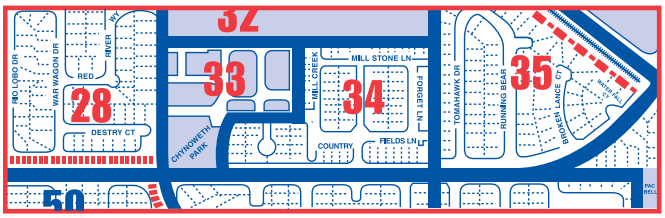
ENROLLMENT PROJECTION CONSULTANTS

Providing School Districts with Accurate Enrollment Forecasts by Location

Area 32
Older Mobile Home Park
450 units, 90 K-8 students, 0.20 SGR

Area 28
Recent Upper-Income Det. Homes
218 units, 85 K-8 students, 0.39 SGR

Area 33
Recent Upscale Townhouses
82 units, 9 K-8 students, 0.11 SGR



Area 34
Recent Middle-Income Det. Homes
94 units, 33 K-8 students, 0.35 SGR

Area 35
Older Middle-income Det. Homes
89 units, 57 K-8 students, 0.64 SGR

Elementary and Middle School
Attendance Boundaries

Superintendent Cheryl Jordan
Milpitas Unified School District
1331 E. Calaveras Blvd.
Milpitas, CA 95035

February 7, 2019

Dear Superintendent Jordan:

This is the concluding documentation to the latest forecast update. We begin with the items below and then provide some background information. Subsequent sections follow the order of the tables, starting with the updated projections in Tables 1 and 2 and then the underlying factors to those numbers in Tables 3 to 7. The appendices provide more detail for those who want to delve further into the data.

I want to start this report by noting that I have provided forecasts for Milpitas Unified School District (henceforth "MUSD" or "district") since 1985, along with for over 70 other districts during that time, and I do not recall having ever encountered such an "iffy" short-term projection as for the Mattos student totals. Your community has had a huge rise in the local birth numbers that correlate to the pending school years, compared to the births correlating to your current and recent kindergartens. This rise in births is contrary to the declining birth figures in virtually all other Santa Clara County districts. Your elementary (TK-6) enrollment totals only had relatively minor differences in the last five years, with early October figures that had a high of 5,502 in 2014 and a low of 5,334 this year. That is a loss of only 3% when most South Bay districts had much larger percentage declines in their elementary totals since 2013. Several lost more than 3% in the last year alone. The thousands of new housing units completed in the MUSD since 2013 both helped maintain your elementary totals and presumably are the main source of the high birth numbers. Those dwellings, along with thousands more in the next five years, are heavily concentrated in the Mattos attendance area. We do not know how much the jump in births occurred in that area and this issue, along with estimating the student totals that will come from thousands of pending residences there, makes projecting the Mattos student numbers especially difficult. Not knowing for certain when the Mattos capacity will be expanded adds to this potentially high degree of enrollment deviation, as more students are likely to be enrolled in the MUSD once that school is large enough to include all of the elementary grades.

The following projections are based on Mattos having another classroom building added for the start of each of 2021 and 2023, along with assuming that the majority, but not all, of the recent spike in births occurred in that attendance area. The new housing forecast numbers are valid only if a major recession does not occur by 2023.

Projections Summary

The total MUSD enrollment is projected to rise by 557 students in the next five years, with virtually all of that gain in the elementary grade level. The difference from the "current" (October 3, 2018) total to that forecast in October 2019 is an increase by 79 students. That is the net of 83 additional elementary students, 14 more middle school students and 18 fewer high school students. A year later the net projected two-year changes are 258 more elementary students, 61 fewer middle school students and 17 additional high school students. The cumulative

differences to each of the following three years have higher amounts solely in the elementary total, while the two secondary levels are expected to have slightly fewer students than at present. The net changes to 2023 are a gain of 688 elementary students and reductions by 50 and 81 middle and high school students, respectively.[1] These divergent changes by grade level are mainly due to the evolution of the current student distribution through the grades, along with the projected kindergarten amounts for the elementary total.

The projected "resident" (home school) student totals have the issue of evolving grade ranges being covered within each of the current Mattos, Zanker, Randall and Rose attendance areas, with the most notable impact being for Mattos. Mattos has 166 MUSD-enrolled students who reside in that attendance area in the current relevant grades of K-2, but only 110 students are enrolled at Mattos. This difference is due to "grandfathering" for students who wanted to stay in the school they were enrolled in last year from that area, before Mattos opened. If the Mattos capacity is expanded sufficiently to handle grades K-5 in 2021, then the projected resident total in those grades in that year is 604.[2] That would be a rise by 438 resident students, with the additional grades included, and probably an even larger enrollment increase (than by 438) as the grandfathered total declines due to housing turnover. The only other elementary area projected to have a major shift in its resident total is Rose, but that is due to a unique nuance for the resident Rose numbers. That school has the former Randall attendance area being phased in, starting with grades TK-2 this year and evolving to TK-5 in 2021. Randall is evolving into a dual-immersion magnet school open to students from throughout the district, with its resident student numbers going away (from 3-6 today to just 6th in 2021 and none in 2022) as a result. But since many of the Randall-enrolled students are likely to come from addresses in that school's vicinity, the enrollments at both Randall and Rose will not change by anywhere near the degree that the divergent changes in their resident totals suggest. For the next three years, the only dramatic total elementary enrollment differences are expected for Mattos, provided that Mattos has an additional classroom building available in 2021.

While there are significant issues in projecting beyond three-years hence by school and five-years hence for the district, we nonetheless are providing ten-year estimates to help the district plan for facility needs. The realistic maximum in 2028 is that there could be around 1,100 more MUSD students than at present. Nearly 1,000 of those added students could be in the elementary level, with much of that gain in just the Mattos area. The middle school level could have a net rise by over 100 students.[3] The high school total, however, could have close to the current amount because the gains from the projected housing are being offset, in the 9-12 total, by graduation of the large classes that are now in the tenth and eleventh grades. These are all optimistic numbers; lower totals (i.e., less elementary and middle school growth and a modest high school decline) are more likely, especially if a major economic recession occurs within the next decade. That would reduce the birth and new housing amounts.

Background Information and Forecast Accuracy

I have provided in-depth enrollment forecasts since 1985 for the MUSD. My firm specializes in these thorough studies, where every key component of the recent trends is determined, analyzed, compared to the knowledge gained from our experience in over 350 previous studies, and then projected. I drove literally every street in my first MUSD study to learn the community and divide it into suitable planning areas. These areas represent a single dominant housing type wherever feasible, including by subjective price ranges and average home and

[1] These figures cover all students in TK (Transitional Kindergarten) through twelfth grade that are maintained in the district's electronic records, including "SDC" (Special Day Class, a.k.a., Special Education) and Calaveras Hills Continuation High students. "NPS" (Non-Public-School) students, Community Day students, preschool SDC and adult education students that may be counted in some State reports are excluded. Please note that whenever just a year is stated, such as 2023, the reference is for, or in the specified period to, early October of that year.

[2] Resident student totals by individual attendance area are being provided only through 2021, with more general estimates discussed thereafter in this report. Comparisons in the resident totals between elementary attendance areas exclude TK (transitional kindergarten) because that is not assigned to every elementary school.

[3] Graduation from the middle schools of a large current seventh grade class is why the ten-year middle school gain isn't higher.

parcel sizes. We have found that even subtle differences in residential type and value can generate divergent enrollment trends in some districts.

The current enrollment is only 37 below what we had projected in our last study, for a difference of essentially one-third of 1%. This is well within the range of what commonly is considered an accurate forecast. The largest grade-level divergence is in the elementary total, with 49 fewer students than were projected (a deviation by nine-tenths of 1%). All of that difference in net, however, occurred in grades 2-6. The amount forecast from a year ago for the total in TK-1 exactly matches the October 3, 2018, total in the file provided to EPC by the MUSD. So the student population in the lowest grades is evolving as expected, with corresponding implications for the future.

District-Wide Projected Enrollments from 2018 to 2023

The MUSD enrollment is projected to increase by 557 students over the next five years (see far right column in the bold box in Table 1 on page 4). The difference for the pending school year (i.e., from October 3, 2018, to October 1, 2019) is growth by 79 students. That is the net of 83 additional elementary (TK-6) students, 14 more middle school (grades 7-8) students and 18 fewer high school (9-12) students. The following year adds another 175 elementary students, for a two-year total of 258, while the middle school total drops by 75, for a net of 61 fewer than are currently enrolled. The high school figure rises by 35 in 2020, for a net increase by 17. The current student distribution through the grades and the projected incoming kindergarten totals are key factors in these expected differences. The divergent changes forecast in 2020 for the two secondary grade levels occur, for example, because an especially large class will have graduated from eighth in 2019 to ninth in 2020.[4]

The net cumulative differences after 2020 have significant further elementary growth and moderately lower totals at the middle and high school levels. The latter occur mainly because the second through sixth grades currently have relatively small classes for their locations in the grade spectrum.[5] The highest of those classes (the current fifth and sixth graders) will have graduated into the middle schools in the next two years and then will be entering the high school grades thereafter. While students coming from new housing will be added to those classes in each year, that will be insufficient to fully offset the size differences between the incoming and outgoing classes in the secondary levels. The result should be lower middle and high school totals in 2021 through 2023 (and much longer for the high school) than at present. The graduation from the elementary level of those same relatively small classes, however, when combined with the large kindergarten numbers that the latest birth data suggests, should create ongoing growth through at least 2023 in the TK-6 total. Students from new housing will further contribute to the elementary student increase. The net projected five-year results are a rise by 688 elementary students and potential declines by 50 middle school and 81 high school students.

Potential Enrollments in 2028

To repeat from our last report: The socioeconomic upheaval being caused by the soaring housing costs, including rents, in Santa Clara County makes a ten-year enrollment forecast even more “iffy” than usual. We are now only providing five- or six-year projections for most of our clients accordingly. An exception is being made for the MUSD due to your need to have some sense, even with a large plus or minus deviation, of what the facility requirements could be. We therefore are providing forecast figures for 2028 based on (1) the realistic maximum number of new housing units that could be built by then and (2) extrapolation of the latest birth figures in Milpitas.

[4] Table 1 only shows totals by grade level for the sake of clarity. The by-grade amounts are shown in Appendix A1 on page 19. The high school total includes students enrolled in Milpitas High and Calaveras Hills Continuation High.

[5] We consider any current single-grade class that is, was, or will be over 800 when in ninth to be a relatively large class, with any that is, was, or will be below 800 when in ninth to be a relatively small class. A key reason for the small classes now in fourth through sixth is that those only represent 11-month birth periods. This is due to a shift that occurred in the birthdate cutoff for kindergarten eligibility from December 2 before 2012 to September 1 starting in 2014.

Table 1: Summary of Actual and Projected District Enrollments, 2018 to 2023

Enrollment Subject	Total Enrollment by Grade Group* TK-6	7-8	9-12	District TK-12 Total*
Actual on October 3, 2018	5,334	1,540	3,276	10,150
Projected for October 1, 2019	5,417	1,554	3,258	10,229
Projected for October 1, 2020	5,592	1,479	3,293	10,364
Projected for October 1, 2021	5,756	1,443	3,257	10,456
Projected for October 1, 2022	5,893	1,470	3,224	10,587
Projected for October 1, 2023	6,022	1,490	3,195	10,707
Change in One Year, to October 2019	**83**	**14**	**-18**	**79**
Change in Two Years, to October 2020	**258**	**-61**	**17**	**214**
Change in Three Years, to October 2021	**422**	**-97**	**-19**	**306**
Change in Four Years, to October 2022	**559**	**-70**	**-52**	**437**
Change in Five Years, to October 2023	**688**	**-50**	**-81**	**557**

* Figures include MUSD-attending TK-12 SDC and Calaveras Hills students but exclude any Community Day School, NPS, preschool SDC and Adult Ed. students that may be included in some State reports.

