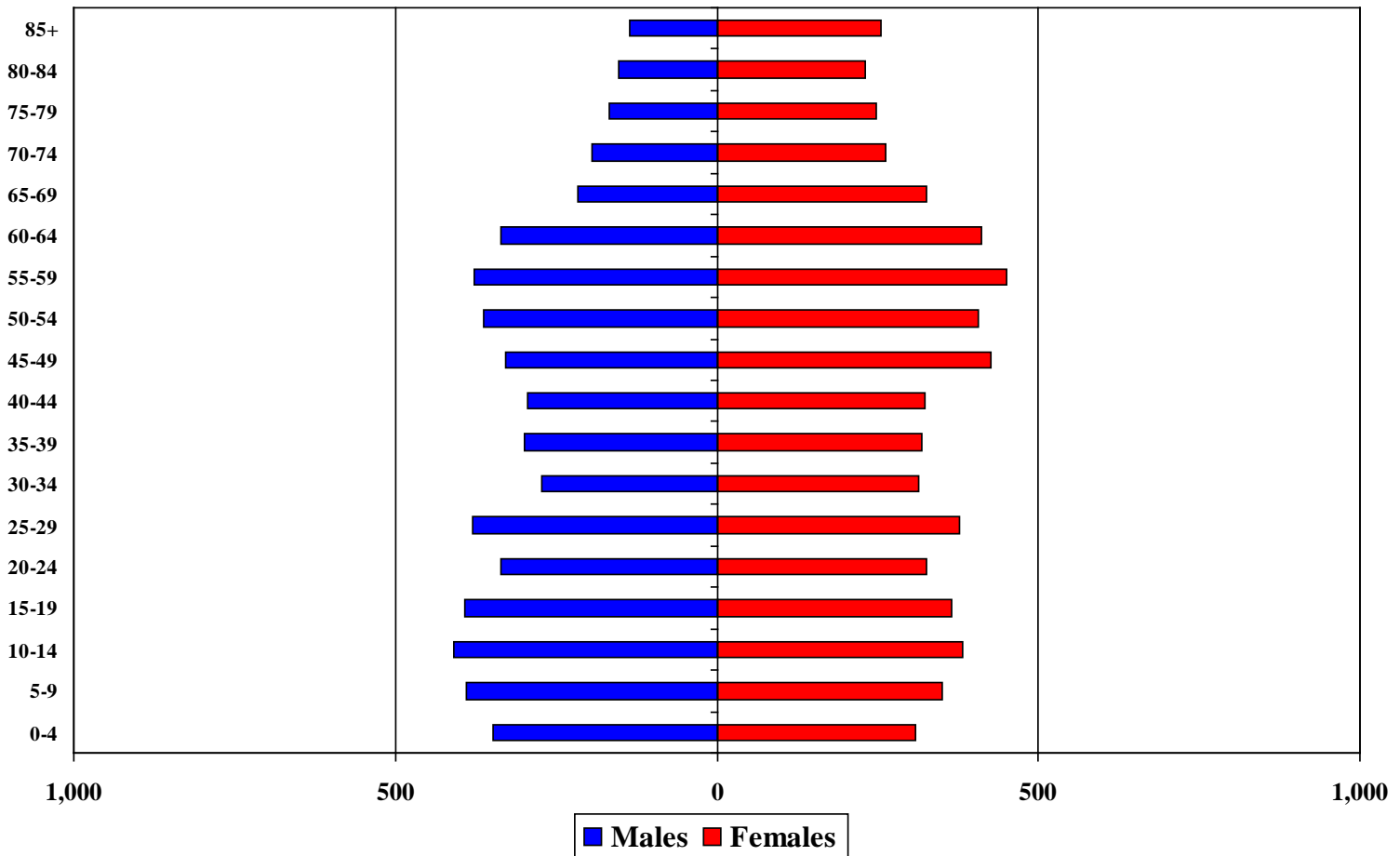
Appendix D: Additional Tables

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

	2010	2015	*2010-2015 Change*	2020	*2015-2020 Change*	*2010-2020 Change*
Allisonville	18,640	19,040	*2.1%*	19,380	*1.8%*	4.0%
Crooked Creek	8,942	9,120	*2.0%*	9,230	*1.2%*	3.2%
Fox Hill	11,517	11,990	*3.9%*	12,370	*3.2%*	7.4%
Greenbriar	13,276	13,720	*3.2%*	14,140	*3.1%*	6.5%
John Strange	10,664	10,770	*1.0%*	10,800	*0.3%*	1.3%
Nora	13,297	13,700	*2.9%*	14,070	*2.7%*	5.8%
Spring Mill	11,471	11,600	*1.1%*	11,750	*1.3%*	2.4%
MSD Washington	**87,807**	**89,940**	*2.4%*	**91,740**	*2.0%*	**4.5%**

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
Allisonville	1834	20.20%	9093	18465	2.03
Crooked Creek	1002	25.60%	3917	8883	2.27
Fox Hill	1540	32.20%	4785	11315	2.36
Greenbriar	1642	26.90%	6105	12882	2.11
John Strange	1238	25.60%	4845	10645	2.2
Nora	1466	23.30%	6280	13207	2.1
Spring Mill	1353	27.00%	5005	11298	2.26
MSD Washington	**10076**	**25.20%**	**40030**	**86696**	**2.17**

Table 2A: Household Characteristics by Elementary Area Section, 2010 Census

	HH w/ Pop Under 18	% HH w/ Pop Under 18	Total Households	Household Population	Persons Per Household
Allisonville	1834	20.20%	9093	18465	2.03
Crooked Creek	1002	25.60%	3917	8883	2.27
Fox Hill 1	469	58.50%	801	2448	3.05
Fox Hill 2	1072	26.90%	3983	8867	2.23
Greenbriar 2	43	35.20%	122	345	2.83
Greenbriar1	1599	26.70%	5983	12537	2.1
John Strange	1238	25.60%	4845	10645	2.2
Nora 1	96	36.90%	260	640	2.46
Nora 2	22	50.90%	44	117	2.65
Nora 3	978	20.00%	4879	9794	2.01
Nora 4	155	33.40%	463	1219	2.63
Nora 5	216	34.00%	635	1437	2.26
Spring Mill 1	1122	25.20%	4449	9792	2.2
Spring Mill 2	232	41.70%	556	1506	2.71

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
Allisonville	29.60%	19.60%	49.90%
Crooked Creek	34.20%	27.00%	72.80%
Fox Hill	36.50%	19.90%	57.50%
Greenbriar	32.60%	17.80%	34.60%
John Strange	36.60%	22.30%	64.00%
Nora	31.30%	19.30%	38.30%
Spring Mill	32.20%	29.30%	61.60%
MSD Washington	**32.80%**	**21.60%**	**52.00%**

Table 3A: Householder Characteristics by Elementary Section Area, 2010 Census

	Percentage of Householders aged 35-54	Percentage of Householders aged 65+	Percentage of Householders Who Own Homes
Allisonville	29.60%	19.60%	49.90%
Crooked Creek	34.20%	27.00%	72.80%
Fox Hill 1	38.40%	2.40%	2.50%
Fox Hill 2	36.10%	23.50%	68.50%
Greenbriar 2	28.50%	29.50%	77.70%
Greenbriar1	32.60%	17.60%	33.70%
John Strange	36.60%	22.30%	64.00%
Nora 1	37.20%	6.60%	6.70%
Nora 2	32.70%	7.00%	11.60%
Nora 3	30.70%	19.60%	37.00%
Nora 4	33.50%	35.20%	84.30%
Nora 5	31.60%	11.30%	28.70%
Spring Mill 1	31.70%	30.80%	62.10%
Spring Mill 2	35.50%	17.10%	57.50%

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+
Allisonville	39.60%	9.30%
Crooked Creek	33.00%	11.00%
Fox Hill	31.20%	8.80%
Greenbriar	41.50%	9.80%
John Strange	34.30%	10.00%
Nora	42.10%	10.60%
Spring Mill	35.00%	14.80%
MSD Washington	**37.40%**	**10.50%**

**Table 4A: Percentage of Households that are
Single Person Households and Single Person
Households that are Over Age 65 by Elementary
Area Section
2010 Census**

