CRANDALL INDEPENDENT SCHOOL DISTRICT

Ten Year
Student Population Projections
By Residence

Fall 2021-2030
(Based on Fall 2020 Data)

Prepared by

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INTRODUCTION AND BACKGROUND

The Crandall Independent School District (CISD) has contracted with Davis Demographics (Davis) to develop and analyze demographic data relevant to the District's facility planning efforts. The scope of contracted work includes: updating the district's mapping files, geocoding and analyzing student data files (each representative of late October's head count), developing and researching pertinent demographic data in and around the district, identifying current and future residential development plans, and preparing a ten-year student population forecast.

The purpose of this report is to identify and inform CISD of the demographic trends occurring within the community and project how these tends may affect future student populations. This analysis is used to help illustrate potential facility adjustments and assist the district in evaluating future site requirements and the potential need for boundary changes.

Davis Demographics is a non-biased third-party consultant contracted to prepare and maintain a ten-year demographic study for Crandall ISD. In this study, Davis Demographics produced detailed neighborhood and attendance area population forecasts based on the residential address of students. Davis Demographics bases their forecasts on the belief that school facility planning is more accurate when facilities are located where the greatest number of students reside. This study is intended to help the district notice specific demographic trends that could assist them in making informed decisions regarding long-range planning efforts.

The report is divided into the following five sections:

- **Section One: Methodology** – details how the various demographic and geographic sources of data are used to produce the ten-year forecasts. Forecast variables such as birthrate data, student mobility, and student yield factors are thoroughly explained in this section.

- **Section Two: Residential Development** – details all current residential development projects within Crandall ISD's attendance boundary and highlights future projects to track.

- **Section Three: Attendance Matrix** – provides the attendance matrix for elementary schools which illustrates the relationship between where students reside and where they are enrolled. Capacity is included in the matrix to help identify campuses that may be over or under-utilized.

- **Section Four: Districtwide Student Forecasts** – details the districtwide student forecasts through school year 2030/2031 with the base school year being 2020/2021.

- **Section Five: Attendance Area Forecasts by Residence** – provides detailed forecasts for each attendance area and campus.

While reading this report, it is important to remember that all analysis and forecasts are based on student data collected during Fall of 2020, therefore SY 2020 refers to school year 2020/21 and SY 2030 refers to school year 2030/2031.

EXECUTIVE SUMMARY

Davis Demographics is assisting the Crandall Independent School District to plan for or future student population changes. By factoring current and historical student data with the latest demographic data and planned residential development, Davis calculated a ten-year student population forecast for the district. These forecasts are based on the residence of the students and are designed to alert the district as to when and where student population shifts will occur.

Key Items in the Districtwide Analysis Section of the Report:

- Crandall Independent School District can expect significant growth over the next ten years.
- There are 25 residential developments actively under construction or currently planned within the Crandall ISD boundary totaling more than 4,200 dwelling units which will be the driving force for population growth over the next 10 years.
- More than 90% of all active and planned development is located north of Highway 175 in the Noble Reed attendance zone.
- Recent increases in home construction expect to bring a significant jump in resident students for SY 2021 and new housing is expected to generate about 3,300 new CISD students over the next ten years.
- CISD has higher than average mobility rates indicative of strong retention of existing students and collection of newer students in existing homes (this is especially true in grades K-9).
- CISD can expect an increase with incoming PK and K classes over the next several years due to yearly increases in the local birth since 2011 along with the inward movement of families.
- The district's high school population (9-12) is expected to increase by more than 60% over the next five years exceeding 2,250 students in SY 2025.
- The district's middle school population (7-8) is forecasted to increase annually and surpass 1,000 resident students in SY 2023.
- The elementary school population (PK-6) is forecasted to increase by more than 46% over the next five years resulting in about 3,750 elementary students by SY 2025.

Table 1: Districtwide Resident Student Population Forecasts (SY2020-SY2030)

Forecasted Student Counts											
Grade	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**
PK	150	161.9	173.6	193.6	193.6	204.8	211.9	217.1	222.4	227.0	231.3
K	341	394.9	429.1	471.9	503.2	482.3	502.2	513.1	522.2	526.2	537.0
1	327	384.7	445.3	470.0	506.1	533.6	512.2	524.0	534.9	543.5	546.6
2	328	363.5	429.4	483.1	500.5	532.9	562.2	532.2	544.2	555.0	563.3
3	344	340.1	382.8	433.8	477.8	490.5	523.0	543.6	515.8	527.2	537.6
4	323	380.1	387.1	421.3	466.7	507.3	522.2	546.9	567.8	540.0	551.6
5	372	359.0	423.4	421.4	449.7	490.9	533.1	540.3	565.8	587.2	558.9
6	369	413.7	409.0	465.8	457.4	482.7	524.3	559.3	566.9	593.1	614.9
7	380	420.8	468.9	454.4	505.2	487.4	512.1	553.5	590.1	598.6	626.8
8	359	442.9	496.8	546.0	526.1	578.2	566.1	584.0	625.1	664.2	672.2
9	414	415.4	514.6	564.4	610.4	585.3	643.8	623.4	641.3	685.3	727.1
10	371	428.7	437.1	530.0	570.1	613.0	591.3	639.5	621.3	640.4	680.9
11	319	370.9	430.0	432.4	511.5	544.9	587.1	560.0	604.9	588.1	604.5
12	302	339.0	394.7	446.0	441.8	514.0	548.0	582.1	556.0	599.8	583.5
Resident Student Totals by Grade Configuration											
PK-6	2,554	2,798	3,080	3,361	3,555	3,725	3,891	3,977	4,040	4,099	4,141
7-8	739	864	966	1,000	1,031	1,066	1,078	1,138	1,215	1,263	1,299
9-12	1,406	1,554	1,776	1,973	2,134	2,257	2,370	2,405	2,424	2,514	2,596
Total	4,699	5,215.6	5,821.8	6,334.1	6,720.1	7,047.8	7,339.5	7,519.0	7,678.7	7,875.6	8,036.2
Unmatched Students											
PK-6	1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
7-8	1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
9-12	0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Non-Resident Students											
PK-6	108	118.3	130.2	142.1	150.3	157.5	164.5	168.2	170.8	173.3	175.1
7-8	24	28.0	31.4	32.5	33.5	34.6	35.0	36.9	39.5	41.0	42.2
9-12	35	38.7	44.2	49.1	53.1	56.2	59.0	59.9	60.3	62.6	64.6
Total	167	185.4	206.9	225.1	238.8	250.5	260.8	267.2	272.9	279.9	285.6
Total Students											
PK-6	2,663	2,917.2	3,210.9	3,504.0	3,706.3	3,883.5	4,056.6	4,145.7	4,211.8	4,273.5	4,317.3
7-8	764	892.7	998.1	1,033.9	1,065.8	1,101.2	1,114.2	1,175.4	1,255.7	1,304.8	1,342.2
9-12	1,441	1,592.7	1,820.6	2,021.9	2,186.9	2,313.4	2,429.2	2,464.9	2,483.8	2,576.2	2,660.6
Total	4,868	5,402.6	6,029.6	6,559.8	6,959.0	7,298.1	7,600.1	7,786.0	7,951.3	8,154.5	8,320.1
Annual Change											
PK-6		254.2	293.7	293.1	202.3	177.2	173.1	89.0	66.2	61.7	43.8
7-8		128.7	105.3	35.8	31.9	35.4	13.0	61.2	80.2	49.1	37.4
9-12		151.7	227.9	201.3	165.0	126.5	115.8	35.7	19.0	92.3	84.5
Total		534.6	627.0	530.2	399.2	339.1	301.9	185.9	165.4	203.2	165.6

SECTION ONE – METHODOLOGY

Sources of Data

Geographic Map Data

Five (5) geographic data layers were modified or created for use in the ten-year student population forecasts:

1. Street Centerline Data
2. Study Areas
3. Schools
4. Student Data (Historical and Current)
5. Active and Planned Residential Development

Street Centerline Data

The street centerline data is essentially used in the geocoding process. The geocoding process places a point on the map for every student in the exact location that each student resides based on their provided address. This enables Davis to analyze student data geographically. The digital street database is also vital in the construction of study areas because freeways and streets typically serve as the boundaries for study areas.

Study Areas

Study areas are small geographic areas that are the building blocks of school district attendance zones. Each study is geographically defined by following logical boundaries of neighborhoods such as roads, railroad tracks, or waterways. Study areas are coded with the corresponding elementary, middle school, and high school that the residence students are assigned to. By gathering information about the district at the study are level, Davis Demographics and Crandall ISD can closely monitor demographic trends and identify potential need for boundary or facility adjustments. Currently, 213 study areas make up the CISD boundary.

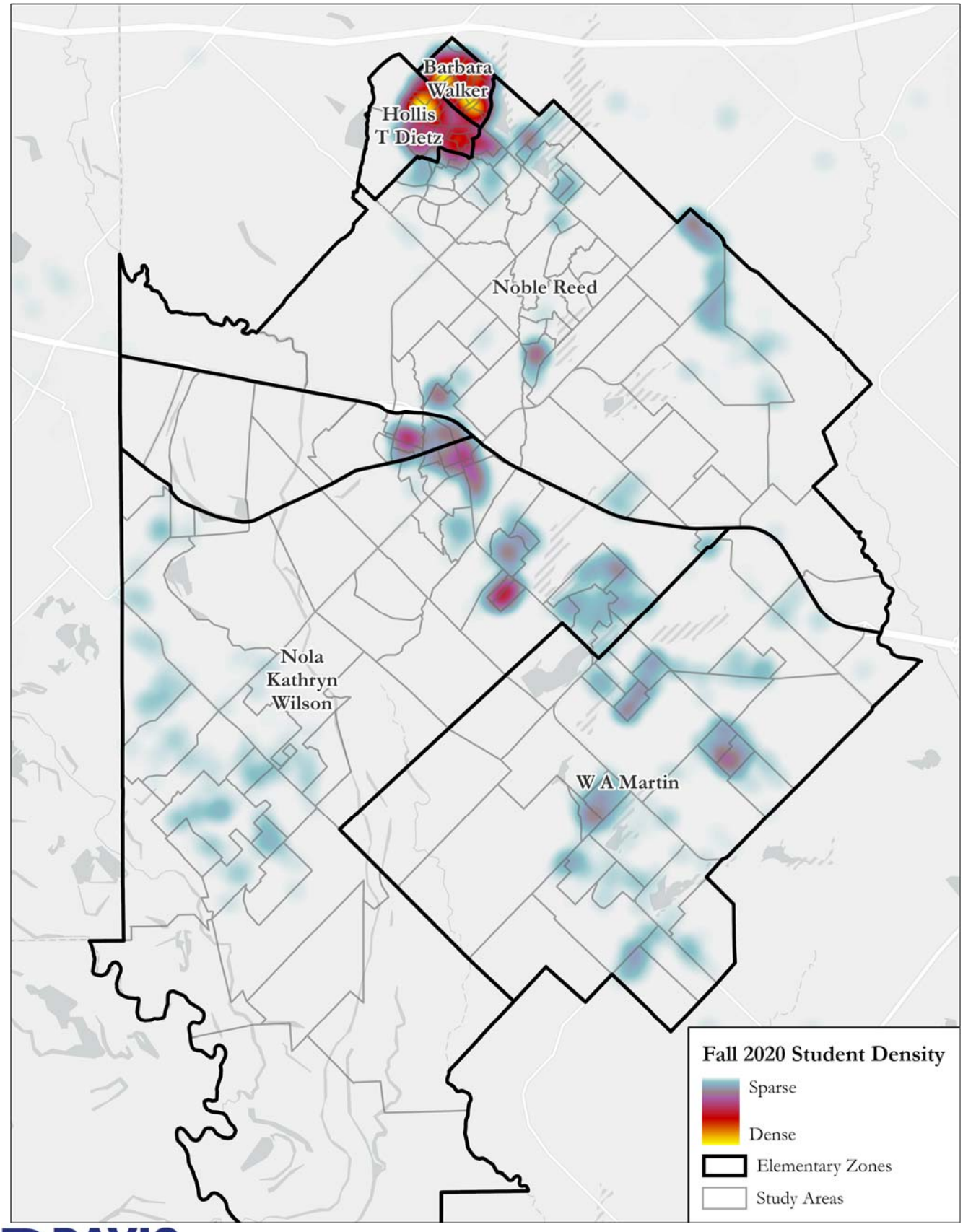
Schools

District staff provided Davis with school facility information including school name, address, grade ranges, and permanent capacity.

Student Data

Student data was obtained from the district for the past six school years. The historic student data from SY 2017 through SY 2019 is used to analyze student population trends and mobility, which refers to student movement in or out of existing housing throughout the district. The most recent student data from SY 2020 served as the base for student population forecasts. Map 1 shows CISD's student population density in reference to the study areas created by Davis.

Map 1: Study Areas with Fall 2020 Student Density



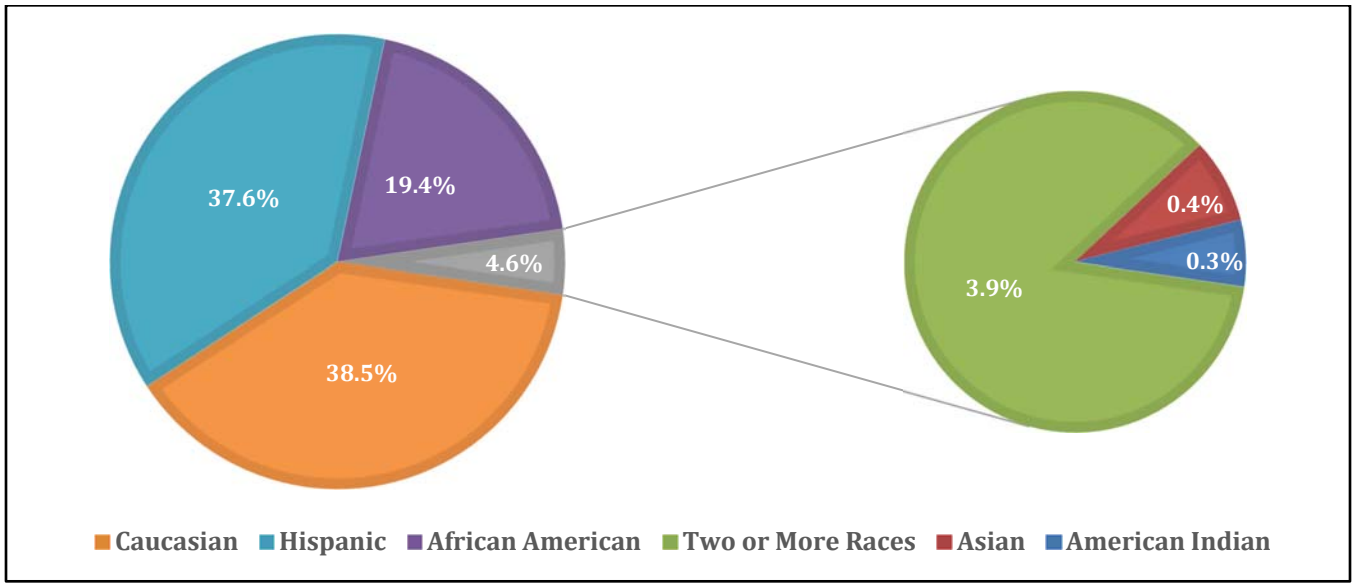
The Student Accounting Summary (Table 2) shows the total student enrollment in Crandall ISD as of Fall 2020 and the number of students used in the ten-year student population forecasts (Table 1). The forecast model is based upon student residence and excludes students residing outside of the district's boundaries or unmatched students who are unable to provide a valid address.

Table 2: Student Accounting Summary

School Year 2020-2021 Actual Enrollment (FALL 2020)	
Total Students Provided by District File (October 30, 2020)	4,868
Out of District Students	(167)
Unmatched Students	(2)
RESIDENT PK-12 STUDENTS USED IN THE PROJECTIONS	**4,699**

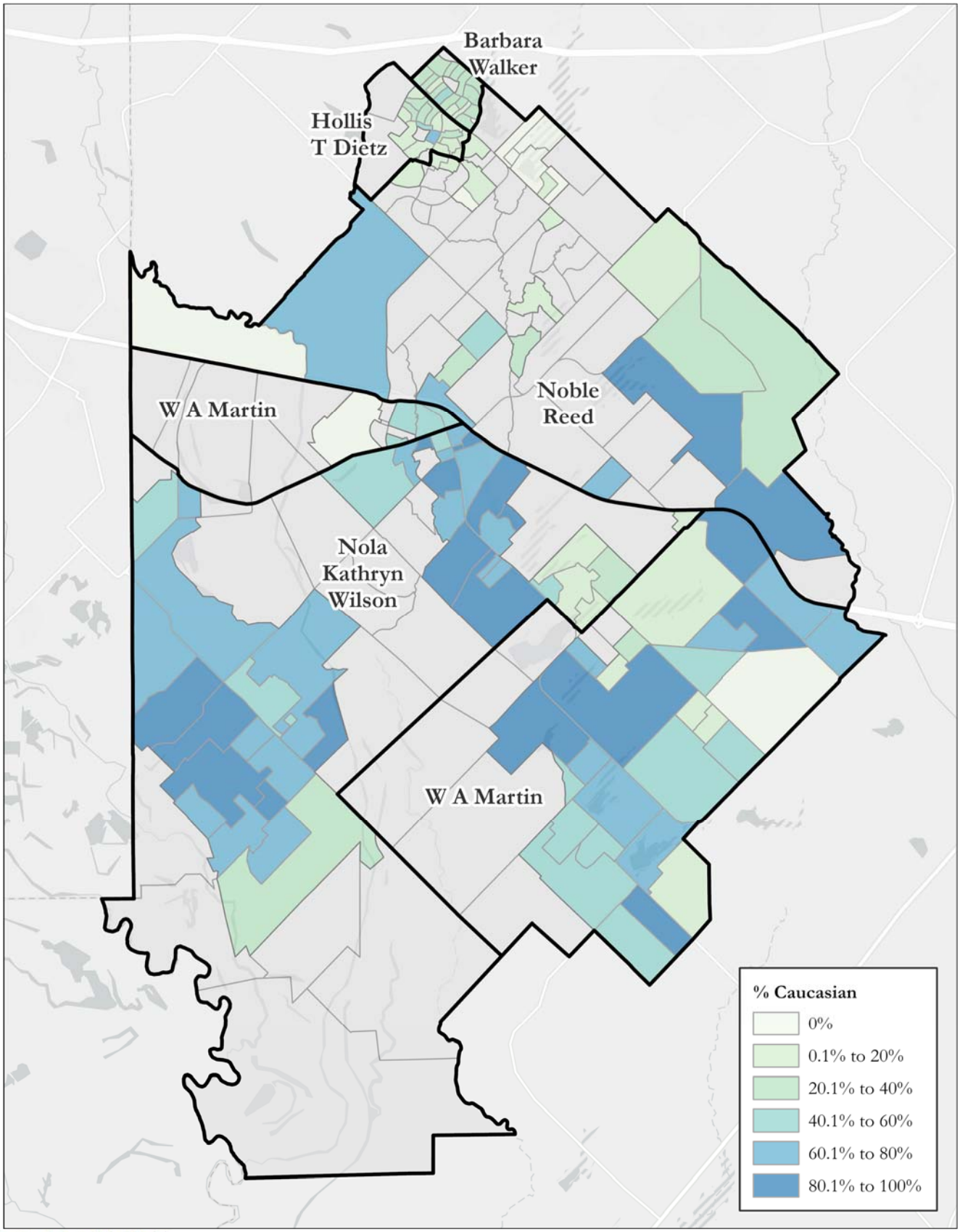
The Crandall ISD student file from October 30, 2020 consisted of 4,868 records with fields including Grade Level, School, and Ethnicity. With the exclusion of non-resident students, there were 4,699 resident PK-12 students used as the base for the 10-year forecasts. Crandall ISD has a diverse student population which is illustrated in the following chart.