We discuss each of these new housing and kindergarten evolution issues later in this report, but the aggregate results of extrapolation of the latest in-district findings, along with the highest possible housing amounts, suggest significant further enrollment growth after 2023. The district total, at the "real potential" maximum, could rise by another 500+ students between five and ten years hence, to an enrollment that could be around 1,100 above the current count. The potential grade-level differences from 2018 to 2028 could be gains of nearly 1,000 elementary students and more than 100 middle school students, while having little net change for the high school. This could be an optimistic long-range forecast at especially the elementary level. If less new housing is built and/or the birth totals start to decline (as already is occurring in most other South Bay districts), both of which are a given if there is a major recession, then the ten-year enrollment growth will not be as significant. But whatever growth does happen will be concentrated in the Mattos attendance area. It is conceivable that the resident Mattos total for just the current interim area (which is smaller than the board-adopted area) could exceed 850 TK-6 students in 2028.[6]

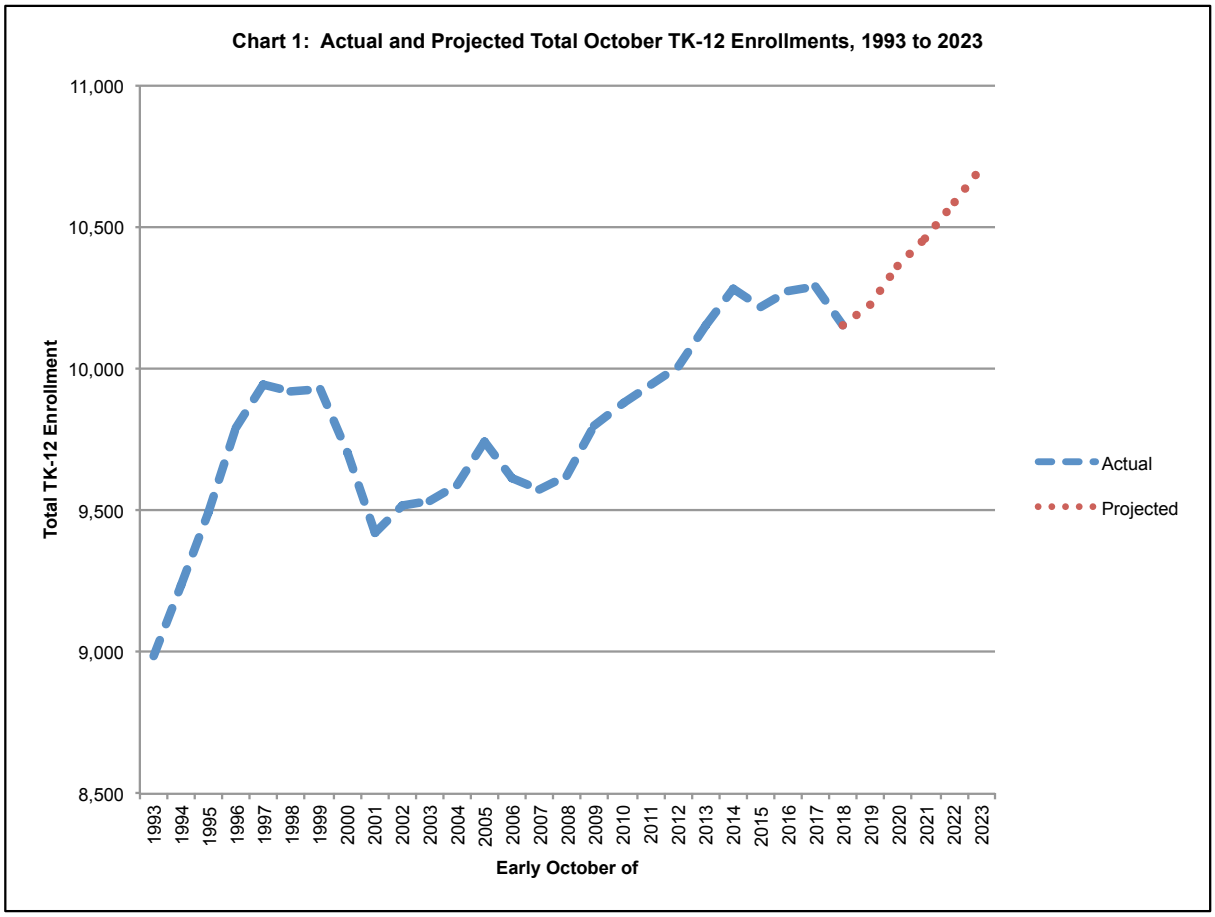
Projected Resident Student Populations by Attendance Area

This forecast is again based on analyses of where the students live (the resident population[7]) rather than the schools they happen to attend (the attending enrollment). Resident populations differ from enrollments mainly because of (1) known intra-district enrollment (across MUSD attendance areas) and (2) known inter-district enrollment (from addresses that are outside the MUSD region). By coding all of the student addresses to planning areas that represent various housing types and locations, we have been able to identify and evaluate how the student population is evolving in each situation. We flip back-and-forth between these "resident" and "enrollment" amounts in the following text and it is important to remember the distinction between these two types.

Table 2, on pages 6 and 7, presents the key resident and enrollment findings and projections by attendance area.

[6] The more likely range is in the 700s.

[7] "Resident" throughout this report means physical resident, not legal resident.



Understanding the Data in Table 2

Table 2 contains two data sets for each school. The figures on the left (under *"Actual Resident Students and Enrollment part"*) show both (1) the amounts by which the resident totals changed in the last year and (2) how the current enrollment at each school differs from the resident total. There are 497 MUSD-enrolled K-6 students (i.e., excluding TK because that is not assigned by these attendance areas), for instance, with home addresses in the current Weller region. Weller's K-6 enrollment, however, is 436, which is 61 less than that resident total. This net difference is shown by the "-61" in the top row of the "Attending Adjust" column on the first page of the table. The second set of data, on the right side of Table 2 (under *"Projected Resident Students part"*), has the projected resident amounts in the grades (aside from TK) that are relevant to each school in each year. These are not projected enrollments. They do indicate, however, the extent to which the attendance area and relevant grades for each school, in each year, may be suitable. In Mattos' case, the resident total for the current interim area rises from 166 in K-2 this year to a projected 604 in K-5 in 2021 (and higher in K-6 in 2022, which is not shown in the table). If that school's facility capacity is not expanded by 2021 to handle this many students, then either the grade range covered and/or the area included may need to be reduced.

Key Findings in the Latest Shifts by Attendance Area

While only three elementary regions, and neither middle school area, had shifts by more than 20 relevant resident students in the last year, those three exceptions are notable. For the Rose area in the current relevant grades by location, the drop in the last year was by 38 students. Sinnott's region lost 49 students (K-6) and the Mattos area added 42 in just K-2. The latter may be partly due to that school's opening causing transfers from private schools.

Table 2: Actual Resident-to-Attendance Figures and Projected Resident Students by Attendance Area
(with color highlighting for resident differences of 30+: growth in yellow, reduction in orange, and brown for a mix of both)

	Actual Resident Students and Enrollment part				*Projected Resident Students part*					
	Resident	Actual October 2018 (excl. TK)			Projected Resident Students (excl. TK)					
					Early October			Change to October		
Grade Level and School Area	**Shift from Oct. 2017**	**Resident Students**	**Attending Adjust****	School Enrollment	**2019**	**2020**	**2021**	**2019**	**2020**	**2021**
Elementary (K-6 except where identified otherwise) by Attendance Area										
Weller	-3	**497**	**-61**	436	485	488	487	**-12**	**-9**	**-10**
Pomeroy	-7	**620**	**83**	703	600	595	603	**-20**	**-25**	**-17**
Curtner	-8	**739**	**-10**	729	733	726	731	**-6**	**-13**	**-8**
Spangler	2	**579**	**-15**	564	588	606	611	**9**	**27**	**32**
Zanker:										
Interim Area K-6	-12	**493**	43	536	504	517	536			
2018 Add in 3-6	5	**106**	-3	103						
2019 Add in 4-6					75					
2020 Add in 5-6*						57				
2021 Add in 6							34			
Zanker Total	-7	**599**	**40**	639	579	574	570	**-20**	**-25**	**-29**
Mattos (Interim):										
2018 in K-2	**42**	**166**	**-56**	110						
2019 in K-3					282			**116**		
2020 in K-4*						443			**277**	
2021 in K-5							**604**			**438**
Rose:										
Core Area in K-6	**-34**	**357**	41	398	354	349	349			
2018 Add in K-2	-12	**134**	-91	43						
2018 Add in 3-6	8	**27**	-6	21						
2019 Add in K-3					186					
2019 Add in 4-6					35					
2020 Add in K-4						235				
2020 Add in 5-6*						38				
2021 Add in K-5							283			
2021 Add in 6							26			
Rose Total	**-38**	**518**	**-56**	462	575	622	658	**57**	**104**	**140**
Randall:								*(above/below offset)*		
2018 in 3-6	-11	**197**	**2**	199						
2019 in 4-6					135			**-62**		
2020 in 5-6						93			**-104**	
2021 in 6							43			**-154**
Burnett	-20	**502**	**14**	516	492	496	499	**-10**	**-6**	**-3**
Sinnott	**-49**	**716**	**7**	723	736	737	744	**20**	**21**	**28**
Randall in K-2	NA	NA	131	131	NA	NA	NA	NA	NA	NA
All In-District	-99	5,133	79	5,212	5,205	5,380	5,550	72	247	417
Other K-6***	-3	79	-79	NA	79	77	71	0	-2	-8

* The latest Mattos expansion timing plans, with the next building not added until 2021, may require 2020 kindergarten or 4th grade from Mattos area to be assigned to Zanker or Rose (i.e., insufficient Mattos 2020 capacity for all five grades).

** School net attending adjustments include (1) intra-district attendance, (2) incoming inter-district attendance (IDA) and (3) students at unlocatable addresses. Outgoing inter-district attendance was not identified. See Appendix A for more info.

*** Other represents incoming inter-district students and a few students listed at unlocatable addresses.

Note: There is a huge potential range for the Mattos Interim and Mattos Board-Adopted Eventual resident student totals, but the probable range estimates for the K-6 totals from the Mattos Interim area are 650-800 in 2023 and 700-900 in 2028, with the lower end of those ranges more likely. The Mattos Board-Adopted Eventual area would add 100-150 to the totals.

Table 2, page 1 of 2

Table 2: Actual Resident-to-Attendance Figures and Projected Resident Students by Attendance Area
(with color highlighting for resident differences of 30+: growth in yellow, reduction in orange, and brown for a mix of both)

Grade Level and School Area	*Actual Resident Students and Enrollment part*				*Projected Resident Students part*					
	Resident Shift from Oct. 2017	Actual October 2018			Projected Resident Students					
		Resident Students	Attending Adjust**	School Enrollment	Early October			Change to October		
					2019	2020	2021	2019	2020	2021
Middle School (7-8) by Attendance Area										
Russell	6	**786**	39	825	805	771	722	**19**	**-15**	**-64**
Rancho Milpitas	16	**726**	-11	715	723	689	697	**-3**	**-37**	**-29**
All In-District	22	1,512	28	1,540	1,528	1,460	1,419	16	-52	-93
Other 7-8***	14	28	-28	NA	26	19	24	-2	-9	-4
High School (9-12)										
Milpitas High				3,170						
Calaveras Contin.				106						
All In-District	-61	**3,231**	**45**	3,276	3,216	3,245	3,209	**-15**	**14**	**-22**
Other 9-12***	0	45	-45	NA	42	48	48	-3	3	3

** School net attending adjustments include (1) intra-district attendance, (2) incoming inter-district attendance (IDA) and (3) students at unlocatable addresses. Outgoing inter-district attendance was not identified. See Appendix A for more info.
*** Other represents incoming inter-district students and a few students listed at unlocatable addresses.

Table 2, page 2 of 2

We also should mention that the current net attending adjustment of -56 for Mattos comes mainly from students who were enrolled in kindergarten and first grade at Zanker a year ago, prior to Mattos' opening. Many of those students, along with their siblings who are now in kindergarten, chose to be "grandfathered" for enrollment in K-2 at Zanker this year. This net adjustment amount should decline slightly in the near future, with housing turnover, but it could mostly continue until these "grandfathered" students start to graduate into the middle schools in 2023.

Key Findings Related to the Data in Table 2

As Mattos has the greatest projected resident student changes, we are covering what those figures indicate first. The Mattos resident total rises from 166 in K-2 this year to 282 in K-3 next year, for a 116-student gain. This increase comes from (1) the additional grade (third) being included, (2) a large number of new housing units being moved into in 2019 in the Mattos area and (3) birth data from five years earlier that suggests a higher total in kindergarten. That birth factor has issues that we discuss later in this report, so we will only note here that it is our estimation, but by no means a certainty, that the jump in births in the Milpitas zip code in 2014, which mostly correlates to the 2019 kindergartners, came mainly from (what was then) recently built housing in the Mattos area. If that estimation is correct, then the projected 2019 resident K-3 total of 282 for Mattos is justified, but that could translate into a Mattos enrollment of around 226 once the grandfathered outflow of 56 students is factored in.[8] Generally continuing this grandfathered outflow from the Mattos area means that the Mattos enrollment in K-4 in 2020 could be around 400 (i.e., 443 minus only a little less than 56), while that in K-5 in 2021 could be around 560. This grandfathered outflow will rapidly decline once those students graduate into seventh starting in 2023.