	Percentage of Single Person Households	Percentage of Single Person Households and are 65+
Allisonville	39.60%	9.30%
Crooked Creek	33.00%	11.00%
Fox Hill 1	20.10%	1.60%
Fox Hill 2	33.40%	10.30%
Greenbriar 2	26.20%	12.00%
Greenbriar1	41.90%	9.70%
John Strange	34.30%	10.00%
Nora 1	35.30%	4.30%
Nora 2	30.00%	3.60%
Nora 3	45.00%	11.30%
Nora 4	26.90%	13.60%
Nora 5	34.80%	6.30%
Spring Mill 1	35.90%	15.70%
Spring Mill 2	28.00%	7.50%

**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
Allisonville	220	199	195	208	185	166	170	182	196	177	178
Crooked Creek	88	101	84	89	107	82	85	90	105	93	95
Fox Hill	170	184	187	177	168	149	181	149	138	159	161
Greenbriar	193	177	208	199	182	179	184	157	161	136	162
John Strange	109	116	103	119	120	96	105	129	113	136	100
Nora	184	200	177	188	166	172	139	176	134	151	150
Spring Mill	123	124	136	122	153	111	154	158	140	178	150
MSD Washington	1086	1102	1090	1102	1083	955	1019	1041	987	1029	996

Table 5A: Age Under One to Age Ten Population Counts, by Year of Age, by Elementary Area Section: 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
Allisonville	220	199	195	208	185	166	170	182	196	177	178
Crooked Creek	88	101	84	89	107	82	85	90	105	93	95
Fox Hill 1	65	66	85	79	82	60	71	56	55	50	49
Fox Hill 2	105	118	102	97	87	89	110	93	83	108	112
Greenbriar 2	4	3	7	8	4	5	6	2	8	6	7
Greenbriar1	188	175	202	191	179	174	178	155	153	130	155
John Strange	109	116	103	119	120	96	105	129	113	136	100
Nora 1	13	19	13	15	15	12	10	13	14	11	12
Nora 2	2	2	3	3	3	1	3	3	3	3	3
Nora 3	130	135	110	127	102	109	90	120	82	98	89
Nora 4	13	12	13	18	20	18	21	16	16	19	22
Nora 5	27	33	38	26	27	32	16	24	19	21	24
Spring Mill 1	101	105	110	95	126	96	124	135	117	144	124
Spring Mill 2	22	20	26	27	28	15	30	23	23	34	26

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

	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
MSD Washington Total	1086	1102	1090	1102	1083	955	1019	1041	987	1029	996	1014	914	1021
Total 2014		883	893	888	856	824	816	835	820	899	964	905	806	844
Percent Enrolled 2014		80.10%	82.00%	80.60%	79.10%	86.30%	80.10%	80.20%	83.10%	87.40%	96.80%	89.30%	88.20%	82.70%
Total 2013			856	898	844	801	814	802	778	866	893	889	805	847
Percent Enrolled 2013			78.60%	81.50%	78.00%	83.90%	79.90%	77.00%	78.90%	84.20%	89.70%	87.70%	88.10%	82.90%
Total 2012				823	896	812	866	827	807	910	880	836	854	874
Percent Enrolled 2012				74.70%	82.80%	85.00%	85.00%	79.40%	81.80%	88.50%	88.40%	82.50%	93.50%	85.60%
Total 2011					788	860	842	851	795	862	866	820	750	942
Percent Enrolled 2011					72.80%	90.10%	82.70%	81.70%	80.60%	83.80%	86.90%	80.90%	82.10%	92.30%
Total 2010						750	889	892	785	866	866	812	747	851
Percent Enrolled 2010						78.50%	87.30%	85.70%	79.60%	84.20%	86.90%	80.10%	81.70%	83.30%

**Table 7: Selected Socio-Economic Variables
for M.S.D. Washington Township**

**2013 Estimates from the American
Community Survey 5 Year Sample,**

U. S. Census Bureau

Percentage of population
> 25 years per education
attainment level

< 12 Years	8.10%
High school or equivalent	19.30%
Some college	26.00%
Bachelor's degree or higher	46.60%

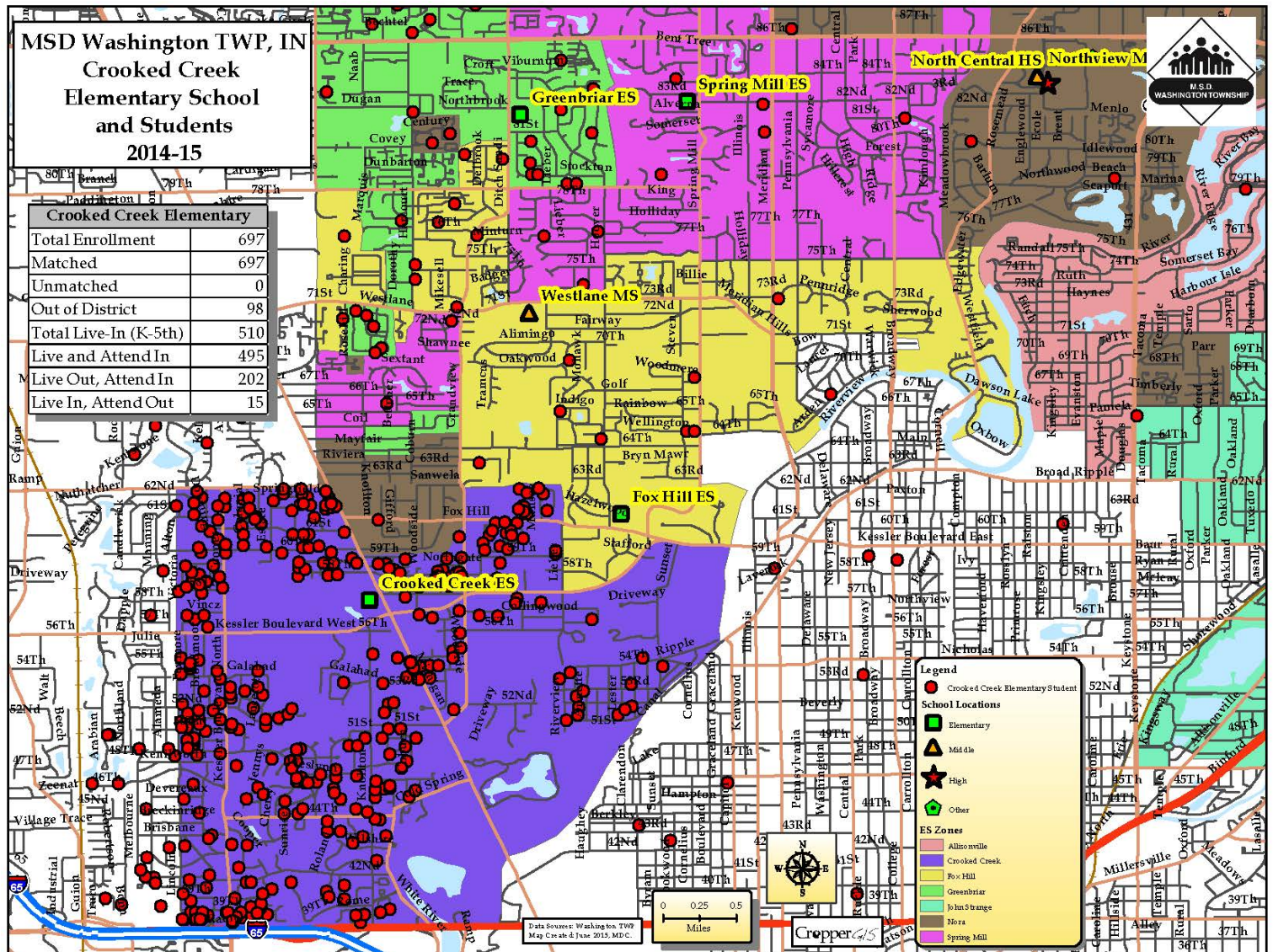|	
Median home value	$173,200
Median gross rent	$817
Median household income	$49,373
Percent of total population below poverty level	14.40%
Percent of population < 18 years below poverty level	21.50%
Percent of age 5 to 17 year old children enrolled in public schools	76.20%

Appendix E: Live Attend Analysis

This map series focuses on illustrating the geographic distribution of MSD Washington Township 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 red 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.

