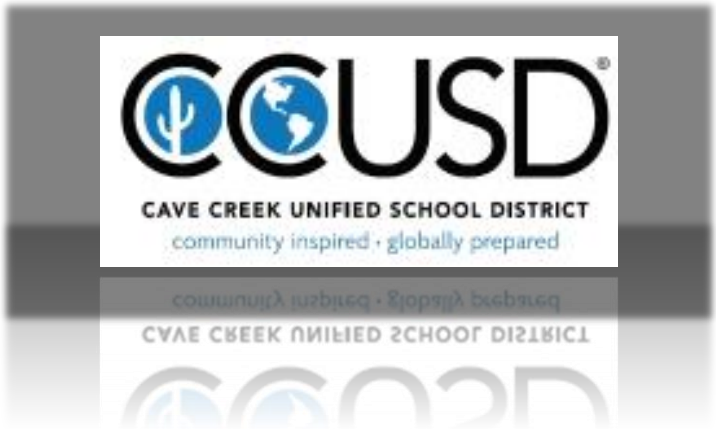
CAVE CREEK UNIFIED SCHOOL DISTRICT
DEMOGRAPHIC & ENROLLMENT ANALYSIS UPDATE
2023/24

Final Report

February 16, 2024



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Executive Summary

The 2023/24 demographic and enrollment update for the Cave Creek Unified School District (District) incorporates new data for the District and its sub-areas, as well as information regarding changes in regional socioeconomic conditions. The purpose of this analysis is to identify current and historic demographic, development and enrollment trends, and to anticipate future trends to create District and sub-District enrollment projections through 2033/34.

Some of the main findings and conclusions from this report include:

- Enrollment in the District totaled 4,220 students at the beginning of the 2023/24 school year, down 284 students (6.3 percent) over last year (Figure 1). This decline follows an enrollment increase of 6.7 percent (326 students) in 2022/23 and a pandemic induced loss of 600 students (10.9 percent) in 2020/21; in total, K-12 enrollment in the District has declined by 1,273 students (23 percent) since 2019/20.

- Demographic data indicates the general aging of the population. The strongest declines have been in the share of persons aged five to 13 years, which dropped from 10 percent in 2010 to six percent in 2023 and in the share of population in their child-rearing years (ages 22 to 54 years), which dropped from 37 percent to 28 percent during the same 13-year period. The largest increase has occurred among persons over 64 years of age; this group accounted for 46 percent of the District's population in 2023, up from 32 percent in 2010. The population aged 14-17 years (high school age) in the District has shown signs of some stability, although the cohort's share of the total population has dropped slightly since 2010. This older age profile of children in the District is consistent with the move-up market orientation of the housing in the area.

- The distribution of households (occupied housing units) by age can be an indicator of future student enrollment. Since 2010, data on the age of the householders shows a slight decline in the share of the age category that drives younger elementary enrollment (ages 25 to 34 years) and a substantial decline in the categories that drive older elementary (ages 35 to 44 years) and high school (ages 45 to 54 years) enrollment. The District has experienced a sizeable increase in the share of householders over 64 years of age over the last 13 years, increasing from 30 percent in 2010 to 49 percent in 2023; these groups represent the aging-in-place that is occurring in many neighborhoods within the District, which, in turn, is contributing to the decreased share of the school-age population.

- There are currently two charter schools operating in or near the District boundaries that serve roughly 360 K-8 students. The Foothills Academy closed in 2020 and its in-District location and was taken over by Candeo North Scottsdale, which opened as a K-6 school at the beginning of the 2020/21 school year; a grade was added in each of the subsequent school years, making it a K-8 school in 2022/23. Total charter school enrollment in the area was in decline through 2019/20, but the opening of Candeo North Scottsdale in 2020/21 generated three years of enrollment increases. This year, enrollment at Candeo declined dramatically, dropping by roughly 200 students and bringing total local charter enrollment to a low that is similar to the 2020/21 level.

- Housing production in the District has been generally stable over the past decade. Over 65 percent of all new residential construction has been low -density single family, at two lots per acre or less. There is little production housing in the District and a majority of growth comes from infill development on lots located

throughout the District. Multifamily additions have been in condominium or townhouse projects have been limited and are generally low-density.

- Housing in the District has been, and will continue to be, more expensive than the regional averages, which tends to result in smaller households with older children than in more affordable areas. Even though the District has ample growth potential overall, it is mostly found in individual lots and small parcels dispersed across a wide area. Residential growth is forecast to remain generally stable over the projection period, although at slightly lower levels than in recent years. Production will be lowest during the first half of the projection as currently active subdivisions build-out and infill growth in the east declines due to new water supply conditions. The last half of the projection should experience stronger growth as new projects open.

- The addition of roughly 400 new housing additions per year over the next 10 years is expected to result in a total District population of nearly 74,000 persons by 2033/34. After factoring in the estimated occupancy rate and population per household, nearly 3,300 new households are projected to be formed during the projection period.

- The average number of school-age persons per household in the District has declined every year since 2010/11, falling from 0.363 to 0.242 in 2023/24. This trend is expected to continue throughout the projection period, causing the ratio to decline to .200 by 2033/34. In 2023/24 there were about 7,100 school-age persons residing in the District and K-12 enrollment totaled 4,220 students, including 594 out-of-District students. Comparing the school-age population to in-District enrollment results in a difference of 3,470 students in 2023/24, therefore, the District has a service rate of roughly 51 percent of the school-age population that resides within its boundaries this year, which is an all-time low. By 2033/34, the District is expected to have a service rate of just 46.3 percent.

- Assuming a steady decline in the service rate, total District enrollment is expected to decrease slowly every year through 2033/34, as active development projects are completed and new, large-scale housing development is limited by the lack of available private land. In addition, the turnover of empty nesters in existing homes is not expected to sustain current enrollment levels. As a result, enrollment is projected to total roughly 3,600 students by 2033/34, 550 of which are expected to live outside if the District; this represents a decrease in total enrollment of 15.5 percent (660 students) compared to 2023/24.

- The Net E-P ratio for the K-8 cohort has declined sharply since 2019/20 and fell to an all-time low of 63.5 percent in 2023/24. Assuming a steady decline in the K-8 Net E-P ratio throughout the projection period, K-8 enrollment is expected to decline by an average of 50 students per year over the next 10 years, bringing total K-8 enrollment to roughly 2,100 students in 2033/34; this represents a decline of 19 percent (500 students) compared to 2023/24 K-8 enrollment.

- The high school Net E-P ratio has also declined significantly since 2019/20, dropping from 68.4 percent to 53.9 percent in 2023/24. The projections show 9-12 enrollment generally decreasing over the next four years, before increasing moderately during the subsequent 4 years. By the end of projection period additional declines are expected, bringing total 9-12 enrollment to roughly 1,400 students. These trends result in a nine percent decline (150 students) in 9-12 enrollment and a 9-12 Net E-P ratio of 49.3 percent by the end of the projection period.

TABLE OF CONTENTS

1.0 Introduction

This demographic update report for the Cave Creek Unified School District (District) for the 2023/24 school year incorporates information on enrollment, demographic trends and residential development into 10-year District-level and small-area projections of enrollment by grade. The District-level projections use long-term demographic and housing trends for the District and projected trends for the region to create a macroeconomic, top-down analysis of population and enrollment.

The District is divided into 182 small area planning geographies, referred to as "grids," as shown in **Map 1**. The projections by grid are summed by current attendance areas in order to calculate baseline projections that provide sufficient detail to support facility and attendance area planning activities.

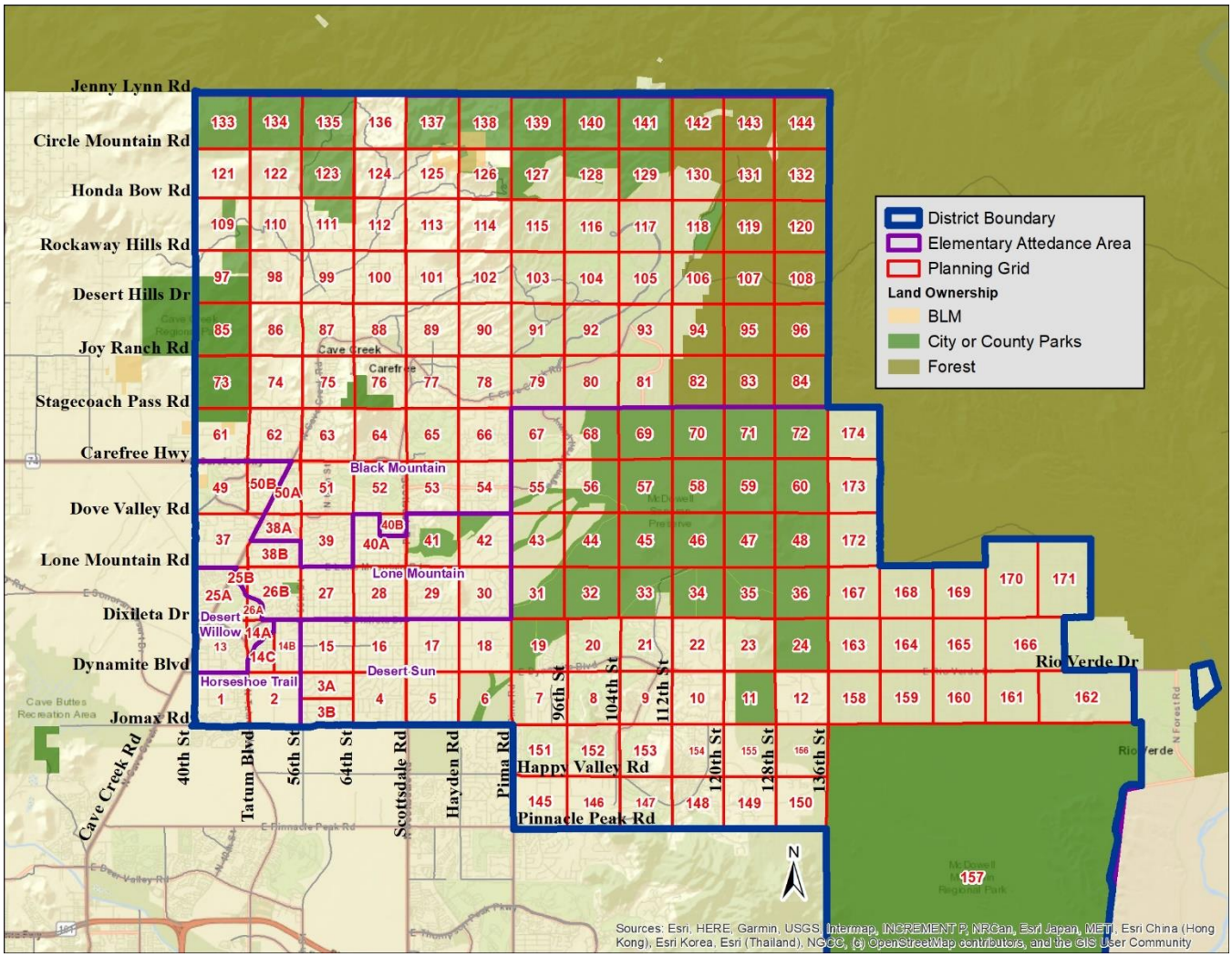
The balance of this report is divided into three sections. Section 2.0 reviews existing demographic and development conditions and provides enrollment information for the District. This chapter details demographic trends in the District in order to help understand current changes in enrollment. Finally, charter and private school enrollment data is presented for providers operating within and nearby District boundaries to help explain recent enrollment changes as compared to changes in the school-age population.

Section 3.0, Residential Development, presents information on current construction activity, vacancy rates and the potential future supply of new housing by unit type. It provides estimates for the timing of construction based on current activity, ownership and zoning status for vacant land available for residential development as well as area growth forecasts. The housing potential is segmented both by the type of housing product and the timing of specific housing projects within the district, which leads to the future distribution of enrollment.

Section 4.0 combines the demographic and residential development trends derived from the information presented in sections 2.0 and 3.0 to project District-level enrollment by grade for the 10-year period. These projections are developed in a top-down fashion, using long-term trends in enrollment, housing starts and completions, and student generation. Finally, the section presents sub-District enrollment projections and the corresponding impact on student population in current attendance areas. The information in this section is helpful because it identifies the geographical areas of growth using visual representations of the ten-year enrollment projections for the grid planning areas within the District.

The information and observations contained in this report are based on our present knowledge of the land use and development patterns of the area under analysis, the current physical and socioeconomic conditions of the affected areas, and regional forecasts. Estimates and projections made in this report are based on hypothetical assumptions. However, even if the assumptions outlined in this report occur, there will usually be differences between the estimates and projections and the actual results because events and circumstances frequently do not occur precisely as expected. Applied Economics is under no obligation to update this report for events occurring after the date of its release.

MAP 1
DISTRICT GRID PLANNING GEOGRAPHY



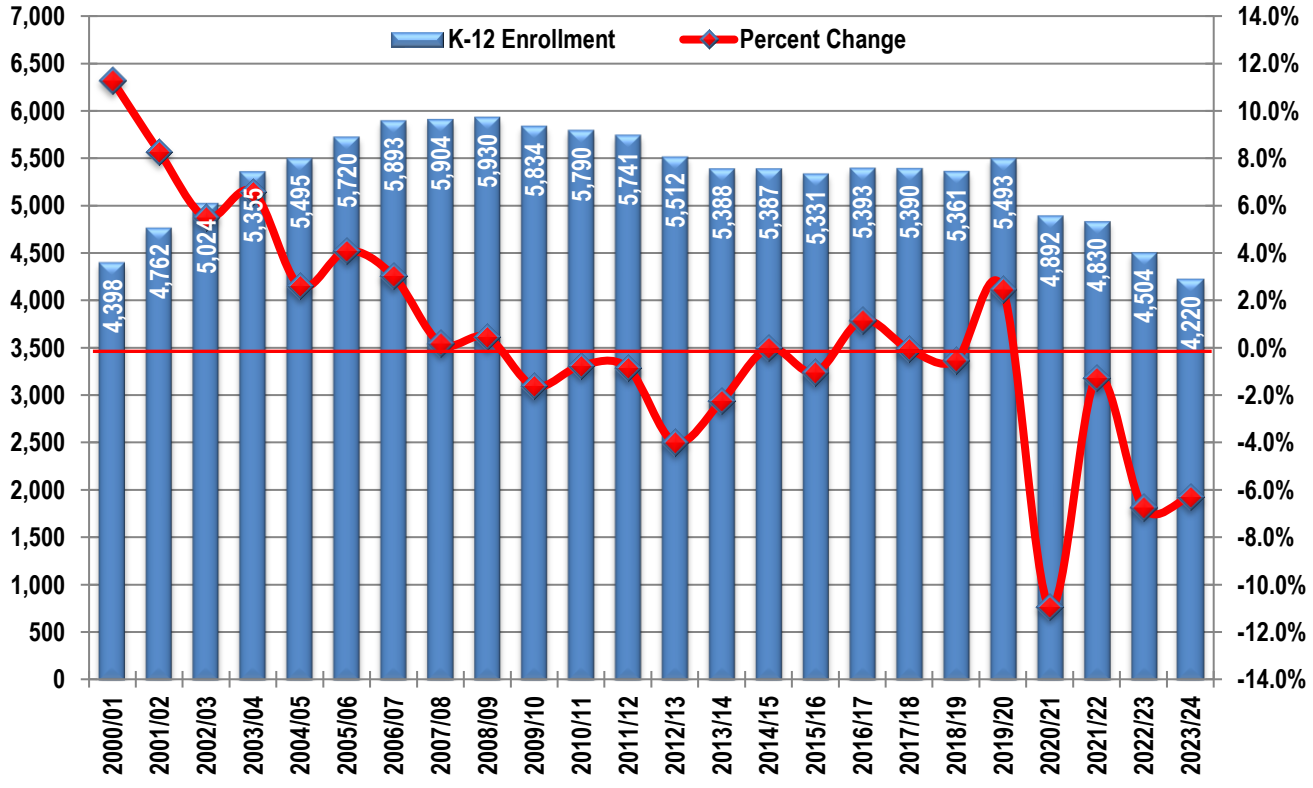
2.0 Existing Conditions

2.1 Enrollment

Kindergarten to 12th grade (K-12) enrollment in the District totaled 4,220 students at the beginning of the 2023/24 school year, down 284 students (6.3 percent) over last year (**Figure 1**). This decline follows an enrollment increase of 6.7 percent (326 students) in 2022/23 and a pandemic induced loss of 600 students (10.9 percent) in 2020/21; in total, K-12 enrollment in the District has declined by 1,273 students (23 percent) since 2019/20.

Between 2000/01 and 2006/07 the District experienced enrollment growth that was fueled by high levels of new home construction, including relatively affordable "move-up" housing in and around Tatum Ranch, Tatum Highlands and Dove Valley Ranch. By 2007/08, the rate of growth declined sharply as the supply of moderately-priced new housing ran low and existing home price increases priced many families out of the District and enrollment began to steadily decline; in the last 15 years, enrollment has increased in just two years (2016/17 and 2018/19).

FIGURE 1
HISTORIC ENROLLMENT

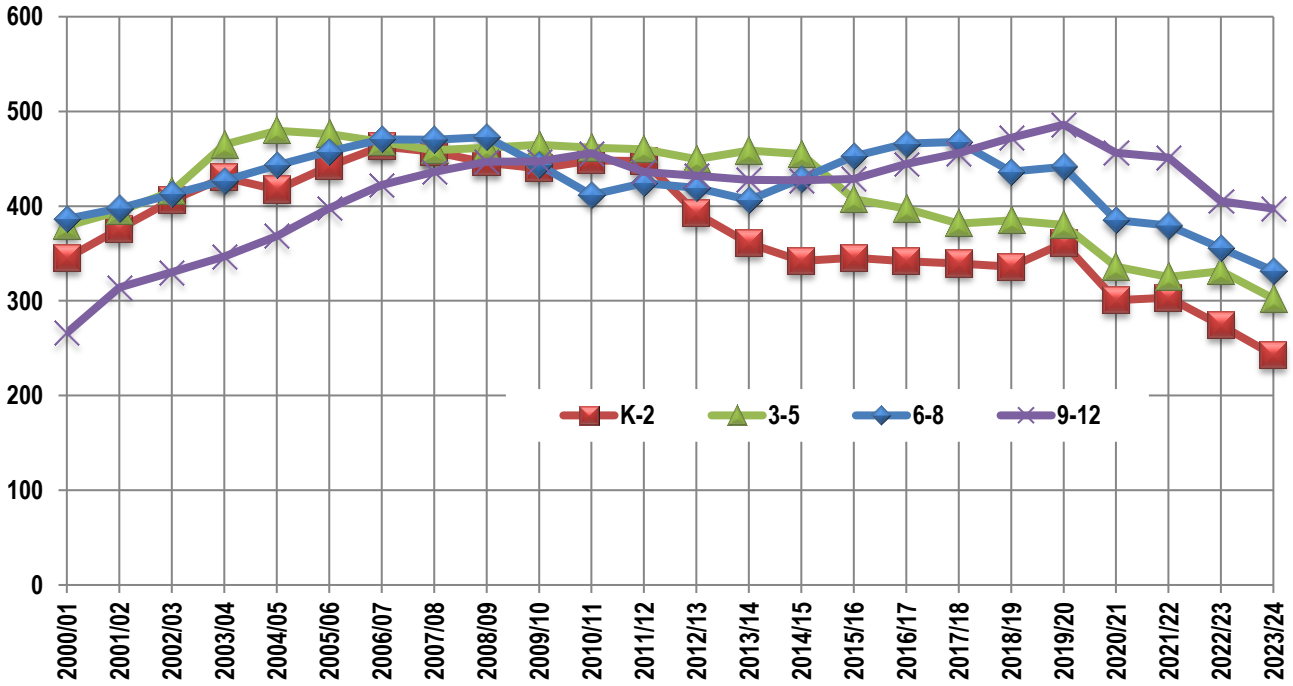


Sources: Cave Creek Unified School District; Applied Economics.