Chart 1: Fall 2020 Students by Ethnicity

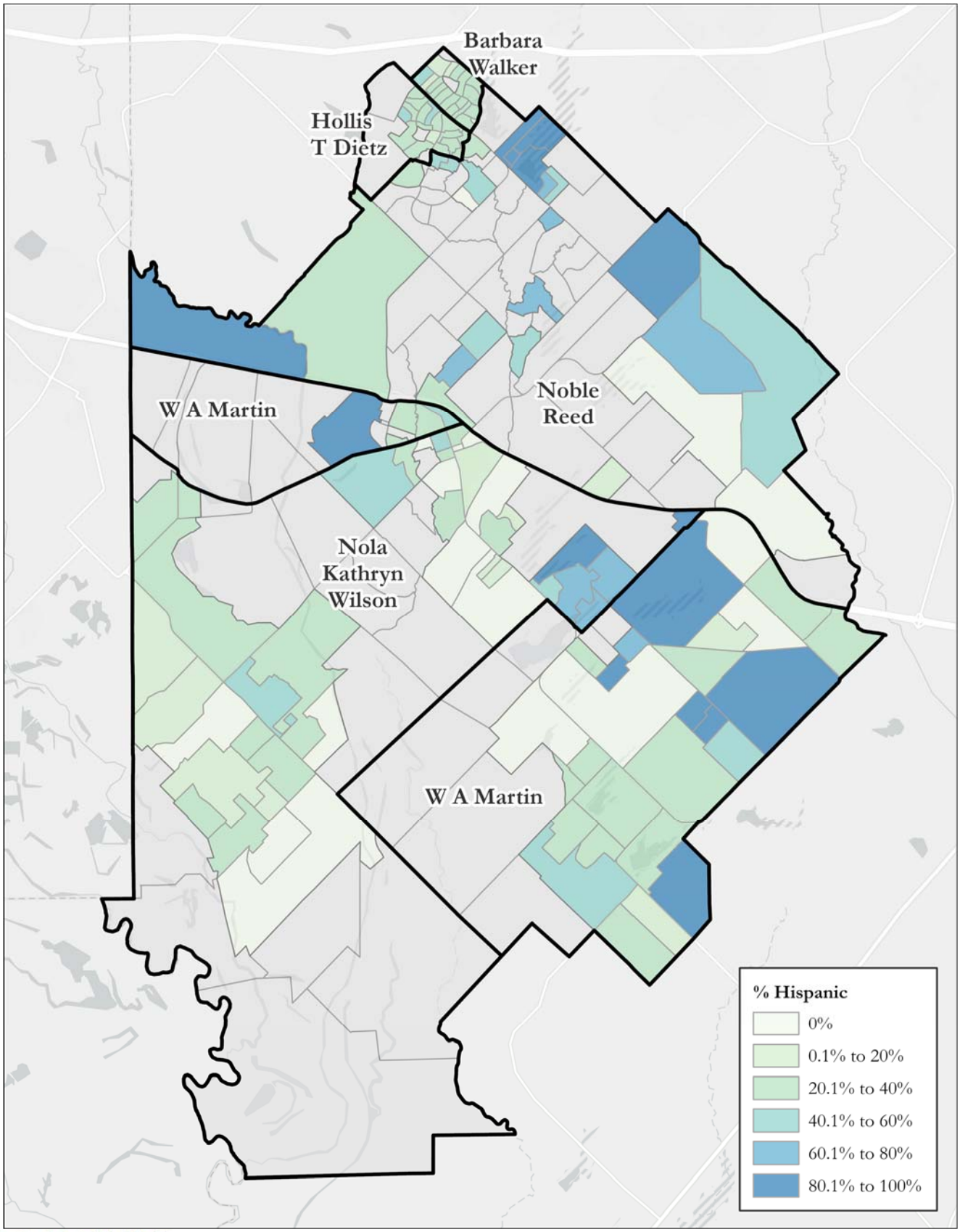


On the following pages, Maps 2-5 illustrate the distribution of the various student ethnicities by study area. For example, Map 2: Caucasian Student Population by Study Area uses graduated colors to show what percentage of students in each study area are Caucasian. Maps 3 and 4 use the same color scheme to show the percentage of Hispanic and African American students, respectively. Students who are Two or More Races, Asian, or American Indian make up only 4.6% of the entire student population, so Map 5 combines those students as "Other Ethnicity" and illustrates the percentage of students in each study area who are not Caucasian, Hispanic, or African American.

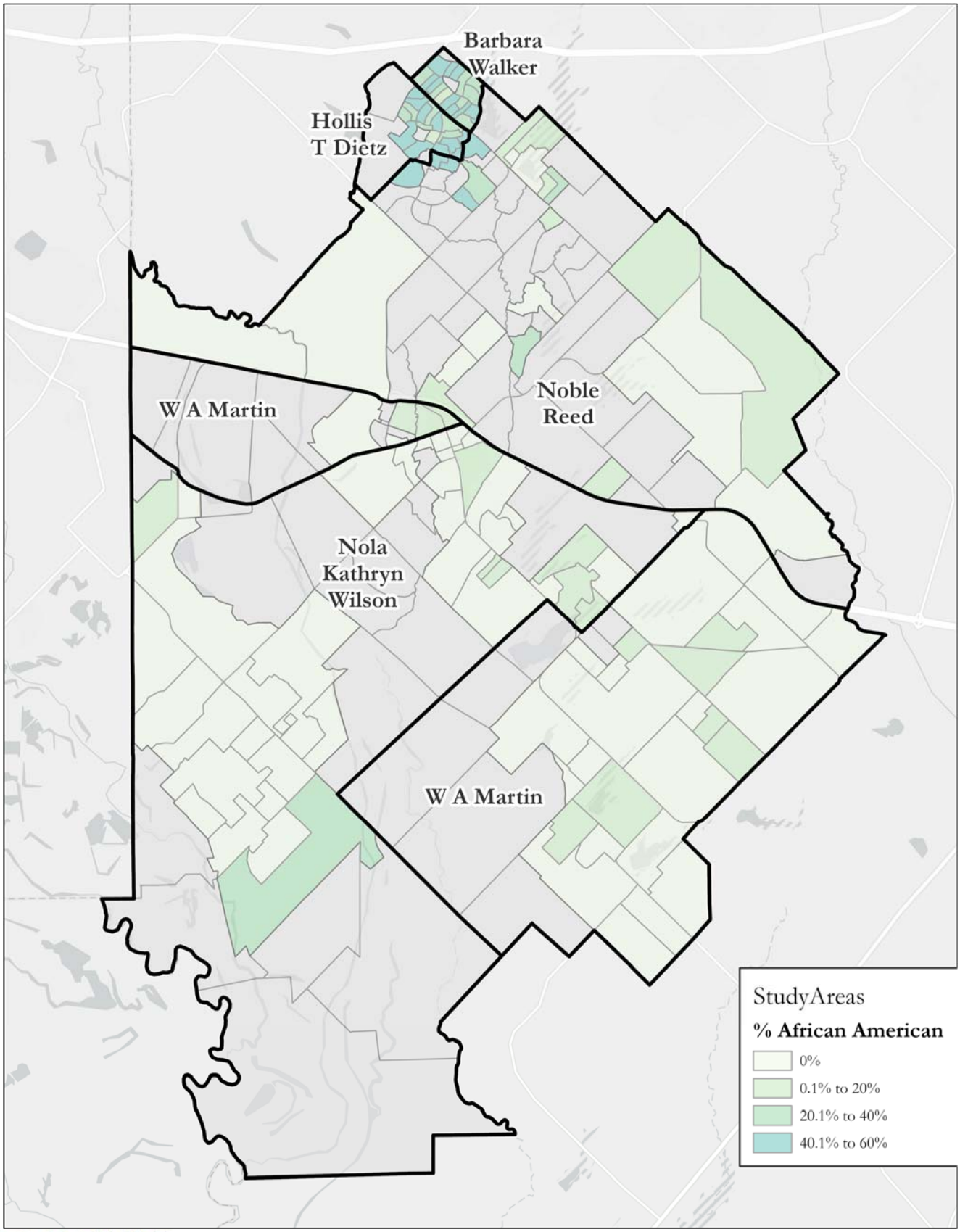
Map 2: Caucasian Student Population by Study Area



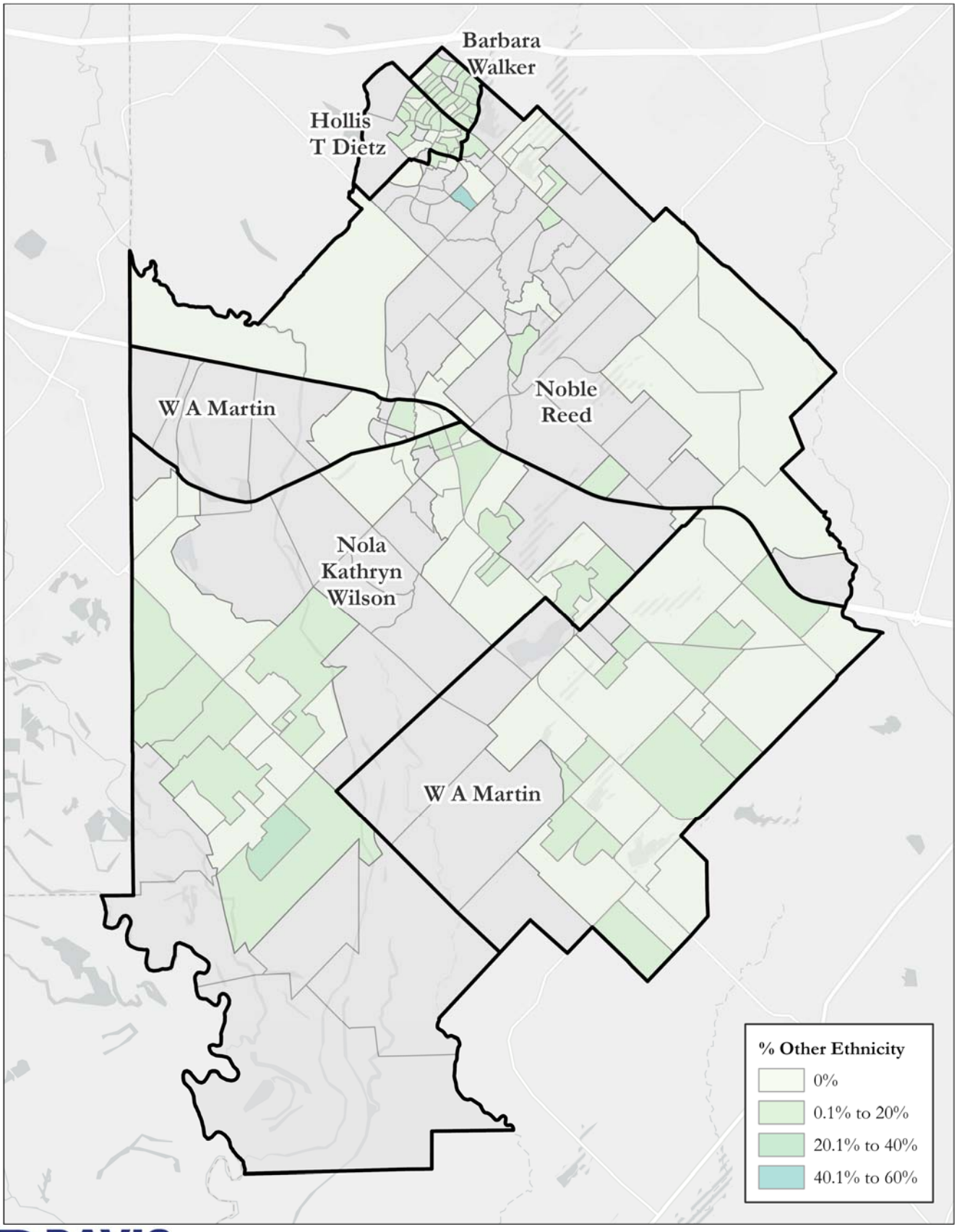
Map 3: Hispanic Student Population by Study Area



Map 4: African American Student Population by Study Area



Map 5: Other Student Population by Study Area

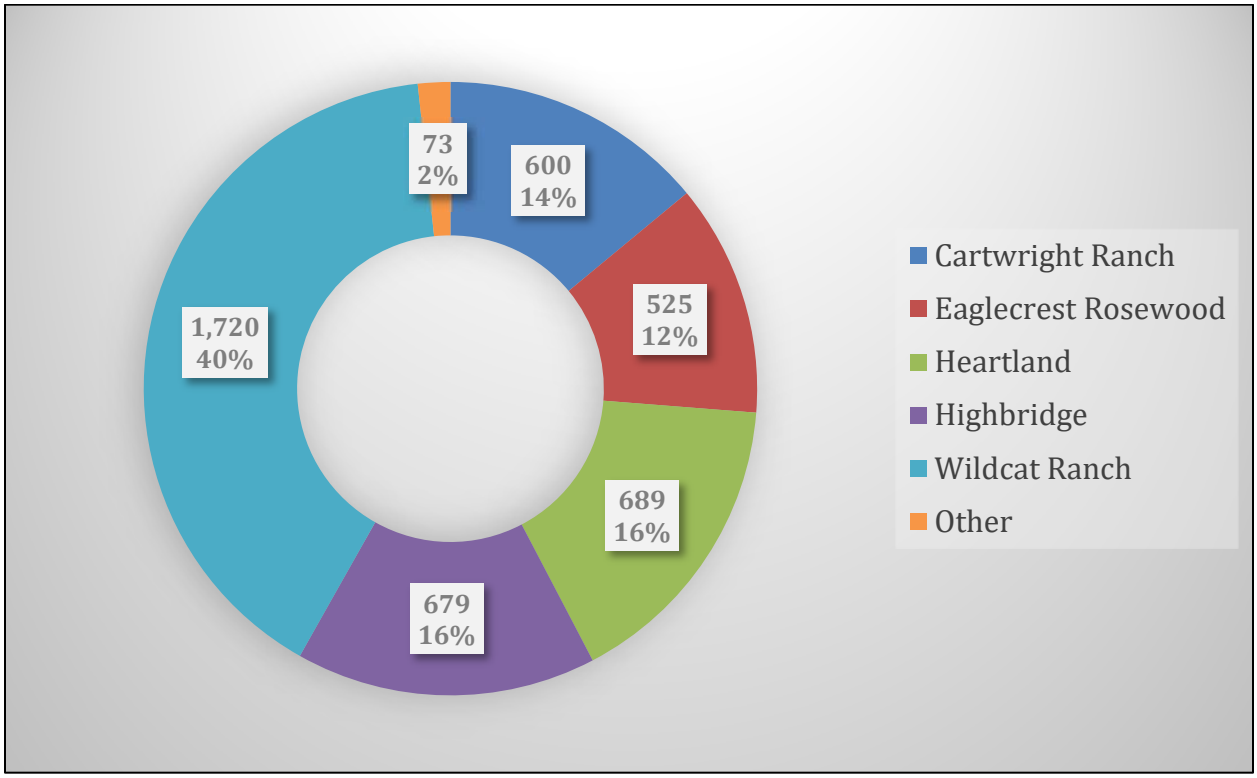


Active and Planned Residential Development

Residential development data was obtained through discussions with district staff, city and county agencies, and major developers within the Crandall ISD boundaries. Davis Demographics staff visited residential development sites on multiple occasions to verify construction status, update phasing, and review information with CISD. This data includes development name, location, housing type, total number of units of development, remaining number of units in development and project phasing (forecasted move in dates). The phasing for active and planned housing development is factored into the ten-year forecasts (see SECTION TWO for a detailed listing of the residential development). The planned residential development information and phasing estimates are a snapshot of the district at the time of this study. Because this information is subject to changes in the marketplace, this data should be reevaluated annually.

Davis determined that 25 residential projects are on track to be completed by Fall 2030, totaling more than 4,200 dwelling units over the ten-year forecast timeframe. The projects were geocoded and assigned to the study areas which correlate to attendance zones. Most of the residential development will be occurring in the Noble Reed attendance zone. Wildcat Ranch, Heartland and Highbridge are three of the largest communities currently being developed. Chart 2 illustrates the number of residential units used in projects by community.

Chart 2: Residential Units by Community



Data Used for Variables

Three sets of data were compiled and reviewed for use in the ten-year student population forecasts by residence:

1. Births by City
2. Mobility Factors
3. Student Yield Factors

1) Births by Zip Code Data

Birth data by postal zip code (roughly correlated to the Crandall ISD boundaries) was obtained from the Texas State Department of Health for the years 1999-2018. Past changes in historical birth rates are used to estimate future incoming kindergarten and prekindergarten student populations from existing housing. Birth rates were further analyzed at regional levels within the district and then applied to the planning areas. Previous years of data are excluded from the study as they are not truly representative of the latest birth trends.

2) Mobility Factors

Mobility refers to the increase or decrease in the movement of students within and out of the district boundary. Mobility, which is essentially a modified cohort, is applied as a percentage of increase/decrease among each grade for every year of the forecasts.

3) Student Yield Factors (SYFs)

Student Yield Factors (sometimes referred to as "Student Generation Rates") were calculated from a housing count of existing residential units throughout the CISD boundary. This survey focuses on one main housing type: single-family detached (SFD). This can be revisited for more housing types in the future if these projects are filed and approved. The student yield factors combined with planned residential development units are used to determine the number of students potentially generated from new residential housing development projects. Student Yield Factor calculations will be discussed again in the Ten-Year Forecast Methodology section.

Ten Year Forecast Methodology

The forecast methodology used in this study combines historic student population counts, past and present demographic data, and planned residential developments to project future student population at the study area level. Districtwide forecasts are summarized from the individual study area forecasts. **These forecasts are based on where the students reside and their assigned school according to current attendance zones. Davis uses the location of where the students reside as opposed to their school of enrollment in order to provide the most accurate estimate of where future facilities may be needed.** The best way to plan for future student population shifts is to know where incoming students will be living. The following details the methodology used in preparing the student population forecasts by residence.

Forecasts are calculated out ten years from the date of the most recent school year. Facility planning typically takes at least five years, so the ten-year forecasts allow for adequately planning any new facilities. Forecast beyond ten years are less reliable due to lack of information on birth rates, residential development, and potential changes in economic conditions. It is recommended that forecasts be updated annually as additional data becomes available.

District generated forecasts are often based on school enrollment for staffing and budgetary needs. This method is often inadequate for long-range planning needs, such as the location of future school facilities because the location of the students is not taken into consideration. A school's enrollment can fluctuate annually due to variables such as population trends, curriculum/program changes, and open enrollment policies. These variables can skew the apparent need for new or additional facilities in an area.

The methodology used by Davis Demographics is unique because it modifies a standard cohort forecast with demographic factors and student residence. Davis bases forecasts on the belief that school facility planning is more accurate when facilities are located where the greatest number of students reside. The best way to plan for facility requirements is to know where incoming students will be residing.

Forecast Variables

Each year of the forecasts, 12th grade students graduate and the continuing students progress through to the next grade level. This normal progression of students is modified by the following factors:

1) Incoming Pre-Kindergarten and Kindergarten

Live birth data is reported to the Texas State Department of Health Statistics by the resident postal zip code of the mother. Davis Demographics uses the birth data by zip code roughly correlating to the district boundary and applies the data accordingly. For estimating incoming PK and K classes, Davis used data from the following Zip Codes: 75114, 75126, 75142, 75158 and 75159.

The assumption underlying the use of birth statistics from year to year is that increases or decreases in the number of births in the area will translate to increases or decreases in future kindergarten enrollment. For example, the SY 2020-2021 kindergarten class in Crandall ISD was born five years prior in 2015. Any subsequent changes in births in 2016 compared to 2015 and 2017 to 2015, etc. would either increase or decrease future kindergarten class sizes. Live births were estimated for years 2020-2026 by using a rolling average of the birth data for the previous four years.

Table 3: Live Births by Zip Code

Birth Year	Zip Codes in Crandall ISD					Total Births	% Change
	75114	75126	75142	75158	75159		
2015	65	635	258	39	280	1,277	BASE
2016	76	687	272	50	276	1,361	106.6%
2017	69	735	279	44	261	1,388	108.7%
2018	57	833	266	47	291	1,494	117.0%
2019	87	884	266	39	293	1,569	122.9%

Table 4: Calculated Birth Rates

Birth Year	Total Births	Kindergarten Start Year	Kindergarten Birth Rate	Pre -K Start Year	Pre-K Birth Rate
2015	1,277	2020	Base		
2016	1,361	2021	1.066	2020	Base
2017	1,388	2022	1.087	2021	1.020
2018	1,494	2023	1.170	2022	1.098
2019	1,569	2024	1.229	2023	1.153
2020	N/A	2025	1.138	2024	1.090
2021		2026	1.156	2025	1.114
2022		2027	1.173	2026	1.119
2023		2028	1.174	2027	1.108
2024		2029	1.160	2028	1.113
2025		2030	1.166	2029	1.113
2026				2030	1.111

2) Student Mobility Factors

Student mobility factors further refine the ten-year student population forecasts. Mobility refers to the increase or decrease in the movement of students within and out of the district boundary (move-in/move-out of students from existing housing). Mobility Factors consider apartment movement within the district, housing resales, foreclosures, movement out of the district and high school dropout rates. Mobility, like a cohort, is applied as a percentage of increase/decrease to each grade for every year of the forecasts.

A net increase or decrease of zero students over time is represented by a factor of **1.00** or a 100% pass through rate. A net student loss is represented by a factor less than **1.00** (such as .95 or a 5% net loss) and a net gain by a factor greater than **1.000** (such as 1.02 or a 2% net increase).

		100	Kindergarten students in SY 2020-2021
Example:	X	0.95	(Barbara Walker ES 1st grade mobility)
	=	95	1st grade students in SY 2021

The sampling used to calculate student mobility was taken over a four-year period using "address matched" (located by place of residence) student data from SY 2017 through SY 2020 for individual grade comparisons. For example, a comparison was made for the SY 2017 Kindergarten student population to the SY 2018 1st grade students; the same for SY 2017 1st graders to SY 2018 2nd graders, etc. This comparison was also conducted through 12th grade and for the following school years: comparing SY 2018 students to SY 2019 students and comparing SY 2019 student data to SY 2020 students.

There are a few main reasons for using the last four years of data for the Mobility Study. If student data going back too far (5+ years) is used, then specific trends that were occurring during that time that are not occurring now will be factored into the forecasts and therefore not reflect the most recent patterns. If only the last few years of student data (i.e. SY 2019 and SY 2020 only) are used, then isolated anomalies occurring in the district (sharp rise or decline in the student population) would then be overrepresented in the ten-year forecasts. Davis's experience has shown that using the last four years of data and averaging the three years of change provides a more balanced and accurate mobility trend for ten-year student forecasts.

Having historical student data categorized by Study Area is extremely helpful in calculating accurate Student Mobility Factors. For this year's report, Davis Demographics used current elementary school attendance areas as the basis to calculate Mobility Factors. In other words, four sets of Mobility Factors (listed in Table 5) were used to calculate student forecasts, using these, smaller geographic areas help to identify and focus on trends within the district. Study Areas that include residential development are excluded from the mobility study to ensure that the numbers reflect movement across existing homes. The advantage to running the Mobility Factors at the attendance area level rather than looking only at a districtwide average is that you can focus on specific trends that are occurring in specific neighborhoods, which can lead to more accurate forecasts.