Crooked Creek Elementary	
Total Enrollment	697
Matched	697
Unmatched	0
Out of District	98
Total Live-In (K-5th)	510
Live and Attend In	495
Live Out, Attend In	202
Live In, Attend Out	15

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:

Crooked Creek Elementary	
Total Enrollment	697
Matched	697
Unmatched	0
Out of District	98
Total Live-In (K-5th)	510
Live and Attend In	495
Live Out, Attend In	202
Live In, Attend Out	15

Total Enrollment – number of students attending Crooked Creek ES.

Matched – number of students attending Crooked Creek ES whose addresses were located by the GIS, and placed on the map.

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

Out of District – number of students who live outside of the MSD Washington Township boundaries, yet attend this school.

Total Live-In – 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 510 K-5th grade students living within the Crooked Creek ES attendance boundary.

Live and Attend In – number of K-5th students who live within the attendance boundary, and also attend that school. In this example, 495 K-5th grade students who live within the Crooked Creek ES attendance boundary also attend Crooked Creek ES.

Live Out, Attend In – number of K-5th students who live outside of the Crooked Creek ES attendance boundary, but attend Crooked Creek 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.

Live In, Attend Out – number of K-5th students who live inside the Crooked Creek 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 are listed on the top line. The first table includes all students in Kindergarten through Fifth Grade. The numbers highlighted in green are counts of students who attend the assigned schools for the zones where they live.

Note that there is also a 1-5th grade matrix. This is because Allisonville Elementary only serves 1-5th grade students. Kindergarten students living in the Allisonville zone attend the neighboring John Strange Elementary. The K-5th matrix reflects this, as it shows 143 students living in the Allisonville zone, but attending John Strange Elementary.
Also, note that the out of district students are itemized on the matrices. The matrices show, for instance, that 318 K-5 grade students are attending Washington MSD from out of district, and the number attending each school is shown.

Where 2014-15 K-5th Students Live

Where 2014-15 K-5th Students Attend		Allisonville	Crooked Creek	Fox Hill	Greenbriar	John Strange	Nora	Spring Mill	Out of District	Unmatched	Live Out Attend In
		860	510	776	899	451	711	643	318	13	
Allisonville Elementary	781	696			1	27	13	4	39	1	84
Crooked Creek Elementary	697	2	495	26	45	4	12	15	98		202
Fox Hill Elementary	813		4	680	25	5	40	18	31	10	123
Greenbriar Elementary	812	1	3	21	737		9	12	29		75
John Strange Elementary	640	143		1	2	407	32		54	1	232
Nora Elementary	719	18	1	27	39	6	568	23	36	1	150
Spring Mill Elementary	717		7	20	50	2	37	571	30		146
Eastwood Middle School	2			1					1		
Live In Attend Out		164	15	96	162	44	143	72			

Where 2014-15 1-5th Students Live

Where 2014-15 1-5th Students Attend		Allisonville	Crooked Creek	Fox Hill	Greenbriar	John Strange	Nora	Spring Mill	Out of District	Unmatched	Live Out Attend In
		723	419	653	750	373	592	525	258	11	
Allisonville Elementary	781	696			1	27	13	4	39	1	84
Crooked Creek Elementary	567	2	407	19	38	4	8	12	77		160
Fox Hill Elementary	684		2	569	22	5	35	15	28	8	107
Greenbriar Elementary	681	1	2	20	616		8	10	24		65
John Strange Elementary	402	7		1	1	329	26		37	1	72
Nora Elementary	597	17	1	24	29	6	471	19	29	1	125
Spring Mill Elementary	590		7	19	43	2	31	465	23		125
Eastwood Middle School	2			1					1		
Live In Attend Out		27	12	84	134	44	121	60			

Where 2014-15 6-8th Students Live

Where 2014-15 6-8th Students Attend		Eastwood	Northview	Westlane	Out of District	Unmatched	Live Out Attend In
		781	844	779	163	9	
Eastwood Middle School	839	758	11	2	67	1	80
Northview Middle School	824	15	747	33	23	6	71
Westlane Middle School	912	8	86	743	73	2	167
North Central High School	1			1			
Live In Attend Out		23	97	36			

Where 2014-15 9-12th Students Live

Attending School	Total Enrolled	Live In District	Unmatched	Live Out of District
North Central High School	3469	3062	14	393

McKibben Demographics

Cropper GIS
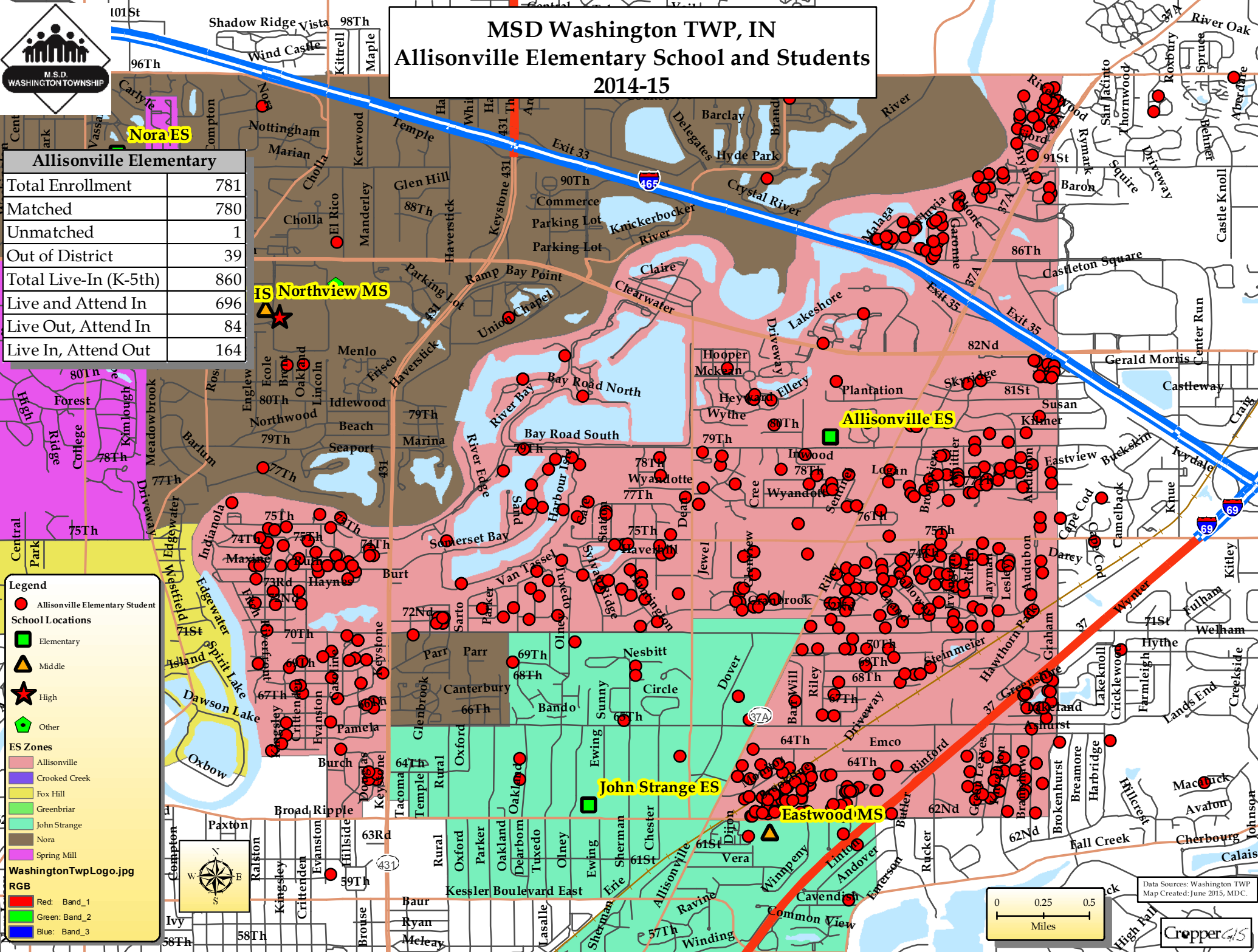
MSD Washington TWP, IN
Allisonville Elementary School and Students
2014-15