In addition to looking at trends in total enrollment, it is useful to analyze the student population by grade cohort. **Figure 2** shows the historical average enrollment by grade in the District. For this purpose, the grades are divided into four cohorts; in order to equalize the differences in number of grades per cohort, the figure shows average enrollment per grade in each cohort.

Recession-era losses in the Kindergarten to 2nd grade (K-2) cohort were the result of lower birth rates and the suspension of free all-day kindergarten in 2012/13; Kindergarten enrollment dropped from 432 students per grade in 2011/12 to 332 students per grade in 2012/13, a decline of 23 percent in a single year. Between 2014/15 and 2018/19 the size of the K-2 cohort remained relatively flat (averaging about 340 students per grade), and in 2019/20 average K-2 enrollment increased to 360 students; since then, K-2 enrollment per grade has declined to an all-time low of 243 students. Subsequent declines in each of the cohorts have occurred as smaller and smaller classes have advanced. This year, average 3rd to 5th grade (3-5) enrollment declined to 302 students, average 6th to 8th grade (6-8) dropped to 332 students and the 9th to 12th grade (9-12) cohort enrolled 398 students per grade.

FIGURE 2
AVERAGE ENROLLMENT BY GRADE BY COHORT

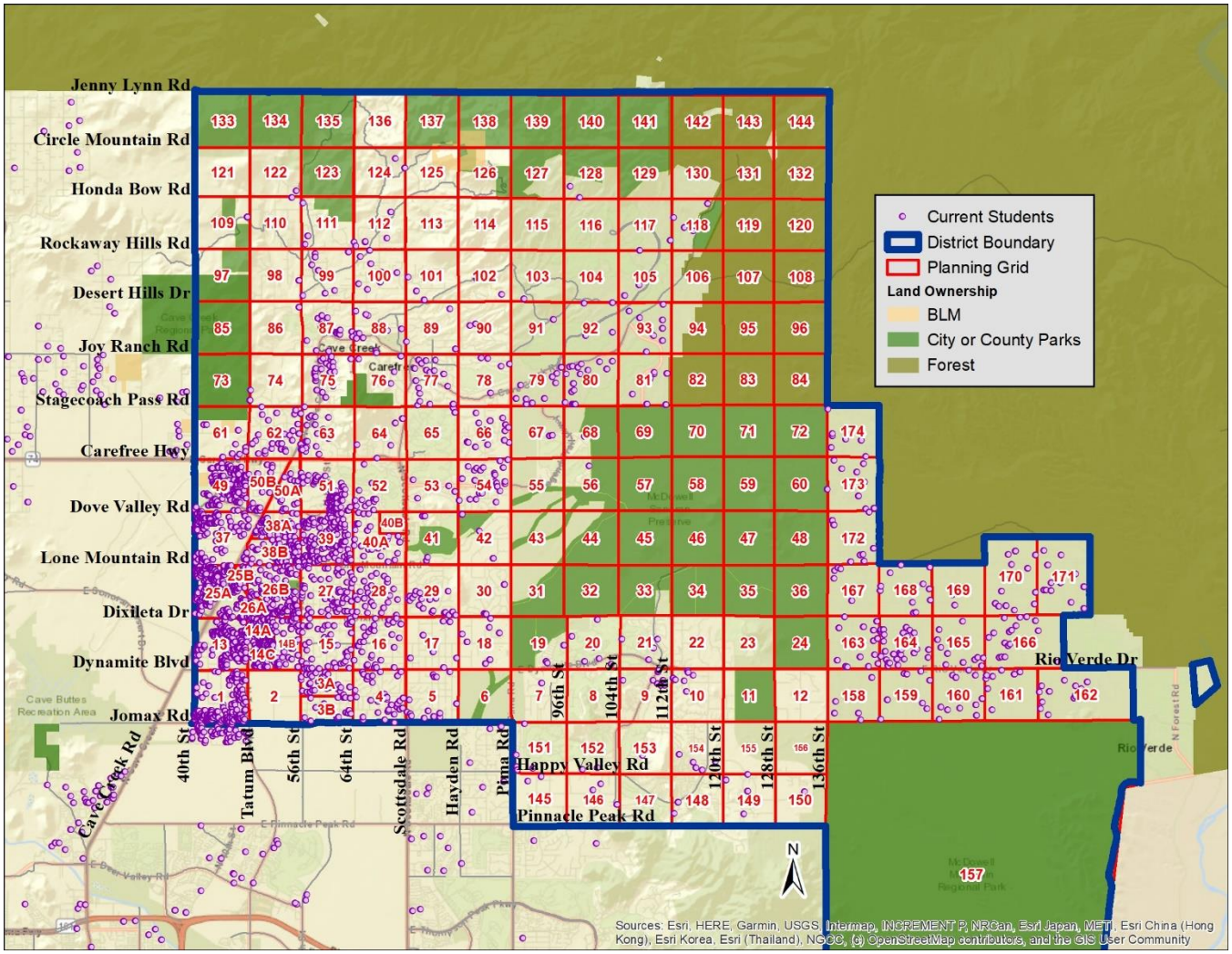


Source: Cave Creek School District; Applied Economics.

In general, the inconsistent nature of changes in enrollment by grade cohort is not caused by any single factor, but by varying degrees of multiple factors. While the size of an incoming Kindergarten class certainly plays a major role in shaping enrollment in each successive grade level, a myriad of factors, including charter school competition, special program additions or closures within the District or in neighboring Districts, the recent expansion of the state's ESA voucher program and the lack of moderately-priced housing in the District also affect enrollment to a greater extent in some cohorts than others.

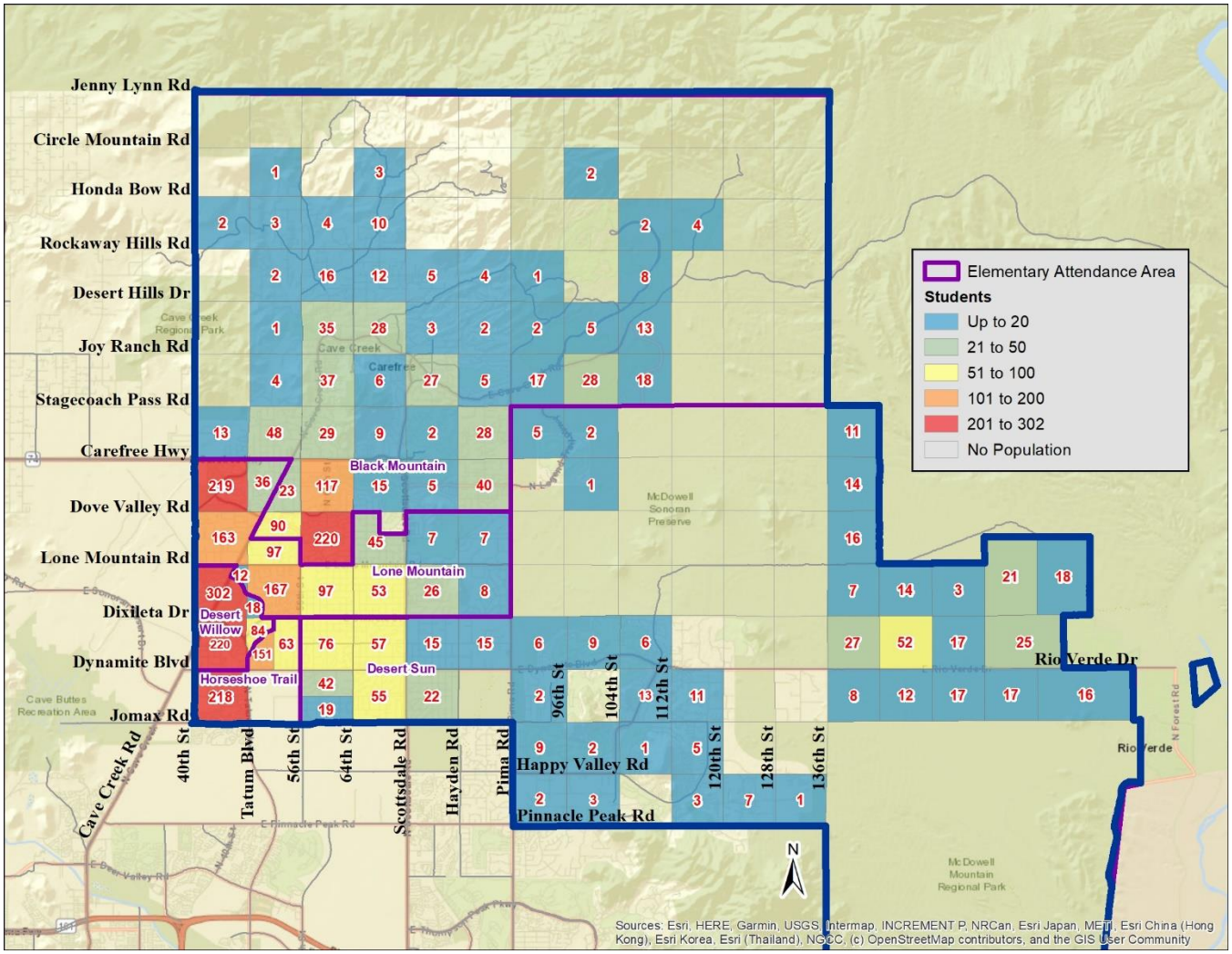
In addition to looking at enrollment by grade, it is also useful to analyze the geographic distribution of students. **Map 2** shows the current point location of the students attending District schools. Note that this map includes students that reside within the District and those who reside in surrounding out-of-District areas. The number of students is greatest in the southwest portion of the District due to the higher concentration of production housing in that area, whereas the rest of the District is dominated by custom housing.

MAP 2
GEOGRAPHIC DISTRIBUTION OF STUDENTS: 2023/24



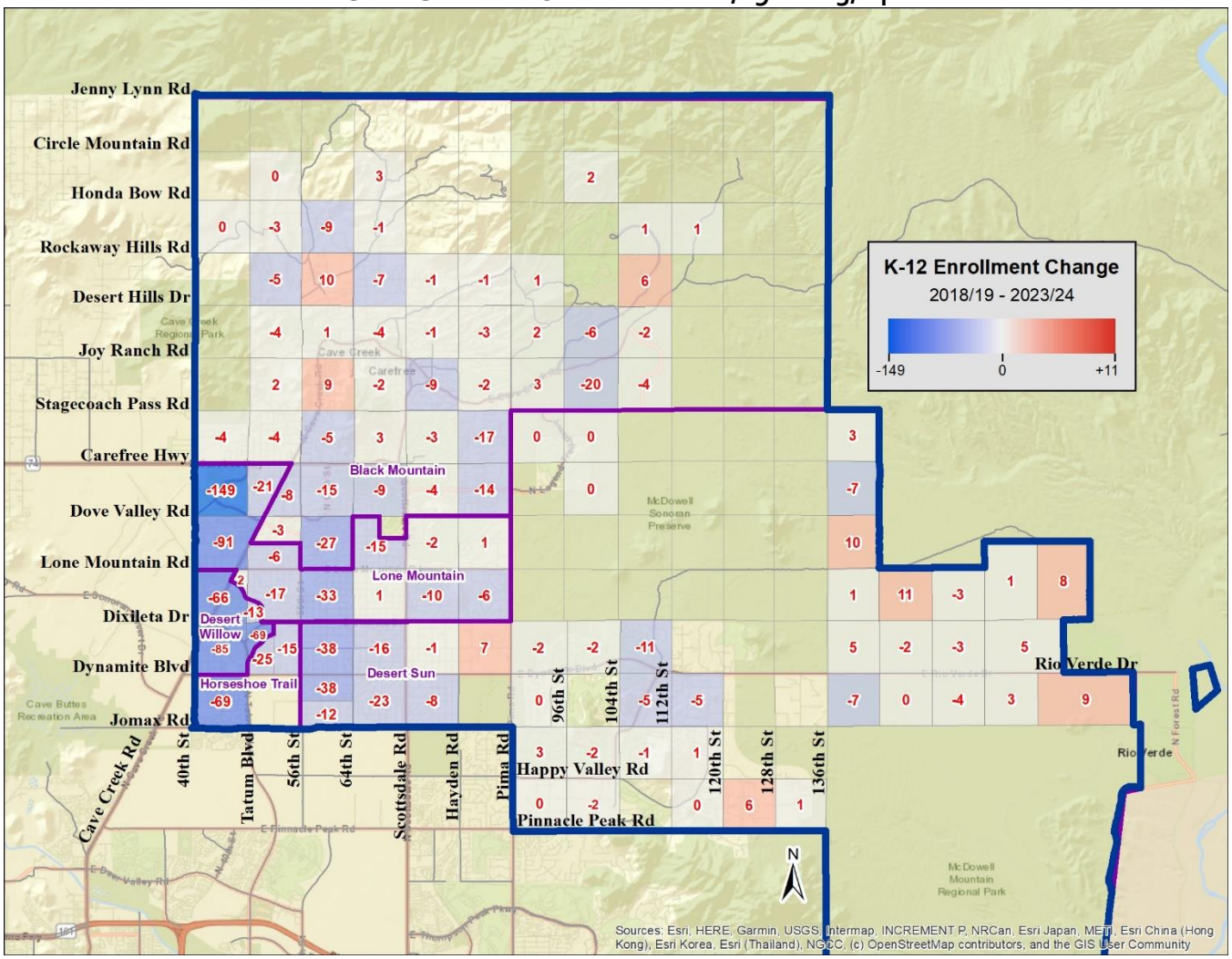
Map 3 normalizes the distribution of the student point data by showing the number of in-District students per planning grid used in the analysis, which again shows the highest density of students living in the southwest portion of the District.

MAP 3
ENROLLMENT DENSITY: 2023/24



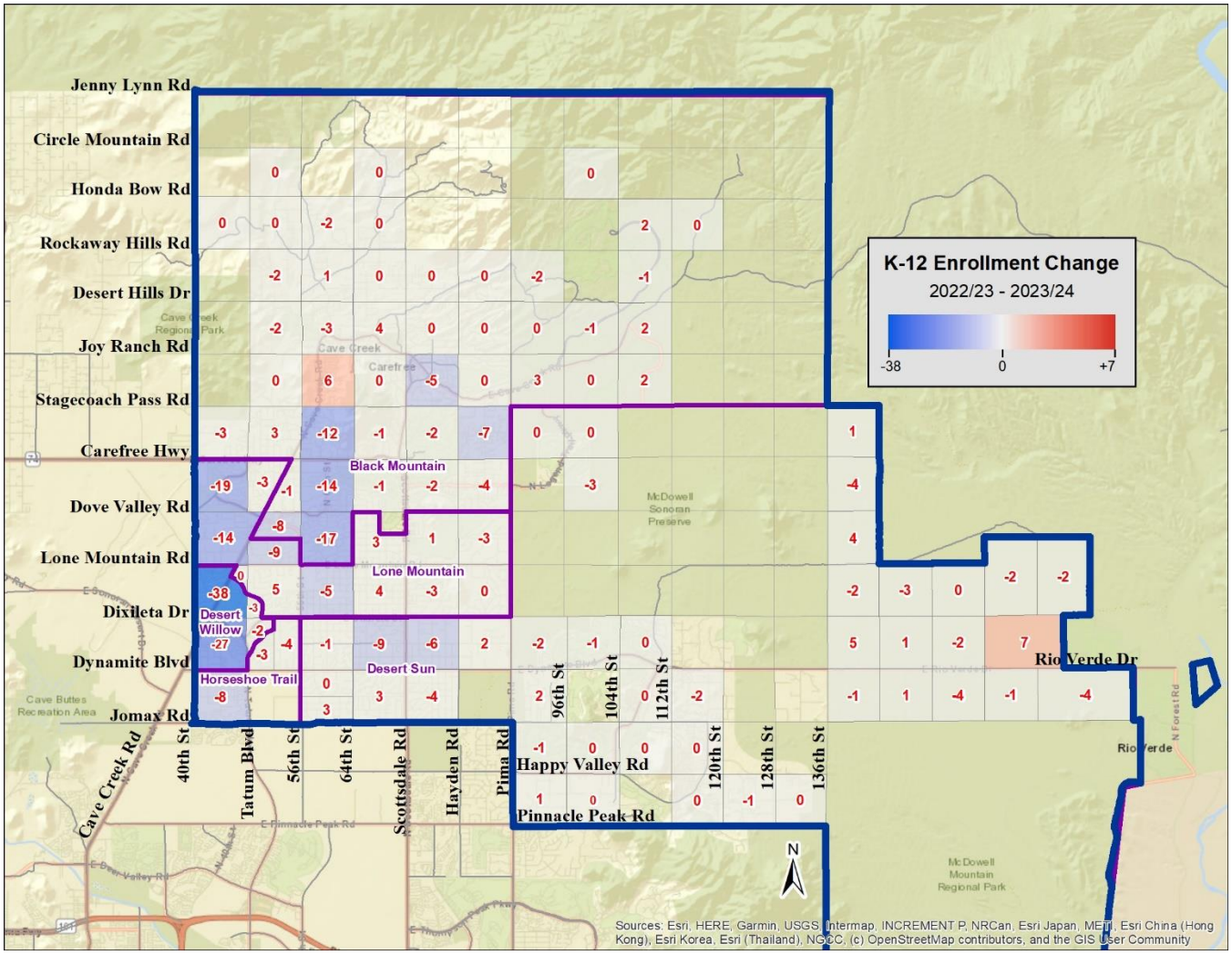
Map 4 displays changes in in-District enrollment since 2018/19. The grids with the largest declines are concentrated along the District's western boundary, south of Carefree Highway. More moderate declines are scattered throughout most of the western half of District, generally due to the aging of the existing population in those areas. Pockets of small enrollment increases can also be seen in several locations, including in the east, near Rio Verde Drive, where custom and infill developments projects have been completed.

