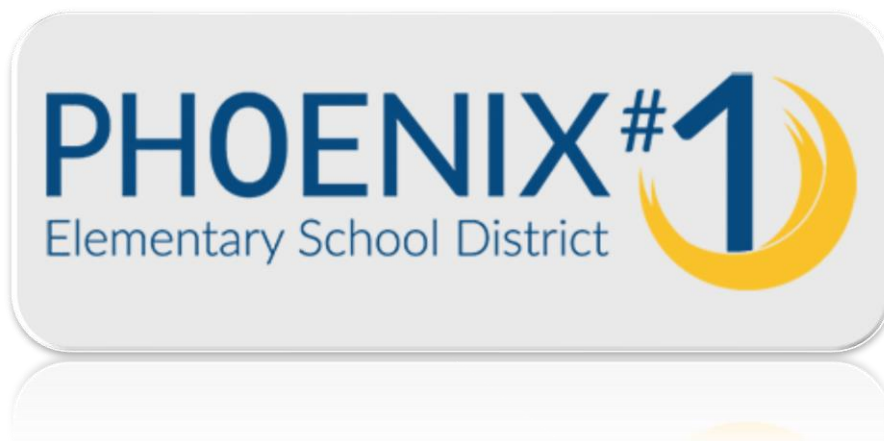

PHOENIX ELEMENTARY SCHOOL DISTRICT DEMOGRAPHIC & ENROLLMENT ANALYSIS 2023/24

Draft Report
June 26, 2024



Prepared by:



APPLIED ECONOMICS

Applied Economics LLC
11209 North Tatum Boulevard, Suite 225
Phoenix, Arizona 85028
602-765-2400
www.aeconomics.com

Executive Summary

The purpose of this Demographic and Enrollment Analysis for the Phoenix Elementary School District (District) is to identify current and historic demographic, development and enrollment trends, and to anticipate future trends to create District and sub-District enrollment projections by grade through 2033/34. The Demographic and Enrollment Analysis for the 2023/24 school year incorporates information on enrollment, housing and occupancy rates, household and population characteristics and residential development.

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

- Total K-8 enrollment on the 40th day of the 2023/24 school year was 4,659 students, down 191 students (3.9 percent) from 2022/2023. This decrease continues a trend of declining enrollment that began in 2014/2015. The absence of new single family housing construction, the gentrification of established neighborhoods, the type of multifamily units being built, and the general escalation of rental rates have fueled a significant decrease in the school-age population of the District, and hence enrollment.
- Beginning in 2014/15, enrollment in the K-2 cohort declined dramatically, which precipitated a subsequent decline in 3rd to 5th grade enrollment. As these trends in the younger cohorts continued, enrollment in the 6th to 8th grade cohort began to decline in 2020/21. Enrollment in all three cohorts is now very similar, although the 6-8 is slightly larger with about 1,600 students, followed by the 3-5 cohort (1,550 students) and finally the K-2 cohort (1,500 students). To some extent, these changes are a function of the increased competition from charter schools (which tends to have a disproportionate impact on younger grades), the lower birth rates that accompanied the recession, and the aging of the boom-era homebuyers. In addition, new construction in the District has been limited to mostly infill development and almost entirely multifamily projects, which has further contributed to the decline in the District's school-age population.
- A significant share of the District's enrollment, 36 percent (1,675 students) in 2023/24, comes from outside of the District, the result of serving the children of some of the many thousands of workers that commute in to Downtown Phoenix on a daily basis. Although out-of-District enrollment has declined since 2019 when more than 2,100 non-resident students attended District school. Out-of-District students come from 40 different metro area school districts, although 64 percent of the out-of-District students (23 percent of all students) come from six of the seven elementary school districts that share a border with the District.
- Overall, the District's population grew by an average of 1.3 percent per year between 2020 and 2023; during the same time, however, nearly all age cohorts experienced a decrease except for the cohorts 25 to 44 and 65 and up. The number of persons in the 25 to 44 cohort grew faster than the overall population (2.1 percent versus 1.3 percent), while the number of persons 65 and older grew much faster (5.0 percent per year on average), as shown in Table 3. As a result, the share of the District's population that is 65 years or older now accounts for nearly 11 percent of the total, compared to 7.6 percent in 2010. The youngest age cohorts (persons under 18) showed the largest declines (-.2 to -.8 percent per year). The school-age population (5 to 17 years) now accounts for 15 percent of the total population, compared to 18 percent in 2010 and 21 percent in 2000.
- The District has added nearly 5,000 housing units and almost 4,000 households since 2020. Virtually all of the new units have been multifamily, which now represents around 20 percent of the District's total housing inventory. Among householders, the greatest average annual increases have been in householders aged 25 to 34 years (5.4 percent per year) and 65 to 74 years (5.9 percent). At just 3.3 percent, the average annual growth in the 45 to 54 year old cohort is lagging. The 25 to 34 and 35 to 44 year householder groups are important because they are typically the parents of elementary age children; however, in areas with high

concentrations of multifamily housing, the 25 to 34 year old age cohort may be less influential than the older child-bearing cohorts.

- K-8 charter school enrollment in the District at the beginning of the 2023-24 school year totaled more than 2,000 students at nine schools. With the exception of a 700-student increase in 2016-17 (due to the opening of the ASU Preparatory campuses) annual charter enrollment growth since 2010/11 has been fairly small.
- Residential development in the District has been dominated by large multifamily development projects for several years, but the size of these projects has increased significantly. Of the roughly 6,500 net new units added to District's inventory since 2019/20 almost all of which have been multifamily. The residential potential in the District is estimated to be over 21,000 housing units, all but about 2,000 of which will be multifamily. Most of the new development in the District continues to be concentrated near downtown Phoenix or along the Metro light rail, however, and is not likely to generate many new school-age residents.
- Currently, the District contains approximately 28,500 households (occupied housing units), up 1,426 units from last year. Housing additions are expected to remain strong throughout the projection period. In total, over 14,600 new units (14,400 of which are multifamily) are expected to be added to the District's housing inventory by 2033/34.
- The net difference between the resident school-age population and K-12 enrollment in 2023/24 is around 1,600 students resulting in an Enrollment-Population (E-P) ratio of 0.74. However, about 1,700 students come from outside the District resulting in in-District enrollment of about 4,700 students and a District capture rate of about 48 percent. District enrollment is projected to decline slowly throughout the projection period, due to a lack of growth in the school-age population and a declining E-P ratio. There is an overall projected decrease of about 657 students by 2033, representing a 14 percent decline over current levels.
- Overall, enrollment by school is well below normal program capacity, averaging 54 percent District-wide. District schools range in size from Dunbar with 149 students (40% capacity) to Kenilworth with 474 students (46% capacity). More importantly, the District has several schools operating at or below the threshold required to operate efficiently (about 450), which is generally the result of having at least three classrooms at each grade level.
- Over the next 10 years, total enrollment in the District is expected to decline by about 654 students (or 14 percent) as all but Edison, Kenilworth and Garfield are projected to experience a decrease in enrollment by the end of the projection period. The largest losses are expected in the Capitol (-92 students), Buthune (-134 students) and Herrera (-133 students) attendance areas. As a percentage of current enrollment, the losses in the Dunbar (-43 percent), Whittier (-38 percent), Heard (-36 percent) and Capitol (-41 percent) attendance areas are also significant. The addition of 218 students in the Kenilworth attendance area represents an increase of about 82 percent over current enrollment.
- The pattern of enrollment change for the schools follows that of the attendance areas. Over the next five years, only Edison (+166 students), Garfield (+108 students) and Kenilworth (+151 students) are projected to experience enrollment increases of any significance. Enrollment losses ranging from 16 to 139 students each are expected at eight schools by 2028/29; the largest decline during the first five-year period is projected at Herrera School (-139 students).



TABLE OF CONTENTS

Executive Summary	i
1.0 Introduction	1
2.0 Existing Conditions	3
2.1 Enrollment	3
2.2 Demographic Trends	9
2.3 Alternative Providers	12
3.0 Residential Development	15
3.1 Market Conditions	15
3.2 Housing Construction	18
3.3 Residential Development	20
3.3.1 Future Development Potential	20
3.3.2 Development Projects	25
4.0 District Projections	28
4.1 Population & Housing	28
4.2 Enrollment	29
5.0 Sub-District Projections	33
5.1 Enrollment by Attendance Area	35
5.2 Enrollment by School versus by Attendance Area	37
5.3 Enrollment by School	38
Acknowledgements	40

1.0 Introduction

The Demographic and Enrollment Analysis for the Phoenix Elementary School District (District) incorporates information on enrollment, housing occupancy rates, household characteristics 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 in a macroeconomic, top-down analysis of enrollment.

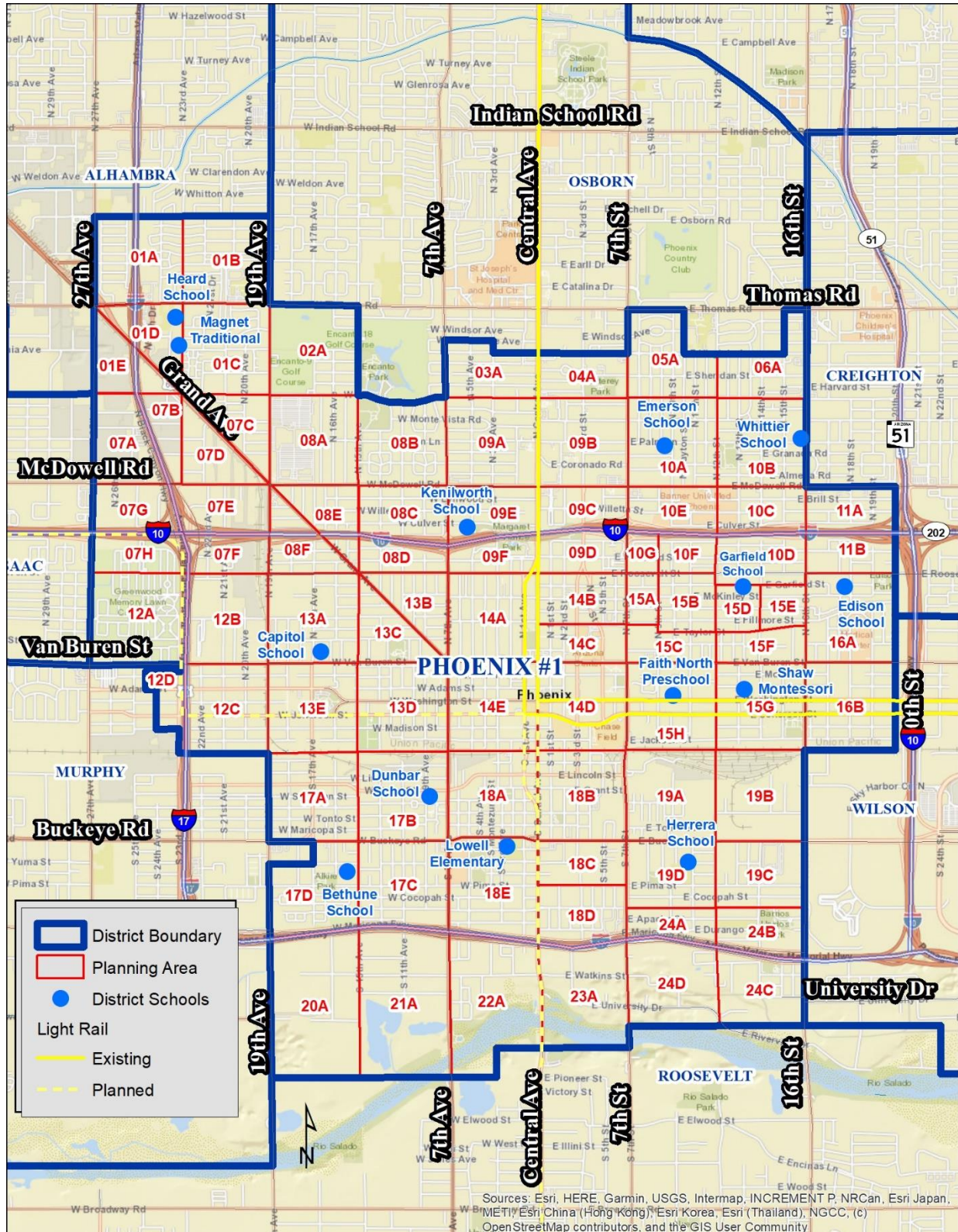
In addition to the District-wide enrollment forecasts, projections are developed for small-area planning geographies, referred to as “grids”, which are generally a quarter of a square mile or less in size, as shown in **Map 1**. The planning grids, which divide the District into 84 sub-areas that represent current school attendance areas, provide sufficient detail to support facility and attendance area planning activities.

Demographic, housing and enrollment data by grid are used to develop small-area enrollment projections that are aggregated by current attendance area in order to provide baseline projections. These projections are then adjusted to predict enrollment by school, based on the relationship between residency and attendance, and can be summed to examine alternative attendance areas to analyze facility utilization and identify potential changes to facilities and attendance areas. Small-area enrollment projections are developed by combining the location of current students in the District with the expected number of housing additions, and the students generated by that new housing, in each grid.

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
PLANNING GRIDS



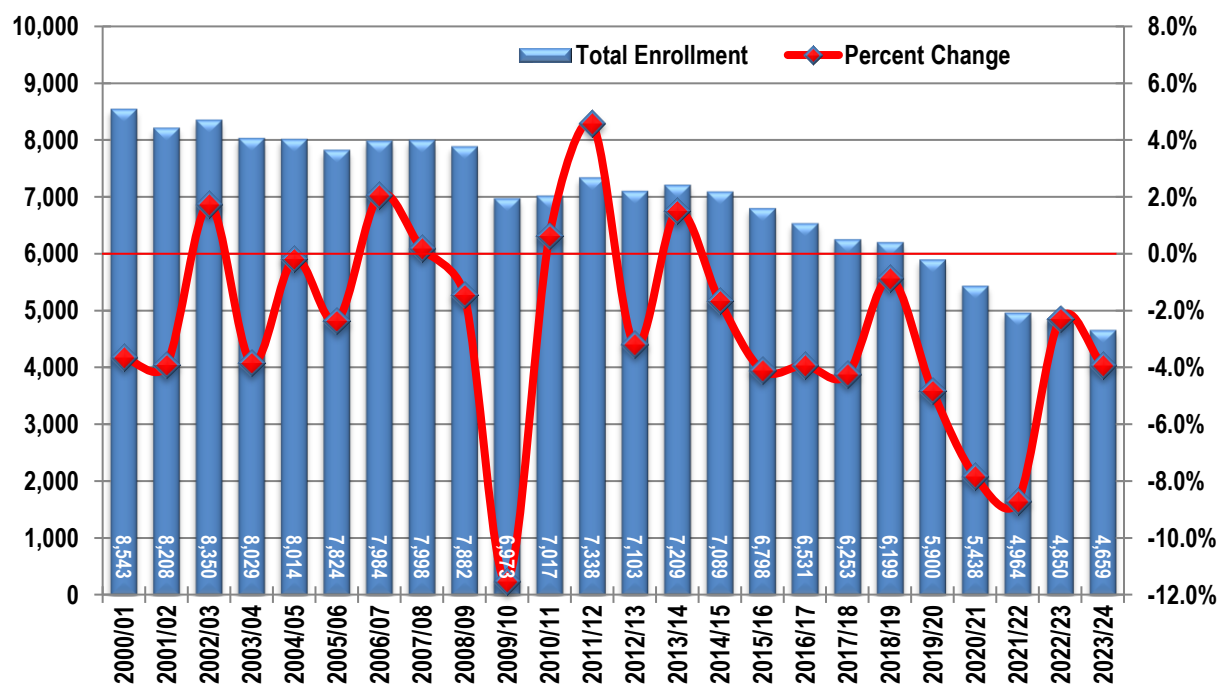
2.0 Existing Conditions

2.1 Enrollment

Total Kindergarten through 8th grade (K-8) enrollment on the 40th day of the 2023-24 school year was 4,659 students, down 191 students (3.9 percent) from 2022/2023, as illustrated in **Figure 1**. This decrease continues a long trend of declining enrollment that began in 2014/15. Since 2000/01, enrollment in the District increased in just six of the past 24 years, and just three times since 2010/11. From 2015/16 to 2019/20, enrollment declined by an average of 3.6 percent per year. During the COVID pandemic in 2020/21 and 2021/22, there were widespread enrollment losses in many districts, averaging more than 8 percent per year in the Phoenix Elementary District. While those students have not returned, the rate of loss has normalized to an average of 3.1 percent over the past two years.

