APPLIED ECONOMICS

DEER VALLEY UNIFIED SCHOOL DISTRICT

DEMOGRAPHIC AND ENROLLMENT UPDATE

FALL 2016/17

FINAL REPORT

PREPARED FOR:

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

APRIL 19, 2017

TABLE OF CONTENTS

EXECUTIVE SUMMARY iii

INTRODUCTION 1

2.0 EXISTING CONDITIONS 3

2.1 CURRENT & HISTORICAL ENROLLMENT 3

2.1.1 GRADE COHORTS 3
2.1.2 GEOGRAPHIC DISTRIBUTION 5
2.1.3 MOBILITY 9

2.2 DEMOGRAPHIC TRENDS 13
2.3 ALTERNATIVE PROVIDERS 18

3.0 RESIDENTIAL DEVELOPMENT 21

3.1 HOUSING CONSTRUCTION 21
3.2 HOUSING VACANCY TRENDS 23
3.3 FUTURE DEVELOPMENT POTENTIAL 26

4.0 DISTRICT PROJECTIONS 33

4.1 HOUSING & POPULATION 33
4.2 SCHOOL-AGE POPULATION & DISTRICT ENROLLMENT 34
4.3 ENROLLMENT BY GRADE LEVEL 37

5.0 SUB-DISTRICT PROJECTIONS 40

5.1 ENROLLMENT BY GRID AND ATTENDANCE AREA 40
5.2 ENROLLMENT BY ATTENDANCE AREA VERUS SCHOOL 48
5.3 ENROLLMENT BY SCHOOL 55

ACKNOWLEDGEMENTS 58

APPENDIX A: HIGH SCHOOL CHOICE BY 8TH GRADE SCHOOL 59

EXECUTIVE SUMMARY

This report presents the key findings of the 2016/17 Demographic and Enrollment Update performed for the Deer Valley Unified School District (DVUSD or District) by Applied Economics. The purpose of this analysis is to identify current and historic demographic, development and enrollment trends, and to anticipate future trends to create District and sub-District enrollment projections through 2026/27. The update includes new student enrollment data, along with revised residential real estate market and development information.

- Kindergarten through 12th grade (K-12) enrollment in DVUSD was 33,618 students in the fall of the 2016/17 school year, a decrease of about 150 students. This decline follows a rebound in enrollment over the past two years, increasing about 380 students in 2014/15 and another 340 students in 2015/16; the increases were due to a combination of an improving economy and the on-going impact of the reinstitution of all-day Kindergarten. Prior to that, enrollment declined between 1.2 and 2.8 percent per year between 2008/09 and 2013/14, reaching a low of about 33,000 students as a result of the recession and temporary elimination of free, all-day Kindergarten.

- Kindergarten through 8th grade (K-8) enrollment entered a period of decline in 2008/09 that would persist through the 2013/14 school year. The most significant losses were in the Kindergarten through 2nd grade (K-2) cohort, which is evidence of the disproportionate impact of the recession on younger families. While growth in the 9th through 12th grade (9-12) cohort was hindered, it continued to increase (albeit marginally) through the 2013/14 school year. Since 2013/14, enrollment in each of the K-8 groups has increased, while 9-12 enrollment has decreased by about 1 percent per year.

- The average share of students leaving the District after each year ranges from a high of 17 percent for Kindergarteners (excluding the 97 percent of 12th graders who leave) to a low of 11 percent for 9th graders. The other grades range from 12 to 15 percent of students per year. The average share of enrollment coming from new students ranges from a high of about 22 percent in 1st grade (excluding the 80 percent of Kindergarteners that are new) to a low of 6 percent in 12th grade. A strong up-tick to 16 percent in 9th grade is a reflection of students returning to District schools for high school from alternative providers. The share of students retained from the year before ranges from 83 percent in Kindergarten to over 90 percent in 12th grade.

- Demographic trends indicate a general aging of the population since 2000, which has directly impacted enrollment. The population under 5 years of age increased by 2.7 percent per year between 2000 and 2010, but it has decreased by 0.6 percent per year since then. The population aged 5 to 13, generally comprising Kindergarten through 8th grade, has been relatively stagnant since 2010 with the addition of less than 530 persons. The high school aged population (14 to 17 years) increased by about 710 persons over the past 6 years. The population in the 25 to 44 age group, typically considered prime child-rearing years, has grown only about 0.3 percent per year since 2010, leading to very small increases in the school-age population of the District.

- Another demographic factor driving enrollment in all schools are declines in national and regional birth rates. The birthrate (births per 1,000 population aged 15 to 45) in Arizona declined sharply between 2006 and 2011, and the Maricopa County rate declined by 23.7 percent. Since 2011, the regional rate has continued to decline, although much more slowly, and the total number of births has stabilized. The impact of the birth rate declines on Kindergarten enrollment

is delayed five years, implying that the number of Kindergarten-aged persons declined significantly between the 2011/12 and 2016/17 school years, and it will continue to decline slightly for several more years.

- Also impacting District enrollment is the growth in charter schools; enrollment in the charter schools operating within the DVUSD has increased by 2,950 students since the 2008/09 school year. The number of charter schools increased every year between 2008/09 and 2011/12, reaching a peak of 24 schools before declining to 17 schools by 2014/15. Since that time, the number of charter schools has remained stable, while enrollment has increased by about 700 students. The average annual growth rate is about 6.7 percent since 2008/09, or about 370 students per year, with the largest single-year increase of 936 students in the 2010/11 school year, when free full-day Kindergarten was eliminated.

- There have been nearly 16,000 housing units permitted in the District in the past ten years; however, over half were issued during the first two years of the study period. Residential construction activity has been uneven over the past few years as the economy continues to recover from the recession and housing market collapse. Single family permitting has been generally been concentrated in the low-to-medium density classifications and has trended toward lower-density housing in recent years. Multifamily housing activity in the District has been limited since 2009/10, and recent multifamily development has been concentrated elsewhere in the Phoenix metropolitan area.

- Future residential development potential within the Deer Valley District is currently estimated to be about 45,000 units, about 82 percent of which would be single family. About 67 percent of the estimated potential units are on State Land parcels, therefore the development timeline is likely to be elongated; actual developments will also most likely include a wider range of densities than is indicated under the preliminary land use plans for these areas. Construction activity is expected to lag somewhat this year and then increase throughout most of the projection period. Multifamily housing is expected to grow more consistently than in recent years but not at exceptional levels.

- In 2016/17, the District's school-age population increased by about 430 persons, while K-12 enrollment fell by more than 150 students. Overall, there were about 48,180 school-age persons residing in the District, while K-12 enrollment was 33,618 students. With a difference of about 14,560 students, the District is enrolling about 70 percent of the school-age population that resides within its boundaries.

- Enrollment is projected to decline by about half a percent next year and a little less over the following two years; it is expected to increase slightly in 2020/21 due to new construction activity and the stabilization of the incoming Kindergarten classes. In total, enrollment is projected to increase by about 700 students over the next 10 years, reaching 34,300 students by 2026/27. K-8 enrollment is expected to grow by about 430 students by 2026/27, while 9-12 enrollment should increase by about 370 students during the projection period.

- During the first five years of the projection period, the Esperanza, Sonoran Foothills and Norterra Canyon attendance areas are projected to experience the largest growth in elementary enrollment, fueled by the recent completion of the Loop 303; significant growth is also expected in the Mirage and Sunrise attendance areas. The largest areas of enrollment decline include the Anthem, Diamond Canyon, Gavilan Peak and Sierra Verde attendance areas, with five-year projected enrollment losses between 20 and 24 percent each.

- During the second five-year period, high growth rates are expected to continue in the Esperanza and Sonoran Foothills attendance areas, with increases of 28 and 25 percent, respectively. The Terramar area is also projected to grow by about 28 percent during the period, or about 230 students, and exceed 1,000 students by the 2025/26 school year. Moderate enrollment growth of 12 to 15 percent is forecast for the Arrowhead, New River and Village Meadows attendance areas between 2021/22 and 2026/27.

- At the middle school level, only the Deer Valley attendance area is projected to increase in enrollment during the next five years, with about 90 additional students representing a 14 percent gain. The Hillcrest attendance area is projected to decrease by more than 170 students, while virtually no enrollment change is anticipated in the Desert Sky attendance area. These trends are expected to continue during the following five years, with an additional increase of about 125 students in the Deer Valley attendance area. The enrollment decline in the Hillcrest attendance area is expected to slow, with a loss of about 50 students, while the Desert Sky attendance area will likely experience only a very small loss.

- Among the high schools, the Boulder Creek High School attendance area is currently the largest with about 2,530 students, but it is projected to fall by around 630 students by 2026/27. The Mountain Ridge attendance area is expected to decline by about 570 students, becoming the smallest high school attendance area by 2025/26. Modest declines are also expected in the Sandra Day O'Connor attendance area. The projected loss of about 140 students in the Deer Valley attendance area during the first five years of the projection period is expected to be offset by a slightly larger gain during the second five years. Losses of about 1,305 students in these four attendance areas should be offset by the projected increase of nearly 1,290 students in the Barry Goldwater attendance area and nearly 300 additional students from outside of the District.

- Elementary schools currently above capacity, as defined by the School Facilities Board, include Sierra Verde and Stetson Hills. Norterra Canyon had been above capacity until 2015/16 and is projected to exceed capacity again in 2018/19. Those currently above 90 percent capacity include Diamond Canyon, Las Brisas, Norterra Canyon, Paseo Hills and Westwing. By 2019/20, Sierra Verde should drop below capacity, while Sonoran Foothills will exceed capacity. Toward the end of the projection period it is likely that Stetson Hills will drop below capacity, but Esperanza and Terramar will exceed capacity as new residential development continues.

- Hillcrest Middle School is currently at about 99 percent of capacity, down from about 113 percent in 2011/12. Enrollment at Hillcrest is expected to decline in the near-term, bringing enrollment down to less than 90 percent of capacity by 2019/20. Deer Valley Middle School is projected to reach 90 percent capacity in 2024/25, but it may decline slightly after that.

- At the high school level, Mountain Ridge is currently operating at about 106 percent of capacity, while Boulder Creek and Sandra Day O'Connor are above 90 percent. Mountain Ridge High School enrollment is projected to remain above capacity until 2021/22 and stay above 90 percent through the projection period. Enrollment at Boulder Creek High School will peak in 2019/20 and its enrollment would slightly exceed its capacity. Enrollment at Sandra Day O'Connor High School is expected to increase slightly over the next few years, but it will remain relatively stable with enrollment above 90 percent of capacity. Barry Goldwater High School, currently just under 75 percent of capacity, could experience significant enrollment increases during the projection period and exceed 90 percent of capacity by 2021/22 and total capacity by 2023/24; however, this growth may be distributed across the other high schools based on the low capture rate of students from its attendance area.

1.0 INTRODUCTION

The 2016/17 Demographic and Enrollment Update for the Deer Valley Unified School District (DVUSD or 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 DVUSD 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 DVUSD enrollment levels and a detailed review of student distribution by grade and geography. Census data from 2000 and 2010 are compared with 2016 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 DVUSD boundaries, to help explain recent enrollment changes as compared to changes in the school-age population.

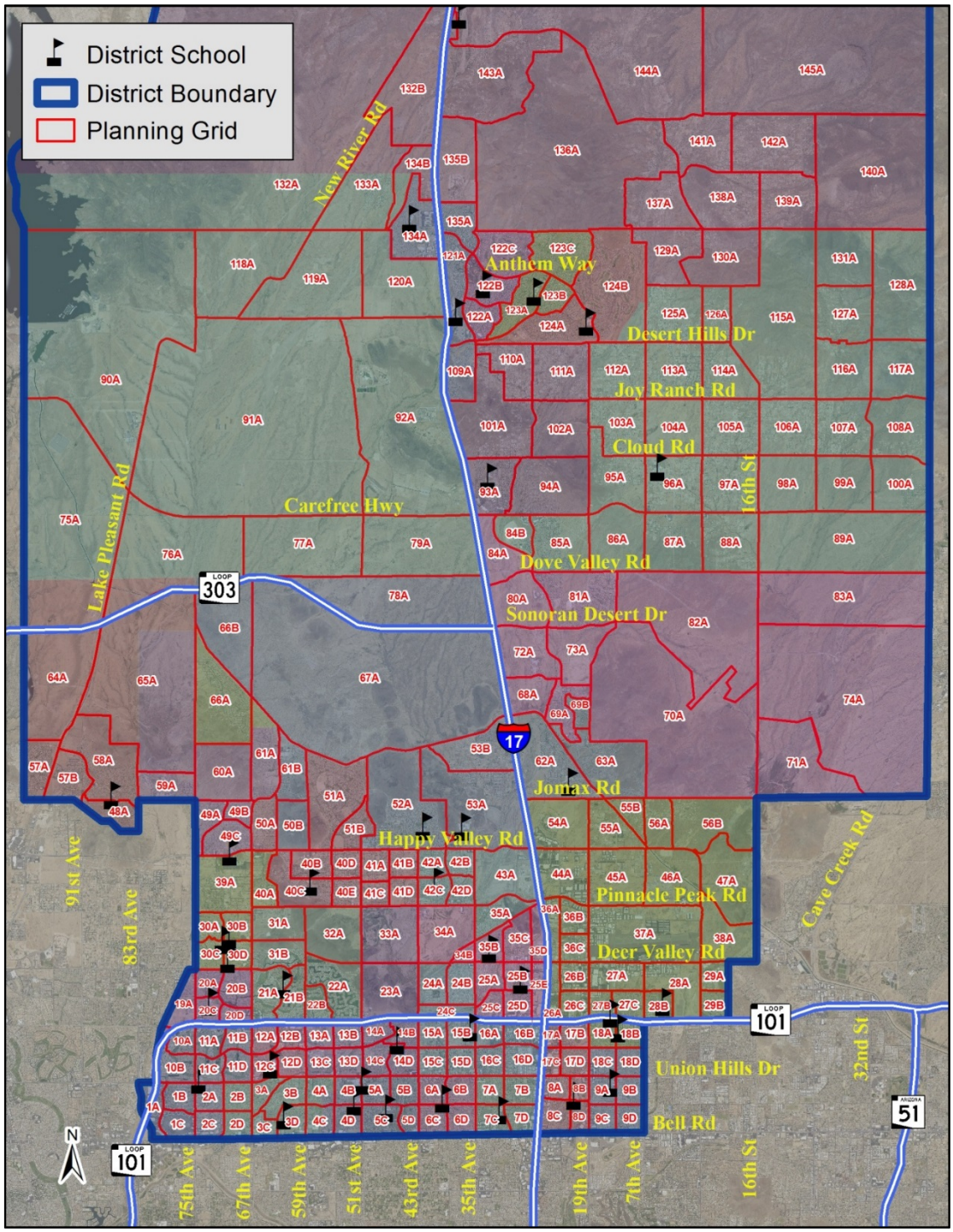
Section 3, Residential Development, presents information on current construction activity, housing vacancy rates and the potential future supply of new housing units. It provides estimates for the timing of housing construction based on current construction activity, regional growth forecasts, and the 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

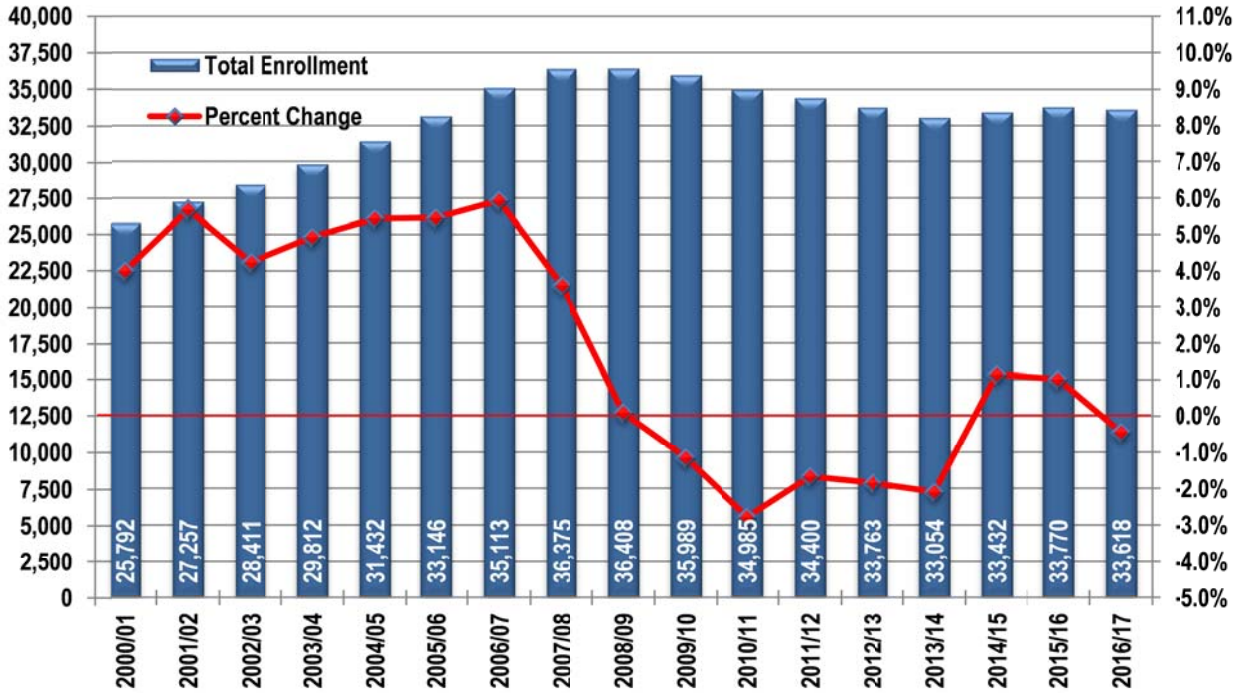


2.0 EXISTING CONDITIONS

2.1 CURRENT & HISTORICAL ENROLLMENT

Total Kindergarten through 12th grade (K-12) enrollment in DVUSD was 33,618 students in the fall of the 2016/17 school year; this represents a decrease of about 150 students compared to last year and follows two consecutive years of growth. 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 – 2016/17

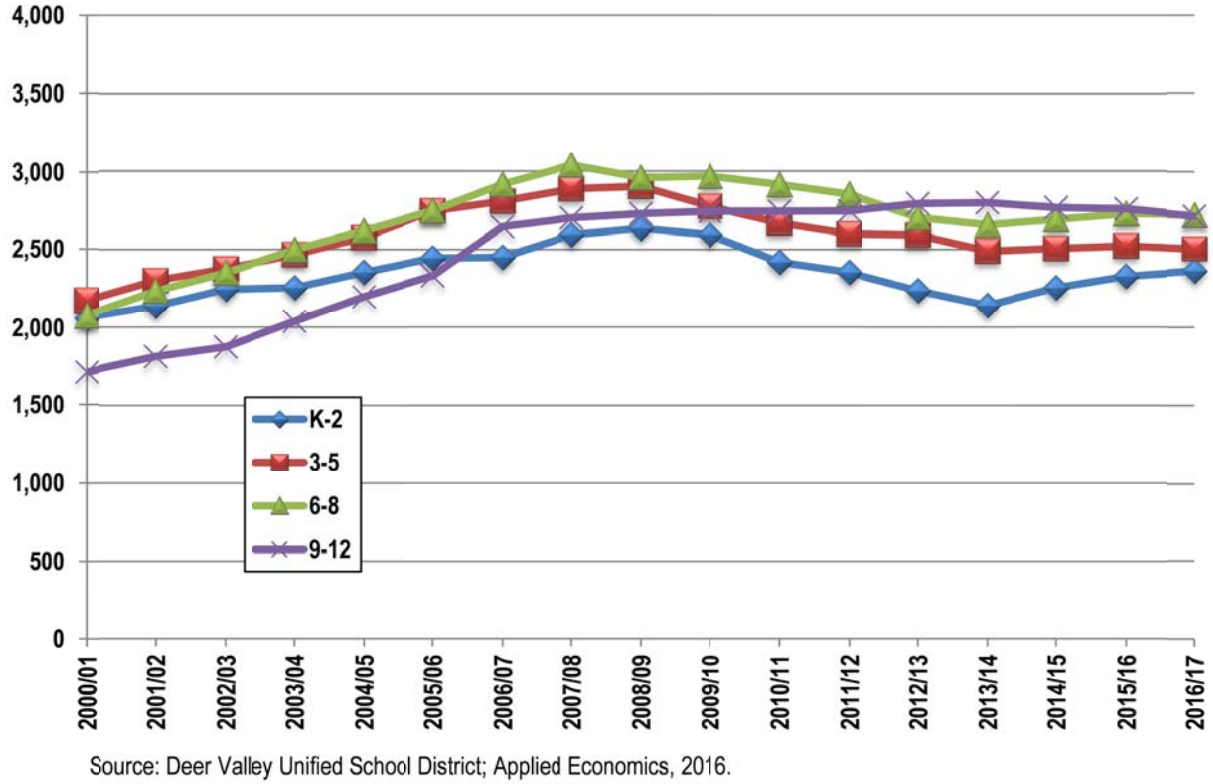


Sources: Deer Valley Unified School District; Applied Economics, 2016.

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 is normalized.

FIGURE 2
AVERAGE ENROLLMENT PER GRADE BY GRADE COHORT: 2000/01 – 2016/17



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

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.

Since 2013/14, enrollment in each of the K-8 cohorts has increased, while enrollment in the 9-12 cohort has decreased by about 1 percent per year. While there are many factors that impact enrollment, a major source of this 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 by 2018/19 that cohort will comprise grades 9 through 11. While this phenomenon tends to be muted over time, as well as by any significant overall enrollment change, it may impact enrollment in the 9-12 cohort to some degree through 2025/26.

In 2016/17, enrollment levels were highest in the older cohorts, with average enrollment per grade in the 9-12 cohort (at 2,729 students) being slightly higher than in the 6-8 cohort (at 2,722 students). 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.

In general, the inconsistent nature of changes in enrollment by grade cohort is not caused by any single factor, but by varying degrees of multiple factors. The Great Recession resulted in inconsistent enrollment changes throughout the region due to the variable rates of recovery by householder demographics. 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 than others.

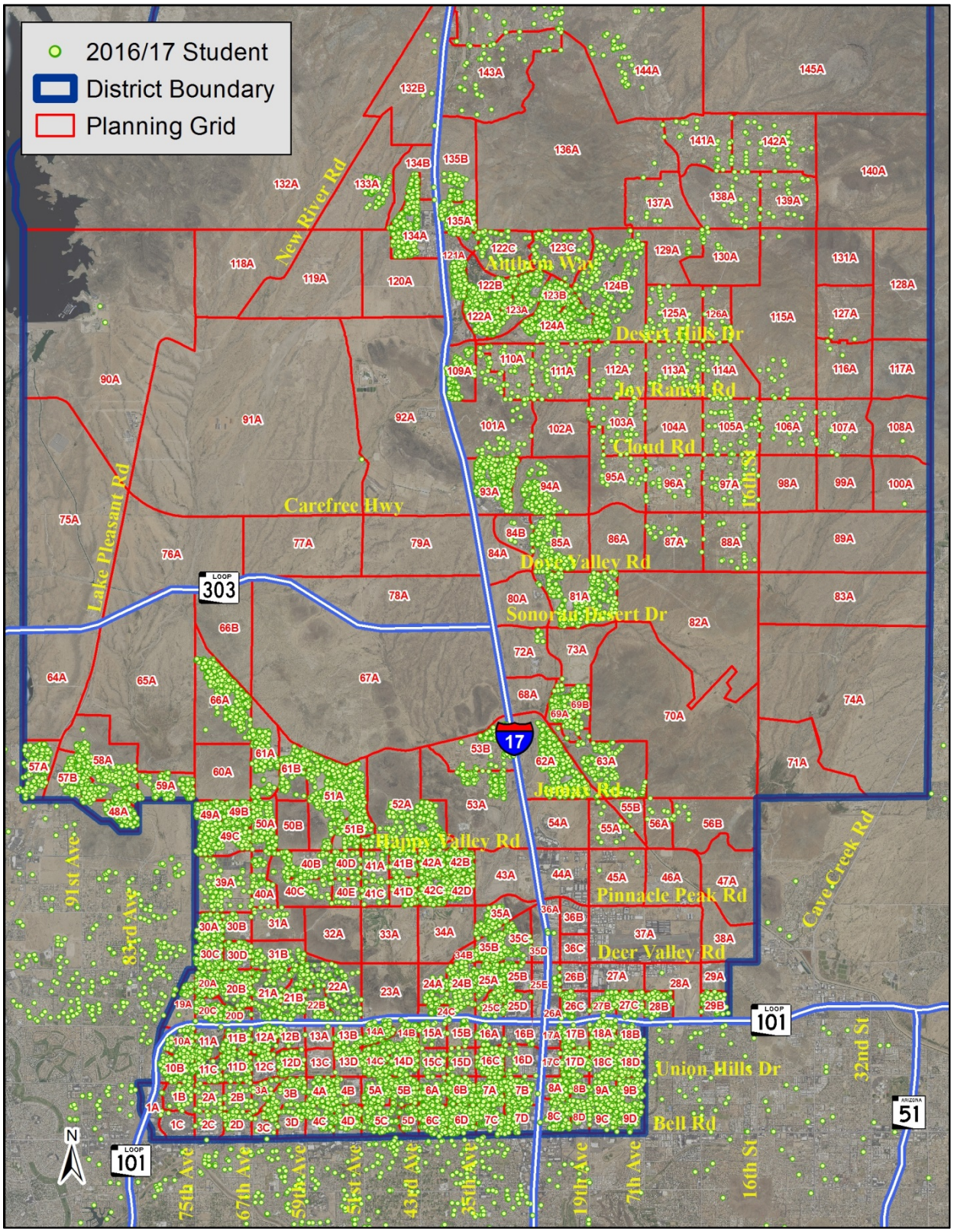
2.1.2 Geographic Distribution

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, some 2,020 of the District's 33,620 K-12 students (about 6 percent) reside outside District boundaries, up significantly 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. Overall, of the 31,600 in-District students, about 75 percent reside south of the Loop 303/Sonoran Desert Drive alignment. 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.