MAP 4
CHANGE IN ENROLLMENT: 2018/19 - 2023/24



Map 5 shows changes in in-District enrollment over the past year. In this view, enrollment declines are found in the vast majority of the District, although in most cases the decrease is minimal. The largest enrollment declines are again concentrated near the District's western border.

MAP 5
CHANGE IN ENROLLMENT: 2022/23 - 2023/24



2.2 Demographic Trends

Table 1 contains Census data on population and housing in the District for 2010 and 2020 and 2023 estimates prepared by Applied Economics; this information can help to explain recent trends and the current character of the area. After increasing rapidly in the 1990's and early 2000's due to the introduction of production housing in developments like Tatum Ranch and Tatum Highlands, the District's housing inventory rose by just 1.3 percent per year (on average) between 2010 and 2020 as the character of new development began to be limited to high-end properties. Since 2020 growth rates have increased slightly (2.2 percent per year) but continue to be very modest. As a result, population growth in the District has also moderated, increasing by two percent per year on average over the past three years. The current population of the District is estimated at about 68,300 persons. Growth in the number of households has generally kept pace with population growth, but the District's population per household has declined since 2010 due to the overall aging of the population.

TABLE 1
DEMOGRAPHIC TRENDS

	2010 Census	2020 Census	2023 Estimate	Change 2010-2020 Total	Change 2010-2020 Percent*	Change 2020-2023 Total	Change 2020-2023 Percent*
Population	55,933	64,427	68,275	8,494	1.4%	3,848	2.0%
Housing Units	29,382	33,511	35,753	4,129	1.3%	2,242	2.2%
Households	23,242	27,446	29,317	4,204	1.7%	1,871	2.2%
Population Per	2.41	2.35	2.33	-0.06	-0.2%	-0.02	-0.3%

Sources: U.S. Bureau of the Census, 2010 and 2020; American Community Survey, 2022; Applied Economics, 2024.
* Annual compound rate.

The share of the population by race has changed very little since 2010, with slight increases in the Asian and Hispanic share of the population share and a decrease in the White share, as shown in **Table 2**.

TABLE 2
DEMOGRAPHIC TRENDS – RACE & ETHNICITY

	2010 Census	2020 Census	2023 Estimate	Change 2010-2020 Total	Change 2010-2020 Percent*	Change 2020-2023 Total	Change 2020-2023 Percent*
Population	55,933	64,427	68,275	8,494	1.4%	3,848	2.0%
By Race & Ethnicity:							
White	92.3%	90.7%	90.2%	6,792	1.2%	3,160	1.8%
African American	0.9%	0.9%	0.8%	48	0.9%	24	1.4%
Native American	0.2%	0.2%	0.2%	12	0.8%	6	1.4%
Asian	1.8%	2.4%	2.6%	528	4.3%	234	4.8%
Hispanic	4.6%	5.4%	5.6%	904	3.1%	388	3.6%
Other	0.1%	0.4%	0.5%	211	14.3%	35	4.0%

Sources: U.S. Bureau of the Census, 2010 and 2020; American Community Survey, 2022; Applied Economics, 2024.
* Annual compound rate.

The data also indicates the general aging of the population, which began in the first 10-year period and has continued since 2020, as shown in **Table 3**. The strongest declines have been in the share of persons aged five to 13 years, dropping from 10 percent in 2010 to six percent in 2023 and in the share of population in their child-rearing years (ages 22 to 54 years), which dropped from 37 percent to 28 percent during the same 13-year period. The largest increase has occurred among persons over 64 years of age; this group accounted for 46 percent of the District's population in 2023, up from 32 percent in 2010.

The population aged 14-17 years (high school age) has shown signs of some stability, although the cohort's share of the total population has dropped slightly since 2010. This older age profile of children in the District is consistent with the move-up market orientation of the housing in the area and directly impacts District enrollment trends.

TABLE 3
DEMOGRAPHIC TRENDS – AGE

	2010 Census	2020 Census	2023 Estimate	Change 2010-2020 Total	Change 2010-2020 Percent*	Change 2020-2023 Total	Change 2020-2023 Percent*
Population	55,933	64,427	68,275	8,494	1.4%	3,848	2.0%
By Age:							
Age 0-4	4.1%	3.5%	3.3%	-33	-0.1%	25	0.4%
Age 5-13	10.2%	6.8%	6.1%	-1,316	-2.6%	-268	-2.1%
Age 14-17	4.9%	4.4%	4.3%	146	0.5%	91	1.0%
Age 18-21	2.4%	2.8%	3.0%	488	3.2%	210	3.7%
Age 22-54	37.0%	29.5%	27.6%	-1,676	-0.8%	-184	-0.3%
Age 55-64	10.0%	9.6%	9.4%	582	1.0%	286	1.5%
Age 65-74	25.0%	30.3%	32.1%	5,578	3.4%	2,413	4.0%
Age 75 Up	6.5%	13.0%	14.1%	4,724	8.7%	1,275	4.8%

Sources: U.S. Bureau of the Census, 2010 and 2020; American Community Survey, 2022; Applied Economics, 2024.
* Annual compound rate.

As shown in **Table 4,** the District remains predominantly single family (88 percent). About 5,800 new single family units and 600 new multi-family units were added between 2010 and 2023, which is different from much of the metro area which has experienced a boom in multi-family development recently. The vacancy rate has continued to fall from 20.9 percent in 2010 to an estimated 18.0 percent in 2023. The long-term vacancy rate in the District is well above average, although it is largely due to seasonal housing that the Census classifies as vacant. While this inventory of available housing units creates some potential for enrollment growth, increased enrollment is generally driven more by new construction.

TABLE 4
DEMOGRAPHIC TRENDS – HOUSING UNITS

	2010 Census	2020 Census	2023 Estimate	Change 2010-2020 Total	Change 2010-2020 Percent*	Change 2020-2023 Total	Change 2020-2023 Percent*
Housing Units	29,382	33,511	35,753	4,129	1.3%	2,242	2.2%
Occupied	79.1%	81.9%	82.0%	4,204	1.7%	1,871	2.2%
Owner	70.7%	75.7%	76.3%	4,599	2.0%	1,894	2.4%
Renter	8.4%	6.2%	5.7%	-395	-1.7%	-23	-0.4%
Vacant	20.9%	18.1%	18.0%	-75	-0.1%	371	2.0%
By Unit Type:							
Single Family	87.3%	87.7%	87.9%	3,761	1.4%	2,008	2.2%
Multifamily	12.7%	12.3%	12.1%	368	0.9%	234	1.9%

Sources: U.S. Bureau of the Census, 2010 and 2020; American Community Survey, 2022; Applied Economics, 2024.
* Annual compound rate.

The distribution of households (occupied housing units) by age can be an indicator of future student enrollment. Since 2010, data on the age of the householders shows a slight decline in the share of the age category that drives younger elementary enrollment (ages 25 to 34 years) and a substantial decline in the categories that drive older elementary (ages 35 to 44 years) and high school (ages 45 to 54 years) enrollment (**Table 5**). The District has experienced a sizeable increase in the share of householders over 64 years of age over the last 13 years, increasing from 30 percent in 2010 to 49 percent in 2023; these groups represent the aging-in-place that is occurring in many neighborhoods within the District, which, in turn, is contributing to the decreased share of the school-age population. In the long-term, this group represents the potential for increased housing turnover and a subsequent regeneration of the school-age population; however, that outcome occurs much more slowly than increases resulting from new construction and, hence, it has a lesser impact on enrollment levels in the short-term.

In terms of housing mix, the share of householders that rent in the District has declined since 2010, dropping from roughly eight percent to almost six percent in 2023. Rental units tend to have higher turnover rates. The fact that the District has a greater proportion of owner-occupied units has a dampening effect on the growth of the student population over the long-term since enrollment increases are delayed until neighborhoods begin to regenerate.

TABLE 5
DEMOGRAPHIC TRENDS – HOUSEHOLDS

	2010 Census	2020 Census	2023 Estimate	Change 2010-2020 Total	Change 2010-2020 Percent*	Change 2020-2023 Total	Change 2020-2023 Percent*
Households	23,242	27,446	29,317	4,204	1.7%	1,871	2.2%
Householders by Age:							
Under 25	0.5%	0.4%	0.4%	6	0.5%	12	3.3%
25 to 34	4.4%	3.4%	3.1%	-100	-1.0%	-7	-0.2%
35 to 44	15.3%	7.1%	5.7%	-1,595	-5.8%	-290	-5.2%
45 to 54	23.2%	17.8%	16.4%	-506	-1.0%	-65	-0.4%
55 to 64	27.1%	25.7%	25.4%	779	1.2%	378	1.8%
65 to 74	20.1%	26.8%	29.3%	2,703	4.7%	1,240	5.3%
Over 75	9.6%	18.8%	19.6%	2,918	8.7%	603	3.8%
Owners by Age:	89.4%	92.4%	93.0%	4,599	2.0%	1,894	2.4%
Under 25	0.2%	0.1%	0.1%	-30	-7.6%	-5	-7.1%
25 to 34	3.0%	2.6%	2.5%	16	0.2%	17	0.8%
35 to 44	12.7%	6.2%	5.0%	-1,245	-5.4%	-235	-4.8%
45 to 54	20.4%	15.7%	14.6%	-431	-0.9%	-54	-0.4%
55 to 64	25.1%	24.4%	24.2%	850	1.4%	391	1.9%
65 to 74	19.0%	26.1%	28.6%	2,732	4.9%	1,245	5.5%
Over 75	8.9%	17.4%	18.1%	2,707	8.7%	535	3.6%
Renters by Age:	10.6%	7.6%	7.0%	-395	-1.7%	-23	-0.4%
Under 25	0.2%	0.3%	0.4%	36	5.3%	17	5.8%
25 to 34	1.4%	0.8%	0.7%	-116	-4.2%	-23	-3.7%
35 to 44	2.6%	0.9%	0.7%	-351	-8.3%	-55	-7.8%
45 to 54	2.7%	2.0%	1.9%	-74	-1.2%	-12	-0.7%
55 to 64	1.9%	1.4%	1.2%	-71	-1.7%	-13	-1.2%
65 to 74	1.0%	0.8%	0.7%	-29	-1.3%	-5	-0.7%
Over 75	0.7%	1.3%	1.5%	210	8.8%	68	5.8%
Population Per	2.41	2.35	2.33	-0.06	-0.2%	-0.02	-0.3%

Sources: U.S. Bureau of the Census, 2010 and 2020; American Community Survey, 2022; Applied Economics, 2024.
* Annual compound rate.

2.3 Alternative Providers

There is currently just one charter school operating within the District boundaries, serving roughly 140 K-8 students, and one charter school located just outside of the District's western boundary that serves another 200 K-8 students, resulting in combined local charter enrollment of about 360 students in 2023/24 (**Table 6**). The Foothills Academy closed in 2020 and its in-District location and was taken over by Candeo North Scottsdale, which opened as a K-6 school at the beginning of the 2020/21 school year; a grade was added in each of the subsequent school years, making it a K-8 school in 2022/23.

TABLE 6
ENROLLMENT IN LOCAL CHARTER SCHOOLS

School Name	Address	City	Zip	Grades	Total K-12
In-District Charter Schools					
Candeo North Scottsdale	7191 E. Ashler Hills Drive	Scottsdale	85266	K-8th	144
Area Charter Schools *					
Steppping Stones Academy	35812 N. 7th Street	Phoenix	85086	K-8th	219
Grand Total					363

Source: Arizona Department of Education; Applied Economics 2023.
* Located within approximately one mile of the District's boundaries.

Table 7 shows the enrollment in charter schools by grade since 2008/09. Overall, total charter school enrollment in the area was in decline through 2019/20, but the opening of Candeo North Scottsdale in 2020/21 generated three years of enrollment increases. This year, enrollment at Candeo declined dramatically, dropping by roughly 200 students and bringing total local charter enrollment to a low that is similar to the 2020/21 level.

TABLE 7
ENROLLMENT IN LOCAL CHARTER SCHOOLS BY GRADE

School Year	Number of Schools	KG	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Total K-12	Annual Change
2008-09	2	19	20	20	20	9	13	51	50	61	24	39	21	20	367	
2009-10	3	41	48	41	30	56	37	82	71	72	41	18	30	17	584	217
2010-11	3	42	56	52	58	48	65	62	98	55	35	43	19	26	659	75
2011-12	3	31	52	60	55	56	65	67	91	97	31	35	42	12	694	35
2012-13	3	53	48	61	63	58	67	65	92	94	42	16	33	35	727	33
2013-14	3	57	62	48	64	67	60	66	83	97	47	35	11	27	724	(3)
2014-15	3	55	62	65	51	57	56	61	67	73	36	37	26	12	658	(66)
2015-16	5	59	64	55	58	47	41	60	58	59	31	34	30	54	650	(8)
2016-17	5	56	48	50	52	54	62	55	62	53	22	29	38	34	615	(35)
2017-18	5	49	55	53	47	57	52	55	60	57	22	27	28	38	600	(15)
2018-19	3	42	39	46	38	40	52	38	63	53	35	30	34	33	543	(57)
2019-20	2	29	34	44	36	30	37	39	32	31					312	(231)
2020-21	2	58	49	60	71	43	38	37	25	17					398	86
2021-22	2	52	56	59	67	70	60	60	61	37					522	124
2022-23	2	67	60	69	64	74	71	66	50	43					564	42
2023-24	2	39	41	39	39	43	46	45	35	36					363	(201)

Source: Arizona Department of Education; Applied Economics 2023.

Private schools do not have the same reporting requirements as charter entities, so data is often less accessible, although enrollment at these schools tends to be more stable than charters. There are currently six private schools operating within the District, serving about 450 K-12 students (**Table 8**).

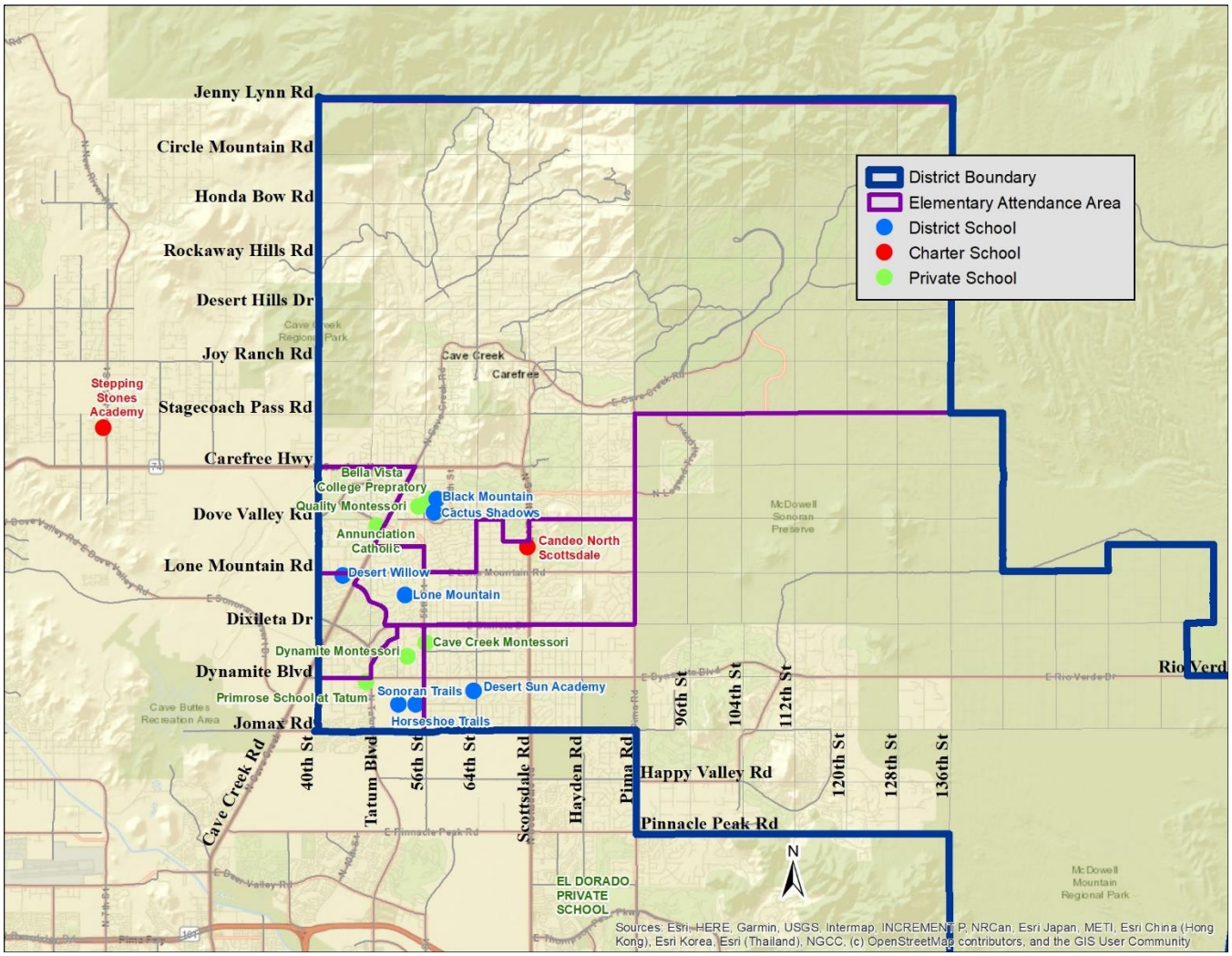
TABLE 8
ENROLLMENT IN LOCAL PRIVATE SCHOOLS

School Name	Address	City	Zip	Grades	Total K-12
Annunciation Catholic School	32648 N. Cave Creek Road	Cave Creek	85331	KG-8th	236
Bella Vista College Prepratory School	33401 N. 56th Street	Cave Creek	85331	7th-12th	79
Cave Creek Montessori	29209 N. 56th Street	Cave Creek	85331	PK-KG	15
Dynamite Montessori	29210 N. 56th Street	Cave Creek	85331	PK-4th	39
Quality Interactive Montessori School	33212 N. 56th Street	Cave Creek	85331	PK-6th	56
Primrose School at Tatum	4747 E. Dynamite Boulevard	Cave Creek	85331	PK-KG	27
Total					452

Sources: Private School Universe Survey (PSS) 2023; PrivateSchoolReview.com, 2023; Applied Economics 2023.
Note: PSS Data from 2021/22 school year.