Allisonville Elementary

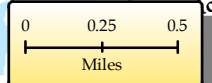|	
Total Enrollment	781
Matched	780
Unmatched	1
Out of District	39
Total Live-In (K-5th)	860
Live and Attend In	696
Live Out, Attend In	84
Live In, Attend Out	164

Legend

- Allisonville Elementary Student

School Locations
- Elementary
- Middle
- High
- Other

ES Zones
- Allisonville
- Crooked Creek
- Fox Hill
- Greenbriar
- John Strange
- Nora
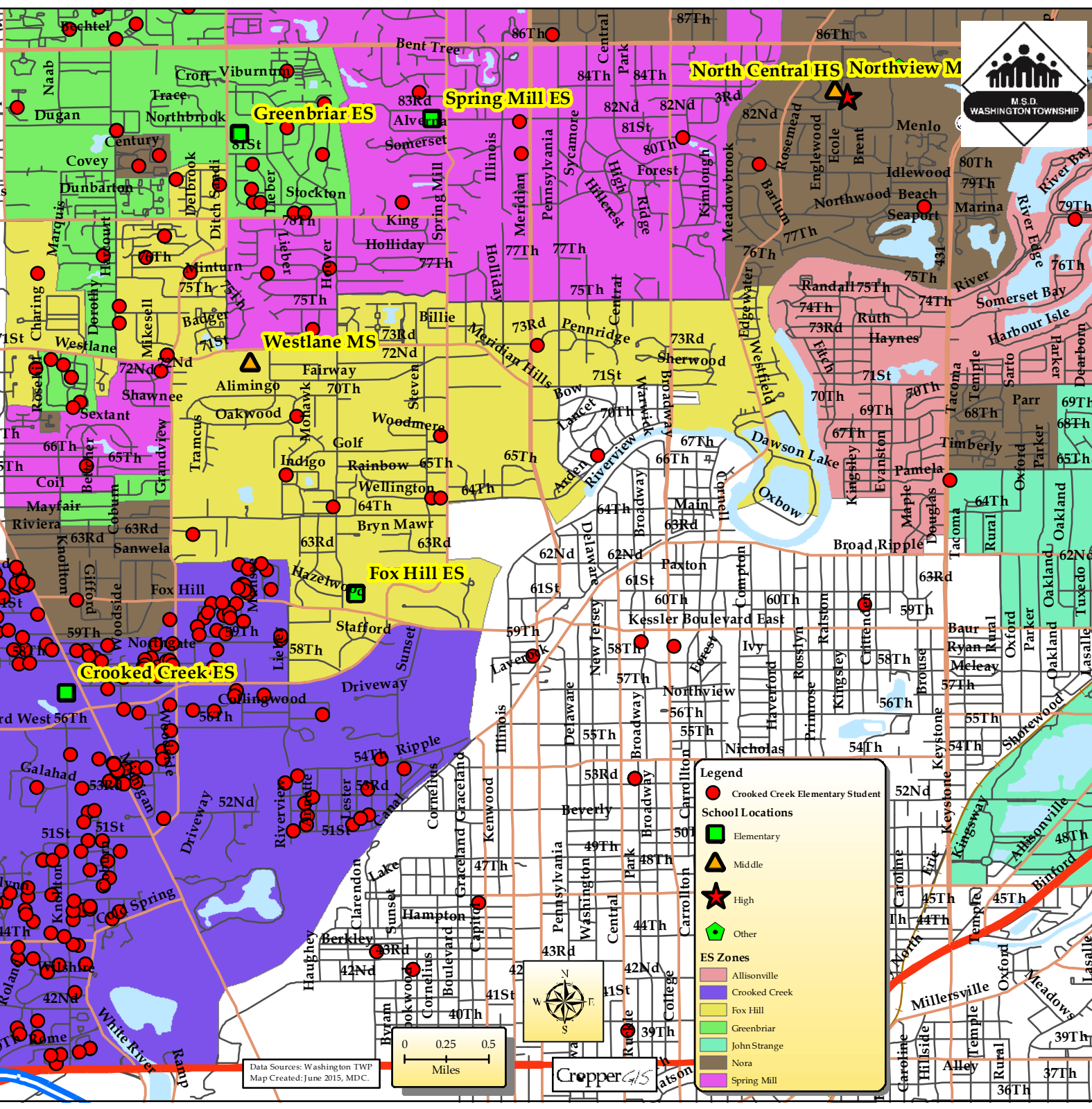- Spring Mill

WashingtonTwpLogo.jpg

RGB
- Red: Band_1
- Green: Band_2
- Blue: Band_3

Nora ES

Northview MS

Allisonville ES

John Strange ES

Eastwood MS

Data Sources: Washington TWP
Map Created: June 2015, MDC.

0   0.25   0.5
Miles

CropperGIS

MSD Washington TWP, IN
Crooked Creek
Elementary School
and Students
2014-15

Crooked Creek Elementary	
Total Enrollment	697
Matched	697
Unmatched	0
Out of District	98
Total Live-In (K-5th)	510
Live and Attend In	495
Live Out, Attend In	202
Live In, Attend Out	15

M.S.D. WASHINGTON TOWNSHIP

North Central HS   Northview M

Greenbriar ES   Spring Mill ES

Westlane MS
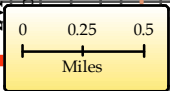
Fox Hill ES

Crooked Creek ES

Legend

● Crooked Creek Elementary Student

School Locations

■ Elementary

▲ Middle

★ High

⬠ Other

ES Zones

	Allisonville
	Crooked Creek
	Fox Hill
	Greenbriar
	John Strange
	Nora
	Spring Mill

N
W   E
S

0   0.25   0.5
Miles

Data Sources: Washington TWP
Map Created: June 2015, MDC.

CropperGIS

MSD Washington TWP, IN
Fox Hill
Elementary School
and Students
2014-15

Fox Hill Elementary	
Total Enrollment	813
Matched	803
Unmatched	10
Out of District	31
Total Live-In (K-5th)	776
Live and Attend In	680
Live Out, Attend In	123
Live In, Attend Out	96

