APPLIED ECONOMICS

DEER VALLEY UNIFIED SCHOOL DISTRICT

DEMOGRAPHIC AND ENROLLMENT UPDATE

FALL 2018/19

REPORT

PREPARED FOR:

DEER VALLEY UNIFIED SCHOOL DISTRICT
20402 N 15TH AVE
PHOENIX, AZ 85027

FEBRUARY 5, 2019

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EXECUTIVE SUMMARY

This report presents the key findings of the 2018/19 Demographic and Enrollment Update performed for the Deer Valley Unified School District (District) by Applied Economics. The purpose of this analysis is to identify current and historical demographic, development and enrollment trends, and to anticipate future trends to create District and sub-District enrollment projections through 2028/29. The update includes new student enrollment data, along with revised residential real estate market and development information.

- Total Kindergarten through 12th grade (K-12) enrollment in District was 33,548 students in the fall of the 2018/19 school year; this represents a decrease of just 9 students compared to last year; enrollment also dropped by about 80 students last year and 150 students in 2016/17. Enrollment in the 9-12 cohort decreased slightly (just 26 students), likely due in part to the 122-student decline in the 5-8 cohort last year; only K-4 enrollment increased this year, albeit slightly (44 students).
- Enrollment levels continue to be highest in the older cohorts, with average enrollment per grade of about 2,700 students in both the 6-8 and 9-12 cohorts; K-2 average enrollment per grade has remained fairly flat, hovering around 2,300 students, while 3-5 average enrollment has recently dropped slightly, to just under 2,500 students per grade.
- Census data indicates a general aging of the population since 2000, which directly impacts District enrollment. The population under 5 years of age in the District has dropped slightly since 2010, decreasing by about 1,100 people. The population aged 5 to 13, generally comprising Kindergarten through 8th grade, has been stagnant since 2010, dropping just 8 persons. The high school age population (14 to 17 years) has increased by 1.3 percent annually, about 1,600 persons over the past eight years.
- The population in the 25 to 44 age group, typically considered prime child-rearing years, has grown only 0.4 percent per year since 2010, illustrating the correlation of this age group with the population under the age of 13. Due to continued strong growth in the 45 to 64 and 65 and older age categories, these groups now account for around 40 percent of the total population; the population aged 45 and older has comprised about 87 percent of the District's population growth since 2010.
- The profile of occupied housing units has shifted from 20.3 percent renter-occupied units in 2000 to 29.7 percent in 2018; this trend can impact enrollment because the age structure of the student population becomes more stable. Although rental units tend to have higher turnover rates, these households are generally replaced by new households with similar characteristics, rather than aging in place. A greater proportion of owner-occupied units will typically increase the student population in the near-term, but it will decrease over time.
- There are currently 16 charter schools operating within District boundaries serving approximately 6,600 K-12 students. Total enrollment at these in-District charter schools grew by about 280 students this year, largely due to enrollment increases at the Caurus Academy (AMCS at Anthem) which added 9th and 10th grades this year. There are another 14 charter schools located within one mile of the District's boundaries that currently enroll nearly 5,600 K-12 students. Since 2016/17, enrollment at these area charter schools has increased by more than 1,600 students, primarily due to the opening of two new schools, Legacy Traditional School-Peoria (644 K-7th grade students) and BASIS Peoria Primary (629 K-4th grade students). In addition, the Legacy Traditional school added 7th grade this year, increasing total enrollment by 280 students over 2017/18. The total number of in-District and area charter schools has continued to increase, reaching a new high of 30 schools last year. The bulk of charter school enrollment continues to be in the younger grades, with lower levels after 7th grade.

- Housing development in the District is subject to limitations due to terrain, land ownership, and infrastructure availability, but single family permitting grew by 43 percent in 2017/18 with 981 units being permitted. Overall, development in the District should continue to strengthen in both the single family and multifamily sectors, including more high-density, rental single family housing. Single family development in the first half of the projection period is expected to have some fluctuations as existing projects build-out and new ones begin, but overall growth levels should be strong. Activity is anticipated to increase in the middle years of the projection period due to the number of projects continuing and entering production at the same time.
- District population and household levels are expected to increase throughout the projection period as new housing supply enters the market and occupancy rates remain stable. In the past year, more than 1,400 new housing units were added to inventory and an average of nearly 1,200 new units are forecast to be added each year during the projection period, yielding 11,776 new units by 2028/29. This will likely result in a population in 2028/29 of about 290,400 persons occupying 108,900 households.
- Fueled by strong growth in the number of households, District enrollment is projected to increase by about 470 students by 2028/29, despite the continuing decrease in the school-age population per household and the District's declining enrollment-population ratio. Total K-12 enrollment in 2028/29 is forecast to be 34,019 students from a school-age population of 52,656. The increase in the number of school-age persons in the District (4,093 persons) is, therefore, projected to slightly offset the effects of the decline in the enrollment-population ratio over the next ten years.
- Overall, elementary enrollment is expected to fall by 845 students over the next ten years. The Canyon Springs, Las Brisas, Paseo Hills, Sierra Verde, and West Wing attendance areas are all expected to lose 200 students or more, while Bellair and Constitution will each lose about 180 students. Sonoran Foothills is expected to gain over 500 students, and the Esperanza attendance area will grow by 320 K-6 students by 2028/29.
- In the middle school attendance areas, growth of 231 students over ten years in the Deer Valley Middle School attendance area is expected to be offset somewhat by a loss of 152 students in the Hillcrest area. Middle school enrollment losses during the projection period are further offset by out-of-District enrollment growth of 176 students over ten years. Overall, middle school enrollment is projected to increase by about 280 students by 2028/29.
- Changes in the high school attendance areas are expected to be more dramatic during the projection period. Significant growth in the Barry Goldwater attendance area is anticipated, adding more than 1,500 students over the 10-year period. These gains more than offset losses in the Boulder Creek (-492 students) and Mountain Ridge (-336 students) areas during the same time period; after declining for the past six years, enrollment in the Deer Valley high school attendance area is projected to grow slightly (95 students), while the Sandra Day attendance area will decline by about 70 students. Out-of-District enrollment is projected to increase throughout the projection period, but growth will be particularly strong during the second 5-year period; by 2028/29, out-of-District enrollment is expected to increase by nearly 320 students. Overall, the high school attendance areas are expected to gain 1,038 students in the next ten years.

1.0 INTRODUCTION

The 2018/19 Demographic and Enrollment Update for the Deer Valley Unified School District (District) incorporates new 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.

In addition to the District-level enrollment forecasts, projections are developed for small-area planning geographies, referred to as "grids", that are generally one-quarter square mile, or 160 acres, as shown on **Map 1**. The planning grids divide the District into 255 sub-areas that provide sufficient detail to support facility and attendance area planning activities. The data and analysis supporting the enrollment projections are separated into four sections: Existing Conditions, Residential Development, District-Level Projections and Sub-District Projections.

Section 2, Existing Conditions, provides a historical context for interpreting the current District enrollment levels and a detailed review of student distribution by grade and geography. Census data from 2000 and 2010 are compared with 2017 estimates to identify trends in key population and housing characteristics that impact District enrollment. Birth rate and student mobility information are also provided to help understand the current changes in enrollment. Finally, charter and private school enrollment data is presented for those providers operating within District boundaries, to help explain recent enrollment changes as compared to changes in the school-age population.

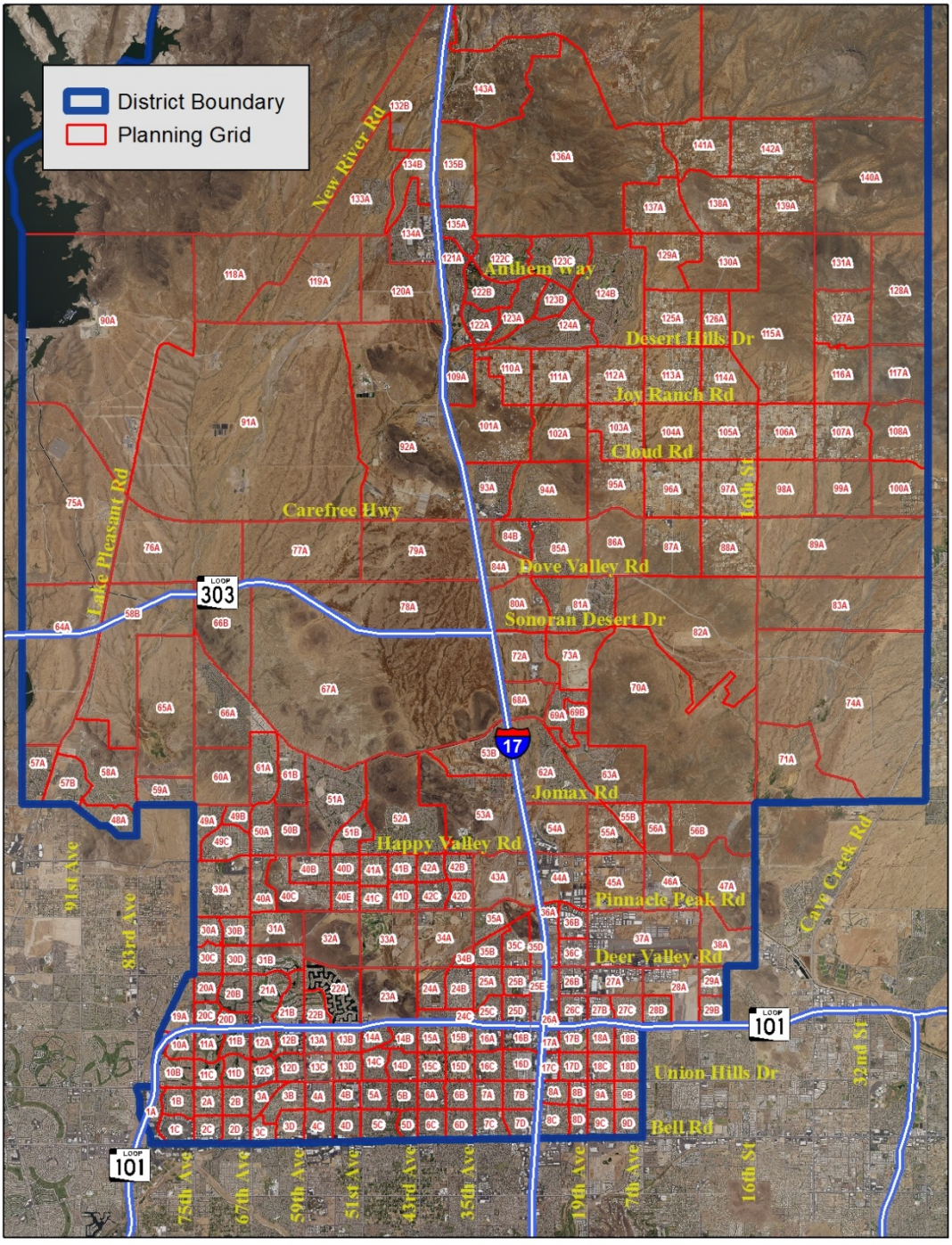
Section 3, Residential Development, presents information on current construction activity, housing vacancy rates and the potential future supply of new housing units. It provides estimates for the timing of housing construction based on current construction activity, regional growth forecasts, and the ownership and zoning status of land available for future residential development. Future new housing potential is categorized by unit type and density, as well as the timing of known housing projects within the District. These projections are instrumental in predicting the future level and distribution of enrollment within the District.

District-level enrollment projections are provided in Section 4. These projections are created by analyzing past demographic and housing market trends and extending them based on expected housing unit additions and the associated change in school-age population. Enrollment projections are also impacted by the assumption that is made regarding the share of the District's population that will choose to attend District schools. In total, these projections take into account local and regional trends in socioeconomic conditions and economic growth forecasts.

Section 5, Sub-District Projections, details enrollment projections by attendance area and school. District-level student generation rates are combined with expected housing additions, market characteristics and demographic trends at the grid level to estimate future enrollment by place of residence. This grid-level data is aggregated to form projections by attendance area and can also be used to examine potential changes to facilities and boundaries. The relationship between the number of students that reside within an attendance area and that school's enrollment illustrates the impact of student movement, including students from outside the District. This relationship is applied to attendance area projections to forecast enrollment by school.

The information and observations contained in this report are based on present knowledge of the land use and development patterns of the area under analysis, current physical and socioeconomic conditions, and regional forecasts. Estimates and projections made in this report are based on hypothetical assumptions. 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 LOCATION AND GRID PLANNING GEOGRAPHY

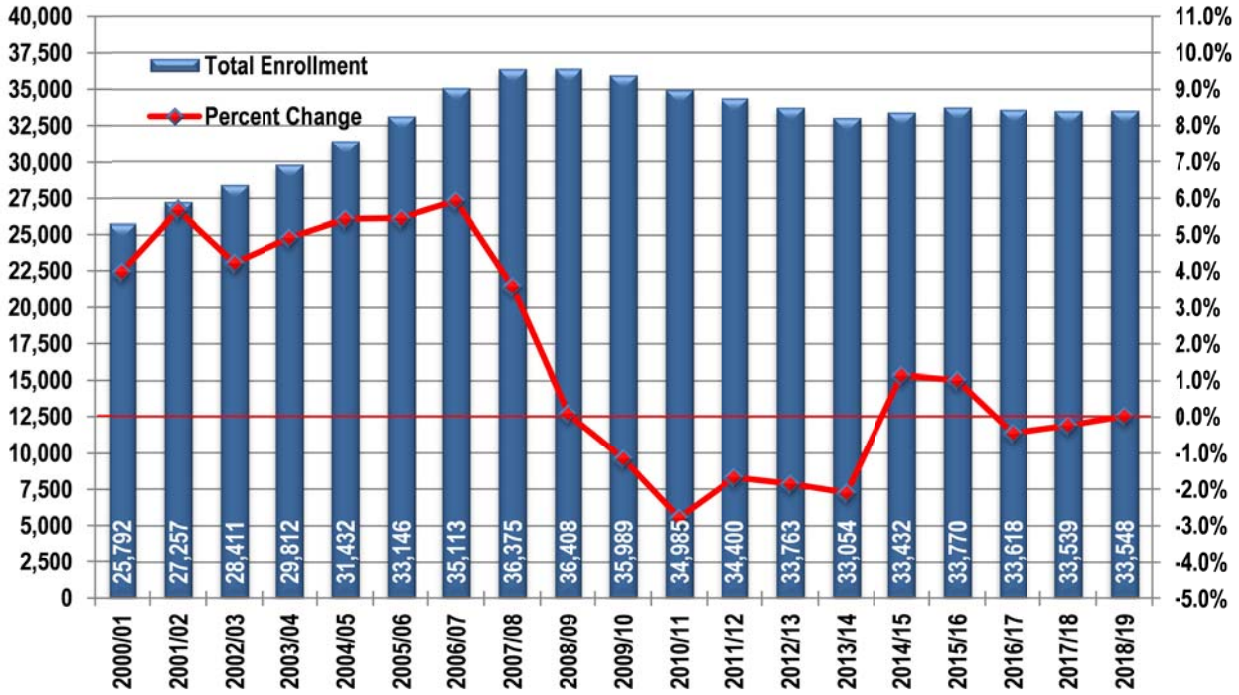


2.0 EXISTING CONDITIONS

2.1 CURRENT & HISTORICAL ENROLLMENT

Total Kindergarten through 12th grade (K-12) enrollment in District was 33,548 students in the fall of the 2018/19 school year; this represents a decrease of just 9 students compared to last year; enrollment also dropped by about 80 students last year and 150 students in 2016/17. As illustrated in **Figure 1**, District enrollment grew by 4 to 6 percent per year between 2000/01 and 2006/07, adding more than 9,300 students, due to a wave of new housing construction. This "bubble" in the housing market ultimately collapsed, causing widespread employment losses and dwindling occupancy rates during the ensuing recession. Enrollment declined between 1.2 and 2.8 percent per year between 2008/09 and 2013/14, ultimately reaching a low of about 33,000 students. The large drop in the 2010/11 school year includes the loss of about 400 Kindergarten students as a result of the elimination of the District's free all-day program; the reinstatement free all-day Kindergarten helped fuel the enrollment increase in 2014/15.

FIGURE 1
TOTAL ENROLLMENT BY YEAR AND ANNUAL GROWTH RATE: 2000/01 – 2018/19

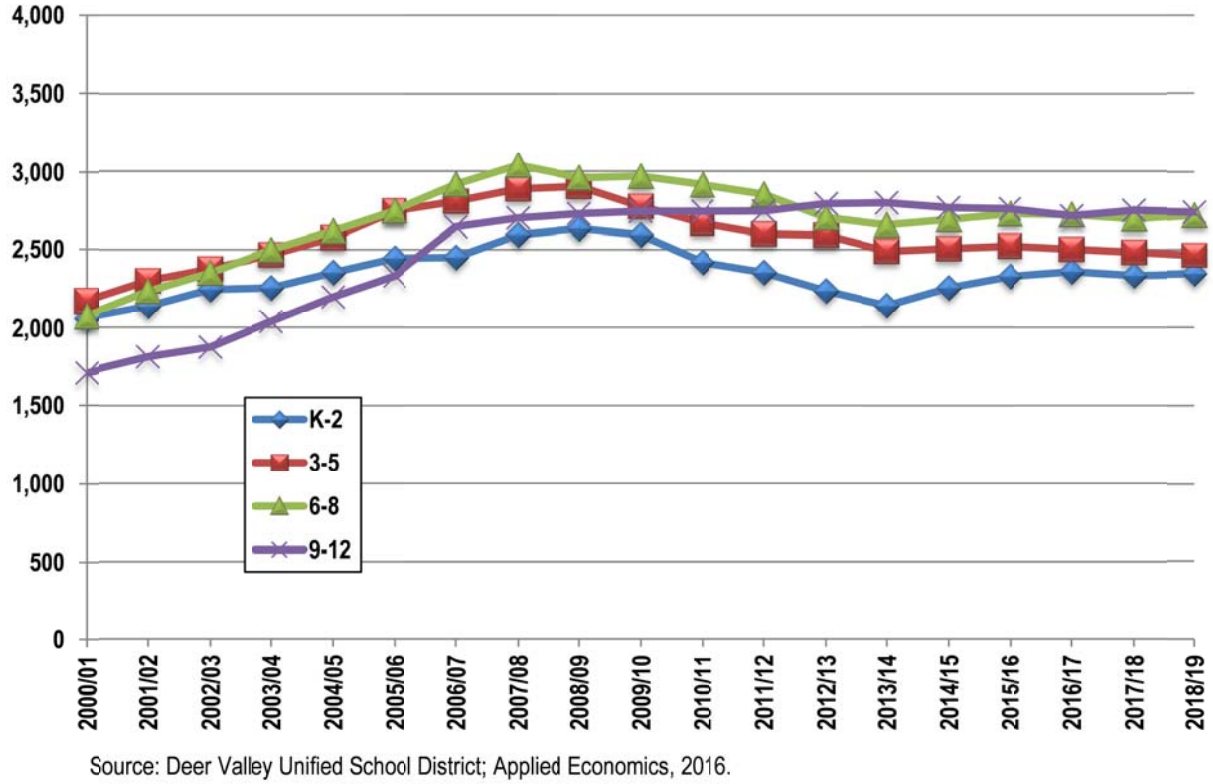


Sources: Deer Valley Unified School District; Applied Economics, 2019.

2.1.1 Grade Cohorts

The breakdown of enrollment by grade cohort provides a good understanding of past and current enrollment characteristics and lends insight into structural trends that will continue to shape enrollment in the coming years. For this purpose, the grades are grouped into the following cohorts: Kindergarten through 2nd grade (K-2), 3rd through 5th grade (3-5), 6th through 8th grade (6-8) and 9th through 12th grade (9-12). By showing the average enrollment per grade in **Figure 2**, the differences between the three- and four-grade groupings are normalized.

FIGURE 2
AVERAGE ENROLLMENT PER GRADE BY GRADE COHORT: 2000/01 – 2018/19



Source: Deer Valley Unified School District; Applied Economics, 2016.

Between 2000/01 and 2007/08 every grade experienced high levels of growth, although faster growth in 9-12 and slower growth in K-2 is reflective of a shift that occurred in the housing market as rising values limited the supply of entry-level options for younger families. Following the collapse of the housing market, enrollment in Kindergarten through 8th grade (K-8) entered a period of decline that persisted through the 2013/14 school year. The most significant losses were in the K-2 cohort, while losses in the 6-8 cohort were less severe. Although growth in the 9-12 cohort was hindered, it continued to increase slightly through the 2013/14 school year. These trends are evidence of the disproportionate impact of the Great Recession on younger families, which resulted in widespread enrollment decline in the younger grades.

Between 2013/14 and 2016/17, enrollment in each of the K-8 cohorts increased and enrollment in the 9-12 cohort decreased by about one percent per year. While there are many factors that impact enrollment, a major source of the 9-12 decline is simply the ripple effect of the smaller class sizes in the younger cohorts progressing forward. The 2nd grade class from the K-2 cohort of 2009/10 (the first year of recessionary decline) entered 9th grade in 2016/17, and this year (2018/19) that cohort comprises grades 9 through 11. While this phenomenon tends to be muted over time, as well as by any significant overall enrollment change, it is likely to continue to dampen enrollment in the 9-12 cohort to some degree for several more years.

In 2018/19, enrollment in the 9-12 cohort decreased slightly (just 26 students), likely due in part to the 122-student decline in the 5-8 cohort last year; only K-4 enrollment increased this year, albeit slightly (44 students). Enrollment levels continue to be highest in the older cohorts, with average enrollment per grade of about 2,700 students in both the 6-8 and 9-12 cohorts; K-2 average enrollment per grade has remained

fairly flat, hovering around 2,300 students, while 3-5 average enrollment has recently dropped slightly, to just under 2,500 students per grade.

In general, the inconsistent nature of changes in enrollment by grade cohort is not caused by any single factor, but rather by varying degrees of multiple factors. The Great Recession resulted in inconsistent enrollment changes throughout the region due to the variable rates of recovery among householders. 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 open enrollment, special program additions or closures within the District or in neighboring districts, new competition from alternative providers and the economic climate, ultimately affect enrollment to a greater extent in some cohorts more than others.

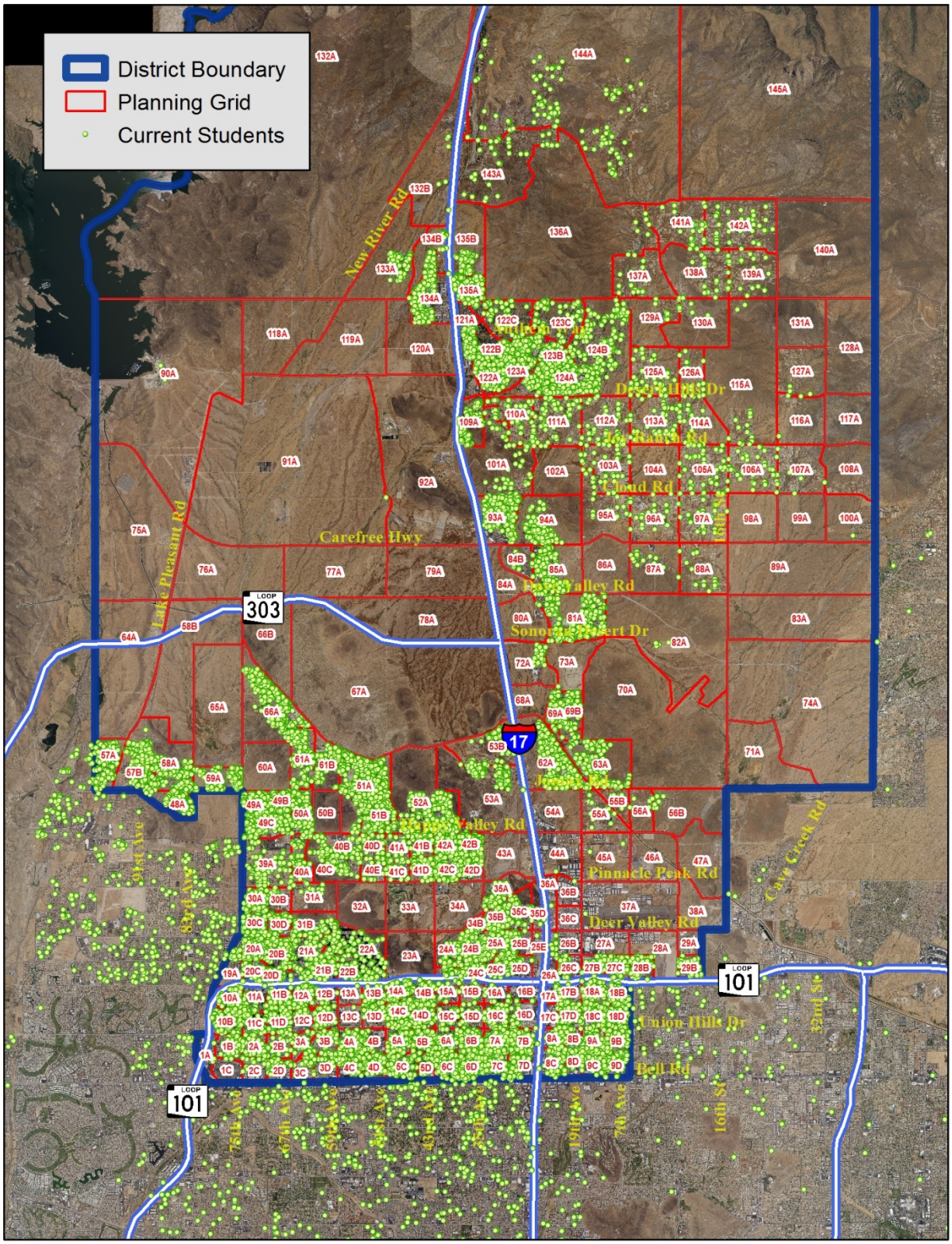
2.1.2 Geographic Distribution

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 students attending District schools, including those living outside District boundaries. In all, 2,358 of the District's 33,548 K-12 students (7.0 percent) reside outside District boundaries, up from about 1,800 students in 2015/16. The majority of the in-District students reside in the southwestern portion of the District, which is a well-established, primarily residential, area. Large student concentrations exist in new and growing subdivisions between the Loop 101 and Jomax Road, as well as in the northeastern part of the District, north of Desert Hills Drive and east of Interstate 17 in Anthem.