Despite a few years of more significant decline, District enrollment seemed to stabilize at around 8,000 K-8 students until 2009/10, when the effects of the recession and impact of increasing charter school enrollment resulted in an 11.5 percent drop in enrollment. Since then, the absence of new single family housing construction, the gentrification of established neighborhoods, the type of multifamily units being built, and the general escalation of rental rates have fueled a significant decrease in the school-age population of the District, and hence enrollment.

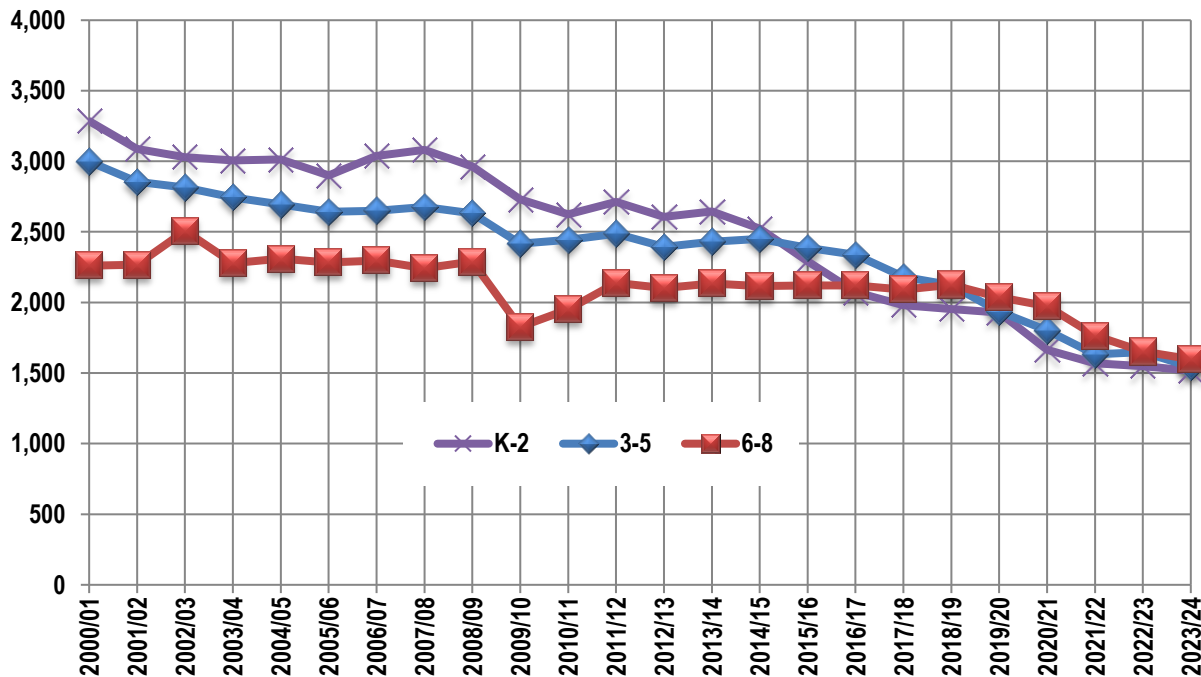
FIGURE 1
HISTORIC K-8 ENROLLMENT TRENDS



Source: Arizona Department of Education; Phoenix Elementary School District.

Figure 2 represents the historic distribution of students by grade cohort since 2000/01. For this purpose, the grades are grouped into equally-sized cohorts, representing three grades each, to provide further insight into the characteristics of District enrollment. Prior to 2014/15, the youngest cohorts were the largest and the relative size of the three cohorts remained very consistent, even though total enrollment was declining; the only exception was a sharp decline 6th to 8th grade (6-8) enrollment per grade in 2009/10. However, beginning in 2014/15, enrollment per grade in the Kindergarten to 2nd grade (K-2) cohort declined dramatically, which precipitated a subsequent decline in 3rd to 5th grade (3-5) enrollment. As these trends in the younger cohorts continued, the enrollment in the 6th to 8th grade (6-8) cohort began to decline noticeably as of 2020/21. Enrollment in all three cohorts is now very similar, although the 6-8 is slightly larger with about 1,600 students, followed by the 3-5 cohort (1,550 students) and finally the K-2 cohort (1,500 students).

FIGURE 2
ENROLLMENT BY GRADE COHORT

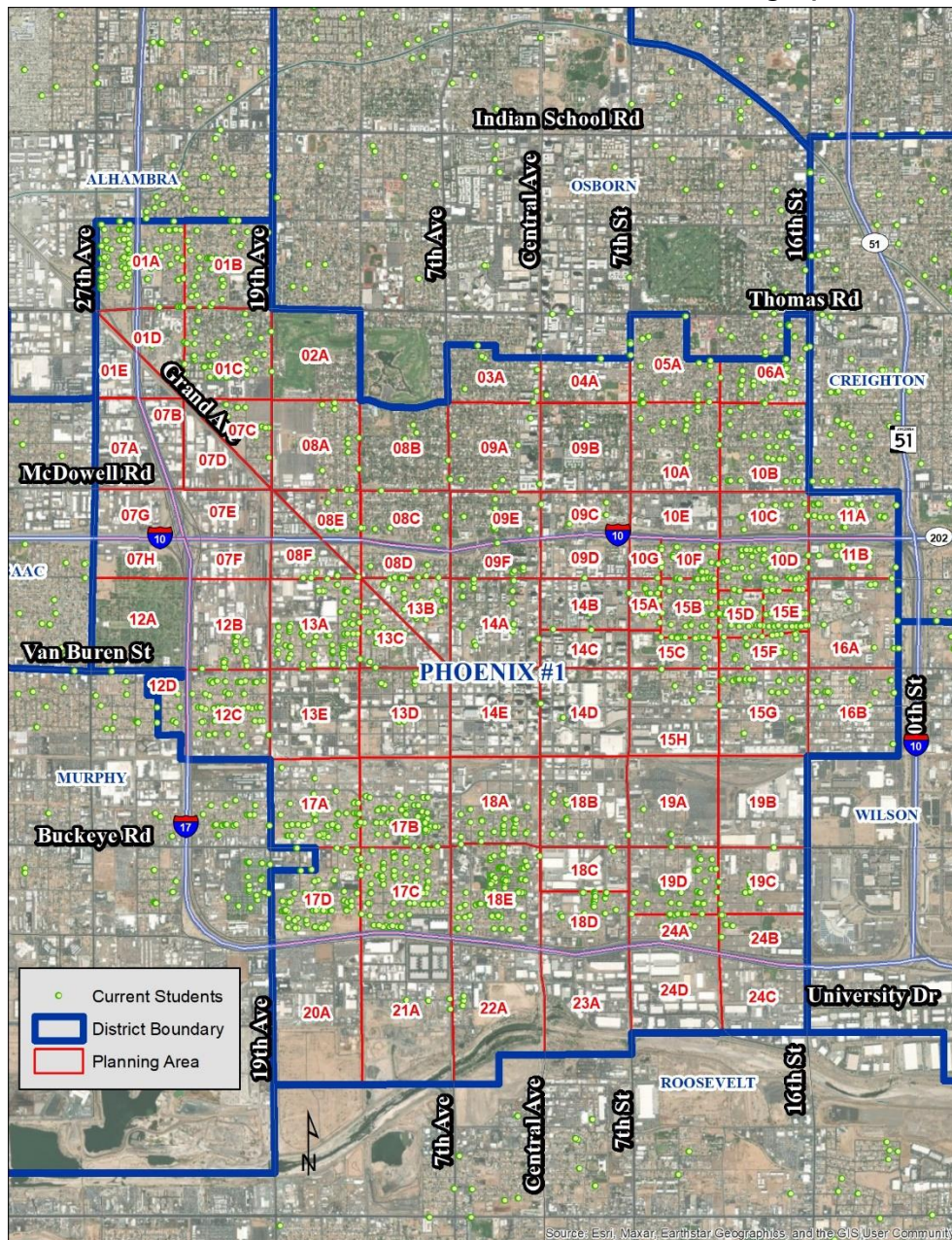


Source: Arizona Department of Education; Phoenix Elementary School District.

To some extent, these changes are a function of the increased competition from charter schools (which tends to have a disproportionate impact on younger grades), the lower birth rates that accompanied the recession, and the aging of the boom-era homebuyers. In addition, new construction in the District has been limited to mostly infill development and almost entirely multifamily projects, which has further contributed to the decline in the District's school-age population.

Map 2 illustrates the geographic distribution of current students. In general, the majority of the in-District students reside south of I-10 where there are several areas with high concentrations of enrollment. There are also high concentrations of students in the northwest corner of the District and in the northeast, along 16th Street. A significant share of the District's enrollment, 36 percent (1,675 K-8 students) in 2023/24, comes from outside of the District, the result of serving the children of some of the many thousands of workers that commute into Downtown Phoenix on a daily basis. However, out-of-District enrollment has declined by nearly 500 students since 2019/20.

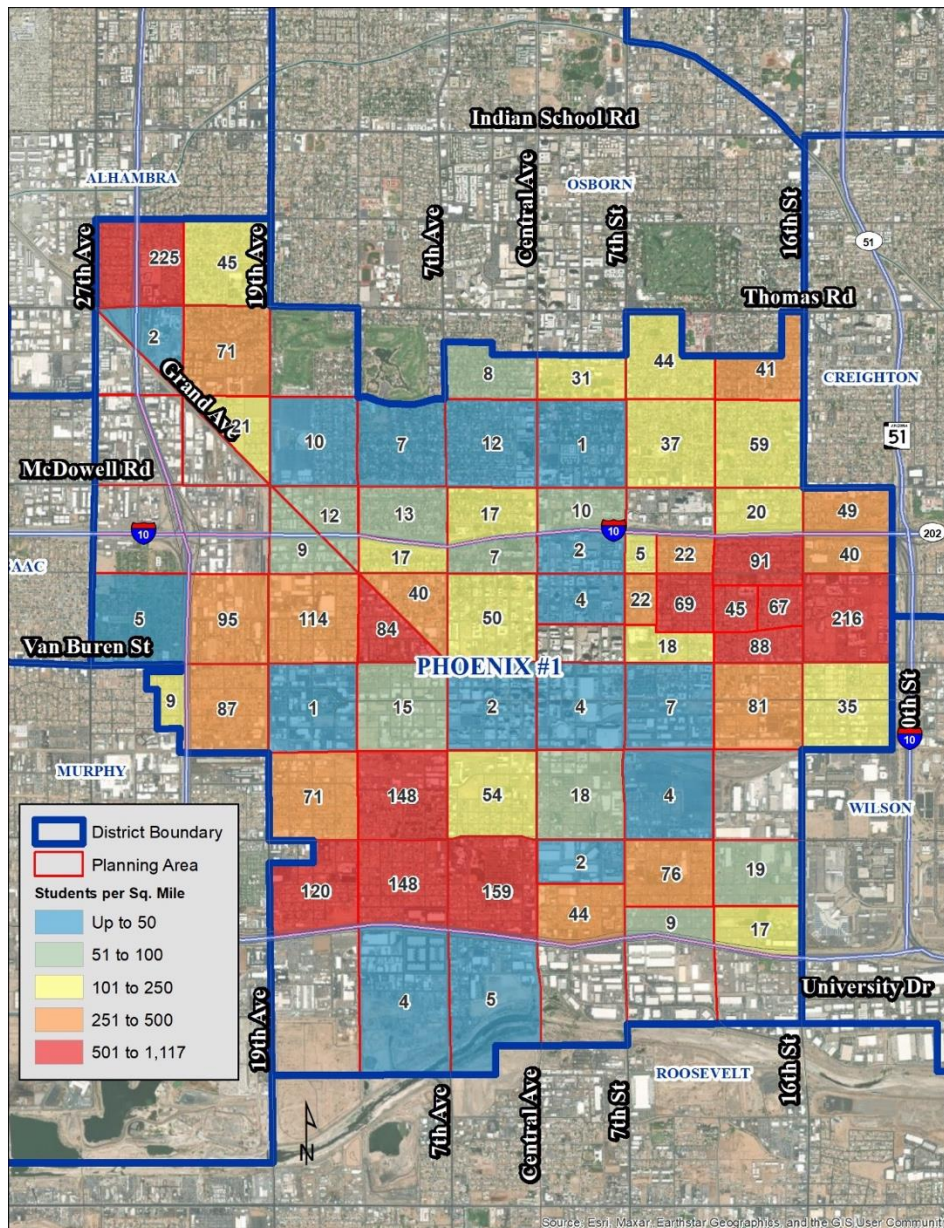
MAP 2
GEOGRAPHIC DISTRIBUTION OF STUDENTS: 2023/24



This influx consists of students from 37 different metro area school districts, although 64 percent of the out-of-District students (23 percent of all students) come from six of the seven elementary school districts that share a border with the District: Roosevelt (328 students), Creighton (205 students), Alhambra (157 students), Murphy (139 students), Isaac (126 students) and Osborn (101 students).

Map 3 illustrates current enrollment density in the District; the number of students in each grid is also depicted. Enrollment density varies significantly throughout the District, ranging from very low levels (less than 50 students per square mile) to densities that are more typical of urban locales (500 or more students per square mile). As expected, higher enrollment densities tend to be concentrated in residential areas that lie between I-10 and the east-west portion of I-17. A substantial number of students also reside in the area near 27th Avenue and Thomas Road.