Table 5: Mobility Factors by ES Attendance Zone

Elementary Zone	Grade											
	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th
Barbara Walker	0.95	1.02	0.93	0.93	1.01	1.01	0.96	1.04	1.02	0.92	0.84	0.91
Hollis T Dietz	1.29	1.02	0.82	1.02	1.00	0.94	1.26	1.03	1.06	0.94	0.90	0.95
Noble Reed	0.92	0.96	0.92	1.04	0.97	1.02	0.94	1.22	1.08	1.00	0.91	0.96
Nola Kathryn Wilson	0.98	1.00	1.05	1.06	1.02	1.06	1.08	1.00	1.10	0.95	1.00	1.01
W A Martin	1.02	1.08	1.04	1.00	1.06	1.07	0.99	1.04	1.05	1.00	0.94	0.97
District Average	1.03	1.02	0.95	1.01	1.01	1.02	1.05	1.07	1.06	0.96	0.92	0.96

It is important to remember that the mobility study is evaluating all grade levels within the elementary attendance area. Elementary attendance areas are the smallest geographic area that can produce a granular focus to show local trends. For an example on how to interpret the Mobility Factors listed in Table 5, let us look at the current Barbara Walker ES attendance area. The column with the heading "1st" represents the rate to apply as the Kindergarten students transition to 1st grade. For the 1st grade level in the Barbara Walker ES attendance area, there is a loss of .05, or .95% of Kindergarteners move through to the 1st grade while remaining in the attendance area. The Mobility Factors for the Barbara Walker ES attendance area indicate gains in 2nd, 5th, 6th, 8th and 9th grades. The District Average shows increases in grades 1 and 2 as well as grades 4 through 9. It is common to see gains in 9th grade followed by drops in 10th grade as students are held back to retake 9th grade. Decreases tend to continue through 12th grade as some students drop out or are held back to obtain enough credits to graduate.

3) Student Yield Factors

The Student Yield Factors, when applied to planned residential development units, determine how many additional students will be generated from new construction within the district (see SECTION TWO for details on planned residential development).

Two sets of data are required to calculate Student Yield Factors: a current student file (provided by CISD) and current housing unit data (provided by the Kaufman County Tax Assessors Office). The geocoded student data file is overlaid with the housing data to determine how many students reside in each housing type. This allows Davis Demographics to associate each student with a specific housing unit. For this study, Single-Family Detached (SFD) was the only housing type analyzed because it is the only housing type in the active and planned residential developments. There are some Single-Family Attached (SFA) units planned; however, there are currently no SFAs within the district to determine a SYF, so Davis applied the same generation ration rate as seen in the SFDs within the same zone.

Before the SYFs can be calculated from the current housing stock, the year of construction for each housing type must be determined. In general, new housing attracts families with elementary school aged children. Over the following 12 to 15 years, the children grow older and pass through the grades. A portion of those families, now without school-aged children, will then relocate and the cycle is then repeated throughout the life of the home. Identifying the year of construction and number of current resident students in recently built housing units assists in estimating the number of new students generated from future residential development.

Student Yield Factors were created in January of 2020 based on the most recent information available. Davis reviewed the number of students living in 2,996 identified single-family homes across the district to determine the districtwide student yield factors. The SYFs are simply the number of students residing in a single-family detached home divided by the total number of homes. These are summarized by grade level as shown in Table 6.

Table 6: Student Yield Factors Used in Study

Student Yields from Single Family Homes		
Grade	**2,996**	**Units**
	Students	**Factor**
PK	98	0.03
K-6	1,201	0.40
7-8	354	0.12
9-12	657	0.22
PK-12	**2,310**	**0.77**

Closely related to the Student Yield Factors are planned residential development units. Planned residential development data is collected to determine the number of new residential units that will be built over the time frame of the student population forecasts. The units built within the next ten years will have the appropriate SYF applied to them to determine the number of new students the planned residential development may yield. SECTION TWO provides detail on residential development portion of this study.

Applying the Variables to Generate Forecasts

The following paragraphs summarize how Davis Demographics uses the factors to determine the student population forecasts (see Chart 3 for a flowchart of this process). Remember that these forecasts are based on the residence of students and not school enrollment. Crandall ISD has been divided into 213 study areas. Every study area falls completely within an elementary, middle and high school boundary and contains the corresponding school codes and names. The residential forecasts are calculated at the study area level. This means that Davis Demographics conducts 213 individual forecasts that are based upon the number of students residing in each study area.

The first step in calculating the forecasts is to tally the number of students that live in each study area by grade level (PK through 12th grade). The current student base (SY 2020-21) is then passed onto the next year's grade (SY 21-2022). Kindergarteners become SY 2021 1st graders who then become 2nd grader in SY 2022 and so on. After the natural progression of students through the grades is applied, the birth factors are multiplied to the current pre-kindergarten and kindergarten classes to generate a base for the following year's pre-kindergarten and kindergarten classes.

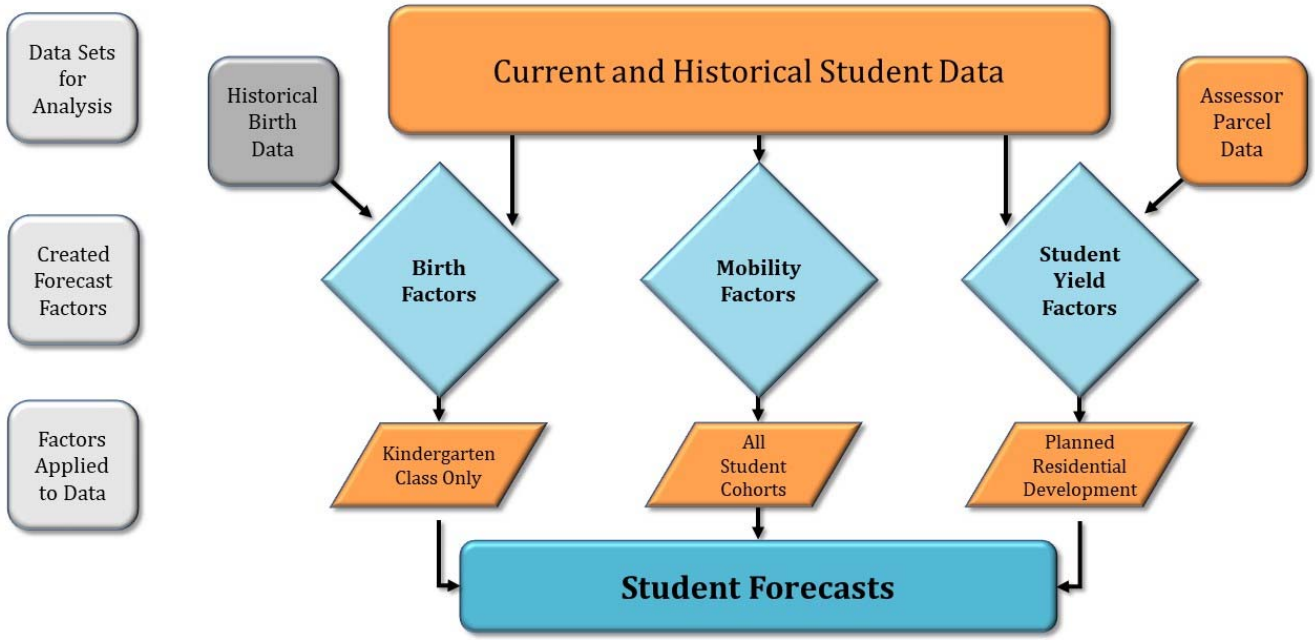
Once a base has been established for PK and K, the next step is to apply the Mobility Factors to grades 1 through 12. As mentioned in the methodology, these factors consider the natural movement of students in established neighborhoods within the district. A unique mobility factor is applied to each elementary school attendance area as determined by the mobility factor study.

The last essential layer applied to the forecasts is the additional students expected from planned residential development. This is a simple calculation, again conducted at the study area level, where the estimated number of new housing units for a particular year is multiplied by the appropriate Student Yield Factor. For example, if 100 Single-Family Detached (SFD) units are to be built in a specific study area in a given year, 100 units would be multiplied by the appropriate SFD K-6 student yield factor (0.40) and the resulting number (40) would be divided evenly among K-6 grade levels.

To finish generating the forecasts by residence, the same process is conducted for each of the 213 study areas. Once the forecasts have been run at the study area level, the study area forecasts are aggregated to determine forecasts for each of the district's attendance areas or for a districtwide summary. For example, the residential forecasts for the Barbara Walker ES attendance area is simply the summary of all the study areas that make up this specific attendance area (see SECTION FIVE for the forecasts of each elementary attendance zone). The districtwide summary for the forecasts (in SECTION FOUR) reflects the total of all 213 study areas.

Current and historical students, geographic data, and non-geographic data are used to calculate the factors used in the student population forecasts by residence. These factors are applied using Davis Demographics' SchoolSite software and forecasts are calculated for each study area for each grade.

Chart 3: Forecasts by Residence Flowchart



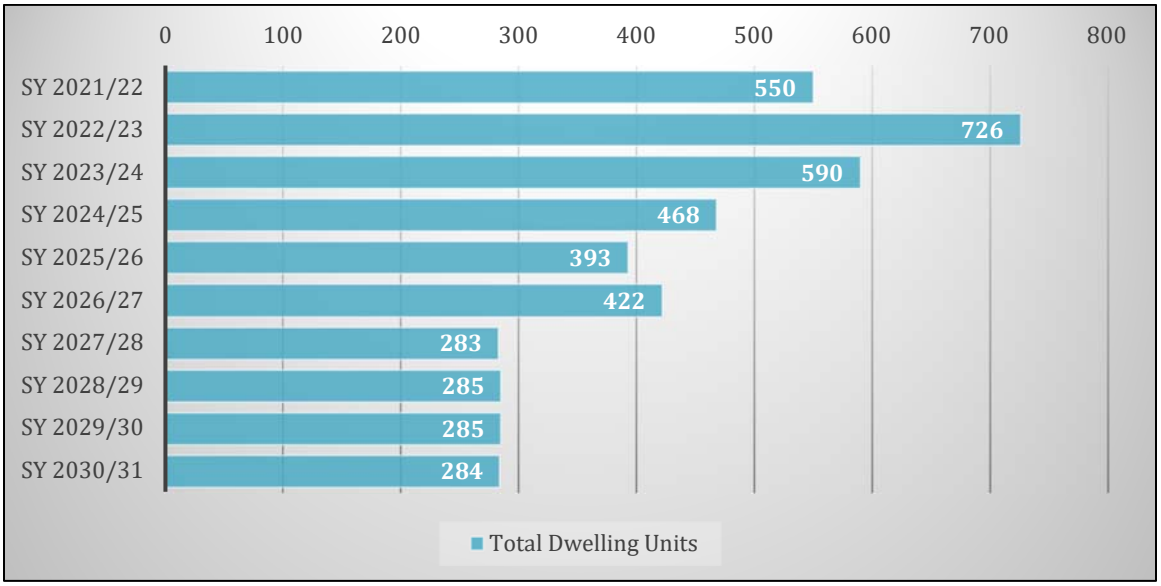
SECTION TWO – RESIDENTIAL DEVELOPMENT

Most development data was acquired from research by Davis Demographics and additional information was obtained through discussions and meetings with district staff, city and county planning departments, active sales offices, and major developers within the district boundaries. Davis Demographics staff visited CISD on multiple occasions to verify project status. Data includes development name, location, housing type, total number of units and forecasted move in dates (phasing). Phasing for planned housing is factored into the ten-year forecasts. All photographs in this report were taken by Davis staff during site visits.

The student population forecasts include all active and planned developments that are expected to be completed during the forecast timeframe. The residential development information and phasing estimates reflect a snapshot of the district at the time of this study. Davis Demographics makes all attempts to have the most recent information used at the time of production. Because this information may change, it should be reevaluated and updated annually. Table 7 details the active and planned developments that were used in the forecasts as well as future developments that the district should closely monitor. Map 6 identifies the location of each of the developments with a label that corresponds to the table.

Based upon information collected by Davis Demographics, it is estimated that 4,286 single-family homes will be constructed within the Crandall ISD boundary over the next 10 years. Forecasted phasing is based on occupancy of the unit and is used to help time the arrival of students from these new developments. Chart 4 details the number of housing units counted for each year of the 10-year forecast time frame. Year two of the forecasts (SY 2022/23) will see the largest influx of new housing as Heartland, Highbridge, and Wildcat Ranch are rapidly completing construction on new homes now that the infrastructure is in place.

Chart 4: Residential Units by Forecast Year



Development Details

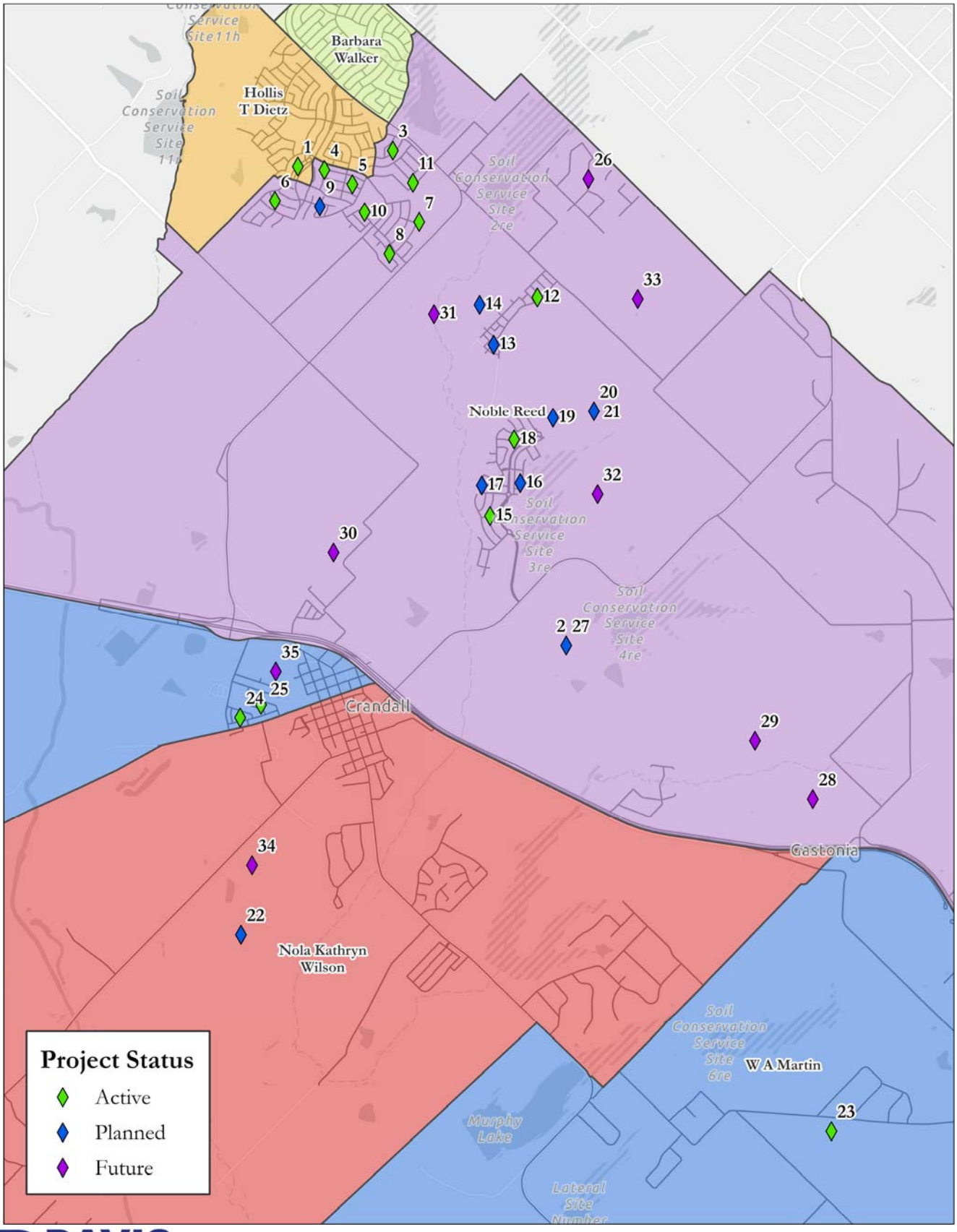
Davis Demographics staff visited development sites in Crandall ISD in March of 2021 and documented the active construction in residential communities as shown in the photographs below. Field mapping applications were used to document the construction status of homes in each community. By visiting the construction sites in person, Davis Demographics can better predict the number of homes that will be completed each year. For example, a developer may plan on building 100 homes in 2021, but there may only be 50 homes complete and occupied by the time school starts in the Fall.

Construction in the Heartland neighborhood has been picking up pace now that many of the roads are completed as well as the new community center. There are nearly 700 units expected out of Heartland over the next 10 years. The largest development is Wildcat Ranch which will near 3,000 homes at completion. At least 100 homes were already completed at the time of the October 2020 snapshot and a few hundred more are expected to be occupied before October 2021. Active construction was also documented in the Highbridge and River Ridge communities.

Table 7: Residential Developments in Crandall ISD

Label ID	Project	Type	Status	Total Units	Existing Units	Units in Phasing	Elementary Zone
1	Heartland Phase 13 Townhomes	SFA	Active	63	0	63	Hollis T Dietz
2	Cartwright Ranch Ph 1	SFD	Planned	647	0	600	Noble Reed
3	Heartland Phase 9	SFD	Active	220	200	20	Noble Reed
4	Heartland Phase 10A 1	SFD	Active	85	55	30	Noble Reed
5	Heartland Phase 10A 2	SFD	Active	88	78	10	Noble Reed
6	Heartland Phase 10B	SFD	Active	174	110	64	Noble Reed
7	Heartland Phase 11A	SFD	Active	133	30	103	Noble Reed
8	Heartland Phase 12B	SFD	Active	58	8	50	Noble Reed
9	Heartland Phase 14	SFD	Planned	131	0	131	Noble Reed
10	Heartland Phase 15	SFD	Active	112	0	112	Noble Reed
11	Heartland Phase 16	SFD	Active	106	0	106	Noble Reed
12	Highbridge Ph 1	SFD	Active	116	66	50	Noble Reed
13	Highbridge Ph 2 & 3	SFD	Planned	380	0	380	Noble Reed
14	Highbridge Ph 4 & 5	SFD	Planned	249	0	249	Noble Reed
15	Wildcat Phase 1A	SFD	Active	176	100	76	Noble Reed
16	Wildcat Phase 1B East	SFD	Planned	65	0	65	Noble Reed
17	Wildcat Phase 1B West	SFD	Planned	155	0	155	Noble Reed
18	Wildcat Ph 2	SFD	Active	355	0	355	Noble Reed
19	Wildcat Ph 3	SFD	Planned	399	0	399	Noble Reed
20	Wildcat Ph 4	SFD	Planned	415	0	415	Noble Reed
21	Wildcat Phases 5+	SFD	Planned	1,549	0	255	Noble Reed
22	Eaglecrest Rosewood SF	SFD	Planned	885	0	525	N K Wilson
23	Gastonia Estates	SFD	Active	30	20	10	W A Martin
24	River Ridge Ph 2A	SFD	Active	74	66	8	W A Martin
25	River Ridge Ph 2B	SFD	Active	55	0	55	W A Martin
Future Developments							
26	Berkshire Estates	SFD	Future	130	---	---	Noble Reed
27	Cartwright Ranch (Future Phases)	SFD	Future	3,200	---	---	Noble Reed
28	Crandall Crossing MF	APT	Future	30	---	---	Noble Reed
29	Crandall Crossing SF	SFD	Future	80	---	---	Noble Reed
30	Crandall North	SFD	Future	1,080	---	---	Noble Reed
31	Heartland Tract C	SFD	Future	2485	---	---	Noble Reed
32	Mabrey 489	SFD	Future	1,597	---	---	Noble Reed
33	Mabrey 717	SFD	Future	2,699	---	---	Noble Reed
34	Eaglecrest Rosewood MF	APT	Future	200	---	---	N K Wilson
35	River Ridge MF	APT	Future	600	---	---	W A Martin

Map 6: Residential Development by Status



SECTION THREE: ATTENDANCE MATRIX

An attendance matrix has been included to provide a better understanding of where students reside and where they attend school. **Remember, Davis Demographics forecasts are based on where the students reside, not where the student is enrolled.** Because Davis Demographics forecasts are based on where the students reside, the figures we use as a base for each school's resident student forecast may be slightly higher or lower than the actual reported enrollment for each school. The best way to plan for future facilities is to know where the next group of students will be coming from, not necessarily which school they are currently attending.

Matrix Definitions

The rows of the Attendance Matrix in Table 8 represent student data based on the attendance zone in which the student lives (School of Residence), while the columns represent where the student is enrolled in school (School of Enrollment). All schools are listed in the "School Name" column and again as column headers. Table 9 summarizes each campus's utilization and transfers as detailed in the matrix. The definitions below are intended to clarify the rows and columns of the Attendance Matrix and corresponding Summary Table.

School Name – Each school that has an attendance boundary. The district boundary is considered the boundary for the EC, MS, and HS campuses.

Count of Students Living in Attendance Area – The number of students within the grade configuration who live in the given attendance area.

Unmatched Students – These are students whose address was missing or invalid so their residence could not be verified.

Non-Resident Students – Students who attend a CISD school but live outside of the district boundary.

Total Enrollment– The total number of students enrolled at the school, regardless of which attendance zone they live in. This includes unmatched and non-resident students.

Campus Capacity – The number of students each campus can accommodate.

Resident Students – CISD students residing in the given attendance area.

Enrolled Students – Count of students enrolled at the school regardless of residence.

Utilization - The number of students divided by the campus capacity.