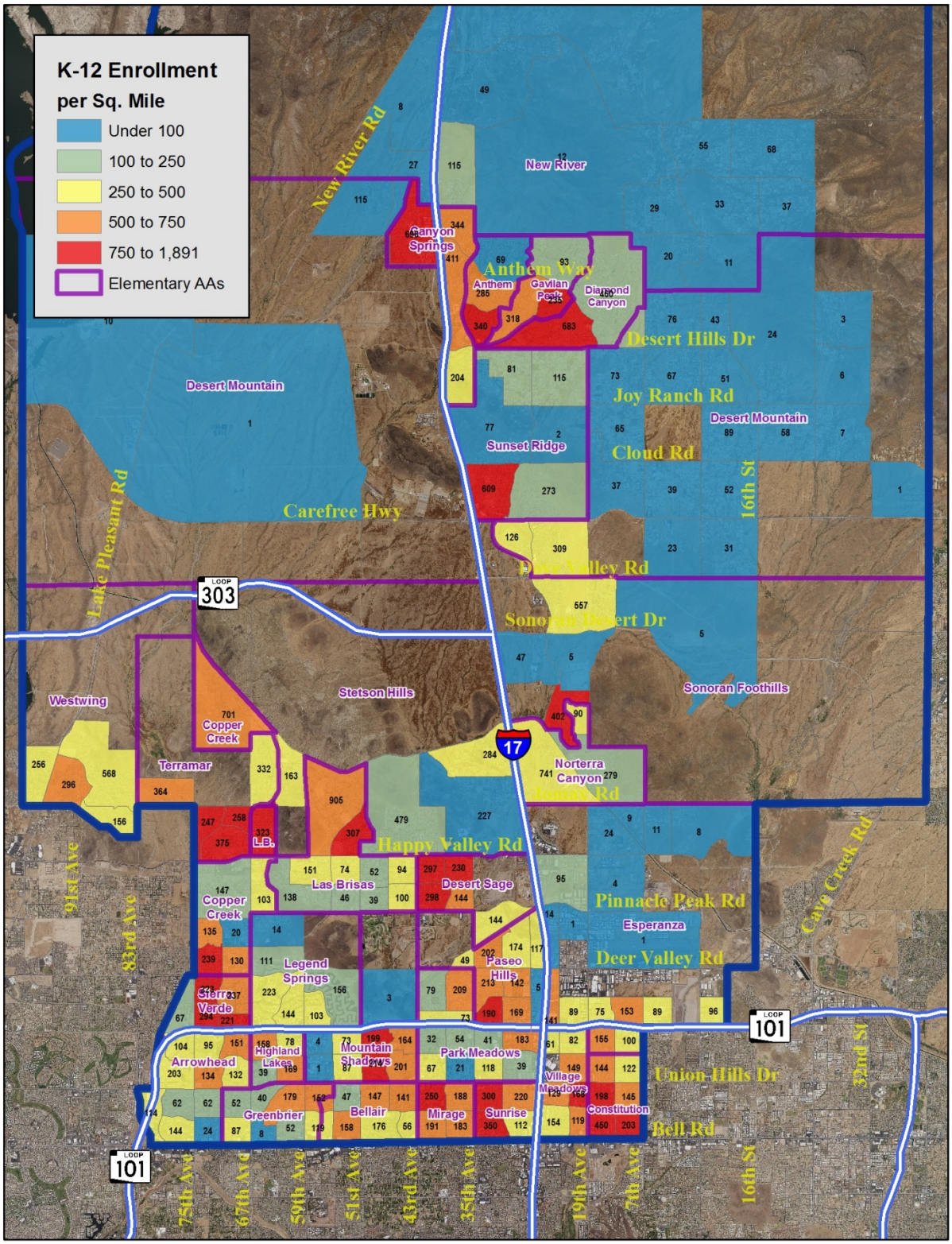
Map 3 displays the number of District students residing in each planning area (grid) used in the analysis. Higher-density areas are primarily concentrated in the established neighborhoods near the District's southern border, along the Loop 101 Freeway, and in the Anthem area to the north. Due to the significant amount of state and federal land within the District, there are large areas with little to no population.

Map 4 displays changes in enrollment between 2013/14 to 2018/19. Enrollment declines were widespread over this period, but generally more significant in the established areas in the southern portion of the District; losses were also severe in the Anthem area. Overall, enrollment from inside District boundaries has decreased by about 440 students; the 940-student increase in out-of-District enrollment has offset much of this loss, resulting in a net increase of nearly 500 students since 2013/14. Growth rates were significant in the corridor of new developments east of I-17, in the Stetson Valley area, north of Happy Valley Road and west of 51st Avenue, and in pockets north of Jomax Road and east of Loop 101.

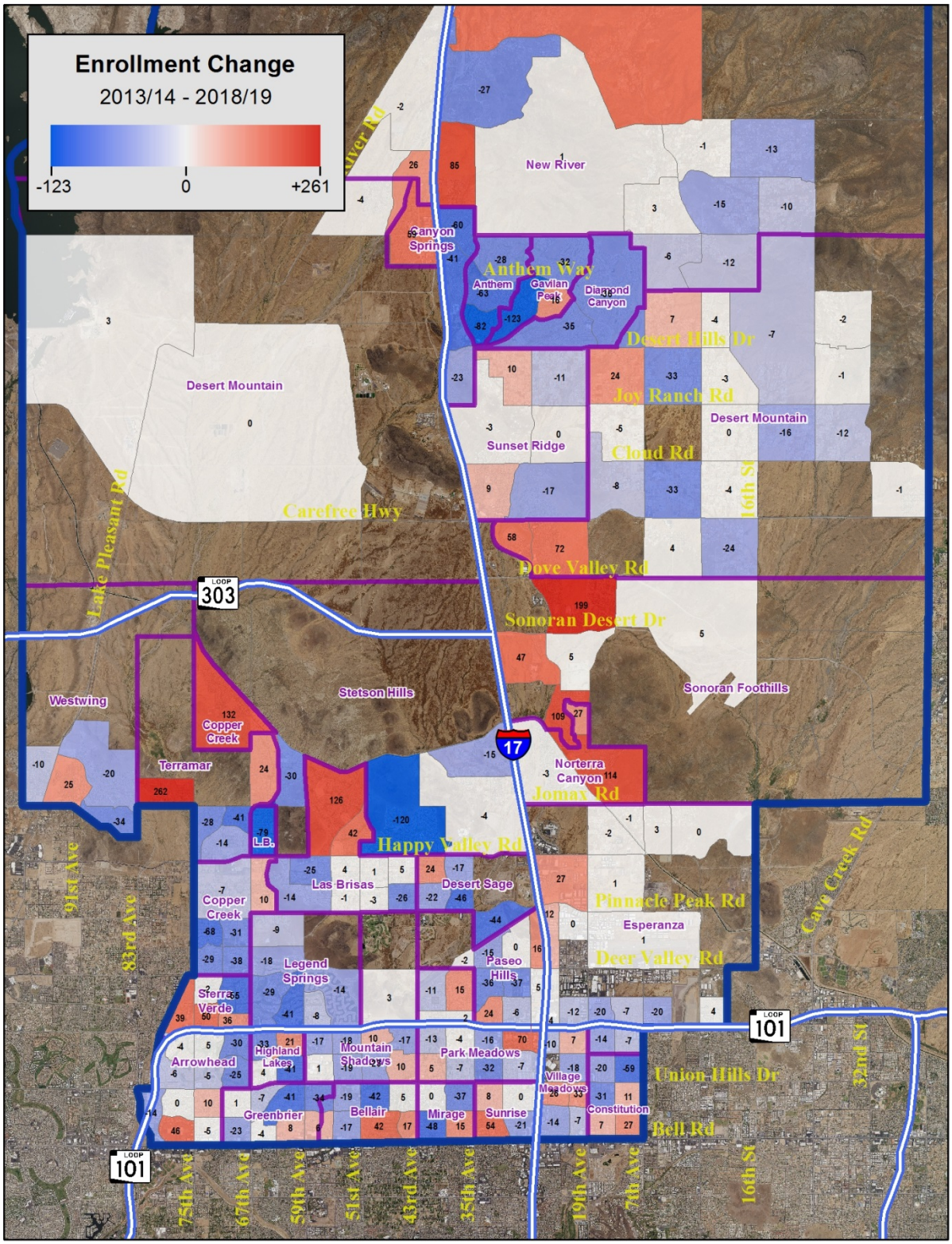
MAP 2
GEOGRAPHIC DISTRIBUTION OF 2018/19 K-12 ENROLLMENT



MAP 3
2018/19 K-12 ENROLLMENT DENSITY WITH COUNT BY PLANNING GRID



MAP 4
CHANGE IN ENROLLMENT: 2013/14 TO 2018/19



2.1.3 Mobility

Turn-over and retention characteristics of enrollment are important to understanding the long-term trends in student behavior that will drive enrollment in the future. **Table 1** summarizes the key measurements of student movement, including the loss of students from the District one year to the next, the share that new students each year comprise of the total, and the share of students retained from the prior year.

TABLE 1
DISTRICT MOBILITY RATES

Year	K	1	2	3	4	5	6	7	8	9	10	11	12	Total
2010_11	2,075	2,526	2,667	2,666	2,585	2,788	2,836	2,988	2,919	2,901	2,794	2,693	2,511	34,949
Lost	15%	13%	14%	14%	15%	15%	14%	11%	17%	11%	13%	12%	98%	
New	80%	24%	15%	13%	13%	13%	13%	14%	11%	15%	10%	10%	7%	
Retained	49%	86%	87%	86%	86%	85%	85%	87%	89%	83%	89%	87%	90%	
2011_12	2,133	2,339	2,584	2,652	2,627	2,529	2,737	2,871	2,980	2,852	2,858	2,716	2,600	34,478
Lost	21%	18%	18%	17%	18%	17%	18%	13%	17%	15%	17%	17%	99%	
New	83%	29%	20%	18%	18%	17%	16%	18%	13%	16%	11%	11%	7%	
Retained	44%	80%	81%	81%	82%	83%	83%	82%	87%	83%	85%	83%	86%	
2012_13	2,067	2,394	2,380	2,553	2,652	2,602	2,501	2,753	2,881	2,953	2,735	2,653	2,489	33,613
Lost	13%	14%	12%	11%	10%	9%	9%	8%	13%	6%	8%	7%	95%	
New	84%	18%	12%	11%	10%	9%	10%	13%	8%	12%	8%	7%	6%	
Retained	50%	87%	85%	88%	89%	90%	90%	91%	92%	87%	94%	92%	96%	
2013_14	1,941	2,193	2,298	2,354	2,513	2,620	2,599	2,629	2,774	2,869	3,007	2,718	2,722	33,237
Lost	16%	14%	14%	12%	12%	12%	12%	9%	14%	11%	12%	12%	97%	
New	76%	27%	20%	19%	17%	16%	14%	15%	11%	16%	9%	8%	6%	
Retained	55%	84%	86%	86%	88%	88%	88%	89%	91%	86%	89%	88%	91%	
2014_15	2,221	2,207	2,367	2,436	2,493	2,612	2,680	2,736	2,681	2,856	2,816	2,868	2,633	33,606
Lost	17%	16%	15%	12%	12%	12%	12%	10%	15%	11%	11%	12%	97%	
New	78%	21%	20%	17%	16%	15%	13%	15%	11%	19%	9%	8%	6%	
Retained	54%	83%	84%	85%	88%	87%	88%	89%	89%	85%	89%	89%	91%	
2015_16	2,373	2,327	2,294	2,433	2,572	2,569	2,645	2,799	2,749	2,812	2,780	2,743	2,772	33,868
Lost	18%	14%	14%	12%	13%	13%	11%	10%	15%	10%	12%	13%	98%	
New	74%	19%	17%	17%	16%	14%	13%	15%	11%	17%	9%	8%	6%	
Retained	54%	81%	85%	86%	87%	87%	87%	89%	90%	85%	90%	88%	90%	
2016_17	2,337	2,361	2,382	2,363	2,526	2,617	2,587	2,770	2,811	2,818	2,758	2,670	2,618	33,618
Lost	16%	15%	13%	12%	13%	13%	12%	11%	15%	11%	10%	10%	98%	
New	74%	16%	15%	15%	15%	15%	13%	15%	11%	18%	9%	8%	6%	
Retained	53%	84%	84%	87%	87%	87%	87%	89%	89%	85%	89%	90%	92%	
2017_18	2,331	2,327	2,347	2,459	2,414	2,577	2,607	2,704	2,775	2,917	2,766	2,708	2,607	33,539
Lost	16%	13%	13%	11%	14%	12%	13%	10%	15%	11%	12%	12%	98%	
New	74%	17%	17%	14%	15%	16%	14%	17%	13%	17%	9%	10%	5%	
Retained	50%	84%	87%	86%	89%	86%	88%	87%	90%	85%	89%	88%	90%	
2018-19	2,256	2,348	2,421	2,346	2,551	2,486	2,653	2,730	2,785	2,854	2,857	2,688	2,573	33,548
AVERAGE														
Lost	16%	15%	14%	13%	14%	13%	12%	10%	15%	11%	12%	12%	97%	
New	78%	21%	17%	15%	15%	14%	13%	15%	11%	16%	9%	9%	6%	
Retained	51%	83%	85%	86%	87%	87%	87%	88%	90%	85%	89%	88%	91%	

Sources: Deer Valley Unified School District; Applied Economics, 2019.

On average, the share of students leaving the District after each year ranges from a high of 16 percent for Kindergarteners (excluding the 97 percent of 12th graders who leave), to a low of 10 percent for 7th graders. These percentages are very similar to the averages reported last year.

Averaged over the past eight years, the share of the next year's enrollment coming from new students ranges from a high of 21 percent in 1st grade (excluding the 80 percent of Kindergarteners that are new), to a low of 6 percent in 12th grade. The share of new students declines steadily from 2nd grade through 8th grade as older families stabilize, although there is a slight increase in 7th grade, possibly from students returning to District middle schools from alternative providers. The strong up-tick to 15 percent in 9th grade is a reflection of students returning to District schools from alternative providers for high school, while the lower shares in 10th through 12th grade reflect the reluctance of parents and students to move once in high school.

On average, the share of students retained from the year before ranges from 83 percent in 1st grade to 91 percent in 12th grade. The rates tend to increase with the grade level, with the exception of 9th grade where some students that have been attending District schools seek alternative providers for the same reasons that attract new students in the same class.

Using the mobility data, it is also possible to track the share of students that stay in the District over time. Overall, the data compiled for 1st through 8th grades shows that about 57 percent of 1st graders are likely to attend a District school through 8th grade. The largest drop (16 percent) occurs from 1st to 2nd grade, followed by 10 percent from 2nd to 3rd grade, declining all the way down to 2 percent per year in 8th grade. The long-term survival rate varies significantly by elementary attendance area (i.e. where the student attended first grade), ranging from 34 percent in the Constitution attendance area to 75 percent in the Las Brisas attendance area, as shown in **Figure 3**.

FIGURE 3
SHARE OF STUDENTS STAYING IN THE DISTRICT FROM 1ST TO 8TH GRADE
2017/18 TO 2018/19

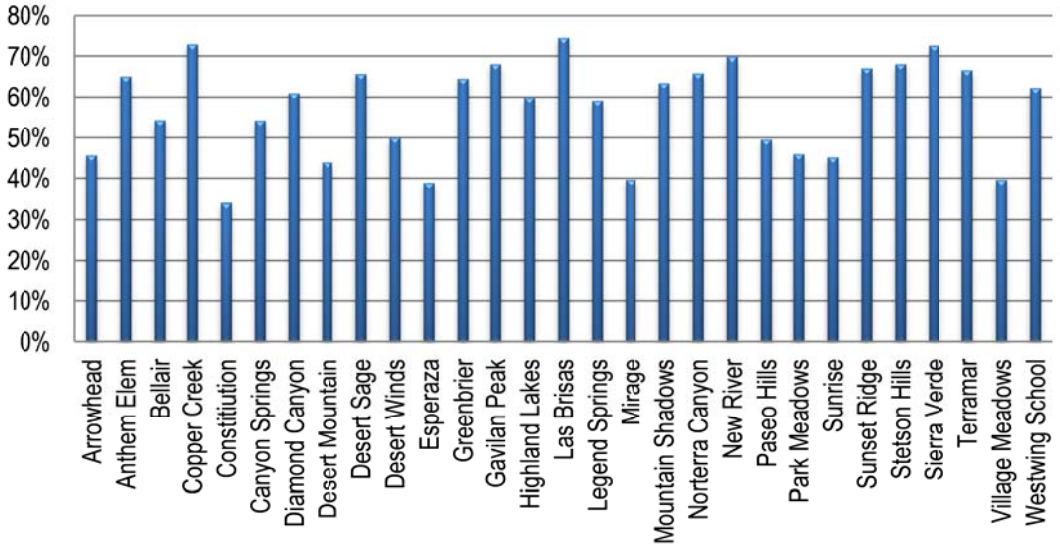
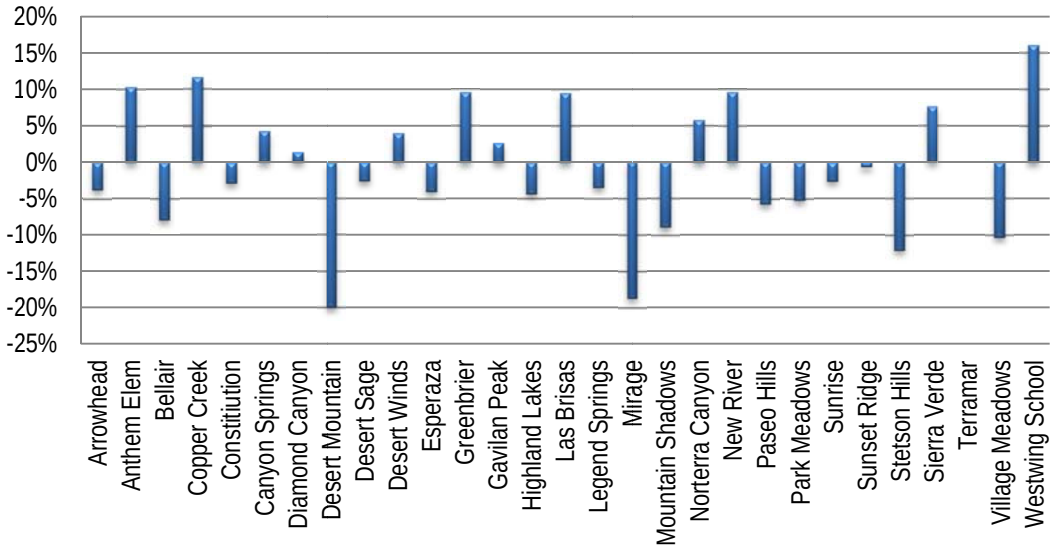


Figure 4 depicts the recent change, for each attendance area, in the share of students that stay in the District from 1st to 8th grade. Note that the share of continuing students increased by more than 10 percent this year in the Copper Creek (12 percent) and Westwing (16 percent) attendance areas. The largest decreases in the share of continuing students occurred in the Desert Mountain (20 percent) and Mirage (19 percent) attendance areas this year.

FIGURE 4
CHANGE IN THE SHARE OF STUDENTS STAYING IN THE DISTRICT FROM 1ST TO 8TH GRADE: 2017/18 TO 2018/19



The movement of students between 8th and 9th grade has become a very important part of the enrollment projections for high schools. **Table 2** details the impact of these shifts using the comparison of the number of 8th grade students in each attendance area to the number of 9th grade students in each attendance area the next year, and the relationship between the number of 8th graders by attendance area and the number of 9th graders by school the next year. The 8th to 9th grade shift by attendance area shows that the progression rate has moved from under 100 percent to over 100 percent for the District and most of the attendance areas, again showing the impact of students returning to District schools for high school.

The relationship between the number of 8th graders by attendance area and the number of 9th graders by schools shows the same rates at which 9th grade enrollment now typically exceeds 8th grade enrollment in the previous year. However, it also reveals a significant amount of movement between schools from 8th to 9th grade.

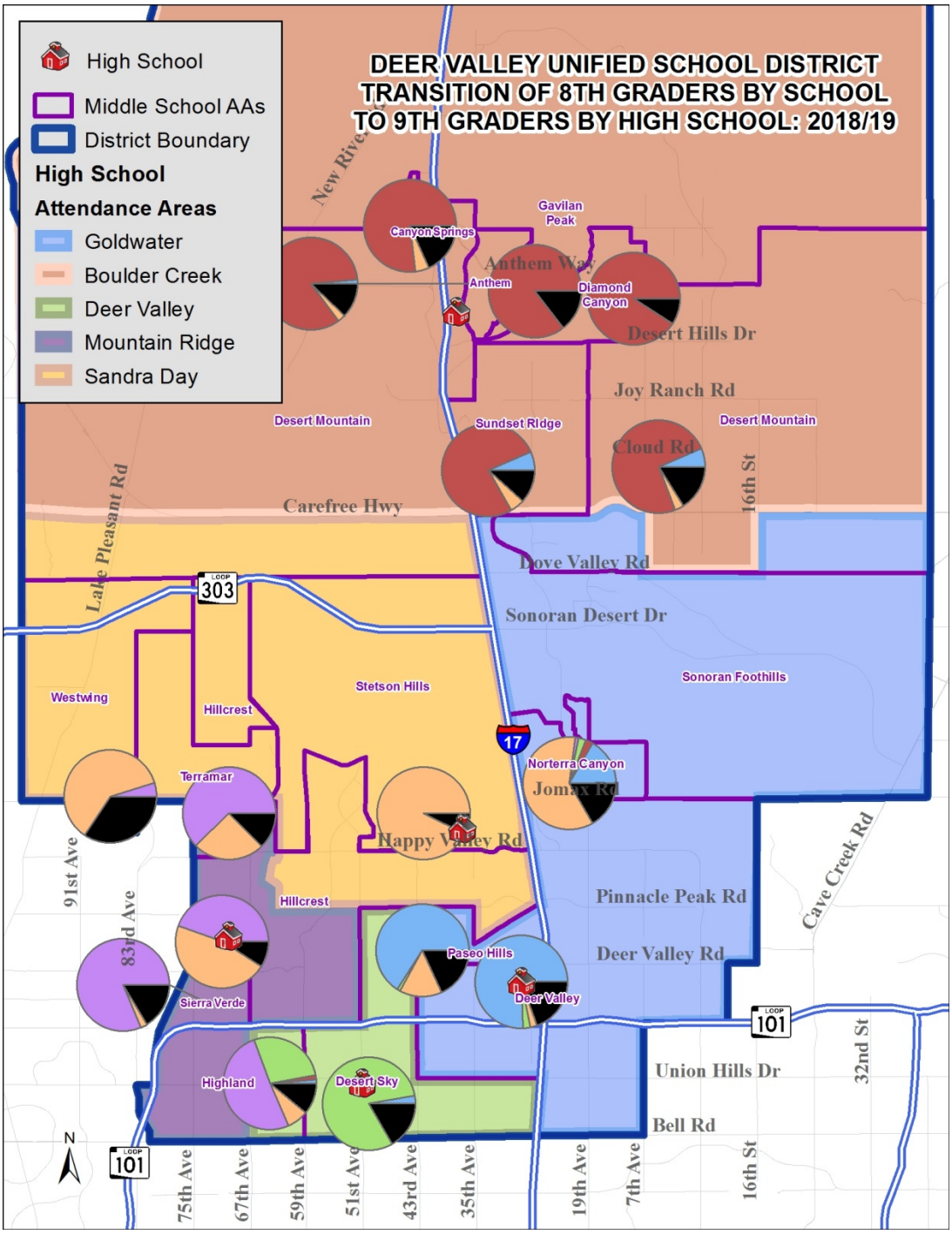
TABLE 2
8TH TO 9TH GRADE TRANSITION STATISTICS

AA/SCHOOL	2010_11	2011_12	2012_13	2013_14	2014_15	2015_16	2016_17	2017_18	2018_19
8TH GRADERS BY ATTENDANCE AREA									
MOUNTAIN RIDGE	546	550	516	469	473	430	454	457	458
DEER VALLEY	448	465	403	405	375	379	385	365	332
BARRY GOLDWATER	617	666	595	595	589	533	622	589	603
SANDRA DAY	552	560	613	534	576	594	589	582	614
BOULDER CREEK	680	647	634	660	548	678	630	645	622
OUT OF DISTRICT	76	92	120	106	120	135	131	137	145
TOTAL	2,919	2,980	2,881	2,769	2,681	2,749	2,811	2,775	2,774
9TH GRADERS BY ATTENDANCE AREA									
MOUNTAIN RIDGE	562	537	552	528	471	482	471	468	486
DEER VALLEY	457	426	448	412	421	403	373	371	350
BARRY GOLDWATER	568	563	619	534	564	578	540	621	558
SANDRA DAY	606	574	592	614	576	609	565	608	617
BOULDER CREEK	637	677	654	667	713	614	709	683	667
OUT OF DISTRICT	71	75	88	112	111	126	160	166	176
TOTAL	2,901	2,852	2,953	2,867	2,856	2,812	2,818	2,917	2,854
PROGESSION OF 8TH GRADERS BY ATTENDANCE AREA TO 9TH GRADERS BY ATTENDANCE AREA									
MOUNTAIN RIDGE	99.1%	98.4%	100.4%	102.3%	100.4%	101.9%	109.5%	103.1%	106.3%
DEER VALLEY	91.8%	95.1%	96.3%	102.2%	104.0%	107.5%	98.4%	96.4%	95.9%
BARRY GOLDWATER	93.7%	91.2%	92.9%	89.7%	94.8%	98.1%	101.3%	99.8%	94.7%
SANDRA DAY	99.7%	104.0%	105.7%	100.2%	107.9%	105.7%	95.1%	103.2%	106.0%
BOULDER CREEK	96.8%	99.6%	101.1%	105.2%	108.0%	112.0%	104.6%	108.4%	103.4%
OUT OF DISTRICT	131.5%	98.7%	95.7%	93.3%	104.7%	105.0%	118.5%	126.7%	128.5%
TOTAL	97.0%	97.7%	99.1%	99.5%	103.1%	104.9%	102.5%	103.8%	102.8%
9TH GRADERS BY SCHOOL									
MOUNTAIN RIDGE	580	549	561	578	533	567	604	577	632
DEER VALLEY	512	432	499	453	472	451	424	435	407
BARRY GOLDWATER	480	486	543	511	506	495	413	492	408
SANDRA DAY	667	696	686	627	597	649	603	675	707
BOULDER CREEK	644	670	645	683	726	630	747	718	689
OTHER	18	19	19	17	22	20	27	20	11
TOTAL	2,901	2,852	2,953	2,869	2,856	2,812	2,818	2,917	2,854
PROGESSION OF 8TH GRADERS BY ATTENDANCE AREA TO 9TH GRADERS BY SCHOOL									
MOUNTAIN RIDGE	102.3%	100.5%	102.0%	112.0%	113.6%	119.9%	140.5%	127.1%	138.3%
DEER VALLEY	102.8%	96.4%	107.3%	112.4%	116.5%	120.3%	111.9%	113.0%	111.5%
BARRY GOLDWATER	79.2%	78.8%	81.5%	85.9%	85.0%	84.0%	77.5%	79.1%	69.3%
SANDRA DAY	109.7%	126.1%	122.5%	102.3%	111.8%	112.7%	101.5%	114.6%	121.5%
BOULDER CREEK	97.9%	98.5%	99.7%	107.7%	110.0%	115.0%	110.2%	114.0%	106.8%
TOTAL	97.0%	97.7%	99.1%	99.6%	103.1%	104.9%	102.5%	103.8%	102.8%

Sources: Deer Valley Unified School District; Applied Economics, 2019.

Another way to look at relationship between 8th graders and 9th graders is the high school chosen by 8th graders from each school. This information is detailed in Appendix A and summarized in **Map 5**. It primarily shows the distribution of 9th graders from each school follows logical patterns, with most students choosing the school indicated by their residence. However, in some cases, like Norterra Canyon, the 8th grade class splits to go to several high schools, with the majority going to Sandra Day O'Conner. West Wing is notable for the large number of 8th grade students leaving the District for high school, the distance to Sandra Day O'Conner High School appearing to be a major obstacle.

MAP 5
TRANSITION OF 8TH GRADERS BY SCHOOL IN HIGH SCHOOL



2.2 DEMOGRAPHIC TRENDS

Table 3 displays Census data for key population and housing characteristics of the District for 2000 and 2010, along with Applied Economics' estimates for 2018. Changes in the District's population with regard to age and ethnicity, as well as in housing growth and types of housing development, help to explain recent demographic trends. Like many parts of the Valley, the District experienced a significant increase in population from 2000 to 2010, growing by more than 4 percent annually. Most of that growth occurred in the first half of the decade, prior to the nationwide economic recession. Since 2010, population growth has been sluggish, increasing by about 1 percent per year.

The racial and ethnic composition of the District population has changed little since 2010, with minor increases in the African-American and Asian shares. The Hispanic share of population remained relatively constant, growing at a rate roughly equal to that of the overall population during the five-year period.

The data indicates a general aging of the population since 2000, which directly impacts District enrollment. The population under 5 years of age increased by 2.7 percent per year between 2000 and 2010, and was undoubtedly greater during the high-growth period in the first half of the decade. Due to the disproportionate impact of the recession on younger families and the widespread decline in birth rates in general, the population under 5 years of age in the District has dropped slightly since 2010, decreasing by about 1,100 people, or 0.8 percent per year. The population aged 5 to 13, generally comprising Kindergarten through 8th grade, has been stagnant since 2010, dropping just 8 persons. The high school age population (14 to 17 years) has increased by 1.3 percent annually, adding about 1,600 persons over the past eight years.