MAP 3
K-8 ENROLLMENT DENSITY AND STUDENT COUNT: 2023/24



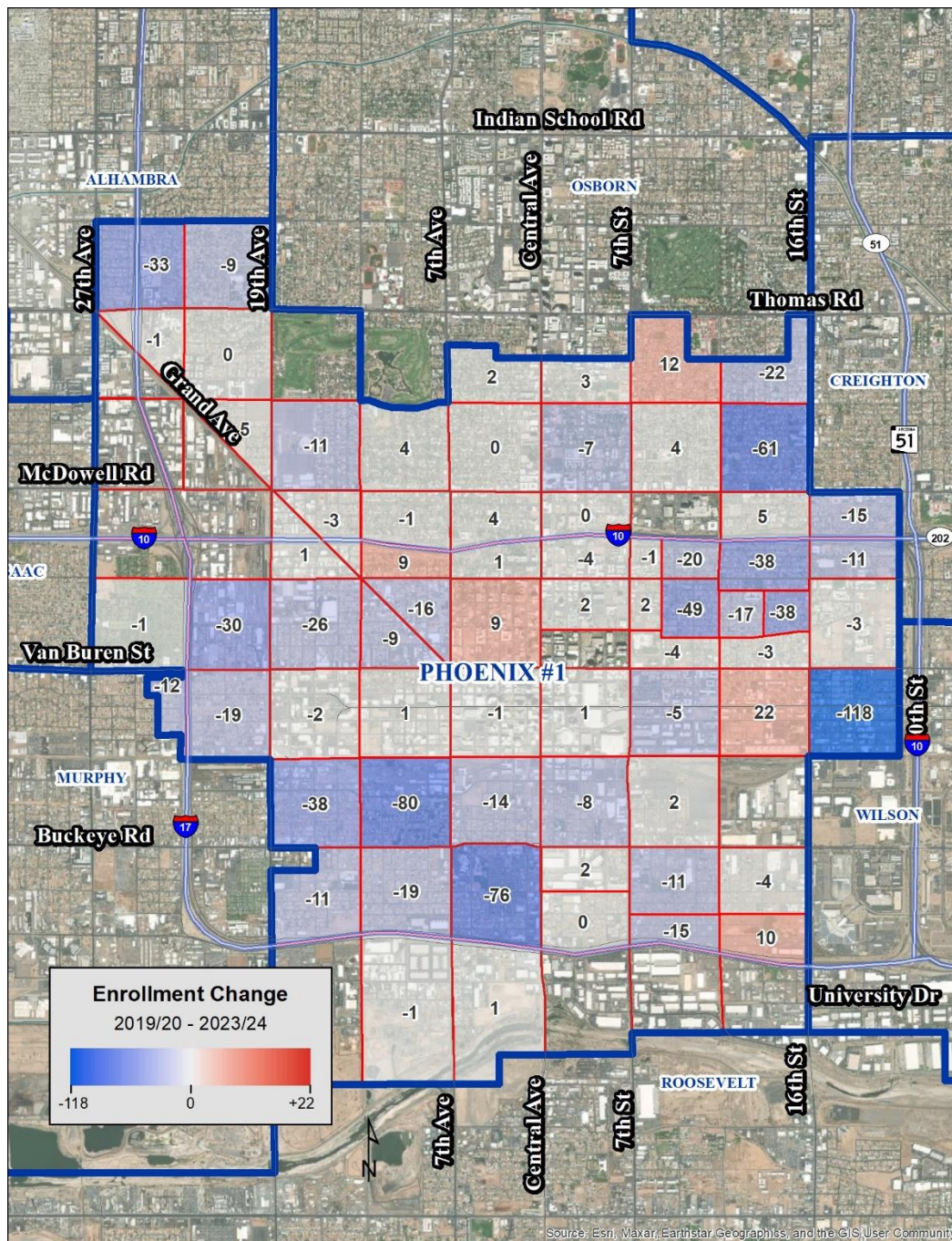
MAP 4

[illegible]



During the past four years, enrollment in most of the grids was flat, or showed slight increases or decreases. The largest losses have been in the central part of the District east of 12th Street and in the southwest part of the District near I-17 as shown in **Map 5**. It is likely that the economic and social impacts of the COVID-19 pandemic accelerated the rate of enrollment decline.

MAP 5
CHANGE IN ENROLLMENT: 2019/20 to 2023/24



2.2 Demographic Trends

Table 1 contains Census data on population and housing in the District for 2000, 2010, and 2020, as well as 2023 estimates which can help to explain recent trends and the current character of the area. Total population in the District declined by nearly 9,000 people between 2000 and 2010, however, population has increased by close to 6,000 people since 2010 to an estimated total of 61,186 in 2023. This growth has been driven by the addition of over 11,000 housing units and nearly 8,500 households since 2010. At the same time, the population per household has steadily declined throughout the 23-year period, decreasing by more than one percent per year since 2000.

TABLE 1
DEMOGRAPHIC TRENDS

	2000 Census	2010 Census	2020 Census	2023 Estimate	Change 2000-2010		Change 2010-2020		Change 2020-2023	
					Total	Percent*	Total	Percent*	Total	Percent*
Population	64,079	55,104	58,675	61,186	-8,975	-1.5%	3,571	0.6%	2,511	1.3%
Housing Units	22,317	24,287	28,510	33,777	1,970	0.8%	4,223	1.6%	5,267	5.2%
Households	20,114	19,740	24,630	28,542	-374	-0.2%	4,890	2.2%	3,912	4.5%
Population Per	3.19	2.79	2.38	2.14	-0.39	-1.3%	-0.41	-1.6%	-0.24	-1.0%

Sources: U.S. Bureau of the Census, 2000, 2010 and 2020; American Community Survey, 2023; Applied Economics, 2024.

* Annual compound rate of change.

The share of the White population in the District has increased throughout the period, growing from 27 percent in 2000 to nearly 38 percent in 2023, as shown in **Table 2**. At the same time, the Hispanic share of the District's population has decreased since 2000, falling from 61 percent in 2000 to 43 percent in 2023.

TABLE 2
DEMOGRAPHIC TRENDS – RACE & ETHNICITY

	2000 Census	2010 Census	2020 Census	2023 Estimate	Change 2000-2010		Change 2010-2020		Change 2020-2023	
					Total	Percent*	Total	Percent*	Total	Percent*
Population	64,079	55,104	58,675	61,186	-8,975	-1.5%	3,571	0.6%	2,511	1.3%
<i>By Race & Ethnicity:</i>										
White	26.6%	30.7%	36.4%	37.9%	-92	-0.1%	4,414	2.3%	1,848	2.5%
African American	7.8%	8.8%	9.8%	10.2%	-203	-0.4%	948	1.8%	461	2.3%
Native American	3.2%	2.1%	2.2%	2.2%	-916	-5.7%	126	1.0%	71	1.6%
Asian	1.0%	2.3%	2.7%	2.8%	630	7.1%	322	2.3%	151	2.8%
Hispanic	61.3%	54.4%	45.1%	43.1%	-9,296	-2.7%	-3,491	-1.2%	-94	-0.1%
Other	0.1%	1.7%	3.8%	3.7%	902	32.5%	1,252	8.7%	74	1.0%

Sources: U.S. Bureau of the Census, 2000, 2010 and 2020; American Community Survey, 2023; Applied Economics, 2024.

* Annual compound rate of change.

Overall, the District's population grew by an average of 1.3 percent per year between 2020 and 2023; during the same time, however, nearly all age cohorts experienced a decrease except for the cohorts 25 to 44 and 65 and up. The number of persons in the 25 to 44 cohort grew faster than the overall population (2.1 percent versus 1.3 percent), while the number of persons 65 and older grew much faster (5.0 percent per year on average), as shown

in **Table 3**. As a result, the share of the District's population that is 65 years or older now accounts for nearly 11 percent of the total, compared to 7.6 percent in 2010. The youngest age cohorts (persons under 18) showed the largest declines (-.2 to -.8 percent per year). The school-age population (5 to 17 years) now accounts for 15 percent of the total population, compared to 18 percent in 2010 and 21 percent in 2000. It is important to note that these figures do not include ASU students that live at the downtown campus in group quarters, but it is quite likely that the presence of the university within the District continues to attract a large number of young adult residents to the area in apartments and other types of housing.

TABLE 3
DEMOGRAPHIC TRENDS – AGE

	2000 Census	2010 Census	2020 Census	2023 Estimate	Change 2000-2010		Change 2010-2020		Change 2020-2023	
					Total	Percent*	Total	Percent*	Total	Percent*
Population	64,079	55,104	58,675	61,186	-8,975	-1.5%	3,571	0.6%	2,511	1.3%
<i>By Age:</i>										
Under 5	9.7%	7.9%	6.5%	6.1%	-1,869	-3.5%	-539	-1.3%	-102	-0.8%
5 to 13	15.2%	12.3%	10.8%	10.2%	-2,962	-3.6%	-453	-0.7%	-51	-0.2%
14 to 17	5.8%	5.6%	4.9%	4.7%	-671	-2.0%	-198	-0.7%	-21	-0.2%
18 to 24	11.7%	13.8%	12.9%	12.5%	92	0.1%	-59	-0.1%	80	0.3%
25 to 44	33.3%	29.7%	33.8%	34.7%	-5,001	-2.6%	3,447	1.9%	1,452	2.1%
45 to 64	16.7%	23.1%	21.7%	21.1%	2,029	1.8%	46	0.0%	179	0.4%
65 and up	7.5%	7.6%	9.4%	10.6%	-593	-1.3%	1,328	2.8%	975	5.0%

Sources: U.S. Bureau of the Census, 2000, 2010 and 2020; American Community Survey, 2023; Applied Economics, 2024.

* Annual compound rate of change.

Of the 9,500 housing units that have been added to the District's inventory since 2010, close to 5,300 were added since 2020 (**Table 4**). All of the new units added since 2010 have been multifamily, which now represents 73 percent of the District's total housing inventory. Vacancy rates, which had increased from 9.9 percent in 2000 to a high of 18.7 percent in 2010, dropped to 13.6 percent in 2020. Current vacancy rates are still higher than average at 15.5 percent, but this is in part due to the large share of multifamily units that turnover much more frequently than single family units. There are also a large number of new units that take time to reach stabilized occupancy.

TABLE 4
DEMOGRAPHIC TRENDS – HOUSING UNITS

	2000 Census	2010 Census	2020 Census	2023 Estimate	Change 2000-2010		Change 2010-2020		Change 2020-2023	
					Total	Percent*	Total	Percent*	Total	Percent*
Housing Units	22,317	24,287	28,510	33,777	1,970	0.8%	4,223	1.6%	5,267	5.2%
Occupied	90.1%	81.3%	86.4%	84.5%	-374	-0.2%	4,890	2.2%	3,912	4.5%
Owner	36.7%	30.2%	30.4%	30.7%	-853	-1.1%	1,330	1.7%	1,703	5.5%
Renter	53.5%	51.1%	56.0%	53.8%	479	0.4%	3,560	2.6%	2,209	4.0%
Vacant	9.9%	18.7%	13.6%	15.5%	2,344	7.5%	-667	-1.6%	1,355	9.4%
<i>By Unit Type:</i>										
Single Family	58.6%	54.3%	46.1%	46.0%	115	0.1%	-37	0.0%	-37	-0.1%
Multifamily	41.4%	45.7%	53.9%	72.5%	1,855	1.8%	4,260	3.3%	5,304	9.3%

Sources: U.S. Bureau of the Census, 2000, 2010 and 2020; American Community Survey, 2023; Applied Economics, 2024.

* Annual compound rate of change.

Since 2020, more than 3,900 new households have been added in the District, representing an average annual growth rate of 4.5 percent, as shown in Table 5. This growth is in sharp contrast to the decline in the number of households that occurred between 2000 and 2010, followed by a modest growth of 2.2 percent per year from 2010 to 2020.

Information on householder ages is useful in predicting the potential for school-age children. The greatest increases from 2020 to 2023 have been in householders aged 25 to 34 years (about 5.4 percent) and 65 to 74 years (5.9 percent). At just 3.3 percent, the average annual growth in the 45- to 54-year-old cohort is lagging considerably. The 25 to 34 and 35 to 44 year householder groups are important because they are typically the parents of elementary age children; however, in urban areas with high concentrations of multifamily housing, the 25 to 34 year old age cohort may be less influential than the older child-bearing cohorts. In addition, the impacts of these child-bearing age cohorts on the District's school-population may be less significant due to the fact that the vast majority of these householders are also renters. Overall, about 64 percent of all District residents now rent their place of residence.

TABLE 5
DEMOGRAPHIC TRENDS – HOUSEHOLDS

	2000 Census	2010 Census	2020 Census	2023 Estimate	Change 2000-2010		Change 2010-2020		Change 2020-2023	
					Total	Percent*	Total	Percent*	Total	Percent*
Households	20,114	19,740	24,630	28,542	-374	-0.2%	4,890	2.2%	3,912	4.5%
<i>Householders by Age</i>										
15 to 24	7.4%	6.2%	6.5%	6.6%	-255	-1.9%	380	2.7%	288	5.1%
25 to 34	23.5%	21.2%	23.2%	23.9%	-558	-1.2%	1,539	3.2%	1,094	5.4%
35 to 44	23.1%	20.2%	18.9%	18.6%	-664	-1.5%	684	1.6%	646	4.0%
45 to 54	17.7%	20.4%	17.9%	17.2%	463	1.2%	377	0.9%	502	3.3%
55 to 64	10.8%	16.9%	16.4%	16.3%	1,167	4.4%	699	1.9%	605	4.3%
65 to 74	8.9%	8.8%	10.2%	10.6%	-54	-0.3%	765	3.7%	528	5.9%
75 and up	8.5%	6.3%	6.9%	6.8%	-474	-3.2%	446	3.1%	249	4.2%
<i>Owners By Age:</i>	40.4%	37.2%	35.2%	36.3%	-781	-1.0%	1,323	1.7%	1,703	5.5%
15 to 24	0.7%	0.5%	0.4%	0.3%	-44	-3.4%	-18	-1.9%	2	0.7%
25 to 34	5.4%	4.2%	4.7%	4.9%	-256	-2.7%	342	3.5%	237	5.7%
35 to 44	10.4%	7.2%	6.1%	5.9%	-654	-3.7%	85	0.6%	157	3.0%
45 to 54	8.5%	8.6%	7.5%	7.2%	-11	-0.1%	138	0.8%	203	3.2%
55 to 64	5.5%	8.8%	7.9%	7.6%	637	4.6%	190	1.0%	229	3.4%
65 to 74	4.1%	4.2%	5.2%	5.6%	-7	-0.1%	456	4.5%	304	6.6%
75 and up	5.7%	3.6%	3.4%	4.9%	-447	-4.8%	130	1.7%	570	17.0%
<i>Renters By Age:</i>	59.6%	62.8%	64.8%	63.7%	407	0.3%	3,567	2.6%	2,209	4.0%
15 to 24	6.6%	5.7%	6.2%	6.3%	-211	-1.7%	398	3.1%	285	5.3%
25 to 34	18.2%	17.0%	18.5%	19.0%	-302	-0.9%	1,197	3.1%	857	5.3%
35 to 44	12.7%	12.9%	12.8%	12.8%	-10	0.0%	599	2.1%	489	4.4%
45 to 54	9.2%	11.8%	10.4%	10.0%	474	2.3%	239	1.0%	299	3.4%
55 to 64	5.3%	8.1%	8.6%	8.7%	530	4.1%	509	2.8%	376	5.0%
65 to 74	4.8%	4.6%	5.0%	5.1%	-47	-0.5%	308	3.0%	224	5.2%
75 and up	2.8%	2.7%	3.5%	1.9%	-28	-0.5%	316	4.7%	-321	-13.1%
Population Per	3.19	2.79	2.38	2.14	-0.39	-1.3%	-0.41	-1.6%	-0.24	-1.0%

Sources: U.S. Bureau of the Census, 2000, 2010 and 2020; American Community Survey, 2023; Applied Economics, 2024.

* Annual compound rate of change.

2.3 Alternative Providers

Table 6 shows that the K-8 charter school enrollment in the District at the beginning of the 2023/24 school year totaled more than 2,000 students. The eight schools are geographically dispersed throughout the District, although all of them are located on or east of 7th Avenue (pictured on **Map 6**). The largest charter school in the District is the ASU Preparatory Academy which enrolls roughly 850 K-8 students at the elementary and middle school campuses. The Arizona School for the Arts is the next largest, with 400 K-8 students. Incito Schools, which opened a K-3 Phoenix campus in 2019, closed in 2022.

TABLE 6
IN-DISTRICT CHARTER SCHOOLS

Name	Address	City	Zip	Grades	Total K-8
Arizona School For The Arts	1410 N. 3rd Street	Phoenix	85004	5th-12th	426
ASU Preparatory Academy-Phoenix Elementary	735 E. Fillmore Street	Phoenix	85006	KG-4th	437
ASU Preparatory Academy-Phoenix Middle School	735 E. Fillmore Street	Phoenix	85006	5th-8th	414
Edkey - Children First leadership Academy	1648 S. 16th Street	Phoenix	85034	KG-8th	119
Friendly House Academia Del Pueblo Elementary	201 E. Durango Street	Phoenix	85004	KG-8th	258
Khalsa Montessori Elementary School - Phoenix	2536 N. 3rd Street	Phoenix	85004	KG-6th	114
Metropolitan Arts Institute	1700 N. 7th Avenue	Phoenix	85007	7th-12th	52
Vista College Preparatory - Hadley	812 S. 6th Avenue	Phoenix	85003	KG-4th	239
Total					2,059

Source: Arizona Department of Education; Applied Economics, 2024.