Resident Student Transfers – Students who live in the CISD boundary but attend a school other than the one they are assigned. This currently only applies to elementary students.

Non-Resident Students In – The number of students transferring in from another school district.

Total Transfers In – The sum of resident student transfers and non-resident students.

Reading the Matrix

To read the matrix, start with the fist school listed under the School Name column, which is Barbara Walker. Reading across the columns, one can see that there are 551 elementary students who live within the Barbara Walker boundary 520 of those 551 students attend their assigned school as shown in the "Barbara Walker" column. By continuing to ready across the columns, it shows that 16 students transfer to Hollis T. Dietz, 2 to Noble Reed, 2 to Nola Kathryn Wilson, and 11 to W. A. Martin. To see where the enrolled students at Barbara Walker reside, read down the "Barbara Walker" column. This shows that 6 students transfer in from Hollis T. Dietz, 0 from Noble Reed and so on.

In the summary rows, it shows that there are 533 students enrolled at Barbara Walker who live within the Crandall ISD boundary. There are 14 students from outside the district boundaries and 0 unmatched students. This brings the total enrollment to 547 which is shown in the "Total Enrollment" row. The matrix can read the same way for the remaining elementary schools. Middle school students only have the choice of attending Crandall MS, but some high school students are enrolled at Crandall Compass Academy as shown in the final column of the table.

Table 8: Attendance Matrix

			SCHOOL OF ENROLLMENT							
SCHOOL OF RESIDENCE	**Attendance Area**	**Count of Students Living in Attendance Area**	**Barbara Walker**	**Hollis T Dietz**	**Noble Reed**	**Nola Kathryn Wilson**	**W A Martin**	**Crandall MS**	**Crandall HS**	**Crandall Compass Academy**
	Barbara Walker	**551**	**520**	16	2	2	11	---	---	---
	Hollis T Dietz	**514**	6	**491**	2	9	6	---	---	---
	Noble Reed	**411**	0	21	**356**	6	28	---	---	---
	Nola Kathryn Wilson	**576**	7	4	3	**530**	32	**---**	---	---
	W A Martin	**502**	0	3	1	10	**488**	---	**---**	**---**
	Crandall MS	**739**	---	---	---	**---**	---	**739**	---	---
	Crandall HS	**1,406**	---	---	---	---	**---**	**---**	**1,359**	**47**
	Total Resident Students	**4,699**	**533**	**535**	**364**	**557**	**565**	**739**	**1,359**	**47**
	Non-Resident Students	167	14	7	27	44	16	24	33	2
	Unmatched Students	2	0	0	0	1	0	1	0	0
	Total Enrollment	**4,868**	**547**	**542**	**391**	**602**	**581**	**764**	**1392**	**49**

Attendance matrices act as a "check and balance" for student accounting, illustrating where the students reside (based upon their geocoded address) and which school they attend as indicated in the student data file Davis obtained from Crandall ISD. It is essential to show how students used in the projections align with the district's records of enrollment for each school. The student counts used in the matrix represents Crandall ISD's enrollment as of October 30th, 2020.

Table 9: Attendance Matrix Summary

Attendance Area	Campus Capacity	Resident Students	Enrolled Students	Utilization*		Resident Student Transfers		Non-Resident Students In	Net Total Transfers In
				Resident Students	Enrolled Students	In	Out		
Barbara Walker	650	551	547	84.8%	84.2%	13	31	14	27
Hollis T Dietz	650	514	542	79.1%	83.4%	44	23	7	51
Noble Reed	650	411	391	63.2%	60.2%	8	55	27	35
Nola Kathryn Wilson	700	576	602	82.3%	86.0%	27	46	44	71
W A Martin	580	502	581	86.6%	100.2%	77	14	16	93
Crandall MS	900	739	764	82.1%	84.9%	0	0	24	24
Crandall HS	1,500	1,406	1,392	93.7%	92.8%	0	47	33	33

* Utilization is the number of students divided by capacity. The resident student column shows what utilization would be all resident students attended their assigned school. The enrolled students column shows the current Utilization based on actual students attending.

In the summary table, the capacity for each campus is listed in the second column followed by the count of resident students and then enrolled students. The utilization columns show what the campus utilization would be if only resident students attended as well as the actual utilization based on current enrollment. For example, W. A. Martin is currently operating at 100.2% utilization of its 580-seat capacity. There were 93 net transfers into W A Martin with 14 coming from outside the district while 77 transferred in from other CISD elementary zones. If no transfers were allowed, W. A. Martin would have been operating at 86.6% capacity. The Matrix Summary Table is a useful in determining how transfer policies may affect campus utilization.

SECTION FOUR: DISTRICTWIDE STUDENT POPULATION FORECASTS

The student population is forecasted out ten years for each of the study areas, attendance areas and for the entire Crandall Independent School District. The districtwide summary enables CISD to see a broad overview of future population shifts and what affect these shifts may have on existing and future facilities. Each attendance area is summarized to give a local view of population changes and identify variances within the district. The study areas enable the district to monitor student population growth or decline in neighborhood areas within the attendance areas.

Together, these forecast summaries present the means for identifying the timing of future population shifts and overall facility adjustments needed to accommodate these shifts. Study areas and their forecasted resident students can be shifted between schools to assist in balancing enrollment through boundary changes, grade-level reassignments, or other means identified to better utilize school facilities. Forecasts provided in this report are based on students residing in the district boundary on the snapshot date of October 30, 2020. CISD should continue to update development information and student forecasting annually to help track trends within the district student population.

Districtwide Student Forecast Trends

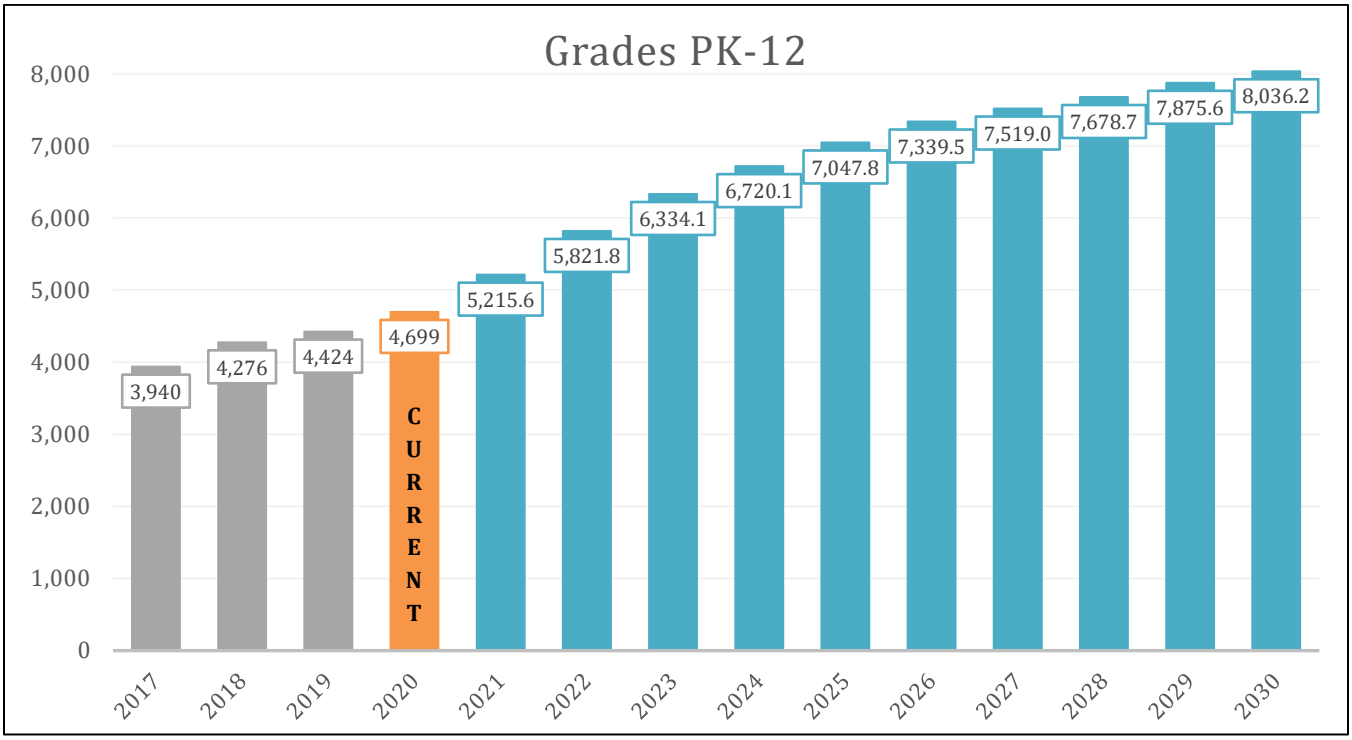
The basic units in the forecasts are the individual study areas. There is currently a total of 213 study areas in the Crandall Independent School District. The current attendance areas are made up of specific study areas. The Districtwide Summary is simply the compilation of all study areas. For each study area, the student counts are forecasted over ten years (Current: SY2020-2021; Forecasted: SY2021 through SY2030). The Districtwide PK-12 forecasts can be found in Table 10.

Overall, student populations for Crandall Independent School District are expected to increase annually for the next ten years. The PK-12 district population is forecasted to increase by over 2,300 students in the first five years, a net increase of 50%. The districtwide resident student population will continue to increase to an overall PK-12 student population of 8,036 in SY 2030.

Currently, there are 25 known active and planned housing developments throughout the district. At the time of this report, there are plans to build 4,286 new housing units over the next ten years, though this number will likely end up increasing as more development plans become active. Davis Demographics could not confidently apply forecasted data from these future projects since phasing was not in place by the developer as they are still in the early stages of planning. The projects have been noted earlier in this report and planning areas have been identified. These projects need to be closely monitored to accurately project future students that these and other projects may generate.

Crandall Independent School District has a total of five elementary schools, one middle school and one high school. In October 2020, the district reported a total enrollment of 2,663 PK-6 students, 764 7-8 students and 1,441 9-12 students for a total of 4,868 students enrolled in Crandall ISD. This includes 167 students who reside outside the district along with 2 students whose addresses could not be geocoded. A total of 4,699 PK-12 resident students were used in the calculation of the 10-year forecasts.

Chart 5: Historic and Forecasted Resident (PK-12) Students SY 2017-30



Crandall Independent School District has experienced an increase in student population annually for the last several years, primarily due to the influence of new residential housing. From SY 2019 to SY 2020, CISD's enrollment increased by nearly 300 students.

Chart 6: Crandall ISD Resident Student Population Distribution SY 2017-30

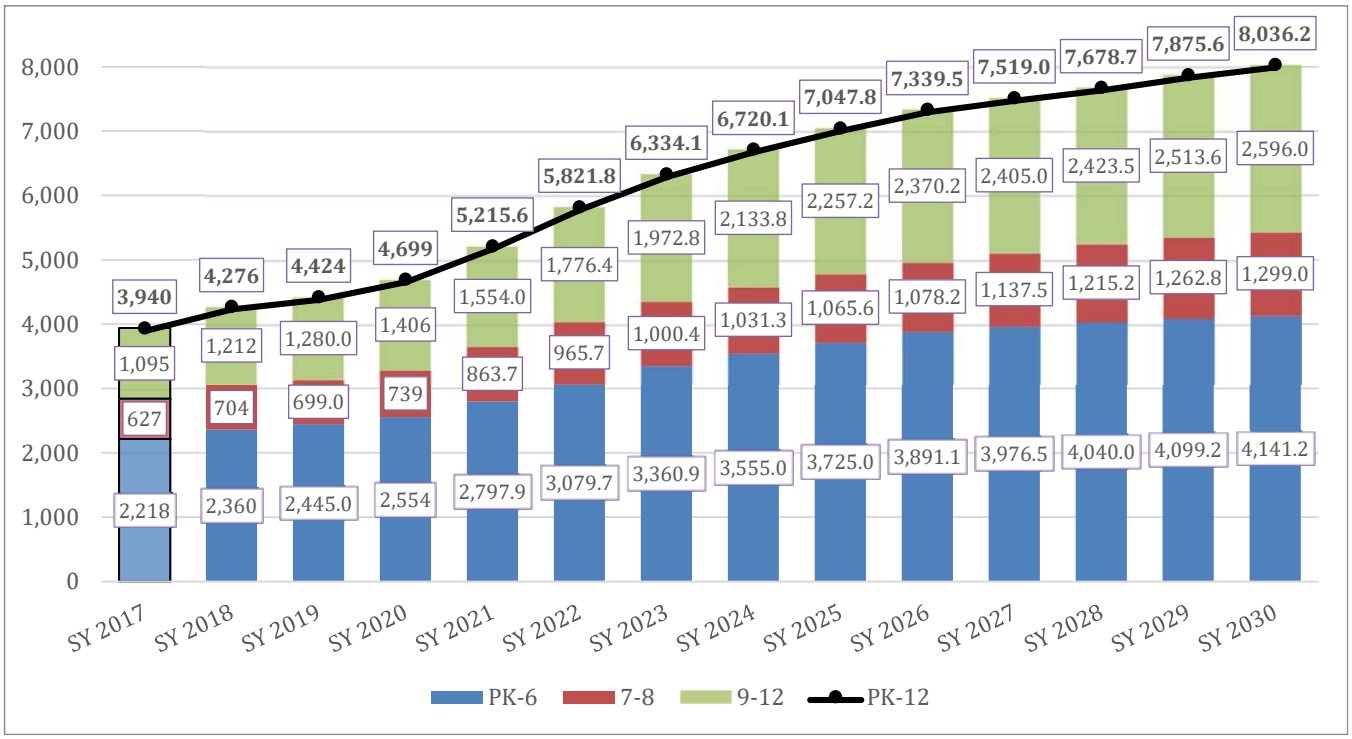
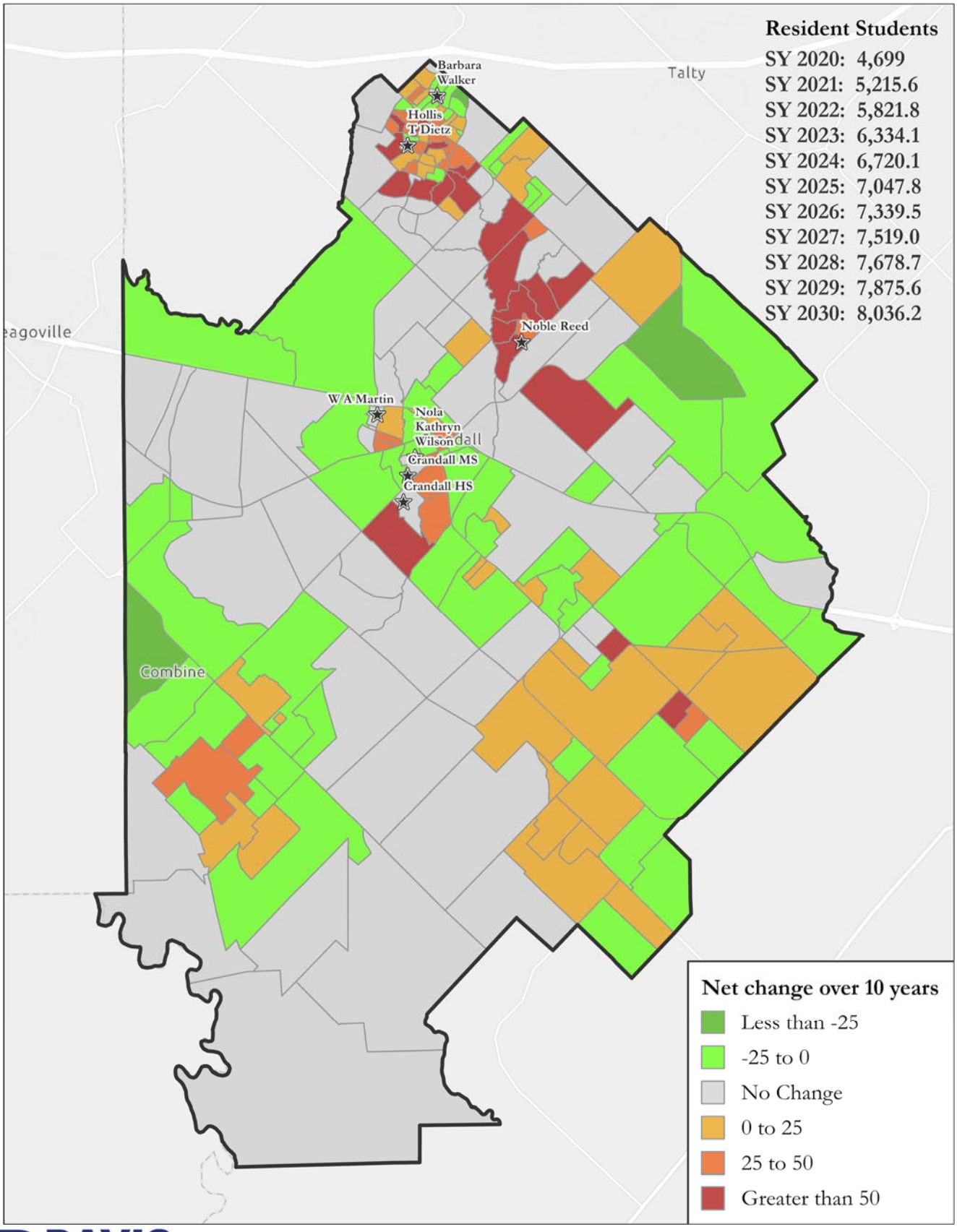


Table 10: Districtwide Historic and Forecasted Resident Students

Historic Students				Base	Forecasted Student Counts									
Grade	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
PK	152	154	158	150	161.9	173.6	193.6	193.6	204.8	211.9	217.1	222.4	227.0	231.3
K	288	313	308	341	394.9	429.1	471.9	503.2	482.3	502.2	513.1	522.2	526.2	537.0
1	253	312	311	327	384.7	445.3	470.0	506.1	533.6	512.2	524.0	534.9	543.5	546.6
2	297	276	338	328	363.5	429.4	483.1	500.5	532.9	562.2	532.2	544.2	555.0	563.3
3	305	322	300	344	340.1	382.8	433.8	477.8	490.5	523.0	543.6	515.8	527.2	537.6
4	312	318	341	323	380.1	387.1	421.3	466.7	507.3	522.2	546.9	567.8	540.0	551.6
5	281	351	335	372	359.0	423.4	421.4	449.7	490.9	533.1	540.3	565.8	587.2	558.9
6	330	314	354	369	413.7	409.0	465.8	457.4	482.7	524.3	559.3	566.9	593.1	614.9
7	317	357	330	380	420.8	468.9	454.4	505.2	487.4	512.1	553.5	590.1	598.6	626.8
8	310	347	369	359	442.9	496.8	546.0	526.1	578.2	566.1	584.0	625.1	664.2	672.2
9	312	353	373	414	415.4	514.6	564.4	610.4	585.3	643.8	623.4	641.3	685.3	727.1
10	292	317	332	371	428.7	437.1	530.0	570.1	613.0	591.3	639.5	621.3	640.4	680.9
11	248	290	297	319	370.9	430.0	432.4	511.5	544.9	587.1	560.0	604.9	588.1	604.5
12	243	252	278	302	339.0	394.7	446.0	441.8	514.0	548.0	582.1	556.0	599.8	583.5
Resident Student Totals by Grade Configuration														
PK-6	2,218	2,360	2,445	2,554	2,798	3,080	3,361	3,555	3,725	3,891	3,977	4,040	4,099	4,141
7-8	627	704	699	739	864	966	1,000	1,031	1,066	1,078	1,138	1,215	1,263	1,299
9-12	1,095	1,212	1,280	1,406	1,554	1,776	1,973	2,134	2,257	2,370	2,405	2,424	2,514	2,596
ALL	3,940	4,276	4,424	4,699	5,215.6	5,821.8	6,334.1	6,720.1	7,047.8	7,339.5	7,519.0	7,678.7	7,875.6	8,036.2
Non-Resident Students														
PK-6	87	91	102	108	118.3	130.2	142.1	150.3	157.5	164.5	168.2	170.8	173.3	175.1
7-8	16	13	22	24	28.0	31.4	32.5	33.5	34.6	35.0	36.9	39.5	41.0	42.2
9-12	27	25	27	35	38.7	44.2	49.1	53.1	56.2	59.0	59.9	60.3	62.6	64.6
ALL	130	129	151	167	185.4	206.9	225.1	238.8	250.5	260.8	267.2	272.9	279.9	285.6
Total Students*														
PK-6	2,306	2,455	2,548	2,663	2,918.0	3,211.9	3,504.4	3,706.9	3,884.2	4,057.3	4,146.2	4,212.4	4,274.2	4,317.9
7-8	643	717	722	764	892.2	997.7	1,033.7	1,065.5	1,100.9	1,113.9	1,175.2	1,255.4	1,304.5	1,341.9
9-12	1,122	1,240	1,308	1,441	1,593.7	1,821.9	2,022.7	2,187.7	2,314.3	2,430.1	2,465.7	2,484.7	2,577.1	2,661.5
ALL	4,071	4,412	4,578	4,868	5,403.9	6,031.4	6,560.8	6,960.1	7,299.4	7,601.3	7,787.1	7,952.5	8,155.7	8,321.3
Annual Change														
PK-6	149	93	115	255.0	293.9	292.6	202.4	177.3	173.1	88.9	66.2	61.7	43.8	
7-8	74	5	42	128.2	105.4	36.0	31.8	35.3	13.0	61.2	80.2	49.1	37.4	
9-12	118	68	133	152.7	228.2	200.9	165.0	126.7	115.8	35.6	19.0	92.4	84.4	
ALL	341	166	290	535.9	627.5	529.4	399.2	339.3	302.0	185.8	165.4	203.2	165.6	
Notes														
Forecast based on student data as of 10/30/2020. Unmatched students added to total but not shown in table														

Map 7: Districtwide Forecasted Net Change in (PK-12) Students by Study Area



SECTION FIVE: ATTENDANCE AREA FORECASTS BY RESIDENCE

Elementary School (PK-6) Student Population Trends and Forecasts

According to the forecasts, the Crandall ISD resident elementary student population is expected to grow continuously through SY 2030 with a net increase of more than 1,500 PK-6 students. The largest amount of growth is expected in the first five years with more than 1,100 new students expected by SY 2025. All five elementary schools are expected increase in students over the next five years which will put a strain on campus capacity. There are currently 3,230 elementary seats available and CISD is on track to exceed that number of students in SY 2023.