The population in the 25 to 44 age group, typically considered prime child-rearing years, has grown only 0.4 percent per year since 2010, illustrating the correlation of this age group with the population under the age of 13. The population over the age of 45 grew at the fastest pace between 2000 and 2010; in fact, the annual rate of growth in the 65 and older category was nearly twice that of the overall population. This trend has continued and has added nearly 20,900 persons aged 45 or older since 2010, significantly outpacing growth in all of the other age categories combined. The 45 to 64 and 65 and older categories, which together comprised about 27 percent of the population residing in the District in 2000, now account for around 40 percent of the total population. The population aged 45 and older has comprised about 87 percent of the District's population growth since 2010.

There were about 35,900 new housing units added between 2000 and 2010, which translates to an annual growth rate of about 5 percent. Since 2010, 7,100 new units have been added to the inventory, representing an annual growth rate of nearly 1 percent. Multifamily housing additions increased at a slightly higher rate than single family in both time periods. Occupancy levels dropped from 93.7 percent to 90.4 percent between 2000 and 2010 as a result of the recession. By 2018, occupancy had fully recovered, reaching 93.9 percent.

The profile of occupied housing units shifted from 20.3 percent renter-occupied units in 2000, to 24.9 percent in 2010 and 29.7 percent in 2018; this trend can impact enrollment because the age structure of the student population becomes more stable. Although rental units tend to have higher turnover rates, these households are generally replaced by new households with similar characteristics, rather than aging in place. A greater proportion of owner-occupied units will typically increase the student population in the near-term, but it will decrease over time. Household size has declined by 0.2 percent annually since the 2000 Census, which can also be attributed to the reduction in home ownership and the overall aging of the existing population.

TABLE 3
POPULATION AND HOUSING TRENDS

	2000 Census		2010 Census		2018 Estimate		Change (2000-2010)		Change (2010-2018)	
	Total	Percent	Total	Percent	Total	Percent	Total	Percent*	Total	Percent*
Population										
Total	159,234	100.0%	239,040	100.0%	263,070	100.0%	79,806	4.1%	24,030	1.2%
By Race & Ethnicity:										
White	134,862	84.7%	189,437	79.2%	205,849	78.2%	54,575	3.5%	16,412	1.0%
African American	3,333	2.1%	5,623	2.4%	7,072	2.7%	2,290	5.4%	1,449	2.9%
Native American	1,175	0.7%	1,786	0.7%	2,005	0.8%	611	4.3%	219	1.5%
Asian	3,736	2.3%	11,727	4.9%	15,352	5.8%	7,991	12.1%	3,625	3.4%
Hispanic	15,933	10.0%	30,090	12.6%	32,269	12.3%	14,157	6.6%	2,179	0.9%
Other	193	0.1%	377	0.2%	523	0.2%	184	6.9%	146	4.2%
By Age:										
Under 5	12,717	8.0%	16,602	6.9%	15,530	5.9%	3,885	2.7%	-1,072	-0.8%
5 to 13	23,031	14.5%	32,582	13.6%	32,574	12.4%	9,551	3.5%	-8	0.0%
14 to 17	10,016	6.3%	14,368	6.0%	15,989	6.1%	4,352	3.7%	1,621	1.3%
18 to 24	13,474	8.5%	20,143	8.4%	20,480	7.8%	6,669	4.1%	337	0.2%
25 to 44	56,869	35.7%	71,267	29.8%	73,538	28.0%	14,398	2.3%	2,271	0.4%
45 to 64	33,731	21.2%	64,693	27.1%	75,893	28.8%	30,962	6.7%	11,200	2.0%
65 and up	9,396	5.9%	19,385	8.1%	29,066	11.0%	9,989	7.5%	9,681	5.2%
Housing Units										
Total	60,589	100.0%	96,493	100.0%	103,593	100.0%	35,904	4.8%	7,100	0.9%
Occupied	56,782	93.7%	87,217	90.4%	97,274	93.9%	30,435	4.4%	10,057	1.4%
Owner	44,491	73.4%	63,211	65.5%	66,505	64.2%	18,720	3.6%	3,294	0.6%
Renter	12,291	20.3%	24,006	24.9%	30,769	29.7%	11,715	6.9%	6,763	3.2%
Vacant	3,807	6.3%	9,276	9.6%	6,319	6.1%	5,469	9.3%	-2,957	-4.7%
Seasonal Use	1,190	2.0%	2,111	2.2%	2,198	2.1%	921	5.9%	87	0.5%
By Unit Type:										
Single Family	50,715	83.7%	79,651	82.5%	84,717	81.8%	28,936	4.6%	5,066	0.8%
Multifamily	9,874	16.3%	16,842	17.5%	18,876	18.2%	6,968	5.5%	2,034	1.4%
Households										
Total	56,782	100.0%	87,217	100.0%	97,274	100.0%	30,435	4.4%	10,057	1.4%
By Age of Householder:										
15 to 24	2,850	5.0%	3,669	4.2%	3,251	3.3%	819	2.6%	-418	-1.5%
25 to 34	12,325	21.7%	14,836	17.0%	15,582	16.0%	2,511	1.9%	746	0.6%
35 to 44	16,467	29.0%	20,509	23.5%	20,207	20.8%	4,042	2.2%	-302	-0.2%
45 to 54	12,330	21.7%	21,395	24.5%	23,377	24.0%	9,065	5.7%	1,982	1.1%
55 to 64	7,135	12.6%	15,461	17.7%	18,051	18.6%	8,326	8.0%	2,590	2.0%
65 to 74	3,670	6.5%	7,684	8.8%	11,872	12.2%	4,014	7.7%	4,188	5.6%
Over 75	2,005	3.5%	3,663	4.2%	4,934	5.1%	1,658	6.2%	1,271	3.8%
Population Per	2.80		2.74		2.70		-0.06	-0.2%	-0.04	-0.2%

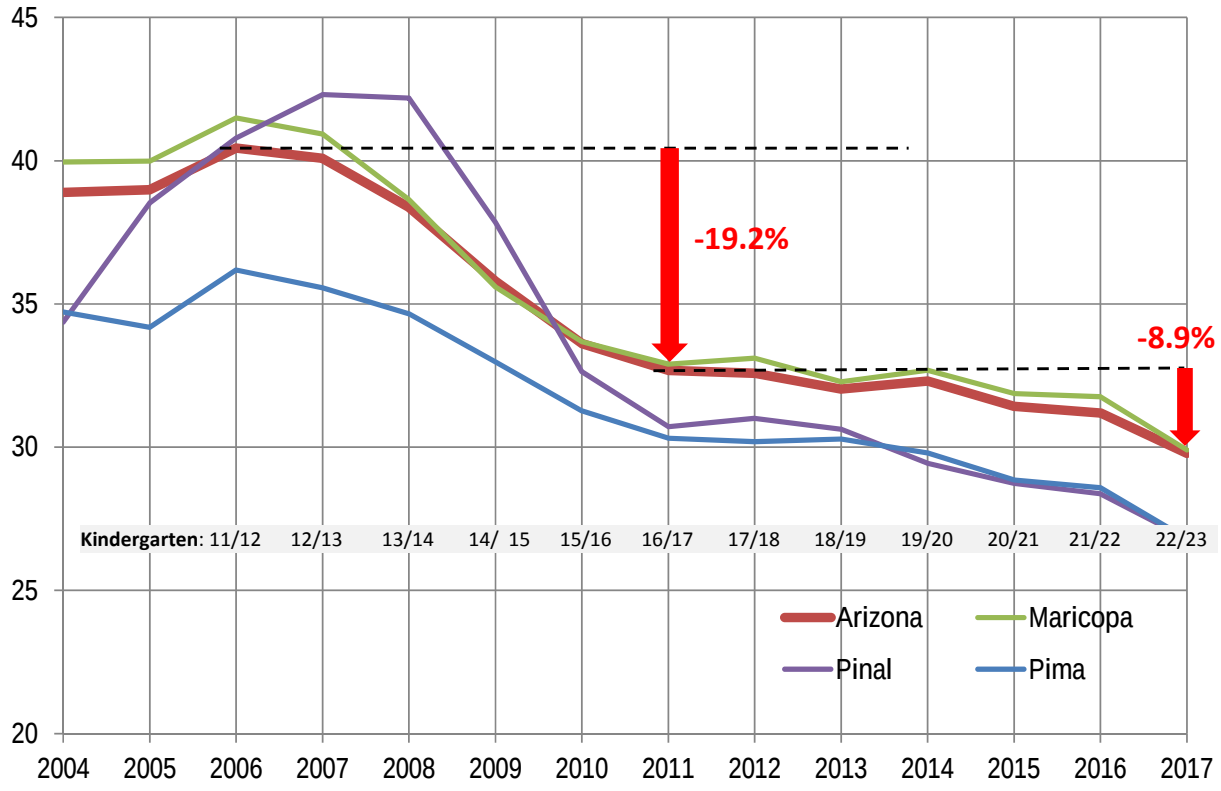
Sources: U.S. Bureau of the Census, 2000 and 2010; Applied Economics, 2019.

* Annual compound rate of change.

Another major factor affecting enrollment in schools is the recent decline in the birth rate, both regionally and nationally. As shown in **Figure 5**, the birthrate (births per 1,000 for the population aged 15 to 45) in Arizona declined by 19.2 percent between 2006 and 2011. Between 2011 and 2014 the rate continued to decline, although much more slowly. However, since 2015 the rate has declined slightly faster again, falling by another 8.9 percent in three years, which brings the total compound rate of reduction to 26.4 percent since 2006.

Despite the continued decline in the birth rate, the total number of births has been fairly stable because the population aged 15 to 45 is now increasing faster. The impact of the declining birth rate on Kindergarten enrollment is delayed five years, implying that the number of potential Kindergarten students in Maricopa County declined by about 19 percent between the 2011/12 and 2016/17 school years, and is projected to decline by another 9 percent by 2022/23. Between this factor and the push by charter schools to attract Kindergarteners, nearly all school districts in Maricopa County have experienced declines in Kindergarten enrollment over the past five years.

FIGURE 5
BIRTHRATES IN ARIZONA AND SELECTED COUNTIES: 2004 – 2017

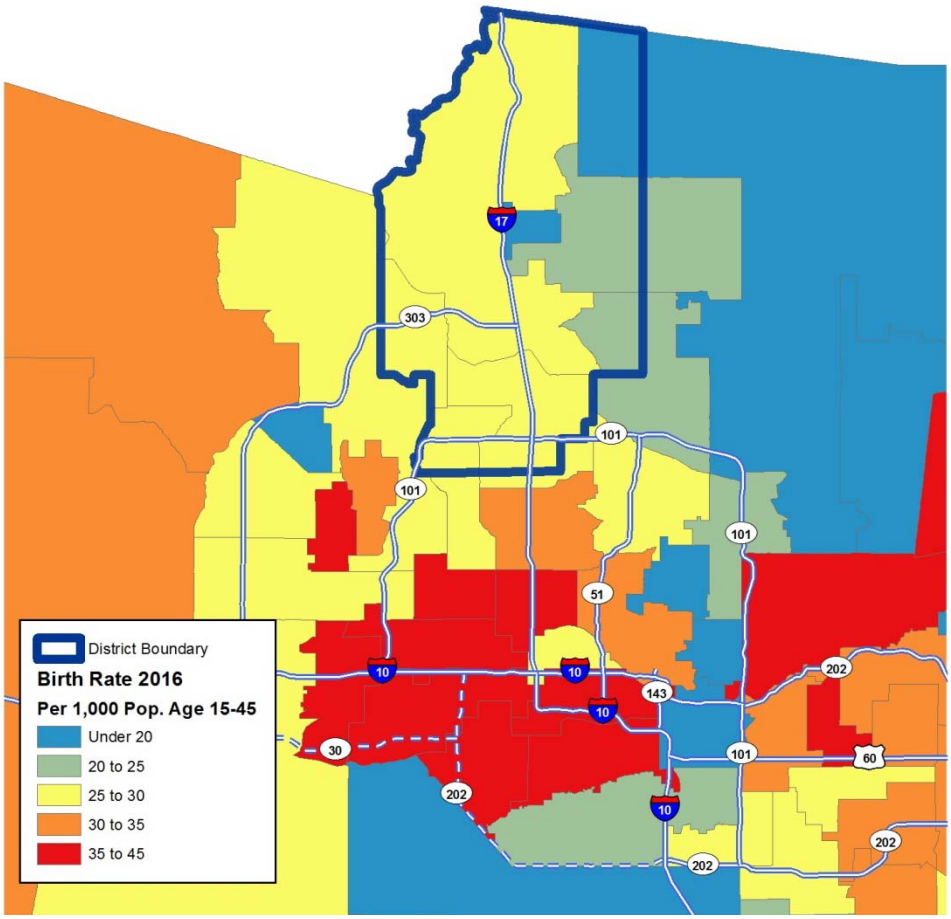


Sources: Arizona Department of Health Services; Applied Economics, 2018.

Historical birth and enrollment data is correlated to help project Kindergarten enrollment in the near-term. This analysis is performed by analyzing District enrollment versus county births; and by examining the characteristics and trends in birth rates with the metropolitan area. The second data set is useful in understanding the local impact on a particular community. The reason to consider the sub-county data in preparing projections is illustrated by the following **Maps 6** and **7** that show how current birthrates in the District compare with other parts of the Phoenix Metropolitan Area, and how these rates have changed over the past five years. The most recent data available at the sub-area level is for 2016.

MAP 6
BIRTH RATES
2016

With respect to sub-county birthrates, most of the populated parts of the District are near the county average. However, the District has generally lower birthrates in Anthem, as evidenced by the enrollment trends for the schools in the area. The southwest Valley and isolated parts of the southeast Valley boast the highest birthrates in the region, while the northeast Valley features the lowest rates.



MAP 7
CHANGE IN BIRTHRATES
2011 - 2016

During the economic recovery period (2011 through 2015), birth rates declined across most of the District, indicative of an aging population and the absence of new, younger families due to the higher than average home prices in many areas. New development in the southwestern and east-central portion of the District has attracted some younger families, thereby causing the birthrate to rise slightly in those areas.

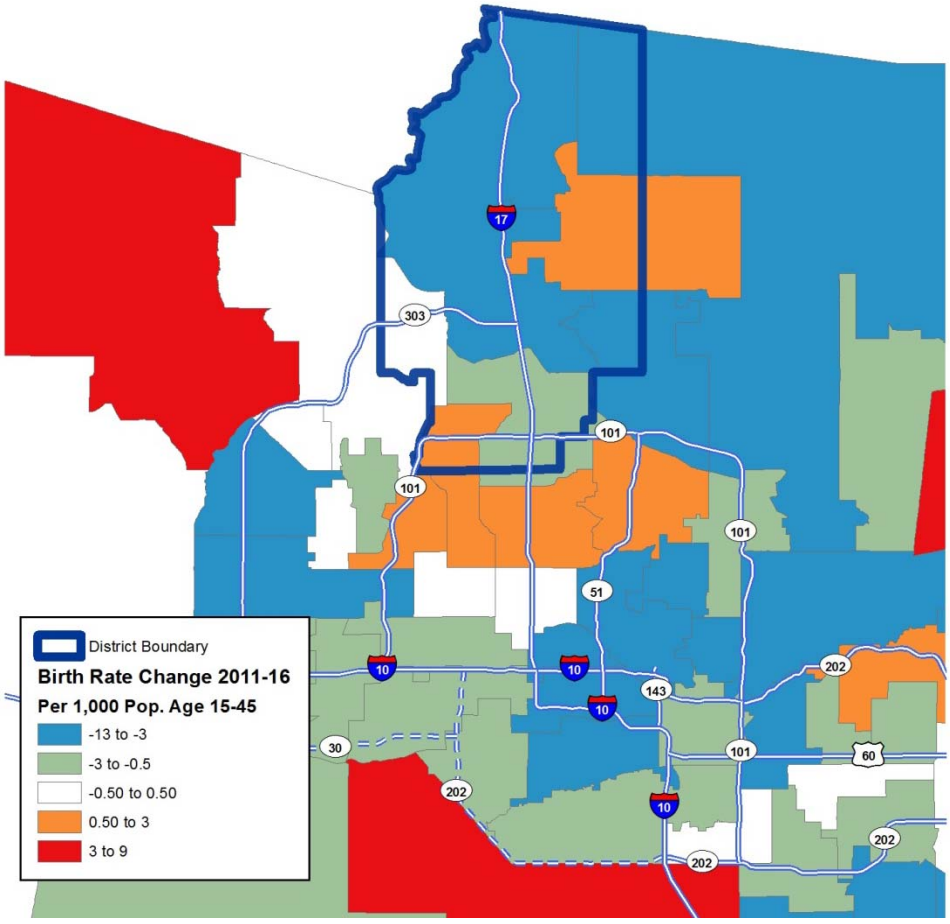


Table 4 shows near-term Kindergarten enrollment projections for the District based on both the county and District methods. The Maricopa County data shows the historical decline, increase and recent stability in the number of births. The lagged relationship of this trend to enrollment shows the District's share of births beginning at about 4.1 percent in the 2009/10 school year and then immediately plummeting to 3.3 percent when free, full-day Kindergarten was eliminated in the 2010/11 school year. The share stayed around 3 percent until the free, full-day program was restored in 2014/15. The lagged share of births has stabilized somewhat over the past four years at a level slightly above the 2009/10 rate, averaging 4.1 percent for the four-year period. Held constant and applied to the known births through 2016, this rate would result in District Kindergarten enrollment of between 2,100 and 2,300 students over the next four years.

TABLE 4
PROJECTED KINDERGARTEN ENROLLMENT BASED ON PAST
MARICOPA COUNTY AND DISTRICT BIRTHS

Year	Births*	School Year	Kindergarten Enrollment	Share of Lagged Births
Maricopa County				
2004	60,480	2009/10	2,462	4.07%
2005	62,232	2010/11	2,065	3.32%
2006	66,160	2011/12	2,136	3.23%
2007	65,931	2012/13	2,005	3.04%
2008	62,667	2013/14	1,939	3.09%
2009	57,663	2014/15	2,216	3.84%
2010	54,229	2015/16	2,363	4.36%
2011	53,361	2016/17	2,337	4.38%
2012	54,475	2017/18	2,331	4.28%
2013	53,848	2018/19	2,256	4.19%
2014	55,285	2019/20	2,289	4.14%
2015	54,600	2020/21	2,233	4.09%
2016	54,021	2021/22	2,182	4.04%
2017	52,470	2022/23	2,093	3.99%
Deer Valley Unified School District *				
2010	2,584	2015/16	2,363	91.5%
2011	2,613	2016/17	2,337	89.4%
2012	2,643	2017/18	2,331	*88.2%*
2013	2,538	2018/19	2,256	*87.2%*
2014	2,565	2019/20	*2,212*	*86.2%*
2015	2,578	2020/21	*2,197*	*85.2%*
2016	2,594	2021/22	*2,184*	*84.2%*

Sources:
Arizona Department of Health Servcices, 2004 - 2018.
Deer Valley Unified School District, 2004 - 2018.
Applied Economics, 2019.

* Births estimated based on birth rate and population for sub-areas in the District
Sub-county from before 2010 is not comparable.

Coloring indicates projections

Using the estimated births in the District, and the lagged historical share of those compared to Kindergarten enrollment (about 87 percent), District Kindergarten enrollment would remain fairly constant, at about 2,200 students, over the next three years. These estimates do show somewhat lower expected levels of Kindergarten enrollment compared with the county birth-based estimates.

2.3 ALTERNATIVE PROVIDERS

Public school districts face increasing competition for students from charter and private schools, as well as from neighboring public school districts through open enrollment policies. Charter schools report enrollment to the state as do district schools and, while there is a one-year lag in the reported data, the Arizona Department of Education (ADE) is usually a reliable source of enrollment figures. Therefore, 2018/19 charter enrollment has been estimated using Average Daily Membership (ADM).

There are currently 16 charter schools operating within District boundaries serving approximately 6,600 K-12 students, as listed on **Table 5**. The largest charter school is Great Heart's Anthem Prep with 809 K-12 students. The next-largest are Reid Traditional Schools' Valley Academy (765 K-8 students), The Hearn Academy (658 K-8 students), Ridgeline Academy (648 K-8 students) and Adams Traditional Academy (603 K-8 students). Two other schools enroll more than 500 students each. Total enrollment at these in-District charter schools grew by about 280 students this year, largely due to enrollment increases at the Caurus Academy (AMCS at Anthem) which added 9th and 10th grades this year.

There are another 14 charter schools located within one mile of the District's boundaries that currently enroll nearly 5,600 K-12 students. Since 2016/17, enrollment at these area charter schools has increased by more than 1,600 students, primarily due to the opening of two new schools, Legacy Traditional School-Peoria (644 K-7th grade students) and BASIS Peoria Primary (629 K-4th grade students). In addition, the Legacy Traditional school added 7th grade this year, increasing total enrollment by 280 students over 2017/18. Together, the two schools at the Great Hearts campus on 83rd Avenue service more than 1,100 K-12 students just outside of the District's southwestern border.

Table 6 shows the enrollment in charter schools by grade over the past ten years. Enrollment has increased by roughly 6,750 students since the 2008/09 school year and 2,400 of those students have gone to in-District charter schools. The single-year increase of 918 in-District students was in the 2010/11 school year, the same year that free full-day Kindergarten was eliminated in the District. The total number of in-District and area charter schools has continued to increase, reaching a new high of 30 schools last year. It is interesting to note that the decline in in-District charter enrollment in 2017/18 was offset by a similar gain that same year at the area charter schools, suggesting that many students moved to the two new area charter schools after they opened. The bulk of charter school enrollment continues to be in the younger grades, with lower levels after 7th grade.

Private schools do not have the same reporting requirements as charter or district schools and data is often less accessible, although private school enrollment tends to be more stable than charter schools. The Private School Survey, conducted by the National Center for Education Statistics, is the only consistent source of private school enrollment data; however, it is only published every 2 years, therefore, the 2015/16 enrollment figures provided are the most current available. There are currently six private schools operating either in the District or within one mile of the District's boundaries that serve more than 2,000 K-12 students, as shown in **Table 7**. The largest private school, Northwest Christian School, is located just outside of the District and had an enrollment of more than 1,200 K-12 students in the 2015/16 school year.

TABLE 5
ENROLLMENT IN LOCAL CHARTER SCHOOLS

School Name	Address	City	Grades	Total K-12*
In-District Charter Schools				
Adams Traditional Academy	2323 W. Parkside Lane	Phoenix	KG-8th	603
AMCS at Anthem dba Caurus Academy	41900 N. 42nd Avenue	Anthem	KG-10th	561
Canyon Pointe Academy	4941 W. Union Hills Drive	Glendale	KG-6th	214
Challenge Charter School	5801 W. Greenbriar Drive	Glendale	KG-6th	482
Deer Valley Academy	18424 N. 51st Avenue	Glendale	9th-12th	76
Desert Heights Preparatory Academy	3540 W. Union Hills Drive	Glendale	5th-12th	473
E-Institute at Grovers	4744 W. Grovers Avenue	Glendale	9th-12th	27
E-Institute at Union Hills	3515 W. Union Hills Drive	Phoenix	9th-12th	84
Great Hearts Academies - Anthem Prep	39808 N. Gavilan Peak Parkway	Anthem	KG-12th	809
Happy Valley School	7140 W. Happy Valley Road	Peoria	KG-6th	554
Imagine Bell Canyon	18052 N. Black Canyon Highway	Phoenix	KG-8th	354
Pinnacle Pointe Academy	6753 W. Pinnacle Peak Road	Glendale	KG-6th	102
Reid Traditional Schools' Valley Academy	1520 W. Rose Garden Lane	Phoenix	KG-8th	765
Ridgeline Academy	33625 N. North Valley Parkway	Phoenix	KG-8th	648
Stepping Stones Academy	35812 N. 7th Street	Phoenix	KG-8th	218
The Hearn Academy	17606 N. 7th Avenue	Phoenix	KG-8th	658
In-District Total				6,628
Area Charter Schools **				
Legacy Traditional School - Peoria	7877 W. Hillcrest Boulevard	Peoria	KG-7th	644
Arizona Conservatory for Arts and Academics	2820 W. Kelton Lane	Phoenix	9th-12th	173
Arizona Conservatory for Arts and Academics Middle School	2820 W. Kelton Lane	Phoenix	6th-8th	190
Arizona Conservatory for Arts and Academics Elementary	16454 N. 28th Avenue	Phoenix	KG-5th	273
Ombudsman - Charter West	2909 W. Bell Road	Phoenix	9th-12th	218
BASIS Peoria	9902 W. Yearling Road	Peoria	5th-12th	922
BASIS Peoria Primary	25950 N. Lake Pleasant Parkway	Peoria	K-4th	674
Desert Heights Charter School	5821 W. Beverly Lane	Glendale	K-4th	409
Foothills Academy	4720 E. Lone Mountain Road	Cave Creek	K-12th	326
Great Hearts Academies - Archway Glendale	23276 N. 83rd Avenue	Peoria	K-5th	555
Great Hearts Academies - Glendale Prep	23276 N. 83rd Avenue	Peoria	6th-12th	557
Jefferson Preparatory	16635 N. 51st Avenue	Glendale	7th-12th	205
Sonoran Science Academy - Peoria	17667 N. 91st Avenue	Peoria	K-8th	289
Student Choice High School	8194 W. Deer Valley Road	Peoria	9th-12th	128
Area Total				5,563
Grand Total				12,191

Source: Arizona Department of Education; Applied Economics 2019.

* Estimated based on 40th-day 2018-19 ADM data.

** Located within approximately one mile of the District's boundaries.

TABLE 6
ENROLLMENT IN LOCAL CHARTER SCHOOLS BY GRADE

School Year	#Schools	KG	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	Total K-12	Annual Change
In-District																
2008-09	14	651	594	559	526	415	419	356	218	194	75	43	73	100	4,223	
2009-10	16	749	660	595	566	527	435	487	275	213	60	75	76	127	4,845	622
2010-11	19	941	756	700	623	628	566	531	348	265	85	73	116	131	5,763	918
2011-12	21	1040	912	784	778	703	633	605	340	311	97	79	100	140	6,522	759
2012-13	19	1098	977	890	804	776	594	636	392	330	107	94	84	168	6,950	428
2013-14	18	1135	1012	946	877	772	724	590	454	384	145	104	113	171	7,427	477
2014-15	16	914	988	903	832	790	689	624	393	400	136	99	130	184	7,082	-345
2015-16	16	908	902	921	831	751	724	637	414	368	119	121	128	193	7,017	-65
2016-17	16	831	864	903	840	770	654	658	421	390	107	126	145	212	6,921	-96
2017-18	16	729	757	729	765	694	635	593	454	417	132	110	140	190	6,345	-576
2018-19*	16	733	739	748	704	727	711	640	475	450	200	195	127	179	6,628	283
Area Charter Schools																
2008-09	5	81	86	95	79	57	58	97	135	142	91	99	84	110	1,214	
2009-10	6	97	86	73	97	86	73	145	130	159	115	95	104	100	1,360	146
2010-11	6	106	113	96	84	91	103	121	179	150	114	123	103	133	1,516	156
2011-12	9	114	122	132	128	102	293	346	346	306	183	130	115	113	2,430	914
2012-13	9	124	151	132	155	153	300	351	397	304	220	161	155	151	2,754	324
2013-14	11	295	240	256	227	269	307	338	382	371	225	195	181	205	3,491	737
2014-15	12	290	190	266	261	259	409	375	364	323	285	238	188	270	3,718	227
2015-16	12	316	311	280	261	265	298	346	346	276	292	320	324	302	3,937	219
2016-17	13	353	342	314	286	285	393	372	412	363	252	262	315	373	4,322	385
2017-18	14	480	470	450	415	408	376	386	398	400	285	286	276	360	4,990	668
2018-19*	14	510	520	509	487	489	462	437	459	387	319	319	310	355	5,563	573

Source: Arizona Department of Education; Applied Economics 2019.

* Estimated based on 40th-day ADM data.