Spring Mill ES

North Central HS

Greenbriar ES

Westlane MS

Fox Hill ES

Crooked Creek ES

Legend

● Fox Hill Elementary Student

School Locations

■ Elementary

▲ Middle

★ High

⬟ Other

ES Zones

Allisonville

Crooked Creek

Fox Hill

Greenbriar

John Strange

Nora

Spring Mill

0   0.25   0.5
Miles
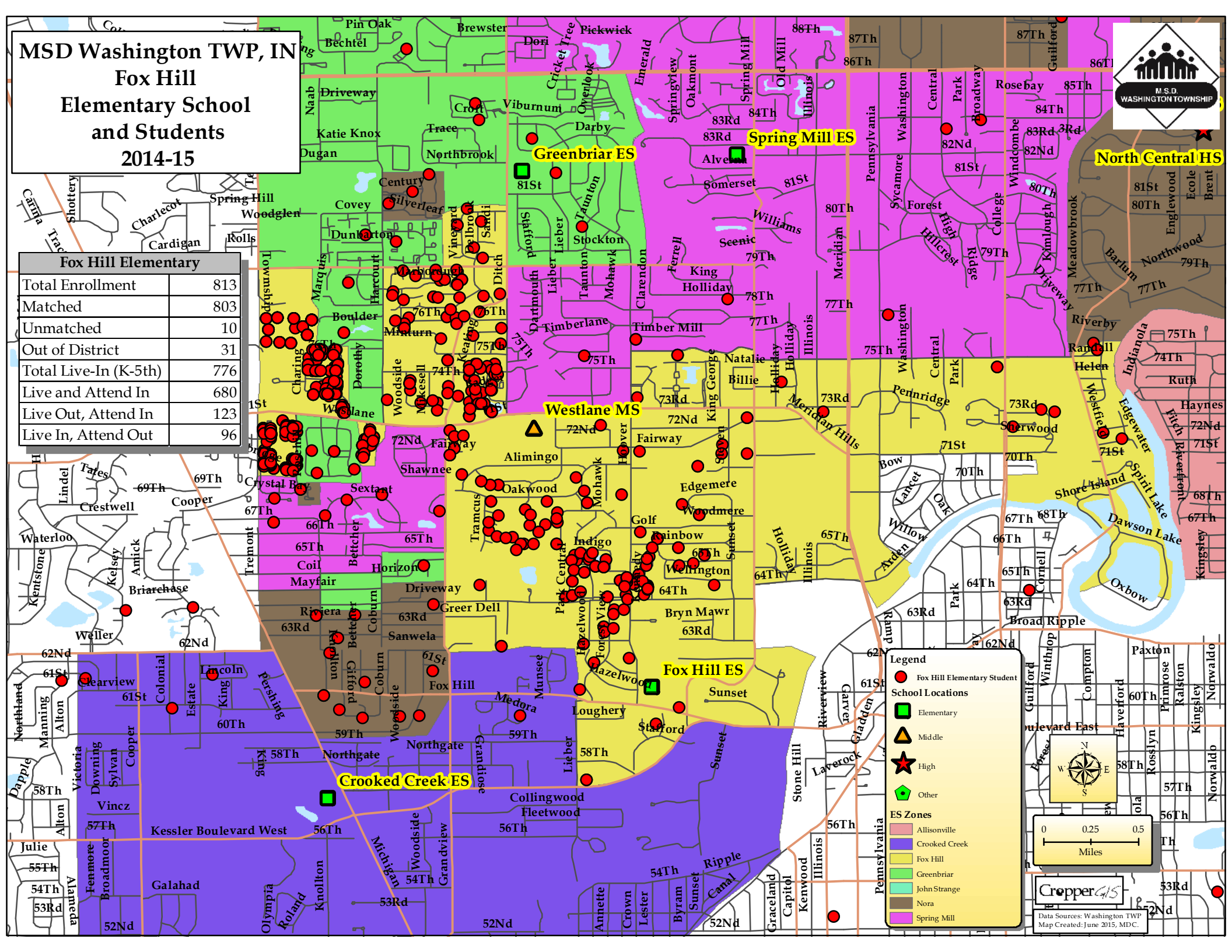
CropperGIS

Data Sources: Washington TWP, MDC.
Map Created: June 2015, MDC.

MSD Washington TWP, IN
Greenbriar Elementary School and Students
2014-15

| Greenbriar Elementary	
Total Enrollment	812
Matched	812
Unmatched	0
Out of District	29
Total Live-In (K-5th)	899
Live and Attend In	737
Live Out, Attend In	75
Live In, Attend Out	162

Legend

● Greenbriar Elementary Student

School Locations
■ Elementary
▲ Middle
★ High
⬟ Other

ES Zones
Allisonville
Crooked Creek
Fox Hill
Greenbriar
John Strange
Nora
Spring Mill

Greenbriar ES
Spring Mill ES
Westlane MS
Fox Hill ES

0   0.25   0.5
Miles

CropperGIS
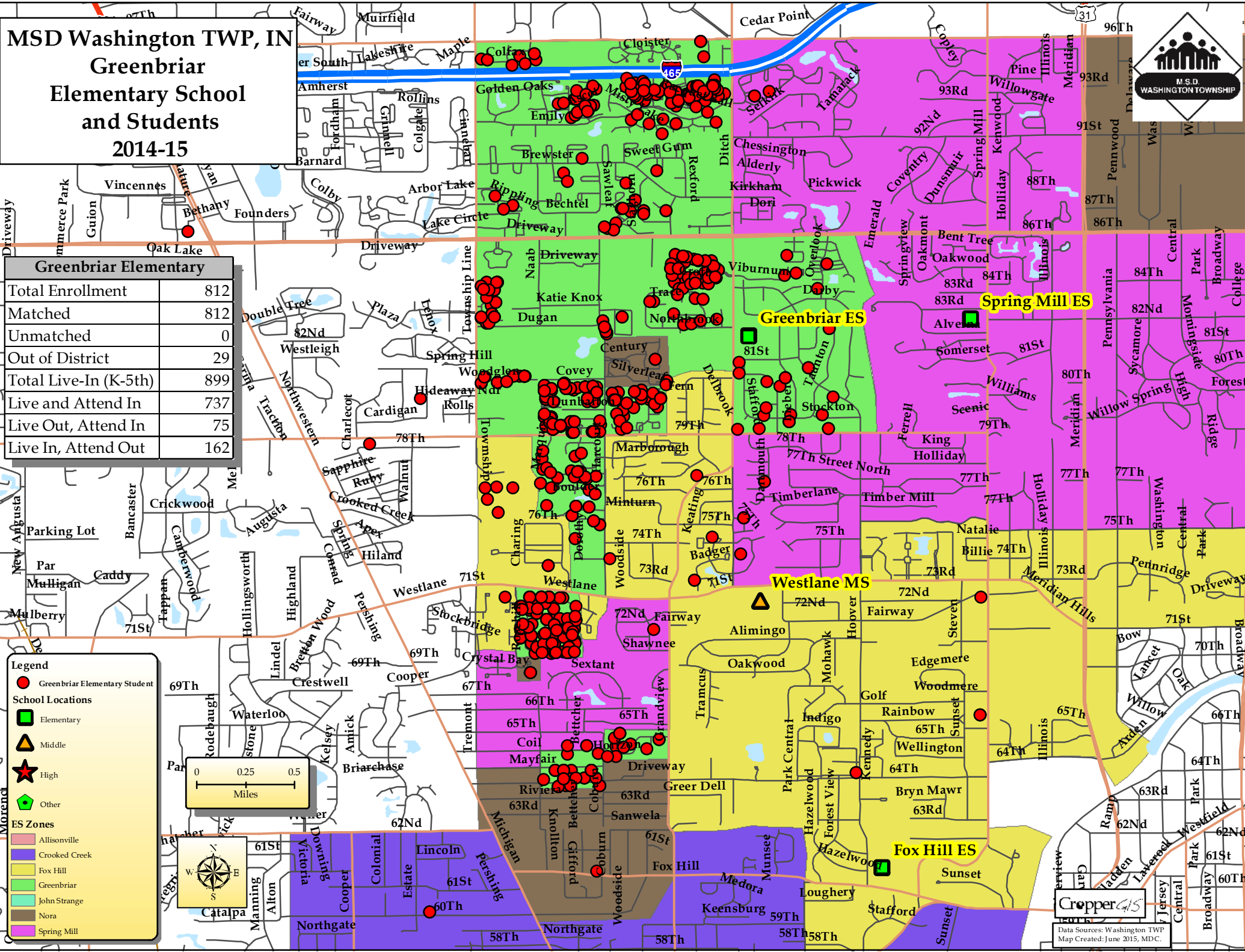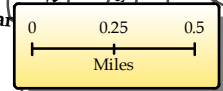
Data Sources: Washington TWP
Map Created: June 2015, MDC.

MSD Washington TWP, IN
John Strange
Elementary School
and Students
2014-15

M.S.D. WASHINGTON TOWNSHIP

John Strange Elementary	
Total Enrollment	640
Matched	639
Unmatched	1
Out of District	54
Total Live-In (K-5th)	451
Live and Attend In	407
Live Out, Attend In	232
Live In, Attend Out	44

Nora ES

Spring Mill ES

Greenbriar ES

North Central HS   Northview MS

Hill Top PreK

Allisonville ES

John Strange ES

Eastwood MS

Fox Hill ES

Legend

● John Strange Elementary Student

School Locations

■ Elementary

▲ Middle

★ High

⬟ Other

ES Zones

Allisonville
Crooked Creek
Fox Hill
Greenbriar
John Strange
Nora
Spring Mill

0   0.25   0.5
Miles

N
W   E
S

Cropper GIS

MSD Washington TWP, IN
Nora Elementary School and Students
2014-15

Nora ES

North Central HS **Northview MS**

Greenbriar ES

Spring Mill ES

Hill Top PreK

Allisonville ES

Westlane MS

John Strange ES

Eastwood MS

Crooked Creek ES

Nora Elementary

Total Enrollment	719
Matched	718
Unmatched	1
Out of District	36
Total Live-In (K-5th)	711
Live and Attend In	568
Live Out, Attend In	150
Live In, Attend Out	143

Legend

● Nora Elementary Student

School Locations

■ Elementary

▲ Middle

★ High

⬠ Other

ES Zones

- Allisonville
- Crooked Creek
- Fox Hill
- Greenbriar
- John Strange
- Nora
- Spring Mill

0   0.25   0.5   1
Miles

Data Sources: Washington TWP
Map Created: June 2015, MDC.