Chart 7: Historic and Forecasted Resident (PK-6) Students

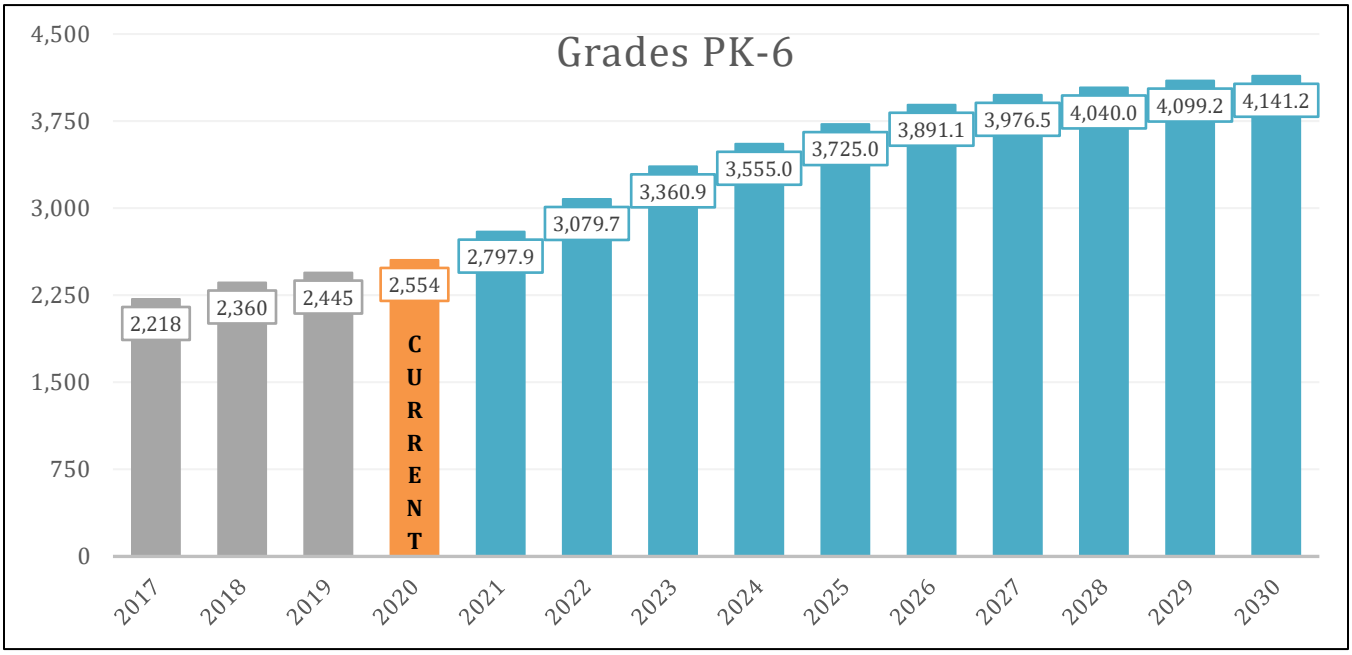
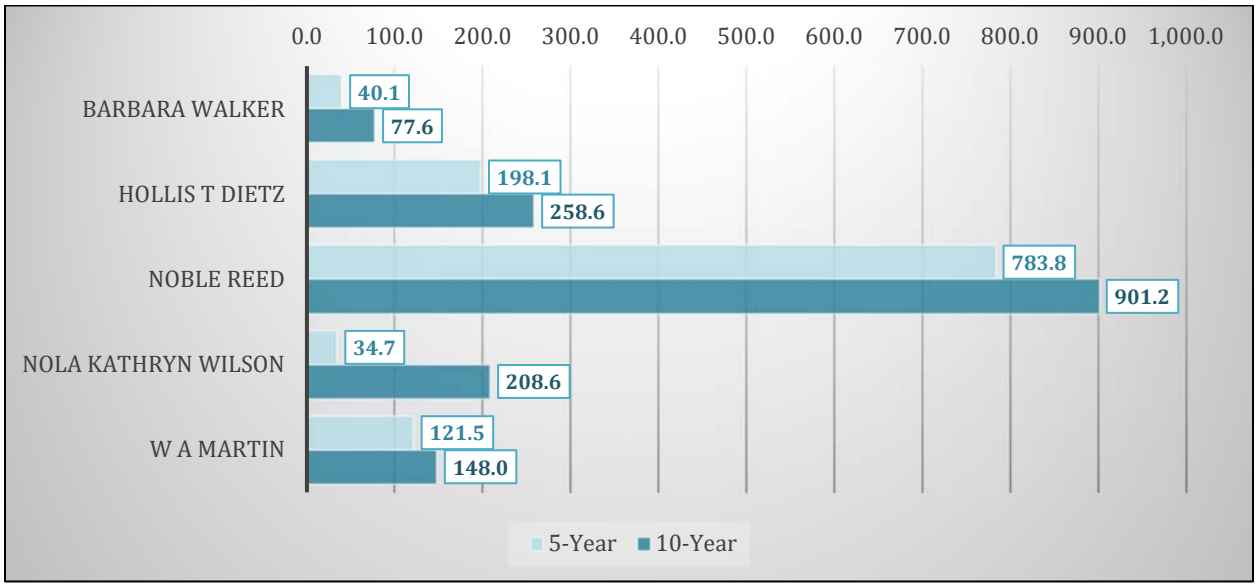


Chart 8: Forecasted Net 5-Year and 10 Year Change by ES Zone



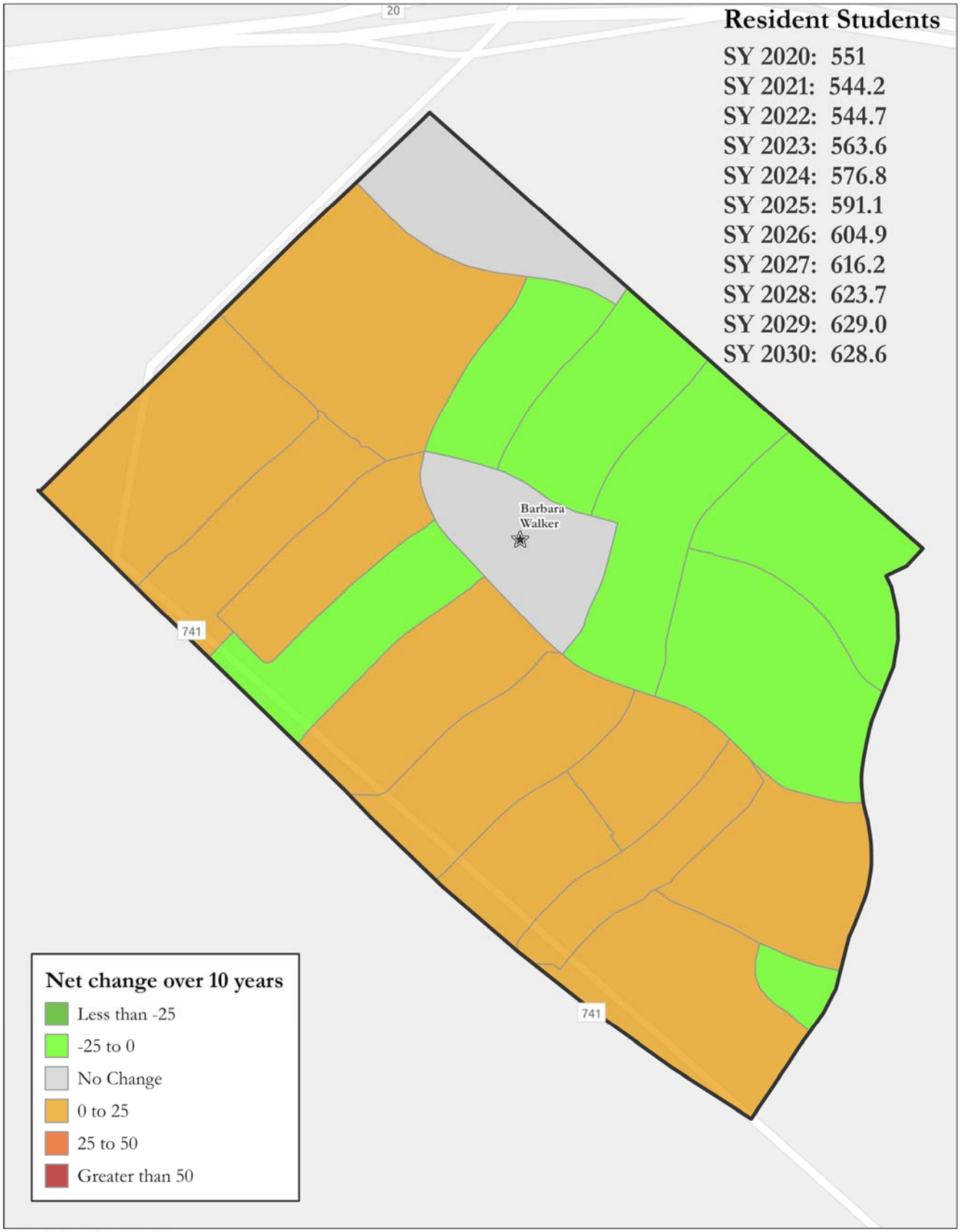
Forecasts by Elementary Zone

Barbara Walker ES is in the northernmost portion of the CISD boundary. The attendance area serves the neighborhoods of Heartland that are north of FM 741. This area had been growing in direct correlation to the Heartland development, however most of the homes in this zone were completed prior to SY 2014 and there are very few remaining lots available. Noble Reed opened in SY 2019 and absorbed the portion of the Barbara Walker zone that was outside of the Heartland community. The number of resident PK-6 students in the Barbara Walker zone decreased by 1.5% in SY 2020. This area is expected to experience slight fluctuations in resident students over the ten-year forecast period with declines in the first few years. Because the zone is mostly built-out, utilization is not expected to exceed 96% of capacity at any point over the next 10 years with the number of resident students peaking at 629 in SY 2029.

Table 11: Barbara Walker ES Historic and Forecasted Resident Students with Enrollment

Barbara Walker														
Grade	Historic Resident Students			Current	Forecasted Resident Students									
	SY 2017	SY 2018	SY 2019	SY 2020	SY 2021	SY 2022	SY 2023	SY 2024	SY 2025	SY 2026	SY 2027	SY 2028	SY 2029	SY 2030
PK	30	38	23	23	23.5	25.3	26.5	25.1	25.6	25.7	25.5	25.6	25.6	25.6
K	82	81	74	81	86.3	88.0	94.8	99.5	92.2	93.6	95.0	95.1	94.0	94.4
1	78	78	71	74	77.0	82.0	83.6	90.0	94.6	87.6	89.0	90.3	90.3	89.3
2	84	74	82	74	75.5	78.5	83.7	85.3	91.8	96.5	89.3	90.7	92.1	92.1
3	85	84	70	76	68.8	70.2	73.0	77.8	79.3	85.4	89.7	83.1	84.4	85.6
4	84	84	78	64	70.7	64.0	65.3	67.9	72.4	73.8	79.4	83.4	77.3	78.5
5	72	94	77	77	64.6	71.4	64.6	65.9	68.6	73.1	74.5	80.2	84.3	78.0
6	81	84	86	82	77.8	65.3	72.1	65.3	66.6	69.2	73.8	75.3	81.0	85.1
Total Resident Students					Forecasted Resident Students									
PK-6	596	617	561	551	544.2	544.7	563.6	576.8	591.1	604.9	616.2	623.7	629.0	628.6
Cap.	Total Enrollment				Forecasted Enrollment									
650	648	666	569	547	540.2	540.7	559.5	572.6	586.8	600.5	611.7	619.2	624.4	624.0
%Cap	99.7%	102.5%	87.5%	84.2%	83.1%	83.2%	86.1%	88.1%	90.3%	92.4%	94.1%	95.3%	96.1%	96.0%

Map 8: Barbara Walker ES Forecasted Net 10-Year Change by Study Area

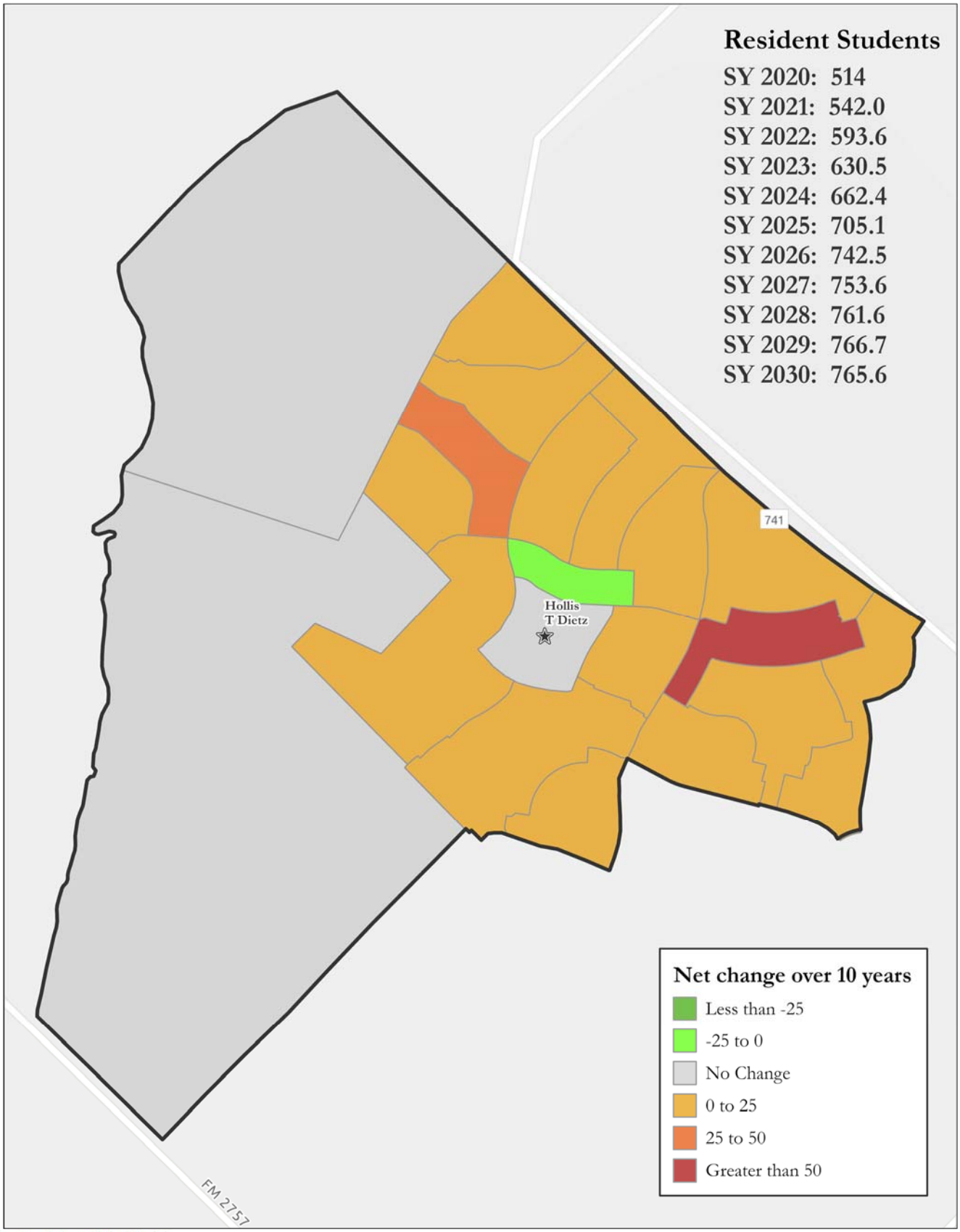


Hollis T. Dietz ES opened in SY 2017 and is located on the north side of US 175. The attendance area serves neighborhoods in Heartland community south of FM 741. Noble Reed opened in SY 2019 and absorbed most of the new development in Heartland, however the number or resident students in the Dietz zone did increase by 2% in SY 2020. This portion of the Heartland development is nearing build-out, however there are 63 townhomes currently under construction which are expected to bring more students. Dietz has experienced an increase in its Kindergarten class size every year since it opened. The matriculation of these larger classes combined with the continued development in Heartland put Dietz on track to be over capacity in SY 2023. Enrollment at Dietz is expected to surpass 800 students in SY 2029.

Table 12: Hollis T. Dietz ES Historic and Forecasted Resident Students with Enrollment

Hollis T Dietz														
Grade	Historic Resident Students			Current	Forecasted Resident Students									
	SY 2017	SY 2018	SY 2019	SY 2020	SY 2021	SY 2022	SY 2023	SY 2024	SY 2025	SY 2026	SY 2027	SY 2028	SY 2029	SY 2030
PK	25	34	41	33	34.0	36.6	39.1	37.0	37.8	37.9	37.6	37.7	37.7	37.7
K	37	58	64	77	83.5	86.7	92.0	96.6	89.6	91.0	92.3	92.3	91.3	91.7
1	31	63	72	67	101.1	110.5	111.8	118.7	124.6	115.5	117.3	119.0	119.1	117.7
2	37	47	74	67	69.7	105.4	112.7	114.0	121.1	127.1	117.8	119.7	121.4	121.5
3	48	49	60	69	56.1	59.0	86.4	92.4	93.5	99.3	104.2	96.6	98.1	99.5
4	42	60	63	63	71.8	59.5	60.2	88.2	94.3	95.4	101.3	106.3	98.6	100.1
5	39	57	73	64	64.4	74.0	59.5	60.2	88.2	94.3	95.4	101.3	106.3	98.6
6	58	53	56	74	61.4	61.9	68.8	55.3	56.0	82.0	87.7	88.7	94.2	98.8
Total Resident Students					Forecasted Resident Students									
PK-6	317	421	503	514	542.0	593.6	630.5	662.4	705.1	742.5	753.6	761.6	766.7	765.6
Cap.	Total Enrollment				Forecasted Enrollment									
650	503	617	532	542	571.5	625.9	664.8	698.5	743.5	782.9	794.7	803.1	808.5	807.3
%Cap	77.4%	94.9%	81.8%	77.4%	87.9%	96.3%	102.3%	107.5%	114.4%	120.5%	122.3%	123.6%	124.4%	124.2%

Map 9: Hollis T. Dietz ES Forecasted Net 10-Year Change by Study Area



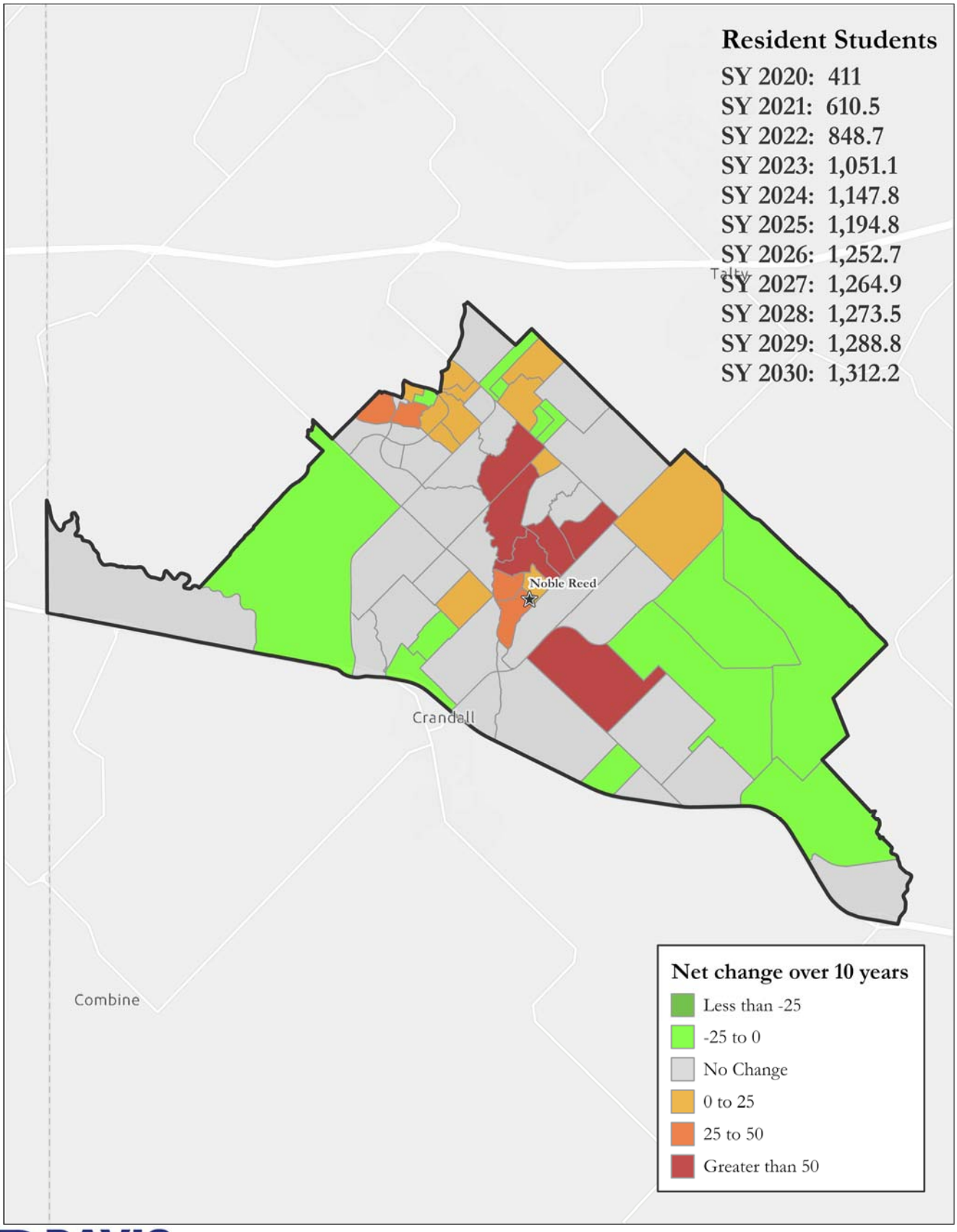
Noble Reed ES opened in SY 2019 and serves all PK-6 students north of US 175 that are outside of the Barbara Walker and Hollis T. Dietz boundaries. The campus is located at the heart of the Wildcat Ranch development and is expected to experience significant growth during the 10-year forecast time frame as residential development continues at a rapid pace. When looking at the historic numbers for the Noble Reed zone, it shows that the established areas within the boundary maintained a stable resident PK-6 student population of around 240 students from SY 2014 to SY 2018. As the Heartland community continued to expand, the resident student population experienced a sharp increase of 45 PK-6 students in SY 2019. In addition to the Heartland development, Noble Reed will be impacted by the Wildcat Ranch and Highbridge developments that are currently under construction. This influx of new housing increased the resident student population by 117 in SY 2020 reflecting a growth rate of nearly 40%. The growth rate is expected to increase to 48.5% with an expected 610 resident students in Fall 2021.