With the exception of a 700-student increase in 2016-17 (due to the opening of the ASU Preparatory campuses) charter enrollment was fairly stable through 2017/18. Since then, in-District charter enrollment has decreased by roughly 500 students (20 percent) with widespread losses at nearly all the schools (**Table 7**). The decrease in 2018/19 was due to the closing of the Great Hearts Telios Prep campus, and the loss in 2021/22 was primarily driven by enrollment decreases at both of the ASU Preparatory Academies and Vista College Preparatory.

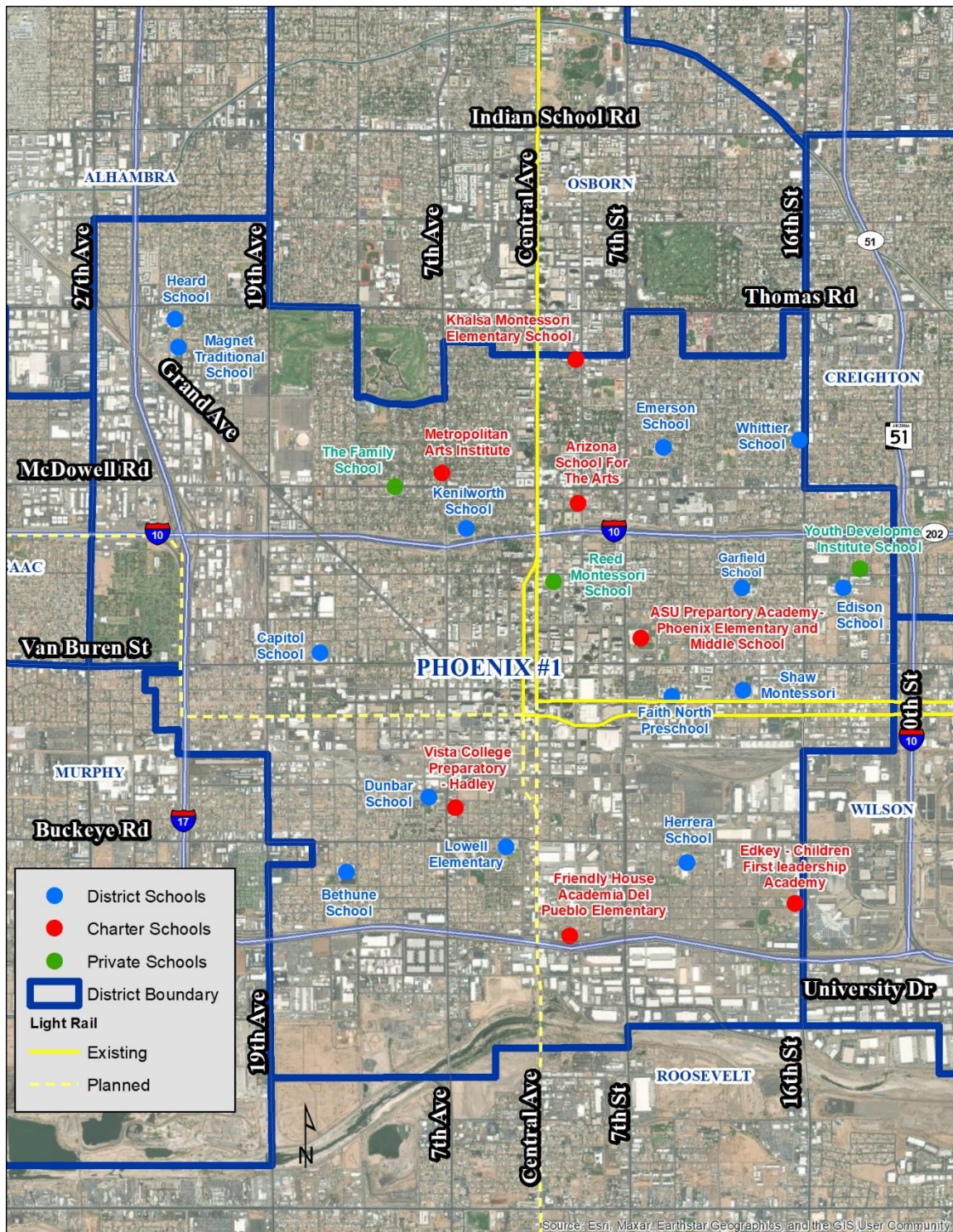
TABLE 7
HISTORICAL IN-DISTRICT CHARTER SCHOOL ENROLLMENT

School Year	#Schools	KG	1st	2nd	3rd	4th	5th	6th	7th	8th	Total K-8	Annual Change
2010-11	7	139	148	139	156	131	242	250	210	227	1,642	
2011-12	7	134	156	154	130	143	222	231	248	205	1,623	(19)
2012-13	7	164	159	151	150	124	245	214	233	243	1,683	60
2013-14	8	195	187	159	145	149	220	247	215	219	1,736	53
2014-15	9	184	204	184	137	148	248	246	284	220	1,855	119
2015-16	9	186	167	179	179	118	232	262	264	268	1,855	0
2016-17	11	258	258	228	239	255	306	336	345	332	2,557	702
2017-18	11	271	234	253	215	226	366	330	327	345	2,567	10
2018-19	10	228	238	228	223	220	338	340	312	314	2,441	(126)
2019-20	9	233	238	261	237	231	333	315	362	339	2,549	108
2020-21	9	195	223	239	262	242	332	295	323	353	2,464	(85)
2021-22	9	177	186	196	205	219	257	258	303	292	2,093	(371)
2022-23	8	200	191	179	198	216	264	265	293	300	2,106	13
2023-24	8	196	204	193	177	196	238	263	293	299	2,059	(47)

Source: Arizona Department of Education; Applied Economics, 2024.



MAP 6
ALTERNATIVE PROVIDERS



Of the three private schools offering K-8 instruction within the District, the St. Matthew School is the largest with more than 150 students, although enrollment at St. Matthew has declined from over 200 students in 2017-18 (**Table 8**). The other two private schools enroll fewer than 20 K-8 students each. Although not listed in the table, Phoenix Christian Preparatory is located nearby at 17th Avenue and Indian School Road and has more than 380 students, including 160 K-8 students.

TABLE 8
IN-DISTRICT PRIVATE SCHOOLS

Name	Address	City	Zip	Grades	Total K-8
Youth Development Institute	1830 E. Roosevelt Street	Phoenix	85006	7th-12th	8
The Family School	1127 W. McDowell Road	Phoenix	85007	KG	14
St. Matthew School	320 N. 20th Drive	Phoenix	85009	KG-8th	159
Total					181

Source: NCES Private School Universe Survey 2021-2022 school year data; Private School Review, 2024 Applied Economics 2024.

While private school enrollment historically remained relatively steady, the number of students living in the District with Empowerment Scholarship Accounts (ESAs) has risen from 31 in Q1 of SY2022, to 85 in Q1 of SY2023 to 210 in Q1 of SY2024. Most early new recipients were already attending a private school, so the impact on district enrollment was small. However, that is changing as time goes on, and it is likely that district school enrollment, and potentially charter school enrollment, will be negatively impacted by increased utilization of the ESA program. Kindergarten and 1st grade students living in the District currently make up the largest share of ESA recipients.

3.0 Residential Development

3.1 Market Conditions

Historic population growth in Arizona is shown in **Table 12**. Economic conditions that drive job-based immigration 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 2023 were generally higher than historic levels, but slightly below annual changes in 2022 in the Sun Corridor counties. 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	2023
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	4,665,020
Pima County	668,187	750,399	848,375	940,004	981,015	1,005,920	1,045,589	1,058,318	1,072,298	1,080,300
Pinal County	116,996	143,933	182,435	250,195	375,541	387,993	428,220	439,128	453,924	467,459
Yavapai County	108,647	133,151	169,520	196,629	210,919	218,182	237,073	241,173	245,389	248,899
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	7,525,113
Average Annual Change	1985-1990	1990-1995	1995-2000	2000-2005	2005-2010	2010-2015	2015-2020	2021	2022	2023
Maricopa County	70,245	73,338	118,793	96,829	49,402	50,463	72,061	70,715	79,012	78,589
Pima County	18,163	16,442	19,595	18,326	8,202	4,981	7,934	12,729	13,980	8,002
Pinal County	3,171	5,387	7,700	13,552	25,069	2,490	8,045	10,908	14,796	13,535
Yavapai County	4,987	4,901	7,274	5,422	2,858	1,453	3,778	4,100	4,216	3,510
Arizona	112,075	119,377	179,156	149,779	94,902	60,407	95,076	108,969	123,819	115,924

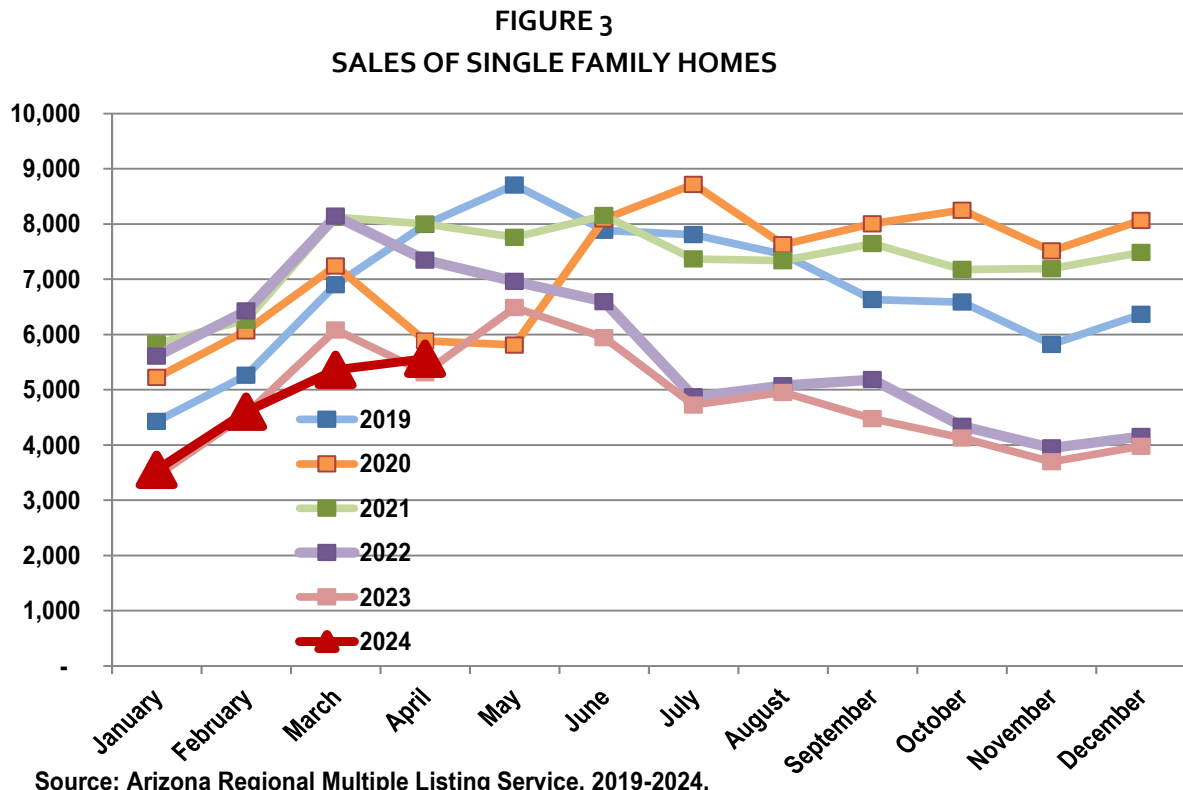
Source: Arizona Commerce Authority; U.S. Bureau of the Census; Applied Economics, 2024.

Employment growth is the primary driver for in-migration in the Phoenix metro area. During 2023, the civilian labor force in Arizona grew by 91,400 persons including 74,900 new workers in the Phoenix metropolitan area, according to the Bureau of Labor Statistics. The unemployment rate was 3.9 percent statewide, and 3.5 percent in the Phoenix metro region as the annual average for 2023, following much higher unemployment in 2020 and 2021. Substantial growth has occurred in the Manufacturing, Information, Business Services, and Education and Health Services, which offer more stability and higher wages than Hospitality and Personal Service jobs.

During the pandemic, tech companies worldwide grew by 2.3 times more than non-tech companies. Phoenix has been ranked as one of the top emerging ecosystems 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 with new facilities planned and under construction. In addition, the Phoenix metro area has had a significant increase in manufacturing projects versus advanced business services industries that dominated economic development in the region for the past decade.

Population growth and strong economic conditions create housing demand, but high mortgage rates and limited supply have created problems for the 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 could be exchanging a low rate on their existing mortgage for a higher rate on a new one. This is part of the reason for the limited supply, which in turn drives up prices for houses that would also have higher borrowing costs. The shortage of existing inventory for sale is also driving demand for new construction. While the extent of the issue is not fully known, investments in houses for short-term rentals also remove supply for more permanent households, essentially replacing houses with 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 that caused an abrupt decline in the Spring, but was then followed by stronger sales the remainder of the year.

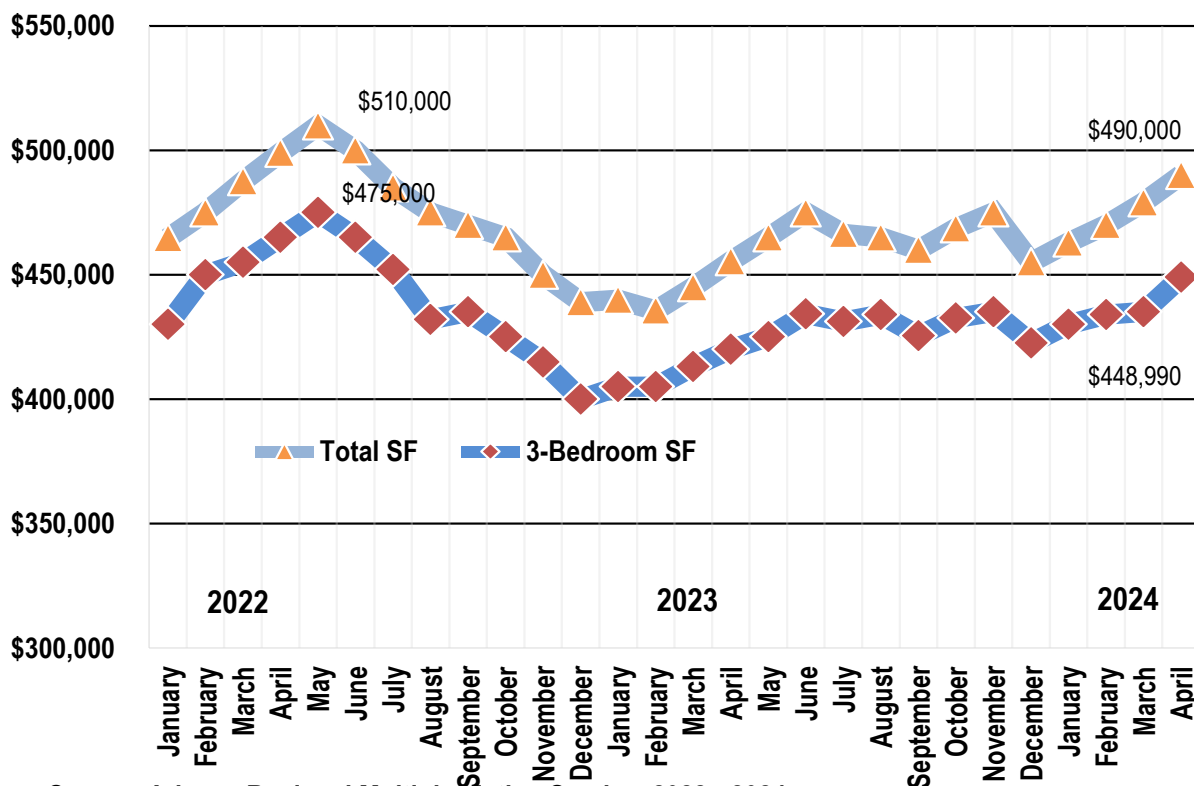


In 2021, the sales pattern returned to normal, although with sales still at elevated levels. In 2022, the combined impact of mortgage rates and high prices, along with the lack of inventory, sent sales downward after the normal Springtime surge. In 2023, this pattern repeated, but with more volatility, which seems to be the case in 2024 as well. Sales in 2024 have been improving, despite impediments, much like 2019 so far.