[8] Resident and attending figures by individual grade, both for the current students and for what potentially could occur for the enrollment in 2019, are provided for each school in Appendices A2 (elementary), A3 (middle school) and A4 (high school). Those 2019 enrollment figures, however, are based on the assumption that the current net intra- and inter-district attendance amounts in each grade will advance by 100% into the next grade, other than for nominal fine-tuning needed to match the overall forecast by grade. The District presumably will review those figures and then will change some of the adjustment amounts based on facility and staffing availability, so the actual 2019 enrollments will differ.

The only other resident elementary figures that change by more than 32 between 2018 and 2021 are in the Rose and Randall areas, but these are mainly offsetting differences. The Rose region is absorbing the grades in the Randall region that no longer apply to Randall. This is because Randall no longer has a defined subsection of the district in K-2, but is instead equally available to students from throughout the district in those grades (for the Randall dual-language program). The phasing out of Randall's attendance area, with 3-6 relevant this year, but only 4-6 relevant next year, and so on, causes those Randall resident students (such as the third graders in 2019) to shift to being counted as Rose resident students. Since a significant share of the students in the Randall vicinity are expected to apply for enrollment in that dual-language program, however, the enrollment changes for Rose and Randall should be by far less than these resident differences might imply.

Of the seven remaining elementary attendance areas (for Weller, Pomeroy, Curtner, Spangler, Zanker, Burnett and Sinnott), the next largest projected resident change in the next three years is a modest rise by 32 to 2021 for Spangler. The Sinnott region is a close second in growth with 28 added during that time.[9] The most significant projected reduction, among these seven areas, is only a small drop by 29 to 2021 for Zanker. The phasing out of receiving some grades from the Mattos area is the source of that resident Zanker decline.

Larger resident student differences are projected for the two middle school areas, which is to be expected in those much higher totals that only cover two grades (7-8). As relatively small or large single-grade amounts in either of those regions graduates into seventh or out of eighth, the resultant middle school totals shift accordingly. Neither of these areas has much change forecast for 2019 (in the 7-8 total), but both should have meaningfully lower amounts in the following two years due to their current relevant student distributions through grades 4-8. The Russell region could be down by 64 resident middle school students in 2021, while the Rancho Milpitas area could be a net of 29 students lower in 2021. Although not shown on the second page of Table 2 (on page 7), the resident Rancho Milpitas total should rebound to a net positive difference in subsequent years, while the Russell total could fluctuate in the vicinity of that reduction by around 64 students (in grades 7-8).

Comparison to Total TK-8 and Elementary Enrollment Trends, and Birth Trends, in Santa Clara County

It is important to point out that some of the MUSD's data trends are to the negative and that this is similar, in varying degrees, to what is occurring in most other districts in Santa Clara County. A shift from elementary enrollment growth to decline occurred in around 2013 in most local school districts. In the majority of cases, the rate of decline then increased in the last year compared to the annual average from the preceding four years. This included your district, where the average annual TK-8 growth from 2010 to 2013 was by +1% (98 students), followed by small gains and losses in the next four years, for an average annual difference of a rounded 0% (nine fewer students), as is shown in Table 3 on page 9. The largest single-year reduction then occurred in 2018, with a decline by 1% (78 students). Identical average percentage differences occurred in the adjacent Santa Clara Unified SD, which is especially relevant to the MUSD because that district also had significant new housing amounts added in those years. By contrast, for districts without as much new housing occurring, the shift was to more significantly declining percentages over the last five years. For the average annual declines from 2013 to 2017 and then in the last year alone, Berryessa's rates are -3% and -2%, Cupertino's are -2% and -4%, Mount Pleasant's are -1% and -5%, Evergreen's are -3% and -5%, and Oak Grove's are -2% and -4%. Only one of the 14 districts listed in Table 3 (and out of another ten not included in the table) had a gain in TK-8 in 2018, and that was by a nominal 22 students in the Sunnyvale district, where over 600 new housing units were added in 2018.[10]

There are two things, however, that are different for the MUSD compared to most other local districts: (1) rising birth totals when those for almost every other district are declining, and (2) thousands of pending housing units.

[9] Sinnott had a 49-student drop this year because an exceptionally large class just graduated from fifth. That factor will not be repeated. It is possible that the spike in the Milpitas births that correlate to the next three kindergartens are concentrated in only a few attendance areas (in addition to Mattos' area), which would create greater-than-projected growth for those schools.

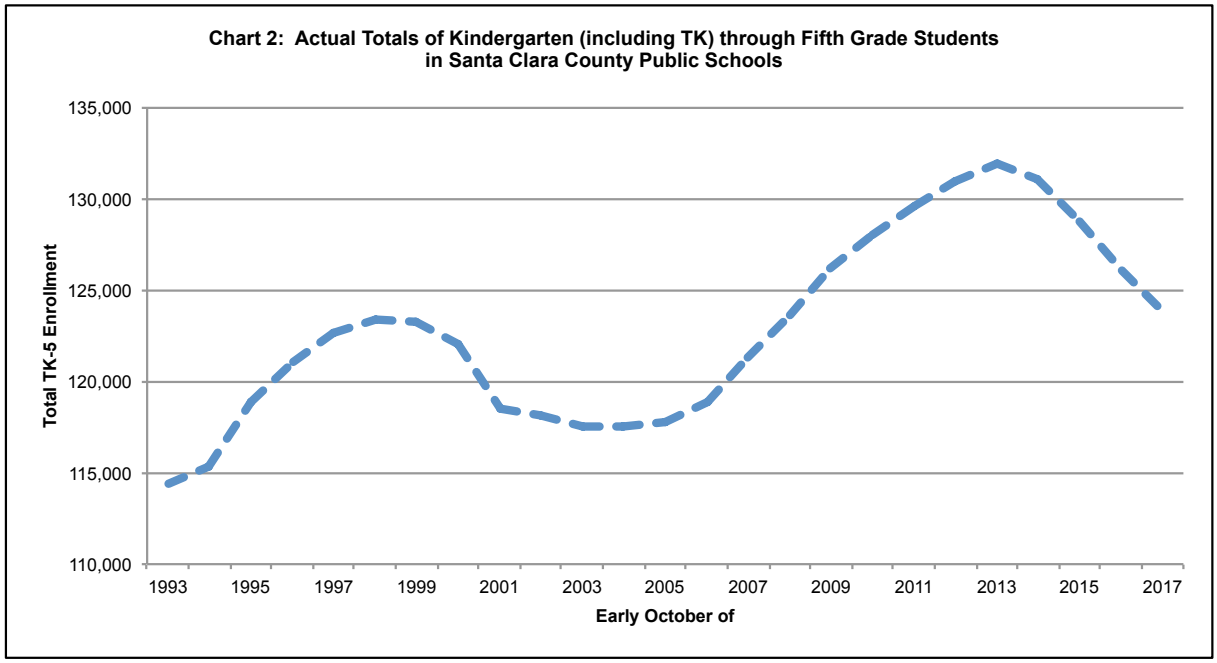
[10] Sunnyvale's true total went up by 108 TK-8 students, but that included 86 students coming out of a just-closed charter school that has nothing to do with the ongoing trends.

Table 3: Comparison of Recent Total TK-8 Enrollment Changes in MUSD and Other Local EPC Client Districts*

Enrollment Subject	Fall of	Total Enrollments in Grades TK-8* Milpitas	Santa Clara	Berryessa	Orchard	Cupertino	Sunnyvale	Campbell
Actual	2010	6,694	10,978	8,222	880	18,372	6,530	7,524
Actual	2011	6,773	10,982	8,059	870	18,645	6,649	7,659
Actual	2012	6,821	11,056	7,995	875	19,028	6,761	7,700
Actual	2013	6,987	11,238	7,933	874	19,184	6,849	7,636
Actual	2014	7,039	11,059	7,742	890	19,068	6,801	7,611
Actual	2015	6,988	11,079	7,453	909	18,924	6,641	7,584
Actual	2016	6,991	11,058	7,296	891	18,585	6,531	7,463
Actual	2017	6,952	11,066	7,101	876	18,001	6,565	7,304
Actual	2018	6,874	10,966	6,981	855	17,353	6,587	7,253
Net Average Actual Annual Difference:								
2010 to 2013		***98***	***87***	***-96***	***-2***	***271***	***106***	***37***
2013 to 2017		***-9***	***-43***	***-208***	***1***	***-296***	***-71***	***-83***
2017 to 2018		***-78***	***-100***	***-120***	***-21***	***-648***	***22***	***-51***
Net Average Actual Annual Percent Change:								
2010 to 2013		***1%***	***1%***	***-1%***	***0%***	***1%***	***2%***	***0%***
2013 to 2017		***0%***	***0%***	***-3%***	***0%***	***-2%***	***-1%***	***-1%***
2017 to 2018		***-1%***	***-1%***	***-2%***	***-2%***	***-4%***	***0%***	***-1%***

Enrollment Subject	Fall of	Mount Pleasant	Evergreen	Oak Grove	Gilroy	Menlo Park	San Mateo Foster City	Hills-borough
Actual	2010	2,593	13,417	11,531	7,660	2,626	10,895	1,503
Actual	2011	2,604	13,347	11,501	7,643	2,710	11,195	1,521
Actual	2012	2,540	13,373	11,348	7,753	2,791	11,455	1,518
Actual	2013	2,453	13,159	11,166	7,784	2,898	11,706	1,519
Actual	2014	2,494	12,861	10,887	7,707	2,910	11,856	1,536
Actual	2015	2,445	12,287	10,610	7,616	2,940	11,977	1,490
Actual	2016	2,368	11,830	10,382	7,629	2,998	11,956	1,476
Actual	2017	2,333	11,384	10,309	7,458	2,969	11,835	1,408
Actual	2018	2,207	10,842	9,889	7,299	2,929	11,711	1,353
Net Average Actual Annual Difference:								
2010 to 2013		***-47***	***-86***	***-122***	***41***	***91***	***270***	***5***
2013 to 2017		***-30***	***-444***	***-214***	***-82***	***18***	***32***	***-28***
2017 to 2018		***-126***	***-542***	***-420***	***-159***	***-40***	***-124***	***-55***
Net Average Actual Annual Percent Change:								
2010 to 2013		***-2%***	***-1%***	***-1%***	***1%***	***3%***	***2%***	***0%***
2013 to 2017		***-1%***	***-3%***	***-2%***	***-1%***	***1%***	***0%***	***-2%***
2017 to 2018		***-5%***	***-5%***	***-4%***	***-2%***	***-1%***	***-1%***	***-4%***

* These are school districts from which EPC has obtained the necessary current and historic student files, with TK-8 totals taken from those files. Most charter school and NPS counts are excluded from these figures. Sunnyvale's 2018 total excludes 86 students who were enrolled in 2017 in the now-closed SPARK charter school; that one-time gain is not part of the trends. The highest recent total for each district is highlighted in gray. Fall 2018 figures from some districts are draft figures that may be revised.



If not for these factors, we would have expected falling MUSD student numbers from the existing neighborhoods, in aggregate, with much smaller new housing amounts being insufficient to fully offset those student declines. And we still have a concern, despite the birth data indicating to the contrary, that your student totals could start to decline in the older neighborhoods, much as already has occurred from such neighborhoods (again in aggregate) in virtually every other South Bay district.

Chart 2 above shows how severely and suddenly the total TK-5 enrollment in Santa Clara County swung from significant growth to consequential decline. This finding adds to our concern about how to accurately forecast the mid-term and long-range student numbers in many MUSD locations, as such a shift could happen here in a few years from all but the new housing areas. This is part of our reason for no longer providing five-year numbers by school or ten-year figures for the district.

Underlying Factors to the Projections: Recent Trends by Housing Situation

All of the trend findings in "existing housing" have been recalculated for this study, including by several value classifications of (1) single-family-detached ("SFD") homes and (2) the combination of attached units ("ATT", for apartments, condos, townhouses and plexes) and mobile homes ("MH").[11] We are again using October 1, 2011, as the cutoff date for "existing housing" locations (i.e., all areas with virtually no additional residences occupied since then). This information, which was summarized in the Table 3 of our recent reports, is instead presented solely in Appendix B in this report. The reason for this shift is that we now want to put more emphasis on the birth findings and projected housing amounts. The following section, however, does deal with existing housing trends.

Advancement Rates from Existing Housing

Grade-to-grade advancement rates are calculations of the net change in the number of students in each grade as they graduate into the next grade in the following school year. These figures, which are sometimes called cohort

[11] These relative value levels are from a standardized, but nonetheless subjective, EPC evaluation of the housing in each area.

survival rates, are most applicable to an accurate forecast when they are determined specifically for students from existing dwellings. For example, if there had been a total of 100 students in kindergarten last year and 105 in first grade this year from the same group of homes, that would be a +5% (1.05) net advancement rate gain. Such rates usually are averaged over the last several years within each single-grade advancement to avoid giving too much influence to nuances that may have occurred in any one year.