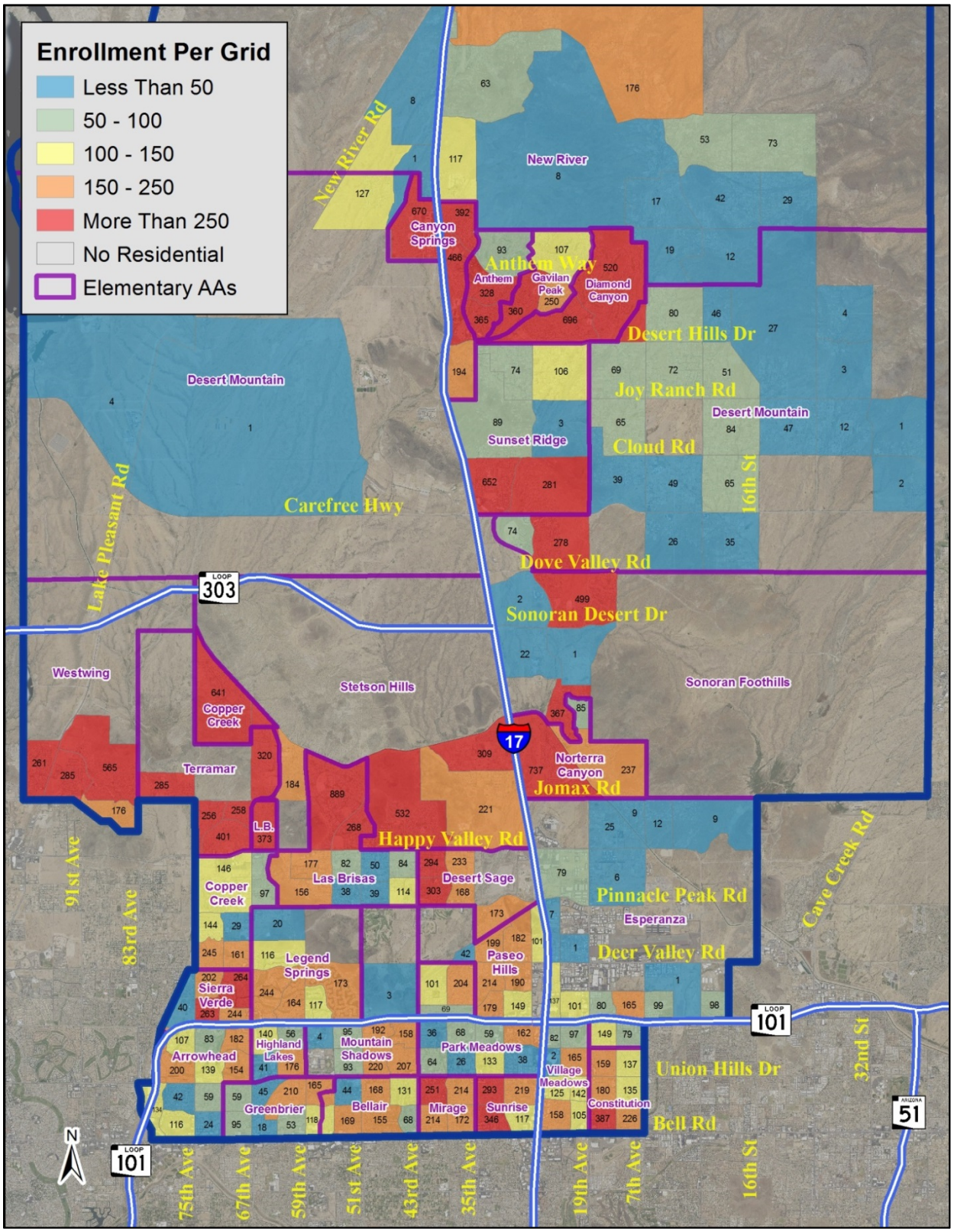
Map 3 displays the number of DVUSD students residing in each planning area (grid) used in the analysis. Higher-density areas are primarily concentrated in the established neighborhoods near the District's southern border, along the Loop 101 Freeway, and in the Anthem area to the north. Due to the significant 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 2011/12 to 2016/17. Enrollment declines were widespread over this period, but generally more significant in the established areas in the southern portion of the District; losses were especially severe in the Anthem area. Overall, enrollment from inside DVUSD boundaries decreased by about 1,560 students; the 777-student increase in out-of-District enrollment offset this loss by almost exactly half, resulting in a net decrease of 782 students. Growth rates were significant in the corridor of new developments east of I-17, in the Stetson Valley area at Happy Valley and west of 51st Avenue, and in pockets along Loop 101.

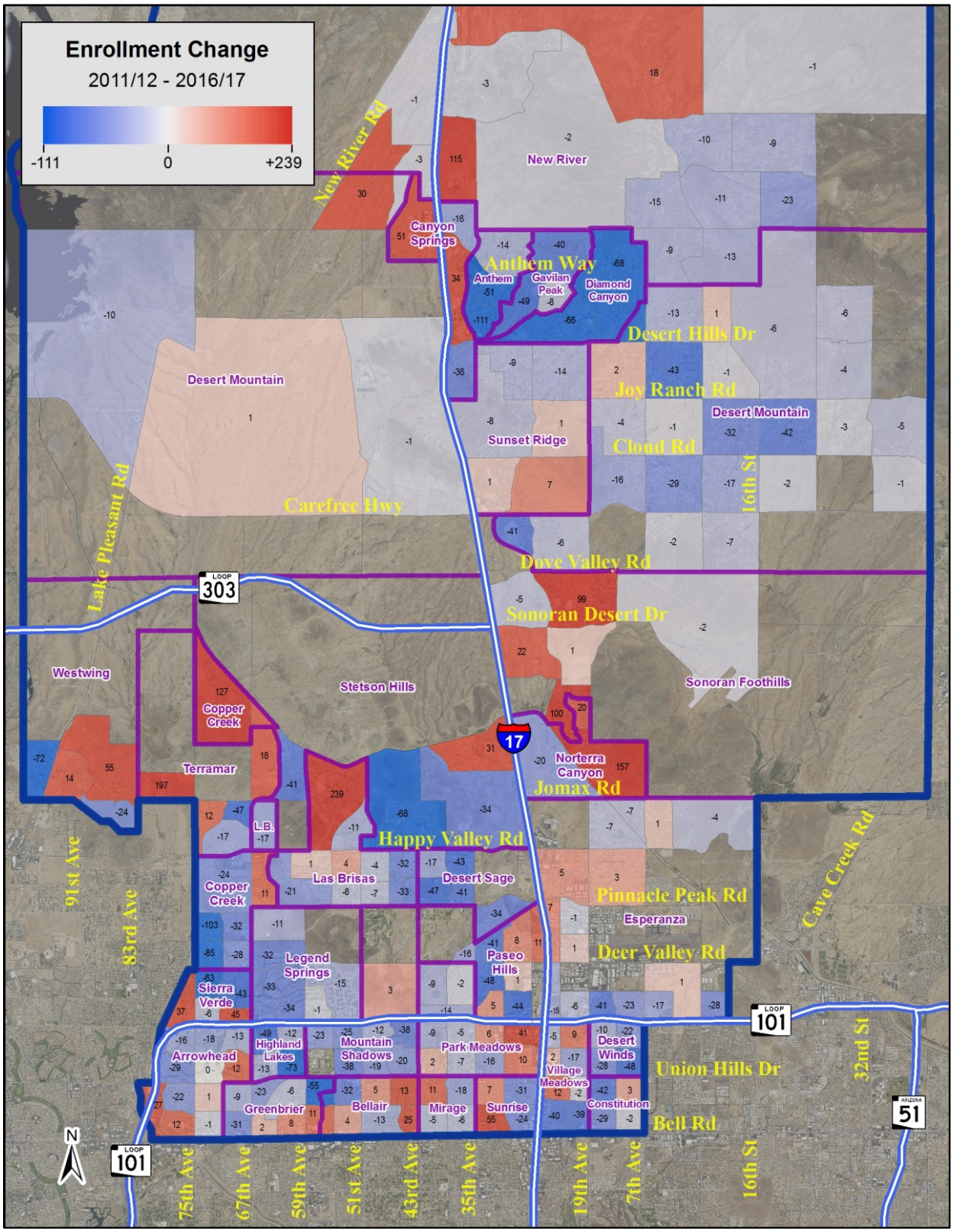
MAP 2
GEOGRAPHIC DISTRIBUTION OF 2016/17 K-12 ENROLLMENT



MAP 3
2016/17 K-12 ENROLLMENT BY PLANNING GRID



MAP 4
CHANGE IN ENROLLMENT: 2011/12 TO 2016/17



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
2008_09	2,666	2,668	2,578	2,794	2,937	2,990	2,879	3,053	2,967	3,026	2,883	2,589	2,478	36,508
Lost	17%	17%	14%	13%	15%	13%	13%	12%	16%	12%	16%	15%	96%	
New	86%	18%	16%	15%	14%	14%	13%	15%	10%	15%	9%	9%	6%	
Retained	58%	82%	83%	85%	87%	85%	87%	87%	88%	84%	87%	84%	88%	
2009_10	2,469	2,676	2,637	2,600	2,815	2,904	2,992	2,940	2,991	2,943	2,890	2,670	2,428	35,955
Lost	17%	15%	16%	15%	15%	15%	14%	12%	16%	14%	15%	14%	97%	
New	82%	18%	15%	17%	15%	14%	13%	14%	12%	13%	10%	9%	6%	
Retained	49%	84%	84%	84%	85%	85%	85%	86%	87%	84%	86%	85%	88%	
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
AVERAGE														
Lost	17%	15%	15%	13%	14%	13%	13%	11%	15%	11%	12%	12%	97%	
New	80%	22%	17%	16%	15%	14%	13%	15%	11%	16%	9%	9%	6%	
Retained	51%	83%	85%	85%	86%	86%	87%	88%	89%	85%	89%	87%	90%	

Sources: Deer Valley Unified School District; Applied Economics, 2017.

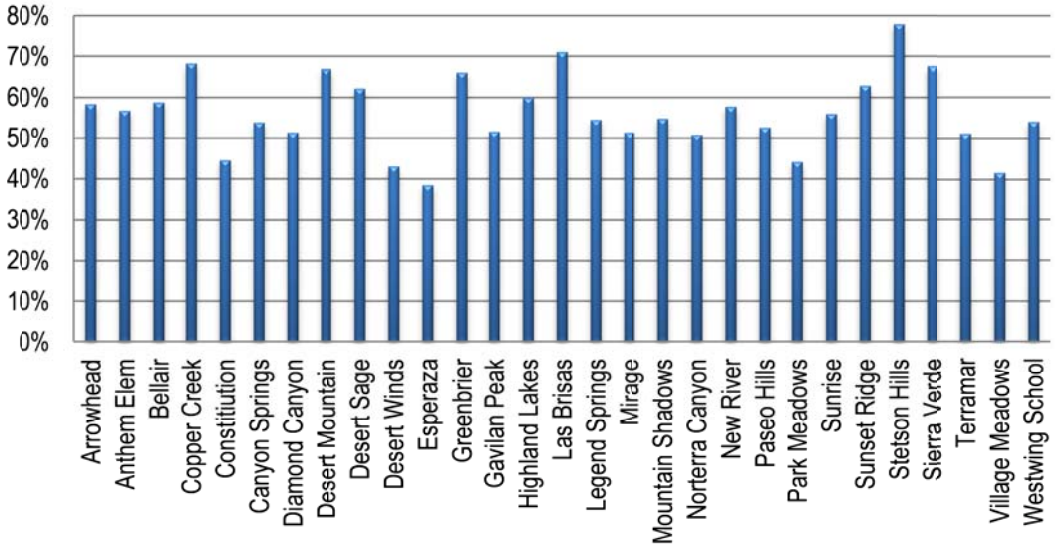
The share of students leaving the District after each year ranges from a high of 17 percent for Kindergarteners (excluding the 97 percent of 12th graders who leave), to a low of 11 percent for 9th graders. The other grades range from 12 to 15 percent of students leaving per year.

The share of the next year's enrollment coming from new students ranges from a high of 22 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. The strong up-tick to 16 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.

The share of students retained from the year before ranges from 83 percent in Kindergarten to over 90 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 56 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 9 percent from 2nd to 3rd grade, declining all the way down to 2 percent per year in 6th, 7th and 8th grade. The long-term survival rate varies significantly by elementary attendance area (i.e. where the student attended first grade), ranging from 38 percent in the Esperanza attendance area to 78 percent in the Stetson Hills attendance area, as shown in **Figure 3**.

FIGURE 3
SHARE OF STUDENTS STAYING IN THE DISTRICT FROM 1ST TO 8TH GRADE



The movement of students between 8th and 9th grade has become a very important part of the enrollment projections for the 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. It also shows signs of the opposite impact occurring in the Deer Valley and Boulder Creek attendance areas from time to time.

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. The largest of these shifts appears to move more students away from the Barry Goldwater High School and toward Mountain Ridge High School.

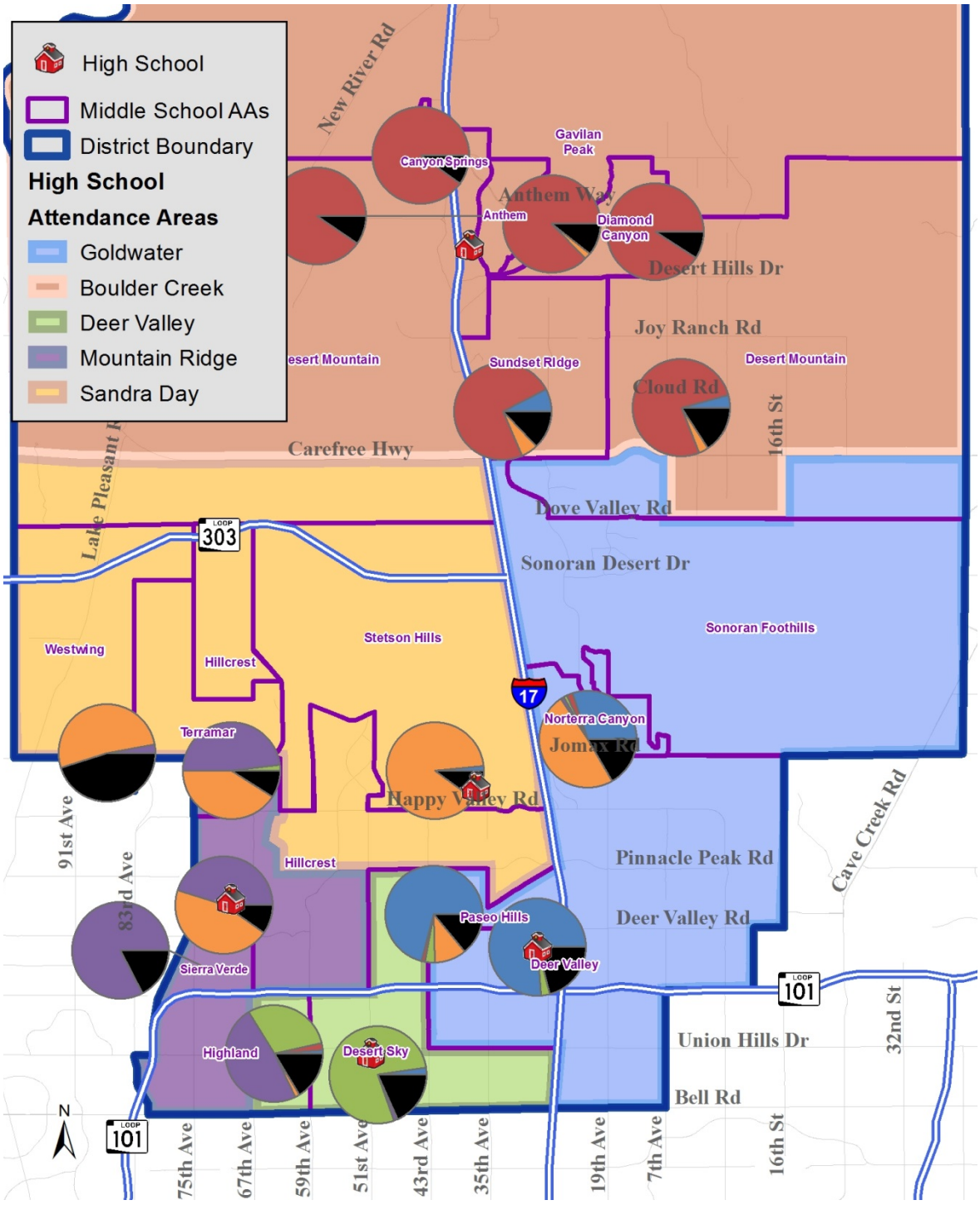
TABLE 2
8TH TO 9TH GRADE TRANSITION STATISTICS

AA/SCHOOL	2008_09	2009_10	2010_11	2011_12	2012_13	2013_14	2014_15	2015_16	2016_17
8TH GRADERS BY ATTENDANCE AREA									
MOUTAIN RIDGE	574	567	546	550	516	469	473	430	454
DEER VALLEY	505	498	448	465	403	405	375	379	385
BARRY GOLDWATER	665	606	617	666	595	595	589	533	622
SANDRA DAY	542	608	552	560	613	534	576	594	589
BOULDER CREEK	639	658	680	647	634	660	548	678	630
OUT OF DISTRICT	42	54	76	92	120	106	120	135	131
TOTAL	2,967	2,991	2,919	2,980	2,881	2,769	2,681	2,749	2,811
9TH GRADERS BY ATTENDANCE AREA									
MOUTAIN RIDGE		571	562	537	552	528	471	482	471
DEER VALLEY		501	457	426	448	412	421	403	373
BARRY GOLDWATER		626	568	563	619	534	564	578	540
SANDRA DAY		544	606	574	592	614	576	609	565
BOULDER CREEK		643	637	677	654	667	713	614	709
OUT OF DISTRICT		58	71	75	88	112	111	126	160
TOTAL		2,943	2,901	2,852	2,953	2,867	2,856	2,812	2,818
PROGESSION OF 8TH GRADERS BY ATTENDANCE AREA TO 9TH GRADERS BY ATTENDANCE AREA									
MOUTAIN RIDGE		99.5%	99.1%	98.4%	100.4%	102.3%	100.4%	101.9%	109.5%
DEER VALLEY		99.2%	91.8%	95.1%	96.3%	102.2%	104.0%	107.5%	98.4%
BARRY GOLDWATER		94.1%	93.7%	91.2%	92.9%	89.7%	94.8%	98.1%	101.3%
SANDRA DAY		100.4%	99.7%	104.0%	105.7%	100.2%	107.9%	105.7%	95.1%
BOULDER CREEK		100.6%	96.8%	99.6%	101.1%	105.2%	108.0%	112.0%	104.6%
OUT OF DISTRICT		138.1%	131.5%	98.7%	95.7%	93.3%	104.7%	105.0%	118.5%
TOTAL		99.2%	97.0%	97.7%	99.1%	99.5%	103.1%	104.9%	102.5%
9TH GRADERS BY SCHOOL									
MOUTAIN RIDGE		583	580	549	561	578	533	567	604
DEER VALLEY		534	512	432	499	453	472	451	424
BARRY GOLDWATER		556	480	486	543	511	506	495	413
SANDRA DAY		610	667	696	686	627	597	649	603
BOULDER CREEK		642	644	670	645	683	726	630	747
OTHER		18	18	19	19	17	22	20	27
TOTAL		2,943	2,901	2,852	2,953	2,869	2,856	2,812	2,818
PROGESSION OF 8TH GRADERS BY ATTENDANCE AREA TO 9TH GRADERS BY SCHOOL									
MOUTAIN RIDGE		101.6%	102.3%	100.5%	102.0%	112.0%	113.6%	119.9%	140.5%
DEER VALLEY		105.7%	102.8%	96.4%	107.3%	112.4%	116.5%	120.3%	111.9%
BARRY GOLDWATER		83.6%	79.2%	78.8%	81.5%	85.9%	85.0%	84.0%	77.5%
SANDRA DAY		112.5%	109.7%	126.1%	122.5%	102.3%	111.8%	112.7%	101.5%
BOULDER CREEK		100.5%	97.9%	98.5%	99.7%	107.7%	110.0%	115.0%	110.2%
TOTAL		99.2%	97.0%	97.7%	99.1%	99.6%	103.1%	104.9%	102.5%

Sources: Deer Valley Unified School District; Applied Economics, 2017.

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** below. It primarily shows that the distribution of 9th graders from each school follows logical patterns, with most students choosing the school indicated by their residence. However for some schools, like Norterra Canyon, the 8th grade class splits to go to several high schools with the majority going to Sandra Day and Goldwater. Westwing is interesting in that nearly half of the 8th grade students leave the District for high school, the distance to Sandra Day 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 2016. 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 a slight decline in the White and Native American share of population and minor increases in the African-American and Asian shares. The Hispanic share of population remained virtually unchanged, 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. However, due to a combination of the severe impact of the Great Recession on younger families and an accompanying widespread decline in birth rates, the population under 5 decreased by about 580 people between 2010 and 2016. The population aged 5 to 13, generally comprising Kindergarten through 8th grade, has been relatively stagnant since 2010, with the addition of less than 530 persons. The high school age population (14 to 17 years) increased by about 710 persons over the past 6 years.

The population in the 25 to 44 age group, typically considered prime child-rearing years, has grown only 0.3 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 Up category was nearly twice that of the overall population. This trend has continued since 2010 and has added about 15,300 persons aged 45 or older, which is more than three times the amount of the other categories combined. The 45 to 64 and 65 and Up categories, which together comprised about 27 percent of the population residing in the District in 2000, now account for around 38 percent of the total population. The population aged 45 and older has comprised about 80 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, 4,500 new units have been added to the inventory, representing a growth rate of less than 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 2016, occupancy had fully recovered, reaching 94.2 percent.

The profile of occupied housing units shifted from 20.3 percent renter-occupied units in 2000, to 24.9 percent in 2010 and 28.0 percent in 2016. The implication for DVUSD enrollment is the fact that rental units tend to have higher turnover rates; this trend can serve to stabilize the age structure of the student population since these households tend be 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 then decrease over time. Household size has declined by 0.2 percent annually since the 2000 Census. This can be attributed to the reduction in home ownership and the overall aging of the existing population.