As indicated in Section Three, only 86% of the current resident student population in the Noble Reed attendance zone attend Noble Reed. By applying the growth rate of the forecasted students to the SY 2019 enrollment, Davis provided estimates for enrollment at Noble Reed during the 10-year forecast time frame. Noble Reed is expected to exceed its 650-seat capacity in SY 2022. It should be noted that it is likely that a larger percentage of the resident student population will opt to enroll at Noble Reed as students move into the new developments.

Table 13: Noble Reed ES Historic and Forecasted Resident Students with Enrollment

Noble Reed														
Grade	Historic Resident Students			Current	Forecasted Resident Students									
	SY 2017	SY 2018	SY 2019	SY 2020	SY 2021	SY 2022	SY 2023	SY 2024	SY 2025	SY 2026	SY 2027	SY 2028	SY 2029	SY 2030
PK	33	21	26	36	44.6	47.4	60.2	67.2	74.4	79.7	84.9	88.5	91.9	95.2
K	38	45	42	52	83.3	109.7	129.2	139.6	142.7	155.0	158.7	165.2	171.0	177.7
1	31	32	46	61	73.5	110.5	129.7	138.0	143.6	147.9	151.9	155.3	161.3	166.4
2	29	34	35	66	85.3	106.4	137.6	146.1	150.0	156.9	153.4	157.4	160.6	166.3
3	26	25	35	55	86.4	113.6	128.1	147.3	151.1	156.2	155.2	152.1	155.8	158.8
4	39	26	29	45	86.2	129.5	152.3	156.6	172.1	177.8	174.8	173.9	170.7	174.5
5	27	39	31	51	70.7	120.6	157.5	169.5	169.5	186.1	184.0	181.2	180.4	177.2
6	21	27	50	45	80.5	111.0	156.5	183.5	191.4	193.1	202.0	199.9	197.1	196.1
Total Resident Students					Forecasted Resident Students									
PK-6	244	249	294	411	610.5	848.7	1,051.1	1,147.8	1,194.8	1,252.7	1,264.9	1,273.5	1,288.8	1,312.2
Cap.	Total Enrollment				Forecasted Enrollment									
650	N/A	N/A	256	391	580.8	807.4	1,000.0	1,091.9	1,136.7	1,191.7	1,203.3	1,211.5	1,226.1	1,248.3
%Cap	N/A	N/A	39.4%	60.2%	89.4%	124.2%	153.8%	168.0%	174.9%	183.3%	185.1%	186.4%	188.6%	192.1%

Map 10: Noble Reed ES Forecasted Net 10-Year Change by Study Area



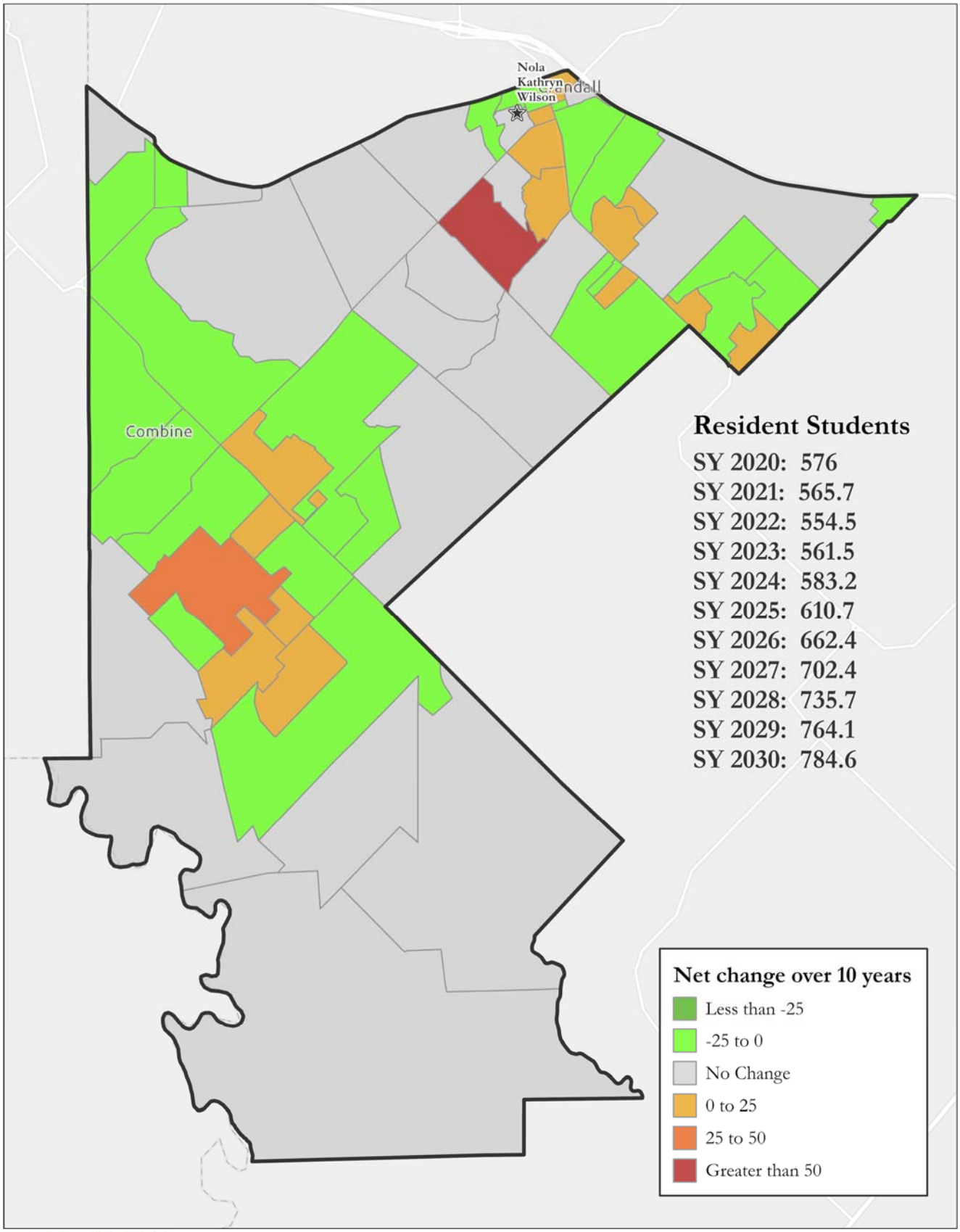
Nola Kathryn Wilson ES is south of US 175, splitting the noncontiguous zone of W. A. Martin ES, to the southern boundary of the district. Nola Kathryn Wilson ES had enrollment of 602 students as of Fall 2020 which indicates a decrease of 28 students from SY 2019. The mobility calculations for this area remain the highest in the district, but smaller Kindergarten classes in recent years have caused a slight decline in resident students. Wilson ES is expected to continue to decline in enrollment during the first few years of the forecast before seeing growth in SY 2024 which will continue through SY 2030 bringing a net increase of 148 students.

The Eaglecrest Rosewood development, located off FM 3039 just outside the existing Crandall City limits, is currently planned in the Wilson zone with occupancy beginning in SY 2024. Development research indicates this project could bring in 885 new single-family housing units, 525 of which would be completed by SY 2030. The district will need to continue monitoring residential development and school site needs as the Rosewood multi-family development may generate another 200 housing units. Considering enrollment trends, Nola Kathryn Wilson ES is expected to surpass the 700-seat campus capacity in SY 2027.

Table 14: Nola Kathryn Wilson ES Historic and Forecasted Resident Students with Enrollment

Nola Kathryn Wilson														
Grade	Historic Resident Students			Current	Forecasted Resident Students									
	SY 2017	SY 2018	SY 2019	SY 2020	SY 2021	SY 2022	SY 2023	SY 2024	SY 2025	SY 2026	SY 2027	SY 2028	SY 2029	SY 2030
PK	27	27	29	26	26.5	28.5	30.0	28.3	30.2	31.5	32.4	33.8	35.0	36.2
K	92	75	61	66	70.4	71.7	77.2	85.4	81.7	85.2	88.6	91.0	92.4	95.1
1	64	92	76	55	64.7	68.9	70.3	79.9	87.9	84.3	87.7	91.1	93.4	94.7
2	71	65	93	75	55.0	64.7	68.9	74.6	84.2	92.2	88.6	92.0	95.3	97.7
3	82	84	72	88	78.7	57.8	67.9	76.9	82.8	92.9	101.3	97.5	101.1	104.6
4	88	90	87	78	93.3	83.5	61.2	76.5	86.1	92.3	103.0	111.9	107.9	111.7
5	76	92	88	92	79.6	95.1	85.1	66.8	82.4	92.1	98.6	109.4	118.5	114.4
6	92	82	90	96	97.5	84.3	100.9	94.8	75.4	91.9	102.2	109.0	120.5	130.2
Total Resident Students					Forecasted Resident Students									
PK-6	592	607	596	576	565.7	554.5	561.5	583.2	610.7	662.4	702.4	735.7	764.1	784.6
Cap.	Total Enrollment				Forecasted Enrollment									
700	625	634	630	602	591.2	579.5	586.8	609.5	638.3	692.3	734.1	768.9	798.6	820.0
%Cap	89.3%	90.6%	90.0%	86.0%	84.5%	82.8%	83.8%	87.1%	91.2%	98.9%	104.9%	109.8%	114.1%	117.1%

Map 11: Nola Kathryn Wilson ES Forecasted Net 10-Year Change by Study Area

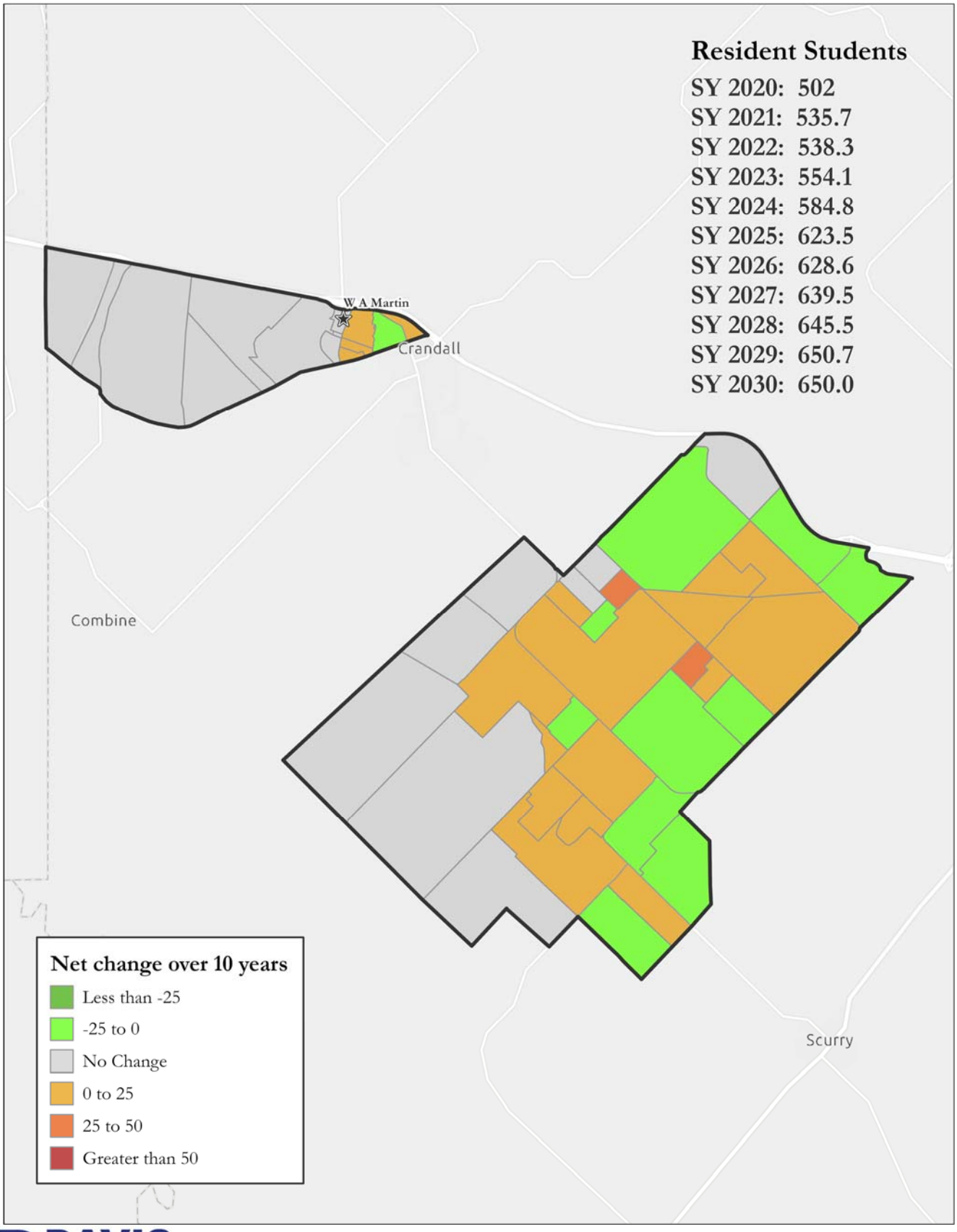


W. A. Martin ES is south of US 175 and split by the Nola Kathryn Wilson zone. As of October 2020, there are 502 elementary students live in the Martin attendance zone. Martin ES was at 100.2% capacity at the time of the student snapshot with a total enrollment of 581 students. The River Ridge development by Altura Homes has generated an increase in the resident student population and the second phase of this development is expected to bring even more growth. The eastern portion of the zone is experiencing some residential development with large individual lots and neighborhoods such as Gastonia Estates. The growth at Martin ES is expected to level off at about 650 resident students in SY 2029, however the large number if transfers into Martin could cause enrolment to exceed 750 students which would put the campus at nearly 130% capacity.

Table 15: W. A. Martin ES Historic and Forecasted Resident Students with Enrollment

W A Martin														
Grade	Historic Resident Students			Current	Forecasted Resident Students									
	SY 2017	SY 2018	SY 2019	SY 2020	SY 2021	SY 2022	SY 2023	SY 2024	SY 2025	SY 2026	SY 2027	SY 2028	SY 2029	SY 2030
PK	37	34	39	32	33.3	35.7	37.8	36.1	36.8	37.0	36.6	36.8	36.8	36.7
K	39	54	67	65	71.5	73.0	78.7	82.1	76.2	77.4	78.5	78.6	77.6	78.0
1	49	47	46	70	68.5	73.3	74.6	79.5	83.0	77.0	78.2	79.3	79.3	78.4
2	76	56	54	46	77.9	74.5	80.1	80.5	85.8	89.6	83.1	84.4	85.6	85.7
3	64	80	63	56	50.1	82.3	78.4	83.3	83.7	89.3	93.2	86.5	87.8	89.0
4	59	58	84	73	58.2	50.7	82.3	77.6	82.5	82.9	88.4	92.2	85.6	86.9
5	67	69	66	88	79.7	62.3	54.7	87.2	82.2	87.4	87.9	93.7	97.8	90.7
6	78	68	72	72	96.5	86.5	67.5	58.5	93.3	88.0	93.6	94.0	100.2	104.6
Total Resident Students					Forecasted Resident Students									
PK-6	469	466	491	502	535.7	538.3	554.1	584.8	623.5	628.6	639.5	645.5	650.7	650.0
Cap.	Total Enrollment				Forecasted Enrollment									
580	530	538	561	581	620.0	623.0	641.3	676.8	721.6	727.5	740.1	747.1	753.1	752.3
%Cap	91.4%	92.8%	96.7%	100.2%	106.9%	107.4%	110.6%	116.7%	124.4%	125.4%	127.6%	128.8%	129.8%	129.7%

Map 12: W. A. Martin ES Forecasted Net 10-Year Change by Study Area



Crandall Middle School (7-8) Student Population Forecast

Crandall Middle School (CMS) is the district's only middle school and houses grades 7-8 student population. As of October 2020, there were 764 students enrolled at CMS, 739 of which live within the district boundary. The campus capacity is currently set for 900 seats under existing curriculum settings which equates to the school operating at about 85% utilization during the 20/21 school year.

The middle school student population is expected to increase by more than 44% over the next five years surpassing 1,000 resident 7-8 students in SY 2023. The middle school population is expected to reach approximately 1,300 resident students by SY 2030 reflecting a 75% increase over the next ten years. It is important to remember that these numbers could be much higher as move development projects become active. Table 16 details the forecasted resident students and uses the same forecasted growth rate to estimate future enrollment. This method assumes that the out of district population will grow along with the district as teachers will likely be recruited from outside the district to accommodate the increasing student population.