For this study, we have again determined the recent average rates by several categories of existing housing. The cumulative impacts of those rates (explained below) are shown in Table 4 on page 12, with additional data in Appendix B (including the grade-to-grade rates for both three-year and alternative four-year averages). Included as well in this Table 4 are the advancement rates entering ninth grade. These rates are then evaluated for their likelihood to continue, by degree, in the forecast period.

Small net gains or losses of plus or minus 4% (i.e. between 1.04 and 0.96) in any of the individual grade-to-grade rates shown in Appendix B are not a key factor by themselves. The cumulative impact over several grades is more important, and is a good indication of the net effect that families moving in and out of the district are having on enrollment. This cumulative net adjustment, from the first to eighth grades, is shown in Table 4, both over the last three years and over recent comparable periods.[12] The student population from the "Most Affordable and Affordable" ATT and MH units, for example, had recent advancement rates through the grades that, if they continue, would result in 92 eighth graders being enrolled seven years hence for every 100 first graders enrolled today. This is shown as "0.92" (an 8% reduction) in the table. The cumulative rates calculated in the two prior, partly overlapping three-year periods were only slightly lower at 0.90, so the average trend in these residences, in aggregate, has been essentially stable since 2013. Since our latest "normal range" findings are from 0.70 to 1.10 in comparable units elsewhere, this latest 0.92 rate is in the middle of that range and thus could be suitable for the projections.

Key Findings Related to the Data in Table 4

Usually we identify higher cumulative rates within each district (1) for SFD residences over ATT units and (2) as the values rise within each housing type, and your latest figures generally fit that pattern.[13] The latest calculated rates are higher in the three SFD categories than in any of the ATT and MH categories, with all of the former at or above 1.00 and all of the latter at or below 0.92. And among the general value levels of SFD homes, the least expensive group now has the lowest figure (1.00), the "Middle Income" group has a nominally higher rate (1.01) and the most expensive category has the highest rate (1.10).

The main divergence from past trends, in the MUSD and many other South Bay districts, is that the latest rates are now higher in the least expensive ATT (and MH) group than in the intermediate ATT group. We believe this is due to greater gentrification in the latter, with more families having difficulty affording the resultant rent and price increases that are occurring in the "Modest and Moderate" ATT and SFD categories. Both of those categories in the MUSD have lower rates now than in the preceding, partly overlapping periods. The intermediate ATT units, for example, had the cumulative rate drop from 0.95 to 0.91 and then to 0.83 in the latest period. So there are accelerating negative trends occurring in the student totals from the more modest, but not the least expensive, ATT housing.[14]

[12] We exclude the rates entering the first and ninth grades from this cumulative calculation because those are impacted by students coming from private kindergarten and eighth-grade programs. Those factors, while important, are separate issues from identifying the changes occurring through turnover, which is the main reason for identifying cumulative rates.

[13] Parents moving into higher priced SFD homes often are in their thirties and forties with children already in school. They then tend to stay in those homes until their children are adults. This creates cumulative rates close to or above 1.00. Smaller homes, especially ATT units, have the opposite tendency of having younger families that move on to larger dwellings before their children reach the high school grades, resulting in cumulative rates that often are below 1.00.

[14] These negative trends are for the net student totals in each class graduating upward through the grades and do not factor in the differences between outgoing eighth grade and incoming kindergarten amounts for the totals in TK-8.

Table 4: Summary of Recent Cumulative Advancement Rates by Category of Existing Housing*

Residential Category**	Current Students	Advancement Rate Subject	Three-Year Average Advancement Rate 2015 - 2018	2014 - 2017	2013 - 2016	2012 - 2015	Normal Range
ATT and MH: Most Affordable and Affordable	1,346	**Cum. 1st to 8th***	**0.92**	**0.90**	0.90	1.00	0.70 - 1.10
		From 8th to 9th	**1.02**	**1.03**	1.03	1.06	NA
ATT and MH: Modest and Moderate	1,722	**Cum. 1st to 8th***	**0.83**	**0.91**	**0.95**	**0.95**	0.75 - 1.10
		From 8th to 9th	**1.04**	**1.03**	1.00	0.99	NA
ATT: High Amenity (small student population)	696	**Cum. 1st to 8th***	**0.86**	**0.90**	0.72	0.84	0.75 - 1.20
		From 8th to 9th	**0.99**	**0.99**	0.99	0.94	NA
SFD: Modest and Moderate	2,313	**Cum. 1st to 8th***	**1.00**	**1.03**	**1.11**	**1.10**	0.75 - 1.15
		From 8th to 9th	**1.04**	**1.03**	1.05	1.05	NA
SFD: Middle Income	2,099	**Cum. 1st to 8th***	**1.01**	**1.01**	1.00	0.95	0.85 - 1.25
		From 8th to 9th	**1.04**	**1.05**	1.07	1.05	NA
SFD: Higher Value	1,380	**Cum. 1st to 8th***	**1.10**	**1.06**	1.04	1.08	0.90 - 1.30
		From 8th to 9th	**1.10**	**1.08**	1.09	1.07	NA

* These figures are from aggregate counts of planning areas with virtually no net additional dwelling units since Sept. 2011.

** "SFD" = single family detached; "ATT" = attached, including condominiums, townhouses, plexes and apartments; "MH" = mobile homes; Value levels (and interpolated income levels) are subjective EPC evaluations of the dominant residential type in each of the planning areas with virtually no net additional housing units first occupied since Sept. 2011.

*** Cumulative rates are the cumulative impact from first to eighth grades of the individual grade-to-grade net advancement (a.k.a., cohort survival) rates averaged over several recent years. For example, the relatively "Higher Value" SFD homes, in aggregate, had average grade-to-grade advancement rates in the latest period that, if they continue, would result in a 10% (1.10) growth in the number of students in each future class graduating from first to eighth. The rates of change between (1) kindergarten and first and (2) eighth and ninth are excluded from these cumulative rates because those are often impacted by students coming out of private schools. While those transfers from private schools are an important forecast component, that is a separate issue from evaluating the impact of housing turnover, which is the main purpose in determining these cumulative rates. The "Normal Range" is the recent vicinity that over 80% of our clients are in for the categories listed. A few districts have figures well outside these ranges.

Notes: The figures shown are the updated actual calculations. The underlying grade-to-grade rates have been adjusted where warranted in the forecast, especially based on alternative four-year averages shown in Appendix B2.

Comparison of Local Birth Counts to Corresponding Kindergarten Populations

One method for estimating the pending kindergarten enrollments is to review local birth statistics. While we feel that identifying the evolving trends in each neighborhood and housing category are just as important, birth data is useful if there is (1) a consistent correlation between births and the corresponding (five years later) kindergarten populations in the local area and/or (2) the direction of change in the local birth totals is noteworthy, even when a strong births-to-kindergartners correlation does not exist. These figures are provided in Table 5 on page 13.

Understanding the Data in Table 5

Two types of data are of importance in this table: (1) how the birth totals have changed and (2) how the ratio between births and kindergartners has evolved. In the top data row in Table 5, for example, there were 957 births in “2006” (as adjusted) to mothers with home addresses in the Milpitas zip code area (95035). Essentially five years later, in October 2011, there were 731 MUSD kindergartners from the district portion of that zip code. That

Table 5: Comparison of Births in 95035 Zip Code Region to Corresponding Kindergarten Populations

Birth Year* and School Enrollment Date	Total Births in Zip Code 95035	Dist.-Enrolled Resident Kindergarten Population**	Ratio of Kindergarten Population to Births
"2006" Births and Oct. 2011 Kindergartners	**957**	731	76%
"2007" Births and Oct. 2012 Kindergartners plus 100% of TK***	**978**	701	72%
"2008" Births and Oct. 2013 Kindergartners plus 50% of TK***	**1,001**	741	74%
"2009" Births and Oct. 2014 Kindergartners plus 33.3% of TK***	**960**	754	79%
"2010" Births and Oct. 2015 Kindergartners	**910**	702	77%
"2011" Births and Oct. 2016 Kindergartners	**875**	724	83%
"2012" Births and Oct. 2017 Kindergartners	**917**	742	81%
"2013" Births and Oct. 2018 Kindergartners	**879**	723	**82%**
Average Relevant to Last Three School Years (good correlation with 3% range from 81% to 83%)			**82%**

	note births in 2010 to 2013 are lowest but those below are the largest since 2008	Potential District-Enrolled Resident Kindergarten Total (excluding TK)	
		at Three-Year Average Ratio	at 80% Ratio
"2014" Births and Potential October 2019 Kindergartners	**970**	**795**	**776**
"2015" Births and Potential October 2020 Kindergartners	**1,003**	**822**	**802**
"2016" Births and Potential October 2021 Kindergartners	**1,011**	**829**	**809**

* These are proportionate birth amounts from the listed year and the preceding year so as to properly correlate to the kindergarten eligibility period shown, such as "2006 births" representing one-twelfth of the birth total in 2005 and eleven-twelfths (all but December) of the birth total in 2006. The ratios shift after the 2006 births to match the evolution of the kindergarten eligibilty birthdate cufoff from December 2 before 2012 to September 1 starting in 2014.

** These are the resident kindergarten totals in the MUSD region, which excludes a small 95035 section in the BUSD.

*** 100% of TK students in 2012, 50% of TK students in 2013 and 33.3% of TK students in 2014 are included so that the totals correlate to 12-month birth periods.

Note: These figures are one of many factors in the kindergarten projections. Student trends by location, new housing and socioeconomic issues are also key factors, with modest revisions made to those findings where warranted based on the above data.

is a 76% ratio for the resultant kindergartners. We only show the ratios in earlier periods, however, mainly as an FYI on past trends. Our focus is on how the birth counts have changed, especially in relation to the next three kindergarten totals, and on how the ratio has evolved in the last three kindergartens (including current).[15]

The birth numbers in Table 5 have been pro-rated from the two calendar years relevant to each kindergarten eligibility period. So the “2006” birth figure shown, for instance, actually represents eleven-twelfths of the 2006 total and one-twelfth of the 2005 total to better correlate to the birth period relevant to the October 2011 kindergarten enrollment (i.e., for all births theoretically occurring from December 2005 through November 2006). The ratios between years then shift after the 2006 births to match the evolution of the kindergarten eligibility birthdate cutoff from December 2 to September 1.

[15] The 2012 kindergarten count includes 100% of TK, the 2013 kindergarten total has 50% of TK and the 2014 total has 33% of TK so that the kindergarten data covers 12 months.

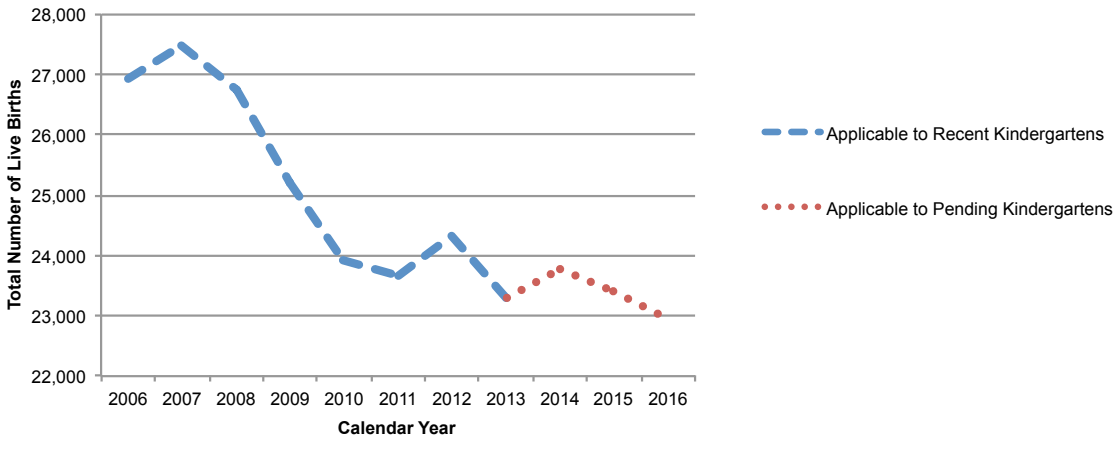
Key Findings Related to the Data in Table 5

This data indicates a larger increase in the pending kindergarten enrollments than we otherwise would have projected. The birth totals correlating to the next three kindergarten enrollments are much higher than those that correlated to the current and three preceding kindergartens. While the average annual birth total was under 900 between "2010" and "2013", with none greater than 917, the total relevant to the pending kindergarten is 970 and those for the following two kindergartens are over 1,000. And the latest year of available birth data by zip code, which is 2016, has the highest 95035 total in over a decade. That is more than a 10% increase at a time when the birth totals in many zip codes in Santa Clara County are the lowest in more than a decade. The extent that this Milpitas birth pattern deviates from the countywide direction can be seen in the charts below.