TABLE 3
POPULATION AND HOUSING TRENDS

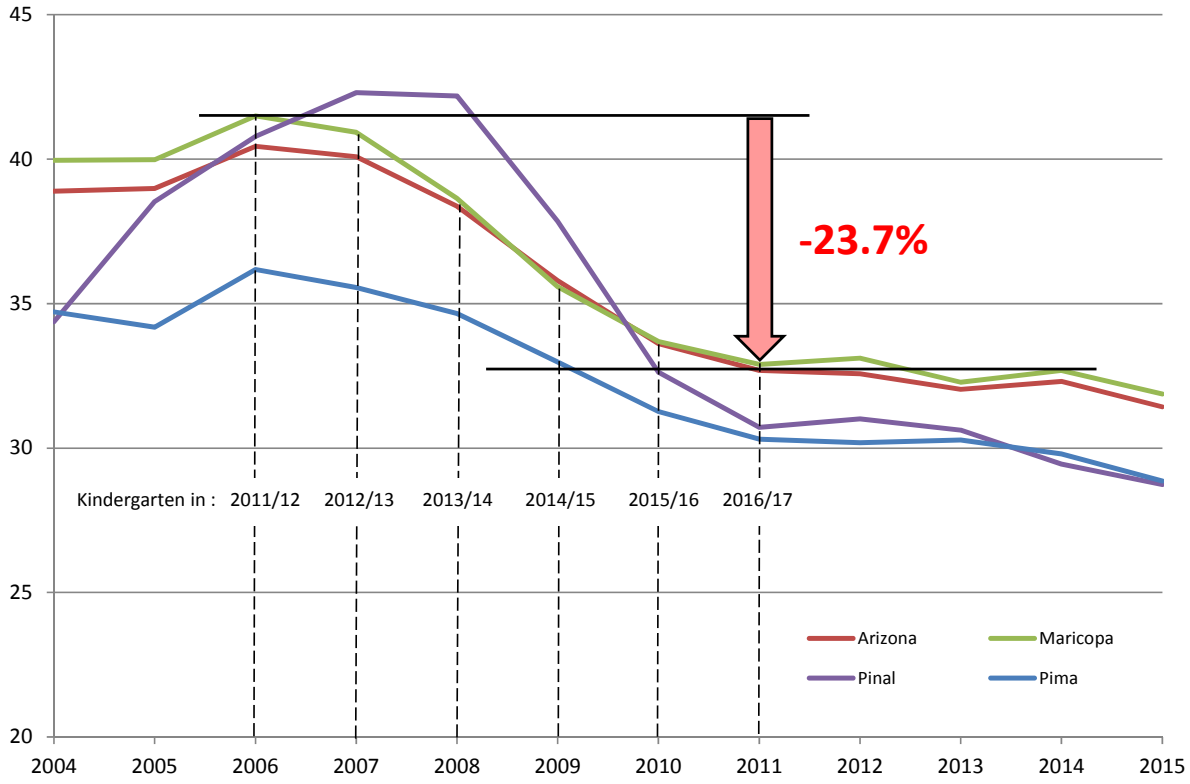
	2000 Census		2010 Census		2016 Estimate		Change (2000-2010)		Change (2010-2016)	
	Total	Percent	Total	Percent	Total	Percent	Total	Percent*	Total	Percent*
Population										
Total	159,234	100.0%	239,040	100.0%	258,302	100.0%	79,806	4.1%	19,262	1.3%
By Race & Ethnicity:										
White	134,862	84.7%	189,437	79.2%	201,774	78.1%	54,575	3.5%	12,337	1.1%
African American	3,333	2.1%	5,623	2.4%	6,543	2.5%	2,290	5.4%	920	2.6%
Native American	1,175	0.7%	1,786	0.7%	1,292	0.5%	611	4.3%	-494	-5.3%
Asian	3,736	2.3%	11,727	4.9%	15,720	6.1%	7,991	12.1%	3,993	5.0%
Hispanic	15,933	10.0%	30,090	12.6%	32,564	12.6%	14,157	6.6%	2,474	1.3%
Other	193	0.1%	377	0.2%	409	0.2%	184	6.9%	32	1.3%
By Age:										
Under 5	12,717	8.0%	16,602	6.9%	16,020	6.2%	3,885	2.7%	-582	-0.6%
5 to 13	23,031	14.5%	32,582	13.6%	33,108	12.8%	9,551	3.5%	526	0.3%
14 to 17	10,016	6.3%	14,368	6.0%	15,075	5.8%	4,352	3.7%	707	0.8%
18 to 24	13,474	8.5%	20,143	8.4%	22,009	8.5%	6,669	4.1%	1,866	1.5%
25 to 44	56,869	35.7%	71,267	29.8%	72,713	28.2%	14,398	2.3%	1,446	0.3%
45 to 64	33,731	21.2%	64,693	27.1%	75,406	29.2%	30,962	6.7%	10,713	2.6%
65 and up	9,396	5.9%	19,385	8.1%	23,972	9.3%	9,989	7.5%	4,587	3.6%
Housing Units										
Total	60,589	100.0%	96,493	100.0%	101,022	100.0%	35,904	4.8%	4,529	0.8%
Occupied	56,782	93.7%	87,217	90.4%	95,137	94.2%	30,435	4.4%	7,920	1.5%
Owner	44,491	73.4%	63,211	65.5%	66,840	66.2%	18,720	3.6%	3,629	0.9%
Renter	12,291	20.3%	24,006	24.9%	28,298	28.0%	11,715	6.9%	4,292	2.8%
Vacant	3,807	6.3%	9,276	9.6%	5,885	5.8%	5,469	9.3%	-3,391	-7.3%
Seasonal Use	1,190	2.0%	2,111	2.2%	2,254	2.2%	921	5.9%	143	1.1%
By Unit Type:										
Single Family	50,715	83.7%	79,651	82.5%	83,066	82.2%	28,936	4.6%	3,415	0.7%
Multifamily	9,874	16.3%	16,842	17.5%	17,956	17.8%	6,968	5.5%	1,114	1.1%
Households										
Total	56,782	100.0%	87,217	100.0%	95,137	100.0%	30,435	4.4%	7,920	1.5%
By Age of Householder:										
15 to 24	2,850	5.0%	3,669	4.2%	4,151	4.4%	819	2.6%	482	2.1%
25 to 34	12,325	21.7%	14,836	17.0%	15,545	16.3%	2,511	1.9%	709	0.8%
35 to 44	16,467	29.0%	20,509	23.5%	18,794	19.8%	4,042	2.2%	-1,715	-1.4%
45 to 54	12,330	21.7%	21,395	24.5%	24,083	25.3%	9,065	5.7%	2,688	2.0%
55 to 64	7,135	12.6%	15,461	17.7%	18,640	19.6%	8,326	8.0%	3,179	3.2%
65 to 74	3,670	6.5%	7,684	8.8%	9,773	10.3%	4,014	7.7%	2,089	4.1%
Over 75	2,005	3.5%	3,663	4.2%	4,152	4.4%	1,658	6.2%	489	2.1%
Population Per	2.80		2.74		2.72		-0.06	-0.2%	-0.03	-0.2%

Sources: U.S. Bureau of the Census, 2000 and 2010; Applied Economics, 2016.

* 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 4**, the birthrate (births per 1,000 for the population aged 15 to 45) in Arizona declined sharply between 2006 and 2011, with the Maricopa County rate declining by 23.7 percent. Since 2011 the rate has continued to decline, although much more slowly, while the total number of births has stabilized because the population aged 15 to 45 has increased somewhat during the period. The impact of the declining birth rate on Kindergarten enrollment is delayed five years, implying that the number of potential Kindergarten students declined by about 24 percent between the 2011/12 and 2016/17 school years. In fact, most school districts in Maricopa County experienced declines in Kindergarten enrollment during that period.

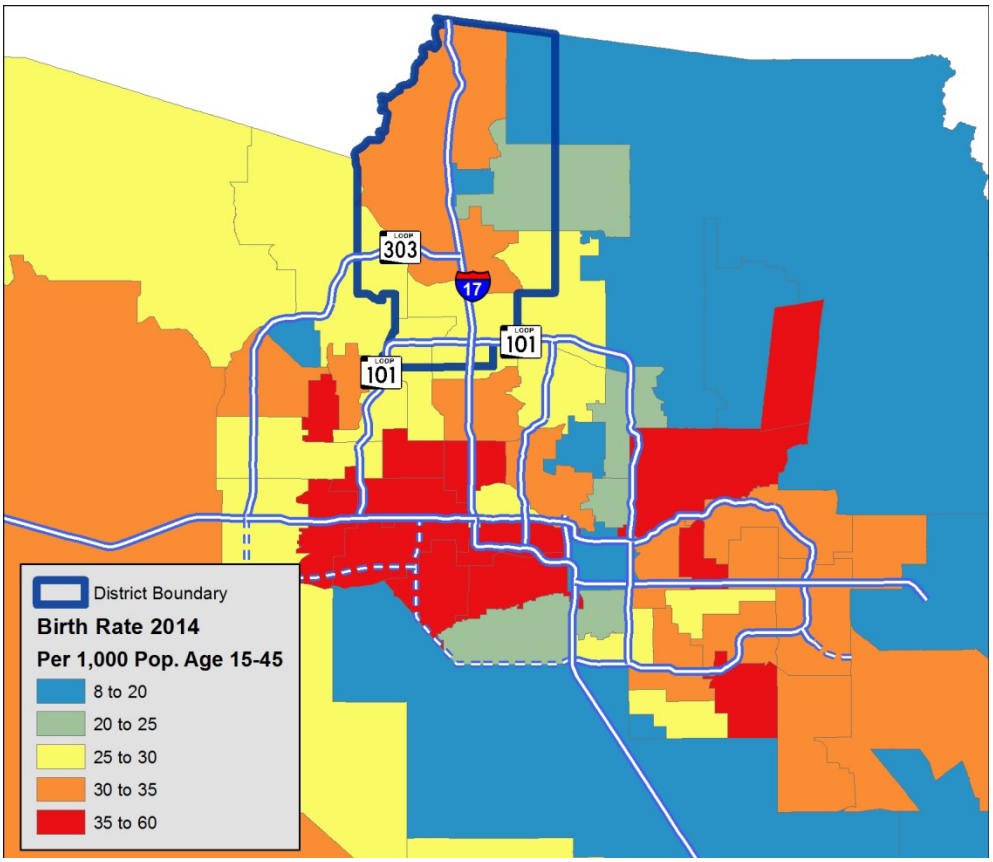
FIGURE 4
BIRTHRATES IN ARIZONA AND SELECTED COUNTIES: 2004 – 2015



Historical birth and enrollment data is correlated to project Kindergarten enrollment in the near-term. This analysis is perform using two methods: one analyzing District enrollment versus County births; and another analyzing District enrollment compared to estimated births in the District. The second method is based on more assumptions than the first, but is better at reflecting the changing demographic characteristics of the District. The reason to consider the sub-County data in preparing projections is illustrated by the following two maps that show how current (2014) birthrates in the District compare with other parts of the Phoenix Metropolitan area, and how these rates have changed over the past three years.

MAP 6
BIRTH RATES
2014

With respect to sub-county birthrates, most of the populated parts of the District are near the county average; rates are generally slightly higher in the newly developing I-17 corridor north of the CAP Canal. However, Anthem has much lower than average birthrates, which has been evident in 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 - 2014

During the economic recovery period (2011 through 2014), birth rates declined across most of the District, which is indicative of an aging population and the absence of new younger families due to the higher than average home prices. The emergence of the northern part of the District as a move-up housing market and the influx of custom homes also tended to limit enrollment growth in the lower grades

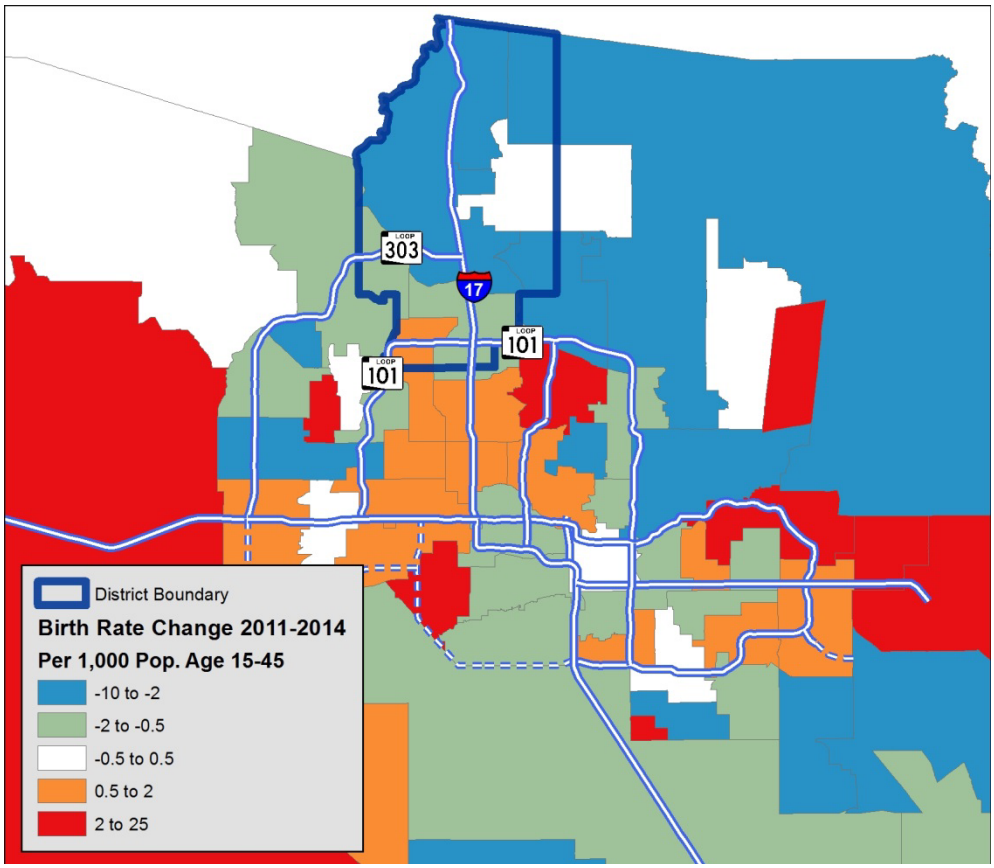


Table 4 shows near-term Kindergarten enrollment projections for the District based on both the county and District methods. The Maricopa County data shows the historical decline and recent stability in the number of births. The lagged relationship of this trend to enrollment shows the District's share 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 that full-day program was restored in 2014/15. The lagged share of births has stabilized over the past two years at a level slightly above the 2009/10 rate, averaging 4.37 percent for the two-year period. Held constant and applied to the known births through 2015, this rate would result in District Kindergarten enrollment of between 2,350 and 2,400 students over the next four years.

TABLE 4
PROJECTED KINDERGARTEN ENROLLMENT BASE 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	2,380	4.37%
2013	53,848	2018/19	2,355	4.37%
2014	55,285	2019/20	2,417	4.37%
2015	54,600	2020/21	2,387	4.37%
Deer Valley Unified School District *				
2010	2,919	2015/16	2,363	80.9%
2011	2,953	2016/17	2,337	79.1%
2012	2,979	2017/18	*2,383*	*80.0%*
2013	2,863	2018/19	*2,290*	*80.0%*
2014	2,893	2019/20	*2,314*	*80.0%*
2015	2,906	2020/21	*2,325*	*80.0%*
2016	2,951	2021/22	*2,360*	*80.0%*

Sources:
Arizona Department of Health Servcices, 2004 - 2015.
Deer Valley Unified School District, 2004 - 2016.
Applied Economics, 2017.

* 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 historic share of those compared to Kindergarten enrollment (about 80 percent), District Kindergarten enrollment would also range from about 2,300 to 2,400 students over the next five 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 share the responsibility for serving students with an expanding number of charter and private schools, as well as neighboring public school districts through open enrollment. Given that newly-opened schools can have an immediate impact on District enrollment, it is important that enrollment data for these alternative providers is as up-to-date as possible in order to fully assess the implications for the District.

Charter schools report enrollment to the state, as do district schools, but due to a one-year lag in the data reported to the Arizona Department of Education, charter enrollment from the 2015/16 school year is the most recent available. However, 40th day Average Daily Membership (ADM) data is available for 2016/17 and, while the figures differ from actual headcount data, the relationship between the two figures by school and grade is consistent enough to derive 2016/17 headcount estimates with a high degree of accuracy. Using this method, estimates for total charter enrollment in the 2015/16 school year varied from actual data by less than one tenth of one percent.

In the 2016/17 school year, there were 17 charter schools operating within District boundaries serving approximately 7,300 K-12 students, as listed on **Table 5**. The largest charter school is Adams Traditional Academy with about 810 students. The next-largest are Great Hearts Anthem Prep and Reid Traditional Schools' Valley Academy, with about 790 students each. Four other schools enroll more than 550 students each, including Happy Valley School with about 710 students.

TABLE 5
ENROLLMENT IN LOCAL CHARTER SCHOOLS

Charter Schools School Name	Address	City	Zip	Total K-12
Adams Traditional Academy	2323 W. Parkside Ln.	Phoenix	85027	808
AMCS at Anthem dba Caurus Academy	41900 N. 42nd Ave.	Anthem	85086	320
Canyon Pointe Academy	4941 W. Union Hills Dr.	Glendale	85308	328
Challenge Charter School	5801 W Greenbriar Dr	Glendale	85308	553
Deer Valley Academy	18424 N. 51st Ave.	Glendale	85308	122
Desert Heights Preparatory Academy	3540 W. Union Hills Dr.	Phoenix	85016	417
E-Institute at Grovers	4744 W. Grovers Ave.	Glendale	85308	48
E-Institute at Union Hills	3515 W. Union Hills Dr.	Phoenix	85308	168
Great Hearts Academies - Anthem Prep	39808 N. Gavilan Peak Pkwy.	Anthem	85086	791
Happy Valley School	7140 W. Happy Valley Rd.	Peoria	85383	707
The Hearn Academy (Ball Charter Schools)	17606 N. 7th Ave.	Phoenix	85023	629
Imagine Bell Canyon	18052 N. Black Canyon Hwy.	Phoenix	85053	328
Ombudsman - Charter West	3624 W. Bell Rd.	Glendale	85308	207
Pinnacle Pointe Academy	6753 W. Pinnacle Peak Rd.	Glendale	85310	240
Reid Traditional Schools' Valley Academy	1520 W. Rose Garden Ln.	Phoenix	85027	785
Ridgeline Academy: A Challenge Foundation Academy	33625 N. North Valley Pkwy.	Phoenix	85085	612
Stepping Stones Academy	35812 N. 7th St.	Phoenix	85086	209
Total				7,272

Source: Arizona Department of Education; Applied Economics 2016.

Table 6 shows the enrollment in charter schools by grade over the past nine years. Enrollment has increased by 2,950 students since the 2008/09 school year, about 80 percent of which had taken place by 2011/12. The number of schools increased every year between 2008/09 and 2011/12, reaching a peak of 24 schools, before declining to 17 schools in 2014/15. Since that time, the number of schools has

remained stable, while enrollment has increased by about 700 students. The average annual growth rate has been about 6.7 percent since 2008/09, or about 370 students per year; the largest single-year increase of 936 students was in the 2010/11 school year, the same year that free full-day Kindergarten was eliminated in the District. Although some of the increase that year resulted from the opening of three new schools, the majority of enrollment growth took place among the existing campuses. The bulk of charter school enrollment tends to be in the younger grades, with lower levels after 7th grade; there has recently been a notable uptick in grades 11 and 12.

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
2008-09	15	651	594	559	526	415	419	356	218	194	86	61	92	151	4,322	
2009-10	17	749	660	595	566	527	435	487	275	213	64	90	105	166	4,932	610
2010-11	20	941	756	700	623	628	566	531	348	265	88	85	143	194	5,868	936
2011-12	24	1,040	913	785	780	703	635	607	342	313	110	95	129	203	6,655	787
2012-13	22	1,098	977	890	805	778	596	638	394	332	114	114	137	271	7,144	489
2013-14	19	1,057	938	875	796	694	654	610	451	403	218	168	181	249	7,294	150
2014-15	17	856	915	826	758	717	620	562	342	328	143	107	157	244	6,575	(719)
2015-16	17	908	902	921	831	751	724	637	414	368	127	149	166	275	7,173	598
2016-17	17	847	872	908	845	774	654	661	422	392	122	186	238	351	7,272	99

Source: Arizona Department of Education; Applied Economics 2016.

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. The survey has been conducted for 2015/16, but it is not expected to be published until April 2017. Therefore, the 2013/14 enrollment figures provided are the most current available. In the 2016/17 school year there were four private schools operating in the District, as shown in **Table 7**. The Caepe School had 59 students prior to closing after the 2013/14 school year, leaving just over 1,000 students enrolled in private schools within the District.

TABLE 7
ENROLLMENT IN LOCAL PRIVATE SCHOOLS

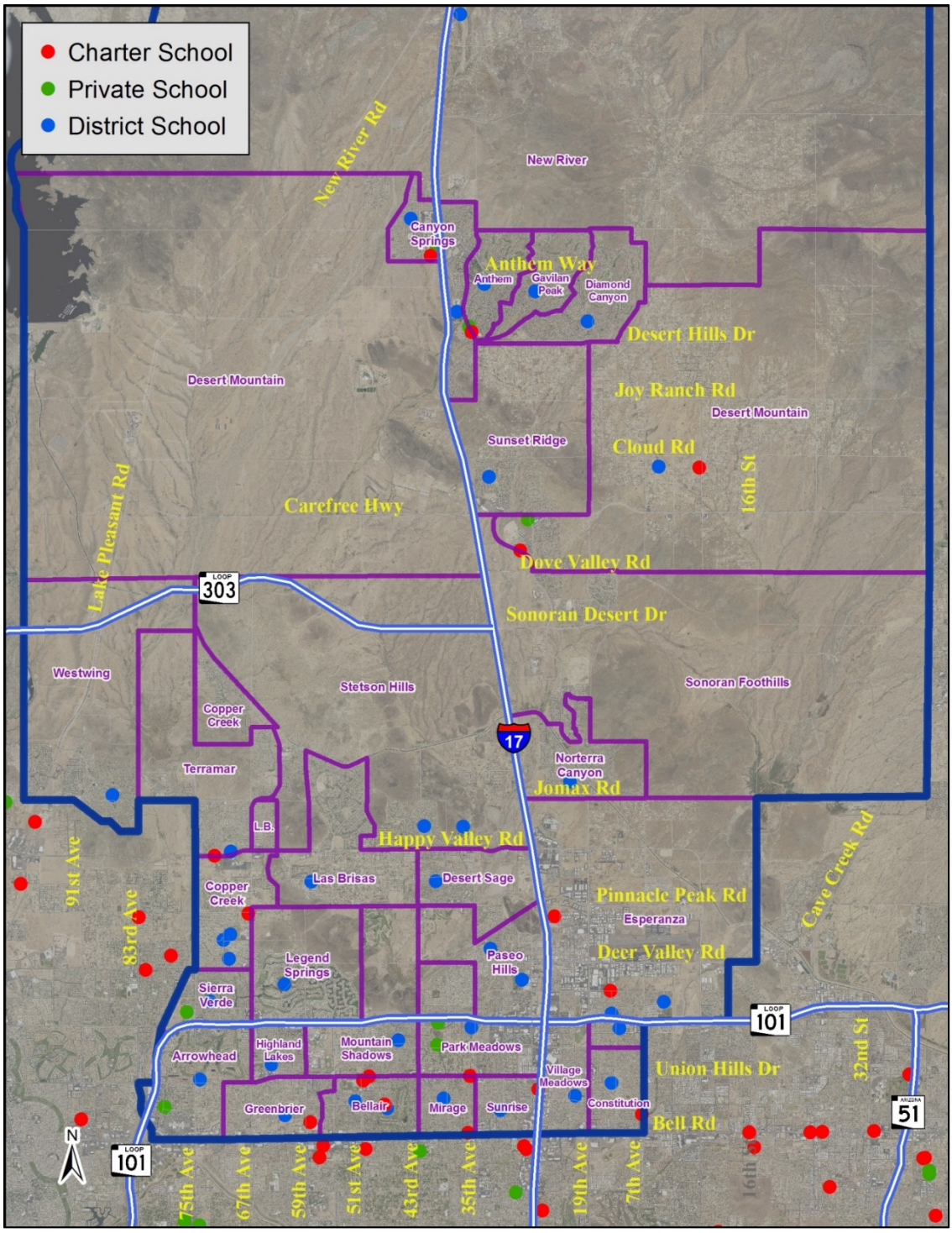
Private Schools School Name	Address	City	Zip	Total K-12
Arrowhead Christian Academy	4030 W Yorkshire Dr	Glendale	85308	130
Atonement Lutheran	4001 W Beardsley Rd	Glendale	85308	115
Joy Christian School	21000 N 75Th Ave	Glendale	85308	630
North Valley Christain Academy	42101 N 41St Dr Ste 101	Anthem	85086	140
Total				1,015

Source: Private School Universe Survey (PSS) 2015; Applied Economics 2016.
Data from 2013/14 school year.