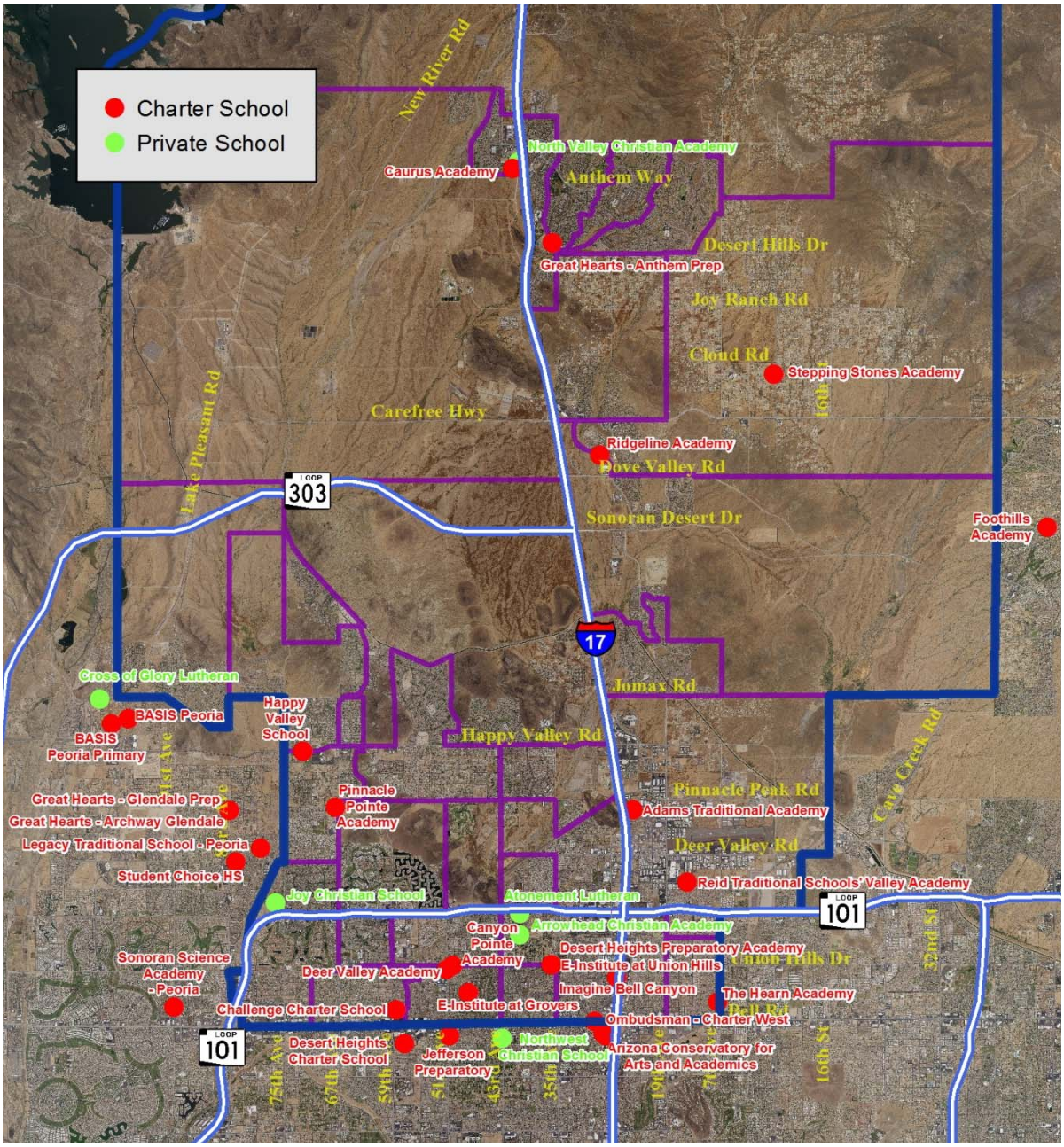
TABLE 7
ENROLLMENT IN LOCAL PRIVATE SCHOOLS

School Name	Address	City	Zip	Grades	Total K-12*
In-District Private Schools					
Arrowhead Christian Academy	4030 W Yorkshire Dr.	Glendale	85308	KG-12	131
Atonement Lutheran	4001 W Beardsley Rd.	Glendale	85308	KG-8	69
Joy Christian School***	21000 N. 75Th Ave.	Glendale	85308	KG-12	450
North Valley Christain Academy	42101 N. 41St Dr.	Anthem	85086	KG-8	99
In-District Total					749
Area Private Schools **					
Cross of Glory Lutheran School	10111 W. Jomax Road	Peoria	85383	KG--8	60
Northwest Christian School	16401 N. 43rd Avenue	Phoenix	85053	K-12	1,243
Area Total					1,303
Grand Total					2,052

Source: Private School Universe Survey (PSS) 2019; Niche.com; Applied Economics 2019.
* Enrollment data for 2015/16 school year.
** Located within approximately one mile of District's boundaries.

The non-District schools are generally concentrated in the southern portion of the District, as shown in **Map 8**. This is in keeping with the tendency of charter schools to locate along major transportation corridors and in established areas with high population density. Charter and private schools located north of Loop 101 are primarily concentrated along Interstate 17. Some of the largest charter schools are located just outside of the District's southwestern boundary. Since students living in the District are not limited to attending schools located within the District and vice-versa, a complex flow of incoming and outgoing students impacts all areas of the District to some degree.

MAP 8
DEER VALLEY AREA SCHOOLS BY ENTITY TYPE



3.0 RESIDENTIAL DEVELOPMENT

3.1 HOUSING CONSTRUCTION

Residential development in the District has continued to strengthen in both the single family and multifamily sectors, as can be seen below on **Table 8**. Single family permitting grew by 43 percent in 2017/18 with 981 permits, a volume last seen in 2007/08. Multifamily permits exceeded 400 units for the second straight year.

The residential building permits shown below are grouped into housing categories that reflect correlations between types of housing and the age structure of the households likely to occupy them. Group quarter facilities, such as nursing homes, are not included as either retirement housing or multifamily. Single family housing is heavily concentrated at around 3 lots-per-acre, which has been the case for a number of years. Multifamily development has accounted for 38 percent of all permits in the past decade, and 32 percent in the past year. Development has ranged from low-density condominium projects to high-amenity apartment complexes. Liv North Valley, which is an example of the latter type of project, is a style of apartment construction that has become more prevalent in recent years in parts of the metro region where higher rental levels are attainable. Rental communities such as Avilla or Christopher Todd are classified here as single family, over 6 units-per-acre, rather than multifamily; this type of development is also increasing in the region and is expected to continue grow its market share.

TABLE 8
HOUSING PERMITS

Housing Type	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	Total
Non-Retirement Housing											
Single Family 2 du/ac or less	132	135	75	108	193	336	208	186	136	159	1,668
Single Family 2.01 - 3.5 du/ac	321	237	147	266	443	328	332	353	254	571	3,252
Single Family 3.51 - 4.5 du/ac	72	55	35	86	42	11	43	89	226	175	834
Single Family 4.51 - 6 du/ac	-	-	7	44	49	-	-	20	19	-	139
Single Family 6.01du/ac & Over	-	-	-	-	-	-	-	-	49	76	125
Total Single Family	525	427	264	504	727	675	583	648	684	981	6,018
Multifamily, Low Density	30	-	-	-	-	25	10	67	5	154	291
Multifamily, Standard Courtyard	1,255	359	8	334	-	257	389	69	331	-	3,002
Multifamily, Urban/Lifestyle	-	-	-	-	-	-	-	-	80	305	385
Total Multifamily	1,285	359	8	334	-	282	399	136	416	459	3,678
Total Non-Retirement	1,810	786	272	838	727	957	982	784	1,100	1,440	9,696
Total	1,810	786	272	838	727	957	982	784	1,100	1,440	9,696

Sources: Maricopa Association of Governments; Construction Monitor; Maricopa County Assessor; Applied Economics, 2019.

Viewing the calendar year building permits by quarter (**Table 9)** provides an alternative perspective on recent development activity. Most notable is the growth in each quarter during 2017/18 and the fact that even the typical low fourth quarter is higher than all but one quarter during the previous two years. The drop in production in the second quarter can be attributed to the build-out of three subdivisions and the imminent build-out of several others.

TABLE 9
HOUSING PERMITS BY QUARTER

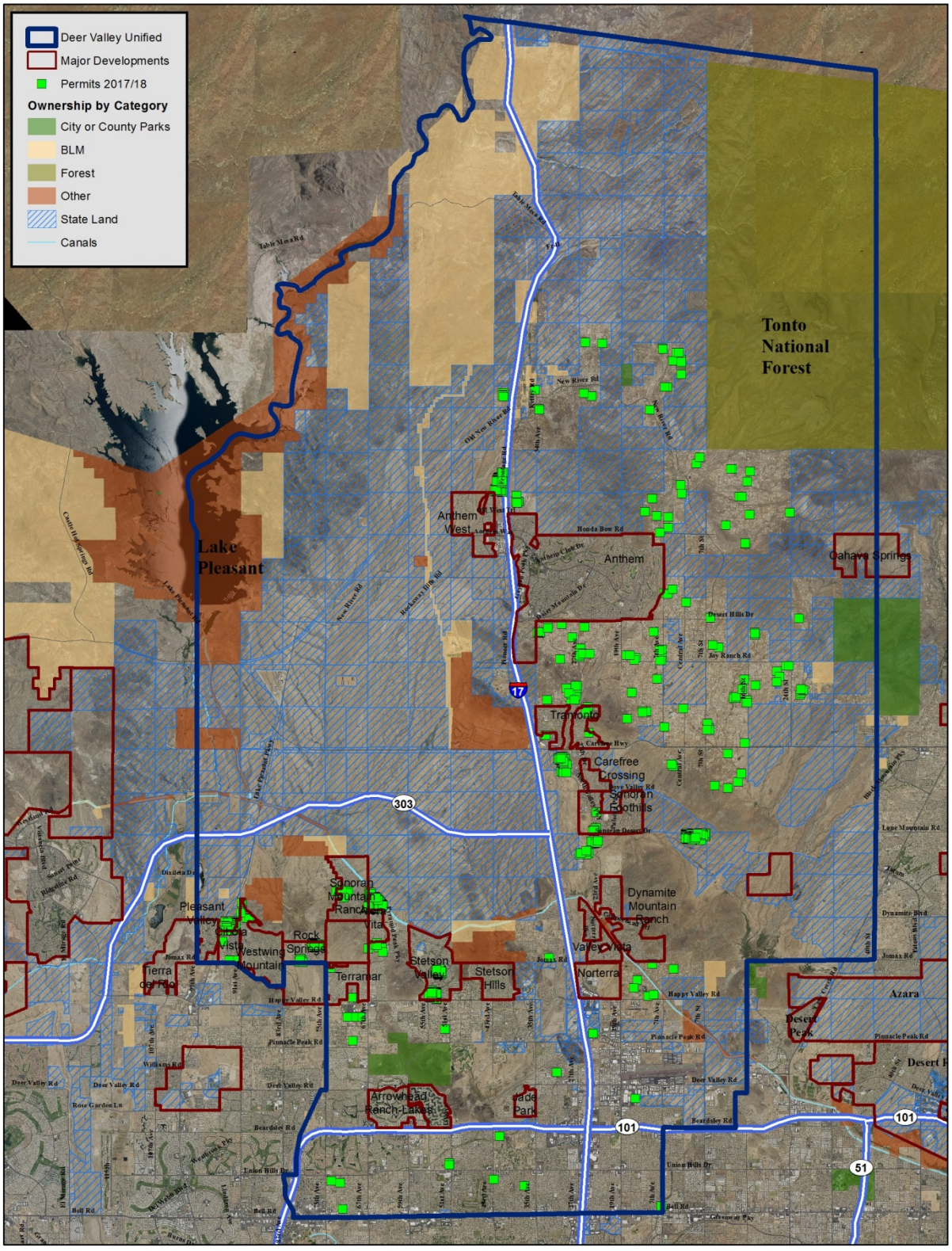
	2015/16					2016/17					2017/18				
Housing Type	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Total	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Total	Qtr 3	Qtr 4	Qtr 1	Qtr 2	Total
Non-Retirement Housing															
Single Family 2 du/ac or less	55	37	41	53	186	35	32	30	39	136	41	39	41	38	159
Single Family 2.01 - 3.5 du/ac	115	73	82	83	353	63	39	59	93	254	111	151	175	134	571
Single Family 3.51 - 4.5 du/ac	14	13	26	36	89	36	64	60	66	226	47	29	59	40	175
Single Family 4.51 - 6 du/ac	6	3	9	2	20	4	1	10	4	19	-	-	-	-	-
Single Family 6.01du/ac & Ov	-	-	-	-	-	-	-	-	49	49	76	-	-	-	76
Total Single Family	190	126	158	174	648	138	136	159	251	684	275	219	275	212	981
Multifamily, Low Density	22	40	5	-	67	-	-	5	-	5	-	113	21	20	154
Multifamily, Standard Courtyar	57	-	12	-	69	-	246	40	45	331	-	-	-	-	-
Multifamily, Urban/Lifestyle	-	-	-	-	-	-	-	-	80	80	305	-	-	-	305
Total Multifamily	79	40	17	-	136	-	246	45	125	416	305	113	21	20	459
Total	269	166	175	174	784	138	382	204	376	1,100	580	332	296	232	1,440

Sources: Maricopa Association of Governments; Construction Monitor; Maricopa County Assessor; Applied Economics, 2019.

Recent development activity in the District is illustrated on **Map 9**, where housing permits issued in 2017/18 are shown in green. Outside of the large areas of state land, new development activity has been taking place throughout the District. The west Jomax Road corridor will continue to be a major source of new housing as new construction at Alora Vita replaces the nearly completed Rock Springs development. Construction along the North Valley Parkway also remains strong, with new activity at Union Park at Norterra and two D. R. Horton subdivisions.

Infill development is a very active housing component in the District. In the northern portion of the District infill projects tend to be individual house construction on rural lots, while in the southern area there are a number of smaller projects, generally on parcels of ten acres or less.

MAP 9
RESIDENTIAL PERMITTING



3.2 FUTURE DEVELOPMENT POTENTIAL

The identified residential potential in the District is currently estimated to be over 68,000 units. This includes defined projects and raw land with development potential beyond a practical ten year horizon. There is significant additional capacity on state land in the western part of the District that is considered extremely speculative at this time and is not included. **Table 10** shows estimated unit counts by type of product and the time period that construction **could begin** on lots within projects, since developments are generally under construction over a number of years; it is possible some projects will not begin at all. The Infill category includes generally rural lots and small custom projects that are likely to be under development intermittently over a number of years. Both the unit potential on this table and the timing estimates will change as new information is acquired.

Table 3 shows a much higher concentration of development in the single family component and a lower percentage of multifamily. This is a result of the massive amounts of land currently owned by the State of Arizona. When the actual development plans are produced, however, there will likely be a wider range of housing. If only the single family potential shown for the next five years is considered, 37 percent is in the 2 to 3.5 units-per-acre category, while 23 percent is lower density and 28 percent is in the 3.5 to 4.5 density range. The potential listed for these upcoming years is based on actual development plans and zoning, rather than the broader estimates of the later timing categories.

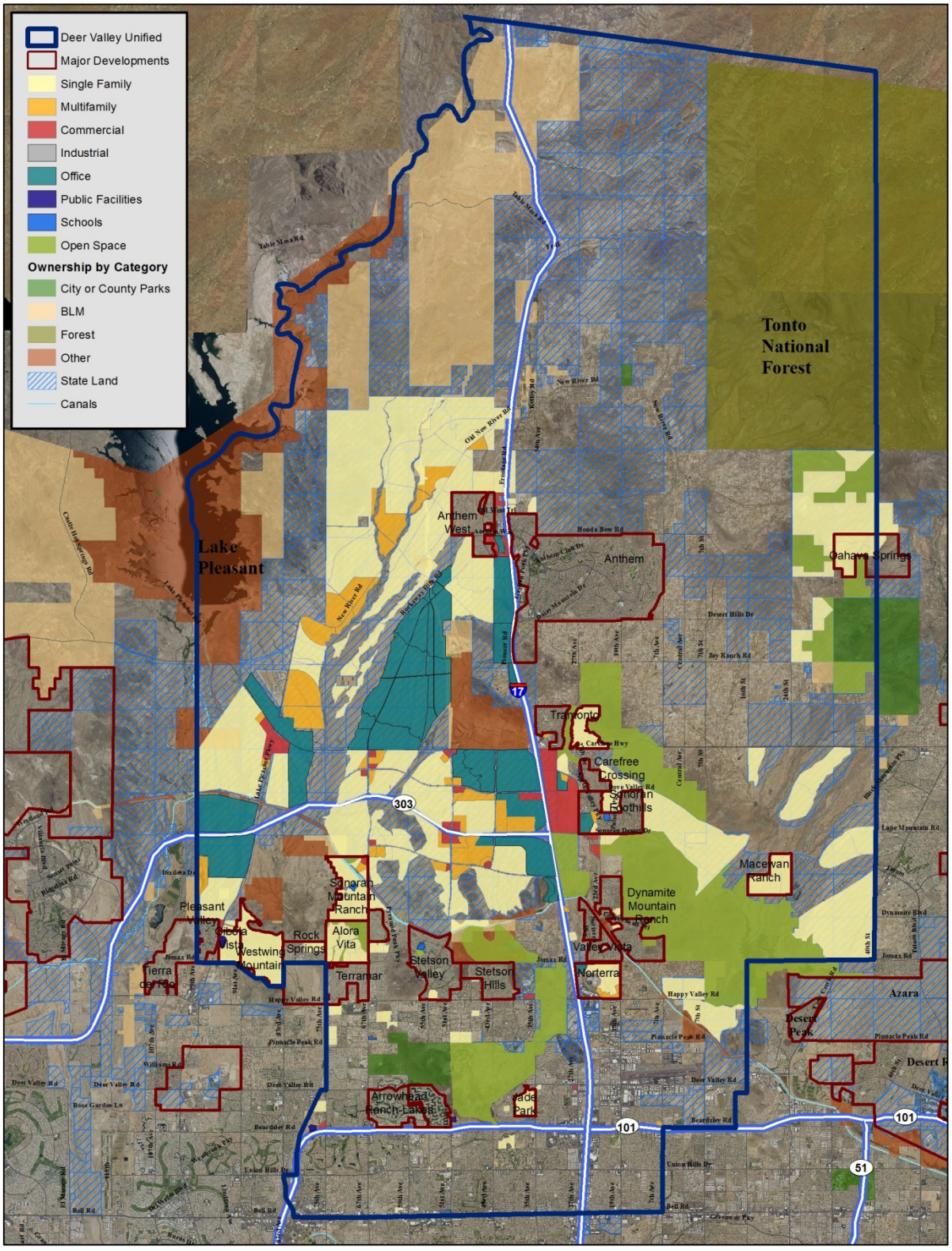
TABLE 10
POTENTIAL NEW HOUSING BY DEVELOPMENT TIMELINE

	Active							
Housing Type	Projects	Infill	1 Year	2-3 Years	3-5 Years	5-10 Years	10+ Years	Total
Non-Retirement Housing								
Single Family 2 du/ac or less	56	1,906	-	170	106	-	2,873	5,111
Single Family 2.01 - 3.5 du/ac	340	432	57	1,972	733	5,586	30,552	39,672
Single Family 3.51 - 4.5 du/ac	90	-	488	577	1,514	768	2,957	6,394
Single Family 4.51 - 6 du/ac	-	-	180	464	82	-	214	940
Single Family 6.01du/ac & Over	-	-	404	-	-	-	-	404
Single Family Attached	-	-	-	-	-	-	-	-
Manufactured Housing	-	-	-	-	-	-	-	-
Total Single Family	486	2,338	1,129	3,183	2,435	6,354	36,596	52,521
Multifamily, Low Density	49	-	40	-	-	-	8,836	8,925
Multifamily, Standard Courtyard	-	700	-	-	330	1,588	2,904	5,522
Multifamily, Urban/Lifestyle	-	-	232	561	734	-	-	1,527
High-rise, Intensive	-	-	-	-	-	-	-	-
Total Multifamily	49	700	272	561	1,064	1,588	11,740	15,974
Total	535	3,038	1,401	3,744	3,499	7,942	48,336	68,495

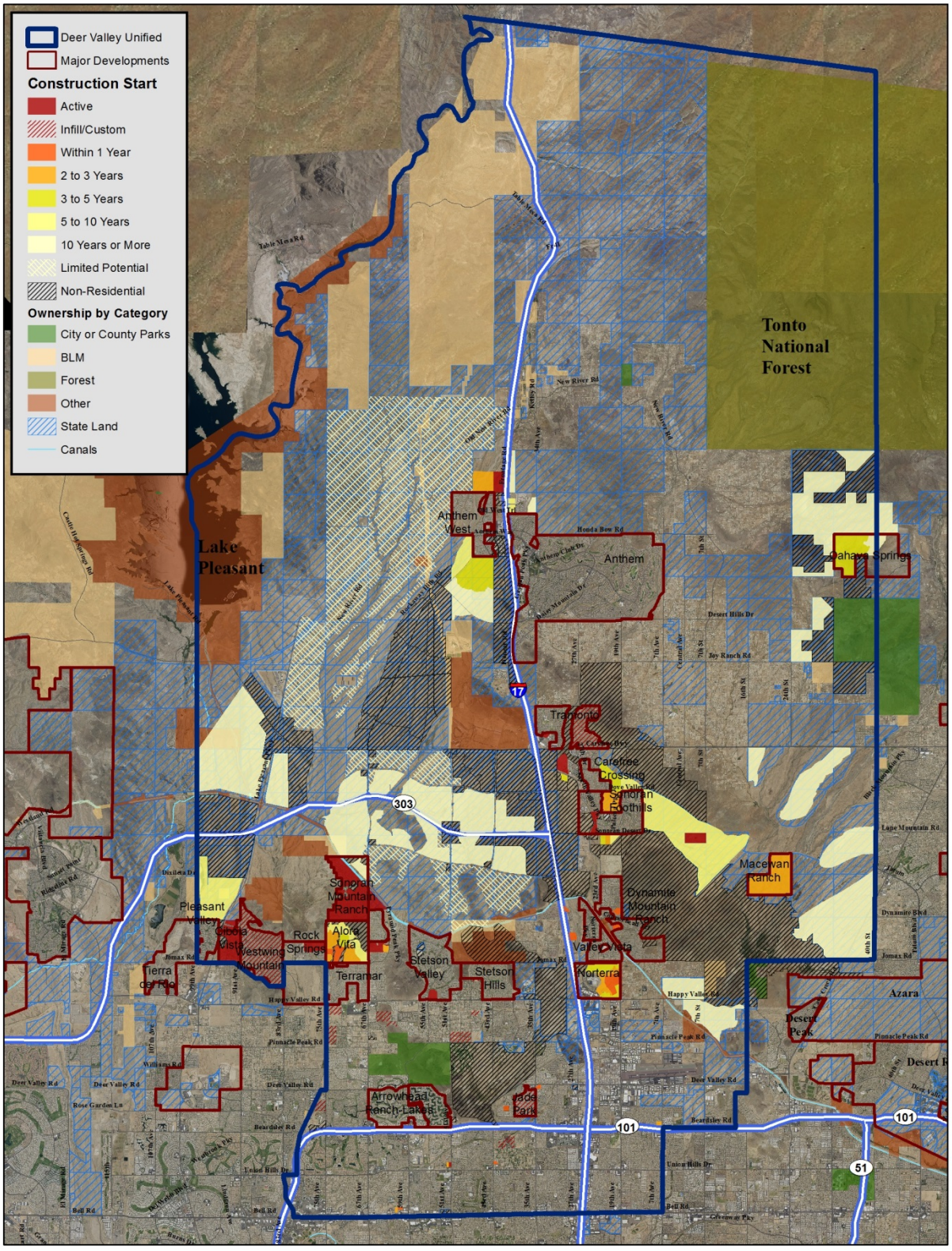
Sources: City of Phoenix; City of Glendale; City of Peoria; Arizona State Land Department; Maricopa County; Applied Economics, 2019.

Maps 10 and 11 show currently active and future development areas by land use and the estimated timing to begin development, as presented on the table above.

MAP 10
FUTURE LAND USE



MAP 11
DEVELOPMENT TIMING



3.2.1 MARKET CONDITIONS

Economic indicators for the Phoenix metropolitan area continue to be positive. According to the Arizona Office of Economic Opportunity, the population in Maricopa County has increased by more than 470,000 persons since 2010, reaching an estimated total population of 4,294,460 in July 2018. The labor force in the Phoenix metropolitan area has increased by more than 109,000 persons in 2018, according to preliminary BLS estimates, reaching nearly 2,442,600 workers in November, and the metro area's 2018 average unemployment rate of 4.1 percent to date compares favorably to the 3.9 percent national average.

The metro area residential real estate market has rebounded dramatically since the last recession. As reported by the Arizona Republic from Arizona Regional Multiple Listing Service data, median home prices reached a record of $265,000 in June 2006, before falling to $120,000 by September 2011, about four years into the recession. According to the National Association of Realtors, the Phoenix metro area's median house price reached $272,200 in the third quarter of 2018 and prices are still rising due to limited supply.

While housing costs continue to escalate in metro Phoenix, it is still a more affordable location than other parts of the west. According to the Cushman & Wakefield "Housing Opportunity Index", which measures the percentage of new and existing homes sold that were affordable to families at the area's median income level, most west coast cities had very low affordability indexes. Phoenix had an index of 63.1 percent in the fourth quarter of 2017, followed closely by Salt Lake City (62.1 percent), Houston (60 percent), San Antonio (59.2 percent) and Las Vegas (58.7). In the Southwest region, only Tucson and Albuquerque had higher affordability ratings at 72.7 and 71.6 percent, although they are both much smaller markets.

The vibrancy of the local housing market is also demonstrated by a 2018 report on master planned communities by RCLCO (formerly Robert Charles Lesser & Co.). Of the 48 communities with the highest sales nationwide, six are in Arizona. Texas has the greatest number of communities (15) while Florida has four of the top seven selling master planned communities. By comparison, however, Arizona has only a quarter the population of Texas, and a third of Florida. Three of the Arizona communities are within the Phoenix metro area; they include Eastmark in Mesa (#6), Verrado in Buckeye (#13) and Vistancia in Peoria (#19).

The depth and severity of the 2007-2009 recession didn't just pause or slow housing construction, it also changed the geographic direction of new development. The Southeast Valley has long been a desirable housing market, accounting for 37 percent of all single family completions with over 11,000 units in 2000. By 2006, competition from outlying areas and decreasing land availability had steadily reduced that proportion to 16 percent. The onset of the recession reversed that trend as the Southeast Valley increased its market share from 18 to 36 percent between 2008 and 2010; over the past three years, the area has accounted for 35 percent of single family completions.

A much different dynamic has occurred in areas with more entry-level housing. Housing growth in Pinal County, including the city of Maricopa and the San Tan Valley, grew rapidly in the 2000's and accounted for about 25 percent of the metro housing completions in 2006. However, that proportion began falling during the recession and dropped to just 13 percent in 2015, before increasing slightly in 2017. In the Northwest Valley, new housing construction was also strong, averaging about 14 percent of the metro total from 2000 to 2006; activity in the Northwest plummeted during the recession and currently accounts for just 3 to 4 percent of the metro total.

In response to the disrupted housing market, developers and builders have altered or added products and strategies. In recognition of existing financial constraints, some builders have introduced new product lines for entry-level buyers, while others have targeted the move-up market with additional options or focused on added values, such as more energy efficient homes. Smaller lot sizes have also been introduced, with cluster or court designs, as well as increases in townhouse/row house and single family attached construction.

The main challenge to the local residential market is currently affordability, particularly for younger people. Impediments to purchasing a house delay new household formation. The primary factors preventing young people from entering the market are high levels of student debt and difficulties obtaining a down payment, according to a recent survey by real estate website PropertyShark. Since wage rates have not kept pace with housing costs, the problem is difficult to resolve. Coupled with increases in rental rates, the time frame for first time purchases becomes even more extended. In addition to the impacts specifically on young people, construction prices are increasing due to labor shortages and increases in material costs.