There is one subtle difference worth noting, however, within the MUSD births-to-kindergartners correlation. The two highest earlier birth totals, from "2007" and "2008", had the lowest correlative percentages for kindergartners, at 72% and 74%. These lower ratios probably are due, in part, to the years involved in those correlative periods,

Chart 3: Annual Births to Mothers Residing in the Milpitas 95035 Zip Code Area, 2004 to 2016

Chart 4: Total Annual Births to Mothers Residing in Santa Clara County, 2006 to 2016



with more families having moved out, in net, during the recession. Nonetheless, this does create some question as to whether the higher correlative ratios for the three latest kindergartens, which came from lower birth totals, should be applied to the larger subsequent birth totals. We are estimating that the correlative ratios for the next three kindergartens could be around 80% rather than the 82% average for the three latest kindergartens. But even applying that 80% ratio to the births from "2014" to "2016" results in much larger pending kindergarten totals than have occurred in a long time in the district.

This estimate of an 80% correlative ratio is a professional guess on our part; alternative possibilities include falling back below 80% or staying around the latest 82% figure. We simply do not have enough information to know how to precisely interpret what these much higher birth totals mean for the future kindergarten enrollments, including those after the years that we have birth data for. Next year's kindergarten total, from the first of the much higher birth totals, will be the first year that provides a clearer direction for the future correlative ratios.

While these latest birth totals are so high that we needed to assume some of that growth occurred in the older neighborhoods, much of this increase probably is coming from the recently completed developments in the Mattos region.

Projected Impacts of New Housing

New dwellings impact enrollment through a combination of (1) the number of residences expected in the various housing types, by year and location, and (2) the projected number of students in each of those units. The latter includes timing and local school considerations. These components are discussed in the following subsections, for which the first three, other than the updated SGRs, are repeated from past reports. Readers already familiar with this SGR discussion may want to skip ahead to the *"Projected New Housing"* subsection on page 16.

Average Student Generation Rates (SGRs)

Student generation rates are the average rates at which residences "yield" students, such as one student in every two homes (a 0.50 SGR). Public school SGRs usually are calculated by identifying the number of district-enrolled students in a suitable sample of residential units from the local area. SGRs identified from recently built housing are often considered the best estimation of what similar future homes will generate, at least in the first few years of occupation. As is explained below, however, that often is less than what the total impact will be over time.

Delayed Enrollment Impacts of New Housing

When a major development is being built, the first units occupied can be surrounded by construction for an extended period of time. Such activity is less-than-optimal for families, especially of young children, with the result being that the earliest occupants often have relatively few students. That development can be more appealing to families after it is completed and all of the construction activity has ended, and even more so after it has an "established feel" with shading trees, etcetera. This can lead to more families moving in via turnover. Often the TK-12 SGR high point is not reached until around the tenth year after a development is completed.

This tendency probably is a key reason why relatively few district-enrolled students are currently residing in the 2,500+ new housing units completed in the MUSD in the last five years, but there also is a factor of the school location. Being assigned to an older elementary that is several miles away (i.e., Rose) is less appealing to some families than having a new school in closer proximity. We suspect that the SGRs will rise as both (1) these latest units will have been occupied for a couple of years and (2) Mattos expands to being able to handle all elementary grades.

Table 6: Average Student Generation Rates (SGRs) from Recently Built (since June 2013) Housing Units

Housing Situation (Developments of)	Number of Units in Sample	Current MUSD-Enrolled Resident Student Population by Grade Range					Current TK-12 SGR
		TK-2	3-5	6-8	9-12	TK-12	
Mainly Market-Rate Locations*	2,188	124	53	39	66	282	**0.13**
Mainly BMR Locations	101	21	20	21	21	83	**0.82**

* Recently built and completed tracts of "yardless" SFD homes, SFA plexes, townhouses, condos and apartments have virtually the same aggregate SGR within each of those types, so they have been combined in this rate. No recently built tracts have occurred with SFD homes that have private yards and future residences of that type may have average SGRs of 0.50 in TK-12, based on our findings in other South Bay districts.

Current SGRs in Recently Built Housing

Only two SGRs from recently built units in the MUSD were determined necessary for the forecast. While we had identified separate SGRs from recent mainly market-rate SFD and ATT locations in some past studies, that no longer is justified. The updated samples of units in those types, with the latest completed tracts included and complexes with any units built before July 2013 excluded, do not currently provide meaningful differences between those types (in aggregate for those samples).[16] As is shown in Table 6 above, the sampled 2,188 units in mainly market-rate developments now have 282 MUSD-enrolled students, for a 0.13 SGR. The distribution through the grades, however, with 124 in TK-2 and just 53 in 3-5 and 39 in 6-8, indicates young families, on average, with large numbers of children under age five (and more being born). The SGR thus should rise in the immediate future and could exceed 0.20, on average, after the units have been occupied for five-to-ten years.

Only one complex of mainly “BMR” (below-market-rate) units has been built in the district in recent years (i.e., in 2010). That has 83 students in 101 units, for a 0.82 TK-12 SGR, which is well within the norm for BMR housing.

Projected New Housing

The district region has an exceptionally large number of housing units that are about to be occupied or under construction. The annual move-in numbers forecast in the next two years are greater than have occurred in any year in over a decade in the MUSD. Totals of 910 and 850 additional occupied residences are projected in 2019 (i.e., in the twelve months from October 1, 2018, to October 1, 2019) and 2020, respectively. By comparison, I only recall one prior year when 800 were moved into, with all others having been below 700 and most under 500. Even the 670 and 630 additional units being forecast for 2021 and 2022 are thus well above the usual rates in the past. And these projected totals could be too conservative; based on what is already approved or in the planning process with the City of Milpitas for the MUSD region, there could be over 4,000 units moved into between 2018 and 2023, rather than the projected 3,500 (see Table 7 on page 17).

There is an issue, however, for how many units can be built and occupied over several years in the broader area. The portion of the City of Milpitas that is in the Berryessa Union School District (west of the Milpitas BART station) also has hundreds of units underway, with a few thousand more pending elsewhere in that district (mainly by the Berryessa BART station). The cities of Santa Clara and Sunnyvale each have several thousand units being built and many more in the planning process. And while there currently is a construction lull occurring for new housing

[16] The recently built SFD homes in the district are on small lots with only minimal outside private areas for each home. Any future developments of SFD residences with larger outside private areas should have much higher SGRs. We have identified average SGRs of 0.50 from such homes in some other Santa Clara County districts.

Table 7: Projected New Housing Units*

Attendance Area (when Mattos K-6)	Housing Type (Developments of)	Projected Addtional Housing Units in Twelve Months to October 1 of 2019	2020	2021	2022	2023	from 2023 to 2028	Total to 2023	Total to 2028
Mattos	**Mainly Market-Rate**	802	647	387	401	333	660	**2,570**	**3,230**
	Mainly BMR	0	101	101	0	0	0	**202**	**202**
	Total	**802**	**748**	**488**	**401**	**333**	**660**	**2,772**	**3,432**
Spangler	**Mainly Market-Rate**	0	25	50	50	30	380	**155**	**535**
	Mainly BMR	0	0	0	0	0	150	**0**	**150**
	Total	**0**	**25**	**50**	**50**	**30**	**530**	**155**	**685**
Zanker	**Mainly Market-Rate**	0	18	100	102	0	160	**220**	**380**
	Mainly BMR	0	0	0	54	54	0	**108**	**108**
	Total	**0**	**18**	**100**	**156**	**54**	**160**	**328**	**488**
Weller	**Mainly Market-Rate**	80	40	10	0	0	20	**130**	**150**
	Mainly BMR	0	0	0	20	20	0	**40**	**40**
	Total	**80**	**40**	**10**	**20**	**20**	**20**	**170**	**190**
All Other	**Mainly Market-Rate**	28	19	22	3	3	130	**75**	**205**
	Mainly BMR	0	0	0	0	0	0	**0**	**0**
	Total	**28**	**19**	**22**	**3**	**3**	**130**	**75**	**205**
Total	**Mainly Market-Rate**	910	749	569	556	366	1,350	**3,150**	**4,500**
	Mainly BMR	0	101	101	74	74	150	**350**	**500**
	Total	**910**	**850**	**670**	**630**	**440**	**1,500**	**3,500**	**5,000**

* These figures are from site-specific projections based on EPC fieldwork, including visits to all active developments, and info from the Milpitas city planning department. Totals are for "first occupancy" dates rather than permit or sales dates.

in the north San Jose area, several thousand units are expected soon there as well. As we wrote in our last report, even in such a "hot" housing market as currently exists, it is debatable whether this many units can be built and absorbed in the general vicinity within a 60-month timeline. Among other issues, developers are struggling to find enough trained construction workers for all of these projects. So while we believe that the five-year MUSD estimate of 3,500 units definitely could occur, with another 500+ possible, a few of the developments included in that total may take longer to be completed. A significant economic recession before 2023, for example, could delay enough projects to make the five-year total go below 3,000. But that only should be a delay of some developments and would not change our estimate for 5,000 new residences by 2028.

These units are heavily concentrated in the Mattos attendance area, with 79% of the projected total over the next five years (i.e., 2,772 out of 3,500). An even higher 88% of the units forecast in the next two years (1,550 out of 1,760) is in Mattos' region. The Zanker area has the second largest five-year total with 328 projected residences, but only 18 of those are likely before 2021. All of these projected new housing amounts shown in Table 7 come from site-specific estimates that are based on meetings with developer representatives, information from Milpitas city planners and our evaluation of the status of each active location.[17]

Totals of 499 elementary students, 88 middle school students and 157 high school students are forecast in 2023 from the projected new residences (see lowest data row in Appendix A1 on page 19). The Mattos area receives 370 of those elementary students.

[17] Appreciation is due to planners Ned Thomas, Jessica Garner, Michael Fossati and Avery Stark for the City of Milpitas for their insights into the planned and potential housing, but all final decisions on timing and location were made by this demographer.

Concluding Commentary

These enrollment projections are based on additional Mattos classroom buildings being completed for the start of the 2021-22 and 2023-24 school years. Moving up those timelines to 2020-21 and 2021-22 could add at least 50 elementary students to the total in 2021 and thereafter, with all of those added students being in the Mattos area.

We are projecting students coming from thousands of new Mainly Market-Rate housing units, including more than 1,600 such units in just the next two years, using an SGR that has a severe distributional slant toward the lowest grades from within a zip code that has soaring birth totals. Those higher birth totals probably came mainly from the recently built dwellings that this SGR is based on. This strongly suggests, but we can only guess to what degree, that all Mainly Market-Rate residences, on average, are being moved into with much larger numbers of children of each age below five years old. If that original child age distribution is similar to what is shown in Chart 5 below, then the kindergarten totals in the Mattos region could rise by even more than we have projected. The District should closely track the pre-registration numbers for next year's Mattos kindergarten class to get an indication of how much this kindergarten increase might be occurring.

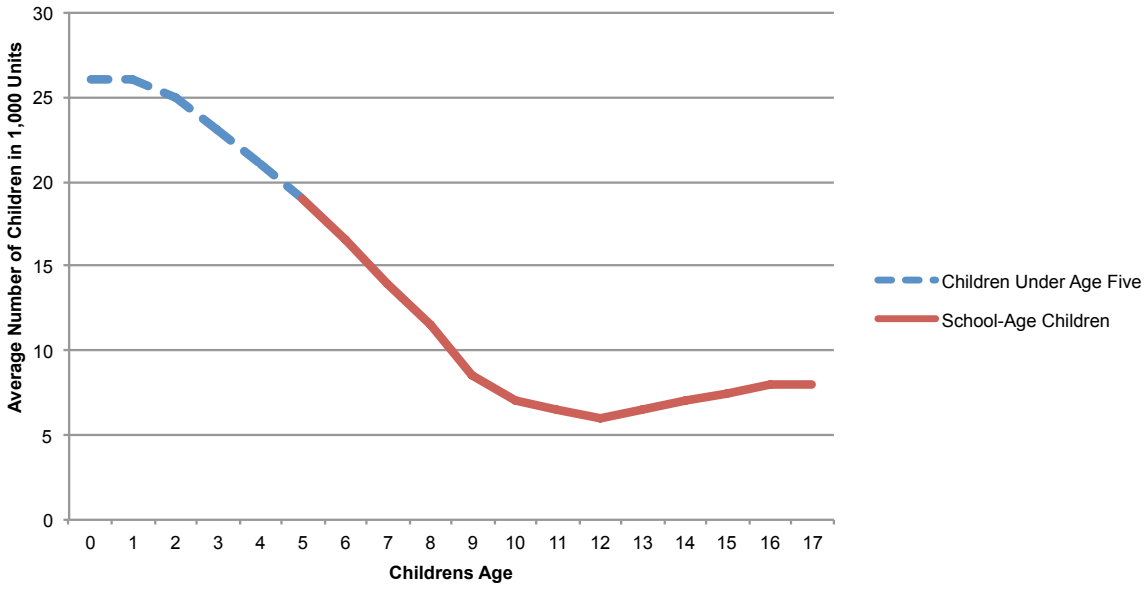
While it is possible that these higher birth totals instead came primarily from the established neighborhoods, that would be contrary to our findings from such locations in virtually all other Santa Clara County districts. If that exception is the case in Milpitas, then these rising birth totals could be less of an issue because they would result in modest gains in most elementary attendance areas, rather than being heavily concentrated in Mattos' region.