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. It is important to note that there are also a

significant number of charter and private schools located just outside of DVUSD boundaries, along with neighboring districts' facilities. Students living in the District are not limited to attending schools located within the District and vice-versa, resulting in a complex flow of incoming and outgoing students that 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

As shown on **Table 8**, there have been nearly 16,000 housing units permitted in the District in the past ten years, with over half issued during the first two years of the period. Residential construction activity has been uneven over the past few years as the economy continues to recover from the recession and housing market collapse. Construction began declining after major developments peaked between 2003/04 and 2005/06. At the time, single family permits were averaging almost 4,600 units per year, a figure that was fueled by elevated levels of development at Anthem, Sonoran Foothills, Sonoran Mountain Ranch, Stetson Valley, Valley Vista and Westwing Mountain. Once activity at those projects peaked, construction continued at significantly reduced levels and the ensuing recession exacerbated a long-term trend that had already begun.

Overall, single family permitting in the District has been concentrated in the low-to-medium density classifications, but development has trended toward lower-density housing in recent years. In 2005/06, housing at 3.5 density units per acre or less accounted for just over 60 percent of the single family total; by 2014/15 the figure was nearly 90 percent of the total. Since 2009/10, multifamily housing activity has been concentrated elsewhere in the Phoenix Metropolitan Area, particularly in and near Desert Ridge and in the downtowns of Phoenix, Tempe, and Scottsdale.

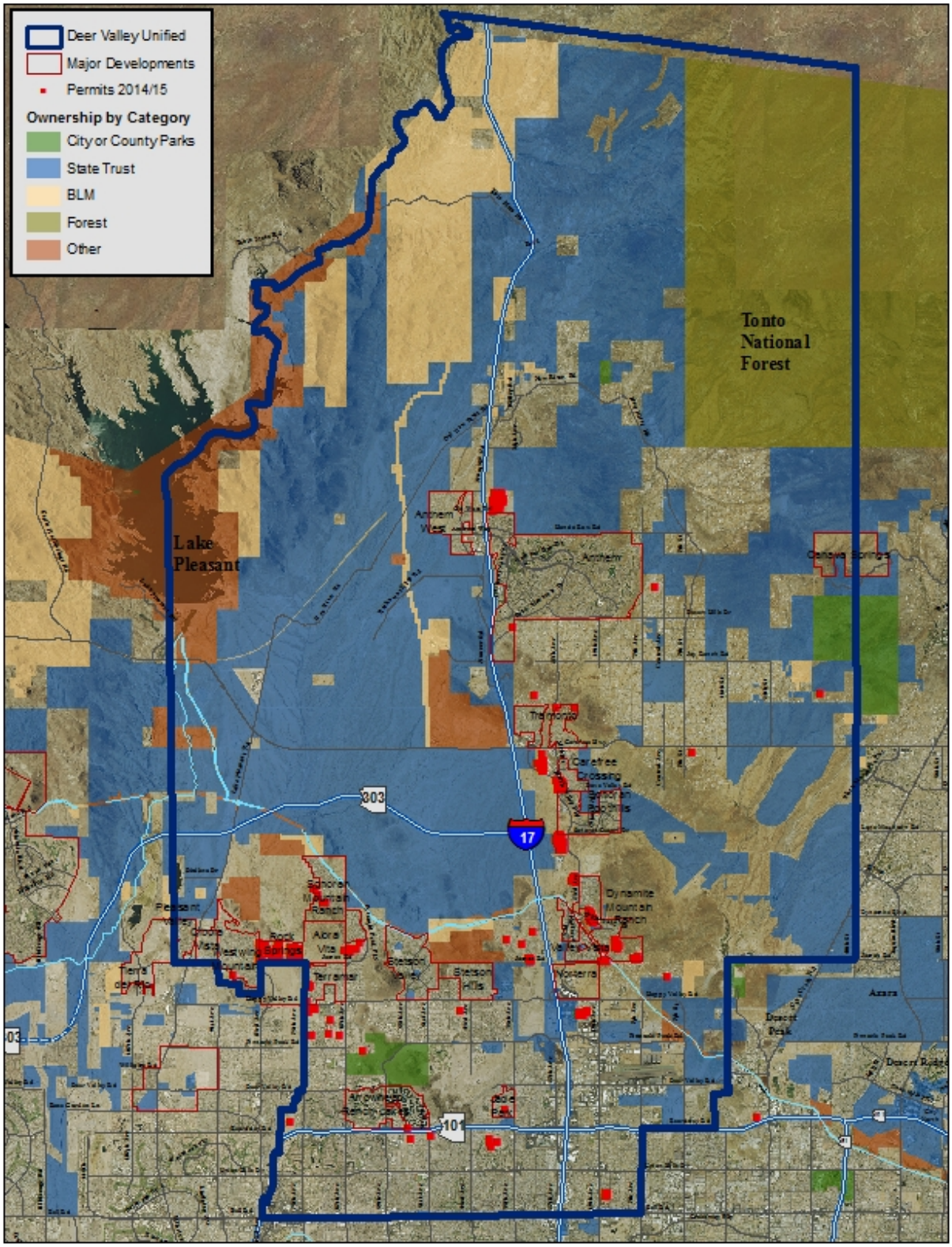
TABLE 8
HOUSING PERMITS

Housing Type	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	Total
Non-Retirement Housing											
Single Family 2 du/ac or less	1,202	781	284	132	135	75	108	193	336	213	3,459
Single Family 2.01 - 3.5 du/ac	1,760	1,107	558	321	237	147	266	456	269	310	5,431
Single Family 3.51 - 4.5 du/ac	1,670	328	135	72	55	35	86	42	70	67	2,560
Single Family 4.51 - 6 du/ac	101	59	-	-	-	7	44	49	-	-	260
Single Family 6.01du/ac & Over	-	61	-	-	-	-	-	-	-	-	61
Single Family Attached	-	-	-	-	-	-	-	-	-	-	-
Manufactured Housing	-	-	-	-	-	-	-	-	-	-	-
Total Single Family	4,733	2,336	977	525	427	264	504	740	675	590	11,771
Multifamily to 12 du/ac	4	82	146	30	-	-	-	-	5	10	277
Multifamily 12.0 du/ac & Over	800	352	252	1,255	359	8	334	-	-	389	3,749
Total Multifamily	804	434	398	1,285	359	8	334	-	5	399	4,026
Total	5,537	2,770	1,375	1,810	786	272	838	740	680	989	15,797

Sources: Maricopa Association of Governments; Construction Monitor; Maricopa County Assessor; Applied Economics, 2015.

Development in the District is strongly influenced by geography and land ownership. Some of the fluctuations in housing construction are a result of the somewhat disjointed availability of developable land. As shown on **Map 9**, development areas are separated by mountainous terrain, canals, and confined by large tracts of State Land not readily available for private development. Permits taken out in 2014/15 are largely concentrated at Rock Springs, in the west, and in numerous subdivisions along the 23rd Avenue corridor on the east side of I-17. There is also some development in the rural area south and east of Anthem and additional infill activity in the southern portion of the District.

MAP 9
RESIDENTIAL PERMITTING



3.2 HOUSING VACANCY TRENDS

Housing vacancy data is one of the most difficult-to-acquire metrics used to project District population and enrollment. Changes in housing vacancy rates can result in declines or increases in population without any residential construction. The United States Department of Housing and Urban Development (HUD) has an agreement with the U.S. Postal Service (USPS) to receive data on addresses identified by the USPS as having been vacant the previous quarter. This data has been processed by using the 2010 Census as a benchmark and applying changes in vacancy rates, rather than using absolute numbers of housing units. **Map 10** shows the study areas defined for the vacancy data.

Based on groupings of Census Tracts, areas of similar housing characteristics have been combined into study areas to increase the relevance and accuracy of the data. The large Anthem/New River study area is largely State Land, and most of the housing in the Anthem development began in the late 1990's. The Desert Hills study area consists of numerous rural, large-lot properties. Stetson Valley includes that development, as well as Rock Springs and Westwing Mountain in the city of Peoria. The Sonoran Foothills study area includes the corridor on the east side of I-17 with numerous active subdivisions and employment centers, including Dynamite Mountain Ranch and Norterra. Deer Valley East is an older residential area with extensive industrial employment, while Deer Valley West is mostly residential, including Glendale's Arrowhead Lakes master planned community.

As shown on **Table 9, v**acancy rates throughout the District have improved substantially, dropping by 50 percent overall. The Desert Hills and Anthem study areas have changed the least; this is likely due to the stable, rural nature of the Desert Hills area and the large amount of seasonal housing in the Anthem area. Even so, vacancy rates at Anthem decreased by 34 percent. The other study areas have averaged nearly 60 percent declines in vacancy since the beginning of 2010. Currently, vacancy rates in those areas average less than 4 percent and the rate is less than 5 percent in the District overall, which is strong evidence of the attractiveness of the area. The steep drops in vacancy rates in the growing Stetson Valley and Sonoran Foothills study areas indicate that new housing is being rapidly absorbed because of strong market demand. The low rates throughout the southern portion of the District also suggest a lack of available housing.

MAP 10
VACANCY TRENDS STUDY AREAS

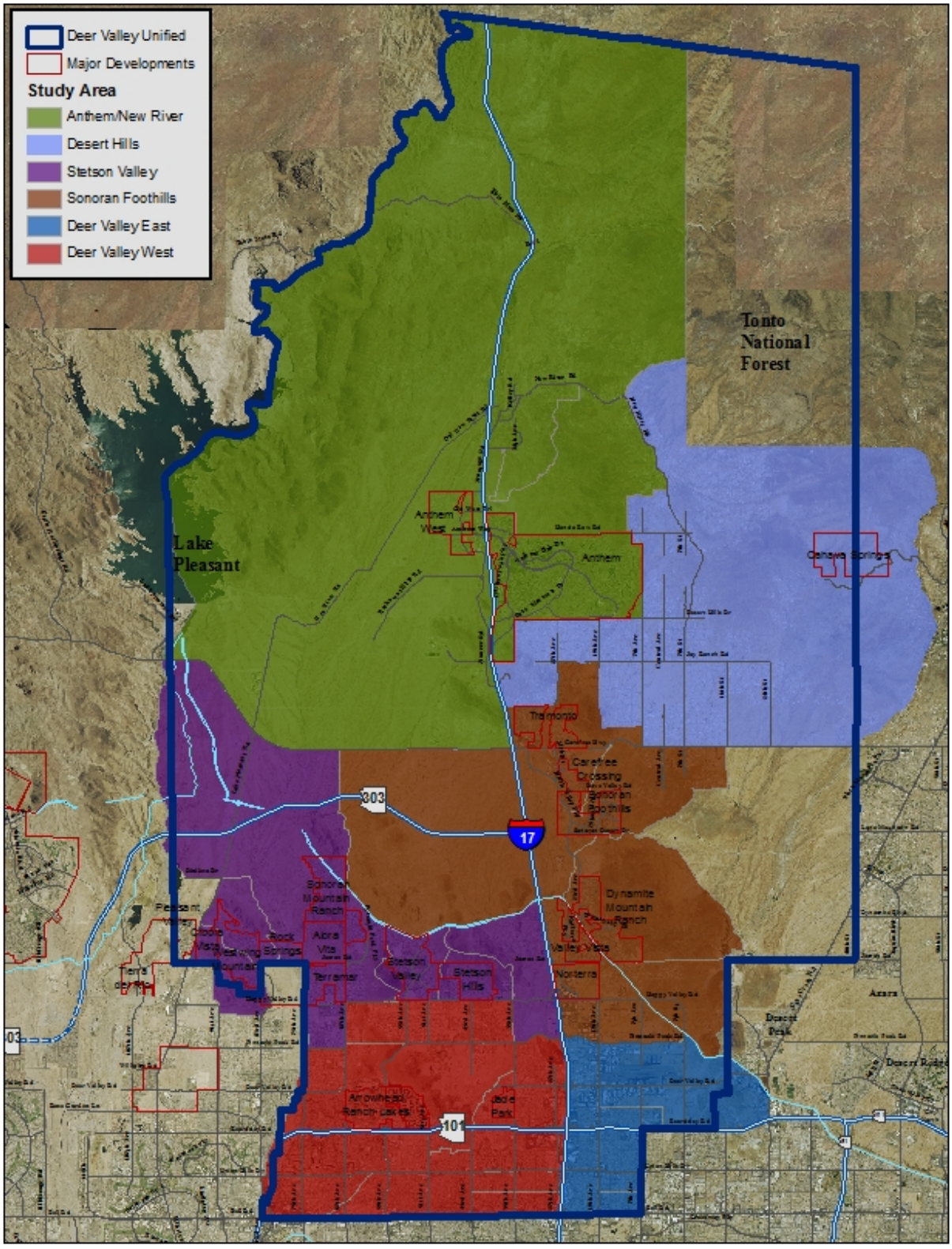


TABLE 9
HOUSING VACANCY TRENDS

Year	Quarter	Deer Valley East	Deer Valley West	Stetson Valley	Sonoran Foothills	Anthem/New River	Desert Hills	District Average
2010	1	10.83%	7.48%	6.94%	12.50%	15.92%	9.63%	9.60%
	2	11.04%	7.43%	6.77%	10.58%	16.24%	9.40%	9.41%
	3	11.03%	7.08%	6.61%	9.81%	15.63%	8.98%	9.04%
	4	10.81%	7.02%	6.56%	10.10%	15.85%	9.85%	9.09%
2011	1	9.96%	6.89%	6.45%	9.75%	15.19%	10.64%	8.82%
	2	9.63%	6.53%	7.11%	9.36%	15.01%	10.38%	8.61%
	3	8.37%	5.64%	7.60%	8.89%	15.67%	12.48%	8.24%
	4	7.95%	5.56%	7.09%	8.64%	15.16%	12.00%	7.97%
2012	1	7.00%	5.36%	6.59%	8.28%	13.87%	11.52%	7.46%
	2	6.70%	5.36%	6.01%	8.08%	13.54%	11.37%	7.28%
	3	7.55%	5.79%	5.58%	7.86%	13.47%	11.00%	7.48%
	4	7.20%	5.35%	5.23%	7.29%	13.73%	10.92%	7.16%
2013	1	6.70%	5.09%	4.94%	6.79%	13.27%	10.62%	6.81%
	2	6.04%	4.93%	4.26%	6.27%	13.05%	10.35%	6.45%
	3	5.63%	4.65%	3.93%	5.90%	12.90%	10.35%	6.17%
	4	5.02%	4.23%	3.75%	5.79%	12.76%	10.18%	5.83%
2014	1	4.81%	4.01%	3.67%	5.87%	12.03%	10.57%	5.64%
	2	4.50%	3.96%	3.51%	5.82%	11.77%	10.28%	5.50%
	3	4.72%	3.82%	3.39%	5.78%	11.82%	10.12%	5.45%
	4	4.54%	3.52%	3.32%	5.83%	11.71%	10.19%	5.28%
2015	1	4.44%	3.42%	3.21%	5.57%	10.63%	9.86%	5.02%
	2	3.85%	3.05%	3.05%	5.48%	10.57%	9.73%	4.73%

Source: U.S. Department of Housing and Urban Development; U.S. Postal Service; U.S. Bureau of the Census; Maricopa Association of Governments; Construction Monitor; Applied Economics, 2015.

3.3 FUTURE DEVELOPMENT POTENTIAL

The future residential development potential within the DVUSD is currently estimated to be about 45,000 units. **Table 10** shows the development potential by type of housing product and the estimated time period expected for the *beginning* of construction, although developments often take a number of years to actually complete. About 70 percent of the active units are in the "Custom/Infill" category, which are generally rural or infill projects that are likely to be under development intermittently over a number of years. Examples of this could include the rural area between Anthem and Carefree Highway or any infill potential in the southern portion of the District, which is substantially developed already. Both the number of units and the timing of them may change as new information is acquired.

About 90 percent of the estimated units in the "10-plus Years" category are on State Land parcels, and the actual configuration of such developments will most likely include a wider range of densities than is indicated by this current estimate. However, even if the entire category is removed, the remaining estimate still shows about 60 percent of the single family development potential in the 2.0 to 3.5 units-per-acre density range. Such a narrow range of future housing types could impact the age levels of the resident population, though differences in the actual housing product should provide some degree of diversity. Only about 15 percent of the single family housing is over 3.5 units-per-acre, and just over 25 percent of that estimate is estate-type housing, which would favor an older resident profile. About 25 percent of the potential units are multifamily; the number of such units is expected to increase over time as additional land parcels are identified for multifamily use.

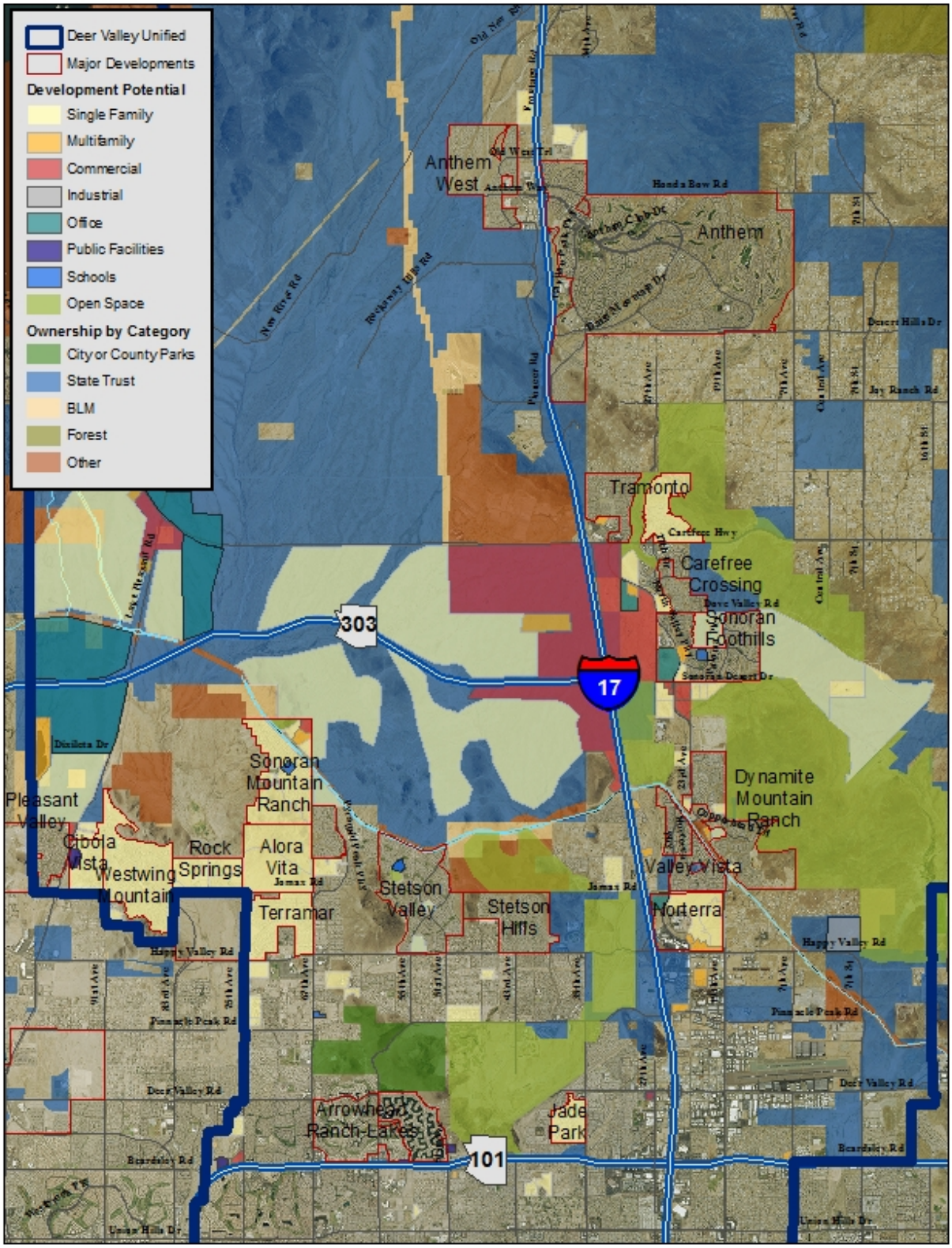
TABLE 10
POTENTIAL NEW HOUSING BY DEVELOPMENT TIMELINE

	Active Projects		Vacant Land						
Housing Type	Subdivisions	Custom/Infill	Dormant	1 Year	2-3 Years	3-5 Years	5-10 Years	10+ Years	Total
Non-Retirement Housing									
Single Family 2 du/ac or less	77	2,156	15	-	45	52	604	1,238	4,187
Single Family 2.01 - 3.5 du/ac	248	491	-	813	1,630	2,007	1,893	22,578	29,660
Single Family 3.51 - 4.5 du/ac	320	-	-	106	55	-	-	1,440	1,921
Single Family 4.51 - 6 du/ac	22	-	-	-	442	-	214	-	678
Single Family 6.01du/ac & Over	-	-	-	-	150	-	-	-	150
Total Single Family	667	2,647	15	919	2,322	2,059	2,711	25,256	36,596
Multifamily, Low Density	70	-	-	-	-	-	308	-	378
Multifamily, Standard Courtyard	210	700	-	138	434	266	1,481	4,483	7,712
Total Multifamily	280	700	-	138	434	266	1,789	4,483	8,090
Total	947	3,347	15	1,057	2,756	2,325	4,500	29,739	44,686

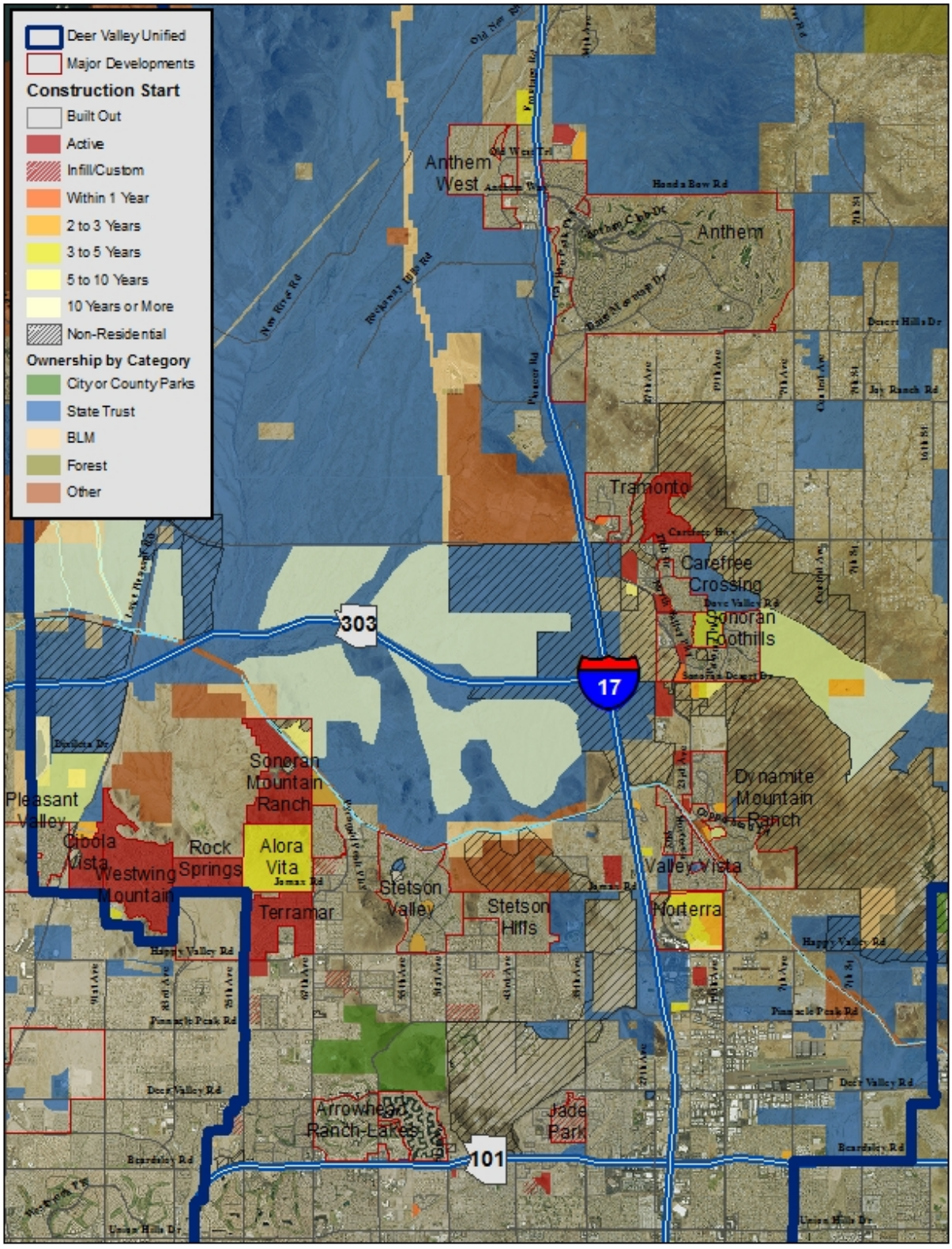
Sources: City of Phoenix; City of Glendale; City of Peoria; Applied Economics, 2016.