High-density, single family construction can be expected to continue in two forms. In suburban areas, smaller lot sizes allow for lower prices on family-sized houses of three or four bedrooms. Some buyers are willing to sacrifice house size for a location near social amenities, which is driving significant infill development in downtowns and other commercial areas. One method of providing affordable product places high-density housing on small, infill lots. Single family rental complexes, such as those built by NexMetro (Avilla) have proven to be very successful in recent years, and more such properties are expected.

Multifamily housing has become a major residential sector in the Phoenix metro region since the recession. According to the 2016 second quarter Cushman & Wakefield Marketbeat report, 1,927 multifamily units were absorbed in the first half of the year, with 5,924 units under construction and another 17,874 planned. In the 2018 quarter two report, absorption totaled 4,032 multifamily units, with 15,405 units under construction and 33,633 units planned. Of the multifamily units under construction, about half are in three submarkets: Central Phoenix, Chandler/Queen Creek, and Tempe. Some 1,939 units are under construction in Scottsdale, which is nearly equal to the combined total for Mesa/Gilbert and the Northwest Valley. There is very little activity in East or West Phoenix. One notable change in the multifamily market is the increase in high-density projects that come with major amenities and high rents. Part of this can be attributed to lifestyle choices that include a desire for high-density, urban environments. Construction of such properties can be expected to continue, especially in central urban areas, but should slow as rents moderate. More traditional multifamily complexes are expected to begin construction in outer areas that have seen less multifamily activity recently.

The general consensus is that the next recession will likely begin in about 2020. No period of expansion is endless, and there have been some signs of economic slowing already. However, the next recession should be mild and housing is not anticipated to decline significantly. The reason is that the next downturn will likely be related to inflation and interest rates, not uncontrolled housing speculation. In Arizona, the increases in non-service sector employment, continued low housing costs relative to other metro areas, and the increasing diversity of housing products should also provide a greater level of economic stability.

3.2.2 DEVELOPMENT PROJECTS

The residential market in the District has been stable since the recession and has increased in strength in recent years. Single family development has been strong with substantial activity throughout the District and an increasing number of housing options. Multifamily has been a major component of recent activity, including condominiums and high-amenity apartment complexes, and there has been increasing growth in the single family rental market. This market strength is expected to continue, both in level and geographic extent, as additional land holdings enter production in future years and infill development continues unabated.

The District is primarily a "move-up" housing market and generally lacks entry-level, single family purchasing options. Aside from that, there is a sizable range of housing, as seen on **Table 11**. There are many builders operating in the District within major developments, which is indicative of the strong health of the local market.

TABLE 11
SELECTED ACTIVE DISTRICT SUBDIVISIONS

Builder	Development	Plans offered	Sq. Ft. Min	Beds Min	Price Min	Sq. Ft. Max	Beds Max	Price Max	Price/SqFt Min	Price/SqFt Max
Ashton Woods	Union Park at Norterra	4	1,803	3	$299,990	2,472	3	$333,990	$166	$135
Cachet Homes	Union Park at Norterra	5	2,831	3	$509,900	4,115	5	$601,900	$180	$146
David Weekley	Union Park at Norterra	7	2,332	3	$464,990	3,864	5	$559,990	$199	$145
Homes by Towne	Desert Village Condos	6	1,366	2	$ -	1,843	2	$ -	$ -	$ -
Lennar Homes	Pyramid Peak	7	2,568	4	$386,990	3,173	4	$456,990	$151	$144
Mattamy Homes	Pradera at Westwing Mtn.	6	2,379	3	$341,990	3,631	4	$395,990	$144	$109
Meritage Homes	Stoneledge	9	1,540	3	$319,990	3,675	4	$429,490	$208	$117
Pulte Homes	Circle Mountain	4	2,458	3	$357,990	3,571	5	$403,990	$146	$113
	Aloravita	5	2,294	3	$368,990	3,826	5	$432,990	$161	$113
Shea Homes	Aloravita: Ascent	6	1,968	3	$345,990	3,062	4	$394,990	$176	$129
	Aloravita: Emblem	6	2,318	3	$394,990	3,505	4	$439,990	$170	$126
Taylor Morrison	Aloravita: Landmark	6	2,153	4	$359,990	3,693	5	$413,990	$167	$112
	Sonoran Gate	7	1,570	4	$332,990	2,936	4	$398,990	$212	$136

Source: Builder websites; Applied Economics, January 15-25, 2019.

The southern portion of the District, generally south of Pinnacle Peak Road, is nearly built-out, although infill construction still takes place and small parcels continue to be brought into development. Representative of this type of development is Kingston Place, a 47-lot subdivision by Lennar Homes that is entering production at 41st Avenue, north of Beardsley Road. Santorini Condominiums, a new 40-unit project at 43rd Avenue and Union Hills and Deer Valley Villas, an 18-lot project at 51st Avenue and Union Hills that is partially complete, are also similar in nature. New projects of this type are expected to continue to develop, but the overall impact will be very light.

The western portion of the District, along or near Jomax Road, has been a major source of new housing. In 2017/18, the area accounted for 45 percent of all single family permitting in the District and included 6 of the top-ten producing subdivisions, all with 40 or more permits in the year. However, several of the subdivisions in the area are now either built-out or nearing completion, including Rock Springs, Stetson Valley, and the two Mattamy Homes subdivisions (Pradera and Escena). There will continue to be some custom and semi-custom development in this area, but less production housing is anticipated.

Aloravita is the remaining master planned community in the western area and, after several years of design and processing, it is now active. The project encompasses 1,200 acres, although the half that is located in the Peoria School District is not expected to become active until 2020. The first phase of development, at the northeast corner of Jomax and 75th Avenue, entered active house construction near the end of 2018; Pulte Homes is building a 74-lot subdivision, Shea Homes has two subdivisions totaling 124 lots, and Taylor Morrison has two subdivisions totaling 124 lots. Production in these subdivisions is expected to be strong. Mass grading on phase two (right) began in December of 2018 and will be completed in February 2019, with infrastructure to follow. Platting has not been finalized, but there will be approximately 375 total lots owned by Pulte and Shea Homes. Total development, within the District will consist of about 1,900 lots and activity levels are expected to be strong throughout the projection period.



New construction along the Norterra Parkway/North Valley Parkway corridor, between Pinnacle Peak and roughly Carefree Highway, has been limited recently. Development has primarily been in smaller projects, such as Stoneledge (North Valley Parkway south of Carefree Highway), 24 North and Desert Village Condominiums (North Valley Parkway just north of Sonoran Desert Drive). These projects are all approaching build-out but other small projects are about to enter production. For instance, D. R. Horton has begun grading on two parcels east of North Valley Parkway, on each side of Dynamite Boulevard, that total about 100 lots. Two rental communities, Bungalows on Jomax and Avilla Canyon, are also planned to add over 300 units in 2019/20.



Union Park, the first residential phase at Norterra, began active housing construction near the beginning of 2019 (left). The 309 lots in the initial subdivisions are being built by Ashton Woods, Cachet Homes, and David Weekley, and range in price from about $300,000 to $600,000. Production activity is expected to be moderate since parcels are being phased to limit competition with each other. The single family component of the development is approximately 950 lots, which should be completed before the end of the projection period. There are also 1,000 or more multifamily units planned in this development.

Housing production at Sonoran Gate, on Dove Valley Road/Sonoran Desert Drive at the Central Avenue alignment, has surpassed Taylor Morrison's initial production estimates. The subdivision took out over 100 permits during 2017/18, and the 255-lot project is expected to be built-out in the last half of 2019.

In coming years substantial development is expected in the Dove Valley/Sonoran Desert Drive corridor. At about the 24th Street alignment, there is a privately-owned parcel of approximately 480 acres that is

surrounded by state land and designated as open space. Processes are underway for a General Plan Amendment and rezoning of this site. While planning and approvals for the land are not complete, current estimates are for 1,440 single family lots, with about a quarter of them "age-targeted". This is a marketing plan where houses in a subdivision are marketed to older buyers but there is no actual age restriction on purchasers. There is a major builder involved with the project and multiple product lines are anticipated; production is likely to start in 2021 to 2022 with production levels between 150 to 200 lots per year, depending on market conditions. Production would continue past the end of the projection period.

The State Land Department also has major holding in the Dove Valley/Sonoran Desert Drive corridor. A parcel of state land on the south side of Dove Valley Road, and east of North Valley Parkway, has been purchased by Lennar Homes. The 144-acre parcel is expected to yield approximately 435 lots and the first house closings are planned for early 2021. This still unnamed project is expected to have multiple product lines and high levels of construction, likely over 100 units per year.

Planning for sales of other nearby acreages has been delayed while the State Land Department focused on selling the Lennar parcel. Now that that has been accomplished, planning will move forward on other properties. There are no firm plans or schedules at this time, but it is reasonable to expect the next sales will involve parcels on the north side of Dove Valley Road, across from the Lennar parcel. New housing should not be expected for about four or five years, and the trend after that will likely be toward the east along the Sonoran Desert Drive; development in this area will extend well beyond the projection period.

Residential growth in the unincorporated areas of New River and Desert Hills, surrounding Anthem east of I-17, has been very active in recent years. More than 500 new single family permits have been issued in the past five years, and a high of 143 were issued in 2017/18. This rural development has depleted groundwater sources, necessitating trucking in water to homes that once had working wells. The City of Phoenix cut off its supply to non-residents and a new water station, built by the utility EPCOR, will become the source for dwellings constructed before 2018. Given the previous growth, it should be expected that development will continue, but probably at lower levels due to the new restrictions and higher costs of transporting water to the area.

A proposed housing development of 286 lots north of Anthem, on the east side of I-17, has been withdrawn. The concept had several issues, including transportation access, water availability and infrastructure costs. All of these issues make any new residential development in that area difficult since there is an imbalance between the costs to develop and the number of housing units possible.

Land in this northern area on the west side of I-17 is better situated for development. The 202-lot Circle Mountain Ranch project by Lennar/Pulte Homes is half completed; 70 permits were issued in the past year. In addition, a 160-acre parcel adjacent on the west, called Desert Hills, is being planned for a 170-lot, low-density housing project that will likely start construction in the next two or three years.

The City of Phoenix is in the design process of running wastewater lines to the area south of Anthem West, and construction is anticipated to begin in 2019. Given the ongoing popularity of the area, these infrastructure improvements will likely create considerable interest in the development of this land. While there are no current plans, new housing development in the next four to five years is anticipated. The area between Anthem West and Daisy Mountain Road has an estimated potential yield of over 3,000 single family lots, suggesting that housing additions could continue over many years.

Development of the area west of Rockaway Hills Drive, or west of Anthem West, would require costly infrastructure improvements, making any future growth in that area unlikely.

The area west of I-17 and adjacent to the Loop 303 has attracted some interest but there are no realistic plans for development at this time. The infrastructure costs involved and the lack of interest in piece-meal development make growth in the area unlikely during the ten-year projection horizon. This could change if a master developer advanced a plan, but that is not foreseen at this time.

Single family development in the first half of the projection period is expected to fluctuate as some projects build-out and new ones begin, but overall growth levels should be strong. Activity is anticipated to increase in the middle years of the projection period due to the number of projects continuing and entering production at the same time. There will likely be some decline in the later years as the number of active projects lessens, but strong growth is anticipated for many years beyond the projection. Multifamily growth is also expected to continue as builders locate new parcels.

4.0 DISTRICT PROJECTIONS

District-level enrollment projections are created by integrating historical enrollment, demographic and housing market trends with the projected housing unit additions and the associated change in the school-age population. The projections of future enrollment are also impacted by assumptions regarding the share of the District's population that will choose to attend District schools. Due to the pronounced demographic and development differences that exist among the different areas of the District, the District-level projections are cross-checked using projections by District sub-area, as presented in Section 5 of this report. These projections account for local and regional trends in socioeconomic conditions and economic growth forecasts.

4.1 POPULATION & HOUSING

The long-term population and housing projections for the District shown in **Table 12** are based on historical and forecast trends in housing construction, occupancy, and economic growth indicators. Currently, the District contains approximately 263,000 persons in 97,300 households (occupied housing units), with a population per household of about 2.70 persons. Occupancy rates appear to have stabilized at about 94 percent the past three years, after falling during the recession. Population per household is expected to continue to decline due to aging in existing households and the increase in multifamily housing, both of which dampen the impact of the increase in the number of households on total and school-age population.

District population and households are expected to increase throughout the projection period as new housing supply enters the market and occupancy rates remain stable. In the past year, more than 1,400 new housing units were added to inventory and an average of nearly 1,200 new units are forecast to be added each year during the projection period, yielding 11,776 new units by 2028/29. Because of improvements in the housing occupancy rate, more than 11,600 new households are expected to be formed in that same ten-year period. However, the population per household is expected to continue to decline, falling to 2.667 by 2028/29. These changes result in a population in 2028/29 of about 290,400 persons occupying 108,900 households.

TABLE 12
PROJECTED POPULATION AND HOUSING

Year	Population	Housing Units Total	Housing Units New	Occupancy Rate	Vacant Units	Households Total	Households Change	Pop/HH
2000/01	159,234	60,589		93.7%	3,807	56,782		2.804
2001/02	167,889	63,825	3,236	93.9%	3,893	59,932	3,150	2.801
2002/03	176,834	67,112	3,287	94.1%	3,960	63,152	3,221	2.800
2003/04	189,213	71,390	4,278	94.7%	3,784	67,607	4,454	2.799
2004/05	204,908	76,947	5,557	95.3%	3,617	73,331	5,724	2.794
2005/06	222,031	82,982	6,035	96.0%	3,319	79,663	6,332	2.787
2006/07	235,487	89,123	6,140	95.0%	4,456	84,666	5,003	2.781
2007/08	240,540	92,194	3,072	94.0%	5,532	86,663	1,996	2.776
2008/09	238,701	93,719	1,525	92.0%	7,498	86,222	-441	2.768
2009/10	239,962	95,726	2,007	91.0%	8,615	87,111	889	2.755
2010/11	239,040	96,493	872	90.4%	9,276	87,217	106	2.741
2011/12	240,998	96,765	272	91.0%	8,714	88,051	834	2.737
2012/13	245,326	97,603	838	92.0%	7,792	89,811	1,760	2.732
2013/14	247,712	98,330	727	92.3%	7,551	90,779	968	2.729
2014/15	252,202	99,287	957	93.2%	6,702	92,585	1,805	2.724
2015/16	254,374	100,269	982	93.3%	6,696	93,573	988	2.718
2016/17	258,351	101,053	784	94.2%	5,886	95,167	1,594	2.715
2017/18	260,430	102,153	1,100	94.1%	6,032	96,121	955	2.709
2018/19	263,070	103,593	1,440	93.9%	6,319	97,274	1,153	2.704
2019/20	265,290	104,516	923	94.0%	6,291	98,225	951	2.701
2020/21	268,546	105,898	1,382	94.1%	6,289	99,609	1,384	2.696
2021/22	270,966	106,932	1,034	94.1%	6,264	100,668	1,059	2.692
2022/23	274,425	108,040	1,108	94.5%	5,942	102,098	1,430	2.688
2023/24	276,001	109,433	1,393	94.0%	6,566	102,867	769	2.683
2024/25	279,018	110,656	1,223	94.1%	6,551	104,105	1,238	2.680
2025/26	282,447	112,038	1,382	94.2%	6,543	105,495	1,390	2.677
2026/27	285,447	113,243	1,205	94.2%	6,523	106,720	1,225	2.675
2027/28	287,984	114,324	1,081	94.3%	6,494	107,830	1,110	2.671
2028/29	290,426	115,369	1,045	94.4%	6,461	108,908	1,078	2.667
2019/20 - 2028/29			11,776				11,635	

Source: Applied Economics, 2019.
*Bolding Indicates Actuals

4.2 SCHOOL-AGE POPULATION AND DISTRICT ENROLLMENT

As shown on **Table 13**, District enrollment increased significantly between 2000/01 and 2007; over 10,000 new students were enrolled, or an average of about 1,500 per year. As the recession took hold between 2008/09 and 2013/14, the District lost over 3,000 students, before regaining 700 during the following two years and reaching 33,770 students in 2015/16. This year's nominal gain did little to offset the losses that occurred in the past two years.

In addition to the volume and market orientation of housing development, trends in per-household student generation rates and capture 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. During the growth period after 2000, the school-age population averaged 0.566

persons per household. This ratio dropped to 0.524 by 2013/14 and, although the student population in the District has increased, the population per household has continued to fall and is currently 0.506 students per household. This decline in the number of persons per household is likely the result of an aging population and changes in housing types.

Because of the increasing number of educational alternatives and open enrollment policies in the state, it is necessary to apply an enrollment-to-population ratio, or "capture rate," to the school-age population when projecting District enrollment. While households may be generating an average of 0.499 school-age persons, this does not necessarily translate to an equivalent level of enrollment. Please note that in this analysis, the capture rate is based on the *net difference* between the school-age population and District enrollment. This includes the loss of some in-District school-age persons to other providers, and a gain of some students from outside of the District. In the 2018/19 school year, the estimated school-age population, aged 5 to 17, within the District was 48,563 persons, while total enrollment was 33,548. This results in a net difference of 15,015 school-age persons and an enrollment-population ratio of 69.1 percent.

TABLE 13
SCHOOL AGE POPULATION AND ENROLLMENT

		School-Age Population *		K-12 Enrollment		Net	Enrollment -
Year	Households	Total	Per Household	Total	Per Household	Difference	Population Ratio
2000/01	56,782	33,047	0.582	25,792	0.454	7,255	78.0%
2001/02	59,932	34,609	0.577	27,257	0.455	7,352	78.8%
2002/03	63,152	36,185	0.573	28,411	0.450	7,774	78.5%
2003/04	67,607	38,437	0.569	29,812	0.441	8,625	77.6%
2004/05	73,331	41,367	0.564	31,432	0.429	9,935	76.0%
2005/06	79,663	44,590	0.560	33,146	0.416	11,444	74.3%
2006/07	84,666	47,022	0.555	35,113	0.415	11,909	74.7%
2007/08	86,663	47,757	0.551	36,375	0.420	11,382	76.2%
2008/09	86,222	47,144	0.547	36,408	0.422	10,736	77.2%
2009/10	87,111	47,260	0.543	35,989	0.413	11,271	76.2%
2010/11	87,217	46,950	0.538	34,985	0.401	11,965	74.5%
2011/12	88,051	46,955	0.533	34,400	0.391	12,555	73.3%
2012/13	89,811	47,444	0.528	33,763	0.376	13,681	71.2%
2013/14	90,779	47,506	0.523	33,054	0.364	14,452	69.6%
2014/15	92,585	47,997	0.518	33,432	0.361	14,565	69.7%
2015/16	93,573	48,054	0.514	33,770	0.361	14,284	70.3%
2016/17	95,167	48,414	0.509	33,618	0.353	14,796	69.4%
2017/18	96,121	48,423	0.504	33,539	0.349	14,884	69.3%
2018/19	97,274	48,563	0.499	33,548	0.345	15,015	69.1%
2019/20	98,225	48,793	0.497	33,489	0.341	15,304	68.6%
2020/21	99,609	49,332	0.495	33,637	0.338	15,695	68.2%
2021/22	100,668	49,707	0.494	33,648	0.334	16,059	67.7%
2022/23	102,098	50,261	0.492	33,729	0.330	16,532	67.1%
2023/24	102,867	50,488	0.491	33,732	0.328	16,756	66.8%
2024/25	104,105	50,943	0.489	33,906	0.326	17,037	66.6%
2025/26	105,495	51,468	0.488	33,950	0.322	17,518	66.0%
2026/27	106,720	51,909	0.486	34,066	0.319	17,843	65.6%
2027/28	107,830	52,292	0.485	33,986	0.315	18,306	65.0%
2028/29	108,908	52,656	0.483	34,019	0.312	18,637	64.6%

Source: Applied Economics, 2019.

* Population age 5 through 17, corresponds with Kindergarten through 12th grade.

Bolding indicates historical data.

As shown in **Table 14**, the District's enrollment to population ratio is below the average ratio of the districts served by Applied Economics so far this year. While these rates can be indicative of the actual and/or perceived quality of the education provided by each district, they may be distorted based on location, the availability of alternative providers and the ability of parents to access alternative providers.

TABLE 14
ENROLLMENT-POPULATION RATIO FOR SELECTED DISTRICTS

	Enrollment (1)	School-age Population (2)	Net Capture Rate (3)
Peoria	36,985	42,432	87.2%
Gilbert	34,352	43,195	79.5%
Buckeye Elementary	5,259	6,894	76.3%
Scottsdale Unified	22,371	30,538	73.3%
Saddle Mountain	1,991	2,817	70.7%
Dysart	24,030	34,206	70.3%
Deer Valley	33,548	48,563	69.1%
Queen Creek	7,576	11,997	63.1%
Average (4)	166,112	220,642	75.3%

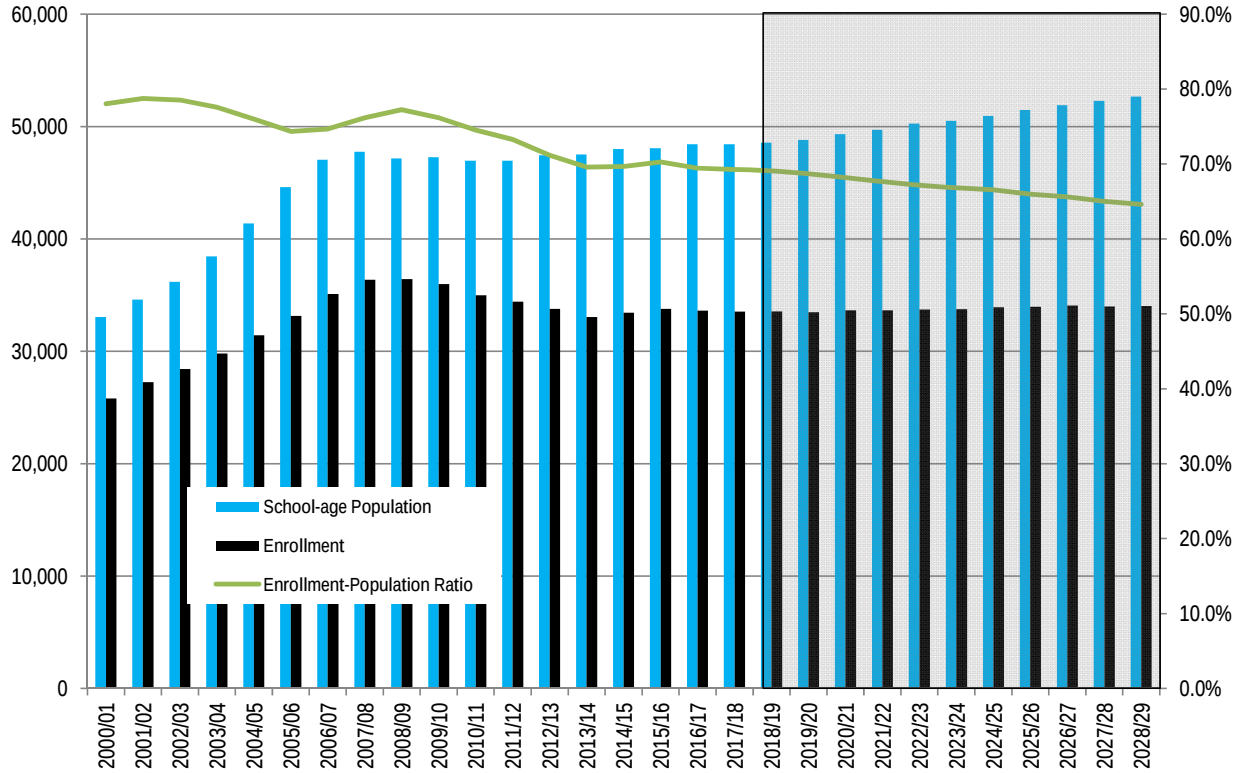
(1) October 1st, K-12 headcount enrollment as reported by the Districts
(2) Population Ages 5 to 17 for unified districts, and 5 to 13 for elementary districts.
(3) Includes all students attending, including those from outside the district.
(4) Average of the districts shown.

Both the school-age population per household and the District enrollment-population ratio are expected to decline over the next ten years. Due to the ongoing evolution in household and housing characteristics, the school-age population per household is expected to fall from the current rate of 0.499 to 0.483 by 2028/29. The enrollment-population ratio is forecast to decline from the current rate to just under 65 percent in ten years. While the changes in household population rates are based on identified demographic trends, the enrollment-population ratio is more variable because it is based on the numerous combinations of choices by individuals and is, therefore, subject to change.

Fueled by strong growth in the number of households, District enrollment is projected to increase by about 470 students by 2028/29, despite the continuing decrease in the school-age population per household and the District's declining enrollment-population ratio. Total K-12 enrollment in 2028/29 is forecast to be 34,019 students from a school-age population of 52,656. The increase in the number of school-age persons in the District (4,093 persons) is, therefore, projected to slightly offset the effects of the decline in the enrollment-population ratio over the next ten years.

The relationship between school-age population and actual enrollment is illustrated by **Figure 6**. The blue bars represent the school-age population and the black bars indicate actual enrollment. The green line is referenced to the percentages listed on the right and tracks the relationship between student population and enrollment. As shown, the gap between school-age population and enrollment has been widening since the early 2000's, with a significant drop after 2008/09. The grey shaded area highlights the projection period and depicts the continuing downward trend in the enrollment-population ratio, though not at the severe rate experienced during the recessionary period. It should be pointed out again that the projected "capture rate" is based on prevailing trends and it could be altered by a variety of factors.

FIGURE 6
ACTUAL AND PROJECTED ENROLLMENT: 2000/01-2028/29



4.3 ENROLLMENT BY GRADE LEVEL

Table 15 provides a more detailed review of past and projected enrollment changes by showing enrollment at the elementary, middle and high school levels. Overall, 2018/19 enrollment was virtually unchanged from the previous year as gains in the Kindergarten to 4th (K-4) grades were offset by losses in the higher grades, especially at the high school level. The enrollment cohorts are more evenly divided currently than they were prior to the recession, with about 35 percent of total enrollment in the K-4 group and 32 to 33 percent in the other cohorts. During the projection period, both the K-4 and 5th to 8th grade (5-8) shares are expected to decline slightly (about one percent each), while the 9-12 share will increase to about 35 percent.

Over the next ten years, both the K-4 (-412 students) and 5-8 (-155 students) cohorts are forecast to decline, totaling 11,510 and 10,499 students respectively. Strong losses in the K-4 grades during the first half of the period are not offset by the smaller gains that occur during the second half, while enrollment gains in the middle school cohort during the first 5-year period are completely offset by losses during the second 5-year period. Unlike the younger grades, the high school cohort is expected to grow throughout the projection period, gaining 1,038 students by 2028/29, although growth will be slightly stronger during the second 5-year period.