Chart 9: Historic and Forecasted Resident Middle School (7-8) Students

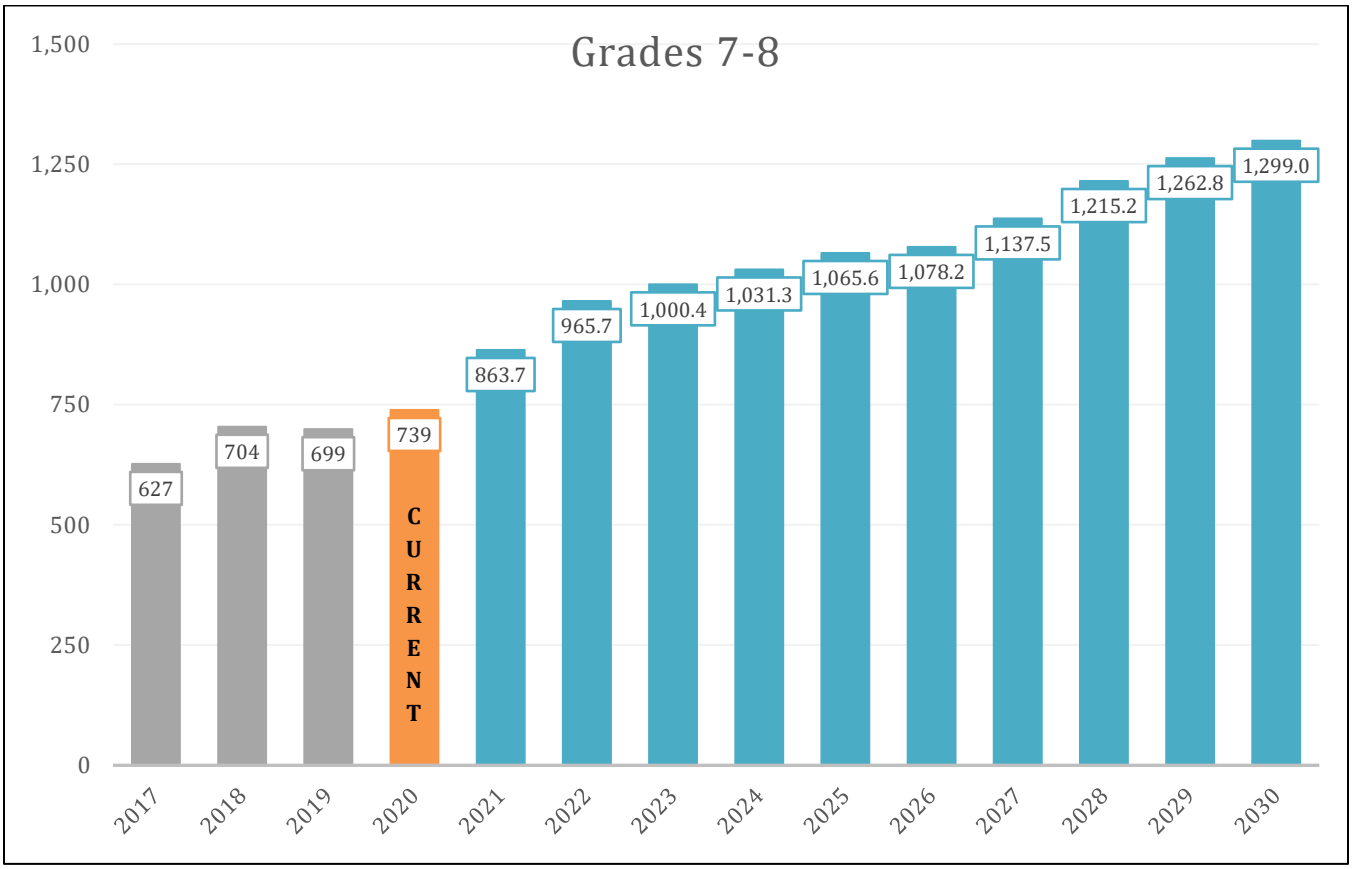
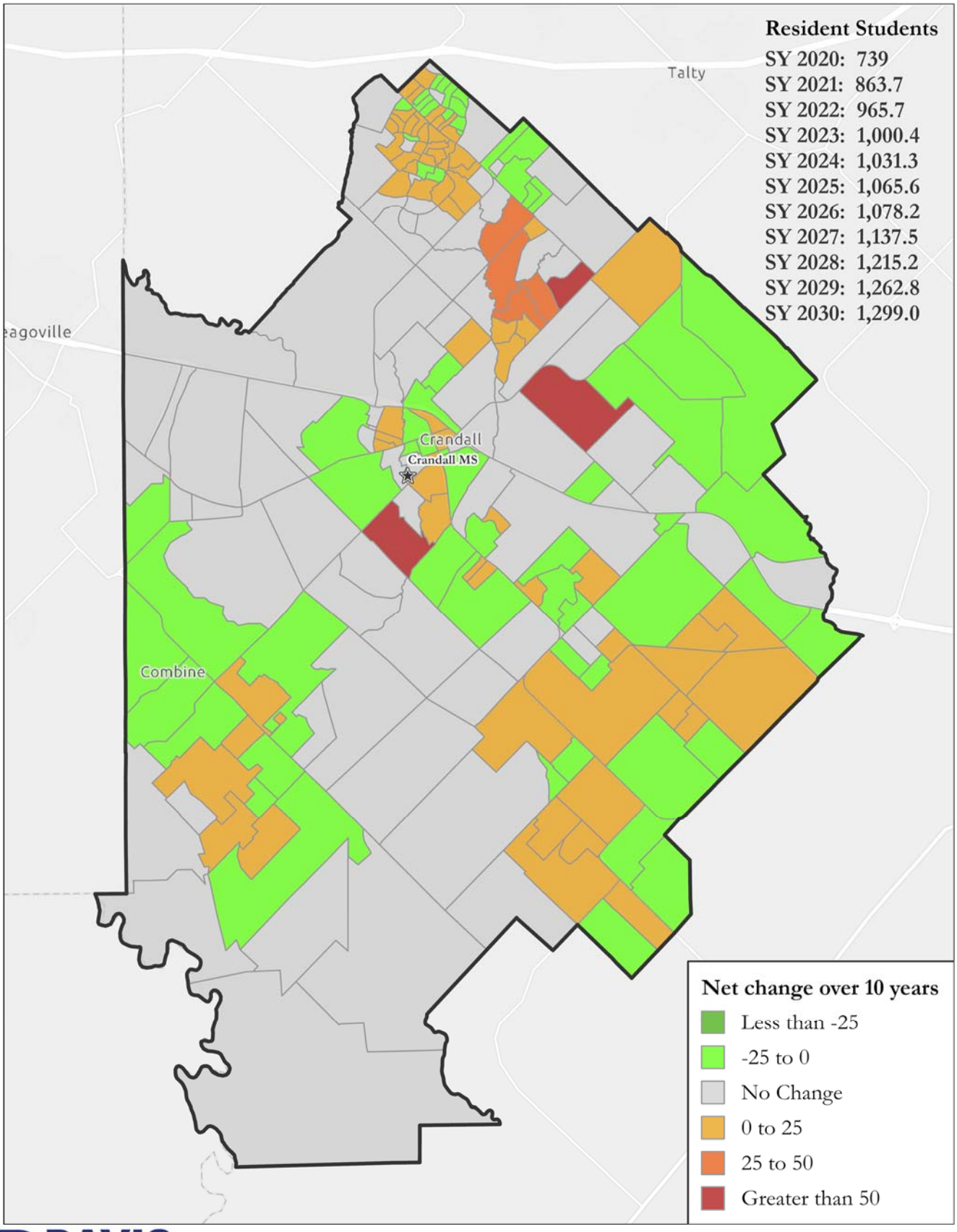


Table 16: Crandall MS Historic and Forecasted Resident Students with Enrollment

Crandall Middle School														
Grade	Historic Resident Students			Current	Forecasted Resident Students									
	SY 2017	SY 2018	SY 2019	SY 2020	SY 2021	SY 2022	SY 2023	SY 2024	SY 2025	SY 2026	SY 2027	SY 2028	SY 2029	SY 2030
7	317	357	330	380	420.8	468.9	454.4	505.2	487.4	512.1	553.5	590.1	598.6	626.8
8	310	347	369	359	442.9	496.8	546.0	526.1	578.2	566.1	584.0	625.1	664.2	672.2
Total Resident Students					Forecasted Resident Students									
7-8	627	704	699	739	863.7	965.7	1,000.4	1,031.3	1,065.6	1,078.2	1,137.5	1,215.2	1,262.8	1,299.0
Cap.	Total Enrollment				Forecasted Enrollment									
900	643	717	722	764	892.9	998.4	1,034.2	1,066.2	1,101.6	1,114.7	1,176.0	1,256.3	1,305.5	1,342.9
%Cap	71.4%	79.7%	80.2%	84.9%	99.2%	110.9%	114.9%	118.5%	122.4%	123.9%	130.7%	139.6%	145.1%	149.2%

Map 13: Forecasted 10-Year Net Change in Resident MS (7-8) Students



Crandall High School (9-12) Student Population Forecast

Crandall ISD has one comprehensive high school, Crandall High School (CHS), which accommodates students in grades 9-12 and had 1,392 students enrolled as of October 2020. Crandall Compass Academy is an alternative high school that served 49 students in SY 2020. The district has been experiencing growth in the 9-12 resident student population for the last several years. Smaller classes are graduating through and being replaced by larger incoming classes from middle school. The high school is currently operating at 92.8% utilization, but enrollment is expected to surpass the 1,500-seat capacity in SY 2021.

Significant growth is expected to continue at the high school level through SY 2030. In the first five years of the forecasts, the resident student population is expected to grow by 80.5% averaging 170 new students per year. The increased residential development is expected to bring more students across all grade levels which adds to the natural growth form the larger classes matriculating through to high school. CHS is see a net increase of nearly 1,200 students over the next 10 years. Table 17 details the forecasted resident students and uses the same forecasted growth rate to estimate future enrollment for both Crandall HS and Crandall Compass Academy. This method assumes that the out of district population will grow along with the district as teachers will likely be recruited from outside the district to accommodate the increasing student population.

Chart 10: Historic and Forecasted Resident High School (9-12) Students

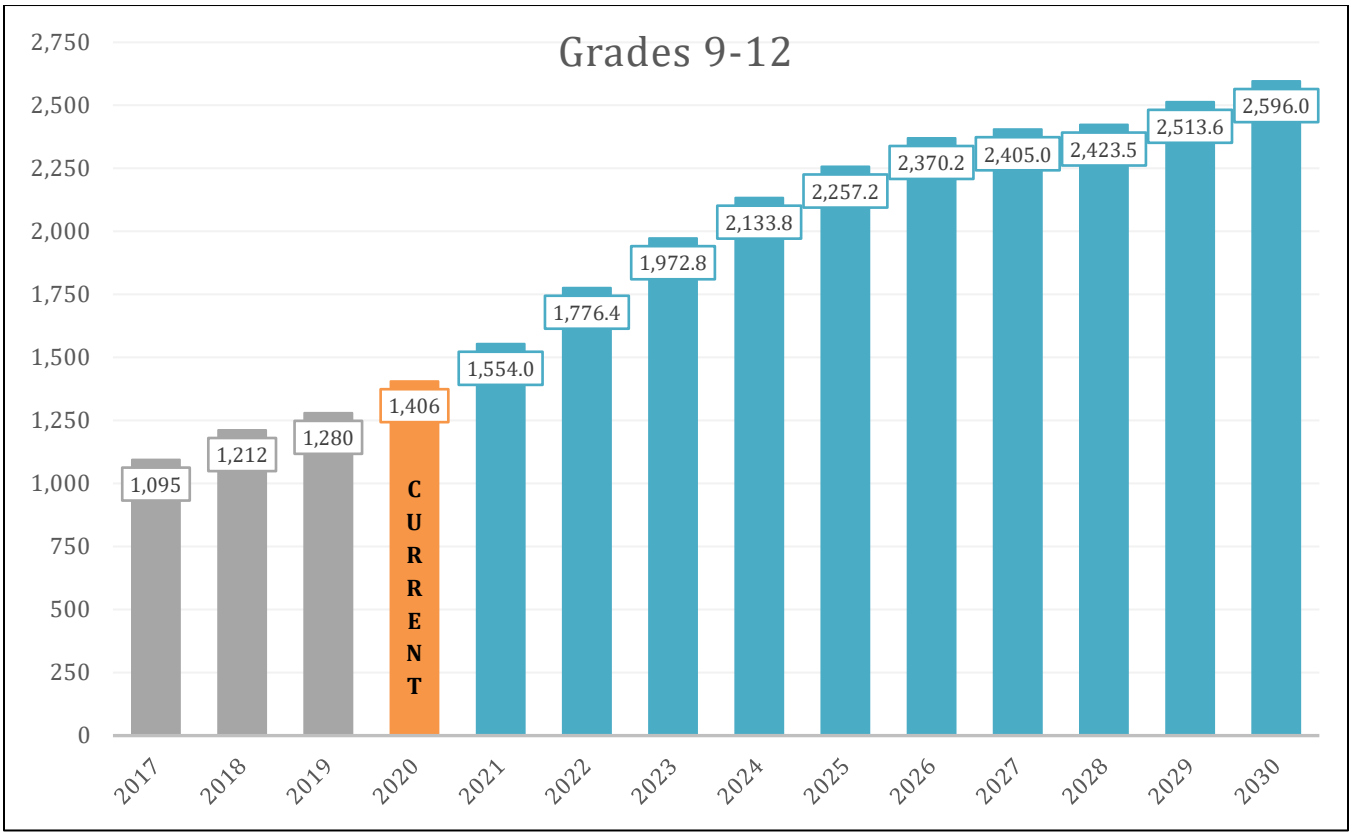
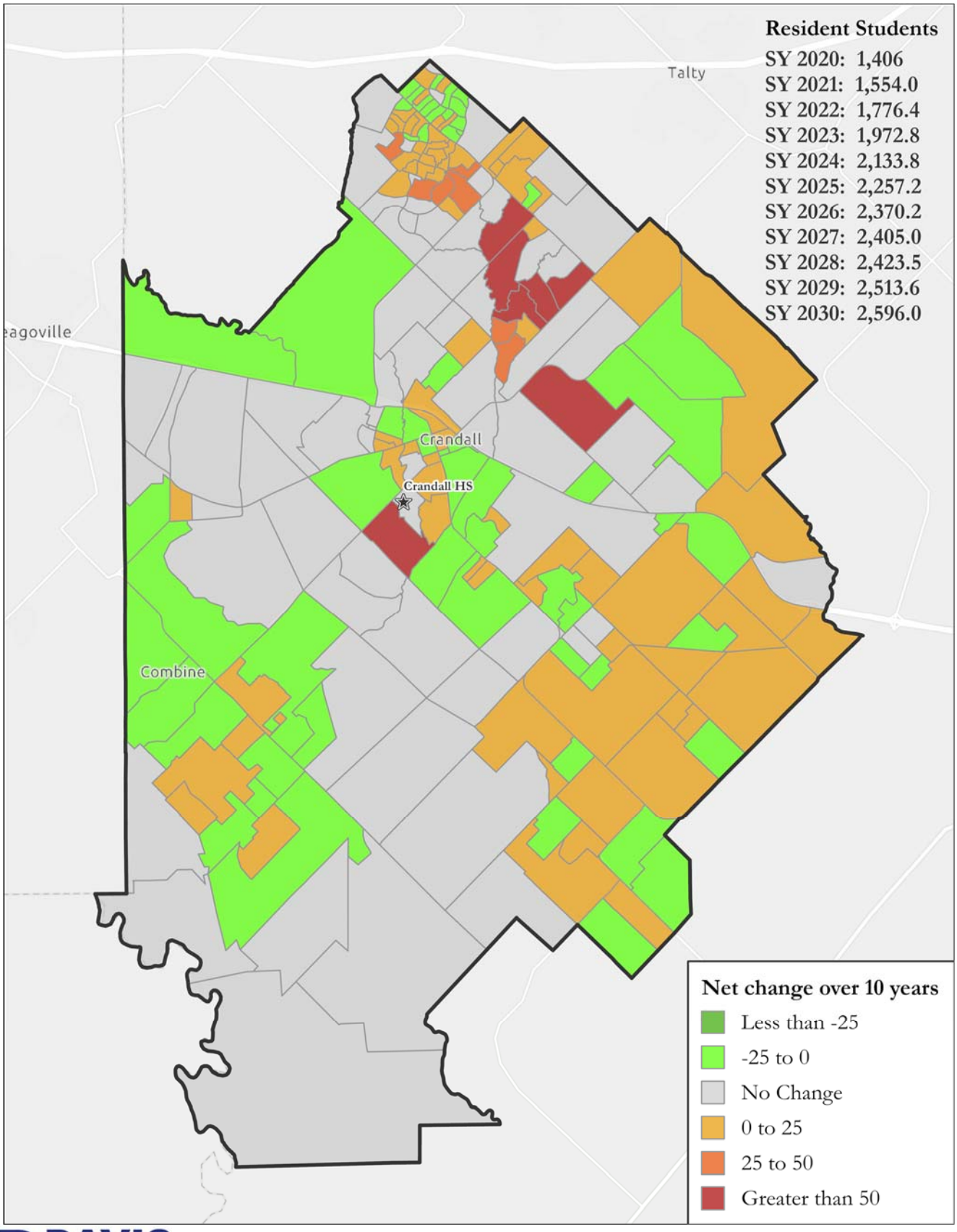


Table 17: Crandall HS Historic and Forecasted Resident Students with Enrollment

Crandall High School														
Grade	Historic Resident Students			Current	Forecasted Resident Students									
	SY 2017	SY 2018	SY 2019	SY 2020	SY 2021	SY 2022	SY 2023	SY 2024	SY 2025	SY 2026	SY 2027	SY 2028	SY 2029	SY 2030
9	312	353	373	414	415.4	514.6	564.4	610.4	585.3	643.8	623.4	641.3	685.3	727.1
10	292	317	332	371	428.7	437.1	530.0	570.1	613.0	591.3	639.5	621.3	640.4	680.9
11	248	290	297	319	370.9	430.0	432.4	511.5	544.9	587.1	560.0	604.9	588.1	604.5
12	243	252	278	302	339.0	394.7	446.0	441.8	514.0	548.0	582.1	556.0	599.8	583.5
Actual Resident Students					Forecasted Resident Students									
Total	1,095	1,212	1,280	1,406	1,554.0	1,776.4	1,972.8	2,133.8	2,257.2	2,370.2	2,405.0	2,423.5	2,513.6	2,596.0
Cap.	Total Enrollment				Forecasted Enrollment									
1,500	1,088	1,202	1,274	1,392	1,538.5	1,758.7	1,953.2	2,112.6	2,234.7	2,346.6	2,381.1	2,399.4	2,488.6	2,570.2
%Cap	72.5%	80.1%	84.9%	92.8%	102.6%	117.2%	130.2%	140.8%	149.0%	156.4%	158.7%	160.0%	165.9%	171.3%

Compass Academy														
Cap.	Total Enrollment				Forecasted Enrollment									
40	34	38	34	49	54.2	61.9	68.8	74.4	78.7	82.6	83.8	84.5	87.6	90.5
%Cap	85.0%	95.0%	85.0%	122.5%	135.4%	154.8%	171.9%	185.9%	196.7%	206.5%	209.5%	211.2%	219.0%	226.2%

Map 14: Forecasted 10-Year Net Change in Resident HS (9-12) Students



Demographic and Income Profile

District
Area: 84.5 square miles

Prepared by Esri

Summary	Census 2010	2020	2025
Population	11,978	17,953	23,867
Households	3,899	5,846	7,783
Families	3,264	4,856	6,453
Average Household Size	3.07	3.07	3.07
Owner Occupied Housing Units	3,490	5,302	7,205
Renter Occupied Housing Units	409	544	578
Median Age	34.4	35.6	34.0

Trends: 2020-2025 Annual Rate	Area	State	National
Population	5.86%	1.54%	0.72%
Households	5.89%	1.51%	0.72%
Families	5.85%	1.47%	0.64%
Owner HHs	6.33%	1.53%	0.72%
Median Household Income	1.02%	1.43%	1.60%

	2020		2025	
Households by Income	Number	Percent	Number	Percent
<$15,000	378	6.5%	519	6.7%
$15,000 - $24,999	308	5.3%	414	5.3%
$25,000 - $34,999	270	4.6%	364	4.7%
$35,000 - $49,999	661	11.3%	799	10.3%
$50,000 - $74,999	1,304	22.3%	1,615	20.8%
$75,000 - $99,999	662	11.3%	911	11.7%
$100,000 - $149,999	1,590	27.2%	2,137	27.5%
$150,000 - $199,999	378	6.5%	600	7.7%
$200,000+	295	5.0%	423	5.4%
Median Household Income	$75,058		$78,952	
Average Household Income	$91,300		$97,405	
Per Capita Income	$29,896		$31,860	

	Census 2010		2020		2025	
Population by Age	Number	Percent	Number	Percent	Number	Percent
0 - 4	862	7.2%	1,287	7.2%	1,869	7.8%
5 - 9	989	8.3%	1,322	7.4%	1,868	7.8%
10 - 14	1,100	9.2%	1,330	7.4%	1,850	7.8%
15 - 19	956	8.0%	1,209	6.7%	1,566	6.6%
20 - 24	602	5.0%	1,061	5.9%	1,221	5.1%
25 - 34	1,585	13.2%	2,605	14.5%	4,001	16.8%
35 - 44	1,787	14.9%	2,646	14.7%	3,593	15.1%
45 - 54	1,869	15.6%	2,290	12.8%	2,744	11.5%
55 - 64	1,247	10.4%	2,233	12.4%	2,407	10.1%
65 - 74	665	5.6%	1,335	7.4%	1,805	7.6%
75 - 84	259	2.2%	520	2.9%	773	3.2%
85+	57	0.5%	117	0.7%	168	0.7%

	Census 2010		2020		2025	
Race and Ethnicity	Number	Percent	Number	Percent	Number	Percent
White Alone	10,178	85.0%	13,602	75.8%	16,845	70.6%
Black Alone	966	8.1%	2,322	12.9%	3,718	15.6%
American Indian Alone	67	0.6%	110	0.6%	159	0.7%
Asian Alone	74	0.6%	169	0.9%	242	1.0%
Pacific Islander Alone	3	0.0%	13	0.1%	21	0.1%
Some Other Race Alone	459	3.8%	1,204	6.7%	2,090	8.8%
Two or More Races	231	1.9%	533	3.0%	791	3.3%
Hispanic Origin (Any Race)	1,361	11.4%	3,359	18.7%	5,594	23.4%

Data Note: Income is expressed in current dollars.

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2020 and 2025.