Sales prices on existing houses began escalating again in early 2023, after a long decline through most of 2022 (**Figure 4**). Both total and 3-bedroom prices are shown below; 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. High interest rates and elevated but fluctuating prices has affected stability in the market. Builders have utilized various approaches to improve affordability for new construction, but to really strengthen the market for all buyers will require that mortgage interest rates decline and stabilize enough to provide buyers with confidence in moving forward with purchases.

FIGURE 4
SALE PRICES OF SINGLE-FAMILY HOMES



Source: Arizona Regional Multiple Listing Service, 2022 - 2024.

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 growth factor in a desert location during a long-term drought, and one that has been and continues to be addressed by the Groundwater Management Act in effect since 1980. The news reports sound dire, but they actually **only refer to a 4 percent effect over the next 100 years on developments relying solely on groundwater**. Most of the metro area draws from multiple sources, not just groundwater. Even though water supply augmentation will be necessary for continued long-term growth, recent news stories have tended to omit ameliorating factors such as future land use changes, new conservation techniques, and diverse water supplies. While new efforts are needed, including more investment in infrastructure such as reservoir expansion, the Phoenix metro area has policies in place to assure 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.

Nearly all the new housing constructed in the past decade has been multifamily. Single family housing has been mostly high density, sometimes in attached residences, such as row houses. Some years demolitions have outpaced new construction, throughout the area but with the majority in the eastern and southern portions of the District. Multifamily development has been concentrated in the center of the District, in downtown and the arts district south of I-10. This has been increasingly in high-rise projects, where there can be 200 to 400 units in only one or two structures. Buildings over 20 stories are becoming more common.

TABLE 10
HOUSING PERMITS

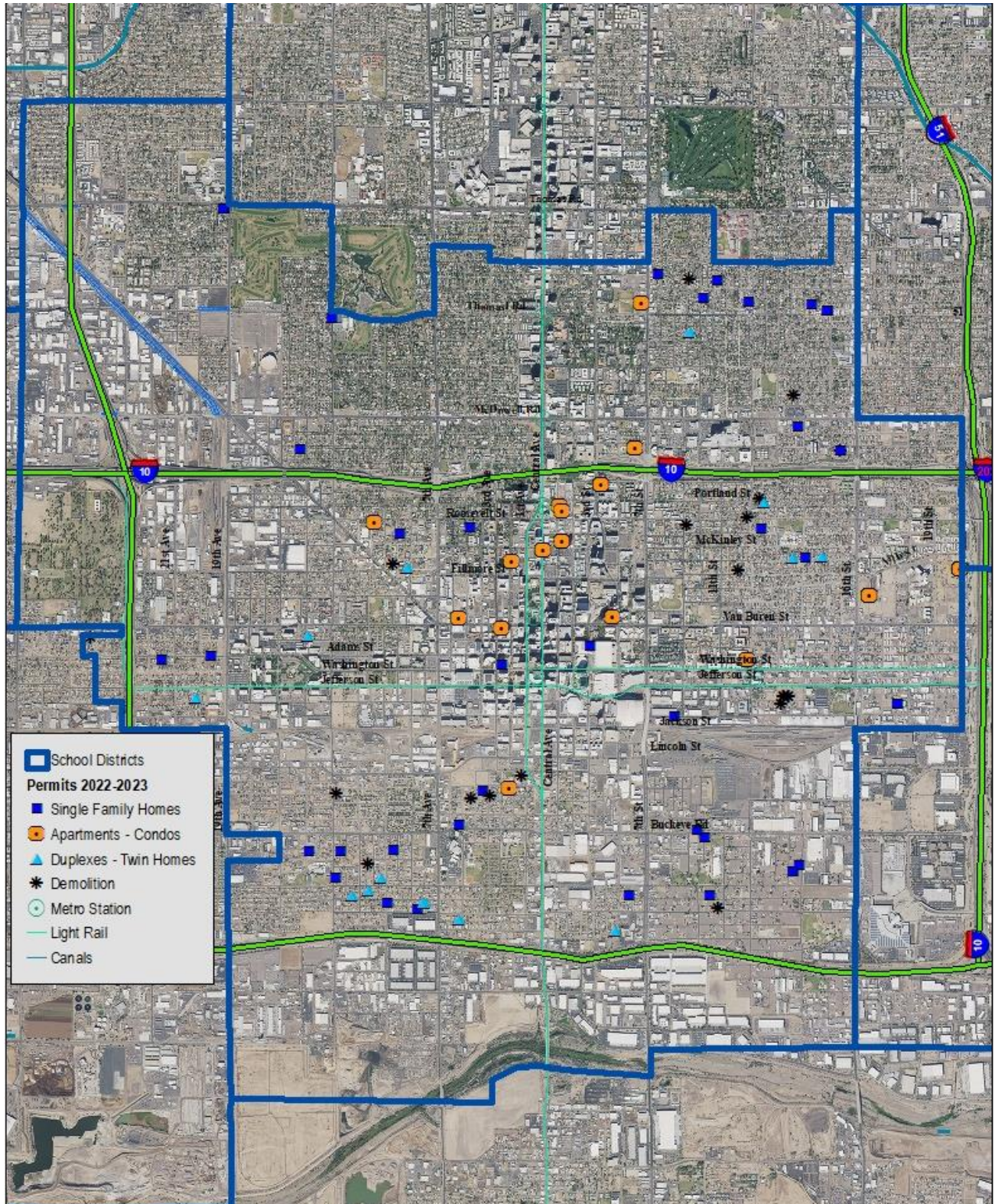
Housing Type	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Total
Single Family under 4.5 du/ac	-	-	-	-	-	-	-	-	-	-	-
Single Family 4.51 - 6 du/ac	-	-	-	-	1	-	-	-	-	-	1
Single Family 6.01 du/ac & Over	(38)	(27)	18	24	32	29	13	(35)	39	(4)	51
Single Family Attached	8	21	9	-	-	-	-	-	-	-	38
Total Single Family	(30)	(6)	27	24	33	29	13	(35)	39	(4)	90
Condominium/Townhouse	-	136	-	-	-	38	35	-	-	-	209
Standard Courtyard Apts	230	160	(7)	13	79	-	319	80	301	504	1,679
Urban/Lifestyle Apts	-	492	897	367	340	-	854	513	332	509	4,304
Mid/High-rise Apts	-	258	104	227	587	690	487	1,390	1,151	252	5,146
Total Multifamily	230	1,046	994	607	1,006	728	1,695	1,983	1,784	1,265	11,338
Total	200	1,040	1,021	631	1,039	757	1,708	1,948	1,823	1,261	11,428

Sources: Construction Monitor; Maricopa Association of Governments; Maricopa County Assessor; Applied Economics, 2024.

Map 7 shows development activity in the District in 2022-2023 with markers for individual building permits. New single family is found mostly in the southern or eastern portions of the District, with multifamily construction concentrated in the center. The eastern area south of I-10, the Edison-Garfield neighborhood, is notable for having a mixture of housing types to a degree not present elsewhere.



MAP 7 RESIDENTIAL PERMITTING



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, both of which can vary widely for many reasons. The Infill category could include 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.

Unsurprisingly, future residential construction in the District will primarily be multifamily, over 90 percent of the current estimate. This may include co-housing apartments, but not student housing/dormitories. In some projects near the ASU downtown campus, the distinction between these types of units can be unclear, which can cause some distortion in the unit estimates. Housing densities in both single family and multifamily are trending upward. With single family that often means attached units, with row houses replacing detached properties in many cases. The upward trend in multifamily is literal, with several residential towers planned between 20 and 30 stories, and two or more over 30 stories. More buildings with increased elevations can be expected as new ordinances allowing height bonuses advance. New single family will be found in many areas, mostly infill construction on lots where older housing has been removed, in some cases on lots that have been vacant for many years. This is especially the case in the area west of the Capital, and the Garfield and Edison-Eastlake neighborhoods east of downtown.

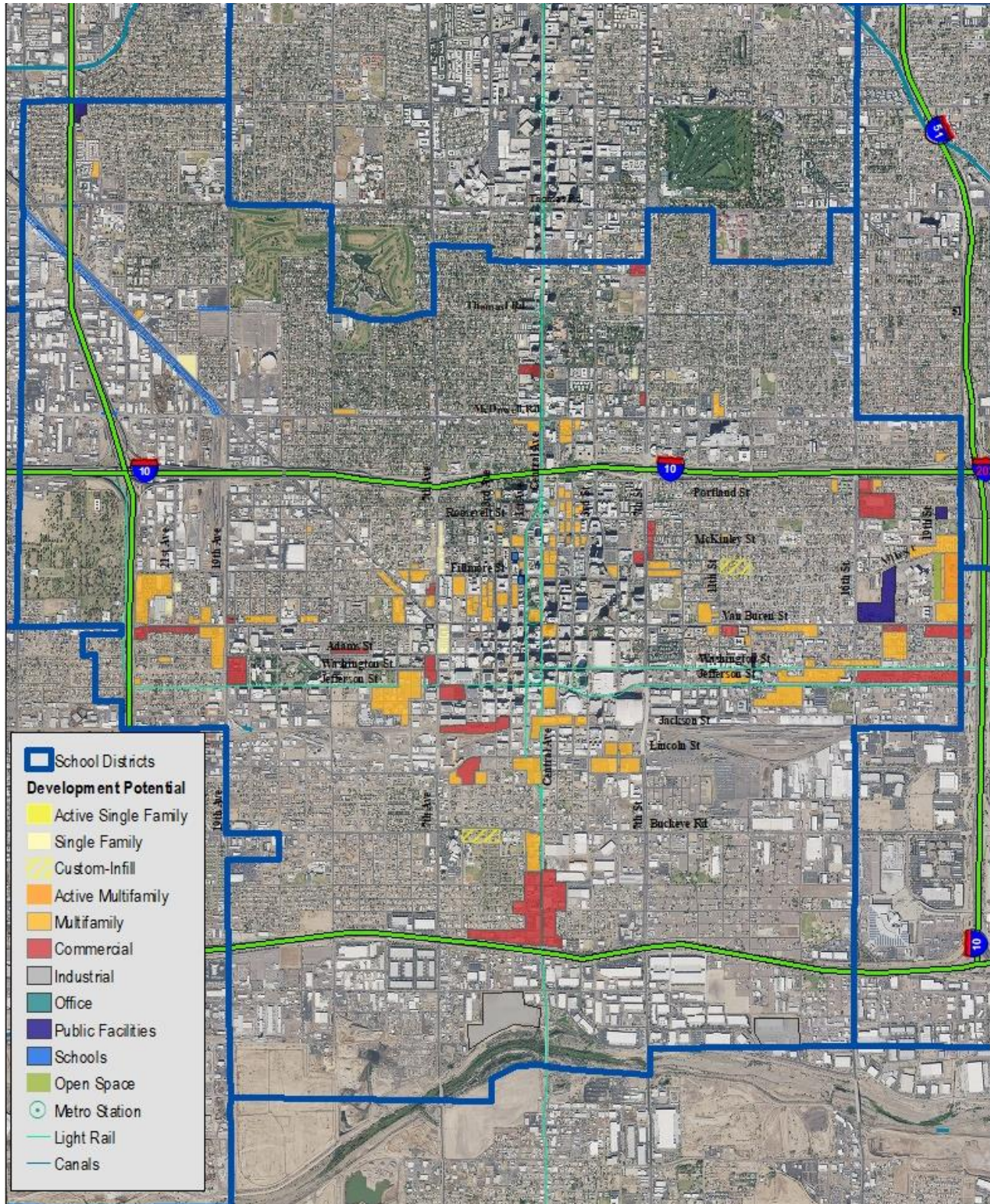
TABLE 11
POTENTIAL NEW HOUSING BY DEVELOPMENT TIMELINE

Housing Type	Existing		Vacant Land					Total
	Infill	Projects	1 Year	2-3 Years	3-5 Years	5-10 Years	10+ Years	
Single Family 4.51 - 6 du/ac	4	-	-	-	-	-	-	4
Single Family 6.01 du/ac & Over	1,132	-	-	12	-	46	-	1,190
Single Family Attached	754	-	6	28	66	69	-	923
Total Single Family	1,890	-	6	40	66	115	-	2,117
Condominium/Townhouse	-	-	-	-	54	-	-	54
Standard Courtyard Apts	1,881	110	-	652	702	321	48	3,714
Urban/Lifestyle Apts	-	-	473	746	1,315	6,184	1,403	10,121
Mid/High-rise Apts	-	-	1,513	552	1,507	1,956	-	5,528
Total Multifamily	1,881	110	1,986	1,950	3,578	8,461	1,451	19,417
Total	3,771	110	1,992	1,990	3,644	8,576	1,451	21,534

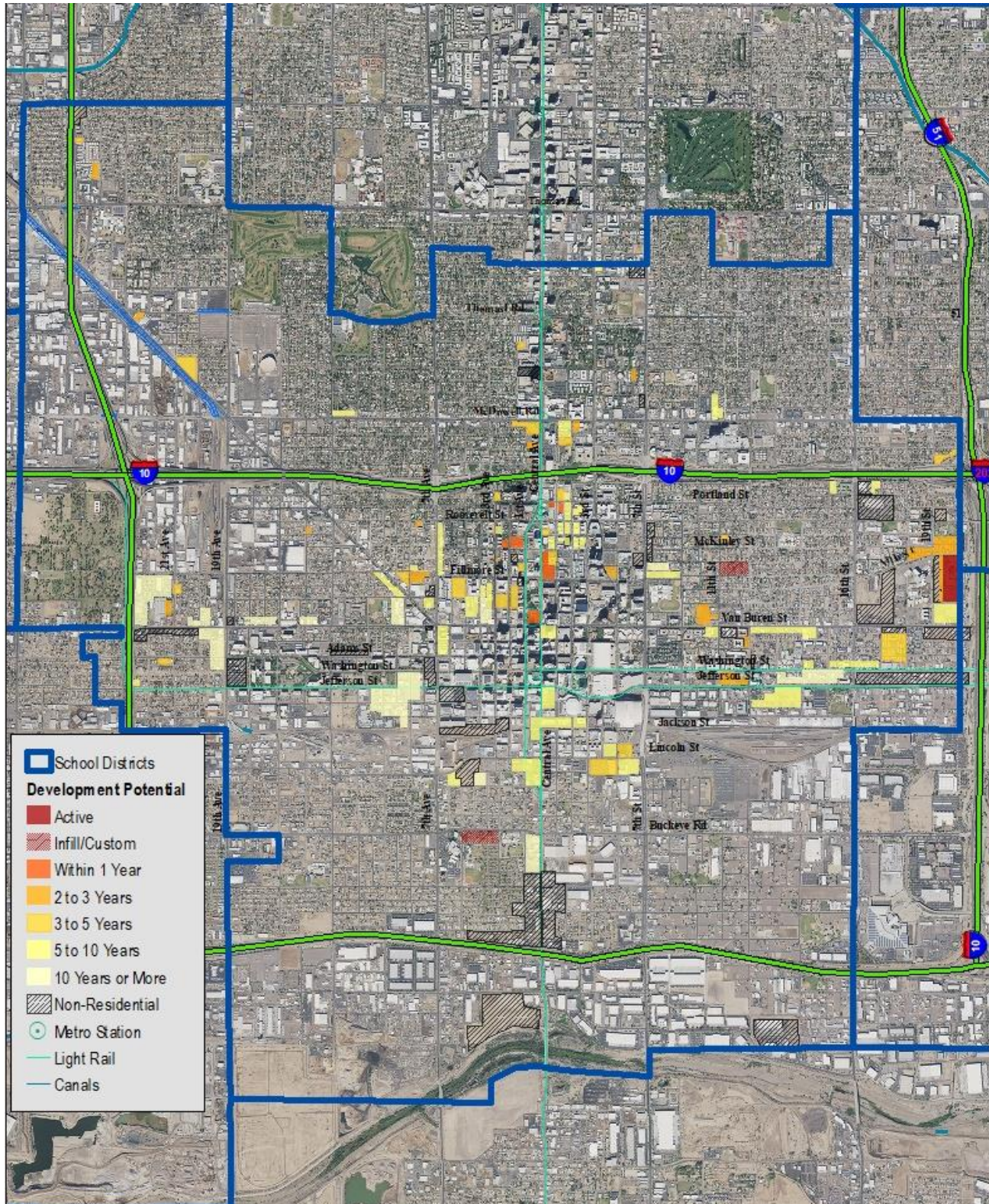
Sources: City of Phoenix; Applied Economics, 2024.