As is typically the case, these non-District schools are generally located in established areas with higher population densities that are in close proximity to transportation corridors (**Map 6**). Students living in the District are not limited to attending schools located within the District and vice-versa, resulting in a complex flow of incoming and outgoing students that may impact all areas of the District to some degree.

MAP 6
AREA DISTRICT, CHARTER AND PRIVATE SCHOOLS



3.0 Residential Development

3.1 Market Conditions

Historic population growth in Arizona is shown on **Table 9**. Economic conditions that drive job-based in-migration cause growth levels to fluctuate from year to year, such as the 2007-2009 decline due to the recession that was followed by a rebound in job and population growth from 2015 to 2019. Population increases in the Sun Corridor counties, except for Pinal County, in 2022 were generally slightly higher than annual changes in recent years due to elevated growth levels. As the Phoenix metro area matures, residential growth is increasingly occurring in the outer suburbs, both in western Maricopa County and in Pinal County.

TABLE 9
POPULATION GROWTH IN THE SUN CORRIDOR

Population	1990	1995	2000	2005	2010	2015	2020	2021	2022
Maricopa County	2,132,273	2,498,964	3,092,927	3,577,074	3,824,083	4,076,400	4,436,704	4,507,419	4,586,431
Pima County	668,187	750,399	848,375	940,004	981,015	1,005,920	1,045,589	1,058,318	1,072,298
Pinal County	116,996	143,933	182,435	250,195	375,541	387,993	428,220	439,128	453,924
Yavapai County	108,647	133,151	169,520	196,629	210,919	218,182	237,073	241,173	245,389
Arizona	3,682,913	4,279,799	5,175,581	5,924,476	6,398,985	6,701,021	7,176,401	7,285,370	7,409,189
Average Annual Change	**1985-1990**	**1990-1995**	**1995-2000**	**2000-2005**	**2005-2010**	**2010-2015**	**2015-2020**	**2021**	**2022**
Maricopa County	70,245	73,338	118,793	96,829	49,402	50,463	72,061	70,715	79,012
Pima County	18,163	16,442	19,595	18,326	8,202	4,981	7,934	12,729	13,980
Pinal County	3,171	5,387	7,700	13,552	25,069	2,490	8,045	10,908	14,796
Yavapai County	4,987	4,901	7,274	5,422	2,858	1,453	3,778	4,100	4,216
Arizona	112,075	119,377	179,156	149,779	94,902	60,407	95,076	108,969	123,819

Source: Arizona Commerce Authority; U.S. Bureau of the Census; Applied Economics, 2023.

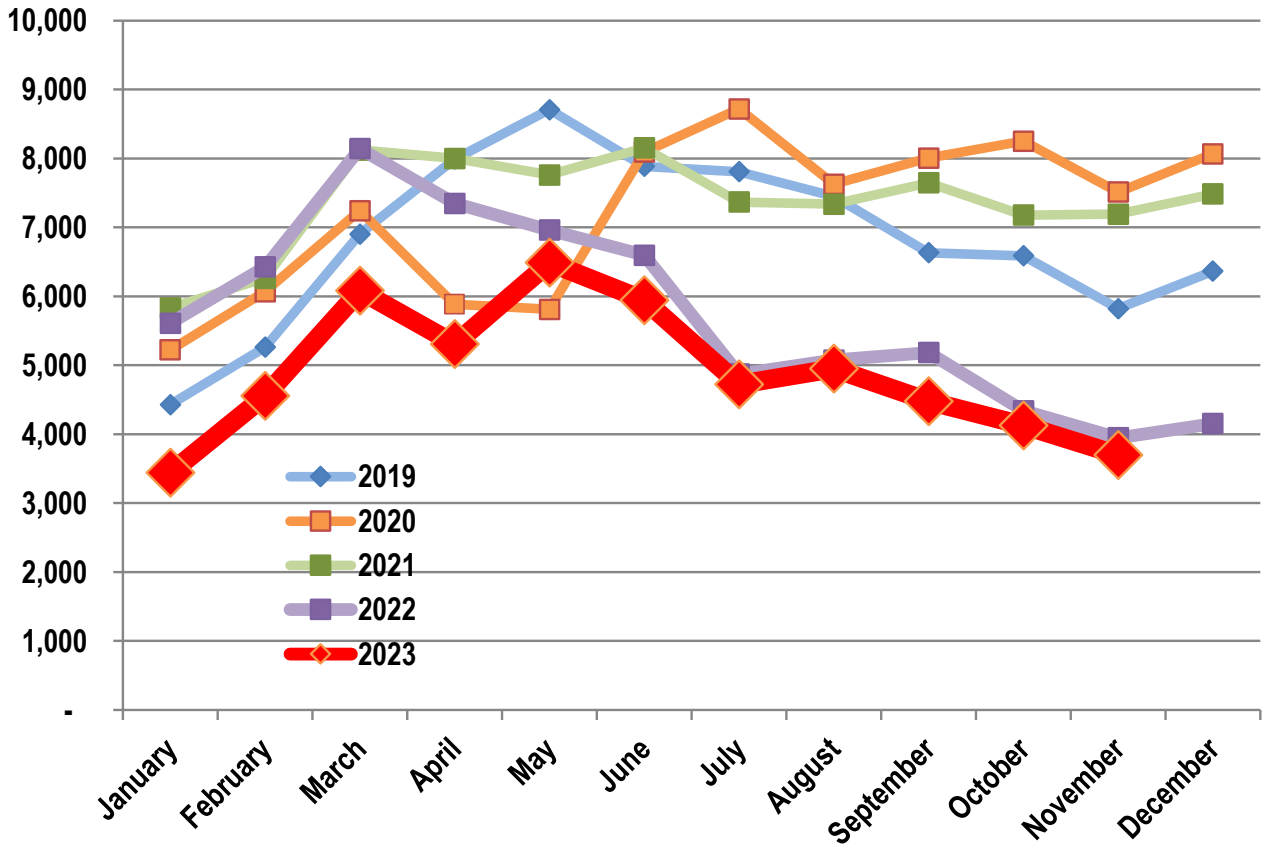
Employment growth is the primary driver for in-migration in the Phoenix metro area. According to the Bureau of Labor Statistics, the 2022 civilian labor force in Arizona grew by 78,600 persons, including 58,300 new workers in the Phoenix metropolitan region. The unemployment rate fell to 3.8 percent in the state and 3.4 percent in the Phoenix metro region, following much higher unemployment rates in 2020 and 2021. Substantial growth has occurred in the Manufacturing, Information, Business Services, and Education and Health Services sectors, all of which offer more stability and higher wages than Hospitality and Personal Service jobs.

During the pandemic, tech companies worldwide grew 2.3 times faster than non-tech companies. Phoenix has been ranked as one of the top emerging ecosystems for startups in the world based on early-stage venture capital funding, according to a report by Startup Genome. Technology-based companies and suppliers can now be found in all parts of the metropolitan region and new facilities are planned or currently under construction. In addition, the Phoenix metro area has seen a significant increase in manufacturing projects, versus the advanced business services industries that dominated region's economic development during the past decade.

Population growth and strong economic conditions create housing demand, but high mortgage rates and limited supply have created problems for the housing market. Elevated mortgage rates cause two problems: they make borrowing costs too high for some purchasers and they dissuade some people from selling since they are likely exchanging a low current rate for a high future one. These effects help explain the region's limited housing supply, which in turn drives up prices. The shortage of existing inventory is also driving demand for new construction. And while the extent of the issue is not fully known, investments in short-term rental homes also remove supply from the inventory available for more permanent households, essentially replacing houses with the equivalent of hotel rentals.

Figure 3 tracks total sales of single family houses in the region by year. The typical pattern is for sales to increase in the spring then level out over the summer before falling off during the last months of the year. In 2020 this pattern was distorted by the COVID pandemic which caused an abrupt decline in the spring but was then followed by strong sales the remainder of the year.

FIGURE 3
SALES OF SINGLE FAMILY HOMES

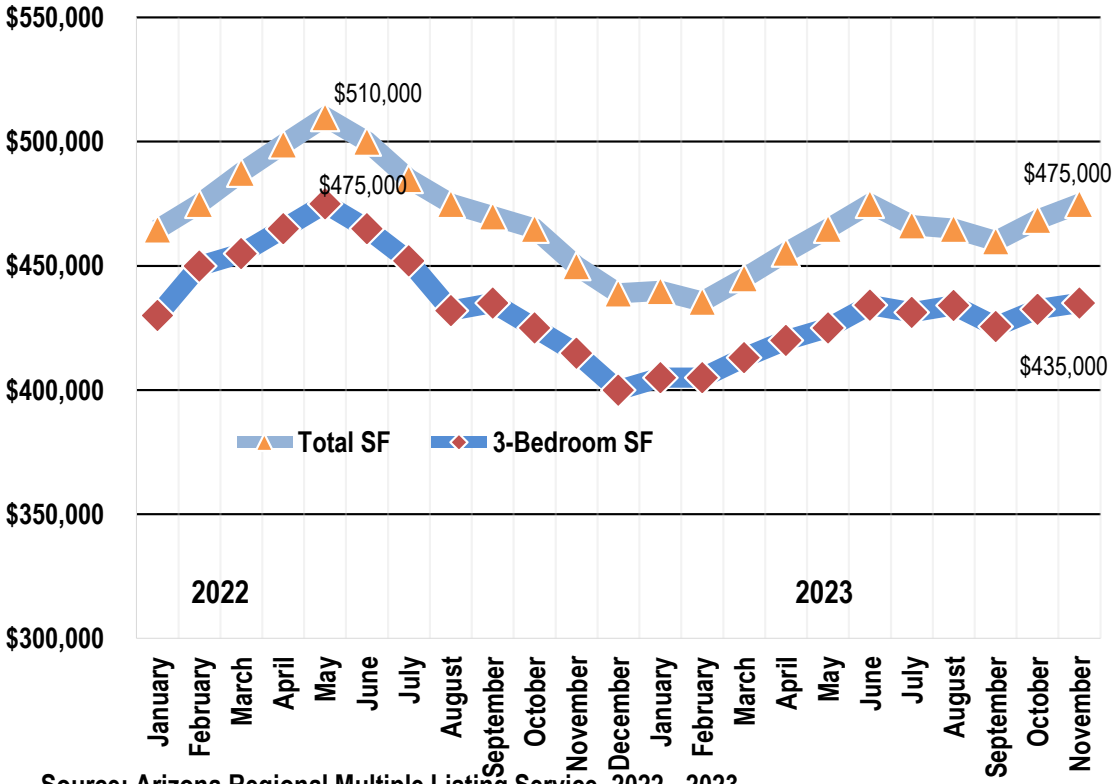


Source: Arizona Regional Multiple Listing Service, 2019-2023.

In 2021, the regional sales pattern returned to normal, although sales were still elevated levels. In 2022, the combined impact of rising mortgage rates and high prices, along with the lack of inventory, sent sales downward after the normal springtime surge. In 2023 this pattern is being repeated, but with even more volatility.

As shown on **Figure 4,** sales prices on existing houses began escalating again in early 2023 after a long decline through most of 2022, but they have been relatively stable for the last few months. Both total and 3-bedroom prices are shown since the total includes high-end custom houses while the standard 3-bedroom house is most relevant for households with school-age children. The purchase price of houses is of obvious importance for buyers, but the mortgage rate is also a major factor affecting purchases. These rates have been fluctuating but remain high, which has affected market stability. Builders have utilized various approaches to improve the affordability of new construction, but strengthening the market for all buyers will require that mortgage interest rates decline and stabilize enough to provide more buyers with the confidence to move forward with purchases.

FIGURE 4
SALE PRICES OF SINGLE-FAMILY HOMES



Source: Arizona Regional Multiple Listing Service, 2022 - 2023.

While financial issues are current concerns, water supply is gaining interest as a long-term factor for continued growth in the metro region. Water availability is an obvious factor affecting growth in a desert location during a long-term drought and one that has been, and continues to be, addressed by the 1980 Groundwater Management. The news reports sound dire, but actually **only refer to a 4 percent effect over the next 100 years on developments relying solely on groundwater**; but developments in the metro area draw upon multiple sources, not just groundwater. Water supply augmentation will be necessary for continued long-term growth in the region, but recent news stories have tended to omit the effects of ameliorating factors, such as future land use changes, new conservation techniques and the use of diverse water supplies. While new efforts are needed, including investments in infrastructure such as reservoir expansions, the Phoenix metro area has policies in place to ensure adequate water for future growth.

3.2 Housing Construction

District housing construction activity over the past decade is shown on **Table 10**, measured by building permits. Housing categories are used to correlate new units to the age structure of the households likely to occupy them. In general, younger households tend to occupy single family housing built at higher densities, which usually have lower purchase prices. Estate housing, at the lowest density levels, tend to have older householders, with older children. Student population per housing unit rates are associated to the unit type, with exceptions made for specific cases. Group quarter facilities, such as nursing homes or dormitories, are not included as either retirement or multifamily housing.

Housing production in the Cave Creek District has been generally stable over the past decade, after recovering from the disruptions of the 2007-2009 recession. Over 65 percent of all new residential construction has been low-density single family, at two lots per acre or less. There is little production housing in the District and a majority of growth comes from infill development on lots located throughout the District, especially on acreages east of 136th Street in the Rio Verde Foothills region or on custom lots within projects such as Desert Mountain. There is also considerable activity in the area south of Carefree Highway and west of Pima Road, both custom lots and small subdivisions. There has been a new growth area in the south at Storyrock and Sereno Canyon in the past three years. Multifamily additions have been in condominium or townhouse projects have been limited and are generally low-density. The surge of production in 2021/22 was a result of three projects being active simultaneously.

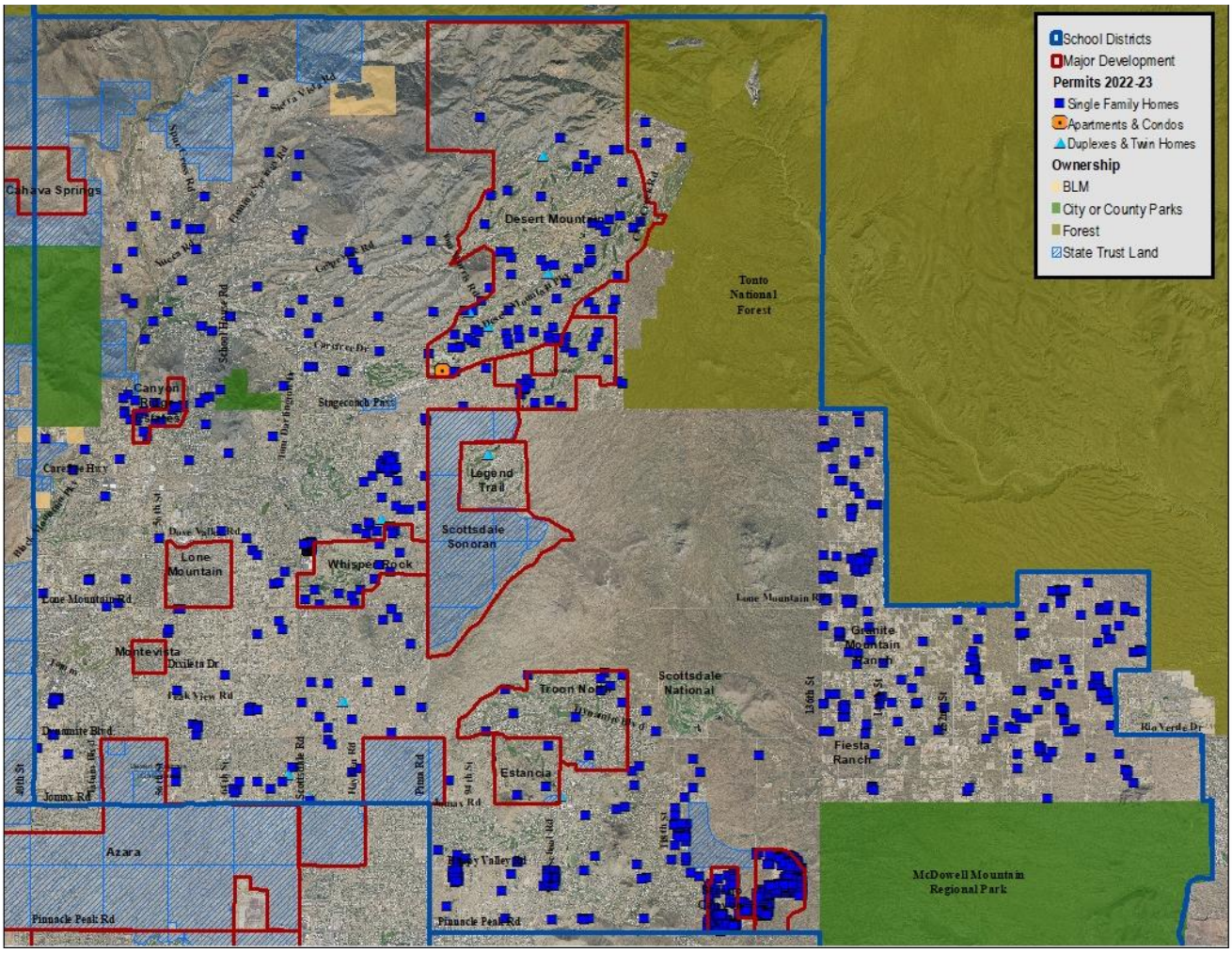
TABLE 10
HOUSING PERMITS

Housing Type	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Total
Single Family 2 du/ac or less	409	354	337	376	396	296	285	496	538	507	3,994
Single Family 2.01 - 3.5 du/ac	43	61	104	93	80	103	123	131	108	64	910
Single Family 3.51 - 4.5 du/ac	11	-	12	46	71	68	23	43	51	16	341
Single Family 4.51 - 6 du/ac	-	13	16	29	24	9	7	6	2	-	106
Single Family 6.01du/ac & Over	15	-	-	-	-	-	-	-	-	-	15
Single Family Attached	-	-	-	-	-	1	19	38	6	2	66
Total Single Family	478	428	469	544	571	477	457	714	705	589	5,432
Condominium/Townhouse	138	44	33	33	30	22	27	35	164	35	561
Total Multifamily	138	44	33	33	30	22	27	35	164	35	561
Total	616	472	502	577	601	499	484	749	869	624	5,993

Sources: Construction Monitor; Maricopa Association of Governments; Maricopa County Assessor; Applied Economics, 2023.

Map 7 shows development activity in the District in 2022 and the first half of 2023 with markers for individual building permits. The wide distribution of new construction is displayed, as well as a concentration in the southern portion of the District at Storyrock and Sereno Canyon.