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Demographic and Income Profile

District
Area: 84.5 square miles

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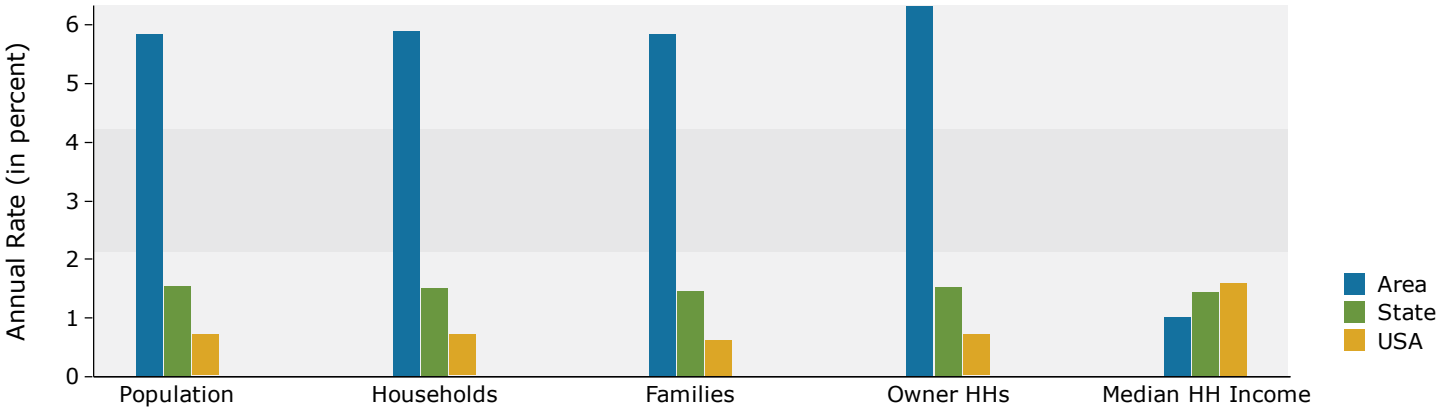
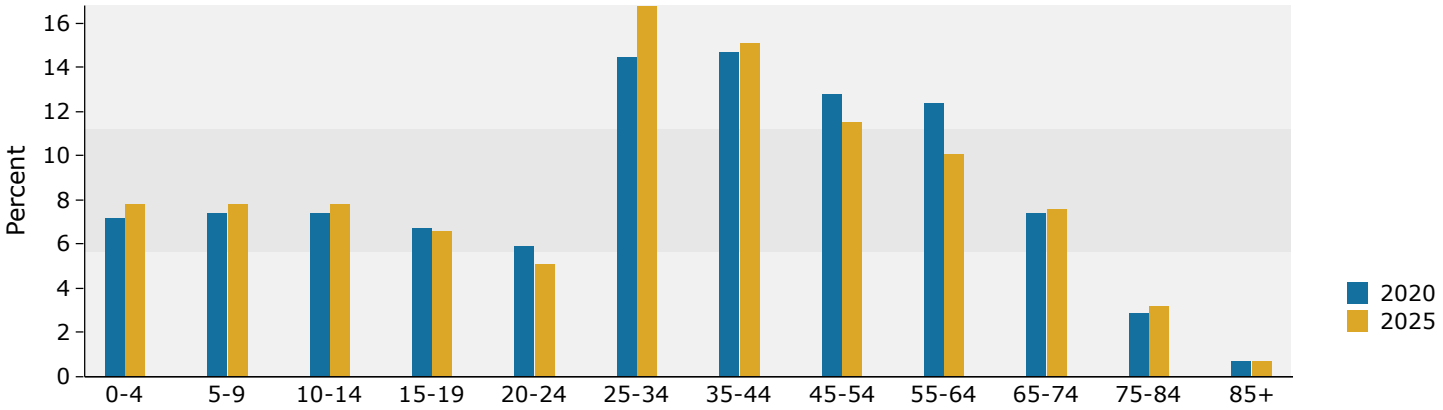
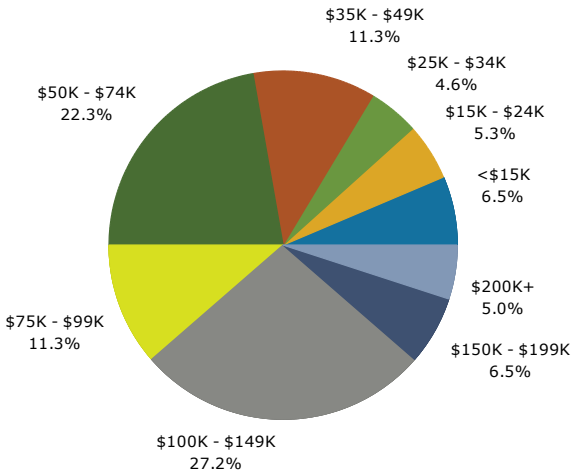
Trends 2020-2025



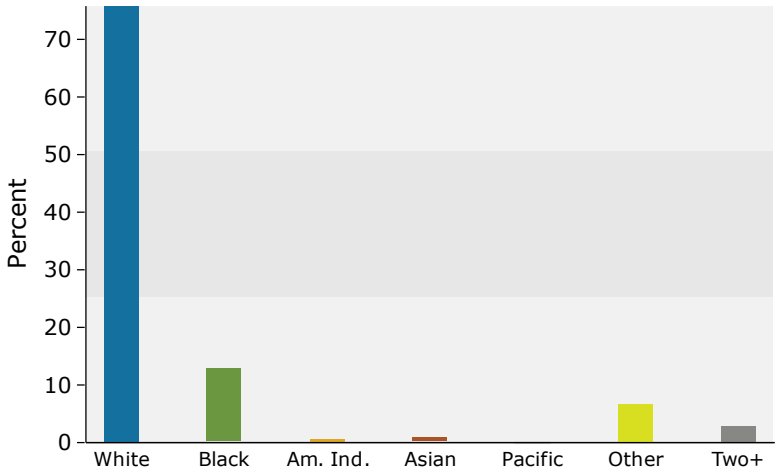
Population by Age



2020 Household Income



2020 Population by Race



2020 Percent Hispanic Origin:18.7%

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2020 and 2025.

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Housing Profile

District
Area: 84.5 square miles

Prepared by Esri

Population		Households	
2010 Total Population	11,978	2020 Median Household Income	$75,058
2020 Total Population	17,953	2025 Median Household Income	$78,952
2025 Total Population	23,867	2020-2025 Annual Rate	1.02%
2020-2025 Annual Rate	5.86%		

	Census 2010		2020		2025	
Housing Units by Occupancy Status and Tenure	**Number**	**Percent**	**Number**	**Percent**	**Number**	**Percent**
Total Housing Units	4,288	100.0%	6,214	100.0%	8,366	100.0%
Occupied	3,899	90.9%	5,846	94.1%	7,783	93.0%
Owner	3,490	81.4%	5,302	85.3%	7,205	86.1%
Renter	409	9.5%	544	8.8%	578	6.9%
Vacant	389	9.1%	368	5.9%	583	7.0%

	2020		2025	
Owner Occupied Housing Units by Value	**Number**	**Percent**	**Number**	**Percent**
Total	5,302	100.0%	7,205	100.0%
<$50,000	429	8.1%	510	7.1%
$50,000-$99,999	547	10.3%	695	9.6%
$100,000-$149,999	858	16.2%	936	13.0%
$150,000-$199,999	1,308	24.7%	1,487	20.6%
$200,000-$249,999	790	14.9%	1,162	16.1%
$250,000-$299,999	484	9.1%	818	11.4%
$300,000-$399,999	611	11.5%	1,051	14.6%
$400,000-$499,999	193	3.6%	362	5.0%
$500,000-$749,999	65	1.2%	143	2.0%
$750,000-$999,999	7	0.1%	13	0.2%
$1,000,000-$1,499,999	3	0.1%	3	0.0%
$1,500,000-$1,999,999	7	0.1%	25	0.3%
$2,000,000+	0	0.0%	0	0.0%
Median Value	$181,231		$199,143	
Average Value	$200,339		$223,109	

Census 2010 Housing Units	**Number**	**Percent**
Total	4,288	100.0%
In Urbanized Areas	0	0.0%
In Urban Clusters	955	22.3%
Rural Housing Units	3,333	77.7%

Data Note: Persons of Hispanic Origin may be of any race.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2020 and 2025.

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Housing Profile

District
Area: 84.5 square miles

Prepared by Esri

Census 2010 Owner Occupied Housing Units by Mortgage Status	Number	Percent
Total	3,491	100.0%
Owned with a Mortgage/Loan	2,757	79.0%
Owned Free and Clear	734	21.0%

Census 2010 Vacant Housing Units by Status	Number	Percent
Total	368	100.0%
For Rent	56	15.2%
Rented- Not Occupied	4	1.1%
For Sale Only	129	35.1%
Sold - Not Occupied	27	7.3%
Seasonal/Recreational/Occasional Use	25	6.8%
For Migrant Workers	0	0.0%
Other Vacant	127	34.5%

Census 2010 Occupied Housing Units by Age of Householder and Home Ownership		Owner Occupied Units	
	Occupied Units	Number	% of Occupied
Total	3,898	3,490	89.5%
15-24	98	73	74.5%
25-34	667	546	81.9%
35-44	887	772	87.0%
45-54	970	902	93.0%
55-64	701	664	94.7%
65-74	382	354	92.7%
75-84	153	142	92.8%
85+	40	37	92.5%

Census 2010 Occupied Housing Units by Race/Ethnicity of Householder and Home Ownership		Owner Occupied Units	
	Occupied Units	Number	% of Occupied
Total	3,899	3,491	89.5%
White Alone	3,371	3,023	89.7%
Black/African American Alone	327	294	89.9%
American Indian/Alaska Native	22	19	86.4%
Asian Alone	21	20	95.2%
Pacific Islander Alone	1	1	100.0%
Other Race Alone	110	96	87.3%
Two or More Races	47	38	80.9%
Hispanic Origin	316	285	90.2%

Census 2010 Occupied Housing Units by Size and Home Ownership		Owner Occupied Units	
	Occupied Units	Number	% of Occupied
Total	3,898	3,490	89.5%
1-Person	491	425	86.6%
2-Person	1,262	1,172	92.9%
3-Person	761	679	89.2%
4-Person	749	670	89.5%
5-Person	407	355	87.2%
6-Person	133	114	85.7%
7+ Person	95	75	78.9%

2020 Housing Affordability	
Housing Affordability Index	186
Percent of Income for Mortgage	10.1%

Data Note: Persons of Hispanic Origin may be of any race.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2020 and 2025.

June 25, 2021

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ACS Housing Summary

District
Area: 84.5 square miles

Prepared by Esri

	2015-2019 ACS Estimate	Percent	MOE(±)	Reliability
TOTALS				
Total Population	15,600		806	
Total Households	4,628		215	
Total Housing Units	4,970		224	
OWNER-OCCUPIED HOUSING UNITS BY MORTGAGE STATUS				
Total	3,797	100.0%	206	
Housing units with a mortgage/contract to purchase/similar debt	2,498	65.8%	170	
Second mortgage only	83	2.2%	43	
Home equity loan only	64	1.7%	41	
Both second mortgage and home equity loan	0	0.0%	0	
No second mortgage and no home equity loan	2,351	61.9%	175	
Housing units without a mortgage	1,299	34.2%	146	
AVERAGE VALUE BY MORTGAGE STATUS				
Housing units with a mortgage	$217,233		$27,654	
Housing units without a mortgage	$179,086		$42,332	
OWNER-OCCUPIED HOUSING UNITS BY MORTGAGE STATUS & SELECTED MONTHLY OWNER COSTS				
Total	3,797	100.0%	206	
With a mortgage: Monthly owner costs as a percentage of household income in past 12 months				
Less than 10.0 percent	116	3.1%	48	
10.0 to 14.9 percent	452	11.9%	76	
15.0 to 19.9 percent	375	9.9%	61	
20.0 to 24.9 percent	463	12.2%	87	
25.0 to 29.9 percent	314	8.3%	90	
30.0 to 34.9 percent	144	3.8%	58	
35.0 to 39.9 percent	201	5.3%	71	
40.0 to 49.9 percent	166	4.4%	56	
50.0 percent or more	260	6.8%	110	
Not computed	8	0.2%	9	
Without a mortgage: Monthly owner costs as a percentage of household income in past 12 months				
Less than 10.0 percent	525	13.8%	83	
10.0 to 14.9 percent	258	6.8%	51	
15.0 to 19.9 percent	79	2.1%	31	
20.0 to 24.9 percent	99	2.6%	40	
25.0 to 29.9 percent	51	1.3%	32	
30.0 to 34.9 percent	65	1.7%	33	
35.0 to 39.9 percent	35	0.9%	21	
40.0 to 49.9 percent	75	2.0%	75	
50.0 percent or more	96	2.5%	80	
Not computed	15	0.4%	12	

Source: U.S. Census Bureau, 2015-2019 American Community Survey

Reliability: high medium low

June 25, 2021

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ACS Housing Summary

District
Area: 84.5 square miles

Prepared by Esri

	2015-2019 ACS Estimate	Percent	MOE(±)	Reliability
RENTER-OCCUPIED HOUSING UNITS BY CONTRACT RENT				
Total	831	100.0%	147	
With cash rent	748	90.0%	143	
Less than $100	0	0.0%	0	
$100 to $149	0	0.0%	0	
$150 to $199	0	0.0%	0	
$200 to $249	0	0.0%	0	
$250 to $299	0	0.0%	0	
$300 to $349	4	0.5%	7	
$350 to $399	3	0.4%	8	
$400 to $449	16	1.9%	13	
$450 to $499	19	2.3%	24	
$500 to $549	8	1.0%	9	
$550 to $599	24	2.9%	33	
$600 to $649	18	2.2%	15	
$650 to $699	10	1.2%	11	
$700 to $749	8	1.0%	11	
$750 to $799	43	5.2%	33	
$800 to $899	190	22.9%	103	
$900 to $999	101	12.2%	64	
$1,000 to $1,249	157	18.9%	67	
$1,250 to $1,499	48	5.8%	61	
$1,500 to $1,999	89	10.7%	61	
$2,000 to $2,499	10	1.2%	18	
$2,500 to $2,999	0	0.0%	0	
$3,000 to $3,499	0	0.0%	0	
$3,500 or more	0	0.0%	0	
No cash rent	83	10.0%	43	
Median Contract Rent	$931		N/A	
Average Contract Rent	N/A		N/A	
RENTER-OCCUPIED HOUSING UNITS BY INCLUSION OF UTILITIES IN RENT				
Total	831	100.0%	147	
Pay extra for one or more utilities	820	98.7%	146	
No extra payment for any utilities	11	1.3%	15	

Source: U.S. Census Bureau, 2015-2019 American Community Survey

Reliability: high medium low

June 25, 2021

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ACS Housing Summary

District
Area: 84.5 square miles

Prepared by Esri

	2015-2019 ACS Estimate	Percent	MOE(±)	Reliability
RENTER-OCCUPIED HOUSING UNITS BY GROSS RENT				
Total:	831	100.0%	147	
With cash rent:	748	90.0%	143	
Less than $100	0	0.0%	0	
$100 to $149	0	0.0%	0	
$150 to $199	0	0.0%	0	
$200 to $249	0	0.0%	0	
$250 to $299	0	0.0%	0	
$300 to $349	0	0.0%	0	
$350 to $399	0	0.0%	0	
$400 to $449	0	0.0%	0	
$450 to $499	0	0.0%	0	
$500 to $549	14	1.7%	11	
$550 to $599	3	0.4%	9	
$600 to $649	0	0.0%	0	
$650 to $699	0	0.0%	0	
$700 to $749	2	0.2%	3	
$750 to $799	24	2.9%	18	
$800 to $899	33	4.0%	34	
$900 to $999	47	5.7%	33	
$1,000 to $1,249	305	36.7%	119	
$1,250 to $1,499	111	13.4%	66	
$1,500 to $1,999	136	16.4%	58	
$2,000 to $2,499	63	7.6%	70	
$2,500 to $2,999	10	1.2%	18	
$3,000 to $3,499	0	0.0%	0	
$3,500 or more	0	0.0%	0	
No cash rent	83	10.0%	43	
Median Gross Rent	$1,206		N/A	
Average Gross Rent	N/A		N/A	

Source: U.S. Census Bureau, 2015-2019 American Community Survey

Reliability: high medium low

June 25, 2021

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ACS Housing Summary

District
Area: 84.5 square miles

Prepared by Esri

	2015-2019 ACS Estimate	Percent	MOE(±)	Reliability
HOUSING UNITS BY UNITS IN STRUCTURE				
Total	4,970	100.0%	224	
1, detached	3,773	75.9%	189	
1, attached	44	0.9%	52	
2	31	0.6%	32	
3 or 4	8	0.2%	11	
5 to 9	34	0.7%	40	
10 to 19	7	0.1%	11	
20 to 49	96	1.9%	66	
50 or more	0	0.0%	0	
Mobile home	976	19.6%	178	
Boat, RV, van, etc.	0	0.0%	0	
HOUSING UNITS BY YEAR STRUCTURE BUILT				
Total	4,970	100.0%	224	
Built 2014 or later	331	6.7%	109	
Built 2010 to 2013	437	8.8%	137	
Built 2000 to 2009	1,878	37.8%	204	
Built 1990 to 1999	1,093	22.0%	122	
Built 1980 to 1989	551	11.1%	88	
Built 1970 to 1979	238	4.8%	70	
Built 1960 to 1969	162	3.3%	73	
Built 1950 to 1959	143	2.9%	63	
Built 1940 to 1949	50	1.0%	35	
Built 1939 or earlier	87	1.8%	41	
Median Year Structure Built	2001		N/A	
OCCUPIED HOUSING UNITS BY YEAR HOUSEHOLDER MOVED INTO UNIT				
Total	4,628	100.0%	215	
Owner occupied				
Moved in 2017 or later	226	4.9%	58	
Moved in 2015 to 2016	465	10.0%	111	
Moved in 2010 to 2014	1,017	22.0%	127	
Moved in 2000 to 2009	1,436	31.0%	160	
Moved in 1990 to 1999	387	8.4%	70	
Moved in 1989 or earlier	266	5.7%	65	
Renter occupied				
Moved in 2017 or later	89	1.9%	53	
Moved in 2015 to 2016	264	5.7%	108	
Moved in 2010 to 2014	376	8.1%	97	
Moved in 2000 to 2009	52	1.1%	31	
Moved in 1990 to 1999	42	0.9%	42	
Moved in 1989 or earlier	8	0.2%	8	
Median Year Householder Moved Into Unit	2010		N/A	

Source: U.S. Census Bureau, 2015-2019 American Community Survey

Reliability: high medium low

June 25, 2021

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ACS Housing Summary

District
Area: 84.5 square miles

Prepared by Esri

	2015-2019 ACS Estimate	Percent	MOE(±)	Reliability
OCCUPIED HOUSING UNITS BY HOUSE HEATING FUEL				
Total	4,628	100.0%	215	
Utility gas	607	13.1%	95	
Bottled, tank, or LP gas	130	2.8%	38	
Electricity	3,839	83.0%	215	
Fuel oil, kerosene, etc.	0	0.0%	0	
Coal or coke	0	0.0%	0	
Wood	44	1.0%	65	
Solar energy	4	0.1%	7	
Other fuel	0	0.0%	0	
No fuel used	4	0.1%	3	
OCCUPIED HOUSING UNITS BY VEHICLES AVAILABLE				
Total	4,628	100.0%	215	
Owner occupied				
No vehicle available	63	1.4%	63	
1 vehicle available	605	13.1%	95	
2 vehicles available	1,845	39.9%	198	
3 vehicles available	928	20.1%	108	
4 vehicles available	221	4.8%	47	
5 or more vehicles available	136	2.9%	39	
Renter occupied				
No vehicle available	9	0.2%	15	
1 vehicle available	259	5.6%	69	
2 vehicles available	339	7.3%	119	
3 vehicles available	112	2.4%	53	
4 vehicles available	100	2.2%	76	
5 or more vehicles available	12	0.3%	23	
Average Number of Vehicles Available	N/A		N/A	
VACANT HOUSING UNITS				
Total vacant housing units	311	100.0%	108	
For rent	13	4.2%	21	
Rented, not occupied	20	6.4%	32	
For sale only	115	37.0%	88	
Sold, not occupied	0	0.0%	5	
Seasonal/occasional	33	10.6%	30	
For migrant workers	0	0.0%	0	
Other	129	41.5%	57	

Source: U.S. Census Bureau, 2015-2019 American Community Survey

Reliability: high medium low

June 25, 2021

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ACS Housing Summary

District
Area: 84.5 square miles

Prepared by Esri

	2015-2019 ACS Estimate	Percent	MOE(±)	Reliability
OWNER-OCCUPIED HOUSING UNITS BY VALUE				
Total	3,797	100%	206	
Less than $10,000	40	1.1%	26	
$10,000 to $14,999	2	0.1%	3	
$15,000 to $19,999	46	1.2%	35	
$20,000 to $24,999	1	0.0%	1	
$25,000 to $29,999	33	0.9%	49	
$30,000 to $34,999	65	1.7%	56	
$35,000 to $39,999	26	0.7%	30	
$40,000 to $49,999	91	2.4%	44	
$50,000 to $59,999	119	3.1%	50	
$60,000 to $69,999	30	0.8%	16	
$70,000 to $79,999	142	3.7%	56	
$80,000 to $89,999	130	3.4%	59	
$90,000 to $99,999	77	2.0%	35	
$100,000 to $124,999	334	8.8%	110	
$125,000 to $149,999	161	4.2%	55	
$150,000 to $174,999	489	12.9%	81	
$175,000 to $199,999	421	11.1%	72	
$200,000 to $249,999	598	15.7%	126	
$250,000 to $299,999	327	8.6%	62	
$300,000 to $399,999	415	10.9%	70	
$400,000 to $499,999	162	4.3%	48	
$500,000 to $749,999	63	1.7%	75	
$750,000 to $999,999	2	0.1%	3	
$1,000,000 to $1,499,999	2	0.1%	4	
$1,500,000 to $1,999,999	9	0.2%	13	
$2,000,000 or more	12	0.3%	26	
Median Home Value	$181,681		N/A	
Average Home Value	$204,182		$21,186	

Data Note: N/A means not available.

2015-2019 ACS Estimate: The American Community Survey (ACS) replaces census sample data. Esri is releasing the 2015-2019 ACS estimates, five-year period data collected monthly from January 1, 2015 through December 31, 2019. Although the ACS includes many of the subjects previously covered by the decennial census sample, there are significant differences between the two surveys including fundamental differences in survey design and residency rules.

Margin of error (MOE): The MOE is a measure of the variability of the estimate due to sampling error. MOEs enable the data user to measure the range of uncertainty for each estimate with 90 percent confidence. The range of uncertainty is called the confidence interval, and it is calculated by taking the estimate +/- the MOE. For example, if the ACS reports an estimate of 100 with an MOE of +/- 20, then you can be 90 percent certain the value for the whole population falls between 80 and 120.

Reliability: These symbols represent threshold values that Esri has established from the Coefficients of Variation (CV) to designate the usability of the estimates. The CV measures the amount of sampling error relative to the size of the estimate, expressed as a percentage.

- High Reliability: Small CVs (less than or equal to 12 percent) are flagged green to indicate that the sampling error is small relative to the estimate and the estimate is reasonably reliable.
- Medium Reliability: Estimates with CVs between 12 and 40 are flagged yellow-use with caution.
- Low Reliability: Large CVs (over 40 percent) are flagged red to indicate that the sampling error is large relative to the estimate. The estimate is considered very unreliable.

Source: U.S. Census Bureau, 2015-2019 American Community Survey

Reliability: high medium low

June 25, 2021

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