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

MAP 8
FUTURE LAND USE



MAP 9



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.

Table 12 shows pricing in or near the District. The list is not comprehensive but is meant to indicate overall housing market characteristics and the range of pricing available. As of May 2024, regional MLS pricing for sales of existing 3-bedroom houses is \$445,000 with a median of \$484,500 for single family houses of any size, a slight decrease from the previous month but still the highest prices in about two years.

Pricing in the District varies widely but tends to be higher than the metro median, which includes housing in the outer areas of the region. The Zip codes listed are from west to east, with the highest prices in the middle of the District, with lower cost housing west of 7th Avenue and east of 7th Street. It is also notable how few houses are for sale in the area, with only about 50 units per Zip code and 266 total in June. As a comparison, there were 252 homes for sale in the 85018 Zip, northeast of 32nd Street and Thomas Road, 92 in the 85013 Zip northwest of Thomas Road and Central Avenue, and 184 listings in 85041, south of the river west of Central Ave. One potential explanation for this is the high percentage of rental housing in the District. It is obvious there is a large amount of multifamily rental housing, but it seems that a substantial amount of single family housing is also renter occupied.

TABLE 12
RESALE HOUSING CHARACTERISTICS BY ZIP CODE

Zip Code	Active Listings	Median List Price	Days on Market	Median Rent	Median price / sq ft
85007	64	\$ 499,600	52	\$ 1,280	\$ 362
85003	47	\$ 650,000	71	\$ 2,180	\$ 410
85004	48	\$ 750,240	88	\$ 1,930	\$ 396
85006	85	\$ 537,900	57	\$ 1,600	\$ 379
85034	22	\$ 454,450	47	\$ 1,700	\$ 246
Total	266	Avg \$ 578,438	63	\$ 1,738	\$ 359

Source: Realtor.com; Applied Economics, June 19, 2024.

Table 12B provides examples of apartment rents in the District. This list is also not comprehensive, but does include data from complexes in different areas of the District. Rental housing has become expensive in the metro region as has been widely reported. As of June 2024, the average rent in Phoenix for a studio apartment was \$1095, with an average of \$1600 for 2-bedroom units and \$2499 for 3-bedrooms. The District is in the central city and has higher density development accompanied by higher rents, averaging over \$1300 for studio units and nearly \$3000 for 3-bedroom units in the complexes surveyed.

Rental rates in the downtown area can be expected to remain high. New construction is largely the type of high-amenity, and increasingly high-rise, properties that typically command high rents. Many of these units will be occupied by students at the ASU Downtown campus, with many others taken by young professionals working in the business district. Young graduates are often attracted to the same amenities and entertainment options as students; this has also been observed in downtown Tempe. Elsewhere, more projects for lower income residents are being planned, especially in the eastern part of the District, in the Eastlake-Garfield area. Much of this will be redevelopment activity.

TABLE 12B
LOCAL APARTMENT RENTS

Area	Complex	Address	Beds Min	Rent Min	Beds Max	Rent Max
Midtown	Arts District	222 E McDowell Rd	Studio	\$ 1,505	2-Bd	\$ 3,208
	Circa Central Avenue	1505 N Central Ave	Studio	\$ 1,384	2-Bd	\$ 2,666
	Muse	1616 N Central Ave	Studio	\$ 1,323	3-Bd	\$ 2,447
	Portrait at Hance Park	1313 N 2nd St	Studio	\$ 1,299	3-Bd	\$ 2,985
Roosevelt Row	Roosevelt Square	121 W Portland St	Studio	\$ 1,133	2-Bd	\$ 3,834
	The McKinley	280 W McKinley St	Studio	\$ 1,382	2-Bd	\$ 3,546
	The Stewart	800 N Central Ave	Studio	\$ 1,505	2-Bd	\$ 4,437
	Union at Roosevelt	888 N 1st Ave	Studio	\$ 1,430	2-Bd	\$ 2,035
Downtown	44 Monroe	44 W Monroe St	1-Bd	\$ 1,590	3-Bd	\$ 6,302
	Kenect Phoenix	355 N Central Ave	Studio	\$ 1,335	3-Bd	\$ 2,245
	The Rey Downtown	400 N 2nd Ave	1-Bd	\$ 1,398	2-Bd	\$ 3,112
Eastlake-Garfield	Agave Court	125 N 18th St	1-Bd	\$ 1,399	3-Bd	\$ 2,299
	Mason Oliver	11 S 12th St	Studio	\$ 1,330	3-Bd	\$ 2,115
	Streamliner 16th	1616 E Polk St	Studio	\$ 1,099	2-Bd	\$ 1,439
	VB on 12th	220 N 12th St	Studio	\$ 1,035	1-Bd	\$ 1,563
Capital Mall	ReNue Downtown	1350 W Van Buren St	Studio	\$ 1,399	3-Bd	\$ 1,830

Source: Apartments.com, RentCafe; Applied Economics, June 19-20, 2024.

3.3.2 Development Projects

The residential market in general 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. The District is affected differently from some other areas since it is older and essentially built out. Much of the current and future growth is on redeveloped land. There are no large vacant parcels for new single family development. New construction is nearly all on individual infill lots or redevelopment of older properties. Future development should progress much as it has in the last few years, with limited growth on infill parcels throughout the District. In some cases, this will entail removing existing housing and replacing it with higher density construction, such as taking out one house and replacing it with a fourplex of attached units. Because of the strong regional market and local revitalization, new single family housing absorption levels are expected to be slightly higher than in recent years, but still very limited, especially since there will continue to be demolitions of older, substandard properties.

Multifamily development in the District is expected to continue to perform strongly. The recent surge of apartment construction in the Phoenix metro region has led to some decline in rents and a slowing in sales of apartment properties, causing some financing impediments for new projects. Those already advanced in planning are expected to progress but some may experience delays. However, the volume and character of new multifamily development locally, with extended lead and construction timing for high-rise projects, will obscure any such delays and not be readily apparent. Increased height allowances will lead to even taller buildings and higher density levels.

The metro region continues to expand economically with strong growth in employment and population, and this is expected to continue. The downtown area remains the government and business center for the region and also since 2006 hosts Arizona State University and a University of Arizona medical school. Just north of downtown is the arts district, with the Phoenix Art Museum north of I-10 and the Roosevelt Row neighborhood on the south. All of these factors contribute to a desirable residential market and this is reflected by the surge of new construction in recent years. This growth period is forecast to be extended, with the rate of new additions likely to remain at similar levels as recent years.



One of the components driving new growth in the District is the Valley Metro light rail system. This has factored in the gentrification of downtown and nearby areas along its route. At this time, construction is underway on an extension south from downtown scheduled to open in 2025. This will likely result in new multifamily development replacing older commercial uses. A future extension is in planning to connect downtown to the Capital Mall by 2030. This will probably help advance redevelopment of older housing and retail spaces.

Since there are no master planned communities or major residential developments in the District, future activity will be reviewed by geographic/character regions. Because much of the future residential potential will be in redevelopment projects, the estimated number of units should be expected to change significantly over time as new plans are advanced.

Downtown: 7th Avenue to 7th Street from Jackson to Fillmore Streets; 5,300 estimated units.

New housing construction has expanded rapidly in this area in recent years, accounting for about a third of all new additions over the past five years after only about 10 percent the previous five years. Nearly all of the new housing is multifamily, in “luxury” projects, often high-rise construction and this will continue. About a fifth or more of all new housing added during the ten-year projection period is expected to be in this area. The most notable new project will be Astra, with nearly 700 units in two towers of 36 and 45 stories. The first phase is to begin construction in 2024 and open in 2027.

Roosevelt Row/Arts District: Fillmore Street to I-10 between 7th Avenue and 7th Street; 6,100 estimated units.



This area just north of Downtown is similar in nature except much of the attraction is in the artistic atmosphere rather than the proximity to the university campuses. Housing additions in the past have been of similar volume but less consistent. Forecast growth should be more even and account for around 30 percent of the growth in the next decade. Notable projects are the 747 units at 601 N Central Avenue, and 401 units at Ray Phoenix just to the north at 777 N Central Avenue. (Left) Both projects are under construction, with the 601 N Central tower more advanced than the Ray project that broke ground in May 2024.

Midtown: North of I-10; 2,000 estimated units.

Most of the growth in this area has been in the past and new activity is only expected to account for about 10 percent of the District total. However, many of the additions are expected to be infill single family, which may be more likely to have families with children.

Capital Mall: West of 7th Avenue, between Grand Avenue and Jackson Street; 1,300 estimated units.

There has been very little housing construction in this area in recent years, and very little is expected in the future. New housing will likely consist of some infill and replacement construction but very few new additions.

South Central: South of Jackson Street; 2,400 estimated units.

This has primarily been a commercial or industrial area in the past with little new housing. Additions were mostly limited to infill west of 7th Avenue. That type of infill will likely continue but have limited impact. After the South Central light rail extension is opened, new transit-oriented construction along the Central Avenue route should

be expected. The area south of Chase Field is also expected to yield new multifamily projects, such as the Ridgehouse Capital proposal to redevelop a parking lot on Lincoln Street into a 235-unit seven-story apartment community. This area overall is expected to have about 10 percent of future residential growth, mostly occurring in the last half of the projection period.

Eastlake-Garfield: South of I-10, east of 7th Street; 4,400 estimated units.

New housing construction here has accounted for about 15 percent of total additions over the past ten years, especially during the past five as redevelopment projects have outpaced demolitions. Future growth is forecast to be about the same percentage as the past, in part because of the amount of replacement housing rather than completely new development, and partly because of the large volumes of new units concentrated in the urban core.

The residential development in this area will likely have an outsized impact on the District due to the character of the additions. New infill housing can be expected throughout the area, especially north of Van Buren Street. New multifamily is expected to be added along the light rail route. Northeast of 16th Street and Van Buren, Greenlight Communities opened the 208-unit Streamliner 16 early summer 2024. This is a private sector business focused on “attainable” housing and has communities throughout the metro region.

The primary area for new housing will be east of 16th Street. Three public housing projects with 577 total units have been cleared. Approximately 1,000 new units will replace them but the intent is to create new, mixed-income communities in order to stabilize the neighborhoods. The revitalization will include public housing, low-income, and market-rate housing including ownership opportunities. The goal is to “deconcentrate” poverty and expand affordable housing possibilities.

At this time, the third of three phases at Harmony at the Park is under construction. (Right) The project has 300 total units. Redevelopment is expected at the city-owned sites to the north and south of Van Buren over the next two to four years. Unlike projects in the downtown area, these neighborhoods are oriented toward families with children, as evidenced by the recent renovations at Edison Park at 19th Street and Roosevelt and the plans for a linear park at 19th Street south of Villa (north of Van Buren). While there will be some older householders, it should be expected that a large proportion of the new housing units will have school-age children present. The mixed income levels planned for the redevelopment projects should result in more stable neighborhoods and a wider age range of the children living there.



4.0 District Projections

4.1 Population & Housing

Long-term enrollment projections for the District are calculated based on regional growth trends and household, demographic, and school-age population data, including student capture rates. As shown in **Table 13**, District population and number of households are expected to increase during the projection period as a significant amount of new multifamily housing enters the market. The District is expected to experience an increase in overall population of about 15,600 people by 2033/34, reaching a total of about 77,000 people. Currently, the District contains approximately 28,500 households (occupied housing units), up over 1,400 units from last year. Housing additions are expected to remain strong throughout the projection period. In total, 14,654 new units (14,398 of which are multifamily) are expected to be added to the District's housing inventory by 2033/34. Occupancy rates are expected to be stable during the first five-year period and then increase slowly throughout the last half of the projection period.

TABLE 13
HISTORIC AND PROJECTED POPULATION AND HOUSING

Year	Population	Total Units	New Units		Occupancy Rate	Vacant Units	Households		Pop/HH
			Single Family	Multi-family			Total	Change	
2010/11	55,104	24,287	-60	43	81.3%	4,547	19,740	-376	2.791
2015/16	56,459	25,710	-6	546	85.0%	3,857	21,854	711	2.584
2016/17	56,914	26,231	27	494	85.5%	3,803	22,428	574	2.538
2017/18	56,864	26,362	24	107	86.0%	3,691	22,671	244	2.508
2018/19	57,321	26,901	33	506	86.5%	3,644	23,257	586	2.465
2019/20	57,368	27,302	29	372	86.6%	3,667	23,635	378	2.427
2020/21	58,675	28,510	13	1,195	86.4%	3,880	24,630	995	2.382
2021/22	59,607	30,458	-35	1,983	85.0%	4,569	25,889	1,259	2.302
2022/23	60,047	32,281	39	1,784	84.0%	5,165	27,116	1,227	2.214
2023/24	61,186	33,777	-4	1,500	84.5%	5,235	28,542	1,426	2.144
2024/25	62,664	34,920	33	1,110	85.0%	5,238	29,682	1,140	2.111
2025/26	64,355	36,231	22	1,289	85.5%	5,253	30,978	1,296	2.077
2026/27	65,673	37,848	19	1,598	85.0%	5,677	32,171	1,193	2.041
2027/28	67,578	39,951	21	2,082	84.5%	6,192	33,759	1,588	2.002
2028/29	69,997	41,836	28	1,857	85.0%	6,275	35,561	1,802	1.968
2029/30	71,609	43,091	15	1,240	85.5%	6,248	36,843	1,282	1.944
2030/31	72,925	44,110	18	1,001	86.0%	6,175	37,935	1,092	1.922
2031/32	74,306	45,488	47	1,331	86.0%	6,368	39,120	1,185	1.899
2032/33	75,595	46,809	36	1,285	86.0%	6,553	40,256	1,136	1.878
2033/34	76,799	48,431	17	1,605	85.5%	7,022	41,409	1,153	1.855
2024/25 - 2033/34		14,654	256	14,398				12,867	

Source: Applied Economics, 2024.