The following maps illustrate the location of this development potential. **Map 11** shows future land use. As would be expected, single family housing comprises most of the future land uses, along with pockets of commercial uses, some of which are substantial. Much of the District consists of State Land, with the potential for large-scale future development along the Loop 303. **Map 12** illustrates currently active and future development areas that have been color coded based on the estimated timing for development presented in the table above. Active areas are in centrally located corridors, while more established areas are in the north and south.

MAP 11
FUTURE LAND USE



MAP 12
DEVELOPMENT TIMING



The regional real estate market has had an uneven recovery from the collapse of the housing bubble. This has been due to the extent of the damage locally and the sluggish improvement of the economy in general. Lingering issues of damaged credit, foreclosed houses and a general lack of consumer confidence have resulted in chronically low residential demand and impacted new home construction. Builders have been cautious about making new investments in land, focusing instead on smaller development projects by purchasing finished lots in existing subdivisions.

Several trends converging at this time portend major changes in the housing market in the coming years. The first is simply the improvement in the U.S. economy overall, which allows for greater mobility of households, an important factor for a place like Arizona which typically draws substantial in-migration from other regions of the country. Housing demand is also increasing as changes to mortgage underwriting guidelines are increasing the availability of loans. Damage to credit resulting from foreclosure is also receding. It generally takes seven years for a foreclosure to be dropped from a credit report, so those who were foreclosed on in 2008 should be in an improved financial position this year. In coming years more foreclosures will drop from credit reports, resulting in increasing numbers of potential "boomerang buyers". According to a Realty Trac report earlier this year, Phoenix, Miami, Tampa and Las Vegas should see an increase of these returning home buyers. A National Association of Realtors study also states that the greatest impact by return buyers will be in California, Florida and Arizona. Expected increases in interest rates could cause some dampening of home sales, but this should be largely offset by improvements in employment.

One impediment to new construction is the shortage of labor in the housing industry. This has been a concern among multiple builders across the Valley and also in some market prediction reports. Lack of local employment caused some people to leave region during the recession; many Latino workers left in reaction to the recession and in response to Senate Bill 1070 and the generally hostile environment in Maricopa County. Lack of framers also dampens employment in other building trades. These employment impacts lead to either shortages in new house supply or higher labor costs, with either factor leading to potentially more expensive homes. The labor issues further contribute to a slowing of the recovery in the market.

Employment and income growth will be the chief drivers in the progress of the housing market and, while there are challenges, the District is better positioned for growth than some other areas of the Valley. In general, both office and industrial vacancies are lower in Deer Valley and the northwest portion of the metropolitan area. Office vacancy rates in mid-2015 were just over 20 percent for the metro region, but about 14 percent in Deer Valley (Cushman and Wakefield). Industrial vacancy for the third quarter 2015 was just under 12 percent for the region and just below 9 in the northwest submarket (Daum Commercial Real Estate Services). This was the lowest vacancy rate of any submarket, running slightly better than the popular Northeast submarket. A Kiplinger Letter annual state economic outlook forecasts that Arizona should have job growth of about 3.6 percent in 2016, the second highest in the U.S. (behind Nevada). Given the data on office and industrial occupancy, it is reasonable to expect that a significant amount of that employment growth will be in the District.

Evidence of local market strength can be seen in the 377,000 square foot expansion of the USAA Phoenix Corporate Campus, which will increase employment from the current 3,600 to about 4,000 by 2018 or soon thereafter. The adjacent Norterra mixed-use project is also planned to add 500,000 to 700,000 square feet of office space, a hotel, and retail space. To the north, at Dove Valley and 31st Avenue, is the site of a future W. L. Gore campus of 682,000 square feet of office, research, and manufacturing space. It isn't expected to be open for a number of years, but it will help bolster the long-term economic stability of the I-17 employment corridor. So, while labor issues may be an impediment to housing construction, at least in the near-term, continued employment growth will promote future residential development.

Current development activity is dispersed among a number of subdivisions, mostly along the I-17 corridor and in the western area of the District near Jomax Road. The 1,050 single family lots in active projects (not custom or infill) are contained in about twenty subdivisions, and only three have more than 100 lots remaining. The Meritage Homes project, Stoneledge at North Canyon (right), has the largest remaining potential of the active projects with about 200 unbuilt lots. Located at North Valley Parkway and Carefree Highway, the development entered its construction phase in mid-2014.



The Rock Springs development in the western portion of the District continues to build strongly, though construction volume has declined since 2013/14. Lennar Homes is the major builder now, with about 150 of the 250 remaining lots. Current construction levels are moderate and unlikely to rise significantly given the labor shortages that are impacting the housing industry.

Construction at Sonoran Commons (North Valley Parkway and Sonoran Desert Drive) is progressing, with building at phase one increasing; phase two has been underway since mid-2015. To the south at Dynamite Mountain Ranch, Taylor Morrison still has some remaining lots. They completed one subdivision in mid-2015 but have since started another, so construction in the area continues unabated.

Just north of Anthem, Meritage Homes has finished construction on the southern portion of Arroyo Norte. Richmond American and Beazer Homes are active on the northern portion. Construction is occurring at a moderate pace on the remaining 75 lots, with completion expected during 2017. A final parcel to the east is across an unbridged wash and is investor-owned, so there is no certain development timing. That parcel does not currently have a recorded plat, but initial street and lot grading was performed around 2010 and the parcel contains an estimated 45 lots, each over 50,000 square feet (more than an acre); this is substantially larger than lots in the adjacent subdivisions which generally range from about 7,500 to 10,500 square feet. Lot size and the fact that it is the farthest developable parcel in the area could impede development interest; although having State Land on two sides could be considered a positive aspect.

Even though the southern portion of the District is largely built-out, there is still some infill activity taking place. Mandalay Homes began construction on Carmel Estates around October 2015. The 39-lot subdivision is located at 55th Avenue north of Union Hills Drive. At the north side of the Loop 101 and 75th Avenue, the Aspera mixed use project includes a Banner Health facility, retail, and a P.B. Bell apartment complex of 286 units (left). MCH Development also started construction on a townhouse project at 51st Avenue and Loop 101 in mid-2015.

Until there are releases of major tracts of State Land, which is not expected any time soon, there are few remaining areas for major planned developments. One of these is Alora Vita, a roughly two square mile project at Jomax and 75th Avenue, half of which is located in the District, with the other half in the Peoria School District. This project is still advancing but has encountered a problem with drainage and retention issues. The developers are seeking to resolve the problem, whether independently or with other adjacent

property owners, but the issue is creating a delay. Housing development is now expected to begin in about three to four years, though that time frame could be moved ahead or back depending on how the retention issues are handled.

Sunbelt Holdings is adding a residential component to the Norterra development at I-17 and Happy Valley Road. Plans are for approximately 1,050 single family houses in three phases. Infrastructure work is to begin in mid-to-late 2016, with housing construction to follow in early 2017. No builders are yet identified, but plans call for a fairly aggressive development schedule. The multifamily component remains under the control of USAA at this time. Plans are for 800 to 900 units in high-density construction, as opposed to the "courtyard" type complexes common in suburban Phoenix. There is no timing estimate yet on the multifamily units. The location is very good for such development, but there are several other multifamily projects planned in the area. While the apartment market remains strong, there is some danger of oversaturation given the elevated construction levels in recent years.

Housing growth in the near-term will continue to take place in small subdivisions or on remaining parcels within developments while waiting for larger tracts of land to be available. Pulte Homes purchased two State Land parcels in Stetson Valley in September 2015. The two parcels, including one that had previously been designated for commercial use, should yield about 140 single family lots. At 67th Avenue and the CAP canal, Lennar and Pulte Homes will develop a State Land parcel auctioned in May 2015 with about 230 single family lots. Pivotal Realty owns parcels at Westwing and Lake Pleasant Parkways in Peoria and has builder interest. Pre-application meetings are in progress with the estimated 140 lots expected to be under construction in 2017.

East of I-17, zoning for an 82-lot subdivision southeast of North Valley Parkway and Sonoran Desert Drive is moving ahead, with Mattamy Homes listed as the applicant. At the northeast corner of the same intersection, a rezoning of a commercial parcel has resulted in a 111-lot subdivision. A Shea Homes partnership is listed as owner of the parcel that began infrastructure development in late 2015 (right).



East of Dove Valley Road and North Valley Parkway is a 145-acre State Land parcel. Taylor Morrison Homes has shown interest in this land in the past, but plans are being deferred at this time. It is known that the company is interested in a large tract of land to the southeast (in the Paradise Valley School District) that is expected to be auctioned soon. There may be renewed interest after that auction, depending on the result. Farther east, south of Dove Valley Road at the Central Avenue alignment, Taylor Morrison is pursuing development of an 80-acre parcel. The parcel is surrounded by State Land and the company acquired right-of-way easements through multiple auction cases in May, 2015. Due to the location, there will be substantial off-site improvements necessary before development of the subdivision can begin. Entitlements are being pursued and sales for the 255 lots at Sonoran Gate are planned to commence in mid to late 2017.

Construction activity for single family homes is expected to lag over the next two years as currently active subdivisions are scheduled to build-out before major new projects, such as Norterra and the delayed Alora Vita, are underway. After the initial period of build-out and preparation, construction levels are expected to increase and remain strong throughout most of the projection period. Long-term construction levels will depend on absorption of State Land parcels in any or all of three areas: Peoria along Lake Pleasant Parkway, east of I-17 on the south side of Dove Valley Road, and mid-District on either side of Loop 303. Multifamily housing is expected to grow more consistently than in recent years but not at exceptional levels due to labor issues and concerns over general market saturation in the region. Greater local employment growth could increase production, especially in the mid-term, if the shortages in construction labor can be alleviated.

4.0 DISTRICT PROJECTIONS

District-level enrollment projections are created by integrating historic enrollment, demographic and housing market trends with the projected housing unit additions and the associated change in 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 DVUSD, shown in **Table 11**, are based on historic and forecast trends in housing construction, occupancy, ownership and economic growth indicators. Currently, the District contains approximately 92,000 households (occupied housing units), up about 1,800 from last year, and a population per household of about 2.72 persons. District population and households are expected to increase throughout the projection period as new housing supply enters the market and occupancy rates stabilize. However, population per household is expected to continue declining due to aging of existing households and the increase in multifamily housing, both of which dampen the impact of increases in households on total population and enrollment.

While the number of new housing units can generally reflect the level of population growth in an area, the number of occupied units, or households, is a more accurate indicator. The District's occupancy rate peaked at 96 percent in 2005/06, at the height of the regional construction boom, and then declined during the recessionary period during the latter half of the decade. By the 2010/11 school year it had fallen to around 90 percent. Over the past six years, occupancy has steadily improved to 94.2 percent and some 4,500 new housing units have been added to the inventory.

High levels of new home construction leading up to the recession, combined with the ensuing drop in occupancy rates, resulted in a large surplus of units since additions to the housing inventory far outpaced new household growth between 2006/07 and 2010/11. This trend reversed between 2011/12 and 2016/17 as occupancy rates increased and new household formation over the five-year period outpaced housing unit additions by about 75 percent. In the 2016/17 school year, 95,100 households comprised the District's total population of 258,300 persons, which equates to a per-household population of 2.72 persons.

Between the 2016/17 and 2021/22 school years, the projected addition of about 5,000 housing units and continued improvement in the occupancy rate would result in approximately 5,600 new households. With stable occupancy of about 95 percent forecast for the five-year period between 2021/22 and 2026/27, the addition of around 5,400 units would result in about 5,300 new households. In total, around 10,800 new households are projected to be added over the next ten years, resulting in a population increase of about 22,600 persons. By 2026/27, it is projected that more than 105,900 households will yield a population of about 281,000 people with a per-household population of 2.65 persons.

TABLE 11
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	247,717	98,332	729	92.3%	7,551	90,781	970	2.729
2014/15	251,705	99,032	700	93.2%	6,685	92,347	1,566	2.726
2015/16	253,894	100,020	988	93.3%	6,680	93,340	993	2.720
2016/17	258,302	101,022	1,002	94.2%	5,885	95,137	1,797	2.715
2017/18	260,447	101,868	846	94.3%	5,766	96,102	964	2.710
2018/19	263,447	103,050	1,182	94.5%	5,664	97,386	1,285	2.705
2019/20	266,204	104,088	1,038	94.7%	5,549	98,539	1,153	2.702
2020/21	269,251	105,265	1,177	94.8%	5,438	99,827	1,288	2.697
2021/22	271,443	106,068	803	95.0%	5,303	100,765	937	2.694
2022/23	273,637	107,103	1,035	95.0%	5,355	101,748	983	2.689
2023/24	276,203	108,306	1,203	95.0%	5,415	102,891	1,143	2.684
2024/25	279,108	109,640	1,334	95.0%	5,482	104,158	1,267	2.680
2025/26	281,360	110,671	1,031	95.0%	5,534	105,137	979	2.676
2026/27	280,938	111,506	835	95.0%	5,575	105,931	793	2.652
2017/18 - 2026/27			10,484				10,793	

Source: Applied Economics, November 2015.
*Bolding Indicates Actuals

4.2 SCHOOL-AGE POPULATION AND DISTRICT ENROLLMENT

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, as shown on **Table 12**. The first element, student generation, refers to the expected size of the school-age population (persons aged 5 to 17 years old), per household. The average number of school-age persons per household decreased from 0.582 in 2000/01 to 0.506 in 2016/17. School-age population per household is expected to continue to decline by about 1 percent per year or less through the end of the projection period, reaching 0.491 persons per household by 2026/27.

Between the 2000/01 and 2010/11 school years, enrollment increased by 9,200 students, or about 36 percent, while the school-age population (persons aged 5 to 17) residing within District boundaries increased by 13,900 students, or 42 percent. Changes for both groups included two years of decline due to the recession. In 2016/17, the District's school-age population increased by about 430 persons, while K-

12 enrollment fell by more than 150 students. Overall there were about 48,180 school-age persons residing in the District in 2016/17, while K-12 enrollment was 33,618. With a difference of about 14,560 students, the District is enrolling about 70 percent of the school-age population that resides within its boundaries. This percentage of the school-age population residing in the District that chooses to attend District schools is henceforth referred to as the "enrollment-to-population ratio" or "capture rate."

TABLE 12
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	0.780
2001/02	59,932	34,609	0.577	27,257	0.455	7,352	0.788
2002/03	63,152	36,185	0.573	28,411	0.450	7,774	0.785
2003/04	67,607	38,437	0.569	29,812	0.441	8,625	0.776
2004/05	73,331	41,367	0.564	31,432	0.429	9,935	0.760
2005/06	79,663	44,590	0.560	33,146	0.416	11,444	0.743
2006/07	84,666	47,022	0.555	35,113	0.415	11,909	0.747
2007/08	86,663	47,757	0.551	36,375	0.420	11,382	0.762
2008/09	86,222	47,144	0.547	36,408	0.422	10,736	0.772
2009/10	87,111	47,260	0.543	35,989	0.413	11,271	0.762
2010/11	87,217	46,950	0.538	34,985	0.401	11,965	0.745
2011/12	88,051	46,919	0.533	34,400	0.391	12,519	0.733
2012/13	89,811	47,373	0.527	33,763	0.376	13,610	0.713
2013/14	90,781	47,400	0.522	33,054	0.364	14,346	0.697
2014/15	92,347	47,730	0.517	33,432	0.362	14,298	0.700
2015/16	93,340	47,755	0.512	33,770	0.362	13,985	0.707
2016/17	95,137	48,182	0.506	33,618	0.353	14,564	0.698
2017/18	96,102	48,232	0.502	33,494	0.349	14,738	0.694
2018/19	97,386	48,535	0.498	33,458	0.344	15,077	0.689
2019/20	98,539	48,864	0.496	33,383	0.339	15,481	0.683
2020/21	99,827	49,354	0.494	33,471	0.335	15,883	0.678
2021/22	100,765	49,768	0.494	33,487	0.332	16,281	0.673
2022/23	101,748	50,203	0.493	33,556	0.330	16,647	0.668
2023/24	102,891	50,716	0.493	33,765	0.328	16,951	0.666
2024/25	104,158	51,290	0.492	33,986	0.326	17,304	0.663
2025/26	105,137	51,720	0.492	34,231	0.326	17,489	0.662
2026/27	105,931	52,058	0.491	34,328	0.324	17,730	0.659

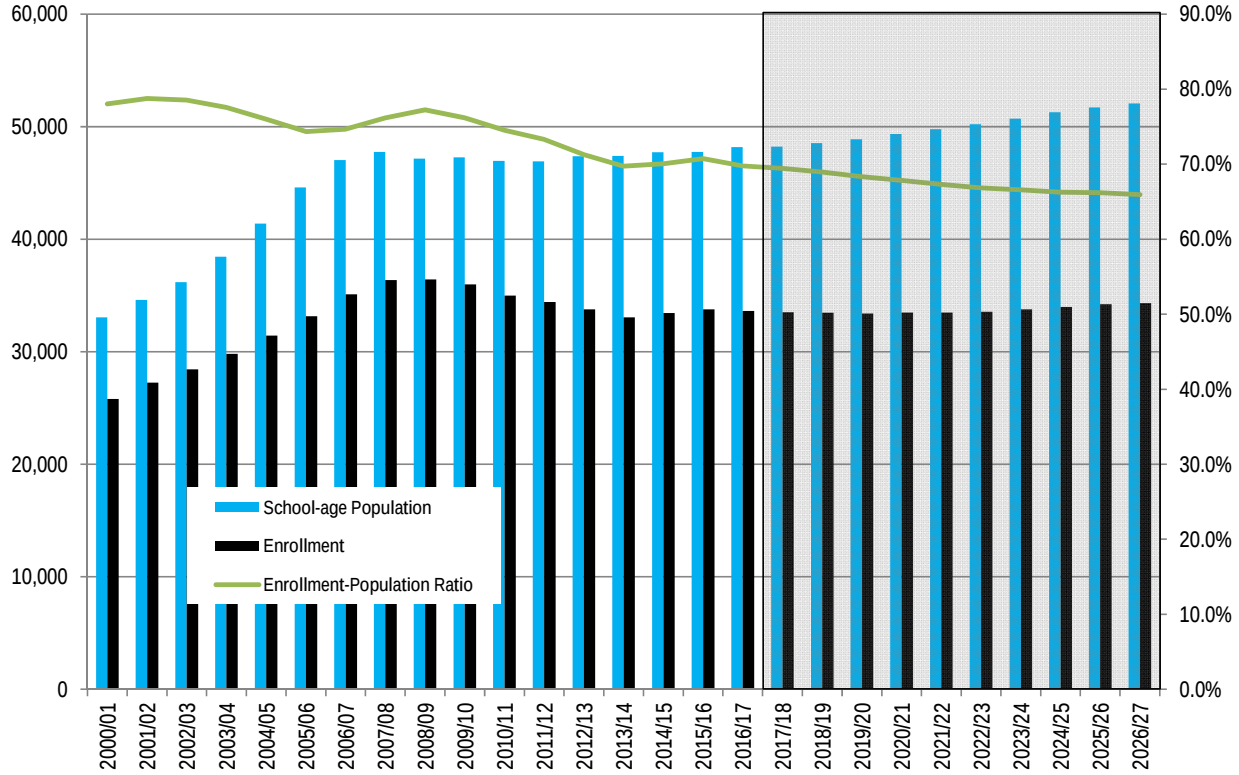
Source: Applied Economics, December 2016.

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

Bolding Indicates Actuals

Due to the increasing number of educational alternatives and open enrollment policies, it is necessary to apply the enrollment-to-population ratio to the school-age population in order to project enrollment. While households may be generating 0.506 school-age persons, on average, that does not necessarily result in an equivalent amount 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 the gain of students from outside DVUSD boundaries. The 69.8 percent capture rate includes the loss to open enrollment, charter and private schools, etc. and the addition to the District of students from elsewhere, also due to open enrollment. The relationship between school-age population and actual enrollment is illustrated by **Figure 5**.

FIGURE 5
PROJECTED ENROLLMENT: 2000/01-2026/27



In 2000/01, the District's capture rate was about 78 percent, which was a little low even for a suburban area that also featured a variety of private and parochial schools. Since that time, increasing open enrollment—and especially the introduction and proliferation of public charter schools—has significantly impacted the in-District capture rates for public school districts. Open enrollment causes a shifting of students between districts, with gains and losses offsetting each other to varying degrees, whereas charter schools only detract from district enrollment. In 2009/10, all-day Kindergarten was eliminated from the District, contributing to a rapid decline in the capture rate, falling by about 6 percentage points to around 70 percent in 2013/14. Over the same period, charter school enrollment increased by nearly 3,000 students. In 2014/15, the capture rate increased for the first time in six years, while local charter school enrollment decreased for the first time. The rate is expected to slowly decline over the next ten years to just under 66 percent in 2026/27.

The elimination of all-day Kindergarten was especially detrimental to DVUSD enrollment, as existing and potential District students opted for charter schools or neighboring districts, such as Paradise Valley USD, which continued to offer all-day Kindergarten. While some students may have returned to DVUSD for 1st grade, students at that level have a historical tendency to remain at the same school. The result is a continued impact on capture rates as those students progress. As time goes on, capture rates are expected to stabilize, but the District will likely continue to face new challenges in the form of increased competition from new or expanding alternative providers. These conflicts are expected to lead to a slow decline in capture rates over the study period.

Based on the projected change in the school-age population and trends in the District's capture rate, a modest decline is projected to continue through 2019/20 at an average rate of about 0.2 percent per year. It is then projected to increase at an average rate of about 0.4 percent per year through 2026/27, with the most significant projected annual growth in 2024/25 and 2025/26 at about 0.7 percent. Increased occupancy and student generation rates are expected to be largely offset by a slow decline in capture rates as construction levels are expected to remain relatively consistent over the next ten years. As a result of these counterpoising factors, change in the total K-12 enrollment is likely to be minimal over the projection period. In total, District enrollment is projected to increase by about 700 students over the next ten years, reaching a total of 34,328 by 2026/27. Slightly stronger growth in the latter half of the projection period is expected due to a combination of the diminished effects from the earlier elimination of all-day Kindergarten and an anticipated rebound in birth rates.

4.3 ENROLLMENT BY GRADE LEVEL

Table 13 provides a more detailed review of past and projected enrollment changes by showing enrollment at the elementary, middle and high school level. Annual enrollment decreases between 2009/10 and 2013/14 were primarily comprised of losses in the earlier elementary grades, while high school enrollment continued to grow, with the exception of a 4-student drop in 2010/11. District enrollment decreased by about 150 K-12 students in 2016/17 (about 0.5 percent) after increasing by about 1 percent in each of the previous two years. Over the past three years, high school enrollment has decreased by about 330 students, while Kindergarten through 4th grade (K-4) enrollment has increased by nearly 700 students.

After dropping by 20 students in 2016/17, K-4 enrollment is projected to continue to decrease, resulting in a loss of about 240 students over the next five years. It is then expected to increase substantially, with a 1,000-student gain over the latter five years of the projection period. Enrollment in 5th through 8th grade (5-8) is projected to decrease by about 200 students over the next two years, and then increase by about the same amount over the following four years. Between 2023/24 and 2026/27, 5-8 enrollment is projected to decline by about 340 students, due in part to the preceding decline in K-4 class sizes. High school enrollment is expected to stabilize, with measured increases in all but two years of the projection period. The majority of the newer housing inventory is likely to be occupied by older householders, so the performance of the new home market should be a major factor in determining future high school enrollment.

TABLE 13
HISTORIC AND PROJECTED 40TH DAY ENROLLMENT BY LEVEL: 2000/01-2026/27

	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	11,909	10,710	22,619	10,875	33,494	-124	-0.4%
2018/19	11,915	10,581	22,496	10,962	33,458	-36	-0.1%
2019/20	11,805	10,599	22,404	10,979	33,383	-75	-0.2%
2020/21	11,753	10,648	22,401	11,070	33,471	88	0.3%
2021/22	11,732	10,706	22,438	11,049	33,487	16	0.0%
2022/23	11,831	10,794	22,625	10,931	33,556	69	0.2%
2023/24	12,051	10,726	22,777	10,988	33,765	209	0.6%
2024/25	12,342	10,608	22,950	11,036	33,986	221	0.7%
2025/26	12,609	10,513	23,122	11,109	34,231	245	0.7%
2026/27	12,734	10,453	23,187	11,141	34,328	97	0.3%

Source: Applied Economics, December 2016.
Bolding indicates actuals.