MAP 7
RESIDENTIAL PERMITTING: 2022/23



3.3 Residential Development

3.3.1 Future Development Potential

Potential housing supply in the District is estimated on **Table 11**, categorized by the type of housing and according to the general time period during which vertical construction is expected to begin. The timing categories only indicate the start of construction for a project and are not related to the level or rate of activity, which can vary widely for many reasons. The Infill category could include rural parcels, single lots in existing neighborhoods, and small custom projects. The number of units, type, and timing estimates will frequently be adjusted as new or more detailed information becomes available.

The housing in the future is expected to be very similar in character to what has been built in recent years. This is largely a result of the typography of the area which includes significant hillsides, washes, and land preserved in the Tonto National Forest, McDowell Mountain Regional Park, and the Scottsdale Sonoran Preserve. Much of the land that is relatively level has already been developed individually or in small subdivisions, making assemblages of large development properties very difficult. This is one reason why many of the newer projects in the District are under 50 acres. There is a substantial amount of new growth possible in the District but the rate of development is expected to continue to be modest.

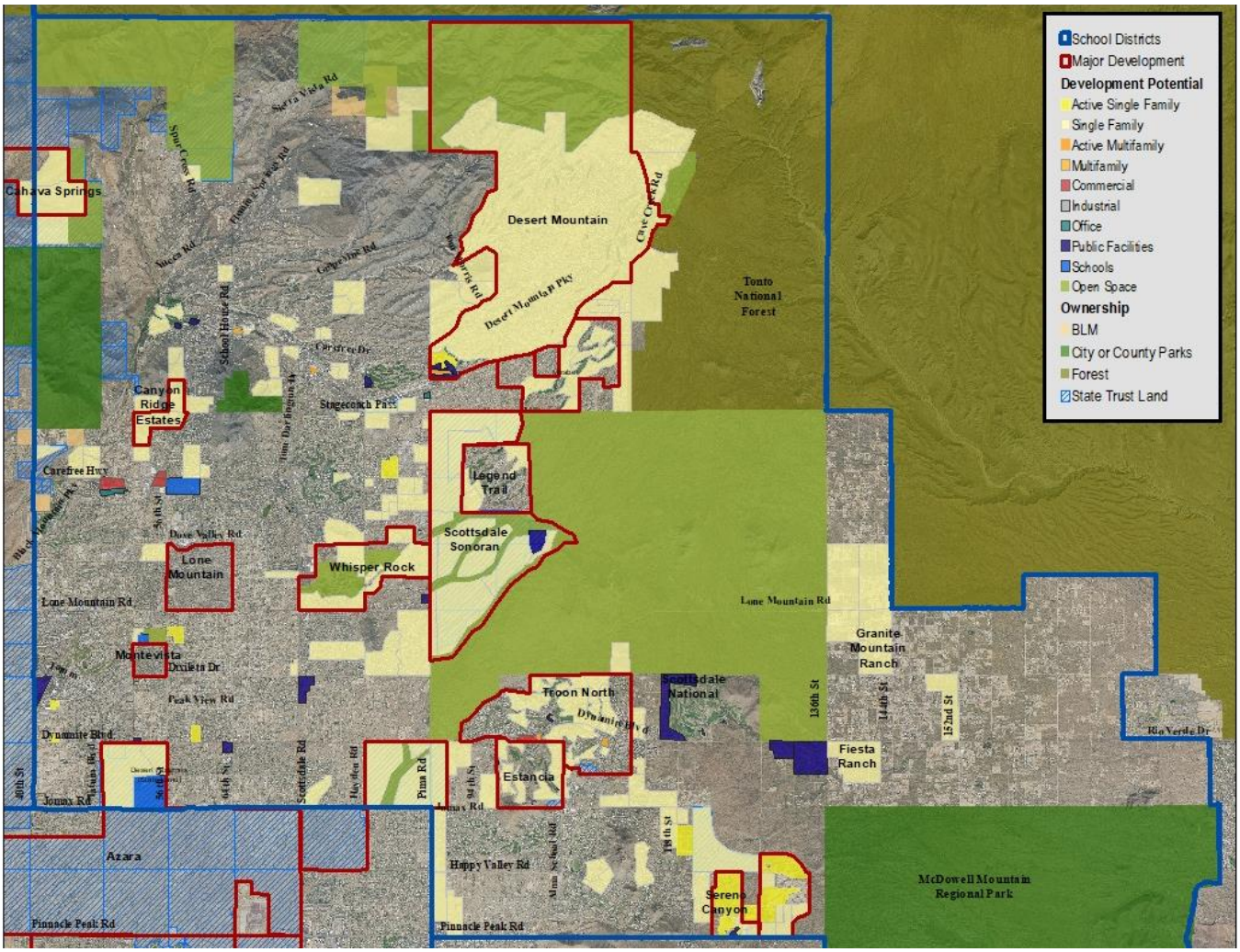
TABLE 11
POTENTIAL NEW HOUSING BY DEVELOPMENT TIMELINE

	Existing		Vacant Land					
Housing Type	Infill	Projects	1 Year	2-3 Years	3-5 Years	5-10 Years	10+ Years	Total
Family Housing								
Single Family 2 du/ac or less	4,877	237	-	-	607	587	1,178	7,486
Single Family 2.01 - 3.5 du/ac	1,892	59	81	82	-	1,140	1,610	4,864
Single Family 3.51 - 4.5 du/ac	1	2	-	-	-	-	1,429	1,432
Single Family 4.51 - 6 du/ac	18	-	-	-	-	-	-	18
Single Family 6.01du/ac & Over	-	-	-	-	-	-	-	-
Single Family Attached	-	4	-	-	-	-	-	4
Total Single Family	6,788	302	81	82	607	1,727	4,217	13,804
Condominium/Townhouse	-	107	-	14	-	78	-	199
Total Multifamily	-	107	-	14	-	78	-	199
Total	6,788	409	81	96	607	1,805	4,217	14,003
Age-Restricted Housing								
Condominium/Townhouse	-	-	-	78	-	-	-	78
Total Age-Restricted	-	-	-	78	-	-	-	78
Total	6,788	409	81	174	607	1,805	4,217	14,081

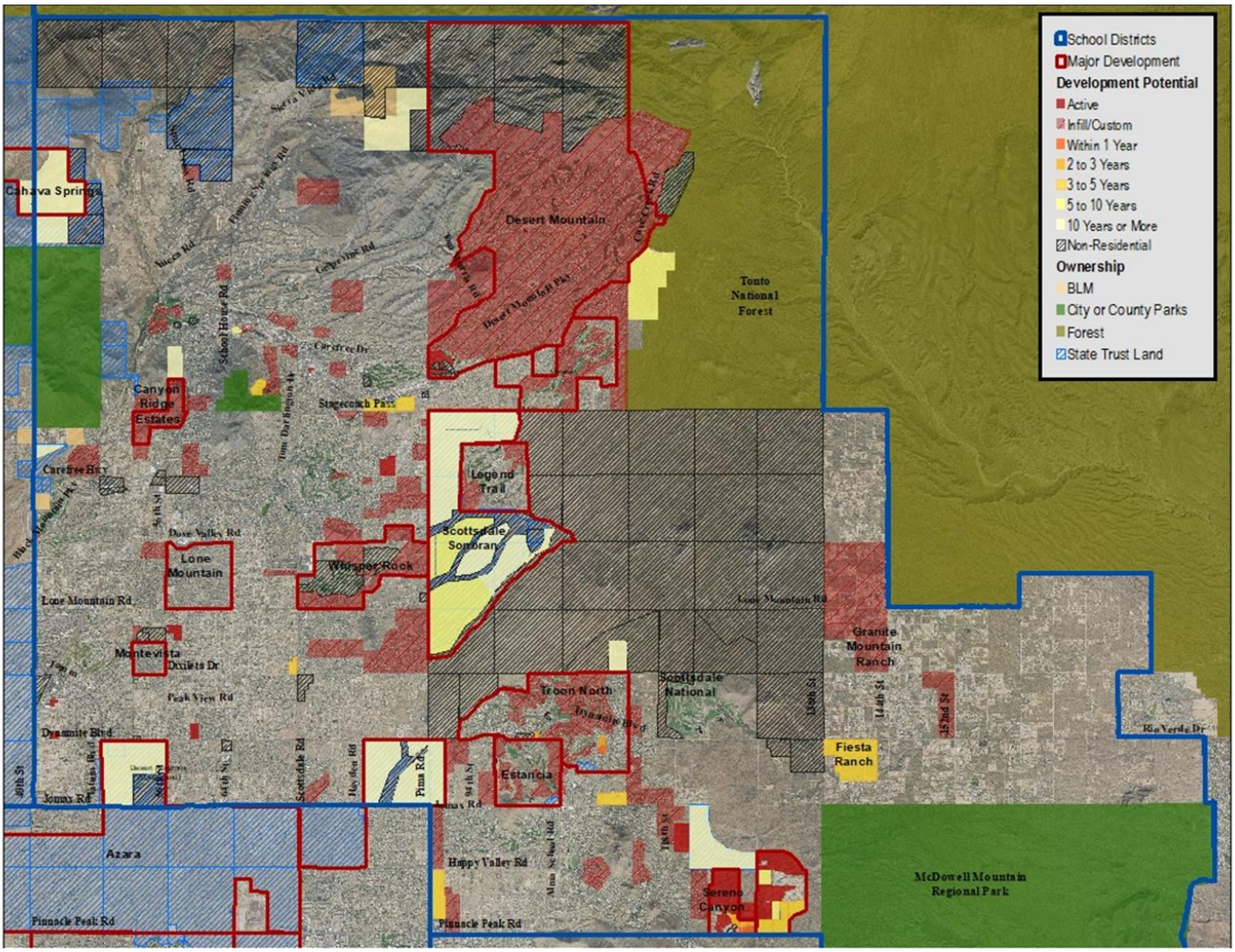
Sources: City of Scottsdale, City of Phoenix, Town of Cave Creek, Town of Carefree; Applied Economics, 2023.

Future land use and development timing is illustrated in the following maps (**Maps 8 and 9**).

MAP 8
FUTURE LAND USE



MAP 9
DEVELOPMENT TIMING



Housing diversity lends stability to the local market since economic disruptions don't affect all types in the same manner or degree. A variety also provides for differing household structures and ages. In general, smaller and less costly housing tends to attract younger householders with younger children while the move-up market typically attracts somewhat older households. A balanced market will have all types of housing and age groups, allowing buyers to move within the same area as circumstances change. Without choices available families may not remain in a community, and local household age-structure levels may be unbalanced.

Tables 12A and 12B shows general pricing in or near the District for both new construction and resale housing. The list is not comprehensive but is meant to indicate overall housing market characteristics and the range of pricing available. As of November 2023, the regional MLS pricing for sales of existing 3-bedroom houses is $435,000 with a median of $475,000 for single family houses of any size. It is clear that housing in the District is generally significantly more expensive than the regional averages, which can tend to result in smaller households with older children than in more affordable areas.

TABLE 12A
HOUSING CHARACTERISTICS AT SELECTED DISTRICT SUBDIVISIONS

Builder	Subdivision	Models offered	Sq. Ft Min	Beds Min	Price Min	Sq. Ft Max	Beds Max	Price Max	Price/SqFt Min-Max
Camelot Homes	Villas at Seven Desert Mountain	4	2,705	2	$1,489,900	3,918	2	$1,867,900	$551 $ 477
Homes By Towne	La Placia	4	2,492	3	$ 501,990	3,288	4	$ 564,990	$201 $ 172
	Rancho North Condos*	5	1,420	2	$ 306,000	2,074	2	NA	$215 NA
K Hovnanian	Galloway Ridge	5	2,090	3	$ 604,990	3,507	4	$ 712,990	$289 $ 203
Keystone Homes	Preakness Estates	4	2,752	3	$ 655,700	3,331	4	$ 695,900	$238 $ 209
Morgan Taylor	Custom lots, Various locations	NA	1,465	3	$ 337,900	3,176	3	$ 875,000	$ - $ -
Rosewood Homes	Rosewood Summit Estates	5	4,034	3	$1,129,990	5,042	4	$1,284,990	$280 $ 255
Shea Homes	Storyrock: Prelude	5	2,973	4	$ 819,990	4,019	5	$1,024,990	$276 $ 255
Taylor Morrison	Venture at Black Mountain	3	2,467	3	$ 542,990	2,870	3	$ 577,990	$220 $ 201
Toll Brothers	Sereno Canyon: Enclave	4	2,157	2	$ 781,995	2,392	2	$ 841,995	$363 $ 352
	Boulder Ranch	8	3,637	3	$1,532,995	4,981	4	$1,711,995	$421 $ 344

Source: Builder websites; Applied Economics, January 22 - February 1, 2021.

*Pricing estimated

TABLE 12B
RESALE HOUSING CHARACTERISTICS BY ZIP CODE

Zip Code	Active Listings		Median List Price	Days on Market	Median Rent	Median price / sq ft
85262	509		$ 1,890,000	66	$ 8,500	$ 505
85266	176		$ 1,620,000	59	$ 6,000	$ 487
85331	270		$ 1,180,000	63	$ 4,500	$ 405
85377	100		$ 1,400,000	55	$ 5,500	$ 433
Total	1055	Avg	$ 1,755,000	62.5	$ 7,250	$ 496

Source: Realtor.com; Applied Economics, December 15, 2023.

3.3.2 Development Projects

The residential market in the metropolitan region has been negatively impacted by elevated construction costs, persistently high mortgage interest rates, and shortages of inventory due to those rates in comparison to earlier ones. While the lack of existing houses on the market helps promote new construction, the impediments to purchasing have slowed the market overall. The housing market in the District has been somewhat less affected by these issues than is the case overall due to the general affluence of the area and the prevalence of custom home construction rather than mass production subdivisions. While there is a slowdown in activity it is less apparent than elsewhere.

Even though the District has ample growth potential overall, it is mostly found in individual lots and small parcels dispersed across a wide area. The only large tracts of land available for development are State land holdings that are impeded by geographic conditions, especially hillsides and washes. These conditions make it difficult to perform the type of mass grading and lot preparation needed for typical subdivisions built with high production rates that allow for lower cost housing.

In recent years, infill construction on single lots throughout the District has accounted for about a third or more of total annual additions. This growth is expected to continue but there may be changes in one area. The Rio Verde Foothills area, east of 136th Street, has been an active growth area, accounting for about half of the infill lots some years. The area experienced a spike in new construction over the past three years, even as water issues were becoming more evident and pressing. Agreements reached in fall 2023 provide a solution to the water shortages for current residents but the underlying issue of lot splits, or "wildcat' subdivisions is still outstanding which makes future growth potential less clear. Since new construction will likely incur significant infrastructure costs it is expected that the number of new housing additions will fall back to levels more typical in the years prior to the recent surge in growth or the wave of residential construction in the early 2000's just before the recession. It is possible that new construction could decline even more if water issues persist, although increases could return if water supply is augmented.

Residential growth is forecast to remain generally stable over the projection period, although at slightly lower levels overall than in recent years. Production will be lowest during the first half of the projection as currently active subdivisions build-out and infill growth in the east declines while landowners adjust to new water supply conditions. The last half of the projection should experience stronger growth as new projects open. The level of new additions may be higher than currently forecast if new projects are advanced more aggressively, or water supply concerns are significantly diminished, but any such increases would likely be moderate.

In addition to infill housing, there will continue to be new projects and subdivisions of varying sizes. The most significant projects, both current and future, are summarized below. In general, small subdivisions tend to have higher density and build at a faster rate but don't have many lots. Larger projects may be made up of multiple subdivisions so even with slow production rates can add more housing units over a longer period of time.

Storyrock: Shea Homes, Taylor Morrison, David Weekley, Rosewood Homes; Happy Valley Road and 128th Street; 400 estimated total lots – 175 remaining.

This project is over half built after three years production with multiple subdivisions active simultaneously. There are currently four active subdivisions, two of which will have all lots permitted in the next few months and the other two closing later in 2024. The actual completion and occupancy of houses will take several more months because of the type and size of construction. There are additional parcels of land associated with this project but without any plats in progress currently. These parcels are assumed to be brought into development but this is not likely for three to five years.

Sereno Canyon: Toll Brothers; Happy Valley Road and 128th Street; 420 estimated total lots – 200 remaining.

New housing construction opened in 2019 and is about half completed. There are six active subdivisions, with two main product lines plus estate lots. New subdivisions are being opened in early 2024 (right) while current ones build out. Production levels are expected to remain stable with the final lots permitted during 2027, with actual completion a few months later because of lengthy build times.

Shadow Ridge: Camelot Homes; Happy Valley Road and 128th Street; 31 total lots – 14 remaining.

This project is small but adjacent to Storyrock and Sereno Canyon, adding to the housing growth node in this part of the District. Production is slow and permitting is expected to continue for another two years.

The following four projects are located in the southwestern portion of the District within about two miles of each other. They are all small individually but total 120 single family lots. Production is expected to be about 40 to 50 lots per year for the next two years. Actual impact on the District is unclear. Some of the builder advertising references District schools, while remarks for others suggest older buyers may be targeted. More projects like these should be expected in the future.

Cachet at Peak View: Cachet Homes; Cave Creek Road and 42nd Street; 23 total lots – 9 remaining.

Saguaro Trails (right): Hillside Homes; Dynamite Boulevard and 42nd Street; 22 total lots – 20 remaining.

Reserves at Lone Mountain: Shea Homes; Lone Mountain Road and 56th Street; 51 total lots – 50 remaining.

Sonoran Trails: Toll Brothers; Dynamite Boulevard and 60th Street; 24 total lots – 19 remaining.

While most future growth will take place on infill lots and small subdivisions, the District does have two areas with large tracts of land that could support multiple active subdivisions. However, there are also impediments to development caused by washes and hillside areas.

Scottsdale Sonoran: Pima and Lone Mountain Roads; 3,700 estimated total lots.

The disposition of this land has been speculated upon for years but it appears that it is finally being advanced. The Lyle Anderson Company is moving an application with the State Land Department and is also working with the City of Scottsdale on zoning issues. Indications are that the number of lots is not an issue but the densities in the area north of Dixileta Drive in the existing plan may be shifted to accommodate the difficult topography. The auction of this land is not expected to take place for at least a year, and plan modifications, platting, and lot development will likely be lengthy processes. House construction is not forecast to commence until about the middle of the projection period or slightly after. The production rate will largely depend on what developer or builders become involved but at this time absorption levels are expected to be modest.

Azara: Tatum and Dynamite Boulevards; 1,500 estimated total lots.

This project is primarily located south of the District but about 460 acres are north of Jomax Road and adjacent to the Horseshoe Trails and Sonoran Trails campuses. Planning has been underway for years, with a master plan defined since 2006 but little evident progress, with infrastructure, washes, and drainage issues as serious obstacles. It appears that advances are now being made to bring the property to development. Initial construction is expected to be near Cave Creek Road and movement east and north to the District would take several years, after the projection period. However, while not currently expected there is the possibility that the combination of infrastructure and existing schools on the portion of the project in the District could prompt an advance in the planning timeline. Even if that were to occur, development would not be expected to take place for several years.