TABLE 15
HISTORICAL AND PROJECTED 40TH DAY ENROLLMENT BY LEVEL: 2000/01-2028/29

	Enrollment by Level				K-12 Total		
Fall	K-4	5-8	K-8	9-12	Enrollment	Change	% Change
2000/01	10,571	8,365	18,936	6,856	25,792		12.5%
2001/02	11,009	9,001	20,010	7,247	27,257	1,465	5.7%
2002/03	11,408	9,509	20,917	7,494	28,411	1,154	4.2%
2003/04	11,695	9,965	21,660	8,152	29,812	1,401	4.9%
2004/05	12,253	10,391	22,644	8,788	31,432	1,620	5.4%
2005/06	12,721	11,096	23,817	9,329	33,146	1,714	5.5%
2006/07	12,839	11,688	24,527	10,586	35,113	1,967	5.9%
2007/08	13,581	11,989	25,570	10,805	36,375	1,262	3.6%
2008/09	13,627	11,866	25,493	10,915	36,408	33	0.1%
2009/10	13,185	11,824	25,009	10,980	35,989	-419	-1.2%
2010/11	12,499	11,510	24,009	10,976	34,985	-1,004	-2.8%
2011/12	12,335	11,083	23,418	10,982	34,400	-585	-1.7%
2012/13	11,903	10,691	22,594	11,169	33,763	-637	-1.9%
2013/14	11,280	10,583	21,863	11,191	33,054	-709	-2.1%
2014/15	11,680	10,684	22,364	11,068	33,432	378	1.1%
2015/16	11,989	10,745	22,734	11,036	33,770	338	1.0%
2016/17	11,969	10,785	22,754	10,864	33,618	-152	-0.5%
2017/18	11,878	10,663	22,541	10,998	33,539	-79	-0.2%
2018/19	11,922	10,654	22,576	10,972	33,548	9	0.0%
2019/20	11,775	10,682	22,457	11,032	33,489	-59	-0.2%
2020/21	11,813	10,705	22,518	11,119	33,637	148	0.4%
2021/22	11,639	10,804	22,443	11,205	33,648	11	0.0%
2022/23	11,421	11,065	22,486	11,243	33,729	81	0.2%
2023/24	11,250	11,069	22,319	11,413	33,732	3	0.0%
2024/25	11,186	11,247	22,433	11,473	33,906	174	0.5%
2025/26	11,163	11,148	22,311	11,639	33,950	44	0.1%
2026/27	11,217	10,943	22,160	11,906	34,066	116	0.3%
2027/28	11,366	10,700	22,066	11,920	33,986	-80	-0.2%
2028/29	11,510	10,499	22,009	12,010	34,019	33	0.1%

Source: Applied Economics, 2019.
Bolding indicates actuals.

The distribution of enrollment by individual grade is shown in **Table 16,** which provides additional insight into enrollment patterns and the progressive impact of smaller or larger classes. If enrollment was evenly distributed, each K-12 grade would have 7.7 percent of the total. In 2000/01, grades 1st through 6th each had over eight percent of enrollment, while grade 12 only had 5.6 percent of the total. In 2018/19, Kindergarten through 3rd grade (K-3) each have about seven percent of total enrollment, while grades 7th to 12th have about eight percent; this clearly demonstrates the shift of enrollment to the older grades. This trend continues through 2028/29, at which point the upper grades are expected to each be around nine percent of the total, while the K-3 grades will be under seven percent each.

TABLE 16
HISTORICAL AND PROJECTED 40TH DAY ENROLLMENT BY GRADE: 2000/01-2028/29

Year	PS	K	1	2	3	4	5	6	7	8	9	10	11	12	K-12 Total	Percent Change
2000/01	125	1,996	2,051	2,142	2,207	2,175	2,134	2,150	2,039	2,042	2,039	1,764	1,600	1,453	25,792	
2001/02	174	1,911	2,295	2,202	2,221	2,380	2,300	2,346	2,242	2,113	2,122	1,951	1,667	1,507	27,257	5.7%
2002/03	267	2,061	2,274	2,399	2,298	2,376	2,457	2,409	2,352	2,291	2,113	2,050	1,799	1,532	28,411	4.2%
2003/04	233	1,988	2,439	2,336	2,523	2,409	2,468	2,551	2,502	2,444	2,373	2,101	1,961	1,717	29,812	4.9%
2004/05	258	2,210	2,319	2,532	2,503	2,689	2,537	2,630	2,647	2,577	2,527	2,376	2,053	1,832	31,432	5.4%
2005/06	321	2,236	2,584	2,514	2,736	2,651	2,851	2,708	2,762	2,775	2,706	2,536	2,206	1,881	33,146	5.5%
2006/07	352	2,195	2,513	2,645	2,783	2,703	2,938	2,833	3,033	2,884	2,853	2,906	2,514	2,313	35,113	5.9%
2007/08	266	2,538	2,532	2,713	2,854	2,944	2,866	3,083	2,986	3,054	3,000	2,766	2,696	2,343	36,375	3.6%
2008/09	261	2,669	2,658	2,576	2,786	2,938	2,986	2,878	3,042	2,960	3,008	2,862	2,574	2,471	36,408	0.1%
2009/10	308	2,462	2,692	2,624	2,589	2,818	2,919	2,990	2,922	2,993	2,934	2,897	2,684	2,465	35,989	-1.2%
2010/11	297	2,065	2,526	2,667	2,650	2,591	2,768	2,846	2,983	2,913	2,916	2,809	2,711	2,540	34,985	-2.8%
2011/12	343	2,136	2,338	2,585	2,649	2,627	2,523	2,734	2,863	2,963	2,841	2,847	2,712	2,582	34,400	-1.7%
2012/13	403	2,005	2,371	2,331	2,539	2,657	2,577	2,476	2,744	2,894	2,992	2,827	2,782	2,568	33,763	-1.9%
2013/14	412	1,939	2,190	2,293	2,350	2,508	2,611	2,588	2,619	2,765	2,854	2,979	2,696	2,662	33,054	-2.1%
2014/15	465	2,216	2,197	2,353	2,432	2,482	2,605	2,687	2,718	2,674	2,835	2,805	2,844	2,584	33,432	1.1%
2015/16	490	2,363	2,330	2,290	2,436	2,570	2,561	2,645	2,794	2,745	2,803	2,770	2,728	2,735	33,770	1.0%
2016/17	453	2,337	2,361	2,382	2,363	2,526	2,617	2,587	2,770	2,811	2,818	2,758	2,670	2,618	33,618	-0.5%
2017/18	434	2,331	2,327	2,347	2,459	2,414	2,577	2,607	2,704	2,775	2,917	2,766	2,708	2,607	33,539	-0.2%
2018/19	1,146	2,256	2,348	2,421	2,346	2,551	2,486	2,653	2,730	2,785	2,854	2,857	2,688	2,573	33,548	0.0%
2019/20	1,144	2,216	2,270	2,406	2,462	2,421	2,610	2,527	2,776	2,769	2,879	2,800	2,769	2,584	33,489	-0.2%
2020/21	1,149	2,166	2,254	2,351	2,473	2,569	2,504	2,682	2,673	2,846	2,893	2,840	2,721	2,665	33,637	0.4%
2021/22	1,149	2,106	2,203	2,334	2,416	2,580	2,656	2,572	2,836	2,740	2,973	2,854	2,759	2,619	33,648	0.0%
2022/23	1,152	2,044	2,150	2,290	2,408	2,529	2,678	2,739	2,730	2,918	2,873	2,938	2,776	2,656	33,729	0.2%
2023/24	1,152	2,073	2,080	2,228	2,355	2,514	2,617	2,753	2,899	2,800	3,051	2,835	2,855	2,672	33,732	0.0%
2024/25	1,158	2,115	2,123	2,169	2,306	2,473	2,617	2,707	2,931	2,992	2,945	3,020	2,759	2,749	33,906	0.5%
2025/26	1,160	2,150	2,158	2,206	2,236	2,413	2,565	2,697	2,872	3,014	3,136	2,910	2,937	2,656	33,950	0.1%
2026/27	1,164	2,182	2,190	2,238	2,271	2,336	2,499	2,639	2,857	2,948	3,154	3,096	2,829	2,827	34,066	0.3%
2027/28	1,161	2,211	2,219	2,267	2,300	2,369	2,415	2,567	2,790	2,928	3,079	3,111	3,008	2,722	33,986	-0.2%
2028/29	1,162	2,239	2,247	2,297	2,329	2,398	2,448	2,480	2,713	2,858	3,057	3,036	3,022	2,895	34,019	0.1%

Source: Applied Economics, 2019.

5.0 SUB-DISTRICT PROJECTIONS

Sub-District enrollment projections are based on the current number of students in each planning grid, the expected occupancy of existing housing units, the 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 levels 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 through 2028/29 for each of the planning grids have been developed.

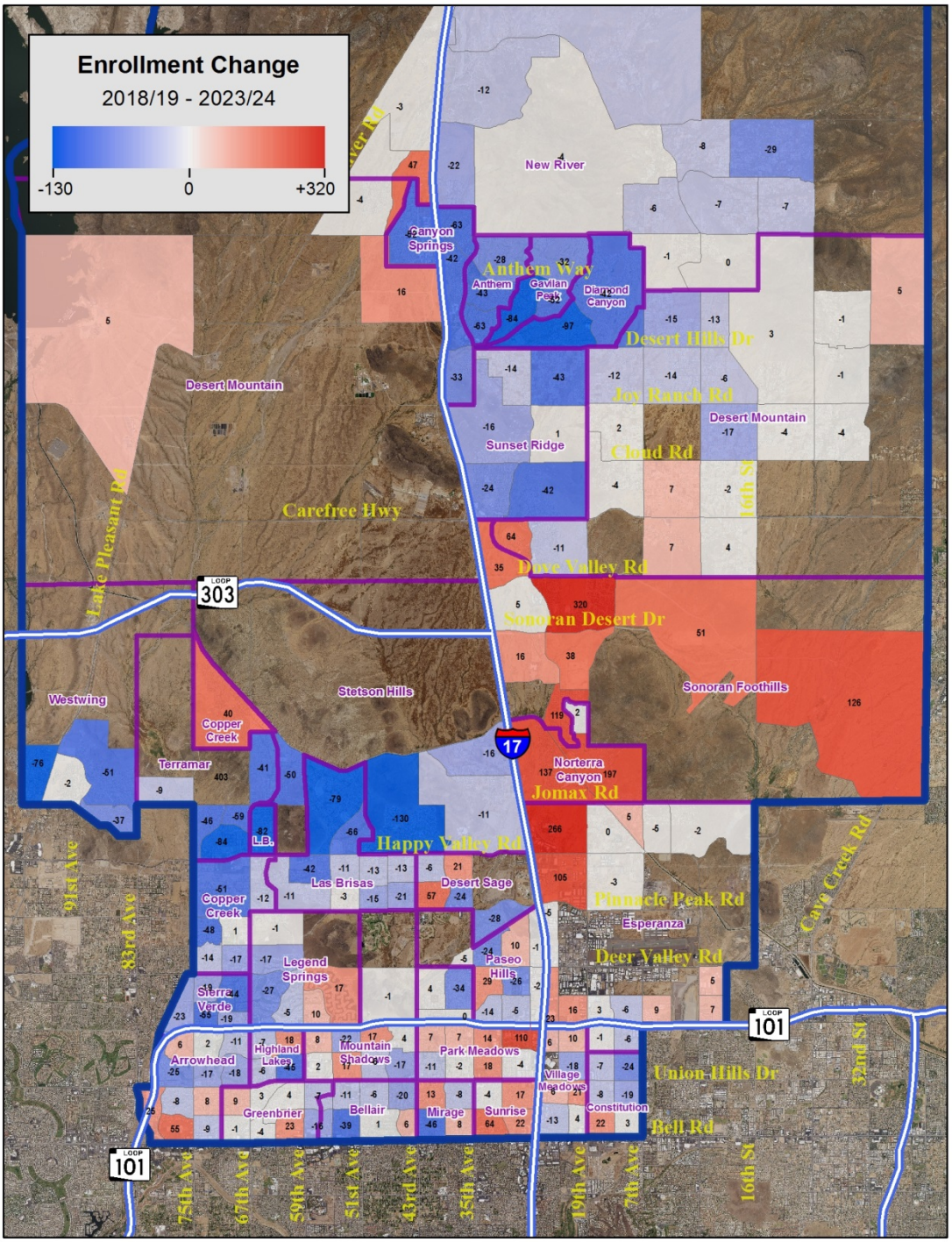
The grid-level projections are then aggregated by attendance area and compared with enrollment by school to provide a cross-check for the District enrollment projections. Matrices showing the relationship between where the students live and where they attend school are provided for elementary, middle, and high school grade levels. These relationships are combined with the attendance area projections to forecast enrollment by school.

5.1 ENROLLMENT PROJECTIONS BY PLANNING GRID & ATTENDANCE AREA

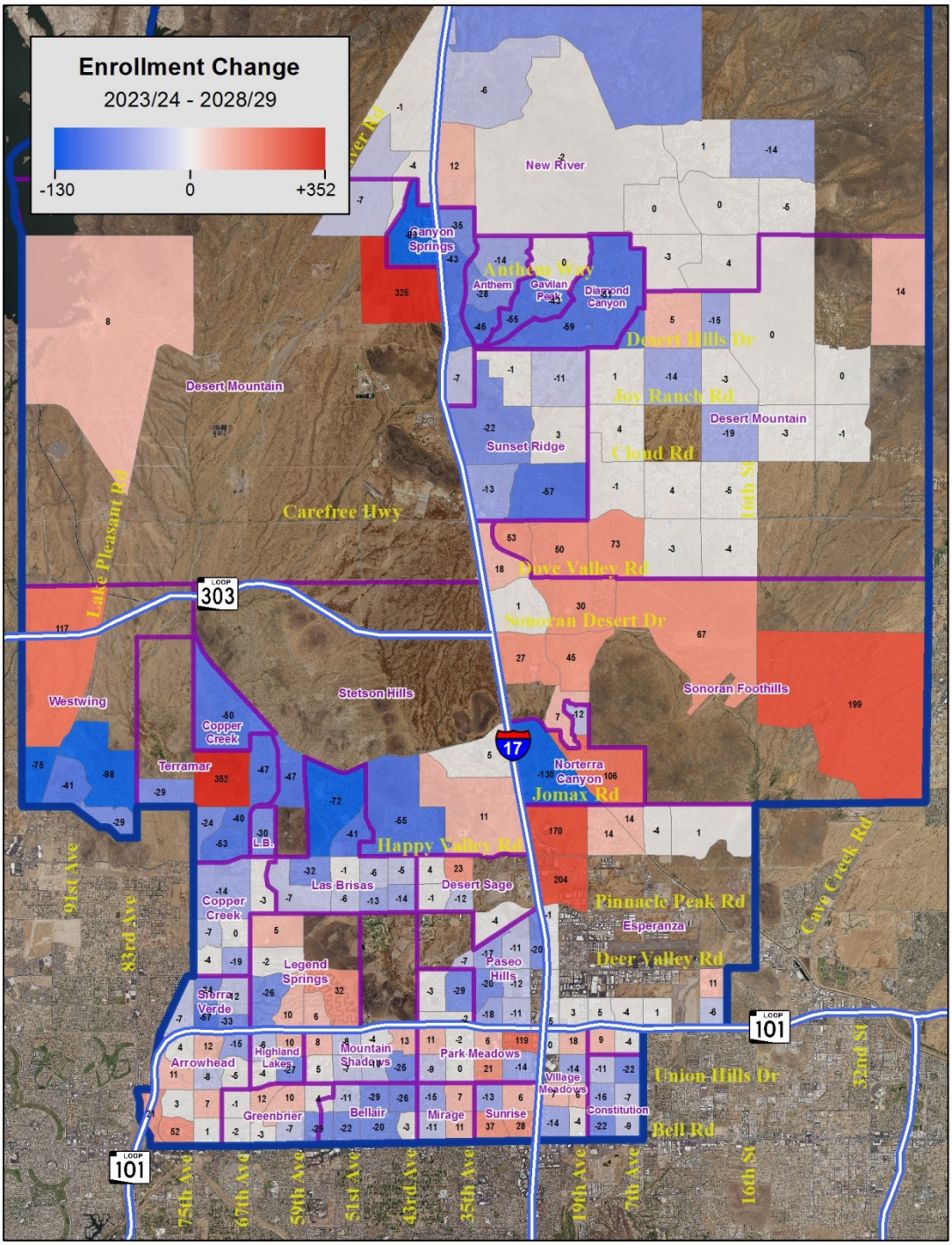
The projected changes in the number of students by grid over the next two five-year periods are depicted on **Maps 12 and 13**. The planning grids are color coded according to the degree of change, with increasing saturations of red for positive change and blue for negative change. During the first five-year period, from 2018/19 to 2023/24, the highest growth is expected near Jomax Road as residential development begins in Norterra West and north to Dove Valley Road in areas that have seen high growth levels in recent years. An additional growth area is expected in the western portion of the District around the Alora Vita and Sonoran Mountain Ranch developments. Declines are anticipated in older residential areas, including Anthem and Stetson Valley/Stetson Hills, while the southern portion of the District should see a mix of gains and losses as new infill projects partially offset aging neighborhoods.

The pattern is similar for the second five-year period, 2023/24 to 2028/29, with some losses in current growth areas due to aging, most notably just north of Jomax Road on the east side of I-17. The southern portion of the District should continue to be a mixture of aging and growth, and some pockets of growth appear in the western portion of the district, between Jomax Road and Dove Valley Road. There are a number of major employers in the southern part of the District, creating a strong base of both office and industrial jobs. This portion of the District consists of smaller subdivisions that were developed over time, and the older, more affordable housing helps to create some stability in the school-age. Therefore, grids in this area have different levels of age and household composition, which helps to explain the “patchwork” appearance of enrollment growth in the area.

MAP 12
PROJECTED ENROLLMENT CHANGE BY PLANNING GRID: 2018/19 – 2023/24



MAP 13
PROJECTED ENROLLMENT CHANGE BY PLANNING GRID: 2023/24 – 2028/29



The primary and secondary school attendance areas used to aggregate the planning grid-level projections for the District are shown on **Maps 14A and 14B**. In the secondary map, the District's middle school attendance areas are outlined and labeled, while the high school attendance areas are shaded and keyed to the legend.

Table 17 displays the projected enrollment by attendance area through 2028/29 based on current student data and the demographic trends observed in the District. Enrollment is presented for each level (elementary, middle and high school) based 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 of the District boundaries is also included. It is important to note that current attendance area boundaries were applied to historical data for comparison purposes, including estimates for Sonoran Foothills.

Attendance area enrollment is color coded by size, relative to the average size (in students) of the attendance areas 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 attendance area. Changes by 5-year period are also provided to highlight these trends.

Kindergarten to 6th grade (K-6) enrollment during the first five- year projection period is forecast to decline by about three percent, or nearly 600 students. Large enrollment increases, however, are expected in the Esperanza and Sonoran Foothills attendance areas, each with over 30 percent growth in enrollment. Both the Terramar attendance area and out-of-District enrollment are projected to grow by 14 percent during the first 5-year period. Numerous areas are projected to experience declines of 15 percent or more during this period; the largest declines in the next five years are expected in the Bellair (32 percent), Westwing (27 percent), Gavilan Peak (20 percent) and Anthem (19 percent) attendance areas.

In the second five-year period, the Desert Mountain attendance area will see the largest increase (43 percent), while Esperanza and Sonoran Foothills are each expected to grow by more than 15 percent. The largest decline in elementary enrollment in the second half of the projection period are expected at Sierra Verde (22 percent), and both the Constitution and Paseo Hills areas will decline by more than 15 percent. Out-of-District K-6 enrollment during this period is projected to decrease slightly (just 31 students).

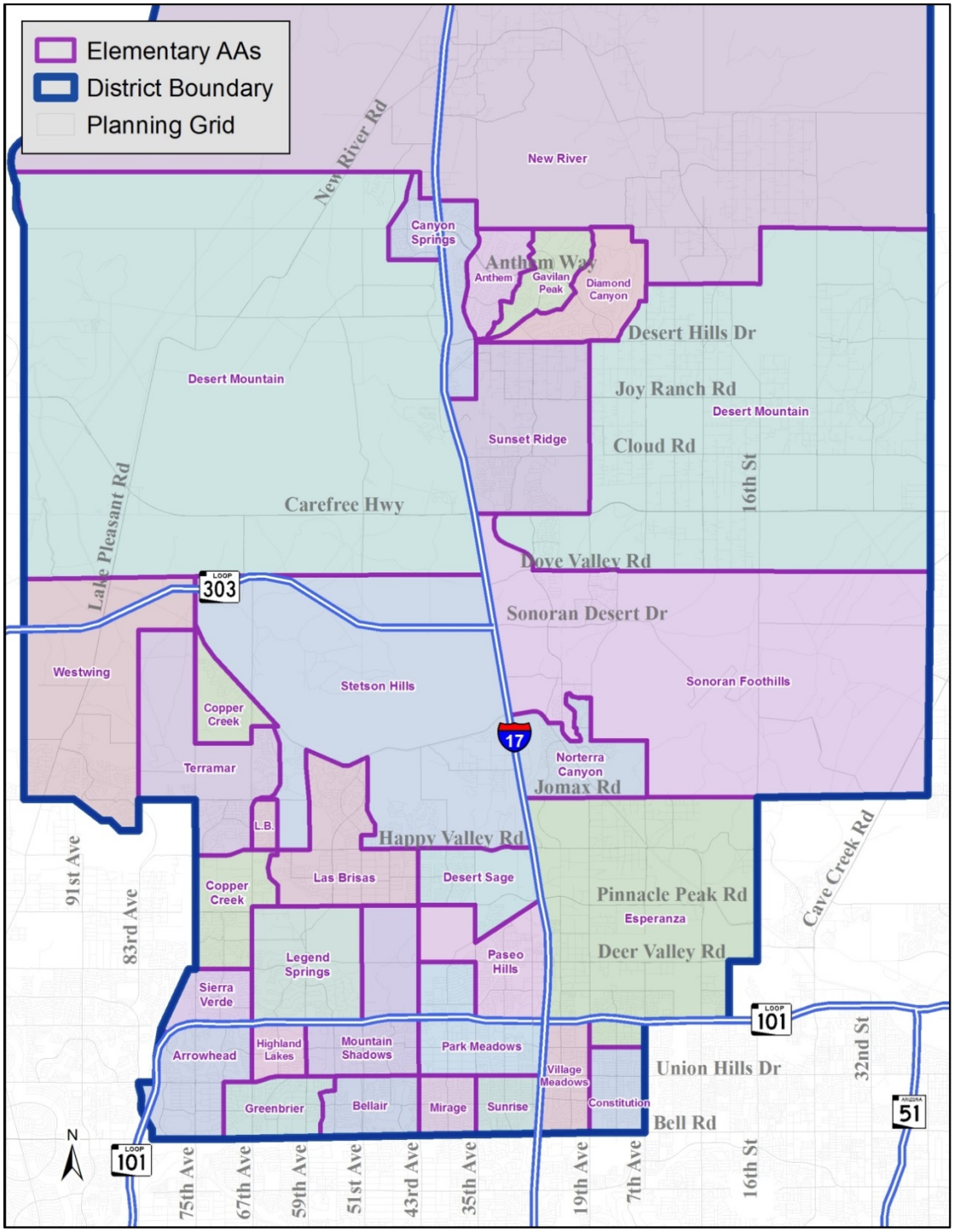
Overall, elementary enrollment is expected to fall by 845 students over the next ten years. The Canyon Springs, Las Brisas, Paseo Hills, Sierra Verde, and West Wing attendance areas are all expected to lose 200 students or more, while Bellair and Constitution will each lose about 180 students. Sonoran Foothills is expected to gain over 500 students, and the Esperanza attendance area will grow by 320 K-6 students by 2028/29.

In the middle school attendance areas, growth of 231 students over ten years in the Deer Valley Middle School attendance area is expected to be offset somewhat by a loss of 152 students in the Hillcrest area. Middle school enrollment losses during the projection period are further offset by out-of-District enrollment growth of 176 students over ten years. Overall, middle school enrollment is projected to increase by about 280 students by 2028/29.

Changes in the high school attendance areas are expected to be more dramatic during the projection period. Significant growth in the Barry Goldwater attendance area is anticipated, adding more than 1,500 students over the 10-year period. These gains more than offset losses in the Boulder Creek (-492 students) and Mountain Ridge (-336 students) areas during the same time period; after declining for the past six years, enrollment in the Deer Valley high school attendance area is projected to grow slightly (95 students), while the Sandra Day attendance area will decline by about 70 students. Out-of-District

enrollment is projected to increase throughout the projection period, but growth will be particularly strong during the second 5-year period; by 2028/29, out-of-District enrollment is expected to increase by nearly 320 students. Overall, the high school attendance areas are expected to gain 1,038 students in the next ten years.

MAP 14A
2017/18 ELEMENTARY ATTENDANCE AREAS



MAP 14B
2017/18 SECONDARY ATTENDANCE AREAS

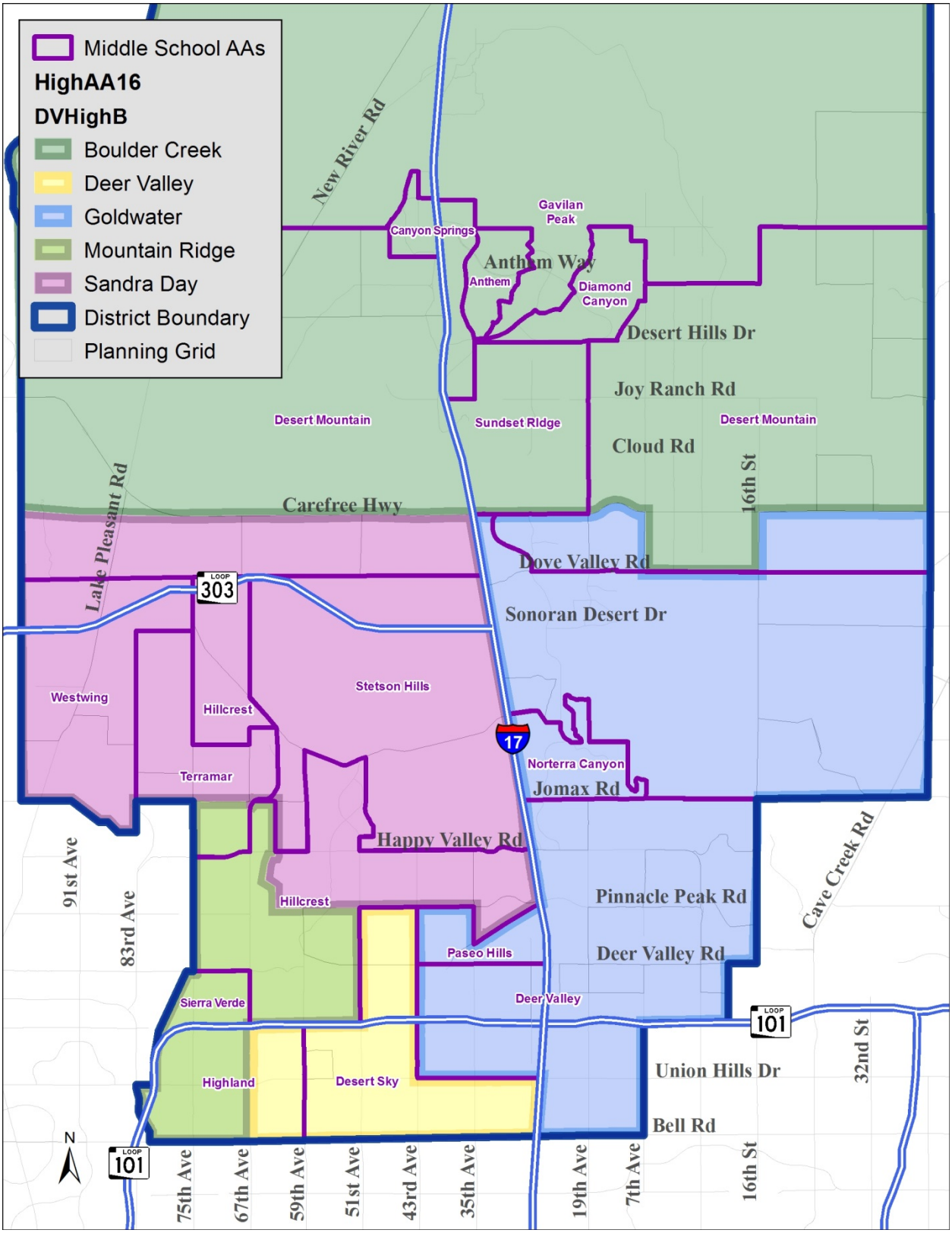


TABLE 17
STUDENTS BY ATTENDANCE AREA: 2013/14 - 2028/29

	Actual						Projected										Change		
Attendance Area*	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	'13-'18	'18-'23	'23-'28
Elementary School																			
Anthem Elem	533	558	494	469	453	422	400	387	364	343	342	324	313	310	305	299	-21%	-19%	-13%
Arrowhead	599	631	620	631	597	603	588	598	606	626	633	642	638	645	654	666	1%	5%	5%
Bellair	411	452	451	446	467	469	436	406	376	354	318	313	312	302	296	293	14%	-32%	-8%
Canyon Springs	1,131	1,131	1,143	1,141	1,057	1,055	1,016	986	948	923	900	881	852	839	822	806	-7%	-15%	-10%
Constitiution	773	766	694	680	670	738	725	710	680	681	656	643	607	588	570	555	-5%	-11%	-15%
Copper Creek	667	633	677	662	685	679	693	695	684	673	651	638	628	616	609	605	2%	-4%	-7%
Desert Mountain	743	748	764	762	796	800	786	773	755	758	762	839	932	1,009	1,045	1,091	8%	-5%	43%
Desert Sage	514	556	558	576	567	596	611	627	630	629	610	598	580	568	558	551	16%	2%	-10%
Diamond Canyon	829	852	841	810	774	718	698	694	668	667	627	615	603	590	573	560	-13%	-13%	-11%
Esperanza	549	540	519	601	593	611	637	689	739	797	809	839	863	886	904	931	11%	32%	15%
Gavilan Peak	611	615	616	573	529	499	478	468	462	434	400	381	376	371	359	347	-18%	-20%	-13%
Greenbrier	300	335	312	305	293	278	284	295	302	301	301	303	300	300	301	304	-7%	8%	1%
Highland Lakes	569	559	579	548	542	593	593	567	552	550	550	564	576	573	553	543	4%	-7%	-1%
Las Brisas	1,055	1,090	1,076	1,048	1,018	1,010	964	937	915	889	854	830	818	799	786	778	-4%	-15%	-9%
Legend Springs	384	398	417	403	378	373	375	373	387	375	375	372	376	376	380	386	-3%	1%	3%
Mirage	435	425	413	414	414	419	426	437	439	432	392	388	383	373	366	362	-4%	-6%	-8%
Mountain Shadows	468	478	492	517	534	502	508	500	499	499	490	469	465	458	452	450	7%	-2%	-8%
New River	352	368	377	345	350	376	367	359	331	326	317	327	325	325	323	322	7%	-16%	1%
Norterra Canyon	747	851	836	852	856	876	913	976	973	962	942	942	923	908	904	894	17%	8%	-5%
Park Meadows	500	539	540	544	536	513	531	540	542	550	552	544	545	547	552	561	3%	8%	2%
Paseo Hills	937	910	914	896	898	909	889	888	875	866	848	817	799	767	735	709	-3%	-7%	-16%
Sierra Verde	617	639	650	680	703	689	662	645	626	617	603	568	534	503	491	470	12%	-13%	-22%
Sonoran Foothills	519	513	624	713	745	805	878	902	958	1,051	1,145	1,209	1,240	1,256	1,301	1,349	55%	42%	18%
Stetson Hills	799	794	792	782	765	703	665	636	618	612	587	581	564	559	555	550	-12%	-16%	-6%
Sunrise	492	511	544	546	538	532	548	564	556	572	576	562	555	552	551	552	8%	8%	-4%
Sunset Ridge	793	790	825	798	800	733	698	689	670	641	609	611	604	586	589	585	-8%	-17%	-4%
Terramar	876	933	960	968	986	1,006	985	1,016	1,043	1,090	1,143	1,147	1,198	1,227	1,250	1,264	15%	14%	11%
Village Meadows	438	482	492	483	475	453	435	435	444	441	435	436	432	430	432	436	3%	-4%	0%
Westwing School	960	961	965	905	894	885	825	775	739	708	642	618	610	597	616	626	-8%	-27%	-2%
Out Of District	777	914	1,074	1,147	1,226	1,308	1,367	1,431	1,452	1,493	1,493	1,487	1,460	1,456	1,455	1,462	68%	14%	-2%
Total	19,378	19,972	20,259	20,245	20,139	20,153	19,982	19,996	19,835	19,857	19,563	19,489	19,412	19,316	19,285	19,308	4%	-3%	-1%

Source: Applied Economics, January 2019.
* Count based on the number of students by place of residence using 2017/18 attendance areas for all years.
Bold indicates a K-8 school.