The distribution of enrollment by individual grade is shown in **Table 14**, and can provide some additional insight into enrollment patterns and the progressive impact of smaller or larger classes. In 2000/01, the District had about 2,000 Kindergarteners and 1,500 12th graders, equating to 7.7 percent and 5.6 percent of total enrollment, respectively. This relationship has reversed, with parity reached in 2009/10 with each grade containing about 2,460 students. After that the trend continued toward fewer Kindergarten than 12th grade students. In 2016/17, about 2,340 Kindergarteners comprised 7.0 percent of enrollment, while about 2,620 12th grade students make up about 7.8 percent of enrollment. The distribution is expected to remain fairly consistent throughout the projection period, with the bulk of District enrollment in grades 7 through 10.

TABLE 14
HISTORIC AND PROJECTED 40TH DAY ENROLLMENT BY GRADE: 2000/01-2026/27

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	4.0%
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	480	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	478	2,271	2,341	2,416	2,445	2,436	2,559	2,645	2,697	2,809	2,873	2,785	2,662	2,555	33,494	-0.4%
2018/19	477	2,214	2,283	2,403	2,487	2,528	2,476	2,595	2,767	2,743	2,880	2,844	2,690	2,548	33,458	-0.1%
2019/20	476	2,201	2,223	2,341	2,471	2,569	2,567	2,508	2,712	2,812	2,809	2,849	2,746	2,575	33,383	-0.2%
2020/21	477	2,247	2,223	2,293	2,422	2,568	2,624	2,616	2,636	2,772	2,897	2,788	2,755	2,630	33,471	0.3%
2021/22	477	2,310	2,262	2,286	2,365	2,509	2,614	2,665	2,741	2,686	2,847	2,870	2,694	2,638	33,487	0.0%
2022/23	478	2,374	2,326	2,325	2,357	2,449	2,554	2,655	2,792	2,793	2,758	2,821	2,773	2,579	33,556	0.2%
2023/24	481	2,419	2,393	2,394	2,401	2,444	2,496	2,597	2,785	2,848	2,872	2,734	2,727	2,655	33,765	0.6%
2024/25	484	2,467	2,441	2,466	2,475	2,493	2,494	2,541	2,728	2,845	2,932	2,849	2,643	2,612	33,986	0.7%
2025/26	487	2,510	2,484	2,509	2,543	2,563	2,538	2,533	2,662	2,780	2,921	2,905	2,753	2,530	34,231	0.7%
2026/27	488	2,530	2,503	2,529	2,563	2,609	2,584	2,553	2,629	2,687	2,828	2,880	2,800	2,633	34,328	0.3%

Source: Applied Economics, December 2016.

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, 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 2026/27 for each of the planning grids have been developed.

The grid-level projections are aggregated by attendance area and are 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.

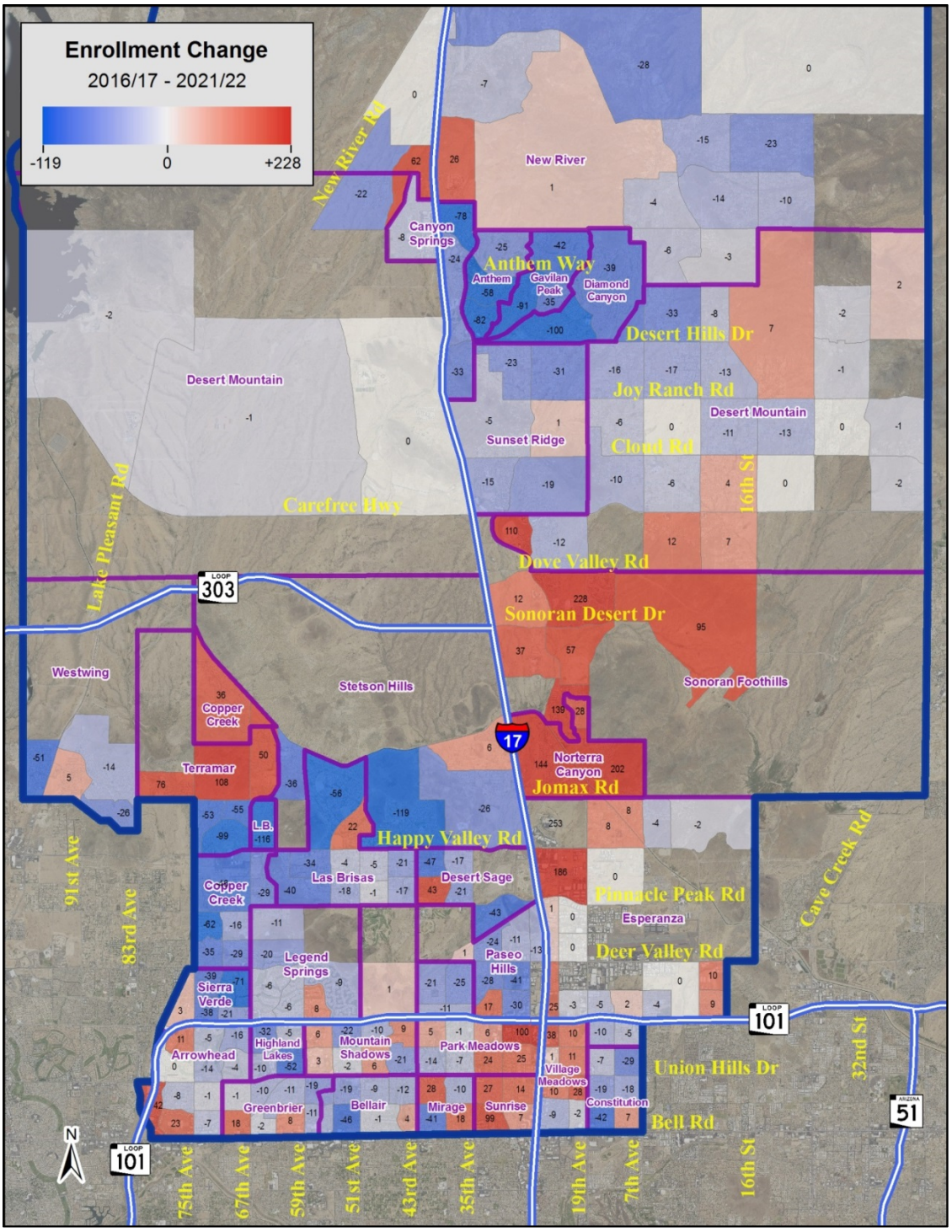
5.1 ENROLLMENT PROJECTIONS BY PLANNING GRID & ATTENDANCE AREA

The projected changes in the number of students by grid over the next two five-year periods are depicted on **Maps 13 and 14**. 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, the majority of the growth is anticipated between Jomax and Dove Valley Roads in developments including Sonoran Mountain Ranch, Boulder Mountain, Norterra, Stetson Hills, and especially Sonoran Foothills. Anticipated declines in enrollment are concentrated in the Anthem area and in the western portion of the District, north of the Loop 101 to the Central Arizona Project canal.

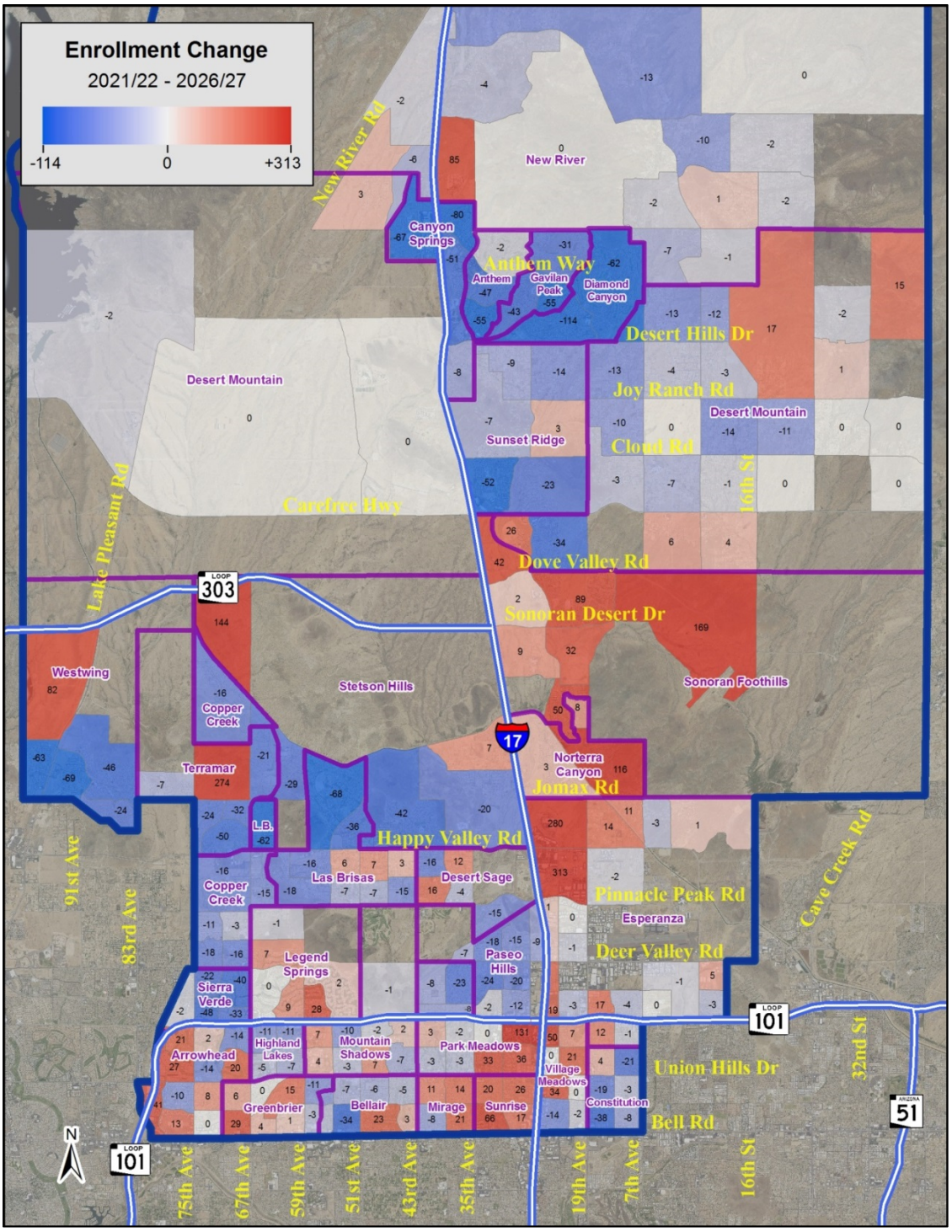
The pattern of projected enrollment change is similar for the second five-year period, with new growth areas expected along the west side of Lake Pleasant Road, along the east side of Interstate 17 south of Jomax Road, and along the south side of Loop 303 between the 67th and 75th Avenue alignments. The Sonoran Foothills area is expected to remain a major growth area while activity accelerates in the Esperanza area. Additional enrollment increases are also anticipated in the southern portion of the District, south of Loop 101.

There are a number of major employers in the southern part of the District, creating a strong base of both office and industrial jobs. Older, more affordable housing also helps to create some stability in the school-age population due to turnover. This portion of the District did not develop as master planned communities, but in smaller subdivisions over time. Therefore, grids in this area have different levels of age and household composition. This helps to explain the “patchwork” appearance of enrollment growth in this area.

MAP 13
PROJECTED ENROLLMENT CHANGE BY PLANNING GRID: 2016/17 – 2021/22



MAP 14
PROJECTED ENROLLMENT CHANGE BY PLANNING GRID: 2021/22 – 2026/27



The primary and secondary school attendance areas used to aggregate the planning grid-level projections for the District are shown on **Maps 15A and 15B,** respectively. 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 15 displays the projected enrollment by attendance area through 2026/27 based on current student data and the demographic trends observed in the District. Enrollment is presented for each level (elementary, middle and high school) and is based solely on the attendance area designated for the student's place of residence. This provides a direct link to the demographic analysis and development projections that were used as the basis for predicting enrollment at each school. Projected enrollment from outside DVUSD 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.

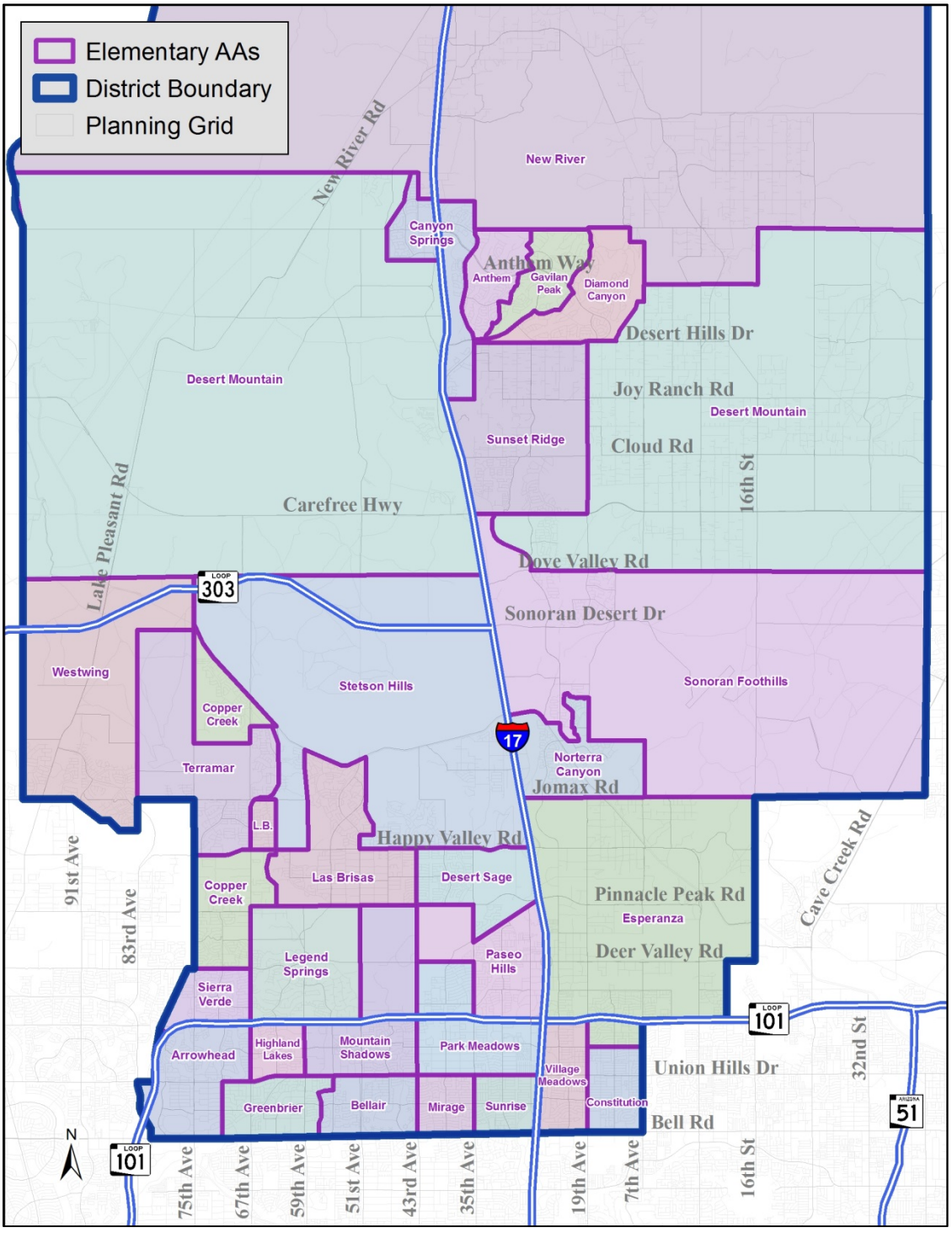
Attendance area enrollment is color coded by size relative to the average size (in students) of the attendance areas by level; larger numbers are represented in red and smaller numbers are in blue. The saturation of the colors increases with the attendance area's variation in size over time. The changes 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.

Overall, enrollment in the elementary attendance areas is expected to grow by about 280 students by 2026/27, with an annual rate of change ranging from about -1.0 percent to 1.5 percent and a 10-year increase of about 1.4 percent. Students who reside outside DVUSD boundaries are projected to account for the entirety of the increase, as in-District elementary attendance area enrollment is projected to decrease by about 50 students over the next ten years. During the first five years of the projection period, the Esperanza, Sonoran Foothills and Norterra Canyon attendance areas are projected to experience the largest growth, fueled by the recent completion of the Loop 303. Significant growth is also expected in the Mirage and Sunrise attendance areas.

The largest areas of enrollment decline include the Anthem, Diamond Canyon, Gavilan Peak and Sierra Verde attendance areas, with five-year projected enrollment losses between 20 and 24 percent each. Overall, 17 attendance areas are projected to decrease and 12 are projected to increase, while out-of-District enrollment is estimated to increase by 23 percent. This would result in an overall decline of about 360 students, or about 2 percent of 2016/17 elementary attendance area enrollment. It is important to note that these figures account for 7th and 8th grade enrollment for K-8 attendance areas.

During the second five-year period, high growth rates are expected to continue in the Esperanza and Sonoran Foothills attendance areas, with increases of 28 and 25 percent, respectively. The Terramar area is also projected to grow by about 28 percent during the period, or about 230 students, and exceed 1,000 students by the 2025/26 school year. Moderate enrollment growth of 12 to 15 percent is forecast for the Arrowhead, New River and Village Meadows attendance areas between 2021/22 and 2026/27. The Gavilan Peak, Paseo Hills and Sierra Verde attendance areas are expected to have the most significant decreases in enrollment over the second five-year period, at around 12 percent each. Overall, 16 of the 29 attendance areas are projected to decline, while out-of-District enrollment is anticipated to increase by about 5 percent. These projections would yield an overall enrollment increase of about 640 students between 2021/22 and 2026/27.

MAP 15A
2016/17 ELEMENTARY ATTENDANCE AREAS



MAP 15B
2016/17 SECONDARY ATTENDANCE AREAS

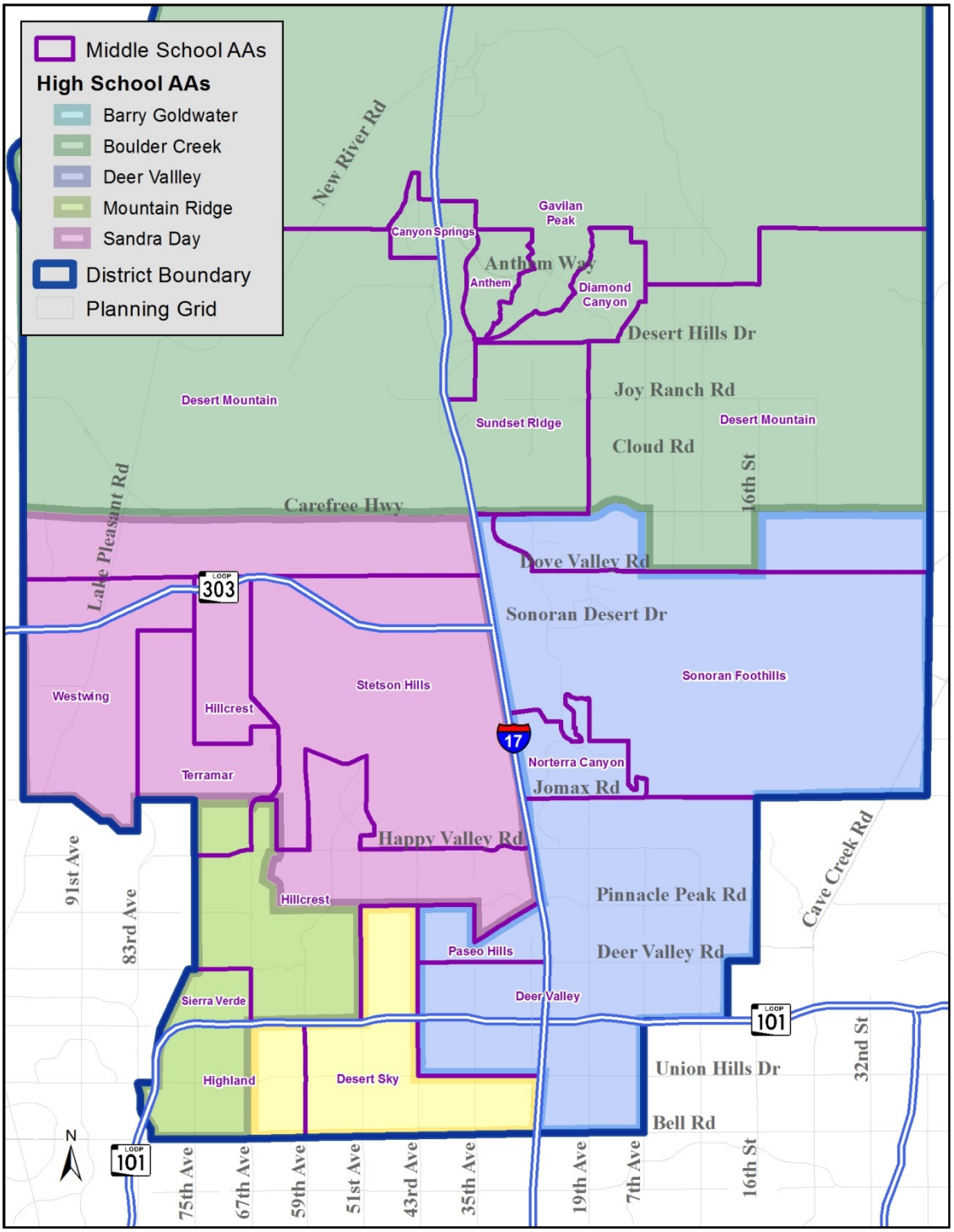


TABLE 15
STUDENTS BY ATTENDANCE AREA: 2011/12 - 2026/27

	Actual						Projected										Change		
Attendance Area*	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	'11-'16	'16-'21	'21-'26
Anthem Elem	631	588	533	558	494	469	451	430	413	398	374	352	355	355	351	347	-26%	-20%	-7%
Arrowhead	606	582	599	631	620	631	631	649	647	640	658	672	682	698	720	738	4%	4%	12%
Bellair	384	385	411	452	451	446	443	438	416	407	395	394	387	385	385	383	16%	-12%	-3%
Canyon Springs	1,186	1,175	1,131	1,131	1,143	1,141	1,121	1,082	1,037	1,000	967	934	934	919	915	903	-4%	-15%	-7%
Constitiution	708	662	684	683	620	595	597	593	559	528	506	500	483	473	466	457	-16%	-15%	-10%
Copper Creek	737	701	667	633	677	662	658	628	611	613	615	610	605	606	609	610	-10%	-7%	-1%
Desert Mountain	987	917	743	748	764	762	758	751	728	693	677	695	682	692	701	705	-23%	-11%	4%
Desert Sage	611	589	514	556	558	576	577	580	588	588	582	575	566	564	564	561	-6%	1%	-3%
Diamond Canyon	949	904	829	852	841	810	780	749	709	672	635	624	615	601	597	588	-15%	-22%	-8%
Esperanza	731	720	638	623	593	686	710	753	814	924	992	1,045	1,080	1,156	1,212	1,269	-6%	45%	28%
Gavilan Peak	676	643	611	615	616	573	553	501	473	455	437	421	392	390	395	384	-15%	-24%	-12%
Greenbrier	368	353	300	335	312	305	316	315	326	333	332	328	337	343	350	357	-17%	9%	7%
Highland Lakes	673	625	569	559	579	548	525	504	492	507	508	500	512	501	496	487	-19%	-7%	-4%
Las Brisas	1,036	1,025	1,055	1,090	1,076	1,048	1,015	986	959	939	932	922	915	912	913	911	1%	-11%	-2%
Legend Springs	407	385	384	398	417	403	389	389	401	414	423	418	427	436	446	455	-1%	5%	8%
Mirage	418	412	435	425	413	414	423	440	454	472	481	484	466	467	468	466	-1%	16%	-3%
Mountain Shadows	517	481	468	478	492	517	519	522	513	510	504	489	493	492	494	495	0%	-3%	-2%
New River	331	313	352	368	377	345	334	344	346	340	327	329	342	355	371	377	4%	-5%	15%
Norterra Canyon	694	681	747	851	836	852	888	938	974	998	1,022	1,033	1,032	1,057	1,047	1,046	23%	20%	2%
Park Meadows	516	487	500	539	540	544	543	552	560	574	596	598	601	617	635	650	5%	10%	9%
Paseo Hills	982	945	937	910	914	896	871	848	817	787	772	761	742	711	698	677	-9%	-14%	-12%
Sierra Verde	664	641	617	639	650	680	651	616	578	550	535	526	524	495	483	468	2%	-21%	-12%
Sonoran Foothills	548	510	519	513	624	713	771	818	880	927	985	1,038	1,095	1,147	1,196	1,227	30%	38%	25%
Stetson Hills	886	858	799	794	792	782	759	718	687	672	662	672	658	667	662	660	-12%	-15%	0%
Sunrise	503	459	492	511	544	546	571	591	615	627	621	633	629	635	645	652	9%	14%	5%
Sunset Ridge	911	886	793	790	825	798	777	752	711	693	684	671	653	654	666	665	-12%	-14%	-3%
Terramar	824	795	820	836	818	805	802	792	787	804	819	863	907	944	1,020	1,047	-2%	2%	28%
Village Meadows	496	467	438	482	492	483	505	500	495	501	508	518	534	545	559	571	-3%	5%	12%
Westwing	1,033	1,033	1,016	1,058	1,107	1,068	1,042	1,036	989	942	921	883	856	858	884	889	3%	-14%	-3%
Out Of District	711	744	777	914	1,074	1,147	1,244	1,291	1,338	1,396	1,413	1,424	1,418	1,439	1,464	1,481	61%	23%	5%
Total	20,719	19,964	19,378	19,972	20,259	20,245	20,225	20,108	19,917	19,905	19,884	19,911	19,925	20,116	20,414	20,525	-2%	-2%	3%

Source: Applied Economics, January 2017.