4.0 District Projections

4.1 Population & Housing

Long-term enrollment projections for the District are calculated using a number of factors, including household, demographic, and school-age population and student capture rate data. The construction of new housing units and the occupancy rate of all housing units are important and constantly changing factors in population and enrollment projections.

The long-term population and housing projections for the District are shown in **Table 13**. Currently, the District contains nearly 29,300 households (occupied housing units), an increase of roughly 440 households compared to last year. At 2.329 persons in 2023/24, the District's population per household has continued to decline slowly due to the overall aging of the population. The District's population and households, however, are expected to increase throughout the projection period as some new housing supply continues to enter the market.

TABLE 13
HISTORIC AND PROJECTED POPULATION AND HOUSING

Year	Population	Total Units	New Units (Prior Period)	Occupancy Rate	Vacant Units	Households		Pop/HH
						Total	Change	
2000/01	**38,143**	**19,031**		**82.1%**	**3,400**	**15,631**		**2.440**
2010/11	**55,933**	**29,382**	**101**	**79.1%**	**6,140**	**23,242**	**-417**	**2.407**
2011/12	**56,107**	**29,489**	**107**	**79.4%**	**6,081**	**23,408**	**166**	**2.397**
2012/13	**56,493**	**29,699**	**210**	**79.7%**	**6,042**	**23,657**	**249**	**2.388**
2013/14	**57,269**	**30,111**	**412**	**79.9%**	**6,043**	**24,068**	**412**	**2.379**
2014/15	**58,204**	**30,630**	**519**	**80.2%**	**6,062**	**24,568**	**500**	**2.369**
2015/16	**59,049**	**31,077**	**447**	**80.5%**	**6,063**	**25,014**	**445**	**2.361**
2016/17	**59,979**	**31,566**	**489**	**80.8%**	**6,070**	**25,496**	**482**	**2.353**
2017/18	**60,853**	**32,027**	**461**	**81.1%**	**6,069**	**25,958**	**462**	**2.344**
2018/19	**61,807**	**32,528**	**501**	**81.3%**	**6,072**	**26,456**	**498**	**2.336**
2019/20	**62,760**	**33,027**	**499**	**81.6%**	**6,071**	**26,956**	**499**	**2.328**
2020/21	**64,427**	**33,511**	**484**	**81.9%**	**6,065**	**27,446**	**490**	**2.347**
2021/22	**65,871**	**34,260**	**749**	**82.1%**	**6,133**	**28,127**	**681**	**2.342**
2022/23	**67,410**	**35,129**	**869**	**82.2%**	**6,253**	**28,876**	**749**	**2.334**
2023/24	**68,275**	**35,753**	**624**	**82.0%**	**6,436**	**29,317**	**441**	**2.329**
2024/25	68,871	36,239	486	81.8%	6,595	29,644	326	2.323
2025/26	69,814	36,756	517	82.0%	6,616	30,140	496	2.316
2026/27	70,191	37,093	337	81.9%	6,707	30,386	246	2.310
2027/28	70,608	37,451	358	81.8%	6,803	30,648	263	2.304
2028/29	71,028	37,810	359	81.8%	6,899	30,911	263	2.298
2029/30	71,594	38,241	431	81.7%	7,009	31,232	321	2.292
2030/31	72,238	38,715	474	81.6%	7,127	31,588	356	2.287
2031/32	72,873	39,186	471	81.5%	7,246	31,940	352	2.282
2032/33	73,449	39,625	439	81.4%	7,359	32,266	326	2.276
2033/34	73,995	40,048	423	81.3%	7,470	32,578	312	2.271
2024/25 - 2033/34			4,295				3,260	

Source: Applied Economics, 2024.
Bolding indicates historical data.

The level of construction activity in the District is expected to stabilize at roughly 400 units per year during the projection period as projects build-out and in-fill development continues, although additions will be slightly higher in the next two years. It is important to note, however, that events such as a large sale of State Trust Land could alter these projections. As a result of these new housing additions, the total District population is expected to grow by roughly 5,700 people over the next ten years, reaching nearly 74,000 persons by 2033/34. After factoring in the estimated occupancy rate and population per household, this is expected to result in the formation of nearly 3,300 new households during the projection period.

4.2 Enrollment

In addition to the volume and market orientation of housing development, trends in per-household student generation rates and service rates are key factors used in determining future enrollment levels. The first element, student generation, refers to the expected size of the school-age population (persons aged 5 to 17 years old), per household. The average number of school-age persons per household in the District has declined every year since 2010/11, falling from 0.363 to 0.242 in 2023/24. This trend is expected to continue throughout the projection period, causing the ratio to decline to .200 by 2033/34, as shown on **Table 14**.

Open enrollment causes a shifting of students between districts, with gains and losses offsetting each other to varying degrees, whereas charter and private schools only detract from district enrollment. Due to the increasing number of educational alternatives and open enrollment policies, it is necessary to apply an Enrollment-to-Population (E-P) ratio to the school-age population in order to project enrollment. This ratio can be based on the difference between the school-age population and **total** enrollment, acknowledging that there are flows of students between all school districts in Arizona (henceforth referred to as the Net Enrollment-Population (E-P) ratio), or it can be based on **in-District** enrollment alone (herein referred to as the Service Rate). In the District's case, there are significant differences between the Net E-P ratio for elementary grades (K-8) and high school grades (9-12), so the two components are analyzed separately later in this report.

Between 2013/14 and 2023/24 in-District enrollment decreased by nearly 1,300 students, or 26 percent; this loss was partially offset by the addition of 115 new out-of-District students during the same 10-year period. In comparison, the school-age population (persons aged 5 to 17) residing within District boundaries decreased by more than 800 students, or 10 percent, between 2013/14 and 2023/24.

In 2023/24 there were about 7,100 school-age persons residing in the District and K-12 enrollment totaled 4,220 students, including 594 out-of-District students. Comparing the school-age population to in-District enrollment results in a difference of 3,470 students in 2023/24, therefore, the District has a service rate of roughly 51 percent of the school-age population that resides within its boundaries this year, which is an all-time low. By 2033/34, the District is expected to have a service rate of just 46.3 percent.

TABLE 14
SCHOOL-AGE POPULATION, ENROLLMENT, NET E-P RATIO AND SERVICE RATE

		School-age Population *		Total Enrollment		Net Enrollment -	Out-of-District	In-District		Service
Year	Households	Total	per Household	Total	Change	Population Ratio	Enrollment	Enrollment	Difference	Rate
2000/01	**16,162**	**5,447**	**0.337**	**4,398**		**80.7%**	**87**	**4,311**	**1,136**	**79.1%**
2005/06	**22,970**	**8,033**	**0.350**	**5,720**	**225**	**71.2%**	**210**	**5,510**	**2,523**	**68.6%**
2010/11	**23,242**	**8,444**	**0.363**	**5,790**	**-44**	**68.6%**	**391**	**5,399**	**3,045**	**63.9%**
2015/16	**25,014**	**7,740**	**0.309**	**5,331**	**-56**	**68.9%**	**574**	**4,757**	**2,983**	**61.5%**
2016/17	**25,496**	**7,645**	**0.300**	**5,393**	**62**	**70.5%**	**644**	**4,749**	**2,896**	**62.1%**
2017/18	**25,958**	**7,544**	**0.291**	**5,390**	**-3**	**71.4%**	**688**	**4,702**	**2,842**	**62.3%**
2018/19	**26,456**	**7,454**	**0.282**	**5,361**	**-29**	**71.9%**	**754**	**4,607**	**2,847**	**61.8%**
2019/20	**26,956**	**7,365**	**0.273**	**5,493**	**132**	**74.6%**	**729**	**4,764**	**2,601**	**64.7%**
2020/21	**27,446**	**7,273**	**0.265**	**4,892**	**-601**	**67.3%**	**670**	**4,222**	**3,051**	**58.0%**
2021/22	**28,127**	**7,231**	**0.257**	**4,830**	**-62**	**66.8%**	**671**	**4,159**	**3,072**	**57.5%**
2022/23	**28,876**	**7,182**	**0.249**	**4,504**	**-326**	**62.7%**	**654**	**3,850**	**3,332**	**53.6%**
2023/24	**29,317**	**7,096**	**0.242**	**4,220**	**-284**	**59.5%**	**594**	**3,626**	**3,470**	**51.1%**
2024/25	29,644	7,036	0.237	4,073	-147	57.9%	590	3,483	3,553	49.5%
2025/26	30,140	7,016	0.233	4,026	-47	57.4%	586	3,440	3,576	49.0%
2026/27	30,386	6,937	0.228	3,953	-73	57.0%	582	3,372	3,565	48.6%
2027/28	30,648	6,863	0.224	3,867	-87	56.3%	578	3,289	3,574	47.9%
2028/29	30,911	6,789	0.220	3,817	-50	56.2%	573	3,243	3,545	47.8%
2029/30	31,232	6,728	0.215	3,794	-23	56.4%	569	3,225	3,503	47.9%
2030/31	31,588	6,675	0.211	3,744	-50	56.1%	565	3,179	3,496	47.6%
2031/32	31,940	6,621	0.207	3,714	-30	56.1%	562	3,153	3,468	47.6%
2032/33	32,266	6,562	0.203	3,613	-101	55.1%	558	3,055	3,506	46.6%
2033/34	32,578	6,500	0.200	3,564	-49	54.8%	554	3,010	3,490	46.3%

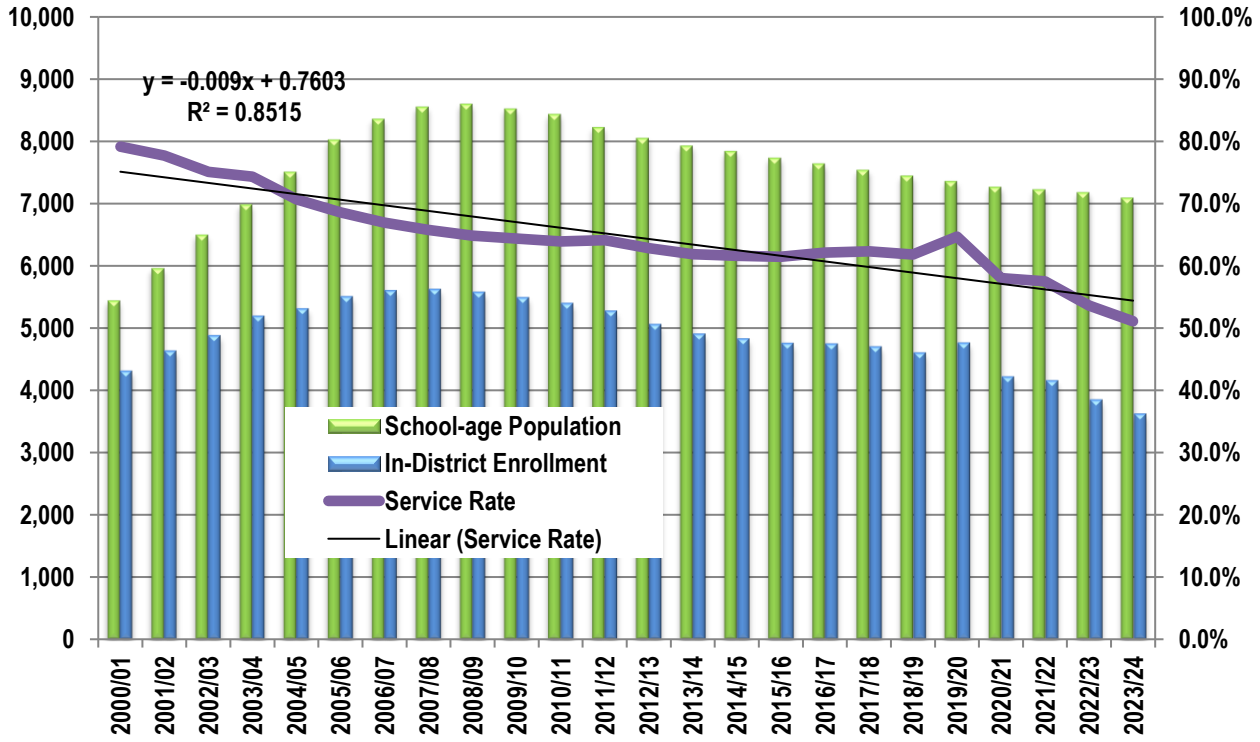
Source: Applied Economics, 2024.

Bolding indicates historical data.

* Population ages 5 to 17

Figure 5 is a graphical illustration of the historical relationship between the size of the District's school-age population and in-District enrollment, represented as the service rate, which shows the steady decline in the ratio since 2000/01. It is important to note that assumptions regarding future trends in the District's service rate will have an effect on enrollment projections.

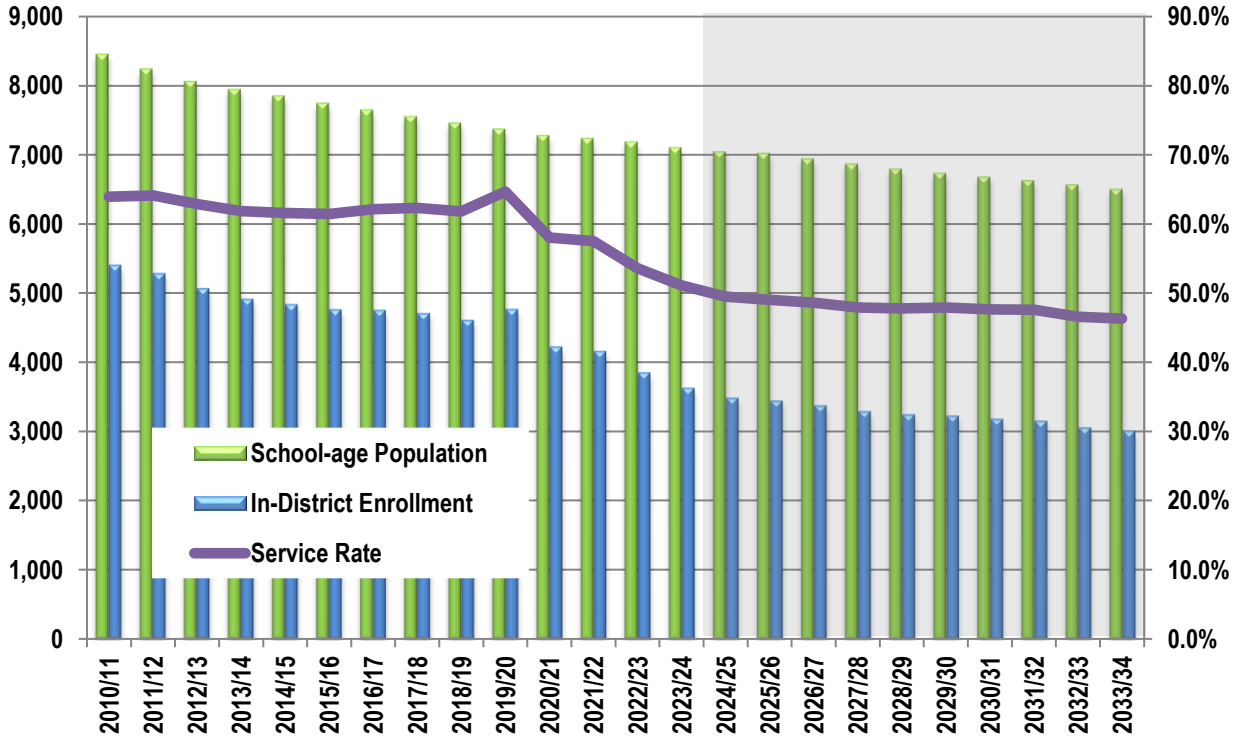
FIGURE 5
HISTORICAL TREND IN THE SERVICE RATE



Sources: Cave Creek School District; Applied Economics, 2024.

Figure 6 provides a visual representation of historical and projected school-age population and total enrollment. Assuming a steady decline in the service rate, total District enrollment is expected to decrease slowly every year through 2033/34, as active development projects are completed and new, large-scale housing development is limited by the lack of available private land. In addition, the turnover of empty nesters in existing homes is not expected to sustain current enrollment levels. As a result, enrollment is projected to total roughly 3,600 students by 2033/34, 550 of which are expected to live outside if the District; this represents a decrease in total enrollment of 15.5 percent (660 students) compared to 2023/24.

FIGURE 6
PROJECTED SCHOOL-AGE POPULATION AND IN-DISTRICT ENROLLMENT



Sources: Cave Creek School District; Applied Economics, 2024.

The District's K-8 school-age population-per-household rate of 0.141 is very low compared to other suburban Phoenix areas (**Table 15**) and is likely the result of the relatively high home prices, the lack of variety in the type of housing, the number of second and seasonal homes, and the aging of the resident population. The Net E-P ratio for the K-8 cohort has declined sharply since 2019/20. With a net difference between total K-8 enrollment and the corresponding school-age population of roughly 1,500 students this year, the K-8 Net E-P ratio fell to an all-time low of 63.5 percent in 2023/24.

Assuming a steady decline in the K-8 Net E-P ratio throughout the projection period, K-8 enrollment is expected to decline by an average of 50 students per year over the next 10 years, bringing total K-8 enrollment to roughly 2,100 students in 2033/34; this represents a decline of 19 percent (500 students) compared to 2023/24 K-8 enrollment.