M.S.D. WASHINGTON TOWNSHIP

MSD Washington TWP, IN
Spring Mill Elementary School and Students
2014-15

Spring Mill Elementary
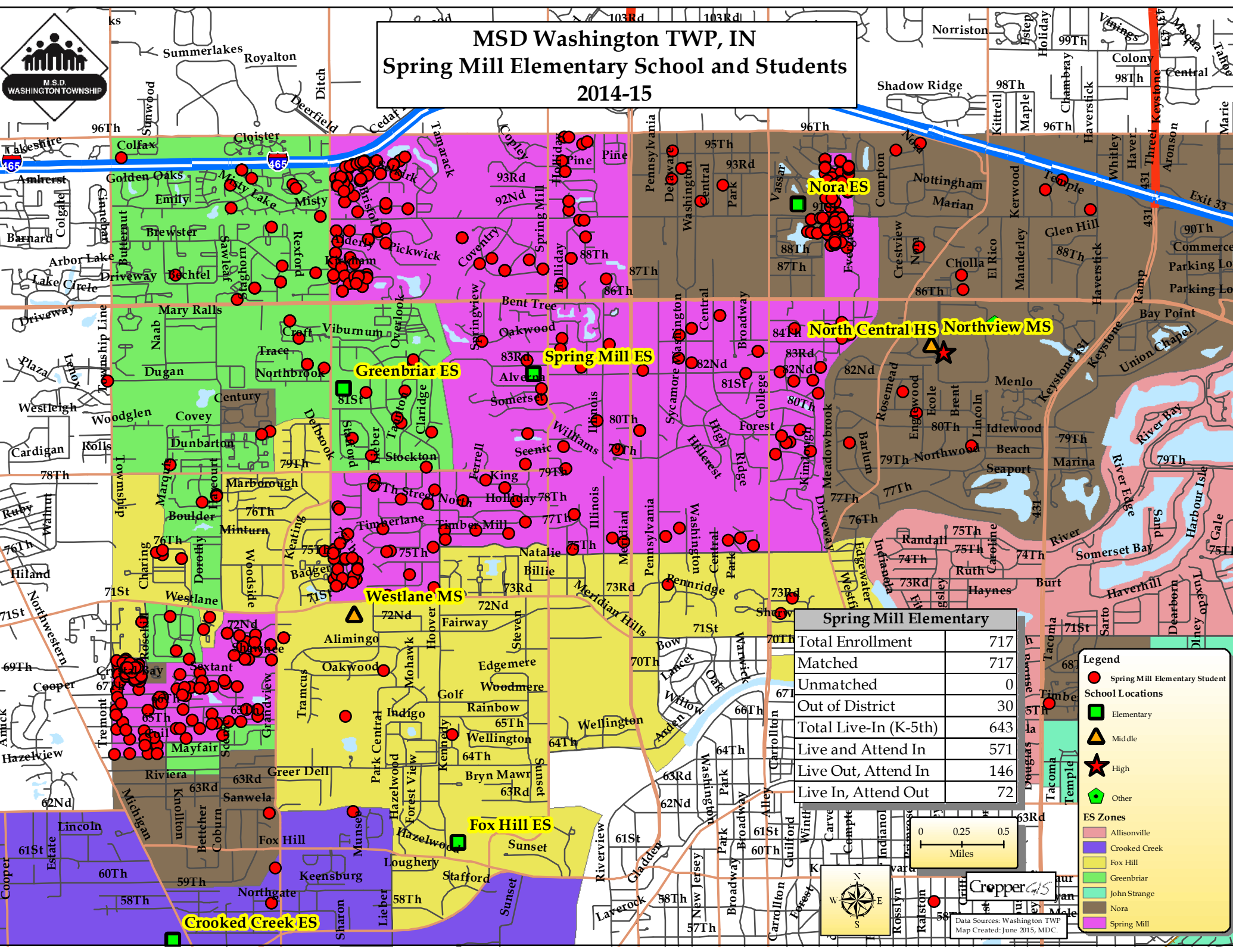
Spring Mill Elementary	
Total Enrollment	717
Matched	717
Unmatched	0
Out of District	30
Total Live-In (K-5th)	643
Live and Attend In	571
Live Out, Attend In	146
Live In, Attend Out	72

Legend

Spring Mill Elementary Student

School Locations
- Elementary
- Middle
- High
- Other

ES Zones
- Allisonville
- Crooked Creek
- Fox Hill
- Greenbriar
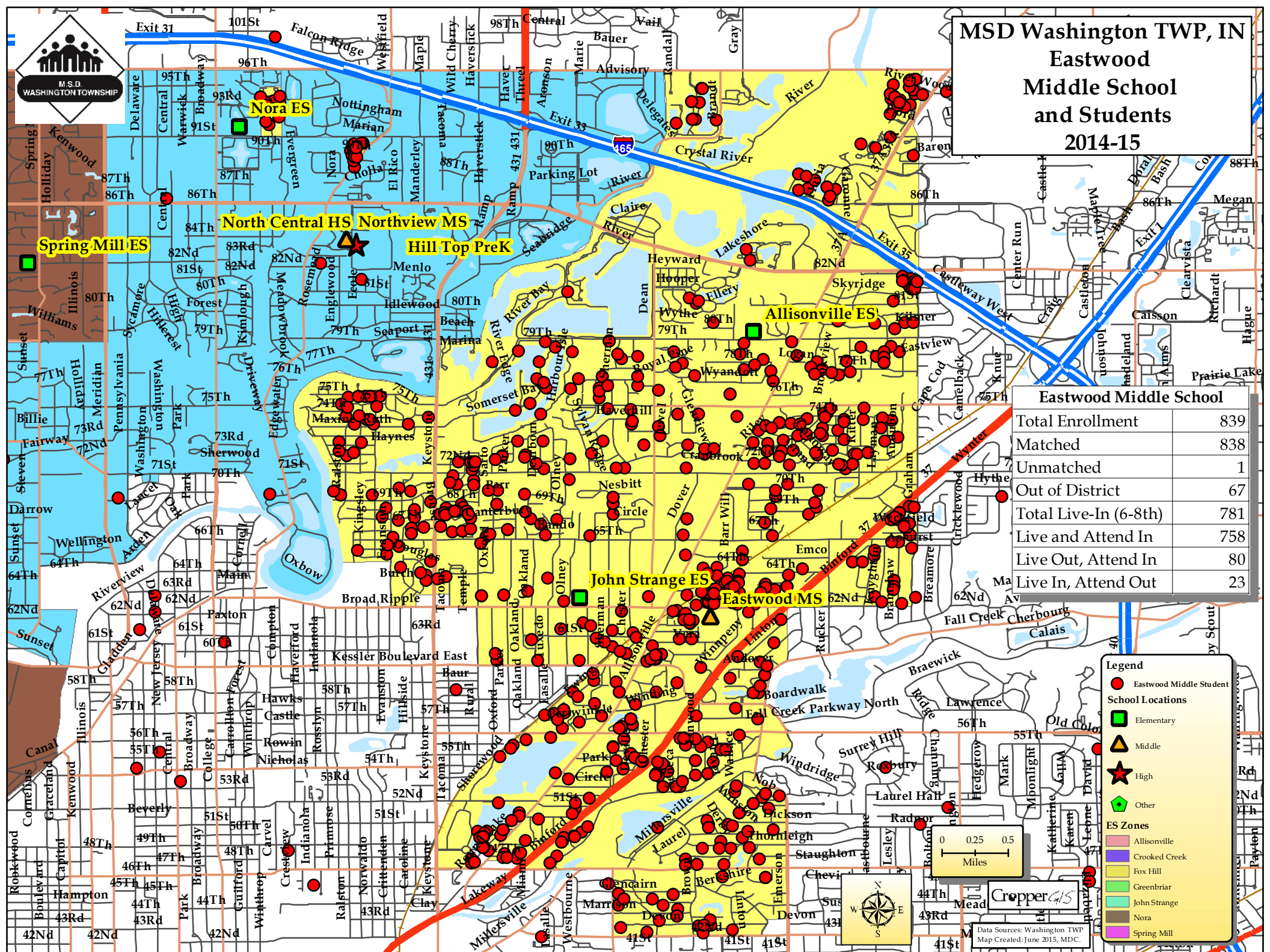- John Strange
- Nora
- Spring Mill

0   0.25   0.5
Miles

Cropper GIS

Data Sources: Washington TWP
Map Created: June 2015, MDC.