* Count based on the number of students by place of residence using 2015/16 attendance areas for all years.

Bold indicates a K-8 school.

TABLE 15 (Continued)
STUDENTS BY ATTENDANCE AREA: 2011/12 - 2026/27

	Actual						Projected										Change		
Attendance Area*	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	'11-'16	'16-'21	'21-'26
Middle School																			
Deer Valley Middle	743	721	690	660	644	644	613	636	701	743	733	786	873	887	854	858	-13%	14%	17%
Desert Sky Middle	703	664	619	630	654	630	595	557	573	592	627	659	671	668	630	611	-10%	0%	-3%
Hillcrest Middle	1,062	1,043	952	925	927	978	941	906	872	821	805	823	833	807	779	753	-8%	-18%	-6%
Out Of District	191	202	225	246	249	257	245	288	341	341	389	445	475	473	445	440	34%	52%	13%
Total	2,699	2,630	2,485	2,461	2,474	2,509	2,394	2,388	2,487	2,496	2,554	2,714	2,852	2,834	2,708	2,662	-7%	2%	4%
High School																			
Barry Goldwater	2,117	2,073	2,057	2,072	2,097	2,004	2,141	2,260	2,370	2,578	2,718	2,852	3,006	3,101	3,223	3,290	-5%	36%	21%
Boulder Creek	2,393	2,440	2,555	2,630	2,521	2,533	2,559	2,575	2,615	2,532	2,486	2,379	2,256	2,130	1,985	1,904	6%	-2%	-23%
Deer Valley	1,722	1,739	1,683	1,659	1,573	1,453	1,442	1,440	1,377	1,345	1,314	1,294	1,344	1,391	1,441	1,457	-16%	-10%	11%
Mountain Ridge	2,206	2,263	2,158	2,034	2,038	1,953	1,852	1,782	1,743	1,684	1,597	1,514	1,418	1,409	1,406	1,386	-11%	-18%	-13%
Sandra Day	2,205	2,240	2,319	2,299	2,308	2,308	2,303	2,342	2,346	2,383	2,345	2,260	2,232	2,220	2,189	2,195	5%	2%	-6%
Out Of District	339	414	418	479	474	613	577	563	528	547	590	632	731	786	863	910	81%	-4%	54%
Total	10,982	11,169	11,191	11,173	11,011	10,864	10,875	10,962	10,979	11,070	11,049	10,931	10,988	11,036	11,109	11,141	-1%	2%	1%

Source: Applied Economics, January 2017.

* Count based on the number of students by place of residence using 2015/16 attendance areas for all years.

At the middle school level, attendance area enrollment is projected to increase by about 150 students, or about 6 percent, over the next ten years. Annual rates of change range from about -4.5 percent to 6.2 percent over the projection period. During the first five years, only the Deer Valley attendance area is projected to increase in enrollment, with about 90 additional students representing a 14 percent gain. The Hillcrest attendance area is projected to decrease by more than 170 students, about 18 percent, while virtually no enrollment change is anticipated in the Desert Sky attendance area. The projected addition of about 130 students from outside DVUSD boundaries would result in an overall increase of 45 middle school students by 2021/22.

The trends in middle school attendance area enrollment are expected to continue during the second 5-year period with an additional increase of about 125 students in the Deer Valley attendance area, equating to a gain of about 17 percent. The projected decline in the Hillcrest attendance area is expected to slow, with the loss of about 50 students, or about 6 percent between 2021/22 and 2026/27. Enrollment change in the Desert Sky attendance area is again projected to be marginal, with a loss of 16 students, or almost 3 percent. With about 50 additional students anticipated from outside the District, the net result would be an aggregate increase of 107 middle school students over the second five-year period. Under this forecast, enrollment from the Deer Valley attendance area would surpass that of the Hillcrest area in 2023/24 and peak at about 890 students in the 2024/25 school year, before declining slightly over the final years of the projection period.

Among the high schools, the Boulder Creek High School attendance area is currently the largest with about 2,530 students, but it is projected to fall to the third largest by 2026/27 due to an estimated loss of around 630 students over the 10-year period. The Mountain Ridge attendance area is expected to decline by about 570 students, becoming the smallest high school attendance area by 2025/26. Modest declines are also expected in the Sandra Day O'Connor attendance area. The projected loss of about 140 students in the Deer Valley attendance area during the first five years of the projection period is expected to be canceled out by a slightly larger gain during the second five years, resulting in a cumulative increase of just 4 students by 2026/27. The combined 10-year loss of 1,305 students in these four attendance areas should be more than offset by the projected increase of nearly 1,290 students in the Barry Goldwater attendance area and the nearly 300 additional students expected from outside of the District. These projections yield a net increase of about 280 high school students over the next ten 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 16**, **Table 17**, and **Table 18** display the distributions 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 numerically across the top row as defined in the first column) and from outside the District. Reading down the columns details where students living in each attendance area choose to go to school. The number of students attending the school in their designated attendance area is shaded in green and the rightmost columns show the net difference between attendance area and school enrollment.

For example, at Arrowhead Elementary, there are 464 students enrolled who also live within the Arrowhead attendance area. There are 7 students at Arrowhead who reside in the Bellair attendance area,

3 from Copper Creek, and so on. There are 62 students who attend Arrowhead from outside the District, resulting in total enrollment of 563 students. The Arrowhead attendance area contains a student population of 631, though 1 attends Bellair, 13 are at Copper Creek, and so forth. Arrowhead has a net loss of 68 students, or about 11 percent of the resident K-6 student population.

Overall, about 79 percent of the elementary school students living within District boundaries attended their designated school in the 2016/17 school year, while roughly 82 percent of 7th and 8th grade students attended their designated middle school. At the high school level that portion jumps to about 88 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 relatively smaller distances between neighboring District elementary schools. With middle and high school campuses located further apart, it becomes a more challenging commute for students to attend a District school outside of the designated attendance area.

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 470 additional K-6 students, including 111 students from outside the District. Sierra Verde, Stetson Hills and Legend Springs each have net gains of over 240 students, including a sizeable number of students from outside the District at Sierra Verde and Legend Springs. The low number of out-of-District students at Stetson Hills is likely a result of its location near the geographic center of the District. In terms of absolute numbers, Canyon Springs has the most significant net loss among elementary schools with an out-migration of 258 students. However, in terms of percentage loss, the difference of 38 percent between attendance and residence at New River is the most significant and yields a capture rate of only 55 percent. Las Brisas had a net loss of 244 students, while New River, Esperanza and Desert Mountain had net losses of more than 100 students each. Nearly 1,150 elementary students attend from outside the District.

Among schools with 7th and 8th grades, Highland Lakes imports the most students from other schools with a net gain of 130 students compared to its attendance area enrollment. However, Anthem and Sierra Verde import a higher percentage of students from outside their attendance areas, with more than 40 percent each. Diamond Canyon, Desert Sky and Stetson Hills also have notable net gains of more than 40 students from outside their respective attendance areas. Canyon Springs exports the most students from its attendance area to other schools both in terms of absolute numbers as well as percentage, and it has a capture rate of just 58 percent of its own population. Deer Valley and Terramar also have significant net exports, losing 54 students each. Paseo Hills, Norterra Canyon and Westwing are the most balanced of the 7th and 8th grade schools, each with differences of 10 students or fewer. Overall, 11 of the 17 schools serving 7th and 8th grade students have net imports

At the high school level, every school had net in-migration in 2016/17, with the exception of Barry Goldwater which had a net export of 265 students. Evidence of this exodus was also seen in section 2.1.3 with the 8th to 9th grade mobility data. At nearly 360 students, Mountain Ridge had the greatest number of students attending from outside its attendance area; it is followed by Deer Valley with 260 students. Boulder Creek and Sandra Day O'Connor each had moderate levels of net in-migration, contributing an additional 129 students to the overall 613-student gain.

TABLE 16
SCHOOL VERSUS ATTENDANCE AREA ENROLLMENT (K-6th GRADE): 2016/17

		Attendance Area																														Total	Total	
School	Code	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.
Arrowhead	AEE	464		7	3					1		5			3	1	3	7			2		1					3	1		62	563	631	-68
Anthem Elem	ANE		232				183	23	4	1		3	14							36	2			2	15						4	519	342	177
Bellair	BEE	1		301		4		1		2	2	19			2	1	18	14		1	3	8	13			3			1		79	473	446	27
Copper Creek	CCE	13		4	534	3				2		3		1	10	5	2	12		1	1	5	1	3			12	23	1	11	62	709	662	47
Constitiution	COE					486					50						1					1	3						7		37	585	595	-10
Canyon Springs	CSE	2	11		2		473	18	7	3			3					2	4	33				11	12	3		2		3	6	595	853	-258
Diamond Canyon	DCS		46				83	516	12				60						2	26		2		4	2					2	5	760	598	162
Desert Mountain	DME		1				4	1	404		1								1	10	2			4	10			5	1		5	449	550	-101
Desert Sage	DSE	1		1	1	5	1			479	8			1	34	2	2	6	2		12	5		3	1	3	2	13	3		26	611	576	35
Esperaza	ESE					28					509							1	2										4		9	553	686	-133
Greenbrier	GBE	3		44							2	196		2		2	6	16				1	4	1			1				91	369	305	64
Gavilan Peak	GPE		43				84	33	8	1	2		225	1				1		34				8	13				3		8	464	309	155
Highland Lakes	HLE	70	2	54	15	7		2	3	11	9	57		175	32	9	10	34	7	1	4	7	6	8	4	4	3	17		2	111	664	194	470
Las Brisas	LBE	2			6					1	3				751			1	2		2			1		1	2	13		3	16	804	1,048	-244
Legend Springs	LEG	30		7	19	1			1	2	1	11		7	39	350	6	19	1		7	4				6	13	27	1	3	90	645	403	242
Mirage	MEE	3		4		7				1	4	1					339	8	1		5	8	26						2		70	479	414	65
Mountain Shadows	MSE			4		1				1	3				1		12	366			3	12	5						3		28	439	517	-78
Norterra Canyon	NOR				5				11	5	21		3				1	2	574		1	1		68	1	5	2		1	1	10	712	640	72
New River	NRE		4			1	2		4											191					1						11	214	345	-131
Paseo Hills	PHE	1		1		1		2	3	4	27						1	4			590	18		1	2	2			17		22	696	689	7
Park Meadows	PME	1		6		10					6				2		7	9	1		25	455	11						17		48	598	544	54
Sunrise	SEE					9		1		1	6						3	2	1		7	3	465						3		55	556	546	10
Sonoran Foothills	SFS			2	1		4		63	1	4		2						23	1	1			476	15	4		1			6	604	621	-17
Sunset Ridge	SRE		3				12	1	25		1								2	10	1			18	494			3	1		3	574	576	-2
Stetson Hills	STE	1		1	8	2	4		4	49	14		1		111	6			13		8	4	1	8	1	514		16	1	5	28	800	558	242
Sierra Verde	SVE	32		9	24					6	1	9		7	17	23		11			3	5	1			1	462	26	1	4	114	756	500	256
Terramar	TER	3			35					1	1				38	1		1			1	1	1	2		4	2	541		8	31	671	720	-49
Village Meadows	VME					27					6										2		1						413		23	472	483	-11
Westwing School	WWE	2			7				1						8				2		3				1	7	1	27		631	87	777	675	102
Other		2	0	1	2	3	3	0	0	4	5	1	1	0	0	3	3	1	2	1	4	4	7	3	4	1	0	3	2	2	0	62	0	62
Total Reside		631	342	446	662	595	853	598	550	576	686	305	309	194	1,048	403	414	517	640	345	689	544	546	621	576	558	500	720	483	675	1,147	17,173	16,026	1,147
Attend = Reside:		74%	68%	67%	81%	82%	55%	86%	73%	83%	74%	64%	73%	90%	72%	87%	82%	71%	90%	55%	86%	84%	85%	77%	86%	92%	92%	75%	86%	93%		12,606	78.7%	

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

TABLE 17
SCHOOL VERSUS ATTENDANCE AREA ENROLLMENT (7TH-8th GRADE): 2016/17

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	88	53	8	4			18				1		3					6	181	127	54
Canyon Springs	CSE	2	168	5	3			19			1		3	4					1	206	288	-82
Diamond Canyon	DCS	15	29	173	2			34			1			1					2	257	212	45
Desert Mountain	DME		2		175			3				1	1	7					2	191	212	-21
Desert Sky Middle	DSM				2	571	18		1	4	1	3			1				73	674	630	44
Deer Valley Middle	DVM					3	554				1	23	1						8	590	644	-54
Gavilan Peak	GPE	19	22	18	3		1	182					1	3	1					250	264	-14
Hillcrest Middle	HCM				1	6	13		835	15	1	3			3	11	64	11	39	1,002	978	24
Highland Lakes	HLE	1	2	4	1	33	17	4	25	311	4	1	8	4	4	2	9		54	484	354	130
Norterra Canyon	NOR						5		3		118	2	17	1	1				3	150	140	10
Paseo Hills	PHE					2	25		3	1	2	170							6	209	207	2
Sonoran Foothills	SFS		2	1	12		1		1		7		118	7						149	164	-15
Sunset Ridge	SRE	2	8	3	7		1	2			1		13	192	1				2	232	222	10
Stetson Hills	STE						6		55	1	1	1	2		211		2	4		283	224	59
Sierra Verde	SVE					7			26	21					1	161	3	5	29	253	180	73
Terramar	TER					1	1		17	1		2				3	155	3	11	194	248	-54
Westwing School	WWE		1		1				6						1	2	14	206	21	252	230	22
Other		0	1	0	1	7	2	2	6	0	2	0	0	0	0	1	1	1	0	24	0	24
Total Reside:		127	288	212	212	630	644	264	978	354	140	207	164	222	224	180	248	230	257	5,581	5,324	257
Attend = Reside:		69%	58%	82%	83%	91%	86%	69%	85%	88%	84%	82%	72%	86%	94%	89%	63%	90%		4,388	82.4%	

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

TABLE 18
SCHOOL VERSUS ATTENDANCE AREA ENROLLMENT (9TH-12th GRADE): 2016/17

School	Code	Attendance Area						Total Attend	Total Reside	Diff.
		BCH	BGH	DVH	MRH	SDH	Outside			
Boulder Creek	BCH	2,410	106		2	5	63	2,586	2,533	53
Barry Goldwater	BGH	41	1,559	28	20	23	68	1,739	2,004	-265
Deer Valley	DVH	4	83	1,294	61	36	235	1,713	1,453	260
Mountain Ridge	MRH	5	37	94	1,778	211	185	2,310	1,953	357
Sandra Day	SDH	43	178	15	77	2,011	60	2,384	2,308	76
Other		30	41	22	15	22	2	132	0	132
Total Reside		2,533	2,004	1,453	1,953	2,308	613	10,864	10,251	613
Attend = Reside:		95%	78%	89%	91%	87%		9,052	88.3%	

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

In addition to looking at the current year pattern of attendance versus residence, the report this year examined how these patterns change over time. Two measurements were developed to look at the trends, one based on the overall attendance and residence figures, and another that details the changes from school to school. **Table 19** shows that the overall pattern of school enrollment versus attendance area enrollment remains fairly consistent over time. However, events such as the opening of Sonoran Foothills in 2015/16 can cause significant shifts in these relationships.

TABLE 19
TOTAL ENROLLMENT ATTENDANCE VERSUS RESIDENCE

GRADES K-6

	2014-15		2015-16		2016-17		Difference		
School	Attend	Reside	Attend	Reside	Attend	Reside	2014-15	2015-16	2016/17
Arrowhead	566	631	579	620	563	631	-65	-41	-68
Anthem Elem	535	387	533	348	519	342	148	185	177
Bellair	466	452	460	451	473	446	14	9	27
Copper Creek	692	633	708	677	709	662	59	31	47
Constitiution	663	766	607	620	585	595	-103	-13	-10
Canyon Springs	578	856	608	877	595	853	-278	-269	-258
Diamond Canyon	781	640	764	616	760	598	141	148	162
Desert Mountain	501	570	474	554	449	550	-69	-80	-101
Desert Sage	543	556	574	558	611	576	-13	16	35
Esperaza	549	540	489	593	553	686	9	-104	-133
Greenbrier	369	335	365	312	369	305	34	53	64
Gavilan Peak	543	370	516	335	464	309	173	181	155
Highland Lakes	623	232	635	211	664	194	391	424	470
Las Brisas	835	1,090	848	1,076	804	1,048	-255	-228	-244
Legend Springs	646	398	680	417	645	403	248	263	242
Mirage	448	425	444	413	479	414	23	31	65
Mountain Shadows	450	478	464	492	439	517	-28	-28	-78
Norterra Canyon	976	925	726	688	712	640	51	38	72
New River	275	368	239	377	214	345	-93	-138	-131
Paseo Hills	742	691	732	707	696	689	51	25	7
Park Meadows	546	539	565	540	598	544	7	25	54
Sunrise	511	511	563	544	556	546	0	19	10
Sonoran Foothills	0	0	513	510	604	621	0	3	-17
Sunset Ridge	744	802	623	602	574	576	-58	21	-2
Stetson Hills	814	583	805	584	800	558	231	221	242
Sierra Verde	739	481	754	495	756	500	258	259	256
Terramar	595	556	644	704	671	720	39	-60	-49
Village Meadows	458	482	470	492	472	483	-24	-22	-11
Westwing School	778	805	780	709	777	675	-27	71	102
Other	50	0	34	0	62	0	50	34	62
Total	17,016	16,102	17,196	16,122	17,173	16,026	914	1,074	1,147
Attend = Reside:		79.9%		80.0%		78.7%			

Sources: Deer Valley Unified School District; Applied Economics, 2017.

TABLE 19 (continued)
TOTAL ENROLLMENT ATTENDANCE VERSUS RESIDENCE

GRADES 7-8

School Name	2014-15 Attend	2014-15 Reside	2015-16 Attend	2015-16 Reside	2016-17 Attend	2016-17 Reside	Difference 2014-15	Difference 2015-16	Difference 2016/17
Anthem Elem	224	171	208	146	181	127	53	62	54
Canyon Springs	188	275	177	266	206	288	-87	-89	-82
Diamond Canyon	243	212	267	225	257	212	31	42	45
Desert Mountain	167	178	192	210	191	212	-11	-18	-21
Desert Sky Middle	642	630	696	654	674	630	12	42	44
Deer Valley Middle	617	791	597	644	590	644	-174	-47	-54
Gavilan Peak	230	245	261	281	250	264	-15	-20	-14
Hillcrest Middle	989	925	984	927	1,002	978	64	57	24
Highland Lakes	460	327	500	368	484	354	133	132	130
Norterra Canyon	188	178	181	148	150	140	10	33	10
Paseo Hills	220	88	213	207	209	207	132	6	2
Sonoran Foothills	0	0	58	114	149	164	0	-56	-15
Sunset Ridge	237	249	248	223	232	222	-12	25	10
Stetson Hills	265	211	264	208	283	224	54	56	59
Sierra Verde	231	158	228	155	253	180	73	73	73
Terramar	218	251	188	256	194	248	-33	-68	-54
Westwing School	267	282	260	256	252	230	-15	4	22
Other	31	0	15	0	24	0	31	15	24
Total	5,417	5,171	5,537	5,288	5,581	5,324			
Attend = Reside:		77.9%		83.0%		82.4%			

GRADES 9-12

School	2014-15 Attend	2014-15 Reside	2015-16 Attend	2015-16 Reside	2016-17 Attend	2016-17 Reside	Difference 2014-15	Difference 2015-16	Difference 2016/17
Boulder Creek	2,641	2,630	2,578	2,521	2,586	2,533	11	57	53
Barry Goldwater	1,862	2,072	1,872	2,097	1,739	2,004	-210	-225	-265
Deer Valley	1,857	1,659	1,813	1,573	1,713	1,453	198	240	260
Mountain Ridge	2,205	2,034	2,280	2,038	2,310	1,953	171	242	357
Sandra Day	2,476	2,299	2,437	2,308	2,384	2,308	177	129	76
Other	132	0	31	0	132	0	132	31	132
Total	11,173	10,694	11,011	10,537	10,864	10,251	479	474	613
Attend = Reside:		85.8%		90.0%		88.3%			

Sources: Deer Valley Unified School District; Applied Economics, 2017.

To break this information down school by school, a set of 104,359 student records where assembled from the last three school years into one data table. This makes it possible to look at the distribution of each school by attendance area, or each attendance area by school, for one, two or more years. Since the results are useful, but the options are many and the results are difficult to table, an Excel workbook containing a pivot table is provided for use in looking at the results interactively. **Table 20** below shows an example of the output for the high schools and high school attendance areas, with the results being manageable due to the small number of schools involved.

Several interesting trends emerge from the results for the high schools including the decline in enrollment at all high schools from their home attendance area over the past three years. An increasing number of students from the Barry Goldwater attendance area appear to be opting for Boulder Creek or Sandra Day, while more in Sandra Day are choosing Mountain Ridge.

TABLE 20
HIGH SCHOOL ENROLLMENT VERSUS ATTENDANCE AREA ENROLLMENT

	Attendance Areas						
Schools	Barry Goldwater	Boulder Creek	Deer Valley	Moutain 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
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
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
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
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
Vista Peak School							
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
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

Source: Deer Valley Unified School District; Applied Economics, 2017.

5.3 ENROLLMENT BY SCHOOL

Tables 21 and 22 show actual enrollment since 2011/12 and projected enrollment by school for 2017/18 through 2026/27, based on applying the live/attend relationships above to the projected level of enrollment by resident attendance area. Note that in **Table 21** 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 22**, along with the five high schools.

Elementary schools currently above capacity, as defined by the School Facilities Board (SFB), include Sierra Verde and Stetson Hills. Norterra Canyon had been above capacity until 2015/16 and is projected to exceed capacity again in 2018/19. Those currently above 90 percent capacity include Diamond Canyon, Las Brisas, Norterra Canyon, Paseo Hills and Westwing. By 2019/20, Sierra Verde should drop below capacity while Sonoran Foothills is projected to exceed capacity. Toward the end of the projection period, it is likely that Stetson Hills will drop below capacity, but Esperanza and Terramar will exceed capacity as new residential development continues. By 2026/27, it is also likely that some enrollment increases will put Legend Springs and Park Meadows over 90 percent of their capacities. However, declines at many of the District's other schools during the projection period will leave total elementary enrollment well below the current capacity of 27,600 students.

Hillcrest Middle School is currently at about 99 percent of capacity, down from about 113 percent in 2011/12. Enrollment at Hillcrest is expected to decline in the near-term, bringing enrollment down to less than 90 percent of capacity by 2019/20. Deer Valley Middle School is projected to reach 90 percent capacity in 2024/25, but it may decline slightly after that. Total middle school enrollment is expected to be at about 83 percent capacity in 2023/24 and remain at or near that level for the remainder of the projection period.