4.2 Enrollment

Table 14 shows the relationship between the school-age population and the actual and projected District enrollment (including out-of-District enrollment). The difference between the two, referred to as the enrollment to population (E-P) ratio was 0.743 this year. However, this includes an offset of 1,675 students from outside the District this year which comprises 36 percent of total enrollment. Therefore, the District only captured about 2,984 students from within its borders, or about 48 percent of the resident school age population. Of the roughly 3,282 resident school-age persons not attending District schools, many are accounted for by the roughly 2,000 students enrolled in charter schools in the District, while others are likely lost to private schools or providers outside the District. The service rate dropped drastically from almost 60 percent in 2020 to 47 percent in 2021 and has since stabilized reaching almost 48 percent in 2023.

TABLE 14
STUDENT POPULATION, ENROLLMENT, AND CAPTURE

Year	Households	School-Age Population *		K-8 Enrollment		Difference	Enrollment - Population Ratio
		Total	Per Household	Total	Per Household		
2010/11	19,740	6,771	0.343	7,017	0.355	-246	1.036
2015/16	21,854	6,482	0.297	6,798	0.311	-316	1.049
2016/17	22,428	6,462	0.288	6,531	0.291	-69	1.011
2017/18	22,671	6,345	0.280	6,253	0.276	92	0.985
2018/19	23,257	6,323	0.272	6,199	0.267	124	0.980
2019/20	23,635	6,241	0.264	5,900	0.250	341	0.945
2020/21	24,630	6,318	0.257	5,438	0.221	880	0.861
2021/22	25,889	6,305	0.244	4,964	0.192	1,341	0.787
2022/23	27,116	6,270	0.231	4,850	0.179	1,420	0.773
2023/24	28,542	6,266	0.220	4,659	0.163	1,607	0.743
2024/25	29,682	6,289	0.212	4,571	0.154	1,718	0.727
2025/26	30,978	6,333	0.204	4,515	0.146	1,818	0.713
2026/27	32,171	6,347	0.197	4,393	0.137	1,954	0.692
2027/28	33,759	6,427	0.190	4,370	0.129	2,057	0.680
2028/29	35,561	6,533	0.184	4,323	0.122	2,210	0.662
2029/30	36,843	6,532	0.177	4,260	0.116	2,272	0.652
2030/31	37,935	6,490	0.171	4,185	0.110	2,305	0.645
2031/32	39,120	6,459	0.165	4,116	0.105	2,343	0.637
2032/33	40,256	6,414	0.159	4,057	0.101	2,357	0.633
2033/34	41,409	6,366	0.154	4,002	0.097	2,364	0.629

Source: Applied Economics, 2024.

* Population age 5 through 13, corresponds with Kindergarten through 8th grade.

Analysis of data for students from outside the District reveals that over 1,500 students are drawn from a very large area encompassing some 37 other school districts. This is indicative of commuters bringing students with them on their journey to work. While the geographic draw area is very large, the data shows that the ethnic and income characteristics of the students from outside the District are very similar to those of students that reside inside the District.



Figure 5 displays the current and projected school-age population and enrollment over the next ten years. It appears that District enrollment will decline slowly (about 1.4 per year on average) throughout the projection period, due to a lack of growth in the school-age population and a continuously declining E-P ratio. Annual enrollment losses are expected to accelerate slightly during the second five-year period, resulting in an overall decrease of about 650 students by 2033, representing a 14 percent decline over current levels.

FIGURE 5
ACTUAL AND PROJECTED ENROLLMENT

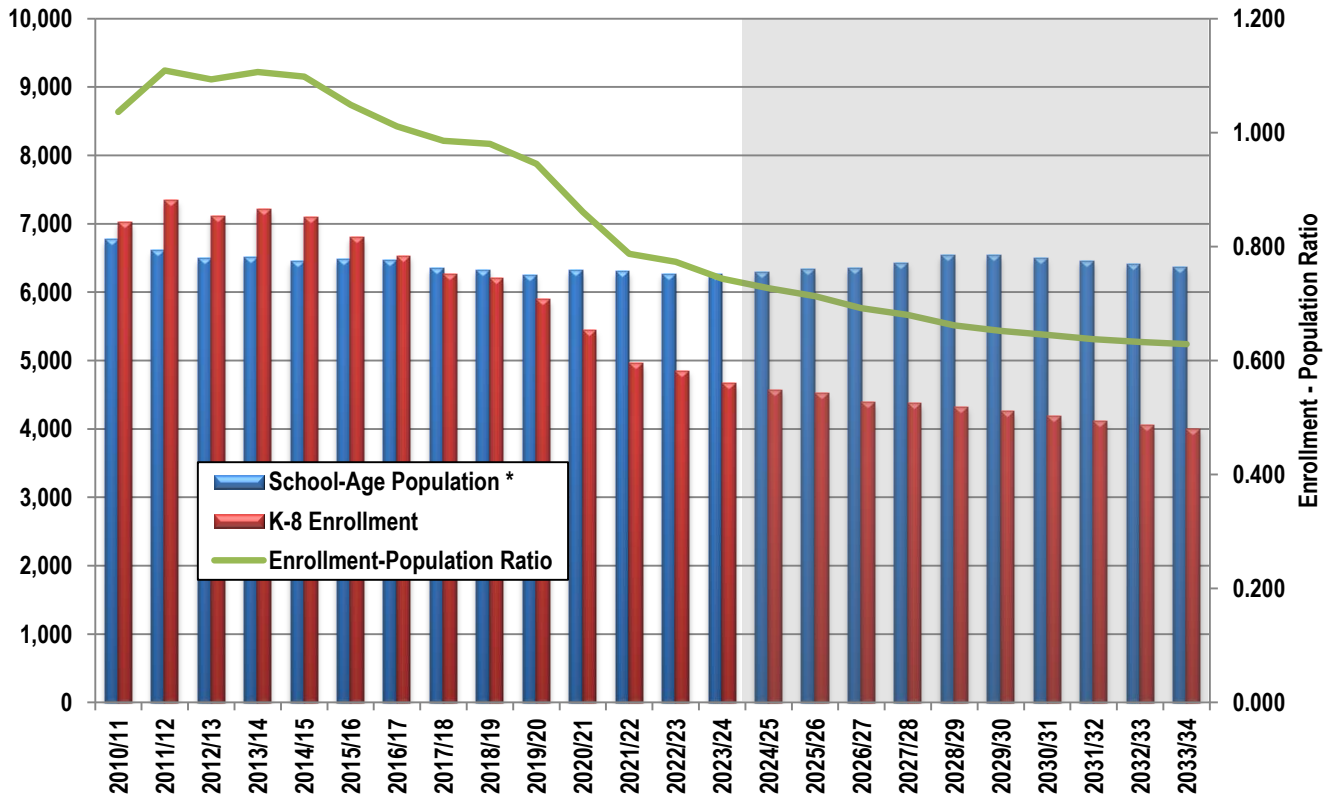


Table 15 shows the District’s past and projected enrollment by grade cohort through the end of the projection period. Over the course of the 10-year period, the distribution of students among the grade cohorts is projected to shift slightly toward the younger grades, due in part to the increasing share of multifamily housing units which tend to attract households that are more likely to have young children (if any), and the flow of small classes through to the upper grades. While the share of 3-5 students is expected to remain mostly unchanged, the share of K-2 students is projected to increase from 31 percent to 36 percent in 2033; correspondingly, the share of 6-8 students is projected to drop from 34 to 31 percent over the 10-year period.

TABLE 15
HEADCOUNT ENROLLMENT BY GRADE COHORT

Fall	Enrollment by Level			K-8 Total			Share by Level		
	K-2	3-5	6-8	Enrollment	Change	% Change	K-2	3-5	6-8
2010/11	2,624	2,443	1,950	7,017	44	0.6%	37%	35%	28%
2011/12	2,712	2,487	2,139	7,338	321	4.6%	37%	34%	29%
2012/13	2,606	2,394	2,103	7,103	-235	-3.2%	37%	34%	30%
2013/14	2,645	2,430	2,134	7,209	106	1.5%	37%	34%	30%
2014/15	2,523	2,451	2,115	7,089	-120	-1.7%	36%	35%	30%
2015/16	2,292	2,386	2,120	6,798	-291	-4.1%	34%	35%	31%
2016/17	2,072	2,338	2,121	6,531	-267	-3.9%	32%	36%	32%
2017/18	1,981	2,181	2,091	6,253	-278	-4.3%	32%	35%	33%
2018/19	1,952	2,122	2,125	6,199	-54	-0.9%	31%	34%	34%
2019/20	1,929	1,934	2,037	5,900	-299	-4.8%	33%	33%	35%
2020/21	1,663	1,801	1,974	5,438	-462	-7.8%	31%	33%	36%
2021/22	1,568	1,631	1,765	4,964	-474	-8.7%	32%	33%	36%
2022/23	1,549	1,649	1,652	4,850	-114	-2.3%	32%	34%	34%
2023/24	1,517	1,543	1,599	4,659	-191	-3.9%	33%	33%	34%
2024/25	1,505	1,514	1,552	4,571	-88	-1.9%	33%	33%	34%
2025/26	1,487	1,492	1,536	4,515	-56	-1.2%	33%	33%	34%
2026/27	1,468	1,478	1,447	4,393	-122	-2.7%	33%	34%	33%
2027/28	1,470	1,474	1,426	4,370	-23	-0.5%	34%	34%	33%
2028/29	1,475	1,450	1,398	4,323	-47	-1.1%	34%	34%	32%
2029/30	1,472	1,416	1,372	4,260	-63	-1.5%	35%	33%	32%
2030/31	1,461	1,387	1,337	4,185	-75	-1.8%	35%	33%	32%
2031/32	1,452	1,370	1,294	4,116	-69	-1.6%	35%	33%	31%
2032/33	1,440	1,360	1,257	4,057	-59	-1.4%	35%	34%	31%
2033/34	1,425	1,347	1,230	4,002	-55	-1.4%	36%	34%	31%

Source: Applied Economics, 2024.

Table 16 shows the District’s past and projected enrollment by individual grade. In addition to the overall decline in enrollment, these projections also show the shift in enrollment that favors the younger grades.

TABLE 16
HEADCOUNT ENROLLMENT BY GRADE

Year	PS	K	1	2	3	4	5	6	7	8	K-8 Total
2010/11	395	913	869	842	837	812	794	712	650	588	7,017
2011/12	400	942	903	867	831	853	803	783	682	674	7,338
2012/13	357	863	889	854	821	795	778	747	715	641	7,103
2013/14	364	909	834	902	873	789	768	759	707	668	7,209
2014/15	357	808	881	834	868	807	776	712	719	684	7,089
2015/16	389	685	760	847	788	819	779	740	674	706	6,798
2016/17	337	666	681	725	822	749	767	742	719	660	6,531
2017/18	228	649	670	662	728	774	679	718	711	662	6,253
2018/19	327	636	667	649	655	737	730	673	727	725	6,199
2019/20	325	667	623	639	617	636	681	700	651	686	5,900
2020/21	210	493	605	565	592	595	614	654	684	636	5,438
2021/22	278	508	518	542	524	578	529	570	570	625	4,964
2022/23	283	521	520	508	550	525	574	527	563	562	4,850
2023/24	301	498	516	503	504	535	504	554	514	531	4,659
2024/25	295	493	503	509	503	502	509	494	549	509	4,571
2025/26	291	490	500	497	511	502	479	500	491	545	4,515
2026/27	283	484	493	491	496	507	475	468	494	485	4,393
2027/28	282	491	491	488	494	496	484	468	466	492	4,370
2028/29	279	496	496	483	488	491	471	474	463	461	4,323
2029/30	275	495	495	482	477	479	460	456	463	453	4,260
2030/31	270	491	491	479	474	466	447	443	444	450	4,185
2031/32	266	488	488	476	471	464	435	431	431	432	4,116
2032/33	262	484	484	472	467	460	433	419	419	419	4,057
2033/34	258	479	479	467	463	456	428	416	407	407	4,002

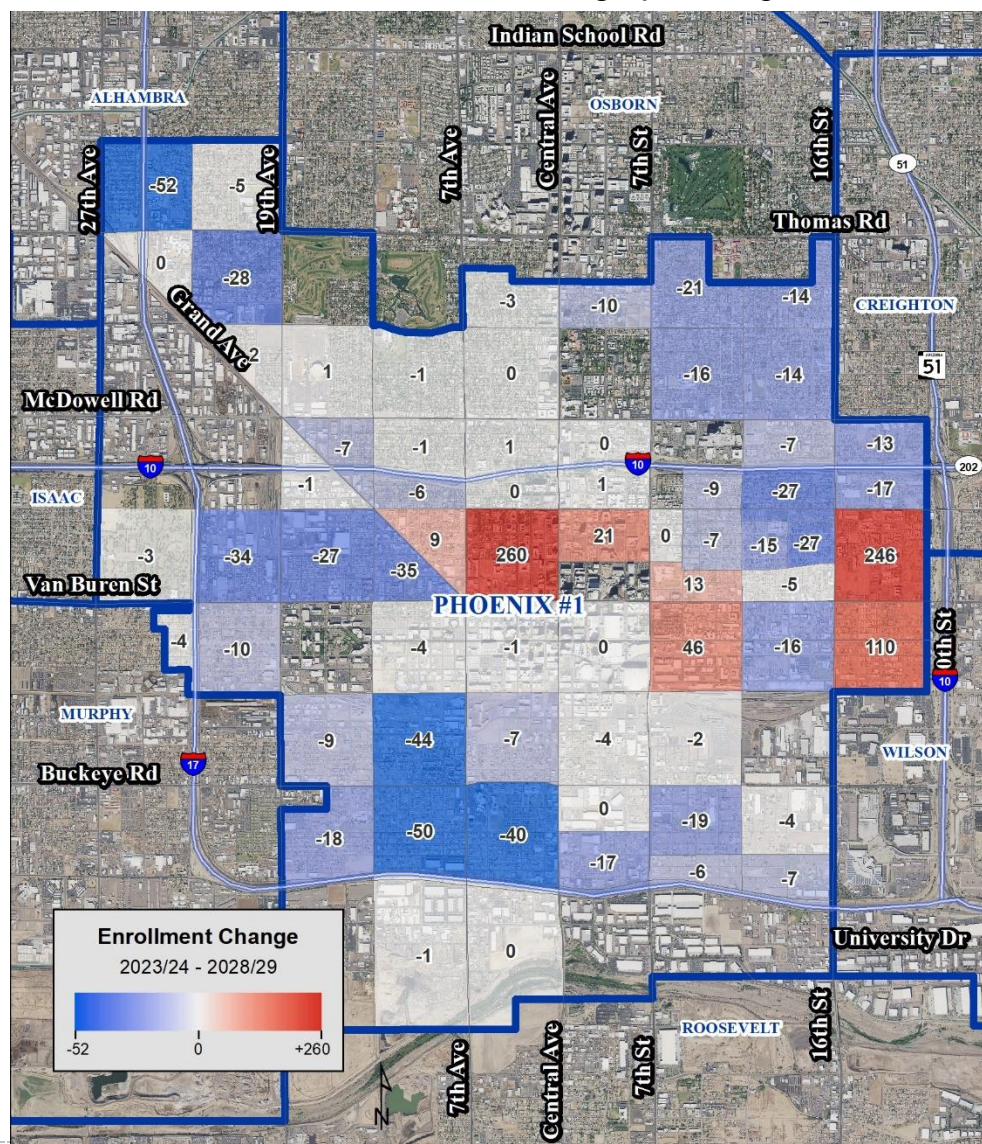
Source: Applied Economics, 2024.