M.S.D. WASHINGTON TOWNSHIP

Nora ES

North Central HS   Northview MS

Spring Mill ES

Greenbriar ES

Westlane MS

Fox Hill ES

Crooked Creek ES
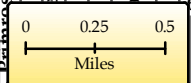
MSD Washington TWP, IN Eastwood Middle School and Students 2014-15

Eastwood Middle School

Total Enrollment	839
Matched	838
Unmatched	1
Out of District	67
Total Live-In (6-8th)	781
Live and Attend In	758
Live Out, Attend In	80
Live In, Attend Out	23

Legend

Eastwood Middle Student ● (red dot)

School Locations

- Elementary ■ (green square)
- Middle ▲ (orange triangle)
- High ★ (red star)
- Other ⬠ (green pentagon)

ES Zones

- Allisonville
- Crooked Creek
- Fox Hill
- Greenbriar
- John Strange
- Nora
- Spring Mill

Data Sources: Washington TWP
Map Created: June 2015, MDC.

CropperGIS

Labeled schools: Nora ES, Spring Mill ES, North Central HS, Northview MS, Hill Top PreK, Allisonville ES, John Strange ES, Eastwood MS
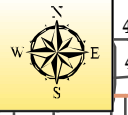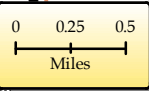
M.S.D. WASHINGTON TOWNSHIP

MSD Washington TWP, IN
Northview
Middle School
and Students
2014-15

Northview Middle School	
Total Enrollment	824
Matched	818
Unmatched	6
Out of District	23
Total Live-In (6-8th)	844
Live and Attend In	747
Live Out, Attend In	71
Live In, Attend Out	97

Nora ES

North Central HS Northview MS

Hill Top PreK

Greenbriar ES

Spring Mill ES

Westlane MS

John Strange ES

Fox Hill ES

Crooked Creek ES

Legend

● Northview Middle Student

School Locations
■ Elementary
▲ Middle
★ High
⬠ Other

MS Zones
Eastwood
Northview
Westlane

0   0.25   0.5
Miles

Data Sources: Washington TWP
Map Created: June 2015, MDC.