Our next forecast update will have the benefit of knowing how much the first year of notably higher birth totals ("2014") translated into kindergarten growth in the Mattos area compared to the more established parts of the community.

Sincerely,

Thomas R. Williams, principal demographer for Enrollment Projection Consultants

Chart 5: Potential Distribution of Children by Age in New Housing Units in Milpitas



Appendix A1: Detail for Actual and Projected October Enrollments, 2018 to 2023

(with color highlighting in blue for relatively larger class totals that were or will be over 800 when in ninth and in pink for smaller totals of less than 800 in ninth)

Oct. of	Actual and Projected Enrollment by Grade, including SDC and Calaveras Hills Students														**Actual and Projected Totals**			
	TK	K	1	2	3	4	5	6	7	8	9	10	11	12	**TK-6**	**7-8**	**9-12**	**TK-12**
2018 *	122	733	786	744	748	719	721	761	798	742	787	835	828	826	5,334	1,540	3,276	**10,150**
2019	132	793	763	804	747	741	720	717	756	798	776	789	841	852	5,417	1,554	3,258	**10,229**
2020	135	813	834	784	811	744	749	722	717	762	839	784	799	871	5,592	1,479	3,293	**10,364**
2021	136	820	852	855	789	806	749	749	722	721	799	843	791	824	5,756	1,443	3,257	**10,456**
2022	138	831	855	872	858	784	809	746	746	724	756	803	850	815	5,893	1,470	3,224	**10,587**
2023	140	841	862	871	872	849	783	804	742	748	757	758	808	872	6,022	1,490	3,195	**10,707**

Total Grade-Level Change in One Year, to October of 2019	**83**	**14**	**-18**	**79**
Total Grade-Level Change in Two Years, to October of 2020	**258**	**-61**	**17**	**214**
Total Grade-Level Change in Three Years, to October of 2021	**422**	**-97**	**-19**	**306**
Total Grade-Level Change in Four Years, to October of 2022	**559**	**-70**	**-52**	**437**
Total Grade-Level Change in Five Years, to October of 2023	**688**	**-50**	**-81**	**557**

*Real Potential Lower Total in 2019 (essentially -1% within footnote caveats***)*	10,130
*Real Potential Higher Total in 2019 (essentially +1% within footnote caveats***)*	10,330
Real Potential Lower Total in 2023 (essentially -4% within footnote caveats and with declining kindergarten numbers in existing housing)	10,300
Real Potential Higher Total in 2023 (essentially +4% within footnote caveats and with greater-than-forecast numbers from new housing)	11,100

Projected Students from New Housing:																		
2023	12	74	76	77	75	70	62	53	47	41	39	39	39	40	499	88	157	744

* Actual Oct. 3, 2018, enrollment in a student file provided to EPC by MUSD. Community Day, NPS, pre-school SDC and Adult Ed. students are excluded.

** The ten-year estimate could be overly optimistic in the elementary grades if the birth totals decline in older housing (in aggregate).

*** Transitional Kindergarten (TK) and Kindergarten (K) fluctuations from the forecast in any one year can be more significant than are likely on an ongoing basis. Whenever a forecast is generated prior to spring, the District always should review subsequent TK and K registration counts and adjust the next year's staffing accordingly.

Note: Projections and real potential ranges are for the currently operating MUSD facilities and programs, other than for solely the real potential higher total having Mattos evolve to covering TK-6. The most probable approximate new housing amounts are from current City of Milpitas guidelines. The potential ranges cover essentially an 80% probability within those assumptions. Under such a scenario, there still would be approximately 10% possibilities for each of even lower or higher totals than the ranges shown.

Appendix A2(a)
Actual October 3, 2018, Resident Students versus Attending Enrollments for Elementary Schools

School	Subject	Actual MUSD-Enrolled Students by Grade TK	K	1	2	3	4	5	6	Total
Weller	Actual Attendance	16	47	71	58	71	61	60	68	452
	Resident Population	13	58	77	60	74	73	69	86	510
	Net Difference (A-R)	3	-11	-6	-2	-3	-12	-9	-18	**-58**
Pomeroy	Actual Attendance	16	96	98	87	102	90	109	121	719
	Resident Population	10	83	89	82	89	78	94	105	630
	Net Difference (A-R)	6	13	9	5	13	12	15	16	**89**
Curtner	Actual Attendance	0	96	97	93	120	101	108	114	729
	Resident Population	12	101	100	95	122	100	112	109	751
	Net Difference (A-R)	-12	-5	-3	-2	-2	1	-4	5	**-22**
Spangler	Actual Attendance	22	78	99	76	74	86	64	87	586
	Resident Population	16	82	100	80	85	85	70	77	595
	Net Difference (A-R)	6	-4	-1	-4	-11	1	-6	10	**-9**
Mattos (in Mattos TK-2 interim area)	Actual Attendance	0	66	25	19					110
	Resident Population	12	65	47	54					178
	Net Difference (A-R)	-12	1	-22	-35					**-68**
Zanker (in it's part Mattos 3-6 interim area)	Act Attend from This Area					29	23	24	27	103
	Resident Population					29	23	25	29	106
	Net Difference (A-R)					0	0	-1	-2	**-3**
Zanker (not from Mattos interim area)	Act Attend All but Above #s	0	87	81	106	72	64	62	64	536
	Resident Population	13	92	64	77	70	67	61	62	506
	Net Difference (A-R)	-13	-5	17	29	2	-3	1	2	**30**
Rose (in it's part Mattos 3-6 interim area)	Act Attend from This Area					5	4	4	8	21
	Resident Population					7	5	6	9	27
	Net Difference (A-R)					-2	-1	-2	-1	**-6**
Rose (in recent Randall area in TK-2)	Act Attend from This Area	3	24	15	4					46
	Resident Population	13	35	51	48					147
	Net Difference (A-R)	-10	-11	-36	-44					**-101**
Rose (not in either of the above areas)	Act Attend All but Above #s	14	29	59	67	65	61	59	58	412
	Resident Population	10	40	49	47	61	51	57	52	367
	Net Difference (A-R)	4	-11	10	20	4	10	2	6	**45**
Randall (from recent Randall area in 3-6)	Actual Attendance					41	57	44	57	199
	Resident Population					44	51	42	60	197
	Net Difference (A-R)					-3	6	2	-3	**2**
Randall (for magnet TK-2)	Actual Attendance	18	42	36	53					149
Burnett	Actual Attendance	20	72	85	63	68	70	79	79	536
	Resident Population	10	67	84	68	59	71	71	82	512
	Net Difference (A-R)	10	5	1	-5	9	-1	8	-3	**24**
Sinnott	Actual Attendance	13	96	120	118	101	102	108	78	736
	Resident Population	10	100	113	120	97	100	105	81	726
	Net Difference (A-R)	3	-4	7	-2	4	2	3	-3	**10**
Total	Actual Attendance	122	733	786	744	748	719	721	761	5,334
	Resident Population	119	723	774	731	737	704	712	752	5,252
	Net Difference (A-R)	3	10	12	13	11	15	9	9	**82**

Appendix A2(b): Projected Elem. Resident Students and Potential Attending Enrollments in October 2019

School	Subject	Projected MUSD-Enrolled Students by Grade TK	K	1	2	3	4	5	6	Total
Weller	Resident Population	12	69	61	79	61	73	73	69	497
	Potential Net Adjustment	4	-11	-11	-6	-2	-3	-12	-9	-50
	Potential Attendance	16	58	50	73	59	70	61	60	**447**
Pomeroy	Resident Population	15	89	84	91	81	86	78	91	615
	Potential Net Adjustment	6	13	13	9	5	13	12	15	86
	Potential Attendance	21	102	97	100	86	99	90	106	**701**
Curtner	Resident Population	16	104	103	101	94	120	100	111	749
	Potential Net Adjustment	-16	-5	-5	-3	-2	-2	1	-4	-36
	Potential Attendance	0	99	98	98	92	118	101	107	**713**
Spangler	Resident Population	14	87	84	99	80	83	85	70	602
	Potential Net Adjustment	6	-4	-4	-1	-4	-11	1	-6	-23
	Potential Attendance	20	83	80	98	76	72	86	64	**579**
Mattos (in Mattos TK-3 interim area)	Resident Population	13	78	79	62	63				295
	Potential Net Adjustment	-13	1	1	-22	-35				-68
	Potential Attendance	0	79	80	40	28				**227**
Zanker (in it's part Mattos 4-6 interim area)	Resident Population						28	23	24	75
	Potential Net Adjustment						0	0	-1	-1
	Part Potential Attendance						28	23	23	**74**
Zanker (not from Mattos interim area)	Resident Population	13	80	91	64	76	68	65	60	517
	Potential Net Adjustment	-13	-5	-5	17	29	2	-3	1	23
	Part Potential Attendance	0	75	86	81	105	70	62	61	**540**
Zanker total	**Total Potential Attendance**	0	75	86	81	105	98	85	84	**614**
Rose (in it's part Mattos 4-6 interim area)	Resident Population						14	11	11	36
	Potential Net Adjustment						-2	-1	-2	-5
	Potential Attendance						12	10	9	**31**
Rose (in recent Randall area in TK-3)	Resident Population	10	51	37	50	48				196
	Potential Net Adjustment	-6	-11	-11	-36	-44				-108
	Part Potential Attendance	4	40	26	14	4				**88**
Rose (not in either of the above areas)	Resident Population	8	49	41	49	47	60	51	57	362
	Potential Net Adjustment	4	-11	-11	10	19	4	10	2	27
	Part Potential Attendance	12	38	30	59	66	64	61	59	**389**
Rose total	**Total Potential Attendance**	16	78	56	73	70	76	71	68	**508**
Randall (from recent Randall area in 4-6)	Resident Population						44	50	41	135
	Potential Net Adjustment						-3	6	2	5
	Part Potential Attendance						41	56	43	**140**
Randall (for magnet TK-3)	**Part Potential Attendance**	18	42	42	36	53				**191**
Randall total	**Total Potential Attendance**	18	42	42	36	53	41	56	43	**331**
Burnett	Resident Population	12	73	69	83	68	58	70	71	504
	Potential Net Adjustment	9	5	5	1	-5	9	-1	8	31
	Potential Attendance	21	78	74	84	63	67	69	79	**535**
Sinnott	Resident Population	17	103	104	114	117	96	99	103	753
	Potential Net Adjustment	3	-4	-4	7	-2	4	2	3	9
	Potential Attendance	20	99	100	121	115	100	101	106	**762**
Total	Resident Population	130	783	753	792	735	730	705	708	5,336
	Potential Net Adjustment	2	10	10	12	12	11	15	9	81
	Potential Attendance	132	793	763	804	747	741	720	717	**5,417**

Appendix A3(a)
Actual October 3, 2018, Resident Students versus Attending Enrollments for Middle Schools

School	Subject	Actual MUSD-Enrolled Students by Grade 4	5	6	7	8	7-8 Total
Russell	Actual Attendance				427	398	825
	Resident Population	363	376	409	402	384	786
	Net Difference (A-R)				25	14	**39**
Rancho Milpitas	Actual Attendance				371	344	715
	Resident Population	341	336	343	378	348	726
	Net Difference (A-R)				-7	-4	**-11**
Total	Actual Attendance				798	742	1,540
	Resident Population	704	712	752	780	732	1,512
	Net Difference (A-R)				18	10	**28**

Note: All figures based on MUSD-provided student files of actual enrollment.