TABLE 15
PROJECTED K- 8 ENROLLMENT BASED ON DEMOGRAPHIC AND NET E-P RATIO TRENDS

		K-8 Enrollment			School-age Population			Net Enrollment -
Year	Households	Total	Change	per Household	Total	per Household	Difference	Population Ratio
2000/01	**16,162**	**3,333**		**0.206**	**3,868**	**0.239**	**535**	**86.2%**
2005/06	**22,970**	**4,129**	**108**	**0.180**	**5,579**	**0.243**	**1,450**	**74.0%**
2010/11	**23,242**	**3,966**	**-79**	**0.171**	**5,729**	**0.246**	**1,763**	**69.2%**
2015/16	**25,014**	**3,616**	**-62**	**0.145**	**4,979**	**0.199**	**1,363**	**72.6%**
2016/17	**25,496**	**3,615**	**-1**	**0.142**	**4,863**	**0.191**	**1,248**	**74.3%**
2017/18	**25,958**	**3,566**	**-49**	**0.137**	**4,744**	**0.183**	**1,178**	**75.2%**
2018/19	**26,456**	**3,472**	**-94**	**0.131**	**4,633**	**0.175**	**1,161**	**74.9%**
2019/20	**26,956**	**3,549**	**77**	**0.132**	**4,523**	**0.168**	**974**	**78.5%**
2020/21	**27,446**	**3,066**	**-483**	**0.112**	**4,412**	**0.161**	**1,346**	**69.5%**
2021/22	**28,127**	**3,025**	**-41**	**0.108**	**4,332**	**0.154**	**1,307**	**69.8%**
2022/23	**28,876**	**2,883**	**-142**	**0.100**	**4,261**	**0.148**	**1,378**	**67.7%**
2023/24	**29,317**	**2,630**	**-253**	**0.090**	**4,144**	**0.141**	**1,514**	**63.5%**
2024/25	29,644	2,546	-84	0.086	4,085	0.138	1,539	62.3%
2025/26	30,140	2,561	15	0.085	4,050	0.134	1,489	63.2%
2026/27	30,386	2,477	-84	0.082	3,981	0.131	1,504	62.2%
2027/28	30,648	2,444	-33	0.080	3,915	0.128	1,471	62.4%
2028/29	30,911	2,361	-83	0.076	3,850	0.125	1,489	61.3%
2029/30	31,232	2,309	-52	0.074	3,793	0.121	1,483	60.9%
2030/31	31,588	2,269	-40	0.072	3,740	0.118	1,471	60.7%
2031/32	31,940	2,219	-50	0.069	3,687	0.115	1,468	60.2%
2032/33	32,266	2,170	-49	0.067	3,631	0.113	1,461	59.8%
2033/34	32,578	2,121	-49	0.065	3,575	0.110	1,454	59.3%

Source: Applied Economics, 2024.
Bolding indicates historical data.

At 0.054, the number of high school age students per household in the District is also very low compared to the region. The high school Net E-P ratio has also declined significantly since 2019/20, dropping from 68.4 percent to 53.9 percent in 2023/24 (**Table 16**). The projections show 9-12 enrollment generally decreasing over the next four years, before increasing moderately during the subsequent 4 years. By the end of projection period additional declines are expected, bringing total 9-12 enrollment to roughly 1,400 students. These trends result in a nine percent decline (150 students) in 9-12 enrollment and a 9-12 Net E-P ratio of 49.3 percent by the end of the projection period.

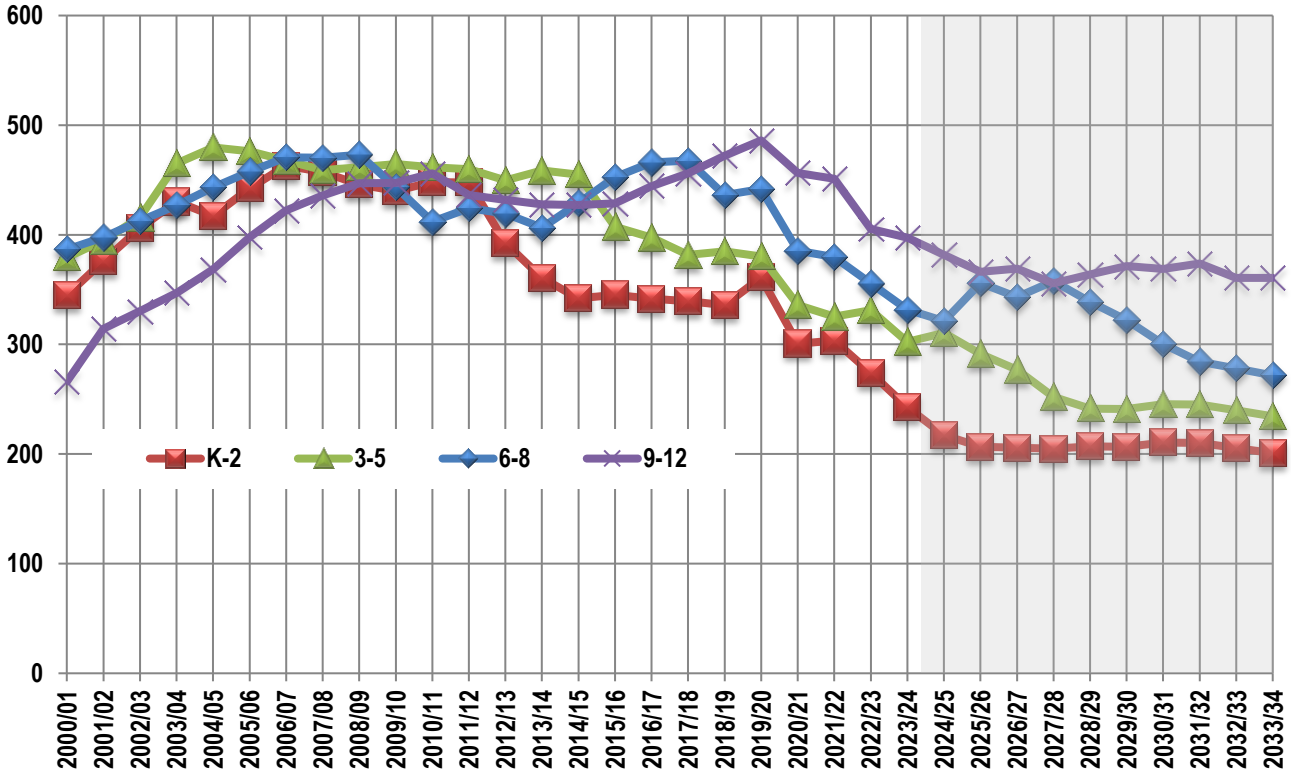
TABLE 16
PROJECTED 9- 12 ENROLLMENT BASED ON DEMOGRAPHIC AND NET E-P RATIO TRENDS

		9-12 Enrollment			School-age Population			Net Enrollment -
Year	Households	Total	Change	per Household	Total	per Household	Difference	Population Ratio
2000/01	**16,162**	**1,065**		**0.066**	**1,579**	**0.098**	**514**	**67.4%**
2005/06	**22,970**	**1,591**	**117**	**0.069**	**2,454**	**0.107**	**863**	**64.8%**
2010/11	**23,242**	**1,824**	**35**	**0.078**	**2,715**	**0.117**	**891**	**67.2%**
2015/16	**25,014**	**1,715**	**6**	**0.069**	**2,760**	**0.110**	**1,045**	**62.1%**
2016/17	**25,496**	**1,778**	**63**	**0.070**	**2,782**	**0.109**	**1,004**	**63.9%**
2017/18	**25,958**	**1,824**	**46**	**0.070**	**2,800**	**0.108**	**976**	**65.1%**
2018/19	**26,456**	**1,889**	**65**	**0.071**	**2,821**	**0.107**	**932**	**67.0%**
2019/20	**26,956**	**1,944**	**55**	**0.072**	**2,842**	**0.105**	**898**	**68.4%**
2020/21	**27,446**	**1,826**	**-118**	**0.067**	**2,861**	**0.104**	**1,035**	**63.8%**
2021/22	**28,127**	**1,805**	**-21**	**0.064**	**2,899**	**0.103**	**1,094**	**62.3%**
2022/23	**28,876**	**1,621**	**-184**	**0.056**	**2,922**	**0.102**	**1,301**	**55.5%**
2023/24	**29,317**	**1,590**	**-31**	**0.054**	**2,952**	**0.101**	**1,362**	**53.9%**
2024/25	29,644	1,527	-63	0.052	2,951	0.100	1,424	51.8%
2025/26	30,140	1,465	-62	0.049	2,966	0.098	1,501	49.4%
2026/27	30,386	1,476	12	0.049	2,956	0.097	1,480	49.9%
2027/28	30,648	1,422	-54	0.046	2,948	0.096	1,525	48.3%
2028/29	30,911	1,456	33	0.047	2,939	0.095	1,483	49.5%
2029/30	31,232	1,485	30	0.048	2,936	0.094	1,451	50.6%
2030/31	31,588	1,476	-10	0.047	2,935	0.093	1,460	50.3%
2031/32	31,940	1,495	20	0.047	2,934	0.092	1,439	51.0%
2032/33	32,266	1,443	-53	0.045	2,930	0.091	1,487	49.2%
2033/34	32,578	1,443	0	0.044	2,925	0.090	1,482	49.3%

Source: Applied Economics, 2024.
Bolding indicates historical data.

In terms of average enrollment per grade, the K-2 cohort is expected to experience very little change during the projection period (**Figure 7**), whereas average enrollment in the 3-5 cohort is projected to decline sharply during the first five-year period and then stabilize for the remainder of the projection period. As the smaller 3-5 classes advance, per grade enrollment in the 6-8 cohort is projected to steadily decline after 2027/28. The 9-12 cohort is also expected to continue to decline during the first half of the projection period and then stabilize during the second five-year period. As a result of these trends, average enrollment in the three youngest cohorts is expected to become more similar in size, although per grade K-2 enrollment will remain the smallest and average 6-8 enrollment the largest of the three; average 9-12 enrollment is expected to be significantly higher than all of the other cohorts by the end of the projection period.

FIGURE 7
HISTORIC AND PROJECTED AVERAGE ENROLLMENT BY GRADE LEVEL



Source: Cave Creek School District; Applied Economics, 2024.

Table 17 provides detail on enrollment history and projections by level. Over the next 10 years, the strongest decline (21 percent or 420 students) is expected in K-6 enrollment, followed by a 13 percent decline (85 students) in 7-8 enrollment and a nine percent drop (150 students) in 9-12 enrollment. As a result, 9-12 enrollment is expected to account for more than 40 percent of total enrollment by 2033/34, which is up from 38 percent in 2023/24; although the share of 7-8 enrollment is expected to remain nearly unchanged at roughly 15 percent, K-6 enrollment is projected to account for 44 percent of total enrollment by 2033/34, down from 47 percent in 2023/24.

TABLE 17
HISTORIC AND PROJECTED ENROLLMENT BY LEVEL

	Enrollment by Level			K-12		Percent	Enrollment by Level		
	K-6*	7-8	9-12	Enrollment	Change	Change	K-6*	7-8	9-12
2000/01	**2,572**	**761**	**1,065**	**4,398**	**446**	**11.92%**	**58.48%**	**17.30%**	**24.22%**
2010/11	**3,151**	**815**	**1,824**	**5,790**	**-44**	**-0.51%**	**54.42%**	**14.08%**	**31.50%**
2011/12	**3,190**	**806**	**1,745**	**5,741**	**-49**	**-0.85%**	**55.57%**	**14.04%**	**30.40%**
2012/13	**2,988**	**796**	**1,728**	**5,512**	**-229**	**-3.99%**	**54.21%**	**14.44%**	**31.35%**
2013/14	**2,862**	**815**	**1,711**	**5,388**	**-124**	**-2.25%**	**53.12%**	**15.13%**	**31.76%**
2014/15	**2,836**	**842**	**1,709**	**5,387**	**-1**	**-0.02%**	**52.65%**	**15.63%**	**31.72%**
2015/16	**2,748**	**868**	**1,715**	**5,331**	**-56**	**-1.04%**	**51.55%**	**16.28%**	**32.17%**
2016/17	**2,641**	**974**	**1,778**	**5,393**	**62**	**1.16%**	**48.97%**	**18.06%**	**32.97%**
2017/18	**2,628**	**938**	**1,824**	**5,390**	**-3**	**-0.06%**	**48.76%**	**17.40%**	**33.84%**
2018/19	**2,573**	**899**	**1,889**	**5,361**	**-29**	**-0.54%**	**47.99%**	**16.77%**	**35.24%**
2019/20	**2,624**	**925**	**1,944**	**5,493**	**132**	**2.46%**	**47.77%**	**16.84%**	**35.39%**
2020/21	**2,304**	**762**	**1,826**	**4,892**	**-601**	**-10.94%**	**47.10%**	**15.58%**	**37.33%**
2021/22	**2,238**	**787**	**1,805**	**4,830**	**-62**	**-1.27%**	**46.34%**	**16.29%**	**37.37%**
2022/23	**2,114**	**769**	**1,621**	**4,504**	**-326**	**-6.75%**	**46.94%**	**17.07%**	**35.99%**
2023/24	**1,988**	**642**	**1,590**	**4,220**	**-284**	**-6.31%**	**47.11%**	**15.21%**	**37.68%**
2024/25	1,880	666	1,527	4,073	-147	-3.48%	46.15%	16.36%	37.49%
2025/26	1,866	695	1,465	4,026	-47	-1.16%	46.36%	17.26%	36.38%
2026/27	1,760	717	1,476	3,953	-73	-1.80%	44.51%	18.14%	37.35%
2027/28	1,711	734	1,422	3,867	-87	-2.20%	44.24%	18.97%	36.79%
2028/29	1,654	707	1,456	3,817	-50	-1.28%	43.33%	18.53%	38.14%
2029/30	1,608	701	1,485	3,794	-23	-0.59%	42.38%	18.47%	39.14%
2030/31	1,639	630	1,476	3,744	-50	-1.32%	43.77%	16.82%	39.41%
2031/32	1,637	582	1,495	3,714	-30	-0.80%	44.06%	15.67%	40.26%
2032/33	1,600	570	1,443	3,613	-101	-2.73%	44.30%	15.76%	39.94%
2033/34	1,564	557	1,443	3,564	-49	-1.36%	43.89%	15.62%	40.48%

Source: Applied Economics, 2024.

* Includes kindergarten enrollment as full students.

Bolding indicates historical data.

The distribution of total enrollment by individual grade is shown in **Table 18,** and can provide some additional insight into enrollment patterns and the progressive impact of smaller or larger classes. The lack of growth in District enrollment is evident in the size of the classes entering Kindergarten and graduating from high school. The current 12th grade class of 446 students will be replaced by the current Kindergarten class of just 198 students, although some of this "loss" will be offset by growth in the intermediate grades, which is representative of the move-up/high-end housing market found in the District.

TABLE 18
HISTORIC AND PROJECTED ENROLLMENT BY GRADE

	Grades														K-12	
	PS	K	1	2	3	4	5	6	7	8	9	10	11	12	Total	Change
2000/01	**25**	**312**	**349**	**374**	**366**	**372**	**400**	**399**	**376**	**385**	**312**	**311**	**224**	**218**	**4,398**	**11.3%**
2010/11	**57**	**435**	**456**	**454**	**440**	**477**	**468**	**421**	**389**	**426**	**449**	**478**	**457**	**440**	**5,790**	**-0.8%**
2011/12	**56**	**432**	**434**	**477**	**451**	**442**	**487**	**467**	**411**	**395**	**418**	**436**	**448**	**443**	**5,741**	**-0.8%**
2012/13	**50**	**332**	**421**	**424**	**475**	**462**	**412**	**462**	**395**	**401**	**431**	**416**	**438**	**443**	**5,512**	**-4.0%**
2013/14	**34**	**336**	**331**	**415**	**448**	**488**	**440**	**404**	**425**	**390**	**406**	**429**	**426**	**450**	**5,388**	**-2.2%**
2014/15	**35**	**338**	**342**	**346**	**430**	**440**	**495**	**445**	**411**	**431**	**428**	**423**	**419**	**439**	**5,387**	**0.0%**
2015/16	**48**	**322**	**354**	**360**	**372**	**432**	**418**	**490**	**436**	**432**	**446**	**411**	**439**	**419**	**5,331**	**-1.0%**
2016/17	**62**	**315**	**343**	**367**	**360**	**389**	**443**	**424**	**507**	**467**	**452**	**459**	**436**	**431**	**5,393**	**1.2%**
2017/18	**67**	**335**	**324**	**359**	**373**	**373**	**399**	**465**	**442**	**496**	**479**	**447**	**468**	**430**	**5,390**	**-0.1%**
2018/19	**61**	**326**	**365**	**317**	**379**	**384**	**392**	**410**	**468**	**431**	**508**	**479**	**436**	**466**	**5,361**	**-0.5%**
2019/20	**46**	**364**	**336**	**383**	**334**	**395**	**412**	**400**	**426**	**499**	**456**	**527**	**498**	**463**	**5,493**	**2.5%**
2020/21	**45**	**260**	**327**	**315**	**345**	**307**	**356**	**394**	**359**	**403**	**455**	**403**	**483**	**485**	**4,892**	**-10.9%**
2021/22	**33**	**276**	**291**	**343**	**305**	**362**	**309**	**352**	**401**	**386**	**439**	**461**	**415**	**490**	**4,830**	**-1.3%**
2022/23	**22**	**252**	**285**	**285**	**338**	**289**	**367**	**298**	**358**	**411**	**362**	**416**	**453**	**390**	**4,504**	**-6.7%**
2023/24	**19**	**198**	**245**	**285**	**274**	**341**	**292**	**353**	**297**	**345**	**364**	**371**	**409**	**446**	**4,220**	**-6.3%**
2024/25	19	194	207	251	293	281	357	297	365	301	351	376	384	416	4,073	-3.5%
2025/26	19	195	208	217	264	308	302	373	315	380	311	368	395	390	4,026	-1.2%
2026/27	19	194	207	216	227	276	328	313	392	325	381	318	376	402	3,953	-1.8%
2027/28	19	193	206	215	226	237	294	340	329	405	327	389	324	382	3,867	-2.2%
2028/29	20	195	208	218	228	239	256	309	363	345	403	330	393	330	3,817	-1.3%
2029/30	20	195	208	217	228	239	256	266	326	375	343	408	334	400	3,794	-0.6%
2030/31	20	198	212	221	232	243	261	271	286	344	375	348	413	340	3,744	-1.3%
2031/32	21	198	211	221	232	243	260	271	286	296	343	379	353	420	3,714	-0.8%
2032/33	20	194	207	216	227	238	255	265	280	290	312	367	406	359	3,613	-2.7%
2033/34	20	189	202	211	222	232	249	259	273	283	305	333	392	413	3,564	-1.4%

Source: Applied Economics, 2024.
Bolding indicates historical data.