5.0 Sub-District Projections

Sub-District enrollment projections are based on the current number of students in each grid, the expected occupancy of existing housing units and absorption of new housing units, and the expected student generation from existing housing and new construction. Small-area forecasts are developed by applying the expected levels of District-wide occupancy and absorption to the supply of residential housing on a project-by-project basis. District absorption is allocated to all small areas in two steps: (1) to active residential projects and (2) to vacant land planned for residential development. These allocations are based on the priorities assigned to each project or project part.

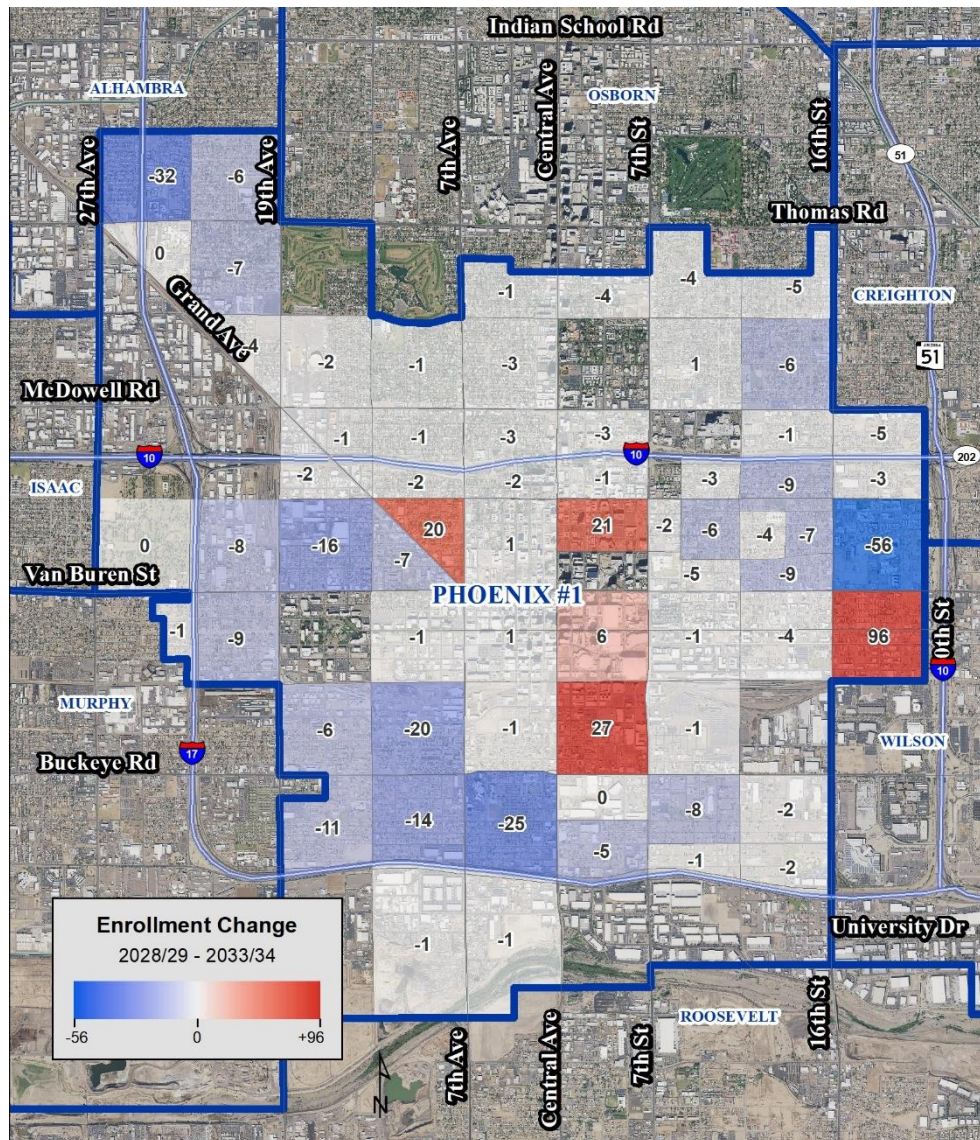
Enrollment declines are projected in numerous areas throughout the District during the first projection period (**Map 10**), but are somewhat concentrated in the northeast and south-central portions of the District. Losses are expected to be partially offset by strong gains in the Garfield, Edison and Kenilworth attendance areas.

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 (2023/24) school attendance areas, as was shown previously on Map 1. **Table 17** shows the historical and projected annual enrollment by attendance area. With the exception of Dunbar, all of the attendance areas lost roughly 200 or more students between 2002/03 and 2019/20; with 165 students in 2023/24, enrollment in the Dunbar attendance dropped by 80 students since 2019/20. As a percentage, the largest enrollment declines since 2002/03 have occurred in the Herrera (-79 percent), Garfield (-71 percent) and Emerson (-71 percent) attendance areas; in terms of the number of students lost since 2002/03, the largest decline was in the Garfield attendance area (-1,109 students). The largest losses this year were in the Buthune (-47 students) and Capitol (-28 students) attendance areas. Out of district enrollment has dropped by almost 500 students (-23 percent) since 2019/20. In District enrollment has decreased by 752 (-20 percent) during the same time period.

Over the next 10 years, total enrollment in the District is expected to decline by about 654 students (or 14 percent) as all but Edison, Kenilworth and Garfield are projected to experience a decrease in enrollment by the end of the projection period. The largest losses are expected in the Capitol (-92 students), Buthune (-134 students) and Herrera (-133 students) attendance areas. As a percentage of current enrollment, the losses in the Dunbar (-43 percent), Whittier (-38 percent), Heard (-36 percent) and Capitol (-41 percent) attendance areas are also significant. The addition of 217 students in the Kenilworth attendance area represents an increase of about 82 percent over current enrollment.

TABLE 17
ACTUAL AND PROJECTED ENROLLMENT BY ATTENDANCE AREA

	Actual						Projected						2002/03-	2019/20-	2023/24-	2028/29-
	2002/03	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	...2033/34	2019/20	2023/24	2028/29	2033/34
Buthune	721	542	548	482	487	440	424	429	414	396	348	306	-179	-102	-92	-42
Capitol	469	279	263	221	251	223	215	204	191	177	157	130	-190	-56	-66	-27
Dunbar	265	245	251	188	175	165	162	157	143	137	115	94	-20	-80	-50	-21
Edison	593	375	366	271	272	323	331	313	362	508	525	459	-218	-52	202	-66
Emerson	545	145	139	153	162	156	146	140	142	137	125	134	-400	11	-31	8
Garfield	1,569	691	657	455	467	460	469	469	457	468	550	612	-878	-231	90	62
Heard	826	426	378	347	370	374	362	365	348	325	292	241	-400	-52	-82	-51
Herrera	883	214	195	185	196	189	181	175	164	148	129	138	-669	-25	-60	8
Kenilworth	615	267	282	256	272	267	273	293	291	286	485	485	-348	0	218	0
Lowell	529	307	285	207	193	218	215	208	197	188	170	143	-222	-89	-48	-27
Whittier	499	262	255	178	161	169	169	163	156	144	121	105	-237	-93	-48	-16
Outside	680	2,164	1,970	2,021	1,844	1,675	1,624	1,600	1,529	1,457	1,305	1,155	1,484	-489	-370	-150
Total	8,194	5,917	5,589	4,964	4,850	4,659	4,571	4,515	4,393	4,370	4,323	4,002	-2,277	-1,258	-336	-321

Source: Applied Economics, 2024.

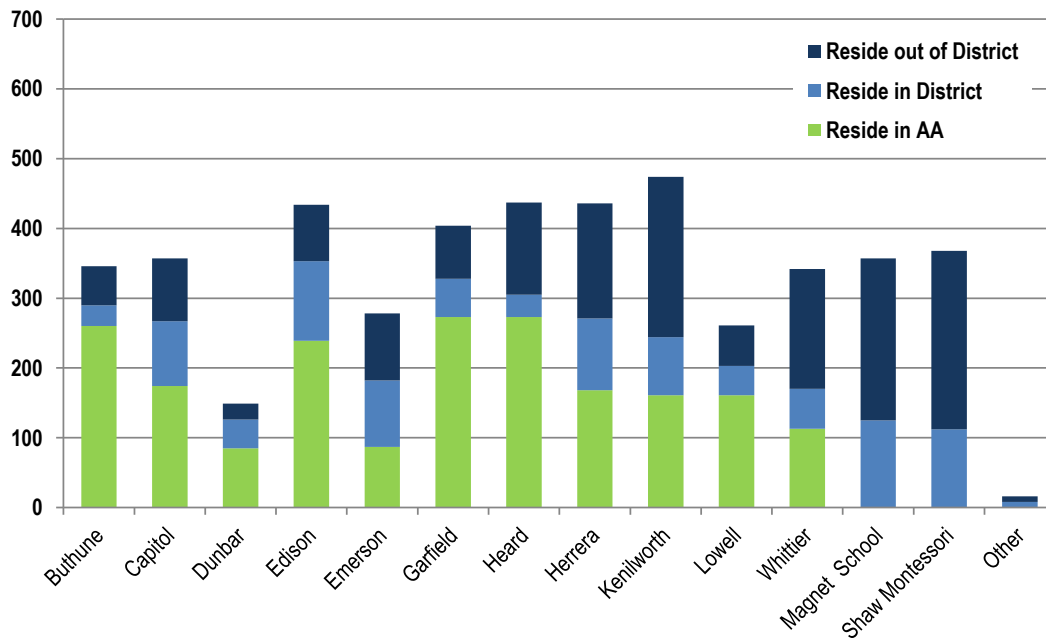
5.2 Enrollment by School versus by Attendance Area

Table 18 (and the corresponding graph) shows the correlation between attendance areas, place-of-residence-based enrollment (shown in Table 16 above), and actual enrollment by school. At Buthune, for example, 260 students that attend the school also reside in that attendance area, but 53 of the students attending Buthune actually live in the Capitol attendance area, 21 live in the Dunbar attendance area, and so on.

TABLE 18
ENROLLMENT BY ATTENDANCE AREA AND SCHOOL

School	Attendance Area												Total	Total	Difference	
	1	2	3	4	5	6	7	8	9	10	11	Outside	Attend	Reside		
Buthune	1	260	7	8	6	1	1		2	5		56	346	440	-94	
Capitol	2	53	174	7	5		1		24	3		90	357	223	134	
Dunbar	3	21		85					6	14		23	149	165	-16	
Edison	4	6	6		239	2	85	2	2		4	7	81	434	323	111
Emerson	5	7	2	6	7	87	33	7	6	12	4	11	96	278	156	122
Garfield	6	1			43	4	273	2		2		3	76	404	460	-56
Heard	7	7		5	3	1	4	273	4	7	1		132	437	374	63
Herrera	8	27	5	18	2	2	22	7	168	7	13		165	436	189	247
Kenilworth	9	20	14	8	6	4	12	7	3	161	6	3	230	474	267	207
Lowell	10	9		4	2		6	3	2	16	161		58	261	218	43
Whittier	11	1			6	38	7	2		1	2	113	172	342	169	173
Magnet School		14	12	24	1	1		56	3		4	10	232	357	0	357
Shaw Montessori		13	2		1	16	17	12	1	27	1	22	256	368	0	368
#1 iAcademy		1	1		2	1		1		2			8	16	0	16
Total Reside		440	223	165	323	156	460	374	189	267	218	169	1,675	4,659	2,984	1,675
Attend = Reside													1,994			
														66.8%		

Source: Phoenix Elementary School District, 2023; Applied Economics, 2024.



Four schools have an attend-reside ratio of less than 40 percent: Emerson (31 percent), Herrera (39 percent), Kenilworth (34 percent) and Whittier (33 percent). Overall, about 67 percent of the students residing in the District that attend a District school attend the school in the attendance area where they live, which is low among districts in Maricopa County, but expected due to the two schools without boundaries and the close proximity of the schools to one another.

Despite the low overall attend-reside ratio, attendance exceeded the number of resident students at all but three schools this year due to the large number of out-of-District students (1,675) that are enrolled at District schools. Without the addition of these out-of-District students, the difference between the attendance and residence counts at three schools (Heard, Kenilworth and Lowell) would revert to a net loss. The addition of out-of-District students was not sufficient to offset the loss of resident students at three schools, Dunbar, Buthune and Garfield, which experienced a net loss ranging from 94-16 students this year. The largest net gains occurred at Herrera (+247 students), Shaw Montessori (+368 students) and Magnet School (+357 students), each of which enrolled a significant number of out-of-District students.

5.3 Enrollment by School

Table 19 contains the projected enrollment by school, including out-of-District students, using the attendance area projections and the current relationship between enrollment by attendance area and enrollment by school. The total amount of out-of-District enrollment is held constant at current levels. The school assignments are based on current attend-reside enrollment patterns and the projected changes in enrollment by attendance area.

Overall, enrollment by school is well below normal program capacity, averaging 54 percent District-wide. District schools range in size from Dunbar with 149 students (40% capacity) to Kenilworth with 474 students (46% capacity). More importantly, the District has several schools operating at or below the threshold required to operate efficiently (about 450), which is generally the result of having at least three classrooms at each grade level.

The pattern of enrollment change for the schools follows that of the attendance areas. Over the next five years, only Edison (+166 students), Garfield (+108 students) and Kenilworth (+151 students) are projected to experience enrollment increases of any significance. Enrollment losses ranging from 16 to 139 students each are expected at eight schools by 2028/29; the largest decline during the first five-year period is projected at Herrera School (-139 students).

During the second five-year period, enrollment losses ranging from -7 to 80 students each are projected at all schools except Shaw Montessori (no change) and Garfield (+ 69 students). The largest enrollment declines during the second half of the projection period are expected at Edison (-80 students), Heard (-59 students) and Capitol (-44 students).

TABLE 19
ACTUAL AND PROJECTED ENROLLMENT BY SCHOOL

	Actual					Projected						2019/20-	2023/24-	2028/29-
	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	...2033/34	2023/24	2028/29	2033/34
Elementary														
Buthune	432	419	363	362	346	332	339	330	317	284	255	-86	-62	-30
Capitol	508	478	407	450	357	346	333	311	289	248	204	-151	-109	-44
Dunbar	272	264	223	143	149	147	142	128	124	104	86	-123	-45	-19
Edison	560	535	447	410	434	439	419	462	600	600	520	-126	166	-80
Emerson	338	317	268	299	278	265	257	252	238	208	201	-60	-70	-7
Garfield	564	523	408	423	404	415	415	406	421	512	581	-160	108	69
Heard	523	456	410	407	437	424	425	404	378	335	275	-86	-102	-59
Herrera	500	471	426	474	436	422	412	386	353	297	273	-64	-139	-23
Kenilworth	509	509	442	468	474	475	492	476	458	625	599	-35	151	-26
Lowell	478	435	324	261	261	257	250	235	224	199	167	-217	-62	-33
Whittier	447	424	345	343	342	338	329	312	288	238	200	-105	-104	-38
Magnet School	443	423	378	403	357	350	343	336	329	323	292	-86	-34	-31
Shaw Montessori	343	335	339	337	368	350	350	350	350	350	350	25	-18	0
Other*	0	0	184	70	16	12	10	5	0	0	0	16	-16	0
Total	5,917	5,589	4,964	4,850	4,659	4,571	4,515	4,393	4,370	4,323	4,002	-1,258	-336	-321

Source: Phoenix Elementary School District; Applied Economics, 2024.

* Phoenix #1 Academy and Faith North ECLC



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.

Maricopa Association of Governments
Information Services

Arizona Builder's Exchange
AZBEX Newsletter

Metro Phoenix Commercial
New Apartment Construction

Phoenix Business Journal
Residential Real Estate

Maricopa County Assessor's Office
Maricopa County, AZ

City of Phoenix
Planning & Development

Orion Investment Real Estate
Phoenix Top 5 News Bulletin

Rose Law Group
Rose Law Group Reporter