CropperGIS
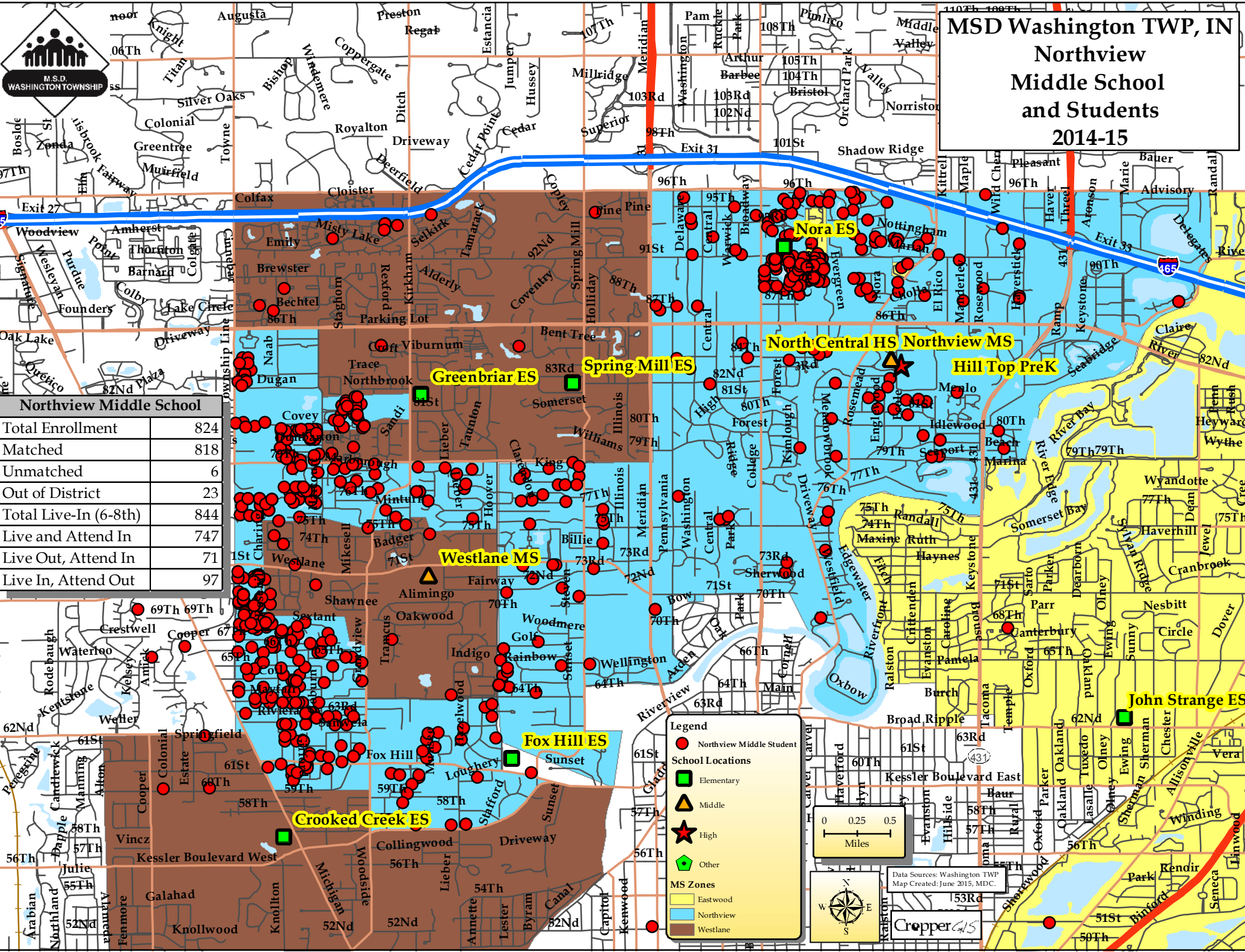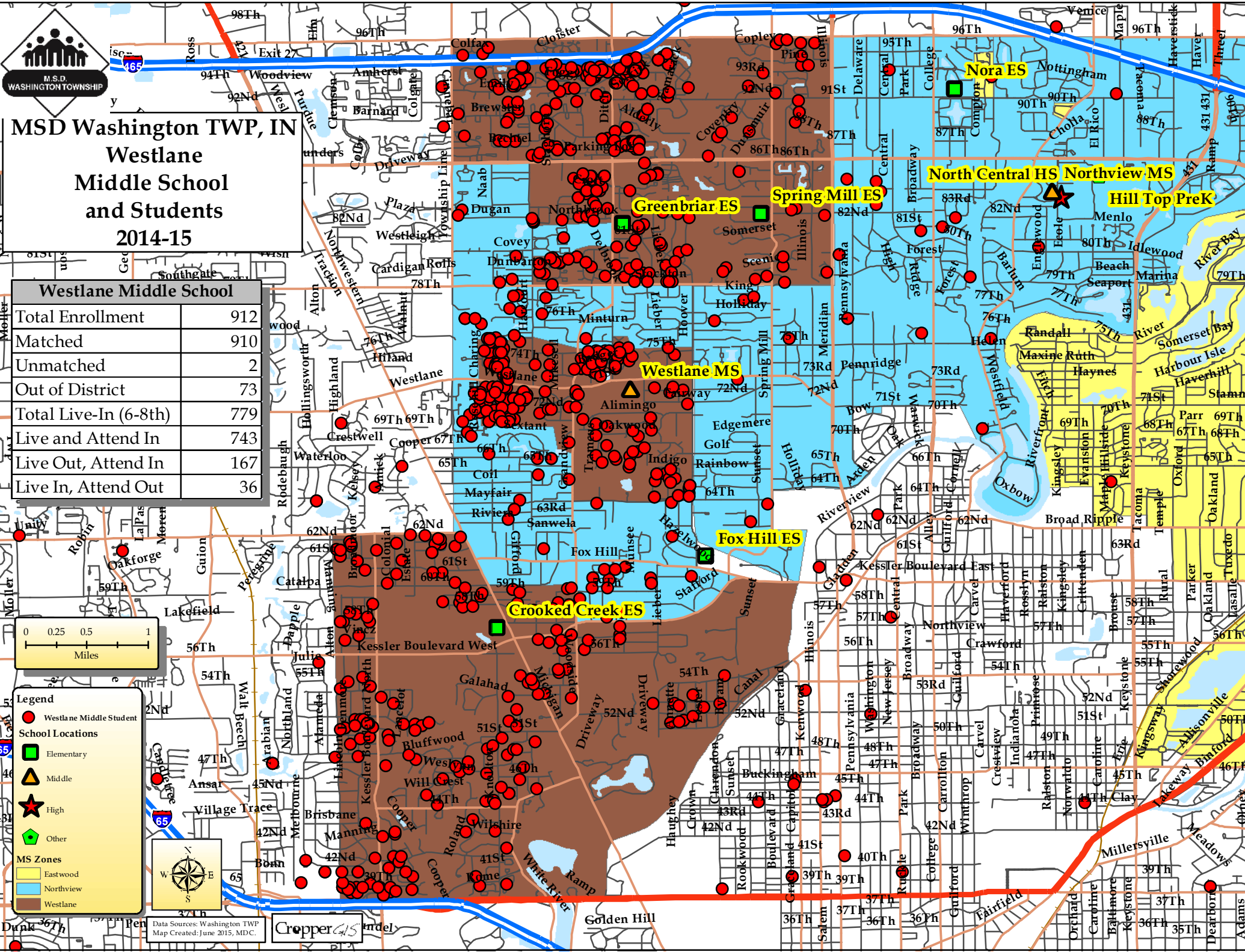
MSD Washington TWP, IN
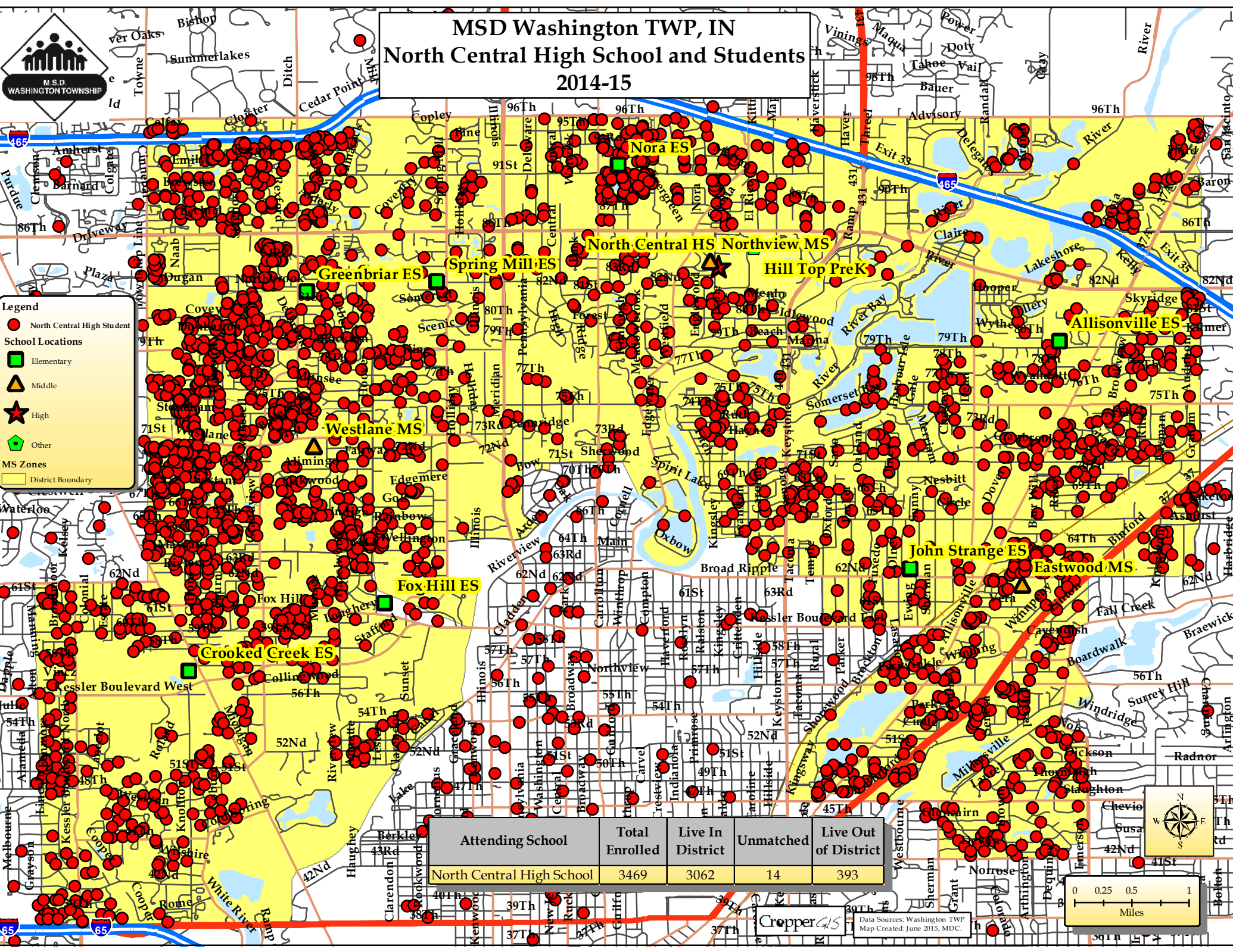## Westlane Middle School and Students
2014-15

M.S.D. WASHINGTON TOWNSHIP

Westlane Middle School	
Total Enrollment	912
Matched	910
Unmatched	2
Out of District	73
Total Live-In (6-8th)	779
Live and Attend In	743
Live Out, Attend In	167
Live In, Attend Out	36
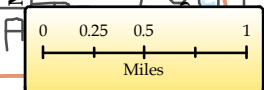
Legend

Westlane Middle Student

School Locations
- Elementary
- Middle
- High
- Other

MS Zones
- Eastwood
- Northview
- Westlane

School labels: Nora ES, North Central HS, Northview MS, Hill Top PreK, Spring Mill ES, Greenbriar ES, Westlane MS, Fox Hill ES, Crooked Creek ES

0 0.25 0.5 1 Miles

Data Sources: Washington TWP
Map Created: June 2015, MDC.

Cropper GIS

MSD Washington TWP, IN
North Central High School and Students
2014-15

M.S.D. WASHINGTON TOWNSHIP

Legend

- North Central High Student

School Locations
- Elementary
- Middle
- High
- Other

MS Zones
- District Boundary

School labels on map: Nora ES, North Central HS, Northview MS, Hill Top PreK, Greenbriar ES, Spring Mill ES, Allisonville ES, Westlane MS, Fox Hill ES, Crooked Creek ES, John Strange ES, Eastwood MS

Attending School	Total Enrolled	Live In District	Unmatched	Live Out of District
North Central High School	3469	3062	14	393

Cropper GIS

Data Sources: Washington TWP
Map Created: June 2015, MDC.

0 0.25 0.5 1 Miles