TABLE 17 (Continued)
STUDENTS BY ATTENDANCE AREA: 2013/14 - 2028/29

	Actual						Projected										Change		
Attendance Area*	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	'13-'18	'18-'23	'23-'28
Middle School																			
Deer Valley Middle	690	660	644	644	605	598	645	707	718	712	774	852	862	864	843	829	-13%	29%	7%
Desert Sky Middle	619	630	654	630	588	565	580	608	642	632	656	694	638	615	613	588	-9%	16%	-10%
Hillcrest Middle	952	925	927	978	939	940	901	853	840	854	886	897	861	835	821	788	-1%	-6%	-11%
Out Of District	225	246	249	257	270	320	350	355	408	431	440	501	538	531	504	496	42%	38%	13%
Total	2,485	2,461	2,474	2,509	2,402	2,423	2,475	2,522	2,608	2,629	2,756	2,944	2,899	2,844	2,781	2,701	-3%	14%	-2%
High School																			
Barry Goldwater	2,057	2,072	2,097	2,004	2,128	2,116	2,243	2,414	2,581	2,806	3,001	3,131	3,278	3,441	3,542	3,637	3%	42%	21%
Boulder Creek	2,555	2,630	2,521	2,533	2,566	2,530	2,582	2,467	2,440	2,359	2,313	2,266	2,183	2,125	2,050	2,038	-1%	-9%	-12%
Deer Valley	1,683	1,659	1,573	1,453	1,448	1,413	1,337	1,348	1,341	1,365	1,422	1,426	1,488	1,516	1,498	1,508	-16%	1%	6%
Mountain Ridge	2,158	2,034	2,038	1,953	1,892	1,834	1,809	1,768	1,728	1,636	1,530	1,495	1,477	1,494	1,517	1,498	-15%	-17%	-2%
Sandra Day	2,319	2,299	2,308	2,308	2,295	2,349	2,398	2,459	2,442	2,386	2,371	2,353	2,343	2,382	2,313	2,280	1%	1%	-4%
Out Of District	418	479	474	613	669	730	664	663	673	690	776	803	869	949	1,000	1,049	75%	6%	35%
Total	11,191	11,173	11,011	10,864	10,998	10,972	11,032	11,119	11,205	11,243	11,413	11,473	11,639	11,906	11,920	12,010	-2%	4%	5%

Source: Applied Economics, January 2019.
* Count based on the number of students by place of residence using 2017/18 attendance areas for all years.

5.2 ENROLLMENT BY ATTENDANCE AREA VERSUS SCHOOL

In order to convert 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 18**, **Table 19**, and **Table 20** display the distribution of enrollment by school versus enrollment by attendance area for elementary (K-6), middle (7-8) and high school students. 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 retaining students within their own attendance area and attracting students from outside their attendance area.

Reading the table across shows the number of students attending a school from each attendance area (listed by initials 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 Arrowhead Elementary, there are 423 students enrolled who also live within the Arrowhead attendance area. There are 9 students at Arrowhead who reside in the Bellair attendance area, 6 from Copper Creek, and so on. There are also 54 students who attend Arrowhead from outside the District, resulting in a total enrollment of 538 students. The Arrowhead attendance area contains a student population of 603, although 1 attends Bellair, 7 are at Copper Creek, and so forth. Arrowhead has a net loss of 65 students, or about 11 percent of the resident K-6 student population.

Overall, about 78 percent of the elementary school students living within District boundaries attended their designated school in the 2018/19 school year, while roughly 82 percent of 7th and 8th grade students attended their designated middle school. At the high school level that share jumps to about 86 percent. The lower rate of attendance at designated schools at the elementary level is likely due to the greater number of educational options for families and the shorter distances between neighboring schools. Schools near the District boundaries also are also more likely to have cross-enrollment with schools in neighboring districts.

The net difference between each school's enrollment and the number of students that reside within the attendance area provides an estimate of in- and out-migration impacts on enrollment. Among elementary schools, Highland Lakes has the largest net gain in enrollment from outside its attendance area with 454 additional K-6 students, including 128 students from outside of the District. Legend Springs, Sierra Verde, and Stetson Hills each have net gains of over 200 students. Highland Lakes, Legend Springs, Stetson Hills, Sierra Verde, and West Wing all retain over 90 percent of their attendance area students. Las Brisas had the largest loss of students with 243 attending schools outside of the attendance area, followed by Desert Mountain (-160 students) and Canyon Springs (-190 students). New River only had a loss of 131 students, but that represents 35 percent of the attendance area student population.

At the middle school level, Norterra Canyon, Sonoran Foothills, Stetson Hills, Sierra Verde and Westwing all retain 90 percent or more of their resident students, while Anthem and Canyon Springs each hold 65 and 56 percent, respectively. Highland Lakes has the largest gain of 110 students, including 51 from outside of the attendance area. Among the high schools, Boulder Creek retains the highest share of its resident population (95 percent), followed by Mountain Ridge (91 percent), Deer Valley High School (88 percent) and Sandra Day (84 percent); Barry Goldwater has a retention rate of just 71 percent and a loss of 422 students. Mountain Ridge had a net gain of 515 9-12 students, 238 of which were from outside of its attendance area. The net gain at Deer Valley High School (236 students) was due almost entirely to students from outside of its attendance area (235).

TABLE 18
SCHOOL VERSUS ATTENDANCE AREA ENROLLMENT (K-6th GRADE): 2018/19

School	Code	Attendance Area																													Total	Total		%
		AEE	ANE	BEE	CCE	COE	CSE	DCS	DME	DSE	ESE	GBE	GPE	HLE	LBE	LEG	MEE	MSE	NOR	NRE	PHE	PME	SEE	SFS	SRE	STE	SVE	TER	VME	WWE	Outside	Attend	Reside	Diff.	Diff
Arrowhead	AEE	423		9	6		1			3	1	10		2	2	1	3	11				1	3				6	1		1	54	538	603	-65	-11%
Anthem Elem	ANE		188			1	124	21	8				6							29	1			2	5						14	399	304	95	31%
Bellair	BEE	1		310		3					4	11				1	16	17		1	2	3	16						2		81	468	469	-1	0%
Copper Creek	CCE	7		4	527	2			2			2		1	12	1	1	5		1	2	2	1	1	1		9	22	3	6	66	678	679	-1	0%
Constitiution	COE			1		572					14						1	1			3		5						14	1	37	649	738	-89	-12%
Canyon Springs	CSE		18				454	21	12	5			11		5			2	9	35	2			15	8	2		3		5	7	614	766	-152	-20%
Diamond Canyon	DCS		36				84	447	4				56		1				1	30				3	10						10	682	542	140	26%
Desert Mountain	DME						1	2	376		1		1						2	14	3	2		3	14			1			5	425	585	-160	-27%
Desert Sage	DSE			2	4	1			1	495	10	2		1	15	2	3	7	6	1	22	9		2	1	6		9	5		19	623	596	27	5%
Esperanza	ESE					77				1	465							2			4	1	2	1					4		10	567	611	-44	-7%
Greenbrier	GBE	5		41	2						3	167		2	1	1	4	12			4		4				2				105	353	278	75	27%
Gavilan Peak	GPE		51				78	45	13		1		189					1		30				4	23				2		9	446	269	177	66%
Highland Lakes	HLE	81	2	43	7	6		1	1	5	2	63		210	23	8	9	24	3	1	7	10	6	6	2	4	8	15	2	4	128	681	227	454	200%
Las Brisas	LBE	1		2	8	1			1	3	2	1			714	1					3			1		2		10		2	15	767	1,010	-243	-24%
Legend Springs	LEG	43		13	28	1				8		8	1	6	51	338	6	29	2		8	7			1	4	4	30		3	107	698	373	325	87%
Mirage	MEE			12	2	2				1	1	3			2		338	6	1		3	2	31						7		64	475	419	56	13%
Mountain Shadows	MSE	1		3		3				2	3						11	356			3	8	3		2		1		6		33	435	502	-67	-13%
Norterra Canyon	NOR				8	1			17	4	20		1		3		1	2	600		5		2	34	4	1			1		18	722	687	35	5%
New River	NRE		2					2	3											223											15	245	376	-131	-35%
Paseo Hills	PHE					3				3	22							3	3		558	13	1	1	2	1			6		21	637	700	-63	-9%
Park Meadows	PME			7		16					14				3		14	15	1		44	439	13						8		68	642	513	129	25%
Sunrise	SEE			1		9					2	2					2				2		433						4		54	509	532	-23	-4%
Sonoran Foothills	SFS		1	1	1		7	1	110	1	11	1	2		4				39	1	2			547	24	4	1	2			10	770	635	135	21%
Sunset Ridge	SRE		5				13	1	32	1	2								1	8	2			10	428			2	1		7	513	529	-16	-3%
Stetson Hills	STE	1	1	4	11	1			5	54	13	1	1	1	111	2	1	1	17		6	5	2	3	4	457		14	1	6	21	744	492	252	51%
Sierra Verde	SVE	30		11	24					3	2	7		4	16	16	3	7			4	4				4	484	26		4	129	778	516	262	51%
Terramar	TER	6			38					5					35	1		1			2	2	1			1		565	1	8	44	710	730	-20	-3%
Village Meadows	VME					35					9										3	1	6						380		38	472	453	19	4%
Westwing School	WWE	3		1	11						2				10											4		29		576	119	755	619	136	22%
Other		1	0	4	2	4	4	1	0	2	7	0	1	0	2	1	6	0	2	2	5	4	3	2	0	2	1	1	6	3	0	66	0	66	
Total Reside		603	304	469	679	738	766	542	585	596	611	278	269	227	1,010	373	419	502	687	376	700	513	532	635	529	492	516	730	453	619	1,308	17,061	15,753	1,308	8%
Attend = Reside:		70%	62%	66%	78%	78%	59%	82%	64%	83%	76%	60%	70%	93%	71%	91%	81%	71%	87%	59%	80%	86%	81%	86%	81%	93%	94%	77%	84%	93%		12,259	77.8%		

Sources: Deer Valley Unified School District; Applied Economics, 2019.

TABLE 19
SCHOOL VERSUS ATTENDANCE AREA ENROLLMENT (7TH-8th GRADE): 2018/19

School Name	Code	Attendance Area																	Total Attend	Total Reside	Diff.
		ANE	CSE	DCS	DME	DSM	DVM	GPE	HCM	HLE	NOR	PHE	SFS	SRE	STE	SVE	TER	WWE	Outside			
Anthem Elem	ANE	77	53	8	5			10					1	3					1	158	118	40
Canyon Springs	CSE	3	163	4	5			11	3		2			4	3					198	289	-91
Diamond Canyon	DCS	11	28	144	4			31	1					4						223	176	47
Desert Mountain	DME	1	3		157		2	2			1	1	1	6					1	175	215	-40
Desert Sky Middle	DSM					485	23		2	7		3		1					83	604	565	39
Deer Valley Middle	DVM					8	510					42							21	581	598	-17
Gavilan Peak	GPE	20	29	16	3		3	170	1	1			1	6					3	253	230	23
Hillcrest Middle	HCM				1	14	4	1	780	25		5	1		6	14	40	12	68	971	940	31
Highland Lakes	HLE			2		43	6		34	311	3	1		2	2	2	14	5	51	476	366	110
Norterra Canyon	NOR		3		3	1	7		4		171	1	2		3				8	203	189	14
Paseo Hills	PHE					3	17		2			150	1		1				4	178	209	-31
Sonoran Foothills	SFS	2	1		31	1	2				6		155	8	1				2	209	170	39
Sunset Ridge	SRE	2	5	2	6		4	4	1		1		6	168					1	200	204	-4
Stetson Hills	STE					3	4	1	56		2	1	1		189		3		5	265	211	54
Sierra Verde	SVE					5	4		23	16		2			2	155	3		41	251	173	78
Terramar	TER								27	5					3		205	2	6	248	276	-28
Westwing School	WWE								4								11	247	25	287	266	21
Other		2	4	0	0	2	12	0	2	1	3	3	1	2	1	2	0	0	0	35	0	35
Total Reside:		118	289	176	215	565	598	230	940	366	189	209	170	204	211	173	276	266	320	5,515	5,195	320
Attend = Reside:		65%	56%	82%	73%	86%	85%	74%	83%	85%	90%	72%	91%	82%	90%	90%	74%	93%		4,237	81.6%	

Sources: Deer Valley Unified School District; Applied Economics, 2019.

TABLE 20
SCHOOL VERSUS ATTENDANCE AREA ENROLLMENT (9TH-12th GRADE): 2018/19

School	Code	Attendance Area						Total Attend	Total Reside	Diff.
		BCH	BGH	DVH	MRH	SDH	Outside			
Boulder Creek	BCH	2,401	136	5		3	65	2,610	2,530	80
Barry Goldwater	BGH	33	1,495	34	8	25	99	1,694	2,116	-422
Deer Valley	DVH	4	92	1,238	54	26	235	1,649	1,413	236
Mountain Ridge	MRH	3	53	91	1,672	292	238	2,349	1,834	515
Sandra Day	SDH	62	316	28	84	1,981	89	2,560	2,349	211
Other		27	24	17	16	22	4	110	0	110
Total Reside		2,530	2,116	1,413	1,834	2,349	730	10,972	10,242	730
Attend = Reside:		95%	71%	88%	91%	84%		8,787	85.8%	

Sources: Deer Valley Unified School District; Applied Economics, 2019.

Table 21 shows the pattern of attendance versus residence over the past four years. The opening of Sonoran Foothills in 2015/16 created a new factor in these relationships, likely impacting Esperanza and Paseo Hills, and possibly Desert Mountain. Notable positive differences have been seen at Highland Lakes, Legend Springs, Stetson Hills and Sierra Verde in each of the past four years. The positive net difference at Anthem Elementary has fallen from 185 students in 2015-16 to 95 students this year, and increasing losses can be seen at Constitution and Desert Mountain. Overall, the attend-reside ratio for elementary schools has dropped two percent in the past four years (from 80.0 to 77.8 percent).

TABLE 21
TOTAL ENROLLMENT ATTENDANCE VERSUS RESIDENCE

	2015-16		2016-17		2017-18		2018-19		Difference			
School	Attend	Reside	Attend	Reside	Attend	Reside	Attend	Reside	2015-16	2016/17	2017/18	2018/19
Arrowhead	579	620	563	631	541	597	538	603	-41	-68	-56	-65
Anthem Elem	533	348	519	342	426	329	399	304	185	177	97	95
Bellair	460	451	473	446	463	467	468	469	9	27	-4	-1
Copper Creek	708	677	709	662	689	683	678	679	31	47	6	-1
Constitiution	607	620	585	595	583	596	649	738	-13	-10	-13	-89
Canyon Springs	608	877	595	853	571	761	614	766	-269	-258	-190	-152
Diamond Canyon	764	616	760	598	729	571	682	542	148	162	158	140
Desert Mountain	474	554	449	550	430	578	425	585	-80	-101	-148	-160
Desert Sage	574	558	611	576	604	567	623	596	16	35	37	27
Esperanza	489	593	553	686	552	667	567	611	-104	-133	-115	-44
Greenbrier	365	312	369	305	374	293	353	278	53	64	81	75
Gavilan Peak	516	335	464	309	455	280	446	269	181	155	175	177
Highland Lakes	635	211	664	194	684	212	681	227	424	470	472	454
Las Brisas	848	1,076	804	1,048	778	1,018	767	1,010	-228	-244	-240	-243
Legend Springs	680	417	645	403	654	378	698	373	263	242	276	325
Mirage	444	413	479	414	467	414	475	419	31	65	53	56
Mountain Shadows	464	492	439	517	454	534	435	502	-28	-78	-80	-67
Norterra Canyon	726	688	712	640	733	699	722	687	38	72	34	35
New River	239	377	214	345	231	350	245	376	-138	-131	-119	-131
Paseo Hills	732	707	696	689	665	700	637	700	25	7	-35	-63
Park Meadows	565	540	598	544	638	536	642	513	25	54	102	129
Sunrise	563	544	556	546	531	538	509	532	19	10	-7	-23
Sonoran Foothills	513	510	604	621	694	606	770	635	3	-17	88	135
Sunset Ridge	623	602	574	576	549	573	513	529	21	-2	-24	-16
Stetson Hills	805	584	800	558	776	543	744	492	221	242	233	252
Sierra Verde	754	495	756	500	785	514	778	516	259	256	271	262
Terramar	644	704	671	720	697	718	710	730	-60	-49	-21	-20
Village Meadows	470	492	472	483	479	475	472	453	-22	-11	4	19
Westwing School	780	709	777	675	769	637	755	619	71	102	132	136
Other	34	0	62	0	59	0	66	0	34	62	59	66
Total	17,196	16,122	17,173	16,026	17,060	15,834	17,061	15,753	1,074	1,147	1,226	1,308
Attend = Reside:		80.0%		80.0%		78.4%		77.8%				

Sources: Deer Valley Unified School District; Applied Economics, 2019.

At the middle school level, Highland Lakes has seen the strongest out-of-area enrollment, with a net difference of more than 100 students in each of the past four years. Sonoran Foothills has seen their net difference change from a loss of 56 students in 2015/16 to a gain of 39 students this year. Overall, the attend-reside rate at the middle school level has dropped from 83.0 percent 81.6 percent in the past four years.

Differences at the high schools show a strong negative trend at Barry Goldwater, while significant increases in the retention rate have been experienced at Mountain Ridge. Overall, the high school attend-reside ratio has declined from 90.0 percent to 85.8 percent over the past four years.

TABLE 21 (continued)
TOTAL ENROLLMENT ATTENDANCE VERSUS RESIDENCE

GRADES 7-8

	2015-16		2016-17		2017-18		2018-19		Difference			
School Name	Attend	Reside	Attend	Reside	Attend	Reside	Attend	Reside	2015-16	2016-17	2017-18	2018-19
Anthem Elem	208	146	181	127	171	124	158	118	62	54	47	40
Canyon Springs	177	266	206	288	220	296	198	289	-89	-82	-76	-91
Diamond Canyon	267	225	257	212	244	203	223	176	42	45	41	47
Desert Mountain	192	210	191	212	172	218	175	215	-18	-21	-46	-40
Desert Sky Middle	696	654	674	630	631	588	604	565	42	44	43	39
Deer Valley Middle	597	644	590	644	554	605	581	598	-47	-54	-51	-17
Gavilan Peak	261	281	250	264	270	249	253	230	-20	-14	21	23
Hillcrest Middle	984	927	1,002	978	967	939	971	940	57	24	28	31
Highland Lakes	500	368	484	354	452	330	476	366	132	130	122	110
Norterra Canyon	181	148	150	140	167	157	203	189	33	10	10	14
Paseo Hills	213	207	209	207	187	198	178	209	6	2	-11	-31
Sonoran Foothills	58	114	149	164	161	139	209	170	-56	-15	22	39
Sunset Ridge	248	223	232	222	224	227	200	204	25	10	-3	-4
Stetson Hills	264	208	283	224	270	222	265	211	56	59	48	54
Sierra Verde	228	155	253	180	258	189	251	173	73	73	69	78
Terramar	188	256	194	248	237	268	248	276	-68	-54	-31	-28
Westwing School	260	256	252	230	272	257	287	266	4	22	15	21
Other	15	0	24	0	22	0	35	0	15	24	22	35
Total	5,537	5,288	5,581	5,324	5,479	5,209	5,515	5,195	249	257	270	320
Attend = Reside:		83.0%		83.0%		82.1%		81.6%				

Sources: Deer Valley Unified School District; Applied Economics, 2019.

GRADES 9-12

	2015-16		2016-17		2017-18		2018-19		Difference			
School	Attend	Reside	Attend	Reside	Attend	Reside	Attend	Reside	2015-16	2016-17	2017-18	2018-19
Boulder Creek	2,578	2,521	2,586	2,533	2,650	2,566	2,610	2,530	57	53	84	80
Barry Goldwater	1,872	2,097	1,739	2,004	1,786	2,128	1,694	2,116	-225	-265	-342	-422
Deer Valley	1,813	1,573	1,713	1,453	1,729	1,448	1,649	1,413	240	260	281	236
Mountain Ridge	2,280	2,038	2,310	1,953	2,303	1,892	2,349	1,834	242	357	411	515
Sandra Day	2,437	2,308	2,384	2,308	2,442	2,295	2,560	2,349	129	76	147	211
Other	31	0	132	0	88	0	110	0	31	132	88	110
Total	11,011	10,537	10,864	10,251	10,998	10,329	10,972	10,242	474	613	669	730
Attend = Reside:		90.0%		90.0%		87.9%		85.8%				

Sources: Deer Valley Unified School District; Applied Economics, 2019.

Table 22 shows attend-reside data for the District high school attendance areas over the past four years. While most of the schools have fairly stable levels of enrollment shifts between other attendance areas, there are some trends that should be noted. Mountain Ridge has been taking in an increasing number of students from the Sandra Day O'Conner attendance area, while Sandra Day O'Conner has been receiving more students from Barry Goldwater. It is also worth noting that there have been an increasing number of out-of-district students attending Deer Valley and Mountain Ridge.

TABLE 22
HIGH SCHOOL ENROLLMENT VERSUS ATTENDANCE AREA ENROLLMENT

	Attendance Areas						
Schools	Barry Goldwater	Boulder Creek	Deer Valley	Mountain Ridge	Sandra Day	Out of District	Total
Barry Goldwater							
2014-15	1,648	53	42	22	23	74	1,862
2015-16	1,697	48	36	16	25	50	1,872
2016-17	1,559	41	28	20	23	68	1,739
2017-18	1,606	35	36	13	19	77	1,786
2018-19	1,495	33	34	8	25	99	1,694
Boulder Creek							
2014-15	85	2,499		1	1	55	2,641
2015-16	101	2,419	1	1	4	52	2,578
2016-17	106	2,410		2	5	63	2,586
2017-18	131	2,455		1	5	58	2,650
2018-19	136	2,401	5		3	65	2,610
Deer Valley High							
2014-15	85	4	1,499	75	20	174	1,857
2015-16	80	4	1,428	79	33	189	1,813
2016-17	83	4	1,294	61	36	235	1,713
2017-18	92	6	1,292	55	30	254	1,729
2018-19	92	4	1,238	54	26	235	1,649
Mountain Ridge							
2014-15	33	6	78	1,835	133	120	2,205
2015-16	37	6	83	1,859	167	128	2,280
2016-17	37	5	94	1,778	211	185	2,310
2017-18	42	7	83	1,731	236	204	2,303
2018-19	53	3	91	1,672	292	238	2,349
Sandra Day O'Connor							
2014-15	186	38	15	79	2,102	56	2,476
2015-16	168	37	19	82	2,076	55	2,437
2016-17	178	43	15	77	2,011	60	2,384
2017-18	222	46	22	84	1,995	73	2,442
2018-19	316	62	28	84	1,981	89	2,560
Other							
2014-15	12	5	6	5	1		29
2015-16	14	7	6	1	3		31
2016-17	16	10	8	1	5	1	41
2017-18	35	17	15	8	10	3	88
2018-19	24	27	17	16	22	4	110
Total							
2014-15	2,049	2,605	1,640	2,017	2,280	479	11,070
2015-16	2,097	2,521	1,573	2,038	2,308	474	11,011
2016-17	1,979	2,513	1,439	1,939	2,291	612	10,773
2017-18	2,128	2,566	1,448	1,892	2,295	669	10,998
2018-19	2,116	2,530	1,413	1,834	2,349	730	10,972

Source: Deer Valley Unified School District; Applied Economics, 2019.

5.3 ENROLLMENT BY SCHOOL

Tables 23 and 24 show actual enrollment since the 2013/14 school year and projected enrollment by school for 2019/20 through 2028/29, based on applying the existing reside/attend relationships to the projected level of enrollment by resident attendance area. Note that in **Table 23** the 7th & 8th grade enrollment at the K-8 schools is included in the totals for the elementary schools. This leaves only the three 7th and 8th grade middle schools on **Table 24**, along with the five high schools. Color coding indicates a school's relationship to its enrollment capacity, as defined by the School Facilities Board (SFB), with orange indicating where enrollment exceeds the facility capacity.