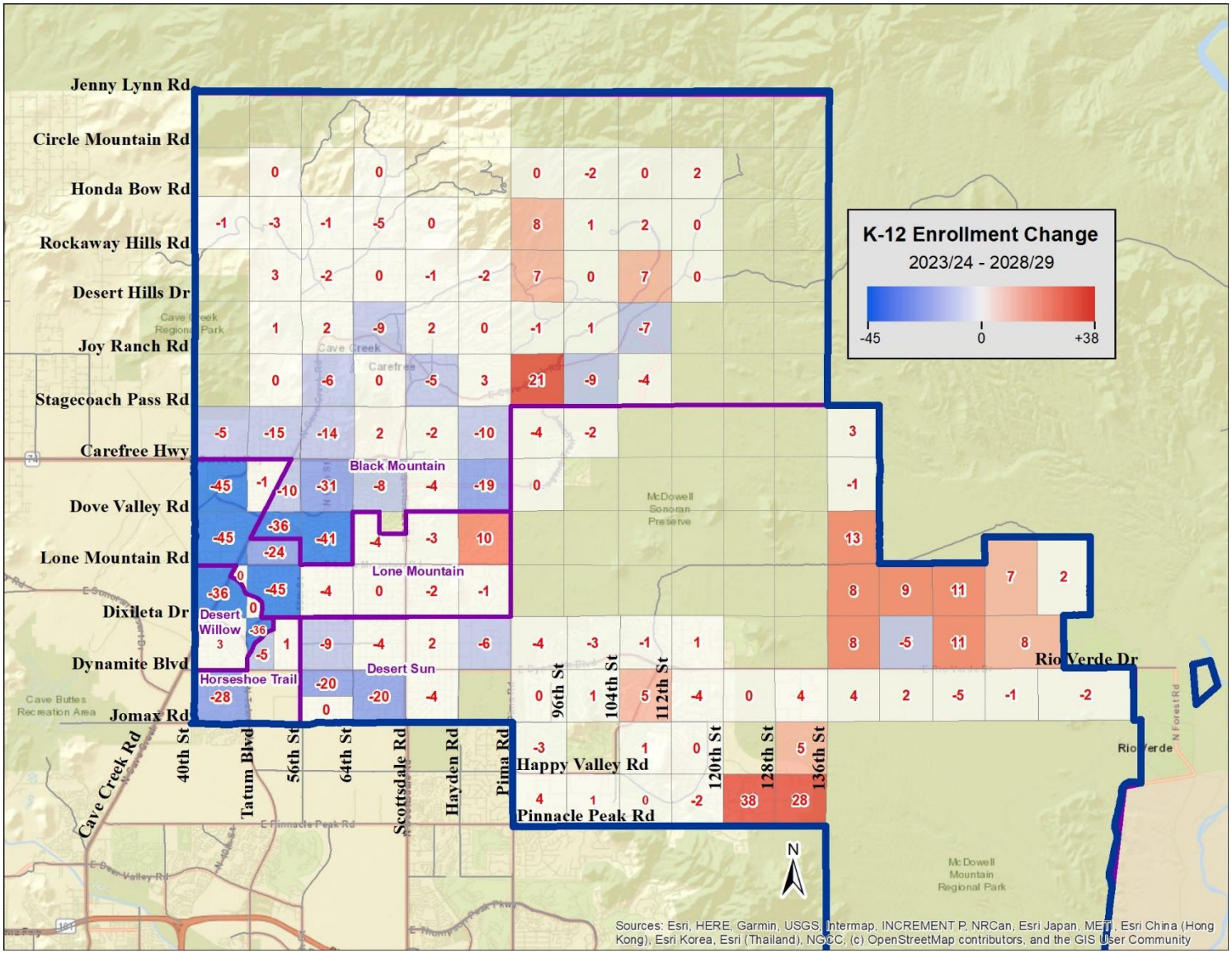
5.0 Sub-District Projections

Sub-District enrollment projections are based on the current number of students in each study area, the expected occupancy of existing housing units, absorption of new housing units, and the expected student generation from existing and newly created households. The small-area forecasts are developed by applying the expected level of District-wide absorption to the supply of new residential housing on a project-by-project basis. Absorption is first allocated to active residential projects and then to vacant land planned for residential development, according to the development schedule assigned to each project or portion thereof. Using this data, annual projections of enrollment by grade for each of the study areas have been developed.

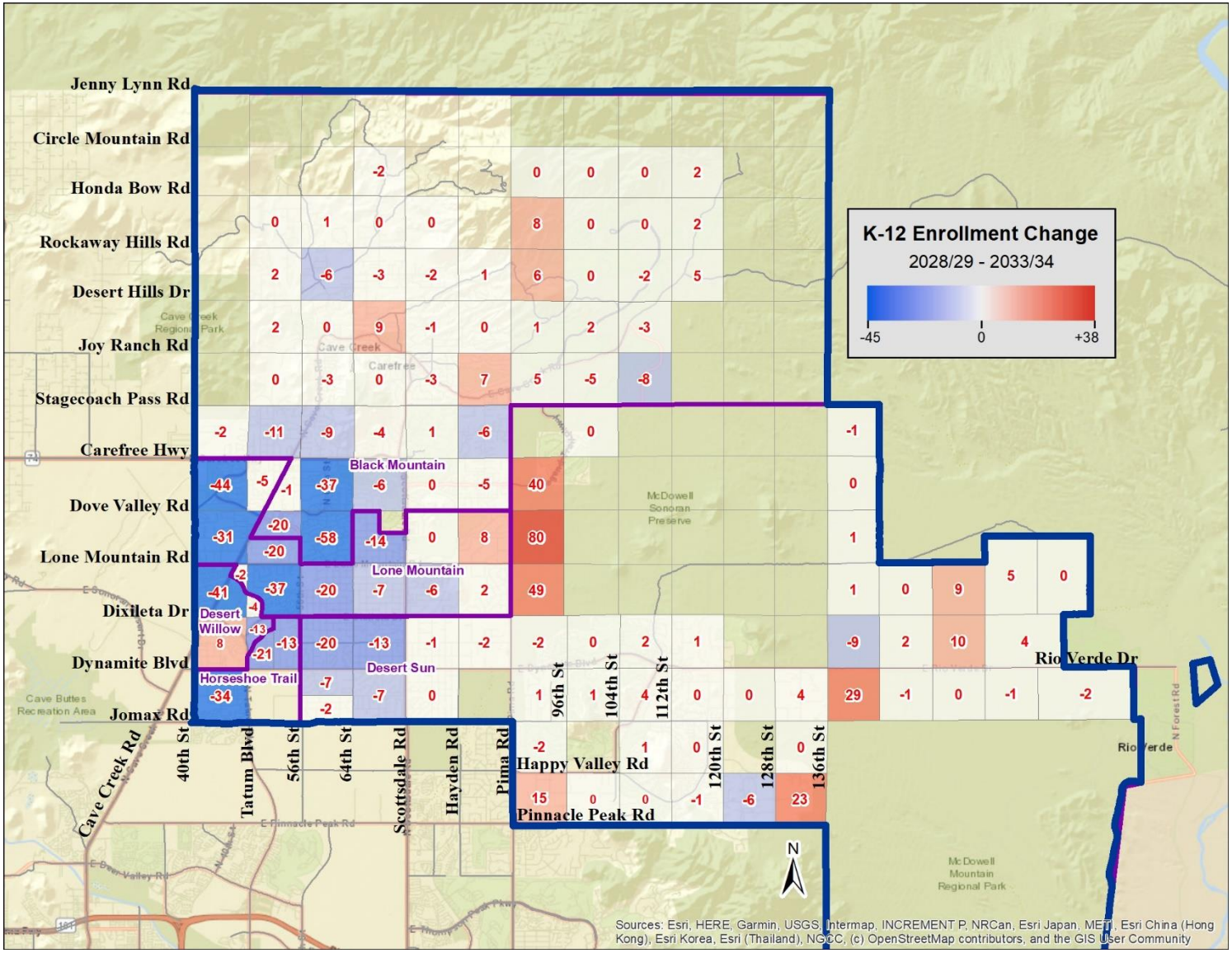
The projected changes in the number of students by study area over the next two five-year periods are depicted on **Maps 10** and **11**. The study areas are color coded according to the amount of change, with increasing saturations of red for positive change and blue for negative change. During the first five-year period, the pattern of change shows a concentration of new students emerging from pockets of in-fill development in the eastern half of the District; at the same time, losses are highly concentrated in the southwestern corner of the District due to the lack of turn-over in the older, existing households in this area.

Map 11 displays the projected change in enrollment in the second half of the projection period. While some gains persist in the eastern half of the District, enrollment losses spread and intensify in much of the southwestern corner of the District.

MAP 10
ENROLLMENT CHANGE: 2023/24 - 2028/29



MAP 11
ENROLLMENT CHANGE: 2028/29 - 2033/34



5.1 Enrollment by Attendance Area

For analysis purposes, the grid level data within the District is summed to generate enrollment estimates by current school attendance areas, as was shown previously on Map 1. **Table 19** displays the projected enrollment by attendance area through 2028/29 and also for 2033/34 based on current student data and the demographic and development trends observed in the District. Enrollment is presented for each school level and is based solely on the attendance area designated for the student's place of residence. This provides a direct link to the demographic analysis and development projections that were used as the basis for predicting enrollment at each school. Projected enrollment from outside District boundaries is also shown.

Attendance area enrollment is color coded by size relative to the average size (number of students) of the attendance areas, and by level; larger numbers are represented in red and smaller numbers are in blue. The saturation of the colors increases with the attendance area's variation in size over time. The changes in both color and saturation from year to year provide a visual representation of growth trends within each area.

Overall, enrollment in the elementary attendance areas is expected to decline by about 400 students during the projection period; students who reside outside District boundaries are projected to account for just five percent of the decrease (20 students). The only net increase in enrollment is projected to occur in the Desert Sun Academy attendance area (100 students), and the majority of that growth is expected to occur during the second five-year period. The largest net loss among elementary students is expected in the Lone Mountain attendance area, which is expected to see enrollment decline by nearly 200 students (43 percent) over the next 10 years

Enrollment in the Sonoran Trails middle school attendance area is projected to increase by about 10 percent (65 students) during the first half of the projection period; these gains, however, are completely offset by the loss of 150 students during the second five-year period. Out-of-District enrollment losses represent just a fraction of the net enrollment loss (85 students) in the middle school attendance area by the end of the projection period.

The number of students in the Cactus Shadows high school attendance area is projected to decline sharply during the first half of the projection period (135 students or eight percent), but enrollment stabilizes during the second five-year period, resulting in a net loss of nearly 150 students by 2033/34.

TABLE 19
ACTUAL AND PROJECTED ENROLLMENT BY ATTENDANCE AREA

	Actuals								Projections						2008/09-	2013/14-	2018/19-	2023/24-	2028/29-
	2008/09	2013/14	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	...2033/34	2013/14	2018/19	2023/24	2028/29	2033/34
Elementary (K-6)																			
Black Mountain	661	513	515	512	442	465	425	396	368	347	325	307	292	258	-148	2	-119	-104	-34
Desert Willow	545	497	440	450	368	368	334	305	277	284	262	258	248	201	-48	-57	-135	-57	-47
Desert Sun Academy	552	464	353	369	368	360	343	327	328	344	337	352	346	438	-88	-111	-26	19	92
Lone Mountain	736	731	588	594	493	429	428	423	382	376	350	324	302	242	-5	-143	-165	-121	-60
Horseshoe Trails	481	339	251	279	254	233	228	223	217	213	198	190	175	131	-142	-88	-28	-48	-44
Out of District	195	318	426	420	379	383	356	314	308	302	287	280	290	294	123	108	-112	-24	4
Sub Total	3,170	2,862	2,573	2,624	2,304	2,238	2,114	1,988	1,880	1,866	1,760	1,711	1,654	1,564	-308	-289	-585	-334	-90
Middle School (7-8)																			
Sonoran Trails	927	759	795	832	673	705	665	549	569	591	607	621	611	471	-168	36	-246	62	-141
Out of District	45	56	104	93	89	82	104	93	98	104	110	112	96	86	11	48	-11	3	-10
Sub Total	972	815	899	925	762	787	769	642	666	695	717	734	707	557	-157	84	-257	65	-151
High School (9-12)																			
Cactus Shadows	1,677	1,606	1,665	1,728	1,624	1,599	1,427	1,403	1,343	1,286	1,291	1,237	1,268	1,269	-71	59	-262	-135	1
Out of District	111	105	224	216	202	206	194	187	184	179	185	185	187	174	-6	119	-37	0	-14
Sub Total	1,788	1,711	1,889	1,944	1,826	1,805	1,621	1,590	1,527	1,465	1,476	1,422	1,456	1,443	-77	178	-299	-134	-13
Total	5,930	5,388	5,361	5,493	4,892	4,830	4,504	4,220	4,073	4,026	3,953	3,867	3,817	3,564	-542	-27	-1,141	-403	-253

Source: Applied Economics, 2024.

5.2 Enrollment by School versus by Attendance Area

In order to translate the projections of enrollment by attendance area (place of residence) into enrollment by school, it is necessary to quantify the relationship between the place of residence and school of attendance. This is accomplished by analyzing the relationship between the two based on current student information. **Table 20** displays the distribution of enrollment by school versus enrollment by elementary attendance area in 2023/24. These patterns at the school level provide an informative view of the flow of students between schools and from outside the District. It also provides insight into the success of each school in serving students within their own attendance area and attracting students from outside of their attendance area.

Reading the table across shows the number of students attending a school from each attendance area (listed numerically across the top row as defined in the first column) and from outside the District. Reading down the columns details where students living in each attendance area choose to go to school. The number of students attending the school in their designated attendance area is shaded in green and the rightmost columns show the net difference between attendance area and school enrollment.

For example, at Black Mountain Elementary, there are 294 students enrolled who also live within the Black Mountain attendance area. There are 21 students who reside in the Desert Willow attendance area, 19 from Desert Sun Academy, and so on. There are 71 students who attend Black Mountain Elementary from outside the District, resulting in total enrollment of 497 students. The Black Mountain attendance area contains a resident student population of 396 elementary-age persons, therefore Black Mountain Elementary has a net enrollment gain of 101 students and they retain 74 percent of the student population living in their attendance area. Overall, just 63 percent of the elementary school students living within District boundaries attended their designated school in the 2023/24 school year.

TABLE 20
SCHOOL VERSUS ATTENDANCE AREA ENROLLMENT: 2023/24

School of Attenance		Attendance Area of Residence 1	2	3	4	5	Outside	Total Attend	Total Reside	Difference
Black Mountain	1	294	21	19	72	20	71	497	396	101
Desert Willow	2	23	193	22	48	29	84	399	305	94
Desert Sun Academy	3	6	5	185	16	9	25	246	327	-81
Lone Mountain	4	49	40	29	246	26	39	429	423	6
Horseshoe Trails	5	24	45	72	41	139	95	416	223	193
Cave Creek AOE			1					1	0	1
Total Reside		396	305	327	423	223	314	1,988	1,674	314
							Attend = Reside	1,057		
		74%	63%	57%	58%	62%			63.1%	

Source: Cave Creeek School District; Applied Economics, 2024.

In addition, a comparison of the 2019/20 and 2020/21 resident counts for each attendance area indicates that all of the District's elementary schools have experienced a significant decline in the number of resident students (**Table 21** and **22**). Compared to 2019/20, one-year counts declined from just 0.3 percent at Desert Sun Academy to 18 percent at Desert Willow. Comparing 2020/21 and 2023/24, the largest resident loss was still at Desert Willow, but the smallest loss is at Black Mountain (10 percent).

TABLE 21
CHANGE IN ELEMENTARY SCHOOL ENROLLMENT BY ATTENDANCE AREA
2019/20 to 2020/21

School of Attenance	Total Reside	Reside 2019/20	1-year Reside Difference Count	Percent
Black Mountain	442	512	-70	-13.7%
Desert Willow	368	450	-82	-18.2%
Desert Sun Academy	368	369	-1	-0.3%
Lone Mountain	493	594	-101	-17.0%
Horseshoe Trails	254	279	-25	-9.0%
Total Reside	1,925	2,204	-279	-12.7%

Source: Cave Creeek School District; Applied Economics, 2021.

TABLE 22
CHANGE IN ELEMENTARY SCHOOL ENROLLMENT BY ATTENDANCE AREA
2020/21 to 2023/24

School of Attenance	Total Reside	Reside 2020/21	3-year Reside Difference Count	Percent
Black Mountain	396	442	-46	-10.4%
Desert Willow	305	368	-63	-17.1%
Desert Sun Academy	327	368	-41	-11.1%
Lone Mountain	423	493	-70	-14.2%
Horseshoe Trails	223	254	-31	-12.2%
Cave Creek AOE	0	0	0	
Total Reside	1,674	1,925	-251	-13.0%

Source: Cave Creeek School District; Applied Economics, 2024.

5.3 Enrollment by School

Table 23 shows actual enrollment by school since 2013/14 and projected enrollment by school for through 2028/29 and for 2033/34, based on applying the live/attend relationships above to the projected level of enrollment by resident attendance area. As a result, the overall pattern of change is consistent with that described for the attendance areas, but reflective of the movement of students both inside the District and outside the District.

Desert Sun Academy is the only elementary school projected to experience an increase in enrollment during the projection period, adding nearly 130 students by 2033/34, primarily due to gains in the second half of the projection period. The largest enrollment declines during the 10-year period are expected at Lone Mountain Elementary and Horseshoe Trails Elementary, which are projected to lose more than 160 students each. Strong losses during the second half of the projection period offset a modest gain during the first half, resulting in a net enrollment decline of roughly 80 students at Sonoran Trails Middle School by 2033/34. Enrollment declines during the first five-year period drive a net enrollment loss of 130 students at Cactus Shadows High School by the end of the projection period.

TABLE 23
ENROLLMENT BY SCHOOL

	Actuals *							Projected						2013/14-2018/19	2018/19-2023/24	2023/24-2028/29	2028/29-2033/34
	2013/14	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	...2033/34				
Elementary (K-6)																	
Black Mountain	480	510	537	420	525	496	497	476	457	436	419	409	394	30	-13	-88	-16
Desert Willow	674	604	590	434	492	457	399	369	373	348	340	330	279	-70	-205	-69	-51
Desert Sun Academy	448	339	352	293	333	300	246	248	266	261	277	273	374	-109	-93	27	101
Lone Mountain	596	511	526	360	414	423	429	390	386	362	337	317	266	-85	-82	-112	-51
Horseshoe Trails	664	609	619	503	457	434	416	397	385	353	338	324	252	-55	-193	-92	-72
Cave Creek AOE				294	55	22	18	14	10					0	18	-18	0
Sub Total	2,862	2,573	2,624	2,304	2,276	2,132	2,005	1,894	1,876	1,760	1,711	1,654	1,564	-289	-568	-351	-90
Middle School (7-8)																	
Sonoran Trails	815	899	925	762	776	764	640	664	685	717	734	707	557	84	-259	67	-151
High School (9-12)																	
Cactus Shadows	1,711	1,889	1,944	1,826	1,778	1,608	1,575	1,515	1,465	1,476	1,422	1,456	1,443	178	-314	-119	-13
Total	5,388	5,361	5,493	4,892	4,830	4,504	4,220	4,073	4,026	3,953	3,867	3,817	3,564	-27	-1,141	-403	-253

Source: Applied Economics, 2024.

Acknowledgements

We would like to acknowledge the people and organizations that have provided information for this study. Their time and expertise are valued assets working in support of Arizona's public schools.

Mark Edelman
Manager, Planning & Engineering
Arizona State Land Department

Jesus Murillo
Senior Planner
City of Scottsdale

Adam Yaron
Planning & Development Area Manager
City of Scottsdale

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