At the high school level, Mountain Ridge is currently operating at about 106 percent of capacity, while Boulder Creek and Sandra Day O'Connor are above 90 percent. Mountain Ridge High School enrollment is projected to remain above capacity until 2021/22 and stay above 90 percent through the projection period. Enrollment at Boulder Creek High School is anticipated to peak in 2019/20 when enrollment of 2,749 students would slightly exceed the 2,660-student SFB capacity; enrollment is then expected to decline substantially over the following seven years, falling below 90 percent of capacity by 2025/25. Enrollment at Sandra Day O'Connor High School is expected to increase slightly over the next few years, but it should remain relatively stable with enrollment above 90 percent of capacity. Barry Goldwater High School, currently at just under 75 percent of capacity, could experience significant enrollment increases during the projection period, exceeding 90 percent of capacity by 2021/22 and total capacity by 2023/24; however, this growth may be distributed across the other high schools based on the school's low capture rate of students from its attendance area (as indicated previously in the 8th to 9th grade transition analysis).

TABLE 21

ELEMENTARY SCHOOL ENROLLMENT: 2011/12 - 2026/27

School	SFB Capacity	Actual						Projected									
		2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
Elementary																	
Anthem Elem	928	855	844	768	784	757	724	687	665	627	606	590	562	563	548	546	546
Arrowhead	841	638	577	539	596	614	601	632	657	684	702	720	727	723	721	721	710
Bellair	681	473	471	460	482	477	486	483	464	441	431	413	407	400	398	397	397
Canyon Springs	1,098	837	805	760	787	810	809	805	767	743	720	683	672	667	665	661	652
Constitiution	747	578	543	578	684	624	618	621	624	598	572	570	567	554	548	545	542
Copper Creek	926	820	787	748	719	728	732	718	690	673	671	669	664	660	664	670	673
Desert Mountain	1,329	933	812	739	699	689	651	639	627	608	573	559	574	565	575	585	591
Desert Sage	938	645	600	553	595	624	655	665	682	703	708	698	681	665	657	658	657
Desert Winds	847	398	432	377	0	0	0	0	0	0	0	0	0	0	0	0	0
Diamond Canyon	1,040	993	1,024	959	1,036	1,031	1,017	995	970	943	918	891	883	874	889	890	884
Esperanza	806	529	399	360	567	530	577	598	630	685	785	846	914	952	1,035	1,099	1,163
Gavilan Peak	919	853	805	779	790	795	723	720	678	623	581	560	528	489	478	485	476
Greenbrier	802	476	383	337	389	388	385	401	408	418	427	429	425	426	426	429	430
Highland Lakes	1,294	857	1,080	1,068	1,086	1,134	1,146	1,140	1,127	1,123	1,132	1,136	1,124	1,133	1,108	1,100	1,093
Las Brisas	894	843	814	820	833	849	829	801	778	762	757	755	748	744	745	752	754
Legend Springs	902	648	626	603	648	681	645	631	637	633	657	651	649	663	675	691	702
Mirage	957	453	448	438	460	470	500	516	542	567	592	601	601	586	590	595	599
Mountain Shadows	869	500	463	472	466	498	479	487	496	498	498	510	500	510	515	522	527
New River	559	256	267	274	275	239	209	205	227	235	237	235	239	240	238	239	235
Norterra Canyon	945	1,079	1,051	1,074	1,164	909	863	904	961	1,001	1,030	1,061	1,074	1,076	1,105	1,097	1,098
Park Meadows	807	566	542	547	585	610	622	628	631	651	667	694	714	718	731	747	759
Paseo Hills	1,012	991	961	959	963	942	914	891	877	853	829	821	824	822	794	781	760
Sierra Verde	938	799	881	967	969	982	1,010	983	944	910	879	848	827	821	777	764	746
Sonoran Foothills	950	0	0	0	0	589	786	846	894	953	995	1,058	1,119	1,174	1,233	1,282	1,311
Stetson Hills	972	1,092	1,055	1,025	1,085	1,070	1,074	1,051	1,025	1,004	987	983	983	960	954	950	951
Sunrise	768	479	492	493	506	564	562	585	604	630	642	629	635	636	648	663	674
Sunset Ridge	1,039	1,215	1,057	998	975	889	821	791	763	724	711	700	699	687	685	701	702
Terramar	1,039	810	800	816	861	866	894	922	939	931	939	943	995	1,044	1,077	1,144	1,165
Village Meadows	726	497	488	430	503	500	478	499	497	496	510	524	538	557	569	582	597
Westwing School	1,040	1,011	1,075	1,031	1,046	1,038	1,024	991	970	943	911	905	878	858	872	884	886
Other																	
Total	27,613	21,124	20,582	19,972	20,553	20,897	20,834	20,833	20,771	20,656	20,664	20,679	20,749	20,768	20,924	21,183	21,283
Percent of Capacity		76.5%	74.5%	72.3%	74.4%	75.7%	75.4%	75.4%	75.2%	74.8%	74.8%	74.9%	75.1%	75.2%	75.8%	76.7%	77.1%

Source: Applied Economics, January 2017.

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

TABLE 22
MIDDLE AND HIGH SCHOOL ENROLLMENT: 2009/10-2024/25

School	SFB Capacity	Actual 2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	Projected 2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27
Middle School																	
Deer Valley Middle	943	753	686	666	609	602	599	551	568	626	661	656	723	830	859	833	841
Desert Sky Middle	910	741	690	629	644	695	683	635	592	602	613	649	686	709	712	673	653
Hillcrest Middle	1,016	1,143	1,039	1,008	992	985	1,004	963	928	885	826	815	829	837	826	806	784
Total	2,869	2,637	2,415	2,303	2,245	2,282	2,286	2,149	2,088	2,113	2,100	2,120	2,238	2,376	2,397	2,312	2,278
Percent of Capacity		91.9%	84.2%	80.3%	78.3%	79.5%	79.7%	74.9%	72.8%	73.6%	73.2%	73.9%	78.0%	82.8%	83.5%	80.6%	79.4%
Grades 9-12																	
Barry Goldwater	2,380	1,884	1,938	1,880	1,865	1,885	1,783	1,794	1,821	1,879	2,069	2,198	2,319	2,457	2,540	2,651	2,709
Boulder Creek	2,660	2,400	2,458	2,575	2,644	2,593	2,621	2,651	2,691	2,749	2,680	2,651	2,560	2,471	2,363	2,242	2,175
Deer Valley	2,466	1,863	1,915	1,876	1,860	1,818	1,725	1,685	1,644	1,563	1,537	1,514	1,504	1,576	1,636	1,704	1,731
Mountain Ridge	2,196	2,314	2,255	2,291	2,209	2,282	2,324	2,301	2,300	2,287	2,236	2,162	2,093	2,024	2,029	2,047	2,040
Sandra Day	2,660	2,521	2,603	2,569	2,479	2,442	2,407	2,440	2,502	2,497	2,544	2,520	2,451	2,456	2,464	2,461	2,482
Total	12,362	10,982	11,169	11,191	11,057	11,020	10,860	10,871	10,958	10,975	11,066	11,045	10,927	10,984	11,032	11,105	11,137
Percent of Capacity		88.8%	90.3%	90.5%	89.4%	89.1%	87.8%	87.9%	88.6%	88.8%	89.5%	89.3%	88.4%	88.9%	89.2%	89.8%	90.1%

Source: Applied Economics, January 2017.

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

ACKNOWLEDGEMENTS

We would like to acknowledge those who contributed time and provided information for this study.

Cindy Coates
Project Manager
Pulte Homes

Wayne Dames
Vice President
Sunbelt Holdings

Lynne Dugan
Land Resources Manager
Taylor Morrison

Racelle Escolar
Village Planner
City of Phoenix

Jeff Gunderson
Senior Vice President of Land Development
Lennar Homes

Raymond Moore
Administrator
Arizona State Land Department

Greg Novak
Administrator
Arizona State Land Department

Melissa Sigmund
Principal Planner
City of Peoria

Construction Monitor
Maricopa County Report

Maricopa Association of Governments
Information Services

Maricopa County Assessor's Office
Maricopa County, AZ

Rose Law Group
Rose Law Group Reporter

APPENDIX A – HIGH SCHOOL CHOICE BY 8TH GRADE SCHOOL

	9th Grade Class Year								9th Grade Class Year								
	2009_10	2010_11	2011_12	2012_13	2013_14	2014_15	2015_16	2016_17	2009_10	2010_11	2011_12	2012_13	2013_14	2014_15	2015_16	2016_17	Average
ANTHEM ELEM																	
BARRY GOLDWATER	1		7	7	5		2		1.0%	0.0%	5.7%	6.4%	4.8%	0.0%	1.8%	0.0%	2.6%
BOULDER CREEK	81	88	84	86	89	76	97	95	81.0%	85.4%	68.3%	78.9%	85.6%	87.4%	87.4%	88.8%	82.5%
MOUTAIN RIDGE		1			1			1	0.0%	1.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.9%	0.4%
SANDRA DAY	3	2	4	3			3	1	3.0%	1.9%	3.3%	2.8%	0.0%	0.0%	2.7%	0.9%	1.9%
LEFT DISTRICT	15	12	28	13	9	11	9	10	15.0%	11.7%	22.8%	11.9%	8.7%	12.6%	8.1%	9.3%	12.7%
TOTAL	100	103	123	109	104	87	111	107	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
CANYON SPRINGS																	
BARRY GOLDWATER	1	6	1	3	3	1	2	1	1.1%	6.9%	0.9%	3.0%	3.1%	0.9%	2.3%	1.0%	2.3%
BOULDER CREEK	66	66	87	73	91	97	73	90	75.9%	75.9%	79.1%	73.7%	93.8%	88.2%	83.9%	89.1%	82.6%
DEER VALLEY	2	1							2.3%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%
SANDRA DAY			1			3	1	1	0.0%	0.0%	0.9%	0.0%	0.0%	2.7%	1.1%	1.0%	0.8%
LEFT DISTRICT	18	20	22	26	6	10	13	10	20.7%	23.0%	20.0%	26.3%	6.2%	9.1%	14.9%	9.9%	16.2%
TOTAL	87	87	110	99	97	110	87	101	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
DEER VALLEY MIDDLE																	
BARRY GOLDWATER	286	242	252	284	253	271	251	210	64.6%	67.4%	68.7%	70.8%	76.2%	79.9%	77.7%	75.5%	72.1%
BOULDER CREEK		2	3	1	1	1	1	1	0.0%	0.6%	0.8%	0.2%	0.3%	0.3%	0.3%	0.4%	0.4%
DEER VALLEY	9	8	5	12	7	7	6	8	2.0%	2.2%	1.4%	3.0%	2.1%	2.1%	1.9%	2.9%	2.2%
MOUTAIN RIDGE	3	1	1		1	1	1		0.7%	0.3%	0.3%	0.0%	0.3%	0.3%	0.3%	0.0%	0.3%
SANDRA DAY	36	2	9	1		2	4	1	8.1%	0.6%	2.5%	0.2%	0.0%	0.6%	1.2%	0.4%	1.9%
LEFT DISTRICT	109	104	97	103	70	57	60	58	24.6%	29.0%	26.4%	25.7%	21.1%	16.8%	18.6%	20.9%	23.2%
TOTAL	443	359	367	401	332	339	323	278	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
DESERT MOUNTAIN																	
BARRY GOLDWATER	6	9	3	8	4	2	7	4	4.7%	6.6%	2.4%	6.7%	3.8%	1.9%	9.1%	4.2%	4.8%
BOULDER CREEK	104	104	95	83	86	83	55	73	80.6%	75.9%	76.6%	69.7%	82.7%	80.6%	71.4%	76.8%	76.9%
SANDRA DAY	3	5	1	6	3	3	2	3	2.3%	3.6%	0.8%	5.0%	2.9%	2.9%	2.6%	3.2%	2.9%
LEFT DISTRICT	16	19	25	22	11	15	13	15	12.4%	13.9%	20.2%	18.5%	10.6%	14.6%	16.9%	15.8%	15.3%
TOTAL	129	137	124	119	104	103	77	95	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
DESERT SKY MIDDLE																	
BARRY GOLDWATER	12	9	8	12	7	2	7	8	3.0%	2.0%	2.1%	3.0%	2.1%	0.6%	2.3%	2.4%	2.2%
BOULDER CREEK		1		1		2			0.0%	0.2%	0.0%	0.3%	0.0%	0.6%	0.0%	0.0%	0.1%
DEER VALLEY	328	353	299	305	289	293	251	264	80.8%	80.2%	78.3%	76.3%	85.0%	85.4%	83.4%	78.1%	80.7%
MOUTAIN RIDGE	5	2	1	2		5	1	4	1.2%	0.5%	0.3%	0.5%	0.0%	1.5%	0.3%	1.2%	0.7%
SANDRA DAY	2	3	7	4	6		1		0.5%	0.7%	1.8%	1.0%	1.8%	0.0%	0.3%	0.0%	0.8%
LEFT DISTRICT	59	72	67	76	38	41	41	62	14.5%	16.4%	17.5%	19.0%	11.2%	12.0%	13.6%	18.3%	15.5%
TOTAL	406	440	382	400	340	343	301	338	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

	9th Grade Class Year								9th Grade Class Year								
	2009_10	2010_11	2011_12	2012_13	2013_14	2014_15	2015_16	2016_17	2009_10	2010_11	2011_12	2012_13	2013_14	2014_15	2015_16	2016_17	Average
DIAMOND CANYON																	
BARRY GOLDWATER	2	1	1	2	5			1	1.7%	0.9%	0.8%	2.0%	3.9%	0.0%	0.0%	0.7%	1.3%
BOULDER CREEK	92	89	108	80	105	110	86	122	78.0%	77.4%	83.7%	79.2%	82.0%	92.4%	83.5%	90.4%	83.5%
DEER VALLEY	1								0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
SANDRA DAY	3	2		4			1		2.5%	1.7%	0.0%	4.0%	0.0%	0.0%	1.0%	0.0%	1.1%
LEFT DISTRICT	20	23	20	15	18	9	16	12	16.9%	20.0%	15.5%	14.9%	14.1%	7.6%	15.5%	8.9%	14.0%
TOTAL	118	115	129	101	128	119	103	135	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
GAVILAN PEAK																	
BARRY GOLDWATER	3	2	2	1	1	1	3	1	2.1%	1.3%	1.7%	0.8%	0.8%	0.7%	3.3%	0.7%	1.3%
BOULDER CREEK	110	116	101	107	117	129	79	123	75.9%	77.3%	84.2%	84.3%	90.7%	93.5%	86.8%	86.0%	84.8%
DEER VALLEY								1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.1%
SANDRA DAY		1	2					3	0.0%	0.7%	1.7%	0.0%	0.0%	0.0%	0.0%	2.1%	0.6%
LEFT DISTRICT	32	31	15	19	11	8	9	15	22.1%	20.7%	12.5%	15.0%	8.5%	5.8%	9.9%	10.5%	13.2%
TOTAL	145	150	120	127	129	138	91	143	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
HIGHLAND LAKES																	
BARRY GOLDWATER	2	3	7	3	7	2	4	3	0.8%	1.2%	2.9%	1.3%	2.8%	0.9%	1.9%	1.1%	1.6%
BOULDER CREEK		1				5	9	6	0.0%	0.4%	0.0%	0.0%	0.0%	2.2%	4.2%	2.3%	1.1%
DEER VALLEY	88	79	73	98	105	89	103	80	34.5%	31.9%	30.5%	41.9%	41.3%	38.5%	47.9%	30.4%	36.9%
MOUTAIN RIDGE	127	124	115	92	122	101	67	127	49.8%	50.0%	48.1%	39.3%	48.0%	43.7%	31.2%	48.3%	45.1%
SANDRA DAY	5	3	9	4	2	8	7	4	2.0%	1.2%	3.8%	1.7%	0.8%	3.5%	3.3%	1.5%	2.2%
LEFT DISTRICT	33	38	35	37	18	26	25	43	12.9%	15.3%	14.6%	15.8%	7.1%	11.3%	11.6%	16.3%	13.2%
TOTAL	255	248	239	234	254	231	215	263	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
HILLCREST MIDDLE																	
BARRY GOLDWATER	7	4	7	5	8	3	8	1	1.3%	0.7%	1.3%	0.8%	1.5%	0.6%	1.5%	0.2%	1.0%
BOULDER CREEK	3		2	2		1		1	0.5%	0.0%	0.4%	0.3%	0.0%	0.2%	0.0%	0.2%	0.2%
DEER VALLEY	1	1		2		4	1	2	0.2%	0.2%	0.0%	0.3%	0.0%	0.8%	0.2%	0.4%	0.3%
MOUTAIN RIDGE	238	241	232	248	230	198	219	213	42.9%	40.5%	43.3%	42.0%	41.8%	41.3%	41.0%	44.7%	42.1%
SANDRA DAY	243	293	243	263	258	211	253	214	43.8%	49.2%	45.3%	44.5%	46.9%	44.0%	47.4%	44.9%	45.8%
LEFT DISTRICT	63	56	52	71	54	63	53	46	11.4%	9.4%	9.7%	12.0%	9.8%	13.1%	9.9%	9.6%	10.6%
TOTAL	555	595	536	591	550	480	534	477	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
NORTERRA CANYON																	
BARRY GOLDWATER		16	28	37	45	41	37	29		24.2%	26.7%	38.5%	40.2%	43.2%	39.4%	30.2%	35.1%
BOULDER CREEK		1	1	1	11	6	1	2		1.5%	1.0%	1.0%	9.8%	6.3%	1.1%	2.1%	3.5%
DEER VALLEY					1	1	1	1		0.0%	0.0%	0.0%	0.9%	1.1%	1.1%	1.0%	0.6%
MOUTAIN RIDGE			1	2	2		1	1		0.0%	1.0%	2.1%	1.8%	0.0%	1.1%	1.0%	1.1%
SANDRA DAY		37	58	37	28	17	41	47		56.1%	55.2%	38.5%	25.0%	17.9%	43.6%	49.0%	39.9%
LEFT DISTRICT		12	17	19	25	30	13	16		18.2%	16.2%	19.8%	22.3%	31.6%	13.8%	16.7%	19.9%
TOTAL		66	105	96	112	95	94	96		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

	9th Grade Class Year								9th Grade Class Year								
	2009_10	2010_11	2011_12	2012_13	2013_14	2014_15	2015_16	2016_17	2009_10	2010_11	2011_12	2012_13	2013_14	2014_15	2015_16	2016_17	Average
PASEO HILLS																	
BARRY GOLDWATER	82	81	54	61	79	93	79	66	65.6%	66.4%	56.8%	58.1%	69.9%	80.9%	74.5%	71.0%	68.1%
BOULDER CREEK							1	1	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	1.1%	0.2%
DEER VALLEY	16	5	2	5	1	4	3	3	12.8%	4.1%	2.1%	4.8%	0.9%	3.5%	2.8%	3.2%	4.5%
MOUTAIN RIDGE					2	1			0.0%	0.0%	0.0%	0.0%	1.8%	0.9%	0.0%	0.0%	0.3%
SANDRA DAY	10	19	23	17	9	5	8	10	8.0%	15.6%	24.2%	16.2%	8.0%	4.3%	7.5%	10.8%	11.6%
LEFT DISTRICT	17	17	16	22	22	12	15	13	13.6%	13.9%	16.8%	21.0%	19.5%	10.4%	14.2%	14.0%	15.3%
TOTAL	125	122	95	105	113	115	106	93	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
SIERRA VERDE																	
BARRY GOLDWATER	6		2			1		1	5.9%	0.0%	2.0%	0.0%	0.0%	0.8%	0.0%	0.9%	1.2%
BOULDER CREEK	1			1		2			1.0%	0.0%	0.0%	1.0%	0.0%	1.6%	0.0%	0.0%	0.5%
DEER VALLEY	1	1	1	2	1		2	1	1.0%	1.1%	1.0%	2.1%	1.0%	0.0%	1.6%	0.9%	1.1%
MOUTAIN RIDGE	82	86	76	76	70	94	96	90	80.4%	90.5%	76.8%	78.4%	70.7%	76.4%	75.6%	80.4%	78.5%
SANDRA DAY		2	1		1	2	3	1	0.0%	2.1%	1.0%	0.0%	1.0%	1.6%	2.4%	0.9%	1.2%
LEFT DISTRICT	12	6	19	18	27	24	26	19	11.8%	6.3%	19.2%	18.6%	27.3%	19.5%	20.5%	17.0%	17.7%
TOTAL	102	95	99	97	99	123	127	112	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
STETSON HILLS																	
BARRY GOLDWATER		3		2	1		1	2	0.0%	2.2%	0.0%	1.5%	0.6%	0.0%	0.7%	1.5%	0.8%
BOULDER CREEK	1			1			1		0.8%	0.0%	0.0%	0.7%	0.0%	0.0%	0.7%	0.0%	0.3%
DEER VALLEY		1		1	1				0.0%	0.7%	0.0%	0.7%	0.6%	0.0%	0.0%	0.0%	0.3%
MOUTAIN RIDGE		1	1		1		5	1	0.0%	0.7%	0.7%	0.0%	0.6%	0.0%	3.6%	0.8%	0.8%
SANDRA DAY	113	117	124	118	137	120	125	114	89.7%	85.4%	91.2%	87.4%	89.0%	95.2%	90.6%	87.7%	89.5%
LEFT DISTRICT	12	15	11	13	14	6	6	13	9.5%	10.9%	8.1%	9.6%	9.1%	4.8%	4.3%	10.0%	8.3%
TOTAL	126	137	136	135	154	126	138	130	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
SUNSET RIDGE																	
BARRY GOLDWATER	19	10	8	7	14	8	5	3	14.1%	9.3%	6.6%	5.0%	11.8%	6.0%	4.5%	2.3%	7.4%
BOULDER CREEK	76	76	84	107	93	101	87	110	56.3%	71.0%	68.9%	75.9%	78.2%	75.4%	79.1%	85.9%	73.7%
MOUTAIN RIDGE		1		1		1	1		0.0%	0.9%	0.0%	0.7%	0.0%	0.7%	0.9%	0.0%	0.4%
SANDRA DAY	13	9	13	3	4	10	3	2	9.6%	8.4%	10.7%	2.1%	3.4%	7.5%	2.7%	1.6%	5.7%
LEFT DISTRICT	27	11	17	23	8	14	14	13	20.0%	10.3%	13.9%	16.3%	6.7%	10.4%	12.7%	10.2%	12.8%
TOTAL	135	107	122	141	119	134	110	128	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
TERRAMAR																	
BARRY GOLDWATER		2	3		4				0.0%	1.9%	3.1%	0.0%	4.3%	0.0%	0.0%	0.0%	1.1%
BOULDER CREEK	1		1	1		1			0.9%	0.0%	1.0%	1.0%	0.0%	1.0%	0.0%	0.0%	0.5%
DEER VALLEY					1		2	2	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	1.8%	2.0%	0.6%
MOUTAIN RIDGE	65	68	63	64	62	62	66	48	55.6%	63.0%	65.6%	61.5%	66.0%	64.6%	57.9%	48.0%	60.1%
SANDRA DAY	29	24	18	28	19	26	22	41	24.8%	22.2%	18.8%	26.9%	20.2%	27.1%	19.3%	41.0%	25.0%
LEFT DISTRICT	22	14	11	11	8	7	24	9	18.8%	13.0%	11.5%	10.6%	8.5%	7.3%	21.1%	9.0%	12.8%
TOTAL	117	108	96	104	94	96	114	100	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

	9th Grade Class Year								9th Grade Class Year								
	2009_10	2010_11	2011_12	2012_13	2013_14	2014_15	2015_16	2016_17	2009_10	2010_11	2011_12	2012_13	2013_14	2014_15	2015_16	2016_17	Average
WESTWING SCHOOL																	
BARRY GOLDWATER			1		1		2		0.0%	0.0%	0.8%	0.0%	0.7%	0.0%	1.5%	0.0%	0.5%
BOULDER CREEK			1	1			1		0.0%	0.0%	0.8%	1.0%	0.0%	0.0%	0.7%	0.0%	0.4%
DEER VALLEY		1			1	2			0.0%	0.9%	0.0%	0.0%	0.7%	1.6%	0.0%	0.0%	0.5%
MOUTAIN RIDGE	1		2	3	2	3	5	4	1.0%	0.0%	1.7%	2.9%	1.4%	2.4%	3.7%	2.8%	2.4%
SANDRA DAY	72	75	78	72	82	94	75	74	68.6%	65.8%	65.5%	68.6%	56.9%	75.2%	56.0%	52.1%	75.0%
LEFT DISTRICT	32	38	37	29	58	26	51	64	30.5%	33.3%	31.1%	27.6%	40.3%	20.8%	38.1%	45.1%	40.4%
TOTAL	105	114	119	105	144	125	134	142	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	119.2%