Appendix A3(b)
Projected Middle School Resident Students and Potential Attending Enrollments in October 2019

School	Subject	Projected MUSD-Enrolled Students by Grade 4	5	6	7	8	7-8 Total
Russell	Resident Population	383	362	372	406	399	805
	Potential Net Adjustment				13	24	37
	Potential Attendance				419	423	**842**
Rancho Milpitas	Resident Population	347	343	336	341	382	723
	Potential Net Adjustment				-4	-7	-11
	Potential Attendance				337	375	**712**
Total	Resident Population	730	705	708	747	781	1,528
	Potential Net Adjustment				9	17	26
	Potential Attendance				756	798	**1,554**

Notes: (1) Projected amounts contain hidden fractions, so the totals above may not sum exactly to those in other tables. (2) Potential attendance if current net adjustments continue next year, but advanced by one grade and fine-tuned as needed to match the overall forecast. These are simply theoretical numbers that have been provided to help the District determine what changes to these net adjustment levels may be warranted. The actual levels permitted next year will be driven by capacity constraints and other factors.

Appendix A4(a)
Actual October 3, 2018, Ratios of High School Students Attending MUSD High Schools

School	Subject	Actual MUSD Students by Grade 9	10	11	12	9-12 Total
Milpitas High	Actual Attendance	787	834	790	759	3,170
	Percent of Total Enrollment	101%	100%	97%	94%	
Calaveras Hills High	Actual Attendance	0	1	38	67	106
	Percent of Total Enrollment	0%	0%	5%	8%	
Total	Total Attending Enrollment	781	830	812	808	3,231

Note: All figures based on MUSD-provided student files of actual enrollment.

Appendix A4(b)
Potential High School Attending Enrollments in October 2019

School	Subject	Actual MUSD Students by Grade 9	10	11	12	9-12 Total
Milpitas High	Potential Attendance	782	793	818	800	3,193
	Percent of Total Enrollment	101%	100%	97%	94%	
Calaveras Hills High	Potential Attendance	0	1	39	71	111
	Percent of Total Enrollment	0%	0%	5%	8%	
Total	Total Attending Enrollment	776	789	841	852	3,258

Appendix B, Part 1: Recent Grade-to-Grade Average Advancement Rates and Student Population Counts from Areas of Existing Housing as of October 1, 2011*

Subject	Early Oct. of	Data for Resident District-Enrolled Students from Planning Areas with Virtually No Net Additional Housing Units Since September 2011, including SDC and Cal Hills Students															Cumulative Impact from 1st to 8th***
		TK	K	1	2	3	4	5	6	7	8	9	10	11	12	TK-12	
Most Affordable ATT	2013	10	48	60	65	57	71	53	48	72	62	68	61	54	42	771	
(incl. farm labor res.	2014	9	54	53	62	69	54	66	56	52	68	69	66	60	56	794	
but excl. mainly BMR)	2015	7	43	48	46	67	66	55	71	54	51	68	67	66	62	771	
	2016	11	44	44	50	45	59	60	49	62	52	54	63	72	67	732	
	2017	6	36	45	40	50	48	58	64	46	63	54	47	61	75	693	
	2018															0	
3-Year Average Incoming Advancement Rate**				0.68	0.65	0.66	0.65	0.63	0.65	0.60	0.66	0.70	0.60	0.68	0.69		**0.05**
4-Year Average Incoming Advancement Rate**				0.73	0.70	0.76	0.73	0.73	0.76	0.69	0.74	0.77	0.69	0.76	0.77		**0.11**
Affordable ATT	2013	6	25	37	29	37	37	39	30	41	43	37	47	36	45	489	
(excl. mainly BMR)	2014	9	34	26	34	30	39	37	41	30	42	42	38	47	39	488	
	2015	9	34	31	27	34	36	37	36	42	30	46	41	38	44	485	
	2016	7	30	35	27	25	33	40	35	33	45	32	45	42	38	467	
	2017	7	32	28	29	25	23	34	40	38	38	50	30	49	40	463	
	2018															0	
Mixed Lower Cost	2013	0	2	1	0	1	1	2	2	2	1	3	2	2	2	21	
(areas of mainly lower	2014	0	0	1	0	0	1	0	1	1	1	1	2	1	2	11	
cost ATT & a few SFD)	2015	0	0	0	1	0	0	1	0	1	1	1	1	2	2	10	
(excl. mainly BMR)	2016	0	2	0	0	1	1	0	0	0	2	0	1	1	2	10	
	2017	0	0	3	0	1	1	1	0	0	1	2	0	1	1	11	
	2018															0	
Affordable MH	2013	0	0	0	0	0	0	0	1	1	0	1	0	0	0	3	
(mainly single-wide)	2014	0	0	1	0	0	0	0	0	1	0	0	2	0	0	4	
	2015	0	0	0	1	0	0	0	0	0	1	0	1	0	0	3	
	2016	0	0	0	0	1	0	0	0	0	0	0	0	1	0	2	
	2017	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3	
	2018															0	
ATT Complexes of	2013	3	13	15	17	13	11	18	14	14	12	13	8	19	12	182	
Mainly BMR Units	2014	2	21	10	18	20	11	10	16	14	14	12	13	9	18	188	
	2015	2	17	17	11	18	17	11	10	16	14	14	13	15	9	184	
	2016	2	16	19	18	12	17	18	8	10	16	12	16	13	13	190	
	2017	8	16	14	19	15	12	18	18	8	13	15	13	19	13	201	
	2018															0	

Appendix B, Part 1: Recent Grade-to-Grade Average Advancement Rates and Student Population Counts from Areas of Existing Housing as of October 1, 2011*

Subject	Early Oct. of	Data for Resident District-Enrolled Students from Planning Areas with Virtually No Net Additional Housing Units Since September 2011, including SDC and Cal Hills Students															Cumulative Impact from 1st to 8th***
		TK	K	1	2	3	4	5	6	7	8	9	10	11	12	TK-12	
Combination of Most Affordable & Affordable ATT & MH (incl. Mixed Lower Cost & Mainly BMR)	2013	19	88	113	111	108	120	112	95	130	118	122	118	111	101	1,466	
	2014	20	109	91	114	119	105	113	114	98	125	124	121	117	115	1,485	
	2015	18	94	96	86	119	119	104	117	113	97	129	123	121	117	1,453	
	2016	20	92	98	95	84	110	118	92	105	115	98	125	129	120	1,401	
	2017	21	84	90	88	91	84	111	124	92	115	121	91	130	129	1,371	
	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3-Year Average Incoming Advancement Rate**				0.67	0.63	0.64	0.64	0.67	0.65	0.63	0.70	0.69	0.63	0.70	0.66		**0.05**
4-Year Average Incoming Advancement Rate**				0.73	0.71	0.74	0.73	0.75	0.74	0.72	0.78	0.77	0.72	0.77	0.75		**0.12**
Modest ATT	2013	13	81	83	92	87	75	79	86	78	76	79	75	68	73	1,045	
	2014	17	76	89	80	93	90	79	74	82	78	78	82	71	68	1,057	
	2015	17	75	81	100	83	88	90	72	80	77	75	79	80	68	1,065	
	2016	13	86	79	83	99	87	86	85	79	73	84	69	79	81	1,083	
	2017	15	98	89	82	89	86	85	81	91	79	80	99	69	77	1,120	
	2018															0	
Moderate ATT	2013	3	56	42	40	43	33	26	35	33	32	29	19	30	26	447	
	2014	12	41	59	49	38	46	35	24	37	34	29	32	19	32	487	
	2015	7	37	42	53	49	38	43	31	25	32	35	26	34	19	471	
	2016	5	58	36	43	50	41	32	42	31	26	28	37	22	27	478	
	2017	5	43	55	43	40	42	38	34	38	33	25	30	38	27	491	
	2018															0	
Modest MH (mainly double-wide)	2013	0	9	12	6	11	10	8	5	11	5	10	8	8	11	114	
	2014	4	4	9	13	6	12	10	7	8	10	6	10	11	8	118	
	2015	2	9	5	10	14	10	15	10	7	9	9	4	10	11	125	
	2016	1	6	7	6	8	14	7	14	10	5	9	8	5	10	110	
	2017	0	5	7	8	6	7	14	7	15	10	7	9	8	3	106	
	2018															0	
Combination Modest & Moderate ATT & MH	2013	16	146	137	138	141	118	113	126	122	113	118	102	106	110	1,606	
	2014	33	121	157	142	137	148	124	105	127	122	113	124	101	108	1,662	
	2015	26	121	128	163	146	136	148	113	112	118	119	109	124	98	1,661	
	2016	19	150	122	132	157	142	125	141	120	104	121	114	106	118	1,671	
	2017	20	146	151	133	135	135	137	122	144	122	112	138	115	107	1,717	
	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3-Year Average Incoming Advancement Rate**				0.67	0.71	0.66	0.61	0.63	0.64	0.69	0.65	0.70	0.70	0.66	0.65		**0.05**
4-Year Average Incoming Advancement Rate**				0.77	0.79	0.75	0.71	0.72	0.71	0.79	0.72	0.77	0.77	0.75	0.73		**0.12**

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Appendix B, Part 1: Recent Grade-to-Grade Average Advancement Rates and Student Population Counts from Areas of Existing Housing as of October 1, 2011*

Subject	Early Oct. of	Data for Resident District-Enrolled Students from Planning Areas with Virtually No Net Additional Housing Units Since September 2011, including SDC and Cal Hills Students															**Cumulative Impact from 1st to 8th*** **
		TK	K	1	2	3	4	5	6	7	8	9	10	11	12	TK-12	
Modest SFD	2013	7	28	27	26	42	30	36	36	23	34	43	40	37	32	441	
	2014	4	32	24	27	25	43	32	35	33	23	33	40	37	34	422	
	2015	11	37	36	24	30	25	42	35	34	34	24	37	36	42	447	
	2016	7	31	35	35	23	30	29	42	31	35	31	22	35	44	430	
	2017	7	36	32	35	32	22	35	29	36	33	37	33	24	39	430	
	2018															0	
Moderate SFD	2013	17	136	135	152	147	124	148	161	156	189	146	183	177	195	2,066	
	2014	26	146	142	136	153	151	129	145	163	162	206	138	186	175	2,058	
	2015	28	126	146	139	130	155	152	138	147	167	168	196	131	183	2,006	
	2016	19	118	122	142	144	144	161	144	149	151	180	167	190	133	1,964	
	2017	19	128	124	131	140	134	138	154	144	139	150	176	170	192	1,939	
	2018															0	
3-Year Average Incoming Advancement Rate**				0.67	0.68	0.67	0.68	0.67	0.63	0.69	0.65	0.69	0.66	0.66	0.68		**0.06**
4-Year Average Incoming Advancement Rate**				0.75	0.76	0.74	0.76	0.75	0.74	0.77	0.75	0.78	0.73	0.73	0.75		**0.14**
Combination Modest & Moderate SFD	2013	24	164	162	178	189	154	184	197	179	223	189	223	214	227	2,507	
	2014	30	178	166	163	178	194	161	180	196	185	239	178	223	209	2,480	
	2015	39	163	182	163	160	180	194	173	181	201	192	233	167	225	2,453	
	2016	26	149	157	177	167	174	190	186	180	186	211	189	225	177	2,394	
	2017	26	164	156	166	172	156	173	183	180	172	187	209	194	231	2,369	
	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3-Year Average Incoming Advancement Rate**				0.67	0.68	0.67	0.67	0.68	0.64	0.67	0.66	0.69	0.66	0.66	0.70		**0.06**
4-Year Average Incoming Advancement Rate**				0.76	0.75	0.74	0.76	0.76	0.75	0.75	0.75	0.77	0.74	0.73	0.77		**0.14**
Combination Modest & Moderate SFD, ATT & MH	2013	40	310	299	316	330	272	297	323	301	336	307	325	320	337	4,113	
	2014	63	299	323	305	315	342	285	285	323	307	352	302	324	317	4,142	
	2015	65	284	310	326	306	316	342	286	293	319	311	342	291	323	4,114	
	2016	45	299	279	309	324	316	315	327	300	290	332	303	331	295	4,065	
	2017	46	310	307	299	307	291	310	305	324	294	299	347	309	338	4,086	
	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3-Year Average Incoming Advancement Rate**				0.67	0.69	0.66	0.64	0.66	0.64	0.68	0.66	0.69	0.67	0.66	0.68		**0.06**
4-Year Average Incoming Advancement Rate**				0.76	0.77	0.75	0.73	0.74	0.73	0.77	0.74	0.77	0.75	0.74	0.76		**0.13**

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Appendix B, Part 1: Recent Grade-to-Grade Average Advancement Rates and Student Population Counts from Areas of Existing Housing as of October 1, 2011*