Norterra Canyon, Sierra Verde and Stetson Hills are slightly over-capacity currently and forecast to continue to grow slowly for several years; however, enrollment is projected to begin dropping in 2021/22 and both schools will be under-capacity for most of the second half of the period. Sonoran Foothills is slightly over-capacity now and is projected to grow substantially; by 2028/29, the school is expected to exceed capacity levels by nearly 400 students in 2028/29. Esperanza and Terramar are at acceptable levels for the near-term but are projected to be over capacity in the second half of the projection period. Westwing is also over-capacity now, but it is expected to experience enrollment declines over the new few years. Desert Mountain and Greenbrier are currently operating at less than 50 percent capacity, but Desert Mountain is expected to see increases in enrollment by 2024/25 that remedy that situation. Mirage, Mountain Shadows and New River are all expected to be at less than 50 percent capacity during the entire second half of the projection period.

None of the middle schools are over-crowded currently, and none are expected to grow beyond capacity during the projection period. The high schools, however, are experiencing some capacity issues that may need to be addressed. Mountain Ridge is currently over-capacity, but it is forecast to have enrollment declines that should return them to less crowded conditions by 2023/24. At Sandra Day, enrollment is expected to increase next year, pushing the school to exceed its capacity for the remainder of the projection period and Barry Goldwater is projected to exceed its capacity by 2024/25. Since District enrollment is expected to decline overall, there will be capacity available elsewhere, providing the District with a few years to address the issue.

TABLE 23
ELEMENTARY SCHOOL ENROLLMENT: 2013/14 - 2028/29

School	SFB Capacity	Actual						Projected									
		2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Elementary																	
Anthem Elem	928	768	784	757	724	613	567	529	532	526	508	520	505	495	500	497	493
Arrowhead	841	539	596	614	601	576	562	570	602	621	644	648	640	632	635	637	641
Bellair	681	460	482	477	486	467	486	466	447	435	422	395	387	382	371	364	362
Canyon Springs	1,098	760	787	810	809	809	827	831	820	793	787	771	764	747	739	728	720
Constitiution	747	578	684	624	618	604	675	674	668	667	680	667	653	617	601	584	570
Copper Creek	926	748	719	728	732	708	698	700	693	688	681	666	657	647	636	632	634
Desert Mountain	1,329	739	699	689	651	615	612	605	590	577	592	603	692	790	878	914	955
Desert Sage	938	553	595	624	655	645	661	696	715	719	716	698	684	667	656	647	641
Desert Winds	847	377	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diamond Canyon	1,040	959	1,036	1,031	1,017	973	909	880	866	834	823	774	773	762	741	724	715
Esperanza	806	360	567	530	577	579	600	624	669	709	768	779	802	820	841	857	882
Gavilan Peak	919	779	790	795	723	735	718	706	701	692	659	621	594	585	575	564	555
Greenbrier	802	337	389	388	385	397	370	366	366	360	341	337	329	326	325	328	332
Highland Lakes	1,294	1,068	1,086	1,134	1,146	1,134	1,155	1,190	1,177	1,171	1,161	1,159	1,182	1,204	1,210	1,181	1,171
Las Brisas	894	820	833	849	829	797	780	756	763	761	752	726	711	699	685	676	675
Legend Springs	902	603	648	681	645	652	693	688	702	700	689	693	692	697	700	707	716
Mirage	957	438	460	470	500	487	492	510	522	512	509	476	468	463	453	448	446
Mountain Shadows	869	472	466	498	479	493	485	487	482	482	476	455	431	429	424	422	424
New River	559	274	275	239	209	229	243	244	245	230	228	210	217	210	206	204	205
Norterra Canyon	945	1,074	1,164	909	863	925	948	983	1,032	1,030	1,006	974	974	937	905	891	877
Park Meadows	807	547	585	610	622	648	672	706	717	725	748	745	740	738	737	739	745
Paseo Hills	1,012	959	963	942	914	864	837	829	825	804	799	782	749	729	701	679	661
Sierra Verde	938	967	969	982	1,010	1,040	1,032	1,014	996	973	959	935	905	868	838	825	805
Sonoran Foothills	950	0	0	589	786	855	985	1,033	1,038	1,081	1,155	1,225	1,280	1,301	1,290	1,318	1,347
Stetson Hills	972	1,025	1,085	1,070	1,074	1,045	1,009	994	974	963	957	932	929	919	916	910	907
Sunrise	768	493	506	564	562	543	517	531	544	531	543	542	536	531	530	533	537
Sunset Ridge	1,039	998	975	889	821	797	742	716	698	680	665	636	634	625	598	595	587
Terramar	1,039	816	861	866	894	967	985	975	1,001	1,022	1,073	1,120	1,130	1,160	1,181	1,184	1,184
Village Meadows	726	430	503	500	478	487	490	475	482	492	493	496	497	496	499	505	515
Westwing School	1,040	1,031	1,046	1,038	1,024	1,041	1,044	1,011	969	957	939	894	881	875	860	879	887
Other																	
Total	27,613	19,972	20,553	20,897	20,834	20,725	20,794	20,786	20,834	20,733	20,772	20,478	20,436	20,350	20,230	20,169	20,185
Percent of Capacity		72.3%	74.4%	75.7%	75.4%	75.1%	75.3%	75.3%	75.5%	75.1%	75.2%	74.2%	74.0%	73.7%	73.3%	73.0%	73.1%

Source: Applied Economics, January 2019..

TABLE 24
MIDDLE AND HIGH SCHOOL ENROLLMENT: 2013/14 - 2028/29

School	SFB Capacity	Actual						Projected									
		2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Middle School																	
Deer Valley Middle	943	666	609	602	599	559	579	628	681	690	691	747	828	859	873	859	849
Desert Sky Middle	910	629	644	695	683	630	607	615	631	660	648	681	730	687	667	663	636
Hillcrest Middle	1,016	1,008	992	985	1,004	969	968	866	810	796	813	851	878	854	830	811	773
Total	2,869	2,303	2,245	2,282	2,286	2,158	2,154	2,109	2,122	2,146	2,152	2,279	2,436	2,400	2,370	2,333	2,258
Percent of Capacity		80.3%	78.3%	79.5%	79.7%	75.2%	75.1%	73.5%	74.0%	74.8%	75.0%	79.4%	84.9%	83.7%	82.6%	81.3%	78.7%
Grades 9-12																	
Barry Goldwater	2,380	1,880	1,865	1,885	1,783	1,791	1,699	1,700	1,789	1,908	2,119	2,305	2,425	2,569	2,725	2,821	2,909
Boulder Creek	2,660	2,575	2,644	2,593	2,621	2,648	2,609	2,656	2,541	2,502	2,423	2,380	2,337	2,261	2,209	2,142	2,131
Deer Valley	2,466	1,876	1,860	1,818	1,725	1,729	1,658	1,579	1,588	1,580	1,613	1,706	1,723	1,811	1,873	1,875	1,909
Mountain Ridge	2,196	2,291	2,209	2,282	2,324	2,296	2,352	2,359	2,332	2,321	2,229	2,117	2,079	2,058	2,072	2,096	2,077
Sandra Day	2,660	2,569	2,479	2,442	2,407	2,443	2,565	2,646	2,777	2,802	2,767	2,813	2,817	2,847	2,935	2,894	2,892
Total	12,362	11,191	11,057	11,020	10,860	10,907	10,883	10,940	11,027	11,113	11,151	11,321	11,381	11,546	11,814	11,828	11,918
Percent of Capacity		90.5%	89.4%	89.1%	87.8%	88.2%	88.0%	88.5%	89.2%	89.9%	90.2%	91.6%	92.1%	93.4%	95.6%	95.7%	96.4%

Source: Applied Economics, January 2019..

>100% Capacity >90% Capacity <50% Capacity

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Kasten Long Commercial Group

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Maricopa County, AZ

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Rose Law Group Reporter

APPENDIX A – HIGH SCHOOL CHOICE BY 8TH GRADE SCHOOL

	9th Grade Class Year								
	2011_12	2012_13	2013_14	2014_15	2015_16	2016_17	2017_18	2018_19	Total
ANTHEM ELEM									
BARRY GOLDWATER	7	7	5		2		4	1	26
BOULDER CREEK	84	86	89	76	97	95	82	62	671
MOUTAIN RIDGE			1			1	1		3
SANDRA DAY	4	3			3	1		2	13
LEFT DISTRICT	28	13	9	11	9	10	15	9	104
TOTAL	123	109	104	87	111	107	102	74	817
CANYON SPRINGS									
BARRY GOLDWATER	1	3	3	1	2	1	1	1	13
BOULDER CREEK	87	73	91	97	73	90	73	97	681
MOUTAIN RIDGE							1	1	2
DEER VALLEY							1		1
SANDRA DAY	1			3	1	1	1	6	13
LEFT DISTRICT	21	23	3	9	11	9	9	23	108
TOTAL	110	99	97	110	87	101	86	128	818
DEER VALLEY MIDDLE									
BARRY GOLDWATER	252	284	253	271	251	210	254	213	1,988
BOULDER CREEK	3	1	1	1	1	1		1	9
DEER VALLEY	5	12	7	7	6	8	3	7	55
MOUTAIN RIDGE	1		1	1	1		2		6
SANDRA DAY	9	1		2	4	1	1	7	25
LEFT DISTRICT	97	103	70	57	60	58	56	55	556
TOTAL	367	401	332	339	323	278	316	283	2,639
DESERT MOUNTAIN									
BARRY GOLDWATER	3	8	4	2	7	4	6	6	40
BOULDER CREEK	95	83	86	83	55	73	70	70	615
SANDRA DAY	1	6	3	3	2	3	1	3	22
LEFT DISTRICT	25	22	11	15	13	15	19	15	135
TOTAL	124	119	104	103	77	95	96	94	812
DESERT SKY MIDDLE									
BARRY GOLDWATER	8	12	7	2	7	8	7	9	60
BOULDER CREEK		1		2			1	1	5
DEER VALLEY	299	305	289	293	251	264	265	259	2,225
MOUTAIN RIDGE	1	2		5	1	4	3	3	19
SANDRA DAY	7	4	6		1		5	2	25
LEFT DISTRICT	67	76	38	41	41	62	59	54	438
TOTAL	382	400	340	343	301	338	340	328	2,772

	9th Grade Class Year								
	2011_12	2012_13	2013_14	2014_15	2015_16	2016_17	2017_18	2018_19	Average
ANTHEM									
BARRY GOLDWATER	5.7%	6.4%	4.8%	0.0%	1.8%	0.0%	3.9%	1.4%	3.2%
BOULDER CREEK	68.3%	78.9%	85.6%	87.4%	87.4%	88.8%	80.4%	83.8%	82.1%
MOUTAIN RIDGE	0.0%	0.0%	1.0%	0.0%	0.0%	0.9%	1.0%	0.0%	0.4%
SANDRA DAY	3.3%	2.8%	0.0%	0.0%	2.7%	0.9%	0.0%	2.7%	1.6%
LEFT DISTRICT	22.8%	11.9%	8.7%	12.6%	8.1%	9.3%	14.7%	12.2%	12.7%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
CANYON SPRINGS									
BARRY GOLDWATER	0.9%	3.0%	3.1%	0.9%	2.3%	1.0%	1.2%	0.8%	1.6%
BOULDER CREEK	79.1%	73.7%	93.8%	88.2%	83.9%	89.1%	84.9%	75.8%	83.3%
MOUTAIN RIDGE									0.2%
DEER VALLEY	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%	0.0%	0.1%
SANDRA DAY	0.9%	0.0%	0.0%	2.7%	1.1%	1.0%	1.2%	4.7%	1.6%
LEFT DISTRICT	19.1%	23.2%	3.1%	8.2%	12.6%	8.9%	10.5%	18.0%	13.2%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
DEER VALLEY MIDDLE									
BARRY GOLDWATER	68.7%	70.8%	76.2%	79.9%	77.7%	75.5%	80.4%	75.3%	75.3%
BOULDER CREEK	0.8%	0.2%	0.3%	0.3%	0.3%	0.4%	0.0%	0.4%	0.3%
DEER VALLEY	1.4%	3.0%	2.1%	2.1%	1.9%	2.9%	0.9%	2.5%	2.1%
MOUTAIN RIDGE	0.3%	0.0%	0.3%	0.3%	0.3%	0.0%	0.6%	0.0%	0.2%
SANDRA DAY	2.5%	0.2%	0.0%	0.6%	1.2%	0.4%	0.3%	2.5%	0.9%
LEFT DISTRICT	26.4%	25.7%	21.1%	16.8%	18.6%	20.9%	17.7%	19.4%	21.1%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
DESERT MOUNTAIN									
BARRY GOLDWATER	2.4%	6.7%	3.8%	1.9%	9.1%	4.2%	6.3%	6.4%	4.9%
BOULDER CREEK	76.6%	69.7%	82.7%	80.6%	71.4%	76.8%	72.9%	74.5%	75.7%
SANDRA DAY	0.8%	5.0%	2.9%	2.9%	2.6%	3.2%	1.0%	3.2%	2.7%
LEFT DISTRICT	20.2%	18.5%	10.6%	14.6%	16.9%	15.8%	19.8%	16.0%	16.6%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
DESERT SKY MIDDLE									
BARRY GOLDWATER	2.1%	3.0%	2.1%	0.6%	2.3%	2.4%	2.1%	2.7%	2.2%
BOULDER CREEK	0.0%	0.3%	0.0%	0.6%	0.0%	0.0%	0.3%	0.3%	0.2%
DEER VALLEY	78.3%	76.3%	85.0%	85.4%	83.4%	78.1%	77.9%	79.0%	80.3%
MOUTAIN RIDGE	0.3%	0.5%	0.0%	1.5%	0.3%	1.2%	0.9%	0.9%	0.7%
SANDRA DAY	1.8%	1.0%	1.8%	0.0%	0.3%	0.0%	1.5%	0.6%	0.9%
LEFT DISTRICT	17.5%	19.0%	11.2%	12.0%	13.6%	18.3%	17.4%	16.5%	15.8%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

	9th Grade Class Year								
	2011_12	2012_13	2013_14	2014_15	2015_16	2016_17	2017_18	2018_19	Total
DIAMOND CANYON									
BARRY GOLDWATER	1	2	5			1	1		10
BOULDER CREEK	108	80	105	110	86	122	121	119	851
DEER VALLEY									0
SANDRA DAY		4			1		1		6
LEFT DISTRICT	20	15	18	9	16	12	7	12	109
TOTAL	129	101	128	119	103	135	130	131	976
GAVILAN PEAK									
BARRY GOLDWATER	2	1	1	1	3	1	2		11
BOULDER CREEK	101	107	117	129	79	123	94	117	867
DEER VALLEY						1		1	2
SANDRA DAY	2					3	1	1	7
LEFT DISTRICT	15	19	11	8	9	15	16	20	113
TOTAL	120	127	129	138	91	143	113	139	1,000
HIGHLAND LAKES									
BARRY GOLDWATER	7	3	7	2	4	3	5	3	34
BOULDER CREEK				5	9	6	5	4	29
DEER VALLEY	73	98	105	89	103	80	78	66	692
MOUTAIN RIDGE	115	92	122	101	67	127	107	121	852
SANDRA DAY	9	4	2	8	7	4	18	18	70
LEFT DISTRICT	35	37	18	26	25	43	30	26	240
TOTAL	239	234	254	231	215	263	243	238	1,917
HILLCREST MIDDLE									
BARRY GOLDWATER	7	5	8	3	8	1	4	2	38
BOULDER CREEK	2	2		1		1	1	1	8
DEER VALLEY		2		4	1	2	3	1	13
MOUTAIN RIDGE	232	248	230	198	219	213	213	211	1,764
SANDRA DAY	243	263	258	211	253	214	242	220	1,904
LEFT DISTRICT	52	71	54	63	53	46	43	43	425
TOTAL	536	591	550	480	534	477	506	478	4,152
NORTERRA CANYON									
BARRY GOLDWATER	28	37	45	41	37	29	11	13	241
BOULDER CREEK	1	1	11	6	1	2	4	2	28
DEER VALLEY			1	1	1	1		2	6
MOUTAIN RIDGE	1	2	2		1	1	2	1	10
SANDRA DAY	58	37	28	17	41	47	45	47	320
LEFT DISTRICT	17	19	25	30	13	16	13	13	146
TOTAL	105	96	112	95	94	96	75	78	751

	9th Grade Class Year								
	2011_12	2012_13	2013_14	2014_15	2015_16	2016_17	2017_18	2018_19	Average
DIAMOND CANYON									
BARRY GOLDWATER	0.8%	2.0%	3.9%	0.0%	0.0%	0.7%	0.8%	0.0%	1.0%
BOULDER CREEK	83.7%	79.2%	82.0%	92.4%	83.5%	90.4%	93.1%	90.8%	87.2%
DEER VALLEY	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
SANDRA DAY	0.0%	4.0%	0.0%	0.0%	1.0%	0.0%	0.8%	0.0%	0.6%
LEFT DISTRICT	15.5%	14.9%	14.1%	7.6%	15.5%	8.9%	5.4%	9.2%	11.2%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
GAVILAN PEAK									
BARRY GOLDWATER	1.7%	0.8%	0.8%	0.7%	3.3%	0.7%	1.8%	0.0%	1.1%
BOULDER CREEK	84.2%	84.3%	90.7%	93.5%	86.8%	86.0%	83.2%	84.2%	86.7%
DEER VALLEY	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.7%	0.2%
SANDRA DAY	1.7%	0.0%	0.0%	0.0%	0.0%	2.1%	0.9%	0.7%	0.7%
LEFT DISTRICT	12.5%	15.0%	8.5%	5.8%	9.9%	10.5%	14.2%	14.4%	11.3%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
HIGHLAND LAKES									
BARRY GOLDWATER	2.9%	1.3%	2.8%	0.9%	1.9%	1.1%	2.1%	1.3%	1.8%
BOULDER CREEK	0.0%	0.0%	0.0%	2.2%	4.2%	2.3%	2.1%	1.7%	1.5%
DEER VALLEY	30.5%	41.9%	41.3%	38.5%	47.9%	30.4%	32.1%	27.7%	36.1%
MOUTAIN RIDGE	48.1%	39.3%	48.0%	43.7%	31.2%	48.3%	44.0%	50.8%	44.4%
SANDRA DAY	3.8%	1.7%	0.8%	3.5%	3.3%	1.5%	7.4%	7.6%	3.7%
LEFT DISTRICT	14.6%	15.8%	7.1%	11.3%	11.6%	16.3%	12.3%	10.9%	12.5%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
HILLCREST MIDDLE									
BARRY GOLDWATER	1.3%	0.8%	1.5%	0.6%	1.5%	0.2%	0.8%	0.4%	0.9%
BOULDER CREEK	0.4%	0.3%	0.0%	0.2%	0.0%	0.2%	0.2%	0.2%	0.2%
DEER VALLEY	0.0%	0.3%	0.0%	0.8%	0.2%	0.4%	0.6%	0.2%	0.3%
MOUTAIN RIDGE	43.3%	42.0%	41.8%	41.3%	41.0%	44.7%	42.1%	44.1%	42.5%
SANDRA DAY	45.3%	44.5%	46.9%	44.0%	47.4%	44.9%	47.8%	46.0%	45.9%
LEFT DISTRICT	9.7%	12.0%	9.8%	13.1%	9.9%	9.6%	8.5%	9.0%	10.2%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
NORTERRA CANYON									
BARRY GOLDWATER	26.7%	38.5%	40.2%	43.2%	39.4%	30.2%	14.7%	16.7%	32.1%
BOULDER CREEK	1.0%	1.0%	9.8%	6.3%	1.1%	2.1%	5.3%	2.6%	3.7%
DEER VALLEY	0.0%	0.0%	0.9%	1.1%	1.1%	1.0%	0.0%	2.6%	0.8%
MOUTAIN RIDGE	1.0%	2.1%	1.8%	0.0%	1.1%	1.0%	2.7%	1.3%	1.3%
SANDRA DAY	55.2%	38.5%	25.0%	17.9%	43.6%	49.0%	60.0%	60.3%	42.6%
LEFT DISTRICT	16.2%	19.8%	22.3%	31.6%	13.8%	16.7%	17.3%	16.7%	19.4%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

	9th Grade Class Year								
	2011_12	2012_13	2013_14	2014_15	2015_16	2016_17	2017_18	2018_19	Total
PASEO HILLS									
BARRY GOLDWATER	54	61	79	93	79	66	91	58	581
BOULDER CREEK					1	1			2
DEER VALLEY	2	5	1	4	3	3	3	1	22
MOUTAIN RIDGE			2	1					3
SANDRA DAY	23	17	9	5	8	10	4	13	89
LEFT DISTRICT	16	22	22	12	15	13	13	16	129
TOTAL	95	105	113	115	106	93	111	88	826
SIERRA VERDE									
BARRY GOLDWATER	2			1		1	1	1	6
BOULDER CREEK		1		2					3
DEER VALLEY	1	2	1		2	1	1		8
MOUTAIN RIDGE	76	76	70	94	96	90	86	104	692
SANDRA DAY	1		1	2	3	1	2	3	13
LEFT DISTRICT	19	18	27	24	26	19	33	21	187
TOTAL	99	97	99	123	127	112	123	129	909
STETSON HILLS									
BARRY GOLDWATER		2	1		1	2	2	1	9
BOULDER CREEK		1			1		2		4
DEER VALLEY		1	1						2
MOUTAIN RIDGE	1		1		5	1	1	1	10
SANDRA DAY	124	118	137	120	125	114	124	128	990
LEFT DISTRICT	11	13	14	6	6	13	12	10	85
TOTAL	136	135	154	126	138	130	141	140	1,100
SUNSET RIDGE									
BARRY GOLDWATER	8	7	14	8	5	3	2	2	49
BOULDER CREEK	84	107	93	101	87	110	105	98	785
MOUTAIN RIDGE		1		1	1				3
SANDRA DAY	13	3	4	10	3	2	2	2	39
LEFT DISTRICT	17	23	8	14	14	13	15	13	117
TOTAL	122	141	119	134	110	128	124	115	993
TERRAMAR									
BARRY GOLDWATER	3		4						7
BOULDER CREEK	1	1		1					3
DEER VALLEY			1		2	2	1		6
MOUTAIN RIDGE	63	64	62	62	66	48	41	69	475
SANDRA DAY	18	28	19	26	22	41	31	28	213
LEFT DISTRICT	11	11	8	7	24	9	15	14	99
TOTAL	96	104	94	96	114	100	88	111	803

	9th Grade Class Year								
	2011_12	2012_13	2013_14	2014_15	2015_16	2016_17	2017_18	2018_19	Average
PASEO HILLS									
BARRY GOLDWATER	56.8%	58.1%	69.9%	80.9%	74.5%	71.0%	82.0%	65.9%	70.3%
BOULDER CREEK	0.0%	0.0%	0.0%	0.0%	0.9%	1.1%	0.0%	0.0%	0.2%
DEER VALLEY	2.1%	4.8%	0.9%	3.5%	2.8%	3.2%	2.7%	1.1%	2.7%
MOUTAIN RIDGE	0.0%	0.0%	1.8%	0.9%	0.0%	0.0%	0.0%	0.0%	0.4%
SANDRA DAY	24.2%	16.2%	8.0%	4.3%	7.5%	10.8%	3.6%	14.8%	10.8%
LEFT DISTRICT	16.8%	21.0%	19.5%	10.4%	14.2%	14.0%	11.7%	18.2%	15.6%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
SIERRA VERDE									
BARRY GOLDWATER	2.0%	0.0%	0.0%	0.8%	0.0%	0.9%	0.8%	0.8%	0.7%
BOULDER CREEK	0.0%	1.0%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.3%
DEER VALLEY	1.0%	2.1%	1.0%	0.0%	1.6%	0.9%	0.8%	0.0%	0.9%
MOUTAIN RIDGE	76.8%	78.4%	70.7%	76.4%	75.6%	80.4%	69.9%	80.6%	76.1%
SANDRA DAY	1.0%	0.0%	1.0%	1.6%	2.4%	0.9%	1.6%	2.3%	1.4%
LEFT DISTRICT	19.2%	18.6%	27.3%	19.5%	20.5%	17.0%	26.8%	16.3%	20.6%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
STETSON HILLS									
BARRY GOLDWATER	0.0%	1.5%	0.6%	0.0%	0.7%	1.5%	1.4%	0.7%	0.8%
BOULDER CREEK	0.0%	0.7%	0.0%	0.0%	0.7%	0.0%	1.4%	0.0%	0.4%
DEER VALLEY	0.0%	0.7%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
MOUTAIN RIDGE	0.7%	0.0%	0.6%	0.0%	3.6%	0.8%	0.7%	0.7%	0.9%
SANDRA DAY	91.2%	87.4%	89.0%	95.2%	90.6%	87.7%	87.9%	91.4%	90.0%
LEFT DISTRICT	8.1%	9.6%	9.1%	4.8%	4.3%	10.0%	8.5%	7.1%	7.7%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
SUNSET RIDGE									
BARRY GOLDWATER	6.6%	5.0%	11.8%	6.0%	4.5%	2.3%	1.6%	1.7%	4.9%
BOULDER CREEK	68.9%	75.9%	78.2%	75.4%	79.1%	85.9%	84.7%	85.2%	79.1%
MOUTAIN RIDGE	0.0%	0.7%	0.0%	0.7%	0.9%	0.0%	0.0%	0.0%	0.3%
SANDRA DAY	10.7%	2.1%	3.4%	7.5%	2.7%	1.6%	1.6%	1.7%	3.9%
LEFT DISTRICT	13.9%	16.3%	6.7%	10.4%	12.7%	10.2%	12.1%	11.3%	11.8%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
TERRAMAR									
BARRY GOLDWATER	3.1%	0.0%	4.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%
BOULDER CREEK	1.0%	1.0%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.4%
DEER VALLEY	0.0%	0.0%	1.1%	0.0%	1.8%	2.0%	1.1%	0.0%	0.7%
MOUTAIN RIDGE	65.6%	61.5%	66.0%	64.6%	57.9%	48.0%	46.6%	62.2%	59.2%
SANDRA DAY	18.8%	26.9%	20.2%	27.1%	19.3%	41.0%	35.2%	25.2%	26.5%
LEFT DISTRICT	11.5%	10.6%	8.5%	7.3%	21.1%	9.0%	17.0%	12.6%	12.3%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

	9th Grade Class Year								
	2011_12	2012_13	2013_14	2014_15	2015_16	2016_17	2017_18	2018_19	Total
WESTWING SCHOOL									
BARRY GOLDWATER	1		1		2		1		5
BOULDER CREEK	1	1			1			1	4
DEER VALLEY			1	2					3
MOUNTAIN RIDGE	2	3	2	3	5	4	7	6	32
SANDRA DAY	78	72	82	94	75	74	67	78	620
LEFT DISTRICT	37	29	58	26	51	64	56	44	365
TOTAL	119	105	144	125	134	142	131	129	1,029

	9th Grade Class Year								
	2011_12	2012_13	2013_14	2014_15	2015_16	2016_17	2017_18	2018_19	Average
WESTWING SCHOOL									
BARRY GOLDWATER	0.8%	0.0%	0.7%	0.0%	1.5%	0.0%	0.8%	0.0%	0.6%
BOULDER CREEK	0.8%	1.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.8%	0.5%
DEER VALLEY	0.0%	0.0%	0.7%	1.6%	0.0%	0.0%	0.0%	0.0%	0.4%
MOUNTAIN RIDGE	1.7%	2.9%	1.4%	2.4%	3.7%	2.8%	5.3%	4.7%	4.0%
SANDRA DAY	65.5%	68.6%	56.9%	75.2%	56.0%	52.1%	51.1%	60.5%	77.2%
LEFT DISTRICT	31.1%	27.6%	40.3%	20.8%	38.1%	45.1%	42.7%	34.1%	45.5%
TOTAL	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	128.1%