Subject	Early Oct. of	Data for Resident District-Enrolled Students from Planning Areas with Virtually No Net Additional Housing Units Since September 2011, including SDC and Cal Hills Students															Cumulative Impact from 1st to 8th***
		TK	K	1	2	3	4	5	6	7	8	9	10	11	12	TK-12	
Middle Income SFA Plex (large plex units with 2-car garages each & private areas) (excludes similar TH)	2013	2	32	39	59	33	42	38	27	36	29	21	25	20	25	428	
	2014	9	48	35	44	57	29	40	39	25	34	33	21	26	20	460	
	2015	6	46	48	38	40	56	30	37	36	24	32	31	21	25	470	
	2016	11	50	47	47	36	39	55	29	38	32	24	34	26	20	488	
	2017	10	45	52	47	44	39	38	56	27	39	32	24	32	27	512	
	2018															0	
Middle Income Non-SFA-Plex ATT	2013	1	15	17	10	18	18	18	16	9	13	6	4	10	4	159	
	2014	3	12	16	19	8	13	18	15	11	7	10	7	4	9	152	
	2015	2	16	10	16	19	5	12	15	12	13	7	11	6	4	148	
	2016	3	18	21	14	13	17	7	12	10	13	13	7	13	6	167	
	2017	9	24	19	22	17	15	18	8	12	13	14	13	6	11	201	
	2018															0	
Combination of Middle Income ATT	2013	3	47	56	69	51	60	56	43	45	42	27	29	30	29	587	
	2014	12	60	51	63	65	42	58	54	36	41	43	28	30	29	612	
	2015	8	62	58	54	59	61	42	52	48	37	39	42	27	29	618	
	2016	14	68	68	61	49	56	62	41	48	45	37	41	39	26	655	
	2017	19	69	71	69	61	54	56	64	39	52	46	37	38	38	713	
	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3-Year Average Incoming Advancement Rate**				0.71	0.69	0.64	0.68	0.67	0.67	0.62	0.67	0.67	0.68	0.62	0.65		**0.06**
4-Year Average Incoming Advancement Rate**				0.78	0.78	0.71	0.75	0.75	0.73	0.69	0.76	0.74	0.76	0.70	0.73		**0.12**
Middle Income SFD	2013	21	154	163	175	165	168	221	172	145	189	171	175	172	190	2,281	
	2014	33	129	160	162	178	168	169	220	167	146	197	171	170	178	2,248	
	2015	25	149	134	170	142	179	168	167	208	161	154	197	164	168	2,186	
	2016	24	146	150	137	186	148	188	162	162	208	179	147	192	166	2,195	
	2017	25	133	153	154	132	189	150	179	164	171	207	175	151	200	2,183	
	2018															0	
3-Year Average Incoming Advancement Rate**				0.68	0.68	0.69	0.69	0.69	0.64	0.66	0.69	0.70	0.64	0.67	0.68		**0.06**
4-Year Average Incoming Advancement Rate**				0.77	0.78	0.73	0.77	0.77	0.73	0.73	0.75	0.79	0.73	0.74	0.76		**0.13**

Appendix B, Part 1: Recent Grade-to-Grade Average Advancement Rates and Student Population Counts from Areas of Existing Housing as of October 1, 2011*

Subject	Early Oct. of	Data for Resident District-Enrolled Students from Planning Areas with Virtually No Net Additional Housing Units Since September 2011, including SDC and Cal Hills Students															**Cumulative Impact from 1st to 8th*** **
		TK	K	1	2	3	4	5	6	7	8	9	10	11	12	TK-12	
Combination of Middle Income ATT & SFD	2013	24	201	219	244	216	228	277	215	190	231	198	204	202	219	2,868	
	2014	45	189	211	225	243	210	227	274	203	187	240	199	200	207	2,860	
	2015	33	211	192	224	201	240	210	219	256	198	193	239	191	197	2,804	
	2016	38	214	218	198	235	204	250	203	210	253	216	188	231	192	2,850	
	2017	44	202	224	223	193	243	206	243	203	223	253	212	189	238	2,896	
	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3-Year Average Incoming Advancement Rate**			0.69	0.68	0.67	0.68	0.68	0.65	0.65	0.68	0.70	0.65	0.66	0.68		**0.06**	
4-Year Average Incoming Advancement Rate**			0.77	0.78	0.73	0.76	0.76	0.73	0.72	0.76	0.78	0.74	0.73	0.76		**0.13**	
Upper Middle & Upper Income SFD	2013	7	89	92	105	99	112	110	127	111	138	135	113	137	148	1,523	
	2014	17	81	101	96	109	105	110	114	132	112	147	133	119	135	1,511	
	2015	13	85	86	92	93	104	97	105	119	137	122	139	137	124	1,453	
	2016	13	82	97	96	101	84	110	101	100	112	153	126	153	143	1,471	
	2017	16	89	90	102	98	100	94	115	104	103	117	149	124	150	1,451	
	2018															0	
3-Year Average Incoming Advancement Rate**			0.75	0.72	0.71	0.63	0.73	0.70	0.66	0.66	0.72	0.67	0.69	0.67		**0.07**	
4-Year Average Incoming Advancement Rate**			0.83	0.77	0.77	0.71	0.78	0.76	0.76	0.75	0.81	0.74	0.78	0.77		**0.14**	
Mixed-Value SFD (remote hillside areas; mainly middle+ income)	2013	1	2	4	1	0	1	2	3	1	4	2	2	2	1	26	
	2014	0	1	3	3	1	0	2	2	2	1	5	2	3	2	27	
	2015	1	3	1	2	4	2	2	2	1	1	4	4	2	3	32	
	2016	0	3	3	0	2	3	3	1	3	2	3	4	4	1	32	
	2017	0	1	2	3	0	2	3	2	1	3	2	3	4	4	30	
	2018															0	
Combination of Middle Income ATT & Middle & Upper Middle Income SFD	2013	32	292	315	350	315	341	389	345	302	373	335	319	341	368	4,417	
	2014	62	271	315	324	353	315	339	390	337	300	392	334	322	344	4,398	
	2015	47	299	279	318	298	346	309	326	376	336	319	382	330	324	4,289	
	2016	51	299	318	294	338	291	363	305	313	367	372	318	388	336	4,353	
	2017	60	292	316	328	291	345	303	360	308	329	372	364	317	392	4,377	
	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3-Year Average Incoming Advancement Rate**			0.71	0.70	0.68	0.67	0.70	0.66	0.66	0.68	0.71	0.66	0.67	0.68		**0.06**	
4-Year Average Incoming Advancement Rate**			0.79	0.77	0.74	0.74	0.77	0.74	0.73	0.76	0.80	0.74	0.75	0.76		**0.13**	

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Appendix B, Part 1: Recent Grade-to-Grade Average Advancement Rates and Student Population Counts from Areas of Existing Housing as of October 1, 2011*

Subject	Early Oct. of	Data for Resident District-Enrolled Students from Planning Areas with Virtually No Net Additional Housing Units Since September 2011, including SDC and Cal Hills Students															**Cumulative Impact from 1st to 8th*** **
		TK	K	1	2	3	4	5	6	7	8	9	10	11	12	TK-12	
Total for all ATT & MH	2013	38	281	306	318	300	298	281	264	297	273	267	249	247	240	3,659	
(incl. SFA Plex & a few	2014	65	290	299	319	321	295	295	273	261	288	280	273	248	252	3,759	
SFD in Mixed Lower)	2015	52	277	282	303	324	316	294	282	273	252	287	274	272	244	3,732	
	2016	53	310	288	288	290	308	305	274	273	264	256	280	274	264	3,727	
	2017	60	299	312	290	287	273	304	310	275	289	279	266	283	274	3,801	
	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3-Year Average Incoming Advancement Rate**				0.68	0.68	0.65	0.63	0.65	0.65	0.66	0.68	0.69	0.67	0.67	0.66		**0.05**
4-Year Average Incoming Advancement Rate**				0.75	0.76	0.74	0.72	0.74	0.73	0.74	0.75	0.77	0.75	0.75	0.74		**0.12**
Total for all SFD	2013	53	409	421	459	453	435	517	499	436	554	497	513	525	566	6,337	
	2014	80	389	430	424	466	467	442	516	497	444	588	484	515	524	6,266	
	2015	78	400	403	427	399	465	461	447	509	500	472	573	470	520	6,124	
	2016	63	380	407	410	456	409	491	450	445	508	546	466	574	487	6,092	
	2017	67	387	401	425	402	447	420	479	449	449	513	536	473	585	6,033	
	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3-Year Average Incoming Advancement Rate**				0.69	0.69	0.68	0.67	0.69	0.65	0.66	0.67	0.70	0.66	0.67	0.69		**0.06**
4-Year Average Incoming Advancement Rate**				0.78	0.76	0.75	0.75	0.77	0.74	0.74	0.75	0.79	0.74	0.75	0.77		**0.14**
Other Existing	2013	0	0	0	1	0	0	0	0	0	1	0	0	0	0	2	
(areas of almost solely	2014	1	0	0	0	0	1	0	0	1	2	1	1	0	1	8	
non-residential uses;	2015	0	0	0	0	0	1	1	0	0	0	1	3	0	0	6	
prior to 2016 also for	2016	1	0	0	0	0	0	1	1	0	0	0	1	2	0	6	
students at school adr.)	2017	0	0	0	0	1	0	1	0	1	0	0	0	1	2	6	
	2018															0	
Total for All Areas of	2013	91	690	727	778	753	733	798	763	733	828	764	762	772	806	9,998	
Almost Exclusively	2014	146	679	729	743	787	763	737	789	759	734	869	758	763	777	10,033	
Existing Housing	2015	130	677	685	730	723	782	756	729	782	752	760	850	742	764	9,862	
as of Oct. 1, 2011	2016	117	690	695	698	746	717	797	725	718	772	802	747	850	751	9,825	
(incl. non-res. areas)	2017	127	686	713	715	690	720	725	789	725	738	792	802	757	861	9,840	
	2018	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
3-Year Average Incoming Advancement Rate**				0.69	0.68	0.67	0.65	0.68	0.65	0.66	0.67	0.70	0.66	0.67	0.68		**0.06**
4-Year Average Incoming Advancement Rate**				0.77	0.76	0.75	0.74	0.76	0.73	0.74	0.75	0.78	0.74	0.75	0.76		**0.13**

Appendix B, Part 2: Recent Student Population Counts from Incoming Inter-District Attendance, Residentially Unlocatable Addresses and Areas of New Housing*

Subject	Early Oct. of	Data for Resident District-Enrolled Students from Planning Areas with Virtually No Net Additional Housing Units Since September 2011, including SDC and Cal Hills Students															Change from 2013 to 2018
		TK	K	1	2	3	4	5	6	7	8	9	10	11	12	TK-12	
Incoming inter-district	2013	1	1	5	7	3	3	4	6	5	4	10	13	6	11	79	
	2014	2	6	3	8	8	4	3	4	8	6	7	12	15	12	98	
	2015	0	6	15	5	7	10	4	7	5	8	8	8	15	24	122	
	2016	0	9	8	10	9	5	13	4	8	9	5	9	12	26	127	
	2017	0	8	13	7	13	11	6	13	8	6	5	8	9	15	122	
	2018															0	-79
Unlocatable addresses	2013	1	0	0	1	0	0	1	0	0	2	0	2	0	1	8	
	2014	0	1	0	0	1	0	0	0	2	1	1	0	1	1	8	
	2015	0	3	2	1	2	2	0	0	0	2	0	1	2	2	17	
	2016	0	5	4	1	0	2	2	0	3	2	3	3	8	5	38	
	2017	0	3	3	3	0	0	0	2	0	0	0	3	2	3	19	
	2018															0	-8
Total for All Areas with Consequential New Housing Added since Sept. 30, 2011	2013	2	4	10	5	5	6	3	4	6	4	3	4	4	5	65	
	2014	4	25	6	19	7	13	6	9	11	16	12	5	7	3	143	
	2015	2	25	33	11	18	12	19	8	18	17	23	11	7	9	213	
	2016	10	34	34	37	14	19	18	21	13	22	15	22	17	8	284	
	2017	7	56	30	32	30	15	17	14	17	10	26	16	25	13	308	
	2018															0	-65

* "Existing Housing" totals are aggregates of planning area counts for the dominant housing category in each area, excluding those areas with 6+ net units added since Sept. 2011.

** Grade-to-grade advancement rates are the rounded percentage in the average net number of students graduating into each grade from the previous grade. Rates are shown only for categories with over 500 students in each of the last four years. The four-year rates are unweighted, which differs from studies prior to 2015 when those had the latest year of change weighted at 150% in the calcutations.

*** If these rates continue, this would be the net percentage of the students in first grade today that would be in eighth grade seven years from now by category.